



PIPE CONNECTIONS AND ACCESSORIES



CONNECT PIPES BETTER, FASTER AND SAFER

This **stainless steel** coupling offers numerous advantages in comparison to similar connecting elements. This is due to the fact that this coupling contains **two special components** that make it so unique. A patented seal prevents leaks and a specially shaped anchoring ring ensures a **reliable and permanent connection**.

Thanks to the **wide variety of types**, it can be used as a connecting element between pipes made from diverse materials and with different external diameters.



PEWOGRIP connection 1 x DN 100



2 min



2 kg

Standard connection 1 x DN 100



60 min



11 kg



Picture: from right to left Piet van de Warenburg, Wolfgang Barbett, Kevin Raaijmakers and Twan van Heesch.

Dear customers and project planners,

As official UNI-Coupling representative in Germany, PEWOBAR GmbH offers the full spectrum of innovative UNI-Coupling products and services for better, faster and more reliable connection of pipes from the same or different materials!

The patented stainless steel couplings offer significant and, above all, sustainable advantages over conventional pipe connections – both in respect to easier, faster and more sure processing as well as when it comes to long-term reliability. The reason for this lies in the special, unique components: A patented seal prevents leaks with the utmost reliability. Plus a specially shaped anchoring ring ensures a permanent connection.

Another major and revolutionary advantage is the flexibility of the UNI-Coupling pipe joint. Thanks to the wide variety of types, it can be used between pipes made from diverse materials and with different external diameters.

The UNI-Coupling pipe connection systems are officially tested and approved for:

- Shipping industry DIN 86128 Part 1 and 2
- Drinking water applications
Elastomer Guidelines of the Federal
Environmental Agency (UBA)
(Formerly KTW Recommendation 1.3.13 D1 / D2)
DVGW Worksheet W270;
DIN EN 681 (WA / WB / WC / WD)
- Gas applications
DVGW GAS as per DIN 3387 / G5600-1

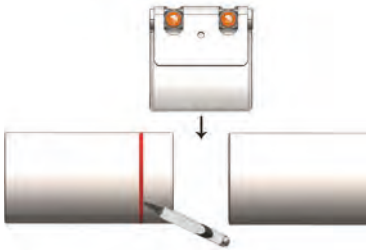
With best recommendations



Wolfgang Barbett
Managing Director and Owner PEWOBAR GmbH

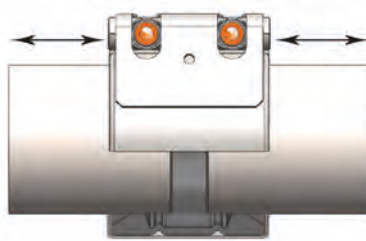
ADVANTAGES

Universal use



- Joins pipes of the same or dissimilar materials
- Quick and simple repairs of damaged pipes without service interruptions
- Installation and sealing principle consistent throughout the range
- Axially restrained or axially flexible available

Reliable



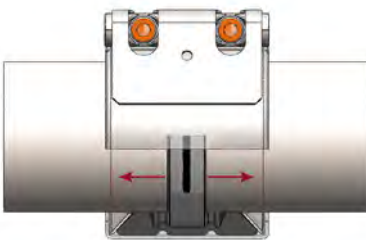
- Stress-free, flexible pipe joint
- Compensates axial movement and angular deflection
- Pressure-resistant and leak-proof even with inaccurate pipe assembly
- Dampens water-hammer, vibration and structure-borne noise

Saves space, time and weight



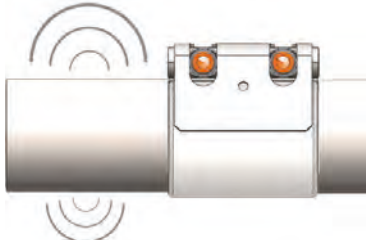
- Compact design for space-saving installation of pipes
- Lightweight
- Detachable and re-usable
- Maintenance-free and trouble-free
- No time-consuming alignment and fitting work

Secure



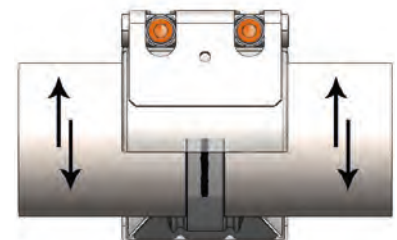
- Rubber absorbs vibrations / oscillations
- Reduces pressure shocks
- No fire or explosion hazard during installation
- No cost for protective measures during installation

Damping



- Increases the life of valves and systems
- Compensates axial offset and angles
- Coupling and compensator in one
- No expensive installation tools required

Long-lasting and stress free



- Corrosion Resistant due to dursch seawater resistant stainless steel
- Good resistance to temperature and chemicals
- Progressive seal and anchoring
- Long service life

SAFE, FLEXIBLE AND TIGHT

UNI-Coupling with two basic types

UNI-Coupling is based on a unique technical principle, this distinguishing between two basic variants and available for any pipe combination.

The proven connection technology allows different pipe materials to be joint for the most diverse applications of our customers.

The safety and reliability have been tested thoroughly and certified by independent institutions for shipbuilding, water management and gas supply. You can rely on UNI-Coupling.

High AXIAL strength



No AXIAL strength



Optionally available with the following gaskets: EPDM, NBR, Viton

THE PATENTED AND UNIQUE SEALING SOLUTION

The patented sealing solution with integrated compensator

When using UNI-Coupling, a steel band insert is no longer required for most applications thanks to the compensation beads, which means the risk of corrosion is reduced to a minimum.

The V-shaped structure of the sealing geometry ensures a dynamic sealing effect so as to attain perfect sealing. Paired with the solid gasket design without thin-walled lip constructions, a secure pipe connection is ensured even in tough environmental conditions.



Patented gasket

Anchoring ring – High AXIAL strength



SELECTION CRITERIA

Connection	Metal - Metal	Plastic - Plastic	Metal - Plastic	all material	GRIP Type tension proof/ FLEX/REP Type not tension proof
PEWOG RIP	X				High tension-proof
PEWOPLASTGRIP		X			High tension-proof
PEWOCOM-BIGRIP			X		High tension-proof
PEWOFLEX	X	X	X	X	Not tension proof
PEWOREP	X	X	X	X	Not tension proof

Clamping range	OD (mm)	Number of couplings	Material / Quality	Housing wall thick- ness (T)
UNI-Coupling	21 – 47.5 47.5 – 172 180 – 4000	7 15 Customised	Standard A4 (1.4571)	T = 0,8 / 1 mm T = 1 / 1,2 / 1,5 / 2 / 3 mm T = 1 / 2 / 3 / 5 mm

Sealing material	EPDM > 21 bis 172 mm	EPDM > 180 mm	NBR	Viton
Application temperature	-30 °C bis +125 °C	-30 °C bis +80 °C	-20 °C bis +80 °C	-20 °C bis +200 °C
Medium	Drinking water / wastewater / air / compressed air (oil-free) / solids	Drinking water / wastewater / air / compressed air (oil-free) / solids	Water / flammable gases / compressed air / oil / fuel and other hydrocarbons	Mineral oils / aliphatic / aromatic hydrocarbons / chlorinated hydrocarbons / concentrated and diluted acids, weak alkalis

Steel quality	Housing	Closure	Bolts	Anchoring ring
A4	1.4571 / 316 Ti	1.4571 / 316 Ti	A4 – 80 / 316 Ti	1.4310 / 301

DIMENSIONS – TYPE VARIETY

Type	Ø (mm)	Width (mm)	Pressure PN
 PEWOGrip	21 - 172	45 to 110 Depending on diameter	25
	172 - 745	140 Other widths on request	25
 PEWOPlastGrip	39 - 172	60 to 110 Depending on diameter	16
	172 - 640	140 Other widths on request	16
 PEWOCOMBIGrip	39 - 172	60 to 110 Depending on diameter	16
	172 - 640	140 Other widths on request	16
 PEWOFLEX	21 - 172	45 to 110 Depending on diameter	25
	172 - 2090	140; 210; 290; 430	25
 PEWOREP	36 - 172	60 to 110 Depending on diameter	25
	172 - 745	140; 210; 290; 430	25

