ENGINEERING
TOMORROW

Catalog

Danfoss Waltech®
Tube fitting systems



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General information

System components (tube connecting parts)


M


P-R


PR-M


W-R-PLUS


BO-A


BO-DR


BO-ZR


BO-M


WF-WD … VI


WF-M … VI


WF-PLUS-SR

Chapter D

Blanking plugs / ends


VSD


VSD-M


VS-R.. / M … -WD


VS-M … -OR


VSK


EH


SN

Chapter I

Male fittings


GES … RK / MK / NPT


P-GEV … / RK / MK / NPT


GES … R / M


P-GEV … R / M


GES … R-WD / M-WD


WES … RK / MK / NPT


P-GEV … R-WD / M-WD


GES … UNF / UN


P-GEV … UNF / UN


GES 16 SM-OR


P-GEV 16 SM-OR


P-WEV … RK / MK / NPT

Weld fittings


ASS


P-ASV


ESS


P-ESV

Tube connectors


GS


P-GV


GS .../...


P-GV .../...


WS

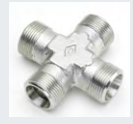

P-WV


WSS


P-WSV


TS


P-TV


KS


P-KV


GSS


P-GSV

Chapter E

Machines, tools and accessories


M-WF385X*plus* Walform® machine


M-R7 cutting-ring assembly machine


MHH-R / -BO Manual assembly machines


S- / P- / W-VK Manual pre-assembly adapters


Tube bending tools

Chapter J

Adjustable fittings


RSWS … R / M


P-RSWV … R / M


EWESK … R


EWESK … OR


RSTS … R / M


P-RSTV … R / M


RSTS …
R-WD / M-WD


P-RSTV …
R-WD / M-WD


EWSD /
P-EWS … -SV


P-EWVD /
P-EWV … -SV


ETSD /
P-ETS … -SV


P-ETVD /
P-ETV … -SV


ELSD /
P-ELS ... SV


P-ELVD /
P-ELV … -SV


EWSD 45


P-EWVD 45


EGESD … R-WD /
M-WD


P-EGES … R-WD-
SV / M-WD-SV


EGESD … NPT


DAS


P-DAV


SNV


SNV .../... L
SNV .../... S


SNV …L/... S
SNV …S/... L

Chapter F

Shuttle valves


TWS


P-TWV

Swivels


DGWES …
R-WD / M-WD


P-DGWEV …
R-WD / M-WD


DGWS


P-DGWV

Check valves


Valve inserts


RS


P-RV


RSV…R-WD /
M-WD


P-RVV…R-WD /
M-WD


RSZ … R-WD /
M-WD


P-RVZ … R-WD /
M-WD

Ball valves


KH-R


KHS


P-KHV


KH3KS … -L/-T


P-KH3KV … -L/-T


KH3KS-R … -L/-T


KH3S-R … -L/-T

Chapter G

Flange studs


GFS


P-GFV


WFS


P-WFV

Female fittings


GAS … R / M


P-GAV … R / M

Reducer fittings


REDSDN /
P-REDS … -SV


P-REDVDN /
P-REDV … -SV


RED…-WD/R

Gauge couplings


EMASD


MAS … R


P-MAV … R

Chapter H

Left hand side - information about complete fittings with nut and profile ring (Walpro®)

Drawing + image of the fitting

Designation of the fitting Steel (black) / stainless steel (red)

Standards / details of the fittings and studs

Nominal pressure ratings of the steel version

Series

Designation and weight of the fitting

Article numbers of the Fittings Steel (black) / stainless steel (red)

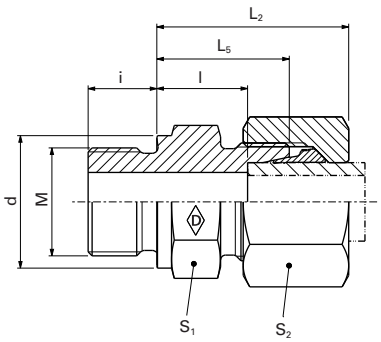
Dimensions of the fitting and stud

Straight male fittings

P-GEV ... M

P-GEV ... M-1.4571

- Metric stud type B to DIN EN ISO 9974-3





Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	M	L_2	L_5	l	i	d	S_1	S_2	Walpro P-GEV ... Part no.	Walpro stainless steel P-GEV ...-1.4571* Part no.
LL	100 (1450)	4	**S-GEV 4 LLM**	1.8	M 8 x 1	19	13.5	9.5	8	12	12	10	WAL038302	WAL623050
		6	**S-GEV 6 LLM**	1.9	M 10 x 1	19.5	13.5	8	8	14	14	12	WAL038304	WAL623052
		8	**S-GEV 8 LLM**	2.3	M 10 x 1	20.5	14.5	9	8	14	14	14	WAL038305	WAL371486
L	400 (5801)	6	**P-GEV 6 LM**	2.5	M 10 x 1	23	15.5	8.5	8	14	14	14	WAL373087	WAL620023
		8	**P-GEV 6 L/M 12 x 1.5**	4.0	M 12 x 1.5	24.5	17	10	12	17	17	14	WAL373088	WAL623054
		8	**P-GEV 8 LM**	4.0	M 12 x 1.5	25	17	10	12	17	17	17	WAL373089	WAL620024
		8	**P-GEV 8 L/M 18 x 1.5**	6.8	M 18 x 1.5	26	18.5	11.5	12	23	24	17	WAL373090	WAL623056
		10	**P-GEV 10 LM**	4.7	M 14 x 1.5	26	18	11	12	19	19	19	WAL373091	WAL620025
		10	**P-GEV 10 L/M 16 x 1.5**	6.2	M 16 x 1.5	27	19.5	12.5	12	21	22	19	WAL602652	WAL623057
		10	**P-GEV 10 L/M 18 x 1.5**	7.6	M 18 x 1.5	27	19.5	12.5	12	23	24	19	WAL373092	WAL623059
		10	**P-GEV 10 L/M 22 x 1.5**	8.3	M 22 x 1.5	27.5	20	13	14	27	27	19	WAL373093	WAL623060
		12	**P-GEV 12 LM**	6.3	M 16 x 1.5	27	19.5	12.5	12	21	22	22	WAL373094	WAL620026
		12	**P-GEV 12 L/M 18x 1.5**	7.8	M 18 x 1.5	27	19.5	12.5	12	23	24	22	WAL373095	WAL623062
		12	**P-GEV 12 L/M 22 x 1.5**	9.5	M 22 x 1.5	27.5	20	13	14	27	27	22	WAL373096	WAL623063
		15	**P-GEV 15 LM**	9.5	M 18 x 1.5	29	20.5	13.5	12	23	24	27	WAL373097	WAL620027
		15	**P-GEV 15 L/M 22 x 1.5**	11.5	M 22 x 1.5	29	21	14	14	27	27	27	WAL373098	WAL620816
		18	**P-GEV 18 L/M 18 x 1.5**	12.2	M 18 x 1.5	30	21.5	14	12	23	27	32	WAL373099	WAL623065
		18	**P-GEV 18 LM**	12.9	M 22 x 1.5	31	22	14.5	14	27	27	32	WAL373100	WAL620028
		22	**P-GEV 22 LM**	17.6	M 26 x 1.5	33	24	16.5	16	31	32	36	WAL373101	WAL620424
	250 (3626)	28	**P-GEV 28 LM**	24.7	M 33 x 2	34	25	17.5	18	39	41	41	WAL373102	WAL620029
		35	**P-GEV 35 LM**	40.7	M 42 x 2	39	28	17.5	20	49	50	50	WAL373103	WAL620452
		42	**P-GEV 42 LM**	45.6	M 48 x 2	42	30	19	22	55	55	60	WAL373104	WAL620995
S	630 (9137)	6	**P-GEV 6 SM**	4.5	M 12 x 1.5	28	20	13	12	17	17	17	WAL373105	WAL620030
		8	**P-GEV 8 SM**	5.5	M 14 x 1.5	30	22	15	12	19	19	19	WAL373106	WAL620031
		10	**P-GEV 10 SM**	8.2	M 16 x 1.5	31	22.5	15	12	21	22	22	WAL373107	WAL620032
		12	**P-GEV 12 SM**	10.5	M 18 x 1.5	33	24.5	17	12	23	24	24	WAL373108	WAL620033
		14	**P-GEV 14 SM**	14.8	M 20 x 1.5	37	27	19	14	25	27	27	WAL373109	WAL621510
		16	**P-GEV 16 SM**	15.4	M 22 x 1.5	37	27	18.5	14	27	27	30	WAL373110	WAL620661
	400 (5801)	20	**P-GEV 20 SM**	25.3	M 27 x 2	42	31	20.5	16	32	32	36	WAL373111	WAL620503
		25	**P-GEV 25 SM**	46.5	M 33 x 2	47	35	23	18	39	41	46	WAL373112	WAL620887

Right hand side - information about the studs

Designation of the stud Steel (black) / stainless steel (blue)

Drawing + image of the stud

Article numbers of supplementary WalringPlus®, Walform, Walform stainless steel system nuts

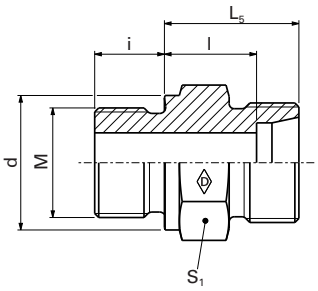
Article numbers of the studs Steel (black) / stainless steel (red)

Designation and weight of the stud

Straight male studs

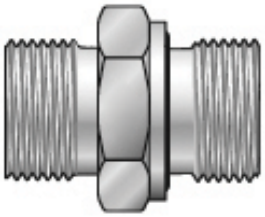
GES ... M

GES ... M-1.4571



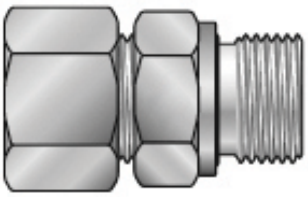


Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	M	Stud GES ... Part no.	Stud Stainless steel GES ... -1.4571* Part no.	System nuts for supplementing the stud (for technical data, see part D of this catalog) WalringPlus W-R-Plus-M... Part no.	Walform WF-M ... VI Part no.	Walform stainless steel WF-M ... W.1.4571* Part no.
LL	100 (1450)	4	GES 4 LLM	0.9	M 8 x 1	WAL037589	WAL623051			
		6	GES 6 LLM	1.1	M 10 x 1	WAL037591	WAL623053			
		8	GES 8 LLM	1.2	M 10 x 1	WAL037592	WAL371485			
L	400 (5801)	6	GES 6 LM	1.4	M 10 x 1	WAL037593	WAL025498	WAL628467	WAL625940	WAL625980
		6	GES 6 L/M 12 x 1.5	2.6	M 12 x 1.5	WAL037594	WAL623055	WAL628467	WAL625940	WAL625980
		8	GES 8 LM	2.3	M 12 x 1.5	WAL037595	WAL025499	WAL628468	WAL625941	WAL625981
		8	GES 8 L/M 18 x 1.5	5.1	M 18 x 1.5	WAL024882	WAL372371	WAL628468	WAL625941	WAL625981
		10	GES 10 LM	2.9	M 14 x 1.5	WAL037596	WAL025500	WAL628469	WAL625942	WAL625982
		10	GES 10 L/M 16 x 1.5	4.0	M 16 x 1.5	WAL063190	WAL623058	WAL628469	WAL625942	WAL625982
		10	GES 10 L/M 18 x 1.5	5.0	M 18 x 1.5	WAL025287	WAL372883	WAL628469	WAL625942	WAL625982
		10	GES 10 L/M 22 x 1.5	7.6	M 22 x 1.5	WAL028692	WAL623061	WAL628469	WAL625942	WAL625982
		12	GES 12 LM	4.0	M 16 x 1.5	WAL037597	WAL025501	WAL628470	WAL625943	WAL625983
		12	GES 12 L/M 18x 1.5	4.7	M 18 x 1.5	WAL037598	WAL602783	WAL628470	WAL625943	WAL625983
		12	GES 12 L/M 22 x 1.5	7.3	M 22 x 1.5	WAL028695	WAL623064	WAL628470	WAL625943	WAL625983
		15	GES 15 LM	5.2	M 18 x 1.5	WAL037599	WAL025502	WAL628471	WAL625944	WAL625984
		15	GES 15 L/M 22 x 1.5	7.4	M 22 x 1.5	WAL028117	WAL604968	WAL628471	WAL625944	WAL625984
		18	GES 18 L/M 18 x 1.5	6.4	M 18 x 1.5	WAL029643	WAL623066	WAL628472	WAL625945	WAL625985
		18	GES 18 LM	7.6	M 22 x 1.5	WAL037600	WAL025503	WAL628472	WAL625945	WAL625985
		22	GES 22 LM	10.1	M 26 x 1.5	WAL037601	WAL604218	WAL628473	WAL625946	WAL625986
	250 (3626)	28	GES 28 LM	16.7	M 33 x 2	WAL037602	WAL025505	WAL628474	WAL625947	WAL625987
		35	GES 35 LM	28.2	M 42 x 2	WAL037603	WAL025506	WAL628475	WAL625948	WAL625988
		42	GES 42 LM	35.8	M 48 x 2	WAL037604	WAL617435	WAL628476	WAL625949	WAL625989
S	630 (9137)	6	GES 6 SM	3.0	M 12 x 1.5	WAL037605	WAL028656	WAL628477	WAL625950	WAL625990
		8	GES 8 SM	4.3	M 14 x 1.5	WAL037606	WAL025508	WAL628478	WAL625951	WAL625991
		10	GES 10 SM	5.5	M 16 x 1.5	WAL037607	WAL025509	WAL628479	WAL625952	WAL625992
		12	GES 12 SM	7.2	M 18 x 1.5	WAL037608	WAL025510	WAL628480	WAL625953	WAL625993
		14	GES 14 SM	9.4	M 20 x 1.5	WAL037609	WAL025511			
		16	GES 16 SM	9.8	M 22 x 1.5	WAL037610	WAL025512	WAL628481	WAL625954	WAL625994
	400 (5801)	20	GES 20 SM	15.3	M 27 x 2	WAL037611	WAL025513	WAL628482	WAL625955	WAL625995
		25	GES 25 SM	26.9	M 33 x 2	WAL037612	WAL025514	WAL628483	WAL625956	WAL625996



GES | 12 | L | / R 1/2 | -WD

Fitting type: Straight male stud (stud only)	Tube-OD Example: 12 mm	Series type: LL - very light L - light S - heavy	Thread type and size	Sealing



P-GEV | 12 | L | / R 1/2 | -WD

Fitting type: Straight male fitting (complete with profile ring and nut)	Tube-OD Example: 12 mm	Series type: LL - very light L - light S - heavy	Thread type and size	Sealing

Customized special solutions

Danfoss Waltech offers customers an extensive portfolio of customized special fittings, regardless of the quantity involved. We are able to produce any quantity, from very small batches to regular bulk shipments, at competitive prices thanks to our flexible machinery and the option of minimum purchase quantities.

We offer a wide range of different options, from jump sizes and various bore types (throttle bores) to special fitting and thread lengths as well as customized standard fittings. All of these options are available in both steel and stainless steel (1.4571). Alternative sealing materials are also available on request.

The Danfoss Waltech special steel fittings also feature the proven Danfoss Guardian Seal finish. In addition to reliable and reproducible assembly performance, they thus offer exceptionally high corrosion protection, including more than 1,000 hours against red rust.

We are happy to advise you on the design of special fittings to help you optimize your application and to analyze the technical implementation options in collaboration with you.

The advantages of special fittings:

Reduction in the number of required components
Elimination of fitting chains and leakage paths
Space savings
Improved assembly options
Elimination of leakage paths and thus reduction in follow-up costs
Prevention of tube adjustments
Flow reduction (throttling effect)
Lower warehousing costs

Examples of special fittings

Different lengths



Jump sizes



Throttle bores



Additional special fittings



A Introduction



A

Welcome to Waltech. A3
Functional characteristics – Guardian Seal. A5
Functional characteristics – Tube-fitting systems A6
Functional characteristics – Profile-ring tube fittings A9
Functional characteristics – WalringPlus tube fittings. A21
Functional characteristics – WalformPlus reshaping system. A25
Functional characteristics – WalformPlus-M reshaping system A30
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Functional characteristics – Danfoss Waltech ABF grease (anti-block grease) A39

A



Welcome to Waltech

Are you looking for the perfect fitting system?

When it comes to tube-fitting systems, reliable and leak-proof performance is crucial.

This depends on the quality of the tube fitting itself and on how well it performs as part of an assembly – for example, on the pressure resistance, load capacity and safety it delivers. Tube fittings require a high level of corrosion resistance (without compromising the performance of the assembly), and a user-friendly, replicable installation process that is easy to understand, even for untrained personnel.

Ideally, you should also have access to a comprehensive tube-fitting portfolio from a single source, along with customer success stories and certifications that demonstrate reliability across a wide range of applications.

Why choose Waltech?

Simply put, our Waltech tube connection systems have more to offer. Our tube fittings provide outstanding performance thanks to their leak-proof design and high bending and pressure-impulse strength. We offer complete solutions for all your tube-fitting needs with various connection options. And the manual assembly of our fittings is easy, safe and replicable thanks to the reduced number of components, the consistent assembly torque and the controlled final assembly of the cutting rings.

Our innovative machine technology for cutting-ring assembly and tube reshaping ensures excellent performance, reduces malfunctions and avoids human error while also providing for faster and easier installation. Our unique Guardian Seal coating also improves safety by reducing variance in the installation process.

What's more, our products also come with excellent customer references, multiple approvals from certification bodies and OEM organizations, and an extensive library of successful application examples. Thanks to our large rental portfolio and our in-house machine development and production capabilities, we are able to tackle any tube-fitting challenge.



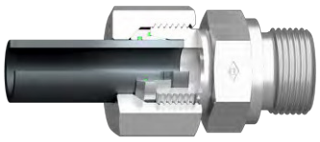
The Waltech trilogy



Our main product is the **Walpro cutting-ring system**, which enables the manual assembly of tube fittings. But the Waltech capabilities go far beyond simple cutting-ring systems, in line with our commitment to deliver superior performance and leak-proof operation.

We have thus expanded our core portfolio to meet the demands of various applications:

- Our **WalringPlus cutting-ring system** with additional soft seal
- Our **WalformPlus tube-fitting system** (based on the Walform machine) is designed to support even the most demanding high-pressure, high-vibration applications where safety is critical



Key benefits

- Superior performance and leak-proof design
- Compatible with a wide range of application requirements
- Proven system reliability thanks to our end-to-end Waltech tube fittings
- The Guardian Seal coating ensures high corrosion resistance without compromising assembly strength
- A choice of system options to meet different requirements – from simple manual assembly to safety-critical applications
- Properties that make installation simple, fast and safe – including short tightening rotation, lower tightening torque, a unique pressure point to avoid excessive or insufficient tightening and an unlimited number of repeat installations without any loss of performance
- A comprehensive range of services – including machine rental and maintenance as well as staff training on site
- The combined strength of the Danfoss brand in terms of manufacturing quality, global presence, regulatory and OEM approvals and customer success stories



A

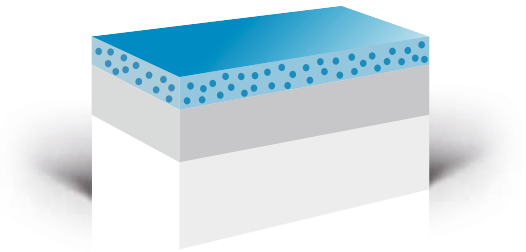
Guardian Seal coating

Added benefits in terms of performance, health and the environment

Guardian Seal is a unique zinc-based, electroplated finish, which not only provides excellent, durable corrosion protection, but also protects your health and the environment.

By means of a special process, the zinc layer is passivated to give it an open-pore structure. In the next step, organic micro-particles are incorporated into this structure using a dipping process that is matched to the chemical properties of the material. An optimized drying process causes the top layer to polymerize, so that the molecules on its surface become cross-linked.

This produces a long-lasting, highly corrosion-resistant finish that complies with the EN ISO 9227 standard while also being easy to install, safe, healthy and environmentally friendly.



Key features:

- Corrosion protection: > 360 hours resistance to white rust / > 1,000 hours resistance to red rust
- Nickel-free
- Same torque values as chrome-3
- Premium silver finish
- Zinc base layer of 11-15 µm
- Resistant to standard hydraulic fluids



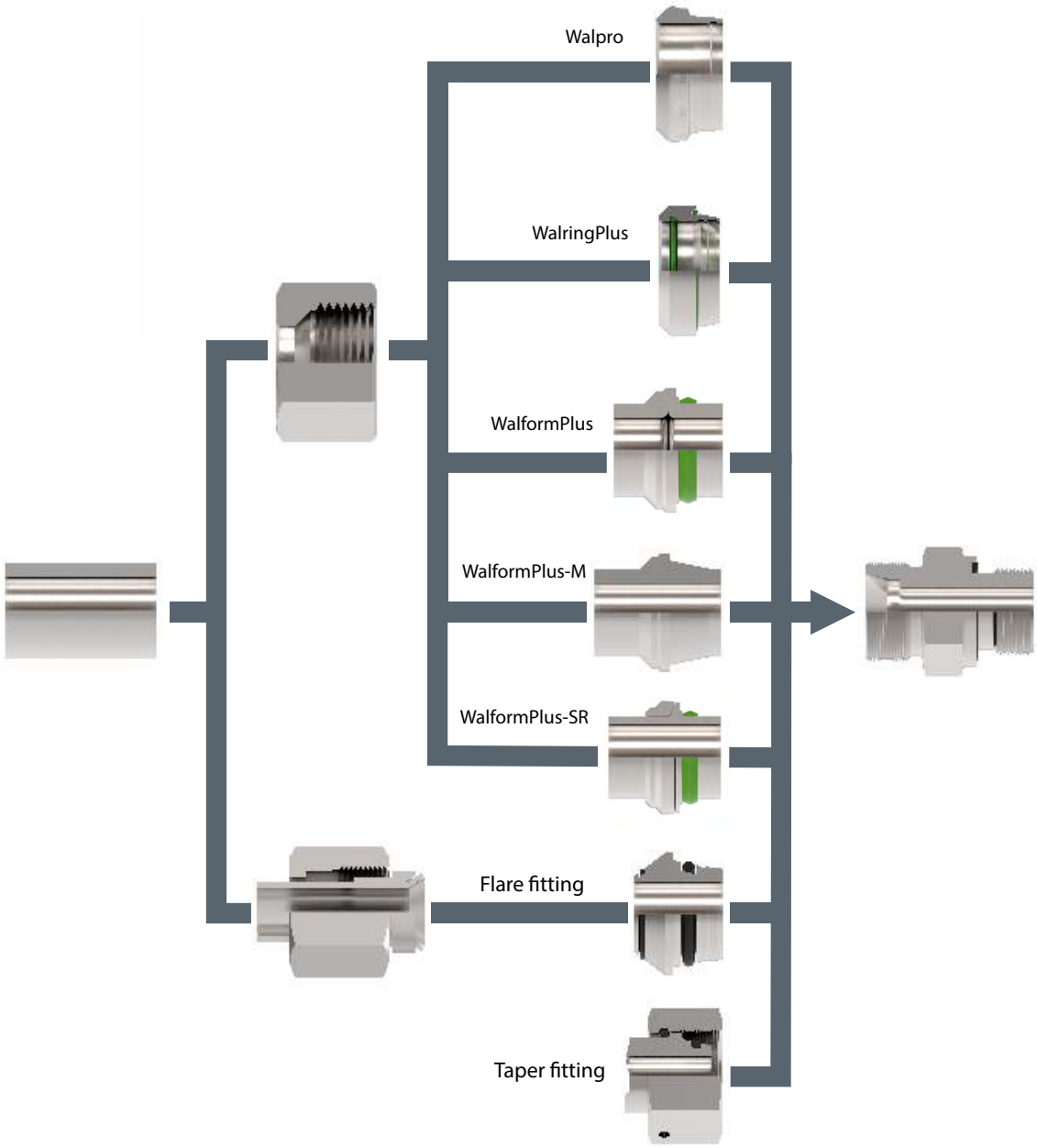
0 hours | 720 hours | 1,000 hours

Key benefits

- Superior and durable corrosion protection
- Can be painted with commercially available coatings
- Superior resistance to red rust
- No risk of nickel dust during assembly and handling
- No risk of contact allergies
- Low assembly and disassembly torque to ensure safe connections and easy installation
- The waste water from the electroplating process requires less treatment

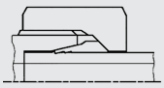
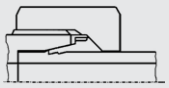
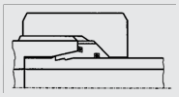
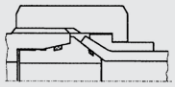
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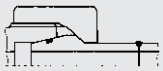
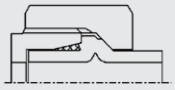
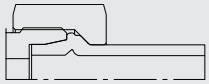
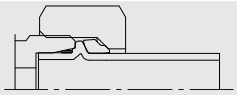
A cost-effective solution for every type of connection problem



A

System comparison

	 Z-R	 P-R	 W-R-PLUS	 BO
	Two-edge cutting ring	**Profile ring Two-edge cutting ring**	**WalringPlus Two-edge cutting ring + soft seal**	**Flare fitting with O-ring**
Standard Parts to standard	DIN 2353 EN ISO 8434-1 All components	DIN 2353 EN ISO 8434-1 All components	DIN 2353 EN ISO 8434-1 All components	DIN 3949 All components
System characteristics	Combined sealing/supporting function	Combined sealing/supporting function	Separate sealing/supporting function	Separate sealing/supporting function
Number of components	3	3	3	4 (6 if O-rings are included)
Number of leakage paths Seal type	2 metal-to-metal	2 metal-to-metal	2 elastomer + metal-to-metal	2 elastomer
Tightening rotation*	360° (180° after pre-assembly)	360° (180° after pre-assembly) (30° controlled final assembly)	Until assembly limitation is reached (ca 200° - 390°after press. pt.)	90° or 180°
Risk of assembly errors	High	Medium, low for controlled final assembly	Low	Low
Repair / servicing usually with	Z-R, P-R	Z-R, P-R	Z-R, P-R, W-R-PLUS	BO often with Z-R, P-R = new nut

	 SN	 WFplus	 WFplus-M	 WFplus-SR
	Welding nipple	**WalformPlus**	**WalformPlus-M**	**WalformPlus-SR**
Standard Parts to standard	DIN 3865, Form A ISO 8434-4 All components	DIN 2353 EN ISO 8434-1 Stud and nut	DIN 2353 EN ISO 8434-1 Stud and nut	DIN 2353 EN ISO 8434-1 Stud and nut
System characteristics	Separate sealing/ supporting function	Separate sealing/ supporting function	Separate sealing/ supporting function	Separate sealing/ supporting function
Number of components	3 (4 if O-ring is included)	3	2	4
Number of leakage paths Sealing type	1 elastomer	1 elastomer + metal-to-metal	1 metal-to-metal seal	1 elastomer + metal-to-metal
Tightening rotation*	120°	Point of resistance	Point of resistance	Point of resistance
Risk of assembly errors	Medium	Very low	Very low	Very low
Repair / servicing usually with	SN WF-WD / Wfplus	WFplus, WF-WD, S-R + WD, SN, Z-R, P-R	WFplus-M, P-R	WFplus-SR, S-R + WD, P-R

*See also the manufacturer's instructions

Z-R = two-edge cutting ring
P-R = profile ring
S-R / Z-R + WD = cutting ring + soft seal
B = flare fitting
BO = flare fitting with O-ring
SN = welding nipple
WFplus = WalformPlus
WFplus-M = WalformPlus-M (with metal-to-metal seal)
WFplus-SR = WalformPlus-SR (with support ring)
W-R-PLUS = WalringPlus

A

The Danfoss Waltech service organization

The right partner in every situation

Danfoss' Waltech products offer high-quality service, especially when it comes to flexibility and tailor-made offers. Danfoss Waltech customers know that they can rely on our trusted team for advice and assistance, be it by phone or directly on site.



Danfoss Waltech service checks

- Qualified instructions for use
- Service checks for machines and tools
- Repair and replacement of machines



Danfoss Waltech trainings

- Product trainings and
- courses on how to assemble the various tube-fitting systems



Danfoss Waltech project consulting

- Solutions for critical installation conditions
- Designs for applications with stringent safety requirements
- Answers to all questions concerning the selection and installation of tube assemblies
- Support with sample tube assemblies
- Comprehensive logistics services
- Comprehensive testing on our test stands



Danfoss Waltech leasing

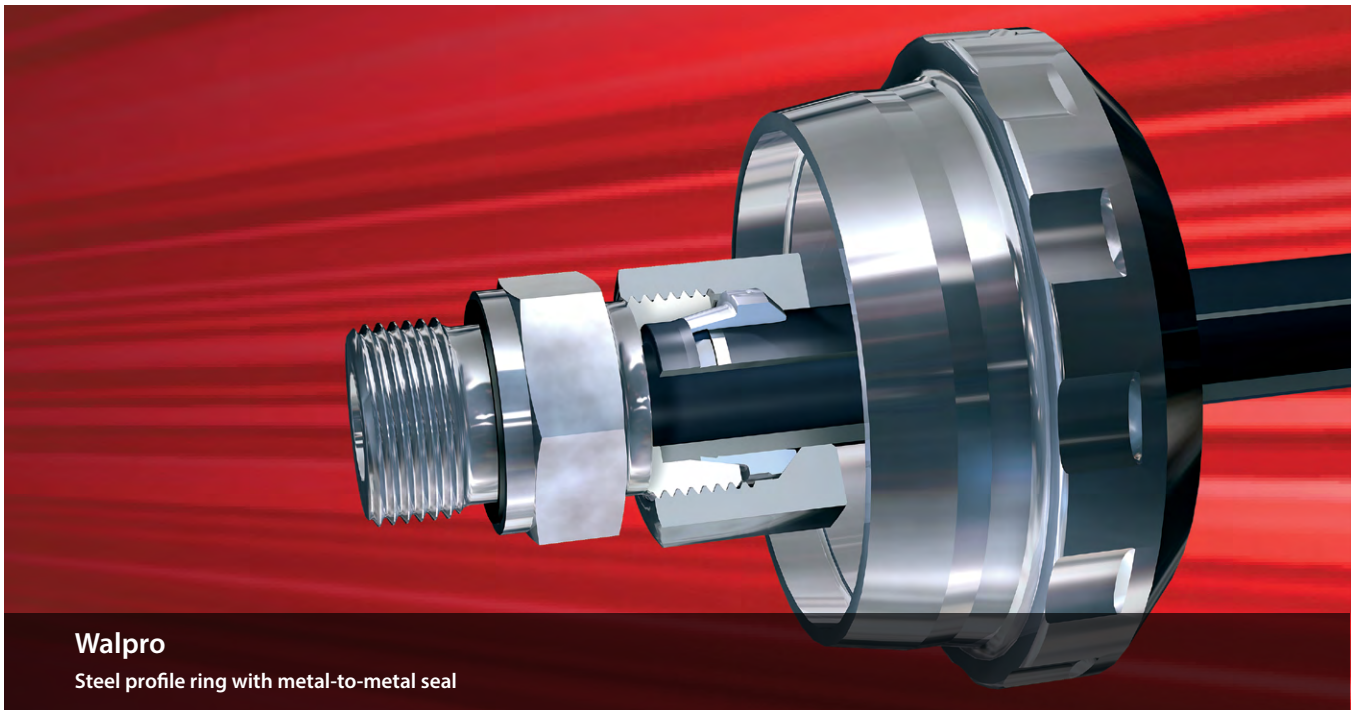
- Leasing offers for all common machine and tool types are available on request



Danfoss Waltech – a global partner

Quality transcends national borders, which is why the Danfoss Waltech product innovations have successfully established themselves on the international market. Waltech tube fittings are sold all over Europe and beyond, and our global
distribution network and regional warehouses ensure fast delivery anywhere.

A



Walpro

Steel profile ring with metal-to-metal seal

Functional characteristics: Profile-ring tube fittings

Thanks to their ideal shape, Walpro fittings provide a secure and leak-proof tube connection.

During installation, the two cutting edges of the Walpro ring cut into the tube to create a positive-locking connection. At the same time, the union nut taper will radially deform the contoured shoulder of the cutting ring in such a way that the tube will become tightly clamped to absorb bending loads.

For leak-proof radial sealing, the ring is wedged between the tube and the fitting stud.

The progressive increase in tightening torque at the end of the assembly process ensures a high degree of safety.

Walpro fittings can be removed and re-assembled as often as required.

The specified performance of Walpro fittings can only be achieved if original Walpro parts are used and the assembly is carried out in accordance with the installation instructions.

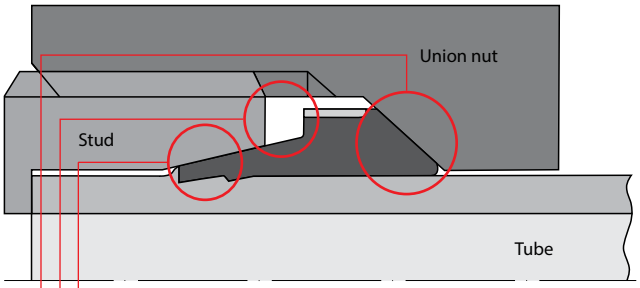
A

Computer-optimized tube-connection technology

The Walpro tube-fitting system has been fully optimized to meet current and future market requirements. With the help of the latest calculation methods, we have been able to significantly improve performance and increase installation safety. The design is based on an axially rigid ring with a shoulder section that has been radially weakened by means of a contoured profile. We have also implemented a novel design for the cutting edges to achieve leak-proof sealing and eliminate subsequent penetration.

Clear advantages for users:

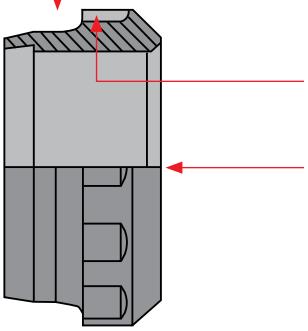
- Greater functional reliability
- Lower installation costs
- Lower reworking costs
- Lower operating costs



Optimized cutting edges
- Optimized cutting-edge angle
- Wedge-shaped cutting-edge flank
- Groove for chips
- Stable cutting edge

Optimized central section
- Ideal contact angle
- Mechanical stop to prevent excessive tightening

Optimized shoulder section
- Contoured profile for greater rigidity
- Large ring-nut contact surface
- End radius



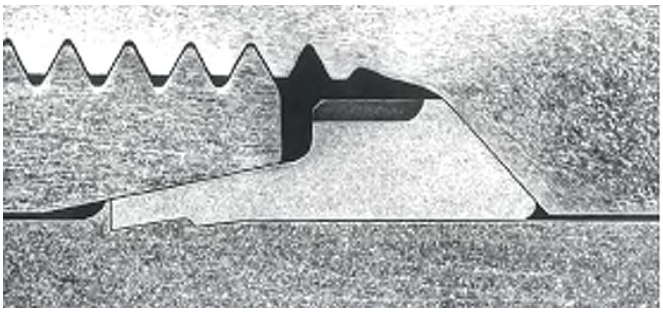
No bulging
For optimized load distribution on the ring

Radial flexibility
For optimized clamping of the tube

Axial rigidity
Ribbing for maximum retaining strength and tightness

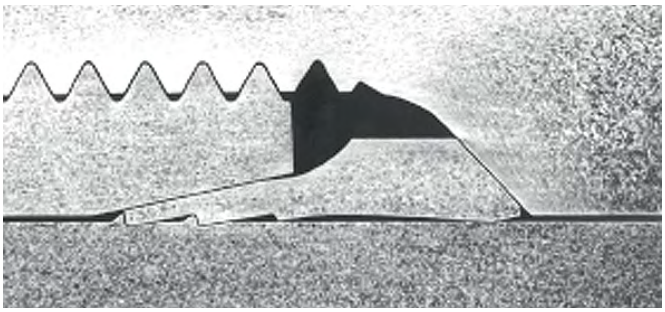
Maximum tightness thanks to:

- 100 % positive locking of the cutting edges
- High sealing strength (preload)
- No settling or subsequent penetration



Cross section of the profile ring

- Profile system: rigid ring, no settling
- Compression of chips: no subsequent penetration
- Negative clearance angle: additional sealing surface, significantly higher sealing pressure



Cross section of a two-edge cutting ring

- Ring with thin cross section: settling of the connection
- Partially exposed cutting edges: subsequent penetration, settling
- Zero clearance at the cutting edge: only the tube face is sealed, poor sealing on the stud side

A

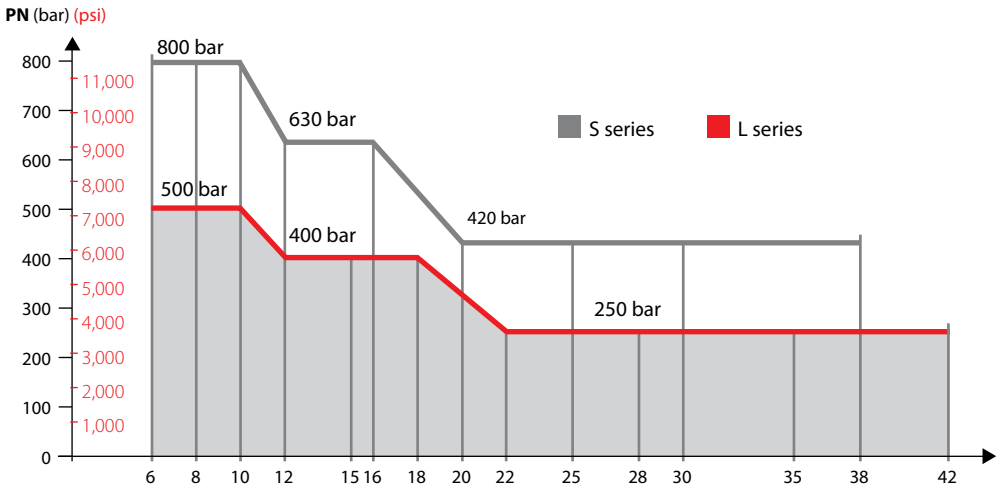
High nominal pressure ratings

PN – nominal pressure

Nominal pressure is an approximate pressure rating that is commonly used.
Load tests for burst pressure must be carried out at no less than four times the nominal pressure of the fitting. Pressure-impulse tests must be carried out at no less than 1.33 times the nominal pressure of the fitting at one million load cycles.

- L series for nominal pressure up to 500 bar
- S series for nominal pressure up to 800 bar
- Only Waltech original parts should be used for high nominal pressure ratings

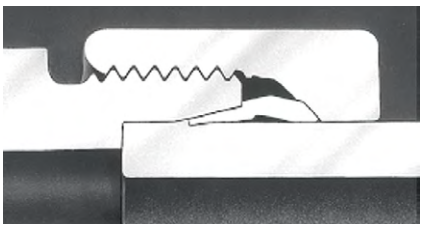
Nominal pressure ratings* of Walpro fittings



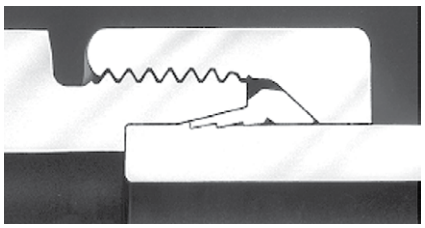
*The nominal values shown refer to steel products.

Safe installation

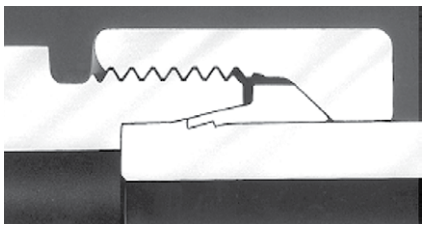
- Safe initial assembly with mechanical stop to limit tightening
- Safe re-assembly
- Work-hardening and compression of chips in the cut



Cutting ring – deformation due to excessive tightening



Two-edge cutting ring – deformation due to excessive tightening



Profile ring – no deformation due to excessive tightening

High fatigue strength

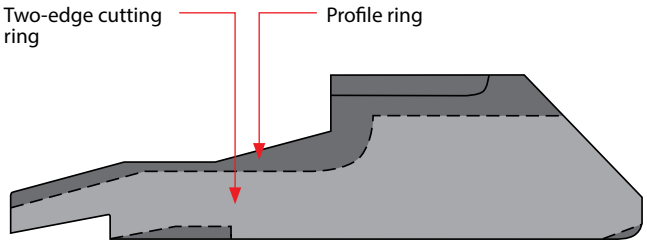
- Reliable tube retention
- Notch-free tube clamping

Behavior of cutting ring and profile ring in the event of excessive tightening	
Cutting ring – two-edge cutting ring	**Profile ring**
No significant torque increase	+ Significant torque increase
Loss of travel during assembly due to compression of the ring	+ No loss of travel, no compression of the ring
Reduced preload due to compression of the ring	+ High preload to accommodate the operating load The stable, optimized ring design prevents compression
Increased stress concentration on the tube	+ No stress concentration on the tube

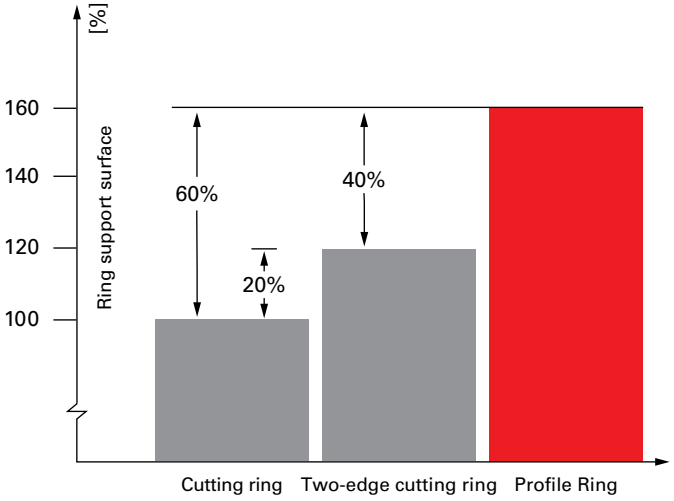
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Reliable tube retention

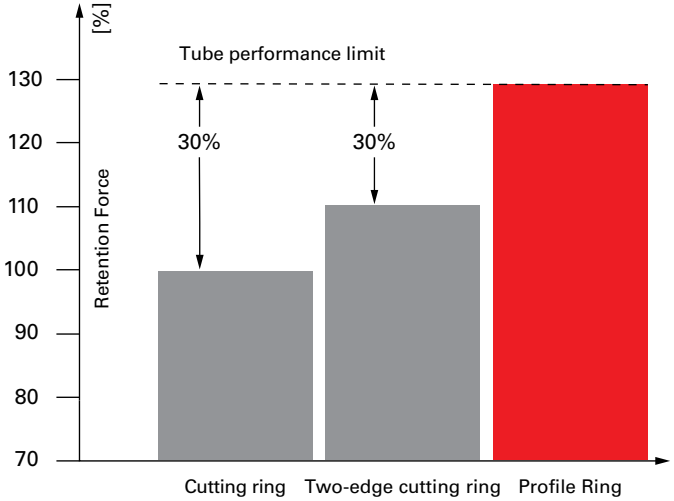
- Large ring contact area
- Rigid, profile-shaped ring
- High tensile strength



Optimized ring contact area (mean values)

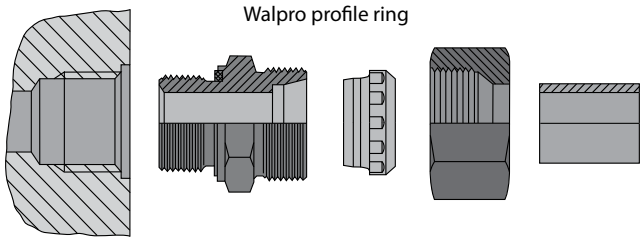


Tensile strength of the tube connections (mean values)



A universal, standardized solution

- All fitting components comply with DIN 2353 / EN ISO 8434-1
- Can be used with all standard tube materials
- Interchangeable with cutting ring and two-edge cutting ring



All fitting components comply with DIN 2353 / EN ISO 8434-1

Approvals and test certificates

- American Bureau of Shipping
- Bureau Veritas
- DNV-GL
- Lloyd's Register of Shipping
- Registro Italiano Navale
- Polish Register of Shipping

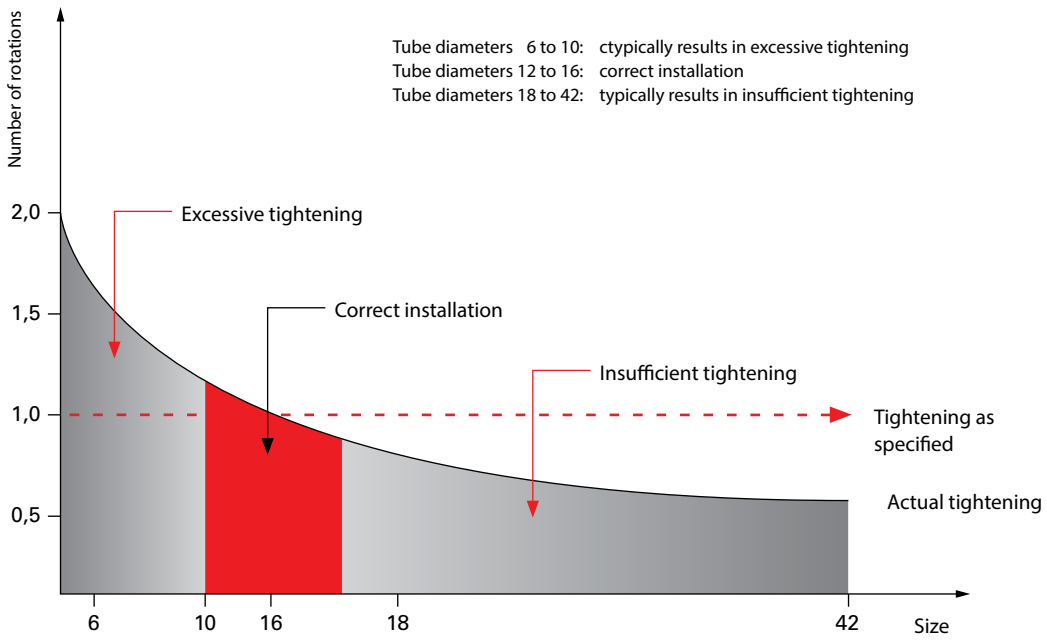
A

Controlled final assembly of profile-ring fittings

The right choice for a completely dry hydraulic system. The Danfoss Waltech profile ring relies on controlled final assembly, a new type of assembly technology that eliminates the most common errors that occur during installation.

Typical installation errors include:	The result:
· Incorrect pre-assembly · Failure to complete the assembly process · Excessive tightening · Insufficient tightening	· Risk of accidents · Downtime · Maintenance costs · Leakage · Reputational damage

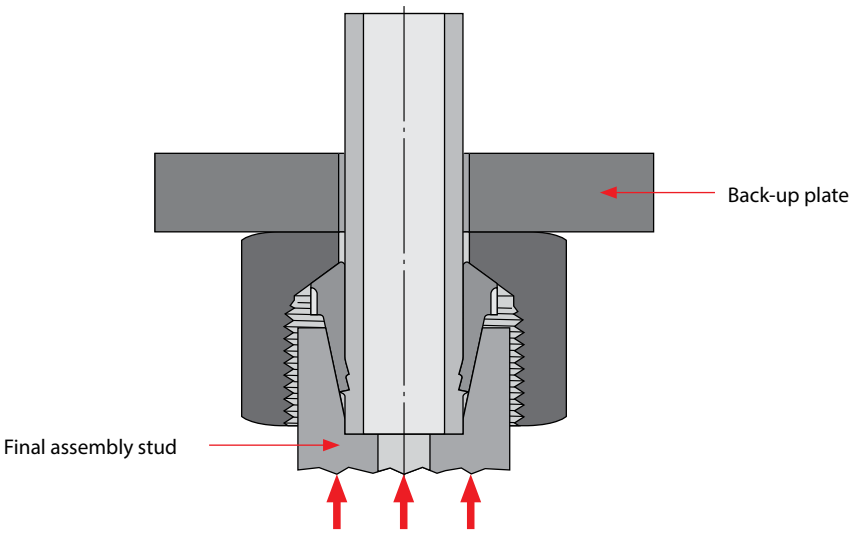
Field test: Comparison of target and actual values in case of intuitive installation



Possible errors during standard installation

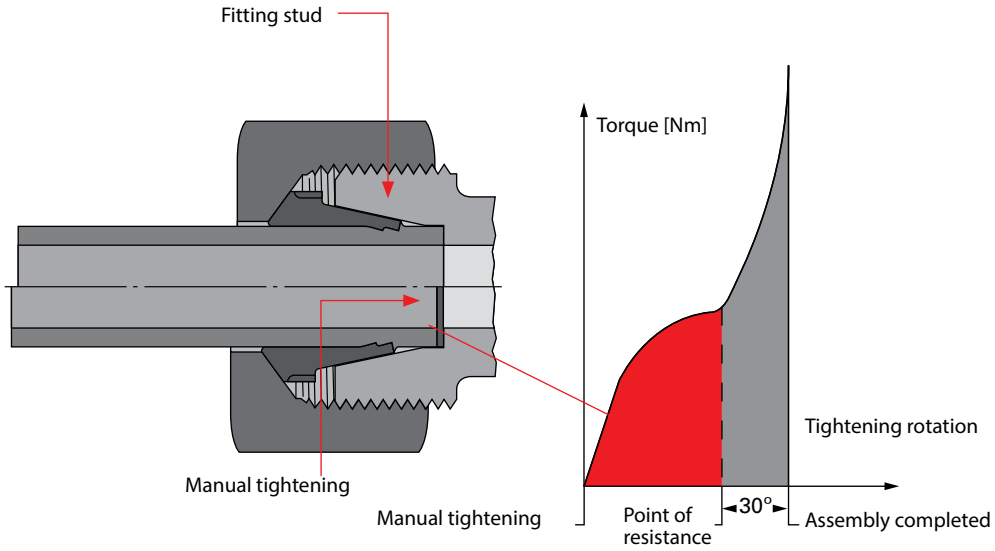
The consequences of excessive tightening	The result:
Constriction of the tube · Fatigue failure **Deformation of the fitting components** · Leakage · Retightening is not possible · Risk of breaking · Performance loss	**Insufficient cutting depth** · Reduced pressure load · Leakage · Insufficient clamping of the tube · Cutting area at risk (fatigue failure) · Reduced flexural fatigue strength

Controlled final assembly with Danfoss assembly machine = the ring is cut to 100 %



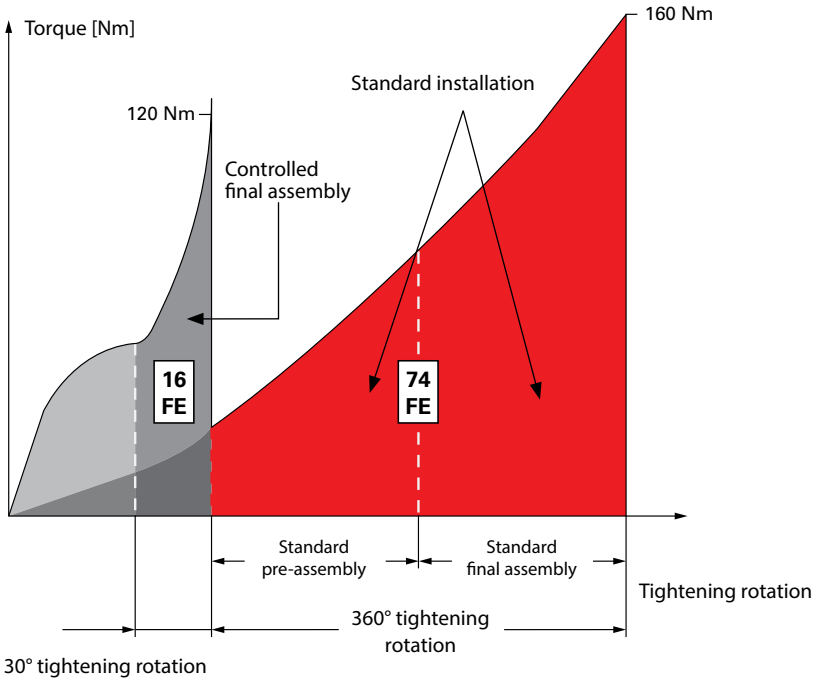
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Controlled final assembly = 30° tightening rotation after the point of resistance



Point of resistance = tube at mechanical limit

Comparison of assembly types, size 16 S

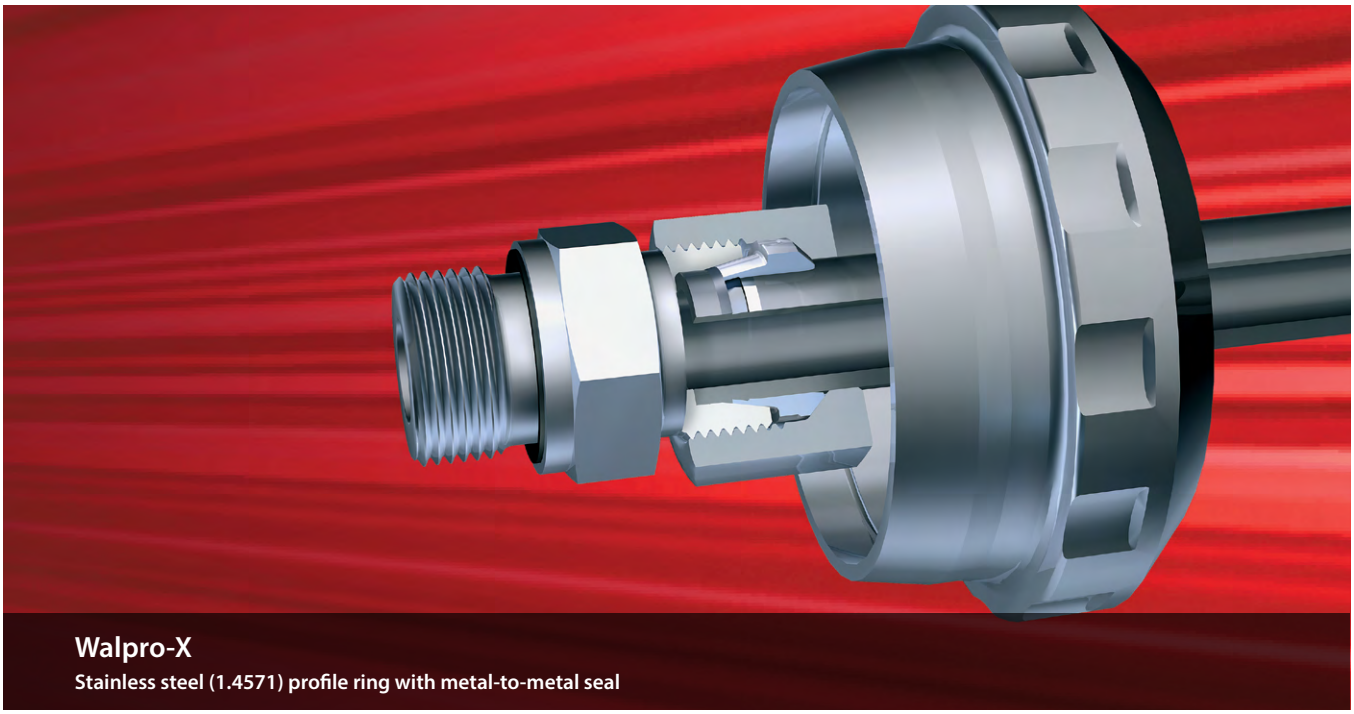


FE = units of area, the amount of work required for assembly

The most important features and benefits for customers

- The assembly machine cuts the ring to 100 %
- Short tightening rotation for final assembly (30°), meaning less force is required (-30 %)
- A steep increase in torque clearly signals the completion of the assembly process
- Components according to DIN 2353 / EN ISO 8434-1
- Assembly time reduced by up to 50 %
- The assembly machine ensures consistent quality
- Controlled final assembly options: based on the tightening rotation or torque-controlled
- Easy to assemble even where space is limited
- A significant reduction in installation costs
- The controlled final assembly eliminates sources of error and thus ensures the reliable operation of your product
- Can also be mounted on stainless steel tubes

A



Walpro-X
Stainless steel (1.4571) profile ring with metal-to-metal seal

Functional characteristics – Profile-ring tube fittings

Protecting people and the environment: the tried and tested Danfoss Waltech technology is also available in stainless steel (1.4571).

Aggressive media and extreme operating environments require special solutions. Walpro-X has been specially developed for use in highly sensitive areas – wherever safety and the environmental protection are at stake.

A

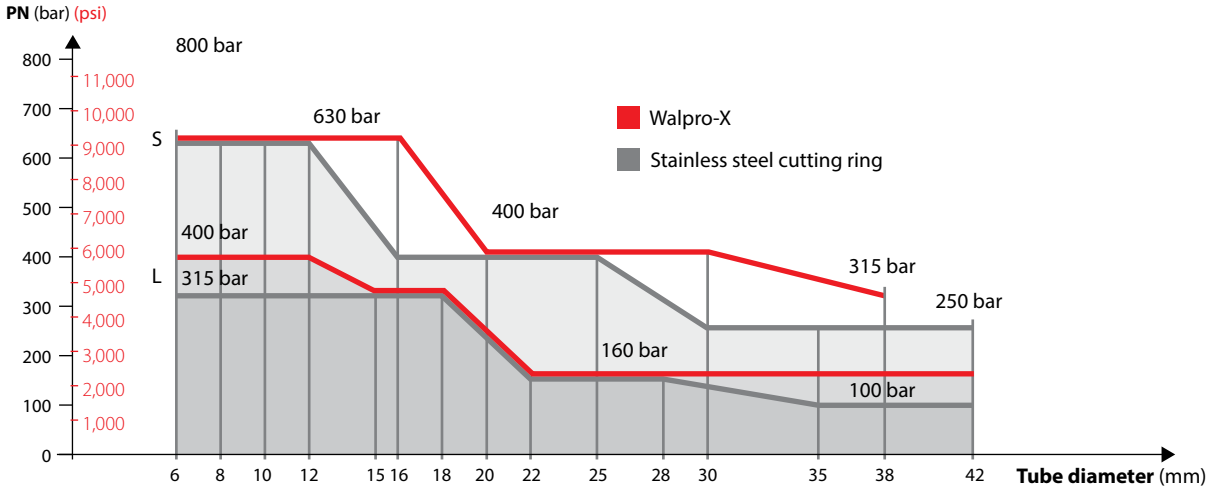
High nominal pressure ratings

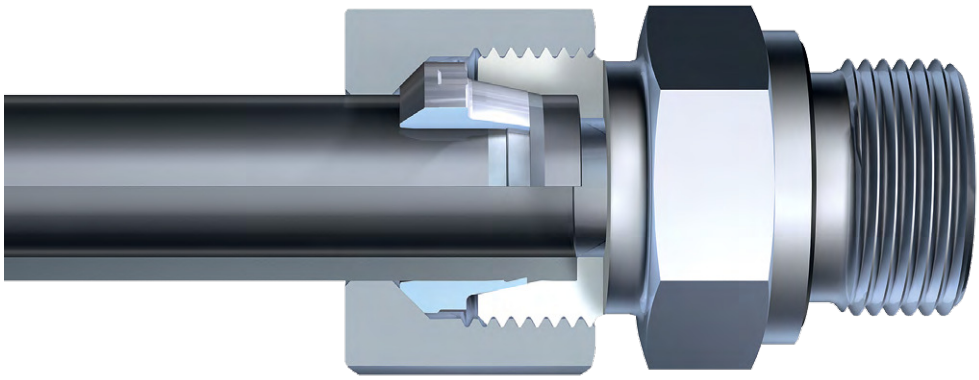
PN – nominal pressure

Nominal pressure is an approximate pressure rating that is commonly used.
Burst-pressure tests must be carried out at no less than four times the nominal pressure of the fitting. Pressure-impulse tests must be carried out at no less than 1.33 times the nominal pressure of the fitting at one million load cycles.

- L series for nominal pressure up to 400 bar
- S series for nominal pressure up to 630 bar
- Only Waltech original parts should be used for high nominal pressure ratings

Nominal pressure ratings* of Walpro-X fittings





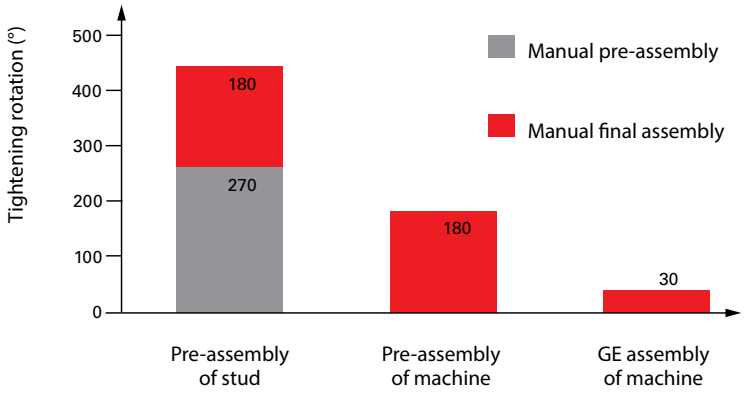
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A revolutionary assembly system

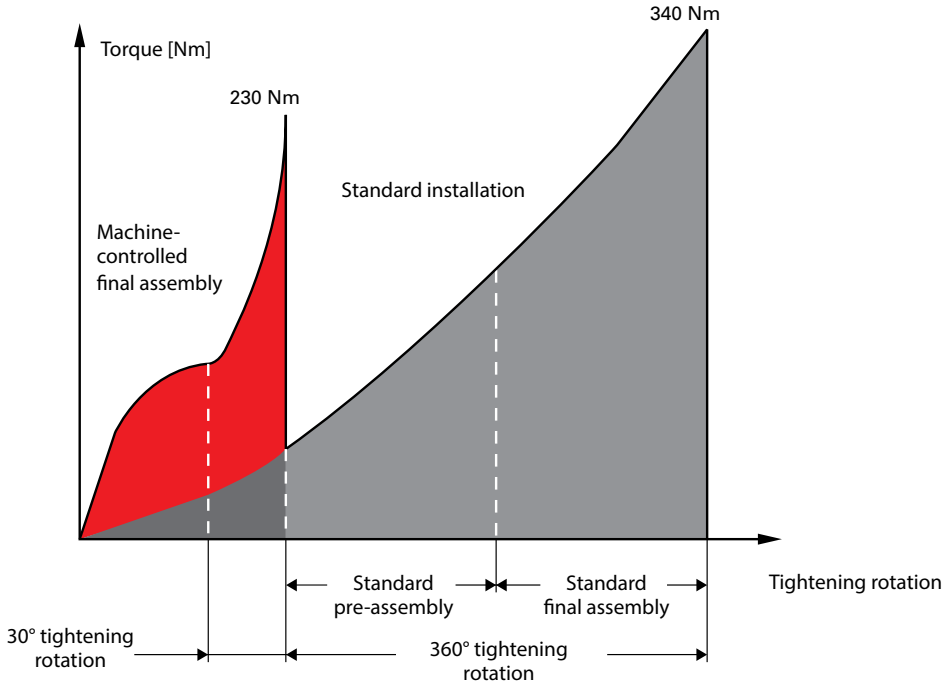
Machine-controlled final assembly is also available for Walpro-X.

This reduces the required tightening rotation after the point of resistance to only 30°, thereby minimizing the necessary tightening force. This in turn reduces the installation time by up to 50 %.

Tightening rotation comparison for Walpro-X



Comparison of assembly types **Size 16 S**

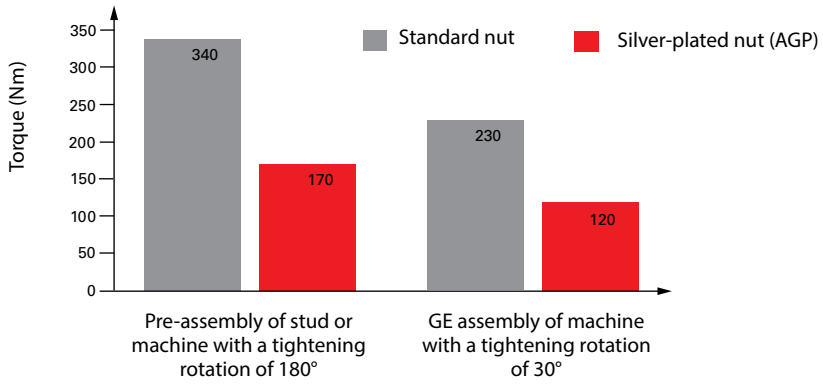


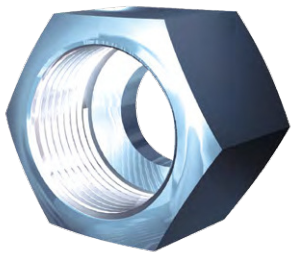
A

Future-proof features

Special nuts with silver-plated threads (AG/AGP, recommended from size 15L/12S and above) reduce the assembly and release torques to a minimum, which also makes disassembly and re-assembly significantly easier.

Walpro-X final assembly torques **Size 16 S**





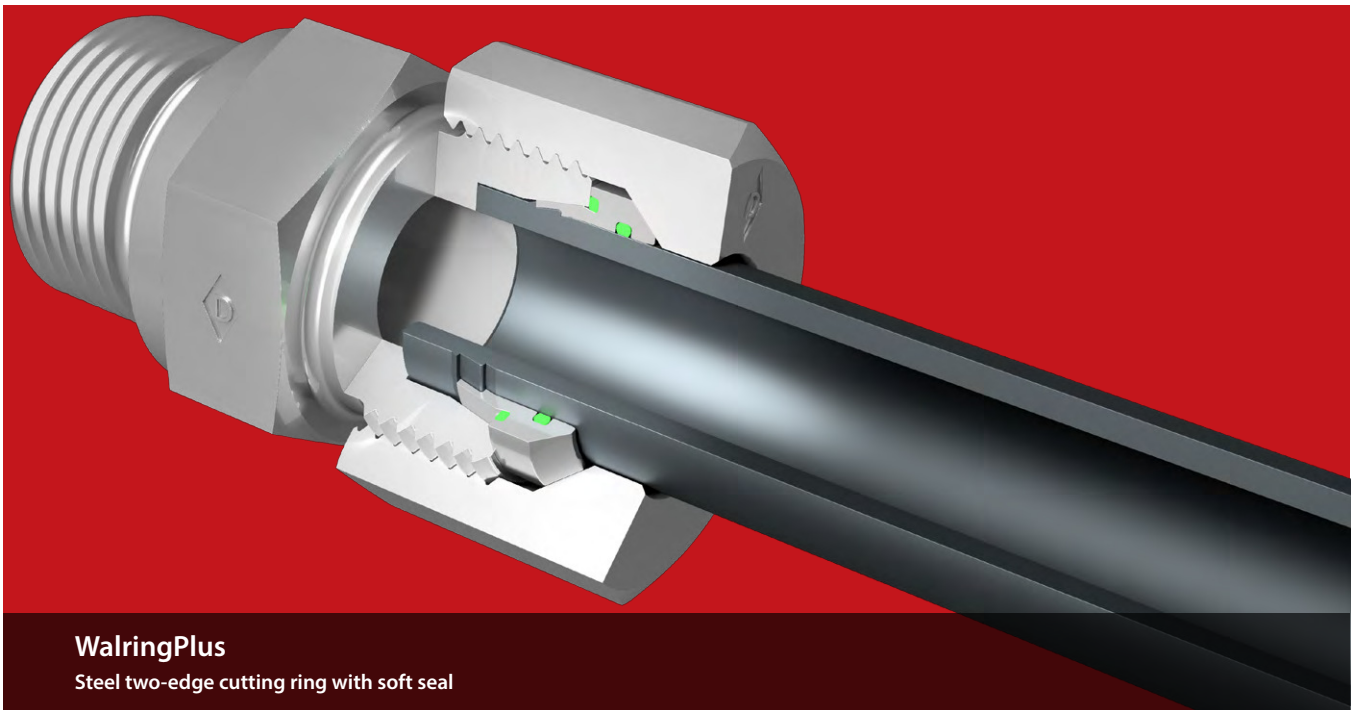
The benefits at a glance

- Unrivaled maximum nominal pressure of 400 bar for the L series / maximum nominal pressure of 630 bar for the S series
- The Danfoss Waltech final assembly machines ensure that the assembly process is 100 % reproducible
- Special silver-plated nuts (AG/AGP)
- Components according to DIN 2353, EN ISO 8434-1

Approvals and test certificates

- American Bureau of Shipping
- Bureau Veritas
- DNV-GL
- Lloyd's Register of Shipping
- Registro Italiano Navale
- Polish Register of Shipping

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WalringPlus
Steel two-edge cutting ring with soft seal

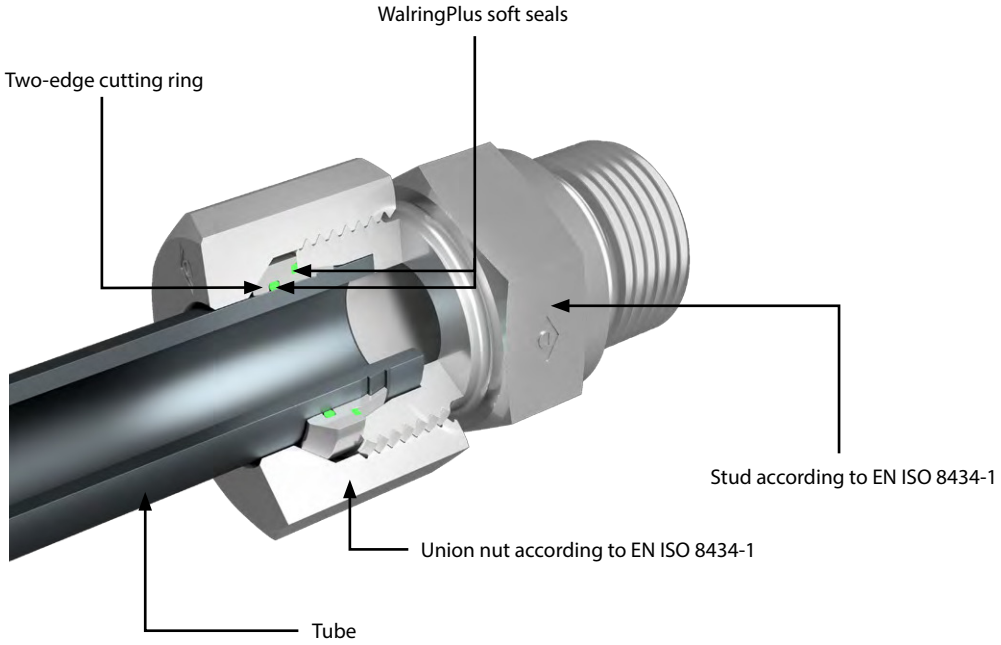
Functional characteristics: WalringPlus tube fittings

WalringPlus offers superior tube fitting capabilities ideal for a wide range of hydraulic applications. While there are other soft-seal cutting ring systems on the market, our innovative two-edge design with two additional O-rings, as well as the integration of the O-ring in the cutting ring to avoid separate assembly of the seal, offers improved leakage prevention. Its enhanced design enables to drastically reduce the risk of in application failures caused by incorrect assembly, even when undertaken by inexperienced operators.

A

Cutting-ring system with soft seal

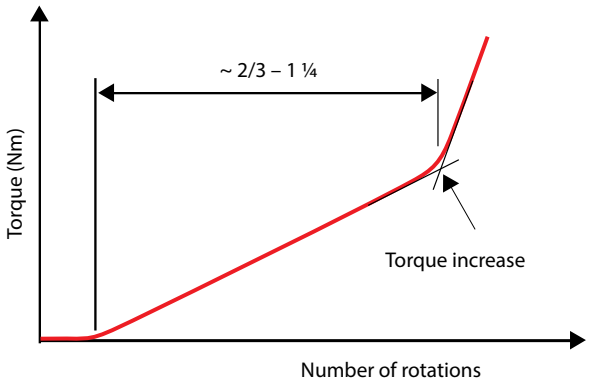
The WalringPlus system consists of a DIN EN ISO union nut, an two-edge cutting ring with integrated soft seals and a DIN EN ISO fitting stud.



No need to worry about incorrect installation

Danfoss' WalringPlus sets new standards in terms of installation safety: During manual assembly, there is a clearly detectable increase in the amount of tightening force required after 2/3 to 1 1/4 rotations (depending on the size), thereby enabling users to identify the exact point when the fitting has been correctly pre-assembled. The next generation of process safety.

Tightening torque



A

The benefits in detail



A) Soft seal on cutting ring cone for primary sealing to eliminate leakage.

Soft seal is FKM for high temperature resistance.

O-Ring position allows re-assembly without risk of damage.

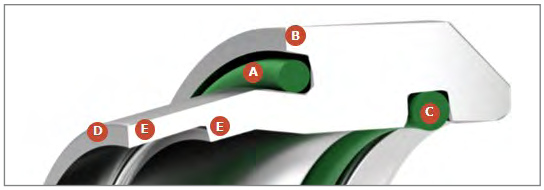
B) Block assembly design:

Eliminates component tolerances in the assembly process, preventing leakage due to assembly error.

Ensures unmistakable increase in torque when completing assembly to stop leakage risk due to excessive tightening.

Considerably reduces required torque and tightening turns for lower cycle times and operator comfort.

Enables repeated assembly without sacrificing system performance.



C) Soft seal on cutting ring inner area for primary sealing to eliminate leakage.

Soft seal is FKM for high temperature resistance.

Optimized O-ring groove design allows easy assembly of cutting ring onto the tube.

D) Bulk of material in front of first cutting edge allows visible control over assembly to eliminate leakage risk due to assembly failure.

E) Two cutting edges share the holding force equally, enabling greater resistance against high dynamic loads and are optimized for thin wall tubing.

Optimum metal-to-metal sealing reduces leakage risk in both possible paths.

Optimized cutting-edge angles fill the cutting-edge chambers with material, enabling the greatest contact area for improved vibration resistance.

A

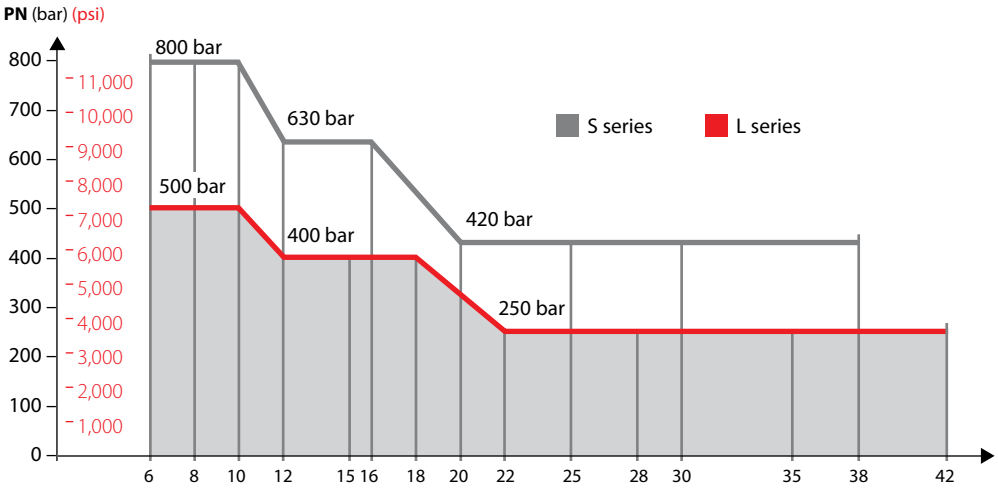
High nominal pressure ratings

PN – nominal pressure

Nominal pressure is an approximate pressure rating that is commonly used.
Burst-pressure tests must be carried out at no less than four times the nominal pressure of the fitting. Pressure-impulse tests must be carried out at no less than 1.33 times the nominal pressure of the fitting at one million load cycles.

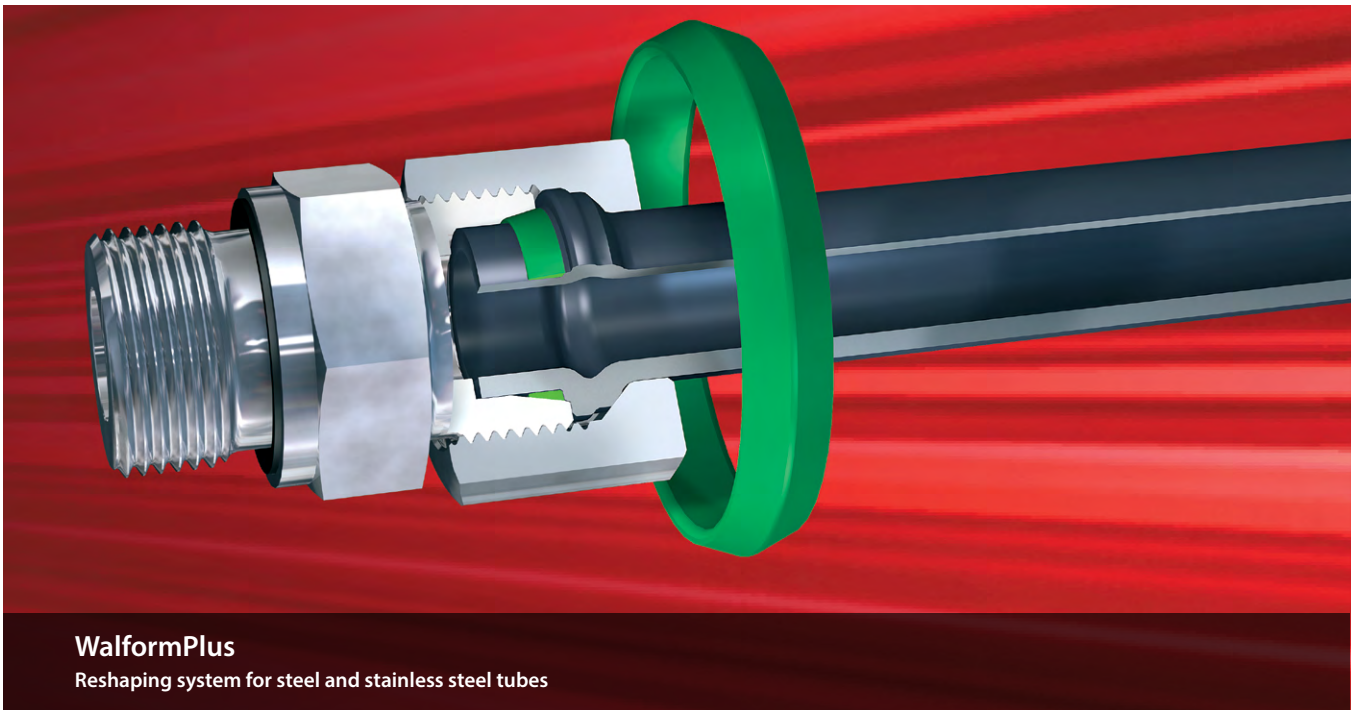
- L series for nominal pressure up to 500 bar
- S series for nominal pressure up to 800 bar
- Only Waltech original parts should be used for high nominal pressure ratings

Nominal pressure ratings* of WalringPlus fittings



*The nominal values shown refer to steel products.

A



WalformPlus
Reshaping system for steel and stainless steel tubes

Functional characteristics: WalformPlus tube fittings

WalformPlus is a positive-locking fitting system for steel and stainless steel tubes that consists of only three components. The mechanically reshaped tube end is screwed together using a conventional DIN/ISO stud and a DIN/ISO union nut, and the only possibly leakage path is sealed off by means of an elastomer ring. A characteristic feature of the plus series is the shoulder on the flat surface of the reshaped tube, which is inserted into the 24° cone of the stud. This makes assembling the fittings significantly easier and prevents excessive tightening.

Thanks to the positive-locking connection, WalformPlus ensures secure tube retention, even under high dynamic loads. The assembly process is so easy and user-friendly that no special training is required, which enables a significant reduction in costs. Moreover, the system also facilitates additional savings by eliminating the need for pre-assembly and other auxiliary operations, while the small number of components reduces the costs for equipment and logistics.

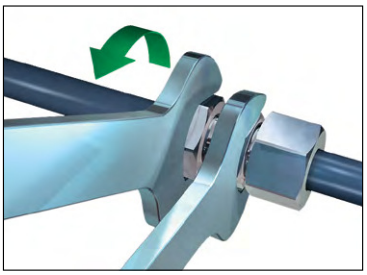
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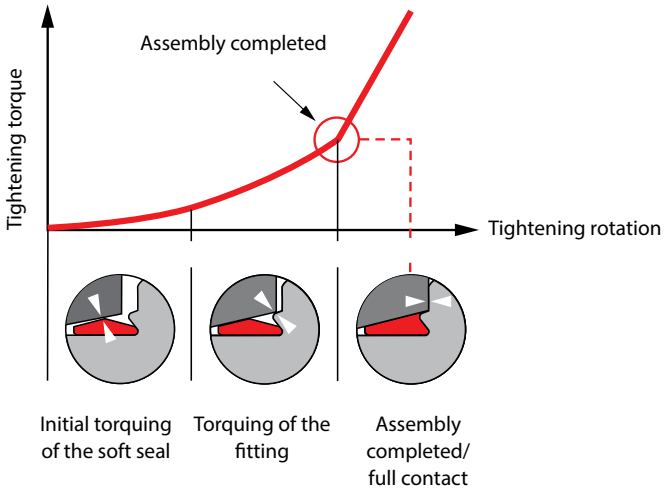
Fully leak-proof

The only possible leakage path is sealed off in two ways: first by the WalformPlus soft seal and secondly by means of the metal-to-metal seal between the patented WalformPlus shoulder and the fitting stud.

Assembly made easy

- A clear increase in the tightening force
- Significantly lower tightening torque
- Clearly noticeable torque increase
- Short tightening rotation
- Effective protection against excessive tightening
- Can be re-assembled as often as necessary





Reliable tube retention

Thanks to the positive-locking connection, the system provides absolute safety even under the most extreme loads. This ensures reliable tube retention even in the event of insufficient or excessive tightening and prevents the tube from slipping out.

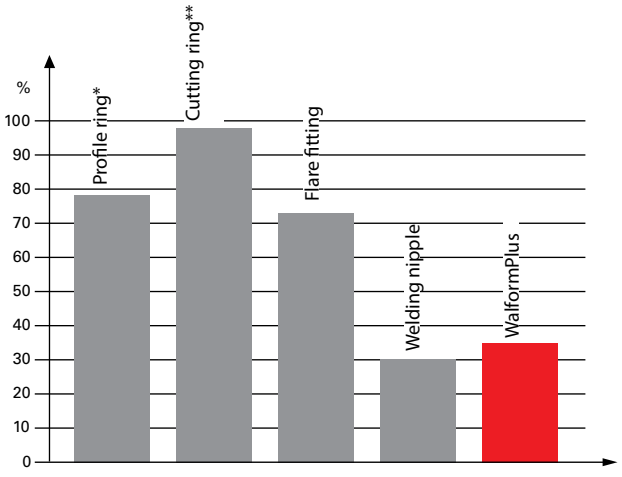
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Ease of assembly

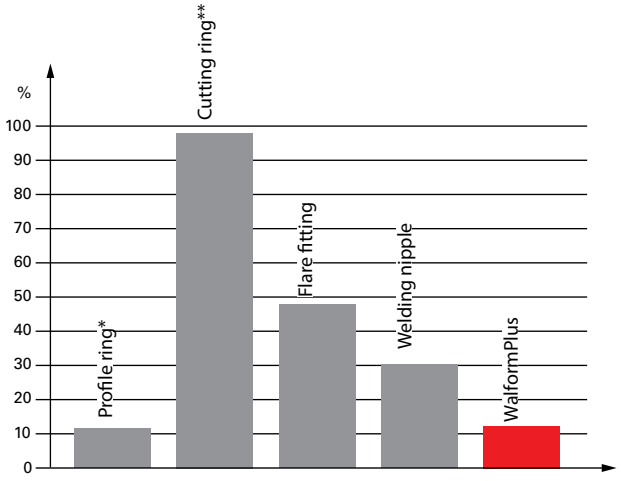
Installation made easy, with reproducible results

Thanks to its unique geometry, the assembly of the WalformPlus system is easy and user-friendly, and a noticeable increase in the required tightening force indicates that the process has been completed. Due to the short tightening rotation and the low torque, the installation process only takes a fraction of the time required for conventional tube-fitting systems. There is thus no need to comply with specific angles or to look for other signs that the process has been completed. Torque-based assembly is also possible.

Comparison of the required torque



Comparison of the required tightening rotation



*after controlled final assembly **with and without soft seal

High dynamic load capacity

Thanks to the computer-optimized geometry of the reshaped tube, we are able to achieve excellent performance under dynamic loads, such as high resistance to reversed bending stress and dynamic pressure impulses. The WalformPlus system has been tried and tested many times over, both in practice and through extensive testing.

A

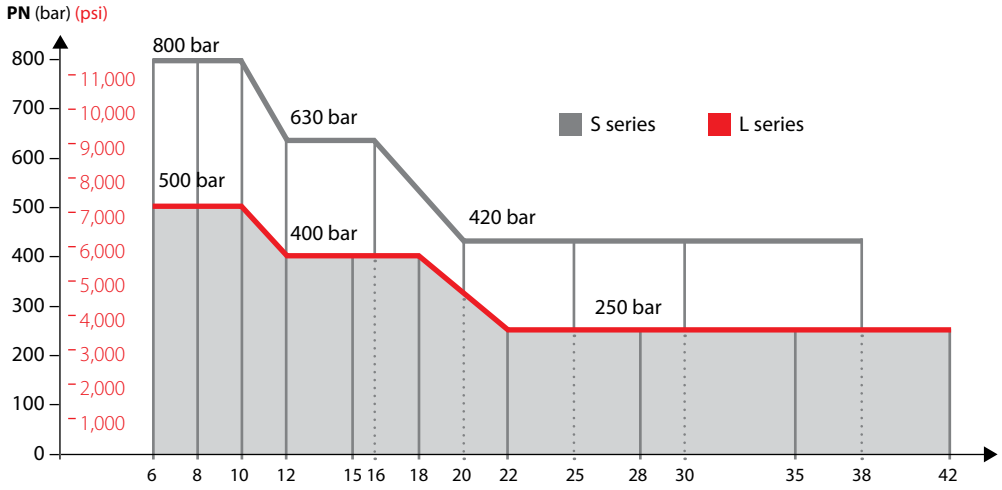
High nominal pressure ratings

PN – nominal pressure

Nominal pressure is an approximate pressure rating that is commonly used. Burst-pressure tests must be carried out at no less than four times the nominal pressure of the fitting. Pressure-impulse tests must be carried out at no less than 1.33 times the nominal pressure of the fitting at one million load cycles.

- L series for nominal pressure up to 500 bar
- S series for nominal pressure up to 800 bar
- Only Waltech original parts should be used for high nominal pressure ratings

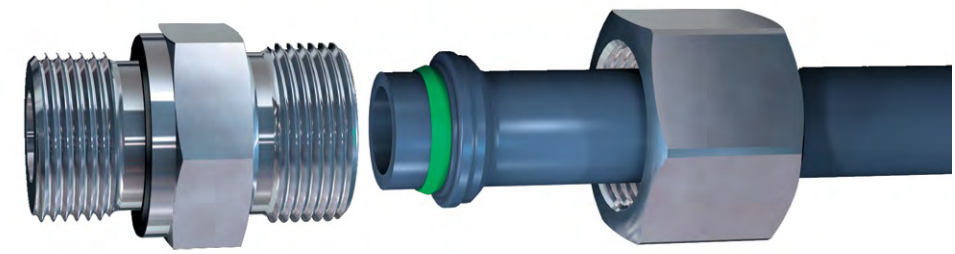
Nominal pressure ratings of the WalformPlus fittings



*The nominal values shown refer to steel products.

A

WalformPlus tube fittings



A more cost-effective system

- Fewer parts (which reduces the costs for material and logistics)
- Lower cost
- Compared to welding, no preparatory or finishing work required

Increased safety thanks to the positive-locking connection

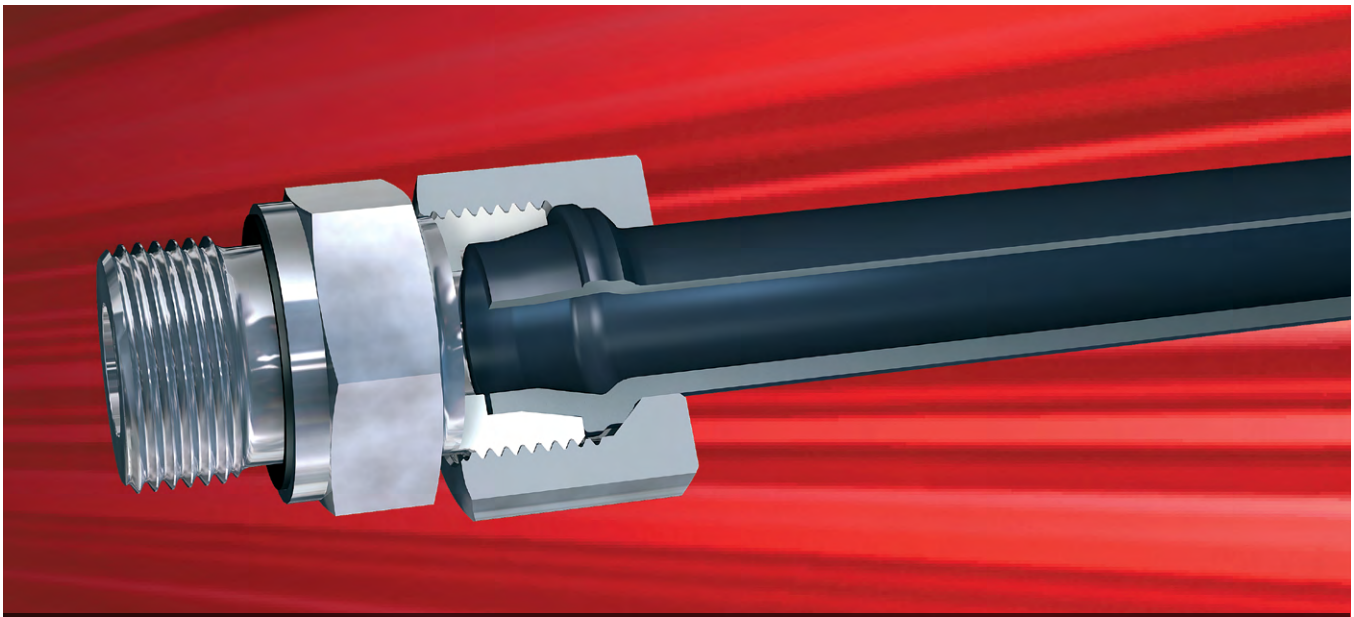
- High compressive strength
- Fully leak-proof
- Approved for use in safety-related applications
- High tolerance for assembly errors

Ease of assembly

- Only one separation/sealing point
- Easy assembly/clear indication when the assembly is completed
- Short installation time, low torque
- Extremely easy to assemble
- Significantly lower tightening torque compared to conventional cutting-ring fittings

Approvals and test certificates

- American Bureau of Shipping
- Bureau Veritas
- DNV-GL
- Lloyd's Register of Shipping
- Polish Register of Shipping



WalformPlus-M
Reshaping system with metal-to-metal seal for steel and stainless steel tubes

Functional characteristics: WalformPlus-M tube fittings

WalformPlus-M – an innovative alternative to ring-based systems

WalformPlus-M is a positive-locking fitting system for steel and stainless steel tubes that consists of only two components. The mechanically reshaped tube end is screwed together using a conventional DIN/ISO stud and a DIN/ISO union nut, and the only possibly leakage path is sealed off by means of the 24° taper of the tube. A characteristic feature of this series is the metal-to-metal seal, which certain types of applications require.

Thanks to the positive-locking connection, WalformPlus-M ensures secure tube retention even under high dynamic loads. The assembly process is so simple and user-friendly that no special training is required, which enables a significant reduction in costs. Moreover, the system also facilitates additional savings by eliminating the need for pre-assembly and other auxiliary operations, while the small number of components reduces the costs for equipment and logistics.

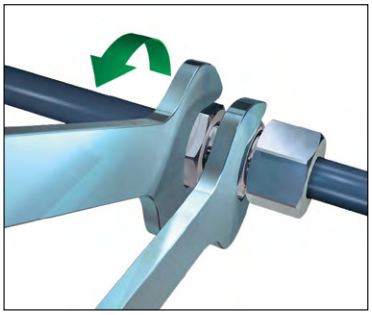
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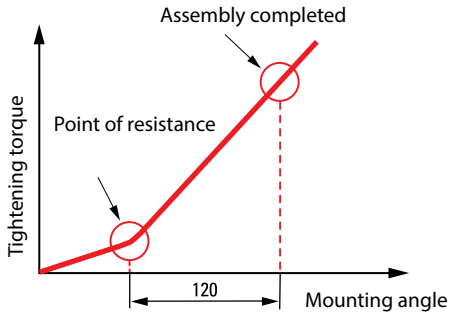
Fully leak-proof

A metal-to-metal seal between the contoured WalformPlus-M profile and the inner 24° taper of the fitting stud ensures that the only possible leakage path is sealed off.

Assembly made easy

- Low tightening torque
- Short tightening rotation
- Clearly noticeable torque increase
- Protection against excessive tightening
- Can be re-assembled as often as required





Reliable tube retention

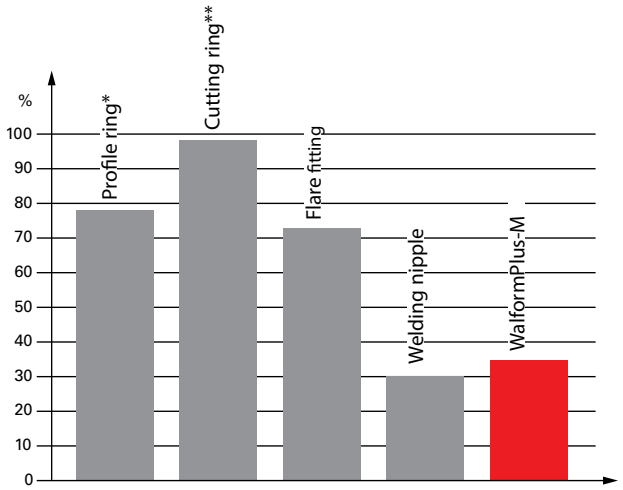
Thanks to the positive-locking connection, the system provides absolute safety even under the most extreme loads. This ensures reliable tube retention even in the event of insufficient or excessive tightening and prevents the tube from slipping out.

Easy to assemble

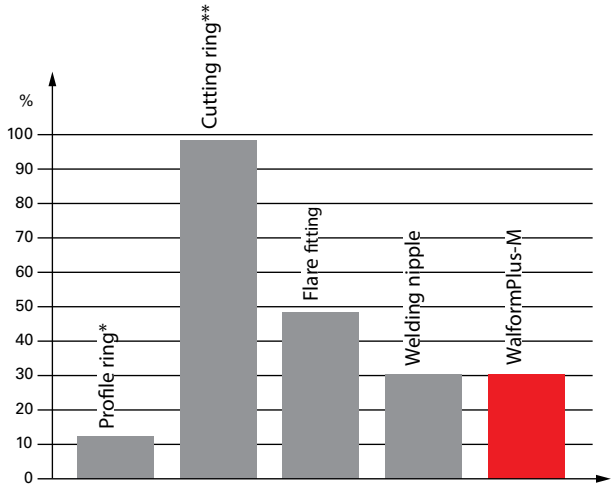
Installation made easy, with reproducible results.

Thanks to its unique geometry, the assembly of the WalformPlus-M system is user-friendly and offers effective protection against excessive tightening.

Comparison of the required torque



Comparison of the required tightening rotation



*after controlled final assembly **with and without soft seal

High dynamic load capacity

The WalformPlus-M geometry of the reshaped tube ensures excellent performance under dynamic loads, such as reversed bending stress and dynamic pressure impulses. The WalformPlus-M system has been tried and tested many times over, both in practice and through extensive testing.

A

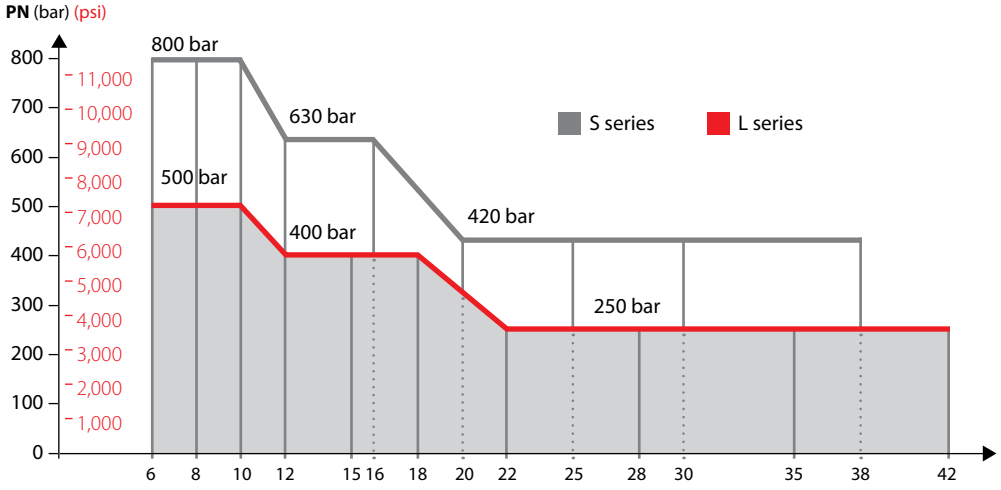
High nominal pressure ratings

PN – nominal pressure

Nominal pressure is an approximate pressure rating that is commonly used.
Burst-pressure tests must be carried out at no less than four times the nominal pressure of the fitting. Pressure-impulse tests must be carried out at no less than 1.33 times the nominal pressure of the fitting at one million load cycles.

- L series for nominal pressure up to 500 bar
- S series for nominal pressure up to 800 bar
- Only Waltech original parts should be used for high nominal pressure ratings

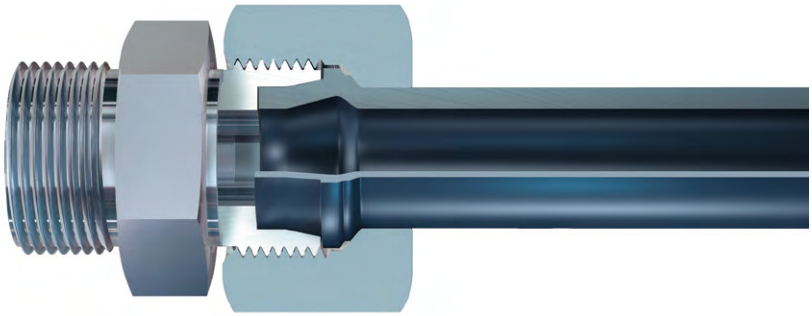
Nominal pressure ratings of the WalformPlus-M fittings*



*The nominal values shown refer to steel products.

A

WalformPlus-M tube fittings



Highly cost-effective

- Only two components (which reduces the costs for material and logistics)
- Much lower costs
- Compared to welding, no preparatory or finishing work required

The positive-locking connection and the metal-to-metal seal ensure a high degree of safety

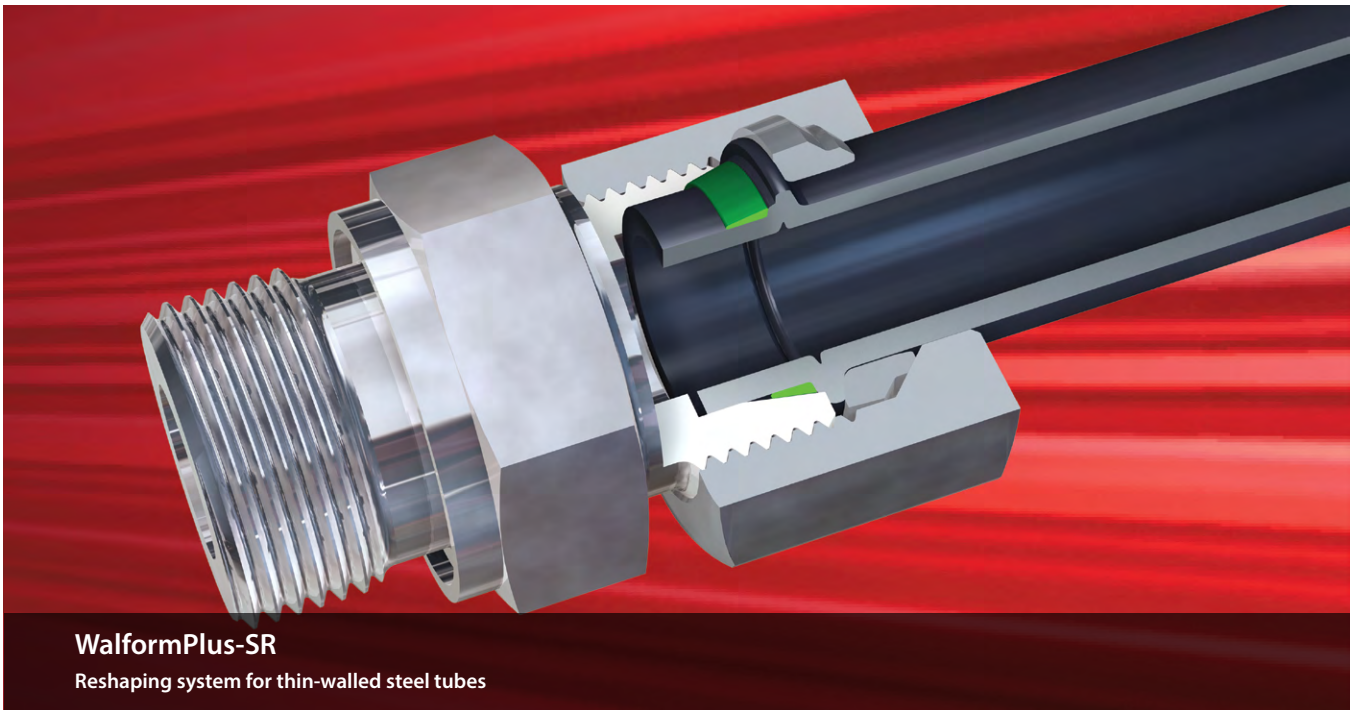
- Rugged metal-to-metal seal
- Fully leak-proof
- Approved for use in safety-related applications
- Avoids the side effects of elastomer seals

Very easy to assemble

- Only one separation/sealing point
- Short installation time, low torque
- Extremely easy to assemble
- Significantly lower tightening torque compared to conventional cutting-ring fittings

Approvals and test certificates

- American Bureau of Shipping
- DNV-GL
- Lloyd's Register of Shipping
- Polish Register of Shipping



Functional characteristics: WalformPlus-SR tube fittings

WalformPlus-SR – the ideal connection system for thin-walled tubes

WalformPlus-SR is a positive-locking fitting system for thin-walled steel tubes. The mechanically reshaped tube end is screwed together using an additional support ring as well as a conventional DIN/ISO stud and a DIN/ISO union nut, while the only possibly leakage path is sealed off by means of an elastomer ring. A characteristic feature of this series is the additional support ring, which allows the proven WalformPlus system to be used even on thin-walled tubes.

Thanks to the positive-locking connection and the additional support ring, WalformPlus-SR ensures secure retention as well as greater resistance to dynamic loads.

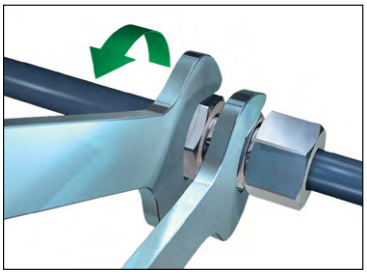
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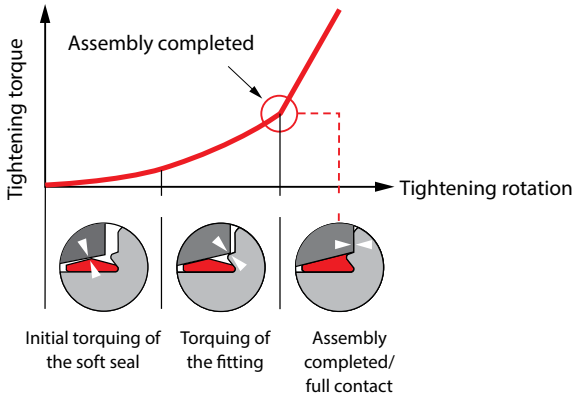
Fully leak-proof

The only possible leakage path is sealed off in two ways: first by the WalformPlus soft seal and secondly by means of the metal-to-metal seal between the patented WalformPlus shoulder and the fitting stud.

Assembly made easy

- A clear increase in the required tightening force
- Significantly lower tightening torque
- Clearly noticeable torque increase
- Short tightening rotation
- Effective protection against excessive tightening Can be re-assembled as often as required





Reliable tube retention

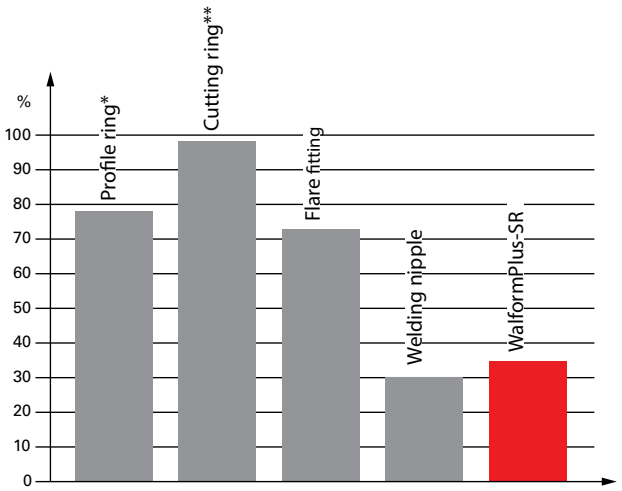
Thanks to the positive-locking connection, the system provides absolute safety even under the most extreme loads. This ensures reliable tube retention even in the event of insufficient or excessive tightening and prevents the tube from slipping out.

Easy to assemble

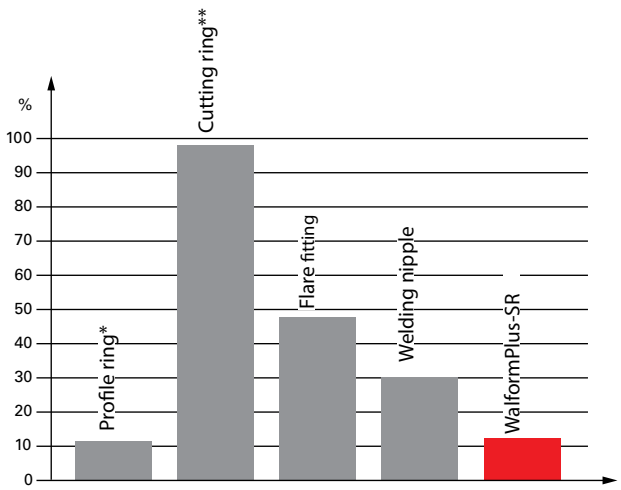
Installation made easy, with reproducible results.

Thanks to its unique geometry, the assembly of the WalformPlus-SR fittings is easy and user-friendly, and a noticeable increase in the required tightening force indicates that the process has been completed. Due to the short tightening rotation and the low torque, the installation process only takes a fraction of the time required for conventional tube-fitting systems. There is thus no need to comply with specific angles or to look for other signs
that the process has been completed. Torque-based assembly is also possible.

Comparison of the required torque



Comparison of the required tightening rotation



*after controlled final assembly **with and without soft seal

High dynamic load capacity

The WalformPlus-SR geometry of the reshaped tube ensures excellent performance under dynamic loads, such as reversed bending stress and dynamic pressure impulses. The WalformPlus-M system has been tried and tested many times over, both in practice and through extensive testing.

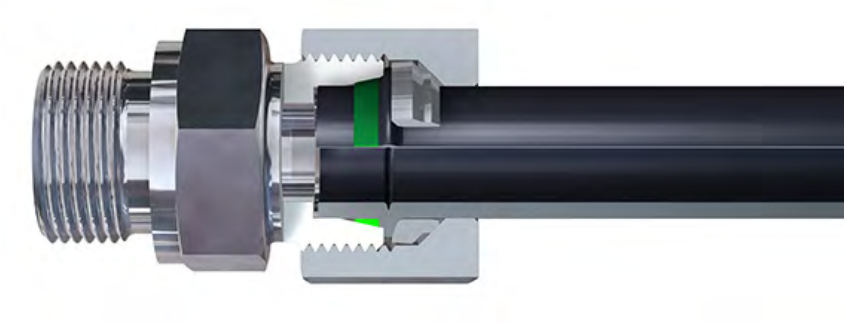
High nominal pressure ratings

PN – nominal pressure

The nominal pressure of WalformPlus-SR is limited by the nominal pressure of the chosen tube.

A

WalformPlus-SR tube fittings



Highly cost-effective

- Enables the use of the WalformPlus system on thin-walled tubes
- Lower cost
- Compared to welding, no preparatory or finishing work required

Increased safety thanks to the positive-locking connection

- High compressive strength
- Fully leak-proof
- Approved for use in safety-related applications
- High tolerance for assembly errors

Very easy to assemble

- Only one separation/sealing point
- Short installation time, low torque
- Extremely easy to assemble
- Significantly lower tightening torque compared to conventional cutting-ring fittings
- Easy assembly/clear indication when the assembly is completed

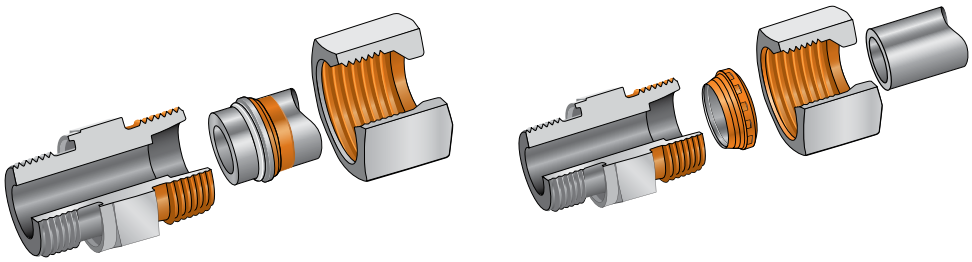
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Danfoss Waltech ABF grease (anti-block grease)

Special grease for the installation of stainless steel couplings (1.4571)

- Prevents gripping
- Reduces the friction coefficient

Application examples

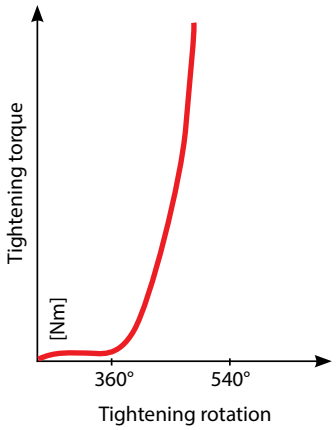


Before assembly, the fittings must be thoroughly cleaned and all contact surfaces must be coated with a sufficient quantity of anti-block grease using a brush or lint-free cloth. After greasing, the fittings must be immediately assembled to prevent contamination.
The assembly instructions of the respective tube-fitting systems must be observed.

A

Assembly tests with Danfoss Waltech ABF grease (anti-block grease)



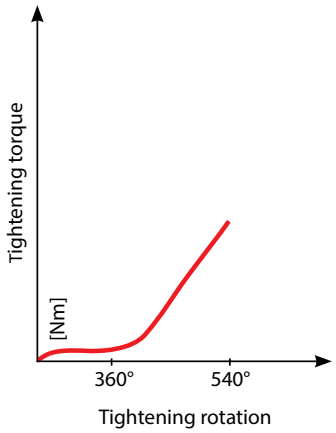


Assembly without Danfoss Waltech ABF grease (anti-block grease)

Gripping may occur

- High tightening torque due to friction, which results in a loss of tightening force
- Insufficient preload ofthe connection





Assembly with Danfoss Waltech ABF grease (anti-block grease)

- Reduced friction and elimination of gripping
- Simplified assembly thanks to a reduction in the tightening torque of up to 70 %
- Reduced torsional stress on the fitting body
- Strong grease adhesion on the contact surfaces

Note: For best results, use silver-plated stainless steel nuts (AG/AGP) plus Danfoss Waltech ABF grease (anti-block grease). For applications at temperature ranges from 110°C to 400°C, we recommend our ABF-HT anti-block grease for high temperatures. Please consult us for more information.
Note: Not approved for use in drinking water applications!

Available quantities:

Can of 1000 g

Order no. WAL371741

Tube of 100 g

Order no. WAL624320



B Technical information

Materials and finishes B3
Pressure strength and temperature resistance B5
Calculated pressures and tolerances of seamless precision-steel tubes B11
Stud and port types B14
Stud connection dimensions B16
Table for length correction B17
Overview of the applicable standards B18

B

Fitting materials

Danfoss Waltech fittings are made from drawn or forged steel. The materials used are in accordance with DIN 3859-1 (Technical specifications for tube fittings). Union nuts are either cold- or hot-pressed. Our fittings are also available in stainless steel type 1.4571 (X6CrNiMoTi17122) as per DIN EN 10088-3 and DIN EN 10222-5, respectively. Special materials on request.

Sealing materials

Fitting material		Sealing materials*	
Steel	Stainless steel (1.4571)	As standard	On request
●		NBR	FPM
	●	FPM	NBR
WalringPlus soft seal		FPM	NBR / EPDM

*NBR (e.g. Perbunan®); FPM (e.g. Viton®)

Finishes

All steel product lines are galvanized with the unique Danfoss Guardian Seal™ finish and are chrome-6-free. The silver finish lends the tube fittings an attractive appearance. The Guardian Seal™ finish offers significant advantages in terms of occupational safety and environmental protection, and it meets the latest EU legislative requirements (e.g. Directive 2000/53/EC). The finish can be easily painted over with standard industry paints (please make sure to follow the manufacturer's instructions). The steel union nuts are anti-friction coated to reduce torque. All welded fittings are phosphated.

Media

Danfoss Waltech fittings are designed for use with commercially available hydraulic oils. When using special media, such as flame-retardant fluids or native oils, please consult our application support team.

⚠ Caution: DIN 7716 applies to all fittings with elastomer seals (Elastomers: storage, cleaning, maintenance). Store in a dry, cool place (below 25 °C) and away from drafts and protect from sunlight, ozone and strong artificial light.

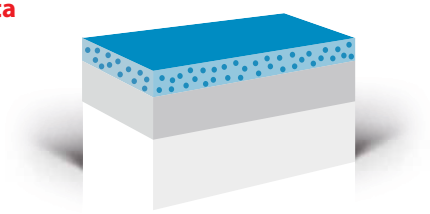
Special care must be taken with pre-assembled NBR O-rings, which are particularly sensitive to drafts and ozone exposure. Brittle fracture will occur if stored in open areas that are not protected from light and drafts! Recommendation: Use O-rings made of Viton (not sensitive to drafts and ozone).

Material	Description	Surface protection/finish		
		A4GS/A2GS	A4GS/A2GS + anti-friction coating	Znphr5f
Steel	Fitting body	●		
	Union nuts		●	
	Profile rings	●		
	Welded socket			●

- Danfoss Guardian Seal™ technical data sheet
- Znphr5f to DIN EN ISO 3892 and DIN 50942

Material	Description	Surface protection/finish	
		Untreated	Silver-plated
Stainless steel (1.4571)	Fitting body	●	
	Union nuts Up to size 12L/10S	●	
	Union nuts From size 15L/12S	●	●
	Profile rings	●	
	Welded socket	●	

Guardian Seal™ technical data



Layer structure:

- Zinc base layer
- Micro-passivation
- Micro-impregnation

Layer thickness:

- Zinc layer: 1 — 10-15 µm (for some products 5-7 µm)
- Micro-passivation: — 0.3 µm
- Micro-impregnation: — < 2 µm

Corrosion resistance to DIN EN ISO 9227:

- Danfoss Waltech Products: 360 hours to white rust 1,000 hours to red rust

Coloring:

- The Guardian Seal coating gives the Danfoss Waltech tube fittings a consistent silver finish.

Paintable:

- The Guardian Seal coating can be painted with commercially available paints. If necessary, paint adhesion can be checked by means of a cross cut (DIN ISO 2409).

Resistance to fluids:

- Guardian Seal is resistant to standard hydraulic fluids.

Environmental compatibility:

- Guardian Seal complies with the EU End-of-Life Vehicle Directive (ELV 2000/53/EC).

Friction coefficients / installation behavior:

- No change in the installation and disassembly behavior/torques compared to Cr (III)-coated Danfoss Waltech fittings.

Combining Guardian Seal fittings with Cr (III)- or ZnNi-coated fittings:

- It is possible to combine Guardian Seal-coated fittings and chrome (III)- and zinc-nickel-coated fittings.

Pressure strength and temperature resistance

Pressure strength

B

PB – operating pressure

The allowable operating pressure of a component is the maximum permissible positive pressure inside that component at the permissible operating temperature (TB) during fault-free operation, based on the material in question and the relevant formulas.

PN – nominal pressure

Nominal pressure is an approximate pressure rating that is commonly used.

Pressure ranges

Series	Steel – profile ring + WalringPlus + Walform			Stainless steel – profile ring + Walform (1.4571)				
	Tube outer diameter	Nominal pressure		Tube outer diameter	Nominal pressure of profile ring 1.4571		Nominal pressure Walform 1.4571	
		bar	psi		bar	psi	bar	psi
LL (very light, cutting ring only)	4-8	100	1450	4-8	100	1450	-	-
L (light)	6-10	500	7252	6-12	400	5801	400	5801
	12-18	400	5801	15-18	315	4569	315	4569
	22-42	250	3626	22-42	160	2321	250	3626
S (heavy)	6-10	800	11603	6-16	630	9137	630	9137
	12-16	630	9137	20-30	400	5801	400	5801
	20-38	420	6091	38	315	4569	330	4786

Series	Steel – flare fitting			Stainless steel – flare fitting		
	Tube outer diameter	Nominal pressure		Tube outer diameter	Nominal pressure	
		bar	psi		bar	psi
L (light)	6-10	500	7252	6-12	400	5801
	12-18	400	5801	15-18	315	4569
	22-42	250	3626	22-42	160	2321
S (heavy)	6-10	630	9137	6-16	630	9137
	20-38	400	5801	20-30	400	5801
				38	315	4569

△ **Caution:** Some models have different nominal pressure ratings. Please refer to the respective nominal pressure ratings of each model. The nominal pressure ratings are also available on request.