DIMENSIONS AND MINIMUM PIPE THICKNESS AT NOMINAL PRESSURE PN

Pipe outside Ø (OØ)		Nominal Ø (NØ) stainless steel pipe		Minimum pipe thickness			
				Stainless steel		CuNi10Fe (DIN) / CuNi10Mn1Fe (ISO)	
Metric (mm)	Imperial (inch)	Metric (dn)	Imperial (nom)	Metric (mm)	Imperial (inch)	Metric (mm)	Imperial (inch)
26.9	1.050	20	¾	1.5	0.059	1.5	0.059
30.0	1.180	25	1.2	1.5	0.059	1.5	0.059
33.7	1.325	25	1	1.5	0.059	2.0	0.079
38.0	1.495	32	1.5	1.5	0.059	2.0	0.079
42.4	1.670	32	1 ¼	1.5	0.059	2.0	0.079
44.5	1.750	40	1.75	1.5	0.059	2.0	0.079
48.3	1.900	40	1 ½	1.5	0.059	2.0	0.079
54.0	2.125	50	2.125	1.5	0.059	2.0	0.079
57.0	2.245	50	2.25	1.5	0.059	2.0	0.079
60.3	2.375	50	2	1.5	0.059	2.0	0.079
66.6	2.625	65	2 ½	2.0	0.079	2.0	0.079
70.0	2.756	65	2 ½	2.0	0.079	2.0	0.079
73.0	2.875	65	2 ½	2.0	0.079	2.0	0.079
76.1	(3.000)	65		2.0	0.079	2.0	0.079
79.5	3.125	65	3	2.0	0.079	2.0	0.079
84.0	3.305	80	3.3	2.0	0.079	2.0	0.079
88.9	3.500	80	3	2.0	0.079	2.0	0.079
100.6	3.960	80	(3)	2.0	0.079	2.3	0.091
101.6	(4.000)	90	(3 ½)	2.0	0.079	2.3	0.091
104.0	4.095	100	4.1	2.0	0.079	2.3	0.091
104.8	4.125	100	(4)	2.0	0.079	2.3	0.091
108.0	4.250	100	4 ¼	2.0	0.079	2.3	0.091
114.3	4.500	100	4	2.0	0.079	2.3	0.091
127.0	5.000	100	4 ½	2.6	0.102	3.0	0.118
129.0	5.080	125	5	2.6	0.102	3.0	0.118
130.2	5.125	125	(5)	2.6	0.102	3.0	0.118
* 131.0				3.0	0.118		
133.0	5.235	125	5 ¼	2.6	0.102	3.0	0.118
139.7	(5.500)	125	(5 ½)	2.6	0.102	3.0	0.118
141.3	5.565	125	5	2.6	0.102	3.0	0.118
154.0	6.065	150	6.1	2.6	0.102	3.0	0.118
* 155.0				2.5	0.098		
159.0	6.260	150	6 ¼	2.6	0.102	3.0	0.118
168.3	6.625	150	6	2.6	0.102	3.5	0.138
193.7	7.625	200	7.6	3.0	0.118	3.5	0.138
* 206.0				3.0	0.118		
219.1	8.625	200	8	3.0	0.118	3.5	0.138
244.5	9.625	225	9	ON REQUEST	ON REQUEST	4.5	0.177
* 256.0				ON REQUEST	ON REQUEST		
267.0	10.510	250	10.5	ON REQUEST	ON REQUEST	4.5	0.177
273.0	10.750	250	10	ON REQUEST	ON REQUEST	5.0	0.197
* 306.0				ON REQUEST	ON REQUEST		
323.9	12.750	300	12	ON REQUEST	ON REQUEST	5.5	0.217
355.6	14.000	350	14	ON REQUEST	ON REQUEST	6.0	0.236
406.4	16.000	400	16	ON REQUEST	ON REQUEST	8.0	0.315
457.2	18.000	450	18	ON REQUEST	ON REQUEST	9.0	0.354
508.0	20.000	500	20	ON REQUEST	ON REQUEST	10.0	0.394
558.8	22.000	550	22	ON REQUEST	ON REQUEST	10.0	0.394
609.6	24.000	600	24	ON REQUEST	ON REQUEST	12.0	0.472

Smaller wall thicknesses are possible at lower pressures. Please address enquires to our local sales partner.
* = Standard pipe dimensions for stainless steel (external diameter in relation to wall thickness)

TECHNICAL INFORMATION AND OVERVIEW PE 80 / PE 100

External diameter		Pipewall thickness based on SDR classes								
OD	DN	sewage				Drinking water		Gas		
mm	For flange connections	black with brown stripes PE 80				black with blue stripes PE 80		Yellow PE 80		
		SDR 17,6	SDR 17	SDR 11	SDR 7,4	SDR 11	SDR 7,4	SDR 17,6	SDR 17	SDR 11
		(PN 7,5)	(PN 8)	(PN12,5)	(PN20)	(PN12,5)	(PN20)	(PN1)	(PN1)	(PN4)
20	15	1,8	1,8	1,9	2,8	1,9	2,8	1,8	1,8	1,9
25	20	1,8	1,8	2,3	3,5	2,3	3,5	1,8	1,8	2,3
32	25	1,8	1,9	3,0	4,4	3,0	4,4	1,8	1,9	3,0
40	32	2,3	2,4	3,7	5,5	3,7	5,5	2,3	2,4	3,7
50	40	2,9	3,0	4,6	6,9	4,6	6,9	2,9	3,0	4,6
63	50	3,6	3,8	5,8	8,6	5,8	8,6	3,6	3,8	5,8
75	65	4,3	4,5	6,8	10,3	6,8	10,3	4,3	4,5	6,8
90	80	5,2	5,4	8,2	12,3	8,2	12,3	5,2	5,4	8,2
110	100	6,3	6,6	10,0	15,1	10,0	15,1	6,3	6,6	10,0
125	100	7,1	7,4	11,4	17,1	11,4	17,1	7,1	7,4	11,4
140	125	8,0	8,3	12,7	19,2	12,7	19,2	8,0	8,3	12,7
160	150	9,1	9,5	14,6	21,0	14,6	21,0	9,1	9,5	14,6
180	150	10,3	10,7	16,4	24,6	16,4	24,6	10,3	10,7	16,4
200	200	11,4	11,9	18,2	27,4	18,2	27,4	11,4	11,9	18,2
225	200	12,8	13,4	20,5	30,8	20,5	30,8	12,8	13,4	20,5
250	250	14,2	14,8	22,7	34,2	22,7	34,2	14,2	14,8	22,7
280	250	15,9	16,6	25,4	38,3	25,4	38,3	15,9	16,6	25,4
315	300	17,9	18,7	28,6	43,1	28,6	43,1	17,9	18,7	28,6
355	350	20,1	21,1	32,2	48,5	32,2	48,5	-	-	-
400	400	22,7	23,7	36,3	54,7	36,3	54,7	-	-	-
450	500	25,5	26,7	40,9	61,6	40,9	61,6	-	-	-
500	500	28,4	29,7	45,4	68,3	45,4	68,3	-	-	-
560	600	31,7	33,2	50,8	-	50,8	-	-	-	-
630	600	35,7	37,4	57,2	-	57,2	-	-	-	-

DA	DN	sewage	Drinking water	Gas
mm	For flange connections	black with brown stripes PE 100	Royal blue PE 100	Yellow orange PE 100
		SDR 17 PN 10/Gas PN4		SDR 11 PN 16/Gas PN10
32	25	1,9		3,0
40	32	2,4		3,7
50	40	3,0		4,6
63	50	3,8		5,8
75	65	4,5		6,8
90	80	5,4		8,2
110	100	6,6		10,0
125	100	7,4		11,4
140	125	8,3		12,7
160	150	9,5		14,6
180	150	10,7		16,4
225	200	13,4		20,5
250	250	14,8		22,7
280	250	16,6		25,4
315	300	18,7		28,6
355	350	21,1		32,2
400	400	23,7		36,3
450	500	26,7		40,9
500	500	29,7		45,4
560	600	33,2		50,8
630	600	37,4		57,2

Wall thicknesses „s“ in mm

TECHNICAL INFORMATION AND OVERVIEW PE 80 / PE 100

Pipe colors and applications		
Colors	materials	areas of application
Royal blue	PE 100	drinking water supply
Yellow orange	PE 100	gas supply
black with brown stripes	PE 100	Waste water transport

Pressure limitation

The pressure limitation of PE pipes and fittings is expressed in SDR-grade (SDR = standard dimension ratio = ratio outside pipe diameter / pipe wall thickness). Decisive for this are the currently revised standards and proposed standards (prEN 1555, DIN 8074 [E] and DIN 8075 [E] considering the new design factor C (Calculation coefficient for PE-HD components = 1.25). Depending on the used PE-HD material the following pressure levels can result:

PE80	Drinking water/wastewater		Gas
SDR-grade	maximum operating pressure in bar at previously: C = 1.6	maximum operating pressure in bar at new: C = 1.25	„maximum operating pressure (MOP) in bar according to DVGW“
17,6	6	7,5	1
17	6,2	8	1
11	10	12,5	4
7,4	15,3	20	–

PE100	Drinking water/wastewater		Gas
SDR-grade	maximum operating pressure in bar at new: C = 1.25		maximum operating pressure (MOP) in bar according to DVGW
17	10		4
11	16		10



GUIDE VALUES FOR INSTALLATION TIME AND DIMENSION COMPARISON METRIC/IMPERIAL

The installation time includes:

- Marking the half coupling width non both pipe ends
- Correct alignment of the coupling
- Tightening the bolts with a torque wrench

Pipe outside Ø (OØ)		Nominal Ø (NØ)		Installation time per coupling
Metric (mm)	Imperial (inch)	Metric (dn)	Imperial (nom)	(min)
26,9	1.050	20	3/4	2
30	1.180	25	1.2	2
33,7	1.325	25	1	2
38	1.495	32	1.5	2
42,4	1.670	32	1 1/4	2
44,5	1.750	40	1.75	2
48,3	1.900	40	1 1/2	2
54	2.125	50	2.125	3
57	2.245	50	2.25	3
60,3	2.375	50	2	3
66,6	2.625	65	2 1/2	4
73	2.875	65	2 1/2	4
76,1	(3.000)	65	3	4
79,5	3.125	65	3	4
84	3.305	80	3.3	4
88,9	3.500	80	3	4
100,6	3.960	80	(3)	5
101,6	(4.000)	90	(3 1/2)	5
104	4.095	100	4.1	5
104,8	4.125	100	(4)	5
108	4.250	100	4 1/4	5
114,3	4.500	100	4	5
127	5.000	100	4 1/2	6
129	5.080	125	5	6
130,2	5.125	125	(5)	6
133	5.235	125	5 1/4	6
139,7	(5.500)	125	(5 1/2)	6
141,3	5.565	125	5	6
154	6.065	150	6.1	7
159	6.260	150	6 1/4	7
168,3	6.625	150	6	7
219,1	8.625	200	8	9
244,5	9.625	225	9	10
267	10.510	250	10.5	10
273	10.750	250	10	10
323,9	12.750	300	12	12
355,6	14.000	350	14	12
406,4	16.000	400	16	12
457,2	18.000	450	18	12
508	20.000	500	20	12
558,8	22.000	550	22	12
609,6	24.000	600	24	12

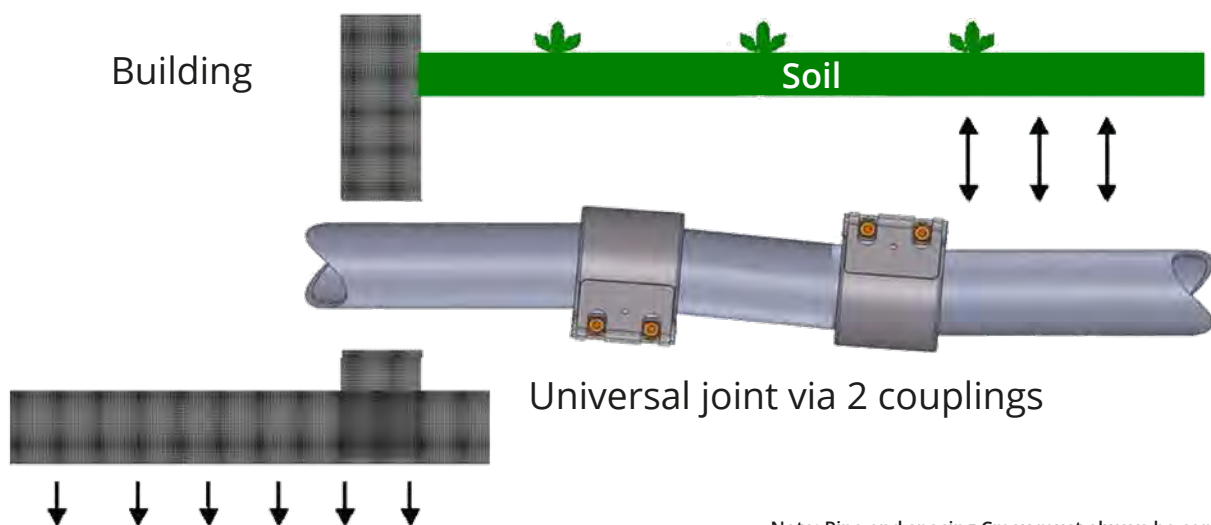
MISALIGNMENT

PEWOCOUPLING pipe connections compensate angular offsets up to 2° (4°) in every direction.



Easy installation. That does away with the need for complex alignment of the pipes. It is also possible to use pipes with an angular offset as a connecting element for dynamic angular offset movements, after installation, during operation of the pipe.

Example: Ground subsidence



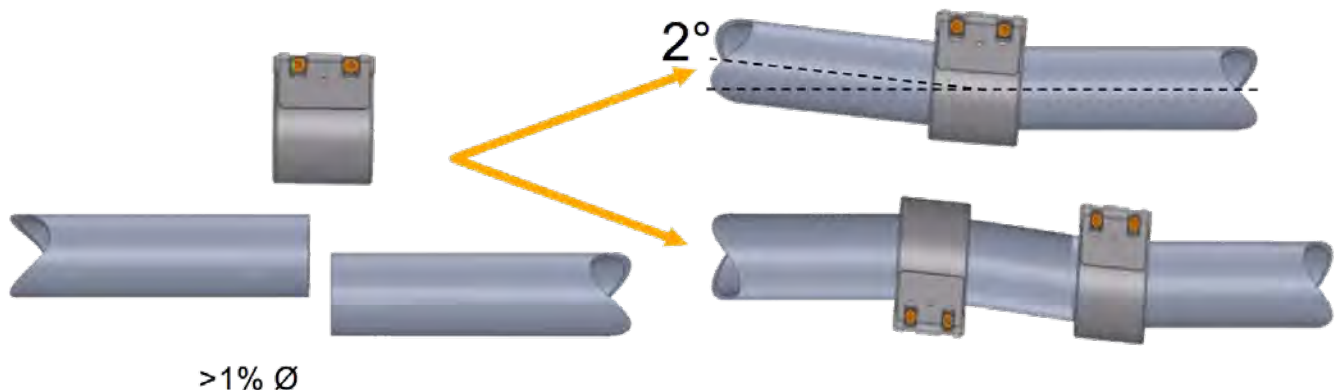
Note: Pipe end spacing C_{max} must always be complied with.

AXIAL OFFSET

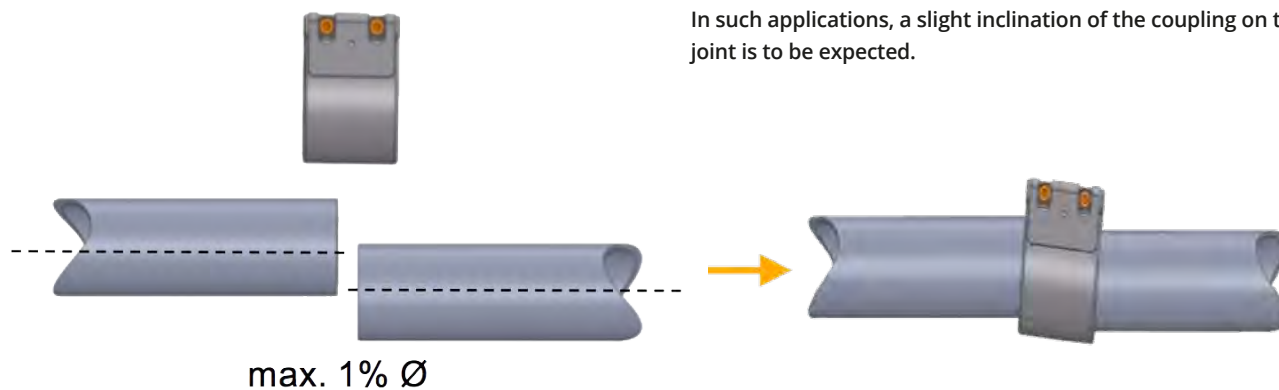
PEWOCOUPLING pipe connections allow an axial offset. However, we recommend avoiding the parallel offset or modifying this offset to a pipe angular offset up to 2° or using an adapter.

As a ZERO OFFSET is practically impossible, minor 'offsets' are tolerated. The following rules are intended to define the limit values of the tolerable offset, which should nevertheless be kept as small as possible.

„An offset that is up to 1% (max. 3 mm) of the corresponding pipe external diameter can be tolerated without problem, because a correction installation of the coupling is not impaired by this“.



If line guides are a sufficient distance from the pipe joint, so that the pipe ends can be operated manually with a small force effort (approx. 500 N), the remaining offset will inevitably be kept small after tightening the coupling. In such applications, a slight inclination of the coupling on the pipe joint is to be expected.



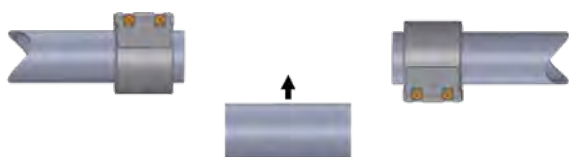
SUBSEQUENT INSTALLATION OF PIPE SECTIONS, MOULDED PARTS AND FITTINGS

The simple transfer to pipes and the wide tolerance field of the pipe coupling make this an ideal component for subsequent installation of pipe sections, moulded parts or fittings in case of line modifications or repairs.

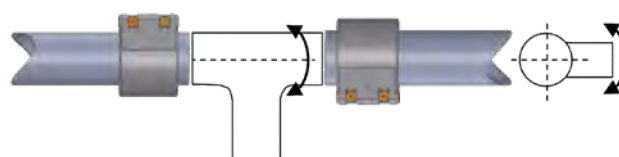


PEWOCOUPLING pipe connections do not absorb any shear, bending or torsional forces. Pressure pipes must be routed and provided with anchor points.

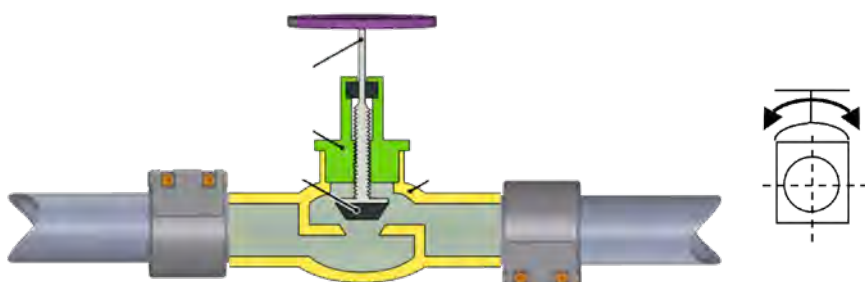
Fitting pieces for existing or new pipelines



Mould part (T-piece), location and direction of the outgoing union freely selectable



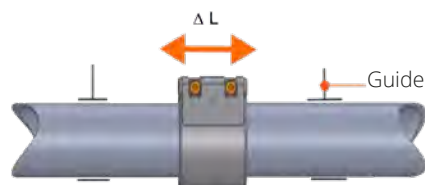
Fitting with smooth pipe unions, location freely selectable



AXIAL MOVEMENTS / LENGTH CHANGES

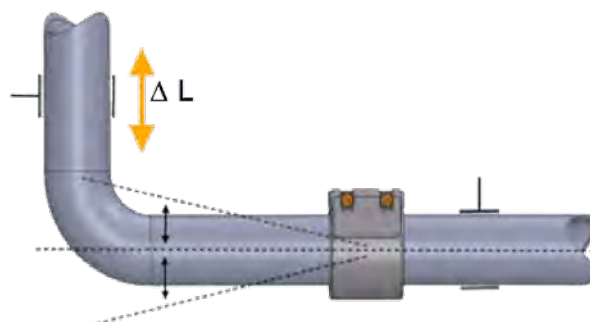
Temperature load changes on the pipeline system generate axial movements. Or tensile and compressive stresses, which have to be compensated by appropriate measures.

PEWOCOUPLING pipe connections of type series PEWOFLEX and PEWOREP are able to compensate axial movements by straight pipe sections, depending on the coupling size and type, between 5 and 20 mm. We recommend using a T-band insert in order to prevent a migration from the coupling to the pipe.



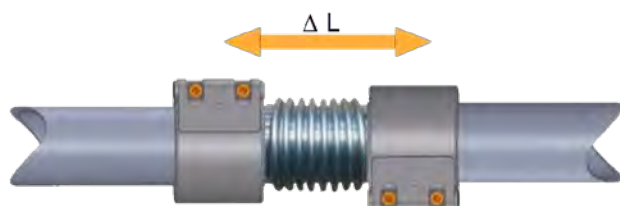
PEWOCOUPLING pipe connections do not absorb any shear, bending or torsional forces. Pressure pipes must be routed and provided with anchor points.

- Compensates length changes in the pipes at temperature fluctuations
- No abrasion of the sealing collar (milling in the seal)
- Compensation space for the volume change in the sealing materials
- Tension-free pipeline without additional elements (see above)



Note: Pipe end spacing Cmax. must be complied with.

Larger axial movements call for compensation options such as traditional compensation

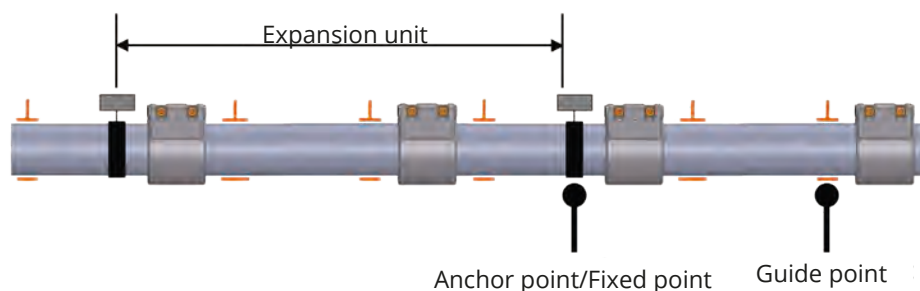


Pipe guiding / Fastening for axial movements

When fastening pipes that are subject to a length change due to the effects of temperature, these can be divided into "movement units".

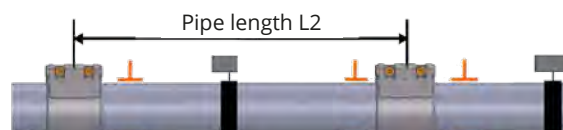
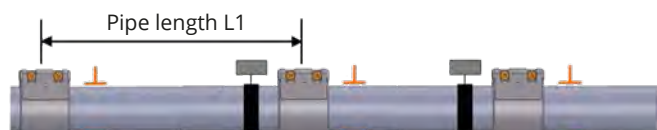
With pipe couplings of the type series PEWOFLEX and PEWOREP, this can be connected extremely economically as an expansion compensator.

The pipe section between two fixed points represents an expansion unit.



Between two fixed points, the length change must not exceed the permissible values for each connection point.

Depending on the size of the axial movement per pipe length, every second fixed point can be replaced by a guide.

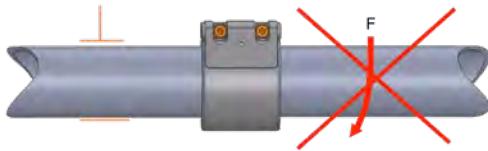


BENDING / TORSION

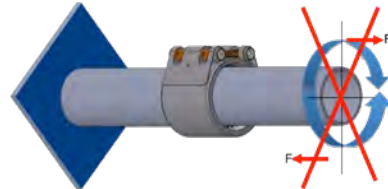


PEWOCOUPLING pipe connections do not absorb any bending or torsional forces. Pressure pipes must be routed and, if necessary, provided with anchor points.

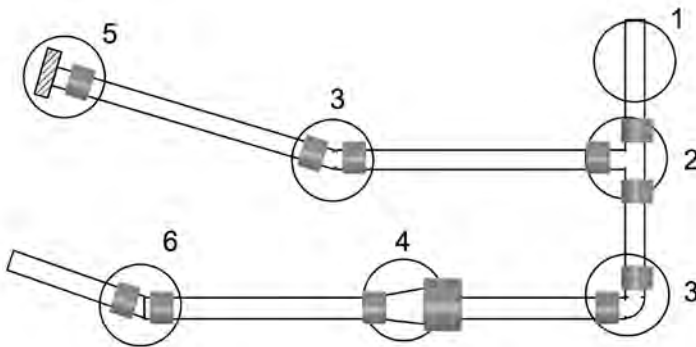
Bending



Torsion



UNDERGROUND PIPES

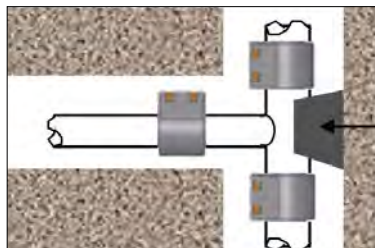


PEWOCOUPLING pipe connections do not absorb any shear, bending or torsional forces. Structural measures for underground pipelines must be taken into consideration in order to deflect axial forces (e.g. abutment made from lean concrete).