Temperature range

Fitting and sealing materials must be selected in accordance with the operating temperature

Material	Permissible operating temperature TB °C												
	-60	-40	-35	-25	+20	+50	+80	+100	+120	+175	+200	+250	+400
Steel fittings*		●	●	●	●	●	●	●	●				
Stainless steel fittings (1.4571)	●	●	●	●	●	●	●	●	●	●	●	●	●
Sealing material NBR (e.g. Perbunan®)			●	●	●	●	●	●					
Sealing material FPM (e.g. Viton®)				●	●	●	●	●	●	●	●		
Sealing material POM (e.g. Delrin®)		●	●	●	●	●	●						

● Permissible operating temperature

- If different fitting and sealing materials are used, the lowest specified temperature applies!
- Registered trademarks: Perbunan (Bayer), Viton (Chemours), Delrin (DuPont)
- Special materials on request.

At present, the manufacturers of the materials 11SMnPb30, 11SMn30, 11SMnPb30+C (or equivalent) according to DIN EN 10087 and DIN EN 10277-3 do not confirm cold resistance at temperatures of -40 °C.
However, the practical experience of hose and tube-fitting manufacturers to date has not indicated any negative consequences.

Safety

The nominal pressure (PN) and operating pressure (PB) ratings of the fittings indicate the maximum permissible operating pressures, including pressure peaks. The information given under the "temperatures" and "pressure reductions" headings must be observed.

Under static load (up to 120 °C), the functional safety of fittings with PN ratings is 4-fold, and that of fittings with PB ratings is 2.5-fold or 1.5-fold. For ball valves, banjo fittings and swivel banjos, the specified safety properties must be taken into account. Strong pressure surges and mechanical stresses, such as vibrations, require special consideration.

The specified pressure and safety ratings are dependent on compliance with the Danfoss Waltech assembly instructions. An additional prerequisite is the stress-free installation of the tube assembly systems (a sufficient number of tube clamps must be used).

Note

At temperatures < -20 °C, the use of fittings made from free-cutting steel is at the discretion of the user.

Pressure reductions

Stainless steel 1.4571 can accommodate pressure reductions, depending on the temperature.
(DIN EN 10088-3, DIN EN 10216-5)

△ **Caution:** If different fitting and sealing materials are used, the lowest specified temperature applies!

Temperature	Pressure reduction
-60 °C to +20 °C	-
+50 °C	4.5 %
+100 °C	11 %
+200 °C	20 %
+300 °C	29 %
+400 °C	33 %

Resistance to different media

B

The following table shows the compatibility of different elastomers and metals depending on the hydraulic fluid being used. This table is intended for use with Danfoss fittings and should not be used to determine compatibility with other products. It is intended for reference purposes only and does not constitute any warranty. The definitive selection of the correct materials for the seals and metal components depends on many additional factors, including pressure, ambient temperature, concentration, exposure time, etc.

How to use this table

1. When determining the suitability of a combination of materials for a fitting, both the elastomer and the metal must be considered.
2. Identify the hydraulic fluid and determine the suitability of the elastomer and metal components in accordance with the specified resistance ratings.
3. For the dimensions and operating data of each fitting component, please refer to the relevant catalog pages.
4. For information on the various sealing options for fittings and how to select them, see the relevant sections of this catalog.
5. Use the table above to determine the maximum operating temperature range of the elastomer you intend to use.
6. For more information on the products listed in this catalog and their applications, contact your Danfoss sales representative or Danfoss' Technical Support.

Resistance ratings

E = excellent - fluid has little or no effect

G = good - fluid has low to moderate effect

C = conditional - please consult Danfoss regarding the operating conditions to determine suitability for your application

U = unsatisfactory

The difference between the "E" and "G" ratings is relative, as both indicate satisfactory performance. Where there is a choice, the materials rated "E" can be expected to offer better or longer performance than those rated "G".

The following tables are for reference purposes only. This table contains information on material compatibility only and is not intended as an application guide.

E = excellent
G = good
C = conditional
U = unsatisfactory

Medium	NBR (e.g. Perbunan®)	FPM (e.g. Viton®)	Steel	Stainless steel
Acetaldehyde	U	U	G	E
Acetic acid, 10 %,	U	G	U	C
Acetic acid, glacial acetic acid	U	U	U	C
Acetone	U	U	E	E
Acetophenone	U	U	E	E
Acetyl acetone	U	U	U	C
Acetyl chloride	U	E	C	C
Acetylene (1)	G	E	E	E
Air, hot (161 °F - 200 °F)	C	E	E	E
Air, hot (201 °F - 300 °F)	U	E	E	E
Air, hot (up to +160 °F)	E	E	E	E
Air, wet (below 160 °F)	E	E	U	E
Aluminum chloride, 10 % aqueous	E	E	U	U
Aluminum fluoride, 10 % aqueous	E	E	U	U
Aluminum nitrate, 10 % aqueous	E	E	U	C

Medium	NBR (e.g. Perbunan®)	FPM (e.g. Viton®)	Steel	Stainless steel
Aluminum sulfate, 10 % aqueous	E	E	U	C
Alums, 10 % aqueous	E	E	U	C
Ammonia, anhydrous	G	U	E	E
Ammonia, aqueous	E	U	E	E
Ammonia, cold	E	U	E	E
Ammonia, hot	U	U	E	E
Ammonium carbonate, 10 % aqueous	U	U	C	C
Ammonium chloride, 10 % aqueous	G	U	U	U
Ammonium hydroxide, 10 % aqueous	C	C	G	C
Ammonium nitrate, 10 % aqueous	E	U	G	G
Ammonium phosphate, 10 % aqueous	E	-	U	E
Ammonium sulfate/sulfide, 10 % aqueous	E	U	U	U
Amyl acetate	U	U	E	E
Amyl alcohol	G	G	G	U
Aniline dyes	U	G	U	G

E = excellent
G = good
C = conditional
U = unsatisfactory

Medium	NBR (e.g. Perbunan®)	FPM (e.g. Viton®)	Steel	Stainless steel
Aniline, aniline oil	U	U	E	E
Asphalt, < 200 °F	G	E	E	E
Automatic transmission fluid	E	E	E	E
Barium chloride, 10 % aqueous	E	E	U	G
Barium hydroxide, 10 % aqueous	E	E	G	G
Barium sulfide, 10 % aqueous	E	E	C	G
Benzene	U	E	G	E
Benzoic acid	U	E	U	G
Benzyl alcohol	U	E	E	E
Biodiesel (< B20)	G	E		
Biodiesel (> B20)	G	E		
Black sulfate liquor	C	E	E	E
Blast furnace gas	U	E	E	E
Borax, 10 % aqueous	G	E	E	E
Boric acid, 10 % aqueous	G	E	U	C
Brine	E	E	U	G
Bromine, dry	U	E	U	U
Butane	E	E	E	E
Butyl acetate	U	U	E	E
Butyl alcohol	E	E	G	G
Butyl Cellosolve	U	U	E	E
Butyl stearate	G	E	G	G
Butylene	C	E	E	E
Butyraldehyde	U	U	E	E
Calcium acetate, 10 % aqueous	G	U	G	G
Calcium bisulfate, 10 % aqueous	E	E	U	C
Calcium hydroxide, 10 % aqueous	E	E	G	G
Calcium hypochlorite, 10 % aqueous	U	E	U	C
Calcium nitrate, 10 % aqueous	E	E	G	G
Carbitol	G	G	E	E
Carbolic acid	U	E	U	E
Carbon dioxide, dry	G	E	E	E
Carbon disulfide	U	E	G	G
Carbon monoxide	G	E	E	E
Carbon tetrachloride	U	E	U	G
Carbonic acid	G	E	U	E
Castor oil	E	E	E	E
Cellosolve acetate	U	U	U	E
China wood oil (tung oil)	G	E	E	E
Chlorine, dry	U	G	C	C
Chloroacetic acid	U	U	U	U
Chloroacetone	U	U	G	G
Chlorobenzene	U	G	G	G
Chloroform	U	E	G	G
Chlosulfonic acid	U	U	G	G
Chrome plating solution	U	E	C	U
Chromic acid	U	E	C	U
Citric acid	E	E	C	C
Coke oven gas	U	E	E	E
Copper chloride, 10 % aqueous	E	E	U	U
Copper cyanide, 10 % aqueous	E	E	E	G
Copper sulfate, 10 % aqueous	E	E	U	G

Medium	NBR (e.g. Perbunan®)	FPM (e.g. Viton®)	Steel	Stainless steel
Cotton seed oil	E	E	E	E
Creosote (coal tar)	G	E	E	E
Crude oil	E	E	G	G
Cyclohexanol	E	E	E	E
Cyclohexanone	U	U	E	E
Detergent/water solution	E	E	G	E
Diacetone alcohol (acetol)	U	U	E	E
Dibenzyl ether	U	U	G	G
Diesel oil	E	E	E	E
Diethylamine	G	U	E	E
Dioctyl phthalate (DOP)	U	G	E	E
DOT #3/#4 brake fluid	C	U	E	E
Dowtherm A&E	U	E	G	E
Ester blend	E	E	E	E
Ethyl acetate	U	U	E	E
Ethyl alcohol (ethanol)	E	E	E	E
Ethyl benzene	U	E	E	G
Ethyl cellulose	G	U	E	G
Ethyl chloride	U	E	E	E
Ethylene dichloride	U	G	G	G
Ethylene glycol	E	E	U	E
Ferric chloride, 10 % aqueous	E	E	U	U
Ferric nitrate, 10 % aqueous	E	E	U	G
Ferric sulfate, 10 % aqueous	G	E	U	E
Formaldehyde	C	G	E	E
Formic acid	C	U	U	C
Fuel oil	E	E	E	E
Furfural	C	U	G	G
Gallic acid, solution	G	E	U	G
Gasohol	G	E	E	E
Gasoline	E	E	E	E
Glycerin/glycerol	E	E	E	E
Green sulfate liquor	G	E	U	E
Helium (1)	E	E	E	E
Heptane	E	E	E	E
Hexaldehyde	U	U	G	E
Hexane	E	E	E	E
Hydraulic oils, petroleum base	G	E	E	E
Hydrobromic acid	U	E	E	E
Hydrochloric acid, cold	U	E	U	U
Hydrocyanic acid	C	E	E	G
Hydrofluoric acid	U	U	U	U
Hydrofluorosilic acid	G	E	U	U
Hydrogen	E	E	E	E
Hydrogen peroxide	G	E	U	G
Hydrogen sulfide, dry	U	U	E	G
IRM 901 oil	E	E	E	E
IRM 902 oil	E	E	E	E
IRM 903 oil	E	E	E	E
Isocyanate	U	E	G	G
Iso-octane	E	E	E	E
Isopropyl acetate	U	U	E	E

Resistance to different media

B

E = excellent
G = good
C = conditional
U = unsatisfactory

Medium	NBR (e.g. Perbunan®)	FPM (e.g. Viton®)	Steel	Stainless steel
Isopropyl alcohol	G	E	E	E
Isopropyl ether	G	U	G	G
JP-4, JP-5	E	E	E	E
Kerosene	E	E	E	E
Lacquer/lacquer solvents	U	U	U	E
Lime sulfur	U	E	G	G
Linseed oil	E	E	E	E
LPG	E	E	E	E
Magnesium chloride, 10 % aqueous	E	E	E	C
Magnesium hydroxide, 10 % aqueous	G	E	E	E
Magnesium sulfate, 10 % aqueous	E	E	E	E
Maleic acid	U	E	E	G
Maleic anhydride	U	E	G	E
Malic acid	G	G	U	E
Mercury	E	E	E	E
Mercury chloride	E	E	U	U
Methanol	G	U	G	E
Methyl bromide	G	E	E	G
Methyl butyl ketone	U	U	E	E
Methyl chloride	U	E	E	E
Methyl ethyl ketone	U	U	G	G
Methyl isobutyl ketone	U	U	G	G
Methyl isopropyl ketone	U	U	G	G
Methyl salicylate	U	U	E	G
Methylene chloride	U	G	G	G
MIL-H-46170	E	E	E	E
MIL-H-5606	E	E	E	E
MIL-H-6083	E	E	E	E
MIL-H-83282	E	E	E	E
MIL-L-2104	E	E	E	E
MIL-L-23699	G	E	E	E
MIL-L-7808	G	E	G	E
Mineral oils	E	E	E	E
Naphtha	C	E	-	-
Naphthalene	U	E	E	E
Naphthenic acid	C	E	-	E
Natural gas	E	E	G	G
Nickel acetate, 10 % aqueous	C	G	G	E
Nickel chloride, 10 % aqueous	E	E	U	G
Nickel sulfate, 10 % aqueous	E	E	U	G
Nitric acid, above 10 %	U	E	U	E
Nitric acid, up to 10 %	U	E	U	E
Nitro benzene	U	G	E	E
Nitrogen	E	E	E	E
O-chlorophenol	U	E	G	G
Octyl alcohol	E	E	E	E
Oleic acid	U	G	C	G
Oleum, fuming sulfuric acid	U	E	E	E
Ortho-dichlorobenzene	U	E	G	G
Oxalic acid, 10 % aqueous	G	E	U	C
Oxygen	-	E	G	G
Palmitic acid	E	E	G	E

Medium	NBR (e.g. Perbunan®)	FPM (e.g. Viton®)	Steel	Stainless steel
Para-dichlorobenzene	U	E	G	G
Pentane	E	E	G	G
Perchloric acid	E	E	U	U
Perchloroethylene	U	E	C	G
Petroleum base oils	E	E	E	E
Phenol (carbolic acid)	U	E	U	E
Phosphate ester	U	C	E	E
Phosphate ester/petroleum blend	U	C	E	E
Phosphoric acid, 20 %	U	E	U	U
Phosphorus trichloride	U	E	C	C
Potassium acetate, 10 % aqueous	G	U	C	C
Potassium chloride, 10 % aqueous	E	E	E	E
Potassium cyanide, 10 % aqueous	E	E	C	G
Potassium dichromate, 10 % aqueous	E	E	C	C
Potassium hydroxide, above 10 %	C	U	G	G
Potassium hydroxide, up to 10 %	G	G	G	G
Potassium nitrate, 10 % aqueous	E	E	G	E
Potassium sulfate, 10 % aqueous	E	E	-	-
Propane (liquefied)	C	E	E	E
Propyl acetate	U	U	E	E
Propyl alcohol	E	E	E	E
Propylene	U	E	E	E
Rapeseed oil (B100)	G	E		
Refrigerant R-12	G	E	E	E
Refrigerant R-13	G	E	E	E
Refrigerant R-134a	E	U	E	E
Refrigerant R-22	U	U	E	E
Sewage	E	E	G	G
Silicon oils	E	E	E	E
Soap (water solutions)	E	E	E	E
Sodium acetate, 10 % aqueous	G	U	E	G
Sodium bicarbonate, 10 % aqueous	E	E	G	E
Sodium borate, 10 % aqueous	E	E	E	E
Sodium carbonate, 10 % aqueous	E	E	E	E
Sodium chloride, 10 % aqueous	E	E	U	C
Sodium cyanide, 10 % aqueous	E	E	E	C
Sodium hydroxide, above 10 %	U	E	C	C
Sodium hydroxide, up to 10 %	U	E	C	C
Sodium hypochlorite, 10 % aqueous	C	C	U	U
Sodium metaphosphate, 10 % aqueous	E	E	E	G
Sodium nitrate, 10 % aqueous	G	-	E	E
Sodium perborate, 10 % aqueous	G	E	C	C
Sodium peroxide, 10 % aqueous	G	E	U	C
Sodium phosphates, 10 % aqueous	E	E	U	G
Sodium silicate, 10 % aqueous	E	E	E	E
Sodium sulfate, 10 % aqueous	E	E	C	G
Sodium sulfide, 10 % aqueous	E	E	C	C
Sodium thiosulfate, 10 % aqueous	G	E	U	C
Soy bean oil (B100)	E	E	E	E
Stannic chloride	E	E	U	U
Steam (up to 388 °F)	U	C	E	E
Stearic acid	G	E	C	E

E = excellent
G = good
C = conditional
U = unsatisfactory

Medium	NBR (e.g. Perbunan®)	FPM (e.g. Viton®)	Steel	Stainless steel
Stoddard solvent	E	E	E	E
Straight petroleum base	E	E	E	E
Straight phosphate ester	U	C	E	E
Styrene	U	G	E	E
Sulfur chloride, wet	U	E	G	G
Sulfur dioxide, dry	U	E	E	G
Sulfur trioxide	U	E	G	G
Sulfur, slurry	U	E	E	G
Sulfuric acid, above 10 %	U	G	C	G
Sulfuric acid, up to 10 %	U	E	U	C
Sulfurous acid	C	G	U	C
Tannic acid	G	E	E	E
Tar (bituminous)	G	E	E	E
Tartaric acid	E	E	U	C
Tertiary butyl alcohol	G	E	G	G
Titanium tetrachloride	C	E	E	G

Medium	NBR (e.g. Perbunan®)	FPM (e.g. Viton®)	Steel	Stainless steel
Toluene (toluol)	U	E	E	E
Trichloroethylene	U	E	E	E
Tricresyl phosphate	U	G	E	C
Triethanolamine	E	U	E	E
Tung oil	G	E	E	E
Turpentine	G	E	G	G
Varnish	G	E	E	E
Vinyl chloride	U	E	E	C
Water (+151 °F to +200 °F)	E	E	C	E
Water (+201 °F to +350 °F)	U	G	C	E
Water (up to +150 °F)	E	E	C	E
Water glycol	E	E	E	E
Water-petroleum emulsion	E	E	C	E
Xylene	U	E	E	E
Zinc chloride, 10 % aqueous	E	E	E	U
Zinc sulfate, 10 % aqueous	E	E	U	G

Calculated pressures and tolerances of seamless precision-steel tubes

The use of tube inserts is recommended for thin-walled tube assemblies that are subject to severe stress.

B

Calculated pressures according DIN 2413		
Material	**Steel St E235**	**Stainless steel 1.4571**
Calculation to DIN 2413, scope of application I, for primarily static load conditions at temperatures up to 120 °C		
Yield point/Rp1.0:	235 N/mm² (DIN EN 10305-4)	245 N/mm² (DIN EN 10216-5)
Design factor:	1.5	1.5
Allowance factor c1:	10 % of wall thickness	10 % of wall thickness
Allowance factor c2:	0 (no corrosion allowance)	0 (no corrosion allowance)
Calculation to DIN 2413, scope of application III, pulsating load conditions at temperatures up to 120 °C		
Pulsating fatigue limit:	225 N/mm² see DIN 2413	190 N/mm² Assumed value
Allowance factor c1:	10 % of wall thickness	10 % of wall thickness

In case of problems or where other tube materials are involved, please consult our application engineers and the tube manufacturer.

△ **Caution:** At temperatures above 20 °C, the pressure reductions for tube material 1.4571 indicated on page B6 apply.

Calculated pressures and tolerances of seamless precision-steel tubes

We recommend the use of seamless precision-steel tubes according to DIN EN 10305-4, materials E235 and E355. For stainless steel tubes, we recommend the use of seamless, cold-drawn, bright-annealed tube made of X6CrNiMoTi17-12-2 (1.4571), type CFA according to DIN EN ISO 10216-5, with dimensions and tolerances according to DIN EN ISO 10305-4.

			E235		Stainless steel 1.4571	
Outer diameter	Tolerance	Wall thickness	Calculated pressure I	Calculated pressure III	Calculated pressure I	Calculated pressure III
mm	mm	mm	bar	bar	bar	bar
6	±0.08	1.0	409	391	426	330
6	±0.08	1.5	576	551	600	465
8	±0.08	1.0	353	303	368	256
8	±0.08	1.5	452	433	472	366
8	±0.08	2.0	576	551	600	465
10	±0.08	1.0	282	248	294	209
10	±0.08	1.5	373	357	389	301
10	±0.08	2.0	478	458	498	386
10	±0.08	2.5	576	551	600	465
10	±0.08	3.0	666	638	694	539
12	±0.08	1.0	235	209	245	177
12	±0.08	1.5	353	303	368	256
12	±0.08	2.0	409	391	426	330
12	±0.08	2.5	495	474	516	400
12	±0.08	3.0	576	551	600	465
12	±0.08	3.5	651	624	679	527
15	±0.08	1.5	282	248	294	209
15	±0.08	2.0	336	321	350	271
15	±0.08	2.5	409	391	426	330
15	±0.08	3.0	478	458	498	386
16	±0.08	2.0	353	303	368	256
16	±0.08	2.5	386	370	403	312
16	±0.08	3.0	452	433	472	366
16	±0.08	3.5	515	493	537	417
16	±0.08	4.0	576	551	600	465
18	±0.08	1.5	235	209	245	177
18	±0.08	2.0	313	273	327	230
18	±0.08	2.5	348	333	363	281
18	±0.08	3.0	409	391	426	330
20	±0.08	2.0	282	248	294	209
20	±0.08	2.5	353	303	368	256
20	±0.08	3.0	373	357	389	301
20	±0.08	3.5	426	408	444	345
20	±0.08	4.0	478	458	498	386
22	±0.08	1.5	192	173	200	146
22	±0.08	2.0	256	227	267	192
22	±0.08	2.5	320	278	334	235
22	±0.08	3.0	343	328	357	277
22	±0.08	3.5	392	376	409	317
25	±0.08	2.0	226	201	235	170
25	±0.08	2.5	282	248	294	209
25	±0.08	3.0	338	292	353	247
25	±0.08	4.0	394	378	411	319
25	±0.08	4.5	437	418	455	353
25	±0.08	5.0	478	458	498	386
28	±0.08	2.0	201	181	210	153
28	±0.08	2.5	252	223	263	188
28	±0.08	3.0	302	264	315	223
28	±0.08	3.5	353	303	368	256
28	±0.08	4.0	357	342	372	289
28	±0.08	5.0	434	415	452	351

Calculated pressures and tolerances of seamless precision-steel tubes

			E235		Stainless steel 1.4571	
Outer diameter	Tolerance	Wall thickness	Calculated pressure I	Calculated pressure III	Calculated pressure I	Calculated pressure III
mm	mm	mm	bar	bar	bar	bar
30	±0.08	2.0	188	170	196	143
30	±0.08	2.5	235	209	245	177
30	±0.08	3.0	282	248	294	209
30	±0.08	3.5	329	285	343	241
30	±0.08	4.0	336	321	350	271
30	±0.08	5.0	409	391	426	330
30	±0.08	6.0	478	458	498	386
35	±0.15	2.0	161	147	168	124
35	±0.15	2.5	201	181	210	153
35	±0.15	3.0	242	215	252	181
35	±0.15	3.5	282	248	294	209
35	±0.15	4.0	322	280	336	236
35	±0.15	5.0	357	342	372	289
35	±0.15	6.0	419	401	437	339
38	±0.15	2.5	186	168	193	142
38	±0.15	3.0	223	199	232	168
38	±0.15	3.5	260	230	271	194
38	±0.15	4.0	297	260	309	219
38	±0.15	5.0	332	318	346	268
38	±0.15	6.0	390	373	406	315
38	±0.15	7.0	446	427	465	360
42	±0.20	2.0	134	123	140	104
42	±0.20	2.5	168	153	175	129
42	±0.20	3.0	201	181	210	153
42	±0.20	3.5	235	209	245	177
42	±0.20	4.0	269	237	280	200
48.3	±0.20	3.2	187	169		
50	±0.20	2.5	141	129		
50	±0.20	3.0	169	154		
50	±0.20	5.0	282	248		
50	±0.20	6.0	338	292		
50	±0.20	8.0	394	378		
60	±0.25	3.0	141	129		
60	±0.25	6.0	282	248		
60	±0.25	8.0	336	321		
60	±0.25	10.0	409	391		
60.3	±0.25	3.6	168	153		
60.3	±0.25	5.6	262	231		
60.3	±0.25	8.0	334	320		
60.3	±0.25	10.0	407	390		

Calculated pressure I = static load

Calculated pressure III = pulsating load

Metric ISO thread (parallel) DIN 13

Stud type B

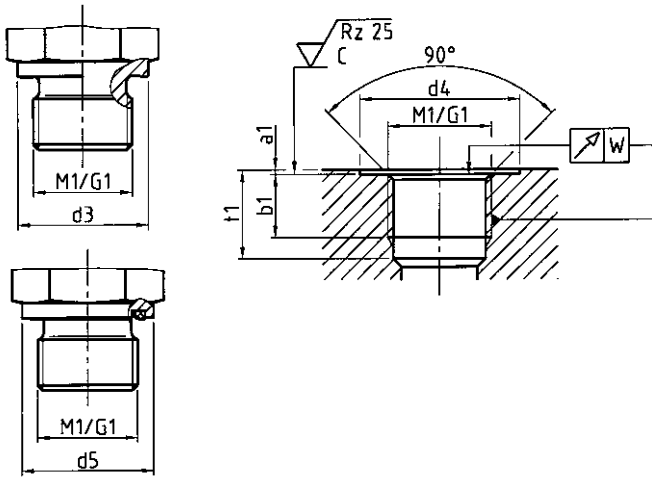
- DIN EN ISO 9974-3 (metric)
- DIN EN ISO 1179-3 (BSP thread)
- With metal-to-metal seal

Stud type E

- ISO 9974-2 (metric)
- DIN EN ISO 1179-2 (BSP thread)
- With soft seal (WD)

Port type X, Y

- DIN 3852-1 / ISO 9974-1 (metric)
- DIN 3852-2 / DIN EN ISO 1179-1 (BSP thread)
- (For parallel threads)



M_1	d_3	d_4 +0.4	d^5	a_1 max.	b_1 min.	t_1 min.	Ø* LL	Ø* L	Ø* S	W
M 8 x 1	12	13	12	1	8	13.5	3.5	-	-	0.1
M 10 x 1	14	15	13.9	1	8	13.5	5	4	-	0.1
M 12 x 1.5	17	18	16.9	1.5	12	18.5	-	6	4	0.1
M 14 x 1.5	19	20	18.9	1.5	12	18.5	-	7	5	0.1
M 16 x 1.5	21	22	21.9	1.5	12	18.5	-	9	7	0.1
M 18 x 1.5	23	24	23.9	2	12	18.5	-	11	8	0.1
M 20 x 1.5	25	26	25.9	2	14	20.5	-	-	10	0.1
M 22 x 1.5	27	28	26.9	2.5	14	20.5	-	14	12	0.1
M 26 x 1.5	31	32	31.9	2.5	16	22.5	-	18	-	0.2
M 27 x 2	32	33	31.9	2.5	16	24	-	-	16	0.2
M 33 x 2	39	40	39.9	2.5	18	26	-	23	20	0.2
M 42 x 2	49	50	49.9	2.5	20	28	-	30	25	0.2
M 48 x 2	55	56	54.9	2.5	22	30	-	36	32	0.2

M_1	d_3	d_4 +0.4	d^5	a_1 max.	b_1 min.	t_1 min.	Ø* LL	Ø* L	Ø* S	W
G 1/8A**	14	15	13.9	1	8	13	5	4	-	0.1
G 1/4A**	18	19	18.9	1.5	12	18.5	-	7	5	0.1
G 3/8A**	22	23	21.9	2	12	18.5	-	9	8	0.1
G 1/2A**	26	27	26.9	2.5	14	22	-	14	12	0.1
G 3/4A**	32	33	31.9	2.5	16	24	-	18	16	0.2
G 1 A**	39	40	39.9	2.5	18	27	-	23	20	0.2
G 1 1/4A**	49	50	49.9	2.5	20	29	-	30	25	0.2
G 1 1/2A**	55	56	54.9	2.5	22	31	-	36	32	0.2

*Stud hole. Special designs may have different holes.

**A does not apply to female threads.

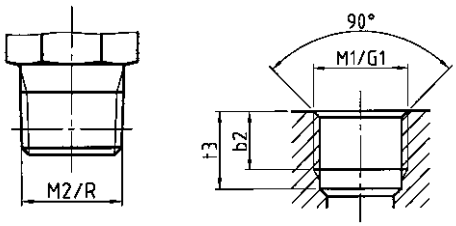
Metric ISO thread (parallel) DIN 13

Stud type C

- DIN 3852-1 (metric)
- DIN 3852-2 (BSP thread)
- With taper thread seal

Port type Z

- DIN 3852-1 (metric)
- DIN 3852-2 (BSP thread)
- (Only for taper threads)***



M_2	b_2 min.	t_3 min.
M 8 x 1 taper	5.5	10
M 10 x 1 taper	5.5	10
M 12 x 1.5 taper	8.5	13.5
M 14 x 1.5 taper	8.5	13.5
M 16 x 1.5 taper	8.5	13.5
M 18 x 1.5 taper	8.5	13.5
M 20 x 1.5 taper	10.5	15.5
M 22 x 1.5 taper	10.5	15.5

R	b_2 min.	t_3 min.
R 1/8 taper	5.5	9.5
R 1/4 taper	8.5	13.5
R 3/8 taper	8.5	13.5
R 1/2 taper	10.5	16.5

*** △Caution: Additional sealing material required!

Stud and port types

B

Metric ISO thread (parallel) DIN 13
UNF/UN thread ISO 725 / ANSI B1.1-1974

Stud (metric)

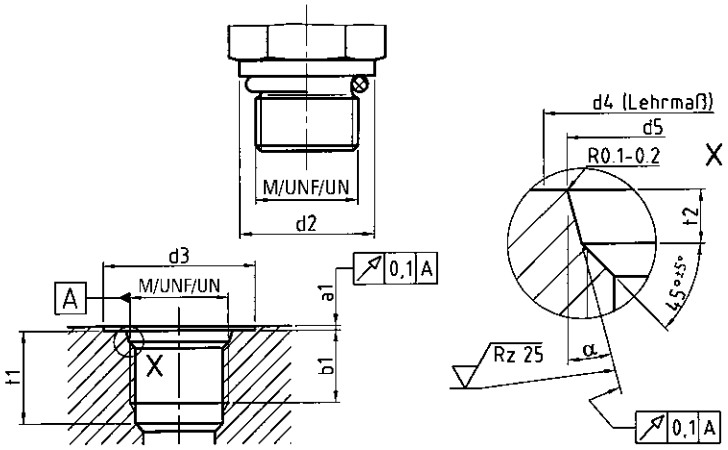
- With O-ring seal
- DIN EN ISO 6149-2 and -3

UST stud

- With O-ring seal
- ISO 11926-2 and -3

Port (metric)

- For O-ring seal
  DIN EN ISO 6149-1
- ISO 11926-1 (UST)



M	d_2	$d_{3\ min.}$	d_4	$d_{5\ +0.4}$	$a_{1\ max.}$	t_2	$t_{1\ min.}$	$b_{1\ min.}$	$a_{\pm1°}$
M 8 x 1	10.9	17	11	9.1	1	1.6	11.5	10	12°
M 10 x 1	12.9	20	13	11.1	1	1.6	11.5	10	12°
M 12 x 1.5	16.9	22	16	13.8	1.5	2.4	14	11.5	15°
M 14 x 1.5	18.9	25	18	15.8	1.5	2.4	14	11.5	15°
M 16 x 1.5	20.9	27	20	17.8	1.5	2.4	15.5	13	15°
M 18 x 1.5	22.9	29	22	19.8	2	2.4	16.5	14.5	15°
M 20 x 1.5	24.9	32	24	21.8	2	2.4	16.5	14	15°
M 22 x 1.5	26.9	34	26	23.8	2	2.4	18	15.5	15°
M 26 x 1.5	30.9	37	31	29.05	2	3.1	18.5	16	15°
M 27 x 2	31.9	40	32	29.4	2	3.1	22	19	15°
M 33 x 2	37.9	46	38	35.4	2.5	3.1	22	19	15°
M 42 x 2	47.9	56	47	44.4	2.5	3.1	22.5	19.5	15°
M 48 x 2	54.9	64	53	50.4	2.5	3.1	25	22	15°

UNF/UN	d_2	$d_{3\ min.}$	d_4	$d_{5\ +0.4}$	$a_{1\ max.}$	t_2	$t_{1\ min.}$	$b_{1\ min.}$	$a_{\pm1°}$
7/16 - 20 UNF	14.4	21	15	12.4	1.6	2.4	14	11.5	12°
9/16 - 18 UNF	17.6	25	18	15.6	1.6	2.5	15.5	12.7	12°
3/4 - 16 UNF	22.3	30	23	20.6	2.4	2.5	17.5	14.3	15°
7/8 - 14 UNF	25.5	34	26	23.9	2.4	2.5	20	16.7	15°
11/16 - 12 UN	31.9	41	32	29.2	2.4	3.3	23	19	15°
15/16 - 12 UN	38.2	49	39	35.5	3.2	3.3	23	19	15°
15/8 - 12 UN	47.7	58	48	43.5	3.2	3.3	23	19	15°
M 48 x 2	54.9	64	53	50.4	2.5	3.1	25	22	15°

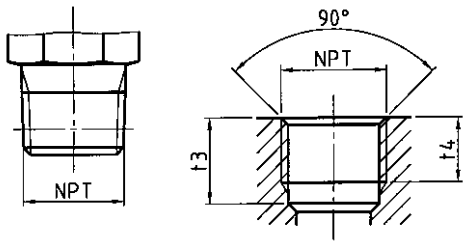
NPT thread = ANSI/ASME B1.20.1 - 1983

Stud

- NPT
- ANSI/ASME
- B1.20.1-1983

Port

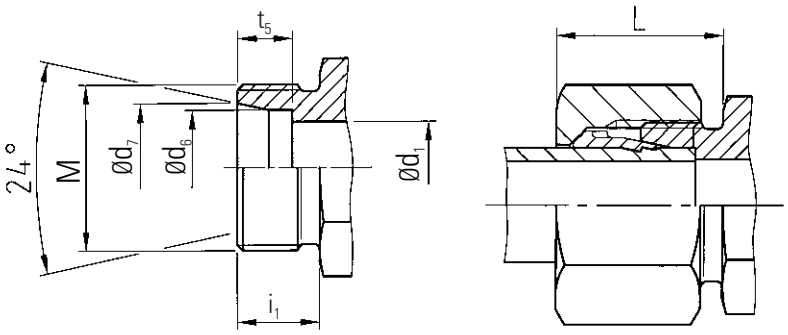
- NPT
- ANSI/ASME
- B1.20.1-1983



$d_{1\ NPT}$	$t_{3\ min.}$	$t_{4\ min.}$
1/8 - 27 NPT	11.6	6.9
1/4 - 18 NPT	16.4	10.0
3/8 - 18 NPT	17.4	10.3
1/2 - 14 NPT	22.6	13.6
3/4 - 14 NPT	23.1	14.1
1 - 11.5 NPT	27.8	16.8
11/4 - 11.5 NPT	28.3	17.3
11/2 - 11.5 NPT	28.3	17.3

B

Stud and tube connection according to DIN EN ISO 8434-1



Series	Tube outer diameter	M	Ød$_1$	Ød$_6$	Ød$_7$	i$_1$	L	t$_5$
LL	4	M 8 x 1	3	4	5	8	14	4
	6	M 10 x 1	4.5	6	7.5	8	14	5.5
	8	M 12 x 1	6	8	9.5	9	15	5.5
L	6	M 12 x 1.5	4	6	8.1	10	18	7
	8	M 14 x 1.5	6	8	10.1	10	18	7
	10	M 16 x 1.5	8	10	12.3	11	19	7
	12	M 18 x 1.5	10	12	14.3	11	19	7
	15	M 22 x 1.5	12	15	17.3	12	20	7
	18	M 26 x 1.5	15	18	20.3	12	21	7.5
	22	M 30 x 2	19	22	24.3	14	23	7.5
	28	M 36 x 2	24	28	30.3	14	23	7.5
	35	M 45 x 2	30	35.3	38	16	27	10.5
	42	M 52 x 2	36	42.3	45	16	28	11
S	6	M 14 x 1.5	4	6	8.1	12	20	7
	8	M 16 x 1.5	5	8	10.1	12	20	7
	10	M 18 x 1.5	7	10	12.3	12	21	7.5
	12	M 20 x 1.5	8	12	14.3	12	21	7.5
	14	M 22 x 1.5	10	14	16.3	14	24	8
	16	M 24 x 1.5	12	16	18.3	14	24	8.5
	20	M 30 x 2	16	20	22.9	16	27	10.5
	25	M 36 x 2	20	25	27.9	18	30	12
	30	M 42 x 2	25	30	33	20	33	13.5
	38	M 52 x 2	32	38.3	41	22	37	16

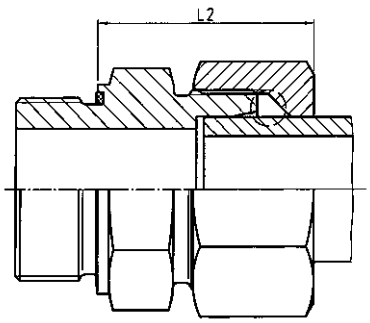
Length correction table

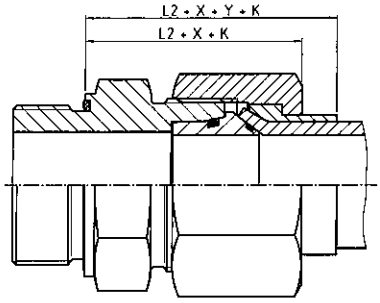
B

For all parts, L2 indicates the approximate length if the union nut is tightened. In the catalog, this value always refers to an assembled profile-ring or Walform fitting.

Lengths of BO tube assemblies

For flare fittings, L2 must be calculated for each size by adding the X value (see table 1: X/Y value) and the correction factor K (see table 2: correction factor), which depends on the wall thickness of the tube. To determine the linear length until the end of the sleeve, the Y value also has to be added.





Example: GES 15 LM-WD with tube 15x2 correction factor = +1

L2 + X + K = 29 + 6.5 + 1 = 36.5

L2 + X + Y + K = 29 + 6.5 + 4 + 1 = 40.5

The dimensions marked • in the following length correction table indicate the tube wall thickness on which the lengths in the lists of dimensions are based. For other tube wall thicknesses, the overall lengths must be modified by means of the correction factor specified in the table.

Table 1

X/Y values

Series	Tube outer diameter	X value	Y value
L	6	3	3
	8	3.5	3
	10	5	4.5
	12	5.5	4.5
	15	6.5	4
	18	7	3.5
	22	8	6.5
	28	9.5	5.5
	35	8.5	6
	42	11.5	6
S	6	2.5	3
	8	3.5	3
	10	4	5.5
	12	4.5	5.5
	14	5	4.5
	16	6.5	6
	20	6	5.5
	25	7	7.5
	30	6.5	8.5
	38	6.5	10.5

Table 2

Tube wall thickness correction factor

Series	Tube outer diameter	1	1.5	2	2.5	3	3.5	4	5	6
L	6	•	+1							
	8	•	+1	+1.5						
	10	-1	•	+1						
	12	-1	•	+1						
	15		•	+1	+2					
	18		-1	•	+1					
	22		-1	•	+1	+1.5				
	28			-1.5	-0.5	•				
	35			-1.5	-1	•		+1.5		
	42			-1.5		•				
S	6	•	+1							
	8	•	+1	+1.5						
	10	-1	•	+1						
	12	-1	•	+1						
	14		-0.5	•	+1	+2				
	16		-1	•	+0.5	+1.5				
	20			•	+1	+2	+3			
	25			-1.5	-1	•		+1.5		
	30			-2	-1	•		+2	+3.5	
	38				0.5	•		+1.5	+3.5	+5

Overview of the applicable standards for tube fitting systems

		Profile-ring fittings	37° flare fittings	Taper seal/welding nipple fittings
Fitting body		DIN 2353 DIN EN ISO 8434-1		DIN EN ISO 8434-1, DIN 3946
Components		DIN 3861, DIN 3870, DIN EN ISO 8434-1	DIN 3949	DIN EN ISO 8434-4
Tube connection		DIN 3861 DIN EN ISO 8434-1		
Stud	Metric	DIN 3852-1 DIN EN ISO 9974-2 and -3 DIN ISO 6149-2 and -3		
	In inches	DIN 3852-2 DIN EN ISO 1179-2 and -4		
	UN/UNF	ISO 11926-2 and -3		
	NPT	ANSI/ASME B 1.20.1-1983		
Technical specifications		DIN 3859-1		
Tests		DIN EN ISO 8434-1, DIN EN ISO 19879		
Assembly		DIN 3859-2		

	SAE 37° flared-flange system
Version	Hole pattern to SAE J518 ISO 6162

Tube specification

Seamless, cold-drawn, normalized (+N or NBK) hydraulic tubes, calculated pressure to DIN 2413

Material	Specifications	Dimensions/tolerances	Compatibility with tube-fitting systems								
			Walpro	Walpro-X	Walform	Walform-M	WalringPlus®	WalformPlus-SR	WalformPlus-M	37° flare fittings	37° flared flange
St37.4 (1.0255) to DIN 1630 (1984-10)*	DIN 2391-1 (1994-09) C		●	●	●	●	●	●	●	●	●
St52.4 (1.0581) to DIN 1630 (1984-10)*	DIN 2391-1 (1994-09) C		●	●	●	●	●	●	●	●	●
E235 (1.0308)	DIN EN 10305-4		●	●	●	●	●	●	●	●	●
E355 (1.0580)	DIN EN 10305-4		●	●	●	●	●	●	●	●	●
X6CrNiMoTi17-12-2-(1.4571) cold-finished*	DIN 17458 (1985-07) version m	DIN 2391-1 (1994-09)	●	●	●	●	●**	●**	●	●	●
X6CrNiMoTi17-12-2-(1.4571) cold-finished	DIN EN 10216-5 Version CFA	DIN EN 10305-4	●	●	●	●	●**	●**	●	●	●

*The dated standards have been withdrawn. This ordering information is therefore obsolete.

** On request

C

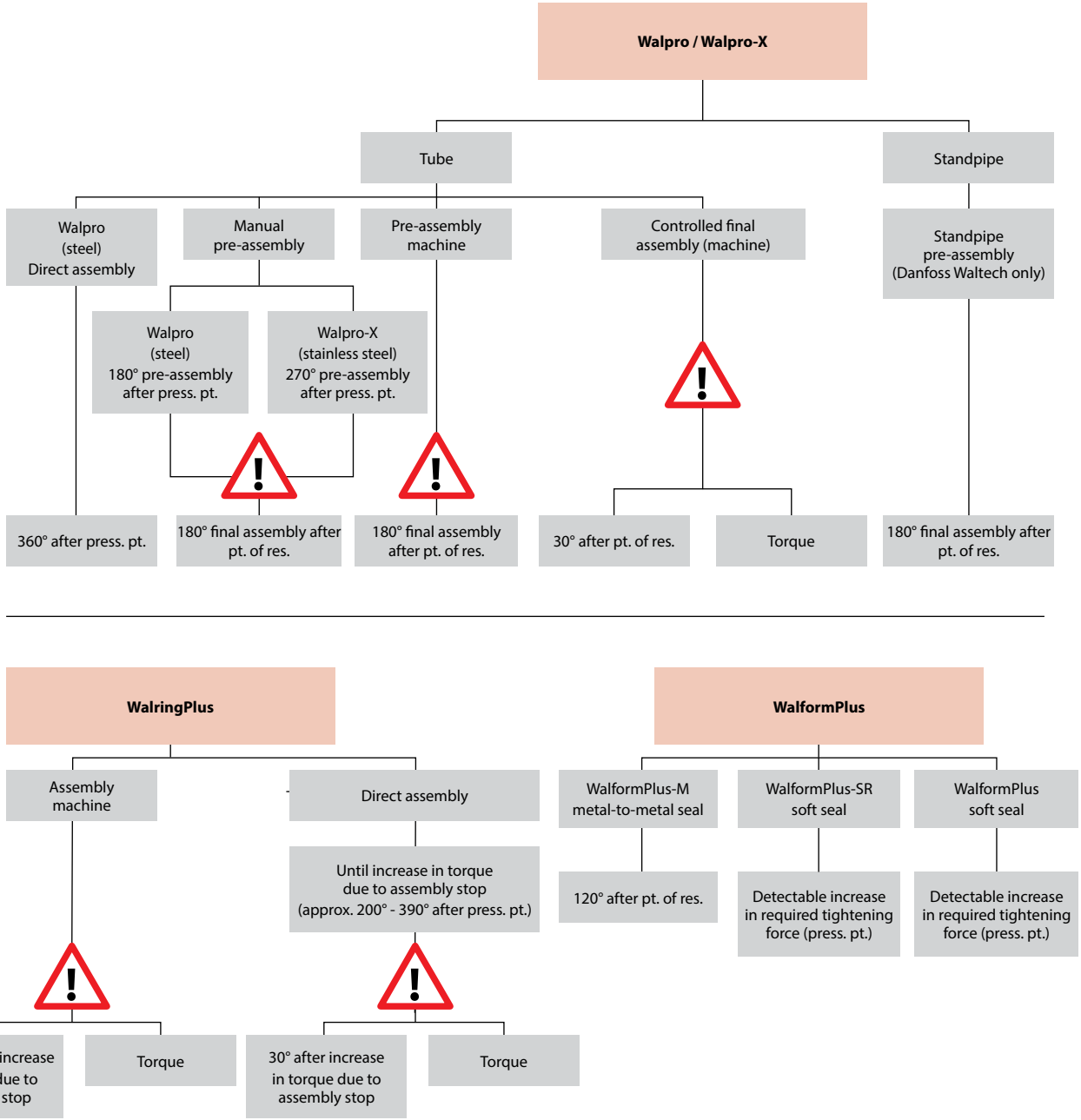
Assembly instructions



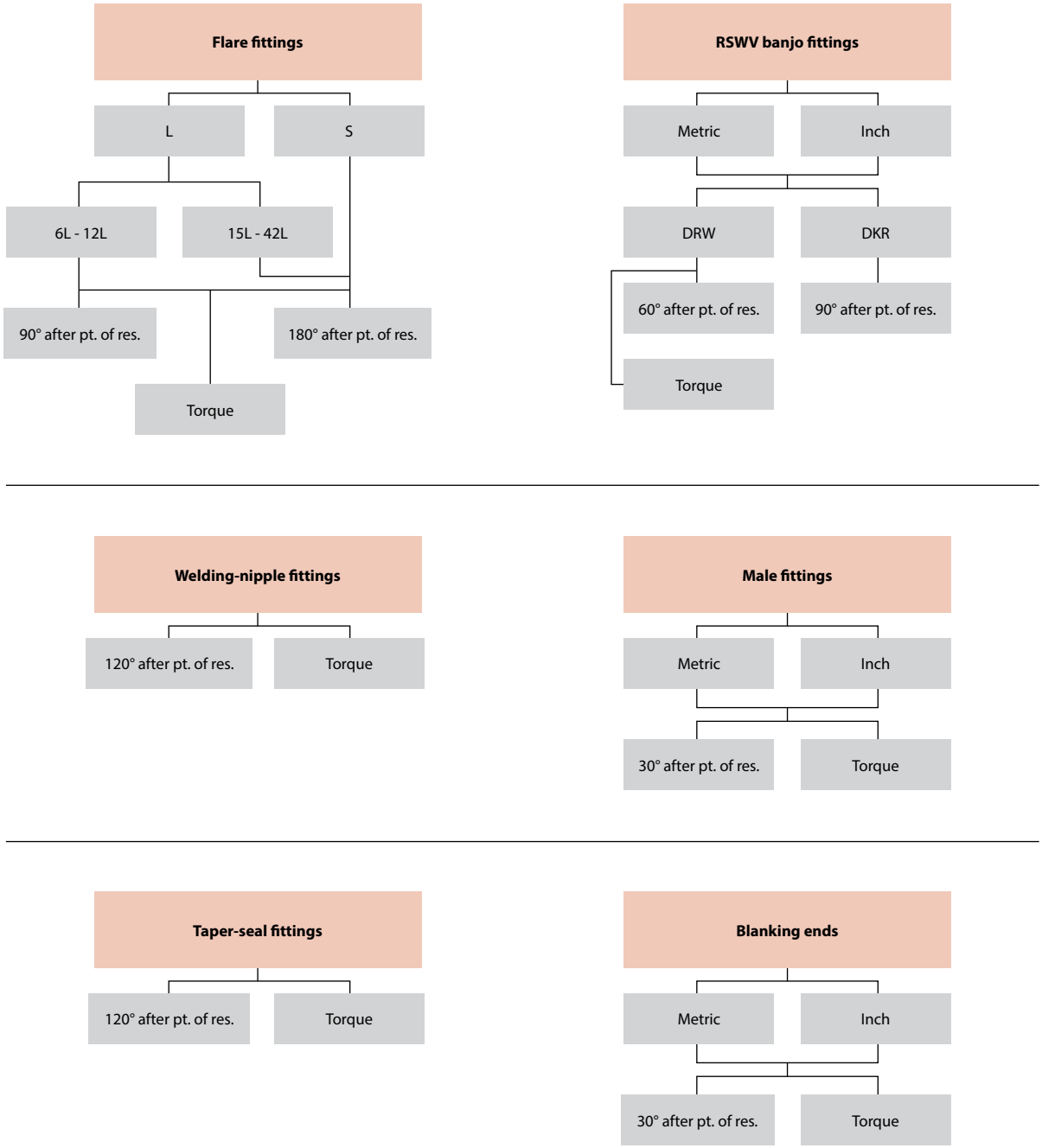
Assembly types C3
Safety instructions C5
Assembly instructions for Danfoss Waltech Walpro C6
Assembly instructions for Danfoss Waltech WalringPlus C12
Assembly instructions for Danfoss Waltech WalformPlus C18
Assembly instructions for Danfoss Waltech WalformPlus-SR C23
Assembly instructions for Danfoss Waltech WalformPlus-M C27
Assembly instructions for 37° flare tube fittings C31
Assembly instructions for welding-nipple fittings to DIN 3865 ..... C37
Assembly instructions for taper-seal fittings C39
Assembly instructions for standpipe fittings C40
Assembly instructions for adjustable fittings C41
Tightening torques for steel studs to DIN 3852 ..... C42
Instructions for tube bending C43
Installation guidelines for tube assemblies C49

C

In the case of cutting-ring fittings, the cut must always be checked (a clearly visible raised collar should form in front of the first cutting edge).



after press. pt. = after pressure point
after pt. of res. = after point of resistance
after man. tight. = after manual tightening



after pt. of res. = rotation after point of resistance

after press. pt. = rotation after pressure point

Safety instructions

To ensure a permanent, secure and leakage-free connection, the following safety instructions must be observed.

C

General safety instructions

1 Danfoss tube fittings are designed for fluid applications.

2 The permissible pressure and temperature ranges and other operating conditions must be observed.

3 Materials or tolerances that deviate from the recommended tube specifications may result in incorrect installation or total failure of the fitting.

4 Only fittings that have been correctly installed are able to sustain continuous pressure and vibration loads. Incorrect installation may result in leakage or failure.

5 Fittings that are under pressure must never be bled, loosened or retightened. There is a danger to life.

6 Tubes may only be attached at suitable fixed points and not to one another. Cable ties or steel clamps are not suitable for this purpose. Tubes may not be used as supports for filters, fans, valve blocks, etc.

7 Vibrations must be absorbed by means of suitable tube supports. Systems that vibrate independently of one another must be isolated by means of hoses. Otherwise, tube breaks may occur.

8 If tube assemblies are dismantled, transported and re-assembled, care must be taken to protect the fittings against dirt. Threads and seals must not be damaged, and the tubes must not be bent. Care must be taken to prevent the seals from being lost or damaged, for example by means of suitable protective caps.

9 Disassembled fittings must be checked for dimensional accuracy and damage and replaced if necessary.

10 Hand-held cut-off saws or other inappropriate tools must not be used for cutting tubes.

11 Dirt and chips may lead to system malfunctions or leakage.

12 Flow velocities > 8m/s will exert excessive forces on bent tube assemblies and can cause damage. Such velocities should therefore be avoided.

13 The relevant guidelines (BG, TÜV, DIN etc.) must always be followed.

14 Only weld fittings are made of weldable material.

15 Tube fittings must not be handled like bulk material.

16 The prescribed tools and machines must be used to reshape the flare fittings and the Walform tube fittings. These must be suitable for the respective materials and dimensions! Failure to do so may damage the machines, cause tools or tubes to break or lead to leakage.

17 The control diameters of flare and Walform fittings must be true to size and the sealing surfaces must be in perfect condition

18 On all fittings with elastomer seals, the elastomer seals must be checked for damage before use.

Safe assembly

1 When installing Walpro / Walpro-X / WalringPlus fittings, the face end of the tube must always be in contact with the tool, or the tube stop of the fitting stud. Otherwise, the ring will not cut properly into the tube, which may cause the tube to slip out unexpectedly if exposed to stress.

2 The final assembly of pre-assembled Walpro / Walpro-X / WalringPlus fittings must be carried out according to the instructions.

3 After each time the fitting is disassembled, the union nut must be retightened with the same amount of force as during initial assembly. Incorrect assembly may significantly reduce the pressure strength and vibration resistance of the fitting or lead to total failure.

4 Once assembled, tube connections and fitting bodies form a single unit. Fitting bodies should only be used for pre-assembly once.

5  During assembly, the tube assemblies must not be subjected to any stress. The union nut must always be easy to turn. Otherwise, leakage or tube breaks may occur.

6 The tools, equipment and lubricants recommended by Danfoss ensure safe assembly. Before using other manufacturers' products, their suitability must first be checked.

7 The specified torque values are only valid under the conditions stated in the assembly instructions. If parts have been damaged or the tubes are subjected to stress during installation, the torque values may vary considerably.

8 The threads and possible contact surfaces of stainless-steel fittings must be sufficiently lubricated using Danfoss ABF grease (anti-block grease). Failure to do so will normally increase the amount of tightening force required, which may cause leakage or even sudden failure.

9 Stainless steel cutting rings must be pre-assembled using hardened pre-assembly tools. Failure to do so may cause sudden failure.

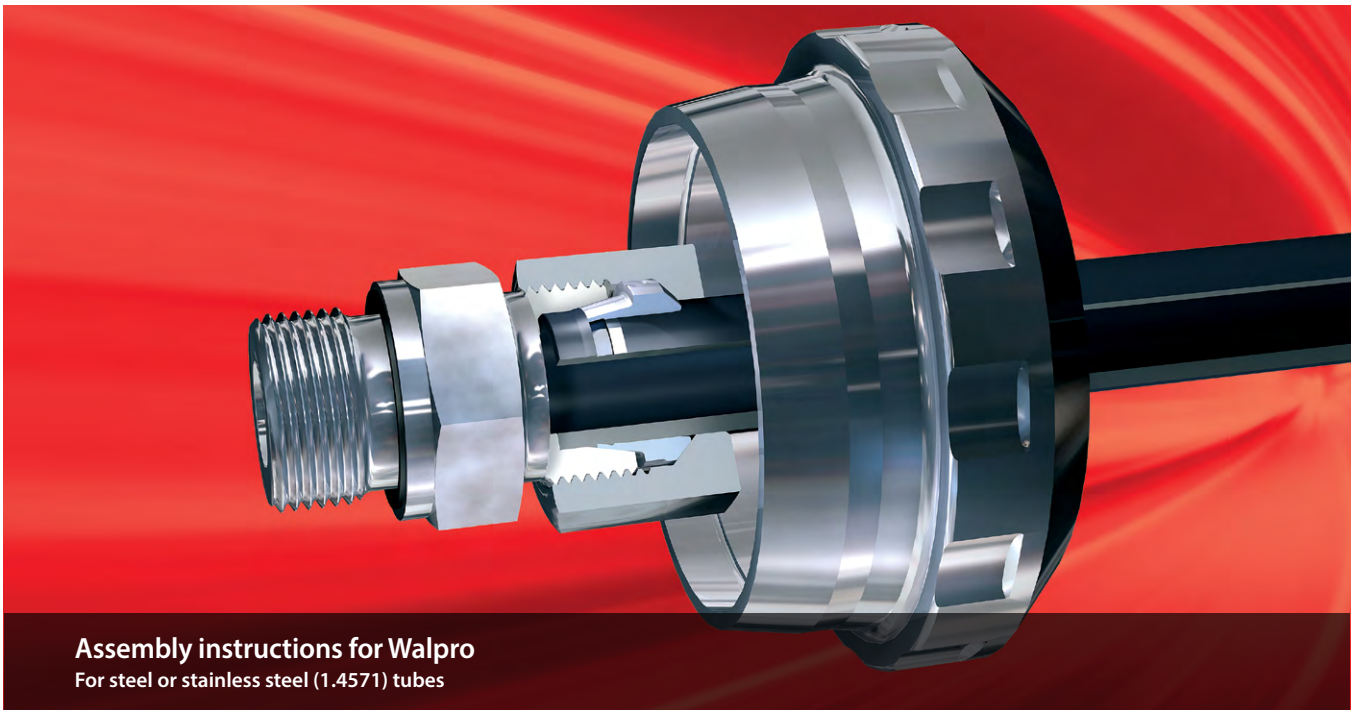
10 If pre-assembly tools are used to pre-assemble the Walpro / Walpro-X / WalringPlus fittings, the appropriate Danfoss original tools must be used.

11 The respective operating instructions of the assembly/ reshaping machines or hand-held tools must be observed.

△ **Caution:** Tools are subject to mechanical wear. Tools have to be checked visually regarding wear characteristics regularly especially before using. Worn tools have to be replaced.

12 The assembly rotation angles after hand tightening provided are only an indication for finding the assembly stop during direct assembly inside the fitting stud. Those must not be used as assembly requirements.

If you are in any doubt, please contact appropriate representative.



Assembly instructions for Walpro

For steel or stainless steel (1.4571) tubes

Tube selection

The pressure strength specifications refer to the following tube grades:

Steel

Material: E235 / E355, to EN 10305-4 (formerly St. 37.4 / 52.4 to DIN 1630). Type: Seamless cold-drawn, normalized bright annealed steel, designation NBK as per DIN EN 10305-4.

Stainless steel

Material: X6CrNiMoti17122 (1.4571) to DIN EN 102165 Type: Seamless cold-drawn, scale-free, heat-treated stainless steel, designation CFA as per DIN EN 10216-5 (formerly DIN 17458). Dimensions and tolerances to DIN EN 10305-4 (formerly DIN 2391-1). Additional stainless steel grades are available on request.

Calculated pressures: DIN 2413

Caution: Materials or tolerances that deviate from the recommended tube specifications may result in incorrect installation, tool break or total failure of the fitting.

Caution: The specified nominal pressure ratings always refer to the fitting. For tube pressure ratings, see the specifications of the respective manufacturers.

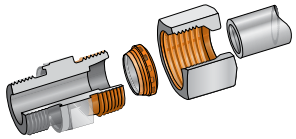
Note: In order to ensure the proper functioning of the assembly process, Walpro fittings (steel) should always be pre-assembled using an oiled pre-assembly stud, and Walpro-X fittings (stainless steel 1.4571) should always be pre-assembled using a pre-assembly stud lubricated with Danfoss Waltech ABF grease (anti-block grease). Direct assembly is only possible in the case of Walpro steel fittings.

Controlled final assembly can only be carried out using original Danfoss Waltech parts. Assembly can only be carried out with final assembly studs marked "GE".

Caution: Tools are subject to mechanical wear. Tools have to be checked visually regarding wear characteristics regularly especially before using. Worn tools have to be replaced.

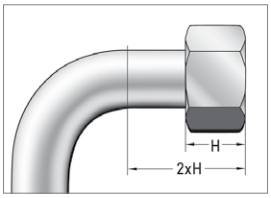
Danfoss Waltech ABF grease (anti-block grease) Stainless steel (1.4571)

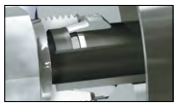
Application: Prior to assembly, the fittings must be thoroughly cleaned and the threads in particular checked for damage. All contact surfaces must be sufficiently coated with Danfoss Waltech ABF grease (anti-block grease) using a brush or a lint-free cloth. After greasing, the fittings must be immediately assembled to prevent contamination. For best results, use Danfoss Waltech stainless steel nuts with silver-plated threads (AG/AGP) plus Danfoss Waltech ABF grease (anti-block grease).



Minimum length of straight tube ends in the case of tube bends

In the case of tube bends, the straight tube end up to the beginning of the bending radius must be at least twice the height of the union nut (depending on the machine type).

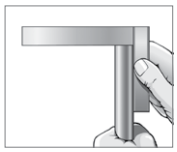




Direct assembly

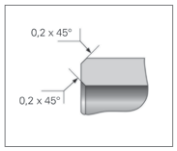
inside the fitting stud (only for the Walpro steel version)

C



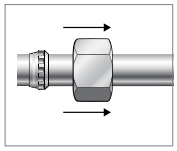
1. Cut the tube at a right angle

   Cut off the tube at least 10 mm from the manufacturer's cut-off (this is a common source of error due to delivery conditions). Cut the tube at a right angle; an angular deviation of 1/2° from the tube axis is permissible. Do not use pipe cutters or cut-off saws, as these will result in pronounced burring or diagonal cuts. Use a sawing machine or similar equipment.

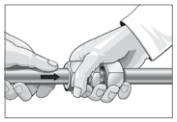


2. Gently deburr the tube ends and clean the tube

   Deburr the inside and outside of the tube (max. 0.2 x 45°) and clean it. The part of the tube where the fitting will be assembled (at least twice the height of the union nut) must be free of chips, dirt and paint! If the tube end is greasy or oily, use an environmentally friendly solvent.



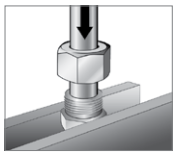
3. Slide the union nut and the profile ring onto the tube

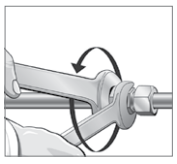


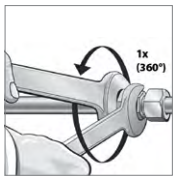
4. Pretightening

   Press the tube against the tube stop inside the fitting stud. Tighten the union nut until the profile ring engages the tube, which can be clearly detected by the increase in torque (pressure point).

   ⚠ **Caution:** In case of unfavorable assembly conditions and with large tube sizes, direct assembly must be carried out using a vice. Use the same fitting stud (see above) for this purpose.





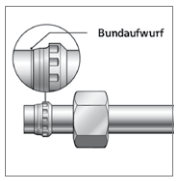


5. Direct assembly

   Next, complete the direct assembly by means of 1 full rotation (360°)

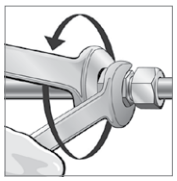
   Important: Hold the fitting stud in place by means of a wrench.

   ⚠ **Caution:** Any deviation from the specified tightening rotation will reduce the nominal pressure rating and the service life of the fitting. This may cause the fitting to leak or the tube to slip out.



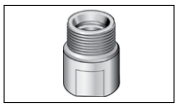
6. Assembly verification

   Check the penetration of the cutting edge. A visibly raised collar should fill the space in front of the profile-ring end face. The profile ring may rotate, but it should not be possible to move it axially.



7. Re-assembly

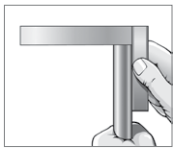
   After each time the fitting is disassembled, the union nut must be retightened (same torque as during final assembly).



Rotation-based pre-assembly

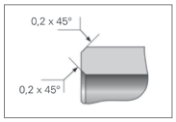
using the manual pre-assembly stud

C



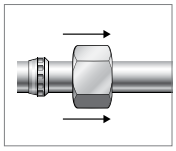
1. Cut the tube at a right angle

Cut off the tube at least 10 mm from the manufacturer's cut-off (this is a common source of error due to delivery conditions).Cut the tube at a right angle; an angular deviation of 1/2° from the tube axis is permissible. Do not use pipe cutters or cut-off saws, as these will result in pronounced burring or diagonal cuts. Use a sawing machine or similar equipment.



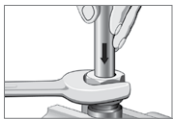
2. Gently deburr the tube ends and clean the tube

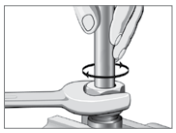
Deburr the inside and outside of the tube (max. 0.2 x 45°) and clean it. The part of the tube where the fitting will be assembled (at least twice the height of the union nut) must be free of chips, dirt and paint! If the tube end is greasy or oily, use an environmentally friendly solvent.



3. Slide the union nut and the profile ring onto the tube

Important: In the case of stainless steel (1.4571) fittings, please refer to the instructions for using Danfoss Waltech ABF grease (anti-block grease).

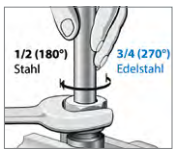




4. Pretightening

Use a vice to secure the manual pre-assembly stud in place. Press the tube against the tube stop inside the manual pre-assembly stud. Tighten the union nut until the profile ring has engaged the tube, which can be clearly detected by the increase in torque (pressure point).

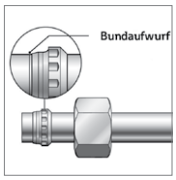
Caution: Tools are subject to mechanical wear. Tools have to be checked visually regarding wear characteristics regularly especially before using. Worn tools have to be replaced.



5. Pre-assembly

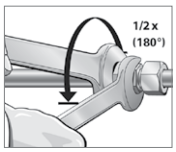
After reaching the pressure point, tighten the union nut by 1/2 a rotation (180°) in the case of steel and a 3/4 rotation (270°) in the case of stainless steel (1.4571) fittings.

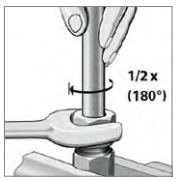
Caution: Any deviation from the specified tightening rotation will reduce the nominal pressure rating and the service life of the fitting. This may cause the fitting to leak or the tube to slip out.



6. Assembly verification

Check the penetration of the cutting edge. A visibly raised collar should fill the space in front of the profile-ring cutting edge. The profile ring may rotate, but it should not be possible to move it axially.





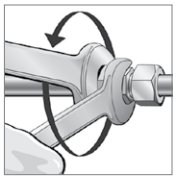
7. Final assembly inside the fitting stud

Tighten the union nut until there is a noticeable increase in the required force (point of resistance), then complete the assembly process by means of 1/2 a rotation (180°).

Caution: Any deviation from the specified tightening rotation will reduce the nominal pressure r ating and the service life of the fitting. This may cause the fitting to leak.

Important: Hold the fitting stud in place by means of a wrench.

Note: In case of unfavorable assembly conditions and with large tube sizes, final assembly must be carried out using a vice. Use the same fitting stud (see above) for this purpose.



8. Re-assembly

After each time the fitting is disassembled, the union nut must be retightened (same torque as during final assembly).

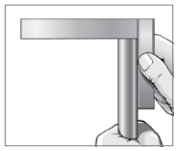
Important: In the case of stainless steel (1.4571) fittings, please refer to the instructions for using Danfoss Waltech ABF grease (anti-block grease).



Controlled final assembly using

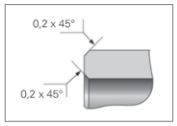
the Danfoss Waltech M-R7 assembly machine (please also see the operating instructions for the M-R7 assembly machine).

C



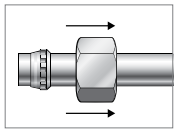
1. Cut the tube at a right angle

   Cut off the tube at least 10 mm from the manufacturer's cut-off (this is a common source of error due to delivery conditions). Cut the tube at a right angle; an angular deviation of 1/2° from the tube axis is permissible. Do not use pipe cutters or cut-off saws, as these will result in pronounced burring or diagonal cuts. Use a sawing machine or similar equipment.



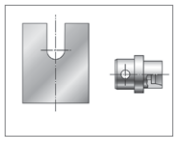
2. Gently deburr the tube ends and clean the tube

   Deburr the inside and outside of the tube (max. 0.2 x 45°) and clean it. The part of the tube where the fitting will be assembled (at least twice the height of the union nut) must be free of chips, dirt and paint! If the tube end is greasy or oily, use an environmentally friendly solvent.



3. Slide the union nut and the profile ring onto the tube

   Important: In the case of stainless steel (1.4571) fittings, please refer to the instructions for using Danfoss Waltech ABF grease (anti-block grease).



4. Place the tools inside the machine

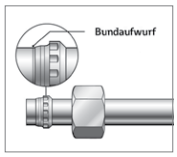
   Switch on the assembly machine and insert the backing plate and the GE stud. Only use Danfoss Waltech studs marked "GE".

   Caution: Tools are subject to mechanical wear. Tools have to be checked visually regarding wear characteristics regularly especially before using. Worn tools have to be replaced.



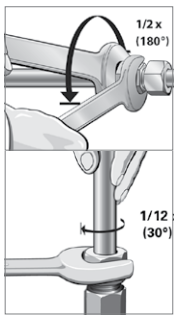
5. Insert the tube into the machine, together with the union nut and the profile ring

   Push the union nut and profile ring onto the tube and start the assembly process. To do so, press the tube against the cylinder until the mechanical stop is reached and hold it in place until the assembly process is complete. The assembly process will be completed automatically.



6. Assembly verification

   Check the penetration of the cutting edge. A visibly raised collar should fill the space in front of the profile-ring cutting edge. The profile ring may rotate, but it should not be possible to move it axially.



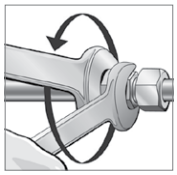
7. Final assembly inside the fitting stud

   Tighten the union nut until there is a noticeable increase in the required force (point of resistance), then complete the assembly process by means of a 1/12 rotation (30°). Alternatively, torque-based assembly is also possible, by tightening the union nut using a torque wrench (see the "tightening torque" table).

   Caution: Any deviation from the specified tightening rotation will reduce the nominal pressure rating and the service life of the fitting. This may cause the fitting to leak.

   Important: Hold the fitting stud in place by means of a wrench.

   Note: In case of unfavorable assembly conditions and with large tube sizes, final assembly must be carried out using a vice. Use the same fitting stud (see above) for this purpose.



8. Re-assembly

   After each time the fitting is disassembled, the union nut must be retightened (same torque as during final assembly).
   Important: In the case of stainless steel (1.4571) fittings, please refer to the instructions for using Danfoss Waltech ABF grease (anti-block grease).

Note: If the pre-assembly and the controlled final assembly are carried out using older machine models (MEG-R4/5/6), the relevant Danfoss Waltech assembly instructions must be observed.

The use and assembly of tube inserts with profile-ring fittings

Tube inserts are generally required when using plastic tubes. As a rule, this also applies to tubes made of non-ferrous metals such as copper, brass and aluminum. Tube inserts are also recommended if thin-walled steel tubes are used, as is usually the case with low pressures.

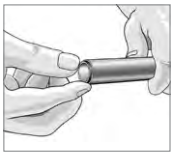
The material strength, wall thickness and thus the resistance of tin-walled tubes is often insufficient to withstand the radial forces exerted by the rings during assembly. This may cause the tubes to constrict and the fittings to leak.



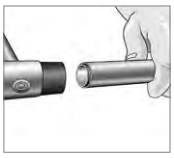
1. Tube inserts for safe assembly of plastic, non-ferrous metal and thin-walled steel tubes.



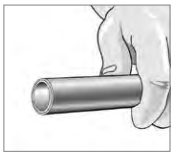
2. Cut off the tube at a right angle (do not use a pipe cutter). Gently deburr the tube ends on the inside and outside (do not chamfer!) and then clean them.



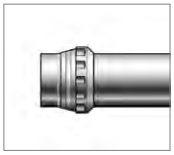
3. Push the tube insert into the tube (up to the knurled edge).



4. Use a plastic or hard rubber hammer to fully drive in the insert. The knurled edge will then be pressed into the inner wall of the tube and thereby prevents the insert from shifting or falling out.



5. The insert must be flush with the tube end.



6. If tube inserts are used, the tube must not be constricted after assembly. Continue the assembly process in line with the assembly instructions for profile-ring fittings.

Tube outer diameter (mm)	Wall thickness (mm)		
	1	1.5	2
12	●		
18	O	●	
22	O	O	●
25	O	O	●
28	O	O	●
35	O	O	●

● Tube inserts are recommended

O These sizes require functional testing. Please consult us for more information.

The use of tube inserts is recommended for thin-walled tube assemblies that are subject to severe stress.

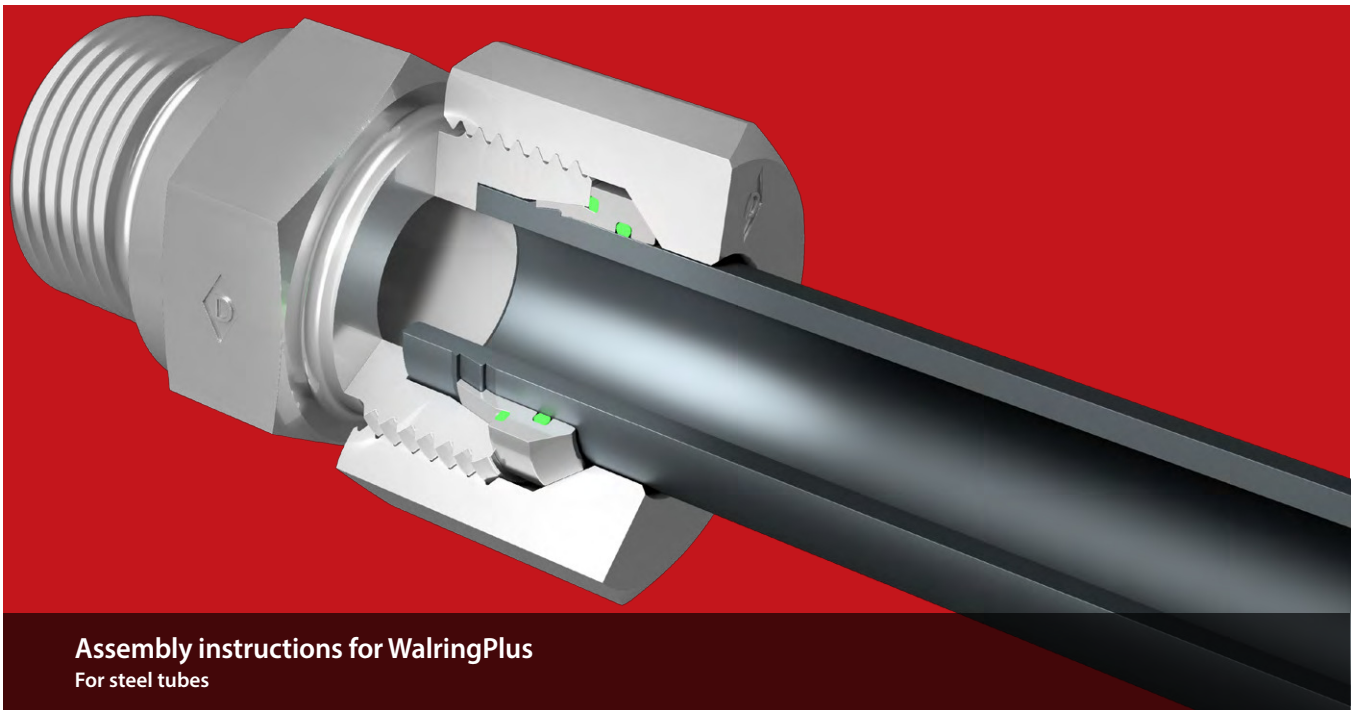
For steel (E235 / E355) or stainless steel (1.4571) tubes.

C

Tightening torque after controlled final assembly

Series	Tube outer diameter (mm)	Walpro steel (Nm)	Tube wall thickness (mm)	Walpro-X stainless steel (1.4571) (Nm)
L	6	25	6x1	35
	8	40	8x1	50
	10	50	10x1	60
	12	70	12x1,5	90
	15	90	15x1,5	160
	18	115	18,1,5	200
	22	210	22x2	240
	28	310	28x2	420
	35	500	35x3	560
	42	600	42x3	700
S	6	35	6x2	50
	8	55	8x1,5	70
	10	70	10x1,5	110
	12	85	12x1,5	120
	14	110	14x2	200
	16	120	16x1,5	200
	20	200	20x2	300
	25	340	25x2,5	440
	30	480	30x3	660
	38	850	38x4	900

△**Caution:** The specified torque values are only valid under the conditions stated in the assembly instructions. If parts have been damaged or the tubes have been subjected to stress during installation, the torque values may vary considerably.



Assembly instructions for WalringPlus

For steel tubes

Tube selection

The pressure strength specifications refer to the following tube grades:

Steel

Material: E235 / E355, to EN 10305-4 (formerly St. 37.4 / 52.4 to DIN 1630). Type: Seamless cold-drawn, normalized bright annealed steel, designation NBK as per DIN EN 10305-4.

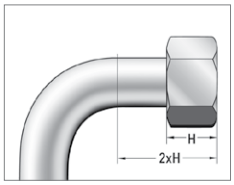
Calculated pressures: DIN 2413

△ **Caution:** Materials or tolerances that deviate from the recommended tube specifications may result in tool break, incorrect installation or total failure of the fitting.

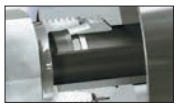
△ **Caution:** The specified nominal pressure ratings always refer to the fitting. For tube pressure ratings, see the specifications of the respective manufacturers.

Mechanical pre-assembly can only be carried out with original Danfoss parts. In principle, we recommend assembly using Danfoss pre-assembly machines.

Minimum length of straight tube ends in the case of tube bends



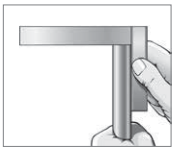
In the case of tube bends, the straight tube end up to the beginning of the bending radius must be at least twice the height of the union nut (depending on the machine type).



Direct assembly

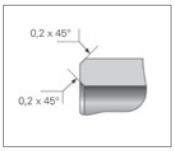
inside the fitting stud up to assembly stop

C



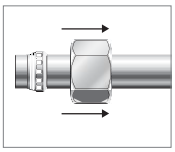
1. Cut the tube at a right angle

   Cut off the tube at least 10 mm from the manufacturer's cut-off (this is a common source of error due to delivery conditions). Cut the tube at a right angle; an angular deviation of 1/2° from the tube axis is permissible. Do not use pipe cutters or cut-off saws, as these will result in pronounced burring or diagonal cuts. Use a sawing machine or similar equipment.



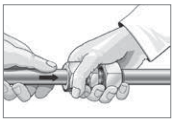
2. Gently deburr the tube ends and clean the tube

   Deburr the inside and outside of the tube (max . 0 .2 x 45°) and clean it. The part of the tube where the fitting will be assembled (at least twice the height of the union nut) must be free of chips, dirt and paint! If the tube end is greasy or oily, use an environmentally friendly solvent.



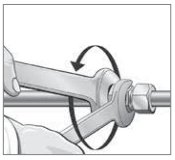
3. Slide the system nut and the WalringPlus cutting ring onto the tube

   Important: The slimmer area with the cutting edges must point towards the end of the pipe.



4. Pretightening

   Press the tube against the tube stop inside the fitting stud. Tighten the union nut by hand.



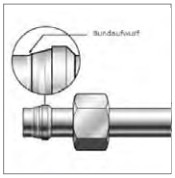
5. Direct assembly

   Tighten the union nut with a suitable torque wrench until the assembly stop is in effect.

   Important: A first increase in torque signals the beginning of the cutting process and is not to be regarded as the end of assembly. A further second increase in torque signals the end of assembly. Depending on the dimensions, this occurs after approx. 200° - 390°.

   Important: The tube must be firmly attached to the fitting on the tube end!

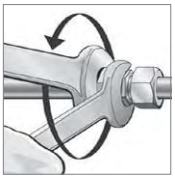
   △**Caution:** Any deviation from the specified tightening rotation will reduce the nominal pressure rating and the service life of the fitting. This may cause the fitting to leak or the tube to slip out.



6. Assembly verification

   Disassemble the tube fitting connection and check whether the gap between the cutting ring and the stud is closed. In addition, check the penetration of the cutting edge. A visibly raised collar should fill the space in front of the WalringPlus cutting ring. In addition, check the outer soft seal for damage.

   Important: Tube connections with insufficient raised collar must not be used.



7. Re-assembly

   After each time the fitting is disassembled, the union nut must be retightened, so that the same torque will be applied as during first assembly. Alternatively, the connection can be tightened with 30° after the assembly stop has been in effect (same torque as with initial assembly).

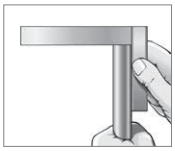
   △**Caution:** Any deviation from the specified tightening rotation will reduce the nominal pressure rating and the service life of the fitting.

   Important: Hold the fitting stud in place by means of a wrench.



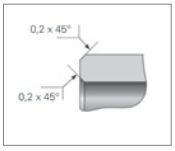
Torque based direct assembly

inside the fitting stud



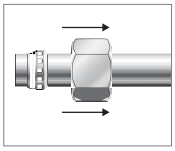
1. Cut the tube at a right angle

   Cut off the tube at least 10 mm from the manufacturer's cut-off (this is a common source of error due to delivery conditions). Cut the tube at a right angle; an angular deviation of 1/2° from the tube axis is permissible. Do not use pipe cutters or cut-off saws, as these will result in pronounced burring or diagonal cuts. Use a sawing machine or similar equipment.



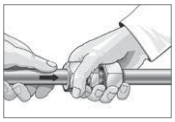
2. Gently deburr the tube ends and clean the tube

   Deburr the inside and outside of the tube (max . 0 .2 x 45°) and clean it. The part of the tube where the fitting will be assembled (at least twice the height of the union nut) must be free of chips, dirt and paint! If the tube end is greasy or oily, use an environmentally friendly solvent.



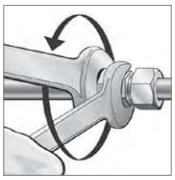
3. Slide the system nut and the WalringPlus cutting ring onto the tube

   Important: The slimmer area with the cutting edges must point towards the end of the pipe.



4. Pretightening

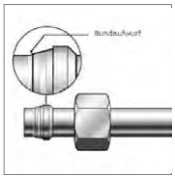
   Press the tube against the tube stop inside the fitting stud. Tighten the union nut by hand.



5. Direct assembly

   Tighten the union nut with a suitable torque wrench with the torque according to the torque table.

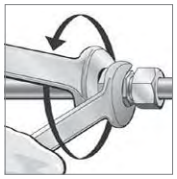
   Important: The tube must be firmly attached to the fitting on the tube end!



6. Assembly verification

   Dismantle the tube fitting connection and check whether the gap between the cutting ring and the stud is closed. In addition, check the penetration of the cutting edge. A visibly raised collar should fill the space in front of the WalringPlus cutting ring. In addition, check the outer soft seal for damage.

   Important: Tube connections with insufficient raised collar must not be used.



7. Re-assembly

   After each time the fitting is disassembled, the union nut must be retightened, so that the same torque will be applied as during first assembly. Alternatively, the connection can be tightened with 30° after the assembly stop has been in effect (same torque as with initial assembly).

   △ **Caution:** Any deviation from the specified tightening rotation will reduce the nominal pressure rating and the service life of the fitting.

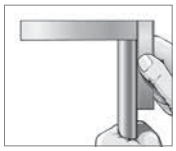
   Important: Hold the fitting stud in place by means of a wrench.



Controlled final assembly using

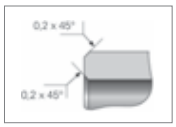
the Danfoss M-R7 assembly machine (please also see the operating instructions for the M-R7 assembly machine).

C



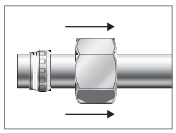
1. Cut the tube at a right angle

   Cut off the tube at least 10 mm from the manufacturer's cut-off (this is a common source of error due to delivery conditions) . Cut the tube at a right angle; an angular deviation of 1/2° from the tube axis is permissible. Do not use pipe cutters or cut-off saws, as these will result in pronounced burring or diagonal cuts. Use a sewing machine or similar equipment.



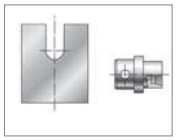
2. Gently deburr the tube ends and clean the tube

   Deburr the inside and outside of the tube (max. 0 .2 x 45°) and clean it. The part of the tube where the fitting will be assembled (at least twice the height of the union nut) must be free of chips, dirt and paint! If the tube end is greasy or oily, use an environmentally friendly solvent.



3. Slide the system nut and the profile ring onto the tube

   Important: The slimmer area with the cutting edges must point towards the end of the pipe.



4. Place the tools inside the machine

   Switch on the assembly machine and insert the backing plate and the WalringPlus stud.

   Important: Only use Danfoss WalringPlus studs marked accordingly.

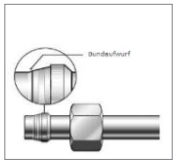
   Caution: Tools are subject to mechanical wear. Tools have to be checked visually regarding wear characteristics regularly especially before using. Worn tools have to be replaced.



5. Insert the tube into the machine, together with the union nut and the profile ring

   Push the union nut and profile ring onto the tube and start the assembly process. To do so, press the tube against the cylinder until the mechanical stop is reached and hold it in place until the assembly process is complete. The assembly process will be completed automatically.

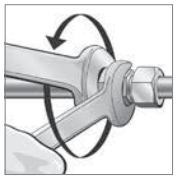
   Important: The tube must be firmly attached to the WalringPlus assembly stud.



6. Assembly verification

   Check the penetration of the cutting edge. A visibly raised collar should fill the space in front of the WalringPlus cutting ring. In addition, check the outer soft seal for damage.

   Important: Tube connections with insufficient raised collar must not be used.



7. Final assembly inside the fitting stud / Re-assembly

   Tighten the union nut with a suitable torque wrench with the torque according to the torque table. Alternatively, the connection can be tightened with 30° to 60° after an initial significant torque increase until the assembly limit takes effect. (same torque as in torque table)

   Caution: Any deviation from the specified tightening rotation will reduce the nominal pressure rating and the service life of the fitting. This may cause the fitting to leak.

   Important: Hold the fitting stud in place by means of a wrench.

Note: When using assembly machines, it is mandatory to use the corresponding WalringPlus tools and to perform an update for machines with a delivery date before December 2022. If required, please reach out to your Danfoss contact.

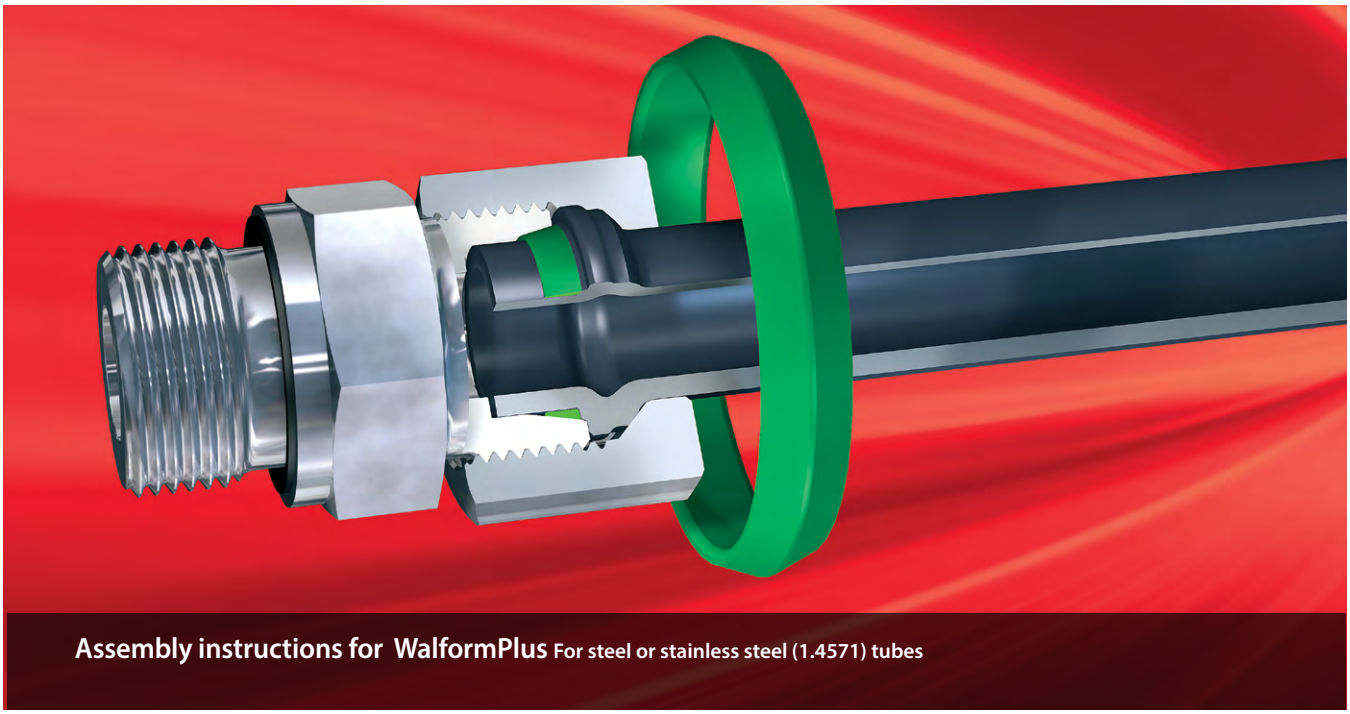
Assembly Guidelines:

Attention: The specified torque values are only valid under the conditions stated in the assembly instructions. If parts have been damaged or the tubes have been subjected to stress during installation, the torque values may vary considerably.

Series	Ø Tube- OD (mm)	WalringPlus assembly torque Tube material E235 (Nm)	WalringPlus assembly torque Tube material E355 (Nm)	WalringPlus Minimum tube thickness (mm)	WalringPlus Assembly angle after hand tightening [1] (°)
L	6	25*	29*	1,0*	300*
		25	29	1,5	300
	8	35*	35*	1,0*	300*
		42	44	1,5	300
	10	45*	50*	1,0*	300*
		50	55	1,5	300
	12	55*	60*	1,0*	300*
		60	70	1,5	300
	15	95	120	1,5	300
	18	175	185	1,5	330
	22	200	220	1,5	240
	28	310	320	2,0	270
	35	500	530	2,0	330
	42	770	800	2,0	390
S	6	35	37	1,5	300
	8	50	55	1,5	300
	10	60	65	1,5	300
	12	75	85	1,5	300
	16	170	180	1,5	330
	20	240	255	2,0	270
	25	320	330	2,0	270
	30	500	530	2,0	330
	38	940	980	2,5	430

[1] **Attention:** The assembly rotation angles after hand tightening provided are only an indication for finding the assembly stop during direct assembly inside the fitting stud. Those must not be used as assembly requirements.

* Important: When using thin-walled tubes, the following assembly torques must be considered.



Assembly instructions for WalformPlus For steel or stainless steel (1.4571) tubes

Tube selection

The pressure strength specifications refer to the following tube grades:

Steel

Material: E235 / E355, to EN 10305-4 (formerly St. 37.4 / 52.4 to DIN 1630). Type: Seamless cold-drawn, normalized bright annealed steel, designation NBK as per DIN EN 10305-4.

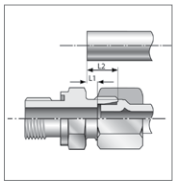
Stainless steel

Material: X6CrNiMoTi 17-12-2 (1.4571) to DIN EN 10216-5 Type: Seamless cold-drawn, scale-free, heat-treated stainless steel, designation CFA as per DIN EN 10216-5 (formerly DIN 17458). Dimensions and tolerances to DIN EN 10305-4 (formerly DIN 2391-1). Additional stainless steel grades are available on request.

Calculated pressures: DIN 2413

Caution: Materials or tolerances that deviate from the recommended tube specifications may result in incorrect installation, tool break or total failure of the fitting.

Caution: The specified nominal pressure ratings always refer to the fitting. For tube pressure ratings, see the specifications of the respective manufacturers.

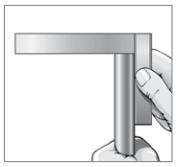


1. Determine the tube length

a) By measuring the distance between the tube stops of two studs.
The length L1 must be added to the measured length of each tube connection
(see the "tube length determination" table).

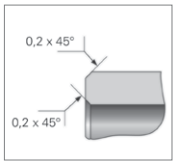
b) By measuring the distance between the face ends of two studs.
The length L2 must be added to the measured length of each tube connection
(see the "tube length determination" table).

⚠ **Caution:** Steel and stainless steel (1.4571) have different tube determination lengths L1 and L2 (see the "tube length determination" table).



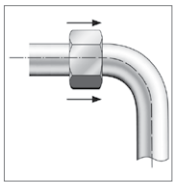
2. Cut the tube at a right angle

Cut off the tube at least 10 mm from the manufacturer's cut-off (this is a common source of error due to delivery conditions). Cut the tube at a right angle; an angular deviation of 1/2° from the tube axis is permissible. Do not use pipe cutters or cut-off saws, as these will result in pronounced burring or diagonal cuts. Use a sawing machine or similar equipment.



3. Gently deburr the tube ends and clean the tube

Deburr the inside and outside of the tube (max. 0.2 x 45°) and clean it. The clamping and reshaping area must be free of chips, dirt and paint! The clamping area should be free of grease and oil. If the tube end is greasy or oily, use an environmentally friendly solvent.



4. Slide the union nut onto the tube

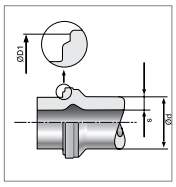
Important: In the case of stainless steel (1.4571) fittings, please refer to the instructions for using Danfoss Waltech ABF grease (anti-block grease).



5. Reshape the tube ends using an Danfoss Waltech Walform machine

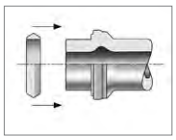
To do so, insert the tools into the machine and move them into the insertion position. Insert the tube end into the machine until the clearly detectable mechanical stop in the base of the forming tool. Hold it in place to start the reshaping process. The reshaping process takes place automatically. Follow the operating instructions of the Walform machine.

⚠ **Caution:** Make sure to select the correct tool, in line with the tube dimensions, the tube material and the selected WalformPlus system.



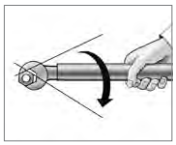
6. Verification of the reshaped tube

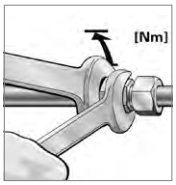
Check the diameter D1 of the reshaped tube for dimensional accuracy (see the "minimum tube lengths" table, column "D1 min ø"). The outside of the reshaped tube must be clean. Proper reshaping is a prerequisite for a long service life of the connection.



7. Install the soft seal

Pull the soft seal onto the tube until the mechanical stop is reached. Take care not to twist or damage the parts during installation. The proper functioning and safety of the fitting are only guaranteed if original Danfoss Waltech Walform soft seals are used!





8. Final assembly inside the fitting stud

Using an appropriate wrench, tighten the union nut until there is a clearly detectable increase in the required force (point of resistance). The torque values for the required increase in tightening force can be found in the corresponding table (see the "tightening torque" table).

Important: In the case of stainless steel (1.4571) fittings, please refer to the instructions for using Danfoss Waltech ABF grease (anti-block grease).

Caution: Any deviation from the specified tightening rotation will reduce the nominal pressure rating and the service life of the fitting. This may cause leakage or other malfunctions.

Important: Hold the fitting stud in place by means of a wrench.



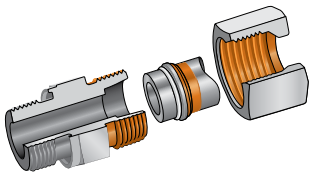
9. Re-assembly

After each time the fitting is loosened, the soft seal must be checked for damage and replaced if necessary. Afterwards, firmly retighten the union nut. The torque during re-assembly must be the same as during initial assembly!

Important: In the case of stainless steel (1.4571) fittings, please refer to the instructions for using Danfoss Waltech ABF grease (anti-block grease).

Danfoss Waltech ABF grease (anti-block grease)
Stainless steel (1.4571)

Application: Prior to assembly, the fittings must be thoroughly cleaned and the threads in particular checked for damage. All contact surfaces must be sufficiently coated with Danfoss Waltech ABF grease (anti-block grease) using a brush or a lint-free cloth. After greasing, the fittings must be immediately assembled to prevent contamination. For best results, use Danfoss Waltech stainless steel nuts with silver-plated threads (AG/AGP) plus Danfoss Waltech ABF grease (anti-block grease).



C

Tube length determination

Steel

Stainless steel (1.4571)

WalformPlus

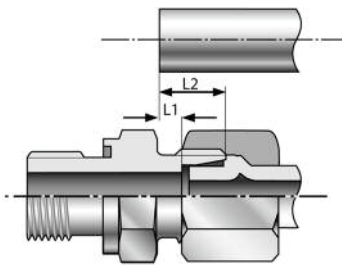
Steel L1 (mm) L2 (mm)
Stainless steel (1.4571) L1 (mm) L2 (mm)

d (mm)	s (mm) 1.5	2	2.5	3	3.5	4	5	6
6 L/S	6.5 / 13.5 6.5 / 13.5							
8 L/S	7.0 / 14.0 7.0 / 14.0	7.0 / 14.0 7.0 / 14.0	6.0 / 13.0					
10 L	7.0 / 14.0 7.5 / 14.5	6.0 / 13.0 7.0 / 14.0	6.0 / 13.0	5.5 / 12.5				
10 S	6.5 / 14.0 7.0 / 14.5	5.5 / 13.0 6.5 / 14.0	5.5 / 13.0	5.0 / 12.5				
12 L	7.0 / 14.0 7.0 / 14.0	6.5 / 13.5 6.5 / 13.5	6.0 / 13.0 6.5 / 13.5	4.5 / 11.5 6.0 / 13.0				
12 S	6.5 / 14.0 6.5 / 14.0	6.0 / 13.5 6.0 / 13.5	5.5 / 13.0 6.0 / 13.5	4.0 / 11.5 5.5 / 13.0				
15 L	6.5 / 13.5 7.5 / 14.5	6.5 / 13.5 7.0 / 14.0	6.0 / 13.0					
16 S		7.0 / 15.5 7.0 / 15.5	6.5 / 15.0 7.5 / 16.0	7.0 / 15.5 7.5 / 16.0		5.0 / 13.5		
18 L		6.5 / 14.0 7.0 / 14.5	6.5 / 14.0 7.0 / 14.5	6.5 / 13.5 6.5 / 14.0				
20 S		8.5 / 19.0 9.5 / 20.0	8.0 / 18.5 9.0 / 19.5	7.5 / 18.0 8.5 / 19.5	7.5 / 18.0	7.5 / 18.0		
22 L		7.0 / 14.5 7.5 / 15.0	7.0 / 14.5 7.0 / 14.5	6.5 / 14.0 7.0 / 14.5	6.5 / 14.0			
25 S		9.0 / 21.0 10.0 / 22.0	8.0 / 20.0 10.0 / 22.0	8.0 / 20.0 7.5 / 19.5	8.5 / 20.5	8.0 / 20.0 9.0 / 21.0	7.5 / 19.5	
28 L		6.5 / 14.0 8.0 / 15.5	6.5 / 14.0 8.0 / 15.5	6.5 / 14.0 8.0 / 15.5	7.5 / 14.5	7.5 / 14.5		
30 S			8.5 / 22.0 9.0 / 22.5	9.0 / 22.5 10.5 / 24.0		9.0 / 22.5 10.5 / 24.0	9.0 / 22.5 10.0 / 23.5	8.5 / 22.0
35 L			8.0 / 18.5	8.0 / 18.5 8.5 / 19.0		8.0 / 19.0 9.5 / 20.0	8.0 / 18.5 9.5 / 20.0	
38 S				9.5 / 25.5 11.5 / 27.5		9.5 / 25.5 11.0 / 27.0	10.0 / 26.0 11.5 / 27.0	10.0 / 26.0
42 L				8.0 / 19.0 10.0 / 21.0	8.0 / 19.0	8.5 / 19.5		

Note

Any tube length differences must be appropriately compensated, for example by installing tube bends. Tubes that are longer or shorter than the specified tube length may result in leakage. Prior to installation, short straight tube sections without length compensation between the installation ends must be checked for compliance with the final dimension and adapted, if necessary.

Tube length determination (L1, L2)



Note: A tolerance of ± 0.5 mm must be taken into consideration for dimensions L1 and L2 after reshaping!

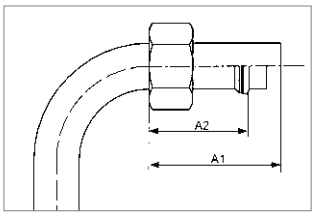
Tightening torque

Series	Tube outer diameter (mm)	Steel (Nm)	Stainless steel (1.4571) (Nm)
L	6	30	30
	8	35	35
	10	40	40
	12	55	55
	15	80	80
	18	110	120
	22	140	170
	28	210	250
	35	300	380
	42	400	520
S	6	35	35
	8	40	40
	10	55	55
	12	70	70
	16	110	110
	20	150	170
	25	210	260
	30	280	370
	38	410	590

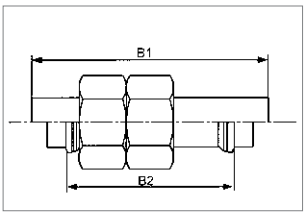
Important: The specified torques are reference values for identifying the point of resistance (completion of assembly), which are only valid under optimum conditions.

These torque values may deviate considerably due to differing tolerances, tubes that were subjected to stress during installation or improper lubrication of stainless steel parts (ABF grease). Care must be taken to prevent the occurrence of these factors when applying the torque values during initial assembly.

Minimum tube lengths for clamping straight and bent tubes



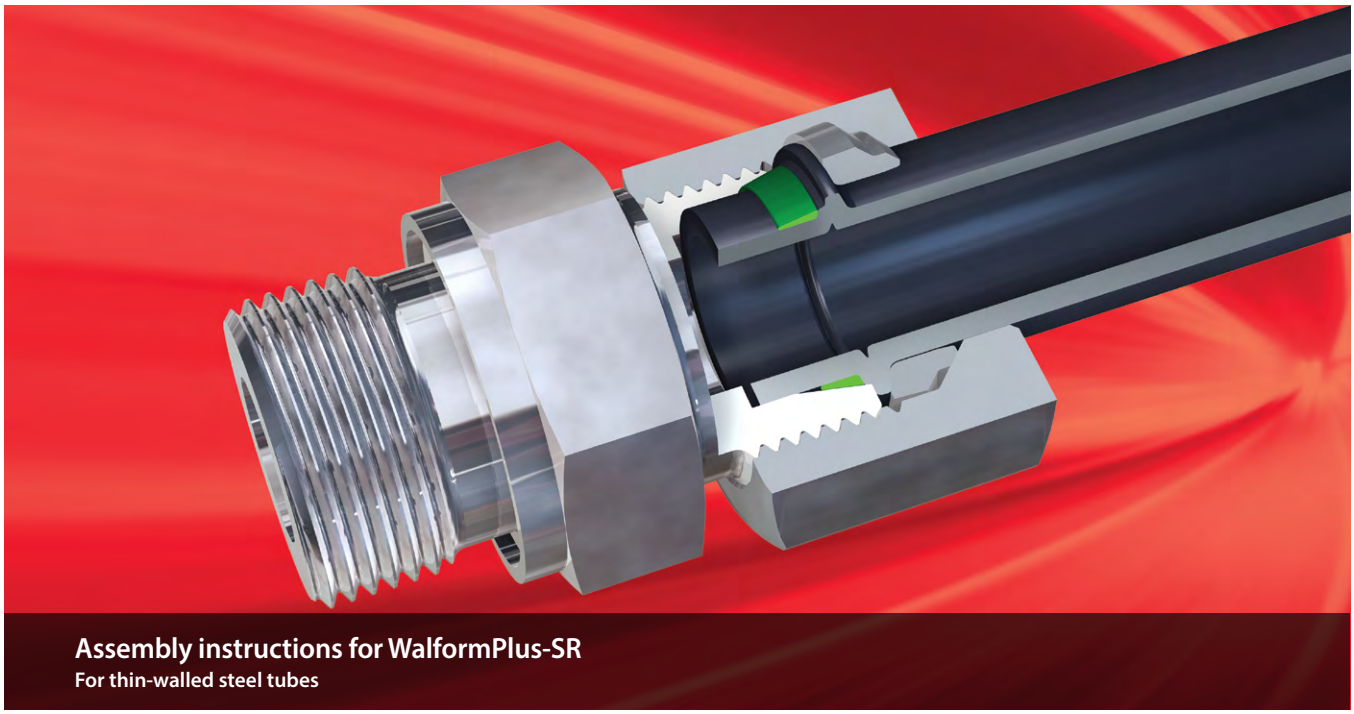
Minimum length of straight tube (A)



Length of straight tube (B)

d (mm)	A1* (mm)	A2* (mm)	B1 (mm)	B2 (mm)	D1 min Ø (mm)
6 L/S	69	56	90	64	9.2
8 L/S	66	52	88	60	11.3
10 L/S	62	48	84	57	13.6
12 L/S	62	48	85	57	15.8
15 L	69	56	90	64	18.6
16 S	73	58	99	68	19.8
18 L	79	65	102	74	21.6
20 S	85	66	115	77	24.5
22 L	87	72	112	83	25.6
25 S	114	93	148	106	29.6
28 L	103	87	129	98	31.6
30 S	121	98	157	112	34.7
35 L	112	93	144	106	39.2
38 S	127	102	169	116	42.8
42 L	114	94	146	107	46.2

*If the straight tube end needs to be shorter than indicated in the table due to installation difficulties, it must be bent after reshaping.



Assembly instructions for WalformPlus-SR

For thin-walled steel tubes

Tube selection

The pressure strength specifications refer to the following tube grades:

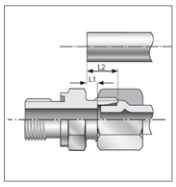
Steel

Material: E235 / E355, to EN 10305-4 (formerly St. 37.4 / 52.4 to DIN 1630). Type: Seamless cold-drawn, normalized bright annealed steel, designation NBK as per DIN EN 10305-4.

Calculated pressures: DIN 2413

Caution: Materials or tolerances that deviate from the recommended tube specifications may result in incorrect installation, tool break or total failure of the fitting.

Caution: The specified nominal pressure ratings always refer to the fitting. For tube pressure ratings, see the specifications of the respective manufacturers.



1. Tube length determination

a) By measuring the distance between the tube stops of two studs.
The length L1 must be added to the measured length of each tube connection
(see the "tube length determination" table).

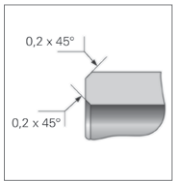
b) By measuring the distance between the face ends of two studs.
The length L2 must be added to the measured length of each tube connection
(see the "tube length determination" table).

⚠ **Caution:** Steel and stainless steel (1.4571) have different tube determination lengths L1 and L2 (see the "tube length determination" table).



2. Cut the tube at a right angle

Cut off the tube at least 10 mm from the manufacturer's cut-off (this is a common source of error due to delivery conditions). Cut the tube at a right angle; an angular deviation of 1/2° from the tube axis is permissible. Do not use pipe cutters or cut-off saws, as these will result in pronounced burring or diagonal cuts. Use a sawing machine or similar equipment.



3. Gently deburr the tube ends and clean the tube

Deburr the inside and outside of the tube (max. 0.2 x 45°) and clean it. The clamping and reshaping area must be free of chips, dirt and paint! The clamping area should be free of grease and oil. If the tube end is greasy or oily, use an environmentally friendly solvent.



4. Slide the union nut and the support ring onto the tube

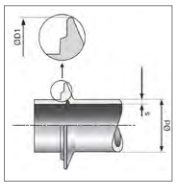
Important: Make sure that the installation direction of the support ring is correct.
Incorrect assembly may significantly reduce the pressure strength and vibration resistance of the fitting.



5. Reshape the tube ends using an Danfoss Waltech Walform machine

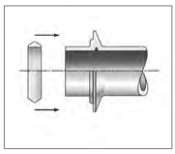
To do so, insert the tools into the machine and move them into the insertion position. Insert the tube end into the machine until the clearly detectable mechanical stop in the base of the forming tool. Hold it in place to start the reshaping process. The reshaping process takes place automatically. Follow the operating instructions of the Walform machine.

⚠ **Caution:** Make sure to select the correct tool, in line with the tube dimensions, the tube material and the selected WalformPlus system.



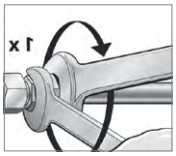
6. Verification of the reshaped tube

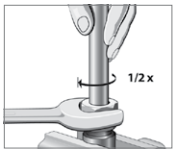
Check the diameter D1 of the reshaped tube for dimensional accuracy (see the "minimum tube lengths" table, column "D1 min ø"). The outside of the reshaped tube must be clean. Proper reshaping is a prerequisite for a long service life of the connection.



7. Install the soft seal

Pull the soft seal onto the tube until the mechanical stop is reached. Take care not to twist or damage the parts during installation. The proper functioning and safety of the fitting are only guaranteed if original Danfoss Waltech Walform soft seals are used!



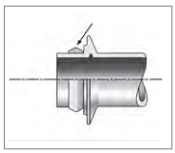


8. Final assembly inside the fitting stud

Using an appropriate wrench, tighten the union nut until there is a clearly detectable increase in the required force (point of resistance). The torque values for the required increase in tightening force can be found in the corresponding table (see the "tightening torque" table).

Caution: Any deviation from the specified tightening rotation will reduce the nominal pressure rating and the service life of the fitting. This may cause leakage or other malfunctions.

Important: Hold the fitting stud in place by means of a wrench.



9. Re-assembly

After each time the fitting is loosened, the soft seal must be checked for damage and replaced if necessary. Afterwards, firmly retighten the union nut. The torque during re-assembly must be the same as during initial assembly!

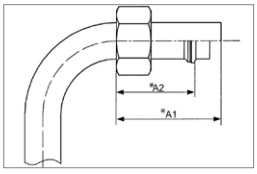
Tube length determination

WalformPlus-SR			
d	s (mm)		Steel L1 (mm) L2 (mm)
(mm)	1	1.5	2
6 L	4.0 / 11.5		
8 L	3.5 / 11.0		
10 L	3.5 / 11.0		
12 L	3.5 / 11.0		
15 L	3.5 / 11.0		
16 S		4.5 / 13.0	
18 L		4.5 / 12.0	
20 S			
22 L		4.5 / 12.0	
30 S			5.5 / 19.0
35 L			6.5 / 17.0
42 S			6.5 / 17.5

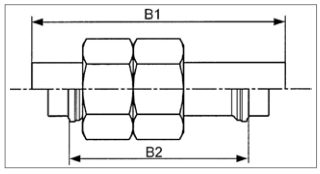
Tightening torque

Series	Tube outer diameter (mm)	WalformPlus-SR Steel (Nm)
L	6x1	25
	8x1	35
	10x1	40
	12x1	55
	15x1	80
	18x1.5	110
	22x1.5	140
	35x2	300
	42x2	400
S	16x1.5	110
	20x2	180
	30x2	280

Minimum tube lengths for clamping straight and bent tubes



Minimum length of straight tube (A)



Length of straight tube (B)

d (mm)	A1* (mm)	A2* (mm)	B1 (mm)	B2 (mm)	D1 min Ø (mm)
6 L	65	54	84	61	9.1
8 L	61	50	79	58	11.6
10 L	57	46	75	53	13.1
12 L	56	46	74	51	15.3
15 L	64	56	83	62	18.5
16 S	69	53	92	66	19.8
18 L	75	63	97	72	22.2
20 S	78	62	108	73	25.3
22 L	83	70	105	81	25.9
30 S	119	100	153	115	37.0
35 L	112	96	142	108	41.3
42 L	116	98	145	110	48.9

*If the straight tube end needs to be shorter than indicated in the table due to installation difficulties, it must be bent after reshaping.

Steel E235

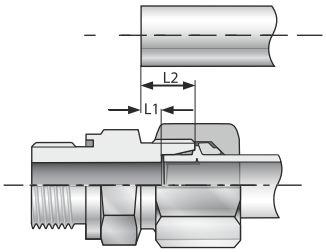
C

Note

Any tube length differences must be appropriately compensated, for example by installing tube bends. Tubes that are longer or shorter than the specified tube length may result in leakage. Prior to installation, short straight tube sections without length compensation between the installation ends must be checked for compliance with the final dimension and adapted, if necessary.

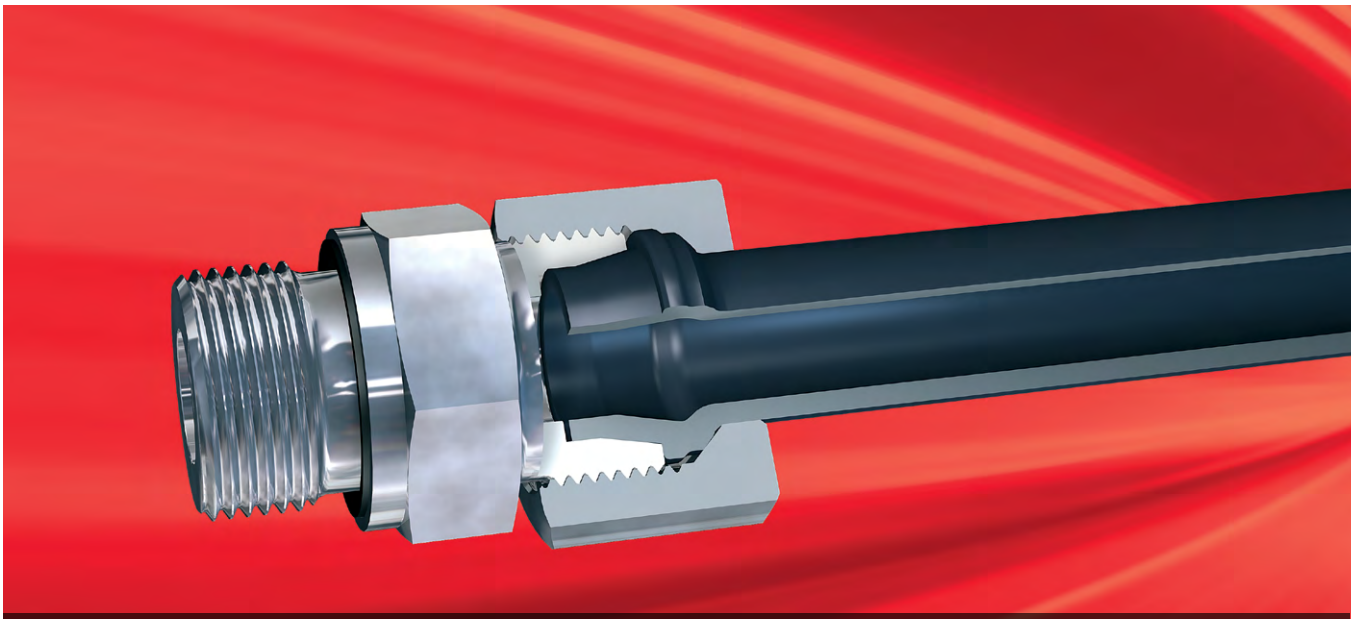
Important: The specified torques are reference values for identifying the point of resistance (completion of assembly), which are only valid under optimum conditions.

Tube length determination (L1, L2)



Note: A tolerance of ± 0.5 mm must be taken into consideration for dimensions L1 and L2 after reshaping!

C



Assembly instructions for WalformPlus-M

For steel or stainless steel (1.4571) tubes

Tube selection

The pressure strength specifications refer to the following tube grades:

Steel

Material: E235 / E355, to EN 10305-4 (formerly St. 37.4 / 52.4 to DIN 1630). Type: Seamless cold-drawn, normalized bright annealed steel, designation NBK as per DIN EN 10305-4.

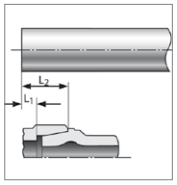
Stainless steel

Material: X6CrNiMoti17122 (1.4571) to DIN EN 10216- 5 Type: Seamless cold-drawn, scale-free, heat-treated stainless steel, designation CFA as per DIN EN 10216-5 (formerly DIN 17458). Dimensions and tolerances to DIN EN 10305-4 (formerly DIN 2391-1). Additional stainless steel grades are available on request.

Calculated pressures: DIN 2413

Caution: Materials or tolerances that deviate from the recommended tube specifications may result in tool break, incorrect installation or total failure of the fitting.

Caution: The specified nominal pressure ratings always refer to the fitting. For tube pressure ratings, see the specifications of the respective manufacturers!

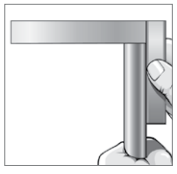


1. Tube length determination

   a) By measuring the distance between the tube stops of two studs. The length L1 must be added to the measured length of each tube connection.

   b) By measuring the distance between the face ends of two studs. The length L2 must be added to the measured length of each tube connection.

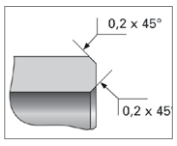
   The lengths L1 and L2 as well as minimum lengths of straight tubes and the minimum lengths of straight tube ends in the case of tube bends can be found in the operating instructions and/or the corresponding tables.



2. Cut the tube at a right angle

   Cut off the tube at least 10 mm from the manufacturer's cut-off (this is a common source of error due to delivery conditions). Cut the tube at a right angle; an angular deviation of 1/2° from the tube axis is permissible. Do not use pipe cutters or cut-off saws, as these will result in pronounced burring or diagonal cuts. Use a sawing machine or similar equipment.

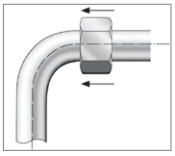
   Caution: Deviations in the tube end shape, e.g. tubes that were cut at an angle or incorrectly deburred, will reduce the service life and the tightness of the fitting.



3. Gently deburr the tube ends and clean the tube

   Deburr the inside and outside of the tube (max. 0.2 x 45°) and clean it. The clamping and reshaping area must be free of chips, dirt and paint! The clamping area should be free of grease and oil! If the tube end is greasy or oily, use an environmentally friendly solvent.

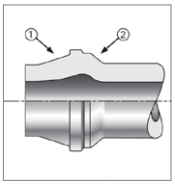
4. Slide the union nut onto the tube.





5. Reshape the tube ends using an Danfoss Waltech Walform machine
To do so, insert the tools into the machine and move them into the insertion position. Insert the tube end into the machine until the clearly detectable mechanical stop in the base of the forming tool. Hold it in place to start the reshaping process. The reshaping process takes place automatically. Follow the operating instructions of the Walform machine.

Caution: Make sure to select the correct tool, in line with the tube dimensions, the tube material and the selected WalformPlus system.

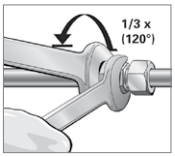


6. Verification of the reshaped tube

The two functional surfaces **a** and **b** must be shaped in such a way that a flat contact surface has formed. Care must therefore be taken to ensure that the tube sealing face **a** is not damaged, especially not by axial scoring! Damage to the tube's sealing face will reduce the pressure strength and service life of the fitting.

a 12° taper for a positive fit inside the fitting stud

b 45° taper for fitting the union nut



7. Final assembly inside the fitting stud

Using an appropriate wrench, tighten the union nut until there is a clearly detectable increase in the required force (point of resistance). Next, complete the assembly by means of a 120° rotation (two wrench faces).

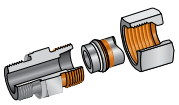
Caution: Any deviation from the specified tightening rotation will reduce the nominal pressure rating and the service life of the fitting. This may cause leakage or other malfunctions.

Important: Hold the fitting stud in place by means of a wrench.

8. Re-assembly

After each time the fitting is disassembled, the union nut must be retightened.
Any re-assembly must be carried out in the same way as the final assembly!

Important: In the case of stainless steel fittings, the threads and the tube parts that will be reshaped must be sufficiently lubricated with Danfoss Waltech ABF grease (anti-block grease) prior to re-assembly.



Danfoss Waltech ABF grease
(anti-block grease)
Stainless steel (1.4571)

Application: Prior to assembly, the fittings must be thoroughly cleaned and the threads in particular checked for damage. All contact surfaces must be sufficiently coated with Danfoss Waltech ABF grease (anti-block grease) using a brush or a lint-free cloth. After greasing, the fittings must be immediately assembled to prevent contamination. For best results, use Danfoss Waltech stainless steel nuts with silver-plated threads (AG/AGP) plus Danfoss Waltech ABF grease (anti-block grease).

C

Tube length determination*

Steel

Stainless steel (1.4571)

WalformPlus-M

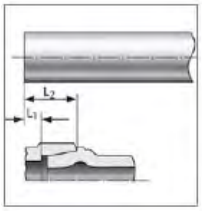
d (mm)	s (mm) 2	2.5	3	3.5	4	5	6
	Steel L1 (mm) L2 (mm) Stainless steel (1.4571) L1 (mm) L2 (mm)						
8 L	8.5 / 15.5	7.5 / 15.0	8.0 / 15.0				
8 S	8.0 / 15.0	7.5 / 15.0	7.5 / 14.5				
10 L	8.0 / 15.0 6.5 / 14.0	6.5 / 14.0	7.0 / 14.0 6.5 / 14.0				
10 S	7.5 / 15.5 6.0 / 14.0	6.0 / 14.0	6.0 / 13.5 6.0 / 14.0				
12 L	6.0 / 13.5 7.0 / 14.0		6.5 / 13.5	5.5 / 12.5			
12 S	6.0 / 13.5 6.5 / 14.0		6.0 / 13.5	5.0 / 12.5			
15 L	6.0 / 13.5 6.5 / 14.0		6.0 / 13.0 6.5 / 13.5				
16 S	7.0 / 15.5 8.5 / 16.5	8.5 / 16.5	8.5 / 16.5		6.5 / 15.5 6.5 / 14.0		
18 L	8.5 / 16.5	5.5 / 13.0			5.5 / 13.0 8.5 / 16.5		
20 S		7.5 / 18.5 9.5 / 20.0			7.0 / 18.0 9.5 / 20.0		
22 L		7.0 / 14.5	6.0 / 13.5 7.5 / 15.0	6.5 / 14.0			
25 S		10.0 / 22.5	8.0 / 20.0 9.5 / 21.5			8.0 / 20.0 9.5 / 21.5	
28 L			6.0 / 13.5 7.5 / 15.0	6.5 / 14.0	7.0 / 15.0		
30 S			10.0 / 23.5	7.5 / 21.0	10.0 / 23.5	10.0 / 23.5	8.0 / 21.5
35 L						7.5 / 18.0 9.5 / 20.0	7.5 / 18.0
38 S			11.0 / 27.0		8.0 / 24.0 11.0 / 27.0	11.0 / 27.0	8.0 / 24.0 11.5 / 27.5
42 L						7.5 / 18.5	7.5 / 18.5

*The dimensions for determining the length of qualified tube lengths that are not given in the table are available on request.

Note

Any tube length differences must be appropriately compensated, for example by installing tube bends. Tubes that are longer or shorter than the specified tube length may result in leakage. Prior to installation, short straight tube sections without length compensation between the installation ends must be checked for compliance with the final dimension and adapted, if necessary.

Tube length determination (L1, L2)

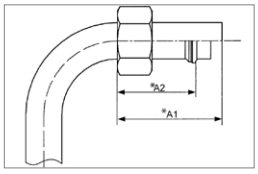


Note: A tolerance of ± 0.5 mm must be taken into consideration for dimensions L1 and L2 after reshaping!

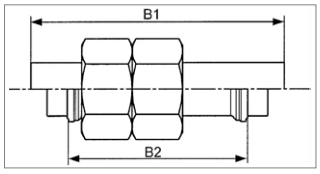
Minimum tube lengths for clamping straight and bent tubes

Steel

Stainless steel (1.4571)



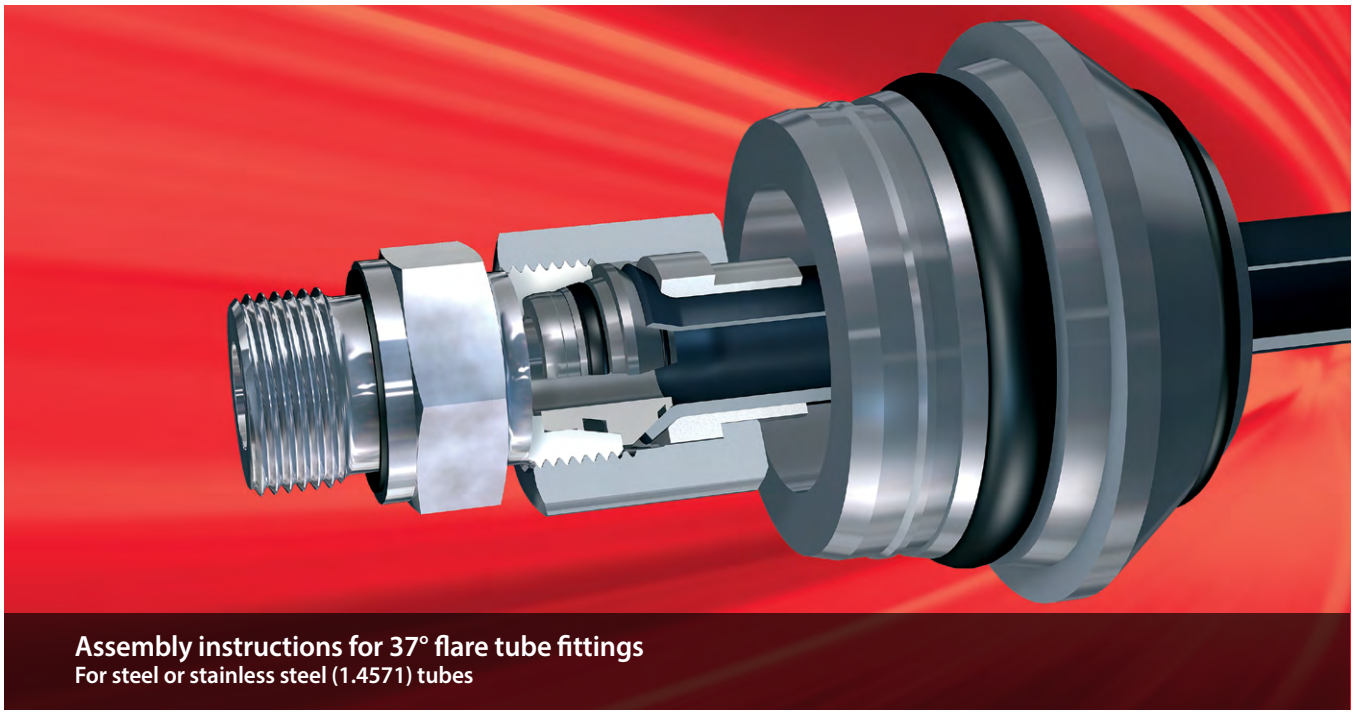
Minimum length of straight tube (A)



Length of straight tube (B)

d (mm)	A1* (mm)	A2* (mm)	B1 (mm)	B2 (mm)
8 L	65 64	50 49	89 87	58 57
8 S	67 66	53 51	91 90	61 60
10 L	60 58	46 48	83 83	53 55
10 S	62 60	49 50	87 84	56 56
12 L	59 58	46 45	80 80	53 52
12 S	61 61	48 48	82 83	55 55
15 L	68 66	55 53	91 88	64 60
16 S	71 70	56 56	97 95	66 62
18 L	76 77	63 61	98 102	72 69
20 S	82 83	64 63	113 115	76 75
22 L	84 84	71 70	109 109	81 79
25 S	110 112	90 90	143 147	103 102
28 L	100 100	87 85	124 125	96 94
30 S	121 124	100 101	159 161	116 114
35 L	112 116	94 96	143 148	107 108
38 S	129 132	105 105	169 174	121 119
42 L	116	98	148	111

*If the straight tube end needs to be shorter than indicated in the table due to installation difficulties, it must be bent after reshaping.



Assembly instructions for 37° flare tube fittings
For steel or stainless steel (1.4571) tubes

Tube selection

The pressure strength specifications refer to the following tube grades:

Steel

Material: E235 / E355, to EN 10305-4 (formerly St. 37.4 / 52.4 to DIN 1630). Type: Seamless cold-drawn, normalized bright annealed steel, designation NBK as per DIN EN 10305-4.

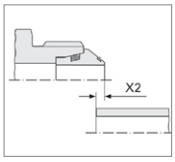
Stainless steel

Material: X6CrNiMoti17122 (1.4571) to DIN EN 10216- 5 Type: Seamless cold-drawn, scale-free, heat-treated stainless steel, designation CFA as per DIN EN 10216-5 (formerly DIN 17458). Dimensions and tolerances to DIN EN 10305-4 (formerly DIN 2391-1). Additional stainless steel grades are available on request.

Calculated pressures: DIN 2413.

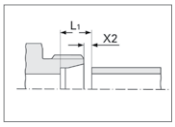
⚠ **Caution:** Materials or tolerances that deviate from the recommended tube specifications may result in tool break, incorrect installation or total failure of the fitting.

⚠ **Caution:** The specified nominal pressure ratings always refer to the fitting. For tube pressure ratings, see the specifications of the respective manufacturers!



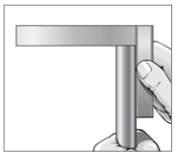
1. Determining the tube length if the intermediate ring is pressed in

The tube length is determined by measuring the distance between the face ends of two intermediate rings, to which the length X2 must then be added for each tube connection (see tables).



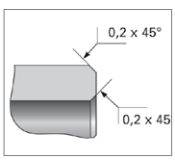
Determining the tube length without intermediate ring

The tube length is determined by measuring the distance between the face ends of two studs, from which the length X1 must then be subtracted for each tube connection (see tables). The length L1 corresponds to the difference in tube length compared to cutting-ring fittings to DIN 2353. When converting from a ring fitting (e.g. cutting ring) to flared fitting parts, the tube must be shortened by the length L1.



2. Cut the tube at a right angle

Cut off the tube at least 10 mm from the manufacturer's cut-off (this is a common source of error due to delivery conditions). Cut the tube at a right angle; an angular deviation of 1/2° from the tube axis is permissible. Do not use pipe cutters or cut-off saws, as these will result in pronounced burring or diagonal cuts. Use a sawing machine or similar equipment.



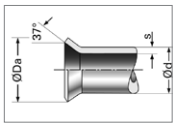
3. Gently deburr the tube ends and clean the tube

Deburr the inside and outside of the tube (max. 0.2 x 45°) and clean it. The clamping and reshaping area must be free of chips, dirt and paint! The clamping area should be free of grease and oil! If the tube end is greasy or oily, use an environmentally friendly solvent.



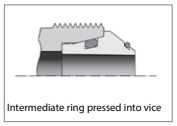
4. Tube flare

Slide the union nut and the sleeve onto the tube as shown. Flare the tube end using an Danfoss Waltech flaring machine (see the operating instructions for flaring machines).



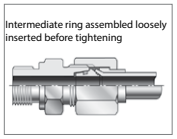
5. Verification of the flared tube

Verify the dimensional accuracy of the flare (see tables) and check for any contamination. The outer diameter of the flare should correspond to the verification diameter (Da). The flare must be at a right angle to the tube axis and concentric with the tube and the sleeve. Uneven and off-center flares indicate faulty tools or operating errors. The inner taper of the flared tube must be clean. Proper flaring is a prerequisite for a long service life of the connection.



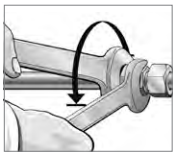
6. Insertion of the intermediate ring

The intermediate ring should ideally be inserted using a vice. Protect the fitting parts from damage. Oil the O-rings before pressing them in.



6.1 Alternatively, the intermediate ring can be loosely inserted into the fitting stud. Tighten the union nut manually.

Important: The threads of stainless steel fittings should be sufficiently greased with Danfoss Waltech ABF grease (anti-block grease) prior to assembly.

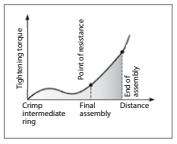


7. Final assembly with pressed-in intermediate ring (point 6)

Tighten the union nut until there is a clearly detectable increase in the required force (point of resistance).

Next, complete the final assembly: 1/2 rotation

1/4 rotation for sizes 6 L to 12 L



7.1 Final assembly with loosely mounted intermediate ring (point 6.1)

Tighten the union nut until there is a clearly detectable increase in the required force (point of resistance). Doing so will press the intermediate ring into the stud.
Next, complete the final assembly: 1/2 rotation
1/4 rotation for sizes 6 L to 12 L

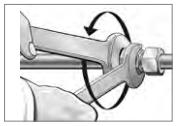
7.2 Final assembly using a torque wrench

The torque values for the required increase in tightening force can be found in the corresponding table (see the "tightening torque" table).

Important: Hold the fitting stud in place by means of a wrench

Caution: Any deviation from the specified torque/tightening rotation will reduce the nominal pressure rating and the service life of the fitting. This may cause the fitting to leak.

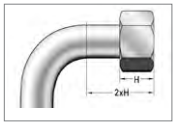
Important: In the case of stainless steel fittings, the threads and the contoured edge of the sleeve must be sufficiently lubricated with Danfoss Waltech ABF grease (anti-block grease) prior to re-assembly.



8. Re-assembly

After each time the fitting is disassembled, the union nut must be retightened (same torque as during final assembly).

Important: In the case of stainless steel fittings, the threads and the contoured edge of the sleeve must be sufficiently lubricated with Danfoss Waltech ABF grease (anti-block grease) prior to re-assembly.



9. Minimum length of straight tube ends in the case of tube bends and minimum length of straight tubes (see tables).

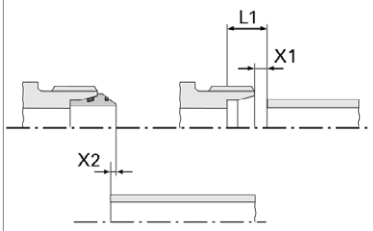
Tightening torque

C

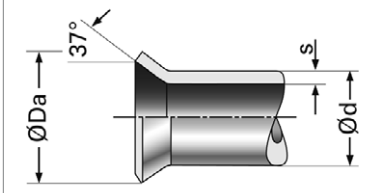
Series	Tube outer diameter (mm)	Steel (Nm)	Stainless steel (1.4571) (Nm)
L	6	20	30
	8	40	55
	10	45	65
	12	55	110
	15	70	190
	18	120	250
	22	200	400
	28	300	550
	35	600	900
	42	800	900
S	6	30	85
	8	45	100
	10	55	130
	12	80	190
	14	90	260
	16	130	330
	20	250	350
	25	400	700
	30	500	900
	38	800	900

Tube length and control diameter

Definition of tube length (x1, x2, L1)



Control diamater (Da min, Da max)

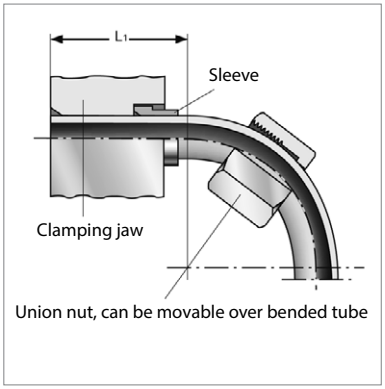


d (mm)	s (mm)	X1 (mm)	X2 (mm)	L1 (mm)	Da min (mm)	Da max (mm)
6	1	1	3.5	8	9.1	10
	1.5	2	2.5	9		
8	1	1	4	8	11.3	12
	1.5	2	3	9		
	2	2.5	2.5	9.5		
10	1	1	4.5	8	13.1	14
	1.5	2	3.5	9		
	2	3	2.5	10		
12	1	1	4.5	8	15.3	16
	1.5	2	3.5	9		
	2	3	2.5	10		
14	1.5	0.5	5.5	8.5	18.6	19.6
	2	1	5	9		
	2.5	2	4	10		
	3	3	3	11		
15	1.5	1	4.5	8	19.1	20
	2	2	3.5	9		
	2.5	3	2.5	10		
16	1.5	0	6.5	8.5	20.6	22
	2	1	5.5	9.5		
	2.5	1.5	5	10		
	3	2.5	4	11		
18	1.5	0	5.5	7.5	23.2	24
	2	1	4.5	8.5		
	2.5	1.5	4	9		
20	2	1	7	11.5	25.6	26.8
	2.5	2	6	12.5		
	3	3	5	13.6		
	3.5	4	4	14.5		
22	1.5	1	5.7	8.5	26.5	27.5
	2	2	4.7	9.5		
	2.5	3	3.7	10.5		
	3	3.5	3.2	11		
25	2	1	7	13	31.1	33
	2.5	1.5	6.5	13.5		
	3	2.5	5.5	14.5		
	4	4	4	16		
28	2	1.5	5.7	9	32.7	33.3
	2.5	2.5	4.7	10		
	3	3	4.2	10.5		
30	2	-0.5	9	13	37	38.7
	2.5	0.5	8	14		
	3	1	7.5	14.5		
	4	3	5.5	16.5		
	5	4.5	4	18		
35	2	1.5	6.5	12	41.8	42.7
	2.5	2	6	12.5		
	3	3	5	13.5		
	4	4.5	3.5	15		
38	2.5	0	10	16	46	47.2
	3	0.5	9.5	16.5		
	4	2	8	18		
	5	4	6	20		
	6*	2.5	7.5	18.5	46	48
42	2	1.5	7	12.5	48.8	49.8
	3	3	6.5	14		
	4	4.5	5	15.5		

*Only with flaring machine MEG-BO2, MEG-WF1/BO2 and special flaring clamps.

C

Length of straight tube the until start of the bending radius



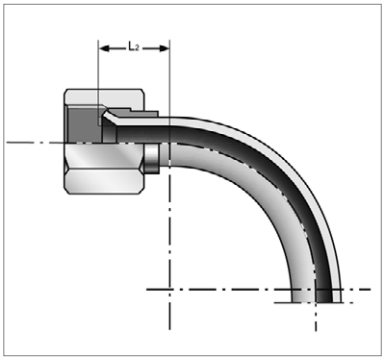
"Bend first, then flare"

Length of the straight tube end **(length L1)** until the start of the bending radius

a) Manual flaring tool

b) Flaring machine

Tube outer diameter (mm)	L1 Manual flaring tool	L1 Flaring machine MEG-B02 MEG-WF1/B02 MHH-B0
6	36	43
8	37	44
10	39	46
12	45	47
14	46	50
15	46	50
16	48	52
18	46	58
20	50	58
22	50	60
25	72	60
28	70	60
30	73	62
35	72	62
38	78	70
42	73	70

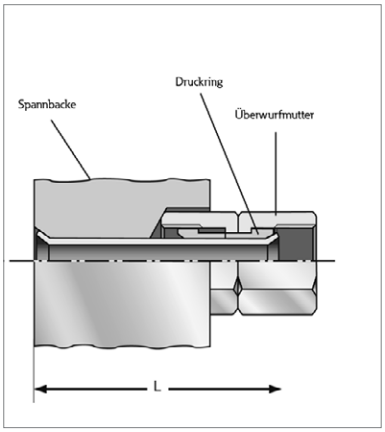


"Flare first, then bend"

If the straight tube end **(length L2)** needs to be shorter than indicated in the table due to installation difficulties, it must first be flared and then bent (see tube bending tools).

Tube outer diameter (mm)	L2
10	15
12	15
15	17
16	21
18	18

Tube diameters 6, 8 and 14 are available on request.



Minimum length of straight tube L

	Tube outer diameter (mm)	L Manual flaring tool	L Flaring machine MEG-B02 MEG-WF1/B02 MHH-B0
L	6	52	59
	8	54	62
	10	55	64
	12	63	67
	15	67	75
	18	67	76
	22	71	81
	28	93	88
	35	100	92
	42	110	130
S	6	51	61
	8	53	64
	10	54	66
	12	62	68
	14	67	74
	16	69	79
	20	73	82
	25	99	94
	30	100	96
	38	110	136

Pressure setting of the flaring machine M-WF385X/BO

M-WF385X/BO



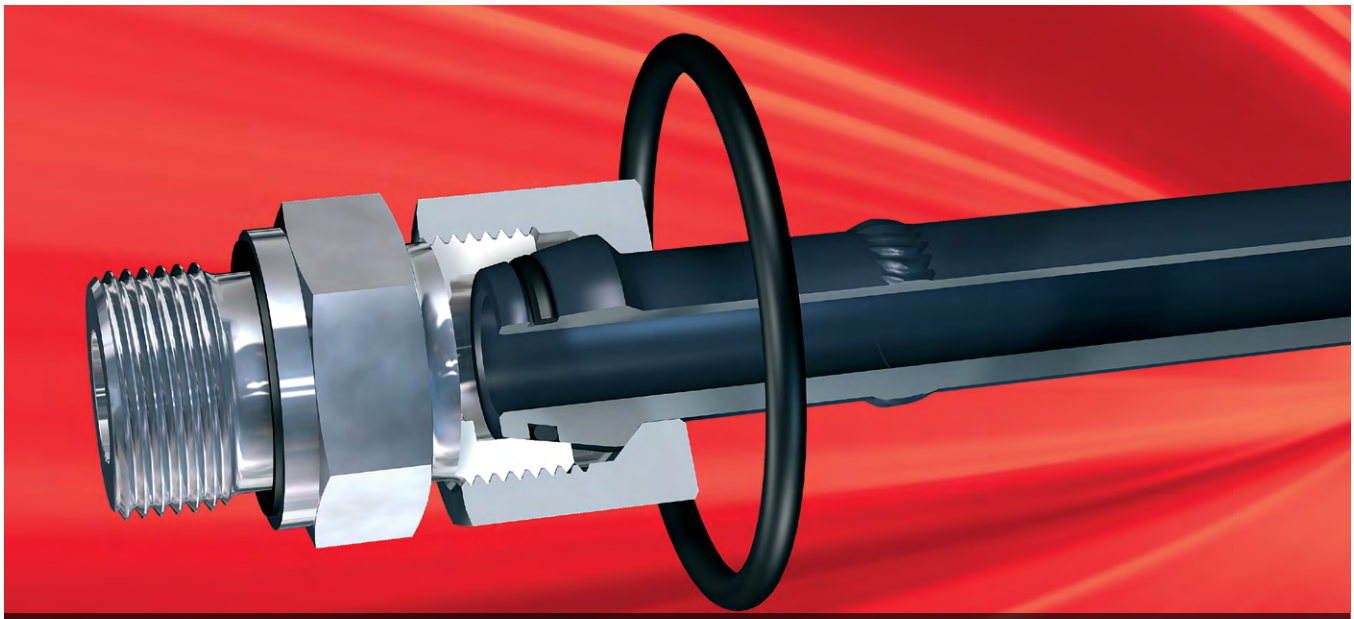
Steel E235 / E355

Tube outer diameter (mm)	Wall thickness s (mm)	Potentiometer setting M·WF385X/BO	Flare diameter Da (mm) min·	Flare diameter Da (mm) max·
16	2.0	20	20.6	22.0
	2.5	28		
	3.0	30		
20	2.0	25	25.6	26.8
	2.5	28		
	3.0	30		
	3.5	35		
	4.0	45		
22	2.0	25	25.6	27.5
25	2.5	35	31.1	33.0
	3.0	32		
	4.0	39		
28	3.0	30	32.7	33.3
30	4.0	35	37.0	38.7
	5.0	40		
35	3.0	30	41.8	42.7
	5.0	50		
38	4.0	35	46.0	47.2
	5.0	50		
	6.0	50	46.0	48.0
42	3.0	55	48.8	49.8
	4.0	65		

Danfoss Waltech ABF grease (anti-block grease)
Stainless steel (1.4571)

Application: Prior to assembly, the fittings must be thoroughly cleaned and the threads in particular checked for damage. All contact surfaces must be sufficiently coated with Danfoss Waltech ABF grease (anti-block grease) using a brush or a lint-free cloth. After greasing, the fittings must be immediately assembled to prevent contamination. For best results, use Danfoss Waltech stainless steel nuts with silver-plated threads (AG/AGP) plus Danfoss Waltech ABF grease (anti-block grease).

C



Assembly instructions for welding-nipple fittings to DIN 3865

For steel or stainless steel (1.4571) tubes

Tube selection

The pressure strength specifications refer to the following tube grades:

Steel

Material: Steel E235 / E355, to EN 10305-4 (formerly St. 37.4 / 52.4 to DIN 1630). Type: Seamless cold-drawn, normalized bright annealed steel, designation NBK as per DIN EN 10305-4.

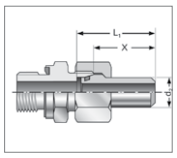
Stainless steel

Material: X6CrNiMoti17122 (1.4571) to DIN EN 10216- 5 Type: Seamless cold drawn, scale-free, heat-treated stainless steel, designation CFA as per DIN EN 10216-5 (formerly DIN 17458). Dimensions and tolerances to DIN EN 10305-4
(formerly DIN 2391-1).

Calculated pressures: DIN 2413

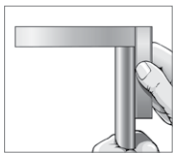
Caution: Materials or tolerances that deviate from the recommended tube specifications may result in incorrect installation or total failure of the fitting.

Caution: The specified nominal pressure ratings always refer to the fitting. For tube pressure ratings, see the specifications of the respective manufacturers!



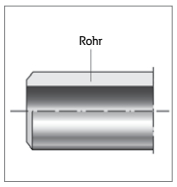
1. Tube length determination

The tube length is determined by measuring the distance between the face ends of two fitting studs, from which the length X must then be subtracted for each tube connection. When converting from cutting ring to welding nipple fittings, the tube end must be shortened by the length L_1.



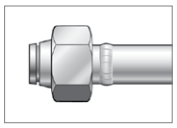
2. Cut the tube at a right angle

Cut off the tube at least 10 mm from the manufacturer's cut-off (this is a common source of error due to delivery conditions). Cut the tube at a right angle; an angular deviation of 1/2° from the tube axis is permissible.
Do not use pipe cutters or cut-off saws, as these will result in pronounced burring or diagonal cuts. Use a sawing machine or similar equipment.



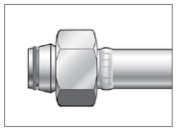
3. Before welding, chamfer the outside of the tube end, lightly deburr it and clean the inside

Deburr the inside and outside of the tube (max. 0.2 x 45°) and clean it. If the tube end is greasy or oily, use an environmentally friendly solvent.



4. Slide the union nut onto the welding nipple and weld

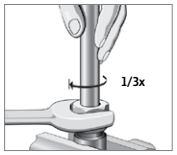
Weld the welding nipple and the tube according to welding guidelines. Descale the welding point and clean the O-ring groove.



5. Mount the O-ring, which is supplied separately

Oil the thread and O-ring.

Caution: Make sure that the O-ring is not twisted.

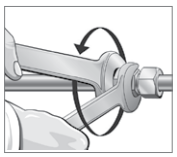


6. Final assembly

Tighten the union nut manually. Tighten the union nut by a 1/3 rotation past the clearly detectable increase in the required tightening force. Hold the fitting stud in place by means of a wrench. The torque values for the required increase in tightening force can be found in the corresponding table (see the "tightening torque" table).

Note: When assembling welding nipples, tension on the tube must be avoided.

Caution: Any deviation from the specified tightening rotation will reduce the nominal pressure rating and the service life of the fitting. This may cause the fitting to leak.



7. Re-assembly

After each time the fitting is loosened, the soft seal must be checked for damage and replaced if necessary. Afterwards, firmly retighten the union nut. The torque during re-assembly must be the same as during initial assembly!

Tightening torque

Series	Tube outer diameter (mm)	Tightening torque (Nm)
L	6	20
	8	25
	10	45
	12	50
	15	60
	18	70
	22	130
	28	180
	35	300
	42	320

Series	Tube outer diameter (mm)	Tightening torque (Nm)
S	6	20
	8	35
	10	50
	12	65
	14	70
	16	85
	20	135
	25	170
	30	280
	38	320

C

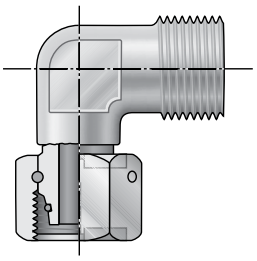
Tube length determination

Tube outer diameter (mm)	d_2	L_1	X
8	8	32	25
10	10	33.5	26
12	12	33.5	26
16	16	40.5	32
20	20	47	36.5
25	25	53.5	41.5
30	30	57.5	44
38	38	64.5	48.5

Note

Any tube length differences must be appropriately compensated, for example by installing tube bends. Tubes that are longer or shorter than the specified tube length may result in leakage. Prior to installation, short straight tube sections without length compensation between the installation ends must be checked for compliance with the final dimension and adapted, if necessary.

Assembly instructions for taper-seal fittings



z. B EWSD .....

Assembly of taper-seal fittings

Oil the O-ring. Align the tube connection in the required direction and tighten the union nut manually. Tighten the union nut by a 1/3 rotation past the clearly detectable increase in the tightening force (point of resistance).

Alternatively, in the case of steel fittings, tighten the union nut using a torque wrench (see the "tightening torque" table).

Important: Hold the fitting stud in place by means of a wrench. In case of unfavorable assembly conditions and with large tube sizes, final assembly must be carried out using a vice. Use the same fitting stud (see above) for this purpose.

△ **Caution:** Any deviation from the specified torque/tightening rotation will reduce the nominal pressure rating and the service life of the fitting. This may cause the fitting to leak.

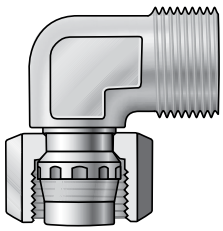
Important: The threads of stainless steel fittings must be cleaned and checked for damage prior to assembly. The fitting threads must be sufficiently lubricated using Danfoss Waltech ABF grease (anti-block grease). After greasing, the fittings must be immediately assembled to prevent any contamination.

Tightening torque

Series	Tube outer diameter (mm)	Tightening torque (Nm)
L	6	20
	8	25
	10	45
	12	50
	15	60
	18	70
	22	130
	28	180
	35	300
	42	320

Series	Tube outer diameter (mm)	Tightening torque (Nm)
S	6	20
	8	35
	10	50
	12	65
	14	70
	16	85
	20	135
	25	170
	30	280
	38	320

Assembly instructions for standpipe fittings



z. B. EWS ..... -SV

Assembling the standpipe parts

Standpipe parts are always supplied with a pre-assembled profile ring. Final assembly: Align the tube connection in the required direction and tighten the union nut manually. Tighten the union nut by 1/2 a rotation past the detectable increase in the tightening force (point of resistance).

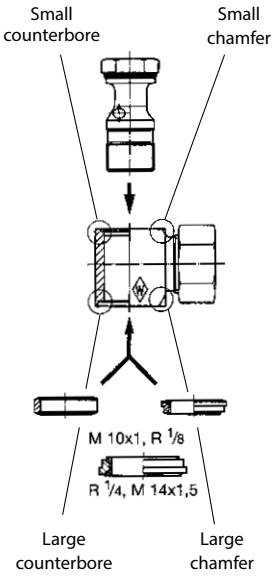
Important: Hold the fitting stud in place by means of a wrench. In case of unfavorable assembly conditions and with large tube sizes, final assembly must be carried out using a vice. Use the same fitting stud (see above) for this purpose.

Caution: Any deviation from the specified tightening rotation will reduce the nominal pressure rating and the service life of the fitting. This will cause the fitting to leak or the standpipe to slip out.

Important: The threads of stainless steel fittings must be cleaned and checked for damage prior to assembly. The fitting threads must be sufficiently lubricated using Danfoss Waltech ABF grease (anti-block grease). After greasing, the fittings must be immediately assembled to prevent any contamination.

C

Assembly instructions for adjustable fittings



Tightening torques of the soft-seal version (...-WD)		
Tube outer diameter (mm)	**LR series Md (Nm)**	**LM series Md (Nm)**
6	25	25
8	50	60
10	50	60
12	80	85
15	140	100
18	140	140
22	210	215
28	400	400
35	600	600
42	850	850
	SR series Md (Nm)	**SM series Md (Nm)**
6	50	60
8	50	60
10	80	85
12	80	110
14	160	-
16	180	150
20	250	310
25	410	410
30	650	650
38	850	850

1. In the case of steel fittings, the port thread and the O-ring of the banjo bolt must be oiled.

1.1 **In the case of stainless steel fittings, the** port threads of the banjo bolts should be sufficiently greased with Danfoss Waltech ABF grease (anti-block grease). After greasing, the fittings must be immediately assembled to prevent any contamination. Oil the banjo-bolt O-ring.

2. Insert the banjo bolt through the banjo body (on the side that features a small counterbore).

3. Insert the sealing-edge ring or the soft-seal ring into the large counterbore in the body. The fitting is centered via the banjo bolt thread. If the soft-seal ring is used, the fitting is additionally centered via the counterbore in the body (there should be no clearance between the seal ring and the body; with thread sizes M 10x1, R 1/8, R 1/4 and M 14x1.5, only the smaller diameter of the seal ring will fit into the counterbore; with the remaining dimensions, only the larger one will fit).

4. Align the banjo body and tighten the banjo bolt using a wrench until there is a clearly detectable increase in the required torque (pressure point).

5.1 **With soft-seal ring:** While holding the body in place, use a wrench to tighten the banjo bolt by a 1/6 rotation (60°) past the pressure point (see the "tightening torque" table).

5.2 **With sealing-edge ring:** While holding the body in place, use a wrench to tighten the banjo bolt by a 1/4 rotation (90°) past the pressure point. The fitting is now fixed in place and sealed.

△**Caution:** The tightening rotation of the soft-seal version is shorter and the tightening torque lower than for the banjo fitting with sealing-edge ring.

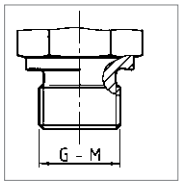
6. Re-assembly is possible. Check the O-ring and the soft seal for damage and replace if necessary.

Important: The threads of stainless steel fittings should be sufficiently greased with Danfoss Waltech ABF grease (anti-block grease) prior to re-assembly.

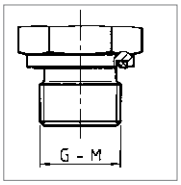
△**Caution:** Any deviation from the specified tightening rotation will reduce the nominal pressure rating and the service life of the fitting. This may cause the fitting to leak.

Tightening torques for steel studs to DIN 3852

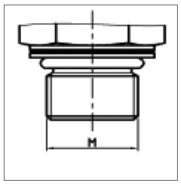
Type B



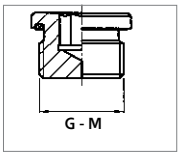
Type E



Type F



Blanking ends
VS-R ...-WD, VS-M ...-WD



Series	Tube outer diameter (mm)	Standard value G-M	Type B Md (Nm)	Type E Md (Nm)	M	Type F Md (Nm)
L	6	M 10 x 1	18	18	M 10 x 1.5	15
	8	M 12 x 1.5	30	25	M 12 x 1.5	25
	10	M 14 x 1.5	45	45	M 14 x 1.5	35
	12	M 16 x 1.5	65	55	M 16 x 1.5	40
	15	M 18 x 1.5	80	70	M 18 x 1.5	45
	18	M 22 x 1.5	140	125	M 22 x 1.5	60
	22	M 26 x 1.5	190	180	M 27 x 2	100
	28	M 33 x 2	340	310	M 33 x 2	160
	35	M 42 x 2	500	450	M 42 x 2	210
	42	M 48 x 2	630	540	M 48 x 2	260
S	6	M 12 x 1.5	35	35	M 12 x 1.5	35
	8	M 14 x 1.5	55	55	M 14 x 1.5	45
	10	M 16 x 1.5	70	70	M 16 x 1.5	55
	12	M 18 x 1.5	110	90	M 18 x 1.5	70
	14	M 20 x 1.5	150	125		
	16	M 22 x 1.5	170	135	M 22 x 1.5	100
	20	M 27 x 2	270	180	M 27 x 2	170
	25	M 33 x 2	410	310	M 33 x 2	310
	30	M 42 x 2	540	450	M 42 x 2	330
	38	M 48 x 2	700	540	M 48 x 2	420
L	6	G 1/8 A	18	18		
	8	G 1/4 A	35	35		
	10	G 1/4 A	35	35		
	12	G 3/8 A	70	70		
	15	G 1/2 A	140	90		
	18	G 1/2 A	100	90		
	22	G 3/4 A	180	180		
	28	G 1 A	330	310		
	35	G 1 1/4 A	540	450		
	42	G 1 1/2 A	630	540		
S	6	G 1/4 A	55	55		
	8	G 1/4 A	55	55		
	10	G 3/8 A	90	80		
	12	G 3/8 A	90	80		
	14	G 1/2 A	130	115		
	16	G 1/2 A	130	115		
	20	G 3/4 A	270	180		
	25	G 1 A	340	310		
	30	G 1 1/4 A	540	450		
	38	G 1 1/2 A	700	540		

Note:

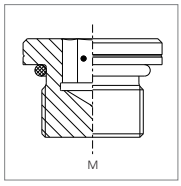
Oil the stud before screwing it in!

The tightening torques refer to counterparts made of steel.

The permissible tolerance of the values in the table is +10%

G-M	PN	Standard value Md (Nm)
G 1/8 A	400	10
G 1/4 A		30
G 3/8 A		40
G 1/2 A		80
G 3/4 A		120
G 1 A		200
G 1 1/4 A	250	350
G 1 1/2 A		400
G 1 1/4	400	400
G 1 1/2		500
M 10 x 1	400	10
M 12 x 1.5		20
M 14 x 1.5		30
M 16 x 1.5		40
M 18 x 1.5		50
M 20 x 1.5		60
M 22 x 1.5		80
M 26 x 1.5		100
M 27 x 2		120
M 33 x 2		200
M 42 x 2	250	350
M 48 x 2		400
M 42 x 2	400	400
M 48 x 2		500

VS... blanking ends M-OR



M	Standard value Md (Nm)
M 10 x 1.5	20
M 12 x 1.5	35
M 14 x 1.5	45
M 16 x 1.5	55
M 18 x 1.5	70
M 22 x 1.5	100
M 27 x 2	170
M 33 x 2	310
M 42 x 2	330
M 48 x 2	420

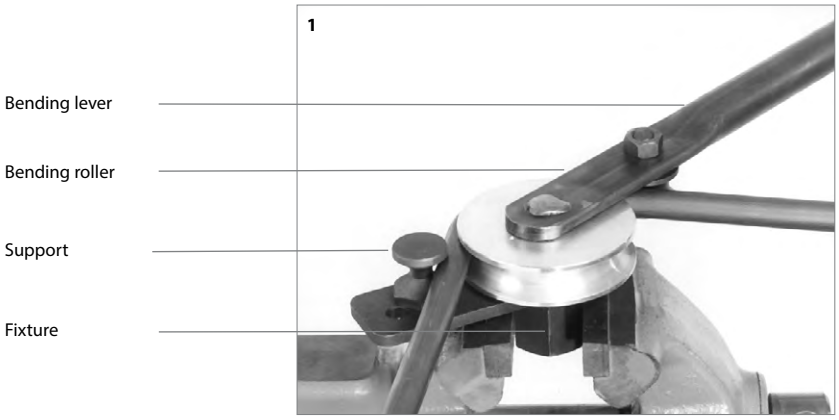
Instructions for tube bending

For tubes with an outer diameter of 6-18 mm

C

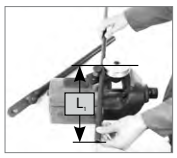
Tube outer diameter 6-12 mm
Part no. WAL033012

Tube outer diameter 10-18 mm
Part no. WAL033020



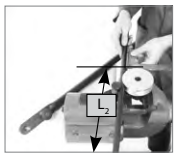


2. Clamp the fixture and screw in the support. Attach a bending roller of the required size (the tube outer diameter is indicated on the bending roller).



3. Determining the tube length L_1

   Mark the desired distance between the straight tube end and the beginning of the tube bend. Insert the tube and align it so that the marking is at a right angle to the center of the bending roller.



4. Determining the tube length L_2 (only for 90° bends)

   Mark the required distance between the straight end of the tube and the beginning of the bend. Insert the tube and align it so that the marking is at a right angle to the outer edge of the bending roller.



5. Insert the bending lever and bend the tube quickly until the required final shape is almost reached. While bending, gently move the tube along manually.



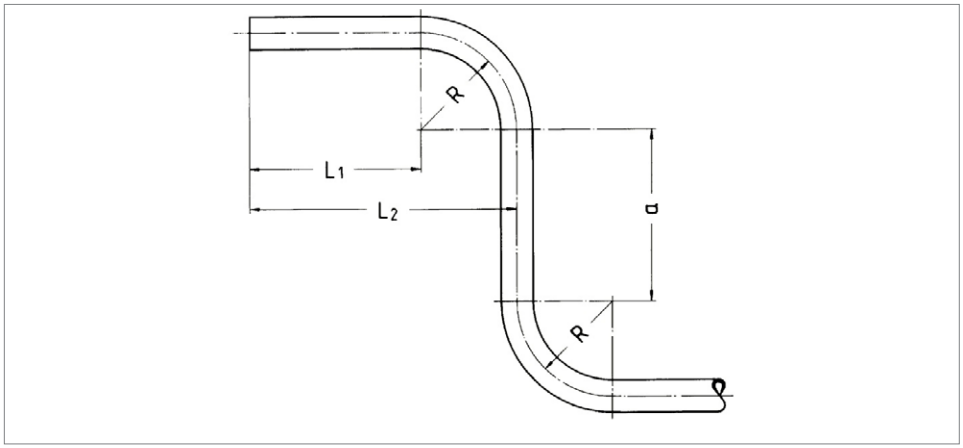
6. Slowly pull the bending lever until the required bending angle is reached.



7. Remove the bent tube. With complicated tube bends, it may also be necessary toremove the bending lever and the bending roller.

Determining the length and radius

For tubes with an outer diameter of 6-18 mm



	Tube outer diameter 6-12 mm		Tube outer diameter 10-18 mm	
	Part no. WAL033012		Part no. WAL033020	
Tube outer diameter (mm)	R	a / L1 min	R	a / L1 min
6	20	36	-	-
8	20	36	-	-
10	25	32	36	64
12	25	32	36	64
15	-	-	43	53
16	-	-	44	53
18	-	-	51	73

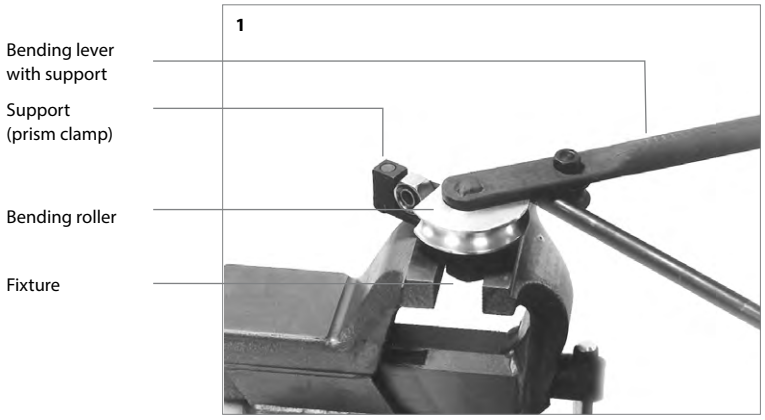
Instructions for tube bending

For tubes with an outer diameter of 10-18 mm

C

If the tube bending tool SA1 is used, tubes can be bent directly behind an already mounted nut.

Part no. WAL063805





2. Clamp the fixture and attach the prism clamp (in accordance with the tube outer diameter). Attach a bending roller of the required size (the tube outer diameter is indicated on the bending roller).



3. Insert the tube together with the nut. so that the nut is positioned between the prism clamp and the bending roller. Attach the bending lever.

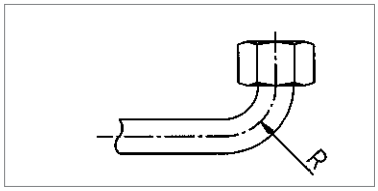


4. Quickly bend the tube until the required final shape is almost reached. While bending, gently move the tube along manually. Slowly pull the bending lever until the required bending angle is reached.



5. Remove the bent tube. With complicated tube bends, it may also be necessary to remove the bending lever and the bending roller.

Radius determination



Tube outer diameter 10-18 mm

Part no. WAL063805

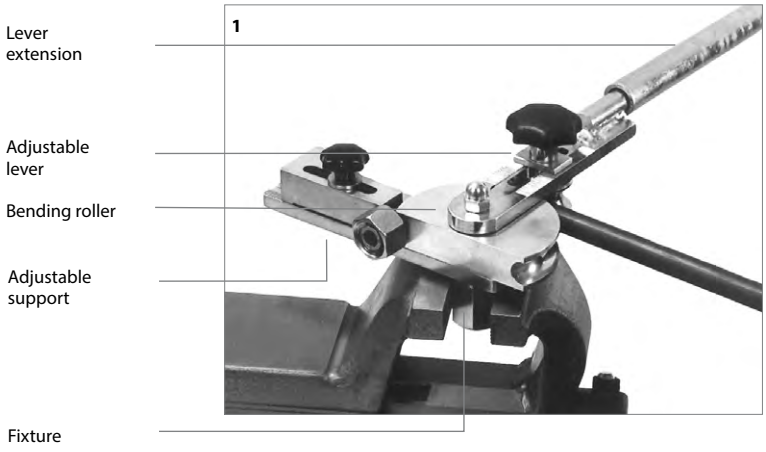
Tube outer diameter (mm)	R
10	36
12	36
15	44
16	44
18	52

Instructions for tube bending

For tubes with an outer diameter of 6-22 mm

If the tube bending tool SA2 is used, tubes can be bent 24 mm behind an already mounted nut.

Part no. WAL615706





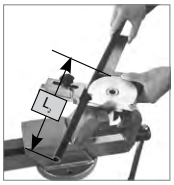
2. Bending 24 mm behind the nut

   Clamp the fixture using the adjustable support. Attach a bending roller of the required size (the tube outer diameter is indicated on the bending roller). Insert the tube and fix the support in place in accordance with the tube outer diameter. The nut should rest on the flat surfaces of the support and the bending roller.



3. Bending after determining the tube length L_1

   Clamp the fixture using the adjustable support. Attach a bending roller of the required size (the tube outer diameter is indicated on the bending roller). Turn the support, so that the broad surface points towards the bending roller. Mark the desired distance between the straight tube end and the beginning of the tube bend. Insert the tube and align it so that
   the marking is at a right angle to the center of the bending roller.



4. Bending after determining the tube length L_2 (only for 90° bends)

   Clamp the fixture using the adjustable support. Attach a bending roller of the required size (the tube outer diameter is indicated on the bending roller). Turn the support, so that the broad surface points towards the bending roller. Mark the required distance between the straight end of the tube and the beginning of the bend. Insert the tube and align it so that
   the marking is at a right angle to the outer edge of the bending roller.



5. Attach the adjustable lever and lock it in position in accordance with the tube outer diameter.

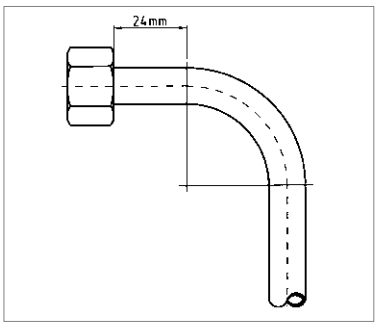


6. Attach the lever extension. Quickly bend the tube until the required final shape is almost reached. While bending, gently move the tube along manually. Slowly pull the bending lever until the required bending angle is reached.



7. Release the support to remove the tube bend. Remove the bent tube. With complicated tube bends, it may also be necessary to remove the lever and the bending roller.

Radius determination



Tube outer diameter 6-22 mm

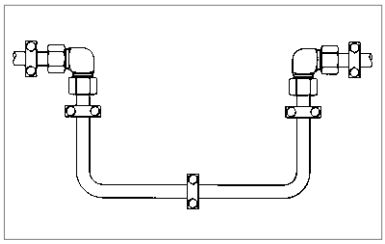
Part no. WAL615706

Tube outer diameter (mm)	R
6	36
8	36
10	36
12	36
14	36
15	44
16	44
18	52
20	64
22	63

Installation guidelines for tube assemblies

Installation guidelines:

- Any tube length differences and heat expansions must be appropriately compensated, for example by installing tube bends.
- Tubes that are longer or shorter than the specified tube length may cause leakage.
- Prior to installation, short straight tube sections without length compensation between the installation ends must be checked for compliance with the final dimension and adapted, if necessary.
- Straight connections between two fixed points should be avoided. Use tube bends for stress compensation.
- Aim for a clear tube arrangement.
- Allow easy access to the connection points and the components to simplify installation and maintenance.
- Make sure that the tubes are not assembled under stress and compensate for possible heat expansions while taking tube bends into account.
- System loads should be compensated as much as possible by means of vibration damping and vibration isolation.
- Aim for low pressure loss during installation.



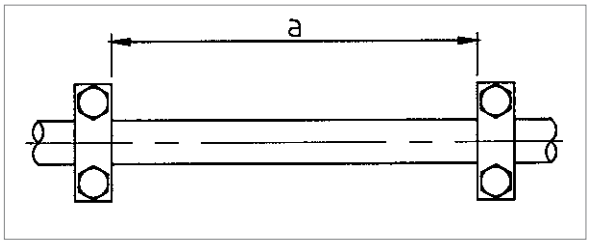
Fastening instructions:

Tube assemblies must be fastened in such a way that

- They do not vibrate uncontrollably,
- They are not in direct contact with other parts,
- They are not in contact with one another,
- The fastening method ensures stress-free installation,
- They are not used to fasten other components.

Fastening locations:

- The first clamp should be fitted immediately after the fitting, as this will prevent the fitting from vibrating - Table 1.
- Tube bends must be supported directly before and after each bend.
- A minimum distance between the clamp and the union nut should be observed in order to ensure that union nuts/union bolts are able to move axially for disassembly - Table 2.

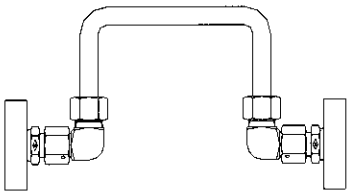
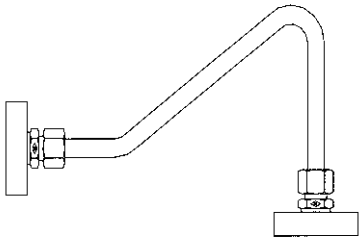
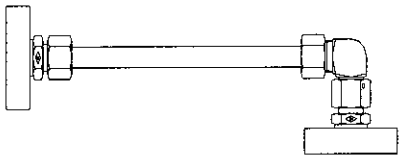
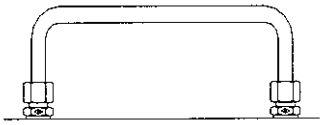
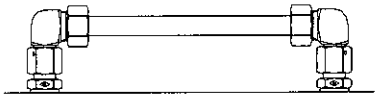
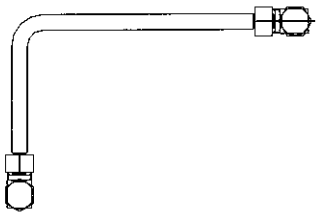
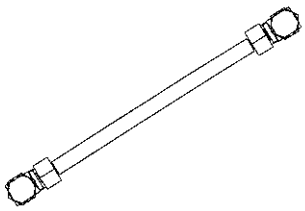


Recommended fastening distances (to DIN 24346)	
Tube outer diameter (mm)	**Max. distance between clamps a (m)**
6-10	1
10-25	1.5
Greater than 25	2.0

Table 1

This information is intended for reference only; for more detailed information, see the specifications of the tube clamp manufacturer.

C

Tube installation examples	
Advantageous	**Disadvantageous**
	
	
	
	

Min. axial clearance for union nut	
Tube outer diameter (mm)	**Distance between clamp and nut (mm)**
6, 8	13
10, 12, 15	15
16	16.5
18	15.5
20	19.5
22, 25	22.5
28	17.5
30	25.5
35	22.5
38	31.5
42	26

Table 2

D

Tube connecting parts



		Figure	Model	Page
Tube connecting parts	Union nut		M …	D3
Tube connecting parts for WalringPlus tube fittings	WalringPlus system nut		W-R-PLUS-M	D5
	WalringPlus ring		W-R-PLUS	D6
Tube connecting parts for profile-ring tube fittings	Walpro system nut		PR-M ...	D7
	Walpro profile ring		P-R …	D8
Tube connecting parts for Walform tube fittings	Walform system nut		WF-M …	D9
	Support ring		WF-PLUS-SR ...	D9
	Soft seal		WF-WD …	D10
Flare connecting parts for flare tube fittings	Flare connecting parts		BO-A …	D11
	Intermediate ring		BO-ZR …	D12
	Sleeve		BO-DR …	D13
	Union nut		BO-M ...	D14
	Protective cap for intermediate rings (tube end)		Cap M …	D15

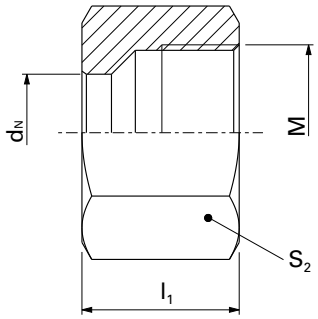
D

M ...

M ... -1.4571

- Union nut

D





								Union nut M ...	Union nut Stainless steel (1.4571) M ... -1.4571*
Series	PN bar (psi)	Tube outer diameter d_N	Model	kg/ 100 pc.	M	l_1	S_2	Part no.	Part no.
LL	100 (1450)	4	**M 4 LL**	0.4	M 8 x 1	11	10	**WAL039838**	**WAL027923**
		6	**M 6 LL**	0.5	M 10 x 1	11.5	12	**WAL039840**	**WAL027925**
		8	**M 8 LL**	0.7	M 12 x 1	12	14	**WAL039841**	**WAL027926**
L	500 (7252)	6	**M 6 L**	0.9	M 12 x 1.5	14.5	14	**WAL039842**	**WAL027927**
		8	**M 8 L**	1.4	M 14 x 1.5	14.5	17	**WAL039843**	**WAL027928**
		10	**M 10 L**	2.0	M 16 x 1.5	15.5	19	**WAL039844**	**WAL027929**
	400 (5801)	12	**M 12 L**	2.5	M 18 x 1.5	15.5	22	**WAL039845**	**WAL027930**
		15	**M 15 L**	4.0	M 22 x 1.5	17	27	**WAL039846**	**WAL027931**
		18	**M 18 L**	6.0	M 26 x 1.5	18	32	**WAL039847**	**WAL027932**
	250 (3626)	22	**M 22 L**	8.0	M 30 x 2	20	36	**WAL039848**	**WAL027933**
		28	**M 28 L**	8.5	M 36 x 2	21	41	**WAL039849**	**WAL027934**
		35	**M 35 L**	13.0	M 45 x 2	24	50	**WAL039850**	**WAL027935**
		42	**M 42 L**	21.0	M 52 x 2	24	60	**WAL039851**	**WAL027936**
S	800 (11603)	6	**M 6 S**	1.5	M 14 x 1.5	16.5	17	**WAL039852**	**WAL028649**
		8	**M 8 S**	1.7	M 16 x 1.5	16.5	19	**WAL039853**	**WAL027937**
		10	**M 10 S**	3.0	M 18 x 1.5	17.5	22	**WAL039854**	**WAL027938**
	630 (9137)	12	**M 12 S**	3.5	M 20 x 1.5	17.5	24	**WAL039855**	**WAL027939**
		14	**M 14 S**	5.0	M 22 x 1.5	20.5	27	**WAL039856**	**WAL027940**
		16	**M 16 S**	6.0	M 24 x 1.5	20.5	30	**WAL039857**	**WAL027941**
	420 (6091)	20	**M 20 S**	9.5	M 30 x 2	24	36	**WAL039858**	**WAL027942**
		25	**M 25 S**	19.5	M 36 x 2	27	46	**WAL039859**	**WAL027943**
		30	**M 30 S**	21.5	M 42 x 2	29	50	**WAL039860**	**WAL027944**
		38	**M 38 S**	31.0	M 52 x 2	32.5	60	**WAL039861**	**WAL027945**

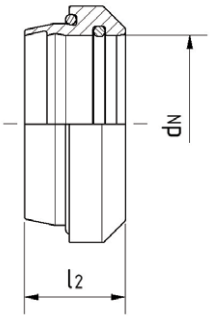
Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

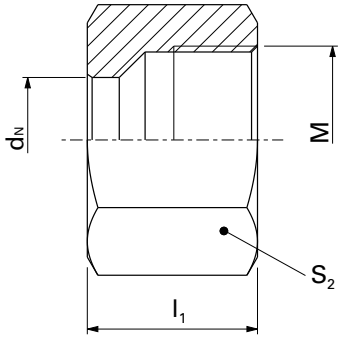
*Silver-plated stainless steel nut (AG/AGP), see price list

W-R-PLUS-M

- WalringPlus system nut

D



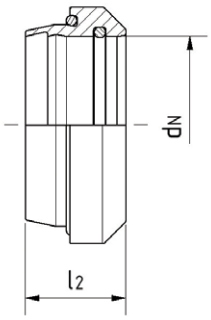




Series	PN bar (psi)	Tube outer diameter d_N	M	S_2	Model	l_2 cutting ring	Art.no.
L	500 (7252)	6	M 12 x 1.5	14	**W-R-PLUS-M 6 L VI A2GS**	8.7	**WAL628467**
		8	M 14 x 1.5	17	**W-R-PLUS-M 8 L VI A2GS**	8.7	**WAL628468**
		10	M 16 x 1.5	19	**W-R-PLUS-M 10 L VI A2GS**	9.3	**WAL628469**
	400 (5801)	12	M 18 x 1.5	22	**W-R-PLUS-M 12 L VI A2GS**	9.4	**WAL628470**
		15	M 22 x 1.5	27	**W-R-PLUS-M 15 L VI A2GS**	9.6	**WAL628471**
		18	M 26 x 1.5	32	**W-R-PLUS-M 18 L VI A2GS**	10.1	**WAL628472**
	250 (3626)	22	M 30 x 2	36	**W-R-PLUS-M 22 L VI A2GS**	11.4	**WAL628473**
		28	M 36 x 2	41	**W-R-PLUS-M 28 L VI A2GS**	11.4	**WAL628474**
		35	M 45 x 2	50	**W-R-PLUS-M 35 L VI A2GS**	13.3	**WAL628475**
		42	M 52 x 2	60	**W-R-PLUS-M 42 L VI A2GS**	13.1	**WAL628476**
S	800 (11603)	6	M 14 x 1.5	17	**W-R-PLUS-M 6 S VI A2GS**	8.7	**WAL628477**
		8	M 16 x 1.5	19	**W-R-PLUS-M 8 S VI A2GS**	8.7	**WAL628478**
		10	M 18 x 1.5	22	**W-R-PLUS-M 10 S VI A2GS**	9.3	**WAL628479**
	630 (9137)	12	M 20 x 1.5	24	**W-R-PLUS-M 12 S VI A2GS**	9.4	**WAL628480**
		16	M 24 x 1.5	30	**W-R-PLUS-M 16 S VI A2GS**	9.9	**WAL628481**
	420 (6091)	20	M 30 x 2	36	**W-R-PLUS-M 20 S VI A2GS**	12.8	**WAL628482**
		25	M 36 x 2	46	**W-R-PLUS-M 25 S VI A2GS**	12.5	**WAL628483**
		30	M 42 x 2	50	**W-R-PLUS-M 30 S VI A2GS**	13.1	**WAL628484**
		38	M 52 x 2	60	**W-R-PLUS-M 38 S VI A2GS**	13.9	**WAL628485**

W-R-PLUS

- WalringPlus cutting ring





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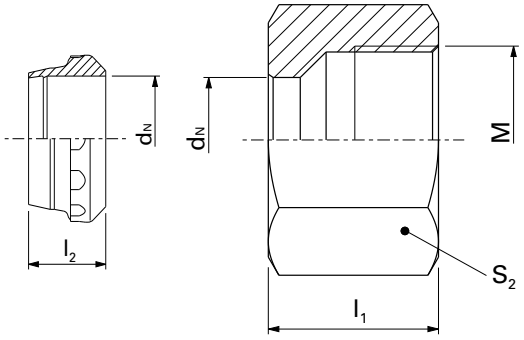
Series	PN bar (psi)	Tube outer diameter d_N	Model	l_2 cutting ring	Art.no.
L	500 (7252)	6	**W-R-PLUS 6 L/S VI**	8.7	**WAL628211**
		8	**W-R-PLUS 8 L/S VI**	8.7	**WAL628212**
		10	**W-R-PLUS 10 L/S VI**	9.3	**WAL628213**
	400 (5801)	12	**W-R-PLUS 12 L/S VI**	9.4	**WAL628214**
		15	**W-R-PLUS 15 L VI**	9.6	**WAL628215**
		18	**W-R-PLUS 18 L VI**	10.1	**WAL628216**
	250 (3626)	22	**W-R-PLUS 22 L VI**	11.4	**WAL628217**
		28	**W-R-PLUS 28 L VI**	11.4	**WAL628218**
		35	**W-R-PLUS 35 L VI**	13.3	**WAL628219**
		42	**W-R-PLUS 42 L VI**	13.1	**WAL628220**
S	800 (11603)	6	**W-R-PLUS 6 L/S VI**	8.7	**WAL628211**
		8	**W-R-PLUS 8 L/S VI**	8.7	**WAL628212**
		10	**W-R-PLUS 10 L/S VI**	9.3	**WAL628213**
	630 (9137)	12	**W-R-PLUS 12 L/S VI**	9.4	**WAL628214**
		16	**W-R-PLUS 16 S VI**	9.9	**WAL628225**
	420 (6091)	20	**W-R-PLUS 20 S VI**	12.8	**WAL628226**
		25	**W-R-PLUS 25 S VI**	12.5	**WAL628227**
		30	**W-R-PLUS 30 S VI**	13.1	**WAL628228**
		38	**W-R-PLUS 38 S VI**	13.9	**WAL628229**

PR-M ...

PR-M ... -1.4571

- Walpro system nut

D





									Walpro system nut PR-M ...	Walpro system nut stainless steel (1.4571) PR-M ... -1.4571*
Series	PN bar (psi)	Tube outer diameter d_N	Model	kg/ 100 pc.	M	l_1	S_2	l_2	Part no.	Part no.
LL	100 (1450)	4	**SR-M 4 LL**	0.5	M 8 x 1	11	10	6	**WAL626000**	**WAL626100**
		6	**SR-M 6 LL**	0.6	M 10 x 1	11.5	12	7	**WAL626001**	**WAL626101**
		8	**SR-M 8 LL**	0.8	M 12 x 1	12	14	7	**WAL626002**	**WAL626102**
L	500 (7252)	6	**PR-M 6 L**	1.1	M 12 x 1.5	14.5	14	9.8	**WAL626003**	**WAL626103**
		8	**PR-M 8 L**	1.7	M 14 x 1.5	14.5	17	9.5	**WAL626004**	**WAL626104**
		10	**PR-M 10 L**	2.4	M 16 x 1.5	15.5	19	10	**WAL626005**	**WAL626105**
	400 (5801)	12	**PR-M 12 L**	3.0	M 18 x 1.5	15.5	22	9.5	**WAL626006**	**WAL626106**
		15	**PR-M 15 L**	4.6	M 22 x 1.5	17	27	9.8	**WAL626007**	**WAL626107**
		18	**PR-M 18 L**	6.7	M 26 x 1.5	18	32	9.8	**WAL626008**	**WAL626108**
	250 (3626)	22	**PR-M 22 L**	8.9	M 30 x 2	20	36	10.5	**WAL626009**	**WAL626109**
		28	**PR-M 28 L**	9.7	M 36 x 2	21	41	11	**WAL626010**	**WAL626110**
		35	**PR-M 35 L**	15.3	M 45 x 2	24	50	13	**WAL626011**	**WAL626111**
		42	**PR-M 42 L**	23.8	M 52 x 2	24	60	13	**WAL626012**	**WAL626112**
S	800 (11603)	6	**PR-M 6 S**	1.7	M 14 x 1.5	16.5	17	9.8	**WAL626013**	**WAL626113**
		8	**PR-M 8 S**	2.0	M 16 x 1.5	16.5	19	9.5	**WAL626014**	**WAL626114**
		10	**PR-M 10 S**	3.4	M 18 x 1.5	17.5	22	10	**WAL626015**	**WAL626115**
	630 (9137)	12	**PR-M 12 S**	4.0	M 20 x 1.5	17.5	24	9.5	**WAL626016**	**WAL626116**
		14	**PR-M 14 S**	5.6	M 22 x 1.5	20.5	27	10	**WAL626017**	**WAL626117**
		16	**PR-M 16 S**	6.7	M 24 x 1.5	20.5	30	10.3	**WAL626018**	**WAL626118**
	420 (6091)	20	**PR-M 20 S**	10.6	M 30 x 2	24	36	12	**WAL626019**	**WAL626119**
		25	**PR-M 25 S**	21.0	M 36 x 2	27	46	12	**WAL626020**	**WAL626120**
		30	**PR-M 30 S**	23.6	M 42 x 2	29	50	13	**WAL626021**	**WAL626121**
		38	**PR-M 38 S**	33.6	M 52 x 2	32.5	60	13	**WAL626022**	**WAL626122**

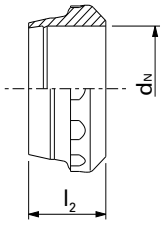
Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

*Silver-plated stainless steel nut (AG/AGP), see price list

P-R ...

P-R ... -1.4571

- Walpro profile ring





D

						Profile ring P-R...	Profile ring stainless steel (1.4571) P-R... -1.4571*
Series	PN bar (psi)	Tube outer diameter d_N	Model	kg/ 100 pc.	l_2	Part no.	Part no.
LL	100 (1450)	4	**S-R 4 LL**	0.05	6	**WAL039862**	**WAL029780**
		6	**S-R 6 LL**	0.09	7	**WAL039864**	**WAL029782**
		8	**S-R 8 LL**	0.1	7	**WAL039865**	**WAL029783**
L	500 (7252)	6	**P-R 6 L/S**	0.2	9.8	**WAL372404**	**WAL618843**
		8	**P-R 8 L/S**	0.29	9.5	**WAL372405**	**WAL618844**
		10	**P-R 10 L/S**	0.39	10	**WAL372406**	**WAL618845**
	400 (5801)	12	**P-R 12 L/S**	0.45	9.5	**WAL372407**	**WAL618846**
		15	**P-R 15 L**	0.58	9.8	**WAL372408**	**WAL618847**
		18	**P-R 18 L**	0.73	9.8	**WAL372409**	**WAL618848**
	250 (3626)	22	**P-R 22 L**	0.86	10.5	**WAL372410**	**WAL618849**
		28	**P-R 28 L**	1.17	11	**WAL372411**	**WAL618850**
		35	**P-R 35 L**	2.31	13	**WAL372412**	**WAL618851**
		42	**P-R 42 L**	2.83	13	**WAL372413**	**WAL618852**
S	800 (11603)	6	**P-R 6 L/S**	0.2	9.8	**WAL372404**	**WAL618843**
		8	**P-R 8 L/S**	0.29	9.5	**WAL372405**	**WAL618844**
		10	**P-R 10 L/S**	0.39	10	**WAL372406**	**WAL618845**
	630 (9137)	12	**P-R 12 L/S**	0.45	9.5	**WAL372407**	**WAL618846**
		14	**P-R 14 S**	0.61	10	**WAL372414**	**WAL618853**
		16	**P-R 16 S**	0.74	10.3	**WAL372415**	**WAL618854**
	420 (6091)	20	**P-R 20 S**	1.13	12	**WAL372416**	**WAL618855**
		25	**P-R 25 S**	1.53	12	**WAL372417**	**WAL618856**
		30	**P-R 30 S**	2.13	13	**WAL372418**	**WAL618857**
		38	**P-R 38 S**	2.55	13	**WAL372419**	**WAL618858**

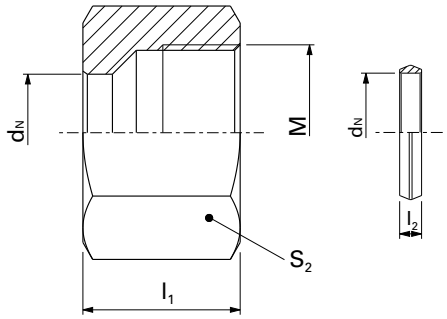
Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

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WF-M … VI

WF-M … VI-1.4571

- Walform system nut
- Walform soft seal made from FPM (e.g. Viton)



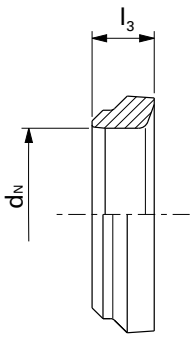


Series	PN bar (psi)	Tube outer diameter d_N	Model	kg/ 100 pc.	M	l_1	l_2	S_2	Walform WF-M … VI Part no.	Walform Stainless steel (1.4571) WF-M … VI-1.4571 Part no.
L	500 (7252)	6	**WF-M 6 L VI**	0.9	M 12 x 1.5	14.5	2.7	14	**WAL625940**	**WAL625980**
		8	**WF-M 8 L VI**	1.4	M 14 x 1.5	14.5	2.7	17	**WAL625941**	**WAL625981**
		10	**WF-M 10 L VI**	2.0	M 16 x 1.5	15.5	2.95	19	**WAL625942**	**WAL625982**
	400 (5801)	12	**WF-M 12 L VI**	2.5	M 18 x 1.5	15.5	2.95	22	**WAL625943**	**WAL625983**
		15	**WF-M 15 L VI**	4.0	M 22 x 1.5	17	2.95	27	**WAL625944**	**WAL625984**
		18	**WF-M 18 L VI**	6.0	M 26 x 1.5	18	2.95	32	**WAL625945**	**WAL625985**
	250 (3626)	22	**WF-M 22 L VI**	8.0	M 30 x 2	20	2.95	36	**WAL625946**	**WAL625986**
		28	**WF-M 28 L VI**	8.5	M 36 x 2	21	2.95	41	**WAL625947**	**WAL625987**
		35	**WF-M 35 L VI**	13.0	M 45 x 2	24	3.5	50	**WAL625948**	**WAL625988**
		42	**WF-M 42 L VI**	21.0	M 52 x 2	24	3.5	60	**WAL625949**	**WAL625989**
S	800 (11603)	6	**WF-M 6 S VI**	1.5	M 14 x 1.5	16.5	2.7	17	**WAL625950**	**WAL625990**
		8	**WF-M 8 S VI**	1.7	M 16 x 1.5	16.5	2.7	19	**WAL625951**	**WAL625991**
		10	**WF-M 10 S VI**	3.0	M 18 x 1.5	17.5	2.95	22	**WAL625952**	**WAL625992**
	630 (9137)	12	**WF-M 12 S VI**	3.5	M 20 x 1.5	17.5	2.95	24	**WAL625953**	**WAL625993**
		16	**WF-M 16 S VI**	6.0	M 24 x 1.5	20.5	2.95	30	**WAL625954**	**WAL625994**
	420 (6091)	20	**WF-M 20 S VI**	9.5	M 30 x 2	24	3.7	36	**WAL625955**	**WAL625995**
		25	**WF-M 25 S VI**	19.5	M 36 x 2	27	3.7	46	**WAL625956**	**WAL625996**
		30	**WF-M 30 S VI**	21.5	M 42 x 2	29	3.85	50	**WAL625957**	**WAL625997**
		38	**WF-M 38 S VI**	31.0	M 52 x 2	32.5	3.5	60	**WAL625958**	**WAL625998**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Support rings for WalformPlus-SR

Dimensions	Tube outer diameter d_N	Model	Part no.	l_3
6 x 1.0	6	**WF-PLUS-SR 6 L/S**	**WAL625132**	5.3
8 x 1.0	8	**WF-PLUS-SR 8 L/S**	**WAL625133**	5.6
10 x 1.0	10	**WF-PLUS-SR 10 L/S**	**WAL625134**	5.8
12 x 1.0	12	**WF-PLUS-SR 12 L/S**	**WAL625135**	5.8
15 x 1.0	15	**WF-PLUS-SR 15 L**	**WAL625136**	5.7
16 x 1.5	16	**WF-PLUS-SR 16 S**	**WAL625137**	5.7
18 x 1.5	18	**WF-PLUS-SR 18 L**	**WAL625138**	6.0
22 x 1.5	22	**WF-PLUS-SR 22 L**	**WAL625139**	6.6
30 x 2.0	30	**WF-PLUS-SR 30 S**	**WAL625140**	7.6
35 x 2.0	35	**WF-PLUS-SR 35 L**	**WAL625141**	7.6
42 x 2.0	42	**WF-PLUS-SR 42 L**	**WAL625142**	7.6

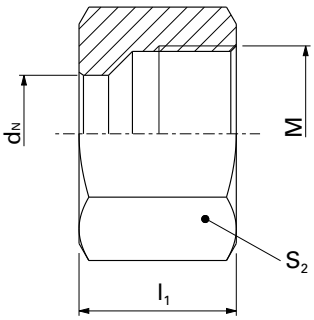




M ...

M ... -1.4571

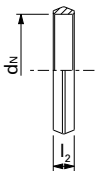
- Union nut





WF-WD ... VI

- Walform soft seal made from FPM** (e.g. Viton)
- Alternative option: Walform soft seal made from NBR (e.g. Perbunan)





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Series	PN bar (psi)	Tube outer diameter d_N	Model	kg/ 100 pc.	Union nut M ... Part no.	Union nut Stainless steel (1.4571) M ... -1.4571* Part no.	Model	Walform soft seal WF-WD ... VI** Part no.	Alternative option: Replacement soft seal made from NBR WF-WD ... Part no.
L	500 (7252)	6	M 6 L	0.9	WAL039842	WAL027927	WF-WD 6 L/S VI	WAL610871	WAL612893
		8	M 8 L	1.4	WAL039843	WAL027928	WF-WD 8 L/S VI	WAL610872	WAL612894
		10	M 10 L	2.0	WAL039844	WAL027929	WF-WD 10 L/S VI	WAL610873	WAL612840
	400 (5801)	12	M 12 L	2.5	WAL039845	WAL027930	WF-WD 12 L/S VI	WAL610874	WAL612790
		15	M 15 L	4.0	WAL039846	WAL027931	WF-WD 15 L VI	WAL610875	WAL612479
		18	M 18 L	6.0	WAL039847	WAL027932	WF-WD 18 L VI	WAL610877	WAL612896
	250 (3626)	22	M 22 L	8.0	WAL039848	WAL027933	WF-WD 22 L VI	WAL610879	WAL612897
		28	M 28 L	8.5	WAL039849	WAL027934	WF-WD 28 L VI	WAL610881	WAL612898
		35	M 35 L	13.0	WAL039850	WAL027935	WF-WD 35 L VI	WAL610883	WAL612899
		42	M 42 L	21.0	WAL039851	WAL027936	WF-WD 42 L VI	WAL610885	WAL612900
S	800 (11603)	6	M 6 S	1.5	WAL039852	WAL028649	WF-WD 6 L/S VI	WAL610871	WAL612893
		8	M 8 S	1.7	WAL039853	WAL027937	WF-WD 8 L/S VI	WAL610872	WAL612894
		10	M 10 S	3.0	WAL039854	WAL027938	WF-WD 10 L/S VI	WAL610873	WAL612840
	630 (9137)	12	M 12 S	3.5	WAL039855	WAL027939	WF-WD 12 L/S VI	WAL610874	WAL612790
		16	M 16 S	6.0	WAL039857	WAL027941	WF-WD 16 S VI	WAL610876	WAL612895
	420 (6091)	20	M 20 S	9.5	WAL039858	WAL027942	WF-WD 20 S VI	WAL610878	WAL612480
		25	M 25 S	19.5	WAL039859	WAL027943	WF-WD 25S VI	WAL610880	WAL612791
		30	M 30 S	21.5	WAL039860	WAL027944	WF-WD 30 S VI	WAL610882	WAL612481
		38	M 38 S	31.0	WAL039861	WAL027945	WF-WD 38 S VI	WAL610884	WAL612837

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

*Silver-plated stainless steel nut (AG/AGP), see price list

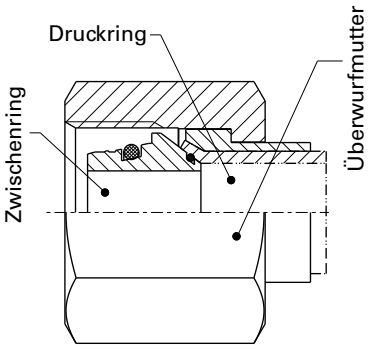
**EPDM available on request

BO-A ...

BO-A ...-1.4571

- Flare connecting parts for flare tube fittings, consisting of

D







Series	PN bar (psi)	Tube outer diameter d_N	Model	kg/ 100 pc.	Flare connecting parts BO-A ... Part no.*	Flare connecting parts Stainless steel (1.4571) BO-A ... VI-1.4571 Part no.	Intermediate ring with O-rings	Sleeve	Union nut
L	500 (7252)	6	BO-A 6 L	1.6	WAL374800	WAL603919	BO-ZR 6 L/S	BO-DR 6 L/S	BO-M 6 L
		8	BO-A 8 L	2.4	WAL374801	WAL603920	BO-ZR 8 L/S	BO-DR 8 L/S	BO-M 8 L
		10	BO-A 10 L	3.2	WAL374802	WAL603921	BO-ZR 10 L/S	BO-DR 10 L/S	BO-M 10 L
	400 (5801)	12	BO-A 12 L	4.4	WAL374803	WAL603922	BO-ZR 12 L/S	BO-DR 12 L/S	BO-M 12 L
		15	BO-A 15 L	7.2	WAL374804	WAL603923	BO-ZR 15 L	BO-DR 15 L	BO-M 14 S/15 L
		18	BO-A 18 L	10.1	WAL374805	WAL603924	BO-ZR 18 L	BO-DR 18 L	BO-M 18 L
	250 (3626)	22	BO-A 22 L	14.2	WAL374806	WAL603925	BO-ZR 22 L	BO-DR 22 L	BO-M 20 S/22 L
		28	BO-A 28 L	15.9	WAL374807	WAL603926	BO-ZR 28 L	BO-DR 28 L	BO-M 28 L
		35	BO-A 35 L	25.5	WAL374808	WAL603927	BO-ZR 35 L	BO-DR 35 L	BO-M 35 L
		42	BO-A 42 L	42.2	WAL374809	WAL603928	BO-ZR 42 L	BO-DR 42 L	BO-M 42 L
S	630 (9137)	6	BO-A 6 S	2.4	WAL374810	WAL603929	BO-ZR 6 L/S	BO-DR 6 L/S	BO-M 6 S
		8	BO-A 8 S	3.1	WAL374811	WAL603930	BO-ZR 8 L/S	BO-DR 8 L/S	BO-M 8 S
		10	BO-A 10 S	4.5	WAL374812	WAL603931	BO-ZR 10 L/S	BO-DR 10 L/S	BO-M 10 S
		12	BO-A 12 S	5.4	WAL374813	WAL603932	BO-ZR 12 L/S	BO-DR 12 L/S	BO-M 12 S
		14	BO-A 14 S	7.6	WAL374814	WAL603933	BO-ZR 14 S	BO-DR 14 S	BO-M 14 S/15 L
		16	BO-A 16 S	10.8	WAL374815	WAL603934	BO-ZR 16 S	BO-DR 16 S	BO-M 16 S
	400 (5801)	20	BO-A 20 S	15.5	WAL374816	WAL603935	BO-ZR 20 S	BO-DR 20 S	BO-M 20 S/22 L
		25	BO-A 25 S	26.7	WAL374817	WAL603936	BO-ZR 25 S	BO-DR 25 S	BO-M 25 S
		30	BO-A 30 S	33.0	WAL374818	WAL603937	BO-ZR 30 S	BO-DR 30 S	BO-M 30 S
		38	BO-A 38 S	51.5	WAL374819	WAL603938	BO-ZR 38 S	BO-DR 38 S	BO-M 38 S

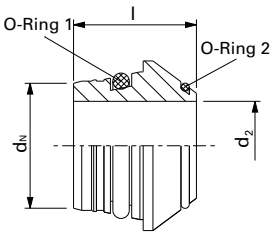
Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

*Flare connecting parts with O-rings made from Viton, see price list

BO-ZR ...

BO-ZR ... VI-1.4571

- Intermediate ring with O-rings made from NBR* (e.g. Perbunan) for steel
- Intermediate ring with O-rings made from FKM (e.g. Viton) for stainless steel (1.4571)





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									Intermediate ring with O-rings BO-ZR ...	Intermediate ring with O-rings stainless steel (1.4571) BO-ZR ... VI-1.4571
Series	PN bar (psi)	Tube outer diameter d_N	Model	kg/ 100 pc.	d_2	l	O-ring 1	O-ring 2	Part no.*	Part no.
L	500 (7252)	6	**BO-ZR 6 L/S**	0.3	3	11.5	4.5 x 1.5	4.4 x 0.8	**WAL374408**	**WAL602957**
		8	**BO-ZR 8 L/S**	0.4	5	12	6 x 1.5	6 x 0.8	**WAL374409**	**WAL602958**
		10	**BO-ZR 10 L/S**	0.6	6	12.5	8.5 x 1.5	7.5 x 0.8	**WAL374410**	**WAL602959**
	400 (5801)	12	**BO-ZR 12 L/S**	0.8	8	12.5	10 x 1.5	9.5 x 0.8	**WAL374411**	**WAL602960**
		15	**BO-ZR 15 L**	1.0	11	12.5	13 x 1.5	12.5 x 0.8	**WAL374412**	**WAL602961**
		18	**BO-ZR 18 L**	1.3	14	13	16 x 1.5	15 x 1	**WAL374413**	**WAL602962**
	250 (3626)	22	**BO-ZR 22 L**	2.1	17	14.2	20 x 2	18 x 1	**WAL374414**	**WAL602963**
		28	**BO-ZR 28 L**	2.7	23	14.7	26 x 2	23 x 1	**WAL374415**	**WAL602964**
		35	**BO-ZR 35 L**	5.4	28	18.5	32 x 2.5	30 x 1	**WAL374416**	**WAL602965**
		42	**BO-ZR 42 L**	7.3	35	20.5	38 x 2.5	37 x 1	**WAL374417**	**WAL602966**
S	630 (9137)	6	**BO-ZR 6 L/S**	0.3	3	11.5	4.5 x 1.5	4.4 x 0.8	**WAL374408**	**WAL602957**
		8	**BO-ZR 8 L/S**	0.4	5	12	6 x 1.5	6 x 0.8	**WAL374409**	**WAL602958**
		10	**BO-ZR 10 L/S**	0.6	6	12.5	8.5 x 1.5	7.5 x 0.8	**WAL374410**	**WAL602959**
		12	**BO-ZR 12 L/S**	0.8	8	12.5	10 x 1.5	9.5 x 0.8	**WAL374411**	**WAL602960**
		14	**BO-ZR 14 S**	1.1	9	14	12 x 2	11 x 1	**WAL374418**	**WAL602967**
		16	**BO-ZR 16 S**	1.5	11	15	14 x 2	12.5 x 1	**WAL374419**	**WAL602968**
	400 (5801)	20	**BO-ZR 20 S**	2.6	14	18.5	17.3 x 2.4	16 x 1	**WAL374420**	**WAL602969**
		25	**BO-ZR 25 S**	3.7	19	20	22.3 x 2.4	20 x 1	**WAL374421**	**WAL602970**
		30	**BO-ZR 30 S**	5.7	23	22	27.3 x 2.4	25 x 1	**WAL374422**	**WAL602971**
		38	**BO-ZR 38 S**	8.8	30	26	35 x 2.5	32 x 1.78	**WAL374423**	**WAL602972**

⚠ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

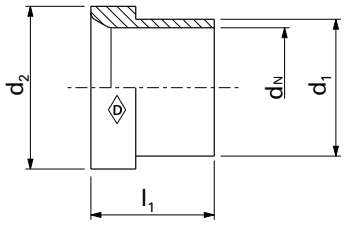
*Intermediate rings with O-rings made from Viton, see price list

BO-DR ...

BO-DR ... 1.4571

- Sleeve

D





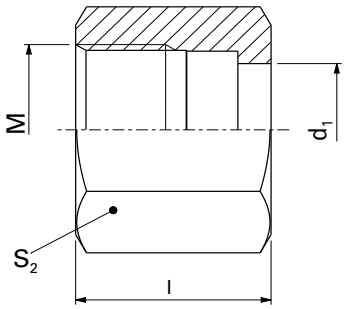
								Sleeve BO-DR ...	Sleeve stainless steel (1.4571) BO-DR ... -1.4571
Series	PN bar (psi)	Tube outer diameter d_N	Model	kg/ 100 pc.	d_1	d_2	l_1	Part no.	Part no.
L	500 (7252)	6	**BO-DR 6 L/S**	0.2	7.6	10.2	10.5	**WAL374376**	**WAL602973**
		8	**BO-DR 8 L/S**	0.3	9.3	12.2	11.0	**WAL374377**	**WAL602974**
		10	**BO-DR 10 L/S**	0.4	11.5	14.2	12.5	**WAL374378**	**WAL602975**
	400 (5801)	12	**BO-DR 12 L/S**	0.5	13.6	16.2	13.0	**WAL374379**	**WAL602976**
		15	**BO-DR 15 L**	0.9	17.5	20.2	14.0	**WAL374380**	**WAL602977**
		18	**BO-DR 18 L**	1.4	21	24.2	14.5	**WAL374381**	**WAL602978**
	250 (3626)	22	**BO-DR 22 L**	1.6	24.2	27.8	18.0	**WAL374382**	**WAL602979**
		28	**BO-DR 28 L**	2.0	30.2	33.8	17.0	**WAL374383**	**WAL602980**
		35	**BO-DR 35 L**	3.7	38	42.7	19.0	**WAL374384**	**WAL602981**
		42	**BO-DR 42 L**	5.0	45	49.7	21.0	**WAL374385**	**WAL602982**
S	630 (9137)	6	**BO-DR 6 L/S**	0.2	7.6	10.2	10.5	**WAL374376**	**WAL602973**
		8	**BO-DR 8 L/S**	0.3	9.3	12.2	11.0	**WAL374377**	**WAL602974**
		10	**BO-DR 10 L/S**	0.4	11.5	14.2	12.5	**WAL374378**	**WAL602975**
		12	**BO-DR 12 L/S**	0.5	13.6	16.2	13.0	**WAL374379**	**WAL602976**
		14	**BO-DR 14 S**	1.2	17.5	20.2	14.5	**WAL374386**	**WAL602983**
		16	**BO-DR 16 S**	1.3	18.5	22.0	17.0	**WAL374387**	**WAL602984**
	400 (5801)	20	**BO-DR 20 S**	2.4	24.2	27.8	17.5	**WAL374388**	**WAL602985**
		25	**BO-DR 25 S**	3.1	28.5	32.8	20.0	**WAL374389**	**WAL602986**
		30	**BO-DR 30 S**	4.5	34	39.0	21.5	**WAL374390**	**WAL602987**
		38	**BO-DR 38 S**	7.5	42	48.5	26.5	**WAL374391**	**WAL602988**

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

BO-M ...

BO-M ... 1.4571

- Union nut





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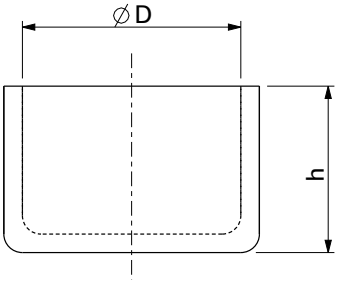
									Union nut BO-M ...	Union nut stainless steel (1.4571) BO-M ... -1.4571
Series	PN bar (psi)	Tube outer diameter d_N	Model	kg/ 100 pc.	M	l	d_1	S_2	Part no.	Part no.
L	500 (7252)	6	**BO-M 6 L**	1.1	M 12 x 1.5	17	7.8	14	**WAL374510**	**WAL603901**
		8	**BO-M 8 L**	1.7	M 14 x 1.5	18	9.5	17	**WAL374511**	**WAL603902**
		10	**BO-M 10 L**	2.2	M 16 x 1.5	19.5	11.7	19	**WAL374512**	**WAL603903**
	400 (5801)	12	**BO-M 12 L**	3.1	M 18 x 1.5	20.5	13.8	22	**WAL374513**	**WAL603904**
		15	**BO-M 14 S/15 L**	5.3	M 22 x 1.5	23	17.7	27	**WAL374522**	**WAL603905**
		18	**BO-M 18 L**	7.4	M 26 x 1.5	23	21.2	32	**WAL374514**	**WAL603906**
	250 (3626)	22	**BO-M 20 S/22 L**	10.5	M 30 x 2	27.5	24.4	36	**WAL374524**	**WAL603907**
		28	**BO-M 28 L**	11.2	M 36 x 2	27.5	30.4	41	**WAL374515**	**WAL603908**
		35	**BO-M 35 L**	16.4	M 45 x 2	30	38.3	50	**WAL374516**	**WAL603909**
		42	**BO-M 42 L**	29.9	M 52 x 2	34	45.3	60	**WAL374517**	**WAL603910**
S	630 (9137)	6	**BO-M 6 S**	1.9	M 14 x 1.5	18	7.8	17	**WAL374518**	**WAL603911**
		8	**BO-M 8 S**	2.5	M 16 x 1.5	19	9.5	19	**WAL374519**	**WAL603912**
		10	**BO-M 10 S**	3.5	M 18 x 1.5	20.5	11.7	22	**WAL374520**	**WAL603913**
		12	**BO-M 12 S**	4.1	M 20 x 1.5	21	13.8	24	**WAL374521**	**WAL603914**
		14	**BO-M 14 S/15 L**	5.3	M 22 x 1.5	23	17.7	27	**WAL374522**	**WAL603905**
		16	**BO-M 16 S**	8.0	M 24 x 1.5	26.5	18.7	30	**WAL374523**	**WAL603915**
	400 (5801)	20	**BO-M 20 S/22 L**	10.5	M 30 x 2	27.5	24.4	36	**WAL374524**	**WAL603907**
		25	**BO-M 25 S**	19.9	M 36 x 2	30.5	28.7	46	**WAL374525**	**WAL603916**
		30	**BO-M 30 S**	22.8	M 42 x 2	32	34.2	50	**WAL374526**	**WAL603917**
		38	**BO-M 38**	35.2	M 52 x 2	38	42.3	60	**WAL374527**	**WAL603918**

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Cap M ...

- Protective cap for intermediate rings (tube end)
- Material: HD polyethylene

D





						Cap M ...
Series	Tube outer diameter d_N	Model	M	Ø D	h	Part no.
L	6	**Cap M 12**	M 12 x 1.5	11.5	12	**WAL050120**
	8	**Cap M 14**	M 14 x 1.5	13.5	13.5	**WAL050135**
	10	**Cap M 16**	M 16 x 1.5	15.7	15	**WAL050160**
	12	**Cap M 18**	M 18 x 1.5	17.7	15	**WAL050180**
	15	**Cap M 22**	M 22 x 1.5	21.3	15.5	**WAL050213**
	18	**Cap M 26**	M 26 x 1.5	25.4	17.5	**WAL064030**
	22	**Cap M 30**	M 30 x 2	29.3	18	**WAL050300**
	28	**Cap M 36 / H=25**	M 36 x 2	34.8	25	**WAL374826**
	35	**Cap M 45**	M 45 x 2	44.5	35	**WAL064031**
	42	**Cap M 52 / H=29**	M 52 x 2	50.6	29	**WAL374827**
S	6	**Cap M 14**	M 14 x 1.5	13.5	13.5	**WAL050135**
	8	**Cap M 16**	M 16 x 1.5	15.7	15	**WAL050160**
	10	**Cap M 18**	M 18 x 1.5	17.7	15	**WAL050180**
	12	**Cap M 20**	M 20 x 1.5	19.7	14	**WAL050200**
	14	**Cap M 22**	M 22 x 1.5	21.3	15.5	**WAL050213**
	16	**Cap M 24**	M 24 x 1.5	23.5	18.5	**WAL050240**
	20	**Cap M 30**	M 30 x 2	29.3	18	**WAL050300**
	25	**Cap M 36 / H=25**	M 36 x 2	34.8	25	**WAL374826**
	30	**Cap M 42**	M 42 x 2	41.9	28	**WAL050421**
	38	**Cap M 52 / H=29**	M 52 x 2	50.6	29	**WAL374827**

E Male studs, connecting studs, bulkhead studs, weldable studs



	Figure Fitting	Figure Stud	Model	Page
Straight male fittings / straight male studs			P-GEV / GES … RK	E3 / E4
			P-GEV / GES … MK	E3 / E4
			P-GEV / GES … NPT	E5 / E6
			P-GEV / GES … R	E6 - E10
			P-GEV / GES … M	E11 / E12
			P-GEV / GES … R-WD	E13 / E14
			P-GEV / GES … M-WD	E15 / E16
			P-GEV / GES … UNF / UN	E17 / E18
			P-GEV / GES … M-OR	E19 / E20
Male elbow fittings / male elbow studs			P-WEV / WES … RK	E21 / E22
			P-WEV / WES … MK	E23 / E24
			P-WEV / WES … NPT	E25 / E26
Straight fittings / straight studs			P-GV … / GS …	E27 / E28
Straight reducer fittings / straight reducer studs			P-GV…/… / GS…/….	E29 / E30
Elbow fittings / elbow studs			P-WV … / WS …	E31 / E32
T fittings / T studs			P-TV … / TS …	E33 / E34
T reducer fittings / T reducer studs			P-TV …/…/… / TS …/…/…	E35 - E38
Cross fittings / cross studs			P-KV … / KS …	E39 / E40
Straight bulkhead fittings / straight bulkhead studs			P-GSV … / GSS …	E41 / E42
Bulkhead elbow fittings / bulkhead elbow studs			P-WSV … / WSS …	E43 / E44
Weld-on fittings / weld-on studs			P-ASV … / ASS …	E45 / E46
Weld-in bulkhead fittings / weld-in bulkhead studs			P-ESV … / ESS …	E47 / E48

E

Special parts are available on request.

P-GEV ... RK

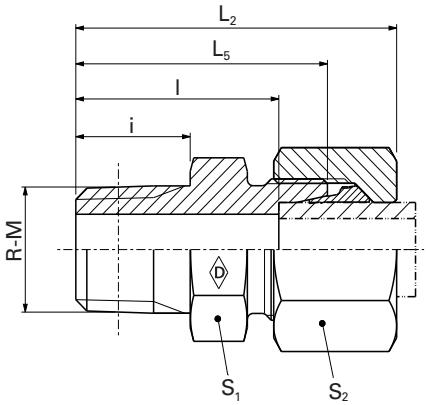
P-GEV ... RK-1.4571

P-GEV ... MK

P-GEV ... MK-1.4571

- Tapered studs, type C according to DIN 3852-2, with Whitworth thread
- Tapered studs, type C according to DIN 3852-1, with metric thread

E





												Walpro P-GEV ...	Walpro stainless steel P-GEV ...-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	R-M	L_2	L_5	l	i	S_1	S_2	Part no.	Part no.
LL	100 (1450)	4	**S-GEV 4 LLRK**	1.4	R 1/8 taper	25.5	20	16	8	10	10	**WAL038218**	**WAL604569**
		6	**S-GEV 6 LLRK**	1.6	R 1/8 taper	26.0	20	14.5	8	11	12	**WAL038220**	**WAL060989**
		8	**S-GEV 8 LLRK**	1.8	R 1/8 taper	28.0	22	16.5	8	12	14	**WAL038221**	**WAL370813**
L	250 (3626)	6	**P-GEV 6 L/R 1/4 K**	3.4	R 1/4 taper	34.5	27	20	12	14	14	**WAL373003**	**WAL620527**
		8	**P-GEV 8 LRK**	3.7	R 1/4 taper	34.5	27	20	12	14	17	**WAL373004**	**WAL620492**
		8	**P-GEV 8 L/R 3/8 K**	4.9	R 3/8 taper	34.5	27	20	12	17	17	**WAL373005**	**WAL620539**
		10	**P-GEV 10 LRK**	4.8	R 1/4 taper	35.5	28	21	12	17	19	**WAL373006**	**WAL620131**
		10	**P-GEV 10 L/R 3/8 K**	5.4	R 3/8 taper	35.5	28	21	12	17	19	**WAL373007**	**WAL620132**
		12	**P-GEV 12 L/R 1/4 K**	5.7	R 1/4 taper	36.5	29	22	12	19	22	**WAL373008**	**WAL620350**
		12	**P-GEV 12 LRK**	6.1	R 3/8 taper	36.5	29	22	12	19	22	**WAL373009**	**WAL620354**
		12	**P-GEV 12 L/R 1/2 K**	7.8	R 1/2 taper	38.5	31	24	14	22	22	**WAL373010**	**WAL620553**
		15	**P-GEV 15 LRK**	10.2	R 1/2 taper	40.0	32	25	14	24	27	**WAL373011**	**WAL620357**
LL	100 (1450)	4	**S-GEV 4 LLMK**	1.4	M 8 x 1 taper	25.5	20	16	8	10	10	**WAL038230**	**WAL617077**
		6	**S-GEV 6 LLMK**	1.6	M 10 x 1 taper	26.0	20	14.5	8	11	12	**WAL038232**	**WAL616303**
		8	**S-GEV 8 LLMK**	1.8	M 10 x 1 taper	28.0	22	16.5	8	12	14	**WAL038233**	**WAL616304**
L	250 (3626)	8	**P-GEV 8 LMK**	3.5	M 12 x 1.5 taper	34.5	27	20	12	14	17	**WAL373016**	**WAL620514**
		10	**P-GEV 10 LMK**	4.7	M 14 x 1.5 taper	35.5	28	21	12	17	19	**WAL373018**	**WAL621151**
		10	**P-GEV 10 L/M 16 x 1.5 K**	5.1	M 16 x 1.5 taper	35.5	28	21	12	17	19	**WAL373019**	**WAL620859**
		12	**P-GEV 12 LMK**	5.9	M 16 x 1.5 taper	36.5	29	22	12	19	22	**WAL373020**	**WAL620916**
		12	**P-GEV 12 L/M 18 x 1.5 K**	6.5	M 18 x 1.5 taper	36.5	29	22	12	19	22	**WAL373021**	**WAL620917**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened

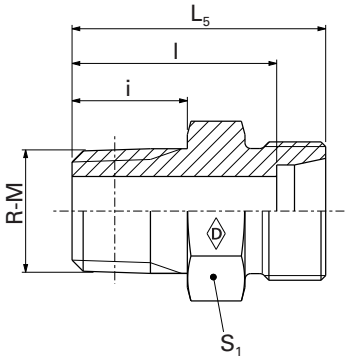
Special parts are available on request.

GES ... RK

GES ... RK-1.4571

GES ... MK

GES ... MK-1.4571





E

								System nuts for supplementing the stud (for technical data, see part D of this catalog)		
						Stud GES ...	Stud Stainless steel GES ... -1.4571*	WalringPlus W-R-Plus-M...	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
Series	PN bar (psi)	Tube outer diameter (Ø ext.)	Model	kg/ 100 pc.	R-M	Part no.	Part no.	Part no.	Part no.	Part no.
LL	100 (1450)	4	**GES 4 LLRK**	0.8	R 1/8 taper	**WAL037505**	**WAL604568**			
		6	**GES 6 LLRK**	1.0	R 1/8 taper	**WAL037507**	**WAL060990**			
		8	**GES 8 LLRK**	1.0	R 1/8 taper	**WAL037508**	**WAL061563**			
L	250 (3626)	6	**GES 6 L/R 1/4 K**	2.0	R 1/4 taper	**WAL037509**	**WAL372345**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**GES 8 LRK**	2.0	R 1/4 taper	**WAL037510**	**WAL604014**	**WAL628468**	**WAL625941**	**WAL625981**
		8	**GES 8 L/R 3/8 K**	3.0	R 3/8 taper	**WAL037511**	**WAL605046**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**GES 10 LRK**	2.4	R 1/4 taper	**WAL037512**	**WAL060086**	**WAL628469**	**WAL625942**	**WAL625982**
		10	**GES 10 L/R 3/8 K**	2.9	R 3/8 taper	**WAL037513**	**WAL060988**	**WAL628469**	**WAL625942**	**WAL625982**
		12	**GES 12 L/R 1/4 K**	3.0	R 1/4 taper	**WAL037514**	**WAL372151**	**WAL628470**	**WAL625943**	**WAL625983**
		12	**GES 12 LRK**	3.4	R 3/8 taper	**WAL037515**	**WAL372295**	**WAL628470**	**WAL625943**	**WAL625983**
		12	**GES 12 L/R 1/2 K**	4.9	R 1/2 taper	**WAL037516**	**WAL374441**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**GES 15 LRK**	5.4	R 1/2 taper	**WAL028100**	**WAL068952**	**WAL628471**	**WAL625944**	**WAL625984**
LL	100 (1450)	4	**GES 4 LLMK**	0.6	M 8 x 1 taper	**WAL037517**	**WAL617315**			
		6	**GES 6 LLMK**	0.8	M 10 x 1 taper	**WAL037519**	**WAL617316**			
		8	**GES 8 LLMK**	1.0	M 10 x 1 taper	**WAL037520**	**WAL061370**			
L	250 (3626)	8	**GES 8 LMK**	1.7	M 12 x 1.5 taper	**WAL037522**	**WAL604888**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**GES 10 LMK**	2.3	M 14 x 1.5 taper	**WAL037524**	**WAL617319**	**WAL628469**	**WAL625942**	**WAL625982**
		10	**GES 10 L/M 16 x 1.5 K**	2.7	M 16 x 1.5 taper	**WAL037525**	**WAL617320**	**WAL628469**	**WAL625942**	**WAL625982**
		12	**GES 12 LMK**	2.9	M 16 x 1.5 taper	**WAL037526**	**WAL617321**	**WAL628470**	**WAL625943**	**WAL625983**
		12	**GES 12 L/M 18 x 1.5 K**	4.7	M 18 x 1.5 taper	**WAL037527**	**WAL617322**	**WAL628470**	**WAL625943**	**WAL625983**

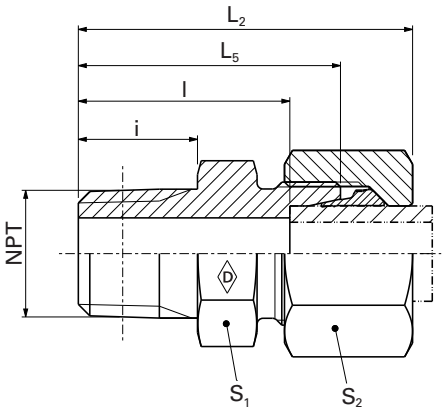
△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-GEV ... NPT

P-GEV ... NPT-1.4571

- Stud with NPT thread to ANSI/ASME B1.20.1-1983





E

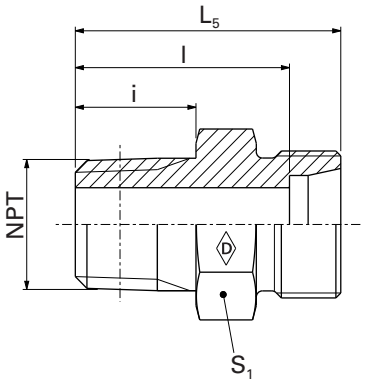
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	NPT	L_2	L_5	l	i	S_1	S_2	Walpro P-GEV ... Part no.	Walpro stainless steel P-GEV ...-1.4571* Part no.
LL	100 (1450)	4	**S-GEV 4 LL/1/8 NPT**	1.5	1/8 NPT	28	22	18	10	11	10	**WAL038241**	**WAL616310**
		6	**S-GEV 6 LL/1/8 NPT**	1.5	1/8 NPT	28	22	16.5	10	11	12	**WAL038243**	**WAL602723**
		8	**S-GEV 8 LL/1/8 NPT**	2.0	1/8 NPT	30	24	18.5	10	12	14	**WAL038244**	**WAL371302**
L	315 (4569)	6	**P-GEV 6 L/1/8 NPT**	2.6	1/8 NPT	32	24	17	10	12	14	**WAL373026**	**WAL620123**
		6	**P-GEV 6 L/1/4 NPT**	3.9	1/4 NPT	38	30	23	15	17	14	**WAL373027**	**WAL620124**
		8	**P-GEV 8 L/1/4 NPT**	4.0	1/4 NPT	38	30	23	15	17	17	**WAL373028**	**WAL620128**
		10	**P-GEV 10 L/1/4 NPT**	4.8	1/4 NPT	39	31	24	15	17	19	**WAL373029**	**WAL620147**
		10	**P-GEV 10 L/3/8 NPT**	6.0	3/8 NPT	40	32	25	15	19	19	**WAL373030**	**WAL620213**
		12	**P-GEV 12 L/1/4 NPT**	6.0	1/4 NPT	40	32	25	15	19	22	**WAL373031**	**WAL620203**
		12	**P-GEV 12 L/3/8 NPT**	6.5	3/8 NPT	40	32	25	15	19	22	**WAL373032**	**WAL620210**
		12	**P-GEV 12 L/1/2 NPT**	8.5	1/2 NPT	45	37	30	20	24	22	**WAL373033**	**WAL620157**
		15	**P-GEV 15 L/1/2 NPT**	11.0	1/2 NPT	46	38	31	20	24	27	**WAL373034**	**WAL620211**
		18	**P-GEV 18 L/1/2 NPT**	13.5	1/2 NPT	48	39	31.5	20	27	32	**WAL373035**	**WAL620161**
	160 (2321)	22	**P-GEV 22 L/3/4 NPT**	19.0	3/4 NPT	50	41	33.5	20	32	36	**WAL373036**	**WAL620260**
		28	**P-GEV 28 L/1 NPT**	27.5	1 NPT	56	47	39.5	25	41	41	**WAL373037**	**WAL620261**
		35	**P-GEV 35 L/1 1/4 NPT**	40.5	1 1/4 NPT	62	51	40.5	26	46	50	**WAL373038**	**WAL620262**
		42	**P-GEV 42 L/1 1/2 NPT**	57.0	1 1/2 NPT	65	53	42	26	55	60	**WAL373039**	**WAL620422**
S	630 (9137)	6	**P-GEV 6 S/1/4 NPT**	5.0	1/4 NPT	43	35	28	15	17	17	**WAL373040**	**WAL620189**
		8	**P-GEV 8 S/1/4 NPT**	5.5	1/4 NPT	43	35	28	15	17	19	**WAL373041**	**WAL620523**
		10	**P-GEV 10 S/1/4 NPT**	8.5	1/4 NPT	44	35	27.5	15	19	22	**WAL373042**	**WAL620659**
		10	**P-GEV 10 S/3/8 NPT**	8.0	3/8 NPT	44	35	27.5	15	19	22	**WAL373043**	**WAL620370**
		12	**P-GEV 12 S/1/4 NPT**	9.5	1/4 NPT	46	37	29.5	15	22	24	**WAL373044**	**WAL620660**
		12	**P-GEV 12 S/3/8 NPT**	10.0	3/8 NPT	46	37	29.5	15	22	24	**WAL373045**	**WAL620491**
		12	**P-GEV 12 S/1/2 NPT**	12.5	1/2 NPT	51	42	34.5	20	22	24	**WAL373046**	**WAL620294**
		14	**P-GEV 14 S/1/2 NPT**	15.5	1/2 NPT	54	44	36	20	24	27	**WAL373047**	**WAL621499**
	400 (5801)	16	**P-GEV 16 S/1/2 NPT**	16.0	1/2 NPT	54	44	35.5	20	27	30	**WAL373048**	**WAL620214**
		20	**P-GEV 20 S/3/4 NPT**	25.0	3/4 NPT	59	48	37.5	20	32	36	**WAL373049**	**WAL620212**
		25	**P-GEV 25 S/1 NPT**	47.5	1 NPT	69	57	45	25	41	46	**WAL373050**	**WAL620482**
		30	**P-GEV 30 S/1 1/4 NPT**	62.0	1 1/4 NPT	73	60	46.5	26	46	50	**WAL373051**	**WAL620497**
	315 (4569)	38	**P-GEV 38 S/1 1/2 NPT**	89.0	1 1/2 NPT	80	65	49	26	55	60	**WAL373052**	**WAL620948**

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2 = approximate dimension if the union nut is tightened

Special parts are available on request.

GES ... NPT

GES ... NPT-1.4571





E

								System nuts for supplementing the stud (for technical data, see part D of this catalog)		
						Stud GES ...	Stud Stainless steel GES ... -1.4571*	WalringPlus W-R-Plus-M...	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	NPT	Part no.	Part no.	Part no.	Part no.	Part no.
LL	100 (1450)	4	**GES 4 LL/1/8 NPT**	1.0	1/8 NPT	**WAL037528**	**WAL617323**			
		6	**GES 6 LL/1/8 NPT**	1.0	1/8 NPT	**WAL037530**	**WAL602722**			
		8	**GES 8 LL/1/8 NPT**	1.0	1/8 NPT	**WAL037531**	**WAL371296**			
L	315 (4569)	6	**GES 6 L/1/8 NPT**	1.2	1/8 NPT	**WAL037532**	**WAL060038**	**WAL628467**	**WAL625940**	**WAL625980**
		6	**GES 6 L/1/4 NPT**	2.6	1/4 NPT	**WAL037533**	**WAL060040**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**GES 8 L/1/4 NPT**	2.6	1/4 NPT	**WAL037534**	**WAL060234**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**GES 10 L/1/4 NPT**	2.7	1/4 NPT	**WAL037535**	**WAL061105**	**WAL628469**	**WAL625942**	**WAL625982**
		10	**GES 10 L/3/8 NPT**	3.7	3/8 NPT	**WAL037536**	**WAL066871**	**WAL628469**	**WAL625942**	**WAL625982**
		12	**GES 12 L/1/4 NPT**	3.3	1/4 NPT	**WAL037537**	**WAL061401**	**WAL628470**	**WAL625943**	**WAL625983**
		12	**GES 12 L/3/8 NPT**	3.6	3/8 NPT	**WAL037538**	**WAL060294**	**WAL628470**	**WAL625943**	**WAL625983**
		12	**GES 12 L/1/2 NPT**	6.4	1/2 NPT	**WAL037539**	**WAL061636**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**GES 15 L/1/2 NPT**	6.3	1/2 NPT	**WAL037540**	**WAL066642**	**WAL628471**	**WAL625944**	**WAL625984**
		18	**GES 18 L/1/2 NPT**	7.3	1/2 NPT	**WAL037541**	**WAL027537**	**WAL628472**	**WAL625945**	**WAL625985**
	160 (2321)	22	**GES 22 L/3/4 NPT**	10.1	3/4 NPT	**WAL037542**	**WAL027539**	**WAL628473**	**WAL625946**	**WAL625986**
		28	**GES 28 L/1 NPT**	17.9	1 NPT	**WAL037543**	**WAL067862**	**WAL628474**	**WAL625947**	**WAL625987**
		35	**GES 35 L/1 1/4 NPT**	25.7	1 1/4 NPT	**WAL037544**	**WAL067863**	**WAL628475**	**WAL625948**	**WAL625988**
		42	**GES 42 L/1 1/2 NPT**	35.1	1 1/2 NPT	**WAL037545**	**WAL604136**	**WAL628476**	**WAL625949**	**WAL625989**
S	630 (9137)	6	**GES 6 S/1/4 NPT**	3.6	1/4 NPT	**WAL037546**	**WAL066587**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**GES 8 S/1/4 NPT**	3.8	1/4 NPT	**WAL037547**	**WAL370917**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**GES 10 S/1/4 NPT**	4.2	1/4 NPT	**WAL037548**	**WAL604274**	**WAL628479**	**WAL625952**	**WAL625992**
		10	**GES 10 S/3/8 NPT**	4.9	3/8 NPT	**WAL037549**	**WAL372983**	**WAL628479**	**WAL625952**	**WAL625992**
		12	**GES 12 S/1/4 NPT**	5.8	1/4 NPT	**WAL037550**	**WAL372802**	**WAL628480**	**WAL625953**	**WAL625993**
		12	**GES 12 S/3/8 NPT**	6.1	3/8 NPT	**WAL037551**	**WAL372822**	**WAL628480**	**WAL625953**	**WAL625993**
		12	**GES 12 S/1/2 NPT**	8.4	1/2 NPT	**WAL037552**	**WAL371154**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**GES 14 S/1/2 NPT**	9.0	1/2 NPT	**WAL037553**	**WAL060715**			
	400 (5801)	16	**GES 16 S/1/2 NPT**	9.3	1/2 NPT	**WAL037554**	**WAL067067**	**WAL628481**	**WAL625954**	**WAL625994**
		20	**GES 20 S/3/4 NPT**	14.9	3/4 NPT	**WAL037555**	**WAL061817**	**WAL628482**	**WAL625955**	**WAL625995**
		25	**GES 25 S/1 NPT**	27.6	1 NPT	**WAL037556**	**WAL604630**	**WAL628483**	**WAL625956**	**WAL625996**
		30	**GES 30 S/1 1/4 NPT**	40.0	1 1/4 NPT	**WAL037557**	**WAL604724**	**WAL628484**	**WAL625957**	**WAL625997**
	315 (4569)	38	**GES 38 S/1 1/2 NPT**	57.4	1 1/2 NPT	**WAL037558**	**WAL617363**	**WAL628485**	**WAL625958**	**WAL625998**

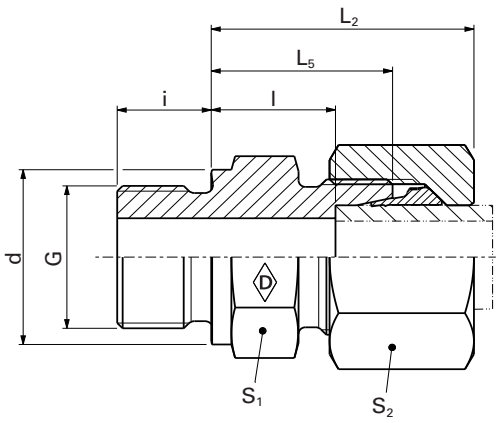
△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-GEV ... R

P-GEV ... R-1.4571

- Inch studs type B to DIN EN ISO 1179-4





E

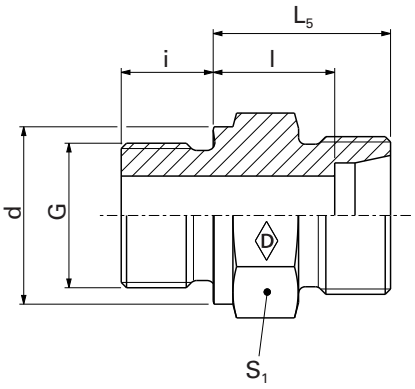
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	DIN-ISO 228 (R ..., DIN 259) G	L_2	L_5	l	i	d	S_1	S_2	Walpro P-GEV ... Part no.	Walpro stainless steel P-GEV ...-1.4571* Part no.
LL	100 (1450)	4	**S-GEV 4 LLR**	1.8	G 1/8 A	19	13.5	9.5	8	14	14	10	**WAL038272**	**WAL604717**
		6	**S-GEV 6 LLR**	1.9	G 1/8 A	19.5	13.5	8	8	14	14	12	**WAL038274**	**WAL061402**
		8	**S-GEV 8 LLR**	2.3	G 1/8 A	20.5	14.5	9	8	14	14	14	**WAL038275**	**WAL068993**
L	400 (5801)	6	**P-GEV 6 LR**	2.5	G 1/8 A	23	15.5	8.5	14	14	14	14	**WAL373056**	**WAL620004**
		6	**P-GEV 6 L/R 1/4**	4.1	G 1/4 A	24.5	17	10	12	18	19	14	**WAL373057**	**WAL620140**
		6	**P-GEV 6 L/R 3/8**	6.0	G 3/8 A	26	18.5	11.5	12	22	22	14	**WAL602638**	**WAL620269**
		8	**P-GEV 8 LR**	4.5	G 1/4 A	25	17	10	12	18	19	17	**WAL373058**	**WAL620005**
		8	**P-GEV 8 L/R 1/8**	3.3	G 1/8 A	24	16.5	9.5	8	14	14	17	**WAL604871**	**WAL620633**
		8	**P-GEV 8 L/R 3/8**	6.0	G 3/8 A	26	18.5	11.5	12	22	22	17	**WAL373059**	**WAL620174**
		8	**P-GEV 8 L/R 1/2**	7.1	G 1/2 A	16.5	19	12	14	26	27	17	**WAL374844**	**WAL620312**
		10	**P-GEV 10 L/R**	4.7	G 1/4 A	26	18	11	12	18	19	19	**WAL373060**	**WAL620006**
		10	**P-GEV 10 L/R 3/8**	6.0	G 3/8 A	27	19.5	12.5	12	22	22	19	**WAL373061**	**WAL620003**
		10	**P-GEV 10 L/R 1/2**	7.6	G 1/2 A	27.5	20	13	14	26	27	19	**WAL373062**	**WAL620230**
		12	**P-GEV 12 L/R 1/4**	6.0	G 1/4 A	27	19	12	12	18	19	22	**WAL373063**	**WAL620198**
		12	**P-GEV 12 LR**	6.3	G 3/8 A	27	19.5	12.5	12	22	22	22	**WAL373064**	**WAL620007**
		12	**P-GEV 12 L/R 1/2**	9.5	G 1/2 A	28	20	13	14	26	27	22	**WAL373065**	**WAL620148**
		15	**P-GEV 15 L/R 3/8**	9.3	G 3/8 A	28.5	20.5	13.5	12	22	24	27	**WAL373066**	**WAL620191**
		15	**P-GEV 15 LR**	16.5	G 1/2 A	29	21	14	14	26	27	27	**WAL373067**	**WAL620008**
		15	**P-GEV 15 L/R 3/4**	9.3	G 3/4 A	30	22	15	16	32	32	27	**WAL602629**	**WAL620861**
		18	**P-GEV 18 LR**	12.9	G 1/2 A	31	22	14.5	14	26	27	32	**WAL373068**	**WAL620009**
		18	**P-GEV 18 LR 3/4**	18.0	G 3/4 A	31	22	14.5	16	32	32	32	**WAL374919**	**WAL620471**
	250 (3626)	22	**P-GEV 22 LR**	17.6	G 3/4 A	33	24	16.5	16	32	32	36	**WAL373069**	**WAL620010**
		22	**P-GEV 22 LR 1/2**	17.5	G 1/2 A	33	24	16.5	14	26	32	36	**WAL373845**	**WAL620469**
		28	**P-GEV 28 LR**	24.7	G 1 A	34	25	17.5	18	39	41	41	**WAL373070**	**WAL620011**
		28	**P-GEV 28 LR 3/4**	25.0	G 3/4 A	34	25	17.5	16	32	41	41	**WAL374846**	**WAL620788**
		35	**P-GEV 35 LR**	40.7	G 1 1/4 A	39	28	17.5	20	49	50	50	**WAL373071**	**WAL620012**
		42	**P-GEV 42 LR**	45.6	G 1 1/2 A	42	30	19	22	55	55	60	**WAL373072**	**WAL620013**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened

Special parts are available on request.