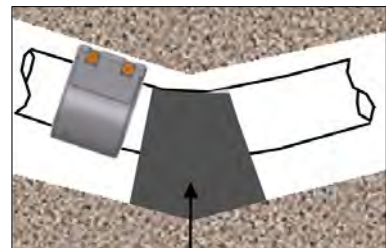
1 Sufficient cover with refilling material



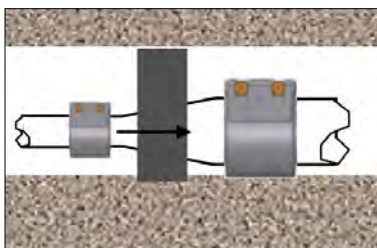
2 For T-pieces (e.g. with concrete block)



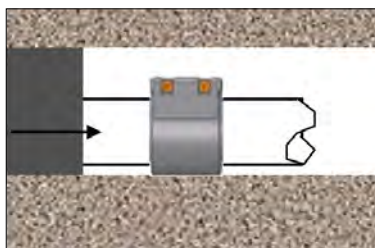
3 For bends, Direction changes



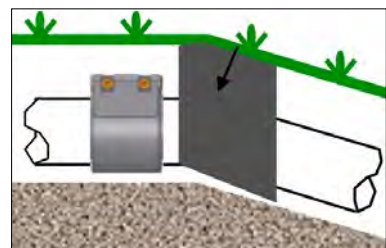
4 For diameter reductions



5 For pipe end terminations



6 For incline changes



The arrows indicate the direction of the supporting force of the abutment.

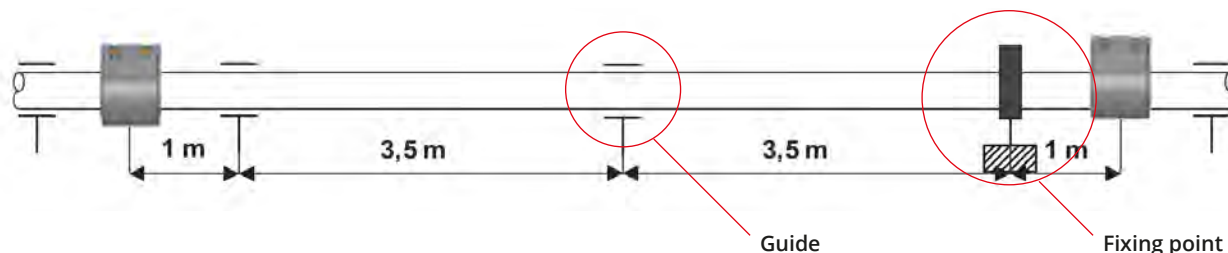
FREELY ROUTED PIPES



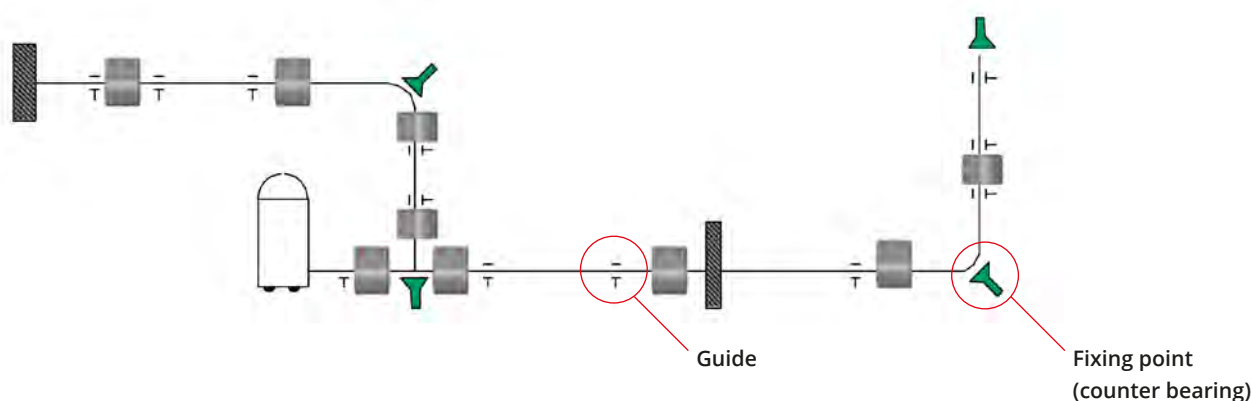
PEWOCOUPLING pipe connections do not absorb any shear, bending or torsional forces. Pressure pipes must be routed and provided with anchor points.

Important: Pressure lines must be supported, routed and fixed. Depending on the laying situation, these are to be realised as fixed points.

Laying guidelines for a pipe section with a length of 9 m



Application example:



ASSEMBLY FOR VERTICAL INSTALLATION

PEWOCOUPLING pipe connections of the series PEWOGrip, PEWOCOMBIGrip, PEWOPLASTGrip are ideal connecting elements, to order to perfectly seal smooth-end metal and/or plastic pipes with vertically laid line elements, keep these force-locked and connect them.

In the extreme case of a vertical, freely suspended pump pressure line, the resultant forces should be checked, which can be calculated from the following values for each coupling:

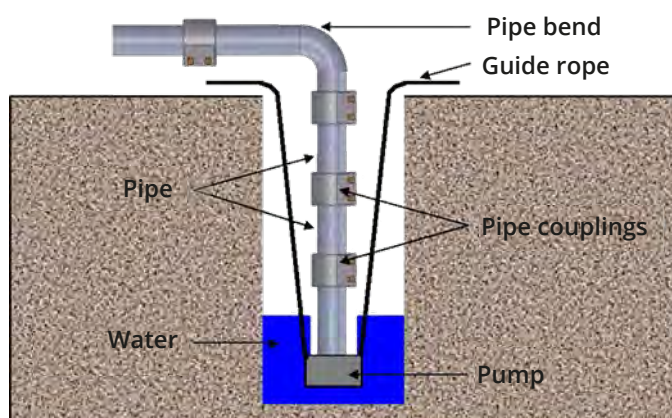
- Weight of the pipe
- Weight of the couplings (connections)
- Weight of the feed pump
- Weight of the water volume in the pipe
- Force component, resulting from internal pressure and pressure surges to be expected

The resultant torsions, caused by the pump(s) starting up, are countered by a sufficient resistance from pipe couplings of the type series PEWOGrip, PEWOCOMBIGrip, PEWOPLASTGrip.

Application examples:

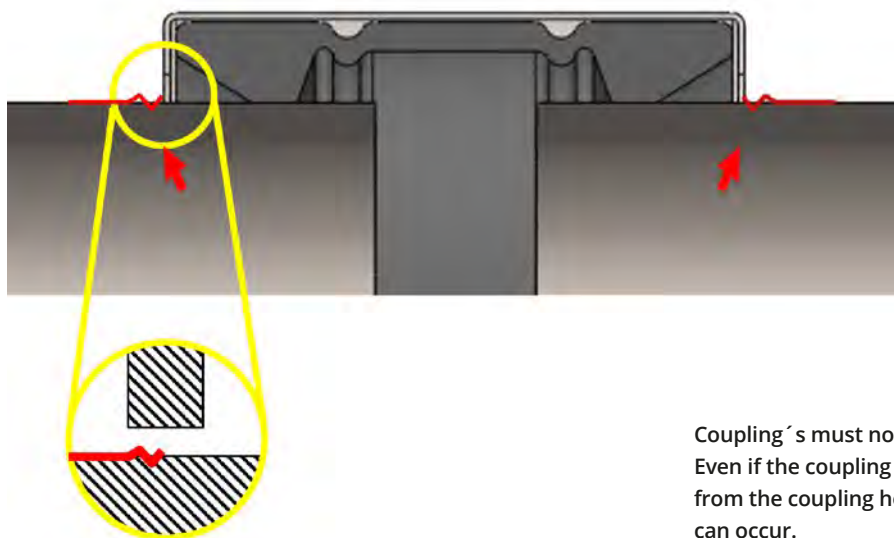
- Bore hole pump lines
- Fresh water pump lines

- Heat pump shaft lines
- Loading and emptying systems of silos, tanks and containers



When using pipe couplings of the series PEWOGrip, PEWOCOMBIGrip and PEWOPLASTGrip, the maximum tensile load values of the connections/pipes must always be observed.

ELECTRICAL CONDUCTIVITY OF PEWOFLEX /PEWOREP



Coupling's must not be regarded as an 'insulating piece'. Even if the coupling is correctly installed, an electrical transition from the coupling housing or the strip insert to the pipe surfaces can occur.

If an electrically conductive connection is desired, this can be ensured on site by bridging the coupling from pipe to pipe with a ground strap.

If the connection is not to be electrically conductive, the electrical insulation can be attained by installing a one metre long plastic or GRP pipe section.



PEWOCOUPLING pipe connections of the type series PEWOFLEX and PEWOREP do not ensure an electrical bridging from pipe to pipe.

ELECTRICAL CONDUCTIVITY OF PEWOGRIP



PEWOCOUPLING pipe couplings of the series PEWOGRIP ensure electrical bridging from pipe to pipe as a result of the metallic anchoring mechanism.

Measurements have confirmed that a sufficiently low electrical transition resistance is achieved by a proper assembly of the pipe coupling.

The electrical flow is ensured by the anchoring rings on engagement in the pure metallic pipe surface.



With the PEWOCOUPLING pipe connections of the series PEWOCOMBIGRIP / PEWOPLASTGRIP, no electrical flux is possible owing to the use of plastic pipes.