GES ... R

GES ... R-1.4571





E

Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	DIN-ISO 228 (R ..., DIN 259) G	Stud GES ...	Stud Stainless steel GES ... -1.4571*	System nuts for supplementing the stud (for technical data, see part D of this catalog) WalringPlus W-R-Plus-M...	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
						Part no.	Part no.	Part no.	Part no.	Part no.
LL	100 (1450)	4	**GES 4 LLR**	1.1	G 1/8 A	**WAL037559**	**WAL604716**			
		6	**GES 6 LLR**	1.1	G 1/8 A	**WAL037561**	**WAL061403**			
		8	**GES 8 LLR**	1.2	G 1/8 A	**WAL037562**	**WAL024261**			
L	400 (5801)	6	**GES 6 LR**	1.4	G 1/8 A	**WAL037563**	**WAL025478**	**WAL628467**	**WAL625940**	**WAL625980**
		6	**GES 6 L/R 1/4**	2.9	G 1/4 A	**WAL037564**	**WAL061091**	**WAL628467**	**WAL625940**	**WAL625980**
		6	**GES 6 L/R 3/8**	9.1	G 3/8 A	**WAL027584**	**WAL617364**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**GES 8 LR**	2.7	G 1/4 A	**WAL037565**	**WAL025479**	**WAL628468**	**WAL625941**	**WAL625981**
		8	**GES 8 L/R 1/8**	1.7	G 1/8 A	**WAL604870**	**WAL024537**	**WAL628468**	**WAL625941**	**WAL625981**
		8	**GES 8 L/R 3/8**	4.4	G 3/8 A	**WAL037566**	**WAL024175**	**WAL628468**	**WAL625941**	**WAL625981**
		8	**GES 8 L/R 1/2**	7.3	G 1/2 A	**WAL062578**	**WAL066137**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**GES 10 L/R**	2.9	G 1/4 A	**WAL037567**	**WAL025480**	**WAL628469**	**WAL625942**	**WAL625982**
		10	**GES 10 L/R 3/8**	4.4	G 3/8 A	**WAL037568**	**WAL024995**	**WAL628469**	**WAL625942**	**WAL625982**
		10	**GES 10 L/R 1/2**	7.1	G 1/2 A	**WAL028087**	**WAL066688**	**WAL628469**	**WAL625942**	**WAL625982**
		12	**GES 12 L/R 1/4**	3.3	G 1/4 A	**WAL037569**	**WAL024611**	**WAL628470**	**WAL625943**	**WAL625983**
		12	**GES 12 LR**	4.3	G 3/8 A	**WAL037570**	**WAL025481**	**WAL628470**	**WAL625943**	**WAL625983**
		12	**GES 12 L/R 1/2**	6.7	G 1/2 A	**WAL037571**	**WAL024613**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**GES 15 L/R 3/8**	5.1	G 3/8 A	**WAL028669**	**WAL066617**	**WAL628471**	**WAL625944**	**WAL625984**
		15	**GES 15 LR**	6.7	G 1/2 A	**WAL037572**	**WAL025482**	**WAL628471**	**WAL625944**	**WAL625984**
		15	**GES 15 L/R 3/4**	11.6	G 3/4 A	**WAL028698**	**WAL613153**	**WAL628471**	**WAL625944**	**WAL625984**
		18	**GES 18 LR**	7.1	G 1/2 A	**WAL037573**	**WAL025483**	**WAL628472**	**WAL625945**	**WAL625985**
		18	**GES 18 L/R 3/4**	11.1	G 3/4 A	**WAL028701**	**WAL604521**	**WAL628472**	**WAL625945**	**WAL625985**
	250 (3626)	22	**GES 22 LR**	10.2	G 3/4 A	**WAL037574**	**WAL025484**	**WAL628473**	**WAL625946**	**WAL625986**
		22	**GES 22 L/R 1/2**	8.7	G 1/2 A	**WAL025257**	**WAL604504**	**WAL628473**	**WAL625946**	**WAL625986**
		28	**GES 28 LR**	16.8	G 1 A	**WAL037575**	**WAL025485**	**WAL628474**	**WAL625947**	**WAL625987**
		28	**GES 28 L/R 3/4**	14.3	G 3/4 A	**WAL060071**	**WAL615377**	**WAL628474**	**WAL625947**	**WAL625987**
		35	**GES 35 LR**	27.6	G 1 1/4 A	**WAL037576**	**WAL025486**	**WAL628475**	**WAL625948**	**WAL625988**
		42	**GES 42 LR**	35.2	G 1 1/2 A	**WAL037577**	**WAL025487**	**WAL628476**	**WAL625949**	**WAL625989**

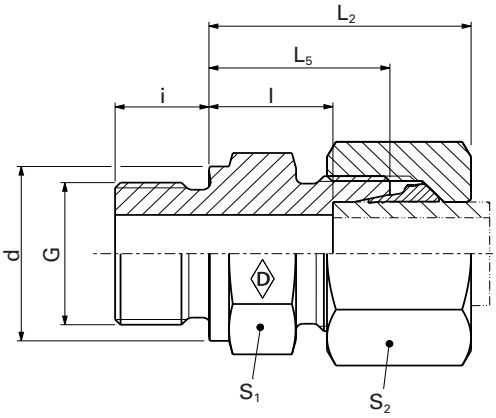
△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-GEV ... R

P-GEV ... R-1.4571

- Inch studs type B to DIN EN ISO 1179-4





L_5

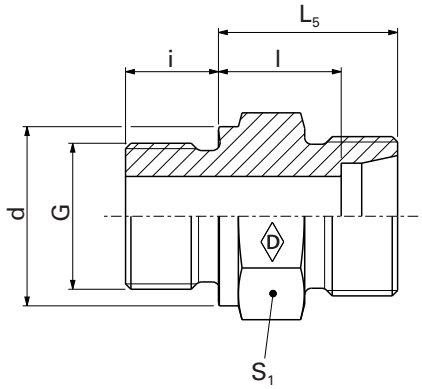
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	DIN-ISO 228 (R ..., DIN 259) G	L_2	L_5	l	i	d	S_1	S_2	Walpro P-GEV ... Part no.	Walpro stainless steel P-GEV ...-1.4571* Part no.
S	630 (9137)	6	**P-GEV 6 SR**	5	G 1/4 A	20	28	13	12	18	19	17	**WAL373073**	**WAL620014**
		8	**P-GEV 8 SR**	5.5	G 1/4 A	22	30	15	12	18	19	19	**WAL373074**	**WAL620015**
		8	**P-GEV 8 SR 3/8**	8.0	G 3/8 A	22.5	30.5	15.5	12	22	22	19	**WAL374849**	**WAL620811**
		10	**P-GEV 10 SR**	8.2	G 3/8 A	22.5	31	15	12	22	22	22	**WAL373075**	**WAL620016**
		10	**P-GEV 10 SR 1/4**	7.5	G 1/4 A	22	30.5	14.5	12	18	19	22	**WAL602938**	**WAL620295**
		10	**P-GEV 10 SR 1/2**	13.0	G 1/2 A	25	33.5	17.5	14	26	27	22	**WAL374850**	**WAL620224**
		12	**P-GEV 12 SR**	9.5	G 3/8 A	24	33	17	12	22	22	24	**WAL373076**	**WAL620017**
		12	**P-GEV 12 SR 1/4**	9.5	G 1/4 A	24	32.5	16.5	12	18	22	24	**WAL602939**	**WAL620353**
		12	**P-GEV 12 S/R 1/2**	13.5	G 1/2 A	25	34	17.5	14	26	27	24	**WAL373077**	**WAL620120**
		14	**P-GEV 14 SR**	14.8	G 1/2 A	27	37	19	14	26	27	27	**WAL373078**	**WAL621512**
		16	**P-GEV 16 SR**	15.4	G 1/2 A	27	37	18.5	14	26	27	30	**WAL373079**	**WAL620018**
		16	**P-GEV 16 SR 3/8**	16.0	G 3/8 A	26.5	36.5	18	12	22	27	30	**WAL374852**	**WAL620352**
		16	**P-GEV 16 SR 3/4**	23.0	G 3/4 A	29	40	21.5	16	32	32	30	**WAL604264**	**WAL620789**
	400 (5801)	20	**P-GEV 20 SR**	25.3	G 3/4 A	31	42	20.5	16	32	32	36	**WAL373080**	**WAL620019**
		20	**P-GEV 20 S/R 1/2**	24.5	G 1/2 A	31	40	18.5	14	26	32	36	**WAL602651**	**WAL620202**
		25	**P-GEV 25 SR**	46.5	G 1 A	35	47	23	18	39	41	46	**WAL373081**	**WAL620020**
		25	**P-GEV 25 S/R 3/4**	45.5	G 3/4 A	3 5	47	23	16	32	41	46	**WAL374854**	**WAL620606**
	250 (3626)	30	**P-GEV 30 SR**	64.4	G 1 1/4 A	37	50	23.5	20	49	50	50	**WAL373082**	**WAL620021**
		38	**P-GEV 38 SR**	88.9	G 1 1/2 A	42	57	26	22	55	55	60	**WAL373083**	**WAL620022**
		38	**P-GEV 38 S/R 1 1/4**	89.6	G 1 1/4 A	42	57	26	20	49	55	60	**WAL603977**	**WAL620630**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened

Special parts are available on request.

GES ... R

GES ... R-1.4571





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							System nuts for supplementing the stud (for technical data, see part D of this catalog)		
					Stud GES ...	Stud Stainless steel GES ... -1.4571*	WalringPlus W-R-Plus-M...	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
Series	PN bar (psi)	Tube outer diameter	DIN-ISO 228 (R ..., DIN 259) G	kg/ 100 pc.	DIN-ISO 228 (R ..., DIN 259) G	Part no.	Part no.	Part no.	Part no.	Part no.
S	630 (9137)	6	GES 6 SR	3.6	G 1/4 A	WAL037578	WAL025488	WAL628477	WAL625950	WAL625990
		8	GES 8 SR	4.1	G 1/4 A	WAL037579	WAL025489	WAL628478	WAL625951	WAL625991
		8	GES 8 S/R 3/8	5.8	G 3/8 A	WAL370740	WAL617381	WAL628478	WAL625951	WAL625991
		10	GES 10 SR	5.7	G 3/8 A	WAL037580	WAL025490	WAL628479	WAL625952	WAL625992
		10	GES 10 S/R 1/4	4.0	G 1/4 A	WAL067917	WAL067084	WAL628479	WAL625952	WAL625992
		10	GES 10 S/R 1/2	9.7	G 1/2 A	WAL060170	WAL066872	WAL628479	WAL625952	WAL625992
		12	GES 12 SR	6.3	G 3/8 A	WAL037581	WAL025491	WAL628480	WAL625953	WAL625993
		12	GES 12 S/R 1/4	5.7	G 1/4 A	WAL371817	WAL617383	WAL628480	WAL625953	WAL625993
		12	GES 12 S/R 1/2	9.7	G 1/2 A	WAL037582	WAL060015	WAL628480	WAL625953	WAL625993
		14	GES 14 SR	9.6	G 1/2 A	WAL037583	WAL025492			
		16	GES 16 SR	9.1	G 1/2 A	WAL037584	WAL025493	WAL628481	WAL625954	WAL625994
		16	GES 16 S/R 3/8	8.6	G 3/8 A	WAL024062	WAL372245	WAL628481	WAL625954	WAL625994
		16	GES 16 S/R 3/4	15.5	G 3/4 A	WAL025474	WAL617388	WAL628481	WAL625954	WAL625994
	400 (5801)	20	GES 20 SR	14.9	G 3/4 A	WAL037585	WAL025494	WAL628482	WAL625955	WAL625995
		20	GES 20 S/R 1/2	13.6	G 1/2 A	WAL028704	WAL066306	WAL628482	WAL625955	WAL625995
		25	GES 25 SR	26.9	G 1 A	WAL037586	WAL025495	WAL628483	WAL625956	WAL625996
		25	GES 25 S/R 3/4	24.3	G 3/4 A	WAL028789	WAL605636	WAL628483	WAL625956	WAL625996
	250 (3626)	30	GES 30 SR	41.8	G 1 1/4 A	WAL037587	WAL025496	WAL628484	WAL625957	WAL625997
		38	GES 38 SR	56.8	G 1 1/2 A	WAL037588	WAL025497	WAL628485	WAL625958	WAL625998
		38	GES 38 S/R 1 1/4	56.7	G 1 1/4 A	WAL025223	WAL606647	WAL628485	WAL625958	WAL625998

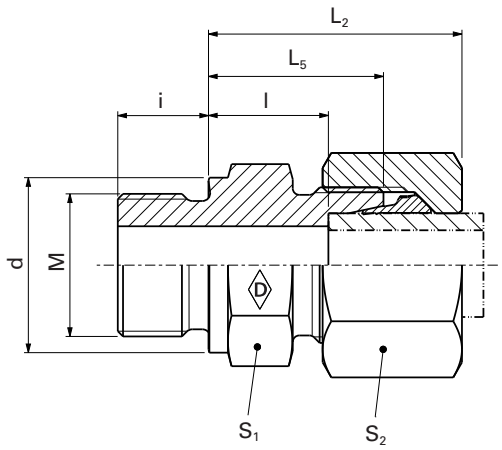
Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-GEV ... M

P-GEV ... M-1.4571

- Metric stud type B to DIN EN ISO 9974-3





E

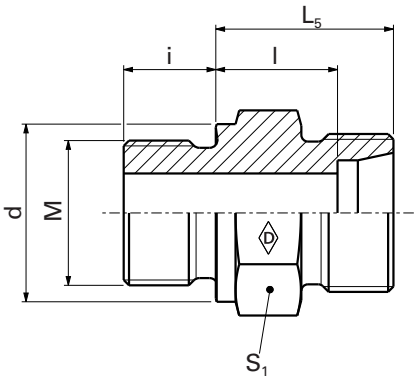
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	M	L_2	L_5	l	i	d	S_1	S_2	Walpro P-GEV ... Part no.	Walpro stainless steel P-GEV ...-1.4571* Part no.
LL	100 (1450)	4	**S-GEV 4 LLM**	1.8	M 8 x 1	19	13.5	9.5	8	12	12	10	**WAL038302**	**WAL623050**
		6	**S-GEV 6 LLM**	1.9	M 10 x 1	19.5	13.5	8	8	14	14	12	**WAL038304**	**WAL623052**
		8	**S-GEV 8 LLM**	2.3	M 10 x 1	20.5	14.5	9	8	14	14	14	**WAL038305**	**WAL371486**
L	400 (5801)	6	**P-GEV 6 LM**	2.5	M 10 x 1	23	15.5	8.5	8	14	14	14	**WAL373087**	**WAL620023**
		6	**P-GEV 6 L/M 12 x 1.5**	4.0	M 12 x 1.5	24.5	17	10	12	17	17	14	**WAL373088**	**WAL623054**
		8	**P-GEV 8 LM**	4.0	M 12 x 1.5	25	17	10	12	17	17	17	**WAL373089**	**WAL620024**
		8	**P-GEV 8 L/M 18 x 1.5**	6.8	M 18 x 1.5	26	18.5	11.5	12	23	24	17	**WAL373090**	**WAL623056**
		10	**P-GEV 10 LM**	4.7	M 14 x 1.5	26	18	11	12	19	19	19	**WAL373091**	**WAL620025**
		10	**P-GEV 10 L/M 16 x 1.5**	6.2	M 16 x 1.5	27	19.5	12.5	12	21	22	19	**WAL602652**	**WAL623057**
		10	**P-GEV 10 L/M 18 x 1.5**	7.6	M 18 x 1.5	27	19.5	12.5	12	23	24	19	**WAL373092**	**WAL623059**
		10	**P-GEV 10 L/M 22 x 1.5**	8.3	M 22 x 1.5	27.5	20	13	14	27	27	19	**WAL373093**	**WAL623060**
		12	**P-GEV 12 LM**	6.3	M 16 x 1.5	27	19.5	12.5	12	21	22	22	**WAL373094**	**WAL620026**
		12	**P-GEV 12 L/M 18x 1.5**	7.8	M 18 x 1.5	27	19.5	12.5	12	23	24	22	**WAL373095**	**WAL623062**
		12	**P-GEV 12 L/M 22 x 1.5**	9.5	M 22 x 1.5	27.5	20	13	14	27	27	22	**WAL373096**	**WAL623063**
		15	**P-GEV 15 LM**	9.5	M 18 x 1.5	29	20.5	13.5	12	23	24	27	**WAL373097**	**WAL620027**
		15	**P-GEV 15 L/M 22 x 1.5**	11.5	M 22 x 1.5	29	21	14	14	27	27	27	**WAL373098**	**WAL620816**
		18	**P-GEV 18 L/M 18 x 1.5**	12.2	M 18 x 1.5	30	21.5	14	12	23	27	32	**WAL373099**	**WAL623065**
		18	**P-GEV 18 LM**	12.9	M 22 x 1.5	31	22	14.5	14	27	27	32	**WAL373100**	**WAL620028**
	250 (3626)	22	**P-GEV 22 LM**	17.6	M 26 x 1.5	33	24	16.5	16	31	32	36	**WAL373101**	**WAL620424**
		28	**P-GEV 28 LM**	24.7	M 33 x 2	34	25	17.5	18	39	41	41	**WAL373102**	**WAL620029**
		35	**P-GEV 35 LM**	40.7	M 42 x 2	39	28	17.5	20	49	50	50	**WAL373103**	**WAL620452**
		42	**P-GEV 42 LM**	45.6	M 48 x 2	42	30	19	22	55	55	60	**WAL373104**	**WAL620995**
S	630 (9137)	6	**P-GEV 6 SM**	4.5	M 12 x 1.5	28	20	13	12	17	17	17	**WAL373105**	**WAL620030**
		8	**P-GEV 8 SM**	5.5	M 14 x 1.5	30	22	15	12	19	19	19	**WAL373106**	**WAL620031**
		10	**P-GEV 10 SM**	8.2	M 16 x 1.5	31	22.5	15	12	21	22	22	**WAL373107**	**WAL620032**
		12	**P-GEV 12 SM**	10.5	M 18 x 1.5	33	24.5	17	12	23	24	24	**WAL373108**	**WAL620033**
		14	**P-GEV 14 SM**	14.8	M 20 x 1.5	37	27	19	14	25	27	27	**WAL373109**	**WAL621510**
		16	**P-GEV 16 SM**	15.4	M 22 x 1.5	37	27	18.5	14	27	27	30	**WAL373110**	**WAL620661**
	400 (5801)	20	**P-GEV 20 SM**	25.3	M 27 x 2	42	31	20.5	16	32	32	36	**WAL373111**	**WAL620503**
		25	**P-GEV 25 SM**	46.5	M 33 x 2	47	35	23	18	39	41	46	**WAL373112**	**WAL620887**
	250 (3626)	30	**P-GEV 30 SM**	64.4	M 42 x 2	50	37	23.5	20	49	50	50	**WAL373113**	**WAL621150**
		38	**P-GEV 38 SM**	88.9	M 48 x 2	57	42	26	22	55	55	60	**WAL373114**	**WAL620662**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened

Special parts are available on request.

GES ... M

GES ... M-1.4571





E

Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	M	Stud GES ... Part no.	Stud Stainless steel GES ... -1.4571* Part no.	System nuts for supplementing the stud (for technical data, see part D of this catalog) WalringPlus W-R-Plus-M... Part no.	Walform WF-M ... VI Part no.	Walform stainless steel WF-M ... VI-1.4571* Part no.
LL	100 (1450)	4	**GES 4 LLM**	0.9	M 8 x 1	**WAL037589**	**WAL623051**			
		6	**GES 6 LLM**	1.1	M 10 x 1	**WAL037591**	**WAL623053**			
		8	**GES 8 LLM**	1.2	M 10 x 1	**WAL037592**	**WAL371485**			
L	400 (5801)	6	**GES 6 LM**	1.4	M 10 x 1	**WAL037593**	**WAL025498**	**WAL628467**	**WAL625940**	**WAL625980**
		6	**GES 6 L/M 12 x 1.5**	2.6	M 12 x 1.5	**WAL037594**	**WAL623055**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**GES 8 LM**	2.3	M 12 x 1.5	**WAL037595**	**WAL025499**	**WAL628468**	**WAL625941**	**WAL625981**
		8	**GES 8 L/M 18 x 1.5**	5.1	M 18 x 1.5	**WAL024882**	**WAL372571**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**GES 10 LM**	2.9	M 14 x 1.5	**WAL037596**	**WAL025500**	**WAL628469**	**WAL625942**	**WAL625982**
		10	**GES 10 L/M 16 x 1.5**	4.0	M 16 x 1.5	**WAL063190**	**WAL623058**	**WAL628469**	**WAL625942**	**WAL625982**
		10	**GES 10 L/M 18 x 1.5**	5.0	M 18 x 1.5	**WAL025287**	**WAL372883**	**WAL628469**	**WAL625942**	**WAL625982**
		10	**GES 10 L/M 22 x 1.5**	7.6	M 22 x 1.5	**WAL028692**	**WAL623061**	**WAL628469**	**WAL625942**	**WAL625982**
		12	**GES 12 LM**	4.0	M 16 x 1.5	**WAL037597**	**WAL025501**	**WAL628470**	**WAL625943**	**WAL625983**
		12	**GES 12 L/M 18x 1.5**	4.7	M 18 x 1.5	**WAL037598**	**WAL602783**	**WAL628470**	**WAL625943**	**WAL625983**
		12	**GES 12 L/M 22 x 1.5**	7.3	M 22 x 1.5	**WAL028695**	**WAL623064**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**GES 15 LM**	5.2	M 18 x 1.5	**WAL037599**	**WAL025502**	**WAL628471**	**WAL625944**	**WAL625984**
		15	**GES 15 L/M 22 x 1.5**	7.4	M 22 x 1.5	**WAL028117**	**WAL604968**	**WAL628471**	**WAL625944**	**WAL625984**
		18	**GES 18 L/M 18 x 1.5**	6.4	M 18 x 1.5	**WAL029643**	**WAL623066**	**WAL628472**	**WAL625945**	**WAL625985**
		18	**GES 18 LM**	7.6	M 22 x 1.5	**WAL037600**	**WAL025503**	**WAL628472**	**WAL625945**	**WAL625985**
	250 (3626)	22	**GES 22 LM**	10.1	M 26 x 1.5	**WAL037601**	**WAL604218**	**WAL628473**	**WAL625946**	**WAL625986**
		28	**GES 28 LM**	16.7	M 33 x 2	**WAL037602**	**WAL025505**	**WAL628474**	**WAL625947**	**WAL625987**
		35	**GES 35 LM**	28.2	M 42 x 2	**WAL037603**	**WAL025506**	**WAL628475**	**WAL625948**	**WAL625988**
		42	**GES 42 LM**	35.8	M 48 x 2	**WAL037604**	**WAL617435**	**WAL628476**	**WAL625949**	**WAL625989**
S	630 (9137)	6	**GES 6 SM**	3.0	M 12 x 1.5	**WAL037605**	**WAL028656**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**GES 8 SM**	4.3	M 14 x 1.5	**WAL037606**	**WAL025508**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**GES 10 SM**	5.5	M 16 x 1.5	**WAL037607**	**WAL025509**	**WAL628479**	**WAL625952**	**WAL625992**
		12	**GES 12 SM**	7.2	M 18 x 1.5	**WAL037608**	**WAL025510**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**GES 14 SM**	9.4	M 20 x 1.5	**WAL037609**	**WAL025511**			
		16	**GES 16 SM**	9.8	M 22 x 1.5	**WAL037610**	**WAL025512**	**WAL628481**	**WAL625954**	**WAL625994**
	400 (5801)	20	**GES 20 SM**	15.3	M 27 x 2	**WAL037611**	**WAL025513**	**WAL628482**	**WAL625955**	**WAL625995**
		25	**GES 25 SM**	26.9	M 33 x 2	**WAL037612**	**WAL025514**	**WAL628483**	**WAL625956**	**WAL625996**
	250 (3626)	30	**GES 30 SM**	42.8	M 42 x 2	**WAL037613**	**WAL617436**	**WAL628484**	**WAL625957**	**WAL625997**
		38	**GES 38 SM**	57.5	M 48 x 2	**WAL037614**	**WAL025516**	**WAL628485**	**WAL625958**	**WAL625998**

⚠ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

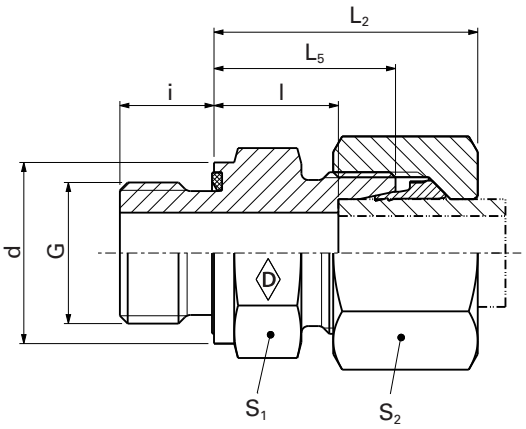
Special parts are available on request.

E

P-GEV ... R-WD

P-GEV ... R-WD-1.4571

- With soft seal made from NBR** (e.g. Perbunan) for steel
- With soft seal made from FKM (e.g. Viton) for stainless steel (1.4571)
- Inch studs type E to DIN EN ISO 1179-2





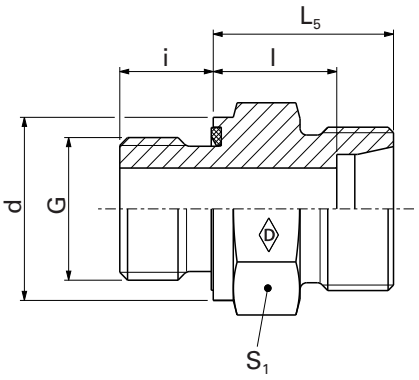
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	DIN-ISO 228 (R ..., DIN 259) G	L_2	L_5	l	i	d	S_1	S_2	Walpro P-GEV ... Part no.	Walpro stainless steel P-GEV ... -VI-1.4571 Part no.
L	500 (7252)	6	**P-GEV 6 LR-WD**	2.5	G 1/8 A	23	15.5	8.5	8	13.9	14	14	**WAL373115**	**WAL620444**
		6	**P-GEV 6 L/R 1/4-WD**	4.1	G 1/4 A	24.5	17	10	12	18.9	19	14	**WAL605925**	**WAL620754**
		8	**P-GEV 8 LR-WD**	4.5	G 1/4 A	25	17	10	12	18.9	19	17	**WAL373116**	**WAL620509**
		8	**P-GEV 8 L/R 1/8-WD**	3.8	G 1/8 A	24	16.5	9.5	8	13.9	14	17	**WAL605926**	**WAL620971**
	400 (5801)	8	**P-GEV 8 L/R 3/8-WD**	6.0	G 3/8 A	26	18.5	11.5	12	21.9	22	17	**WAL605927**	**WAL620907**
	500 (7252)	10	**P-GEV 10 LR-WD**	4.7	G 1/4 A	26	18	11	12	18.9	19	19	**WAL373117**	**WAL620437**
		10	**P-GEV 10 L/R 3/8-WD**	6.5	G 3/8 A	27	19.5	12.5	12	21.9	22	19	**WAL602560**	**WAL620752**
		10	**P-GEV 10 L/R 1/2-WD**	7.6	G 1/2 A	27.5	21	13	14	26.9	27	19	**WAL605928**	**WAL620753**
	400 (5801)	12	**P-GEV 12 L/R 1/4-WD**	6.0	G 1/4 A	27	19	12	12	18.9	19	22	**WAL373118**	**WAL620592**
		12	**P-GEV 12 LR-WD**	6.3	G 3/8 A	27	19.5	12.5	12	21.9	22	22	**WAL373119**	**WAL620561**
		12	**P-GEV 12 L/R 1/2-WD**	10.0	G 1/2 A	28	20	13	14	26.9	27	22	**WAL602513**	**WAL620761**
		15	**P-GEV 15 L/R 3/8-WD**	9.3	G 1/2 A	28	20	13.5	14	26.9	27	27	**WAL605443**	**WAL620852**
		15	**P-GEV 15 LR-WD**	11.5	G 3/8 A	28.5	21	14	12	21.9	27	27	**WAL373120**	**WAL620460**
		18	**P-GEV 18 LR-WD**	12.9	G 1/2 A	31	22	14.5	14	26.9	27	32	**WAL373121**	**WAL620438**
		18	**P-GEV 18 L/R 3/4-WD**	18.0	G 3/4 A	31	22	14.5	16	31.9	32	32	**WAL605215**	**WAL620977**
	250 (3626)	22	**P-GEV 22 LR-WD**	17.6	G 3/4 A	33	24	16.5	16	31.9	32	36	**WAL373122**	**WAL620439**
		28	**P-GEV 28 LR-WD**	24.7	G 1 A	34	25	17.5	18	39.9	41	41	**WAL373123**	**WAL620440**
		35	**P-GEV 35 LR-WD**	40.7	G 1 1/4 A	39	28	17.5	20	49.9	50	50	**WAL373124**	**WAL620558**
		42	**P-GEV 42 LR-WD**	45.6	G 1 1/2 A	42	30	19	22	54.9	55	60	**WAL373125**	**WAL620593**
S	800 (11603)	6	**P-GEV 6 SR-WD**	5.0	G 1/4 A	28	20	13	12	18.9	19	17	**WAL373126**	**WAL620445**
		8	**P-GEV 8 SR-WD**	5.5	G 1/4 A	30	22	15	12	18.9	19	19	**WAL373127**	**WAL620763**
		8	**P-GEV 8 S/R 3/8-WD**	5.3	G 3/8 A	30.5	22.5	15.5	12	21.9	22	19	**WAL604229**	**WAL620988**
		10	**P-GEV 10 SR-WD**	8.2	G 3/8 A	31	22.5	15	12	21.9	22	22	**WAL373128**	**WAL620567**
		10	**P-GEV 10 S/R 1/4-WD**	7.5	G 1/4 A	30.5	22	14.5	12	18.9	19	22	**WAL605114**	**WAL620644**
		10	**P-GEV 10 S/R 1/2-WD**	8.9	G 1/2 A	33.5	25	17.5	14	26.9	27	22	**WAL605932**	**WAL620822**
	630 (9137)	12	**P-GEV 12 SR-WD**	9.5	G 3/8 A	33	24.5	17	12	21.9	22	24	**WAL373129**	**WAL620478**
		12	**P-GEV 12 S/R 1/4-WD**	9.5	G 1/4 A	32.5	24	16.5	12	18.9	22	24	**WAL605933**	**WAL620645**
		12	**P-GEV 12 S/R 1/2-WD**	13.5	G 1/2 A	34	25	17.5	14	26.9	27	24	**WAL604466**	**WAL620828**
		14	**P-GEV 14 SR-WD**	14.8	G 1/2 A	37	27	19	14	26.9	27	27	**WAL373130**	**WAL621513**
		16	**P-GEV 16 SR-WD**	15.4	G 1/2 A	37	27	18.5	14	26.9	27	30	**WAL373131**	**WAL620562**
		16	**P-GEV 16 S/R 3/8-WD**	15.2	G 3/8 A	36.5	26	18	12	21.9	27	30	**WAL605222**	**WAL620795**
		16	**P-GEV 16 S/R 3/4-WD**	23.0	G 3/4 A	39	29	20.5	16	31.9	32	30	**WAL604561**	**WAL620991**
	420 (6091)	20	**P-GEV 20 SR-WD**	25.3	G 3/4 A	42	31	20.5	16	31.9	32	36	**WAL373132**	**WAL620643**
		25	**P-GEV 25 SR-WD**	46.5	G 1 A	47	35	23	18	39.9	41	46	**WAL373133**	**WAL620598**
		25	**P-GEV 25 S/R 3/4-WD**	45.5	G 3/4 A	47	35	23	16	31.9	41	46	**WAL604562**	**WAL620647**
		30	**P-GEV 30 SR-WD**	64.4	G 1 1/4 A	50	37	23.5	20	49.9	50	50	**WAL373134**	**WAL620646**
		38	**P-GEV 38 SR-WD**	88.9	G 1 1/2 A	57	42	26	22	54.9	55	60	**WAL373135**	**WAL620617**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened
**FPM (e.g. Viton) see price list / available on request

Special parts are available on request.

GES ... R-WD

GES ... R-WD-1.4571





E

Series	PN bar (psi)	Tube outer diameter (Ø ext.)	Model	kg/ 100 pc.	DIN-ISO 228 (R ..., DIN 259) G	Stud GES ...	Stud Stainless steel GES ... -VI-1.4571*	System nuts for supplementing the stud (for technical data, see part D of this catalog) WalringPlus W-R-Plus-M...	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
						Part no.	Part no.	Part no.	Part no.	Part no.
L	500 (7252)	6	GES 6 LR-WD	1.5	G 1/8 A	WAL037615	WAL602810	WAL628467	WAL625940	WAL625980
		6	GES 6 L/R 1/4-WD	3.0	G 1/4 A	WAL606456	WAL617396	WAL628467	WAL625940	WAL625980
		8	GES 8 LR-WD	2.5	G 1/4 A	WAL037616	WAL602768	WAL628468	WAL625941	WAL625981
		8	GES 8 L/R 1/8-WD	1.7	G 1/8 A	WAL606457	WAL617399	WAL628468	WAL625941	WAL625981
	400 (5801)	8	GES 8 L/R 3/8-WD	4.8	G 3/8 A	WAL606458	WAL617400	WAL628468	WAL625941	WAL625981
	500 (7252)	10	GES 10 LR-WD	3.0	G 1/4 A	WAL037617	WAL371729	WAL628469	WAL625942	WAL625982
		10	GES 10 L/R 3/8-WD	4.0	G 3/8 A	WAL027596	WAL617403	WAL628469	WAL625942	WAL625982
		10	GES 10 L/R 1/2-WD	5.2	G 1/2 A	WAL606414	WAL617404	WAL628469	WAL625942	WAL625982
	400 (5801)	12	GES 12 L/R 1/4-WD	3.5	G 1/4 A	WAL037618	WAL605376	WAL628470	WAL625943	WAL625983
		12	GES 12 LR-WD	4.0	G 3/8 A	WAL037619	WAL371730	WAL628470	WAL625943	WAL625983
		12	GES 12 L/R 1/2-WD	6.5	G 1/2 A	WAL024957	WAL615260	WAL628470	WAL625943	WAL625983
		15	GES 15 LR-WD	6.5	G 1/2 A	WAL037620	WAL371731	WAL628471	WAL625944	WAL625984
		15	GES 15 L/R 3/8-WD	4.9	G 3/8 A	WAL604985	WAL610673	WAL628471	WAL625944	WAL625984
		18	GES 18 LR-WD	7.0	G 1/2 A	WAL037621	WAL371732	WAL628472	WAL625945	WAL625985
		18	GES 18 L/R 3/4-WD	13.5	G 3/4 A	WAL605124	WAL613147	WAL628472	WAL625945	WAL625985
	250 (3626)	22	GES 22 LR-WD	10.5	G 3/4 A	WAL037622	WAL371733	WAL628473	WAL625946	WAL625986
		28	GES 28 LR-WD	16.5	G 1 A	WAL037623	WAL371734	WAL628474	WAL625947	WAL625987
		35	GES 35 LR-WD	27.0	G 1 1/4 A	WAL037624	WAL605252	WAL628475	WAL625948	WAL625988
		42	GES 42 LR-WD	34.5	G 1 1/2 A	WAL037625	WAL605379	WAL628476	WAL625949	WAL625989
S	800 (11603)	6	GES 6 SR-WD	3.5	G 1/4 A	WAL037626	WAL605280	WAL628477	WAL625950	WAL625990
		8	GES 8 SR-WD	4.0	G 1/4 A	WAL037627	WAL604432	WAL628478	WAL625951	WAL625991
		8	GES 8 S/R 3/8-WD	6.2	G 3/8 A	WAL371292	WAL617419	WAL628478	WAL625951	WAL625991
		10	GES 10 SR-WD	5.5	G 3/8 A	WAL037628	WAL605325	WAL628479	WAL625952	WAL625992
		10	GES 10 S/R 1/4-WD	4.7	G 1/4 A	WAL602927	WAL605271	WAL628479	WAL625952	WAL625992
		10	GES 10 S/R 1/2-WD	13.9	G 1/2 A	WAL606460	WAL617421	WAL628479	WAL625952	WAL625992
	630 (9137)	12	GES 12 SR-WD	9.5	G 3/8 A	WAL037629	WAL602918	WAL628480	WAL625953	WAL625993
		12	GES 12 S/R 1/4-WD	5.8	G 1/4 A	WAL606425	WAL613333	WAL628480	WAL625953	WAL625993
		12	GES 12 S/R 1/2-WD	9.5	G 1/2 A	WAL027858	WAL613283	WAL628480	WAL625953	WAL625993
		14	GES 14 SR-WD	9.5	G 1/2 A	WAL037630	WAL605299			
		16	GES 16 SR-WD	9.0	G 1/2 A	WAL037631	WAL604607	WAL628481	WAL625954	WAL625994
		16	GES 16 S/R 3/8-WD	8.5	G 3/8 A	WAL371285	WAL613275	WAL628481	WAL625954	WAL625994
		16	GES 16 S/R 3/4-WD	15.5	G 3/4 A	WAL066454	WAL605330	WAL628481	WAL625954	WAL625994
	420 (6091)	20	GES 20 SR-WD	15.0	G 3/4 A	WAL037632	WAL605677	WAL628482	WAL625955	WAL625995
		25	GES 25 SR-WD	26.5	G 1 A	WAL037633	WAL606245	WAL628483	WAL625956	WAL625996
		25	GES 25 S/R 3/4-WD	24.5	G 3/4 A	WAL066516	WAL617430	WAL628483	WAL625956	WAL625996
		30	GES 30 SR-WD	42.0	G 1 1/4 A	WAL037634	WAL605678	WAL628484	WAL625957	WAL625997
		38	GES 38 SR-WD	56.5	G 1 1/2 A	WAL037635	WAL604606	WAL628485	WAL625958	WAL625998

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

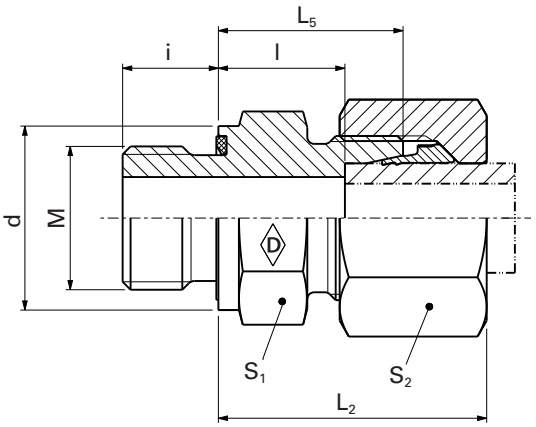
Special parts are available on request.

P-GEV ... M-WD

P-GEV ... M-WD-1.4571

- With soft seal made from NBR** (e.g. Perbunan) for steel
- With soft seal made from FKM (e.g. Viton) for stainless steel (1.4571)
- Metric stud type E to DIN EN ISO 9974-2

E





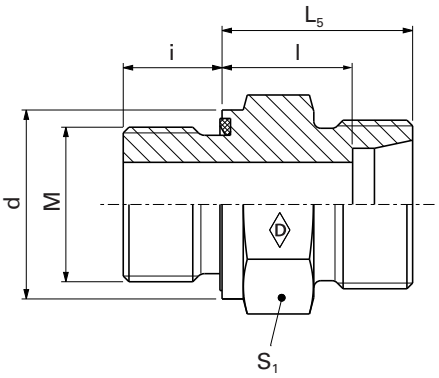
Series	PN bar (psi)	Tube outer diameter	Model	M	kg/ 100 pc.	L_2	L_5	l	i	d	S_1	S_2	Walpro P-GEV ... Part no.	Walpro stainless steel P-GEV ...-1.4571* Part no.
L	500 (7252)	6	**P-GEV 6 LM-WD**	M 10 x 1	2.5	23	15.5	8.5	8	13.9	14	14	**WAL373136**	**WAL620601**
		8	**P-GEV 8 LM-WD**	M 12 x 1.5	4.0	25	17	10	12	16.9	17	17	**WAL373137**	**WAL620805**
		10	**P-GEV 10 LM-WD**	M 14 x 1.5	4.7	26	18	11	12	18.9	19	19	**WAL373138**	**WAL620451**
		10	**P-GEV 10 L/M 18 x 1.5-WD**	M 18 x 1.5	7.6	27	19.5	12.5	12	23.9	24	19	**WAL605930**	**WAL623067**
		10	**P-GEV 10 L/M 22 x 1.5-WD**	M 22 x 1.5	8.3	27.5	20	13	14	26.9	27	19	**WAL605931**	**WAL623069**
	400 (5801)	12	**P-GEV 12 LM-WD**	M 16 x 1.5	6.3	27	19.5	12.5	12	21.9	22	22	**WAL373139**	**WAL620591**
		12	**P-GEV 12 L/M 18 x 1.5-WD**	M 18 x 1.5	7.8	27	17	12.5	12	23.9	24	22	**WAL602562**	**WAL623071**
		12	**P-GEV 12 L/M 22 x 1.5-WD**	M 22 x 1.5	9.5	27.5	20	13	14	26.9	27	22	**WAL602563**	**WAL620817**
		15	**P-GEV 15 LM-WD**	M 18 x 1.5	9.5	29	20.5	13.5	12	23.9	24	27	**WAL373140**	**WAL620622**
		15	**P-GEV 15 L/M 22 x 1.5-WD**	M 22 x 1.5	11.5	29	21	14	14	26.9	27	27	**WAL602564**	**WAL620820**
		18	**P-GEV 18 LM-WD**	M 22 x 1.5	12.2	30	22	14	14	26.9	27	32	**WAL373141**	**WAL620608**
		18	**P-GEV 18 L/M 18 x 1.5-WD**	M 18 x 1.5	12.9	31	21.5	14.5	12	23.9	27	32	**WAL605934**	**WAL621515**
	250 (3626)	22	**P-GEV 22 LM-WD**	M 26 x 1.5	17.6	33	24	16.5	16	31.9	32	36	**WAL373142**	**WAL620996**
		28	**P-GEV 28 LM-WD**	M 33 x 2	24.7	34	25	17.5	18	39.9	41	41	**WAL373143**	**WAL620891**
		35	**P-GEV 35 LM-WD**	M 42 x 2	40.7	39	28	17.5	20	49.9	50	50	**WAL373144**	**WAL620892**
		42	**P-GEV 42 LM-WD**	M 48 x 2	45.6	42	30	19	22	54.9	55	60	**WAL373145**	**WAL620796**
S	800 (11603)	6	**P-GEV 6 SM-WD**	M 12 x 1.5	4.5	28	20	13	12	16.9	17	17	**WAL373146**	**WAL620564**
		8	**P-GEV 8 SM-WD**	M 14 x 1.5	5.5	30	22	15	12	18.9	19	19	**WAL373147**	**WAL620565**
		10	**P-GEV 10 SM-WD**	M 16 x 1.5	8.2	31	22.5	15	12	21.9	22	22	**WAL373148**	**WAL620621**
	630 (9137)	12	**P-GEV 12 SM-WD**	M 18 x 1.5	10.5	33	24.5	17	12	23.9	24	24	**WAL373149**	**WAL620559**
		14	**P-GEV 14 SM-WD**	M 20 x 1.5	14.8	37	27	19	14	25.9	27	27	**WAL373150**	**WAL621511**
		16	**P-GEV 16 SM-WD**	M 22 x 1.5	15.4	37	27	18.5	14	26.9	27	30	**WAL373151**	**WAL620566**
	420 (6091)	20	**P-GEV 20 SM-WD**	M 27 x 2	25.3	42	31	20.5	16	31.9	32	36	**WAL373152**	**WAL620623**
		25	**P-GEV 25 SM-WD**	M 33 x 2	46.5	47	35	23	18	39.9	41	46	**WAL373153**	**WAL620642**
		30	**P-GEV 30 SM-WD**	M 42 x 2	64.4	50	37	23.5	20	49.9	50	50	**WAL373154**	**WAL620997**
		38	**P-GEV 38 SM-WD**	M 48 x 2	88.9	57	42	26	22	54.9	55	60	**WAL373155**	**WAL620734**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened
**FPM (e.g. Viton) see price list / available on request

Special parts are available on request.

GES ... M-WD

GES ... M-WD-1.4571





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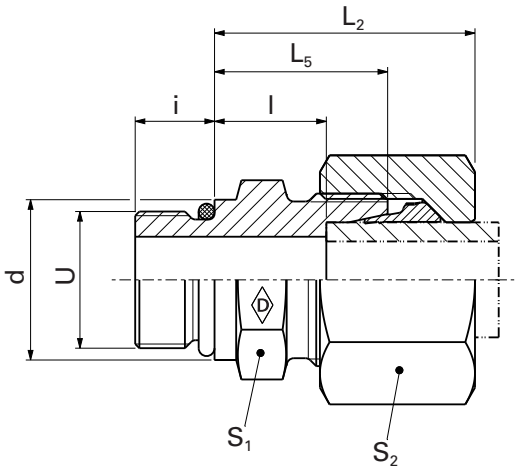
								System nuts for supplementing the stud (for technical data, see part D of this catalog)		
						Stud GES ...	Stud Stainless steel GES ... -1.4571*	WalringPlus W-R-Plus-M...	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	M	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
L	500 (7252)	6	**GES 6 LM-WD**	M 10 x 1	0.5	**WAL037638**	**WAL602785**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**GES 8 LM-WD**	M 12 x 1.5	2	**WAL037639**	**WAL612439**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**GES 10 LM-WD**	M 14 x 1.5	3	**WAL037640**	**WAL610672**	**WAL628469**	**WAL625942**	**WAL625982**
		10	**GES 10 L/M 18 x 1.5-WD**	M 18 x 1.5		**WAL606459**	**WAL623068**	**WAL628469**	**WAL625942**	**WAL625982**
		10	**GES 10 L/M 22 x 1.5-WD**	M 22 x 1.5	7.5	**WAL604706**	**WAL623070**	**WAL628469**	**WAL625942**	**WAL625982**
	400 (5801)	12	**GES 12 LM-WD**	M 16 x 1.5	4	**WAL037641**	**WAL602808**	**WAL628470**	**WAL625943**	**WAL625983**
		12	**GES 12 L/M 18 x 1.5-WD**	M 18 x 1.5	4.5	**WAL024966**	**WAL613182**	**WAL628470**	**WAL625943**	**WAL625983**
		12	**GES 12 L/M 22 x 1.5-WD**	M 22 x 1.5	7	**WAL604514**	**WAL613122**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**GES 15 LM-WD**	M 18 x 1.5	5	**WAL037642**	**WAL606270**	**WAL628471**	**WAL625944**	**WAL625984**
		15	**GES 15 L/M 22 x 1.5-WD**	M 22 x 1.5	7	**WAL604266**	**WAL613123**	**WAL628471**	**WAL625944**	**WAL625984**
		18	**GES 18 LM-WD**	M 22 x 1.5	7.5	**WAL037643**	**WAL605670**	**WAL628472**	**WAL625945**	**WAL625985**
		18	**GES 18 L/M 18 x 1.5-WD**	M 18 x 1.5	9.3	**WAL606294**	**WAL618838**	**WAL628472**	**WAL625945**	**WAL625985**
	250 (3626)	22	**GES 22 LM-WD**	M 26 x 1.5	20	**WAL037644**	**WAL612877**	**WAL628473**	**WAL625946**	**WAL625986**
		28	**GES 28 LM-WD**	M 33 x 2	16.5	**WAL037645**	**WAL605323**	**WAL628474**	**WAL625947**	**WAL625987**
		35	**GES 35 LM-WD**	M 42 x 2	27.5	**WAL037646**	**WAL605328**	**WAL628475**	**WAL625948**	**WAL625988**
		42	**GES 42 LM-WD**	M 48 x 2	35	**WAL037647**	**WAL617437**	**WAL628476**	**WAL625949**	**WAL625989**
S	800 (11603)	6	**GES 6 SM-WD**	M 12 x 1.5	3	**WAL037648**	**WAL605312**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**GES 8 SM-WD**	M 14 x 1.5	4	**WAL037649**	**WAL605316**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**GES 10 SM-WD**	M 16 x 1.5	5.5	**WAL037650**	**WAL606269**	**WAL628479**	**WAL625952**	**WAL625992**
	630 (9137)	12	**GES 12 SM-WD**	M 18 x 1.5	7	**WAL037651**	**WAL605268**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**GES 14 SM-WD**	M 20 x 1.5	9.5	**WAL037652**	**WAL613184**			
		16	**GES 16 SM-WD**	M 22 x 1.5	9.5	**WAL037653**	**WAL605274**	**WAL628481**	**WAL625954**	**WAL625994**
	420 (6091)	20	**GES 20 SM-WD**	M 27 x 2	15.5	**WAL037654**	**WAL605517**	**WAL628482**	**WAL625955**	**WAL625995**
		25	**GES 25 SM-WD**	M 33 x 2	26.5	**WAL037655**	**WAL605276**	**WAL628483**	**WAL625956**	**WAL625996**
		30	**GES 30 SM-WD**	M 42 x 2	42.5	**WAL037656**	**WAL617438**	**WAL628484**	**WAL625957**	**WAL625997**
		38	**GES 38 SM-WD**	M 48 x 2	58.5	**WAL037657**	**WAL617439**	**WAL628485**	**WAL625958**	**WAL625998**

⚠ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-GEV ... UNF/UN

- with O-ring made from NBR* (e.g. Perbunan)
- Stud to ISO 11926-2 and -3 (UNF/UN) / SAE J 514 (UST)





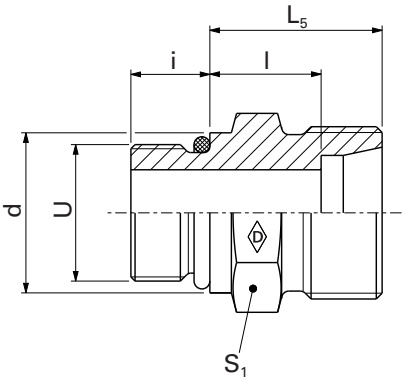
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Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L_2	L_5	l	i	d	S_1	S_2	*O-ring	Walpro P-GEV ... Part no.
L	400 (5801)	6	**P-GEV 6 L/ 9/16-18 UNF**	3.7	25	17	10	10	17.6	19	14	11.9 x 1.98	**WAL373157**
		8	**P-GEV 8 L/ 7/16-20 UNF**	3.2	25	17	10	9	14.4	17	17	8.92 x 1.83	**WAL373158**
		8	**P-GEV 8 L/ 9/16-18 UNF**	3.7	25	17	10	10	17.6	19	17	11.9 x 1.98	**WAL373159**
		10	**P-GEV 10 L/ 7/16-20 UNF**	4.0	26	18	11	9	14.4	17	19	8.92 x 1.83	**WAL373160**
		10	**P-GEV 10 L/ 9/16-18 UNF**	4.6	26	18	11	10	17.6	19	19	11.9 x 1.98	**WAL373161**
		10	**P-GEV 10 L/ 3/4-16 UNF**	7.6	28	20	13	11	22.3	24	19	16.36 x 2.20	**WAL373162**
		12	**P-GEV 12 L/ 9/16-18 UNF**	6.1	26	18	11	10	17.6	19	22	11.9 x 1.98	**WAL373164**
		12	**P-GEV 12 L/ 3/4-16 UNF**	7.6	28	20	13	11	22.3	24	22	16.36 x 2.20	**WAL373165**
		12	**P-GEV 12 L/ 7/8-14 UNF**	8.8	29	21	14	12.7	25.5	27	22	19.18 x 2.46	**WAL373166**
		15	**P-GEV 15 L/ 3/4-16 UNF**	9.5	29	21	14	11	22.3	24	27	16.36 x 2.20	**WAL373168**
		15	**P-GEV 15 L/ 7/8-14 UNF**	11.0	30	22	15	12.7	25.5	27	27	19.18 x 2.46	**WAL373169**
		18	**P-GEV 18 L/ 3/4-16 UNF**	12.5	31	22	14.5	11	22.3	27	32	16.36 x 2.20	**WAL373170**
		18	**P-GEV 18 L/ 7/8-14 UNF**	13.2	31	22	14.5	12.7	25.5	27	32	19.18 x 2.46	**WAL373171**
	250 (3626)	22	**P-GEV 22 L/ 7/8-14 UNF**	17.2	33	24	16.5	12.7	25.5	32	36	19.18 x 2.46	**WAL373172**
		22	**P-GEV 22 L/ 1 1/16-12 UN**	18.5	33	24	16.5	15	31.9	32	36	23.47 x 2.95	**WAL373173**
		28	**P-GEV 28 L/ 7/8-14 UNF**	22.0	34	25	17.5	12.7	25.5	41	41	19.18 x 2.46	**WAL373174**
		28	**P-GEV 28 L/ 1 5/16-12 UN**	25.0	34	25	17.5	15	38.2	41	41	29.74 x 2.95	**WAL373175**
		35	**P-GEV 35 L/ 1 5/8-12 UN**	40.0	39	28	17.5	15	47.7	50	50	37.46 x 3	**WAL373177**
		42	**P-GEV 42 L/ 1 5/8-12 UN**	46.2	42	30	19	15	47.7	55	55	37.46 x 3	**WAL374346**
S	630 (9137)	12	**P-GEV 12 S/ 3/4-16 UNF**	10.0	34	25	17.5	11	22.3	24	24	16.36 x 2.20	**WAL373180**
		16	**P-GEV 16 S/ 3/4-16 UNF**	13.0	34	24	15.5	11	22.3	24	30	16.36 x 2.20	**WAL373182**
		16	**P-GEV 16 S/ 7/8-14 UNF**	15.0	37	27	18.5	12.7	25.5	27	30	19.18 x 2.46	**WAL373183**
	400 (5801)	20	**P-GEV 20 S/ 3/4-16 UNF**	22.0	42	31	20.5	11	22.3	32	36	16.36 x 2.20	**WAL373184**
		20	**P-GEV 20 S/ 7/8-14 UNF**	23.0	42	31	20.5	12.7	25.5	32	36	19.18 x 2.46	**WAL373185**
		20	**P-GEV 20 S/ 1 1/16-12UN**	25.0	42	31	20.5	15	31.9	32	36	23.47 x 2.95	**WAL373186**
		25	**P-GEV 25 S/ 1 5/16-12 UN**	46.0	47	35	23	15	38.2	41	46	29.74 x 2.95	**WAL373189**
	315 (4569)	30	**P-GEV 30 S/ 1 5/8-12 UN**	62.0	50	37	23.5	15	47.7	50	50	37.46 x 3	**WAL373191**

L_2 = approximate dimension if the union nut is tightened
*For FPM (e.g. Viton) see price list / available on request

Special parts are available on request.

GES ... UNF/UN





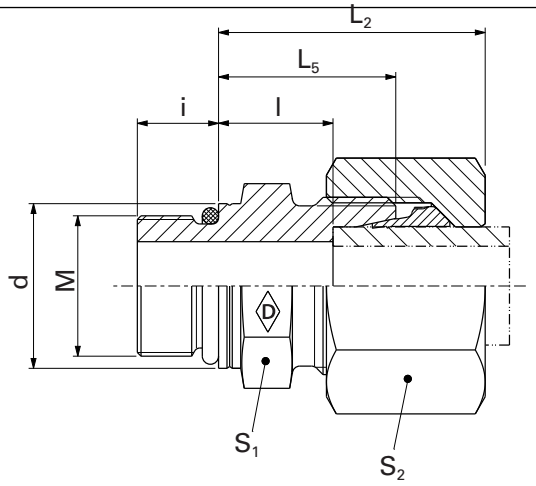
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						System nuts for supplementing the stud (for technical data, see part D of this catalog)	
					Stud GES ...	WalringPlus W-R-Plus-M...	Walform WF-M ... VI
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	Part no.	Part no.	Part no.
L	400 (5801)	6	**GES 6 L/ 9/16-18 UNF**	2.8	**WAL065356**	**WAL628467**	**WAL625940**
		8	**GES 8 L/ 7/16-20 UNF**	2.0	**WAL065358**	**WAL628468**	**WAL625941**
		8	**GES 8 L/ 9/16-18 UNF**	2.0	**WAL065359**	**WAL628468**	**WAL625941**
		10	**GES 10 L/ 7/16-20 UNF**	2.0	**WAL065361**	**WAL628469**	**WAL625942**
		10	**GES 10 L/ 9/16-18 UNF**	2.8	**WAL065362**	**WAL628469**	**WAL625942**
		10	**GES 10 L/ 3/4-16 UNF**	5.5	**WAL065363**	**WAL628469**	**WAL625942**
		12	**GES 12 L/ 9/16-18 UNF**	3.3	**WAL065365**	**WAL628470**	**WAL625943**
		12	**GES 12 L/ 3/4-16 UNF**	4.8	**WAL065366**	**WAL628470**	**WAL625943**
		12	**GES 12 L/ 7/8-14 UNF**	5.9	**WAL065367**	**WAL628470**	**WAL625943**
		15	**GES 15 L/ 3/4-16 UNF**	5.4	**WAL065369**	**WAL628471**	**WAL625944**
		15	**GES 15 L/ 7/8-14 UNF**	9.8	**WAL065370**	**WAL628471**	**WAL625944**
		18	**GES 18 L/ 3/4-16 UNF**	6.5	**WAL065371**	**WAL628472**	**WAL625945**
		18	**GES 18 L/ 7/8-14 UNF**	7.0	**WAL065372**	**WAL628472**	**WAL625945**
	250 (3626)	22	**GES 22 L/ 7/8-14 UNF**	9.0	**WAL065374**	**WAL628473**	**WAL625946**
		22	**GES 22 L/ 1 1/16-12 UN**	16.5	**WAL065377**	**WAL628473**	**WAL625946**
		28	**GES 28 L/ 7/8-14 UNF**	20.6	**WAL065378**	**WAL628474**	**WAL625947**
		28	**GES 28 L/ 1 5/16-12 UN**	15.5	**WAL065382**	**WAL628474**	**WAL625947**
		35	**GES 35 L/ 1 5/8-12 UN**	26.5	**WAL065384**	**WAL628475**	**WAL625948**
		42	**GES 42 L/ 1 5/8-12 UN**	30.6	**WAL065386**	**WAL628476**	**WAL625949**
S	630 (9137)	12	**GES 12 S/ 3/4-16 UNF**	7.6	**WAL065389**	**WAL628480**	**WAL625953**
		16	**GES 16 S/ 3/4-16 UNF**	6.5	**WAL065391**	**WAL628481**	**WAL625954**
		16	**GES 16 S/ 7/8-14 UNF**	9.5	**WAL065392**	**WAL628481**	**WAL625954**
	400 (5801)	20	**GES 20 S/ 3/4-16 UNF**	13.1	**WAL065393**	**WAL628482**	**WAL625955**
		20	**GES 20 S/ 7/8-14 UNF**	14.1	**WAL065394**	**WAL628482**	**WAL625955**
		20	**GES 20 S/ 1 1/16-12UN**	15	**WAL065395**	**WAL628482**	**WAL625955**
		25	**GES 25 S/ 1 5/16-12 UN**	26	**WAL065400**	**WAL628483**	**WAL625956**
	315 (4569)	30	**GES 30 S/ 1 5/8-12 UN**	39.4	**WAL065402**	**WAL628484**	**WAL625957**

Special parts are available on request.

P-GEV ... M - OR (ISO 6149)

- with O-ring made from NBR* (e.g. Perbunan)
- Straight metric stud with O-ring to DIN EN ISO 6149-2 and -3





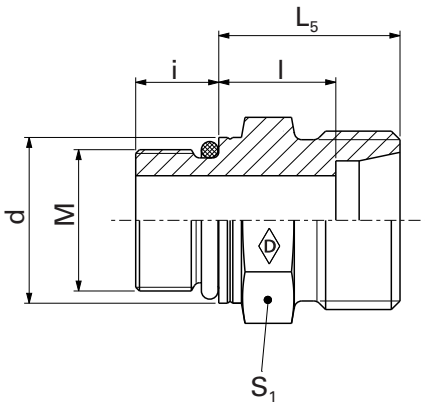
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Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	M	L_2	L_5	l	i	d	S_1	S_2	*O-ring	Walpro P-GEV ... Part no.
L	400 (5801)	6	**P-GEV 6 LM-OR**	2.7	M10 x 1.5	24	16.5	9.5	8.5	13.8	14	14	8.1 x 1.6	**WAL625528**
		8	**P-GEV 8 LM-OR**	4.0	M12 x 1.5	25	17	10	11	16.8	17	17	9.3 x 2.2	**WAL625529**
		10	**P-GEV 10 LM-OR**	5.2	M14 x 1.5	26	18	11	11	18.8	19	19	11.3 x 2.2	**WAL625530**
	315 (4569)	12	**P-GEV 12 LM-OR**	6.9	M16 x 1.5	27	19.5	12.5	11.5	21.8	22	22	13.3 x 2.2	**WAL625531**
		15	**P-GEV 15 LM-OR**	10.2	M18 x 1.5	29	20.5	13.5	12.5	23.8	24	27	15.3 x 2.2	**WAL625532**
		18	**P-GEV 18 LM-OR**	14.7	M22 x 1.5	30	22	14.5	13	26.8	27	32	17.3 x 2.2	**WAL625533**
	200 (2900)	22	**P-GEV 22 LM-OR**	19.3	M27 x 2	33	24	16.5	16	31.8	32	36	19.3 x 2.2	**WAL625534**
		28	**P-GEV 28 LM-OR**	26.8	M33 x 2	34	25	17.5	16	40.8	41	41	23.6 x 2.9	**WAL625535**
		35	**P-GEV 35 LM-OR**	43.1	M42 x 2	39	28	17.5	16	49.8	50	50	38.6 x 2.9	**WAL625536**
		42	**P-GEV 42 LM-OR**	57.8	M48 x 2	42	30	19	17.5	54.8	55	60	44.6 x 2.9	**WAL625537**
S	630 (9137)	6	**P-GEV 6 SM-OR**	4.6	M12 x 1.5	28	20	13	11	16.8	17	17	9.3 x 2.2	**WAL625538**
		8	**P-GEV 8 SM-OR**	6.1	M14 x 1.5	30	22	15	11	18.8	19	19	11.3 x 2.2	**WAL625539**
		10	**P-GEV 10 SM-OR**	8.9	M16 x 1.5	31	22.5	15	12.5	21.8	22	22	13.3 x 2.2	**WAL625540**
		12	**P-GEV 12 SM-OR**	11.3	M18 x 1.5	33	24.5	17	14	23.8	24	24	15.3 x 2.2	**WAL625541**
		16	**P-GEV 16 SM-OR**	16.9	M22 x 1.5	37	27	18.5	15	26.8	27	30	17.3 x 2.2	**WAL625542**
	400 (5801)	20	**P-GEV 20 SM-OR**	27.5	M27 x 2	42	31	20.5	18.5	31.8	32	36	19.3 x 2.2	**WAL625543**
		25	**P-GEV 25 SM-OR**	48.4	M33 x 2	47	35	23	18.5	40.8	41	46	23.6 x 2.9	**WAL625544**
	250 (3626)	30	**P-GEV 30 SM-OR**	64.8	M42 x 2	50	37	23.5	19	49.8	50	50	38.6 x 2.9	**WAL625545**
		38	**P-GEV 38 SM-OR**	91.5	M48 x 2	56.5	41.5	26	21.5	54.8	55	60	44.6 x 2.9	**WAL625546**

L_2= approximate dimension if the union nut is tightened
*For FPM (e.g. Viton) see price list / available on request

Special parts are available on request.

GES ... M-OR (ISO 6149)





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							System nuts for supplementing the stud (for technical data, see part D of this catalog)	
						Stud GES ...	WalringPlus W-R-Plus-M...	Walform WF-M ... VI
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	M	Part no.	Part no.	Part no.
L	400 (5801)	6	**GES 6 LM-OR**	1.6	M10 x 1.5	**WAL625509**	**WAL628467**	**WAL625940**
		8	**GES 8 LM-OR**	2.3	M12 x 1.5	**WAL625510**	**WAL628468**	**WAL625941**
		10	**GES 10 LM-OR**	2.8	M14 x 1.5	**WAL625511**	**WAL628469**	**WAL625942**
	315 (4569)	12	**GES 12 LM-OR**	4.0	M16 x 1.5	**WAL625512**	**WAL628470**	**WAL625943**
		15	**GES 15 LM-OR**	5.6	M18 x 1.5	**WAL625513**	**WAL628471**	**WAL625944**
		18	**GES 18 LM-OR**	8.0	M22 x 1.5	**WAL625514**	**WAL628472**	**WAL625945**
	200 (2900)	22	**GES 22 LM-OR**	10.4	M27 x 2	**WAL625515**	**WAL628473**	**WAL625946**
		28	**GES 28 LM-OR**	17.1	M33 x 2	**WAL625516**	**WAL628474**	**WAL625947**
		35	**GES 35 LM-OR**	27.8	M42 x 2	**WAL625517**	**WAL628475**	**WAL625948**
		42	**GES 42 LM-OR**	34.0	M48 x 2	**WAL625518**	**WAL628476**	**WAL625949**
S	630 (9137)	6	**GES 6 SM-OR**	2.9	M12 x 1.5	**WAL625519**	**WAL628477**	**WAL625950**
		8	**GES 8 SM-OR**	4.1	M14 x 1.5	**WAL625520**	**WAL628478**	**WAL625951**
		10	**GES 10 SM-OR**	5.5	M16 x 1.5	**WAL625521**	**WAL628479**	**WAL625952**
		12	**GES 12 SM-OR**	7.3	M18 x 1.5	**WAL625522**	**WAL628480**	**WAL625953**
		16	**GES 16 SM-OR**	10.2	M22 x 1.5	**WAL625523**	**WAL628481**	**WAL625954**
	400 (5801)	20	**GES 20 SM-OR**	16.9	M27 x 2	**WAL625524**	**WAL628482**	**WAL625955**
		25	**GES 25 SM-OR**	27.4	M33 x 2	**WAL625525**	**WAL628483**	**WAL625956**
	250 (3626)	30	**GES 30 SM-OR**	41.2	M42 x 2	**WAL625526**	**WAL628484**	**WAL625957**
		38	**GES 38 SM-OR**	58.0	M48 x 2	**WAL625527**	**WAL628485**	**WAL625958**

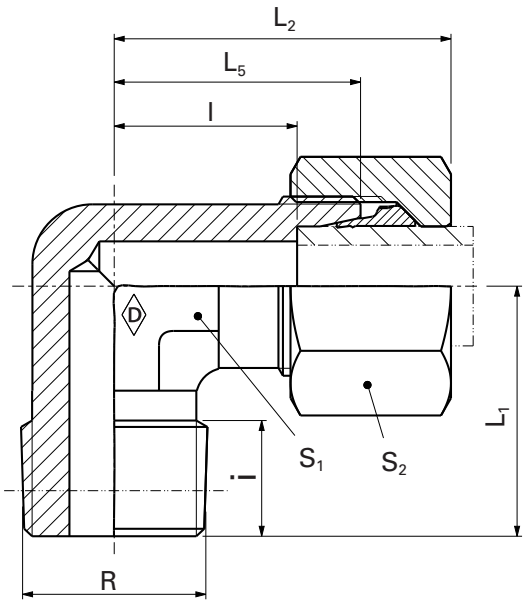
Special parts are available on request.

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P-WEV ... RK

P-WEV ... RK-1.4571

- Tapered studs type C to DIN 3852-2 with Whitworth thread





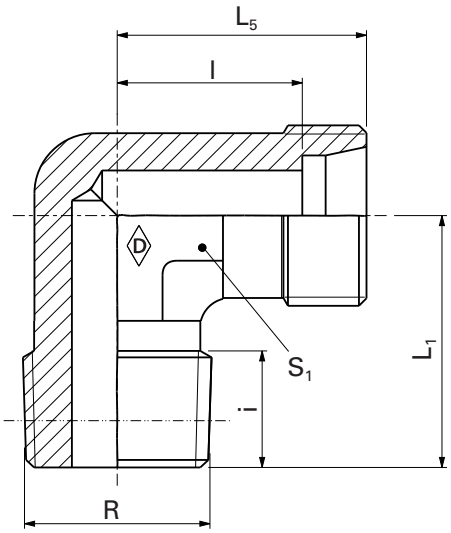
													Walpro P-WEV ...	Walpro stainless steel P-WEV ...-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	R	L_1	L_2	L_5	l	i	S_1	S_2	Part no.	Part no.
LL	100 (1450)	4	**S-WEV 4 LLRK**	2.1	R 1/8 taper	17	21	15	11	8	11	10	**WAL038408**	**WAL616401**
		6	**S-WEV 6 LLRK**	2.4	R 1/8 taper	17	21	15	9.5	8	11	12	**WAL038410**	**WAL061404**
		8	**S-WEV 8 LLRK**	3.4	R 1/8 taper	20	23	17	11.5	8	12	14	**WAL038411**	**WAL065330**
L	250 (3626)	6	**P-WEV 6 LRK**	4.0	R 1/8 taper	20	27	19	12	8	12	14	**WAL373195**	**WAL620034**
		6	**P-WEV 6 L/R 1/4 K**	6.0	R 1/4 taper	26	29	21	14	12	14	14	**WAL373196**	**WAL620169**
		8	**P-WEV 8 LRK**	6.6	R 1/4 taper	26	29	21	14	12	14	17	**WAL373197**	**WAL620035**
		10	**P-WEV 10 LRK**	8.3	R 1/4 taper	27	30	22	15	12	17	19	**WAL373198**	**WAL620036**
		10	**P-WEV 10 L/R 3/8 K**	9.0	R 3/8 taper	27	30	22	15	12	17	19	**WAL373199**	**WAL620347**
		12	**P-WEV 12 L/R 1/4 K**	11.4	R 1/4 taper	28	32	24	17	12	19	22	**WAL373200**	**WAL620170**
		12	**P-WEV 12 LRK**	11.8	R 3/8 taper	28	32	24	17	12	19	22	**WAL373201**	**WAL620037**
		15	**P-WEV 15 LRK**	13.0	R 1/2 taper	34	36	28	21	14	19	27	**WAL373202**	**WAL620038**
	160 (2321)	18	**P-WEV 18 LRK**	16.6	R 1/2 taper	36	40	31	23.5	14	24	32	**WAL373203**	**WAL620039**
S	630** (9137)	6	**P-WEV 6 SRK**	7.2	R 1/4 taper	26	31	23	16	12	14	17	**WAL373204**	**WAL620040**
		8	**P-WEV 8 SRK**	8.8	R 1/4 taper	27	32	24	17	12	17	19	**WAL373205**	**WAL620041**
		10	**P-WEV 10 SRK**	13.4	R 3/8 taper	28	34	25	17.5	12	19	22	**WAL373206**	**WAL620042**
		12	**P-WEV 12 SRK**	16.5	R 3/8 taper	28	38	29	21.5	12	22	24	**WAL373207**	**WAL620043**
		14	**P-WEV 14 SRK**	15.3	R 1/2 taper	32	40	30	22	14	19	27	**WAL373208**	**WAL621648**
	400 (5801)	16	**P-WEV 16 SRK**	17.9	R 1/2 taper	32	43	33	24.5	14	24	30	**WAL373209**	**WAL620044**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2 = approximate dimension if the union nut is tightened
**The nominal pressure of 630 bar only applies to tapered ports; otherwise, the nominal pressure is 400 bar

Special parts are available on request.

WES ... RK

WES ... RK-1.4571





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								System nuts for supplementing the stud (for technical data, see part D of this catalog)		
						Stud WES ...	Stud Stainless steel WES ... -1.4571*	WalringPlus W-R-Plus-M...	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	R	Part no.	Part no.	Part no.	Part no.	Part no.
LL	100 (1450)	4	**WES 4 LLRK**	1.7	R 1/8 taper	**WAL037695**	**WAL617440**			
		6	**WES 6 LLRK**	1.6	R 1/8 taper	**WAL037697**	**WAL061405**			
		8	**WES 8 LLRK**	2.2	R 1/8 taper	**WAL037698**	**WAL065331**			
L	250 (3626)	6	**WES 6 LRK**	2.8	R 1/8 taper	**WAL037699**	**WAL025517**	**WAL628467**	**WAL625940**	**WAL625980**
		6	**WES 6 L/R 1/4 K**	5.0	R 1/4 taper	**WAL037700**	**WAL065333**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**WES 8 LRK**	4.6	R 1/4 taper	**WAL037701**	**WAL025518**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**WES 10 LRK**	8.9	R 1/4 taper	**WAL037702**	**WAL025519**	**WAL628469**	**WAL625942**	**WAL625982**
		10	**WES 10 L/R 3/8 K**	6.8	R 3/8 taper	**WAL037703**	**WAL024259**	**WAL628469**	**WAL625942**	**WAL625982**
		12	**WES 12 L/R 1/4 K**	8.4	R 1/4 taper	**WAL037704**	**WAL065335**	**WAL628470**	**WAL625943**	**WAL625983**
		12	**WES 12 LRK**	8.9	R 3/8 taper	**WAL037705**	**WAL025520**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**WES 15 LRK**	8.9	R 1/2 taper	**WAL037706**	**WAL025521**	**WAL628471**	**WAL625944**	**WAL625984**
	160 (2321)	18	**WES 18 LRK**	12.0	R 1/2 taper	**WAL037707**	**WAL025522**	**WAL628472**	**WAL625945**	**WAL625985**
S	630 ** (9137)	6	**WES 6 SRK**	5.4	R 1/4 taper	**WAL037708**	**WAL025523**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**WES 8 SRK**	7.7	R 1/4 taper	**WAL037709**	**WAL025524**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**WES 10 SRK**	10.1	R 3/8 taper	**WAL037710**	**WAL025525**	**WAL628479**	**WAL625952**	**WAL625992**
		12	**WES 12 SRK**	12.7	R 3/8 taper	**WAL037711**	**WAL025526**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**WES 14 SRK**	10.6	R 1/2 taper	**WAL037712**	**WAL025527**			
	400 (5801)	16	**WES 16 SRK**	13.6	R 1/2 taper	**WAL037713**	**WAL025528**	**WAL628481**	**WAL625954**	**WAL625994**

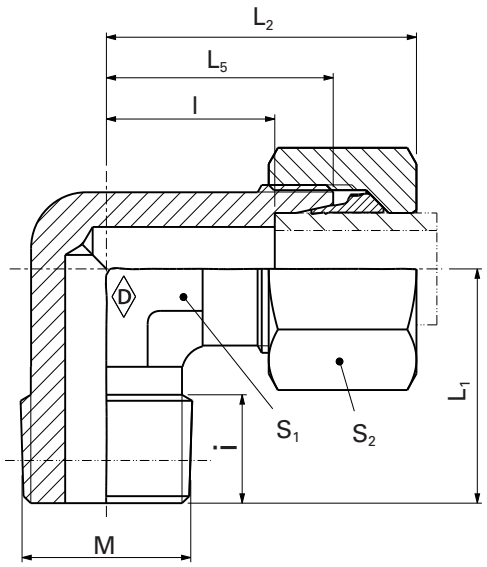
△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-WEV ... MK

P-WEV ... MK-1.4571

- Tapered studs type C to DIN 3852-1 with metric thread





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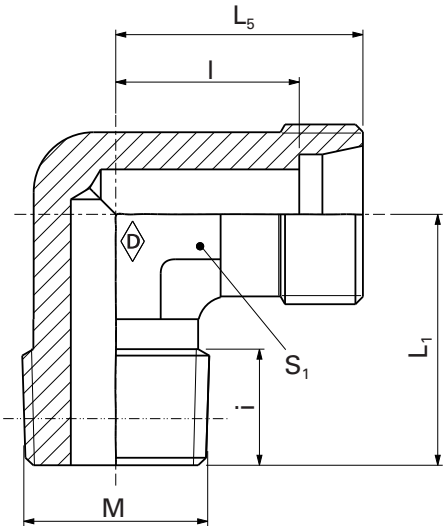
Series	PN bar (psi)	Tube outer diameter	Model	M	kg/ 100 pc.	L_1	L_2	L_5	l	i	S_1	S_2	Walpro P-WEV ... Part no.	Walpro stainless steel P-WEV ...-1.4571* Part no.
LL	100 (1450)	4	**S-WEV 4 LLMK**	M 8 x 1 taper	2.1	17	21	15	11	8	11	10	**WAL038427**	**WAL616402**
		6	**S-WEV 6 LLMK**	M 10 x 1 taper	2.4	17	21	15	9.5	8	11	12	**WAL038429**	**WAL609041**
		8	**S-WEV 8 LLMK**	M 10 x 1 taper	3.4	20	23	17	11.5	8	12	14	**WAL038430**	**WAL616403**
L	250 (3626)	6	**P-WEV 6 LMK**	M 10 x 1 taper	4.0	20	27	19	12	8	12	14	**WAL373213**	**WAL620050**
		8	**P-WEV 8 LMK**	M 12 x 1.5 taper	6.6	26	29	21	14	12	14	17	**WAL373214**	**WAL620610**
		10	**P-WEV 10 LMK**	M 14 x 1.5 taper	8.3	27	30	22	15	12	17	19	**WAL373215**	**WAL620999**
		12	**P-WEV 12 LMK**	M 16 x 1.5 taper	11.8	28	32	24	17	12	19	22	**WAL373216**	**WAL620051**
		15	**P-WEV 15 LMK**	M 18 x 1.5 taper	12.0	32	36	28	21	12	19	17	**WAL373217**	**WAL620052**
	160 (2321)	18	**P-WEV 18 LMK**	M 22 x 1.5 taper	16.6	36	40	31	23.5	14	24	32	**WAL373218**	**WAL620053**
S	630** (9137)	6	**P-WEV 6 SMK**	M 12 x 1.5 taper	7.2	26	31	23	16	12	14	17	**WAL373219**	**WAL621000**
		8	**P-WEV 8 SMK**	M 14 x 1.5 taper	8.8	27	32	24	17	12	17	19	**WAL373220**	**WAL620665**
		10	**P-WEV 10 SMK**	M 16 x 1.5 taper	13.4	28	34	25	17.5	12	19	22	**WAL373221**	**WAL620666**
		12	**P-WEV 12 SMK**	M 18 x 1.5 taper	16.5	28	38	29	21.5	12	22	24	**WAL373222**	**WAL620667**
		14	**P-WEV 14 SMK**	M 20 x 1.5 taper	15.3	32	40	30	22	14	19	27	**WAL373223**	**WAL621647**
	400 (5801)	16	**P-WEV 16 SMK**	M 22 x 1.5 taper	17.9	32	43	33	24.5	14	24	30	**WAL373224**	**WAL621001**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2 = approximate dimension if the union nut is tightened
**The nominal pressure of 630 bar only applies to tapered ports; otherwise, the nominal pressure is 400 bar

Special parts are available on request.

WES ... MK

WES ... MK-1.4571





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Series	PN bar (psi)	Tube outer diameter	Model	M	kg/ 100 pc.	Stud WES ... Part no.	Stud Stainless steel WES ... -1.4571* Part no.	System nuts for supplementing the stud (for technical data, see part D of this catalog) WalringPlus W-R-Plus-M... Part no.	Walform WF-M ... VI Part no.	Walform stainless steel WF-M ... VI-1.4571* Part no.
LL	100 (1450)	4	**WES 4 LLMK**	M 8 x 1 taper	1.5	**WAL037714**	**WAL067181**			
		6	**WES 6 LLMK**	M 10 x 1 taper	1.6	**WAL037716**	**WAL606649**			
		8	**WES 8 LLMK**	M 10 x 1 taper	2.3	**WAL037717**	**WAL617441**			
L	250 (3626)	6	**WES 6 LMK**	M 10 x 1 taper	2.9	**WAL037718**	**WAL025537**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**WES 8 LMK**	M 12 x 1.5 taper	4.4	**WAL037719**	**WAL025538**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**WES 10 LMK**	M 14 x 1.5 taper	6.1	**WAL037720**	**WAL025539**	**WAL628469**	**WAL625942**	**WAL625982**
		12	**WES 12 LMK**	M 16 x 1.5 taper	8.7	**WAL037721**	**WAL025540**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**WES 15 LMK**	M 18 x 1.5 taper	8.1	**WAL037722**	**WAL025541**	**WAL628471**	**WAL625944**	**WAL625984**
	160 (2321)	18	**WES 18 LMK**	M 22 x 1.5 taper	12.2	**WAL037723**	**WAL025542**	**WAL628472**	**WAL625945**	**WAL625985**
S	630** (9137)	6	**WES 6 SMK**	M 12 x 1.5 taper	5.3	**WAL037724**	**WAL025543**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**WES 8 SMK**	M 14 x 1.5 taper	7.8	**WAL037725**	**WAL025544**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**WES 10 SMK**	M 16 x 1.5 taper	10.3	**WAL037726**	**WAL025545**	**WAL628479**	**WAL625952**	**WAL625992**
		12	**WES 12 SMK**	M 18 x 1.5 taper	12.9	**WAL037727**	**WAL025546**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**WES 14 SMK**	M 20 x 1.5 taper	10.3	**WAL037728**	**WAL025547**			
	400 (5801)	16	**WES 16 SMK**	M 22 x 1.5 taper	11.4	**WAL037729**	**WAL025548**	**WAL628481**	**WAL625954**	**WAL625994**

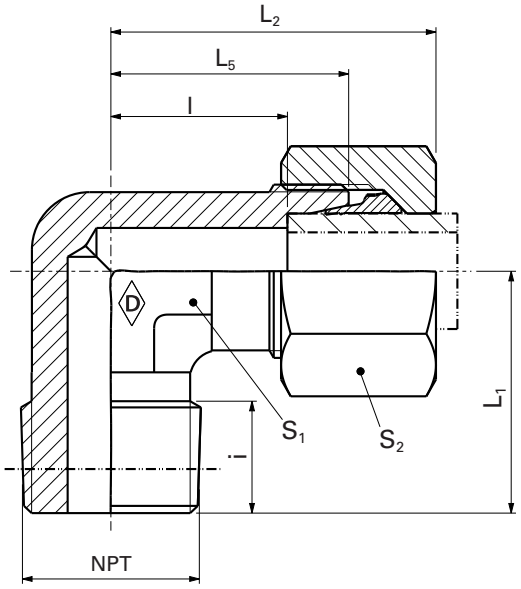
△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-WEV ... NPT

P-WEV ... NPT-1.4571

- Stud with NPT thread to ANSI/ASME B1.20.1-1983





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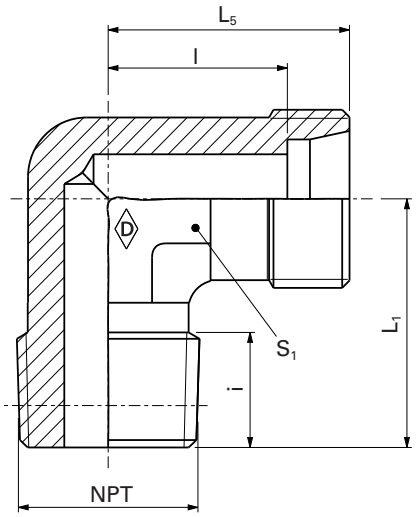
Series	PN bar (psi)	Tube outer diameter	Model	NPT	kg/ 100 pc.	L_1	L_2	L_5	l	i	S_1	S_2	Walpro P-WEV ... Part no.	Walpro stainless steel P-WEV ...-1.4571* Part no.
LL	100 (1450)	4	**S-WEV 4LL/ 1/8 NPT**	1/8 NPT	2.0	17	21	15	11	10	10	10	**WAL038383**	**WAL616408**
		6	**S-WEV 6 LL/ 1/8 NPT**	1/8 NPT	2.3	17	21	15	9.5	10	10	12	**WAL038385**	**WAL608456**
		8	**S-WEV 8 LL/ 1/8 NPT**	1/8 NPT	3.3	20	23	17	11.5	10	12	14	**WAL038386**	**WAL607142**
L	250 (3626)	6	**P-WEV 6 L/ 1/8 NPT**	1/8 NPT	4.0	20	27	19	12	10	12	14	**WAL373228**	**WAL620499**
		8	**P-WEV 8 L/ 1/4 NPT**	1/4 NPT	6.3	26	29	21	14	15	14	17	**WAL373229**	**WAL620187**
		10	**P-WEV 10 L/ 1/4 NPT**	1/4 NPT	8.2	27	30	22	15	15	17	19	**WAL373230**	**WAL620188**
		12	**P-WEV 12 L/ 1/4 NPT**	1/4 NPT	11.4	28	32	24	17	15	19	22	**WAL373231**	**WAL620215**
		12	**P-WEV 12 L/ 3/8 NPT**	3/8 NPT	11.6	28	32	24	17	15	19	22	**WAL373232**	**WAL620257**
		15	**P-WEV 15 L/ 1/2 NPT**	1/2 NPT	14.0	34	36	28	21	14	19	27	**WAL373233**	**WAL620258**
	160 (2321)	18	**P-WEV 18 L/ 1/2 NPT**	1/2 NPT	16.5	36	40	31	23.5	20	24	32	**WAL373234**	**WAL620134**
		22	**P-WEV 22 L/ 3/4 NPT**	3/8 NPT	23.5	42	44	35	27.5	20	27	36	**WAL373235**	**WAL621002**
	100 (1450)	28	**P-WEV 28 L/1 NPT**	1 NPT	37.5	48	47	38	30.5	23	36	41	**WAL373236**	**WAL621003**
S	630 (9137)	6	**P-WEV 6 S/ 1/4 NPT**	1/4 NPT	6.9	26	31	23	16	15	14	17	**WAL373239**	**WAL620484**
		8	**P-WEV 8 S/ 1/4 NPT**	1/4 NPT	9.5	27	32	24	17	15	17	19	**WAL373240**	**WAL620501**
		10	**P-WEV 10 S/ 3/8 NPT**	3/8 NPT	13.3	28	34	25	17.5	15	19	22	**WAL373241**	**WAL620750**
		12	**P-WEV 12 S/ 3/8 NPT**	3/8 NPT	16.8	28	38	29	21.5	15	22	24	**WAL373242**	**WAL620366**
		14	**P-WEV 14 S/ 1/2 NPT**	1/2 NPT	16.6	33	40	30	22	15	19	27	**WAL373243**	**WAL621646**
	400 (5801)	16	**P-WEV 16 S/ 1/2 NPT**	1/2 NPT	18.4	33	43	33	24.5	17	24	30	**WAL373244**	**WAL620663**
		20	**P-WEV 20 S/ 3/4 NPT**	3/4 NPT	30.0	42	48	37	26.5	20	27	36	**WAL373245**	**WAL620216**
		25	**P-WEV 25 S/1 NPT**	1 NPT	56.5	48	54	42	30	23	36	46	**WAL373246**	**WAL621004**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened

Special parts are available on request.

WES ... NPT

WES ... NPT-1.4571





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Series	PN bar (psi)	Tube outer diameter	Model	NPT	kg/ 100 pc.	Stud WES ... Part no.	Stud Stainless steel WES ... -1.4571* Part no.	System nuts for supplementing the stud (for technical data, see part D of this catalog) WalringPlus W-R-Plus-M... Part no.	Walform WF-M ... VI Part no.	Walform stainless steel WF-M ... VI-1.4571* Part no.
LL	100 (1450)	4	**WES 4LL/ 1/8 NPT**	1/8 NPT	1.4	**WAL037670**	**WAL617442**			
		6	**WES 6 LL/ 1/8 NPT**	1/8 NPT	1.7	**WAL037672**	**WAL024144**			
		8	**WES 8 LL/ 1/8 NPT**	1/8 NPT	2.3	**WAL037673**	**WAL617443**			
L	250 (3626)	6	**WES 6 L/ 1/8 NPT**	1/8 NPT	2.8	**WAL037674**	**WAL604782**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**WES 8 L/ 1/4 NPT**	1/4 NPT	4.5	**WAL037675**	**WAL066342**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**WES 10 L/ 1/4 NPT**	1/4 NPT	6	**WAL037676**	**WAL060075**	**WAL628469**	**WAL625942**	**WAL625982**
		12	**WES 12 L/ 1/4 NPT**	1/4 NPT	8.1	**WAL037677**	**WAL067069**	**WAL628470**	**WAL625943**	**WAL625983**
		12	**WES 12 L/ 3/8 NPT**	3/8 NPT	8.6	**WAL037678**	**WAL067678**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**WES 15 L/ 1/2 NPT**	1/2 NPT	8.8	**WAL037679**	**WAL067682**	**WAL628471**	**WAL625944**	**WAL625984**
	160 (2321)	18	**WES 18 L/ 1/2 NPT**	1/2 NPT	13.1	**WAL037680**	**WAL027535**	**WAL628472**	**WAL625945**	**WAL625985**
		22	**WES 22 L/ 3/4 NPT**	3/8 NPT	14.9	**WAL037681**	**WAL069030**	**WAL628473**	**WAL625946**	**WAL625986**
	100 (1450)	28	**WES 28 L/1 NPT**	1 NPT	28.3	**WAL037682**	**WAL604436**	**WAL628474**	**WAL625945**	**WAL625985**
S	630 (9137)	6	**WES 6 S/ 1/4 NPT**	1/4 NPT	5.3	**WAL037685**	**WAL604307**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**WES 8 S/ 1/4 NPT**	1/4 NPT	7.3	**WAL037686**	**WAL604712**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**WES 10 S/ 3/8 NPT**	3/8 NPT	9.7	**WAL037687**	**WAL605048**	**WAL628479**	**WAL625952**	**WAL625992**
		12	**WES 12 S/ 3/8 NPT**	3/8 NPT	12.1	**WAL037688**	**WAL372649**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**WES 14 S/ 1/2 NPT**	1/2 NPT	10.3	**WAL037689**	**WAL067071**			
	400 (5801)	16	**WES 16 S/ 1/2 NPT**	1/2 NPT	13.8	**WAL037690**	**WAL605049**	**WAL628481**	**WAL625954**	**WAL625994**
		20	**WES 20 S/ 3/4 NPT**	3/4 NPT	19.7	**WAL037691**	**WAL067073**	**WAL628482**	**WAL625955**	**WAL625995**
		25	**WES 25 S/1 NPT**	1 NPT	36	**WAL037692**	**WAL617444**	**WAL628483**	**WAL625956**	**WAL625996**

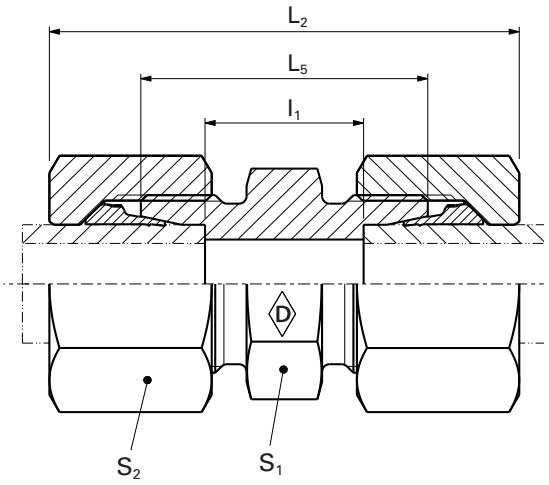
△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

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P-GV ...

P-GV ... -1.4571





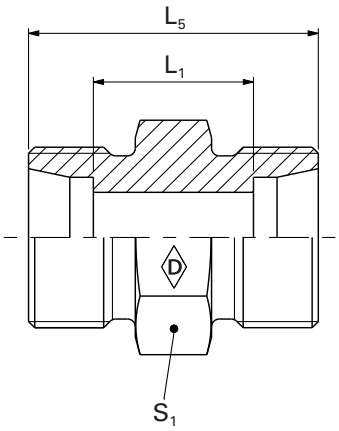
										Walpro P-GV ...	Walpro stainless steel P-GV ...-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L_2	L_5	l_1	S_1	S_2	Part no.	Part no.
LL	100 (1450)	4	**S-GV 4 LL**	1.4	31	20	12	9	10	**WAL038557**	**WAL069960**
		6	**S-GV 6 LL**	2.1	32	20	9	11	12	**WAL038559**	**WAL066887**
		8	**S-GV 8 LL**	2.6	35	23	12	12	14	**WAL038560**	**WAL604827**
L	500 (7252)	6	**P-GV 6 L**	3.5	39	24	10	12	14	**WAL373362**	**WAL620055**
		8	**P-GV 8 L**	4.9	40	25	11	14	17	**WAL373363**	**WAL620056**
		10	**P-GV 10 L**	6.9	42	27	13	17	19	**WAL373364**	**WAL620057**
	400 (5801)	12	**P-GV 12 L**	8.5	43	28	14	19	22	**WAL373365**	**WAL620058**
		15	**P-GV 15 L**	13.8	46	30	16	24	27	**WAL373366**	**WAL620059**
		18	**P-GV 18 L**	19.5	48	31	16	27	32	**WAL373367**	**WAL620060**
	250 (3626)	22	**P-GV 22 L**	26.2	52	35	20	32	36	**WAL373368**	**WAL620061**
		28	**P-GV 28 L**	31.5	54	36	21	41	41	**WAL373369**	**WAL620062**
		35	**P-GV 35 L**	49.4	63	41	20	46	50	**WAL373370**	**WAL620063**
		42	**P-GV 42 L**	49.4	66	43	20	46	50	**WAL373371**	**WAL620064**
S	800 (11603)	6	**P-GV 6 S**	5.9	45	30	16	14	17	**WAL373372**	**WAL620065**
		8	**P-GV 8 S**	7.8	47	32	18	17	19	**WAL373373**	**WAL620066**
		10	**P-GV 10 S**	11.0	49	32	17	19	22	**WAL373374**	**WAL620067**
	630 (9137)	12	**P-GV 12 S**	13.6	51	34	19	22	24	**WAL373375**	**WAL620068**
		14	**P-GV 14 S**	18.2	57	38	22	24	27	**WAL373376**	**WAL621531**
		16	**P-GV 16 S**	22.3	57	38	21	27	30	**WAL373377**	**WAL620069**
	420 (6091)	20	**P-GV 20 S**	34.7	66	44	23	32	36	**WAL373378**	**WAL620070**
		25	**P-GV 25 S**	66.9	74	50	26	41	46	**WAL373379**	**WAL620071**
		30	**P-GV 30 S**	80.9	80	54	27	46	50	**WAL373380**	**WAL620072**
		38	**P-GV 38 S**	119.4	90	61	29	55	60	**WAL373381**	**WAL620073**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened

Special parts are available on request.

GS ...

GS ... -1.4571





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Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	Stud GS ...	Stud Stainless steel GS ... -1.4571*	System nuts for supplementing the stud (for technical data, see part D of this catalog) WalringPlus W-R-Plus-M...	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
					Part no.	Part no.	Part no.	Part no.	Part no.
LL	100 (1450)	4	GS 4 LL	0.6	WAL037844	WAL069017			
		6	GS 6 LL	0.7	WAL037846	WAL065349			
		8	GS 8 LL	1.1	WAL037847	WAL061565			
L	500 (7252)	6	GS 6 L	1.3	WAL037848	WAL025557	WAL628467	WAL625940	WAL625980
		8	GS 8 L	1.7	WAL037849	WAL025558	WAL628468	WAL625941	WAL625981
		10	GS 10 L	2.5	WAL037850	WAL025559	WAL628469	WAL625942	WAL625982
	400 (5801)	12	GS 12 L	2.8	WAL037851	WAL025560	WAL628470	WAL625943	WAL625983
		15	GS 15 L	4.8	WAL037852	WAL025561	WAL628471	WAL625944	WAL625984
		18	GS 18 L	6.6	WAL028736	WAL025562	WAL628472	WAL625945	WAL625985
	250 (3626)	22	GS 22 L	8.9	WAL028737	WAL025563	WAL628473	WAL625946	WAL625986
		28	GS 28 L	13.5	WAL028738	WAL025564	WAL628474	WAL625947	WAL625987
		35	GS 35 L	21.2	WAL028739	WAL025565	WAL628475	WAL625948	WAL625988
		42	GS 42 L	29.2	WAL028740	WAL025566	WAL628476	WAL625949	WAL625989
S	800 (11603)	6	GS 6 S	2.5	WAL037853	WAL029716	WAL628477	WAL625950	WAL625990
		8	GS 8 S	2.9	WAL037854	WAL025567	WAL628478	WAL625951	WAL625991
		10	GS 10 S	4.3	WAL037855	WAL025568	WAL628479	WAL625952	WAL625992
	630 (9137)	12	GS 12 S	6.0	WAL037856	WAL025569	WAL628480	WAL625953	WAL625993
		14	GS 14 S	7.5	WAL037857	WAL025570			
		16	GS 16 S	8.7	WAL037858	WAL025571	WAL628481	WAL625954	WAL625994
	420 (6091)	20	GS 20 S	14.2	WAL037859	WAL025572	WAL628482	WAL625955	WAL625995
		25	GS 25 S	24.9	WAL037860	WAL025573	WAL628483	WAL625956	WAL625996
		30	GS 30 S	32.8	WAL037861	WAL025574	WAL628484	WAL625957	WAL625997
		38	GS 38 S	54.0	WAL037862	WAL025575	WAL628485	WAL625958	WAL625998

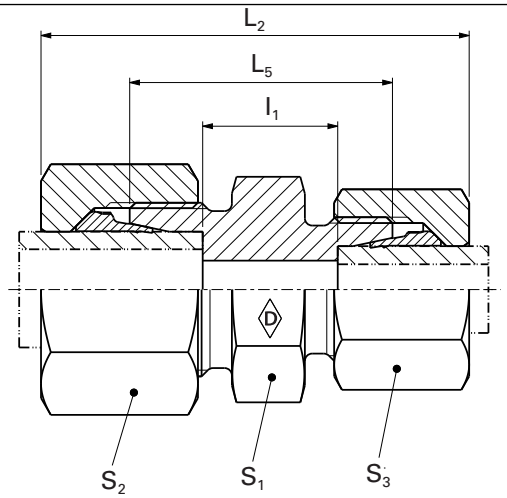
△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

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P-GV ... / ...

P-GV ... / ... -1.4571





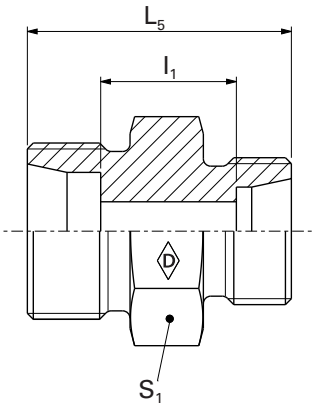
Series	PN bar (psi)	Tube outer diameter 1	Tube outer diameter 2	Model	kg/ 100 pc.	L_2	L_5	l1	S_1	S_2	S_3	Walpro P-GV .../ ... Part no.	Walpro stainless steel P-GV .../ ... -1.4571* Part no.
LL	100 (1450)	6	4	**S-GV 6/ 4 LL**	1.8	32.5	20	10.5	11	12	10	**WAL060065**	**WAL623072**
		8	4	**S-GV 8/ 4 LL**	2.1	34	22	12.5	12	14	10	**WAL024214**	**WAL623074**
L	500 (7252)	8	6	**P-GV 8/ 6 L**	4.4	40	25	11	14	17	14	**WAL374530**	**WAL620872**
		10	6	**P-GV 10/ 6 L**	5.4	41	26	12	17	19	14	**WAL374531**	**WAL620857**
		10	8	**P-GV 10/ 8 L**	5.6	41	26	12	17	19	17	**WAL602920**	**WAL620156**
	400 (5801)	12	6	**P-GV 12/ 6 L**	6.4	42	27	13	19	22	14	**WAL602654**	**WAL621005**
		12	8	**P-GV 12/ 8 L**	7.2	42	27	13	19	22	17	**WAL374532**	**WAL620190**
		12	10	**P-GV 12/ 10 L**	8.0	43	28	14	19	22	19	**WAL374533**	**WAL620548**
		15	10	**P-GV 15/ 10 L**	11.4	44.5	29	15	24	27	19	**WAL374534**	**WAL620841**
		15	12	**P-GV 15/ 12 L**	11.8	44.5	29	15	24	27	22	**WAL374535**	**WAL620616**
		18	10	**P-GV 18/ 10 L**	14.1	46	30	15.5	27	32	19	**WAL602655**	**WAL620575**
		18	12	**P-GV 18/ 12 L**	15.7	46	30	15.5	27	32	22	**WAL374536**	**WAL620574**
		18	15	**P-GV 18/ 15 L**	17.5	47.5	31	16.5	27	32	27	**WAL374537**	**WAL620615**
	250 (3626)	22	15	**P-GV 22/ 15 L**	21.4	49.5	33	18.5	32	36	27	**WAL374538**	**WAL621009**
		22	18	**P-GV 22/ 18 L**	23.8	50	33	18.21	32	36	32	**WAL374762**	**WAL620833**
		28	22	**P-GV 28/ 22 L**	32.6	54	36	21	41	41	36	**WAL604368**	**WAL620900**
		35	22	**P-GV 35/22L**	42,5	60,5	41	23	46	50	36	**WAL612009**	-
		35	28	**P-GV 35/28L**	47,6	61	41	23	46	50	41	**WAL624839**	-
		42	28	**P-GV 42/28L**	62,4	61,5	41	22,5	55	60	41	-	-
		42	35	**P-GV 42/35L**	70	65,5	43	21,5	55	60	50	**WAL624840**	-
S	630 (9137)	16	12	**P-GV 16/ 12 S**	22.3	54	36	20	27	30	24	**WAL374539**	**WAL620573**
	420 (6091)	20	16	**P-GV 20/ 16 S**	30.0	62.5	42	23	32	36	30	**WAL374540**	**WAL621024**
		25	16	**P-GV 25/ 16 S**	52.6	68	46	25.5	41	46	30	**WAL604471**	**WAL621025**
		25	20	**P-GV 25/ 20 S**	55.2	71	48	25.5	41	46	36	**WAL374541**	**WAL621026**
		30	16	**P-GV 30/16S**	59,6	70,5	48	26	46	50	30	-	-
		30	20	**P-GV 30/20S**	65,8	74	50	26	46	50	36	**WAL618538**	-
		30	25	**P-GV 30/25S**	76,8	77	52	26,5	46	50	46	**WAL612018**	-
		38	25	**P-GV 38/25S**	109,6	83,5	57	29	55	60	46	-	**WAL627388**
		38	30	**P-GV 38/30S**	109,3	86,5	59	29,5	55	60	50	**WAL623738**	-

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened

Special parts are available on request.

GS ... / ...

GS ... / ... -1.4571





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Series	PN bar (psi)	Tube outer diameter 1	Tube outer diameter 2	Model	kg/ 100 pc.	Stud GS .../ ... Part no.	Stud Stainless steel GS .../ ... -1.4571* Part no.
LL	100 (1450)	6	4	**GS 6/ 4 LL**	0.7	**WAL060066**	**WAL623073**
		8	4	**GS 8/ 4 LL**	0.8	**WAL025120**	**WAL623075**
L	500 (7252)	8	6	**GS 8/ 6 L**	1.6	**WAL029475**	**WAL061625**
		10	6	**GS 10/ 6 L**	2.0	**WAL029476**	**WAL617445**
		10	8	**GS 10/ 8 L**	2.1	**WAL029477**	**WAL061627**
	400 (5801)	12	6	**GS 12/ 6 L**	2.3	**WAL063441**	**WAL066615**
		12	8	**GS 12/ 8 L**	2.3	**WAL029478**	**WAL066613**
		12	10	**GS 12/ 10 L**	2.5	**WAL029479**	**WAL605070**
		15	10	**GS 15/ 10 L**	4.4	**WAL060223**	**WAL617448**
		15	12	**GS 15/ 12 L**	4.2	**WAL029480**	**WAL604558**
		18	10	**GS 18/ 10 L**	6.0	**WAL024917**	**WAL605347**
		18	12	**GS 18/ 12 L**	5.9	**WAL029663**	**WAL605346**
		18	15	**GS 18/ 15 L**	6.1	**WAL029482**	**WAL605919**
	250 (3626)	22	15	**GS 22/ 15 L**	7.9	**WAL024355**	**WAL617451**
		22	18	**GS 22/ 18 L**	8.3	**WAL061992**	**WAL617452**
		28	22	**GS 28/ 22 L**	13.0	**WAL024889**	**WAL615418**
		35	22	**GS 35/22L**	21.0	**WAL609864**	**WAL627260**
		35	28	**GS 35/28L**	21,3	**WAL609869**	**WAL602857**
		42	28	**GS 42/28L**	27,5	**WAL068002**	**WAL617456**
		42	35	**GS 42/35L**	29,6	**WAL068477**	**WAL617457**
S	630 (9137)	16	12	**GS 16/ 12 S**	8.2	**WAL029481**	**WAL371138**
	420 (6091)	20	16	**GS 20/ 16 S**	13.1	**WAL025197**	**WAL612801**
		25	16	**GS 25/ 16 S**	22.3	**WAL060853**	**WAL615211**
		25	20	**GS 25/ 20 S**	23.4	**WAL063230**	**WAL617469**
		30	16	**GS 30/16S**	28,8	-	**WAL626035**
		30	20	**GS 30/20S**	29,9	**WAL607766**	-
		30	25	**GS 30/25S**	31,5	**WAL370902**	-
		38	25	**GS 38/25S**	50,4	**WAL025199**	**WAL623790**
		38	30	**GS 38/30S**	50,9	**WAL607771**	**WAL617472**

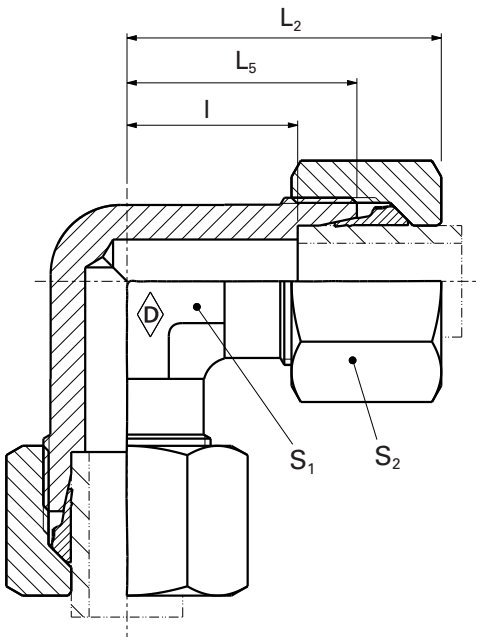
⚠ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

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P-WV ...

P-WV ... -1.4571





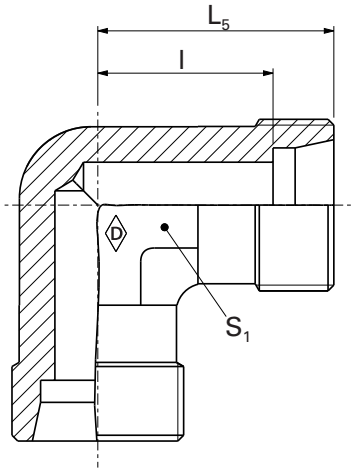
										Walpro P-WV ...	Walpro stainless steel P-WV ...-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L_2	L_5	l	S_1	S_2	Part no.	Part no.
LL	100 (1450)	4	**S-WV 4 LL**	2.5	21	15	11	9	10	**WAL038576**	**WAL604071**
		6	**S-WV 6 LL**	2.7	21	15	9.5	9	12	**WAL038578**	**WAL061566**
		8	**S-WV 8 LL**	3.8	23	17	11.5	12	14	**WAL038579**	**WAL065336**
L	500 (7252)	6	**P-WV 6 L**	4.9	27	19	12	12	14	**WAL373385**	**WAL620074**
		8	**P-WV 8 L**	7.6	29	21	14	12	17	**WAL373386**	**WAL620075**
		10	**P-WV 10 L**	9.6	30	22	15	14	19	**WAL373387**	**WAL620076**
	400 (5801)	12	**P-WV 12 L**	13.5	32	24	17	17	22	**WAL373388**	**WAL620077**
		15	**P-WV 15 L**	15.8	36	28	21	19	27	**WAL373389**	**WAL620078**
		18	**P-WV 18 L**	23.9	40	31	23.5	24	32	**WAL373390**	**WAL620079**
	250 (3626)	22	**P-WV 22 L**	31.7	44	35	27.5	27	36	**WAL373391**	**WAL620080**
		28	**P-WV 28 L**	42.0	47	38	30.5	36	41	**WAL373392**	**WAL620081**
		35	**P-WV 35 L**	75.9	56	45	34.5	41	50	**WAL373393**	**WAL620082**
		42	**P-WV 42 L**	107.8	63	51	40	50	60	**WAL373394**	**WAL620083**
S	800 (11603)	6	**P-WV 6 S**	8.5	31	23	16	12	17	**WAL373395**	**WAL620084**
		8	**P-WV 8 S**	11.7	32	24	17	14	19	**WAL373396**	**WAL620085**
		10	**P-WV 10 S**	16.1	34	25	17.5	17	22	**WAL373397**	**WAL620086**
	630 (9137)	12	**P-WV 12 S**	20.5	38	29	21.5	17	24	**WAL373398**	**WAL620087**
		14	**P-WV 14 S**	20.7	40	30	22	19	27	**WAL373399**	**WAL621652**
		16	**P-WV 16 S**	25.0	43	33	24.5	24	30	**WAL373400**	**WAL620088**
	420 (6091)	20	**P-WV 20 S**	40.7	48	37	26.5	27	36	**WAL373401**	**WAL620089**
		25	**P-WV 25 S**	77.6	54	42	30	36	46	**WAL373402**	**WAL620090**
		30	**P-WV 30 S**	97.4	62	49	35.5	41	50	**WAL373403**	**WAL620091**
		38	**P-WV 38 S**	131.8	72	57	41	50	60	**WAL373404**	**WAL620092**

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2 = approximate dimension if the union nut is tightened

Special parts are available on request.

WS ...

WS ... -1.4571





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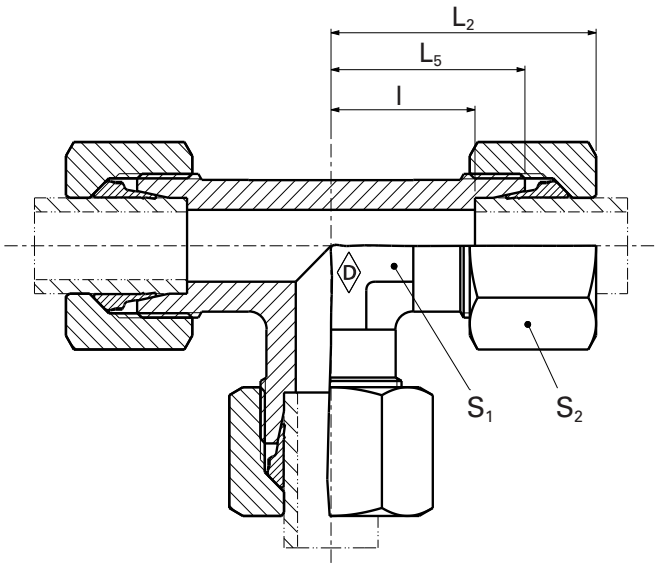
							System nuts for supplementing the stud (for technical data, see part D of this catalog)		
					Stud WS ...	Stud Stainless steel WS ... -1.4571*	WalringPlus W-R-Plus-M...	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
LL	100 (1450)	4	WS 4 LL	1.2	WAL037863	WAL604070			
		6	WS 6 LL	1.4	WAL037865	WAL061567			
		8	WS 8 LL	2.2	WAL037866	WAL065337			
L	500 (7252)	6	WS 6 L	2.8	WAL037867	WAL025576	WAL628467	WAL625940	WAL625980
		8	WS 8 L	4.1	WAL037868	WAL025577	WAL628468	WAL625941	WAL625981
		10	WS 10 L	5.7	WAL037869	WAL025578	WAL628469	WAL625942	WAL625982
	400 (5801)	12	WS 12 L	8	WAL037870	WAL025579	WAL628470	WAL625943	WAL625983
		15	WS 15 L	7.5	WAL037871	WAL025580	WAL628471	WAL625944	WAL625984
		18	WS 18 L	11.2	WAL037872	WAL025581	WAL628472	WAL625945	WAL625985
	250 (3626)	22	WS 22 L	14.9	WAL037873	WAL025582	WAL628473	WAL625946	WAL625986
		28	WS 28 L	25.2	WAL037874	WAL025583	WAL628474	WAL625947	WAL625987
		35	WS 35 L	46.5	WAL037875	WAL025584	WAL628475	WAL625948	WAL625988
		42	WS 42 L	61.6	WAL037876	WAL025585	WAL628476	WAL625949	WAL625989
S	800 (11603)	6	WS 6 S	9.4	WAL037877	WAL025586	WAL628477	WAL625950	WAL625990
		8	WS 8 S	7.2	WAL037878	WAL025587	WAL628478	WAL625951	WAL625991
		10	WS 10 S	9.7	WAL037879	WAL025588	WAL628479	WAL625952	WAL625992
	630 (9137)	12	WS 12 S	13.6	WAL037880	WAL025589	WAL628480	WAL625953	WAL625993
		14	WS 14 S	9.8	WAL037881	WAL025590			
		16	WS 16 S	14.4	WAL037882	WAL025591	WAL628481	WAL625954	WAL625994
	420 (6091)	20	WS 20 S	20	WAL037883	WAL025592	WAL628482	WAL625955	WAL625995
		25	WS 25 S	36.5	WAL037884	WAL025593	WAL628483	WAL625956	WAL625996
		30	WS 30 S	46.5	WAL037885	WAL025594	WAL628484	WAL625957	WAL625997
		38	WS 38 S	66	WAL037886	WAL025595	WAL628485	WAL625958	WAL625998

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-TV ...

P-TV ... -1.4571





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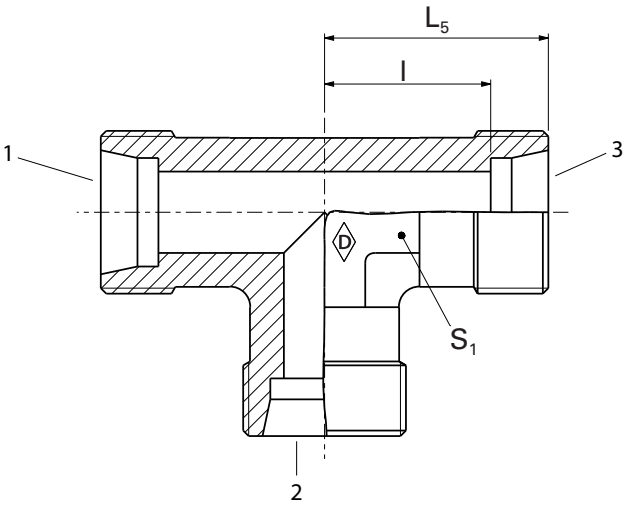
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L_2	L_5	l	S_1	S_2	Walpro P-TV ... Part no.	Walpro stainless steel P-TV ...-1.4571* Part no.
LL	100 (1450)	4	**S-TV 4 LL**	2.8	21	15	11	8	10	**WAL038600**	**WAL609123**
		6	**S-TV 6 LL**	3.7	21	15	9.5	10	12	**WAL038602**	**WAL065338**
		8	**S-TV 8 LL**	5.1	23	17	11.5	12	14	**WAL038603**	**WAL065340**
L	500 (7252)	6	**P-TV 6 L**	7.1	27	19	12	12	14	**WAL373408**	**WAL620093**
		8	**P-TV 8 L**	10.1	29	21	14	14	17	**WAL373409**	**WAL620094**
		10	**P-TV 10 L**	13.0	30	22	15	17	19	**WAL373410**	**WAL620095**
	400 (5801)	12	**P-TV 12 L**	17.7	32	24	17	19	22	**WAL373411**	**WAL620096**
		15	**P-TV 15 L**	23.2	36	28	21	19	27	**WAL373412**	**WAL620097**
		18	**P-TV 18 L**	35.4	40	31	23.5	24	32	**WAL373413**	**WAL620098**
	250 (3626)	22	**P-TV 22 L**	44.3	44	35	27.5	27	36	**WAL373414**	**WAL620099**
		28	**P-TV 28 L**	61.1	47	38	30.5	36	41	**WAL373415**	**WAL620100**
		35	**P-TV 35 L**	90.1	56	45	34.5	41	50	**WAL373416**	**WAL620101**
		42	**P-TV 42 L**	136.8	63	51	40	50	60	**WAL373417**	**WAL620102**
S	800 (11603)	6	**P-TV 6 S**	12.0	31	23	16	12	17	**WAL373418**	**WAL620103**
		8	**P-TV 8 S**	15.7	32	24	17	17	19	**WAL373419**	**WAL620104**
		10	**P-TV 10 S**	21.2	34	25	17.5	19	22	**WAL373420**	**WAL620105**
	630 (9137)	12	**P-TV 12 S**	28.5	38	29	21.5	22	24	**WAL373421**	**WAL620106**
		14	**P-TV 14 S**	28.5	40	30	22	19	27	**WAL373422**	**WAL621643**
		16	**P-TV 16 S**	35.7	43	33	24.5	24	30	**WAL373423**	**WAL620107**
	420 (6091)	20	**P-TV 20 S**	55.8	48	37	26.5	27	36	**WAL373424**	**WAL620108**
		25	**P-TV 25 S**	106.7	54	42	30	36	46	**WAL373425**	**WAL620109**
		30	**P-TV 30 S**	134.9	62	49	35.5	41	50	**WAL373426**	**WAL620110**
		38	**P-TV 38 S**	202.2	72	57	41	50	60	**WAL373427**	**WAL620111**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened

Special parts are available on request.

TS ...

TS ... -1.4571





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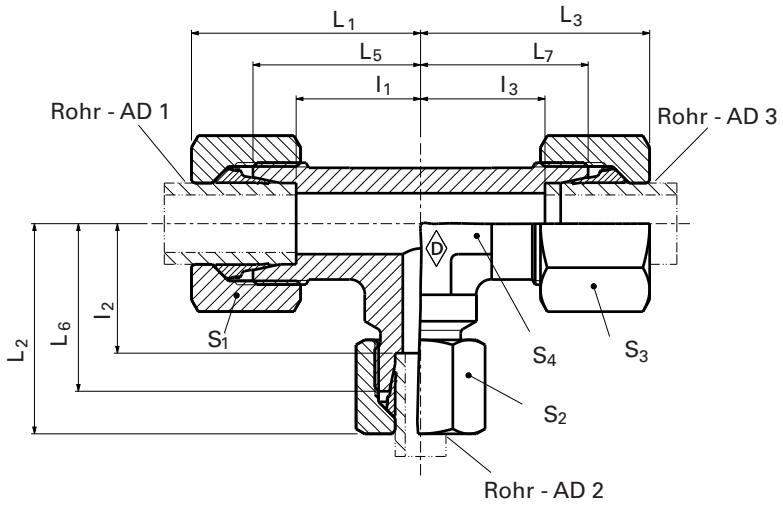
								System nuts for supplementing the stud (for technical data, see part D of this catalog)		
						Stud TS ...	Stud Stainless steel TS ... -1.4571*	WalringPlus W-R-Plus-M...	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	DIN 2353	Part no.	Part no.	Part no.	Part no.	Part no.
LL	100 (1450)	4	**TS 4 LL**	1.4	QLL 4	**WAL037887**	**WAL617473**			
		6	**TS 6 LL**	1.7	QLL 6	**WAL037889**	**WAL065339**			
		8	**TS 8 LL**	2.5	QLL 8	**WAL037890**	**WAL065341**			
L	500 (7252)	6	**TS 6 L**	3.4	QL 6	**WAL037891**	**WAL025596**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**TS 8 L**	5.2	QL 8	**WAL037892**	**WAL025597**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**TS 10 L**	6.3	QL 10	**WAL037893**	**WAL025598**	**WAL628469**	**WAL625942**	**WAL625982**
	400 (5801)	12	**TS 12 L**	8.6	QL 12	**WAL037894**	**WAL025599**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**TS 15 L**	8.9	QL 15	**WAL037895**	**WAL025600**	**WAL628471**	**WAL625944**	**WAL625984**
		18	**TS 18 L**	14.7	QL 18	**WAL037896**	**WAL025601**	**WAL628472**	**WAL625945**	**WAL625985**
	250 (3626)	22	**TS 22 L**	19.6	QL 22	**WAL037897**	**WAL025602**	**WAL628473**	**WAL625946**	**WAL625986**
		28	**TS 28 L**	33.4	QL 28	**WAL037898**	**WAL025603**	**WAL628474**	**WAL625947**	**WAL625987**
		35	**TS 35 L**	49.5	QL 35	**WAL037899**	**WAL025604**	**WAL628475**	**WAL625948**	**WAL625988**
		42	**TS 42 L**	67.5	QL 42	**WAL037900**	**WAL025605**	**WAL628476**	**WAL625949**	**WAL625989**
S	800 (11603)	6	**TS 6 S**	6.1	QS 6	**WAL037901**	**WAL025606**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**TS 8 S**	8.6	QS 8	**WAL037902**	**WAL025607**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**TS 10 S**	10.8	QS 10	**WAL037903**	**WAL025608**	**WAL628479**	**WAL625952**	**WAL625992**
	630 (9137)	12	**TS 12 S**	16.0	QS 12	**WAL037904**	**WAL025609**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**TS 14 S**	13.2	QS 14	**WAL037905**	**WAL025610**			
		16	**TS 16 S**	16.0	QS 16	**WAL037906**	**WAL025611**	**WAL628481**	**WAL625954**	**WAL625994**
	420 (6091)	20	**TS 20 S**	26.8	QS 20	**WAL037907**	**WAL025612**	**WAL628482**	**WAL625955**	**WAL625995**
		25	**TS 25 S**	46.0	QS 25	**WAL037908**	**WAL025613**	**WAL628483**	**WAL625956**	**WAL625996**
		30	**TS 30 S**	71.4	QS 30	**WAL037909**	**WAL025614**	**WAL628484**	**WAL625957**	**WAL625997**
		38	**TS 38 S**	103.5	QS 38	**WAL037910**	**WAL025615**	**WAL628485**	**WAL625958**	**WAL625998**

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-TV 1 / 2 / 3

- L1, L2 and L3 = approximate dimensions if the union nuts are tightened
- Light-duty range





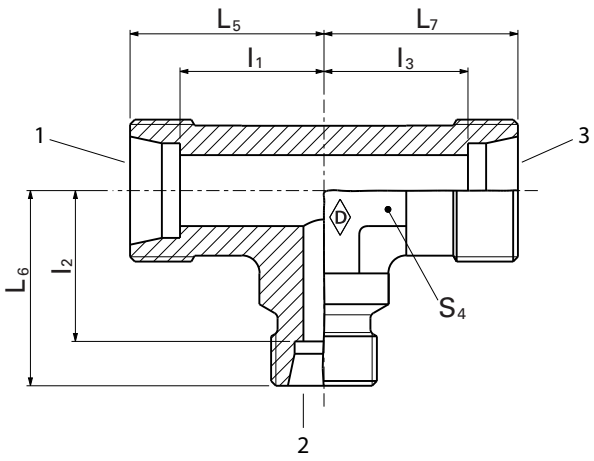
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																			Walpro P-TV .../.../...
Series	PN bar (psi)	Tube outer diameter 1	Tube outer diameter 2	Tube outer diameter 3	Model	l_1	l_2	l_3	L_1	L_2	L_3	L_5	L_6	L_7	S_1	S_2	S_3	S_4	Part no.
L	500 (7252)	10	6	10	**P-TV 10/6/10 L**	15	15	15	30	30	30	22	22	22	17	19	14	14	**WAL374542**
		10	8	10	**P-TV 10/8/10 L**	15	15	15	30	30	30	22	22	22	17	19	17	14	**WAL374543**
	400 (5801)	12	6	12	**P-TV 12/6/12 L**	17	17	17	32	32	32	24	24	24	22	22	14	17	**WAL602635**
		12	8	12	**P-TV 12/8/12 L**	17	17	17	32	32	32	24	24	24	22	22	17	17	**WAL374544**
		12	10	12	**P-TV 12/10/12 L**	17	17	17	32	32	32	24	24	24	22	22	19	17	**WAL374545**
		12	15	12	**P-TV 12/15/12 L**	21	21	21	36	36	36	28	28	28	22	22	27	19	**WAL374546**
		15	12	12	**P-TV 15/12/12 L**	21	21	21	36	36	36	28	28	28	27	22	22	19	**WAL374549**
		15	15	12	**P-TV 15/15/12 L**	21	21	21	36	36	36	28	28	28	27	22	27	19	**WAL606957**
		15	8	15	**P-TV 15/8/15 L**	21	21	21	36	36	36	28	28	28	27	27	17	19	**WAL374547**
		15	10	15	**P-TV 15/10/15 L**	21	21	21	36	36	36	28	28	28	27	27	19	19	**WAL605187**
		15	12	15	**P-TV 15/12/15 L**	21	21	21	36	36	36	28	28	28	27	27	22	19	**WAL374548**
		18	12	12	**P-TV 18/12/12 L**	23.5	24	24	40	39	39	31	31	31	32	22	22	24	**WAL374552**
		18	10	18	**P-TV 18/10/18 L**	23.5	23.5	24	40	40	39	31	31	31	32	32	19	24	**WAL374550**
		18	12	18	**P-TV 18/12/18 L**	23.5	23.5	24	40	40	39	31	31	31	32	32	22	24	**WAL374551**
		18	15	18	**P-TV 18/15/18 L**	23.5	23.5	24	40	40	39	31	31	31	32	32	27	24	**WAL605018**
	250 (3626)	22	10	22	**P-TV 22/10/22 L**	27.5	27.5	28	44	44	43	35	35	35	36	36	19	27	**WAL373553**
		22	15	22	**P-TV 22/15/22 L**	27.5	27.5	28	44	44	43	35	35	35	36	36	27	27	**WAL374554**
		28	22	22	**P-TV 28/22/22 L**	30.5	30.5	30.5	47	47	47	38	38	38	41	36	36	36	**WAL606590**
		28	22	28	**P-TV 28/22/28 L**	30.5	30.5	30.5	47	47	47	38	38	38	41	41	36	36	**WAL605916**

L_1, L_2 and L_3 = approximate dimensions if the union nuts are tightened

Special parts are available on request.

TS 1 / 2 / 3





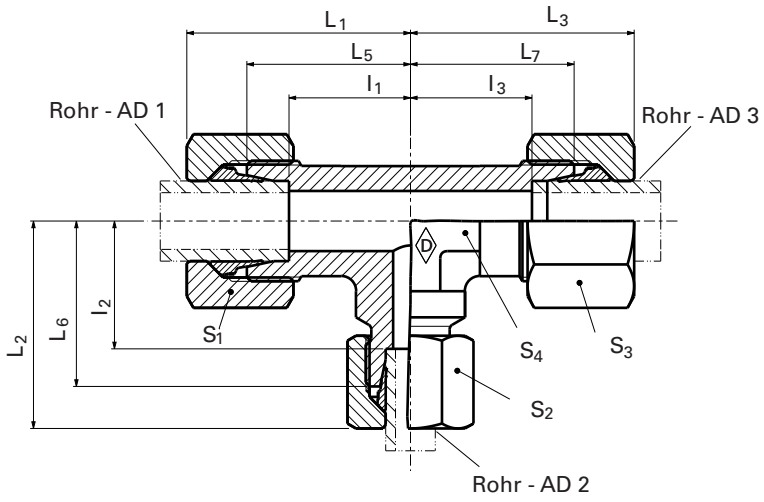
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Series	PN bar (psi)	Tube outer diameter 1	Tube outer diameter 2	Tube outer diameter 3	Model	kg/ 100 pc.	Stud TS .../ .../ ... Part no.
L	500 (7525)	10	6	10	**TS 10/6/10 L**	5.8	**WAL027761**
		10	8	10	**TS 10/8/10 L**	5.8	**WAL029472**
	400 (5801)	12	6	12	**TS 12/6/12 L**	8.9	**WAL025465**
		12	8	12	**TS 12/8/12 L**	8.7	**WAL027710**
		12	10	12	**TS 12/10/12 L**	8.9	**WAL024215**
		12	15	12	**TS 12/15/12 L**	7.9	**WAL060044**
		15	12	12	**TS 15/12/12 L**	8.0	**WAL028939**
		15	15	12	**TS 15/15/12 L**	8.0	**WAL024959**
		15	8	15	**TS 15/8/15 L**	7.7	**WAL025033**
		15	10	15	**TS 15/10/15 L**	8.0	**WAL060051**
		15	12	15	**TS 15/12/15 L**	8.7	**WAL029473**
		18	12	12	**TS 18/12/12 L**	15.0	**WAL064007**
		18	10	18	**TS 18/10/18 L**	15.0	**WAL029620**
		18	12	18	**TS 18/12/18 L**	15.3	**WAL028666**
		18	15	18	**TS 18/15/18 L**	15.5	**WAL066450**
	250 (3626)	22	10	22	**TS 22/10/22 L**	20.1	**WAL025467**
		22	15	22	**TS 22/15/22 L**	20.6	**WAL060866**
		28	22	22	**TS 28/22/22 L**	34.0	**WAL063243**
		28	22	28	**TS 28/22/28 L**	33.2	**WAL060956**

Special parts are available on request.

P-TV 1 / 2 / 3

- L1, L2 and L3 = approximate dimensions if the union nuts are tightened
- Heavy-duty range





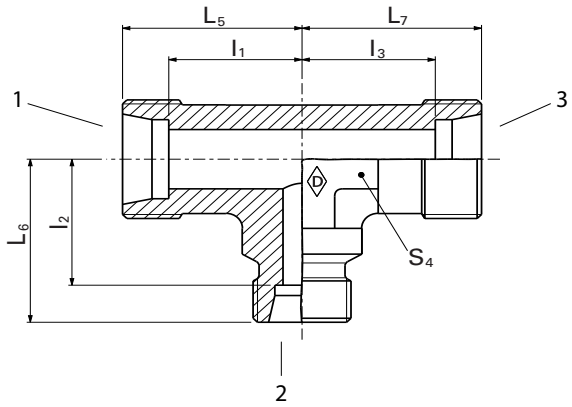
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Series	PN bar (psi)	Tube outer diameter 1	Tube outer diameter 2	Tube outer diameter 3	l_1	l_2	l_3	L_1	L_2	L_3	L_5	L_6	L_7	S_1	S_2	S_3	S_4
S	630 (9137)	12	16	12	25.5	25.5	24.5	42	42	43	33	33	33	24	24	30	24
		16	10	16	24.5	24.5	25.5	43	43	42	33	33	33	30	30	22	24
		16	12	16	24.5	25.5	25.5	43	43	42	33	33	33	30	30	24	24
		16	12	12	24.5	25.5	25.5	43	42	38	33	33	29	30	30	24	24
		16	6	16	24.5	24.5	26	43	43	41	33	33	33	30	30	17	24
	420 (6091)	16	25	16	33.5	33.5	30	52	52	54	42	42	42	30	30	46	36
		16	20	16	28.5	28.5	26.5	47	47	48	37	37	37	30	30	36	27
		20	25	20	31.5	31.5	30	53	53	54	42	42	42	36	36	46	36
		20	20	16	36.5	28.5	36.5	48	47	48	37	37	37	36	30	36	27
		20	16	16	26.5	28.5	24.5	48	47	43	37	37	33	36	30	30	27
		20	10	20	26.5	26.5	29.5	48	48	46	37	37	37	36	36	22	27
		20	12	20	26.5	26.5	29.5	48	48	47	37	37	37	36	36	24	27
		25	12	25	30	30	34.5	54	54	51	42	42	42	46	46	24	36
		25	16	25	30	30	33.5	54	54	52	42	42	42	46	46	30	36
		30	20	30	35.5	35.5	38.5	62	62	60	49	49	49	50	50	36	41
		30	25	30	35.5	35.5	37	62	62	61	49	49	49	50	50	46	41
		30	30	20	35.5	33	35.5	62	60	62	49	49	49	50	36	50	41
		30	30	16	35.5	40.5	35.5	62	59	62	49	49	49	50	30	50	41
	400 (5801)	30	38	30	43.5	43.5	41	70	70	72	57	57	57	50	50	60	50
		20	16	20	26.5	26.5	28.5	48	48	47	37	37	37	36	36	30	27
		25	38	25	41	45	41	69	69	72	57	57	57	46	46	60	50
		38	20	38	41	41	46.5	72	72	68	57	57	57	60	46	46	50
		38	25	25	41	45	45	72	69	69	57	57	57	60	46	46	50
		38	25	38	41	41	41	72	72	65	57	57	53	60	60	46	50
		38	38	25	41	45	41	72	69	72	57	57	57	60	46	60	50

L_1, L_2 and L_3 = approximate dimensions if the union nuts are tightened

Special parts are available on request.

TS 1 / 2 / 3





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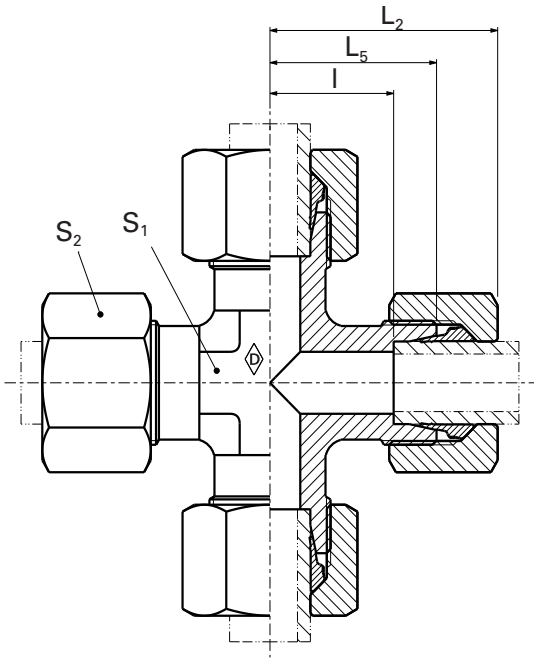
Series	PN bar (psi)	Tube outer diameter 1	Tube outer diameter 2	Tube outer diameter 3	Model	Stud TS .../.../... Part no.
S	630 (9137)	12	16	12	**TS 12/16/12 S**	**WAL066485**
		16	10	16	**TS 16/10/16 S**	**WAL025263**
		16	12	16	**TS 16/12/16 S**	**WAL067362**
		16	12	12	**TS 16/12/12 S**	**WAL612794**
		16	6	16	**TS 16/6/16 S**	**WAL615645**
	420 (6091)	16	25	16	**TS 16/25/16 S**	**WAL613187**
		16	20	16	**TS 16/20/16 S**	**WAL611432**
		20	25	20	**TS 20/25/20 S**	**WAL612080**
		20	20	16	**TS 20/20/16 S**	**WAL612792**
		20	16	16	**TS 20/16/16 S**	**WAL612793**
		20	10	20	**TS 20/10/20 S**	**WAL024178**
		20	12	20	**TS 20/12/20 S**	**WAL617083**
		25	12	25	**TS 25/12/25 S**	**WAL025200**
		25	16	25	**TS 25/16/25 S**	**WAL615644**
		30	20	30	**TS 30/20/30 S**	**WAL615640**
		30	25	30	**TS 30/25/30 S**	**WAL624322**
		30	30	20	**TS 30/30/20 S**	**WAL624323**
		30	30	16	**TS 30/30/16 S**	**WAL624743**
	400 (5801)	30	38	30	**TS 30/38/30 S**	**WAL060874**
		20	16	20	**TS 20/16/20 S**	**WAL615641**
		25	38	25	**TS 25/38/25 S**	**WAL615638**
		38	20	38	**TS 38/20/38 S**	**WAL615639**
		38	25	25	**TS 38/25/25 S**	**WAL615637**
		38	25	38	**TS 38/25/38 S**	**WAL615642**
		38	38	25	**TS 38/38/25 S**	**WAL618539**

Special parts are available on request.

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P-KV ...

P-KV ... -1.4571





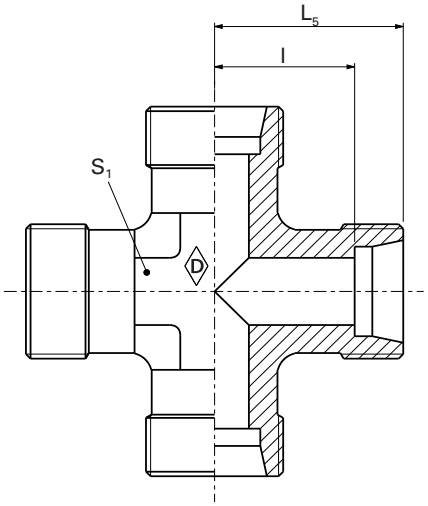
										Walpro P-KV ...	Walpro stainless steel P-KV ...-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L_2	L_5	l_1	S_1	S_2	Part no.	Part no.
LL	100 (1450)	8	**S-KV 8 LL**	6.0	23	17	11.5	12	14	**WAL038627**	**WAL623080**
L	500 (7252)	6	**P-KV 6 L**	7.7	27	19	12	12	14	**WAL373431**	**WAL620368**
		8	**P-KV 8 L**	10.9	29	21	14	12	17	**WAL373432**	**WAL621030**
		10	**P-KV 10 L**	15.5	30	22	15	14	19	**WAL373433**	**WAL620446**
	400 (5801)	12	**P-KV 12 L**	19.2	32	24	17	17	22	**WAL373434**	**WAL620442**
		15	**P-KV 15 L**	31.1	36	28	21	19	27	**WAL373435**	**WAL620355**
		18	**P-KV 18 L**	48.3	40	31	23.5	24	32	**WAL373436**	**WAL620670**
	250 (5801)	22	**P-KV 22 L**	72.4	44	35	27.5	27	36	**WAL373437**	**WAL620529**
		28	**P-KV 28 L**	101.1	47	38	30.5	36	41	**WAL373438**	**WAL621031**
		35	**P-KV 35 L**	122.8	56	45	34.5	41	50	**WAL373439**	**WAL621032**
		42	**P-KV 42 L**	175.6	63	51	40	50	60	**WAL373440**	**WAL620671**
S	800 (11603)	6	**P-KV 6 S**	12.3	31	23	16	12	17	**WAL373441**	**WAL621033**
		8	**P-KV 8 S**	14.8	32	24	17	14	19	**WAL373442**	**WAL620649**
		10	**P-KV 10 S**	23.0	34	25	17.5	17	22	**WAL373443**	**WAL620498**
	630 (9137)	12	**P-KV 12 S**	28.2	38	29	21.5	17	24	**WAL373444**	**WAL620522**
		14	**P-KV 14 S**	35.4	40	30	22	19	27	**WAL373445**	**WAL621534**
		16	**P-KV 16 S**	45.1	43	33	24.5	24	30	**WAL373446**	**WAL621034**
	420 (6091)	20	**P-KV 20 S**	70.4	48	37	26.5	27	36	**WAL373447**	**WAL620906**
		25	**P-KV 25 S**	125.7	54	42	30	36	46	**WAL373448**	**WAL620515**
		30	**P-KV 30 S**	150.3	62	49	35.5	41	50	**WAL373449**	**WAL621035**
	400 (5801)	38	**P-KV 38 S**	205.1	72	57	41	50	60	**WAL373450**	**WAL621036**

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened

Special parts are available on request.

KS ...

KS ... -1.4571





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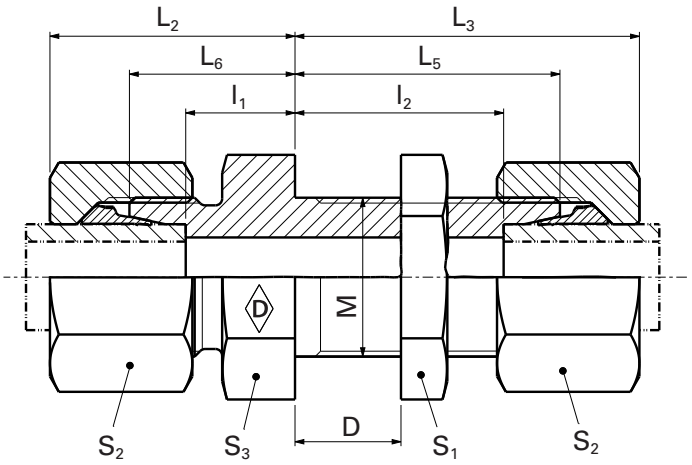
							System nuts for supplementing the stud (for technical data, see part D of this catalog)		
					Stud KS ...	Stud Stainless steel KS ... -1.4571*	WalringPlus W-R-Plus-M...	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
LL	100 (1450)	8	**KS 8 LL**	2.6	**WAL037914**	**WAL623081**			
L	500 (7252)	6	**KS 6 L**	3.5	**WAL037915**	**WAL372737**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**KS 8 L**	4.1	**WAL037916**	**WAL372105**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**KS 10 L**	4.6	**WAL037917**	**WAL370719**	**WAL628469**	**WAL625942**	**WAL625982**
	400 (5801)	12	**KS 12 L**	7.3	**WAL037918**	**WAL604343**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**KS 15 L**	12.5	**WAL037919**	**WAL372319**	**WAL628471**	**WAL625944**	**WAL625984**
		18	**KS 18 L**	18.2	**WAL037920**	**WAL374733**	**WAL628472**	**WAL625945**	**WAL625985**
	250 (5801)	22	**KS 22 L**	23.5	**WAL037921**	**WAL371815**	**WAL628473**	**WAL625946**	**WAL625986**
		28	**KS 28 L**	64.0	**WAL037922**	**WAL617474**	**WAL628474**	**WAL625947**	**WAL625987**
		35	**KS 35 L**	64.0	**WAL037923**	**WAL617475**	**WAL628475**	**WAL625948**	**WAL625988**
		42	**KS 42 L**	83.2	**WAL037924**	**WAL605168**	**WAL628476**	**WAL625949**	**WAL625989**
S	800 (11603)	6	**KS 6 S**	6.1	**WAL037925**	**WAL617476**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**KS 8 S**	8.1	**WAL037926**	**WAL617477**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**KS 10 S**	10.4	**WAL037927**	**WAL604780**	**WAL628479**	**WAL625952**	**WAL625992**
	630 (9137)	12	**KS 12 S**	13.7	**WAL037928**	**WAL604969**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**KS 14 S**	16.5	**WAL037929**	**WAL617478**			
		16	**KS 16 S**	22.4	**WAL037930**	**WAL371676**	**WAL628481**	**WAL625954**	**WAL625994**
	420 (6091)	20	**KS 20 S**	29.0	**WAL037931**	**WAL617479**	**WAL628482**	**WAL625955**	**WAL625995**
		25	**KS 25 S**	43.5	**WAL037932**	**WAL604892**	**WAL628483**	**WAL625956**	**WAL625996**
		30	**KS 30 S**	58.5	**WAL037933**	**WAL371178**	**WAL628484**	**WAL625957**	**WAL625997**
	400 (5801)	38	**KS 38 S**	73.5	**WAL037934**	**WAL604807**	**WAL628485**	**WAL625958**	**WAL625998**

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-GSV ...

P-GSV ... -1.4571





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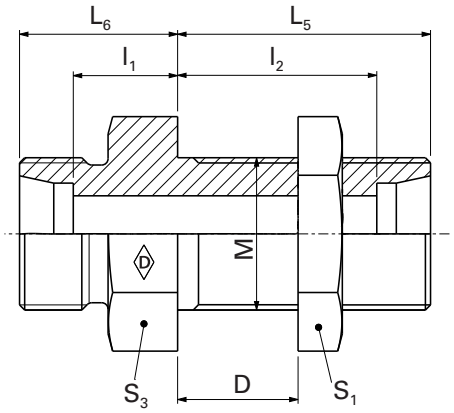
Series	PN bar (psi)	Tube outer diameter	Model	M	D min.	D max.	kg/ 100 pc.	L_6	L_5	L_3	L_2	l1	l2	$*S_1$	S_2	S_3	Walpro P-GSV ... Part no.	Walpro stainless steel P-GSV ...-1.4571* Part no.
L	500 (7252)	6	**P-GSV 6 L m. 6kt M**	M 12 x 1.5	4	16	6.7	14	34	42	22	7	27	17	14	17	**WAL373451**	**WAL620175**
		8	**P-GSV 8 L m. 6kt M**	M 14 x 1.5	4	16	8.4	15	34	42	23	8	27	19	17	19	**WAL373452**	**WAL620154**
		10	**P-GSV 10 L m. 6kt M**	M 16 x 1.5	4	16	11.0	17	35	43	25	10	28	22	19	22	**WAL373453**	**WAL620143**
	400 (5801)	12	**P-GSV 12 L m. 6kt M**	M 18 x 1.5	4	16	13.3	17	36	44	25	10	29	24	22	24	**WAL373454**	**WAL620137**
		15	**P-GSV 15 L m. 6kt M**	M 22 x 1.5	4	16	22.8	19	38	45	27	12	31	30	27	27	**WAL373455**	**WAL620217**
		18	**P-GSV 18 L m. 6kt M**	M 26 x 1.5	4	16	33.2	21	40	49	30	13.5	32.5	36	32	32	**WAL373456**	**WAL620194**
	250 (3626)	22	**P-GSV 22 L m. 6kt M**	M 30 x 2	5	16	41.5	44	42	51	33	16.5	34.5	41	36	36	**WAL373457**	**WAL620195**
		28	**P-GSV 28 L m. 6kt M**	M 36 x 2	5	16	52.5	26	43	52	35	18.5	35.5	46	41	41	**WAL373458**	**WAL620192**
		35	**P-GSV 35 L m. 6kt M**	M 45 x 2	5	16	80.0	29	47	58	40	18.5	36.5	55	50	50	**WAL373459**	**WAL620513**
		42	**P-GSV 42 L m. 6kt M**	M 52 x 2	5	16	119.3	30	47	59	42	19	36	65	60	60	**WAL373460**	**WAL620267**
S	800 (11603)	6	**P-GSV 6 S m. 6kt M**	M 14 x 1.5	4	16	9.6	19	36	44	27	12	29	19	17	19	**WAL373461**	**WAL620135**
		8	**P-GSV 8 S m. 6kt M**	M 16 x 1.5	4	16	12.4	20	36	44	28	13	29	22	19	22	**WAL373462**	**WAL620273**
		10	**P-GSV 10 S m. 6kt M**	M 18 x 1.5	4	16	18.1	22	37	46	31	14.5	29.5	24	22	24	**WAL373463**	**WAL620206**
	630 (9137)	12	**P-GSV 12 S m. 6kt M**	M 20 x 1.5	4	16	21.0	22	38	47	31	14.5	30.5	27	24	27	**WAL373464**	**WAL620136**
		14	**P-GSV 14 S m. 6kt M**	M 22 x 1.5	4	16	29.0	25	40	50	35	17	32	30	27	30	**WAL373465**	**WAL620466**
		16	**P-GSV 16 S m. 6kt M**	M 24 x 1.5	4	16	31.0	25	40	50	35	16.5	31.5	32	30	32	**WAL373466**	**WAL620162**
	400 (5801)	20	**P-GSV 20 S m. 6kt M**	M 30 x 2	5	16	54.5	28	44	55	39	17.5	33.5	41	36	41	**WAL373467**	**WAL620234**
		25	**P-GSV 25 S m. 6kt M**	M 36 x 2	5	16	89.0	32	47	59	44	20	35	46	46	46	**WAL373468**	**WAL620193**
		30	**P-GSV 30 S m. 6kt M**	M 42 x 2	5	16	107.7	35	51	64	48	21.5	37.5	50	50	50	**WAL373469**	**WAL620259**
		38	**P-GSV 38 S m. 6kt M**	M 52 x 2	5	16	173.0	38	53	68	53	22	37	65	60	65	**WAL373470**	**WAL620392**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened

Special parts are available on request.

GSS ...

GSS ... -1.4571





E

									System nuts for supplementing the stud (for technical data, see part D of this catalog)		
							Stud GSS ...	Stainless steel stud GSS ... -1.4571*	WalringPlus W-R-Plus-M...	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	M	D min.	D max.	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
L	500 (7252)	6	GSS 6 L m. 6kt M	M 12 x 1.5	4	16	4.0	WAL063273	WAL606286	WAL628467	WAL625940	WAL625980
		8	GSS 8 L m. 6kt M	M 14 x 1.5	4	16	5.0	WAL024147	WAL606287	WAL628468	WAL625941	WAL625981
		10	GSS 10 L m. 6kt M	M 16 x 1.5	4	16	6.5	WAL061656	WAL606288	WAL628469	WAL625942	WAL625982
	400 (5801)	12	GSS 12 L m. 6kt M	M 18 x 1.5	4	16	7.5	WAL061657	WAL602786	WAL628470	WAL625943	WAL625983
		15	GSS 15 L m. 6kt M	M 22 x 1.5	4	16	13.0	WAL061995	WAL617480	WAL628471	WAL625944	WAL625984
		18	GSS 18 L m. 6kt M	M 26 x 1.5	4	16	19.5	WAL061658	WAL605445	WAL628472	WAL625945	WAL625985
	250 (3626)	22	GSS 22 L m. 6kt M	M 30 x 2	5	16	25.5	WAL063759	WAL612436	WAL628473	WAL625946	WAL625986
		28	GSS 28 L m. 6kt M	M 36 x 2	5	16	34.0	WAL063760	WAL617481	WAL628474	WAL625947	WAL625987
		35	GSS 35 L m. 6kt M	M 45 x 2	5	16	49.4	WAL063761	WAL617482	WAL628475	WAL625948	WAL625988
		42	GSS 42 L m. 6kt M	M 52 x 2	5	16	71.6	WAL063762	WAL617483	WAL628476	WAL625949	WAL625989
S	800 (11603)	6	GSS 6 S m. 6kt M	M 14 x 1.5	4	16	6.2	WAL063763	WAL603960	WAL628477	WAL625950	WAL625990
		8	GSS 8 S m. 6kt M	M 16 x 1.5	4	16	9.0	WAL063764	WAL604963	WAL628478	WAL625951	WAL625991
		10	GSS 10 S m. 6kt M	M 18 x 1.5	4	16	11.3	WAL063765	WAL617063	WAL628479	WAL625952	WAL625992
	630 (9137)	12	GSS 12 S m. 6kt M	M 20 x 1.5	4	16	14.0	WAL063766	WAL604599	WAL628480	WAL625953	WAL625993
		14	GSS 14 S m. 6kt M	M 22 x 1.5	4	16	18.0	WAL063767	WAL617484			
		16	GSS 16 S m. 6kt M	M 24 x 1.5	4	16	17.5	WAL063768	WAL372243	WAL628481	WAL625954	WAL625994
	400 (5801)	20	GSS 20 S m. 6kt M	M 30 x 2	5	16	33.2	WAL063769	WAL370731	WAL628482	WAL625955	WAL625995
		25	GSS 25 S m. 6kt M	M 36 x 2	5	16	49.5	WAL063770	WAL372244	WAL628483	WAL625956	WAL625996
		30	GSS 30 S m. 6kt M	M 42 x 2	5	16	66.4	WAL063771	WAL617485	WAL628484	WAL625957	WAL625997
		38	GSS 38 S m. 6kt M	M 52 x 2	5	16	105.9	WAL063772	WAL604964	WAL628485	WAL625958	WAL625998

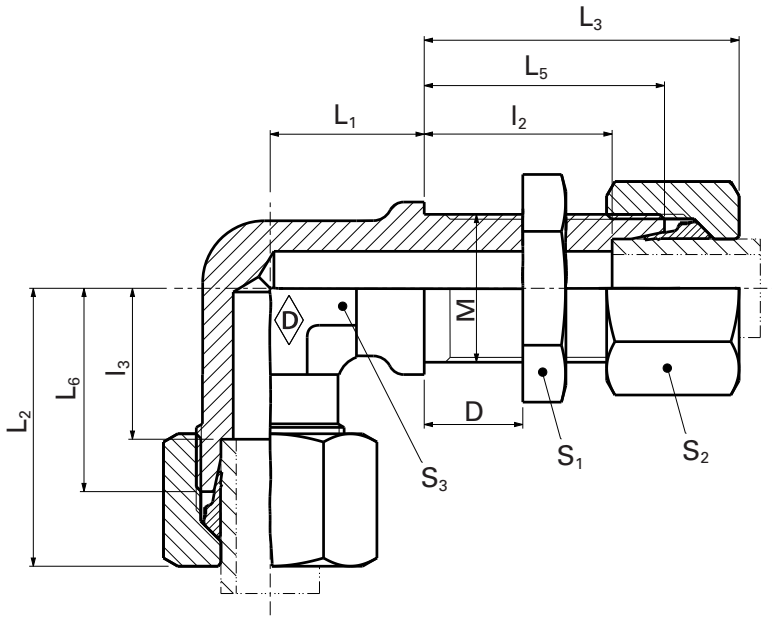
Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

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P-WSV ...

P-WSV ... -1.4571





Series	PN bar (psi)	Tube outer diameter	Model	M	D min.	D max.	kg/ 100 pc.	L_1	L_2	L_3	L_5	L_6	l2	l3	d	S_1	S_2	S_3	Walpro P-WSV ... Part no.	Walpro stainless steel P-WSV ...-1.4571* Part no.
L	500 (7252)	6	**P-WSV 6 L m. 6kt M**	M 12 x 1.5	4	16	7.5	14	27	42	34	19	27	12	17	17	14	12	**WAL373471**	**WAL620245**
		8	**P-WSV 8 L m. 6kt M**	M 14 x 1.5	4	16	9.9	17	29	42	34	21	27	14	19	19	17	12	**WAL373472**	**WAL620480**
		10	**P-WSV 10 L m. 6kt M**	M 16 x 1.5	4	16	12.0	18	30	43	35	22	28	15	22	22	19	14	**WAL373473**	**WAL620502**
	400 (5801)	12	**P-WSV 12 L m. 6kt M**	M 18 x 1.5	4	16	15.0	20	32	44	36	24	29	17	24	24	22	17	**WAL373474**	**WAL620246**
		15	**P-WSV 15 L m. 6kt M**	M 22 x 1.5	4	16	25.0	23	36	46	38	28	31	21	27	30	27	19	**WAL373475**	**WAL620338**
		18	**P-WSV 18 L m. 6kt M**	M 26 x 1.5	4	16	35.5	24	40	49	40	31	32.5	23.5	32	36	32	24	**WAL373476**	**WAL620500**
	250 (3626)	22	**P-WSV 22 L m. 6kt M**	M 30 x 2	5	16	46.5	30	44	51	42	35	34.5	27.5	36	41	36	27	**WAL373477**	**WAL620520**
		28	**P-WSV 28 L m. 6kt M**	M 36 x 2	5	16	64.0	34	47	52	43	38	35.5	30.5	42	46	41	36	**WAL373478**	**WAL620552**
		35	**P-WSV 35 L m. 6kt M**	M 45 x 2	5	16	99.4	39	56	58	47	45	36.5	34.5	50	55	50	41	**WAL373479**	**WAL620672**
		42	**P-WSV 42 L m. 6kt M**	M 52 x 2	5	16	149.0	43	63	59	47	51	36	40	60	65	60	50	**WAL373480**	**WAL620673**
S	800 (11603)	6	**P-WSV 6 S m. 6kt M**	M 14 x 1.5	4	16	10.5	17	31	44	36	23	29	16	19	19	17	12	**WAL373481**	**WAL620540**
		8	**P-WSV 8 S m. 6kt M**	M 16 x 1.5	4	16	14.0	18	32	44	36	24	29	17	22	22	19	14	**WAL373482**	**WAL620541**
		10	**P-WSV 10 S m. 6kt M**	M 18 x 1.5	4	16	19.0	20	34	46	37	25	29.5	17.5	24	24	22	17	**WAL373483**	**WAL620463**
	630 (9137)	12	**P-WSV 12 S m. 6kt M**	M 20 x 1.5	4	16	22.5	21	38	47	38	29	30.5	21.5	27	27	24	17	**WAL373484**	**WAL620334**
		14	**P-WSV 14 S m. 6kt M**	M 22 x 1.5	4	16	30.0	23	40	50	40	30	32	22	27	30	27	19	**WAL373485**	**WAL620674**
		16	**P-WSV 16 S m. 6kt M**	M 24 x 1.5	4	16	36.5	24	43	50	40	33	31.5	24.5	30	32	30	24	**WAL373486**	**WAL620264**
	400 (5801)	20	**P-WSV 20 S m. 6kt M**	M 30 x 2	5	16	58.0	30	48	55	44	37	33.5	26.5	36	41	36	27	**WAL373487**	**WAL620223**
		25	**P-WSV 25 S m. 6kt M**	M 36 x 2	5	16	100.0	34	54	59	47	42	35	30	42	46	46	36	**WAL373488**	**WAL620247**
		30	**P-WSV 30 S m. 6kt M**	M 42 x 2	5	16	130.0	39	62	64	51	49	37.5	35.5	50	50	50	41	**WAL373489**	**WAL620675**
		38	**P-WSV 38 S m. 6kt M**	M 52 x 2	5	16	197.0	43	72	68	53	57	37	41	60	65	60	50	**WAL373490**	**WAL620391**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

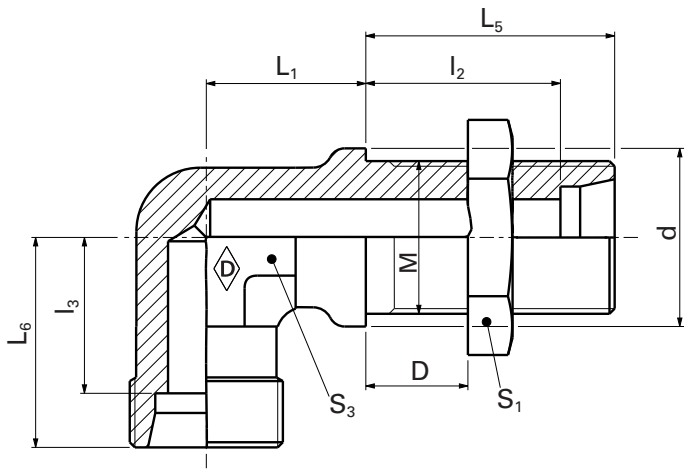
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list

L_2 = approximate dimension if the union nut is tightened

Special parts are available on request.

WSS ...

WSS ... -1.4571





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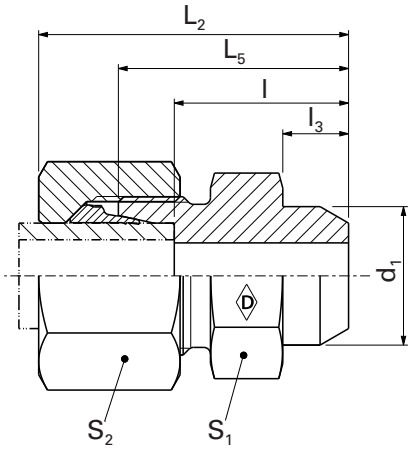
									System nuts for supplementing the stud (for technical data, see part D of this catalog)		
								Stud WSS ...	Stainless steel stud WSS ... -1.4571*	WalringPlus W-R-Plus-M...	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	M	D min.	D max.	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
L	500 (7252)	6	**WSS 6 L m. 6kt M**	M 12 x 1.5	4	16	5.0	**WAL063274**	**WAL617488**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**WSS 8 L m. 6kt M**	M 14 x 1.5	4	16	6.5	**WAL024146**	**WAL617489**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**WSS 10 L m. 6kt M**	M 16 x 1.5	4	16	8.0	**WAL024127**	**WAL608422**	**WAL628469**	**WAL625942**	**WAL625982**
	400 (5801)	12	**WSS 12 L m. 6kt M**	M 18 x 1.5	4	16	10.0	**WAL063773**	**WAL615355**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**WSS 15 L m. 6kt M**	M 22 x 1.5	4	16	17.0	**WAL063275**	**WAL617490**	**WAL628471**	**WAL625944**	**WAL625984**
		18	**WSS 18 L m. 6kt M**	M 26 x 1.5	4	16	24.0	**WAL063774**	**WAL617491**	**WAL628472**	**WAL625945**	**WAL625985**
	250 (3626)	22	**WSS 22 L m. 6kt M**	M 30 x 2	5	16	64.2	**WAL063775**	**WAL612437**	**WAL628473**	**WAL625946**	**WAL625986**
		28	**WSS 28 L m. 6kt M**	M 36 x 2	5	16	44.5	**WAL063776**	**WAL615221**	**WAL628474**	**WAL625947**	**WAL625987**
		35	**WSS 35 L m. 6kt M**	M 45 x 2	5	16	68.8	**WAL063777**	**WAL617492**	**WAL628475**	**WAL625948**	**WAL625988**
		42	**WSS 42 L m. 6kt M**	M 52 x 2	5	16	196.7	**WAL063778**	**WAL617493**	**WAL628476**	**WAL625949**	**WAL625989**
S	800 (11603)	6	**WSS 6 S m. 6kt M**	M 14 x 1.5	4	16	7.5	**WAL063779**	**WAL617494**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**WSS 8 S m. 6kt M**	M 16 x 1.5	4	16	10.0	**WAL063780**	**WAL617495**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**WSS 10 S m. 6kt M**	M 18 x 1.5	4	16	12.2	**WAL063781**	**WAL617496**	**WAL628479**	**WAL625952**	**WAL625992**
	630 (9137)	12	**WSS 12 S m. 6kt M**	M 20 x 1.5	4	16	16.0	**WAL063782**	**WAL617497**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**WSS 14 S m. 6kt M**	M 22 x 1.5	4	16	20.0	**WAL063783**	**WAL617498**			
		16	**WSS 16 S m. 6kt M**	M 24 x 1.5	4	16	23.0	**WAL063784**	**WAL601079**	**WAL628481**	**WAL625954**	**WAL625994**
	400 (5801)	20	**WSS 20 S m. 6kt M**	M 30 x 2	5	16	38.5	**WAL063785**	**WAL612438**	**WAL628482**	**WAL625955**	**WAL625995**
		25	**WSS 25 S m. 6kt M**	M 36 x 2	5	16	62.0	**WAL063786**	**WAL615212**	**WAL628483**	**WAL625956**	**WAL625996**
		30	**WSS 30 S m. 6kt M**	M 42 x 2	5	16	88.5	**WAL063244**	**WAL615651**	**WAL628484**	**WAL625957**	**WAL625997**
		38	**WSS 38 S m. 6kt M**	M 52 x 2	5	16	129.9	**WAL063787**	**WAL617499**	**WAL628485**	**WAL625958**	**WAL625998**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-ASV ...

P-ASV ... -1.4571





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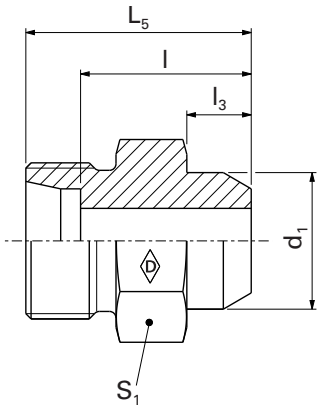
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L_2	L_5	l	l_3	d_1	S_1	S_2	Walpro P-ASV ... Part no.	Walpro stainless steel P-ASV ...-1.4571* Part no.
L	500 (7252)	6	**P-ASV 6 L**	2.5	29	21	14	7	10	12	14	**WAL373491**	**WAL620204**
		8	**P-ASV 8 L**	3.6	31	23	16	8	12	14	17	**WAL373492**	**WAL620271**
		10	**P-ASV 10 L**	4.7	33	25	18	8	14	17	19	**WAL373493**	**WAL620220**
	400 (5801)	12	**P-ASV 12 L**	6.3	33	25	18	8	16	19	22	**WAL373494**	**WAL620221**
		15	**P-ASV 15 L**	8.4	37	29	22	10	19	22	27	**WAL373495**	**WAL620222**
		18	**P-ASV 18 L**	13.9	40	31	23.5	10	22	27	32	**WAL373496**	**WAL620178**
	250 (3626)	22	**P-ASV 22 L**	18.1	45	36	28.5	12	27	32	36	**WAL373497**	**WAL620208**
		28	**P-ASV 28 L**	30.2	47	38	30.5	12	32	41	41	**WAL373498**	**WAL620177**
		35	**P-ASV 35 L**	37.7	54	43	32.5	14	40	46	50	**WAL373499**	**WAL620176**
		42	**P-ASV 42 L**	64.1	58	46	35	16	46	55	60	**WAL373500**	**WAL620676**
S	800 (11603)	6	**P-ASV 6 S**	3.2	34	26	19	7	11	14	17	**WAL373501**	**WAL620677**
		8	**P-ASV 8 S**	4.9	36	28	21	8	13	17	19	**WAL373502**	**WAL620318**
		10	**P-ASV 10 S**	7.2	39	30	22.5	8	15	19	22	**WAL373503**	**WAL620149**
	630 (9137)	12	**P-ASV 12 S**	8.3	41	32	24.5	10	17	22	24	**WAL373504**	**WAL620231**
		14	**P-ASV 14 S**	10.8	45	35	27	10	19	24	27	**WAL373505**	**WAL621459**
		16	**P-ASV 16 S**	14.4	45	35	26.5	10	21	27	30	**WAL373506**	**WAL620411**
	420 (6091	20	**P-ASV 20 S**	21.8	51	40	29.5	12	26	32	36	**WAL373507**	**WAL620396**
		25	**P-ASV 25 S**	37.7	56	44	32	12	31	41	46	**WAL373508**	**WAL620432**
		30	**P-ASV 30 S**	44.9	62	49	35.5	14	36	46	50	**WAL373509**	**WAL620678**
		38	**P-ASV 38 S**	68.4	69	54	38	16	44	55	60	**WAL373510**	**WAL620476**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened

Special parts are available on request.

ASS ...

ASS ... -1.4571





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							System nuts for supplementing the stud (for technical data, see part D of this catalog)		
					Stud ASS ...	Stainless steel stud ASS ... -1.4571*	WalringPlus W-R-Plus-M...	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
L	500 (7252)	6	ASS 6L	1.1	WAL037975	WAL061824	WAL628467	WAL625940	WAL625980
		8	ASS 8 L	1.5	WAL037976	WAL066290	WAL628468	WAL625941	WAL625981
		10	ASS 10 L	2.2	WAL037977	WAL024055	WAL628469	WAL625942	WAL625982
	400 (5801)	12	ASS 12 L	2.5	WAL037978	WAL060719	WAL628470	WAL625943	WAL625983
		15	ASS 15 L	4.3	WAL037979	WAL066291	WAL628471	WAL625944	WAL625984
		18	ASS 18 L	6.6	WAL037980	WAL066292	WAL628472	WAL625945	WAL625985
	250 (3626)	22	ASS 22 L	9.8	WAL037981	WAL066293	WAL628473	WAL625946	WAL625986
		28	ASS 28 L	15.9	WAL037982	WAL066294	WAL628474	WAL625947	WAL625987
		35	ASS 35 L	23	WAL037983	WAL066295	WAL628475	WAL625948	WAL625988
		42	ASS 42 L	32.7	WAL037984	WAL066296	WAL628476	WAL625949	WAL625989
S	800 (11603)	6	ASS 6 S	2.1	WAL037985	WAL066297	WAL628477	WAL625950	WAL625990
		8	ASS 8 S	3.1	WAL037986	WAL066298	WAL628478	WAL625951	WAL625991
		10	ASS 10 S	4.1	WAL037987	WAL061333	WAL628479	WAL625952	WAL625992
	630 (9137)	12	ASS 12 S	5.6	WAL037988	WAL066299	WAL628480	WAL625953	WAL625993
		14	ASS 14 S	7.0	WAL037989	WAL066300			
		16	ASS 16 S	8.3	WAL037990	WAL066301	WAL628481	WAL625954	WAL625994
	420 (6091)	20	ASS 20 S	12.9	WAL037991	WAL066302	WAL628482	WAL625955	WAL625995
		25	ASS 25 S	21.9	WAL037992	WAL066303	WAL628483	WAL625956	WAL625996
		30	ASS 30 S	29.5	WAL037993	WAL066304	WAL628484	WAL625957	WAL625997
		38	ASS 38 S	44.7	WAL037994	WAL066305	WAL628485	WAL625958	WAL625998

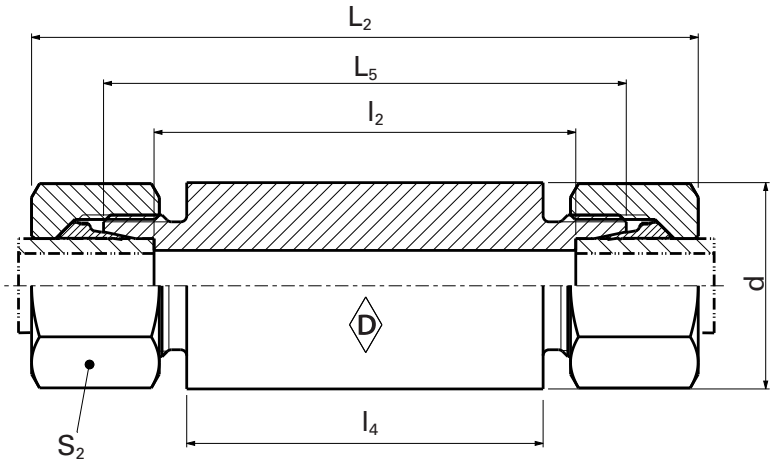
Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

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P-ESV ...

P-ESV ... -1.4571





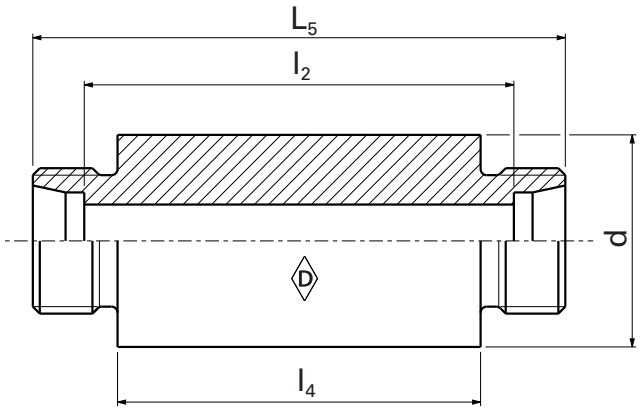
											Walpro P-ESV ...	Walpro stainless steel P-ESV ...-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L_2	L_5	l_2	l_4	d_1	S_2	Part no.	Part no.
L	500 (7252)	6	**P-ESV 6 L**	13.1	85	70	56	50	18	14	**WAL373511**	**WAL620144**
		8	**P-ESV 8 L**	16.2	85	70	56	50	20	17	**WAL373512**	**WAL620236**
		10	**P-ESV 10 L**	19.5	87	72	58	50	22	19	**WAL373513**	**WAL620145**
	400 (5801)	12	**P-ESV 12 L**	24.1	87	72	58	50	25	22	**WAL373514**	**WAL620158**
		15	**P-ESV 15 L**	35.3	100	84	70	60	28	27	**WAL373515**	**WAL620237**
		18	**P-ESV 18 L**	46.9	101	84	69	60	32	32	**WAL373516**	**WAL620235**
	250 (3626)	22	**P-ESV 22 L**	58.2	105	88	73	60	36	36	**WAL373517**	**WAL620238**
		28	**P-ESV 28 L**	66.0	106	88	73	60	40	41	**WAL373518**	**WAL620488**
		35	**P-ESV 35 L**	102.9	114	92	71	60	50	50	**WAL373519**	**WAL620274**
		42	**P-ESV 42 L**	148.8	115	92	70	60	60	60	**WAL373520**	**WAL620839**
S	800 (11603)	6	**P-ESV 6 S**	16.9	89	74	60	50	20	17	**WAL373521**	**WAL620679**
		8	**P-ESV 8 S**	20.4	89	74	60	50	22	19	**WAL373522**	**WAL620292**
		10	**P-ESV 10 S**	27.0	91	74	59	50	25	22	**WAL373523**	**WAL620680**
	630 (9137)	12	**P-ESV 12 S**	33.1	91	74	59	50	28	24	**WAL373524**	**WAL620423**
		14	**P-ESV 14 S**	44.7	107	88	72	60	30	27	**WAL373525**	**WAL620681**
		16	**P-ESV 16 S**	57.8	107	88	71	60	35	30	**WAL373526**	**WAL620146**
	420 (6091)	20	**P-ESV 20 S**	73.2	114	92	71	60	38	36	**WAL373527**	**WAL620002**
		25	**P-ESV 25 S**	114.6	120	96	72	60	45	46	**WAL373528**	**WAL620001**
		30	**P-ESV 30 S**	134.4	126	100	73	60	50	50	**WAL373529**	**WAL620239**
		38	**P-ESV 38 S**	191.3	133	104	72	60	60	60	**WAL373530**	**WAL620346**

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2 = approximate dimension if the union nut is tightened

Special parts are available on request.

ESS ...

ESS ... -1.4571





E

							System nuts for supplementing the stud (for technical data, see part D of this catalog)		
					Stud ESS ...	Stainless steel stud ESS ... -1.4571*	WalringPlus W-R-Plus-M...	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
L	500 (7252)	6	ESS 6 L	10.3	WAL037995	WAL061099	WAL628467	WAL625940	WAL625980
		8	ESS 8 L	12.3	WAL037996	WAL067360	WAL628468	WAL625941	WAL625981
		10	ESS 10 L	14.4	WAL037997	WAL061101	WAL628469	WAL625942	WAL625982
	400 (5801)	12	ESS 12 L	17.9	WAL037998	WAL060689	WAL628470	WAL625943	WAL625983
		15	ESS 15 L	26.5	WAL037999	WAL067418	WAL628471	WAL625944	WAL625984
		18	ESS 18 L	33.4	WAL038000	WAL060686	WAL628472	WAL625945	WAL625985
	250 (3626)	22	ESS 22 L	39.9	WAL038001	WAL067420	WAL628473	WAL625946	WAL625986
		28	ESS 28 L	45.1	WAL038002	WAL066897	WAL628474	WAL625947	WAL625987
		35	ESS 35 L	72.2	WAL038003	WAL068958	WAL628475	WAL625948	WAL625988
		42	ESS 42 L	100.7	WAL038004	WAL069205	WAL628476	WAL625949	WAL625989
S	800 (11603)	6	ESS 6 S	13.6	WAL038005	WAL617500	WAL628477	WAL625950	WAL625990
		8	ESS 8 S	16.4	WAL038006	WAL371031	WAL628478	WAL625951	WAL625991
		10	ESS 10 S	20.3	WAL038007	WAL372568	WAL628479	WAL625952	WAL625992
	630 (9137)	12	ESS 12 S	25.3	WAL038008	WAL061848	WAL628480	WAL625953	WAL625993
		14	ESS 14 S	16.8	WAL038009	WAL060319			
		16	ESS 16 S	44.5	WAL038010	WAL061103	WAL628481	WAL625954	WAL625994
	420 (6091)	20	ESS 20 S	51.7	WAL038011	WAL024157	WAL628482	WAL625955	WAL625995
		25	ESS 25 S	72.5	WAL038012	WAL024155	WAL628483	WAL625956	WAL625996
		30	ESS 30 S	87.9	WAL038013	WAL066873	WAL628484	WAL625957	WAL625997
		38	ESS 38 S	125.5	WAL038014	WAL372103	WAL628485	WAL625958	WAL625998

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

F

Adjustable studs



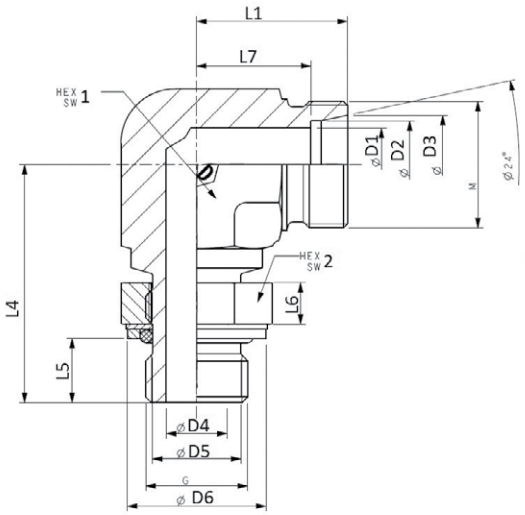
	Figure Fitting	Figure Stud	Model	Page
Adjustable locknut elbow			EWESK ... R	F3
			EWESK ... M-OR	F4
Banjo coupling elbow fittings / Banjo coupling elbow studs			P-RSWV / RSWS ... R	F5 / F6
			P-RSWV / RSWS ... R-WD	F5 / F6
			P-RSWV / RSWS ... M	F7 / F8
			P-RSWV / RSWS ... M-WD	F7 / F8
Banjo coupling T fittings / Banjo coupling T studs			P-RSTV / RSTS ... R	F9 / F10
			P-RSTV / RSTS ... R-WD	F9 / F10
			P-RSTV / RSTS ... M	F11 / F12
			P-RSTV / RSTS ... M-WD	F11 / F12
Adjustable elbow fittings / adjustable elbow studs			P-EWV / P-EWS … -SV	F13 / F14
			P-EWVD / EWSD ...	F15 / F16
			P-EWVD 45 / EWSD 45 ...	F17 / F18
Adjustable T fittings / adjustable T studs			P-ETV / P-ETS … -SV	F19 / F20
			P-ETVD / ETSD ...	F21 / F22
Adjustable L fittings / adjustable L studs			P-ELV / P-ELS … -SV	F23 / F24
			P-ELVD / ELSD ...	F25 / F26
Straight male studs			P-EGES … R-WD-SV	F27
			P-EGES … M-WD-SV	F29
			EGESD … R-WD	F28
			EGESD … M-WD	F30
			EGESD … NPT	F31
Spacer fittings / spacer adapters			P-DAV … / DAS …	F33 / F34
Straight fittings			SNV …	F35
Straight fittings Reducer fittings			SNV … / … L	F36
			SNV … / … S	F37
			SNV … L / S-S / L	F38

F

Special parts are available on request.

EWESK...R

- with O-ring made from NBR (e.g. Perbunan)
- Adjustable inch stud with O-ring and Washer to ISO 1179





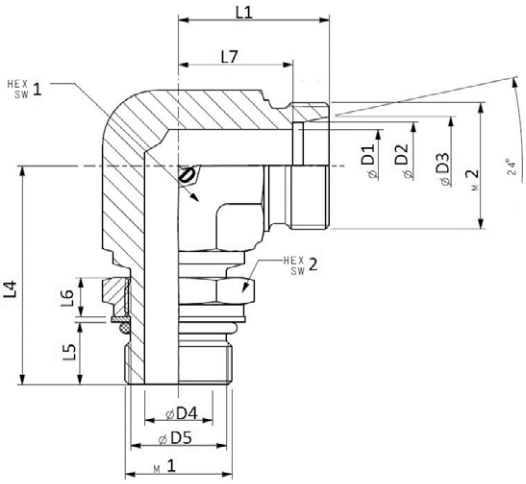
F

Series	PN bar (psi)	Tube OD	Model	Part no.	G	M	HEX 1	HEX 2	L1	L4	L5	L6	L7	D1	D2	D3	D4	D5	D6
L	315	6	**EWESK 6 LR**	**WAL627576**	G 1/8 A	M12x1,5	14	14	21	26	7	5.6	14	4	6	8.1	4.5	8.27	15
	250	8	**EWESK 8 LR**	**WAL627577**	G ¼ A	M14x1,5	14	19	23	32	9	7.1	16	6	8	10.1	7.5	11.11	19.5
		10	**EWESK 10 LR**	**WAL627578**	G ¼ A	M16x1,5	19	19	24	34	9	7.1	17	8	10	12.3	7.5	11.11	19.5
		12	**EWESK 12 L/R ¼**	**WAL626471**	G ¼ A	M18x1,5	19	19	26	37	9	7.1	19	10	12	14.3	7.5	11.11	19.5
		12	**EWESK 12 LR**	**WAL626469**	G 3/8 A	M18x1,5	19	22	26	37	9	7.1	19	10	12	14.3	10	14.47	23.5
		12	**EWESK 12 L/R ½**	**WAL626465**	G ½ A	M18x1,5	22	27	26	43	13	8.6	19	10	12	14.3	12.5	18.2	28.5
		15	**EWESK 15 LR**	**WAL627579**	G ½ A	M22x1,5	22	27	28	43	13	8.6	21	12	15	17.3	12.5	18.2	28.5
		18	**EWESK 18 LR**	**WAL627580**	G ½ A	M26x1,5	27	27	31	49	13	8.6	23.5	15	18	20.3	12.5	18.2	28.5
		22	**EWESK 22 LR**	**WAL626468**	G ¾ A	M30x2	30	36	35	49	13	8.6	27.5	19	22	24.3	15.5	23.71	34.5
		28	**EWESK 28 LR**	**WAL626470**	G 1 A	M36x2	36	41	38	59	15	11.9	30.5	24	28	30.3	21.5	29.88	43.5
S	250	6	**EWESK 6 SR**	**WAL627581**	G ¼ A	M14x1,5	14	19	22	32	9	7.1	15	4	6	8.1	7.5	11.11	19.5
		8	**EWESK 8 SR**	**WAL627582**	G ¼ A	M16x1,5	19	19	24	36	9	7.1	17	5	8	10.1	7.5	11.11	19.5
		10	**EWESK 10 SR**	**WAL627583**	G 3/8 A	M18x1,5	19	22	25	38	9	7.1	17.5	7	10	12.3	10	14.47	23.5
		12	**EWESK 12 SR**	**WAL627584**	G 3/8 A	M20x1,5	22	22	29	38	9	7.1	21.5	8	12	14.3	10	14.47	23.5
		16	**EWESK 16 SR**	**WAL626467**	G ½ A	M24x1,5	27	27	33	49	13	8.6	24.5	12	16	18.3	12.5	18.2	28.5
		16	**EWESK 16 S/R ¾**	**WAL626464**	G ¾ A	M24x1,5	27	36	34.5	51	12	8.6	26	12	16	18.3	15.5	23.71	34.5
		20	**EWESK 20 SR**	**WAL626463**	G ¾ A	M30x2	36	36	38	51	12	8.6	27.5	16	20	22.9	15.5	23.71	34.5
		25	**EWESK 25 S/R ¾**	**WAL627590**	G ¾ A	M36x2	36	36	42	58	13	8.6	30	20	25	27.9	15.5	23.71	34.5
		25	**EWESK 25 SR**	**WAL627591**	G 1 A	M36x2	36	41	42	58	14	11.9	30	20	25	27.9	21.5	29.88	43.5

Special parts are available on request.

EWESK...OR

- with O-ring made from NBR (e.g. Perbunan)
- Adjustable metric stud with O-ring and Washer to DIN EN ISO 6149





F

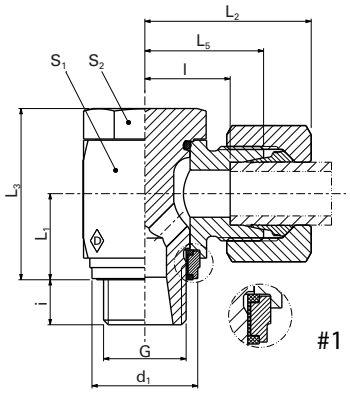
Series	PN bar (psi)	Tube OD	Model	Part no.	M1	M2	HEX 1	HEX 2	L1	L4	L5	L6	L7	D1	D2	D3	D4	D5
L	315	6	**EWESK 6 LM-OR**	**WAL627596**	M10x1	M12x1,5	14	14	21	27	8.6	6	14	4	6	8.1	4.5	8.4
		8	**EWESK 8 LM-OR**	**WAL627597**	M12x1,5	M14x1,5	14	19	23	32	11.1	7.5	16	6	8	10.1	6	9.7
		10	**EWESK 10 LM-OR**	**WAL627598**	M14x1,5	M16x1,5	19	19	24	35	11.1	7.5	17	8	10	12.3	7.5	11.7
		12	**EWESK 12 LM-OR**	**WAL627599**	M16x1,5	M18x1,5	19	19	26	36	11.6	7.5	19	10	12	14.3	9	13.7
		15	**EWESK 15 LM-OR**	**WAL627600**	M18x1,5	M22x1,5	22	27	28	41	12.6	7.5	21	12	15	17.3	11	15.7
		18	**EWESK 18 LM-OR**	**WAL627601**	M22x1,5	M26x1,5	27	27	31	45	12.8	8	23.5	15	18	20.3	14	19.7
	160	22	**EWESK 22 LM-OR**	**WAL627602**	M27x2	M30x2	30	36	35	49	15.8	10	27.5	19	22	24.3	18	24
		28	**EWESK 28 LM-OR**	**WAL627603**	M33x2	M36x2	36	41	38	52	15.8	10	30.5	24	28	30.3	23	30
S	400	6	**EWESK 6 SM-OR**	**WAL627604**	M12x1,5	M14x1,5	14	19	22	32	11.1	8.5	15	4	6	8.1	4	9.7
		8	**EWESK 8 SM-OR**	**WAL627605**	M14x1,5	M16x1,5	19	19	24	36	11.1	8.5	17	5	8	10.1	6	11.7
		10	**EWESK 10 SM-OR**	**WAL627606**	M16x1,5	M18x1,5	19	22	25	38	12.6	9	17.5	7	10	12.3	7	13.7
		12	**EWESK 12 SM-OR**	**WAL627607**	M18x1,5	M20x1,5	22	22	29	43	14.1	10.5	21.5	8	12	14.3	9	15.7
		16	**EWESK 16 SM-OR**	**WAL627608**	M22x1,5	M24x1,5	27	27	33	49	14.8	11	24.5	12	16	18.3	12	19.7
		20	**EWESK 20 SM-OR**	**WAL627609**	M27x2	M30x2	27	36	38	55	18.3	13.5	27.5	16	20	22.9	15	24
	315	25	**EWESK 25 SM-OR**	**WAL627610**	M33x2	M36x2	36	36	42	60	18.3	13.5	30	20	25	27.9	20	30

Special parts are available on request.

F

P-RSWV ... R-WD

- Inch studs type E to DIN EN ISO 1179-2
- with soft seal made from NBR** (e.g. Perbunan)

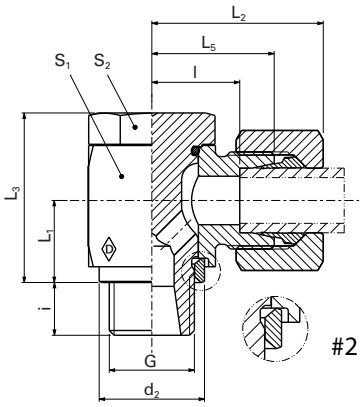


#1



P-RSWV ... R

- Inch studs type B to DIN EN ISO 1179-4
- with metal-to-metal seal



#2



															#1 P-RSWV with elastomer seal		#2 P-RSWV with metal-to-metal seal	
Series	PB bar (psi)	Tube outer diameter	DIN-ISO 228 (R.... DIN 259) G	kg/ 100 pc.	L_1	L_2	L_3	L_5	l	i	d_1 max.	d_2	S_1	S_2	Model	Part no.	Model	Part no.
LL	100 (1450)	4	G 1/8 A	4.0	10	25.5	21	20	16	8		14.5	14	14			S-RSWV 4LLR	WAL607000
		6	G 1/8 A	4.2	10	26	21	20	14.5	8		14.5	14	14			S-RSWV 6LLR	WAL607001
		8	G 1/8 A	5.2	10	26	21	20	16	8		14.5	14	14			S-RSWV 8LLR	WAL607002
L	500 (7252)	6	G 1/8 A	5.9	10	27.5	21	20	13	8	14.9	13	14	14	P-RSWV 6LR-WD	WAL607051	P-RSWV 6LR	WAL607003
		6	G 1/4 A	5.9	13.5	29.5	27	22	15	10	18.9	17.8	19	19	P-RSWV 6L/R1/4-WD	WAL606501	P-RSWV 6L/R1/4	WAL606502
		8	G 1/4 A	9.3	13.5	28.5	27	21	14	10	18.9	17.8	19	19	P-RSWV 8LR-WD	WAL607052	P-RSWV 8LR	WAL607004
		10	G 1/4 A	10.2	13.5	29.5	27	22	15	10	18.9	17.8	19	19	P-RSWV 10LR-WD	WAL607053	P-RSWV 10LR	WAL607005
	400 (5801)	12	G 1/4 A	15.8	15.5	29.5	30	22	15	10	18.9	17.8	22	19	P-RSWV 12L/R1/4-WD	WAL607054	P-RSWV 12L/R1/4	WAL607006
		12	G 3/8 A	15.9	16	32	32.5	24.5	17.5	10	21.9	22	24	22	P-RSWV 12LR-WD	WAL607055	P-RSWV 12LR	WAL607007
		15	G 1/2 A	28.4	19.5	36	43	28	21	14	26.9	26	30	27	P-RSWV 15LR-WD	WAL607056	P-RSWV 15LR	WAL607008
		18	G 1/2 A	32	21.5	36.5	43	28	20.5	12	26.9	26	30	27	P-RSWV 18LR-WD	WAL607057	P-RSWV 18LR	WAL607009
	250 (3626)	22	G 3/4 A	48.5	24	43	48	34.5	27	16	32.9	32	36	32	P-RSWV 22LR-WD	WAL607058	P-RSWV 22LR	WAL607010
		28	G 1 A	88.2	30.5	48	59	39	31.5	18	39.9	39	46	41	P-RSWV 28LR-WD	WAL607059	P-RSWV 28LR	WAL607011
		35	G 1 1/4 A	150.8	35.5	57	70	46	35.5	20	49.9	49	55	50	P-RSWV 35LR-WD	WAL607060	P-RSWV 35LR	WAL607012
		42	G 1 1/2 A	234.1	40.5	62.5	80	51	40	22	55.9	55	65	55	P-RSWV 42LR-WD	WAL607061	P-RSWV 42LR	WAL607013
S	500 (7252)	6	G 1/4 A	8.7	13.5	30.5	27	23	16	10	18.9	17.8	19	19	P-RSWV 6SR-WD	WAL607062	P-RSWV 6SR	WAL607014
		8	G 1/4 A	10.3	13.5	30.5	27	23	16	10	18.9	17.8	19	19	P-RSWV 8SR-WD	WAL607063	P-RSWV 8SR	WAL607015
		10	G 3/8 A	17	16	34	32.5	25.5	18	10	21.9	22	24	22	P-RSWV 10SR-WD	WAL607064	P-RSWV 10SR	WAL607016
	400 (5801)	12	G 3/8 A	17.9	16	34	32.5	25.5	18	10	21.9	22	24	22	P-RSWV 12SR-WD	WAL607065	P-RSWV 12SR	WAL607017
		14	G 1/2 A	30.3	19.5	39.5	41	30	22	12	26.9	26	30	27	P-RSWV 14SR-WD	WAL607066	P-RSWV 14SR	WAL607018
		16	G 1/2 A	31.6	21.5	39.5	43	30	21.5	12	26.9	26	30	27	P-RSWV 16SR-WD	WAL607067	P-RSWV 16SR	WAL607019
	315 (4569)	20	G 3/4 A	51.8	24	47.5	48	36.5	26	16	32.9	32	36	32	P-RSWV 20SR-WD	WAL607068	P-RSWV 20SR	WAL607020
	250 (3626)	25	G 1 A	103	30.5	55	59	43	31	18	39.9	39	46	41	P-RSWV 25SR-WD	WAL607069	P-RSWV 25SR	WAL607021
		30	G 1 1/4 A	163.7	35.5	63	70	50	36.5	20	49.9	49	55	50	P-RSWV 30SR-WD	WAL607070	P-RSWV 30SR	WAL607022
		38	G 1 1/2 A	262.7	40.5	71.5	80	57	41	22	55.9	55	65	55	P-RSWV 38SR-WD	WAL607071	P-RSWV 38SR	WAL607023

L_2 = approximate dimension if the union nut is tightened
*For FPM (e.g. Viton) see price list / available on request
For P-RSWV and RSWS in stainless steel (1.4571), see price list / available on request

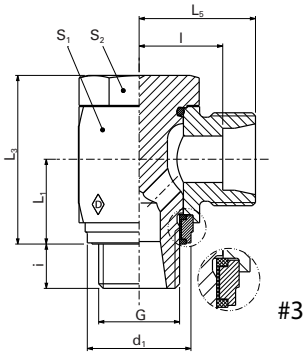
Operating pressure

The specified operating pressure ratings (PB) are calculated with a minimum safety factor of 2.5 and represent the maximum permissible operating pressures under predominantly static load conditions and temperatures of up to +120 °C
(in the case of steel). Strong pressure surges and mechanical stresses, such as vibrations, require special consideration.

If the version with metal-to-metal sealing edge is used for special applications (e.g. higher temperatures or aggressive media), the banjo bolt O-ring must be removed!

Special parts are available on request.

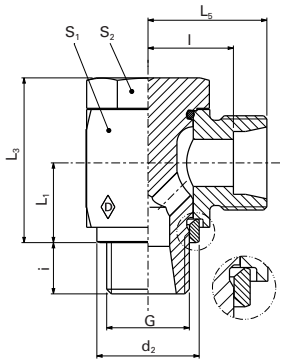
RSWS ... R-WD



#3



RSWS ... R



#4



F

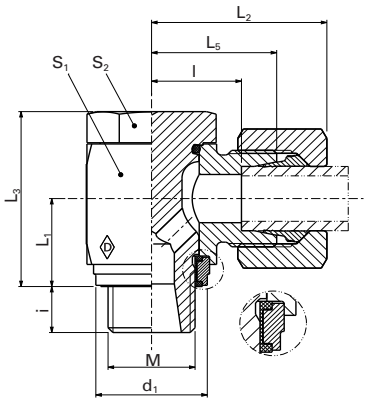
#3		#4		Individual components				#1 & #3	#2 & #4
RSWS with elastomer seal		RSWS with metal-to-metal seal		Body	Banjo bolt with O-ring (NBR)*	O-ring (NBR)*		Captive ring with soft seal (NBR)*	Sealing-edge ring
Model	**Part no.**	**Model**	**Part no.**	**Part no.**	**Part no.**	Dimensions	**Part no.**	**Part no.**	**Part no.**
		RSWS 4LLR	WAL606661	WAL608333	WAL606516	8.5 x 1.5	WAL304288		WAL605824
		RSWS 6LLR	WAL606662	WAL608334	WAL606516	8.5 x 1.5	WAL304288		WAL605824
		RSWS 8LLR	WAL606663	WAL608335	WAL606516	8.5 x 1.5	WAL304288		WAL605824
RSWS 6LR-WD	WAL606364	RSWS 6LR	WAL606664	WAL605763	WAL606516	8.5 x 1.5	WAL304288	WAL606481	WAL605824
RSWS 6L/R1/4-WD	WAL606365	RSWS 6L/R1/4	WAL606665	WAL605764	WAL606519	11 x 2	WAL023492	WAL606482	WAL605740
RSWS 8LR-WD	WAL606366	RSWS 8LR	WAL607323	WAL605766	WAL606519	11 x 2	WAL023492	WAL606482	WAL605740
RSWS 10LR-WD	WAL606367	RSWS 10LR	WAL606508	WAL605768	WAL606519	11 x 2	WAL023492	WAL606482	WAL605740
RSWS 12L/R1/4-WD	WAL606368	RSWS 12L/R1/4	WAL606666	WAL606076	WAL606522	11 x 2	WAL023492	WAL606482	WAL605740
RSWS 12LR-WD	WAL606369	RSWS 12LR	WAL606642	WAL605770	WAL606523	14.5 x 2	WAL605949	WAL606485	WAL606827
RSWS 15LR-WD	WAL606370	RSWS 15LR	WAL607367	WAL605775	WAL606527	19.5 x 2	WAL605951	WAL606488	WAL606831
RSWS 18LR-WD	WAL606371	RSWS 18LR	WAL606667	WAL605777	WAL606527	19.5 x 2	WAL605951	WAL606489	WAL606454
RSWS 22LR-WD	WAL606372	RSWS 22LR	WAL606668	WAL605779	WAL607401	26 x 1.5	WAL605952	WAL606492	WAL605833
RSWS 28LR-WD	WAL606373	RSWS 28LR	WAL606669	WAL605781	WAL607403	31 x 2	WAL250258	WAL606495	WAL605834
RSWS 35LR-WD	WAL606374	RSWS 35LR	WAL606599	WAL605783	WAL607405	40 x 2	WAL261157	WAL606496	WAL605835
RSWS 42LR-WD	WAL606375	RSWS 42LR	WAL606670	WAL605785	WAL607407	46 x 2	WAL605953	WAL606498	WAL605836
RSWS 6SR-WD	WAL606376	RSWS 6SR	WAL606671	WAL605765	WAL606519	11 x 2	WAL023492	WAL606482	WAL606740
RSWS 8SR-WD	WAL606377	RSWS 8SR	WAL606672	WAL605767	WAL606519	11 x 2	WAL023492	WAL606482	WAL606740
RSWS 10SR-WD	WAL606378	RSWS 10SR	WAL606673	WAL605769	WAL606523	14.5 x 2	WAL605949	WAL606485	WAL605827
RSWS 12SR-WD	WAL606379	RSWS 12SR	WAL606674	WAL605771	WAL606523	14.5 x 2	WAL605949	WAL606485	WAL605827
RSWS 14SR-WD	WAL606380	RSWS 14SR	WAL606675	WAL605774	WAL606527	19.5 x 2	WAL605951	WAL606488	WAL605831
RSWS 16SR-WD	WAL606381	RSWS 16SR	WAL606643	WAL605776	WAL606527	19.5 x 2	WAL605951	WAL606489	WAL606454
RSWS 20SR-WD	WAL606382	RSWS 20SR	WAL606644	WAL605778	WAL607401	26 x 1.5	WAL605952	WAL606492	WAL605833
RSWS 25SR-WD	WAL606383	RSWS 25SR	WAL607324	WAL605780	WAL607403	31 x 2	WAL250258	WAL606495	WAL605834
RSWS 30SR-WD	WAL606384	RSWS 30SR	WAL606677	WAL605782	WAL607405	40 x 2	WAL261157	WAL606496	WAL605835
RSWS 38SR-WD	WAL606385	RSWS 38SR	WAL607326	WAL605784	WAL607407	46 x 2	WAL605953	WAL606498	WAL605836

Special parts are available on request.

F

P-RSWV ... M-WD

- Metric stud type E to DIN EN ISO 9974-2
- with soft seal made from NBR* (e.g. Perbunan)

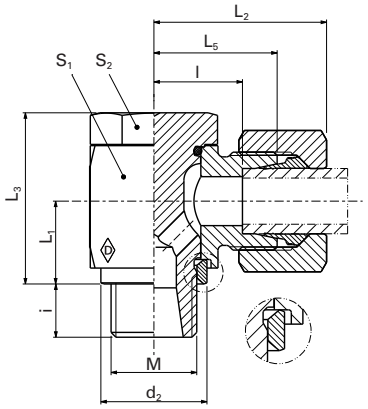




#1

P-RSWV ... M

- Metric stud type B to DIN EN ISO 9974-3
- with metal-to-metal seal





#2

															#1 P-RSWV with elastomer seal		#2 P-RSWV with metal-to-metal seal	
Series	PB bar (psi)	Tube outer diameter	M	kg/ 100 pc.	L_1	L_2	L_3	L_5	l	i	d_1 max.	d_2	S_1	S_2	Model	Part no.	Model	Part no.
LL	100 (1450)	4	M 8 x 1	3.4	8	22.5	17	17	13	6		12.5	12	12			S-RSWV 4LLM	WAL607024
		6	M 10 x 1	4.2	10	26	21	20	14.5	8		14.5	14	14			S-RSWV 6LLM	WAL607025
		8	M 10 x 1	4.5	10	26	21	20	14.5	8		14.5	14	14			S-RSWV 8LLM	WAL607026
L	500 (7252)	6	M 10 x 1	5.9	10	27.5	21	20	13	8	14.9	13	14	14	P-RSWV 6LM-WD	WAL607075	P-RSWV 6LM	WAL607027
		8	M 12 x 1.5	9.0	13.5	28.5	27	21	14	10	17.9	17.8	19	19	P-RSWV 8LM-WD	WAL607076	P-RSWV 8LM	WAL607028
		10	M 14 x 1.5	10.3	13.5	29.5	27	22	15	10	19.9	17.8	19	19	P-RSWV 10LM-WD	WAL607077	P-RSWV 10LM	WAL607029
	400 (5801)	12	M 16 x 1.5	15.8	16	32	32.5	24.5	17.5	10	21.9	21	24	22	P-RSWV 12LM-WD	WAL607078	P-RSWV 12LM	WAL607030
	315 (4569)	12	M 18 x 1.5	16.9	18.5	34.5	36	27	20	10	23.9	23	24	22	P-RSWV 12L/M18x1.5-WD	WAL607079	P-RSWV 12L/ M18x1.5	WAL607031
	400 (5801)	15	M 18 x 1.5	20.9	18.5	35	37	27	20	10	23.9	23	27	24	P-RSWV 15LM-WD	WAL607080	P-RSWV 15LM	WAL607032
		18	M 22 x 1.5	31.9	21.5	36.5	43	28	20.5	12	27.9	27	30	27	P-RSWV 18LM-WD	WAL607081	P-RSWV 18LM	WAL607033
	250 (3626)	22	M 26 x 1.5	48.6	24	43	48	34.5	27	16	31.9	31	36	32	P-RSWV 22LM-WD	WAL607082	P-RSWV 22LM	WAL607034
		28	M 33 x 2	88.5	30.5	48	59	39	31.5	18	39.9	39	46	41	P-RSWV 28LM-WD	WAL607083	P-RSWV 28LM	WAL607035
		35	M 42 x 2	151	35.5	57	70	46	35.5	20	49.9	49	55	50	P-RSWV 35LM-WD	WAL607084	P-RSWV 35LM	WAL607036
		42	M 48 x 2	234	40.5	62.5	80	51	40	22	55.9	55	65	55	P-RSWV 42LM-WD	WAL607085	P-RSWV 42LM	WAL607037
S	500 (7252)	6	M 12 x 1.5	8.5	13.5	30.5	27	23	16	10	17.9	17.8	19	19	P-RSWV 6SM-WD	WAL607086	P-RSWV 6SM	WAL607038
		8	M 14 x 1.5	10.4	13.5	30.5	27	23	16	10	19.9	17.8	19	19	P-RSWV 8SM-WD	WAL607087	P-RSWV 8SM	WAL607039
		10	M 16 x 1.5	16.9	16	34	32.5	25.5	18	10	21.9	21	24	22	P-RSWV 10SM-WD	WAL607088	P-RSWV 10SM	WAL607040
	400 (5801)	12	M 18 x 1.5	22.2	18.5	35.5	37	27	19.5	10	23.9	23	27	24	P-RSWV 12SM-WD	WAL607089	P-RSWV 12SM	WAL607041
		14	M 20 x 1.5	28.0	19.5	39.5	41	30	22	12		25	30	27		WAL607090	P-RSWV 14SM	WAL607042
		16	M 22 x 1.5	32.3	21.5	39.5	43	30	21.5	12	27.9	27	30	27	P-RSWV 16SM-WD	WAL607091	P-RSWV 16SM	WAL607043
	315 (4569)	20	M 27 x 2	51.9	24	47.5	48	36.5	26	16	32.9	32	36	32	P-RSWV 20SM-WD	WAL607092	P-RSWV 20SM	WAL607044
	250 (3626)	25	M 33 x 2	103.3	30.5	55	59	43	31	18	39.9	39	46	41	P-RSWV 25SM-WD	WAL607093	P-RSWV 25SM	WAL607045
		30	M 42 x 2	163.9	35.5	63	70	50	36.5	20	49.9	49	55	50	P-RSWV 30SM-WD	WAL607094	P-RSWV 30SM	WAL607046
		38	M 48 x 2	252.7	40.5	71.5	80	57	41	22	55.9	55	65	55	P-RSWV 38SM-WD	WAL607095	P-RSWV 38SM	WAL607047

L_2 = approximate dimension if the union nut is tightened
*For FPM (e.g. Viton) see price list / available on request
For P-RSWV and RSWS in stainless steel (1.4571), see price list / available on request

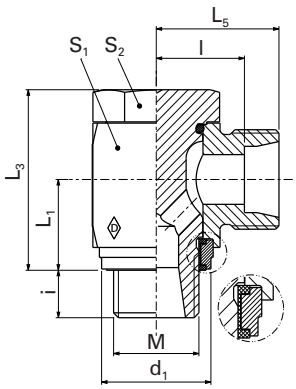
Operating pressure

The specified operating pressure ratings (PB) are calculated with a minimum safety factor of 2.5 and represent the maximum permissible operating pressures under predominantly static load conditions and temperatures of up to +120 °C (in the case of steel). Strong pressure surges and mechanical stresses, such as vibrations, require special consideration.

If the version with metal-to-metal sealing edge is used for special applications (e.g. higher temperatures or aggressive media), the banjo bolt O-ring must be removed!

Special parts are available on request.

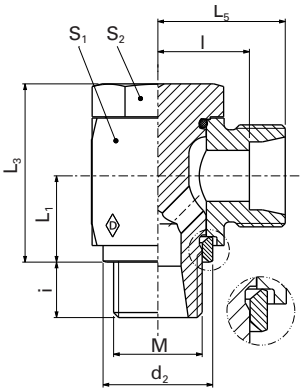
RSWS ... M-WD





#3

RSWS ... M





#4

F

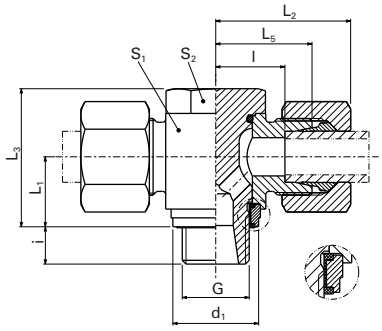
#3		#4		Individual components				#1 & #3	#2 & #4
RSWS with elastomer seal		RSWS with metal-to-metal seal		Body	Banjo bolt with O-ring (NBR)*	O-ring (NBR)*		Captive ring with soft seal (NBR)*	Sealing-edge ring
Model	**Part no.**	**Model**	**Part no.**	**Part no.**	**Part no.**	Dimensions	**Part no.**	**Part no.**	**Part no.**
		RSWS 4LLM	WAL606678	WAL608332	WAL606514	6.5 x 1.5	WAL605948		WAL608323
		RSWS 6LLM	WAL607325	WAL608334	WAL606515	8.5 x 1.5	WAL304288		WAL605824
		RSWS 8LLM	WAL606679	WAL608335	WAL606515	8.5 x 1.5	WAL304288		WAL605824
RSWS 6LM-WD	WAL606389	RSWS 6LM	WAL606640	WAL605763	WAL606515	8.5 x 1.5	WAL304288	WAL606481	WAL605824
RSWS 8LM-WD	WAL606390	RSWS 8LM	WAL606680	WAL605766	WAL606517	11 x 2	WAL023492	WAL606483	WAL606739
RSWS 10LM-WD	WAL606391	RSWS 10LM	WAL607321	WAL605768	WAL606518	11 x 2	WAL023492	WAL606484	WAL605825
RSWS 12LM-WD	WAL606392	RSWS 12LM	WAL606681	WAL605770	WAL606520	14.5 x 2	WAL605949	WAL606485	WAL605826
RSWS 12L/M18x 1.5-WD	WAL606393	RSWS 12L/ M18x1.5	WAL606682	WAL607124	WAL606521	14.5 x 2	WAL605949	WAL606500	WAL605830
RSWS 15LM-WD	WAL606394	RSWS 15LM	WAL606683	WAL605773	WAL606524	16.5 x 2	WAL605950	WAL606486	WAL605830
RSWS 18LM-WD	WAL606395	RSWS 18LM	WAL606684	WAL605777	WAL606526	19.5 x 2	WAL605951	WAL606490	WAL605832
RSWS 22LM-WD	WAL606396	RSWS 22LM	WAL606685	WAL605779	WAL607399	26 x 1.5	WAL605952	WAL606491	WAL606455
RSWS 28LM-WD	WAL606397	RSWS 28LM	WAL606686	WAL605781	WAL607402	31 x 2	WAL250258	WAL606495	WAL605834
RSWS 35LM-WD	WAL606398	RSWS 35LM	WAL606687	WAL605783	WAL607404	40 x 2	WAL261157	WAL606496	WAL605835
RSWS 42LM-WD	WAL606399	RSWS 42LM	WAL606688	WAL605785	WAL607406	46 x 2	WAL605953	WAL606498	WAL605836
RSWS 6SM-WD	WAL606400	RSWS 6SM	WAL606689	WAL605765	WAL606517	11 x 2	WAL023492	WAL606483	WAL606739
RSWS 8SM-WD	WAL606401	RSWS 8SM	WAL606690	WAL605767	WAL606518	11 x 2	WAL023492	WAL606484	WAL606825
RSWS 10SM-WD	WAL606402	RSWS 10SM	WAL606691	WAL605769	WAL606520	14.5 x 2	WAL605949	WAL606485	WAL605826
RSWS 12SM-WD	WAL606403	RSWS 12SM	WAL606692	WAL605772	WAL606524	16.5 x 2	WAL605950	WAL606486	WAL605830
		RSWS 14SM	WAL606693	WAL605774	WAL606525	19.5 x 2	WAL605951		WAL605831
RSWS 16SM-WD	WAL606405	RSWS 16SM	WAL606646	WAL605776	WAL606526	19.5 x 2	WAL605951	WAL606490	WAL605832
RSWS 20SM-WD	WAL606406	RSWS 20SM	WAL606694	WAL605778	WAL607400	26 x 1.5	WAL605952	WAL606492	WAL605833
RSWS 25SM-WD	WAL606407	RSWS 25SM	WAL607322	WAL605780	WAL607402	31 x 2	WAL250258	WAL606495	WAL605834
RSWS 30SM-WD	WAL606408	RSWS 30SM	WAL606695	WAL605782	WAL607404	40 x 2	WAL261157	WAL606496	WAL605835
RSWS 38SM-WD	WAL606409	RSWS 38SM	WAL606696	WAL605784	WAL607406	46 x 2	WAL605953	WAL606498	WAL605836

Special parts are available on request.

F

P-RSTV ... R-WD

- Inch studs type E to DIN EN ISO 1179-2
- with soft seal made from NBR* (e.g. Perbunan)

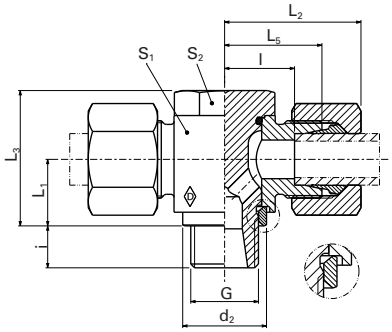




#1

P-RSTV ... R

- Inch studs type B to DIN EN ISO 1179-4
- with metal-to-metal seal





#2

															#1 P-RSTV with elastomer seal		#2 P-RSTV with metal-to-metal seal	
Series	PB bar (psi)	Tube outer diameter	DIN-ISO 228 (R.... DIN 259) G	kg/ 100 pc.	L_1	L_2	L_3	L_5	l	i	d_1 max.	d_2	S_1	S_2	Model	Part no.	Model	Part no.
L	500 (7252)	6	G 1/8 A	6.5	10	27.5	21	20	13	8	14.9	13	14	14	P-RSTV 6LR-WD	WAL612523	P-RSTV 6LR	WAL606717
		8	G 1/4 A	10.0	13.5	28.5	27	21	14	10	18.9	17.8	19	19	P-RSTV 8LR-WD	WAL614820	P-RSTV 8LR	WAL606773
		10	G 1/4 A	11.0	13.5	29.5	27	22	15	10	18.9	17.8	19	19	P-RSTV 10LR-WD	WAL601151	P-RSTV 10LR	WAL601090
	400 (5801)	12	G 3/8 A	16.8	16	32	32.5	24.5	17.5	10	21.9	22	24	22	P-RSTV 12LR-WD	WAL611623	P-RSTV 12LR	WAL607978
		15	G 1/2 A	28.8	19.5	36	43	28	21	14	26.9	26	30	27	P-RSTV 15LR-WD	WAL611985	P-RSTV 15LR	WAL610395
		18	G 1/2 A	33.7	21.5	36.5	43	28	20.5	12	26.9	26	30	27	P-RSTV 18LR-WD	WAL623392	P-RSTV 18LR	WAL606360
	250 (3626)	22	G 3/4 A	50.0	24	43	48	34.5	27	16	32.9	32	36	32	P-RSTV 22LR-WD	WAL623393	P-RSTV 22LR	WAL607436
		28	G 1 A	89.5	30.5	48	59	39	31.5	18	39.9	39	46	41	P-RSTV 28LR-WD	WAL608605	P-RSTV 28LR	WAL607317
		35	G 1 1/4 A	155.8	35.5	57	70	46	35.5	20	49.9	49	55	50	P-RSTV 35LR-WD	WAL611641	P-RSTV 35LR	WAL611642
		42	G 1 1/2 A	248.3	34	62.5	80	51	40	22	55.9	55	65	55	P-RSTV 42LR-WD	WAL623394	P-RSTV 42LR	WAL608595
S	500 (7252)	6	G 1/4 A	10.0	13.5	30.5	27	23	16	10	18.9	17.8	19	19	P-RSTV 6SR-WD	WAL608693	P-RSTV 6SR	WAL608601
		8	G 1/4 A	11.6	13.5	30.5	27	23	16	10	18.9	17.8	19	19	P-RSTV 8SR-WD	WAL601148	P-RSTV 8SR	WAL607784
		10	G 3/8 A	18.7	16	34	32.5	25.5	18	10	21.9	22	24	22	P-RSTV 10SR-WD	WAL608682	P-RSTV 10SR	WAL608223
	400 (5801)	12	G 3/8 A	19.3	16	34	32.5	25.5	18	10	21.9	22	24	22	P-RSTV 12SR-WD	WAL608683	P-RSTV 12SR	WAL607759
		16	G 1/2 A	34.0	21.5	39.5	43	30	21.5	12	26.9	26	30	27	P-RSTV 16SR-WD	WAL611986	P-RSTV 16SR	WAL607760
	315 (4569)	20	G 3/4 A	56.0	24	47.5	48	36.5	26	16	32.9	32	36	32	P-RSTV 20SR-WD	WAL608433	P-RSTV 20SR	WAL607754
	250 (3626)	25	G 1 A	107.6	30.5	55	59	43	31	18	39.9	39	46	41	P-RSTV 25SR-WD	WAL608979	P-RSTV 25SR	WAL607905
		30	G 1/4 A	175.3	35.5	63	70	50	36.5	20	49.9	49	55	50	P-RSTV 30SR-WD	WAL610045	P-RSTV 30SR	
		38	G 1/2 A	274.5	40.5	71.5	80	57	41	22	55.9	55	65	55	P-RSTV 38SR-WD	WAL607954	P-RSTV 38SR	WAL607763

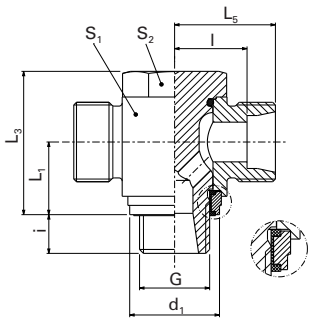
L_2= approximate dimension if the union nut is tightened
*For FPM (e.g. Viton) see price list / available on request

Operating pressure

The specified operating pressure ratings (PB) are calculated with a minimum safety factor of 2.5 and represent the maximum permissible operating pressures under predominantly static load conditions and temperatures of up to +120 °C (in the case of steel). Strong pressure surges and mechanical stresses, such as vibrations, require special consideration. If the version with metal-to-metal sealing edge is used for special applications (e.g. higher temperatures or aggressive media),
the banjo bolt O-ring must be removed!

Special parts are available on request.

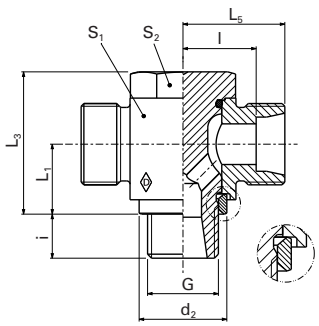
RSTS ... R-WD





#3

RSTS ... R





#4

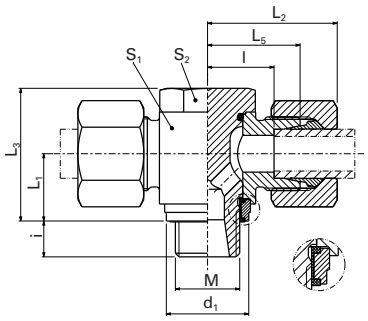
#3		#4		Individual components				#1 & #3	#2 & #4
RSWS with elastomer seal		RSWS with metal-to-metal seal		Body	Banjo bolt with O-ring (NBR)*	O-ring (NBR)*		Captive ring with soft seal (NBR)*	Sealing-edge ring
Model	**Part no.**	**Model**	**Part no.**	**Part no.**	**Part no.**	Dimensions	**Part no.**	**Part no.**	**Part no.**
RSTS 6LR-WD	WAL609870	RSTS 6LR		WAL607341	WAL606516	8.5 x 1.5	WAL304288	WAL606481	WAL605824
RSTS 8LR-WD	WAL606305	RSTS 8LR	WAL601153	WAL607344	WAL606519	11 x 2	WAL023492	WAL606482	WAL606740
RSTS 10LR-WD	WAL609871	RSTS 10LR	WAL613340	WAL607346	WAL606519	11 x 2	WAL023492	WAL606482	WAL606740
RSTS 12LR-WD	WAL609872	RSTS 12LR	WAL607290	WAL607349	WAL606523	14.5 x 2	WAL605949	WAL606485	WAL605827
RSTS 15LR-WD	WAL608193	RSTS 15LR	WAL606641	WAL607354	WAL606527	19.5 x 2	WAL605951	WAL606488	WAL605831
RSTS 18LR-WD	WAL609873	RSTS 18LR	WAL607772	WAL607356	WAL606527	19.5 x 2	WAL605951	WAL606489	WAL605454
RSTS 22LR-WD	WAL607438	RSTS 22LR	WAL615527	WAL307358	WAL607401	26 x 1.5	WAL605952	WAL606492	WAL605833
RSTS 28LR-WD	WAL609874	RSTS 28LR	WAL608289	WAL607360	WAL607403	31 x 2	WAL250258	WAL606495	WAL605834
RSTS 35LR-WD	WAL608195	RSTS 35LR		WAL607362	WAL607405	40 x 2	WAL261157	WAL606496	WAL605835
RSTS 42LR-WD	WAL608196	RSTS 42LR	WAL615529	WAL607364	WAL607407	46 x 2	WAL605953	WAL606498	WAL605836
RSTS 6SR-WD	WAL615520	RSTS 6SR		WAL607343	WAL606519	11 x 2	WAL023492	WAL606482	WAL606740
RSTS 8SR-WD	WAL608191	RSTS 8SR	WAL607435	WAL607345	WAL606519	11 x 2	WAL023492	WAL606482	WAL606740
RSTS 10SR-WD	WAL615521	RSTS 10SR	WAL607365	WAL607347	WAL606523	14.5 x 2	WAL605949	WAL606485	WAL605827
RSTS 12SR-WD	WAL608192	RSTS 12SR	WAL615531	WAL607350	WAL606523	14.5 x 2	WAL605949	WAL606485	WAL605827
RSTS 16SR-WD	WAL615522	RSTS 16SR	WAL624205	WAL607355	WAL606527	19.5 x 2	WAL606951	WAL606489	WAL606454
RSTS 20SR-WD	WAL615523	RSTS 20SR	WAL615533	WAL607357	WAL607401	26 x 1.5	WAL605952	WAL606492	WAL605833
RSTS 25SR-WD	WAL615524	RSTS 25SR	WAL615534	WAL607359	WAL607403	31 x 2	WAL250258	WAL606495	WAL605834
RSTS 30SR-WD	WAL615525	RSTS 30SR	WAL615535	WAL607361	WAL607405	40 x 2	WAL261157	WAL606496	WAL605835
RSTS 38SR-WD	WAL612599	RSTS 38SR	WAL607958	WAL607363	WAL607407	46 x 2	WAL605953	WAL606498	WAL605836

Special parts are available on request.

F

P-RSTV ... M-WD

- Metric stud type E to DIN EN ISO 9974-2
- with soft seal made from NBR* (e.g. Perbunan)

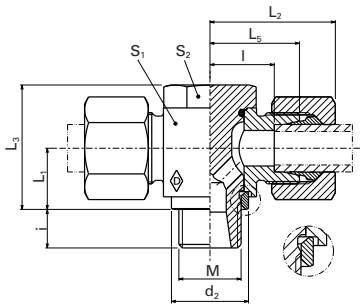




#1

P-RSTV ... M

- Metric stud type B to DIN EN ISO 9974-3
- with metal-to-metal seal





#2

															P-RSTV with elastomer seal		P-RSTV with metal-to-metal seal	
Series	PB bar (psi)	Tube outer diameter	M	kg/ 100 pc.	L_1	L_2	L_3	L_5	l	i	d_1 max.	d_2	S_1	S_2	Model	Part no.	Model	Part no.
L	500 (7252)	6	M 10 x 1	6.5	10	27.5	21	20	13	8	14.9	13	14	14	P-RSTV 6LM-WD	WAL608490	P-RSTV 6LM	WAL607620
		8	M 12 x 1.5	9.6	13.5	28.5	27	21	14	10	17.9	17.8	19	19	P-RSTV 8LM-WD	WAL609972	P-RSTV 8LM	WAL608277
		10	M 14 x 1.5	11.1	13.5	29.5	27	22	15	10	19.9	17.8	19	19	P-RSTV 10LM-WD	WAL608318	P-RSTV 10LM	WAL608278
	400 (5801)	12	M 16 x 1.5	16.7	16	32	32.5	24.5	17.5	10	21.9	21	24	22	P-RSTV 12LM-WD	WAL609948	P-RSTV 12LM	WAL607430
	315 (4569)	15	M 18 x 1.5	21.3	18.5	35	37	27	20	10	23.9	23	27	24	P-RSTV 15LM-WD	WAL612019	P-RSTV 15LM	WAL607938
	400 (5801)	18	M 22 x 1.5	33.6	21.5	36.5	43	28	20.5	12	27.9	27	30	27	P-RSTV 18LM-WD	WAL613149	P-RSTV 18LM	WAL606831
	250 (3626)	22	M 26 x 1.5	50.2	24	43	48	34.5	27	16	31.9	31	36	32	P-RSTV 22LM-WD	WAL623380	P-RSTV 22LM	WAL610416
		28	M 33 x 2	89.9	30.5	48	59	39	31.5	18	39.9	39	46	41	P-RSTV 28LM-WD	WAL623381	P-RSTV 28LM	
		35	M 42 x 2	156	35.5	57	70	46	35.5	20	49.9	49	55	50	P-RSTV 35LM-WD	WAL623382	P-RSTV 35LM	
		42	M 48 x 2	248.1	40.5	62.5	80	51	40	22	55.9	55	65	55	P-RSTV 42LM-WD	WAL623383	P-RSTV 42LM	WAL608236
S	500 (7252)	6	M 12 x 1.5	9.8	13.5	30.5	27	23	16	10	17.9	17.8	19	19	P-RSTV 6SM-WD	WAL623384	P-RSTV 6SM	WAL608225
		8	M 14 x 1.5	11.7	13.5	30.5	27	23	16	10	19.9	17.8	19	19	P-RSTV 8SM-WD	WAL623385	P-RSTV 8SM	WAL601091
		10	M 16 x 1.5	18.7	16	34	32.5	25.5	18	10	21.9	21	24	22	P-RSTV 10SM-WD	WAL623386	P-RSTV 10SM	
	400 (5801)	12	M 18 x 1.5	22.7	18.5	35.5	37	27	19.5	10	23.9	23	27	24	P-RSTV 12SM-WD	WAL607449	P-RSTV 12SM	WAL607907
		16	M 22 x 1.5	34.7	21.5	39.5	43	30	21.5	12	27.9	27	30	27	P-RSTV 16SM-WD	WAL623387	P-RSTV 16SM	
		20	M 27 x 2	54.3	24	47.5	48	36.5	26	16	32.9	32	36	32	P-RSTV 20SM-WD	WAL623388	P-RSTV 20SM	WAL607952
	315 (4569)	25	M 33 x 2	108	30.5	55	59	43	31	18	39.9	39	46	41	P-RSTV 25SM-WD	WAL623389	P-RSTV 25SM	WAL613354
	250 (3626)	30	M 42 x 2	175.5	35.5	63	70	50	36.5	20	49.9	49	55	50	P-RSTV 30SM-WD	WAL623390	P-RSTV 30SM	
		38	M 48 x 2	264.5	40.5	71.5	80	57	41	22	55.9	55	65	55	P-RSTV 38SM-WD	WAL623391	P-RSTV 38SM	WAL623319

L_3= approximate dimension if the union nut is tightened
*For FPM (e.g. Viton) see price list / available on request

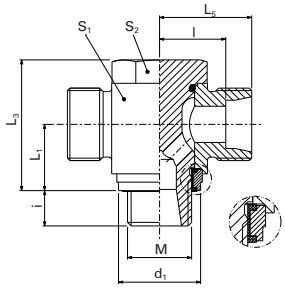
Operating pressure

The specified operating pressure ratings (PB) are calculated with a minimum safety factor of 2.5 and represent the maximum permissible operating pressures under predominantly static load conditions and temperatures of up to +120 °C (in the case of steel). Strong pressure surges and mechanical stresses, such as vibrations, require special consideration.

If the version with metal-to-metal sealing edge is used for special applications (e.g. higher temperatures or aggressive media), the banjo bolt O-ring must be removed!

Special parts are available on request.

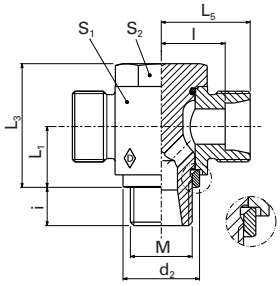
RSTS ... M-WD





#3

RSTS ... M





#4

F

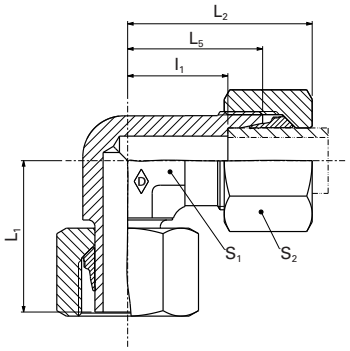
RSWS with elastomer seal		RSWS with metal-to-metal seal		Individual components					
				Body	Banjo bolt with O-ring (NBR)*	O-ring (NBR)*		Captive ring with soft seal (NBR)*	Sealing-edge ring
Model	**Part no.**	**Model**	**Part no.**	**Part no.**	**Part no.**	Dimensions	**Part no.**	**Part no.**	**Part no.**
RSTS 6LM-WD	WAL615536	RSTS 6LM	WAL609780	WAL607341	WAL606515	8.5 x 1.5	WAL304288	WAL606481	WAL605824
RSTS 8LM-WD	WAL612600	RSTS 8LM	WAL606718	WAL607344	WAL606517	11 x 2	WAL023492	WAL606483	WAL606739
RSTS 10LM-WD	WAL611676	RSTS 10LM	WAL608274	WAL607346	WAL606518	11 x 2	WAL023492	WAL606484	WAL605825
RSTS 12LM-WD	WAL615537	RSTS 12LM	WAL606719	WAL607349	WAL606520	14.5 x 2	WAL605949	WAL606485	WAL605826
RSTS 15LM-WD	WAL615538	RSTS 15LM	WAL615547	WAL607352	WAL606524	16.5 x 2	WAL605950	WAL606486	WAL605830
RSTS 18LM-WD	WAL615539	RSTS 18LM	WAL606762	WAL607356	WAL606526	19.5 x 2	WAL605951	WAL606490	WAL605832
RSTS 22LM-WD	WAL615540	RSTS 22LM	WAL615548	WAL607358	WAL607399	26 x 1.5	WAL605952	WAL606491	WAL606455
RSTS 28LM-WD	WAL608194	RSTS 28LM	WAL607957	WAL607360	WAL607402	31 x 2	WAL250258	WAL606495	WAL605834
RSTS 35LM-WD	WAL608308	RSTS 35LM	WAL615549	WAL607362	WAL607404	40 x 2	WAL261157	WAL606496	WAL605835
RSTS 42LM-WD	WAL615541	RSTS 42LM	WAL615550	WAL607364	WAL607406	46 x 2	WAL605953	WAL606498	WAL605836
RSTS 6SM-WD	WAL615542	RSTS 6SM	WAL615551	WAL607343	WAL606517	11 x 2	WAL023492	WAL606483	WAL606739
RSTS 8SM-WD	WAL607568	RSTS 8SM	WAL615552	WAL607345	WAL606518	11 x 2	WAL023492	WAL606484	WAL605825
RSTS 10SM-WD	WAL615543	RSTS 10SM	WAL615553	WAL607347	WAL606520	14.5 x 2	WAL605949	WAL606485	WAL605826
RSTS 12SM-WD	WAL601136	RSTS 12SM	WAL615554	WAL607351	WAL606524	14.5 x 2	WAL605949	WAL606486	WAL605830
RSTS 16SM-WD	WAL608307	RSTS 16SM	WAL608298	WAL607355	WAL606526	19.5 x 2	WAL606951	WAL606490	WAL605832
RSTS 20SM-WD	WAL615544	RSTS 20SM	WAL615555	WAL607357	WAL607400	26 x 1.5	WAL605952	WAL606492	WAL605833
RSTS 25SM-WD	WAL615545	RSTS 25SM	WAL615556	WAL607359	WAL607402	31 x 2	WAL250258	WAL606495	WAL605834
RSTS 30SM-WD	WAL608324	RSTS 30SM	WAL615557	WAL607361	WAL607404	40 x 2	WAL261157	WAL606496	WAL605835
RSTS 38SM-WD	WAL615546	RSTS 38SM	WAL615558	WAL607363	WAL607406	46 x 2	WAL605953	WAL606498	WAL605836

Special parts are available on request.

P-EWV ... -SV

P-EWV ... -SV-1.4571

- with pre-assembled standpipe





F

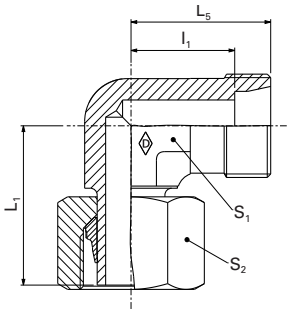
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L_1	L_2	L_5	l_5	S_1	S_2	Walpro P-EWV... SV Part no.	Walpro Stainless steel (1.4571) P-EWV ... SV-1.4571* Part no.
L	500 (7252)	6	**P-EWV 6 L-SV**	3.6	26	27	19	12	12	14	**WAL373636**	**WAL620232**
		8	**P-EWV 8 L-SV**	5.0	27.5	29	21	14	12	17	**WAL373637**	**WAL620372**
		10	**P-EWV 10 L-SV**	6.9	29	30	22	15	14	19	**WAL373638**	**WAL620268**
	400 (5801)	12	**P-EWV 12 L-SV**	9.2	29.5	32	24	17	17	22	**WAL373639**	**WAL620226**
		15	**P-EWV 15 L-SV**	15.4	32.5	36	28	21	19	27	**WAL373640**	**WAL620340**
		18	**P-EWV 18 L-SV**	22.5	35.5	40	31	23.5	24	32	**WAL373641**	**WAL620508**
	250 (3626)	22	**P-EWV 22 L-SV**	30.4	38.5	44	35	27.5	27	36	**WAL373642**	**WAL620280**
		28	**P-EWV 28 L-SV**	42.6	41.5	47	38	30.5	36	41	**WAL373643**	**WAL620337**
S	800 (11603)	6	**P-EWV 6 S-SV**	5.8	27	31	23	16	12	17	**WAL373646**	**WAL620330**
		8	**P-EWV 8 S-SV**	7.0	27.5	32	24	17	14	19	**WAL373647**	**WAL620465**
		10	**P-EWV 10 S-SV**	11.2	30	34	25	17.5	17	22	**WAL373648**	**WAL620319**
	630 (9137)	12	**P-EWV 12 S-SV**	13.8	31	38	29	21.5	27	24	**WAL373649**	**WAL620320**
		14	**P-EWV 14 S-SV**	19.0	35	40	30	22	19	27	**WAL373650**	**WAL620542**
		16	**P-EWV 16 S-SV**	23.8	36.5	43	33	24.5	24	30	**WAL373651**	**WAL620248**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened

Special parts are available on request.

P-EWS ... -SV

P-EWS ... -SV-1.4571





F

							System nuts for supplementing the stud (for technical data, see part D of this catalog)		
					Stud P-EWS ... -SV	Stud Stainless steel (1.4571) P-EWS... SV-1.4571*	W-R-Plus-M	Walform WF-M ... VI	Walform Stainless steel (1.4571) WF-M ... VI -1.4571**
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
L	500 (7252)	6	**P-EWS 6 L-SV**	2.5	**WAL602582**	**WAL621226**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**P-EWS 8 L-SV**	4	**WAL602579**	**WAL621227**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**P-EWS 10 L-SV**	5	**WAL374926**	**WAL620332**	**WAL628469**	**WAL625942**	**WAL625982**
	400 (5801)	12	**P-EWS 12 L-SV**	7.5	**WAL374927**	**WAL620651**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**P-EWS 15 L-SV**	12.5	**WAL374928**	**WAL620604**	**WAL628471**	**WAL625944**	**WAL625984**
		18	**P-EWS 18 L-SV**	17.5	**WAL602501**	**WAL620336**	**WAL628472**	**WAL625945**	**WAL625985**
	250 (3626)	22	**P-EWS 22 L-SV**	23	**WAL602464**	**WAL620380**	**WAL628473**	**WAL625946**	**WAL625986**
		28	**P-EWS 28 L-SV**	34.5	**WAL602465**	**WAL621228**	**WAL628474**	**WAL625947**	**WAL625987**
S	800 (11603)	6	**P-EWS 6 S-SV**	4.5	**WAL602696**	**WAL620594**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**P-EWS 8 S-SV**	6	**WAL602881**	**WAL620655**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**P-EWS 10 S-SV**	8.5	**WAL602697**	**WAL621230**	**WAL628479**	**WAL625952**	**WAL625992**
	630 (9137)	12	**P-EWS 12 S-SV**	8.5	**WAL602593**	**WAL621231**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**P-EWS 14 S-SV**	13.9	**WAL604826**	**WAL621232**			
		16	**P-EWS 16 S-SV**	16.5	**WAL602698**	**WAL620321**	**WAL628481**	**WAL625954**	**WAL625994**

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

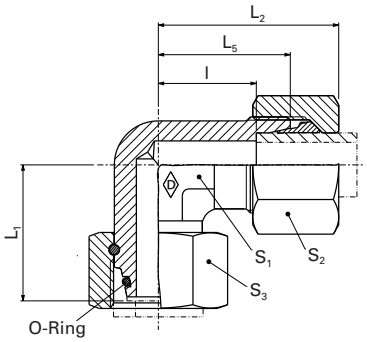
Special parts are available on request.