MONTAGEANLEITUNG / INSTALLATION INSTRUCTIONS

PEWOG RIP

PEWOPLASTGRIP

PEWOCOMBIGRIP

PEWOFLEX / PEWOREP

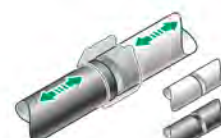
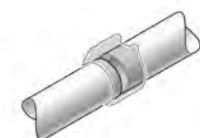


metal/metal

plastic*/plastic*

plastic*/metal

all



* ABS / PA / PB / PC / PE / PP / PVC / PMMA

GFK / GRP / GRFP

DIN 86128-1
86128-2

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PEWOBAR GmbH

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Barloer Straße 34

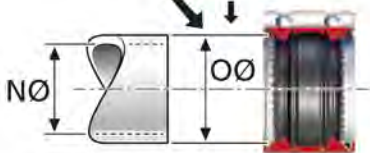
Mail: kontakt@pewobar.de

D-46414 Rhede

Web: www.pewobar.de

EINBAUBEDINGUNGEN / INSTALLATION REQUIREMENTS

1.

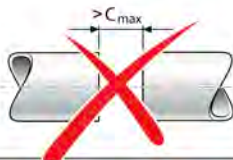
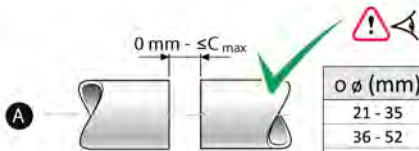


EPDM
Für Trinkwasser, Abwasser, Luft
und Feststoffe.

NBR
Für Wasser, Gase, Öl, Kraftstoff und
andere Kohlenwasserstoffe.

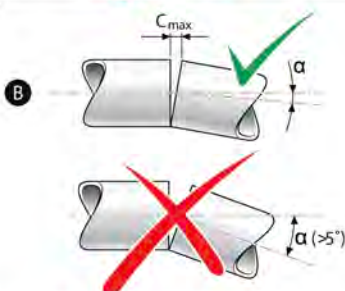
ØØ (mm)	EPDM For drinking water, waste water, air and solids	NBR For water, gases, oils, fuels and other hydrocarbons
≤172	-30°C - +125°C	-20°C - +80°C
≥180	-20°C - +80°C	

2.



ØØ (mm)	Cmax (mm)	≈ B (mm)
21 - 35	10	≈ 45
36 - 52	15	≈ 60
53 - 63	25	≈ 75
64 - 129	30	≈ 95
130 - 172	40	≈ 110
172 - 2000	40	≈ 140
263 - 2000	80	≈ 210
263 - 2000	160	≈ 290
263 - 2000	300	≈ 430

3.



ØØ (mm)	α
21 - 64	5°
64 - 223	4°
223 - 613	2°
613 - ∞	1°

4.

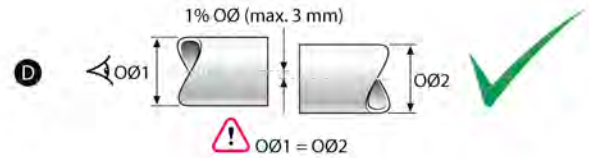


! 1% ØØ1 ≥ ØØ2 (max. 3 mm)

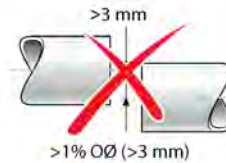


! >1% ØØ1 ≥ ØØ2 (>3 mm)

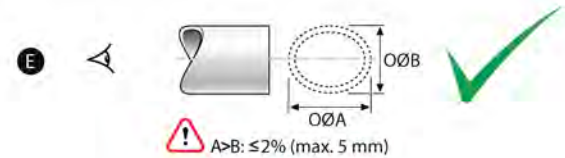
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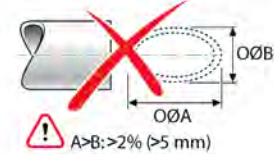
! ØØ1 = ØØ2



6.



! A>B: ≤2% (max. 5 mm)



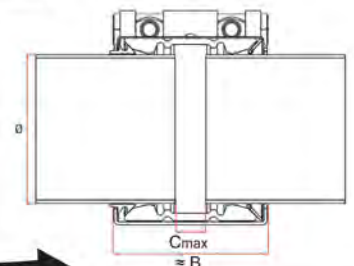
! A>B: >2% (>5 mm)

7.

PEWOFLEX / PEWOREP



≈ B (mm)	ΔL in mm
≈45-110	5
≈140	10
≈210	15
≈290	20
≈430	20



8.

A	B	C	D	E	F							
<table border="1"> <tr> <td>✓</td> </tr> <tr> <td>A + C</td> </tr> <tr> <td>A B + C +</td> </tr> <tr> <td>A + B</td> </tr> <tr> <td>A + D</td> </tr> <tr> <td>A + E</td> </tr> <tr> <td>A + F</td> </tr> </table>						✓	A + C	A B + C +	A + B	A + D	A + E	A + F
✓												
A + C												
A B + C +												
A + B												
A + D												
A + E												
A + F												

MONTAGEANLEITUNG / FITTING INSTRUCTIONS

PEWOG RIP / PEWOCOMBIGRIP / PEWOPLASTGRIP / PEWOFLEX

Vorbereitungen / Preparations

-
-
-
-
- Gewährleistung / warranty
Nur in Verbindung mit PEWOBAR Stützhülsen
Only in conjunction with PEWOBAR support sleeves

1. METAL
2. PLASTIC
- UNI COUPLING
CGS16A4E108-115

Ø 108 115	EPDM	45 Nm 33,1 ft.lb	PN16 232 psi	35 bar 507 psi
--------------	------	---------------------	-----------------	-------------------

COMPLETE STAINLESS STEEL AISI 316
MADE IN HOLLAND, INTERNATIONAL PATENTS

<PLASTIC PULL OUT RESISTANT METAL>

INSTRUCTIONS 0-10 MM Ø1-Ø2 MAX. 3 MM
- 0 -0,5 0,5 1
-0,9 -1 bar

C_{max} ≥ 5 mm

Montage der Kupplung / Installation of the coupling

-
- 1/3 2/4
max. 2 x 360°
- 1/3 2/4 ...
max. 2 x 360°

SCHRAUBEN ANZIEHEN
1. ABWECHSELND UND GLEICHMÄßIG
2. BIS ZUM ANGEgebenEN DREHMOMENT
3. MEHRFACHS WECHSELSEITIG
DREHMOMENT PRÜFEN

1. ALTERNATELY AND EVENLY
2. TILL RIGHT TORQUE IS REACHED
3. RECHECK TORQUE
MULTIPLE TIMES

UNI COUPLING
GS16A4E112-120

Ø 112 120	EPDM	45 Nm 33,1 ft.lb	PN16 232 psi	35 bar 507 psi
--------------	------	---------------------	-----------------	-------------------

COMPLETE STAINLESS STEEL AISI 316
MADE IN HOLLAND, INTERNATIONAL PATENTS

<METAL PULL OUT RESISTANT METAL>

INSTRUCTIONS 0-10 MM Ø1-Ø2 MAX. 3 MM

max. 2 x 360°

45 Nm
22,1 ft · lb
- 1 4. Disassembly instructions
2 2. Preparations
3 3. Fit the coupling

MONTAGEANLEITUNG / INSTALLATION INSTRUCTIONS

PEWOG RIP / PEWOCOMBIG RIP / PEWOPLASTGRIP / PEWOFLEX

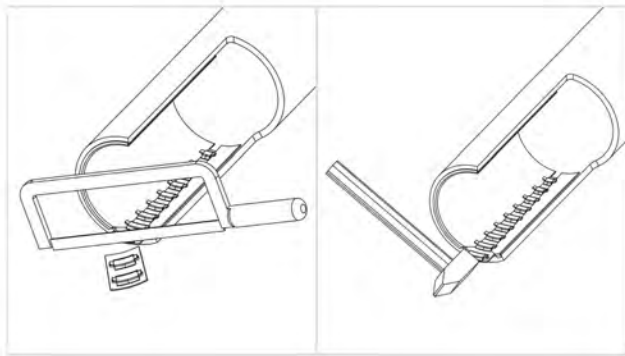
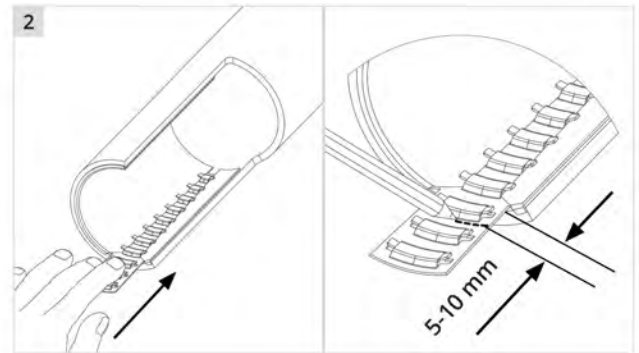
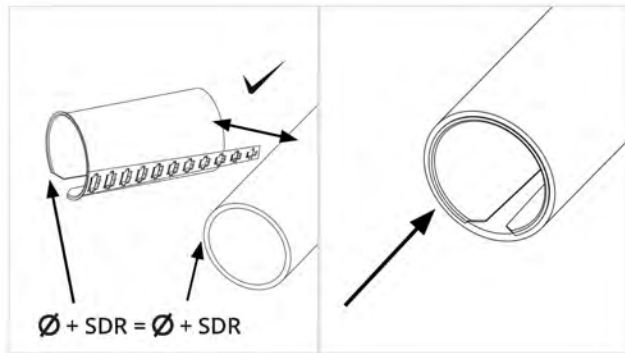