F

P-EWVD ...

P-EWVD ...-1.4571

- with taper and O-ring made from NBR* (e.g. Perbunan) for steel
- with taper and O-ring made from FKM (e.g. Viton) for stainless steel (1.4571)





													Walpro P-EWVD...	Walpro Stainless steel (1.4571) P-EWVD ...-1.4571**
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L_1	L_2	L_5	l	S_1	S_2	S_3	*O-ring	Part no.	Part no.
L	500 (7252)	6	**P-EWVD 6 L**	5.8	26	29	21	14	12	14	17	4.5 x 1.5	**WAL374555**	**WAL621326**
		8	**P-EWVD 8 L**	6.6	27.5	29	21	14	12	17	17	6 x 1.5	**WAL374556**	**WAL621327**
		10	**P-EWVD 10 L**	8.7	29	30	22	15	14	19	19	8.5 x 1.5	**WAL374557**	**WAL621328**
	400 (5801)	12	**P-EWVD 12 L**	11.3	29.5	32	24	17	17	22	22	10 x 1.5	**WAL372992**	**WAL621329**
		15	**P-EWVD 15 L**	15.6	32.5	36	28	21	19	27	27	12 x 2	**WAL374558**	**WAL621330**
		18	**P-EWVD 18 L**	22.9	35.5	40	31	23.5	24	32	32	15 x 2	**WAL374559**	**WAL621331**
	250 (3626)	22	**P-EWVD 22 L**	30.7	38.5	44	35	27.5	27	36	36	20 x 2	**WAL374560**	**WAL621332**
		28	**P-EWVD 28 L**	43.1	41.5	47	38	30.5	36	41	46***	26 x 2	**WAL374561**	**WAL621333**
		35	**P-EWVD 35 L**	65.4	51	56	45	34.5	41	50	50	32 x 2.5	**WAL374562**	**WAL621334**
		42	**P-EWVD 42 L**	100.5	56	63	51	40	50	60	60	38 x 2.5	**WAL374563**	**WAL621335**
S	800 (11603)	6	**P-EWVD 6 S**	7.2	27	31	23	16	12	17	17	4.5 x 1.5	**WAL374564**	**WAL621336**
		8	**P-EWVD 8 S**	9.1	27.5	32	24	17	14	19	19	6 x 1.5	**WAL374565**	**WAL621337**
		10	**P-EWVD 10 S**	12.1	30	34	25	17.5	17	22	22	8.5 x 1.5	**WAL374566**	**WAL621338**
	630 (9137)	12	**P-EWVD 12 S**	14.8	31	38	29	21.5	22	24	24	10 x 1.5	**WAL374567**	**WAL620589**
		14	**P-EWVD 14 S**	19.3	35	40	30	22	19	27	27	12 x 2	**WAL374568**	
		16	**P-EWVD 16 S**	24.2	36.5	43	33	24.5	24	30	30	14 x 2	**WAL374569**	**WAL621340**
	420 (6091))	20	**P-EWVD 20 S**	36.6	44.5	48	37	26.5	27	36	36	17.3 x 2.4	**WAL374570**	**WAL621341**
		25	**P-EWVD 25 S**	72.7	50	54	42	30	36	46	46	22.3 x 2.4	**WAL374571**	**WAL621342**
	400 (5801)	30	**P-EWVD 30 S**	97.3	55	62	49	35.5	41	50	50	27.3 x 2.4	**WAL374572**	**WAL621343**
		38	**P-EWVD 38 S**	139.1	63	72	57	41	50	60	60	35 x 2.5	**WAL374573**	**WAL621344**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

L_2 = approximate dimension if the union nut is tightened

* For FPM (e.g. Viton) see price list / available on request

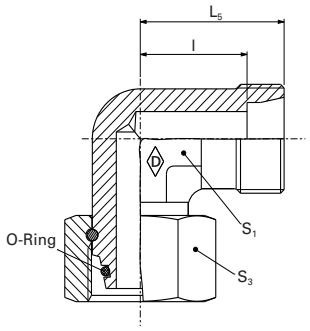
** Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list

*** In stainless steel the hex S3 = 41mm

Special parts are available on request.

EWSD ...

EWSD ... -1.4571





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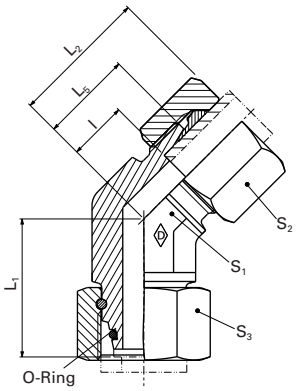
							System nuts for supplementing the stud (for technical data, see part D of this catalog)		
					Stud EWSD ...	Stud Stainless steel (1.4571) EWSD ... VI -1.4571	W-R-Plus-M	Walform WF-M ... VI	Walform Stainless steel (1.4571) WF-M ... VI -1.4571**
Series	PN bar (psi)	Tube outer diameter	Model	kg/100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
L	500 (7252)	6	**EWSD 6 L**	6.0	**WAL063877**	**WAL618224**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**EWSD 8 L**	6.0	**WAL063878**	**WAL618225**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**EWSD 10 L**	7.5	**WAL063879**	**WAL618226**	**WAL628469**	**WAL625942**	**WAL625982**
	400 (5801)	12	**EWSD 12 L**	11.0	**WAL063880**	**WAL618227**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**EWSD 15 L**	12.0	**WAL063881**	**WAL618228**	**WAL628471**	**WAL625944**	**WAL625984**
		18	**EWSD 18 L**	18.0	**WAL063882**	**WAL618229**	**WAL628472**	**WAL625945**	**WAL625985**
	250 (3626)	22	**EWSD 22 L**	24.0	**WAL063883**	**WAL618230**	**WAL628473**	**WAL625946**	**WAL625986**
		28	**EWSD 28 L**	42.0	**WAL063884**	**WAL618231**	**WAL628474**	**WAL625947**	**WAL625987**
		35	**EWSD 35 L**	55.5	**WAL063885**	**WAL618232**	**WAL628475**	**WAL625948**	**WAL625988**
		42	**EWSD 42 L**	84.5	**WAL063886**	**WAL618233**	**WAL628476**	**WAL625949**	**WAL625989**
S	800 (11603)	6	**EWSD 6 S**	6.0	**WAL063887**	**WAL618234**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**EWSD 8 S**	8.5	**WAL063888**	**WAL618235**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**EWSD 10 S**	12.0	**WAL063889**	**WAL618236**	**WAL628479**	**WAL625952**	**WAL625992**
	630 (9137)	12	**EWSD 12 S**	11.0	**WAL063890**	**WAL605365**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**EWSD 14 S**	14.5	**WAL063891**	**WAL606246**			
		16	**EWSD 16 S**	19.0	**WAL063892**	**WAL618237**	**WAL628481**	**WAL625954**	**WAL625994**
	420 (6091)	20	**EWSD 20 S**	29.5	**WAL063893**	**WAL067826**	**WAL628482**	**WAL625955**	**WAL625995**
		25	**EWSD 25 S**	53.5	**WAL063894**	**WAL606247**	**WAL628483**	**WAL625956**	**WAL625996**
	400 (5801)	30	**EWSD 30 S**	72.0	**WAL063895**	**WAL606248**	**WAL628484**	**WAL625957**	**WAL625997**
		38	**EWSD 38 S**	106.0	**WAL063896**	**WAL618238**	**WAL628485**	**WAL625958**	**WAL625998**

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-EWVD 45 ...

- with taper and O-ring made from NBR* (e.g. Perbunan)





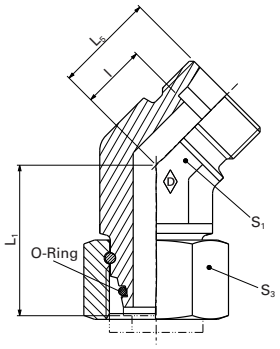
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Series	PN bar (psi)	Tube outer diameter	Model	L_1	L_5	l	S_1	S_3	*O-ring	Walpro P-EWVD 45 ... Part no.
L	500 (7252)	6	**P-EWVD 45 6 L**	26.0	16.0	9.0	14	17	4.5 x 1.5	**WAL625819**
		8	**P-EWVD 45 8 L**	27.5	19.0	12.0	14	17	6 x 1.5	**WAL625820**
		10	**P-EWVD 45 10 L**	29.0	19.0	12.0	19	19	8.5 x 1.5	**WAL625821**
	400 (5801)	12	**P-EWVD 45 12 L**	29.5	21.0	14.0	19	22	10 x 1.5	**WAL625822**
		15	**P-EWVD 45 15 L**	32.5	24.0	17.0	22	27	12 x 2	**WAL625823**
		18	**P-EWVD 45 18 L**	35.5	24.0	16.5	27	32	15 x 2	**WAL625824**
	250 (3626)	22	**P-EWVD 45 22 L**	38.5	26.5	18.5	30	36	20 x 2	**WAL625825**
		28	**P-EWVD 45 28 L**	41.5	30.5	23.0	36	46	26 x 2	**WAL625826**
		35	**P-EWVD 45 35 L**	51.0	37.0	26.5	50	50	32 x 2.5	**WAL625827**
		42	**P-EWVD 45 42 L**	56.0	37.0	26.0	50	60	38 x 2.5	**WAL625828**
S	800 (11603)	6	**P-EWVD 45 6 S**	27.0	16.0	9.0	14	17	4.5 x 1.5	**WAL625829**
		8	**P-EWVD 45 8 S**	27.5	19.0	12.0	19	19	6 x 1.5	**WAL625830**
		10	**P-EWVD 45 10 S**	30.0	21.0	13.5	19	22	8.5 x 1.5	**WAL625831**
	630 (9137)	12	**P-EWVD 45 12 S**	31.0	24.0	16.5	22	24	10 x 1.5	**WAL625832**
		16	**P-EWVD 45 16 S**	36.5	24.0	15.5	27	30	14 x 2	**WAL625833**
	420 (6091)	20	**P-EWVD 45 20 S**	44.5	26.5	16.0	30	36	17.3 x 2.4	**WAL625834**
		25	**P-EWVD 45 25 S**	50.5	30.5	18.5	36	46	22.3 x 2.4	**WAL625835**
	400 (5801)	30	**P-EWVD 45 30 S**	55.0	37.0	23.5	50	50	27.3 x 2.4	**WAL625836**
		38	**P-EWVD 45 38 S**	63.0	37.0	21.0	50	60	35 x 2.5	**WAL625837**

L_5 = approximate dimension if the union nut is tightened
*For FPM (e.g. Viton) see price list / available on request

Special parts are available on request.

EWSD 45 ...





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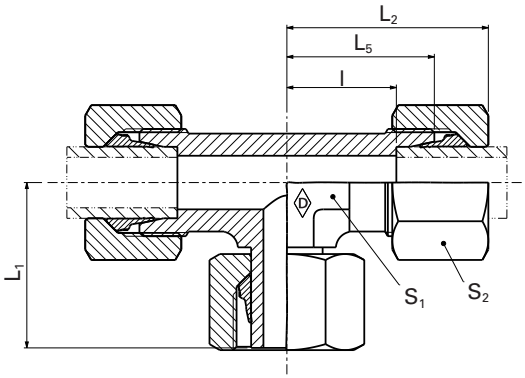
					System nuts for supplementing the stud (for technical data, see part D of this catalog)	
				Stud EWSD 45 ...	W-R-Plus-M	Walform WF-M ... VI
Series	PN bar (psi)	Tube outer diameter	Model	Part no.	Part no.	Part no.
L	500 (7252)	6	**EWSD 45 6 L**	**WAL625761**	**WAL628467**	**WAL625940**
		8	**EWSD 45 8 L**	**WAL625762**	**WAL628468**	**WAL625941**
		10	**EWSD 45 10 L**	**WAL625763**	**WAL628469**	**WAL625942**
	400 (5801)	12	**EWSD 45 12 L**	**WAL625764**	**WAL628470**	**WAL625943**
		15	**EWSD 45 15 L**	**WAL625765**	**WAL628471**	**WAL625944**
		18	**EWSD 45 18 L**	**WAL625766**	**WAL628472**	**WAL625945**
	250 (3626)	22	**EWSD 45 22 L**	**WAL625767**	**WAL628473**	**WAL625946**
		28	**EWSD 45 28 L**	**WAL625768**	**WAL628474**	**WAL625947**
		35	**EWSD 45 35 L**	**WAL625769**	**WAL628475**	**WAL625948**
		42	**EWSD 45 42 L**	**WAL625770**	**WAL628476**	**WAL625949**
S	800 (11603)	6	**EWSD 45 6 S**	**WAL625771**	**WAL628477**	**WAL625950**
		8	**EWSD 45 8 S**	**WAL625772**	**WAL628478**	**WAL625951**
		10	**EWSD 45 10 S**	**WAL625773**	**WAL628479**	**WAL625952**
	630 (9137)	12	**EWSD 45 12 S**	**WAL625774**	**WAL628480**	**WAL625953**
		16	**EWSD 45 16 S**	**WAL625775**	**WAL628481**	**WAL625954**
	420 (6091)	20	**EWSD 45 20 S**	**WAL625776**	**WAL628482**	**WAL625955**
		25	**EWSD 45 25 S**	**WAL625777**	**WAL628483**	**WAL625956**
	400 (5801)	30	**EWSD 45 30 S**	**WAL625778**	**WAL628484**	**WAL625957**
		38	**EWSD 45 38 S**	**WAL625779**	**WAL628485**	**WAL625958**

Special parts are available on request.

P-ETV ... -SV

P-ETV ...SV-1.4571

- with pre-assembled standpipe





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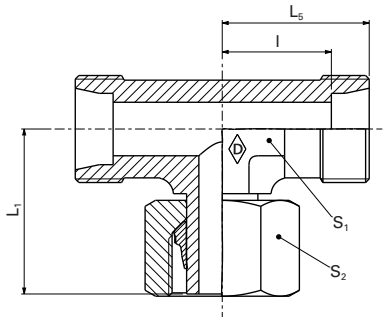
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L_1	L_2	L_5	l	S_1	S_2	Walpro P-ETV ... -SV Part no.	Walpro Stainless steel (1.4571) P-ETV ... -SV 1.4571* Part no.
L	500 (7252)	6	**P-ETV 6 L-SV**	5.3	26	27	19	12	12	14	**WAL373676**	**WAL620329**
		8	**P-ETV 8 L-SV**	7.4	27.5	29	21	14	12	17	**WAL373677**	**WAL620341**
		10	**P-ETV 10 L-SV**	10.4	29	30	22	15	14	19	**WAL373678**	**WAL620436**
	400 (5801)	12	**P-ETV 12 L-SV**	13.1	29.5	32	24	17	17	22	**WAL373679**	**WAL620486**
		15	**P-ETV 15 L-SV**	21.9	32.5	36	28	21	19	27	**WAL373680**	**WAL620512**
		18	**P-ETV 18 L-SV**	32.5	35.5	40	31	23.5	24	32	**WAL373681**	**WAL620686**
	250 (3626)	22	**P-ETV 22 L-SV**	43.3	38.5	44	35	27.5	27	36	**WAL373682**	**WAL620687**
		28	**P-ETV 28 L-SV**	57.4	41.5	47	38	30.5	36	41	**WAL373683**	**WAL620688**
S	800 (11603)	6	**P-ETV 6 S-SV**	8.6	27	31	23	16	12	17	**WAL373686**	**WAL620689**
		8	**P-ETV 8 S-SV**	10.7	27.5	32	24	17	14	19	**WAL373687**	**WAL621096**
		10	**P-ETV 10 S-SV**	16.6	30	34	25	17.5	17	22	**WAL373688**	**WAL620690**
	630 (9137)	12	**P-ETV 12 S-SV**	20.4	31	38	29	21.5	17	24	**WAL373689**	**WAL620419**
		14	**P-ETV 14 S-SV**	27.6	35	40	30	22	19	27	**WAL373690**	
		16	**P-ETV 16 S-SV**	35.6	36.5	43	33	24.5	24	30	**WAL373691**	**WAL620691**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened

Special parts are available on request.

P-ETS ... -SV

P-ETS ... -SV-1.4571





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							System nuts for supplementing the stud (for technical data, see part D of this catalog)		
					Stud P-ETS ... -SV	Stud Stainless steel (1.4571) P-ETS ...-SV VI -1.4571	W-R-Plus-M	Walform WF-M ... VI	Walform Stainless steel (1.4571) WF-M ... VI -1.4571*
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
L	500 (7252)	6	P-ETS 6 L-SV	3.5	WAL602686	WAL621235	WAL628467	WAL625940	WAL625980
		8	P-ETS 8 L-SV	5	WAL374929	WAL621236	WAL628468	WAL625941	WAL625981
		10	P-ETS 10 L-SV	6.5	WAL602662	WAL620654	WAL628469	WAL625942	WAL625982
	400 (5801)	12	P-ETS 12 L-SV	8.5	WAL602431	WAL620333	WAL628470	WAL625943	WAL625983
		15	P-ETS 15 L-SV	15	WAL602597	WAL621237	WAL628471	WAL625944	WAL625984
		18	P-ETS 18 L-SV	19	WAL602687	WAL621238	WAL628472	WAL625945	WAL625985
	250 (3626)	22	P-ETS 22 L-SV	28	WAL602688	WAL621239	WAL628473	WAL625946	WAL625986
		28	P-ETS 28 L-SV	42.5	WAL374930	WAL621240	WAL628474	WAL625947	WAL625987
S	800 (11603)	6	P-ETS 6 S-SV	5.3	WAL604060	WAL621243	WAL628477	WAL625950	WAL625990
		8	P-ETS 8 S-SV	7.5	WAL602689	WAL621244	WAL628478	WAL625951	WAL625991
		10	P-ETS 10 S-SV	10.2	WAL602912	WAL621245	WAL628479	WAL625952	WAL625992
	630 (9137)	12	P-ETS 12 S-SV	13.5	WAL602907	WAL621246	WAL628480	WAL625953	WAL625993
		14	P-ETS 14 S-SV	17	WAL615559	WAL621247			
		16	P-ETS 16 S-SV	24	WAL604098	WAL621248	WAL628481	WAL625954	WAL625994

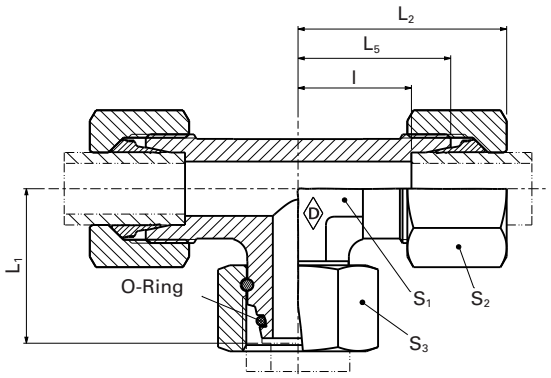
△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-ETVD ...

P-ETVD ...-1.4571

- with taper and O-ring made from NBR* (e.g. Perbunan) for steel
- with taper and O-ring made from FKM (e.g. Viton) for stainless steel (1.4571)





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Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L_1	L_2	L_5	l	S_1	S_2	S_3	*O-ring	Walpro P-ETVD... Part no.	Walpro Stainless steel (1.4571 P-ETVD ... VI-1.4571** Part no.
L	500 (7252)	6	**P-ETVD 6 L**	5.4	26	29	21	14	12	14	17	4.5 x 1.5	**WAL374574**	**WAL621345**
		8	**P-ETVD 8 L**	7.6	27.5	29	21	14	12	17	17	6 x 1.5	**WAL374575**	**WAL621100**
		10	**P-ETVD 10 L**	10.7	29	30	22	15	14	19	19	8.5 x 1.5	**WAL374576**	**WAL621346**
	400 (5801)	12	**P-ETVD 12 L**	13.5	29.5	32	24	17	17	22	22	10 x 1.5	**WAL374577**	**WAL621347**
		15	**P-ETVD 15 L**	22.3	32.5	36	28	21	19	27	27	12 x 2	**WAL374578**	**WAL621348**
		18	**P-ETVD 18 L**	33.2	35.5	40	31	23.5	24	32	32	15 x 2	**WAL374579**	**WAL621101**
	250 (3626)	22	**P-ETVD 22 L**	43.9	38.5	44	35	27.5	27	36	36	20 x 2	**WAL374580**	**WAL621102**
		28	**P-ETVD 28 L**	58.3	41.5	47	38	30.5	36	41	46***	26 x 2	**WAL374581**	**WAL621349**
		35	**P-ETVD 35 L**	91.5	51	56	45	34.5	41	50	50	32 x 2.5	**WAL374582**	**WAL621350**
		42	**P-ETVD 42 L**	136.9	56	63	51	40	50	60	60	38 x 2.5	**WAL374583**	**WAL621351**
S	800 (11603)	6	**P-ETVD 6 S**	8.7	27	31	23	16	12	17	17	4.5 x 1.5	**WAL374584**	**WAL621103**
		8	**P-ETVD 8 S**	10.9	27.5	32	24	17	14	19	19	6 x 1.5	**WAL374585**	**WAL621352**
		10	**P-ETVD 10 S**	16.9	30	34	25	17.5	17	22	22	8.5 x 1.5	**WAL374586**	**WAL621353**
	630 (9137)	12	**P-ETVD 12 S**	21.2	31	38	29	21.5	17	24	24	10 x 1.5	**WAL374587**	**WAL620637**
		14	**P-ETVD 14 S**	28.1	35	40	30	22	19	27	27	12 x 2	**WAL374588**	
		16	**P-ETVD 16 S**	36.4	36.5	43	33	24.5	24	30	30	14 x 2	**WAL374589**	**WAL621354**
	420 (6091)	20	**P-ETVD 20 S**	54.2	44.5	48	37	26.5	27	36	36	17.3 x 2.4	**WAL374590**	**WAL621355**
		25	**P-ETVD 25 S**	105.0	50	54	42	30	36	46	46	22.3 x 2.4	**WAL374591**	**WAL621356**
	400 (5801)	30	**P-ETVD 30 S**	134.9	55	62	49	35.5	41	50	50	27.3 x 2.4	**WAL374592**	**WAL621357**
		38	**P-ETVD 38 S**	206.1	63	72	57	41	50	60	60	35 x 2.5	**WAL374593**	**WAL621358**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

L_2= approximate dimension if the union nut is tightened

* For FPM (e.g. Viton) see price list / available on request

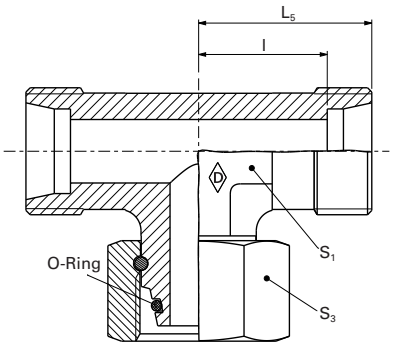
** Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list

*** In stainless steel the hex S3 = 41mm

Special parts are available on request.

ETSD ...

ETSD ...-1.4571





F

							System nuts for supplementing the stud (for technical data, see part D of this catalog)		
					Stud ETSD ...	Stud Stainless steel (1.4571) ETSD ... VI -1.4571	W-R-Plus-M	Walform WF-M ... VI	Walform Stainless steel (1.4571) WF-M ... VI -1.4571**
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
L	500 (7252)	6	**ETSD 6 L**	3.2	**WAL063897**	**WAL618253**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**ETSD 8 L**	6.5	**WAL063898**	**WAL618254**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**ETSD 10 L**	9.5	**WAL063899**	**WAL618255**	**WAL628469**	**WAL625942**	**WAL625982**
	400 (5801)	12	**ETSD 12 L**	12.5	**WAL063900**	**WAL618256**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**ETSD 15 L**	14	**WAL063901**	**WAL618257**	**WAL628471**	**WAL625944**	**WAL625984**
		18	**ETSD 18 L**	21.5	**WAL063902**	**WAL618258**	**WAL628472**	**WAL625945**	**WAL625985**
	250 (3626)	22	**ETSD 22 L**	28	**WAL063903**	**WAL618259**	**WAL628473**	**WAL625946**	**WAL625986**
		28	**ETSD 28 L**	49	**WAL063904**	**WAL618260**	**WAL628474**	**WAL625947**	**WAL625987**
		35	**ETSD 35 L**	60.9	**WAL063905**	**WAL618261**	**WAL628475**	**WAL625948**	**WAL625988**
		42	**ETSD 42 L**	89.2	**WAL063906**	**WAL617598**	**WAL628476**	**WAL625949**	**WAL625989**
S	800 (11603)	6	**ETSD 6 S**	8	**WAL063907**	**WAL617599**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**ETSD 8 S**	10.5	**WAL063908**	**WAL618262**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**ETSD 10 S**	14	**WAL063909**	**WAL618263**	**WAL628479**	**WAL625952**	**WAL625992**
	630 (9137)	12	**ETSD 12 S**	19	**WAL063910**	**WAL618264**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**ETSD 14 S**	16.9	**WAL063911**	**WAL606249**			
		16	**ETSD 16 S**	23	**WAL063912**	**WAL618265**	**WAL628481**	**WAL625954**	**WAL625994**
	420 (6091)	20	**ETSD 20 S**	35	**WAL063913**	**WAL618266**	**WAL628482**	**WAL625955**	**WAL625995**
		25	**ETSD 25 S**	63.5	**WAL063914**	**WAL618267**	**WAL628483**	**WAL625956**	**WAL625996**
	400 (5801)	30	**ETSD 30 S**	87	**WAL063915**	**WAL617600**	**WAL628484**	**WAL625957**	**WAL625997**
		38	**ETSD 38 S**	131	**WAL063916**	**WAL618268**	**WAL628485**	**WAL625958**	**WAL625998**

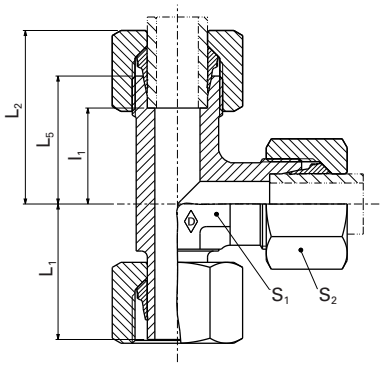
△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-ELV … -SV

P-ELV …SV-1.4571

- with pre-assembled standpipe





F

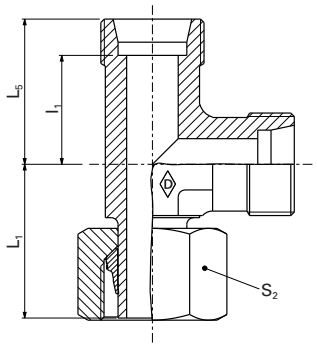
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L_1	L_2	L_5	l	S_1	S_2	Walpro P-ELV… -SV Model	Walpro Stainless steel (1.457 P-ELV … SV-1.4571* Part no.
L	500 (7252)	6	**P-ELV 6 L-SV**	5.2	26	27	19	12	12	14	**WAL373716**	**WAL620359**
		8	**P-ELV 8 L-SV**	7.8	27.5	29	21	14	12	17	**WAL373717**	**WAL620283**
		10	**P-ELV 10 L-SV**	10.6	29	30	22	15	14	19	**WAL373718**	**WAL620455**
	400 (5801)	12	**P-ELV 12 L-SV**	12.8	29.5	32	24	17	17	22	**WAL373719**	**WAL620441**
		15	**P-ELV 15 L-SV**	21.9	32.5	36	28	21	19	27	**WAL373720**	**WAL620401**
		18	**P-ELV 18 L-SV**	33.0	35.5	40	31	23.5	24	32	**WAL373721**	**WAL620530**
	250 (3626)	22	**P-ELV 22 L-SV**	43.3	38.5	44	35	27.5	27	36	**WAL373722**	**WAL620402**
		28	**P-ELV 28 L-SV**	55.9	41.5	47	38	30.5	36	41	**WAL373723**	**WAL620692**
S	800 (11603)	6	**P-ELV 6 S-SV**	8.8	27	31	23	16	12	17	**WAL373726**	**WAL620694**
		8	**P-ELV 8 S-SV**	10.7	27.5	32	24	17	14	19	**WAL373727**	**WAL621106**
		10	**P-ELV 10 S-SV**	16.7	30	34	25	17.5	17	22	**WAL373728**	**WAL620695**
	630 (9137)	12	**P-ELV 12 S-SV**	20.4	31	38	29	21.5	17	24	**WAL373729**	**WAL620417**
		14	**P-ELV 14 S-SV**	27.2	35	40	30	22	19	27	**WAL373730**	**WAL621107**
		16	**P-ELV 16 S-SV**	33.7	36.5	43	33	24.5	24	30	**WAL373731**	**WAL620696**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened

Special parts are available on request.

P-ELS … -SV

P-ELS ...SV-1.4571





F

Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	Stud P-ELS … -SV	Stud Stainless steel (1.4571) P-ELS … -SV-1.4571	System nuts for supplementing the stud (for technical data, see part D of this catalog) W-R-Plus-M	Walform WF-M ... VI	Walform Stainless steel (1.4571) WF-M … VI -1.4571*
					Part no.	Part no.	Part no.	Part no.	Part no.
L	500 (7252)	6	P-ELS 6 L-SV	4.0	WAL602911	WAL620609	WAL628467	WAL625940	WAL625980
		8	P-ELS 8 L-SV	4.4	WAL374931	WAL621253	WAL628468	WAL625941	WAL625981
		10	P-ELS 10 L-SV	6.0	WAL374932	WAL620599	WAL628469	WAL625942	WAL625982
	400 (5801)	12	P-ELS 12 L-SV	8.5	WAL602559	WAL620658	WAL628470	WAL625943	WAL625983
		15	P-ELS 15 L-SV	14.5	WAL374933	WAL621254	WAL628471	WAL625944	WAL625984
		18	P-ELS 18 L-SV	21.0	WAL602467	WAL620568	WAL628472	WAL625945	WAL625985
	250 (3626)	22	P-ELS 22 L-SV	25.6	WAL604092	WAL620636	WAL628473	WAL625946	WAL625986
		28	P-ELS 28 L-SV	41.5	WAL602583	WAL621255	WAL628474	WAL625947	WAL625987
S	800 (11603)	6	P-ELS 6 S-SV	6.0	WAL602998	WAL621257	WAL628477	WAL625950	WAL625990
		8	P-ELS 8 S-SV	7.5	WAL602999	WAL620348	WAL628478	WAL625951	WAL625991
		10	P-ELS 10 S-SV	10.5	WAL602913	WAL621258	WAL628479	WAL625952	WAL625992
	630 (9137)	12	P-ELS 12 S-SV	13.5	WAL602908	WAL621259	WAL628480	WAL625953	WAL625993
		14	P-ELS 14 S-SV	16.6	WAL606307	WAL621260			
		16	P-ELS 16 S-SV	24.0	WAL602910	WAL620570	WAL628481	WAL625954	WAL625994

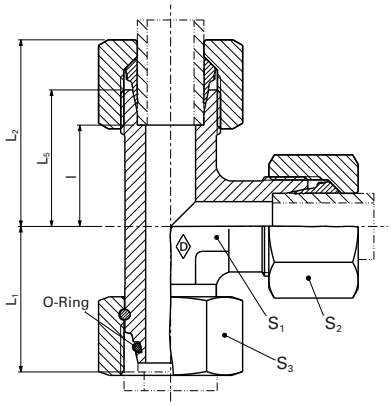
△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-ELVD ...

P-ELVD ...-1.4571

- with taper and O-ring made from NBR* (e.g. Perbunan) for steel
- with taper and O-ring made from FKM (e.g. Viton) for stainless steel (1.4571)





F

Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L_1	L_2	L_5	l	S_1	S_2	S_3	*O-ring	Walpro P-ELVD... Part no.	Walpro Stainless steel (1.4571) P-ELVD ... VI-1.4571** Part no.
L	500 (7252)	6	**P-ELVD 6 L**	5.3	26	29	21	14	14	14	17	4.5 x 1.5	**WAL374594**	**WAL620653**
		8	**P-ELVD 8 L**	8.0	27.5	29	21	14	14	17	17	6 x 1.5	**WAL374595**	**WAL621360**
		10	**P-ELVD 10 L**	10.9	29	30	22	15	17	19	19	8.5 x 1.5	**WAL374596**	**WAL621109**
	400 (5801)	12	**P-ELVD 12 L**	13.2	29.5	32	24	17	19	22	22	10 x 1.5	**WAL372991**	**WAL620815**
		15	**P-ELVD 15 L**	22.3	32.5	36	28	21	19	27	27	12 x 2	**WAL374597**	**WAL620727**
		18	**P-ELVD 18 L**	33.7	35.5	40	31	23.5	24	32	32	15 x 2	**WAL374598**	**WAL621361**
	250 (3626)	22	**P-ELVD 22 L**	43.9	38.5	44	35	27.5	27	36	36	20 x 2	**WAL374599**	**WAL621362**
		28	**P-ELVD 28 L**	56.8	41.5	47	38	30.5	36	41	46***	26 x 2	**WAL374600**	**WAL621363**
		35	**P-ELVD 35 L**	90.5	51	56	45	34.5	41	50	50	32 x 2.5	**WAL374601**	**WAL621364**
		42	**P-ELVD 42 L**	134.4	56	63	51	40	50	60	60	38 x 2.5	**WAL374602**	**WAL621365**
S	800 (11603)	6	**P-ELVD 6 S**	8.9	27	31	23	16	14	17	17	4.5 x 1.5	**WAL374603**	**WAL620864**
		8	**P-ELVD 8 S**	10.9	27.5	32	24	17	17	19	19	6 x 1.5	**WAL374604**	**WAL621110**
		10	**P-ELVD 10 S**	17.0	30	34	25	17.5	19	22	22	8.5 x 1.5	**WAL374605**	**WAL621366**
	630 (9137)	12	**P-ELVD 12 S**	21.2	31	38	29	21.5	22	24	24	10 x 1.5	**WAL374606**	**WAL620587**
		14	**P-ELVD 14 S**	27.7	35	40	30	22	19	27	27	12 x 2	**WAL374607**	**WAL621111**
		16	**P-ELVD 16 S**	34.5	36.5	43	33	24.5	24	30	30	14 x 2	**WAL374608**	**WAL621112**
	420 (6091)	20	**P-ELVD 20 S**	54.8	44.5	48	37	26.5	27	36	36	17.3 x 2.4	**WAL374609**	**WAL620588**
		25	**P-ELVD 25 S**	103.6	50	54	42	30	36	46	46	22.3 x 2.4	**WAL374610**	**WAL621367**
	400 (5801)	30	**P-ELVD 30 S**	134.1	55	62	49	35.5	41	50	50	27.3 x 2.4	**WAL374611**	**WAL621113**
		38	**P-ELVD 38 S**	196.4	63	72	57	41	50	60	60	35 x 2.5	**WAL374612**	**WAL621114**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

L_1= approximate dimension if the union nut is tightened

* For FPM (e.g. Viton) see price list / available on request

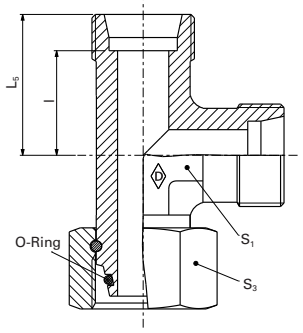
** Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list

*** In stainless steel the hex S3 = 41mm

Special parts are available on request.

ELSD …

ELSD …-1.4571





F

							System nuts for supplementing the stud (for technical data, see part D of this catalog)		
					Stud ELSD …	Stud Stainless steel (1.4571) ELSD … VI -1.4571	W-R-Plus-M	Walform WF-M … VI	Walform Stainless steel (1.4571) WF-M … VI -1.4571**
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
L	500 (7252)	6	ELSD 6 L	4.6	WAL063917	WAL602804	WAL628467	WAL625940	WAL625980
		8	ELSD 8 L	7.0	WAL063918	WAL602774	WAL628468	WAL625941	WAL625981
		10	ELSD 10 L	9.0	WAL063919	WAL617610	WAL628469	WAL625942	WAL625982
	400 (5801)	12	ELSD 12 L	12.5	WAL063920	WAL618269	WAL628470	WAL625943	WAL625983
		15	ELSD 15 L	13.1	WAL063921	WAL371559	WAL628471	WAL625944	WAL625984
		18	ELSD 18 L	20.5	WAL063922	WAL618270	WAL628472	WAL625945	WAL625985
	250 (3626)	22	ELSD 22 L	28.0	WAL063923	WAL617611	WAL628473	WAL625946	WAL625986
		28	ELSD 28 L	49.0	WAL063924	WAL618271	WAL628474	WAL625947	WAL625987
		35	ELSD 35 L	65.0	WAL063925	WAL605999	WAL628475	WAL625948	WAL625988
		42	ELSD 42 L	100.0	WAL063926	WAL618272	WAL628476	WAL625949	WAL625989
S	800 (11603)	6	ELSD 6 S	8.0	WAL063927	WAL617612	WAL628477	WAL625950	WAL625990
		8	ELSD 8 S	11.0	WAL063928	WAL618273	WAL628478	WAL625951	WAL625991
		10	ELSD 10 S	14.0	WAL063929	WAL617613	WAL628479	WAL625952	WAL625992
	630 (9137)	12	ELSD 12 S	19.0	WAL063930	WAL605361	WAL628480	WAL625953	WAL625993
		14	ELSD 14 S	16.5	WAL063931	WAL617614			
		16	ELSD 16 S	23.5	WAL063932	WAL618275	WAL628481	WAL625954	WAL625994
	420 (6091)	20	ELSD 20 S	35.5	WAL063933	WAL605363	WAL628482	WAL625955	WAL625995
		25	ELSD 25 S	63.5	WAL063934	WAL618277	WAL628483	WAL625956	WAL625996
	400 (5801)	30	ELSD 30 S	88.0	WAL063935	WAL617615	WAL628484	WAL625957	WAL625997
		38	ELSD 38 S	130.0	WAL063936	WAL618278	WAL628485	WAL625958	WAL625998

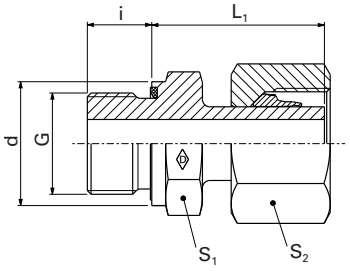
⚠ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Special parts are available on request.

P-EGES ... R-WD-SV

P-EGES ... R-WD-SV-1.4571

- with pre-assembled standpipe
- with soft seal made from NBR* (e.g. Perbunan) for steel
- with soft seal made from FKM (e.g. Viton) for stainless steel (1.4571)
- Inch studs type E to DIN EN ISO 1179-2





F

												Stud P-EGES ... R-WD-SV	Stud Stainless steel (1.4571) P-EGES ... R-WD-VI-SV-1.4571**
Series	PN bar (psi)	Tube outer diameter	DIN-ISO 228 (R....DIN 259) G	Model	kg/ 100 pc.	i	d	L_1	S_1	S_2		Part no.	Part no.
L	500 (7252)	6	G 1/8 A	**P-EGES 6 LR-WD-SV**	2.5	8	13.9	24.5	14	14		**WAL373856**	**WAL620543**
		8	G 1/4 A	**P-EGES 8 LR-WD-SV**	4.5	12	18.9	29.5	19	17		**WAL373857**	**WAL620493**
		10	G 1/4 A	**P-EGES 10 LR-WD-SV**	5.8	12	18.9	27.5	19	19		**WAL373858**	**WAL620456**
	400 (5801)	12	G 1/4 A	**P-EGES 12 L/R 1/4-WD-SV**	6.5	12	18.9	27.5	19	22		**WAL373859**	**WAL623088**
		12	G 3/8 A	**P-EGES 12 LR-WD-SV**	6.5	12	21.9	34	22	22		**WAL373860**	**WAL620408**
		15	G 3/8 A	**P-EGES 15 L/R 3/8-WD-SV**	11.0	12	21.9	34	27	27		**WAL374482**	**WAL623089**
		15	G 1/2 A	**P-EGES 15 LR-WD-SV**	11.6	14	26.9	32	27	27		**WAL373861**	**WAL620457**
		18	G 1/2 A	**P-EGES 18 LR-WD-SV**	13.0	14	26.9	31.5	27	27		**WAL373862**	**WAL620487**
	250 (3626)	22	G 3/4 A	**P-EGES 22 LR-WD-SV**	17.6	16	31.9	32.5	32	36		**WAL373863**	**WAL620472**
S	800 (11603)	6	G 1/4 A	**P-EGES 6 SR-WD-SV**	5.1	12	18.9	27	19	17		**WAL373867**	**WAL620544**
		8	G 1/4 A	**P-EGES 8 SR-WD-SV**	4.8	12	18.9	29.5	19	19		**WAL373868**	**WAL620490**
		10	G 3/8 A	**P-EGES 10 SR-WD-SV**	8.3	12	21.9	32	22	22		**WAL373869**	**WAL620545**
	630 (9137)	12	G 3/8 A	**P-EGES 12 SR-WD-SV**	7.3	12	21.9	34	22	24		**WAL373870**	**WAL620407**
		12	G 1/2 A	**P-EGES 12 S/R 1/2-WD-SV**	9.2	14	26.9	34.5	27	25		**WAL373871**	**WAL620546**
		14	G 1/2 A	**P-EGES 14 SR-WD-SV**	14.9	14	26.9	36.5	27	27		**WAL373872**	**WAL617616**
		16	G 1/2 A	**P-EGES 16 SR-WD-SV**	15.4	14	26.9	37	27	30		**WAL373873**	**WAL620532**
		16	G 3/4 A	**P-EGES 16 S/R 3/4-WD-SV**	20.0	16	31.9	39	32	30		**WAL373874**	**WAL623090**

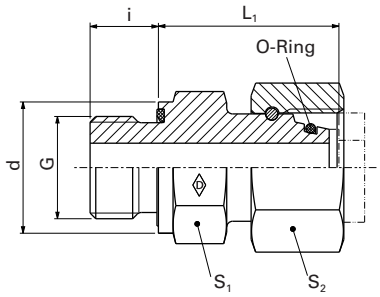
Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
**Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
*For FPM (e.g. Viton) see price list / available on request

Special parts are available on request.

EGESD ... R-WD

EGESD ... R-WD-1.4571

- with taper and O-ring made from NBR* (e.g. Perbunan) for steel
- with taper and O-ring made from FKM (e.g. Viton) for stainless steel (1.4571)
- Inch studs type E to DIN EN ISO 1179-2





F

Series	PN bar (psi)	Tube outer diameter	DIN-ISO 228 (R....DIN 259) G	Model	kg/ 100 pc.	L_1	i	d	S_1	S_2	*O-ring	Stud EGESD ... R-WD Part no.	Stud Stainless steel (1.4571) EGESD ... R-WD-VI-1.4571** Part no.
L	500 (7252)	6	G 1/8 A	**EGESD 6 LR-WD**	3.6	24.5	8	13.9	14	17	4.5 x 1.5	**WAL063661**	
		8	G 1/4 A	**EGESD 8 LR-WD**	5.7	29.5	12	18.9	19	17	6 x 1.5	**WAL063662**	**WAL374950**
		10	G 1/4 A	**EGESD 10 LR-WD**	5.8	27.5	12	18.9	19	19	8.5 x 1.5	**WAL063663**	**WAL371550**
	400 (5801)	12	G 1/4 A	**EGESD 12 L/R 1/4-WD**	6.8	27.5	12	18.9	19	22	10 x 1.5	**WAL063664**	**WAL615354**
		12	G 3/8 A	**EGESD 12 LR-WD**	7.5	34	12	21.9	22	22	10 x 1.5	**WAL063665**	**WAL372579**
		15	G 1/2 A	**EGESD 15 LR-WD**	14.4	32	14	26.9	27	27	12 x 2	**WAL063666**	**WAL371553**
		18	G 1/2 A	**EGESD 18 LR-WD**	15.2	31.5	14	26.9	27	32	15 x 2	**WAL063667**	**WAL371556**
	250 (3626)	22	G 3/4 A	**EGESD 22 LR-WD**	20.2	32.5	16	31.9	32	36	20 x 2	**WAL063668**	**WAL372751**
		28	G 1 A	**EGESD 28 LR-WD**	35.6	35	18	39.9	41	46	26 x 2	**WAL063669**	**WAL604194**
		35	G1 1/4 A	**EGESD 35 LR-WD**	50.7	42.5	20	49.9	50	50	32 x 2.5	**WAL063670**	**WAL604648**
		42	G1 1/2 A	**EGESD 42 LR-WD**	66.4	46.5	22	54.9	55	60	38 x 2.5	**WAL063671**	**WAL372348**
S	800 (11603)	6	G 1/4 A	**EGESD 6 SR-WD**	5.6	27	12	18.9	19	17	4.5 x 1.5	**WAL063672**	**WAL615654**
		8	G 1/4 A	**EGESD 8 SR-WD**	6.2	29.5	12	18.9	19	19	6 x 1.5	**WAL063673**	**WAL068481**
		10	G 3/8 A	**EGESD 10 SR-WD**	9.2	32	12	21.9	22	22	8.5 x 1.5	**WAL063674**	**WAL608620**
	630 (9137)	12	G 3/8 A	**EGESD 12 SR-WD**	11.0	34	12	21.9	22	24	10 x 1.5	**WAL063675**	**WAL606820**
		12	G 1/2 A	**EGESD 12 S/R 1/2-WD**	15.3	34.5	14	26.9	27	24	10 x 1.5	**WAL063676**	**WAL372581**
		14	G 1/2 A	**EGESD 14 SR-WD**	17.0	36.5	14	26.9	27	27	12 x 2	**WAL063677**	**WAL617616**
		16	G 1/2 A	**EGESD 16 SR-WD**	23.0	37	14	26.9	27	30	14 x 2	**WAL063678**	**WAL370609**
	420 (6091)	20	G 3/4 A	**EGESD 20 SR-WD**	28.6	43	16	31.9	32	36	17.3 x 2.4	**WAL063679**	**WAL068479**
		25	G 1 A	**EGESD 25 SR-WD**	49.4	48	18	39.9	41	46	22.3 x 2.4	**WAL063680**	**WAL372587**
	400 (5801)	30	G 1 1/4 A	**EGESD 30 SR-WD**	67.4	51	20	49.9	50	50	27.3 x 2.4	**WAL063681**	**WAL372332**
		38	G 1 1/2 A	**EGESD 38 SR-WD**	93.1	60	22	54.9	55	60	35 x 2.5	**WAL063682**	**WAL370961**

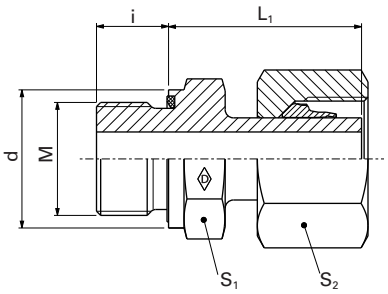
Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*For FPM (e.g. Viton) see price list / available on request

Special parts are available on request.

P-EGES ... M-WD-SV

P-EGES ... M-WD-SV-1.4571

- with pre-assembled standpipe
- with soft seal made from NBR* (e.g. Perbunan) for steel
- with soft seal made from FKM (e.g. Viton) for stainless steel (1.4571)
- Metric stud type E to DIN EN ISO 9974-2





F

											Stud P-EGES ... M-WD-SV	Stud Stainless steel (1.4571) P-EGES ... M-WD-VI-SV-1.4571**
Series	PN bar (psi)	Tube outer diameter	Model	M	kg/ 100 pc.	i	d	L_1	S_1	S_2	Part no.	Part no.
L	500 (7252)	6	**P-EGES 6 LM-WD-SV**	M 10 x 1	2.5	8	13.9	24.5	14	14	**WAL373879**	**WAL621116**
		8	**P-EGES 8 LM-WD-SV**	M 12 x 1.5	4.0	12	16.9	26.5	17	17	**WAL373880**	**WAL621117**
		10	**P-EGES 10 LM-WD-SV**	M 14 x 1.5	4.8	12	18.9	27.5	19	19	**WAL373881**	**WAL620700**
	400 (5801)	12	**P-EGES 12 LM-WD-SV**	M 16 x 1.5	6.5	12	21.9	30.5	22	22	**WAL373882**	**WAL621118**
		15	**P-EGES 15 LM-WD-SV**	M 18 x 1.5	9.6	12	23.9	31.5	24	27	**WAL373883**	**WAL621119**
		18	**P-EGES 18 LM-WD-SV**	M 22 x 1.5	13.0	14	26.9	31.5	27	32	**WAL373884**	**WAL621120**
	250 (3626)	22	**P-EGES 22 LM-WD-SV**	M 26 x 1.5	17.6	16	31.9	32	32	36	**WAL373885**	**WAL621121**
S	800 (11603)	6	**P-EGES 6 SM-WD-SV**	M 12 x 1.5	4.6	12	16.9	27	17	17	**WAL373889**	**WAL620701**
		8	**P-EGES 8 SM-WD-SV**	M 14 x 1.5	5.5	12	18.9	29.5	19	19	**WAL373890**	**WAL621125**
		10	**P-EGES 10 SM-WD-SV**	M 16 x 1.5	8.3	12	21.9	32	22	22	**WAL373891**	**WAL621126**
	630 (9137)	12	**P-EGES 12 SM-WD-SV**	M 18 x 1.5	11.5	12	23.9	34	24	24	**WAL373892**	**WAL621127**
		14	**P-EGES 14 SM-WD-SV**	M 20 x 1.5	14.9	14	25.9	36.5	27	27	**WAL373893**	**WAL621472**
		16	**P-EGES 16 SM-WD-SV**	M 22 x 1.5	15.4	14	26.9	37	27	30	**WAL373894**	**WAL620657**

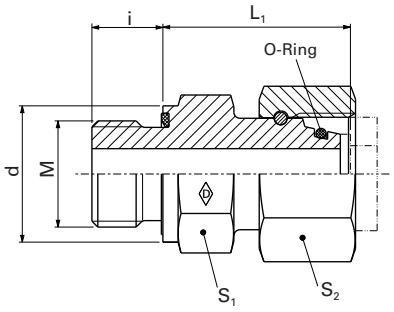
△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
**Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
*For FPM (e.g. Viton) see price list / available on request

Special parts are available on request.

EGESD ... M-WD

EGESD ... M-WD-1.4571

- with taper and O-ring made from NBR* (e.g. Perbunan) for steel
- with taper and O-ring made from FKM (e.g. Viton) for stainless steel (1.4571)
- Metric stud type E to DIN EN ISO 9974-2





F

												Stud EGESD ... M-WD	Stud Stainless steel (1.4571) EGESD ... M-WD-VI-1.4571**
Series	PN bar (psi)	Tube outer diameter	M	Model	kg/ 100 pc.	L_1	i	d	S_1	S_2	*O-ring	Part no.	Part no.
L	500 (7252)	6	M 10 x 1	**EGESD 6 LM-WD**	3.6	24.5	8	13.9	14	17	4.5 x 1.5	**WAL063641**	**WAL602795**
		8	M 12 x 1.5	**EGESD 8 LM-WD**	5.7	26.5	12	16.9	17	17	6 x 1.5	**WAL063642**	**WAL617617**
		10	M 14 x 1.5	**EGESD 10 LM-WD**	5.8	27.5	12	18.9	19	19	8.5 x 1.5	**WAL063643**	**WAL615649**
	400 (5801)	12	M 16 x 1.5	**EGESD 12 LM-WD**	7.5	30.5	12	21.9	22	22	10 x 1.5	**WAL063644**	**WAL613252**
		15	M 18 x 1.5	**EGESD 15 LM-WD**	14.4	31.5	12	23.9	24	27	12 x 2	**WAL063645**	**WAL617618**
		18	M 22 x 1.5	**EGESD 18 LM-WD**	15.2	31.5	14	26.9	27	32	15 x 2	**WAL063646**	**WAL615369**
	250 (3626)	22	M 26 x 1.5	**EGESD 22 LM-WD**	20.2	32.5	16	31.9	32	36	20 x 2	**WAL063647**	**WAL615318**
		28	M 33 x 2	**EGESD 28 LM-WD**	35.6	35	18	39.9	41	46	26 x 2	**WAL063648**	**WAL617619**
		35	M 42 x 2	**EGESD 35 LM-WD**	50.7	42.5	20	49.9	50	50	32 x 2.5	**WAL063649**	**WAL615713**
		42	M 48 x 2	**EGESD 42 LM-WD**	66.4	46.5	22	54.9	55	60	38 x 2.5	**WAL063650**	**WAL617620**
S	800 (11603)	6	M 12 x 1.5	**EGESD 6 SM-WD**	5.6	27	12	16.9	17	17	4.5 x 1.5	**WAL063651**	**WAL617621**
		8	M 14 x 1.5	**EGESD 8 SM-WD**	6.2	29.5	12	18.9	19	19	6 x 1.5	**WAL063652**	**WAL617622**
		10	M 16 x 1.5	**EGESD 10 SM-WD**	9.2	32	12	21.9	22	22	8.5 x 1.5	**WAL063653**	**WAL617623**
	630 (9137)	12	M 18 x 1.5	**EGESD 12 SM-WD**	11.0	34	12	23.9	24	24	10 x 1.5	**WAL063654**	**WAL617624**
		14	M 20 x 1.5	**EGESD 14 SM-WD**	17.0	36.5	14	25.9	27	27	12 x 2	**WAL063655**	
		16	M 22 x 1.5	**EGESD 16 SM-WD**	23.0	37	14	26.9	27	30	14 x 2	**WAL063656**	**WAL607908**
	420 (6091)	20	M 27 x 2	**EGESD 20 SM-WD**	28.6	43	16	31.9	32	36	17.3 x 2.4	**WAL063657**	**WAL610674**
		25	M 33 x 2	**EGESD 25 SM-WD**	49.4	48	18	39.9	41	46	22.3 x 2.4	**WAL063658**	**WAL617625**
	400 (5801)	30	M 42 x 2	**EGESD 30 SM-WD**	67.4	51	20	49.9	50	50	27.3 x 2.4	**WAL063659**	**WAL610619**
		38	M 48 x 2	**EGESD 38 SM-WD**	93.1	60	22	54.9	55	60	35 x 2.5	**WAL063660**	**WAL617626**

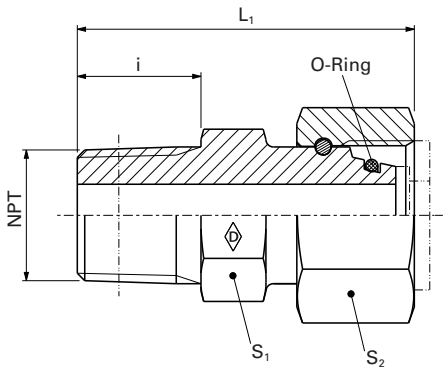
Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*For FPM (e.g. Viton) see price list / available on request

Special parts are available on request.

EGESD ... NPT

EGESD ... NPT-1.4571

- with taper and O-ring made from NBR* (e.g. Perbunan) for steel
- with taper and O-ring made from FKM (e.g. Viton) for stainless steel (1.4571)
- Stud with NPT thread to ANSI/ASME B1.20.1-1983





F

Series	PN bar (psi)	Tube outer diameter	NPT	Model	kg/ 100 pc.	i	L_1	S_1	S_2	*O-ring	Stud EGESD ... NPT Part no.	Stud Stainless steel (1.4571) EGESD ... NPT-VI-1.4571** Part no.
L	250 (3626)	6	1/8 NPT	**EGESD 6 L/ 1/8 NPT**	3.7	10	36.5	11	14	4.5 x 1.5	**WAL605721**	**WAL617627**
		8	1/4 NPT	**EGESD 8 L/ 1/4 NPT**	6.9	15	41.5	14	17	6 x 1.5	**WAL605722**	**WAL617628**
		10	1/4 NPT	**EGESD 10 L/ 1/4 NPT**	5.9	15	40.5	17	19	8.5 x 1.5	**WAL605723**	**WAL617629**
		12	3/8 NPT	**EGESD 12 L/ 3/8 NPT**	10.2	15	45.5	19	22	10 x 1.5	**WAL605724**	**WAL615256**
		15	1/2 NPT	**EGESD 15 L/ 1/2 NPT**	15.9	20	48	22	27	12 x 2	**WAL605725**	**WAL617630**
	160 (2321)	18	1/2 NPT	**EGESD 18 L/ 1/2 NPT**	15.8	20	47.5	27	32	15 x 2	**WAL605726**	**WAL617631**
		22	3/4 NPT	**EGESD 22 L/ 3/4 NPT**	21.6	20	49	30	36	20 x 2	**WAL605727**	**WAL617632**
	100 (1450)	28	1 NPT	**EGESD 28 L/ 1NPT**	43.9	25	57.5	36	46	26 x 2	**WAL605728**	**WAL618291**
		35	1 1/4 NPT	**EGESD 35 L/ 1 1/4 NPT**	50.5	26	65	46	50	32 x 2.5	**WAL605729**	**WAL617633**
		42	1 1/2 NPT	**EGESD 42 L/ 1 1/2 NPT**	77.0	26	65	50	60	38 x 2.5	**WAL605730**	**WAL617634**
S	630 (9137)	6	1/4 NPT	**EGESD 6 S/ 1/4 NPT**	6.1	15	41.5	17	17	4.5 x 1.5	**WAL605731**	**WAL617635**
		8	1/4 NPT	**EGESD 8 S/ 1/4 NPT**	6.2	15	41.5	17	19	6 x 1.5	**WAL605732**	**WAL617636**
		10	3/8 NPT	**EGESD 10 S/ 3/8 NPT**	9.0	15	44.5	19	22	8.5 x 1.5	**WAL605733**	**WAL617637**
		12	3/8 NPT	**EGESD 12 S/ 3/8 NPT**	9.5	15	45.5	19	24	10 x 1.5	**WAL605724**	**WAL618292**
		14	1/2 NPT	**EGESD 14 S/ 1/2 NPT**	17.7	20	53.5	22	27	12 x 2	**WAL605735**	**WAL617638**
	400 (5801)	16	1/2 NPT	**EGESD 16 S/ 1/2 NPT**	23.6	20	53.5	24	30	14 x 2	**WAL605734**	**WAL617639**
		20	3/4 NPT	**EGESD 20 S/ 3/4 NPT**	28.3	20	58	30	36	17.3 x 2.4	**WAL605737**	**WAL617640**
		25	1 NPT	**EGESD 25 S/ 1NPT**	50.4	25	68	36	46	22.3 x 2.4	**WAL605738**	**WAL618293**
	250 (3626)	30	1 1/4 NPT	**EGESD 30 S/ 1 1/4 NPT**	65.0	26	73.5	46	50	27.3 x 2.4	**WAL605739**	**WAL617641**
		38	1 1/2 NPT	**EGESD 38 S/ 1 1/2 NPT**	93.2	26	78	50	60	35 x 2.5	**WAL605740**	**WAL617642**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*For FPM (e.g. Viton) see price list / available on request

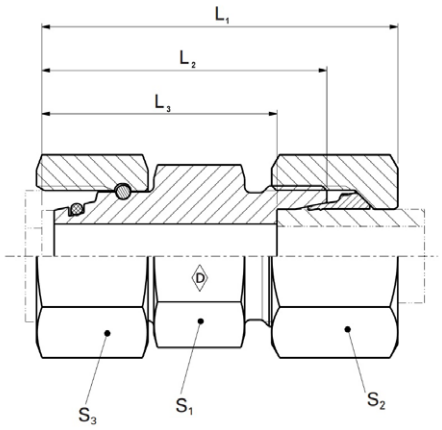
Special parts are available on request.

F

Special parts are available on request.

P-DAV ...

- with taper and O-ring made from NBR* (e.g. Perbunan)





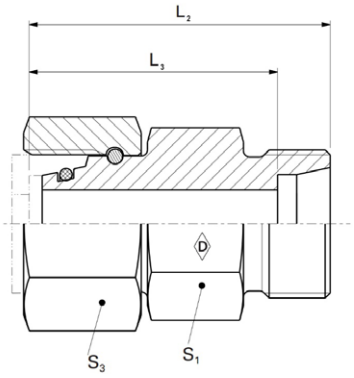
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Series	PN bar (psi)	Tube outer diameter	Model	kg/100 pc.	L_1	L_2	L_3	S_1	S_2	S_3	*O-ring	Walpro P-DAV... Part no.
L	500 (7252)	6	**P-DAV 6 L A4GS**	5.8	51	43.0	36	12	14	17	4.5x1.5	**WAL627441**
		8	**P-DAV 8 L A4GS**	6.6	51	43.0	36	14	17	17	6x1.5	**WAL627442**
		10	**P-DAV 10 L A4GS**	8.7	51	43.0	36	17	19	19	8.5x1.5	**WAL627443**
	400 (5801)	12	**P-DAV 12 L A4GS**	11.3	51	43.0	36	19	22	12	10x1.5	**WAL627444**
		15	**P-DAV 15 L A4GS**	17.1	51	43.0	36	24	27	27	12x2	**WAL627445**
		18	**P-DAV 18 L A4GS**	23.2	52	43.5	36	27	32	32	15x2	**WAL627446**
	250 (3626)	22	**P-DAV 22 L A4GS**	30.9	56	47.5	40	32	36	36	20x2	**WAL627447**
		28	**P-DAV 28 L A4GS**	46.4	57	47.5	40	41	41	46	26x2	**WAL627448**
		35	**P-DAV 35 L A4GS**	65.7	72	60.5	50	46	50	50	32x2.5	**WAL627449**
		42	**P-DAV 42 L A4GS**	106.5	83	71.0	60	55	60	60	38x2.5	**WAL627450**
S	800 (11603)	6	**P-DAV 6 S A4GS**	7.2	51	43.0	36	14	17	17	4.5x1.5	**WAL627451**
		8	**P-DAV 8 S A4GS**	9.1	51	43.0	36	17	19	19	6x1.5	**WAL627452**
		10	**P-DAV 10 S A4GS**	12.1	52	43.5	36	19	22	22	8.5x1.5	**WAL627453**
	630 (9137)	12	**P-DAV 12 S A4GS**	14.8	52	43.5	36	22	24	24	10x1.5	**WAL627454**
		14	**P-DAV 14 S A4GS**	19.9	58	48.0	40	24	27	27	12X2	**WAL627455**
		16	**P-DAV 16 S A4GS**	24.6	58	48.5	40	27	30	30	14x2	**WAL627456**
	400 (5801)	20	**P-DAV 20 S A4GS**	39.8	68	56.5	46	32	36	36	17.3x2.4	**WAL627457**
		25	**P-DAV 25 S A4GS**	71.1	74	62.0	50	41	46	46	22.3x2.4	**WAL627458**
		30	**P-DAV 30 S A4GS**	86.5	83	69.5	56	46	50	50	27.3x2.4	**WAL627459**
			P-DAV 38 S A4GS	123.3	91	76.0	60	55	60	60	35x2.5	**WAL627460**

L_2= approximate dimension if the union nut is tightened
*FPM (e.g. Viton) available on request

Special parts are available on request.

DAS ...





F

						System nuts for supplementing the stud (for technical data, see part D of this catalog)	
					Stud DAS...	W-R-Plus-M	Walform WF-M ... VI
Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	Part no.	Part no.	Part no.*
L	500 (7252)	6	**DAS 6 L A4GS**	4.6	**WAL627401**	**WAL628467**	**WAL625940**
		8	**DAS 8 L A4GS**	4.9	**WAL627402**	**WAL628468**	**WAL625941**
		10	**DAS 10 L A4GS**	6.5	**WAL627403**	**WAL628469**	**WAL625942**
	400 (5801)	12	**DAS 12 L A4GS**	8.3	**WAL627404**	**WAL628470**	**WAL625943**
		15	**DAS 15 L A4GS**	12.2	**WAL627405**	**WAL628471**	**WAL625944**
		18	**DAS 18 L A4GS**	16.2	**WAL627406**	**WAL628472**	**WAL625945**
	250 (3626)	22	**DAS 22 L A4GS**	21.7	**WAL627407**	**WAL628473**	**WAL625946**
		28	**DAS 28 L A4GS**	36.0	**WAL627408**	**WAL628474**	**WAL625947**
		35	**DAS 35 L A4GS**	49.7	**WAL627409**	**WAL628475**	**WAL625948**
		42	**DAS 42 L A4GS**	81.5	**WAL627410**	**WAL628476**	**WAL625949**
S	800 (11603)	6	**DAS 6 S A4GS**	5.2	**WAL627411**	**WAL628477**	**WAL625950**
		8	**DAS 8 S A4GS**	6.8	**WAL627412**	**WAL628478**	**WAL625951**
		10	**DAS 10 S A4GS**	8.7	**WAL627413**	**WAL628479**	**WAL625952**
	630 (9137)	12	**DAS 12 S A4GS**	10.8	**WAL627414**	**WAL628480**	**WAL625953**
		14	**DAS 14 S A4GS**	14.3	**WAL627415**		
		16	**DAS 16 S A4GS**	17.2	**WAL627416**	**WAL628481**	**WAL625954**
	400 (5801)	20	**DAS 20 S A4GS**	28.7	**WAL627417**	**WAL628482**	**WAL625955**
		25	**DAS 25 S A4GS**	49.1	**WAL627418**	**WAL628483**	**WAL625956**
		30	**DAS 30 S A4GS**	62.9	**WAL627419**	**WAL628484**	**WAL625957**
		38	**DAS 38 S A4GS**	89.5	**WAL627420**	**WAL628485**	**WAL625958**

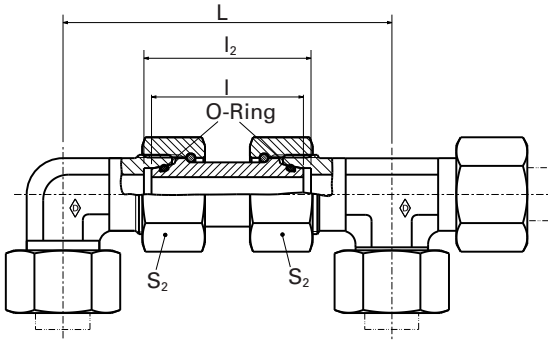
Special parts are available on request.

F

SNV ...

SNV ...-1.4571

- for steel, with taper and O-rings made from NBR* (e.g. Perbunan) at both ends
- for stainless steel (1.4571), with taper and O-rings made from FKM (e.g. Viton) at both ends
- in each case, one nut can be pushed back to the rear edge of the O-ring groove





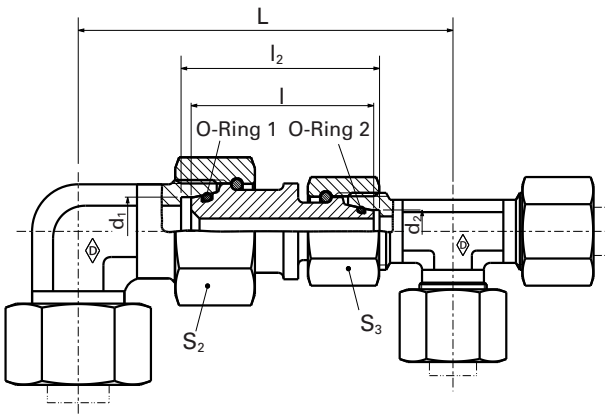
									Fitting SNV ...	Fitting Stainless steel (1.4571) SNV ... -VI-1.4571**
Series	PN bar (psi)	Tube outer diameter	Model	L	l	l_2	S_2	*O-ring	Model	Part no.
L	500 (7252)	6	**SNV 6 L**	60	34	36	17	4.5 x 1.5	**WAL372938**	**WAL605650**
		8	**SNV 8 L**	64	34	36	17	6 x 1.5	**WAL372939**	**WAL614821**
		10	**SNV 10 L**	67	36	37	19	8.5 x 1.5	**WAL372940**	**WAL614822**
	400 (5801)	12	**SNV 12 L**	71	36	37	22	10 x 1.5	**WAL372941**	**WAL602792**
		15	**SNV 15 L**	82	39	40	27	12 x 2	**WAL372942**	**WAL613125**
		18	**SNV 18 L**	89.5	40.5	42.5	32	15 x 2	**WAL372943**	**WAL613126**
	250 (3626)	22	**SNV 22 L**	102	45	47	36	20 x 2	**WAL372944**	**WAL613249**
		28	**SNV 28 L**	110	47	49	46	26 x 2	**WAL372945**	**WAL615448**
		35	**SNV 35 L**	127	53	58	50	32 x 2.5	**WAL372946**	**WAL615456**
		42	**SNV 42 L**	139	53	59	60	38 x 2.5	**WAL372947**	**WAL615609**
S	800 (11603)	6	**SNV 6 S**	71	37	39	17	4.5 x 1.5	**WAL372948**	**WAL617643**
		8	**SNV 8 S**	73	37	39	19	6 x 1.5	**WAL069234**	**WAL607143**
		10	**SNV 10 S**	78	41	43	22	8.5 x 1.5	**WAL068948**	**WAL613325**
	630 (9137)	12	**SNV 12 S**	87	42	48	24	10 x 1.5	**WAL068950**	**WAL604350**
		14	**SNV 14 S**	92	45	48	27	12 x 2	**WAL372949**	**WAL617644**
		16	**SNV 16 S**	99	46	50	30	14 x 2	**WAL068088**	**WAL610011**
	420 (6091)	20	**SNV 20 S**	113	55	60	36	17.3 x 2.4	**WAL068090**	**WAL605521**
		25	**SNV 25 S**	126	58	66	46	22.3 x 2.4	**WAL061763**	**WAL605522**
	400 (5801)	30	**SNV 30 S**	144	62	73	50	27.3 x 2.4	**WAL068099**	**WAL613266**
		38	**SNV 38 S**	165	67	83	60	35 x 2.5	**WAL061765**	**WAL606413**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*For FPM (e.g. Viton) see price list / available on request

Special parts are available on request.

SNV .../.... L

- Reducer fittings
- with taper and O-rings made from NBR* (e.g. Perbunan) at both ends
- in each case, one nut can be pushed back to the rear edge of the O-ring groove
- Light-duty range





F

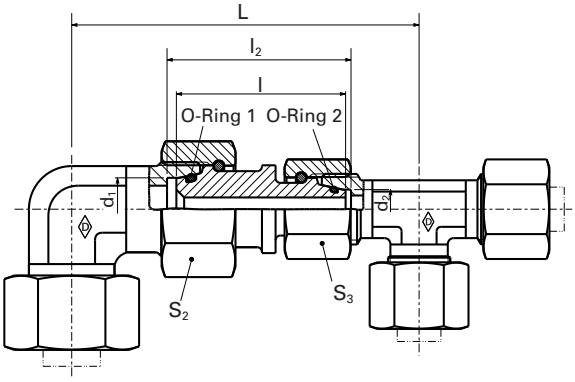
												Fitting SNV .../...
Series	PN bar (psi)	Tube outer diameter d_1	Tube outer diameter d_2	Model	L	l	l_2	S_1	S_2	*O-ring 1	*O-ring 2	Part no.
L	500 (7252)	8	6	**SNV 8/ 6 L**	64	34	36	17	17	6 x 1.5	4.5 x 1.5	**WAL612675**
		10	6	**SNV 10/ 6 L**	65.5	35	36.5	19	17	8.5 x 1.5	4.5 x 1.5	**WAL612676**
		10	8	**SNV 10/ 8 L**	65.5	35	36.5	19	17	8.5 x 1.5	6 x 1.5	**WAL612677**
	400 (5801)	12	6	**SNV 12/ 6 L**	67.5	35	36.5	22	17	10 x 1.5	4.5 x 1.5	**WAL612678**
		12	8	**SNV 12/ 8 L**	68.5	36	37.5	22	17	10 x 1.5	6 x 1.5	**WAL374358**
		12	10	**SNV 12/10 L**	69.5	36.5	37.5	22	19	10 x 1.5	8.5 x 1.5	**WAL612679**
		15	8	**SNV 15/ 8 L**	73	36.5	38	27	17	12 x 2	6 x 1.5	**WAL612680**
		15	10	**SNV 15/10 L**	74.5	37.5	38.5	27	19	12 x 2	8.5 x 1.5	**WAL612681**
		15	12	**SNV 15/12 L**	83	44	45	27	22	12 x 2	10 x 1.5	**WAL612682**
		18	10	**SNV 18/10 L**	78	38	39.5	32	19	15 x 2	8.5 x 1.5	**WAL612683**
		18	12	**SNV 18/12 L**	80	38	39.5	32	22	15 x 2	10 x 1.5	**WAL612684**
		18	15	**SNV 18/15 L**	91	45	46.5	32	27	15 x 2	12 x 2	**WAL612685**
	250 (3626)	22	12	**SNV 22/12 L**	86.5	40.5	42	36	22	20 x 2	10 x 1.5	**WAL612686**
		22	15	**SNV 22/15 L**	92	42	43.5	36	27	20 x 2	12 x 2	**WAL612687**
		22	18	**SNV 22/18 L**	98	45	47	36	32	20 x 2	15 x 2	**WAL612688**
		28	15	**SNV 28/15 L**	96	43	44.5	41	27	26 x 2	12 x 2	**WAL612689**
		28	18	**SNV 28/18 L**	100	44	46	41	32	26 x 2	15 x 2	**WAL612690**
		28	22	**SNV 28/22 L**	106	46	48	41	36	26 x 2	20 x 2	**WAL612691**
		35	18	**SNV 35/18 L**	109.5	48	51.5	50	32	32 x 2.5	15 x 2	**WAL612692**
		35	22	**SNV 35/22 L**	115	49.5	53	50	36	32 x 2.5	20 x 2	**WAL612693**
		35	28	**SNV 35/28 L**	118.5	50	53.5	50	46	32 x 2.5	26 x 2	**WAL612694**
		42	22	**SNV 42/22 L**	121	49.5	53.5	60	36	38 x 2.5	20 x 2	**WAL612695**
		42	28	**SNV 42/28 L**	124.5	50	54	60	46	38 x 2.5	26 x 2	**WAL612696**
		42	35	**SNV 42/35 L**	133	53	58.5	60	50	38 x 2.5	32 x 2.5	**WAL612697**

*For FPM (e.g. Viton) see price list / available on request

Special parts are available on request.

SNV .../ ... S

- Reducer fittings
- with taper and O-rings made from NBR* (e.g. Perbunan) at both ends
- in each case, one nut can be pushed back to the rear edge of the O-ring groove
- Heavy-duty range





F

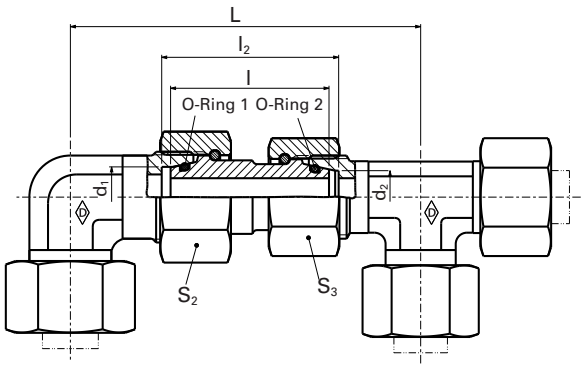
Series	PN bar (psi)	Tube outer diameter d_1	Tube outer diameter d_2	Model	L	l	l_2	S_1	S_2	*O-ring 1	*O-ring 2	Fitting SNV ... / ... Part no.
S	800 (11603)	8	6	**SNV 8/ 6 S**	72	37	39	19	17	6 x 1.5	4.5 x 1.5	**WAL612698**
		10	6	**SNV 10/ 6 S**	76	40.5	42.5	22	17	8.5 x 1.5	4.5 x 1.5	**WAL612699**
		10	8	**SNV 10/ 8 S**	75.5	39	41	22	19	8.5 x 1.5	6 x 1.5	**WAL612700**
	630 (9137)	12	6	**SNV 12/ 6 S**	80.5	39	43	24	17	10 x 1.5	4.5 x 1.5	**WAL612701**
		12	8	**SNV 12/ 8 S**	84.5	44	46	24	19	10 x 1.5	6 x 1.5	**WAL612702**
		12	10	**SNV 12/10 S**	82.5	41.5	43.5	24	22	10 x 1.5	8.5 x 1.5	**WAL612703**
		16	10	**SNV 16/10 S**	88.5	43.5	46.5	30	22	14 x 2.0	8.5 x 1.5	**WAL612704**
		16	12	**SNV 16/12 S**	96.5	47.5	50.5	30	24	14 x 2.0	10 x 1.5	**WAL612705**
	420 (6091)	20	12	**SNV 20/12 S**	100	48.5	52	36	24	17.3 x 2.4	10 x 1.5	**WAL612706**
		20	16	**SNV 20/16 S**	108	52.5	57	36	30	17.3 x 2.4	14 x 2	**WAL612707**
		25	16	**SNV 25/16 S**	112.5	52	58	46	30	22.3 x 2.4	14 x 2	**WAL612708**
		25	20	**SNV 25/20 S**	121	58	64.5	46	36	22.3 x 2.4	17.3 x 2.4	**WAL612709**
	400 (5801)	30	16	**SNV 30/16 S**	121.5	54	61.5	50	30	27.3 x 2.4	14 x 2	**WAL612710**
		30	20	**SNV 30/20 S**	128.5	58.5	66.5	50	36	27.3 x 2.4	17.3 x 2.4	**WAL612711**
		30	25	**SNV 30/25 S**	135	60	69.5	50	46	27.3 x 2.4	22.3 x 2.4	**WAL612712**
		38	20	**SNV 38/20 S**	139	61	71.5	60	36	35 x 2.5	17.3 x 2.4	**WAL612713**
		38	25	**SNV 38/25 S**	145.5	62.5	74.5	60	46	35 x 2.5	22.3 x 2.4	**WAL612714**
		38	30	**SNV 38/30 S**	154.5	64.5	78	60	50	35 x 2.5	27.3 x 2.4	**WAL612715**

*For FPM (e.g. Viton) see price list / available on request

Special parts are available on request.

SNV ... L/S-S/L

- Reducer fittings
- with taper and O-rings made from NBR* (e.g. Perbunan) at both ends
- in each case, one nut can be pushed back to the rear edge of the O-ring groove





F

											Fitting SNV ... / ...
PN bar (psi)	Tube outer diameter d_1	Tube outer diameter d_2	Model	L	l	l_2	S_1	S_2	*O-ring 1	*O-ring 2	Part no.
400 (5801)	6	6	**SNV 6L/ 6 S**	67.5	35.5	37.5	17	17	4.5 x 1.5	4.5 x 1.5	**WAL612716**
	8	8	**SNV 8L/ 8 S**	68.5	35.5	37.5	17	19	6 x 1.5	6 x 1.5	**WAL612717**
	10	10	**SNV 10L/10 S**	72.5	38.5	40	19	22	8.5 x 1.5	8.5 x 1.5	**WAL612718**
	12	12	**SNV 12L/12 S**	79	39	40.5	22	24	10 x 1.5	10 x 1.5	**WAL612719**
	18	16	**SNV 18L/16 S**	94.5	43.5	46.5	32	30	15 x 2	14 x 2	**WAL612720**
250 (3626)	22	20	**SNV 22L/20 S**	107.5	50	53.5	36	36	20 x 2	17.3 x 2.4	**WAL612721**
	28	25	**SNV 28L/25 S**	118	52.5	57.5	46	46	26 x 2	22.3 x 2.4	**WAL612722**
	35	30	**SNV 35L/30 S**	139	61	69	50	50	32 x 2.5	27.3 x 2.4	**WAL612723**
	42	38	**SNV 42L/38 S**	147	55	66	60	60	38 x 2.5	35 x 2.5	**WAL612724**
400 (5801)	16	15	**SNV 16S/15 L**	90.5	42.5	45	30	27	14 x 2	12 x 2	**WAL612725**
	20	18	**SNV 20S/18 L**	101	47.5	51	36	32	17.3 x 2.4	15 x 2	**WAL612726**
250 (3626)	25	22	**SNV 25S/22 L**	119.5	57	62	46	36	22.3 x 2.4	20 x 2	**WAL612727**
	30	28	**SNV 30S/28L**	131.5	59	65.5	50	46	27.3 x 2.4	26 x 2	**WAL612728**
	38	35	**SNV 38S/35 L**	148	62	72.5	60	50	35 x 2.5	32 x 2.5	**WAL612729**

*For FPM (e.g. Viton) see price list / available on request

Special parts are available on request.

G/I

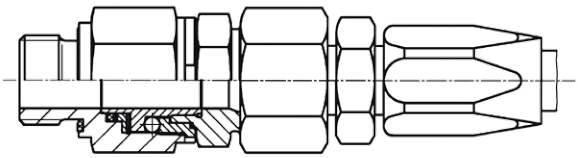
Swivel studs

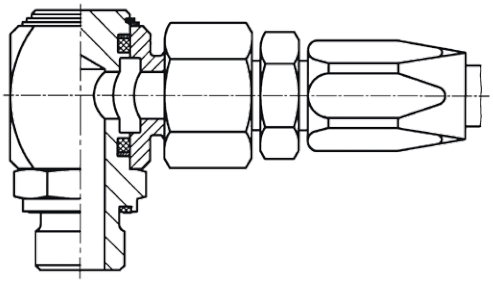


		Figure Fitting	Figure Stud	Model	Page
Swivel fittings / swivel studs	Technical information				G3
	Speed and starting torque				G4
	Male swivel elbow fittings / male swivel elbow studs			P-DGWEV / DGWES ... R-WD	G5 / G6
				P-DGWEV / DGWES ... M-WD	G7 / G8
	Swivel elbow fittings / swivel elbow studs			P-DGWV / DGWS ...	G9 / G10

G

Technical information





G

Application

Danfoss' Waltech swivels are connecting elements for the transmission of swivel and rotary movements between assemblies and tubes at low angular velocity.

The fittings are maintenance-free, prevent leakage losses and have low starting torques.

Note: The use of flexible fittings is recommended to compensate for any misalignment.

Safety

The nominal pressure ratings of the swivels are designed to provide a safety factor of 2.5. If used at lower pressure ranges, the safety factor will be higher accordingly.

Materials

Made from steel as standard. A stainless steel version (1.4571) is available on request.

Seals

The seals are made from NBR (e.g. Perbunan) as standard and can be easily replaced. In the case of special hydraulic fluids or higher operating temperatures, special sealing materials are available on request.

The service life of the sealing elements depends on the operating pressure and the sliding velocity. Seal kits are available on request.

Operating temperature

Temperature range of -30 °C to +100 °C

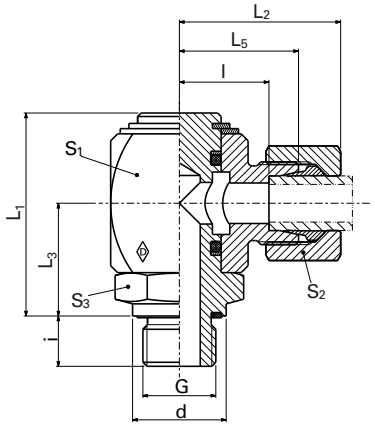
Speed and starting torque

DN (mm)	Model DGWES ...	DGWS ...	Permissible speed (min-1) at an operating pressure of 200 bar	400 bar	Starting torque (reference value) (Nm)	
	6 LR	6 L				
	6 L/R 1/4	6 S				
	6 SR	8 S				
	8 SR					
	6 LM					
	6 L/M 12 x 1.5					
	8 LM					
	6 SM					
5	8 SM		50	25	0.5 at	400 bar
	8 LR	8 L				
	10 LR	10 L				
	10 SR					
	12 L/R 1/4					
	8 L/M 14 x 1.5					
	10 LM					
6	10 SM					
	10 L/R 3/8	10 L				
	12 LR	12 S				
	12 SR					
	10 L/M 16 x 1.5					
	12 LM					
8	12 SM					
	12 L/R 1/2	12 L				
	14 SR	14 S				
	12 L/M 18 x 1.5		40	20	2.8 at	400 bar
	15 LM					
10	14 SM					
	15 LR	15 L				
	18 LR	16 S				
	16 SR					
	18 LM					
13	16 SM					
	22 LR	18 L				
	20 SR	20 S				
	22 LM					
16	20 SM					
	28 LR	22 L	15	-	3.0 at	200 bar
	25 SR	25 S				
	28 LM					
20	25 SM					
	35 LR	28 L				
	30 SR	30 S				
	35 LM					
25	30 SM					
	42 LR	35 L	8	-	7.0 at	200 bar
	38 SR	38 S				
	42 LM					
32	38 SM					
40	-	42 L	4	-	7.0 at	200 bar

These specifications are provided for reference only. Factors such as temperature, the degree of contamination and whether or not the fittings were installed under stress will affect these values.

P-DGWEV … R-WD

- with soft seal made from NBR* (e.g. Perbunan)
- Inch studs type E to DIN EN ISO 1179-2



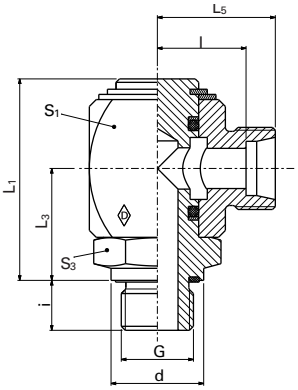


G

Series	PB bar (psi)	Tube outer diameter	DIN-ISO 228 (R ..., DIN 259) G	Model	L_1	L_2	L_3	L_5	l	i	d	S_1	S_2	S_3	Walpro P-DGWEV … Part no.
L	w250 (3626)	6	G 1/8 A	**P-DGWEV 6 LR-WD**	39	31	21.5	23.5	16.5	8	13.9	27	14	17	**WAL607570**
		6	G 1/4 A	**P-DGWEV 6 L/R1/4-WD**	40	31	22.5	23.5	16.5	12	18.9	27	14	19	**WAL607571**
		8	G 1/4 A	**P-DGWEV 8 LR-WD**	45.5	32.5	25	25	18	12	18.9	30	17	22	**WAL607572**
		10	G 1/4 A	**P-DGWEV 10 LR-WD**	45.5	33.5	25	26	19	12	18.9	30	19	22	**WAL607573**
		10	G 3/8 A	**P-DGWEV 10 L/R3/8-WD**	47.5	34.5	27	27	20	12	21.9	32	19	24	**WAL607574**
		12	G 3/8 A	**P-DGWEV 12 LR-WD**	47.5	34.5	27	27	20	12	21.9	32	22	24	**WAL607575**
		12	G 1/2 A	**P-DGWEV 12 L/R1/2-WD**	54	36.5	30	29	22	14	26.9	36	22	27	**WAL607576**
		15	G 1/2 A	**P-DGWEV 15 LR-WD**	59	40	33	32	25	14	26.9	40	27	32	**WAL607577**
	160 (2321)	18	G 1/2 A	**P-DGWEV 18 LR-WD**	59	40.5	33	32	24.5	14	26.9	40	32	32	**WAL607578**
		22	G 3/4 A	**P-DGWEV 22 LR-WD**	64	45	35.5	36.5	29	16	32.9	45	36	36	**WAL607579**
	100 (1450)	28	G 1 A	**P-DGWEV 28 LR-WD**	76	50.5	41.5	45.5	38	18	39.9	55	41	41	**WAL607580**
		35	G 1 1/4 A	**P-DGWEV 35 LR-WD**	92	59.5	51.5	48.5	38	20	49.9	65	50	50	**WAL607581**
		42	G 1 1/2 A	**P-DGWEV 42 LR-WD**	102	65	56.5	53.5	42.5	22	54.9	75	60	55	**WAL607582**
S	400 (5801)	6	G 1/4 A	**P-DGWEV 6 SR-WD**	40	33	22.5	25.5	18.5	12	18.9	27	17	19	**WAL607583**
		8	G 1/4 A	**P-DGWEV 8 SR-WD**	40	33	22.5	25.5	18.5	12	18.9	27	19	19	**WAL607584**
		10	G 3/8 A	**P-DGWEV 10 SR-WD**	45.5	35.5	25	27	19.5	12	21.9	30	22	22	**WAL607585**
		12	G 3/8 A	**P-DGWEV 12 SR-WD**	47.5	36.5	27	28	20.5	12	21.9	32	24	24	**WAL607586**
		14	G 1/2 A	**P-DGWEV 14 SR-WD**	54	41.5	30	32	24	14	26.9	36	27	27	**WAL607587**
		16	G 1/2 A	**P-DGWEV 16 SR-WD**	59	43.5	33	34	25.5	14	26.9	40	30	32	**WAL607588**
	250 (3626)	20	G 3/4 A	**P-DGWEV 20 SR-WD**	64	49.5	35.5	38.5	28	16	31.9	45	36	36	**WAL607589**
		25	G 1 A	**P-DGWEV 25 SR-WD**	76	57.5	41.5	45.5	33.5	18	39.9	55	46	41	**WAL607590**
		30	G 1 1/4 A	**P-DGWEV 30 SR-WD**	92	65.5	51.5	52.5	39	20	49.9	65	50	50	**WAL607591**
		38	G 1 1/2 A	**P-DGWEV 38 SR-WD**	102	74	56.5	59.5	43.5	22	54.9	75	60	55	**WAL607592**

L_2= approximate dimension if the union nut is tightened
*For FPM (e.g. Viton) see price list / available on request

DGWES ... R-WD



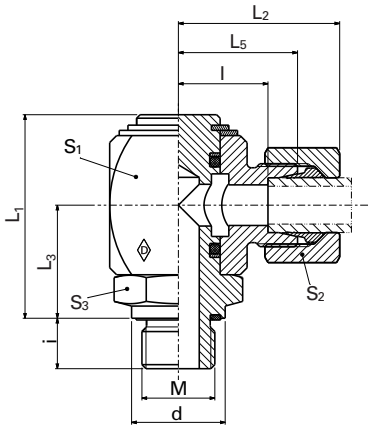


G

						System nuts for supplementing the stud (for technical data, see part D of this catalog)	
					Stud DGWES ...	WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI
Series	PB bar (psi)	Tube outer diameter	DIN-ISO 228 (R ..., DIN 259) G	Model	Part no.	Part no.	Part no.
L	250 (3626)	6	G 1/8 A	**DGWES 6 LR-WD**	**WAL608101**	**WAL628467**	**WAL625940**
		6	G 1/4 A	**DGWES 6 L/R 1/4-WD**	**WAL608102**	**WAL628467**	**WAL625940**
		8	G 1/4 A	**DGWES 8 LR-WD**	**WAL608103**	**WAL628468**	**WAL625941**
		10	G 1/4 A	**DGWES 10 LR-WD**	**WAL608104**	**WAL628469**	**WAL625942**
		10	G 3/8 A	**DGEWS 10 L/R 3/8-WD**	**WAL608105**	**WAL628469**	**WAL625942**
		12	G 3/8 A	**DGWES 12 LR-WD**	**WAL608106**	**WAL628470**	**WAL625943**
		12	G 1/2 A	**DGEWS 12 L/R 1/2-WD**	**WAL608107**	**WAL628470**	**WAL625943**
		15	G 1/2 A	**DGWES 15 LR-WD**	**WAL608108**	**WAL628471**	**WAL625944**
	160 (2321)	18	G 1/2 A	**DGWES 18 LR-WD**	**WAL608109**	**WAL628472**	**WAL625945**
		22	G 3/4 A	**DGWES 22 LR-WD**	**WAL608110**	**WAL628473**	**WAL625946**
	100 (1450)	28	G 1 A	**DGWES 28 LR-WD**	**WAL608111**	**WAL628474**	**WAL625947**
		35	G 1 1/4 A	**DGWES 35 LR-WD**	**WAL608112**	**WAL628475**	**WAL625948**
		42	G 1 1/2 A	**DGWES 42 LR-WD**	**WAL608113**	**WAL628476**	**WAL625949**
S	400 (5801)	6	G 1/4 A	**DGWES 6 SR-WD**	**WAL608114**	**WAL628477**	**WAL625950**
		8	G 1/4 A	**DGWES 8 SR-WD**	**WAL608115**	**WAL628478**	**WAL625951**
		10	G 3/8 A	**DGWES 10 SR-WD**	**WAL608116**	**WAL628479**	**WAL625952**
		12	G 3/8 A	**DGWES 12 SR-WD**	**WAL608117**	**WAL628480**	**WAL625953**
		14	G 1/2 A	**DGWES 14 SR-WD**	**WAL608118**		
		16	G 1/2 A	**DGWES 16 SR-WD**	**WAL608119**	**WAL628481**	**WAL625954**
	250 (3626)	20	G 3/4 A	**DGWES 20 SR-WD**	**WAL608120**	**WAL628482**	**WAL625955**
		25	G 1 A	**DGWES 25 SR-WD**	**WAL608121**	**WAL628483**	**WAL625956**
		30	G 1 1/4 A	**DGWES 30 SR-WD**	**WAL608122**	**WAL628484**	**WAL625957**
		38	G 1 1/2 A	**DGWES 38 SR-WD**	**WAL608123**	**WAL628485**	**WAL625958**

P-DGWEV ... M-WD

- with soft seal made from NBR* (e.g. Perbunan)
- Metric stud type E to DIN EN ISO 9974-2



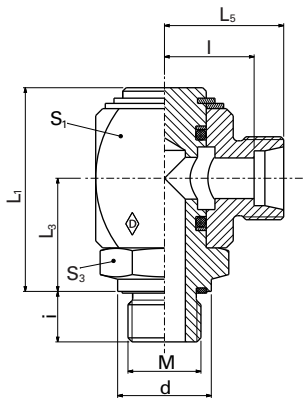


G

Series	PB bar (psi)	Tube outer diameter	M	Model	L_1	L_2	L_3	L_5	l	i	d	S_1	S_2	S_3	Walpro P-DGWEV ... Part no.
L	250 (3626)	6	M 10 x 1	**P-DGWEV 6 LM-WD**	39	31	21.5	23	16.5	8	13.9	27	14	17	**WAL607593**
		6	M 12 x 1.5	**P-DGWEV 6 L/M 12 x 1.5-WD**	40	31	22.5	23	16.5	12	16.9	27	14	19	**WAL607594**
		8	M 12 x 1.5	**P-DGWEV 8 LM-WD**	40	31	22.5	23	16.5	12	16.9	27	17	19	**WAL607595**
		8	M 14 x 1.5	**P-DGWEV 8 L/M 14 x 1.5-WD**	45.5	32.5	25	25	18	12	18.9	30	17	22	**WAL607596**
		10	M 14 x 1.5	**P-DGWEV 10 LM-WD**	45.5	33.5	25	26	19	12	18.9	30	19	22	**WAL607597**
		10	M 16 x 1.5	**P-DGWEV 10 L/M 16 x 1.5-WD**	47.5	34.5	27	27	20	12	21.9	32	19	24	**WAL607598**
		12	M 16 x 1.5	**P-DGWEV 12 LM-WD**	47.5	34.5	27	27	20	12	21.9	32	22	24	**WAL607599**
		12	M 18 x 1.5	**P-DGWEV 12 L/M 18 x 1.5-WD**	54	36.5	30	29	22	12	23.9	36	22	27	**WAL607600**
		15	M 18 x 1.5	**P-DGWEV 15 LM-WD**	54	38	30	30	23	12	23.9	36	27	27	**WAL607601**
	160 (2321)	18	M 22 x 1.5	**P-DGWEV 18 LM-WD**	59	40.5	33	32	24.5	14	26.9	40	32	32	**WAL607602**
		22	M 26 x 1.5	**P-DGWEV 22 LM-WD**	64	45	35.5	36	29	16	31.9	45	36	36	**WAL607603**
	100 (1450)	28	M 33 x 2	**P-DGWEV 28 LM-WD**	76	50.5	41.5	41	34	18	39.9	55	41	41	**WAL607604**
		35	M 42 x 2	**P-DGWEV 35 LM-WD**	92	59.5	51.5	48	38	20	49.9	65	50	50	**WAL607605**
		42	M 48 x 2	**P-DGWEV 42 LM-WD**	102	65	56.5	53	42.5	22	54.9	75	60	55	**WAL607606**
S	400 (5801)	6	M 12 x 1.5	**P-DGWEV 6 SM-WD**	40	33	22.5	25	18.5	12	16.9	27	17	19	**WAL607607**
		8	M 14 x 1.5	**P-DGWEV 8 SM-WD**	40	33	22.5	25	18.5	12	18.9	27	19	19	**WAL607608**
		10	M 16 x 1.5	**P-DGWEV 10 SM-WD**	45.5	35.5	25	27	19.5	12	21.9	30	22	22	**WAL607609**
		12	M 18 x 1.5	**P-DGWEV 12 SM-WD**	47.5	36.5	27	28	20.5	12	23.9	32	24	24	**WAL607610**
		14	M 20 x 1.5	**P-DGWEV 14 SM-WD**	54	41.5	30	32	24	14	25.9	36	27	27	**WAL607611**
		16	M 22 x 1.5	**P-DGWEV 16 SM-WD**	59	43.5	33	34	25.5	14	26.9	40	30	32	**WAL607612**
	250 (3626)	20	M 27 x 2	**P-DGWEV 20 SM-WD**	64	49.5	35.5	38	28	16	31.9	45	36	36	**WAL607613**
		25	M 33 x 2	**P-DGWEV 25 SM-WD**	76	57.5	41.5	45	33.5	18	39.9	55	46	41	**WAL607614**
		30	M 42 x 2	**P-DGWEV 30 SM-WD**	92	65.5	51.5	52	39	20	49.9	65	50	50	**WAL607615**
		38	M 48 x 2	**P-DGWEV 38 SM-WD**	102	74	56.5	59	43.5	22	54.9	75	60	55	**WAL607616**

L_2= approximate dimension if the union nut is tightened
*For FPM (e.g. Viton) see price list / available on request

DGWES ... M-WD



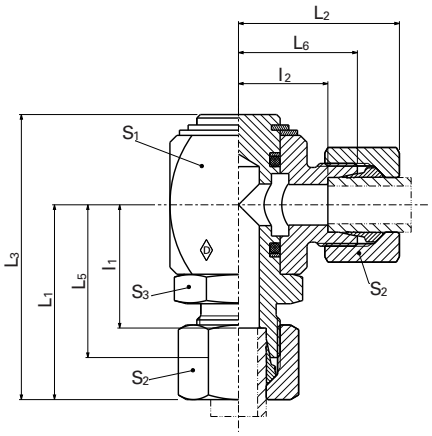


G

						System nuts for supplementing the stud (for technical data, see part D of this catalog)	
					Stud DGWES ...	WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI
Series	PB bar (psi)	Tube outer diameter	M	Model	Part no.	Part no.	Part no.
L	250 (3626)	6	M 10 x 1	**DGWES 6 LM-WD**	**WAL608124**	**WAL628467**	**WAL625940**
		6	M 12 x 1.5	**DGWES 6 L/M 12 x 1.5-WD**	**WAL608125**	**WAL628467**	**WAL625940**
		8	M 12 x 1.5	**DGWES 8 LM-WD**	**WAL608126**	**WAL628468**	**WAL625941**
		8	M 14 x 1.5	**DGWES 8 L/M 14 x 1.5-WD**	**WAL608127**	**WAL628468**	**WAL625941**
		10	M 14 x 1.5	**DGWES 10 LM-WD**	**WAL608128**	**WAL628469**	**WAL625942**
		10	M 16 x 1.5	**DGWES 10 L/M 16 x 1.5-WD**	**WAL608129**	**WAL628469**	**WAL625942**
		12	M 16 x 1.5	**DGWES 12 LM-WD**	**WAL608130**	**WAL628470**	**WAL625943**
		12	M 18 x 1.5	**DGWES 12 L/M 18 x 1.5-WD**	**WAL608131**	**WAL628470**	**WAL625943**
		15	M 18 x 1.5	**DGWES 15 LM-WD**	**WAL608132**	**WAL628471**	**WAL625944**
	160 (2321)	18	M 22 x 1.5	**DGWES 18 LM-WD**	**WAL608133**	**WAL628472**	**WAL625945**
		22	M 26 x 1.5	**DGWES 22 LM-WD**	**WAL608134**	**WAL628473**	**WAL625946**
	100 (1450)	28	M 33 x 2	**DGWES 28 LM-WD**	**WAL608135**	**WAL628474**	**WAL625947**
		35	M 42 x 2	**DGWES 35 LM-WD**	**WAL608136**	**WAL628475**	**WAL625948**
		42	M 48 x 2	**DGWES 42 LM-WD**	**WAL608137**	**WAL628476**	**WAL625949**
S	400 (5801)	6	M 12 x 1.5	**DGWES 6 SM-WD**	**WAL608138**	**WAL628477**	**WAL625950**
		8	M 14 x 1.5	**DGWES 8 SM-WD**	**WAL608139**	**WAL628478**	**WAL625951**
		10	M 16 x 1.5	**DGWES 10 SM-WD**	**WAL608140**	**WAL628479**	**WAL625952**
		12	M 18 x 1.5	**DGWES 12 SM-WD**	**WAL608141**	**WAL628480**	**WAL625953**
		14	M 20 x 1.5	**DGWES 14 SM-WD**	**WAL608142**		
		16	M 22 x 1.5	**DGWES 16 SM-WD**	**WAL608143**	**WAL628481**	**WAL625954**
	250 (3626)	20	M 27 x 2	**DGWES 20 SM-WD**	**WAL608144**	**WAL628482**	**WAL625955**
		25	M 33 x 2	**DGWES 25 SM-WD**	**WAL608145**	**WAL628483**	**WAL625956**
		30	M 42 x 2	**DGWES 30 SM-WD**	**WAL608146**	**WAL628484**	**WAL625957**
		38	M 48 x 2	**DGWES 38 SM-WD**	**WAL608147**	**WAL628485**	**WAL625958**

P-DGWV ...

- Tube connection at both ends



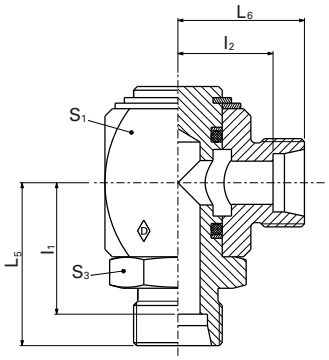


G

Series	PB bar (psi)	Tube outer diameter	Model	L_1	L_2	L_3	L_5	L_6	l_1	l_2	S_1	S_2	S_3	Walpro P-DGWV ... Part no.
L	250 (3626)	6	**P-DGWV 6 L**	39	31	56.5	31.5	23.5	24.5	16.5	27	14	19	**WAL373966**
		8	**P-DGWV 8 L**	40.5	32.5	61	33	25	26	18	30	17	22	**WAL373967**
		10	**P-DGWV 10 L**	43.5	34.5	64	36	27	29	20	32	19	24	**WAL373968**
		12	**P-DGWV 12 L**	46.5	36.5	70.5	39	29	32	22	36	22	27	**WAL373969**
		15	**P-DGWV 15 L**	50	40	76	42	32	35	25	40	27	32	**WAL373970**
	160 (2321)	18	**P-DGWV 18 L**	55	43	83.5	46.5	34.5	39	27	45	32	36	**WAL373971**
		22	**P-DGWV 22 L**	63	50	97.5	54.5	41.5	47	34	55	36	41	**WAL373972**
	100 (1450)	28	**P-DGWV 28 L**	71.5	55.5	112	62.5	46.5	55	39	65	41	50	**WAL373973**
		35	**P-DGWV 35 L**	80.5	64.5	126	69.5	53.5	59	43	75	50	55	**WAL373974**
		42	**P-DGWV 42 L**	92.5	72.5	146.5	81	61	70	50	90	60	70	**WAL373975**
S	400 (5801)	6	**P-DGWV 6 S**	41	33	58.5	33.5	25.5	26.5	18.5	27	17	19	**WAL373976**
		8	**P-DGWV 8 S**	41	33	58.5	33.5	25.5	26.5	18.5	27	19	19	**WAL373977**
		10	**P-DGWV 10 S**	43.5	35.5	64	35	27	27.5	19.5	30	22	22	**WAL373978**
		12	**P-DGWV 12 S**	45.5	36.5	66	37	28	29.5	20.5	32	24	24	**WAL373979**
		14	**P-DGWV 14 S**	51.5	41.5	75.5	42	32	34	24	36	27	27	**WAL373980**
		16	**P-DGWV 16 S**	63.5	43.5	79.5	44	34	35.5	25.5	40	30	32	**WAL373981**
	250 (3626)	20	**P-DGWV 20 S**	61.5	49.5	90	50.5	38.5	40	28	45	36	36	**WAL373982**
		25	**P-DGWV 25 S**	70.5	57.5	105	58.5	45.5	46.5	33.5	55	46	41	**WAL373983**
		30	**P-DGWV 30 S**	81.5	65.5	122	68.5	52.5	55	39	65	50	50	**WAL373984**
		38	**P-DGWV 38 S**	90	74	135.5	75.5	59.5	59.5	43.5	75	60	55	**WAL373985**

L_1, L_2 and L_3 = approximate dimensiowns if the union nuts are tightened

DGWS ...





G

					System nuts for supplementing the stud (for technical data, see part D of this catalog)	
				Stud DGWS ...	WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI
Series	PB bar (psi)	Tube outer diameter	Model	Part no.	Part no.	Part no.
L	250 (3626)	6	**DGWS 6 L**	**WAL060910**	**WAL628467**	**WAL625940**
		8	**DGWS 8 L**	**WAL060911**	**WAL628468**	**WAL625941**
		10	**DGWS 10 L**	**WAL060912**	**WAL628469**	**WAL625942**
		12	**DGWS 12 L**	**WAL060913**	**WAL628470**	**WAL625943**
		15	**DGWS 15 L**	**WAL060914**	**WAL628471**	**WAL625944**
	160 (2321)	18	**DGWS 18 L**	**WAL060915**	**WAL628472**	**WAL625945**
		22	**DGWS 22 L**	**WAL060916**	**WAL628473**	**WAL625946**
	100 (1450)	28	**DGWS 28 L**	**WAL060917**	**WAL628474**	**WAL625947**
		35	**DGWS 35 L**	**WAL060918**	**WAL628475**	**WAL625948**
		42	**DGWS 42 L**	**WAL060919**	**WAL628476**	**WAL625949**
S	400 (5801)	6	**DGWS 6 S**	**WAL060920**	**WAL628477**	**WAL625950**
		8	**DGWS 8 S**	**WAL060921**	**WAL628478**	**WAL625951**
		10	**DGWS 10 S**	**WAL060922**	**WAL628479**	**WAL625952**
		12	**DGWS 12 S**	**WAL060923**	**WAL628480**	**WAL625953**
		14	**DGWS 14 S**	**WAL060924**		
		16	**DGWS 16 S**	**WAL060925**	**WAL628481**	**WAL625954**
	250 (3626)	20	**DGWS 20 S**	**WAL060926**	**WAL628482**	**WAL625955**
		25	**DGWS 25 S**	**WAL060927**	**WAL628483**	**WAL625956**
		30	**DGWS 30 S**	**WAL060928**	**WAL628484**	**WAL625957**
		38	**DGWS 38 S**	**WAL060929**	**WAL628485**	**WAL625958**

G/II

Check valves, shuttle valves, high-pressure ball valves

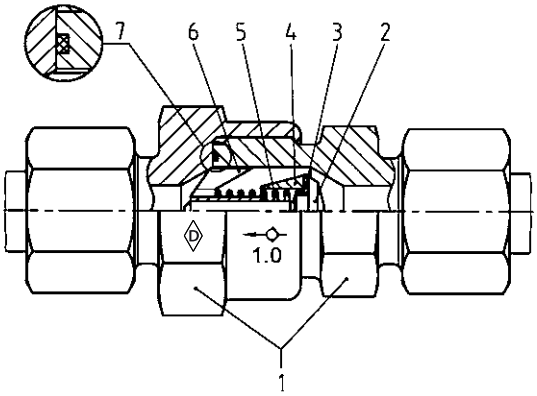


		Figure Fitting	Figure Stud	Model	Page
Check valve	Technical information				G13
	Valve insert				G14
	Check valve (fitting / stud)			P-RV / RS ...	G15 / G16
	Male check valve (fitting / stud)			P-RVV / RSV ... R-WD	G17 / G18
				P-RVV / RSV ... M-WD	G19 / G20
	Male check valve (fitting / stud)			P-RVZ / RSZ ... R-WD	G21 / G22
				P-RVZ / RSZ ... M-WD	G23 / G24
Shuttle valve	Technical information				G25
	Shuttle valve (fitting / stud)			P-TWV / TWS ...	G25 / G26
High-pressure ball valve	Technical information				G27
	Ball valve (stud)			KH-R ...	G28
	Ball valve (fitting / stud)			P-KHV / KHS ...	G29 / G30
	Compact diverter valve (fitting / stud)			P-KH3KV / KH3KS ...	G31 / G32
	Compact diverter valve (stud)			KH3KS-R ...	G33
	Three-way ball valve (stud)			KH3S-R ...	G34

G

Technical information

1. Stud
2. Bolt
3. Sealing washer
4. Sleeve
5. Compression spring
6. Valve guide
7. O-ring



G

Applications

For use with hydraulic fluids and compressed air. To ensure the suitability of the valves for your application, please specify the medium, where necessary also the concentration level, the maximum operating pressure including pressure peaks, the temperature and the frequency of valve actuation.

Design and construction

Danfoss' Waltech check valves are equipped with 90° tapers and a sealing washer made from FPM (e.g. Viton).

The internal parts are designed to optimize the media flow.

Operating temperature

Temperature range of -20 °C to +100 °C

Materials

1. Stud:	galvanized steel
2. Bolt:	galvanized steel
3. Sealing washer:	FPM
4. Sleeve:	galvanized steel
5. Compression spring:	steel
6. Valve guide:	
Tube outer diameter 6-28 mm:	brass
Tube outer diameter 30-42 mm:	galvanized steel
7. O-ring:	FPM

Opening pressures

The check valves come with a standard opening pressure of 1.0 bar.
Alternative opening pressures from 0.5 to 3.0 bar are available on request.

Version

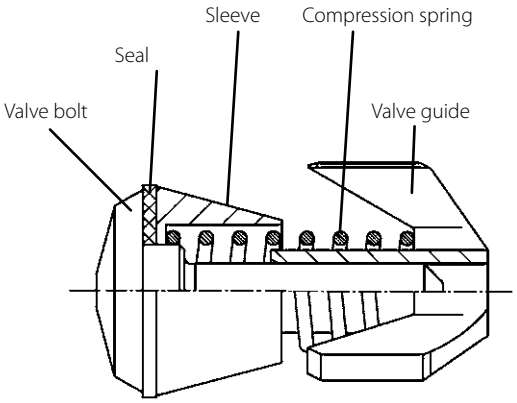
The port thread of the check valves is sealed by means of a soft seal.
The opening pressure and flow direction are indicated on the valves.

Assembly

The valve bodies come fully assembled and with the required opening pressure. When connecting or dismantling the tubes, the hexagon socket closest to the union nut must be held firmly in place to prevent the sealing edge at the inside of the valve body from coming loose.

- for opening pressure of 1 bar
- fitting dimensions available on request

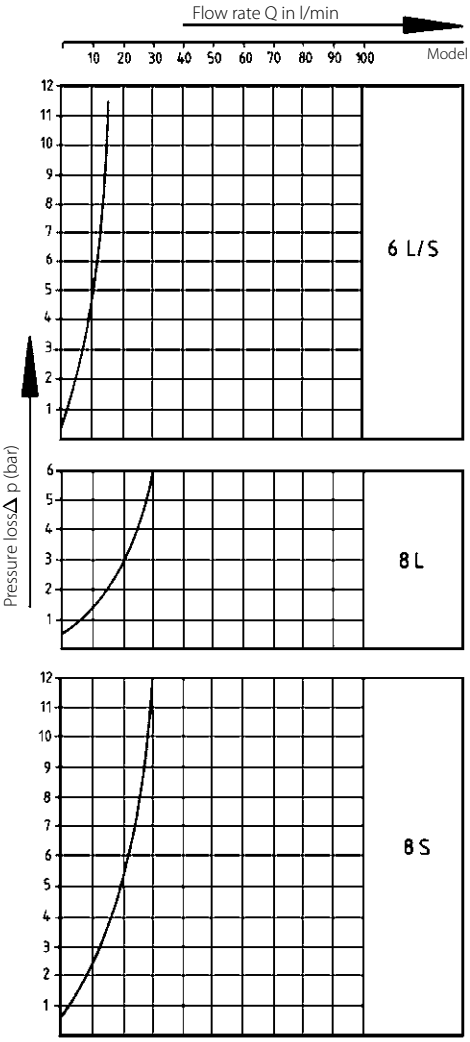
Nominal width	Tube outer diameter	Part no.
6	6-12	WAL032431
10	14-18	WAL032438
16	20-28	WAL032445
25	30	WAL032451
32	35 – 42	WAL032457

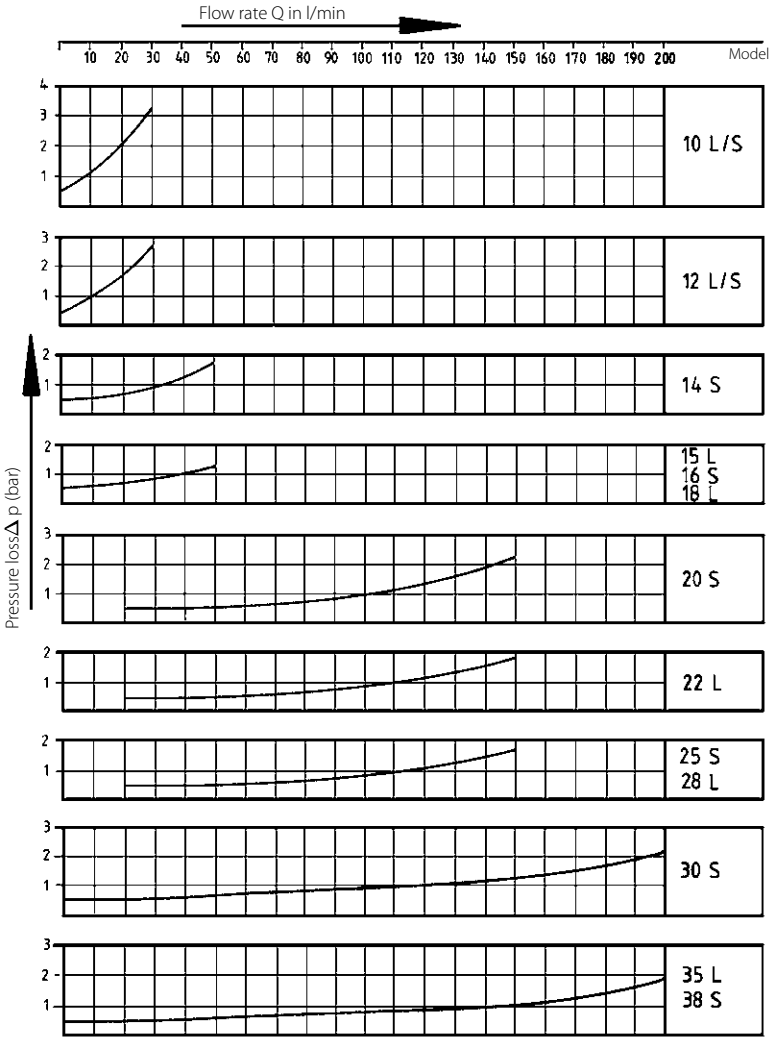


The valve insert with nominal size 16 must not be installed in reverse position.

Pressure loss if check valves are used

Measured using 35 mm² of hydraulic oil per second
Opening pressure 0.5 bar

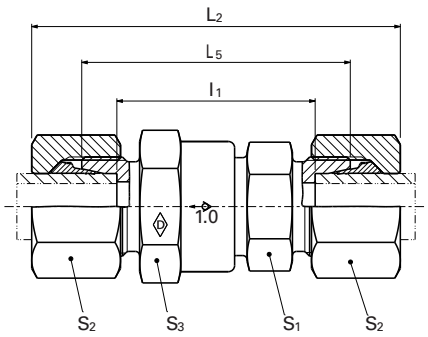




P-RV ...

P-RV ... -1.4571

- Tube connection at both ends





G

Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L_2	L_5	l_1	S_1	S_2	S_3	Ø of outlet	Walpro P-RV... Part no.	Walpro Stainless steel (1.4571 P-RV ... 1.4571* Part no.
L	400 (5801)	6	**P-RV 6 L**	12.7	67	52	38	22	14	27	4.0	**WAL374062**	**WAL620511**
		8	**P-RV 8 L**	14.7	67	52	38	22	17	27	6.0	**WAL374063**	**WAL620510**
		10	**P-RV 10 L**	14.8	67	52	38	22	19	27	7.5	**WAL374064**	**WAL620383**
		12	**P-RV 12 L**	19.1	68	53	39	22	22	27	7.5	**WAL374065**	**WAL620461**
		15	**P-RV 15 L**	27.3	74	58	44	27	27	32	11.0	**WAL374066**	**WAL620458**
		18	**P-RV 18 L**	35.5	80	63	48	27	32	32	11.0	**WAL374067**	**WAL620467**
	250 (3626)	22	**P-RV 22 L**	61.8	92	75	60	41	36	46	18.5	**WAL374068**	**WAL620404**
		28	**P-RV 28 L**	76.5	99	81	66	41	41	46	18.5	**WAL374069**	**WAL620389**
		35	**P-RV 35 L**	168.0	114	92	71	60	50	70	29.0	**WAL374070**	**WAL621556**
		42	**P-RV 42 L**	223.5	101	87	65	60	60	70	29.0	**WAL374483**	**WAL621558**
S	400 (5801)	6	**P-RV 6 S**	14.1	71	56	42	22	17	27	4.0	**WAL374071**	**WAL621559**
		8	**P-RV 8 S**	15.3	67	52	38	22	19	27	5.0	**WAL374072**	**WAL620707**
		10	**P-RV 10 S**	17.2	71	54	39	22	22	27	7.0	**WAL374073**	**WAL621546**
		12	**P-RV 12 S**	20.7	72	55	40	22	24	27	7.5	**WAL374074**	**WAL620708**
		14	**P-RV 14 S**	30.0	81	62	46	27	27	32	10.0	**WAL374075**	**WAL621549**
		16	**P-RV 16 S**	34.9	84	65	48	27	30	32	11.0	**WAL374076**	**WAL620709**
		20	**P-RV 20 S**	68.2	100	78	57	41	36	46	16.0	**WAL374077**	**WAL621552**
	250 (3626)	25	**P-RV 25 S**	94.5	105	81	57	41	46	46	18.5	**WAL374078**	**WAL620349**
		30	**P-RV 30 S**	128.5	117	91	64	50	50	55	24.0	**WAL374079**	**WAL621554**
		38	**P-RV 38 S**	234.7	128	99	67	60	60	70	29.0	**WAL374080**	**WAL621557**

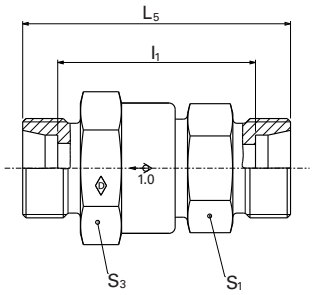
Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
Caution: The dimensions of the stainless steel version deviate from the specified check-valve dimensions.
*For complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2 = approximate dimension if the union nut is tightened

Series	PN bar (psi)	Tube outer diameter	Model**	Part no. of Walpro P-RV... (steel) with different opening pressures 0.1 bar Part no.	0.5 bar Part no.	2.0 bar Part no.	3.0 bar Part no.
L	400 (5801)	6	**P-RV 6 L / xx**	**WAL605586**	**WAL604490**	**WAL615163**	**WAL606308**
		8	**P-RV 8 L / xx**	**WAL604362**	**WAL374935**	**WAL609996**	**WAL604502**
		10	**P-RV 10 L / xx**	**WAL604404**	**WAL605089**	**WAL605683**	**WAL602863**
		12	**P-RV 12 L / xx**	**WAL604535**	**WAL603966**	**WAL604877**	**WAL604411**
		15	**P-RV 15 L / xx**	**WAL604478**	**WAL604384**	**WAL604645**	**WAL604727**
		18	**P-RV 18 L / xx**	**WAL604527**	**WAL372782**	**WAL604646**	**WAL374961**
	250 (3626)	22	**P-RV 22 L/ xx**	**WAL604528**	**WAL604841**	**WAL605092**	**WAL605396**
		28	**P-RV 28 L/ xx**	**WAL604632**	**WAL604653**	**WAL605209**	**WAL602566**
		35	**P-RV 35 L/ xx**		**WAL372781**	**WAL604726**	**WAL604137**
		42	**P-RV 42 L/ xx**		**WAL605397**	**WAL604669**	**WAL604670**
S	400 (5801)	6	**P-RV 6 S/ xx**		**WAL605289**		**WAL609920**
		8	**P-RV 8 S/ xx**	**WAL609999**	**WAL605288**		**WAL605499**
		10	**P-RV 10 S/ xx**	**WAL606342**	**WAL606749**	**WAL610036**	
		12	**P-RV 12 S/ xx**	**WAL610000**	**WAL604289**		**WAL604290**
		16	**P-RV 16 S/ xx**	**WAL605429**	**WAL602989**	**WAL605583**	**WAL604270**
		20	**P-RV 20 S/ xx**	**WAL604798**	**WAL605428**	**WAL606991**	**WAL604945**
	250 (3626)	25	**P-RV 25 S/ xx**	**WAL605589**	**WAL604329**	**WAL604621**	**WAL605151**
		30	**P-RV 30 S/ xx**		**WAL604675**	**WAL605390**	**WAL605416**
		38	**P-RV 38 S/ xx**		**WAL604608**	**WAL604316**	**WAL604622**

**e.g. P-RV 6L / 0.1

RS ...

RS ... -1.4571





G

Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	Stud RS ... Part no.	Stud Stainless steel (1.4571) RS ... -1.4571 Part no.	System nuts for supplementing the stud (for technical data, see part D of this catalog) WalringPlus W-R-Plus-M ... VI Part no.	Walform WF-M ... VI Part no.	Walform Stainless steel (1.4571) WF-M ... VI -1.4571* Part no.
L	400 (5801)	6	RS 6 L	12.0	WAL068052	WAL604852	WAL628467	WAL625940	WAL625980
		8	RS 8 L	12.5	WAL067394	WAL604850	WAL628468	WAL625941	WAL625981
		10	RS 10 L	11.5	WAL067395	WAL602518	WAL628469	WAL625942	WAL625982
		12	RS 12 L	12.5	WAL066490	WAL370758	WAL628470	WAL625943	WAL625983
		15	RS 15 L	18.5	WAL067396	WAL602473	WAL628471	WAL625944	WAL625984
		18	RS 18 L	23.0	WAL063191	WAL604499	WAL628472	WAL625945	WAL625985
	250 (3626)	22	RS 22 L	51.1	WAL067397	WAL603962	WAL628473	WAL625946	WAL625986
		28	RS 28 L	57.0	WAL066743	WAL602724	WAL628474	WAL625947	WAL625987
		35	RS 35 L	130.5	WAL067398	WAL617645	WAL628475	WAL625948	WAL625988
		42	RS 42 L	123.4	WAL067399	WAL617646	WAL628476	WAL625949	WAL625989
S	400 (5801)	6	RS 6 S	13.0	WAL067400	WAL617647	WAL628477	WAL625950	WAL625990
		8	RS 8 S	12.0	WAL067401	WAL607288	WAL628478	WAL625951	WAL625991
		10	RS 10 S	13.0	WAL067402	WAL617648	WAL628479	WAL625952	WAL625992
		12	RS 12 S	14.0	WAL063381	WAL602552	WAL628480	WAL625953	WAL625993
		14	RS 14 S	18.5	WAL067403	WAL617649			
		16	RS 16 S	22.0	WAL025190	WAL606504	WAL628481	WAL625954	WAL625994
		20	RS 20 S	66.2	WAL067404	WAL374975	WAL628482	WAL625955	WAL625995
	250 (3626)	25	RS 25 S	53.0	WAL067405	WAL372145	WAL628483	WAL625956	WAL625996
		30	RS 30 S	81.0	WAL067406	WAL617650	WAL628484	WAL625957	WAL625997
		38	RS 38 S	136.8	WAL067407	WAL374976	WAL628485	WAL625958	WAL625998

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
Caution: The dimensions of the stainless steel version deviate from the specified check-valve dimensions.

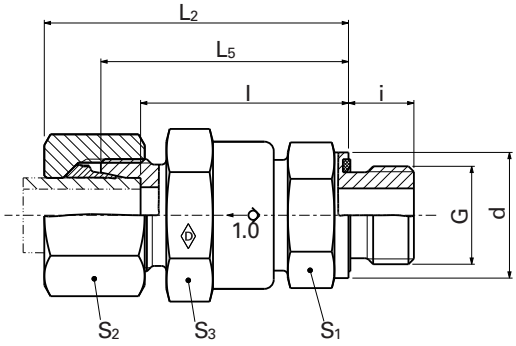
Series	PN bar (psi)	Tube outer diameter	Model**	Part no. of studs RS ... (steel) with different opening pressures 0.1 bar Part no.	0.5 bar Part no.	2.0 bar Part no.	3.0 bar Part no.
L	400 (5801)	6	RS 6 L /xx	WAL624116	WAL371999		WAL627053
		8	RS 8 L /xx	WAL624917	WAL372294	WAL370555	WAL618555
		10	RS 10 L /xx	WAL608429	WAL608962	WAL370556	WAL606715
		12	RS 12 L /xx	WAL610468	WAL371106	WAL371822	WAL371196
		15	RS 15 L /xx	WAL610624	WAL609797	WAL067987	WAL372975
		18	RS 18 L /xx	WAL619778	WAL602671	WAL063188	WAL608970
	250 (3626)	22	RS 22 L /xx	WAL624167	WAL067672	WAL607369	WAL602755
		28	RS 28 L /xx	WAL615505	WAL602668	WAL608083	WAL602669
		35	RS 35 L /xx		WAL370787	WAL371068	WAL371491
		42	RS 42 L /xx		WAL610697	WAL609691	WAL604484
S	400 (5801)	6	RS 6 S /xx			WAL614211	
		8	RS 8 S /xx	WAL623859	WAL615253		WAL619735
		10	RS 10 S /xx	WAL623351	WAL372300	WAL627054	
		12	RS 12 S /xx	WAL623317	WAL602670	WAL611683	WAL602553
		16	RS 16 S /xx	WAL618541	WAL615749	WAL609716	WAL610676
		20	RS 20 S /xx	WAL618542	WAL372545	WAL624143	WAL063189
	250 (3626)	25	RS 25 S /xx	WAL623421	WAL609709	WAL374824	WAL605407
		30	RS 30 S /xx		WAL612782		WAL612783
		38	RS 38 S /xx		WAL613331	WAL615780	WAL608243

**e.g. RS 6L / 0.1

P-RVV ... R-WD

P-RVV ... R-WD-1.4571

- Flow from male studs
- with soft seal made from NBR** (e.g. Perbunan) for steel
- with soft seal made from FKM (e.g. Viton) for stainless steel (1.4571)
- Inch studs type E to DIN EN ISO 1179-2





G

															Walpro P-RVV... R-WD	Walpro Stainless steel (1.4571) P-RVV ... R-WD-1.4571*
Series	PN bar (psi)	Tube outer diameter	DIN-ISO 228 (R..., DIN 259) G	Model	kg/ 100 pc.	d	L_2	L_5	l	i	S_1	S_2	S_3	Ø of outlet	Part no.	Part no.
L	400 (5801)	6	G 1/8 A	P-RVV 6 LR-WD	11.5	13.9	50.5	43	36	8	22	14	27	4.0	WAL373986	WAL621595
		8	G 1/4 A	P-RVV 8 LR-WD	13.5	18.9	50.5	43	36	12	22	17	27	6.0	WAL373987	WAL621599
		10	G 1/4 A	P-RVV 10 LR-WD	12.8	18.9	48.5	41	34	12	22	19	27	6.0	WAL373988	WAL621562
		12	G 3/8 A	P-RVV 12 LR-WD	16.9	21.9	53.5	46	39	12	22	22	27	7.5	WAL373989	WAL621566
		15	G 1/2 A	P-RVV 15 LR-WD	23.7	26.9	56	48	41	14	27	27	32	11.0	WAL373990	WAL621572
		18	G 1/2 A	P-RVV 18 LR-WD	28.9	26.9	61.5	53	45.5	14	27	32	32	11.0	WAL373991	WAL621576
	250 (3626)	22	G 3/4 A	P-RVV 22 LR-WD	52.3	31.9	69.5	61	53.5	16	41	36	46	18.0	WAL373992	WAL621580
		28	G 1 A	P-RVV 28 LR-WD	68.3	39.9	77	68	60.5	18	41	41	46	20.0	WAL373993	WAL621584
		35	G 1 1/4 A	P-RVV 35 LR-WD	155.5	49.9	88.5	77.5	67	20	60	50	70	29.0	WAL373994	WAL621588
		42	G 1 1/2 A	P-RVV 42 LR-WD	161.2	54.9	87.5	75.5	64.5	22	60	60	70	29.0	WAL602441	WAL621592
S	400 (5801)	6	G 1/4 A	P-RVV 6 SR-WD	13.3	18.9	52.5	45	38	12	22	17	27	4.0	WAL373995	WAL621597
		8	G 1/4 A	P-RVV 8 SR-WD	13.8	18.9	50.5	43	36	12	22	19	27	5.0	WAL373996	WAL621600
		10	G 3/8 A	P-RVV 10 SR-WD	15.5	21.9	53.5	45	37.5	12	22	22	27	7.5	WAL373997	WAL621564
		12	G 3/8 A	P-RVV 12 SR-WD	18.1	21.9	55.5	47	39.5	12	22	24	27	7.5	WAL373998	WAL621568
		14	G 1/2 A	P-RVV 14 SR-WD	24.7	26.9	59.5	50	42	14	27	27	32	10.0	WAL373999	WAL621570
		16	G 1/2 A	P-RVV 16 SR-WD	28.3	26.9	62.5	53	44.5	14	27	30	32	11.0	WAL374000	WAL621574
		20	G 3/4 A	P-RVV 20 SR-WD	55.3	31.9	74	63	52.5	16	41	36	46	16.0	WAL374001	WAL621578
	250 (3626)	25	G 1 A	P-RVV 25 SR-WD	73.6	39.9	77	65	53	18	41	46	46	20.0	WAL374002	WAL621582
		30	G 1 1/4 A	P-RVV 30 SR-WD	105.3	49.9	87	74	60.5	20	50	50	55	24.0	WAL374003	WAL621586
		38	G 1 1/2 A	P-RVV 38 SR-WD	200.4	54.9	96	81.5	65.5	22	60	60	70	29.0	WAL374004	WAL621590

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

Caution: The dimensions of the stainless steel version deviate from the specified check-valve dimensions.

*For complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list

L_2 = approximate dimension if the union nut is tightened

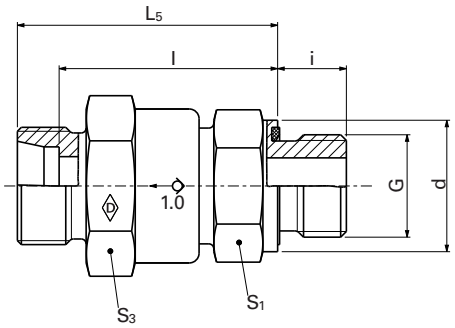
**FPM (e.g. Viton) see price list / available on request

				Part no. of Walpro P-RVV... R-WD (steel) with different opening pressures			
				0.1 bar	0.5 bar	2.0 bar	3.0 bar
Series	PN bar (psi)	Tube outer diameter	Model**	Part no.	Part no.	Part no.	Part no.
L	400 (5801)	6	P-RVV 6 LR-WD /xx	WAL604825	WAL606085	WAL608600	WAL607293
		8	P-RVV 8 LR-WD /xx	WAL610001	WAL606086	WAL609791	WAL612750
		10	P-RVV 10 LR-WD /xx	WAL604692	WAL606087	WAL623997	WAL607096
		12	P-RVV 12 LR-WD /xx	WAL608625	WAL604700	WAL604701	WAL605199
		15	P-RVV 15 LR-WD /xx	WAL374936	WAL606461	WAL610393	WAL605242
		18	P-RVV 18 LR-WD /xx	WAL605543	WAL601077	WAL604815	WAL603948
	250 (3626)	22	P-RVV 22 LR-WD /xx	WAL374937	WAL604772	WAL610398	WAL602657
		28	P-RVV 28 LR-WD /xx	WAL604904	WAL604300	WAL605503	WAL602642
		35	P-RVV 35 LR-WD /xx		WAL606410	WAL610399	
		42	P-RVV 42 LR-WD /xx		WAL605550	WAL606742	WAL609995
S	400 (5801)	6	P-RVV 6 SR-WD /xx		WAL604976		WAL611475
		8	P-RVV 8 SR-WD /xx	WAL610002			
		10	P-RVV 10 SR-WD /xx	WAL604543	WAL604495		
		12	P-RVV 12 SR-WD /xx	WAL610003	WAL617074	WAL604533	WAL604816
		16	P-RVV 16 SR-WD /xx	WAL608994	WAL603896		WAL606984
		20	P-RVV 20 SR-WD /xx	WAL604978	WAL605291	WAL606741	WAL604733
	250 (3626)	25	P-RVV 25 SR-WD /xx		WAL605290	WAL606741	WAL605292
		30	P-RVV 30 SR-WD /xx		WAL605294	WAL605293	WAL606988
		38	P-RVV 38 SR-WD /xx		WAL604063	WAL606996	

**e.g. P-RVV 6LR-WD / 0.1

RSV ... R-WD

RSV ... R-WD-1.4571





G

Series	PN bar (psi)	Tube outer diameter	DIN-ISO 228 (R..., DIN 259) G	Model	kg/ 100 pc.	Stud RSV ... R-WD Part no.	Stud Stainless steel (1.4571) RSV ... R-WD-1.4571 Part no.	System nuts for supplementing the stud (for technical data, see part D of this catalog) WalringPlus W-R-Plus-M ... VI Part no.	Walform WF-M ... VI Part no.	Walform Stainless steel (1.4571) WF-M ... VI -1.4571* Part no.
L	400 (5801)	6	G 1/8 A	RSV 6 LR-WD	12.0	WAL374839	WAL617651	WAL628467	WAL625940	WAL625980
		8	G 1/4 A	RSV 8 LR-WD	12.0	WAL370763	WAL605386	WAL628468	WAL625941	WAL625981
		10	G 1/4 A	RSV 10 LR-WD	11.5	WAL371045	WAL607115	WAL628469	WAL625942	WAL625982
		12	G 3/8 A	RSV 12 LR-WD	14.0	WAL068470	WAL617652	WAL628470	WAL625943	WAL625983
		15	G 1/2 A	RSV 15 LR-WD	19.0	WAL371264	WAL602751	WAL628471	WAL625944	WAL625984
		18	G 1/2 A	RSV 18 LR-WD	23.0	WAL602598	WAL605216	WAL628472	WAL625945	WAL625985
	250 (3626)	22	G 3/4 A	RSV 22 LR-WD	47.0	WAL060241	WAL604623	WAL628473	WAL625946	WAL625986
		28	G 1 A	RSV 28 LR-WD	52.5	WAL371746	WAL604216	WAL628474	WAL625947	WAL625987
		35	G 1 1/4 A	RSV 35 LR-WD	137.0	WAL372025	WAL605066	WAL628475	WAL625948	WAL625988
		42	G 1 1/2 A	RSV 42 LR-WD	140.0	WAL609782	WAL617653	WAL628476	WAL625949	WAL625989
S	400 (5801)	6	G 1/4 A	RSV 6 SR-WD	13.0	WAL612743	WAL617654	WAL628477	WAL625950	WAL625990
		8	G 1/4 A	RSV 8 SR-WD	12.0	WAL372786	WAL604974	WAL628478	WAL625951	WAL625991
		10	G 3/8 A	RSV 10 SR-WD	13.5	WAL371265	WAL605012	WAL628479	WAL625952	WAL625992
		12	G 3/8 A	RSV 12 SR-WD	14.5	WAL061960	WAL371656	WAL628480	WAL625953	WAL625993
		14	G 1/2 A	RSV 14 SR-WD	19.5	WAL618611	WAL602875			
		16	G 1/2 A	RSV 16 SR-WD	23.0	WAL371105	WAL602472	WAL628481	WAL625954	WAL625994
		20	G 3/4 A	RSV 20 SR-WD	59.5	WAL371197	WAL617655	WAL628482	WAL625955	WAL625995
	250 (3626)	25	G 1 A	RSV 25 SR-WD	54.0	WAL371745	WAL617656	WAL628483	WAL625956	WAL625996
		30	G 1 1/4 A	RSV 30 SR-WD	86.0	WAL370764	WAL617657	WAL628484	WAL625957	WAL625997
		38	G 1 1/2 A	RSV 38 SR-WD	144.1	WAL372026	WAL617658	WAL628485	WAL625958	WAL625998

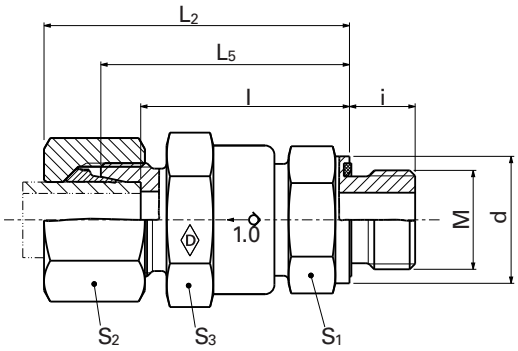
Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
Caution: The dimensions of the stainless steel version deviate from the specified check-valve dimensions.

Series	PN bar (psi)	Tube outer diameter	Model**	Part no. of studs RSV ... R-WD (steel) with different opening pressures 0.1 bar Part no.	0.5 bar Part no.	2.0 bar Part no.	3.0 bar Part no.
L	400 (5801)	6	RSV 6 LR-WD /xx	WAL371380			
		8	RSV 8 LR-WD /xx		WAL615264		
		10	RSV 10 LR-WD /xx		WAL372116	WAL615341	WAL609998
		12	RSV 12 LR-WD /xx	WAL610714	WAL609753		WAL612276
		15	RSV 15 LR-WD /xx	WAL627128	WAL624124		WAL615655
		18	RSV 18 LR-WD /xx	WAL612871	WAL614222		WAL611552
	250 (3626)	22	RSV 22 LR-WD /xx	WAL626560	WAL619704	WAL617116	WAL610629
		28	RSV 28 LR-WD /xx	WAL606804	WAL606077	WAL371720	WAL611626
		35	RSV 35 LR-WD /xx				
		42	RSV 42 LR-WD /xx		WAL624117	WAL625906	
S	400 (5801)	6	RSV 6 SR-WD /xx				
		8	RSV 8 SR-WD /xx	WAL624159	WAL610480		
		10	RSV 10 SR-WD /xx		WAL604330		WAL619702
		12	RSV 12 SR-WD /xx		WAL604331		
		16	RSV 16 SR-WD /xx	WAL623436	WAL617097		WAL624206
		20	RSV 20 SR-WD /xx		WAL614224		WAL618545
	250 (3626)	25	RSV 25 SR-WD /xx	WAL618544	WAL606645		WAL610542
		30	RSV 30 SR-WD /xx		WAL604487		WAL615601
		38	RSV 38 SR-WD /xx		WAL615662		

**e.g. RSV 6LR-WD / 0.1

P-RVV ... M-WD

- Flow from male studs
- with soft seal made from NBR* (e.g. Perbunan)
- Metric stud type E to DIN EN ISO 9974-2



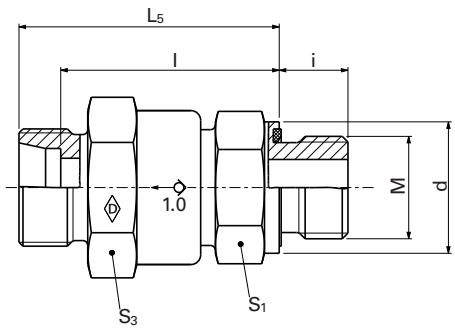


G

Series	PN bar (psi)	Tube outer diameter	M	Model	kg/ 100 pc.	d	L_2	L_5	l	i	S_1	S_2	S_3	Ø of outlet	Part no.
L	400 (5801)	6	M 10 x 1	**P-RVV 6 LM-WD**	11.5	13.9	50.5	43	36	8	22	14	27	4.0	**WAL374005**
		8	M 12 x 1.5	**P-RVV 8 LM-WD**	13.0	16.9	50.5	43	36	12	22	17	27	6.0	**WAL374006**
		10	M 14 x 1.5	**P-RVV 10 LM-WD**	12.6	18.9	48.5	41	34	12	22	19	27	7.0	**WAL374007**
		12	M 16 x 1.5	**P-RVV 12 LM-WD**	16.5	21.9	53.5	46	39	12	22	22	27	7.5	**WAL374008**
		15	M 18 x 1.5	**P-RVV 15 LM-WD**	21.2	23.9	56	48	41	12	27	27	32	11.0	**WAL374009**
		18	M 22 x 1.5	**P-RVV 18 LM-WD**	29.7	29.9	61.5	53	45.5	14	27	32	32	11.0	**WAL374010**
	250 (3626)	22	M 26 x 1.5	**P-RVV 22 LM-WD**	51.6	31.9	69.5	61	53.5	16	41	36	46	18.0	**WAL374011**
		28	M 33 x 2	**P-RVV 28 LM-WD**	68.2	39.9	77	68	60.5	18	41	41	46	18.5	**WAL374012**
		35	M 42 x 2	**P-RVV 35 LM-WD**	155.5	49.9	88.5	77.5	67	20	60	50	70	29.0	**WAL374013**
		42	M 48 x 2	**P-RVV 42 LM-WD**	161.2	54.9	87.5	75.5	64.5	22	60	60	70	29.0	**WAL609988**
S	400 (5801)	6	M 12 x 1.5	**P-RVV 6 SM-WD**	12.8	16.9	52.5	45	38	12	22	17	27	4.0	**WAL374014**
		8	M 14 x 1.5	**P-RVV 8 SM-WD**	13.6	18.9	50.5	43	36	12	22	19	27	5.0	**WAL374015**
		10	M 16 x 1.5	**P-RVV 10 SM-WD**	15.1	21.9	53.5	45	37.5	12	22	22	27	7.0	**WAL374016**
		12	M 18 x 1.5	**P-RVV 12 SM-WD**	18.7	23.9	55.5	47	39.5	12	24	24	27	7.5	**WAL374017**
		14	M 20 x 1.5	**P-RVV 14 SM-WD**	24.5	25.9	59.5	50	42	14	27	27	32	10.0	**WAL374018**
		16	M 22 x 1.5	**P-RVV 16 SM-WD**	29.1	26.9	62.5	53	44.5	14	27	30	32	11.0	**WAL374019**
		20	M 27 x 2	**P-RVV 20 SM-WD**	55.3	31.9	74	63	52.5	16	41	36	46	16.0	**WAL374020**
	250 (3626)	25	M 33 x 2	**P-RVV 25 SM-WD**	73.5	39.9	77	65	53	18	41	46	46	18.5	**WAL374021**
		30	M 42 x 2	**P-RVV 30 SM-WD**	105.3	49.9	87	74	60.5	20	50	50	55	24.0	**WAL374022**
		38	M 48 x 2	**P-RVV 38 SM-WD**	200.4	54.9	96	81.5	65.5	22	60	60	70	29.0	**WAL374023**

L_2 = approximate dimension if the union nut is tightened
*For FPM (e.g. Viton) see price list / available on request

RSV ... M-WD





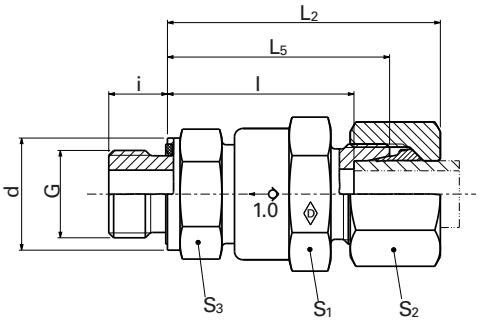
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						System nuts for supplementing the stud (for technical data, see part D of this catalog)	
					Stud RSV ... M-WD	WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI
Series	PN bar (psi)	Tube outer diameter	M	Model	Part no.	Part no.	Part no.
L	400 (5801)	6	M 10 x 1	**RSV 6 LM-WD**	**WAL610475**	**WAL628467**	**WAL625940**
		8	M 12 x 1.5	**RSV 8 LM-WD**	**WAL374842**	**WAL628468**	**WAL625941**
		10	M 14 x 1.5	**RSV 10 LM-WD**	**WAL067897**	**WAL628469**	**WAL625942**
		12	M 16 x 1.5	**RSV 12 LM-WD**	**WAL607416**	**WAL628470**	**WAL625943**
		15	M 18 x 1.5	**RSV 15 LM-WD**	**WAL067988**	**WAL628471**	**WAL625944**
		18	M 22 x 1.5	**RSV 18 LM-WD**	**WAL372118**	**WAL628472**	**WAL625945**
	250 (3626)	22	M 26 x 1.5	**RSV 22 LM-WD**	**WAL061479**	**WAL628473**	**WAL625946**
		28	M 33 x 2	**RSV 28 LM-WD**	**WAL604421**	**WAL628474**	**WAL625947**
		35	M 42 x 2	**RSV 35 LM-WD**	**WAL615467**	**WAL628475**	**WAL625948**
		42	M 48 x 2	**RSV 42 LM-WD**	**WAL615468**	**WAL628476**	**WAL625949**
S	400 (5801)	6	M 12 x 1.5	**RSV 6 SM-WD**	**WAL615469**	**WAL628477**	**WAL625950**
		8	M 14 x 1.5	**RSV 8 SM-WD**	**WAL615214**	**WAL628478**	**WAL625951**
		10	M 16 x 1.5	**RSV 10 SM-WD**	**WAL371695**	**WAL628479**	**WAL625952**
		12	M 18 x 1.5	**RSV 12 SM-WD**	**WAL371496**	**WAL628480**	**WAL625953**
		14	M 20 x 1.5	**RSV 14 SM-WD**	**WAL609976**		
		16	M 22 x 1.5	**RSV 16 SM-WD**	**WAL371266**	**WAL628481**	**WAL625954**
		20	M 27 x 2	**RSV 20 SM-WD**	**WAL609900**	**WAL628482**	**WAL625955**
	250 (3626)	25	M 33 x 2	**RSV 25 SM-WD**	**WAL025201**	**WAL628483**	**WAL625956**
		30	M 42 x 2	**RSV 30 SM-WD**	**WAL609901**	**WAL628484**	**WAL625957**
		38	M 48 x 2	**RSV 38 SM-WD**	**WAL068471**	**WAL628485**	**WAL625958**

P-RVZ ... R-WD

P-RVZ ... R-WD-1.4571

- Flow to male studs
- with soft seal made from NBR** (e.g. Perbunan) for steel
- with soft seal made from FKM (e.g. Viton) for stainless steel (1.4571)
- Inch studs type E to DIN EN ISO 1179-2





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Series	PN bar (psi)	Tube outer diameter	DIN-ISO 228 (R..., DIN 259) G	Model	kg/ 100 pc.	d	L_2	L_5	l	i	S_1	S_2	S_3	Ø of outlet	Walpro P-RVZ... R-WD Part no.	Walpro Stainless steel (1.4571) P-RVZ ... R-WD-1.4571* Part no.
L	400 (5801)	6	G 1/8 A	**P-RVZ 6 LR-WD**	11.5	13.9	50.5	43	36	8	22	14	27	4.0	**WAL374024**	**WAL621634**
		8	G 1/4 A	**P-RVZ 8 LR-WD**	13.5	18.9	50.5	43	36	12	22	17	27	6.0	**WAL374025**	**WAL621638**
		10	G 1/4 A	**P-RVZ 10 LR-WD**	12.8	18.9	48.5	41	34	12	22	19	27	6.0	**WAL374026**	**WAL621602**
		12	G 3/8 A	**P-RVZ 12 LR-WD**	16.9	21.9	53.5	46	39	12	22	22	27	7.5	**WAL374027**	**WAL621606**
		15	G 1/2 A	**P-RVZ 15 LR-WD**	23.7	26.9	56	48	41	14	27	27	32	11.0	**WAL374028**	**WAL621612**
		18	G 1/2 A	**P-RVZ 18 LR-WD**	28.9	26.9	61.5	53	45.5	14	27	32	32	11.0	**WAL374029**	**WAL621616**
	250 (3626)	22	G 3/4 A	**P-RVZ 22 LR-WD**	54.4	31.9	69.5	61	53.5	16	46**	36	41**	18.0	**WAL374030**	**WAL621620**
		28	G 1 A	**P-RVZ 28 LR-WD**	64.4	39.9	71	62	54.5	18	46**	41	41**	20.0	**WAL374031**	**WAL621624**
		35	G 1 1/4 A	**P-RVZ 35 LR-WD**	155.5	49.9	88.5	77.5	67	20	60	50	70	29.0	**WAL374032**	**WAL621628**
		42	G 1 1/2 A	**P-RVZ 42 LR-WD**	161.2	54.9	87.5	75.5	64.5	22	60	60	70	29.0	**WAL604475**	**WAL621632**
S	400 (5801)	6	G 1/4 A	**P-RVZ 6 SR-WD**	13.3	18.9	52.5	45	38	12	22	17	27	4.0	**WAL374033**	**WAL621636**
		8	G 1/4 A	**P-RVZ 8 SR-WD**	13.8	18.9	50.5	43	36	12	22	19	27	5.0	**WAL374034**	**WAL621640**
		10	G 3/8 A	**P-RVZ 10 SR-WD**	15.5	21.9	53.5	45	37.5	12	22	22	27	7.0	**WAL374035**	**WAL621604**
		12	G 3/8 A	**P-RVZ 12 SR-WD**	18.1	21.9	55.5	47	39.5	12	22	24	27	7.5	**WAL374036**	**WAL621608**
		14	G 1/2 A	**P-RVZ 14 SR-WD**	27.7	26.9	59.5	50	42	14	27	27	32	10.0	**WAL374037**	**WAL621610**
		16	G 1/2 A	**P-RVZ 16 SR-WD**	28.3	26.9	62.5	53	44.5	14	27	30	32	11.0	**WAL374038**	**WAL621614**
		20	G 3/4 A	**P-RVZ 20 SR-WD**	56.8	31.9	73	62	51.5	16	46**	36	41**	16.0	**WAL374039**	**WAL621618**
	250 (3626)	25	G 1 A	**P-RVZ 25 SR-WD**	74.8	39.9	77	65	53	18	46**	46	41**	20.0	**WAL374040**	**WAL621622**
		30	G 1 1/4 A	**P-RVZ 30 SR-WD**	105.3	49.9	87	74	60.5	20	50	50	55	24.0	**WAL374041**	**WAL621626**
		38	G 1 1/2 A	**P-RVZ 38 SR-WD**	200.4	54.9	96	81.5	65.5	22	60	60	70	29.0	**WAL374042**	**WAL621630**

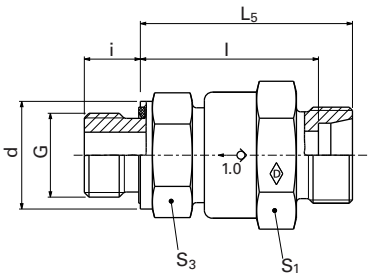
Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
Caution: The dimensions of the stainless steel version deviate from the specified check-valve dimensions.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened
**For FPM (e.g. Viton) see price list / available on request

Series	PN bar (psi)	Tube outer diameter	Model**	Part no. of Walpro P-RVZ ... R-WD (steel) with different opening pressures 0.1 bar Part no.	0.5 bar Part no.	2.0 bar Part no.	3.0 bar Part no.
L	400 (5801)	6	**P-RVZ 6 LR-WD /xx**	**WAL607749**	**WAL609950**		**WAL601143**
		8	**P-RVZ 8 LR-WD /xx**	**WAL604073**	**WAL604497**		
		10	**P-RVZ 10 LR-WD /xx**	**WAL608985**	**WAL602568**	**WAL610269**	**WAL607945**
		12	**P-RVZ 12 LR-WD /xx**	**WAL605404**	**WAL605653**	**WAL612357**	**WAL606312**
		15	**P-RVZ 15 LR-WD /xx**	**WAL605624**	**WAL604965**		**WAL613260**
		18	**P-RVZ 18 LR-WD /xx**	**WAL606805**	**WAL604016**	**WAL605504**	**WAL611655**
	250 (3626)	22	**P-RVZ 22 LR-WD /xx**	**WAL605671**	**WAL605197**		**WAL604301**
		28	**P-RVZ 28 LR-WD /xx**	**WAL604862**	**WAL604890**	**WAL605873**	**WAL602658**
		35	**P-RVZ 35 LR-WD /xx**		**WAL604938**		
		42	**P-RVZ 42 LR-WD /xx**		**WAL609892**	**WAL606053**	**WAL610012**
S	400 (5801)	10	**P-RVZ 10 SR-WD /xx**	**WAL608624**	**WAL610718**		
		12	**P-RVZ 12 SR-WD /xx**			**WAL604473**	**WAL605001**
		16	**P-RVZ 16 SR-WD /xx**	**WAL605584**			**WAL604434**
		20	**P-RVZ 20 SR-WD /xx**	**WAL604977**	**WAL608097**		**WAL604570**
	250 (3626)	25	**P-RVZ 25 SR-WD /xx**		**WAL623998**	**WAL606992**	**WAL604823**
		30	**P-RVZ 30 SR-WD /xx**		**WAL605560**	**WAL606261**	**WAL608322**
		38	**P-RVZ 38 SR-WD /xx**		**WAL605684**	**WAL605542**	**WAL606774**

**e.g. P-RVZ 6LR-WD / 0.1

RSZ ... R-WD

RSZ ... R-WD-1.4571





G

								System nuts for supplementing the stud (for technical data, see part D of this catalog)		
						Stud RSZ ... R-WD	Stud Stainless steel (1.4571) RSZ... R-WD-1.4571*	WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
Series	PN bar (psi)	Tube outer diameter	G	Model	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
L	400 (5801)	6	G 1/8 A	RSZ 6 LR-WD	12.0	WAL067531	WAL617677	WAL628467	WAL625940	WAL625980
		8	G 1/4 A	RSZ 8 LR-WD	12.0	WAL370766	WAL617678	WAL628468	WAL625941	WAL625981
		10	G 1/4 A	RSZ 10 LR-WD	10.4	WAL604922	WAL617679	WAL628469	WAL625942	WAL625982
		12	G 3/8 A	RSZ 12 L R-WD	14.0	WAL371413	WAL605134	WAL628470	WAL625943	WAL625983
		15	G 1/2 A	RSZ 15 LR-WD	19.5	WAL372065	WAL606993	WAL628471	WAL625944	WAL625984
		18	G 1/2 A	RSZ 18 LR-WD	23.0	WAL067899	WAL617680	WAL628472	WAL625945	WAL625985
	250 (3626)	22	G 3/4 A	RSZ 22 LR-WD	47.0	WAL067989	WAL617681	WAL628473	WAL625946	WAL625986
		28	G 1 A	RSZ 28 LR-WD	52.5	WAL370767	WAL605580	WAL628474	WAL625947	WAL625987
		35	G 1 1/4 A	RSZ 35 LR-WD	132.0	WAL371378	WAL605085	WAL628475	WAL625948	WAL625988
		42	G 1 1/2 A	RSZ 42 LR-WD	140.0	WAL610625	WAL617682	WAL628476	WAL625949	WAL625989
S	400 (5801)	6	G 1/4 A	RSZ 6 SR-WD	13.0	WAL608275	WAL602681	WAL628477	WAL625950	WAL625990
		8	G 1/4 A	RSZ 8 SR-WD	12.0	WAL370768	WAL617683	WAL628478	WAL625951	WAL625991
		10	G 3/8 A	RSZ 10 SR-WD	13.5	WAL068967	WAL604778	WAL628479	WAL625952	WAL625992
		12	G 3/8 A	RSZ 12 SR-WD	14.5	WAL604061	WAL617684	WAL628480	WAL625953	WAL625993
		14	G 1/2 A	RSZ 14 SR-WD	19.5	WAL615470	WAL617685			
		16	G 1/2 A	RSZ 16 SR-WD	23.0	WAL067898	WAL605166	WAL628481	WAL625954	WAL625994
		20	G 3/4 A	RSZ 20 SR-WD	47.0	WAL068472	WAL605086	WAL628482	WAL625955	WAL625995
	250 (3626)	25	G 1 A	RSZ 25 SR-WD	54.0	WAL371067	WAL602474	WAL628483	WAL625956	WAL625996
		30	G 1 1/4 A	RSZ 30 SR-WD	86.0	WAL067532	WAL617686	WAL628484	WAL625957	WAL625997
		38	G 1 1/2 A	RSZ 38 SR-WD	143.5	WAL067900	WAL617687	WAL628485	WAL625958	WAL625998

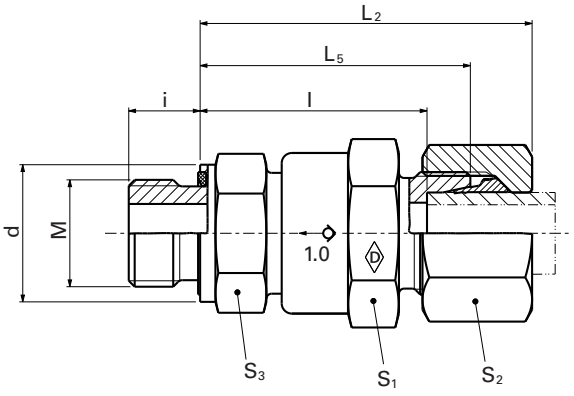
△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
△ **Caution:** The dimensions of the stainless steel version deviate from the specified check-valve dimensions.

				Part no. of studs RSZ ... R-WD (steel) with different opening pressures			
				0.1 bar	0.5 bar	2.0 bar	3.0 bar
Series	PN bar (psi)	Tube outer diameter	Model**	Part no.	Part no.	Part no.	Part no.
L	400 (5801)	6	RSZ 6 LR-WD /xx	WAL604094			
		8	RSZ 8 LR-WD /xx	WAL612870	WAL371012		
		10	RSZ 10 LR-WD /xx			WAL610970	WAL625812
		12	RSZ 12 LR-WD /xx	WAL610715	WAL604485	WAL610716	WAL611665
		15	RSZ 15 LR-WD /xx	WAL617096	WAL624119		WAL610248
		18	RSZ 18 LR-WD /xx	WAL624336	WAL604486	WAL605555	WAL611051
	250 (3626)	22	RSZ 22 LR-WD /xx		WAL615166	WAL624170	WAL615476
		28	RSZ 28 LR-WD /xx	WAL624284	WAL604921	WAL605556	WAL610685
		35	RSZ 35 LR-WD /xx		WAL612011	WAL612010	WAL612067
		42	RSZ 42 LR-WD /xx		WAL618616	WAL612012	WAL612494
S	400 (5801)	10	RSZ 10 SR-WD /xx	WAL066684	WAL624120		
		12	RSZ 12 SR-WD /xx		WAL610526		WAL626737
		16	RSZ 16 SR-WD /xx	WAL623437			WAL372358
		20	RSZ 20 SR-WD /xx		WAL615174		
	250 (3626)	25	RSZ 25 SR-WD /xx		WAL612077	WAL623470	WAL602577
		30	RSZ 30 SR-WD /xx		WAL615480		WAL624858
		38	RSZ 38 SR-WD /xx		WAL615663	WAL624901	WAL615600

**e.g. RSZ 6LR-WD / 0.1

P-RVZ ... M-WD

- Flow to male studs
- with soft seal made from NBR* (e.g. Perbunan)
- Metric stud type E to DIN EN ISO 9974-2



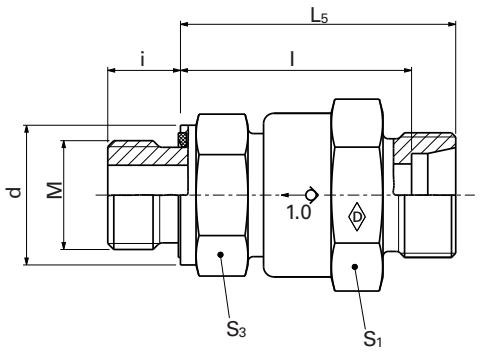


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															Walpro P-RVZ ... M-WD
Series	PN bar (psi)	Tube outer diameter	M	Model	kg/ 100 pc.	d	L_2	L_5	l	i	S_1	S_2	S_2	Ø of outlet	Part no.
L	400 (5801)	6	M 10 x 1	**P-RVZ 6 LM-WD**	11.5	13.9	50.5	43	36	8	22	14	27	4.0	**WAL374043**
		8	M 12 x 1.5	**P-RVZ 8 LM-WD**	13.0	16.9	50.5	43	36	12	22	17	27	6.0	**WAL374044**
		10	M 14 x 1.5	**P-RVZ 10 LM-WD**	12.6	18.9	48.5	41	34	12	22	19	27	7.0	**WAL374045**
		12	M 16 x 1.5	**P-RVZ 12 LM-WD**	16.5	21.9	53.5	46	39	12	22	22	27	7.5	**WAL374046**
		15	M 18 x 1.5	**P-RVZ 15 LM-WD**	21.2	21.9	56	48	41	12	27	27	32	11.0	**WAL374047**
		18	M 22 x 1.5	**P-RVZ 18 LM-WD**	29.7	26.9	61.5	53	45.5	14	27	32	32	11.0	**WAL374048**
	250 (3626)	22	M 26 x 1.5	**P-RVZ 22 LM-WD**	57.6	31.9	70.5	62	54.5	16	46**	36	41**	18.0	**WAL374049**
		28	M 33 x 2	**P-RVZ 28 LM-WD**	64.4	39.9	71	62	54.5	18	46**	41	41**	18.5	**WAL374050**
		35	M 42 x 2	**P-RVZ 35 LM-WD**	155.5	49.9	88.5	77.5	67	20	60	50	70	29.0	**WAL374051**
		42	M 48 x 2	**P-RVZ 42 LM-WD**	161.2	54.9	87.5	75.5	64.5	22	60	60	70	29.0	**WAL609989**
S	400 (5801)	6	M 12 x 1.5	**P-RVZ 6 SM-WD**	12.8	16.9	52.5	45	38	12	22	17	27	4.0	**WAL374052**
		8	M 14 x 1.5	**P-RVZ 8 SM-WD**	13.6	18.9	50.5	43	36	12	22	19	27	5.0	**WAL374053**
		10	M 16 x 1.5	**P-RVZ 10 SM-WD**	15.1	21.9	53.5	45	37.5	12	22	22	27	7.0	**WAL374054**
		12	M 18 x 1.5	**P-RVZ 12 SM-WD**	18.7	23.9	55.5	47	39.5	12	24	24	27	7.5	**WAL374055**
		14	M 20 x 1.5	**P-RVZ 14 SM-WD**	24.5	25.9	59.5	50	42	14	27	27	32	10.0	**WAL374056**
		16	M 22 x 1.5	**P-RVZ 16 SM-WD**	29.1	26.9	62.5	53	44.5	14	27	30	32	11.0	**WAL374057**
		20	M 27 x 2	**P-RVZ 20 SM-WD**	55.3	31.9	73	62	51.5	16	46**	36	41**	16.0	**WAL374058**
	250 (3626)	25	M 33 x 2	**P-RVZ 25 SM-WD**	80.5	39.9	77	65	53	18	46**	46	41**	18.5	**WAL374059**
		30	M 42 x 2	**P-RVZ 30 SM-WD**	105.3	49.9	87	74	60.5	20	50	50	55	24.0	**WAL374060**
		38	M 48 x 2	**P-RVZ 38 SM-WD**	200.4	54.9	96	81.5	65.5	22	60	60	70	29.0	**WAL374061**

L_2 = approximate dimension if the union nut is tightened
*For FPM (e.g. Viton) see price list / available on request

RSZ ... M-WD



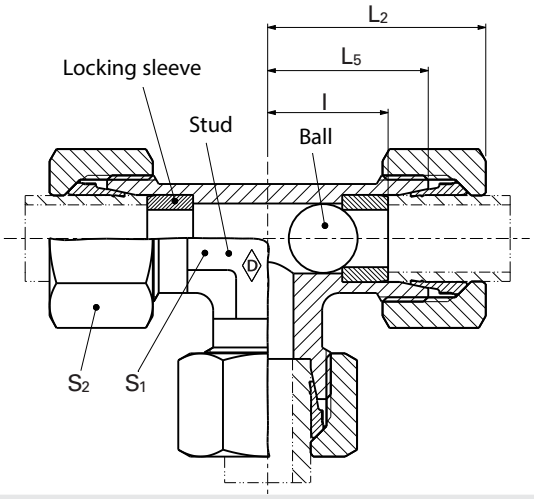


G

							System nuts for supplementing the stud (for technical data, see part D of this catalog)	
						Stud RSZ ... M-WD	WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI
Series	PN bar (psi)	Tube outer diameter	M	Model	kg/ 100 pc.	Part no.	Part no.	Part no.
L	400 (5801)	6	M 10 x 1	**RSZ 6 LM-WD**	12.0	**WAL615471**	**WAL628467**	**WAL625940**
		8	M 12 x 1.5	**RSZ 8 LM-WD**	12.1	**WAL067925**	**WAL628468**	**WAL625941**
		10	M 14 x 1.5	**RSZ 10 LM-WD**	11.0	**WAL602599**	**WAL628469**	**WAL625942**
		12	M 16 x 1.5	**RSZ 12 LM-WD**	14.0	**WAL370765**	**WAL628470**	**WAL625943**
		15	M 18 x 1.5	**RSZ 15 LM-WD**	18.5	**WAL602432**	**WAL628471**	**WAL625944**
		18	M 22 x 1.5	**RSZ 18 LM-WD**	23.0	**WAL371162**	**WAL628472**	**WAL625945**
	250 (3626)	22	M 26 x 1.5	**RSZ 22 LM-WD**	47.0	**WAL068991**	**WAL628473**	**WAL625946**
		28	M 33 x 2	**RSZ 28 LM-WD**	52.5	**WAL604405**	**WAL628474**	**WAL625947**
		35	M 42 x 2	**RSZ 35 LM-WD**	132.0	**WAL067533**	**WAL628475**	**WAL625948**
		42	M 48 x 2	**RSZ 42 LM-WD**	140.0	**WAL615472**	**WAL628476**	**WAL625949**
S	400 (5801)	6	M 12 x 1.5	**RSZ 6 SM-WD**	13.0	**WAL615473**	**WAL628477**	**WAL625950**
		8	M 14 x 1.5	**RSZ 8 SM-WD**	11.9	**WAL602874**	**WAL628478**	**WAL625951**
		10	M 16 x 1.5	**RSZ 10 SM-WD**	13.5	**WAL371694**	**WAL628479**	**WAL625952**
		12	M 18 x 1.5	**RSZ 12 SM-WD**	15.5	**WAL371461**	**WAL628480**	**WAL625953**
		14	M 20 x 1.5	**RSZ 14 SM-WD**	19.5	**WAL615474**		
		16	M 22 x 1.5	**RSZ 16 SM-WD**	23.0	**WAL371043**	**WAL628481**	**WAL625954**
		20	M 27 x 2	**RSZ 20 SM-WD**	47.0	**WAL610390**	**WAL628482**	**WAL625955**
	250 (3626)	25	M 33 x 2	**RSZ 25 SM-WD**	54.0	**WAL068992**	**WAL628483**	**WAL625956**
		30	M 42 x 2	**RSZ 30 SM-WD**	86.0	**WAL615278**	**WAL628484**	**WAL625957**
		38	M 48 x 2	**RSZ 38 SM-WD**	143.5	**WAL612045**	**WAL628485**	**WAL625958**

P-TWV ...

- Shuttle valve





G

Series	PB* bar (psi)	Tube outer diameter	Model	L_5	L_2	l	S_1	S_2	Walpro P-TWV ... Part no.
L	250 (3626)	8	**P-TWV 8L**	21	29	14	14	17	**WAL613224**
		10	**P-TWV 10L**	22	30	15	17	19	**WAL613225**
		12	**P-TWV 12L**	24	32	17	19	22	**WAL613226**
		15	**P-TWV 15L**	28	36	21	19	27	

L_2 = approximate dimension if the union nut is tightened
*With a safety factor of 1.5

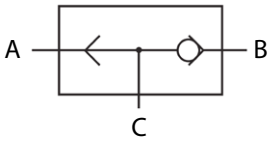
Material

Steel

Application

For use as an automatic diverter valve for hydraulic fluids within a closed hydraulic circuit. To ensure the functionality of the valve in each case, please specify the medium, where necessary also the concentration level, the maximum operating pressure including pressure peaks, the temperature and the frequency of valve actuation. Only suitable for connections that fit closely against the tube stop of the body.

Operating mode

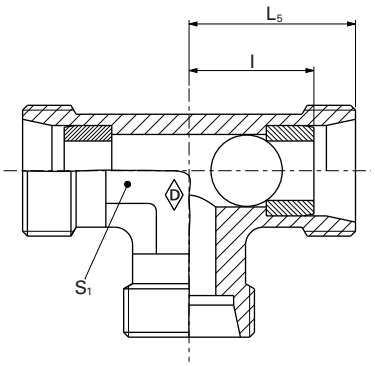


The port through which pressurized oil is applied (either A or B) must be connected to port C.
The port that is not pressurized will be closed by means of a movable ball that acts as a metal-to-metal seal.

Operating temperature

Temperature range of -40 °C to +120 °C

TWS ...



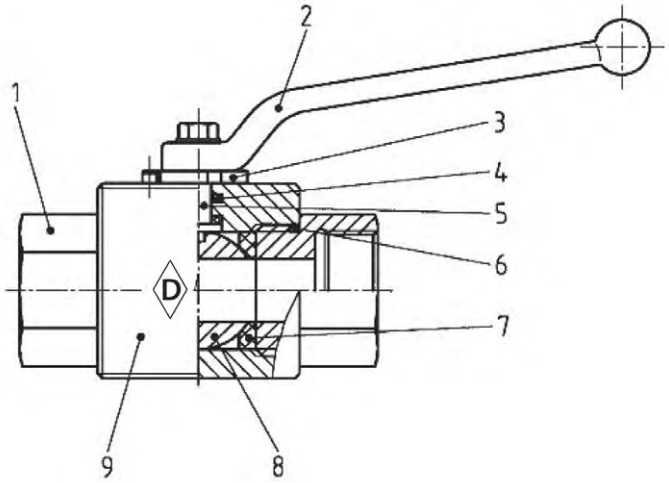


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					System nuts for supplementing the stud (for technical data, see part D of this catalog)	
				Stud TWS ...	WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI
Series	PB* bar (psi)	Tube outer diameter	Model	Part no.	Part no.	Part no.
L	250 (3626)	8	**TWS 8L**	**WAL611086**	**WAL628473**	**WAL625941**
		10	**TWS 10L**	**WAL612901**	**WAL628474**	**WAL625942**
		12	**TWS 12L**	**WAL612902**	**WAL628475**	**WAL625943**
		15	**TWS 15L**	**WAL624877**	**WAL628476**	**WAL625944**

Technical information

1. Adapter
2. Handle
3. Stop plate
4. O-ring
5. Selector shaft
6. O-ring
7. Sealing element
8. Ball
9. Body



Application

For use with hydraulic applications. For compressed air applications up to an operating pressure (PB) of 16 bar.Ball valves are available on request for compressed air applications above 16 bar.

Design and construction

The ball seal is pre-loaded, which ensures tight sealing even at lower pressures. Owing to the ball's floating position, any rise in pressure will progressively push the ball closer to the seal. Handles can be fitted in any position at 45° angles.

Safety

The operating pressures of the ball valves are designed with a safety factor of 1.5 under static load conditions, including pressure peaks. Ball valves are subject to a maximum storage period of 6 months.

Materials

Standard version:

Body	– galvanized steel
Ball and selector shaft	– steel
Ball seal	– POM (e.g. Delrin)
O-rings	– NBR (e.g. Perbunan)

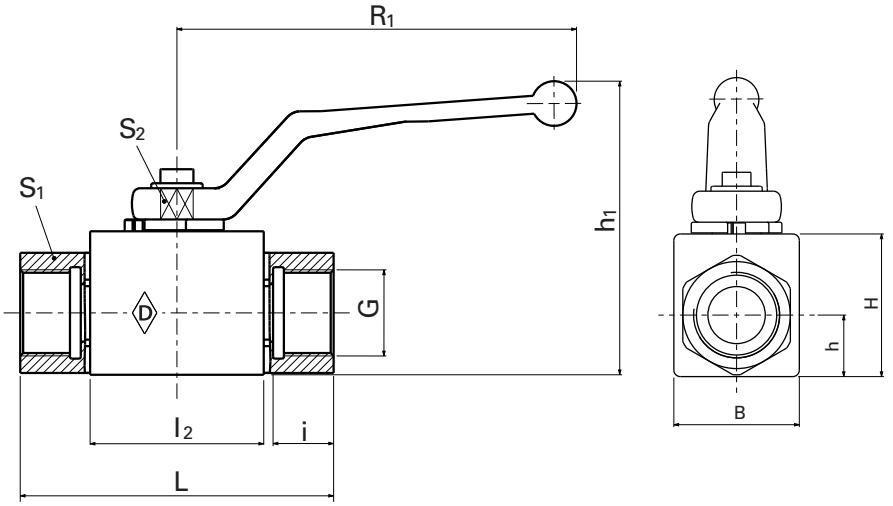
Special body and sealing materials available on request

Operating temperature

Temperature range of -20 °C to +60 °C

KH-R ...

- Whitworth thread





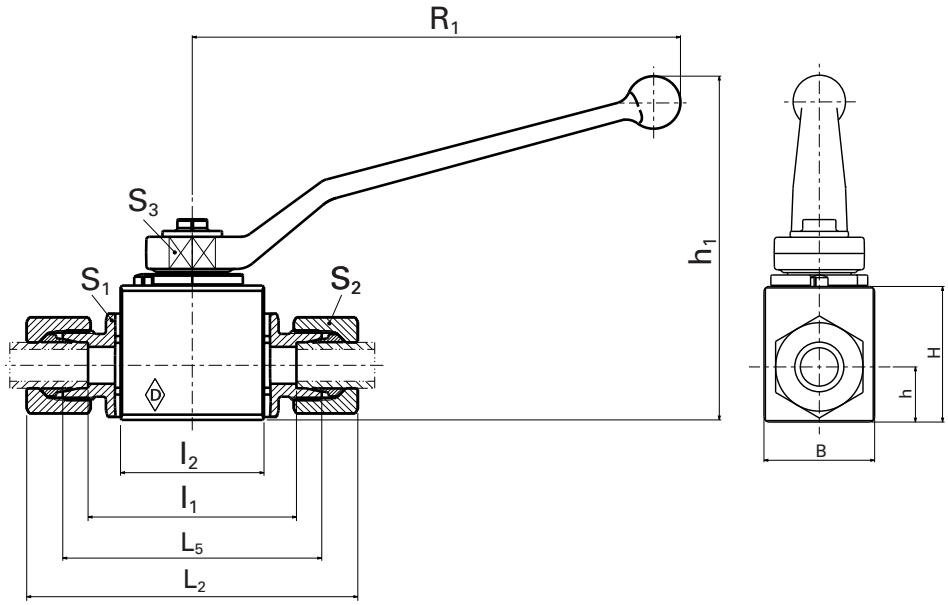
G

														Stud KH-R ...
PB* bar (psi)	DIN-ISO 228 (R ..., DIN 259) G	Model	B	H	h	h_1 ±5	L	l_2	i	S_1	S_2	R_1	DN	Part no.
500 (7252)	G 1/8	**KH-R 1/8 /NW 4**	26	32	12.8	72	69	36.2	8	22	9	107	4	**WAL029293**
	G 1/4	**KH-R 1/4 /NW 6**	26	32	12.8	72	69	36.2	12	22	9	107	6	**WAL029294**
	G 3/8	**KH-R 3/8 /NW 10**	32	38	16.25	78	73	43.2	12	27	9	107	10	**WAL029295**
	G 1/2	**KH-R 1/2 /NW 13**	35	40	17.25	80	85	48.2	14	30	9	107	13	**WAL029296**
400 (5801)	G 3/4	**KH-R 3/4 /NW 20**	49	57	24.5	135	96.5	62.2	16	41	14	165	20	**WAL029298**
350 (5076)	G 1	**KH-R 1 /NW 25**	54	60	26.5	139	113.5	66.2	18	46	14	165	24	**WAL029299**
	G 1 1/4	**KH-R 1 1/4 /NW 32**	80	85.4	39.5	160	121.5	80	20	60	17	210	24	**WAL029300**
	G 1 1/4	**KH-R 1 1/4 /NW 32****	80	85.4	39.5	160	110	80	20	60	17	210	32	**WAL061806**
	G 1 1/2	**KH-R 1 1/2 /NW 40****	84	92.4	42	164	120	85	22	70	17	210	38	**WAL029301**

*With a safety factor of 1.5
**With forged body

P-KHV ...

- Tube connection at both ends
- Threads are available with runout or with undercut according to DIN 3853

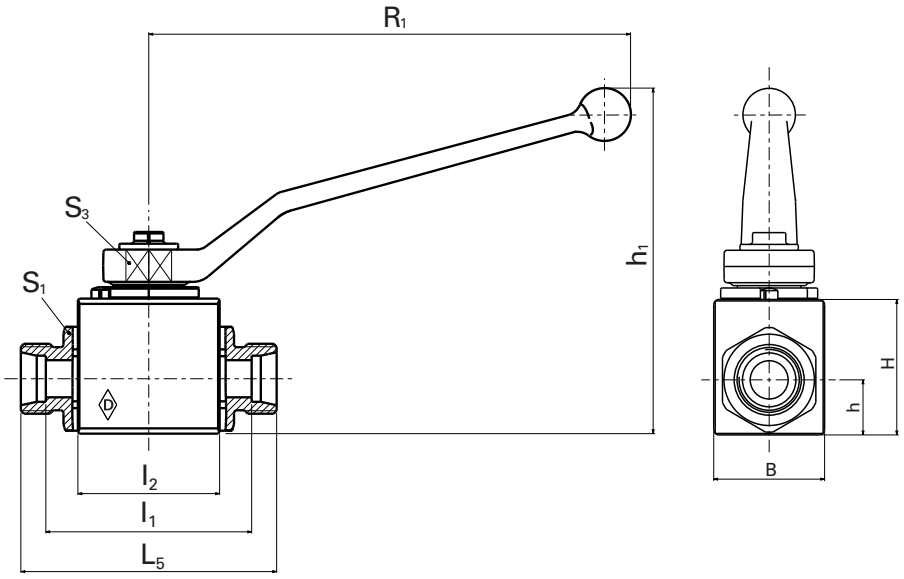




Series	PB* bar (psi)	Tube outer diameter	Model	B	H	h	$h_1 \pm 5$	l_2	l_1	L_2	L_5	S_1	S_2	S_3	R_1	DN	Walpro P-KHV... Part no.
L	400 (5801)	6	**P-KHV 6 L/NW 4**	26	32	12.8	72	36	62	82	67	22	14	9	107	5	**WAL374081**
		8	**P-KHV 8 L/NW 6**	26	32	12.8	72	36	53	82	67	22	17	9	107	6	**WAL374082**
		10	**P-KHV 10 L/NW 8**	26	32	12.8	72	36	57	86	71	22	19	9	107	8	**WAL374083**
		12	**P-KHV 12 L/NW 10**	32	38	16.25	78	43	61	90	75	27	22	9	107	10	**WAL374084**
		15	**P-KHV 15 L/NW 13**	35	40	17.25	80	48	68.6	99.5	84	30	27	9	107	13	**WAL374085**
		18	**P-KHV 18 L/NW 16**	38	46	18.7	124	48	68	101	83	32	32	12	165	15	**WAL374086**
	250 (3626)	22	**P-KHV 22 L/NW 20**	49	57	24.5	135	62	87	119	102	41	36	14	165	20	**WAL374087**
		28	**P-KHV 28 L/NW 25**	54	60	26.5	139	66	93	126	108	46	41	14	165	24	**WAL374088**
		35	**P-KHV 35 L/NW 25**	54	60	26.5	139	66	93	136	114	50	50	14	165	24	**WAL374089**
	210 (3046)	42	**P-KHV 42 L/NW 40****	84	92.4	42	164	80	111	157	133	70	60	17	210	38	**WAL374091**
S	500 (7252)	8	**P-KHV 8 S/NW 4**	26	32	12.8	72	36	59	88	73	22	19	9	107	5	**WAL374092**
		10	**P-KHV 10 S/NW 6**	26	32	12.8	72	36	58	90	73	22	22	9	107	6	**WAL374093**
		12	**P-KHV 12 S/NW 8**	26	32	12.8	72	36	61	93	77	22	24	9	107	8	**WAL374094**
		14	**P-KHV 14 S/NW 10**	32	38	16.25	78	43	68	103	84	27	27	9	107	10	**WAL374095**
		16	**P-KHV 16 S/NW 13**	35	40	17.25	80	48	70	106	87	30	30	9	107	13	**WAL374096**
	400 (5801)	20	**P-KHV 20 S/NW 16**	38	46	18.7	124	48	70	112	90	32	32	12	165	15	**WAL374097**
		25	**P-KHV 25 S/NW 20**	49	57	24.5	135	62	88	134	110	41	46	14	165	20	**WAL374098**
	315 (4569)	30	**P-KHV 30 S/NW 25**	54	60	26.5	139	66	93	146	120	46	50	14	165	24	**WAL374099**
		38	**P-KHV 38 S/NW 32****	80	85.4	39.5	160	80	108	170	140	60	60	17	210	32	**WAL374101**

L_2 = approximate dimension if the union nut is tightened
*With a safety factor of 1.5
**With forged body

KHS ...





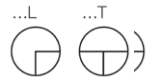
G

						System nuts for supplementing the stud (for technical data, see part D of this catalog)	
					Stud KHS...	WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI
Series	PB* bar (psi)	Tube outer diameter	Model	DN	Part no.	Part no.	Part no.
L	400 (5801)	6	**KHS 6 L/NW 4**	4	**WAL029274**	**WAL628467**	**WAL625940**
		8	**KHS 8 L/NW 6**	6	**WAL029275**	**WAL628468**	**WAL625941**
		10	**KHS 10 L/NW 8**	8	**WAL029276**	**WAL628469**	**WAL625942**
		12	**KHS 12 L/NW 10**	10	**WAL029277**	**WAL628470**	**WAL625943**
		15	**KHS 15 L/NW 13**	13	**WAL029278**	**WAL628471**	**WAL625944**
		18	**KHS 18 L/NW 16**	16	**WAL029279**	**WAL628472**	**WAL625945**
	250 (3626)	22	**KHS 22 L/NW 20**	20	**WAL029280**	**WAL628473**	**WAL625946**
		28	**KHS 28 L/NW 25**	25	**WAL029281**	**WAL628474**	**WAL625947**
		35	**KHS 35 L/NW 25**	25	**WAL029282**	**WAL628475**	**WAL625948**
	210 (3046)	42	**KHS 42 L/NW 40****	40	**WAL029283**	**WAL628476**	**WAL625949**
S	500 (7252)	8	**KHS 8 S/NW 4**	4	**WAL029284**	**WAL628478**	**WAL625951**
		10	**KHS 10 S/NW 6**	6	**WAL029285**	**WAL628479**	**WAL625952**
		12	**KHS 12 S/NW 8**	8	**WAL029286**	**WAL628480**	**WAL625953**
		14	**KHS 14 S/NW 10**	10	**WAL029287**		**WAL625953**
		16	**KHS 16 S/NW 13**	13	**WAL029288**	**WAL628481**	**WAL625954**
	400 (5801)	20	**KHS 20 S/NW 16**	16	**WAL029289**	**WAL628482**	**WAL625955**
		25	**KHS 25 S/NW 20**	20	**WAL029290**	**WAL628483**	**WAL625955**
	315 (4569)	30	**KHS 30 S/NW 25**	25	**WAL029291**	**WAL628484**	**WAL625957**
		38	**KHS 38 S/NW 32****	32	**WAL061810**	**WAL628485**	**WAL625958**

L_2= approximate dimension if the union nut is tightened
*With a safety factor of 1.5
**With forged body

P-KH3KV ...

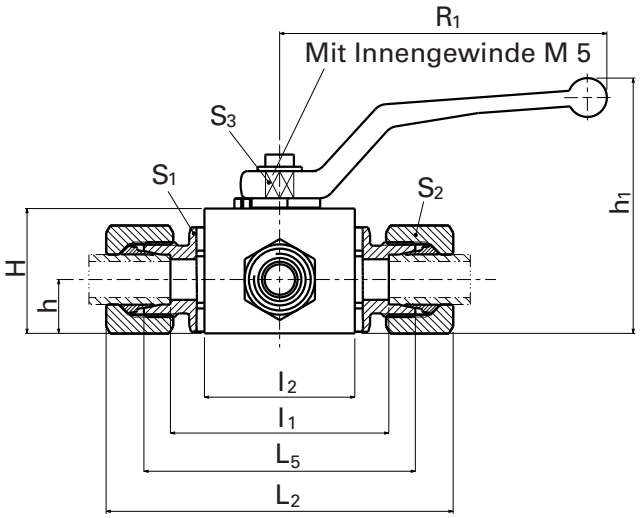
- L or T port
- Port type

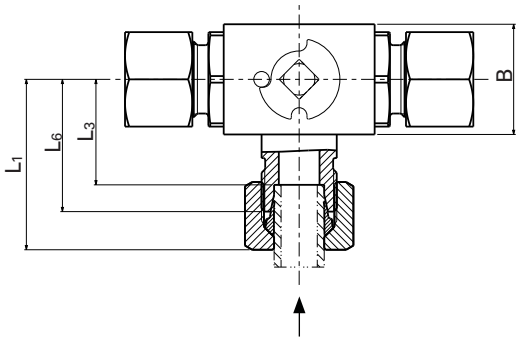


The required port type should be indicated after the model name.

- With female M5 thread
- Threads are available with runout or with undercut according to DIN 3853

G





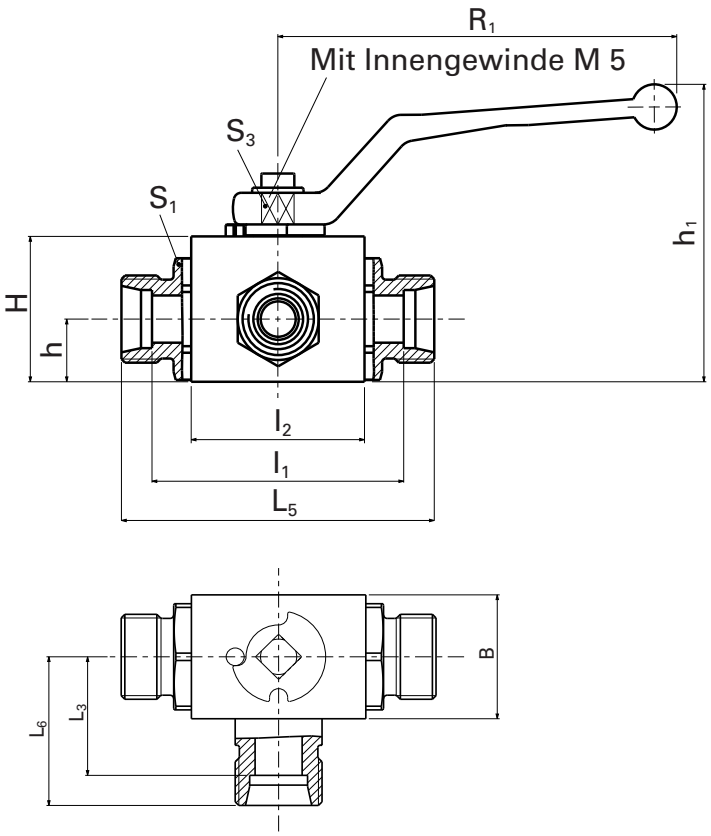


- This port must always be in the open position.
- Pressure may only be applied from this side. Pressurization from the other ports is not permissible and will lead to malfunctions!

																				Walpro P-KH3KV...
Series	PB* bar (psi)	Tube outer diameter	Model	B	H	h	h_1 ±5	l_1	l_2	L_1	L_2	L_3	L_5	L_6	S_1	S_2	S_3	R_1	DN	Part no.
L	400 (5801)	8	**P-KH3KV 8 L/NW 6-L**	26	32	13	72	53	36	41	82	25	67	32	22	17	9	107	6	**WAL374620**
		8	**P-KH3KV 8 L/NW 6-T**	26	32	13	72	53	36	41	82	25	67	32	22	17	9	107	6	**WAL374621**
		10	**P-KH3KV 10 L/NW 8-L**	26	32	13	72	57	36	44.5	86	25	71	32	22	19	9	107	8	**WAL374622**
		10	**P-KH3KV 10 L/NW 8-T**	26	32	13	72	57	36	44.5	86	25	71	32	22	19	9	107	8	**WAL374623**
	350 (5076)	12	**P-KH3KV 12 L/NW 10-L**	32	38	16.5	78	57	43	44.5	90	33	75	35	27	22	9	107	10	**WAL374624**
		12	**P-KH3KV 12 L/NW 10-T**	32	38	16.5	78	57	43	44.5	90	33	75	35	27	22	9	107	10	**WAL374625**
		15	**P-KH3KV 15 L/NW 13-L**	35	40	17.5	80	63	48	49.5	100	33	84	42	30	27	9	107	13	**WAL374626**
		15	**P-KH3KV 15 L/NW 13-T**	35	40	17.5	80	63	48	49.5	100	33	84	42	30	27	9	107	13	**WAL374627**

L_2 = approximate dimension if the union nut is tightened
*With a safety factor of 1.5

KH3KS ...





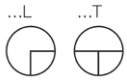
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Series	PB* bar (psi)	Tube outer diameter	Model	Stud KH3KS…	System nuts for supplementing the stud (for technical data, see part D of this catalog) WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI
				Part no.	Part no.	Part no.
L	400 (5801)	8	KH3KS 8 L/NW 6-L	WAL062623	WAL628468	WAL625941
		8	KH3KS 8 L/NW 6-T	WAL062635	WAL628468	WAL625941
		10	KH3KS 10 L/NW 8-L	WAL062624	WAL628469	WAL625942
		10	KH3KS 10 L/NW 8-T	WAL062636	WAL628469	WAL625942
	350 (5076)	12	KH3KS 12 L/NW 10-L	WAL062625	WAL628470	WAL625943
		12	KH3KS 12 L/NW 10-T	WAL062637	WAL628470	WAL625943
		15	KH3KS 15L/NW 13-L	WAL062626	WAL628471	WAL625944
		15	KH3KS 15 L/NW 13-T	WAL062638	WAL628471	WAL625944

L_2 = approximate dimension if the union nut is tightened
*With a safety factor of 1.5

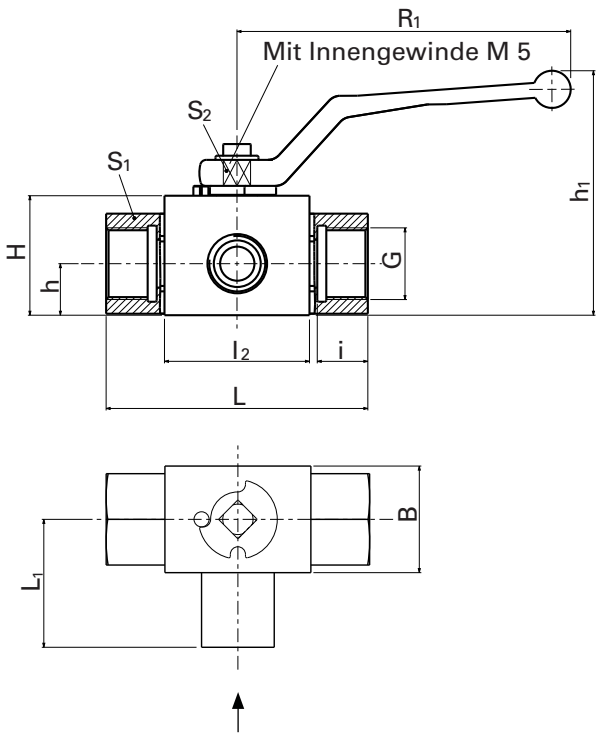
KH3KS-R ...

- L or T port Whitworth thread
- Port type



The required port type should be indicated after the model name.

- With female M5 thread





- This port must always be in the open position.
- Pressure may only be applied from this side. Pressurization from the other ports is not permissible and will lead to malfunctions!

															Stud KH3KS-R...
PB* bar (psi)	DIN-ISO 228 (R ..., DIN 259) G	Model	B	H	h	$h_1 \pm 5$	L	L_1	l_2	i	S_1	S_2	R_1	DN	Part no.
400 (5801)	G1/4	**KH3KS-R 1/4 /NW 6-L**	26	32	13	82	69	32	36	14	22	9	136	6	**WAL062615**
	G1/4	**KH3KS-R 1/4 /NW 6-T**	26	32	13	82	69	32	36	14	22	9	136	6	**WAL062619**
	G3/8	**KH3KS-R 3/8 /NW 10-L**	32	38	16.5	88	73	35	43	14	27	9	136	10	**WAL062616**
	G3/8	**KH3KS-R 3/8 /NW 10-T**	32	38	16.5	88	73	35	43	14	27	9	136	10	**WAL062620**
350 (5076)	G1/2	**KH3KS-R 1/2 /NW 13-L**	35	40	17.5	90	85	37	48	16	30	9	136	13	**WAL062617**
	G1/2	**KH3KS-R 1/2 /NW 13-T**	35	40	17.5	90	85	37	48	16	30	9	136	13	**WAL062621**

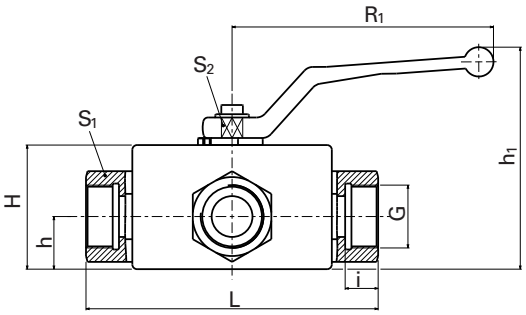
*With a safety factor of 1.5

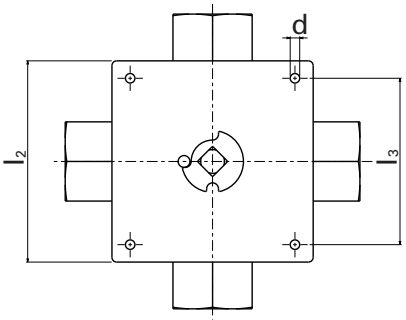
KH3S-R ...

- L or T port Whitworth thread
- Port type

...L ...T

The required port type should be indicated after the model name.







G

															Stud KH3S-R...
PB* bar (psi)	DIN-ISO 228 (R ..., DIN 259) G	Model	l_1	H	h	h_1	L	l_3	d	i	S_1	S_2	R_1	DN	Part no.
500 (7252)	G1/4	**KH3S-R 1/4/NW 6-L**	70	52	26.5	110	100	55	6.5	14	27	12	164	6	**WAL062647**
	G1/4	**KH3S-R 1/4/NW 6-T**	70	52	26.5	110	100	55	6.5	14	27	12	164	6	**WAL062653**
	G3/8	**KH3S-R 3/8/NW 10-L**	80	55	28	116	115	65	6.7	14	30	14	164	10	**WAL062648**
	G3/8	**KH3S-R 3/8/NW 10-T**	80	55	28	116	115	65	6.7	14	30	14	164	10	**WAL062654**
400 (5801)	G1/2	**KH3S-R 1/2/NW 13-L**	100	60	30	121	134	80	8.7	16	36	14	164	13	**WAL062649**
	G1/2	**KH3S-R 1/2/NW 13-T**	100	60	30	121	134	80	8.7	16	36	14	164	13	**WAL062655**
315 (4569)	G3/4	**KH3S-R 3/4/NW 20-L**	114	71	37	133	148	85	8.7	18	41	17	193	20	**WAL062650**
	G3/4	**KH3S-R 3/4/NW 20-T**	114	71	37	133	148	85	8.7	18	41	17	193	20	**WAL062656**
	G1	**KH3S-R 1/NW 25-L**	127	79	42.5	141	172	105	11	20	50	19	200	25	**WAL062651**
	G1	**KH3S-R 1/NW 25-T**	127	79	42.5	141	172	105	11	20	50	19	200	25	**WAL062657**

*With a safety factor of 1.5



H

Reducer studs, flange studs, female studs, gauge couplings

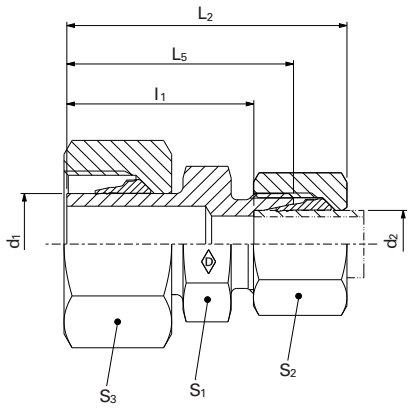
	Figure Fitting	Figure Stud	Model	Page
Reducer fittings / reducer studs			P-REDV / P-REDS … -SV	H3 / H4
			P-REDVDN / REDSDN … / …	H5 - H12
Reducing adapter with soft seal			RED … -WD/…	H13
			RED … -WD/…	H14
Straight flange fittings / straight flange studs			P-GFV / GFS …	H15 / H16
Elbow flange fittings / elbow flange studs			P-WFV / WFS …	H17 / H18
Straight female fittings / straight female studs			P-GAV / GAS … R	H19 / H20
			P-GAV / GAS … M	H21 / H22
Adjustable gauge couplings			EMASD …	H23
Gauge couplings (fittings / studs)			P-MAV / MAS … R	H25 / H26

H

P-REDV....-SV

P-REDV ...-SV-1.4571

- L series
- Pre-assembled standpipe





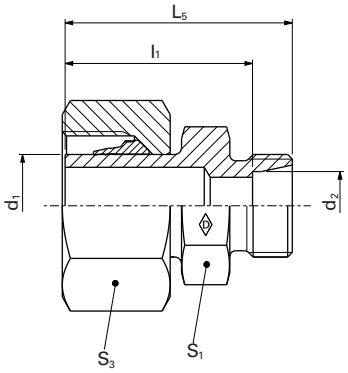
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PN bar (psi)	d_1	Tube outer diameter d_2	Model	kg/ 100 pc.	L_2	L_5	l_1	S_1	S_2	S_3	Walpro P-REDV...-SV Part no.	Walpro Stainless steel (1.4571) P-REDV ... SV-1.4571* Part no.
500 (7252)	8	6	**P-REDV 8/6 L-SV**	3.9	43	34.5	27.5	12	14	17	**WAL374192**	**WAL620250**
	10	6	**P-REDV 10/6 L-SV**	5.1	43	35.5	28.5	12	14	19	**WAL374193**	**WAL620251**
		8	**P-REDV 10/8 L-SV**	5.8	43	35.5	28.5	14	17	19	**WAL374194**	**WAL620227**
400 (5801)	12	6	**P-REDV 12/6 L-SV**	6.1	42.5	35	28	14	14	22	**WAL374195**	**WAL620185**
		8	**P-REDV 12/8 L-SV**	7.0	43.5	36	29	14	17	22	**WAL374196**	**WAL620199**
		10	**P-REDV 12/10 L-SV**	8.1	44.5	37	30	17	19	22	**WAL374197**	**WAL620252**
	15	6	**P-REDV 15/6 L-SV**	8.9	43	35	28	17	14	27	**WAL374198**	**WAL620505**
		8	**P-REDV 15/8 L-SV**	8.7	44	36	29	17	17	27	**WAL374199**	**WAL620495**
		10	**P-REDV 15/10 L-SV**	9.4	45	37	30	17	19	27	**WAL374200**	**WAL620459**
		12	**P-REDV 15/12 L-SV**	12.1	46	38	31	19	22	27	**WAL374201**	**WAL620385**
	18	6	**P-REDV 18/6 L-SV**	11.8	45	37	30	19	14	32	**WAL374202**	**WAL620711**
		8	**P-REDV 18/8 L-SV**	12.3	46	38	31	19	17	32	**WAL374203**	**WAL620253**
		10	**P-REDV 18/10 L-SV**	12.9	47	39	32	19	19	32	**WAL374204**	**WAL620229**
		12	**P-REDV 18/12 L-SV**	14.1	48	40	33	19	22	32	**WAL374205**	**WAL620243**
		15	**P-REDV 18/15 L-SV**	16.6	49	41	34	24	27	32	**WAL374206**	**WAL620430**
250 (3626)	22	6	**P-REDV 22/6 L-SV**	16.1	47	39	32	24	14	36	**WAL374207**	**WAL620393**
		8	**P-REDV 22/8 L-SV**	17.0	48	40	33	24	17	36	**WAL374208**	**WAL620528**
		10	**P-REDV 22/10 L-SV**	17.5	49	41	34	24	19	36	**WAL374209**	**WAL620244**
		12	**P-REDV 22/12 L-SV**	18.6	50	42	35	24	22	36	**WAL374210**	**WAL620327**
		15	**P-REDV 22/15 L-SV**	20.6	51	43	36	24	27	36	**WAL374211**	**WAL620400**
		18	**P-REDV 22/18 L-SV**	24.1	53	44	36.5	27	32	36	**WAL374212**	**WAL620254**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*For complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list.
L_2= approximate dimension if the union nut is tightened

P-REDS...-SV

P-REDS ...-SV-1.4571





H

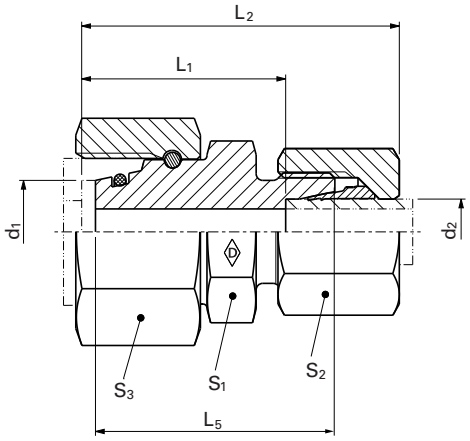
PN bar (psi)	d_1	Tube outer diameter d_2	Model	kg/ 100 pc.	Stud P-REDS...-SV	Stud Stainless steel (1.4571) P-REDS ... SV-1.4571	System nuts for supplementing the stud (for technical data, see part D of this catalog) WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
					Part no.	Part no.	Part no.	Part no.	Part no.
500 (7252)	8	6	P-REDS 8/6 L-SV	3.0	WAL604589	WAL621262	WAL628467	WAL625940	WAL625980
	10	6	P-REDS 10/6 L-SV	4.0	WAL602458	WAL620345	WAL628467	WAL625940	WAL625980
		8	P-REDS 10/8 L-SV	4.0	WAL602753	WAL620908	WAL628468	WAL625941	WAL625981
400 (5801)	12	6	P-REDS 12/6 L-SV	5.5	WAL602691	WAL620600	WAL628467	WAL625940	WAL625980
		8	P-REDS 12/8 L-SV	5.5	WAL602585	WAL621263	WAL628468	WAL625941	WAL625981
		10	P-REDS 12/10 L-SV	5.5	WAL602433	WAL620577	WAL628469	WAL625942	WAL625982
	15	6	P-REDS 15/6 L-SV	7.5	WAL602992	WAL621264	WAL628467	WAL625940	WAL625980
		8	P-REDS 15/8 L-SV	8.5	WAL602930	WAL621265	WAL628468	WAL625941	WAL625981
		10	P-REDS 15/10 L-SV	8.5	WAL602586	WAL620611	WAL628469	WAL625942	WAL625982
		12	P-REDS 15/12 L-SV	8.5	WAL602539	WAL621266	WAL628470	WAL625943	WAL625983
	18	6	P-REDS 18/6 L-SV	10.5	WAL602993	WAL620582	WAL628467	WAL625940	WAL625980
		8	P-REDS 18/8 L-SV	11.0	WAL602434	WAL621267	WAL628468	WAL625941	WAL625981
		10	P-REDS 18/10 L-SV	12.5	WAL602461	WAL620583	WAL628469	WAL625942	WAL625982
		12	P-REDS 18/12 L-SV	12.0	WAL602462	WAL621268	WAL628470	WAL625943	WAL625983
		15	P-REDS 18/15 L-SV	13.0	WAL602931	WAL621269	WAL628471	WAL625944	WAL625984
250 (3626)	22	6	P-REDS 22/6 L-SV	13.0	WAL612581	WAL621270	WAL628467	WAL625940	WAL625980
		8	P-REDS 22/8 L-SV	14.5	WAL604260	WAL621271	WAL628468	WAL625941	WAL625981
		10	P-REDS 22/10 L-SV	15.5	WAL604256	WAL621272	WAL628469	WAL625942	WAL625982
		12	P-REDS 22/12 L-SV	15.0	WAL602932	WAL621273	WAL628470	WAL625943	WAL625983
		15	P-REDS 22/15 L-SV	17.5	WAL602435	WAL621274	WAL628471	WAL625944	WAL625984
		18	P-REDS 22/18 L-SV	18.0	WAL602463	WAL621275	WAL628472	WAL625945	WAL625985

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

P-REDVDN ... / ...

P-REDVD ... / ...-1.4571

- L series
- With soft seal made from NBR** (e.g. Perbunan) for steel
- With soft seal made from FKM (e.g. Viton) for stainless steel (1.4571)





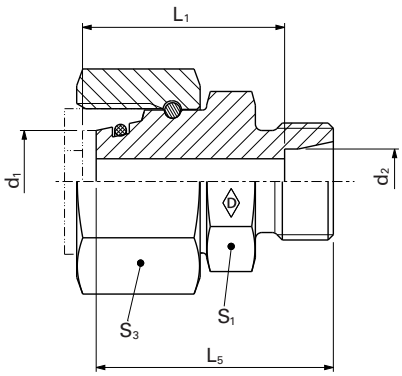
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PN bar (psi)	d_1	Tube outer diameter d_2	Model	kg/100 pc.	L_5	L_2	L_1	S_1	S_2	S_3	*O-ring	Walpro P-REDVDN... Part no.	Walpro Stainless steel (1.4571) P-REDVD ... / ... -VI-1.4571* Part no.
500 (7252)	8	6	**P-REDVDN 8/6 L**	4.5	29.0	37.5	23.5	12	14	17	6x1.5	**WAL619570**	**WAL621368**
	10	6	**P-REDVDN 10/6 L**	5.4	31.0	39.0	25.0	14	14	19	8.5x1.5	**WAL619120**	**WAL621369**
		8	**P-REDVDN 10/8 L**	6.0	31.0	39.5	25.0		17			**WAL619121**	**WAL621370**
400 (5801)	12	6	**P-REDVDN 12/6 L**	6.0	31.0	39.0	25.0	17	14	22	10x1.5	**WAL619122**	**WAL621371**
		8	**P-REDVDN 12/8 L**	7.5	31.0	39.5	25.0		17			**WAL619123**	**WAL621372**
		10	**P-REDVDN 12/10 L**	7.5	32.0	40.5	26.0		19			**WAL619124**	**WAL621373**
	15	6	**P-REDVDN 15/6 L**	10.3	34.5	42.5	28.5	22	14	27	12x2	**WAL619125**	**WAL621374**
		8	**P-REDVDN 15/8 L**	11.9	34.5	43.0	28.5		17			**WAL619126**	**WAL621375**
		10	**P-REDVDN 15/10 L**	11.5	35.5	44.0	29.5		19			**WAL619127**	**WAL621376**
		12	**P-REDVDN 15/12 L**	12.0	35.5	43.5	29.5		22			**WAL619128**	**WAL621377**
	18	6	**P-REDVDN 18/6 L**	12.4	33.5	42.0	28.0	24	14	32	15x2	**WAL619129**	**WAL621378**
		8	**P-REDVDN 18/8 L**	13.5	33.5	42.5	28.0		17			**WAL619130**	**WAL621379**
		10	**P-REDVDN 18/10 L**	13.4	34.5	43.5	29.0		19			**WAL619131**	**WAL621380**
		12	**P-REDVDN 18/12 L**	15.2	34.5	43.0	29.0		22			**WAL619132**	**WAL621381**
		15	**P-REDVDN 18/15 L**	17.2	35.5	45.0	30.0		27			**WAL619133**	**WAL621382**
250 (3626)	22	6	**P-REDVDN 22/6 L**	16.5	37.5	46.0	32.0	27	14	36	20x2	**WAL619134**	**WAL621383**
		8	**P-REDVDN 22/8 L**	17.5	37.5	46.5	32.0		17			**WAL619135**	**WAL621384**
		10	**P-REDVDN 22/10 L**	18.0	38.5	47.5	33.0		19			**WAL619136**	**WAL621385**
		12	**P-REDVDN 22/12 L**	19.0	38.5	47.0	33.0		22			**WAL619137**	**WAL621386**
		15	**P-REDVDN 22/15 L**	23.8	39.5	49.0	34.0		27			**WAL619138**	**WAL621387**
		18	**P-REDVDN 22/18 L**	24.5	39.5	49.5	33.5		32			**WAL619139**	**WAL621388**
	28	6	**P-REDVDN 28/6 L**	30.5	39.5	48.0	34.0	36	14	46	26x2	**WAL619140**	**WAL621389**
		8	**P-REDVDN 28/8 L**	30.5	39.5	48.5	34.0		17			**WAL619141**	**WAL621390**
		10	**P-REDVDN 28/10 L**	30.0	40.5	49.5	35.0		19			**WAL619142**	**WAL621391**
		12	**P-REDVDN 28/12 L**	31.0	40.5	49.0	35.0		22			**WAL619143**	**WAL621392**
		15	**P-REDVDN 28/15 L**	33.4	41.5	51.0	36.0		27			**WAL619144**	**WAL621393**
		18	**P-REDVDN 28/18 L**	35.5	41.5	51.5	35.5		32			**WAL619145**	**WAL621394**
		22	**P-REDVDN 28/22 L**	38.2	43.5	53.5	37.5		36			**WAL619146**	**WAL621395**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*For complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened
**FPM (e.g. Viton) see price list / available on request

REDSDN ... / ...

REDSD ... / ...-1.4571





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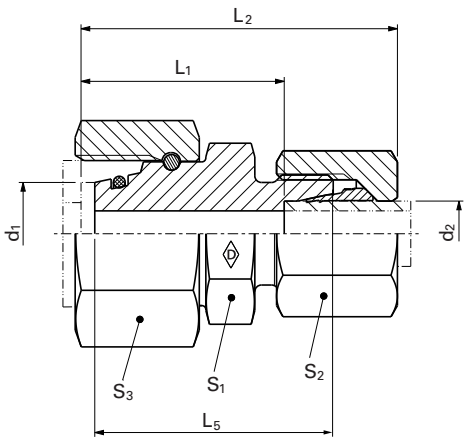
							System nuts for supplementing the stud (for technical data, see part D of this catalog)		
					Stud REDSDN ... / ...	Stud Stainless steel (1.4571) P-REDSD ... / ...VI-1.4571*	WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
PN bar (psi)	d_1	Tube outer diameter d_2	Model	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
500 (7252)	8	6	REDSDN 8/6 L	3.2	WAL619030	WAL618337	WAL628467	WAL625940	WAL625980
	10	6	REDSDN 10/6 L	4.0	WAL619031	WAL618338	WAL628467	WAL625940	WAL625980
		8	REDSDN 10/8 L	4.0	WAL619032	WAL618339	WAL628468	WAL625941	WAL625981
400 (5801)	12	6	REDSDN 12/6 L	6.0	WAL619033	WAL618340	WAL628467	WAL625940	WAL625980
		8	REDSDN 12/8 L	5.5	WAL619034	WAL618341	WAL628468	WAL625941	WAL625981
		10	REDSDN 12/10 L	5.5	WAL619035	WAL618342	WAL628469	WAL625942	WAL625982
	15	6	REDSDN 15/6 L	8.5	WAL619036	WAL618343	WAL628467	WAL625940	WAL625980
		8	REDSDN 15/8 L	9.5	WAL619037	WAL618344	WAL628468	WAL625941	WAL625981
		10	REDSDN 15/10 L	9.0	WAL619038	WAL618345	WAL628469	WAL625942	WAL625982
		12	REDSDN 15/12 L	9.0	WAL619039	WAL618346	WAL628470	WAL625943	WAL625983
	18	6	REDSDN 18/6 L	11.2	WAL619040	WAL618347	WAL628467	WAL625940	WAL625980
		8	REDSDN 18/8 L	11.5	WAL619041	WAL618348	WAL628468	WAL625941	WAL625981
		10	REDSDN 18/10 L	13.0	WAL619042	WAL618349	WAL628469	WAL625942	WAL625982
		12	REDSDN 18/12 L	15.5	WAL619043	WAL618350	WAL628470	WAL625943	WAL625983
		15	REDSDN 18/15 L	12.2	WAL619044	WAL618351	WAL628471	WAL625944	WAL625984
250 (3626)	22	6	REDSDN 22/6 L	16.0	WAL619045	WAL618352	WAL628467	WAL625940	WAL625980
		8	REDSDN 22/8 L	16.0	WAL619046	WAL618353	WAL628468	WAL625941	WAL625981
		10	REDSDN 22/10 L	16.0	WAL619047	WAL618354	WAL628469	WAL625942	WAL625982
		12	REDSDN 22/12 L	16.0	WAL619048	WAL618355	WAL628470	WAL625943	WAL625983
		15	REDSDN 22/15 L	18.5	WAL619049	WAL618356	WAL628471	WAL625944	WAL625984
		18	REDSDN 22/18 L	18.0	WAL619050	WAL618357	WAL628472	WAL625945	WAL625985
	28	6	REDSDN 28/6 L	29.0	WAL619051	WAL618358	WAL628467	WAL625940	WAL625980
		8	REDSDN 28/8 L	29.0	WAL619052	WAL618359	WAL628468	WAL625941	WAL625981
		10	REDSDN 28/10 L	27.5	WAL619053	WAL618360	WAL628469	WAL625942	WAL625982
		12	REDSDN 28/12 L	28.0	WAL619054	WAL618361	WAL628470	WAL625943	WAL625983
		15	REDSDN 28/15 L	28.0	WAL619055	WAL618362	WAL628471	WAL625944	WAL625984
		18	REDSDN 28/18 L	28.5	WAL619056	WAL618363	WAL628472	WAL625945	WAL625985
		22	REDSDN 28/22 L	31.0	WAL619057	WAL618364	WAL628473	WAL625946	WAL625986

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

P-REDVDN ... / ...

P-REDVD ... / ...-1.4571

- L series
- With soft seal made from NBR** (e.g. Perbunan) for steel
- With soft seal made from FKM (e.g. Viton) for stainless steel (1.4571)





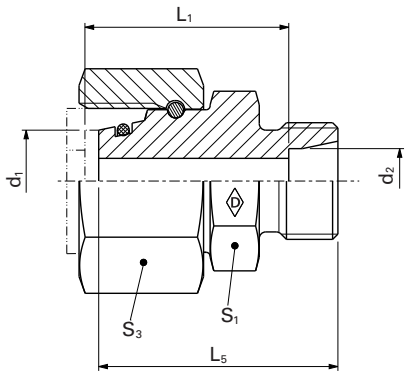
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PN bar (psi)	d_1	Tube outer diameter d_2	Model	kg/ 100 pc.	L_5	L_2	L_1	S_1	S_2	S_3	*O-ring	Walpro P-REDVDN... Part no.	Walpro Stainless steel (1.4571) P-REDVD ... / ... -VI-1.4571* Part no.
250 (3626)	35	6	**P-REDVDN 35/6 L**	37.4	41.0	51.0	37.0	46	14	50	32x2.5	**WAL619147**	**WAL621396**
		8	**P-REDVDN 35/8 L**	36.8	41.0	51.5	37.0		17			**WAL619148**	**WAL621397**
		10	**P-REDVDN 35/10 L**	37.5	42.0	52.5	38.0		19			**WAL619149**	**WAL621398**
		12	**P-REDVDN 35/12 L**	36.5	42.0	52.0	38.0		22			**WAL619150**	**WAL621399**
		15	**P-REDVDN 35/15 L**	40.0	43.0	54.0	39.0		27			**WAL619151**	**WAL621400**
		18	**P-REDVDN 35/18 L**	42.0	43.0	54.5	38.5		32			**WAL619152**	**WAL621401**
		22	**P-REDVDN 35/22 L**	44.0	45.0	56.5	40.5		36			**WAL619153**	**WAL621402**
		28	**P-REDVDN 35/28 L**	49.0	45.0	56.5	40.5		41			**WAL619154**	**WAL621403**
	42	6	**P-REDVDN 42/6 L**	54.2	44.0	54.5	40.5	50	14	60	38x2.5	**WAL619155**	**WAL623091**
		8	**P-REDVDN 42/8 L**	51.0	44.0	55.0	40.5		17			**WAL619156**	**WAL623093**
		10	**P-REDVDN 42/10 L**	52.0	45.0	56.0	41.5		19			**WAL619157**	**WAL621404**
		12	**P-REDVDN 42/12 L**	56.2	45.0	55.5	41.5		22			**WAL619158**	**WAL621405**
		15	**P-REDVDN 42/15 L**	51.0	46.0	57.5	52.5		27			**WAL619159**	**WAL621406**
		18	**P-REDVDN 42/18 L**	53.5	46.0	58.0	42.0		32			**WAL619160**	**WAL621407**
		22	**P-REDVDN 42/22 L**	57.5	48.0	60.0	44.0		36			**WAL619161**	**WAL621408**
		28	**P-REDVDN 42/28 L**	59.5	48.0	60.0	44.0		41			**WAL619162**	**WAL621409**
		35	**P-REDVDN 42/35 L**	66.8	50.0	63.5	43.0		50			**WAL619163**	**WAL621410**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*Complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2 = approximate dimension if the union nut is tightened
**FPM (e.g. Viton) see price list / available on request

REDSDN ... / ...

REDSD ... / ...-1.4571





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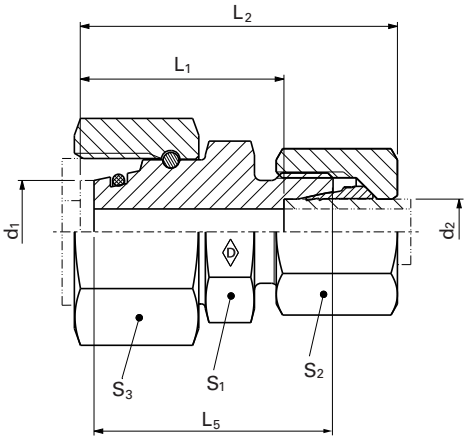
							System nuts for supplementing the stud (for technical data, see part D of this catalog)		
					Stud REDSDN ... / ...	Stud Stainless steel (1.4571) P-REDSD ... / ... VI-1.4571*	WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
PN bar (psi)	d_1	Tube outer diameter d_2	Model	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
250 (3626)	35	6	**REDSDN 35/6 L**	35.0	**WAL619058**	**WAL618365**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**REDSDN 35/8 L**	32.4	**WAL619059**	**WAL618366**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**REDSDN 35/10 L**	36.0	**WAL619060**	**WAL618367**	**WAL628469**	**WAL625942**	**WAL625982**
		12	**REDSDN 35/12 L**	33.5	**WAL619061**	**WAL618368**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**REDSDN 35/15 L**	34.0	**WAL619062**	**WAL618369**	**WAL628471**	**WAL625944**	**WAL625984**
		18	**REDSDN 35/18 L**	34.5	**WAL619063**	**WAL618370**	**WAL628472**	**WAL625945**	**WAL625985**
		22	**REDSDN 35/22 L**	35.0	**WAL619064**	**WAL618371**	**WAL628473**	**WAL625946**	**WAL625986**
		28	**REDSDN 35/28 L**	37.0	**WAL619065**	**WAL618372**	**WAL628474**	**WAL625947**	**WAL625987**
	42	6	**REDSDN 42/6 L**	49.5	**WAL619066**	**WAL623092**	**WAL628467**	**WAL625940**	**WAL625980**
		8	**REDSDN 42/8 L**	51.8	**WAL619067**	**WAL623094**	**WAL628468**	**WAL625941**	**WAL625981**
		10	**REDSDN 42/10 L**	50.0	**WAL619068**	**WAL618373**	**WAL628469**	**WAL625942**	**WAL625982**
		12	**REDSDN 42/12 L**	50.0	**WAL619069**	**WAL618374**	**WAL628470**	**WAL625943**	**WAL625983**
		15	**REDSDN 42/15 L**	46.0	**WAL619070**	**WAL618375**	**WAL628471**	**WAL625944**	**WAL625984**
		18	**REDSDN 42/18 L**	46.5	**WAL619071**	**WAL618376**	**WAL628472**	**WAL625945**	**WAL625985**
		22	**REDSDN 42/22 L**	48.5	**WAL619072**	**WAL618377**	**WAL628473**	**WAL625946**	**WAL625986**
		28	**REDSDN 42/28 L**	49.0	**WAL619073**	**WAL618378**	**WAL628474**	**WAL625947**	**WAL625987**
		35	**REDSDN 42/35 L**	55.0	**WAL619074**	**WAL618379**	**WAL628475**	**WAL625948**	**WAL625988**

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

P-REDVDN ... / ...

P-REDVD ... / ...-1.4571

- S series
- With soft seal made from NBR** (e.g. Perbunan) for steel
- With soft seal made from FKM (e.g. Viton) for stainless steel (1.4571)





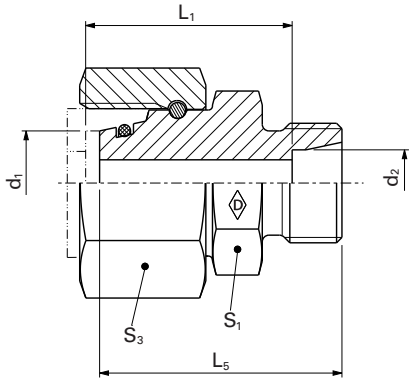
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PN bar (psi)	d_1	Tube outer diameter d_2	Model	kg/ 100 pc.	L_5	L_2	L_1	S_1	S_2	S_3	*O-ring	Walpro P-REDVDN... Part no.	Walpro stainless steel (1.4571) P-REDVD .../...-VI-1.4571* Part no.
800 (11603)	8	6	**P-REDVDN 8/6 S**	6.5	32.5	41.5	27.0	14	17	19	6x1.5	**WAL619164**	**WAL621411**
	10	6	**P-REDVDN 10/6 S**	7.7	33.0	42.0	27.5	17	17	22	8.5x1.5	**WAL619165**	**WAL621412**
		8	**P-REDVDN 10/8 S**	9.0	33.0	42.0	27.5		19			**WAL619166**	**WAL621413**
630 (9137)	12	6	**P-REDVDN 12/6 S**	10.0	35.5	44.5	30.0	19	17	24	10x1.5	**WAL619167**	**WAL621414**
		8	**P-REDVDN 12/8 S**	9.4	35.5	44.5	30.0		19			**WAL619168**	**WAL621415**
		10	**P-REDVDN 12/10 S**	11.5	35.5	45.0	29.5		22			**WAL619169**	**WAL621416**
	14	6	**P-REDVDN 14/6 S**	10.2	36.5	46.0	31.5	22	17	27	12x2	**WAL619170**	**WAL621417**
		8	**P-REDVDN 14/8 S**	11.1	36.5	46.0	31.5		19			**WAL619171**	**WAL621418**
		10	**P-REDVDN 14/10 S**	13.4	36.5	46.5	31.0		22			**WAL619172**	**WAL621419**
		12	**P-REDVDN 14/12 S**	14.3	36.5	46.5	31.0		24			**WAL619173**	**WAL621420**
	16	6	**P-REDVDN 16/6 S**	13.3	36.5	46.5	32.0		17	30	14x2	**WAL619174**	**WAL621421**
		8	**P-REDVDN 16/8 S**	14.0	36.5	46.5	32.0		19			**WAL619175**	**WAL621422**
		10	**P-REDVDN 16/10 S**	16.5	36.5	47.0	31.5		22			**WAL619176**	**WAL621423**
		12	**P-REDVDN 16/12 S**	17.0	36.5	47.0	31.5		24			**WAL619177**	**WAL621424**
		14	**P-REDVDN 16/14 S**	18.3	38.5	50.5	33.0	24	27	30	14x2	**WAL619178**	**WAL621425**
420 (6091)	20	6	**P-REDVDN 20/6 S**	18.0	40.0	50.5	36.0	27	17	36	17.3x2.4	**WAL619179**	**WAL621426**
		8	**P-REDVDN 20/8 S**	21.0	40.0	50.5	36.0		19			**WAL619180**	**WAL621427**
		10	**P-REDVDN 20/10 S**	24.3	40.0	51.0	35.5		22			**WAL619181**	**WAL621428**
		12	**P-REDVDN 20/12 S**	23.0	40.0	51.0	35.5		24			**WAL619182**	**WAL621429**
		14	**P-REDVDN 20/14 S**	25.2	42.0	54.5	37.0		27			**WAL619183**	**WAL621430**
		16	**P-REDVDN 20/16 S**	26.6	42.0	54.5	38.5		30			**WAL619184**	**WAL621431**
	25	6	**P-REDVDN 25/6 S**	34.9	41.0	53.0	38.5	36	17	46	22.3x2.4	**WAL619185**	**WAL621432**
		8	**P-REDVDN 25/8 S**	35.0	41.0	53.0	38.5		19			**WAL619186**	**WAL621433**
		10	**P-REDVDN 25/10 S**	36.5	41.0	53.5	38.0		22			**WAL619187**	**WAL621434**
		12	**P-REDVDN 25/12 S**	37.0	41.0	53.5	38.0		24			**WAL619188**	**WAL621435**
		14	**P-REDVDN 25/14 S**	40.5	43.0	57.0	39.5		27			**WAL619189**	**WAL621436**
		16	**P-REDVDN 25/16 S**	41.0	43.0	57.0	39.0		30			**WAL619190**	**WAL621437**
		20	**P-REDVDN 25/20 S**	47.5	45.0	60.0	39.0		36			**WAL619191**	**WAL621438**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*For complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2 = approximate dimension if the union nut is tightened
**FPM (e.g. Viton) see price list / available on request

REDSDN ... / ...

REDSD ... / ...-1.4571





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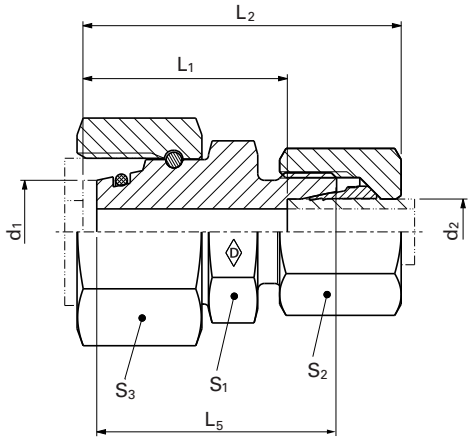
							System nuts for supplementing the stud (for technical data, see part D of this catalog)		
					Stud REDSDN ... / ...	Stud Stainless steel (1.4571) REDSD ... / ... VI-1.4571*	WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
PN bar (psi)	d1	Tube outer diameter d_2	Model	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
800 (11603)	8	6	**REDSDN 8/6 S**	4.5	**WAL619075**	**WAL618425**	**WAL628477**	**WAL625950**	**WAL625990**
	10	6	**REDSDN 10/6 S**	6.5	**WAL619076**	**WAL618426**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**REDSDN 10/8 S**	6.5	**WAL619077**	**WAL618427**	**WAL628478**	**WAL625951**	**WAL625991**
630 (9137)	12	6	**REDSDN 12/6 S**	8.5	**WAL619078**	**WAL618428**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**REDSDN 12/8 S**	8.5	**WAL619079**	**WAL618429**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**REDSDN 12/10 S**	8.5	**WAL619080**	**WAL618430**	**WAL628479**	**WAL625952**	**WAL625992**
	14	6	**REDSDN 14/6 S**	11.1	**WAL619081**	**WAL618431**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**REDSDN 14/8 S**	11.5	**WAL619082**	**WAL618432**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**REDSDN 14/10 S**	10.2	**WAL619083**	**WAL618433**	**WAL628479**	**WAL625952**	**WAL625992**
		12	**REDSDN 14/12 S**	10.8	**WAL619084**	**WAL618434**	**WAL628480**	**WAL625953**	**WAL625993**
	16	6	**REDSDN 16/6 S**	11.5	**WAL619085**	**WAL618435**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**REDSDN 16/8 S**	12.0	**WAL619086**	**WAL618436**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**REDSDN 16/10 S**	13.0	**WAL619087**	**WAL618437**	**WAL628479**	**WAL625952**	**WAL625992**
		12	**REDSDN 16/12 S**	13.0	**WAL619088**	**WAL618438**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**REDSDN 16/14 S**	19.2	**WAL619089**	**WAL618439**			
420 (6091)	20	6	**REDSDN 20/6 S**	16.2	**WAL619090**	**WAL618440**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**REDSDN 20/8 S**	18.5	**WAL619091**	**WAL618441**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**REDSDN 20/10 S**	18.5	**WAL619092**	**WAL618442**	**WAL628479**	**WAL625952**	**WAL625992**
		12	**REDSDN 20/12 S**	19.0	**WAL619093**	**WAL067812**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**REDSDN 20/14 S**	24.0	**WAL619094**	**WAL618443**			
		16	**REDSDN 20/16 S**	19.2	**WAL619095**	**WAL067813**	**WAL628481**	**WAL625954**	**WAL625994**
	25	6	**REDSDN 25/6 S**	33.0	**WAL619096**	**WAL618444**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**REDSDN 25/8 S**	33.0	**WAL619097**	**WAL618445**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**REDSDN 25/10 S**	33.0	**WAL619098**	**WAL618446**	**WAL628479**	**WAL625952**	**WAL625992**
		12	**REDSDN 25/12 S**	33.5	**WAL619099**	**WAL618447**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**REDSDN 25/14 S**	34.0	**WAL619100**	**WAL618448**			
		16	**REDSDN 25/16 S**	34.0	**WAL619101**	**WAL067814**	**WAL628481**	**WAL625954**	**WAL625994**
		20	**REDSDN 25/20 S**	35.0	**WAL619102**	**WAL618449**	**WAL628482**	**WAL625955**	**WAL625995**

⚠ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

P-REDVDN ... / ...

P-REDVD ... / ...-1.4571

- S series
- With soft seal made from NBR** (e.g. Perbunan) for steel
- With soft seal made from FKM (e.g. Viton) for stainless steel (1.4571)





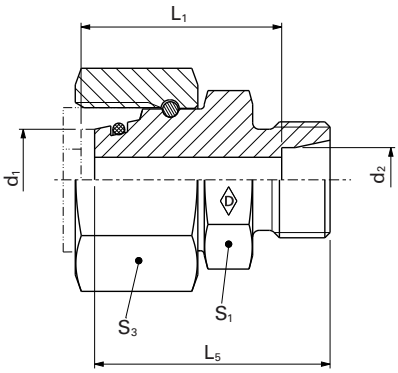
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PN bar (psi)	d_1	Tube outer diameter d_2	Model	kg/ 100 pc.	L_5	L_2	L_1	S_1	S_2	S_3	*O-ring	Walpro P-REDVDN ... / ... Part no.	Walpro Stainless steel (1.4571) P-REDVD ... / ... VI-1.4571* Part no.
420 (6091)	30	6	**P-REDVDN 30/6 S**	43.0	45.0	58.5	44.0	41	17	50	27.3x2.4	**WAL619192**	**WAL621439**
		8	**P-REDVDN 30/8 S**	43.0	45.0	58.5	44.0		19			**WAL619193**	**WAL621440**
		10	**P-REDVDN 30/10 S**	44.0	45.0	59.0	43.5		22			**WAL619194**	**WAL621441**
		12	**P-REDVDN 30/12 S**	46.1	45.0	59.0	43.5		24			**WAL619195**	**WAL621442**
		14	**P-REDVDN 30/14 S**	47.9	47.0	62.5	45.0		27			**WAL619196**	**WAL621443**
		16	**P-REDVDN 30/16 S**	46.1	47.0	62.5	44.5		30			**WAL619197**	**WAL621444**
		20	**P-REDVDN 30/20 S**	53.9	49.0	65.5	44.5		36			**WAL619198**	**WAL621445**
		25	**P-REDVDN 30/25 S**	65.9	51.0	68.5	45.0		46			**WAL619199**	**WAL621446**
	38	6	**P-REDVDN 38/6 S**	60.0	46.0	62.0	47.5	50	17	60	35x2.5	**WAL619200**	**WAL621447**
		8t	**P-REDVDN 38/8 S**	60.0	46.0	62.0	47.5		19			**WAL619201**	**WAL621448**
		10	**P-REDVDN 38/10 S**	60.5	46.0	62.5	47.0		22			**WAL619202**	**WAL621449**
		12	**P-REDVDN 38/12 S**	63.1	46.0	62.5	47.0		24			**WAL619203**	**WAL621450**
		14	**P-REDVDN 38/14 S**	66.7	48.0	66.0	48.5		27			**WAL619204**	**WAL621451**
		16	**P-REDVDN 38/16 S**	68.0	48.0	66.0	48.0		30			**WAL619205**	**WAL621452**
		20	**P-REDVDN 38/20 S**	70.0	50.0	69.0	48.0		36			**WAL619206**	**WAL621453**
		25	**P-REDVDN 38/25 S**	82.5	52.0	72.0	48.5		46			**WAL619207**	**WAL621454**
		30	**P-REDVDN 38/30 S**	87.8	54.0	75.0	49.0		50			**WAL619208**	**WAL621455**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*For complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened
**FPM (e.g. Viton) see price list / available on request

REDSDN ... / ...

REDSD ... / ...-1.4571





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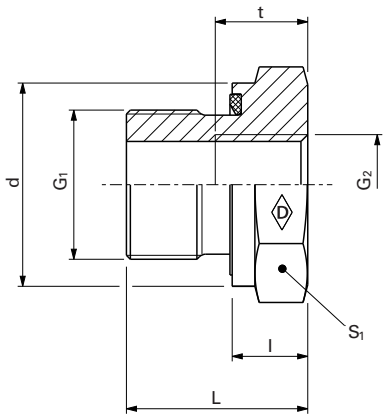
							System nuts for supplementing the stud (for technical data, see part D of this catalog)		
					Stud REDSDN ... / ...	Stud Stainless steel (1.4571) REDSD ... / ... VI-1.4571*	WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
PN bar (psi)	d1	Tube outer diameter d_2	Model	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
420 (6091)	30	6	**REDSDN 30/6 S**	40.5	**WAL619103**	**WAL618450**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**REDSDN 30/8 S**	41.0	**WAL619104**	**WAL618451**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**REDSDN 30/10 S**	41.5	**WAL619105**	**WAL618452**	**WAL628479**	**WAL625952**	**WAL625992**
		12	**REDSDN 30/12 S**	41.5	**WAL619106**	**WAL618453**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**REDSDN 30/14 S**	47.0	**WAL619107**	**WAL618454**			
		16	**REDSDN 30/16 S**	41.5	**WAL619108**	**WAL618455**	**WAL628481**	**WAL625954**	**WAL625994**
		20	**REDSDN 30/20 S**	43.0	**WAL619109**	**WAL067815**	**WAL628482**	**WAL625955**	**WAL625995**
		25	**REDSDN 30/25 S**	46.0	**WAL619110**	**WAL618456**	**WAL628483**	**WAL625956**	**WAL625996**
	38	6	**REDSDN 38/6 S**	57.0	**WAL619111**	**WAL618457**	**WAL628477**	**WAL625950**	**WAL625990**
		8	**REDSDN 38/8 S**	57.5	**WAL619112**	**WAL618458**	**WAL628478**	**WAL625951**	**WAL625991**
		10	**REDSDN 38/10 S**	58.0	**WAL619113**	**WAL618459**	**WAL628479**	**WAL625952**	**WAL625992**
		12	**REDSDN 38/12 S**	57.5	**WAL619114**	**WAL618460**	**WAL628480**	**WAL625953**	**WAL625993**
		14	**REDSDN 38/14 S**	67.2	**WAL619115**	**WAL618461**			
		16	**REDSDN 38/16 S**	58.5	**WAL619116**	**WAL618462**	**WAL628481**	**WAL625954**	**WAL625994**
		20	**REDSDN 38/20 S**	59.0	**WAL619117**	**WAL618463**	**WAL628482**	**WAL625955**	**WAL625995**
		25	**REDSDN 38/25 S**	61.0	**WAL619118**	**WAL618464**	**WAL628483**	**WAL625956**	**WAL625996**
		30	**REDSDN 38/30 S**	67.5	**WAL619119**	**WAL067816**	**WAL628484**	**WAL625957**	**WAL625997**

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

RED ... -WD/...