PEWOREP



MONTAGEANLEITUNG / FITTING INSTRUCTIONS

STÜTZHÜLSEN MIT KEIL / SUPPORT SLEEVES WITH WEDGE



Nur / only PEWOCOMBIGRIP / PEWOPLASTGRIP



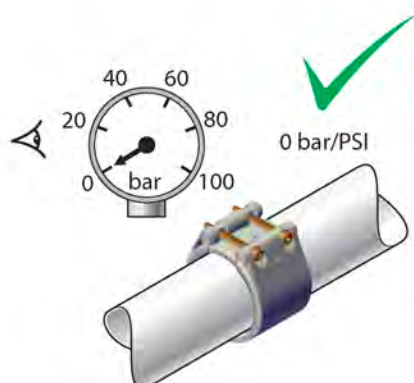
MONTAGEANLEITUNG / INSTALLATION INSTRUCTIONS

ECO-STÜTZHÜLSEN OHNE KEIL / SUPPORT SLEEVES WITHOUT WEDGE

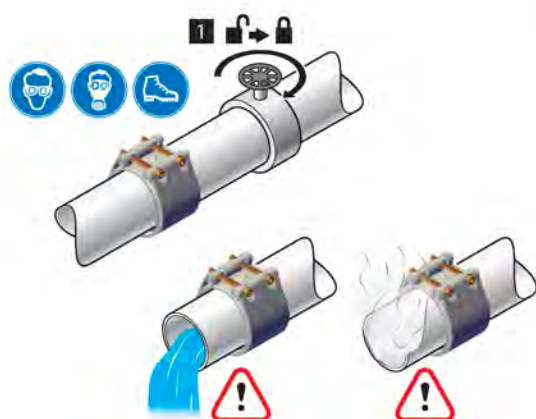


DEMONTAGE / DISASSEMBLY

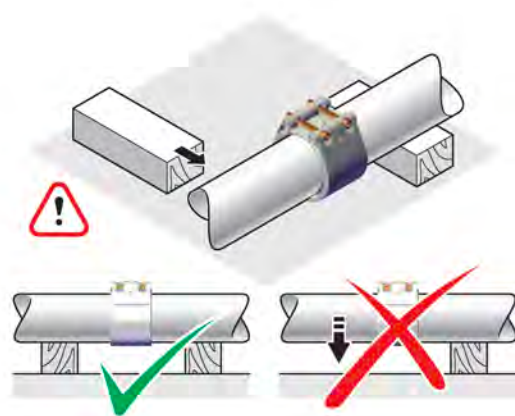
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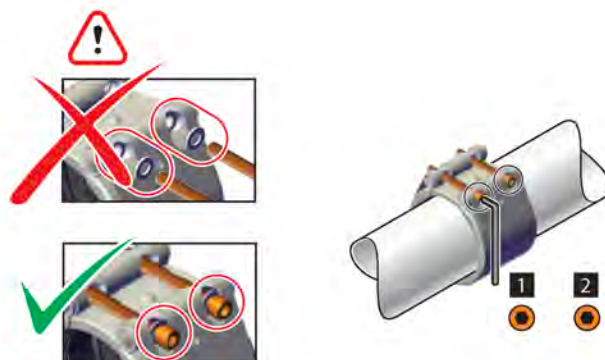
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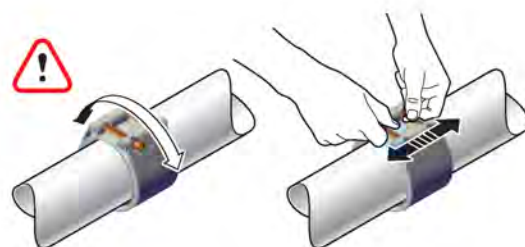
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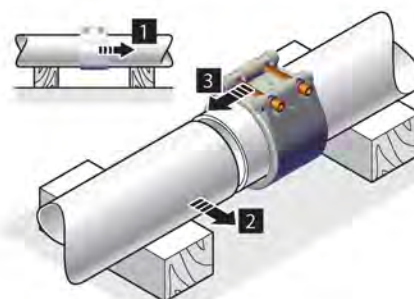
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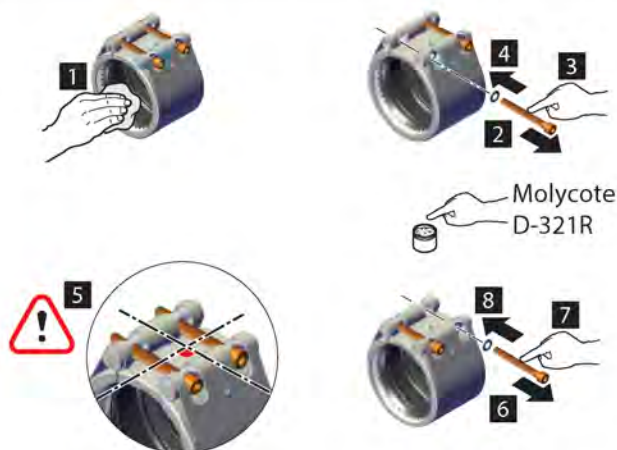
5.



6.



7.



INSTALLING FITTINGS IN AN INSPECTION MANHOLE



PRESSURE TEST / PRESS TEST LOG

Pressure test with water / compressed air

The UNICOUPLING Pipeconnectors must be pressure-tested after installation and before plastering or screed work. **Pressure testing can be carried out using water or compressed air and is a two-step process for all UNICOUPLING Pipeconnectors: Firstly, the installation is tested for leak-tightness and secondly for strength.**

1. Impermeability test and visual inspection



Water
ZVSHK advisory leaflet

2. Strength test for drinking water and heating installations



Water
DIN EN 806-4



Water
DIN 18380

Pressure testing with water:

1. The UNICOUPLING Pipeconnectors must be visually inspected for leakages during and after filling and testing the system with water.
2. A successful impermeability test is followed by a **strength test** using water for drinking water installations according to DIN 806-4 at **min. 11 bar for 30 min** and for heating systems according to DIN 18380 at **4 to max. 6 bar for 60 min**.

VDI directive 6023 specifies that drinking water systems should be put into operation immediately after water pressure testing and subsequent flushing, i. e. without downtime, for reasons of hygiene! We recommend a pressure test using compressed air if installations are started later.

1. Impermeability test and visual inspection



Air
ZVSHK advisory leaflet

2. Strength test for drinking water and heating installations



Air
ZVSHK advisory leaflet

Pressure test using compressed air:

1. **Impermeability testing** is carried out at **150 mbar** according to the ZVSHK advisory leaflet. Test time for 100 litres of pipe volume is at least **120 minutes**. **Increase test time by 20 minutes** for every additional **100 litres**.
2. A successful impermeability test without pressure drop is followed by a **strength test** according to the ZVSHK advisory leaflet for drinking water installations and heating systems at **max. 3 bar** ≤ 63 x 4.5 mm and at **max. 1 bar** > 63 x 4.5 mm at a test time of **10 min**.

Note ZVSHK advisory leaflet "Impermeability Testing for Drinking Water Installations with Compressed Air, Inert Gas or Water".

PRESSURE TEST LOG WITH THE TEST MEDIUM WATER FOR HEATING AND DRINKING WATER



For all UNICOUPLING pipe connections

Building projekt: _____

Building phase: _____

Customer (represented by): _____

Supplier (represented by): _____

System pressure: ____ bar Water temperature ____ °C Difference ____ °C

The system ☐ / _____ section(s) ☐ have been pressure tested

Metal plugs, caps, blanking plates or blind flanges must be used to seal all pipes. Apparatuses, pressure tanks or water heaters for drinking water must be disconnected from the pipes. **The system or pipeline section to be tested must be filled with filtered water, rinsed and completely bled.** Visually check that all pipe are properly connected.

The ZVSHK advisory leaflet "Impermeability Testing for Drinking Water Installations with Compressed Air, Inert Gas or Water" and VDI 6023 Sheet 1 "Hygiene for Drinking Water Supply Systems" must be taken into consideration.