RED ... -WD/...-1.4571

- With soft seal made from NBR** (e.g. Perbunan) for steel
- With soft seal made from FKM (e.g. Viton) for stainless steel (1.4571)
- Inch studs type E to DIN EN ISO 1179-2





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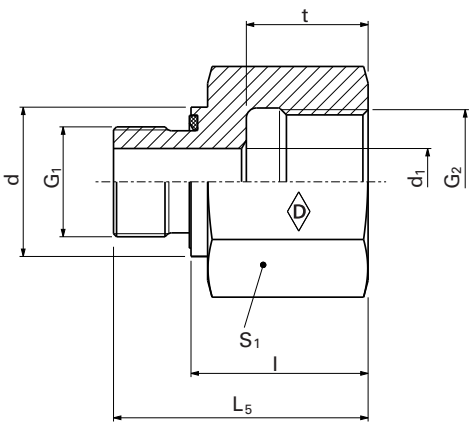
										Stud RED ... -WD/...	Stud Stainless steel (1.4571) RED ... -WD/...VI-1.4571
PN bar (psi)	DIN - ISO 228 (R..., DIN 259) G_1	G_2	Model	kg/ 100 pc.	L	l	d	t	S_1	Part no.	Part no.
630 (9137)	G 3/8 A	G 1/8	**RED-R 3/8-WD/R 1/8**	4.0	22.5	10.5	21.9	8	22	**WAL606600**	**WAL612428**
	G 1/2 A	G 1/8	**RED-R 1/2-WD/R 1/8**	6.6	24	10	26.9	8	27	**WAL606601**	**WAL617813**
		G 1/4	**RED-R 1/2-WD/R 1/4**	6.0	24	10	26.9	12	27	**WAL606602**	**WAL610622**
400 (5801)	G 3/4 A	G 1/4	**RED-R 3/4-WD/R 1/4**	9.5	26	10	31.9	12	32	**WAL606603**	**WAL611180**
		G 3/8	**RED-R 3/4-WD/R 3/8**	9.0	26	10	31.9	12	32	**WAL606604**	**WAL612089**
	G 1 A	G 1/4	**RED-R 1 - WD/R 1/4**	20.0	29	11	39.9	12	41	**WAL606605**	**WAL615116**
		G 3/8	**RED-R 1 - WD/R 3/8**	18.0	29	11	39.9	12	41	**WAL606606**	**WAL617814**
		G 1/2	**RED-R 1 - WD/R 1/2**	16.0	29	11	39.9	14	41	**WAL606607**	**WAL611254**
	G 1 1/4 A	G 1/2	**RED-R 1 1/4-WD/R 1/2**	31.0	32	12	49.9	14	50	**WAL606608**	**WAL613813**
		G 3/4	**RED-R 1 1/4-WD/R 3/4**	27.0	32	12	49.9	16	50	**WAL606609**	**WAL612044**
	G 1 1/2 A	G 1/2	**RED-R 1 1/2-WD/R 1/2**	47.0	36	12	54.9	14	55	**WAL606610**	**WAL613127**
		G 3/4	**RED-R 1 1/2-WD/R 3/4**	43.0	36	14	54.9	16	55	**WAL606611**	**WAL615258**
		G 1	**RED-R 1 1/2-WD/R 1**	34.5	36	14	54.9	18	55	**WAL606612**	**WAL612103**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
**FPM (e.g. Viton) see price list / available on request

RED ... -WD/...

RED ... -WD/...-1.4571

- With soft seal made from NBR** (e.g. Perbunan) for steel
- With soft seal made from FKM (e.g. Viton) for stainless steel (1.4571)
- Inch studs type E to DIN EN ISO 1179-2





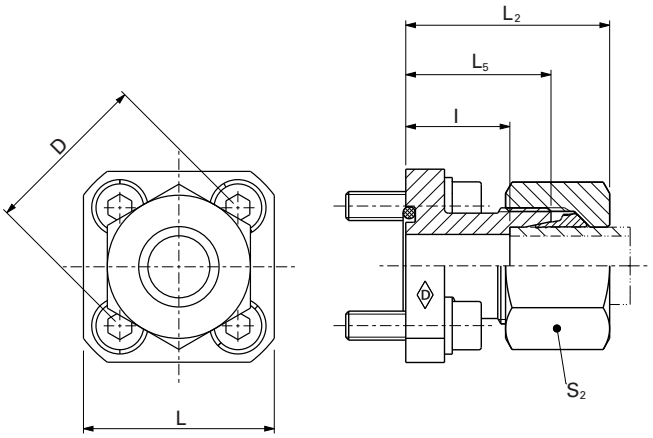
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											Stud RED ... -WD/...	Stud Stainless steel (1.4571) RED ... -WD/...VI-1.4571
PN bar (psi)	DIN - ISO 228 (R..., DIN 259) G_1	G_2	Model	kg/ 100 pc.	L	l	d	d_1	t	S_1	Part no.	Part no.
400 (5801)	G 1/8 A	G 1/4	**RED-R 1/8-WD/R 1/4**	3.6	31	23	13.9	4	17	19	**WAL606613**	**WAL612430**
		G 3/8	**RED-R 1/8-WD/R 3/8**	4.5	32	24	13.9	4	17	24	**WAL606614**	**WAL612431**
	G 1/4 A	G 1/8	**RED-R 1/4-WD/R 1/8**	3.6	29	17	18.9	5	12	19	**WAL606615**	**WAL615402**
		G 3/8	**RED-R 1/4-WD/R 3/8**	6.6	36	24	18.9	5	17	24	**WAL606616**	**WAL610621**
		G 1/2	**RED-R 1/4-WD/R 1/2**	8.5	40	28	18.9	5	20	30	**WAL606617**	**WAL610620**
		G 3/4	**RED-R 1/4-WD/R 3/4**	17.3	43	31	18.9	5	22	36	**WAL606618**	**WAL617815**
	G 3/8 A	G 1/4	**RED-R 3/8-WD/R 1/4**	3.0	36	24	21.9	8	17	22	**WAL606619**	**WAL615403**
		G 1/2	**RED-R 3/8-WD/R 1/2**	9.0	41	29	21.9	8	20	30	**WAL606620**	**WAL612429**
		G 3/4	**RED-R 3/8-WD/R 3/4**	17.5	44	32	21.9	8	22	36	**WAL606621**	**WAL615482**
	G 1/2 A	G 3/8	**RED-R 1/2-WD/R 3/8**	9.5	37	23	26.9	12	17	27	**WAL606622**	**WAL612095**
		G 3/4	**RED-R 1/2-WD/R 3/4**	18.0	46	32	26.9	12	22	36	**WAL606623**	**WAL611320**
		G 1	**RED-R 1/2-WD/R 1**	22.5	49	35	26.9	12	24.5	41	**WAL606624**	**WAL612928**
250 (3626)	G 1/2 A	G 1 1/4	**RED-R 1/2-WD/R 1 1/4**	47.0	53	39	26.9	12	26.5	55	**WAL606625**	**WAL615487**
400 (5801)	G 3/4 A	G 1/2	**RED-R 3/4-WD/R 1/2**	15.0	43	27	31.9	16	20	32	**WAL606626**	**WAL612017**
		G 1	**RED-R 3/4-WD/R 1**	23.5	51	35	31.9	16	24.5	41	**WAL606627**	**WAL615220**
250 (3626)	G 3/4 A	G 1 1/4	**RED-R 3/4-WD/R 1 1/4**	48.3	55	39	31.9	16	26.5	55	**WAL606628**	**WAL615412**
		G 1 1/2	**RED-R 3/4-WD/R 1 1/2**	54.5	57	41	31.9	16	28.5	60	**WAL606629**	**WAL615508**
400 (5801)	G 1 A	G 3/4	**RED-R 1 -WD/R 3/4**	28.0	49	31	39.9	20	22	41	**WAL606630**	**WAL611989**
250 (3626)	G 1 A	G 1 1/4	**RED-R 1 -WD/R 1 1/4**	51.0	57	39	39.9	20	26.5	55	**WAL606631**	**WAL611321**
		G 1 1/2	**RED-R 1 -WD/R 1 1/2**	56.5	59	41	39.9	20	28.5	60	**WAL606632**	**WAL615411**
400 (5801)	G 1 1/4 A	G 1	**RED-R 1 1/4-WD/R 1**	45.5	53	33	49.9	25	24.5	50	**WAL606633**	**WAL611629**
250 (3626)	G 1 1/4 A	G 1 1/2	**RED-R 1 1/4-WD/R 1 1/2**	58.0	60	40	49.9	25	28.5	60	**WAL606634**	**WAL615483**
	G 1 1/2 A	G 1 1/4	**RED-R 1 1/2-WD/R 1 1/4**	53.0	58	36	54.9	32	26.5	55	**WAL606635**	**WAL615231**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
**FPM (e.g. Viton) see price list / available on request

P-GFV ...

- For four-hole mounting





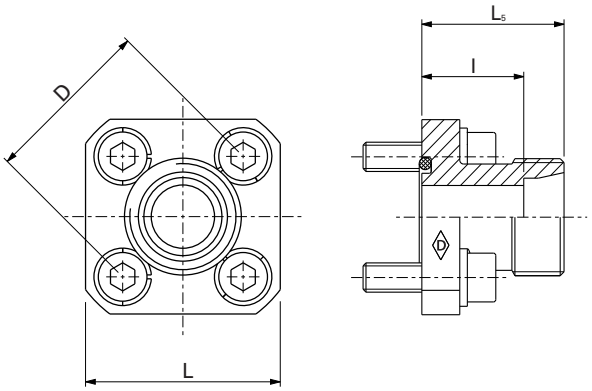
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D	Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L	L_2	L_5	I	S_2	Walpro P-GFV... Part no.
35	L	315 (4569)	10	**P-GFV 10 L-35**	13.5	39	37.5	30	23	19	**WAL374282**
			12	**P-GFV 12 L-35**	14.4	39	37.5	30	23	22	**WAL374283**
		250 (3626)	15	**P-GFV 15 L-35**	16.3	39	38	30	23	27	**WAL374284**
	S	315 (4569)	16	**P-GFV 16 S-35**	20.0	39	39.5	30	21.5	30	**WAL374285**
40	L	100 (1450)	15	**P-GFV 15 L-40**	18.6	42	43	35	28	27	**WAL374286**
			18	**P-GFV 18 L-40**	23.1	42	43.5	35	27.5	32	**WAL374287**
			22	**P-GFV 22 L-40**	23.8	42	43.5	35	27.5	36	**WAL374288**
			28	**P-GFV 28 L-40**	25.2	41	51	42	34.5	41	**WAL374717**
55	S	250 (3626)	20	**P-GFV 20 S-55**	52.5	55	51	40	29.5	36	**WAL374718**

L_2 = approximate dimension if the union nut is tightened.
Accessories such as hexagon socket screws, spring washers and O-rings are included in the delivery but come unassembled.

GFS ...

- For four-hole mounting





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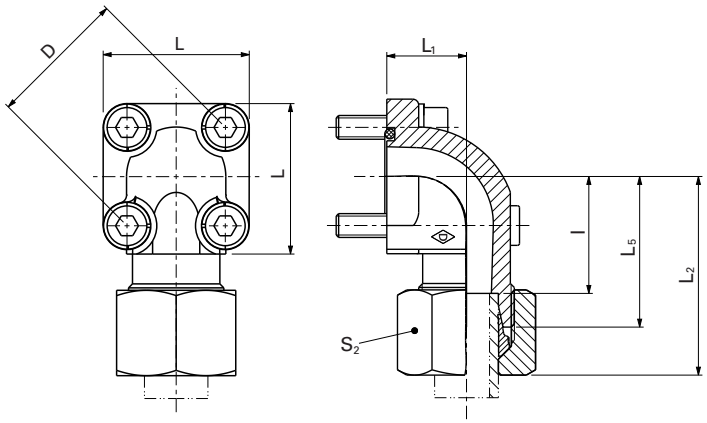
						System nuts for supplementing the stud (for technical data, see part D of this catalog)	
					Stud GFS...	WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI
D	Series	PN bar (psi)	Tube outer diameter	Model	Part no.	Part no.	Part no.
35	L	315 (4569)	10	**GFS 10 L-35**	**WAL064121**	**WAL628469**	**WAL625942**
			12	**GFS 12 L-35**	**WAL064122**	**WAL628470**	**WAL625943**
		250 (3626)	15	**GFS 15 L-35**	**WAL064123**	**WAL628471**	**WAL625944**
	S	315 (4569)	16	**GFS 16 S-35**	**WAL064125**	**WAL628481**	**WAL625954**
40	L	100 (1450)	15	**GFS 15 L-40**	**WAL064124**	**WAL628471**	**WAL625944**
			18	**GFS 18 L-40**	**WAL064126**	**WAL628472**	**WAL625945**
			22	**GFS 22 L-40**	**WAL064128**	**WAL628473**	**WAL625946**
			28	**GFS 28 L-40**	**WAL064129**	**WAL628474**	**WAL625947**
55	S	250 (3626)	20	**GFS 20 S-55**	**WAL064127**	**WAL628482**	**WAL625955**

Accessory parts

			O-ring		Spring washer		Hexagon socket screw	
D	Tube outer diameter	Model	Dimensions	Part no.	Dimensions	Part no.	Dimensions	Part no.
35	10	**GFS 10 L-35**	20x2.5	**WAL610519**	B 6	**WAL020102**	**M6x22**	**WAL020309**
	12	**GFS 12 L-35**	20x2.5	**WAL610519**	B 6	**WAL020102**	**M6x22**	**WAL020309**
	15	**GFS 15 L-35**	20x2.5	**WAL610519**	B 6	**WAL020102**	**M6x22**	**WAL020309**
	16	**GFS 16 S-35**	20x2.5	**WAL610519**	B 6	**WAL020102**	**M6x22**	**WAL020309**
40	15	**GFS 15 L-40**	26x2.5	**WAL610499**	B 6	**WAL020102**	**M6x22**	**WAL020309**
	18	**GFS 18 L-40**	26x2.5	**WAL610499**	B 6	**WAL020102**	**M6x22**	**WAL020309**
	22	**GFS 22 L-40**	26x2.5	**WAL610499**	B 6	**WAL020102**	**M6x22**	**WAL020309**
	28	**GFS 28 L-40**	26x2.5	**WAL610499**	B 6	**WAL020102**	**M6x22**	**WAL020309**
55	20	**GFS 20 S-55**	33x2.5	**WAL610500**	B 8	**WAL020104**	**M8x25**	**WAL020324**

P-WFV ...

- For four-hole mounting





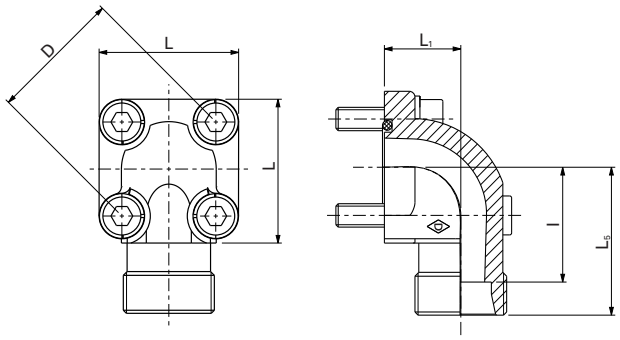
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D	Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	L	L_1	L_2	L_5	l	S_2	Walpro P-WFV... Part no.
35	L	315 (4569)	10	**P-WFV 10 L-35***	19.8	39	16.5	44.5	37.5	30.5	19	**WAL374289**
			12	**P-WFV 12 L-35***	20.2	39	16.5	44.5	37.5	30.5	22	**WAL374290**
		250 (3626)	15	**P-WFV 15 L-35***	21.9	39	16.5	45	37	30	27	**WAL374291**
	S	315 (4569)	16	**P-WFV 16 S-35****	26.2	39	20	47.5	38	29.5	30	**WAL374292**
			20	**P-WFV 20 S-35****	39.4	39	25	56	45	34.5	36	**WAL374293**
40	L	100 (1450)	15	**P-WFV 15 L-40***	23.3	42	22.5	45	37	30	27	**WAL374294**
			18	**P-WFV 18 L-40***	25.3	42	22.5	46.5	38	30.5	32	**WAL374295**
			22	**P-WFV 22 L-40****	27.5	42	22.5	46.5	38	30.5	36	**WAL374296**
			28	**P-WFV 28 L-40****	37.1	42	28	49	40	32.5	41	**WAL374297**
			35	**P-WFV 35 L-40****	51.6	42	34	52	41	30.5	50	**WAL374298**
	S	250 (3626)	20	**P-WFV 20 S-40****	34.4	42	22.5	51	40	29.5	36	**WAL374299**
55	L	100 (1450)	22	**P-WFV 22 L-55****	60.5	58	24	52	43	35.5	36	**WAL374719**
			35	**P-WFV 35 L-55****	68.8	58	32	60	49	35.5	50	**WAL374300**
			42	**P-WFV 42 L-55****	90.9	58	40	60.5	49	38	60	**WAL374301**
	S	250 (3626)	20	**P-WFV 20 S-55****	58.5	58	24	56	45	34.5	36	**WAL374302**
			25	**P-WFV 25 S-55***	78.4	58	30	61	49	37	46	**WAL374303**
			30	**P-WFV 30 S-55****	77.1	58	32	62	49	35.5	50	**WAL374304**

L_2 = approximate dimension if the union nut is tightened
Accessories such as hexagon socket screws, spring washers and O-rings are included in the delivery but come unassembled.
*Forged part
**Cast part

WFS ...

- For four-hole mounting





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D	Series	PN bar (psi)	Tube outer diameter	Model	kg/ 100 pc.	Stud WFS ... Part no.	System nuts for supplementing the stud (for technical data, see part D of this catalog) WalringPlus W-R-Plus-M ... VI Part no.	Walform WF-M ... VI Part no.
35	L	315 (4569)	10	**WFS 10 L-35***	21.0	**WAL064131**	**WAL628469**	**WAL625942**
			12	**WFS 12 L-35***	17.3	**WAL064132**	**WAL628470**	**WAL625943**
		250 (3626)	15	**WFS 15 L-35***	17.3	**WAL064135**	**WAL628471**	**WAL625944**
	S	315 (4569)	16	**WFS 16 S-35****	20.0	**WAL064137**	**WAL628481**	**WAL625954**
			20	**WFS 20 S-35****	28.8	**WAL064139**	**WAL628482**	**WAL625955**
40	L	100 (1450)	15	**WFS 15 L-40***	18.0	**WAL064136**	**WAL628471**	**WAL625944**
			18	**WFS 18 L-40***	18.6	**WAL064138**	**WAL628472**	**WAL625945**
			22	**WFS 22 L-40****	21.5	**WAL064142**	**WAL628473**	**WAL625946**
			28	**WFS 28 L-40****	27.9	**WAL064145**	**WAL628474**	**WAL625947**
			35	**WFS 35 L-40****	36.3	**WAL064147**	**WAL628475**	**WAL625948**
	S	250 (3626)	20	**WFS 20 S-40****	25.5	**WAL064140**	**WAL628482**	**WAL625955**
55	L	100 (1450)	22	**WFS 22 L-55****	57.0	**WAL064143**	**WAL628473**	**WAL625946**
			35	**WFS 35 L-55****	45.5	**WAL064148**	**WAL628475**	**WAL625948**
			42	**WFS 42 L-55****	84.0	**WAL064149**	**WAL628476**	**WAL625949**
	S	250 (3626)	20	**WFS 20 S-55****	56.0	**WAL064141**	**WAL628482**	**WAL625955**
			25	**WFS 25 S-55***	48.5	**WAL064144**	**WAL628483**	**WAL625956**
			30	**WFS 30 S-55****	54.9	**WAL064146**	**WAL628484**	**WAL625957**

*Forged part
**Cast part

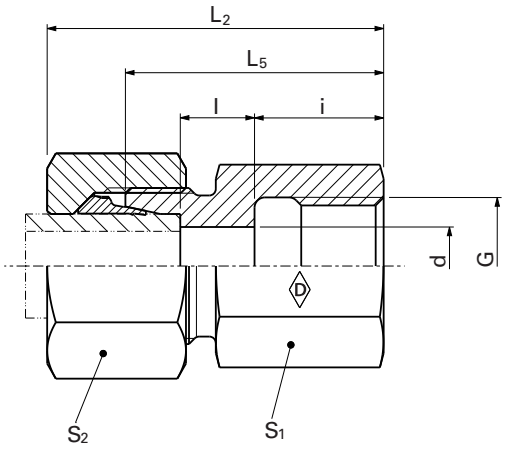
Accessory parts

D		Tube outer diameter	Model	O-ring Dimensions	O-ring Part no.	Spring washer Dimensions	Spring washer Part no.	Hexagon socket screw Pc.	Hexagon socket screw Dimensions	Hexagon socket screw Part no.	Pc.	Dimensions	Part no.
35	L	10	**WFS 10 L-35***	20x2.5	**WAL610519**	B 6	**WAL020102**	2	M 6x35	**WAL020313**	2	M 6x22	**WAL020309**
		12	**WFS 12 L-35***	20x2.5	**WAL610519**	B 6	**WAL020102**	2	M 6x35	**WAL020313**	2	M 6x22	**WAL020309**
		15	**WFS 15 L-35***	20x2.5	**WAL610519**	B 6	**WAL020102**	2	M 6x40	**WAL021785**	2	M 6x22	**WAL020309**
	S	16	**WFS 16 S-35****	20x2.5	**WAL610519**	B 6	**WAL020102**	2	M 6x40	**WAL021785**	2	M 6x22	**WAL020309**
		20	**WFS 20 S-35****	20x2.5	**WAL610519**	B 6	**WAL020102**	2	M 6x45	**WAL021956**	2	M 6x22	**WAL020309**
40	L	15	**WFS 15 L-40***	26x2.5	**WAL610499**	B 6	**WAL020102**	2	M 6x45	**WAL021956**	2	M 6x22	**WAL020309**
		18	**WFS 18 L-40***	26x2.5	**WAL610499**	B 6	**WAL020102**	2	M 6x45	**WAL021956**	2	M 6x22	**WAL020309**
		22	**WFS 22 L-40****	26x2.5	**WAL610499**	B 6	**WAL020102**	4	M 6x22	**WAL020309**			
		28	**WFS 28 L-40****	26x2.5	**WAL610499**	B 6	**WAL020102**	2	M 6x50	**WAL021786**	2	M 6x22	**WAL020309**
		35	**WFS 35 L-40****	26x2.5	**WAL610499**	B 6	**WAL020102**	2	M 6x60	**WAL021787**	2	M 6x22	**WAL020309**
	S	20	**WFS 20 S-40****	26x2.5	**WAL610499**	B 6	**WAL020102**	2	M 6x45	**WAL021956**	2	M 6x22	**WAL020309**
55	L	22	**WFS 22 L-55****	32x2.5	**WAL020775**	B 8	**WAL020104**	2	M 8x50	**WAL020331**	2	M 8x25	**WAL020324**
		35	**WFS 35 L-55****	32x2.5	**WAL020775**	B 8	**WAL020104**	2	M 8x60	**WAL021793**	2	M 8x25	**WAL020324**
		42	**WFS 42 L-55****	32x2.5	**WAL020775**	B 8	**WAL020104**	2	M 8x70	**WAL021794**	2	M 8x25	**WAL020324**
	S	20	**WFS 20 S-55****	32x2.5	**WAL020775**	B 8	**WAL020104**	2	M 8x50	**WAL020331**	2	M 8x25	**WAL020324**
		25	**WFS 25 S-55***	33x2.5	**WAL020775**	B 8	**WAL020104**	2	M 8x55	**WAL023977**	2	M 8x25	**WAL020324**
		30	**WFS 30 S-55****	33x2.5	**WAL020775**	B 8	**WAL020104**	2	M 8x50	**WAL020331**	2	M 8x25	**WAL020324**

P-GAV ... R

P-GAV ... R-1.4571

- Inch thread





H

Series	PN bar (psi)	Tube outer diameter	DIN-ISO 228 (R ..., DIN 259) G	Model	kg/ 100 pc.	L_2	L_5	l	i	d	S_1	S_2	Walpro P-GAV ... R Part no.	Walpro Stainless steel (1.4571) P-GAV ... -1.4571* Part no.
L	250 (3626)	6	G 1/8	**P-GAV 6 LR**	2.0	34	26	7	12	4	14	14	**WAL374305**	**WAL621217**
		8	G 1/4	**P-GAV 8 LR**	4.0	39	31	7	17	6	19	17	**WAL374306**	**WAL620364**
		10	G 1/4	**P-GAV 10 LR**	4.5	40	32	8	17	8	19	19	**WAL374307**	**WAL620241**
	400 (5801)	12	G 1/4	**P-GAV 12 LR 1/4**	5.3	40	32	8	17	8	19	22	**WAL374308**	**WAL620365**
	250 (3626)	12	G 3/8	**P-GAV 12 LR**	6.0	41	33	9	17	10	24	22	**WAL374309**	**WAL620284**
		15	G 1/2	**P-GAV 15 LR**	10.5	46	38	11	20	12	30	27	**WAL374310**	**WAL620201**
	160 (2321)	18	G 1/2	**P-GAV 18 LR**	12.5	47	38	10.5	20	15	27	32	**WAL374311**	**WAL620278**
		22	G 3/4	**P-GAV 22 LR**	17.5	52	43	13.5	22	19	36	36	**WAL374312**	**WAL620219**
	100 (1450)	28	G 1	**P-GAV 28 LR**	25.5	55	45.5	13.5	24.5	24	41	41	**WAL374313**	**WAL620281**
		35	G 1 1/4	**P-GAV 35 LR**	42.0	63	51.5	14.5	26.5	30	55	50	**WAL374314**	**WAL620494**
		42	G 1 1/2	**P-GAV 42 LR**	43.5	65	53.5	14	28.5	36	60	60	**WAL374315**	**WAL620722**
S	630 (9137)	6	G 1/4	**P-GAV 6 SR**	4.0	41	33	9	17	4	19	17	**WAL374316**	**WAL620000**
		8	G 1/4	**P-GAV 8 SR**	5.0	41	33	9	17	5	19	19	**WAL374317**	**WAL620308**
		10	G 3/8	**P-GAV 10 SR**	8.5	43	34	9.5	17	7	24	22	**WAL374318**	**WAL620233**
		12	G 3/8	**P-GAV 12 SR**	9.0	43	34	9.5	17	8	24	24	**WAL374319**	**WAL620309**
		14	G 1/2	**P-GAV 14 SR**	12.5	50	40	12	20	10	27	27	**WAL374320**	**WAL620531**
	400 (5801)	16	G 1/2	**P-GAV 16 SR**	14.0	50	40	11.5	20	12	30	30	**WAL374321**	**WAL620293**
		20	G 3/4	**P-GAV 20 SR**	24.0	56	45	12.5	22	16	36	36	**WAL374322**	**WAL620323**
		25	G 1	**P-GAV 25 SR**	46	62	49.5	13	24.5	20	41	46	**WAL374323**	**WAL620342**
	250 (3626)	30	G 1 1/4	**P-GAV 30 SR**	54.5	69	55.5	15.5	26.5	25	55	50	**WAL374324**	**WAL620723**
		38	G 1 1/2	**P-GAV 38 SR**	86.0	74	59.5	15	28.5	32	60	60	**WAL374325**	**WAL620724**

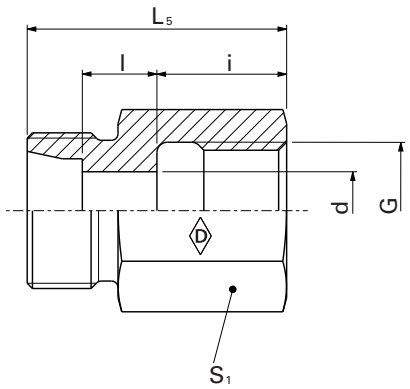
Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

*For complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price lists

L_2 = approximate dimension if the union nut is tightened

GAS ... R

GAS ... R-1.4571





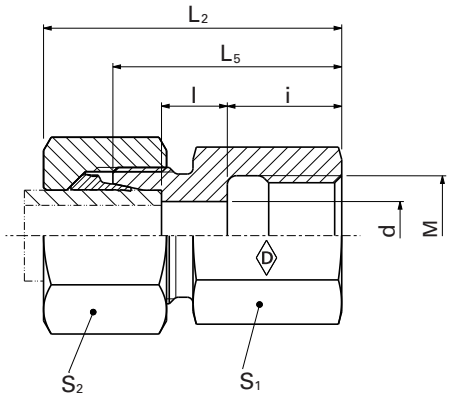
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							System nuts for supplementing the stud (for technical data, see part D of this catalog)		
					Stud GAS ... R	Stud Stainless steel (1.4571) GAS ... R-1.4571*	WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI	Walform stainless steel WF-M ... VI-1.4571*
Series	PN bar (psi)	Tube outer diameter	G	Model	kg/ 100 pc.	Part no.	Part no.	Part no.	Part no.	Part no.
L	250 (3626)	6	G 1/8	**GAS 6 LR**	1.9	**WAL038084**	**WAL061994**	**WAL628467**	**WAL625940**	**WAL625980**
		8	G 1/4	**GAS 8 LR**	3.8	**WAL038085**	**WAL060717**	**WAL628468**	**WAL625941**	**WAL625981**
		10	G 1/4	**GAS 10 LR**	3.9	**WAL038086**	**WAL065914**	**WAL628469**	**WAL625942**	**WAL625982**
	400 (5801)	12	G 1/4	**GAS 12 LR 1/4**	4.4	**WAL038087**	**WAL065915**	**WAL628470**	**WAL625943**	**WAL625983**
	250 (3626)	12	G 3/8	**GAS 12 LR**	6.2	**WAL038088**	**WAL060759**	**WAL628470**	**WAL625943**	**WAL625983**
		15	G 1/2	**GAS 15 LR**	8.6	**WAL038089**	**WAL065916**	**WAL628471**	**WAL625944**	**WAL625984**
	160 (2321)	18	G 1/2	**GAS 18 LR**	8.9	**WAL038090**	**WAL063099**	**WAL628472**	**WAL625945**	**WAL625985**
		22	G 3/4	**GAS 22 LR**	8.9	**WAL038091**	**WAL065917**	**WAL628473**	**WAL625946**	**WAL625986**
	100 (1450)	28	G 1	**GAS 28 LR**	20.9	**WAL038092**	**WAL065918**	**WAL628474**	**WAL625947**	**WAL625987**
		35	G 1 1/4	**GAS 35 LR**	46.3	**WAL038093**	**WAL065919**	**WAL628475**	**WAL625948**	**WAL625988**
		42	G 1 1/2	**GAS 42 LR**	52.8	**WAL038094**	**WAL065920**	**WAL628476**	**WAL625949**	**WAL625989**
S	630 (9137)	6	G 1/4	**GAS 6 SR**	4.2	**WAL038095**	**WAL024001**	**WAL628477**	**WAL625950**	**WAL625990**
		8	G 1/4	**GAS 8 SR**	4.4	**WAL038096**	**WAL065921**	**WAL628478**	**WAL625951**	**WAL625991**
		10	G 3/8	**GAS 10 SR**	6.9	**WAL038097**	**WAL061840**	**WAL628479**	**WAL625952**	**WAL625992**
		12	G 3/8	**GAS 12 SR**	7.2	**WAL038098**	**WAL024535**	**WAL628480**	**WAL625953**	**WAL625993**
		14	G 1/2	**GAS 14 SR**	9.7	**WAL038099**	**WAL065922**			
	400 (5801)	16	G 1/2	**GAS 16 SR**	9.4	**WAL038100**	**WAL061007**	**WAL628481**	**WAL625954**	**WAL625994**
		20	G 3/4	**GAS 20 SR**	19.3	**WAL038101**	**WAL065923**	**WAL628482**	**WAL625955**	**WAL625995**
		25	G 1	**GAS 25 SR**	24.2	**WAL038102**	**WAL065924**	**WAL628483**	**WAL625956**	**WAL625996**
	250 (3626)	30	G 1 1/4	**GAS 30 SR**	50.1	**WAL038103**	**WAL065925**	**WAL628484**	**WAL625957**	**WAL625997**
		38	G 1 1/2	**GAS 38 SR**	58.4	**WAL038104**	**WAL065926**	**WAL628485**	**WAL625958**	**WAL625998**

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

P-GAV ... M

- Metric thread



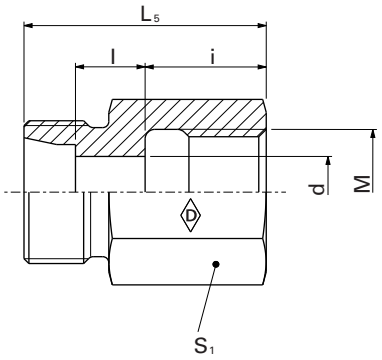


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Series	PN bar (psi)	Tube outer diameter	DIN-ISO 228 (R ..., DIN 259) M	Model	kg/ 100 pc.	L_2	L_5	l	i	d	S_1	S_2	Walpro P-GAV ... M Part no.
L	250 (3626)	6	M 10x1	**P-GAV 6 LM**	2.5	34	26.5	7	12.5	4	14	14	**WAL602627**
		8	M 12x1.5	**P-GAV 8 LM**	4.0	39	31	7	17	6	17	17	**WAL604351**
		10	M 14x1.5	**P-GAV 10 LM**	5.0	40	32	8	17	8	19	19	**WAL604132**
		12	M 16x1.5	**P-GAV 12 LM**	8.0	41	33	9	17	10	22	22	**WAL602936**
		15	M 18x1.5	**P-GAV 15 LM**	10.1	43	35	11	17	12	24	27	**WAL602628**
	160 (2321)	18	M 22x1.5	**P-GAV 18 LM**	17.1	46	37	10.5	19	15	30	32	**WAL602706**
		22	M 26x1.5	**P-GAV 22 LM**	18.1	51	42	13.5	21	19	32	36	**WAL604366**
S	630 (9137)	6	M 12x1.5	**P-GAV 6 SM**	4.5	41	33	9	17	4	17	17	**WAL603940**
		8	M 14x1.5	**P-GAV 8 SM**	6.2	41	33	9	17	5	19	19	**WAL604572**
		10	M 16x1.5	**P-GAV 10 SM**	8.0	43	34	9.5	17	7	22	22	**WAL604328**
		12	M 18x1.5	**P-GAV 12 SM**	10.5	44	35	10.5	17	8	24	24	**WAL602664**
	400 (5801)	14	M 20x1.5	**P-GAV 14 SM**	13.5	49	39	12	19	10	27	27	**WAL604665**
		16	M 22x1.5	**P-GAV 16 SM**	18.5	49	39	11.5	19	12	30	30	**WAL604596**
		20	M 27x2	**P-GAV 20 SM**	25.5	56	45	12.5	22	16	36	36	**WAL604441**

L_2 = approximate dimension if the union nut is tightened
Stainless steel (1.4571) studs and fittings available on request

GAS ... M





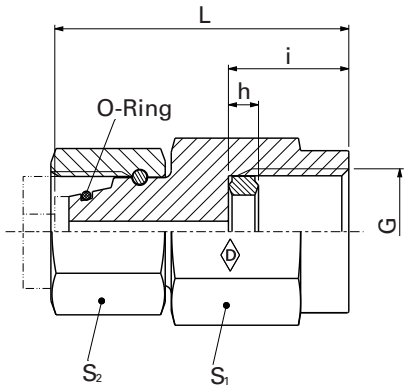
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							System nuts for supplementing the stud (for technical data, see part D of this catalog)	
						Stud GAS ... M	WalringPlus W-R-Plus-M ... VI	Walform WF-M ... VI
Series	PN bar (psi)	Tube outer diameter	DIN-ISO 228 (R ..., DIN 259) M	Model	kg/ 100 pc.	Part no.	Part no.	Part no.
L	250 (3626)	6	M 10x1	**GAS 6 LM**	1.9	**WAL060046**	**WAL628467**	**WAL625940**
		8	M 12x1.5	**GAS 8 LM**	3.1	**WAL061084**	**WAL628468**	**WAL625941**
		10	M 14x1.5	**GAS 10 LM**	3.8	**WAL060213**	**WAL628469**	**WAL625942**
		12	M 16x1.5	**GAS 12 LM**	5.2	**WAL025317**	**WAL628470**	**WAL625943**
		15	M 18x1.5	**GAS 15 LM**	6.7	**WAL024357**	**WAL628471**	**WAL625944**
	160 (2321)	18	M 22x1.5	**GAS 18 LM**	10.9	**WAL062966**	**WAL628472**	**WAL625945**
		22	M 26x1.5	**GAS 22 LM**	12.1	**WAL061612**	**WAL628473**	**WAL625946**
S	630 (9137)	6	M 12x1.5	**GAS 6 SM**	3.6	**WAL066876**	**WAL628477**	**WAL625950**
		8	M 14x1.5	**GAS 8 SM**	4.2	**WAL061634**	**WAL628478**	**WAL625951**
		10	M 16x1.5	**GAS 10 SM**	5.7	**WAL060704**	**WAL628479**	**WAL625952**
		12	M 18x1.5	**GAS 12 SM**	6.9	**WAL060069**	**WAL628480**	**WAL625953**
		14	M 20x1.5	**GAS 14 SM**	9.3	**WAL066855**		
	400 (5801)	16	M 22x1.5	**GAS 16 SM**	11.4	**WAL067979**	**WAL628481**	**WAL625954**
		20	M 27x2	**GAS 20 SM**	15.2	**WAL065147**	**WAL628482**	**WAL625955**

EMASD ...

EMASD ...-1.4571

- Inch thread
- with taper and O-ring made from NBR* (e.g. Perbunan)
- with taper and O-ring made from FKM (e.g. Viton) for stainless steel (1.4571)





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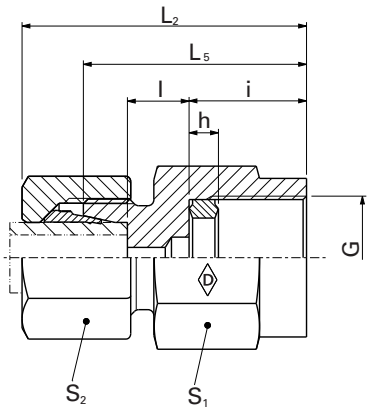
												Stud EMASD ...	Stud Stainless steel (1.4571) EMASD ...-1.4571
Series	PN bar (psi)	Tube outer diameter	DIN-ISO 228 (R ..., DIN 259) G	Model	kg/ 100 pc.	L_2	i	h	S_1	S_2	*O-ring	Part no.	Part no.
L	500 (7252)	6	G 1/4	**EMASD 6 LR**	5.7	38	14.5	4.5	19	14	4.5x1.5	**WAL605748**	**WAL615259**
		8	G 1/4	**EMASD 8 LR**	7.0	38	14.5	4.5	19	17	6x1.5	**WAL066353**	**WAL617825**
		10	G 1/4	**EMASD 10 LR**	7.2	39.5	14.5	4.5	19	19	8.5x1.5	**WAL605749**	**WAL617826**
	400 (5801)	12	G 1/4	**EMASD 12 LR**	8.0	40.5	14.5	4.5	19	22	10x1.5	**WAL605750**	**WAL614847**
S	630 (9137)	6	G 1/2	**EMASD 6 SR**	11.5	45	20	5	27	17	4.5x1.5	**WAL605751**	**WAL617827**
		8	G 1/2	**EMASD 8 SR**	11.4	45	20	5	27	19	6x1.5	**WAL605752**	**WAL615584**
		10	G 1/2	**EMASD 10 SR**	13.4	47	20	5	27	22	8.5x1.5	**WAL605753**	**WAL615441**
		12	G 1/2	**EMASD 12 SR**	12.9	47.5	20	5	27	24	10x1.5	**WAL066313**	**WAL617828**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
L_2 = approximate dimension if the union nut is tightened
**FPM (e.g. Viton) see price list / available on request

P-MAV ... R

P-MAV ... R-1.4571

- Inch studs type B to DIN EN ISO 1179-4





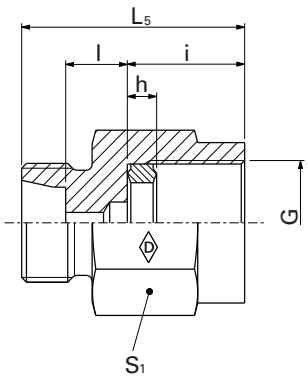
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Series	PN bar (psi)	Tube outer diameter	DIN-ISO 228 (R ..., DIN 259) G	Model	kg/ 100 pc.	L_2	L_5	l	i	h	S_1	S_2	Walpro P-MAV...R Part no.	Walpro Stainless steel (1.4571) P-MAV ... R-1.4571* Part no.
L	500 (7252)	6	G 1/4	**P-MAV 6 LR**	4.6	37	14.5	7.5	14.5	4.5	19	14	**WAL374334**	**WAL620112**
		8	G 1/4	**P-MAV 8 LR**	5.3	37	14.5	7.5	14.5	4.5	19	17	**WAL374335**	**WAL620113**
		10	G 1/4	**P-MAV 10 LR**	6.2	38	15.5	8.5	14.5	4.5	19	19	**WAL374336**	**WAL620114**
	400 (5801)	12	G 1/4	**P-MAV 12 LR**	7.0	38	15.5	8.5	14.5	4.5	19	22	**WAL374337**	**WAL620115**
S	800 (11603)	6	G 1/2	**P-MAV 6 SR**	10.5	46	38	11	20	5	27	17	**WAL374338**	**WAL620116**
		8	G 1/2	**P-MAV 8 SR**	10.7	46	38	11	20	5	27	19	**WAL374339**	**WAL620117**
		10	G 1/2	**P-MAV 10 SR**	12.5	47	38	10.5	20	5	27	22	**WAL374340**	**WAL620118**
	630 (9137)	12	G 1/2	**P-MAV 12 SR**	13.4	47	38	10.5	20	5	27	24	**WAL374341**	**WAL620119**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*For complete stainless steel fittings (1.4571) with silver-plated nut (AG/AGP), see price list
L_2= approximate dimension if the union nut is tightened

MAS ... R

MAS ... R-1.4571





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Series	PN bar (psi)	Tube outer diameter	DIN-ISO 228 (R..., DIN 259) G	Model	kg/ 100 pc.	Part no.	Stud Stainless steel (1.4571) MAS ... R-1.4571* Part no.	System nuts for supplementing the stud (for technical data, see part D of this catalog) WalringPlus W-R-Plus-M ... VI Part no.	Walform WF-M ... VI Part no.	Walform stainless steel WF-M ... VI-1.4571* Part no.
L	500 (7252)	6	G 1/4	**MAS 6 LR**	3.8	**WAL066939**	**WAL067383**	**WAL628467**	**WAL625940**	**WAL625980**
		8	G 1/4	**MAS 8 LR**	3.6	**WAL066940**	**WAL067387**	**WAL628468**	**WAL625941**	**WAL625981**
		10	G 1/4	**MAS 10 LR**	4.0	**WAL067370**	**WAL067372**	**WAL628469**	**WAL625942**	**WAL625982**
	400 (5801)	12	G 1/4	**MAS 12 LR**	6.3	**WAL066941**	**WAL067378**	**WAL628470**	**WAL625943**	**WAL625983**
S	800 (11603)	6	G 1/2	**MAS 6 SR**	9.4	**WAL066942**	**WAL067385**	**WAL628477**	**WAL625950**	**WAL625990**
		8	G 1/2	**MAS 8 SR**	9.0	**WAL066943**	**WAL067389**	**WAL628478**	**WAL625951**	**WAL625991**
		10	G 1/2	**MAS 10 SR**	9.0	**WAL066944**	**WAL067374**	**WAL628479**	**WAL625952**	**WAL625992**
	630 (9137)	12	G 1/2	**MAS 12 SR**	9.5	**WAL066945**	**WAL067380**	**WAL628480**	**WAL625953**	**WAL625993**

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

I Blanking plugs, blanking ends, tube inserts, welding nipples, O-rings



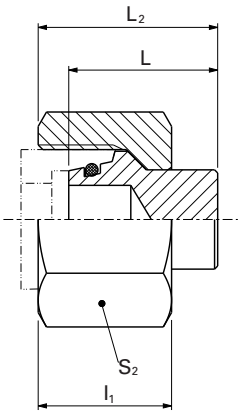
	Figure Fitting	Figure Stud	Model	Page
System nuts with blanking plug / blanking plug			VSD-M / VSD …	I3 / I4
System nuts with blanking end / blanking end			P-VSK / VSK …	I5 / I6
Blanking ends			VS-R ... -WD	I7
			VS-M ... -WD	I8
			VS- ... M-OR	I9
Tube inserts			EH …	I11
Welding nipples			SN	I12
O-rings				I13 - I17
Profile soft seals				I18

I

VSD-M...

VSD-M ... -1.4571

- with taper and O-ring
- with soft seal made from NBR* (e.g. Perbunan) for steel
- with soft seal made from FKM (e.g. Viton) for stainless steel (1.4571)





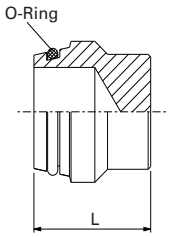
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											System nuts with blanking plug VSD-M ...	System nuts with blanking plug Stainless steel (1.4571) VSD-M ... -1.4571
Series	PN bar (psi)	Tube outer diameter	M	Model	kg/ 100 pc.	L	l_1	L_2	S_2	O-ring	Part no.	Part no.
LL	100 (1450)	4	M12 x 1.5	**VSD-M 4 LL A4GS**	1.1	13.5	11	15.36	10	3 x 1	**WAL626561**	**WAL626580**
		6	M14 x 1.5	**VSD-M 6 LL A4GS**	1.8	15	11.5	15.86	12	5 x 1	**WAL626562**	**WAL626581**
		8	M16 x 1.5	**VSD-M 8 LL A4GS**	2.6	15	12	16.36	14	7 x 1	**WAL626563**	**WAL626582**
L	500 (7252)	6	M12 x 1.5	**VSD-M 6 L A4GS**	1.9	17	14.5	17.4	14	4.5 x 1.5	**WAL626564**	**WAL626583**
		8	M14 x 1.5	**VSD-M 8 L A4GS**	2.7	17	14.5	17.4	17	6 x 1.5	**WAL626565**	**WAL626584**
		10	M16 x 1.5	**VSD-M 10 L A4GS**	3.6	20	15.5	20.9	19	8.5 x 1.5	**WAL626566**	**WAL626585**
	400 (5801)	12	M18 x 1.5	**VSD-M 12 L A4GS**	4.5	21	15.5	22.9	22	10 x 1.5	**WAL626558**	**WAL626586**
		15	M22 x 1.5	**VSD-M 15 L A4GS**	6.3	20	17	22.4	27	12 x 2	**WAL626567**	**WAL626587**
		18	M26 x 1.5	**VSD-M 18 L A4GS**	9.0	21	18	23.4	32	15 x 2	**WAL626568**	**WAL626588**
	250 (3626)	22	M30 x 2	**VSD-M 22 L A4GS**	12.8	23	20	24.9	36	20 x 2	**WAL626569**	**WAL626589**
		28	M36 x 2	**VSD-M 28 L A4GS**	17.6	23	21	26.1	41	26 x 2	**WAL626559**	**WAL626590**
		35	M45 x 2	**VSD-M 35 L A4GS**	30.0	29	24	31.3	50	32 x 2	**WAL626570**	**WAL626591**
		42	M52 x 2	**VSD-M 42 L A4GS**	43.6	30	24	30.9	60	38 x 2.5	**WAL626571**	**WAL626592**
S	800 (11603)	6	M14 x 1.5	**VSD-M 6 S A4GS**	2.5	17	16.5	19.4	17	4.5 x 1.5	**WAL626572**	**WAL626593**
		8	M16 x 1.5	**VSD-M 8 S A4GS**	3.0	17	16.5	19.4	19	6 x 1.5	**WAL626573**	**WAL626594**
		10	M18 x 1.5	**VSD-M 10 S A4GS**	4.6	20	17.5	21.9	22	8.5 x 1.5	**WAL626574**	**WAL626595**
	630 (9137)	12	M20 x 1.5	**VSD-M 12 S A4GS**	5.5	21	17.5	23.9	24	10 x 1.5	**WAL626545**	**WAL626596**
		14	M22 x 1.5	**VSD-M 14 S A4GS**	7.3	23	20.5	26.9	27	12 x 2	**WAL626575**	**WAL626597**
		16	M24 x 1.5	**VSD-M 16 S A4GS**	9.2	24	20.5	28.9	30	14 x 2	**WAL626546**	**WAL626598**
	420 (6091)	20	M30 x 2	**VSD-M 20 S A4GS**	14.5	28	24	31.0	36	17.3 x 2.4	**WAL626576**	**WAL626599**
		25	M36 x 2	**VSD-M 25 S A4GS**	29.7	31	27	35.7	46	22.3 x 2.4	**WAL626577**	**WAL626600**
		30	M42 x 2	**VSD-M 30 S A4GS**	35.7	34	29	39.7	50	27.3 x 2.4	**WAL626578**	**WAL626601**
		38	M52 x 2	**VSD-M 38 S A4GS**	51.5	38	32.5	45.5	60	35 x 2.5	**WAL626579**	**WAL626602**

Caution: The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*For FPM (e.g. Viton) see price list / available on request

VSD...

VSD... -1.4571



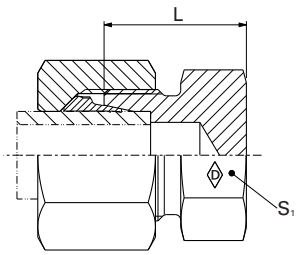


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						Blanking plugs VSD ...	Blanking plugs Stainless steel (1.4571) VSD ... -1.4571
Series	PN bar (psi)	Tube outer diameter	Model	Best-Nr.	kg/100 pc.	Part no.	Part no.
LL	100 (1450)	4	**VSD 4 LL M.MB.**	**WAL612327**	0,2	**WAL612327**	**WAL618772**
		6	**VSD 6 LL M.MB.**	**WAL612328**	0,4	**WAL612328**	**WAL618773**
		8	**VSD 8 LL M.MB.**	**WAL612329**	0,7	**WAL612329**	**WAL618774**
L	800 (11603)	6	**VSD 6 L/S M.MB.**	**WAL612330**	0,5	**WAL612330**	**WAL618775**
		8	**VSD 8 L/S M.MB.**	**WAL612331**	0,7	**WAL612331**	**WAL618776**
		10	**VSD 10 L/S M.MB.**	**WAL612332**	1,3	**WAL612332**	**WAL618777**
	630 (9137)	12	**VSD 12 L/S M.MB.**	**WAL612333**	1,8	**WAL612333**	**WAL618778**
	400 (5801)	15	**VSD 15 L M.MB.**	**WAL612334**	2,4	**WAL612334**	**WAL618779**
		18	**VSD 18 L M.MB.**	**WAL612335**	3,7	**WAL612335**	**WAL618780**
	250 (3626)	22	**VSD 22 L M.MB.**	**WAL612336**	5,5	**WAL612336**	**WAL618781**
		28	**VSD 28 L M.MB.**	**WAL612337**	7,9	**WAL612337**	**WAL618782**
		35	**VSD 35 L M.MB.**	**WAL612338**	16,4	**WAL612338**	**WAL618783**
		42	**VSD 42 L M.MB.**	**WAL612339**	23,4	**WAL612339**	**WAL618784**
S	800 (11603)	6	**VSD 6 L/S M.MB.**	**WAL612330**	0,5	**WAL612330**	**WAL618775**
		8	**VSD 8 L/S M.MB.**	**WAL612331**	0,7	**WAL612331**	**WAL618776**
		10	**VSD 10 L/S M.MB.**	**WAL612332**	1,3	**WAL612332**	**WAL618777**
	630 (9137)	12	**VSD 12 L/S M.MB.**	**WAL612333**	1,8	**WAL612333**	**WAL618778**
		14	**VSD 14 S M.MB.**	**WAL612340**	2,7	**WAL612340**	**WAL618785**
		16	**VSD 16 S M.MB.**	**WAL612341**	3,5	**WAL612341**	**WAL618786**
	420 (6091)	20	**VSD 20 S M.MB.**	**WAL612342**	6,5	**WAL612342**	**WAL618787**
		25	**VSD 25 S M.MB.**	**WAL612343**	10,6	**WAL612343**	**WAL618788**
		30	**VSD 30 S M.MB.**	**WAL612344**	16,4	**WAL612344**	**WAL618789**
		38	**VSD 38 S M.MB.**	**WAL612345**	28,0	**WAL612345**	**WAL618790**

⚠ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.

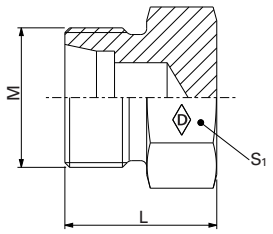
P-VSK …



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Series	PN bar (psi)	Tube outer diameter	M	Model	kg/ 100 pc.	L	S_1	Blanking ends P-VSK...
L	500 (7252)	6	M 12 x 1.5	**P-VSK 6 L**	2.5	17	14	**WAL608941**
		8	M 14 x 1.5	**P-VSK 8 L**	4.1	17	17	**WAL608942**
		10	M 16 x 1.5	**P-VSK 10 L**	5.1	20	17	**WAL608943**
	400 (5801)	12	M 18 x 1.5	**P-VSK 12 L**	6.4	21	19	**WAL608944**
		15	M 22 x 1.5	**P-VSK 15 L**	10.5	20	24	**WAL608945**
		18	M 26 x 1.5	**P-VSK 18 L**	14.8	21	27	**WAL608946**
	250 (3626)	22	M 30 x 2	**P-VSK 22 L**	20.4	23	32	**WAL608947**
		28	M 36 x 2	**P-VSK 28 L**	30.2	23	41	**WAL608948**
		35	M 45 x 2	**P-VSK 35 L**	44.5	29	46	**WAL608949**
		42	M 52 x 2	**P-VSK 42 L**	68.7	30	55	**WAL608950**
S	800 (11603)	6	M 14 x 1.5	**P-VSK 6 S**	3.6	17	17	**WAL608951**
		8	M 16 x 1.5	**P-VSK 8 S**	4.5	17	17	**WAL608952**
		10	M 18 x 1.5	**P-VSK 10 S**	6.9	20	19	**WAL608953**
	630 (9137)	12	M 20 x 1.5	**P-VSK 12 S**	9.3	21	22	**WAL608954**
		14	M 22 x 1.5	**P-VSK 14 S**	11.8	23	24	**WAL608955**
		16	M 24 x 1.5	**P-VSK 16 S**	14.5	24	27	**WAL608956**
	420 (6091)	20	M 30 x 2	**P-VSK 20 S**	23.7	28	32	**WAL608957**
		25	M 36 x 2	**P-VSK 25 S**	43.9	31	41	**WAL608958**
		30	M 42 x 2	**P-VSK 30 S**	53.8	34	46	**WAL608959**
		38	M 52 x 2	**P-VSK 38 S**	83.8	38	55	**WAL608960**

VSK ...





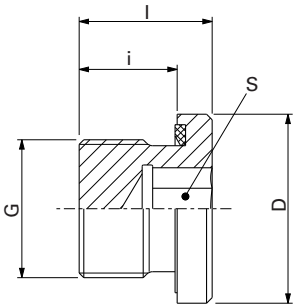
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Series	PN (bar) (psi)	Tube outer diameter	Model	kg/ 100 pc.	Blanking ends VSK... Part no.
L	500 (7252)	6	**VSK 6 L**	1.4	**WAL609765**
		8	**VSK 8 L**	2.4	**WAL609766**
		10	**VSK 10 L**	2.7	**WAL372285**
	400 (5801)	12	**VSK 12 L**	3.4	**WAL063311**
		15	**VSK 15 L**	5.9	**WAL609767**
		18	**VSK 18 L**	8.1	**WAL061866**
	250 (3626)	22	**VSK 22 L**	11.5	**WAL609768**
		28	**VSK 28 L**	20.5	**WAL609769**
		35	**VSK 35 L**	29.2	**WAL609770**
		42	**VSK 42 L**	44.9	**WAL609771**
S	800 (11603)	6	**VSK 6 S**	1.9	**WAL609772**
		8	**VSK 8 S**	2.5	**WAL609773**
		10	**VSK 10 S**	3.5	**WAL371395**
	630 (9137)	12	**VSK 12 S**	5.3	**WAL024051**
		14	**VSK 14 S**	6.2	**WAL609774**
		16	**VSK 16 S**	7.8	**WAL063859**
	420 (6091)	20	**VSK 20 S**	13.1	**WAL063400**
		25	**VSK 25 S**	22.9	**WAL063312**
		30	**VSK 30 S**	30.2	**WAL602420**
		38	**VSK 38 S**	50.2	**WAL609775**

VS-R ... -WD

VS-R ... -WD-1.4571

- with hexagon socket
- with soft seal made from NBR* (e.g. Perbunan) for steel
- with soft seal made from FKM (e.g. Viton) for stainless steel (1.4571)
- Inch studs type E to DIN EN ISO 1179-2





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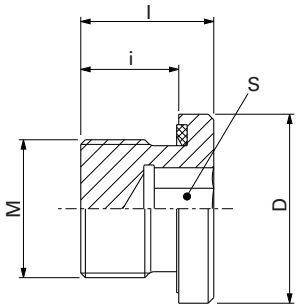
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PN bar (psi)	DIN - ISO 228 (R..., DIN 259)	Model	kg/ 100 pc.	D	l	i	S	O-ring	Part no.	Part no.
400 (5801)	G 1/8 A	**VS-R 1/8 -WD**	0.6	14	12	8	5	3 x 1	**WAL036856**	**WAL602800**
	G 1/4 A	**VS-R 1/4 -WD**	1.4	19	17	12	6	5 x 1	**WAL036858**	**WAL374787**
	G 3/8 A	**VS-R 3/8 -WD**	2.1	22	17	12	8	7 x 1	**WAL036860**	**WAL374841**
	G 1/2 A	**VS-R 1/2 -WD**	4.0	27	19	14	10	4.5 x 1.5	**WAL036862**	**WAL372597**
	G 3/4 A	**VS-R 3/4 -WD**	7.5	32	21	16	12	6 x 1.5	**WAL036864**	**WAL602802**
	G 1 A	**VS-R 1 -WD**	11.8	40	22.5	16	17	8.5 x 1.5	**WAL036866**	**WAL374498**
250 (3626)	G 1 1/4 A	**VS-R 1 1/4 -WD**	18.6	50	22.5	16	22	10 x 1.5	**WAL036868**	**WAL371504**
	G 1 1/2 A	**VS-R 1 1/2 -WD**	24.7	55	22.5	16	24	12 x 2	**WAL036870**	**WAL609394**
400 (5801)	G 1 1/4 A	**VS-R 1 1/4 -WD/PN 400**	28.3	50	28	20	22	15 x 2	**WAL372905**	
	G 1 1/2 A	**VS-R 1 1/2 -WD/PN 400**	39.2	55	30	22	24	20 x 2	**WAL372989**	

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*For FPM (e.g. Viton) see price list / available on request

VS-M ... -WD

VS-M ... -WD-1.4571

- with hexagon socket
- with soft seal made from NBR* (e.g. Perbunan) for steel
- with soft seal made from FKM (e.g. Viton) for stainless steel (1.4571)
- Metric stud type E to DIN EN ISO 9974-2





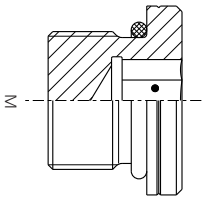
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								Blanking ends VS-M ... -WD	Blanking ends Stainless steel (1.4571) VS-M ... -WD-1.4571
PN bar (psi)	M	Model	kg/ 100 pc.	D	l	i	S	Part no.	Part no.
400 (5801)	M 10 x 1	**VS-M 10 x 1 -WD**	0.6	14	12	8	5	**WAL028302**	**WAL605040**
	M 12 x 1.5	**VS-M 12 x 1.5 -WD**	1.1	17	17	12	6	**WAL028303**	**WAL605042**
	M 14 x 1.5	**VS-M 14 x 1.5 -WD**	1.5	19	17	12	6	**WAL028304**	**WAL374724**
	M 16 x 1.5	**VS-M 16 x 1.5 -WD**	1.8	22	17	12	8	**WAL028305**	**WAL605044**
	M 18 x 1.5	**VS-M 18 x 1.5 -WD**	2.8	24	17	12	8	**WAL029844**	**WAL604532**
	M 20 x 1.5	**VS-M 20 x 1.5 -WD**	3.6	26	19	14	10	**WAL028306**	**WAL609395**
	M 22 x 1.5	**VS-M 22 x 1.5 -WD**	4.6	27	19	14	10	**WAL028307**	**WAL374725**
	M 26 x 1.5	**VS-M 26 x 1.5 -WD**	7.2	32	21	16	12	**WAL028308**	**WAL617296**
	M 27 x 2	**VS-M 27 x 2 -WD**	7.5	32	21	16	12	**WAL028309**	**WAL605284**
	M 33 x 2	**VS-M 33 x 2 -WD**	11.8	40	22.5	16	17	**WAL028310**	**WAL605143**
250 (3626)	M 42 x 2	**VS-M 42 x 2 -WD**	18.6	50	22.5	16	22	**WAL028311**	**WAL617297**
	M 48 x 2	**VS-M 48 x 2 -WD**	24.7	55	22.5	16	24	**WAL028312**	**WAL617298**
400 (5801)	M 42 x 2	**VS-M 42 x 2 -WD/PN 400**	28.3	50	28	20	22	**WAL608445**	
	M 48 x 2	**VS-M 48 x 2 -WD/PN 400**	39.2	55	30	22	24	**WAL608446**	

△ **Caution:** The pressure specifications refer to the steel version. For the stainless steel version (1.4571), please refer to the pressure specifications on page B5.
*For FPM (e.g. Viton) see price list / available on request

VS- ... M - OR (ISO 6149-4)

- with hexagon socket and O-ring made from NBR* (e.g. Perbunan)
- Metric stud with O-ring to DIN EN ISO 6149-2 and -3





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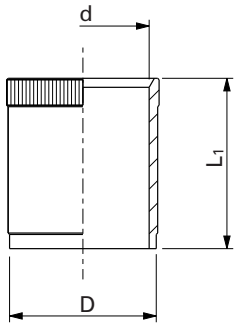
									Blanking ends VS- ... M-OR
PN bar (psi)	M	Model	kg/ 100 pc.	D	l	i	S	O-ring	Part no.
420 (5801)	M10 x 1.5	**VS-M 10 x 1 -OR**	0.8	14	13.5	9.5	5	8.1 x 1.6	**WAL625557**
	M12 x 1.5	**VS-M 12 x 1.5-OR**	1.4	17	15.5	11	6	9.3 x 2.2	**WAL625558**
630 (9137)	M14 x 1.5	**VS-M 14 x 1.5-OR**	2.0	19	16	11	6	11.3 x 2.2	**WAL625559**
	M16 x 1.5	**VS-M 16 x 1.5-OR**	2.6	22	17.5	12.5	8	13.3 x 2.2	**WAL625560**
	M18 x 1.5	**VS-M 18 x 1.5-OR**	3.7	24	19	14	8	15.3 x 2.2	**WAL625561**
	M22 x 1.5	**VS-M 22 x 1.5-OR**	5.8	27	20	15	10	17.3 x 2.2	**WAL625562**
400 (5801)	M 27 x 2	**VS-M 27 x 2 -OR**	9.5	32	23.5	18.5	12	19.3 x 2.2	**WAL625563**
	M 33 x 2	**VS-M 33 x 2 -OR**	14.2	41	24.5	18.5	14	23.6 x 2.9	**WAL625564**
250 (3626)	M 42 x 2	**VS-M 42 x 2 -OR**	22.9	50	25	19	17	38.6 x 2.9	**WAL625565**
	M 48 x 2	**VS-M 48 x 2 -OR**	32.8	55	27.5	21.5	17	44.6 x 2.9	**WAL625566**

*For FPM (e.g. Viton) see price list / available on request

EH ...

EH ... -1.4571

- Material: Brass Cu Zn 39 Pb (Ms 58)



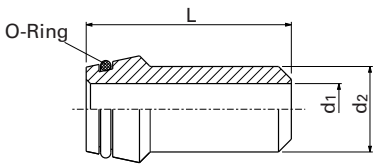


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Tube ID	Model	kg/ 100 pc.	D	d	L_1	Tube inserts EH ... Part no.	Tube inserts Stainless steel (1.4571) EH ... -1.4571 Part no.
4	**EH 4 Ms**	0.08	3.8	2.5	17	**WAL061879**	**WAL617300**
5	**EH 5 Ms**	0.11	4.8	3.5	17	**WAL061881**	**WAL374722**
6	**EH 6 Ms**	0.13	5.8	4.5	17	**WAL033406**	**WAL608321**
6.5	**EH 6,5 Ms**	0.14	6.3	5	17	**WAL033407**	
7	**EH 7 Ms**	0.17	6.8	5.5	17	**WAL033408**	**WAL061199**
8	**EH 8 Ms**	0.22	7.8	6.5	17	**WAL033409**	**WAL617301**
8.5	**EH 8,5 Ms**	0.23	8.3	7	17	**WAL029008**	
9	**EH 9 Ms**	0.24	8.8	7.5	17	**WAL033410**	**WAL374723**
10	**EH 10 Ms**	0.26	9.8	8.5	17	**WAL033411**	**WAL060690**
12	**EH 12 Ms**	0.36	11.8	10.5	17	**WAL033412**	**WAL617302**
13	**EH 13 Ms**	0.4	12.8	11.5	18	**WAL033413**	**WAL617303**
15	**EH 15 Ms**	0.5	14.8	13	18	**WAL033415**	**WAL615587**
16	**EH 16 Ms**	0.6	15.8	14	18	**WAL033416**	**WAL604537**
18	**EH 18 Ms**	0.85	17.8	16	22	**WAL033417**	**WAL617304**
19	**EH 19 Ms**	0.85	18.8	17	20	**WAL033418**	**WAL615586**
20	**EH 20 Ms**	0.9	19.8	18	20	**WAL033419**	**WAL617305**
24	**EH 24 Ms**	1.1	23.8	22	20	**WAL033420**	**WAL617306**
25	**EH 25 Ms**	1.15	24.8	23	20	**WAL033800**	**WAL617307**
31	**EH 31 Ms**	1.85	30.8	28	23	**WAL029011**	**WAL617308**
38	**EH 38 Ms**	2.6	37.8	35	24	**WAL029013**	**WAL617310**

SN ...

- with O-ring made from NBR* (e.g. Perbunan)





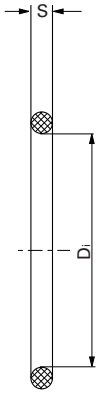
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							Welding nipple SN...
Tube outer diameter	PN bar (psi)	Model	kg/ 100 pc.	d_1	L	O-ring	Part no.
8	400 (5801)	**SN 8 x 2**	1.1	4	31	6 x 1.5	**WAL028783**
10	315 (4569)	**SN 10 x 2**	1.5	6	32.5	7.5 x 1.5	**WAL028784**
12	400 (5801)	**SN 12 x 2.5**	2.2	7	32.5	9 x 1.5	**WAL028785**
16	400 (5801)	**SN 16 x 3**	3.9	10	38.5	12 x 2	**WAL028788**
20	250 (3626)	**SN 20 x 3**	6.0	14	44.5	16.3 x 2.4	**WAL028790**
	400 (5801)	**SN 20 x 4**	7.4	12			**WAL068737**
25	250 (3626)	**SN 25 x 3**	8.7	19	49.5	20.3 x 2.4	**WAL028792**
	315 (4569)	**SN 25 x 4**	10.7	17			**WAL028793**
30	250 (3626)	**SN 30 x 4**	14.0	22	52	25.3 x 2.4	**WAL028795**
	315 (4569)	**SN 30 x 5**	16.5	20			**WAL028796**
	400 (5801)	**SN 30 x 6**	18.6	18			**WAL604551**
38	160 (2321)	**SN 38 x 4**	20.4	30	56.5	33.3 x 2.4	**WAL028797**
	250 (3626)	**SN 38 x 5**	23.5	28			**WAL028798**
	315 (4569)	**SN 38 x 6**	27.2	26			**WAL028799**
	400 (5801)	**SN 38 x 7**	30.1	24			**WAL604552**

*For FPM (e.g. Viton) see price list / available on request.
Do not fit the O-ring until after the welding process.
For stainless steel (1.4571), see price list / available on request

O-rings

BO-ZR	Intermediate flare ring	A	RSWV	Banjo bolt	G
SN	Welding nipple	B	UNF; UN	Thread	H
DK	Taper	C	BO-FK	Complete flared flange	I
VSD	Blanking plug with taper	D	BO-FGK	Complete flared flange counterpart	K
GFV	Straight flange fitting	E	SNV	Straight fitting	L
WFV	Elbow flange fitting	F			

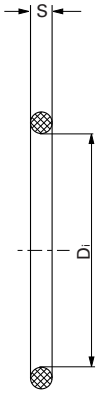


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		Application			
		Material: NBR (Perbunan®)		Material: FPM (Viton®)	
Di x S	Part no.	70 NBR	90 NBR	75 FPM	85 FPM
3 x 1	**WAL612346**	D			
3 x 1	**WAL613311**				D
4 x 1.5	**WAL023488**	B			
4 x 1.5	**WAL023497**				B/C
4.4 x 0.8	**WAL374746**	A			
4.4 x 0.8	**WAL374747**				A
4.5 x 1.5	**WAL304287**	A/C/D/L			
4.5 x 1.5	**WAL304265**				A/C/D/L
5 x 1	**WAL612347**	D			
5 x 1	**WAL613312**				D
6 x 0.8	**WAL374737**	A			
6 x 0.8	**WAL374741**				A
6 x 1.5	**WAL023489**	A/B/C/D/L			
6 x 1.5	**WAL023498**				A/B/C/D/L
6.5 x 1.5	**WAL605948**	G			
6.5 x 1.5	**WAL606088**			G	
7 x 1	**WAL612348**	D			
7 x 1	**WAL613313**				D
7.5 x 0.8	**WAL374738**	A			
7.5 x 0.8	**WAL374742**				A
7.5 x 1.5	**WAL099808**	B			
7.5 x 1.5	**WAL099803**				B
7.65 x 1.63	**WAL099668**		H		
8.5 x 1.5	**WAL304288**	A/C/D/G/L			
8.5 x 1.5	**WAL304266**				A/C/D/G/L
8.92 x 1.83	**WAL304315**				H
8.92 x 1.83	**WAL099669**		H		
9 x 1.5	**WAL099807**	B			
9 x 1.5	**WAL099802**				B
9.4 x 2.1	**WAL606541**		H		
9.5 x 0.8	**WAL374739**	A			
9.5 x 0.8	**WAL374743**				A
10 x 1.5	**WAL023491**	A/C/D/L			
10 x 1.5	**WAL023500**				A/C/D/L
10 x 2	**WAL020765**	B			
10 x 2	**WAL099801**				B
10.5 x 1.5	**WAL623927**	C/D/L			
10.52 x 1.83	**WAL613166**				H

O-rings

BO-ZR	Intermediate flare ring	A	RSWV	Banjo bolt	G
SN	Welding nipple	B	UNF; UN	Thread	H
DK	Taper	C	BO-FK	Complete flared flange	I
VSD	Blanking plug with taper	D	BO-FGK	Complete flared flange counterpart	K
GFV	Straight flange fitting	E	SNV	Straight fitting	L
WFV	Elbow flange fitting	F			

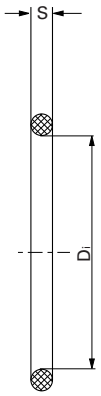


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		Application			
		Material: NBR (Perbunan®)		Material: FPM (Viton®)	
Di x S	**Part no.**	70 NBR	90 NBR	75 FPM	85 FPM
10.52 x 1.83	**WAL099670**		H		
11 x 1	**WAL374750**	A/I/K			
11 x 1	**WAL374754**				A
11 x 2	**WAL023492**	G			
11 x 2	**WAL606090**			G	
11.3 x 2.2	**WAL609916**		H		
11.4 x 2.1	**WAL615165**				H
11.4 x 2.1	**WAL606542**		H		
11.9 x 1.98	**WAL609705**				H
11.9 x 1.98	**WAL099671**		H		
12 x 2	**WAL020766**	A/B/C/D			
12 x 2	**WAL099800**				A/B/C/D
12.5 x 0.8	**WAL374740**	A			
12.5 x 0.8	**WAL374744**				A
12.5 x 1	**WAL374756**	A/I/K			
12.5 x 1	**WAL374757**				A/I
13 x 1.5	**WAL304289**	A			
13 x 1.5	**WAL304267**				A
13.4 x 2.1	**WAL606543**		H		
14 x 1.78	**WAL023589**	F			
14 x 2	**WAL021629**	A/C/D/L			
14 x 2	**WAL099795**				A/C/D/L
14.5 x 2	**WAL605949**	G			
14.5 x 2	**WAL606091**			G	
15 x 1	**WAL304305**	A/I/K			
15 x 1	**WAL374434**				A/I
15 x 2	**WAL612804**	C/D/L			
15 x 2	**WAL609682**				C/D
15.3 x 2.2	**WAL611603**		H		
15.4 x 2.1	**WAL606544**		H		
16 x 1	**WAL261058**	A/I/K			
16 x 1	**WAL374435**				A/I
16 x 1.5	**WAL304290**	A			
16 x 1.5	**WAL304268**				A
16 x 2.5	**WAL020767**	F			
16.3 x 2.4	**WAL023605**	B			
16.3 x 2.4	**WAL099799**				B/I
16.36 x 2.2	**WAL304318**				H

O-rings

BO-ZR	Intermediate flare ring	A	RSWV	Banjo bolt	G
SN	Welding nipple	B	UNF; UN	Thread	H
DK	Taper	C	BO-FK	Complete flared flange	I
VSD	Blanking plug with taper	D	BO-FGK	Complete flared flange counterpart	K
GFV	Straight flange fitting	E	SNV	Straight fitting	L
WFV	Elbow flange fitting	F			

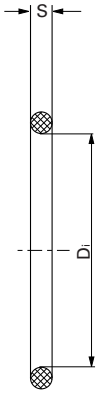


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		Application			
		Material: NBR (Perbunan®)		Material: FPM (Viton®)	
Di x S	**Part no.**	70 NBR	90 NBR	75 FPM	85 FPM
16.36 x 2.2	**WAL099672**		H		
16.5 x 2	**WAL605950**	G			
16.5 x 2	**WAL606092**			G	
17 x 1	**WAL608804**	A			
17.3 x 2.4	**WAL261067**	A/C/L			
17.3 x 2.4	**WAL304269**				A/C/D/L
17.4 x 2.1	**WAL606597**		H		
18 x 1	**WAL304306**	A/I/K			
18 x 1	**WAL304407**				A/I
18 x 2.5	**WAL099794**				E/F
18.64 x 3.53	**WAL613769**	I			
18.64 x 3.53	**WAL614080**				I
19.18 x 2.46	**WAL304319**				H
19.18 x 2.46	**WAL099636**		H		
19.4 x 2.1	**WAL606545**		H		
19.5 x 2	**WAL605951**	G			
19.5 x 2	**WAL606093**			G	
20 x 1	**WAL304307**	A/I/K			
20 x 1	**WAL304402**				A/I
20 x 2	**WAL261082**	A/C/D/L			
20 x 2	**WAL304166**				A/C/D/L
20 x 2.5	**WAL610519**	E/F			
20 x 2.5	**WAL612474**				F
20.3 x 2.4	**WAL023626**	B			
20.3 x 2.4	**WAL099798**				B
22.3 x 2.4	**WAL261093**	A/C/D/L			
22.3 x 2.4	**WAL304270**				A/C/D/L
22.7 x 2.8	**WAL607383**		H		
23 x 1	**WAL304310**	A/I/K			
23 x 1	**WAL304409**				A/I
23.47 x 2.95	**WAL304320**				H
23.47 x 2.95	**WAL099637**		H		
23.7 x 2.8	**WAL612489**		H		
24 x 2.5	**WAL099793**				F
25 x 1	**WAL374751**	A			
25 x 1	**WAL374755**				A
25 x 3.5	**WAL614081**				I
25 x 3.53	**WAL611016**	I			

O-rings

BO-ZR	Intermediate flare ring	A	RSWV	Banjo bolt	G
SN	Welding nipple	B	UNF; UN	Thread	H
DK	Taper	C	BO-FK	Complete flared flange	I
VSD	Blanking plug with taper	D	BO-FGK	Complete flared flange counterpart	K
GFV	Straight flange fitting	E	SNV	Straight fitting	L
WFV	Elbow flange fitting	F			

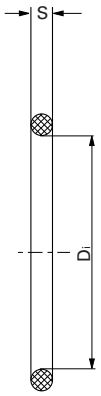


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		Application			
		Material: NBR (Perbunan®)		Material: FPM (Viton®)	
Di x S	Part no.	70 NBR	90 NBR	75 FPM	85 FPM
25.3 x 2.4	**WAL099806**	B/F			
25.3 x 2.4	**WAL099797**				B/I
26 x 1.5	**WAL605952**	G			
26 x 1.5	**WAL606094**			G	
26 x 2	**WAL261108**	A/B/C/D/L			
26 x 2	**WAL304167**				A/C/D/L
26 x 2.5	**WAL610499**	E/F			
26 x 2.5	**WAL612930**				F
27 x 1	**WAL608805**	A			
27.3 x 2.4	**WAL304293**	A/C/D/L			
27.3 x 2.4	**WAL304271**				C/D/L
28 x 1	**WAL304273**	I/K			
28 x 1	**WAL612832**				I
29.74 x 2.95	**WAL304322**				H
29.74 x 2.95	**WAL099639**		H		
29.828 x 2.62	**WAL614724**				I
30 x 1	**WAL374748**	A			
30 x 1	**WAL374752**				A
31 x 2	**WAL250258**	G			
31 x 2	**WAL606095**			G	
32 x 1.78	**WAL261131**	A/I/K			
32 x 1.78	**WAL374745**				A/I
32 x 2.5	**WAL020775**	A/C/D/L			
32 x 2.5	**WAL304168**				A/C/D/L
32.92 x 3.53	**WAL610404**	I			
32.92 x 3.53	**WAL614082**				I
33 x 2.5	**WAL610500**	E/F			
33.3 x 2.4	**WAL023683**	B			
33.3 x 2.4	**WAL099796**				B
34.5 x 2.65	**WAL614725**				I
35 x 2.5	**WAL261138**	A/C/D/L			
35 x 2.5	**WAL304272**				C/D/L
37 x 1	**WAL374749**	A/I/K			
37 x 1	**WAL374753**				A/I
37.46 x 3	**WAL304323**				H
37.46 x 3	**WAL099640**		H		
37.69 x 3.53	**WAL610405**	E/F/I			
37.69 x 3.53	**WAL614083**				I

O-rings

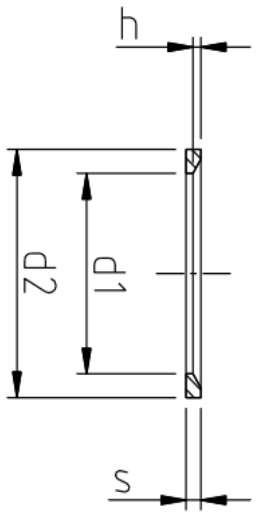
BO-ZR	Intermediate flare ring	A	RSWV	Banjo bolt	G
SN	Welding nipple	B	UNF; UN	Thread	H
DK	Taper	C	BO-FK	Complete flared flange	I
VSD	Blanking plug with taper	D	BO-FGK	Complete flared flange counterpart	K
GFV	Straight flange fitting	E	SNV	Straight fitting	L
WFV	Elbow flange fitting	F			



I

		Application			
		Material: NBR (Perbunan®)		Material: FPM (Viton®)	
Di x S	Part no.	70 NBR	90 NBR	75 FPM	85 FPM
37.82 x 1.78	**WAL612739**	I/K			
37.82 x 1.78	**WAL614076**				I
38 x 2.5	**WAL099804**	A/C/D/L			
38 x 2.5	**WAL099791**				C/D/L
40 x 2	**WAL261157**	G			
40 x 2	**WAL606096**			G	
43.69 x 3	**WAL099641**		H		
44.17 x 1.78	**WAL611929**	I/K			
44.17 x 1.78	**WAL614077**				I/K
46 x 2	**WAL605953**	G			
46 x 2	**WAL606097**			G	
47.22 x 3.53	**WAL611425**	I			
47.22 x 3.53	**WAL614084**				I
50.52 x 1.78	**WAL612147**	I/K			
50.52 x 1.78	**WAL614078**				I
53.67 x 1.78	**WAL614079**				I/K
53.7 x 1.78	**WAL612146**	I/K			
56.52 x 5.33	**WAL614138**				I
56.74 x 3.53	**WAL612145**	I			
56.74 x 3.53	**WAL614085**				I
56.82 x 2.62	**WAL614386**	I/K			
64.77 x 2.62	**WAL614385**	I/K			
64.77 x 2.62	**WAL614424**				I
69.22 x 5.33	**WAL614139**				I
69.44 x 3.53	**WAL614389**	I			
69.44 x 3.53	**WAL614419**				I
69.52 x 2.62	**WAL614384**	I/K			
69.52 x 2.62	**WAL614423**				I/K
82.22 x 2.62	**WAL614387**	I/K			
82.22 x 2.62	**WAL614426**				I/K
85.32 x 3.53	**WAL614390**	I			
85.32 x 3.53	**WAL614420**				I
88.27 x 5.33	**WAL614140**				I
98.02 x 3.53	**WAL614391**	I			
98.02 x 3.53	**WAL614421**				I
110.49 x 5.33	**WAL614141**				I
110.72 x 3.53	**WAL614392**	I			
110.72 x 3.53	**WAL614422**				I

WD soft sealing rings



I

							Item no.	
Thread		**d1**	**d2**	**h**	S	**Designation**	NBR	FKM *
M 8 x 1	-	6,5	9,9	0,5	1	**WD-M 8 x 1**	WAL603981	WAL608980
M 10 x 1	G 1/8 A	8,4	11,9	0,5	1	**WD-R 1/8 / M 10 x 1**	WAL023071	WAL023072
M 12 x 1,5	-	9,8	14,4	0,8	1,5	**WD-M 12 x 1,5**	WAL020776	WAL020777
M 14 x 1,5	G 1/4 A	11,6	16,5	0,8	1,5	**WD-R 1/4 / M 14 x 1,5**	WAL020778	WAL020779
M 16 x 1,5	-	13,8	18,9	0,8	1,5	**WD-M 16 x 1,5**	WAL024266	WAL024265
-	G 3/8 A	14,7	18,9	0,8	1,5	**WD-R 3/8**	WAL020780	WAL020781
M 18 x 1,5	-	15,7	20,9	0,8	1,5	**WD-M 18 x 1,5**	WAL020782	WAL020783
M 20 x 1,5	-	17,8	22,9	0,8	1,5	**WD-M 20 x 1,5**	WAL020784	WAL020785
-	G 1/2 A	18,5	23,9	0,8	1,5	**WD-R 1/2**	WAL020786	WAL020787
M 22 x 1,5	-	19,6	24,3	0,8	1,5	**WD-M 22 x 1,5**	WAL024264	WAL024263
M 26 x 1,5 M 27 x 2	G 3/4 A	23,9	29,2	0,8	1,5	**WD-R 3/4 / M 26 x 1,5 / M 27 x 2**	WAL020788	WAL020789
M 33 x 2	G 1 A	29,7	35,7	1	2	**WD-R 1 / M 33 x 2**	WAL020790	WAL020791
M 42 x 2	G 1 1/4 A	38,8	45,8	1	2	**WD-R 1 1/4 / M 42 x 2**	WAL020792	WAL020793
M 48 x 2	G 1 1/2 A	44,7	50,7	1	2	**WD-R 1 1/2 / M 48 x 2**	WAL020794	WAL020795

* The designation is followed by the suffix "VI" (Viton®)

J

Machines, tools and accessories



Machines and tools - overview J3
Cutting-ring assembly using the M-R7 assembly machine J5
Cutting-ring assembly using the MHH-R manual pre-assembly device J7
Cutting-ring assembly using the manual pre-assembly adapter J8
M-WF385X*plus* WalformPlus machine J9
WalformPlus tools for steel J10
WalformPlus tools for stainless steel (1.4571) J11
WalformPlus-M tools for steel and stainless steel (1.4571) J12
Tube bending tools J13
Replacement tools for machine type MEG-R J14
Replacement tools for MEG-BO2 ..... J15
Waltech sample case J16
Waltech threadboard J17

Special machine assembly

Fast and reliable assembly is crucial for tube-fitting systems. Yet the results may vary due to human error during the assembly process.

To ensure superior performance, the best solution is to automate the cutting-ring assembly and tube reshaping process. For this reason, we have developed tailor-made assembly machines to optimize the assembly of Waltech systems, based on our many years of experience in the field and our holistic approach to in-house value creation, from design to production.

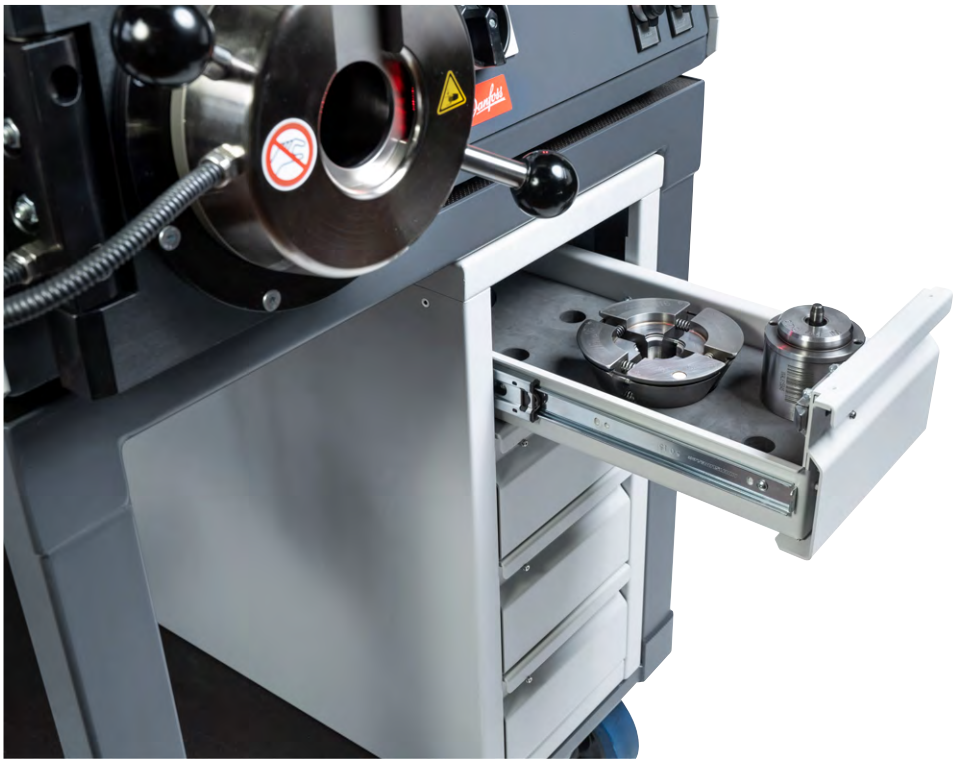
In-house machine design and production

Based on decades of experience, we develop and produce our assembly machines at our new engineering center in Troisdorf, Germany. Our specialized machine design and production department monitors this process throughout - from the design and prototyping phase all the way to testing and optimization.

Over the years, we have incorporated extensive customer feedback into our design process, from large OEM customers that require maximum reliability and low cycle times, to small distributors looking for a high degree of flexibility and a wide range of options.

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Today, we manufacture up to 80 machines each year and offer many options for the servicing and maintenance of older machines. We pride ourselves on manufacturing all our tools in-house, which guarantees stable machine performance and a long service life. In addition, we also offer a large number of machines for rent, to support customer projects and to provide replacements in the event of maintenance.



Machines

M-WF385X*plus* / M-WF385X*connect*



M-R7



Tools

Clamping jaws for WalformPlus



Reshaping adapter with internal support



Backing plate



Complete GE adapter



Clamping jaws for flared tube fittings



Flare fitting and mandrel with mechanically resistant coating



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Cutting-ring assembly using the M-R7 assembly machine

The innovative M-R7

cutting-ring final assembly machine

The new M-R7 machine is designed for the controlled final assembly of our Walpro and WalringPlus systems.

It offers optimized performance and a number of other benefits, including a short tightening rotation and a reduction in the amount of force required during final assembly.

Model	Part no.
M-R7	WAL627627











Key features and benefits:

- Suitable for processing 180° bent tubes with an outer diameter of R = 1.5 (previously an outer diameter of R = 6.4 x)
- For final assembly of Waltech Walpro and WalringPlus fittings with diameters between 6 and 42 mm
- The production process is efficient and cost-effective
- The process starts automatically when the tube makes contact with the tool
- The machine can process tightly bent and short straight tubes
- Modern RFID technology is used for tool recognition and adjustment of the machining values
- Automatic pressure point detection and rotation control ensure robust, leakage-free and safe tube fittings
- Optimized error detection thanks to preprogrammed tolerance values based on statistical process control
- The assembly parameters can be exported to external devices via a USB port for integration into quality control systems
- Day counter with reset function and series counter
- Intuitive and user-friendly touch panel (7")
- Existing Waltech tools can be retrofitted with RFID technology
- Compact and lightweight tabletop device

M-R7 technical data:

- Weight: 105 kg
- Dimensions (W x H x D): 770 x 225 x 650 mm
- Standard voltage: 400 V AC
- 3-phase
- Frequency: 50 Hz
- Circuit protection: 16 A
- Plug: CEE 16
- Power consumption: 1.8 kW

Model	Art. no.
Foot switch	WAL609949
Foot switch for Walform machine	



Model	Art. no.
Adapter 1.5 m 5G2.5 400 V 32 A/11 kW to 16 A	WAL626329
Adapter for 32 A networks	



- Plastic housing
- Input: 1.5 m H07RN-F 5G2.5 with CEE plug (400 V/32 A/5-pole)
- Output: 1 x CEE socket (400 V/16 A/5-pole) with hinged cover
- Circuit protection: 1 circuit breaker, C 16 A, 3-pole, resettable, 400 V/32 A/max. 11 kW

Cutting-ring assembly using the M-R7 assembly machine

GE adapter ...

Adapters for controlled final assembly of Walpro / Walpro-X fittings



WR-Plus adapter ...

Studs for controlled final assembly of WalringPlus fittings



BACKING PLATE M-R7 ...

Backing plate for Walpro / Walpro-X / WalringPlus



		Walpro GE adapter		WalringPlus W-R-PLUS adapter		Backing plate for M-R7	
Series	Tube outer diameter	Model	Art no.	Model	Art no.	Model	Part no.
L	6	GE adapter 6L M-R7	WAL627874	W-R-PLUS Adapter 6L M-R7	WAL628260	Backing plate 6L/S M-R7 KPL	WAL627894
	8	GE adapter 8L M-R7	WAL627875	W-R-PLUS Adapter 8L M-R7	WAL628261	Backing plate 8L/S M-R7 KPL	WAL627895
	10	GE adapter 10L M-R7	WAL627876	W-R-PLUS Adapter 10L M-R7	WAL628262	Backing plate 10L/S M-R7 KPL	WAL627896
	12	GE adapter 12L M-R7	WAL627877	W-R-PLUS Adapter 12L M-R7	WAL628263	Backing plate 12L/S M-R7 KPL	WAL627897
	15	GE adapter 15L M-R7	WAL627878	W-R-PLUS Adapter 15L M-R7	WAL628264	Backing plate 15L M-R7 KPL	WAL627899
	18	GE adapter 18L M-R7	WAL627879	W-R-PLUS Adapter 18L M-R7	WAL628265	Backing plate 18L M-R7 KPL	WAL627901
	22	GE adapter 22L M-R7	WAL627880	W-R-PLUS Adapter 22L M-R7	WAL628266	Backing plate 22L M-R7 KPL	WAL627903
	28	GE adapter 28L M-R7	WAL627881	W-R-PLUS Adapter 28L M-R7	WAL628267	Backing plate 28L M-R7 KPL	WAL627905
	35	GE adapter 35L M-R7	WAL627882	W-R-PLUS Adapter 35L M-R7	WAL628268	Backing plate 35L M-R7 KPL	WAL627907
	42	GE adapter 42L M-R7	WAL627883	W-R-PLUS Adapter 42L M-R7	WAL628269	Backing plate 42L M-R7 KPL	WAL627909
S	6	GE adapter 6S M-R7	WAL627884	W-R-PLUS Adapter 6S M-R7	WAL628270	Backing plate 6L/S M-R7 KPL	WAL627894
	8	GE adapter 8S M-R7	WAL627885	W-R-PLUS Adapter 8S M-R7	WAL628271	Backing plate 8L/S M-R7 KPL	WAL627895
	10	GE adapter 10S M-R7	WAL627886	W-R-PLUS Adapter 10S M-R7	WAL628272	Backing plate 10L/S M-R7 KPL	WAL627896
	12	GE adapter 12S M-R7	WAL627887	W-R-PLUS Adapter 12S M-R7	WAL628273	Backing plate 12L/S M-R7 KPL	WAL627897
	14	GE adapter 14S M-R7	WAL627888	-	WAL628274	Backing plate 14S M-R7 KPL	WAL627898
	16	GE adapter 16S M-R7	WAL627889	W-R-PLUS Adapter 16S M-R7	WAL628275	Backing plate 16S M-R7 KPL	WAL627900
	20	GE adapter 20S M-R7	WAL627890	W-R-PLUS Adapter 20S M-R7	WAL628276	Backing plate 20S M-R7 KPL	WAL627902
	25	GE adapter 25S M-R7	WAL627891	W-R-PLUS Adapter 25S M-R7	WAL628277	Backing plate 25S M-R7 KPL	WAL627904
	30	GE adapter 30S M-R7	WAL627892	W-R-PLUS Adapter 30S M-R7	WAL628278	Backing plate 30S M-R7 KPL	WAL627906
	38	GE adapter 38S M-R7	WAL627893	W-R-PLUS Adapter 38S M-R7	WAL628278	Backing plate 38S M-R7 KPL	WAL627908

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△ **Caution:** Tools are subject to mechanical wear. Tools have to be checked visually regarding wear characteristics regularly especially before using. Worn tools have to be replaced.

Cutting-ring assembly using the MHH-R manual pre-assembly device

MHH-R

Manual pre-assembly device

Model	Part no.
MHH-R	WAL624423



Key features and benefits:

- A user-friendly and cost-effective alternative to the M-R7 machine
- The device offers a high degree of flexibility and requires no electricity
- It is easy to transport and especially suitable for use on construction sites
- Suitable for all Waltech cutting-ring systems, thanks to the easy tool change function

MHH-R technical data:	
Weight:	29 kg
Dimensions (W x H x D):	400 x 170 x 500 mm

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PRE-ASS. AD. P- ...

Pre-assembly adapter for Walpro / Walpro-X



PRE-ASS. AD. W-Plus ...

Pre-assembly adapter for WalringPlus



BACKING PLATE ...

Backing plate for Walpro / Walpro-X / WalringPlus



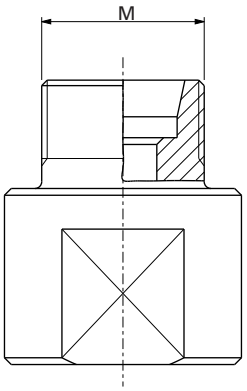
		Walpro pre-assembly adapter		WalringPlus pre-assembly adapter		Backing plate	
Series	Tube outer diameter	Model	Part no.	Model	Part no.	Model	Part no.
L	6	PRE-ASSEMBLY ADAPTER P-6 L BRN	WAL028382	W-R-PLUS-STUTZEN 6L	WAL628512	BACKING PLATE 6 L/S	WAL608363
	8	PRE-ASS. AD. P-8 L BRN	WAL028383	W-R-PLUS-STUTZEN 8L	WAL628513	BACKING PLATE 8 L/S	WAL608364
	10	PRE-ASS. AD. P-10 L BRN	WAL028384	W-R-PLUS-STUTZEN 10L	WAL628514	BACKING PLATE 10 L/S	WAL608365
	12	PRE-ASS. AD. P-12 L BRN	WAL028385	W-R-PLUS-STUTZEN 12L	WAL628515	BACKING PLATE 12 L/S	WAL608366
	15	PRE-ASS. AD. P-15 L BRN	WAL028386	W-R-PLUS-STUTZEN 15L	WAL628516	BACKING PLATE 15 L	WAL608367
	18	PRE-ASS. AD. P-18 L BRN	WAL028387	W-R-PLUS-STUTZEN 18L	WAL628517	BACKING PLATE 18 L	WAL608368
	22	PRE-ASS. AD. P-22 L BRN	WAL028388	W-R-PLUS-STUTZEN 22L	WAL628518	BACKING PLATE 22 L	WAL608369
	28	PRE-ASS. AD. P-28 L BRN	WAL028389	W-R-PLUS-STUTZEN 28L	WAL628519	BACKING PLATE 28 L	WAL608370
	35	PRE-ASS. AD. P-35 L BRN	WAL028390	W-R-PLUS-STUTZEN 35L	WAL628520	BACKING PLATE 35 L	WAL608371
	42	PRE-ASS. AD. P-42 L BRN	WAL028391	W-R-PLUS-STUTZEN 42L	WAL628521	BACKING PLATE 42 L	WAL608372
S	6	PRE-ASS. AD. P-6 S BRN	WAL028392	W-R-PLUS-STUTZEN 6S	WAL628522	BACKING PLATE 6 L/S	WAL608363
	8	PRE-ASS. AD. P-8 S BRN	WAL028393	W-R-PLUS-STUTZEN 8S	WAL628523	BACKING PLATE 8 L/S	WAL608364
	10	PRE-ASS. AD. P-10 S BRN	WAL028394	W-R-PLUS-STUTZEN 10S	WAL628524	BACKING PLATE 10 L/S	WAL608365
	12	PRE-ASS. AD. P-12 S BRN	WAL028395	W-R-PLUS-STUTZEN 12S	WAL628525	BACKING PLATE 12 L/S	WAL608366
	14	PRE-ASS. AD. P-14 S BRN	WAL028396			BACKING PLATE 14 S	WAL608373
	16	PRE-ASS. AD. P-16 S BRN	WAL028397	W-R-PLUS-STUTZEN 16S	WAL628526	BACKING PLATE 16 S	WAL608374
	20	PRE-ASS. AD. P-20 S BRN	WAL028398	W-R-PLUS-STUTZEN 20S	WAL628527	BACKING PLATE 20 S	WAL608375
	25	PRE-ASS. AD. P-25 S BRN	WAL028399	W-R-PLUS-STUTZEN 25S	WAL628528	BACKING PLATE 25 S	WAL608376
	30	PRE-ASS. AD. P-30 S BRN	WAL028400	W-R-PLUS-STUTZEN 30S	WAL628529	BACKING PLATE 30 S	WAL608377
	38	PRE-ASS. AD. P-38 S BRN	WAL028401	W-R-PLUS-STUTZEN 38S	WAL628530	BACKING PLATE 38 S	WAL608378

The pre-assembly tools listed above can also be used with the MEG-R6 assembly machine (predecessor model of the M-R7).
Tools for controlled final assembly using the MEG-R6 machine can be found at the end of this chapter.

Cutting-ring assembly using the manual pre-assembly adapter

S-VK ... / P-VK ...

- Manual pre-assembly adapter for Walpro / Walpro-X





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				Walpro Manual pre-assembly adapter	
Series	Tube outer diameter	M	kg/100 pc.	Model	Part no.
LL	4	**M 8 x 1**	2.7	**S-VK 4 LL**	**WAL029250**
	6	**M 10 x 1**	2.8	**S-VK 6 LL**	**WAL029252**
	8	**M 12 x 1**	3.9	**S-VK 8 LL**	**WAL029253**
L	6	**M 12 x 1.5**	4.4	**P-VK 6 L**	**WAL029254**
	8	**M 14 x 1.5**	6.4	**P-VK 8 L**	**WAL029255**
	10	**M 16 x 1.5**	6.6	**P-VK 10 L**	**WAL029256**
	12	**M 18 x 1.5**	8.1	**P-VK 12 L**	**WAL029257**
	15	**M 22 x 1.5**	18.0	**P-VK 15 L**	**WAL029258**
	18	**M 26 x 1.5**	21.0	**P-VK 18 L**	**WAL029259**
	22	**M 30 x 2**	30.0	**P-VK 22 L**	**WAL029260**
	28	**M 36 x 2**	44.3	**P-VK 28 L**	**WAL029261**
	35	**M 45 x 2**	63.5	**P-VK 35 L**	**WAL029262**
	42	**M 52 x 2**	91.5	**P-VK 42 L**	**WAL029263**
S	6	**M 14 x 1.5**	6.5	**P-VK 6 S**	**WAL029264**
	8	**M 16 x 1.5**	6.7	**P-VK 8 S**	**WAL029265**
	10	**M 18 x 1.5**	8.2	**P-VK 10 S**	**WAL029266**
	12	**M 20 x 1.5**	18.0	**P-VK 12 S**	**WAL029267**
	14	**M 22 x 1.5**	18.2	**P-VK 14 S**	**WAL029268**
	16	**M 24 x 1.5**	18.7	**P-VK 16 S**	**WAL029269**
	20	**M 30 x 2**	29.0	**P-VK 20 S**	**WAL029270**
	25	**M 36 x 2**	43.0	**P-VK 25 S**	**WAL029271**
	30	**M 42 x 2**	62.3	**P-VK 30 S**	**WAL029272**
	38	**M 52 x 2**	94.0	**P-VK 38 S**	**WAL029273**

△ **Caution:** Tools are subject to mechanical wear. Tools have to be checked visually regarding wear characteristics regularly especially before using. Worn tools have to be replaced.

The reliable M-WF385X

Walform machines

- The M-WF385X*plus* machine has been designed for the most demanding applications and can be used for tube reshaping with the WalformPlus system (for both steel and stainless steel). The M-WF385X*connect* has cloud connectivity and data tracking possibility.



Model	Part no.
M-WF385X*plus*	WAL626385
M-WF385X*connect*	WAL636385

Key features and benefits:

- For final assembly of Waltech WalformPlus fittings with diameters between 6 and 42 mm
- Fast cycle times ensure efficient and cost-effective production
- Time-saving and easy tool change process
- The compact dimensions and reduced weight simplify transport to the point of use
- The rugged design reduces downtime and ensures a long service life of the machine
- The ability to control the shaping pressure reduces energy consumption and prolongs service life
- More silent operation for reduced noise levels during production
- Color-coded tools help to prevent errors in the reshaping process

Technical datas	WAL626385	WAL636385
Weight (kg)	280	284
Dimensions W x H x D (mm)	850 x 275 x 990	850 x 275 x 990
Standard voltage (V) AC	400 AC*	3/400 AC
Frequency (Hz)	50	50/60
Circuit protection (A)	16	16
Power consumption (kW)	2,8	3,3

***230 V for part number WAL626353; 440 V and 480 V available on request**

Accessories and spare parts:

Model	Part no.
MW1 assembly trolley (complete)	WAL626257
Assembly trolley for Walform machine with drawer cabinet and removal tool holder	

Model	Part no.
MW1 basic version	WAL626258
Assembly trolley for Walform machine without drawer cabinet or removal tool holder	

Model	Part no.
MW1 removal tool holder	WAL626261
Removal tool holder	

Model	Part no.
MW1 drawer cabinet	WAL626259
Drawer cabinet, can be positioned as required	



Model	Part no.
Adapter 1.5 m 5G2.5 400 V 32 A/11 kW to 16 A	WAL626329
Adapter for 32 A networks	



- Plastic housing
- Input: 1.5 m H07RN-F 5G2.5 with CEE plug (400 V/32 A/5-pole)
- Output: 1 x CEE socket (400 V/16 A/5-pole) with hinged cover
- Circuit protection: 1 circuit breaker, C 16 A, 3-pole, resettable, 400 V/32 A/max. 11 kW

Model	Art. no.
Foot switch	WAL609949
Foot switch for Walform machine	



Clamping jaws for WalformPlus and WalformPlus-SR steel fittings (E235 and E355)

Tube outer diameter (mm)	Wall thickness (mm) 1	1.5	2	2.5	3	3.5	4	5	6
6	WAL625294	WAL615765							
8	WAL625295		WAL615766						
10	WAL625296		WAL615767						
12	WAL625297		WAL615768						
15	WAL625298		WAL615769						
16		WAL625299		WAL615770			WAL615770**		
18		WAL625300	WAL615771	WAL615771**	WAL615771**				
20			WAL615772	WAL615772**	WAL615772* (WAL625814*)	WAL615772* (WAL625814*)	WAL615772* (WAL625814*)		
22		WAL625301	WAL615773	WAL615773**	WAL615773**	WAL615773**			
25			WAL615774	WAL615774**	WAL615774* (WAL625816*)	WAL615774* (WAL625816*)	WAL615774* (WAL625816*)	WAL615774* (WAL625816*)	
28			WAL615775	WAL615775**	WAL615775**	WAL615775**	WAL615775**		
30			WAL625302	WAL615776			WAL615776* (WAL625489*)		
35			WAL625303	WAL615777			WAL615777**		
38					WAL615778		WAL615778* (WAL625818*)		
42			WAL625304		WAL615779	WAL615779**	WAL615779**		

*Special clamping jaws must be used with tube material E355. See the part number in brackets.
** These dimensions are not qualified with tube material E355. The can be qualified on request.

Reshaping adapter for WalformPlus and WalformPlus-SR steel fittings (E235 and E355)

Tube outer diameter (mm)	Wall thickness (mm) 1	1.5	2	2.5	3	3.5	4	5	6
6	WAL625272	WAL615820							
8	WAL625273	WAL615821	WAL615822	WAL625325					
10	WAL625274	WAL615823	WAL615824	WAL615825	WAL615826				
12	WAL625275	WAL615827	WAL615830	WAL615831	WAL615832				
15	WAL625276	WAL615833	WAL615836	WAL615839					
16		WAL625277	WAL615842	WAL615845	WAL615848		WAL615849		
18		WAL625278	WAL615850	WAL615853	WAL615856				
20			WAL615857	WAL615860	WAL615863		WAL615864		
22		WAL625279	WAL615865	WAL615995	WAL615868	WAL615869			
25			WAL615870	WAL615873	WAL615876	WAL615877	WAL615878	WAL615994	
28			WAL615879	WAL615882	WAL615885	WAL615888			
30			WAL625280	WAL615889	WAL615892		WAL615895		WAL615896
35			WAL625281	WAL624009	WAL615897		WAL615900	WAL615901	
38					WAL615902		WAL615905	WAL615906	WAL615907
42			WAL625282		WAL615908	WAL615911	WAL615914		

Reshaping without internal support
Reshaping with internal support
Reshaping for WalformPlus-SR (for an overview of the available support rings, see chapter D)

Model	Part no.
Removal tool	WAL617090

Model	Part no.
Clamping jaws	See table

Model	Part no.
Reshaping with internal support	See table

Model	Part no.
Reshaping adapter without internal support	See table









Walform tube fittings

Clamping jaws for WalformPlus and Walform-WD-SR stainless steel fittings (1.4571)

Tube outer diameter (mm)	Wall thickness (mm)								
	1*	1.5	2	2.5	3	3.5	4	5	6
6	WAL610897	WAL615765							
8	WAL612561	WAL615766							
10	WAL612562	WAL615767							
12	WAL612563	WAL615768							
15		WAL615769							
16			WAL615770						
18			WAL615771						
20			WAL615772						
22			WAL615773						
25			WAL615774				WAL615774		
28			WAL615775						
30				WAL615776			WAL615776		
35					WAL615777		WAL615777		
38					WAL615778		WAL615778		
42					WAL615779				

*WF-WD-SR clamping jaw

Reshaping adapter for WalformPlus and Walform-WD-SR stainless steel fittings (1.4571)

Tube outer diameter (mm)	Wall thickness (mm)								
	1*	1.5	2	2.5	3	3.5	4	5	6
6	WAL612284	WAL615917							
8	WAL612903	WAL627183	WAL615918						
10	WAL612904	WAL615919	WAL625036						
12	WAL612560	WAL615920	WAL615921		WAL625123				
15		WAL615922	WAL615925						
16			WAL615928	WAL615931	WAL615934				
18			WAL615935	WAL615938	WAL615941				
20			WAL615942	WAL615945	WAL615948				
22			WAL615949	WAL615952	WAL615955				
25			WAL624816	WAL615956	WAL615959		WAL615960		
28			WAL615961	WAL615964	WAL615967				
30				WAL615970	WAL615973		WAL615976	WAL615977	
35					WAL615978		WAL615981	WAL615982	
38					WAL615983		WAL615986	WAL615989	WAL615990
42					WAL615991				

*Removal tool WAL611632 must be used with the WF-WD-SR reshaping adapter.

Reshaping without internal support
Reshaping with internal support
Reshaping for Walform-WD-SR (WF-WD support rings available on request)

Model	Part no.
Removal tool	WAL617090

Model	Part no.
Clamping jaws	See table

Model	Part no.
Reshaping with internal support	See table

Model	Part no.
Reshaping adapter without internal support	See table









Clamping jaws for WalformPlus-M steel (E235, E355) and stainless steel (1.4571) fittings

Tube outer diameter (mm)	Wall thickness (mm)								
	1	1.5	2	2.5	3	3.5	4	5	6
8			WAL615766						
10			WAL615767						
12			WAL615768						
15			WAL615769						
16			WAL615770						
18			WAL615771						
20				WAL615772					
22				WAL615773					
25				WAL615774					
28					WAL615775				
30						WAL615776			
35					WAL615777			WAL615777	
38					WAL615778			WAL615778	
42					WAL615779			WAL615779	

Model	Part no.
Removal tool	WAL617090



Model	Part no.
Clamping jaws	See table



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Reshaping adapter for WalformPlus-M steel fittings (E235, E355)

Tube outer diameter (mm)	Wall thickness (mm)								
	1	1.5	2	2.5	3	3.5	4	5	6
8			WAL625706	WAL625707					
10			WAL625708	WAL625709					
12				WAL624536		WAL625710			
15				WAL625711					
16				WAL623406					
18					WAL625712				
20					WAL625713				
22					WAL625714				
25					WAL625715				
28					WAL625716				
30						WAL625717			
35								WAL625718	
38							WAL625719		
42							WAL625720		

Model	Part no.
Reshaping adapter without internal support	See table



Reshaping adapter for WalformPlus-M stainless steel fittings (1.4571)

Tube outer diameter (mm)	Wall thickness (mm)								
	1	1.5	2	2.5	3	3.5	4	5	6
8				WAL625721					
10				WAL624548					
12			WAL623405	WAL625722					
15				WAL625723					
16					WAL623406				
18					WAL625724				
20					WAL623407				
22				WAL625725					
25					WAL623408				
28					WAL625726				
30						WAL623409			
35					WAL626536			WAL625727	
38					WAL623411			WAL623429	
42					WAL626533			WAL625720	

Model	Part no.
Reshaping with internal support	See table

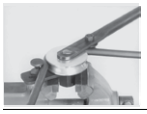


Reshaping without internal support

Reshaping with internal support

Tube bending tool

- For tubes with an outer diameter of 6-22 mm

	Model	Part no.
	Tube bending tool For tubes with an outer diameter of 6-12 mm 4 replaceable bending rollers	**WAL033012**
	Tube bending tool For tubes with an outer diameter of 10-18 mm 4 replaceable bending rollers	**WAL033020**
	Tube bending tool For tubes with an outer diameter of 10-18 mm 4 replaceable bending rollers and 7 clamping jaws 10L/S, 12L/S, 15L, 16S, 18L	**WAL063805**
	Tube bending tool For tubes with an outer diameter of 6-22 mm 8 replaceable bending rollers; transport case included	**WAL615706**

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Spare parts for previous machine models

Spare tools for MEG-R…(this machine has been discontinued)





			Walpro GE adapter	Walpro GE adapter Replacement adapter		Backing plate
Series	Tube outer diameter	Model	Part no.	Part no.	Model	Part no.
L	6	PRE-ASS. AD.-3 P-6 L-GE VANADIS4E A4SI	WAL615319	WAL611262	BACKING PLATE 6 L/S	WAL608363
	8	PRE-ASS. AD.-3 P-8 L-GE VANADIS4E A4SI	WAL615320	WAL611263	BACKING PLATE 8 L/S	WAL608364
	10	PRE-ASS. AD.-3 P-10 L-GE VANADIS4E A4SI	WAL615321	WAL611264	BACKING PLATE 10 L/S	WAL608365
	12	PRE-ASS. AD.-3 P-12 L-GE VANADIS4E A4SI	WAL615322	WAL611265	BACKING PLATE 12 L/S	WAL608366
	15	PRE-ASS. AD.-3 P-15 L-GE VANADIS4E A4SI	WAL615323	WAL611266	BACKING PLATE 15 L	WAL608367
	18	PRE-ASS. AD.-3 P-18 L-GE VANADIS4E A4SI	WAL615324	WAL611267	BACKING PLATE 18 L	WAL608368
	22	PRE-ASS. AD.-3 P-22 L-GE VANADIS4E A4SI	WAL615325	WAL611268	BACKING PLATE 22 L	WAL608369
	28	PRE-ASS. AD.-3 P-28 L-GE VANADIS4E A4SI	WAL615326	WAL611269	BACKING PLATE 28 L	WAL608370
	35	PRE-ASS. AD.-3 P-35 L-GE VANADIS4E A4SI	WAL615327	WAL611270	BACKING PLATE 35 L	WAL608371
	42	PRE-ASS. AD.-3 P-42 L-GE VANADIS4E A4SI	WAL615328	WAL611271	BACKING PLATE 42 L	WAL608372
S	6	PRE-ASS. AD.-3 P-6 S-GE VANADIS4E A4SI	WAL615329	WAL611272	BACKING PLATE 6 L/S	WAL608363
	8	PRE-ASS. AD.-3 P-8 S-GE VANADIS4E A4SI	WAL615330	WAL611273	BACKING PLATE 8 L/S	WAL608364
	10	PRE-ASS. AD.-3 P-10 S-GE VANADIS4E A4SI	WAL615331	WAL611274	BACKING PLATE 10 L/S	WAL608365
	12	PRE-ASS. AD.-3 P-12 S-GE VANADIS4E A4SI	WAL615332	WAL611275	BACKING PLATE 12 L/S	WAL608366
	14	PRE-ASS. AD.-3 P-14 S-GE VANADIS4E A4SI	WAL615333	WAL611276	BACKING PLATE 14 S	WAL608373
	16	PRE-ASS. AD.-3 P-16 S-GE VANADIS4E A4SI	WAL615334	WAL611277	BACKING PLATE 16 S	WAL608374
	20	PRE-ASS. AD.-3 P-20 S-GE VANADIS4E A4SI	WAL615335	WAL611278	BACKING PLATE 20 S	WAL608375
	25	PRE-ASS. AD.-3 P-25 S-GE H	WAL610657	-	BACKING PLATE 25 S	WAL608376
	30	PRE-ASS. AD.-3 P-30 S-GE H	WAL610658	-	BACKING PLATE 30 S	WAL608377
	38	PRE-ASS. AD.-3 P-38 S-GE H	WAL610659	-	BACKING PLATE 38 S	WAL608378

Caution: Tools are subject to mechanical wear. Tools have to be checked visually regarding wear characteristics regularly especially before using. Worn tools have to be replaced.

Spare tools for MEG-BO2 (this machine has been discontinued)

Clamping jaws for MEG-BO2 for 37° flared tube fittings in steel (E235, E355) and stainless steel 1.4571

Tube outer diameter (mm)	Wall thickness (mm) 1	1.5	2	2.5	3	3.5	4	5	6	D (mm)
6	WAL608379									11.6
8		WAL608380								13.9
10		WAL608381								15.7
12		WAL608382								18.0
14			WAL608383							22.5
15			WAL608384							23.0
16			WAL608385							25.2
18			WAL608386							26.8
20				WAL608387						29.6
22			WAL608388							29.9
25					WAL608389					35.7
28				WAL608390						36.0
30					WAL608391					42.4
35					WAL608392					46.0
38						WAL608393			WAL608412	52.2 / 55.4
42					WAL608394					52.5

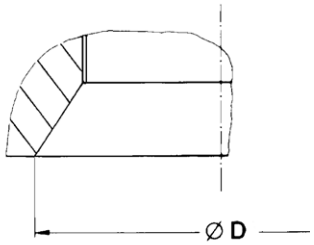
Model	Part no.
Clamping jaws for MEG-BO2	See table



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Clamping jaws for 37° flared tube fittings to SAE J 514 in steel (E235, E355) and stainless steel (1.4571)

Tube outer diameter	Model	Part no.	D (mm)
6	BO-SBM 6-SAE COMPLETE	WAL608395	10.7
8	BO-SBM 8-SAE COMPLETE	WAL608396	11.6
10	BO-SBM 10-SAE COMPLETE	WAL608397	13.7
12	BO-SBM 12-SAE COMPLETE	WAL608398	17.4
14	BO-SBM 14-SAE COMPLETE	WAL608413	21.0
15	BO-SBM 15-SAE COMPLETE	WAL608414	21.0
16	BO-SBM 16-SAE COMPLETE	WAL608399	22.0
18	BO-SBM 18-SAE COMPLETE	WAL608415	26.0
20	BO-SBM 20-SAE COMPLETE	WAL608400	26.6
25	BO-SBM 25-SAE COMPLETE	WAL608401	32.7
30	BO-SBM 30-SAE COMPLETE	WAL608416	41.5
32	BO-SBM 32-SAE COMPLETE	WAL608402	40.8
38	BO-SBM 38-SAE COMPLETE	WAL608403	48.6





Model	Part no.
Flaring mandrel	WAL604854
Standard mandrel for flaring steel tubes (for use with the MEG-BO2 device)	



Model	Part no.
Flaring mandrel	WAL605100
Mandrel with mechanically resistant coating for flaring steel and stainless steel tubes (for use with the MEG-BO2 device)	



Model	Part no.
Removal tool	WAL611633
Flaring mandrel	

Waltech sample case

Model	Part no.
WAL sample case	WAL627400

- For easy presentation of the Danfoss Waltech systems
- Includes samples of Walpro, WalringPlus and WalformPlus fittings





Waltech threadboard

Model	Part no.
Threadboard	WAL627506



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