1. Impermeability test in accordance with the ZVSHK advisory leaflet

A large temperature difference (at least 10 K) between the ambient temperature and the water temperature requires a 30-minute waiting period to allow the temperature to equalize.

The pressure corresponds to the available supply pressure of ____ bar, **but at least 1 bar and not more than 6.5 bar!**

- ☐ The visual inspection of the system has been completed.
- ☐ A manometer was used for the test.*
- ☐ No leaks were found during the test period.
- ☐ No pressure drop* was observed during the test period.

2. Strength test/Determination of strength

- | | |
|--|--|
| ☐ Plumbing system acc. to DIN 1988-2 | ☐ Heating system acc. to DIN 18380 |
| ☐ The drinking water system has been pressure tested at a minimum pressure of 15 bar ; the test is performed over a 10-minute period. | ☐ The heating system has been cold-water pressure tested at a test pressure of min. 4 and max. 6 bar ; The test is performed over a 60-minute period. |
| ☐ No leaks were found over the test period. | ☐ No leaks were found over the test period. |
| ☐ No pressure drop* was observed during the test period. | ☐ No pressure drop* was observed during the test period. |

- ☐ **The piping system has been proven to be leak-tight.**

Place, date _____

(Customer signature/customer representative signature)

(Supplier signature/supplier representative signature)

* Manometers must be capable of accurately measuring the pressure to the nearest 0.1 bar.

TECHNICAL INFORMATION

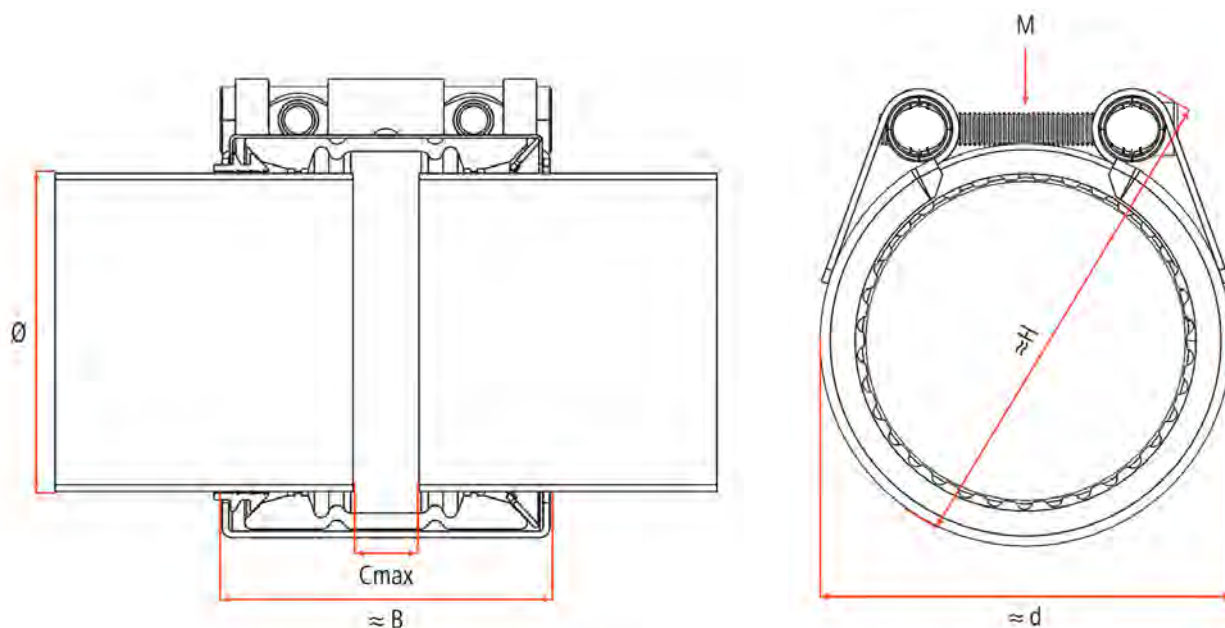
PEWOGRIP, PEWOPLASTGRIP and PEWOCOMBIGRIP

Steel materials - Components	A4 (Standard)		
Housing	1.4571 / 316 Ti		
Bolts	A4-80 / 316 Ti		
Locking bolts	1.4571 / 316 Ti		
Anchoring rings	1.4310 / 301 Grip ring for metal pipes 1.4571 / 316 Grip ring for plastic pipes		
Steel / plastic band insert (optional)	1.4571 (316 Ti) / PP / PA		

Use - Sealing	EPDM (Standard)	NBR (Standard)	FKM (Viton®)
Application temperature	-30 °C to +125 °C < Ø 172 mm -30 °C to +80 °C > Ø 172 mm	-20 °C to +80 °C	-20 °C to +200 °C
Medium	Drinking water / wastewater / air / compressed air (oil-free) / solids	Water / flammable gases / compressed air / oil / fuel and other hydrocarbons	Mineral oils / aliphatic / aromatic hydrocarbons / chlorinated hydrocarbons / concentrated and diluted acids, weak alkalis

Important information:

- Follow the installation and disassembly instructions.
- PN = Working pressure with consideration of the application loads for industrial applications. In case of maritime applications, PN is one PN class below, e.g. PN 25 Industry = PN 16 Shipbuilding.
- PN classes = PN 2.5; PN 6; PN 10; PN 16; PN 25
- Test pressure = PN x 1.5
- The pressure data is given under the precondition that radially rigid steel pipes with a minimum wall thickness are used under static load.
- Use the Technical Manual for other pipe materials.
- Band inserts are necessary for special applications.
- Support bushings must be used for thermoplastic synthetic pipes (PE/PP/PB/PVC/ABS...).



PEWOFLEX and PEWOREP

Steel materials - Components	A4 (Standard)		
Housing	1.4571 / 316 Ti		
Bolts	A4-80 / 316 Ti		
Locking bolts	1.4571 / 316 Ti		
Steel / plastic band insert (optional)	1.4571 (316 Ti) / PP / PA		

Use - Sealing	EPDM (Standard)	NBR (Standard)	FKM (Viton®)
Application temperature	-30 °C bis +125 °C < Ø 172 mm -30 °C bis +80 °C > Ø 172 mm	-20 °C bis +80 °C	-20 °C bis +200 °C
Medium	Drinking water / wastewater / air / compressed air (oil-free) / solids	Water / flammable gases / compressed air / oil / fuel and other hydrocarbons	Mineral oils / aliphatic / aromatic hydrocarbons / chlorinated hydrocarbons / concentrated and diluted acids, weak alkalis

PEWOGRIP Ø 21 - 290 mm / PN 25

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
GS16A4E21-24	GS16A4N21-24	21	23	25	45	10	46	76	M6	0,2	0,3
GS16A4E26-29	GS16A4N26-29	26	29	25	45	10	46	76	M6	0,2	0,3
GS16A4E29-32	GS16A4N29-32	29	32	25	45	10	54	84	M6	0,2	0,3
GS16A4E33-36	GS16A4N33-36	33	36	25	45	10	54	84	M6	0,2	0,3
GS16A4E36-39	GS16A4N36-39	36	39	25	60	15	66	104	M8	0,4	0,6
GS16A4E39-43	GS16A4N39-43	39	43	25	60	15	66	104	M8	0,4	0,6
GS16A4E43-47	GS16A4N43-47	43	47,5	25	60	15	74	112	M8	0,4	0,6
GS16A4E47-52	GS16A4N47-52	47,5	52,5	25	60	15	74	112	M8	0,4	0,6
GS16A4E52-58	GS16A4N52-58	52,5	58	25	75	25	85	125	M8	0,6	0,9
GS16A4E58-64	GS16A4N58-64	58	64	25	75	25	85	125	M8	0,6	0,9
GS16A4E64-72	GS16A4N64-72	64	72	25	95	30	108	164	M10	1,4	2,2
GS16A4E72-80	GS16A4N72-80	72	80	25	95	30	108	164	M10	1,4	2,2
GS16A4E80-88	GS16A4N80-88	80	88	25	95	30	124	170	M10	1,6	2,2
GS16A4E88-96	GS16A4N88-96	88	96	25	95	30	124	170	M10	1,6	2,2
GS16A4E97-105	GS16A4N97-105	97	105	25	95	30	141	187	M10	1,7	3,3
GS16A4E104-112	GS16A4N104-112	104	112	25	95	30	141	187	M10	1,7	3,3
GS16A4E112-120	GS16A4N112-120	112	120	25	95	30	158	202	M10	1,9	3,3
GS16A4E122-130	GS16A4N122-130	122	130	25	95	30	158	202	M10	1,9	3,3
GS16A4E129-137	GS16A4N129-137	129	137	25	110	40	178	230	M12	3,4	5,7
GS16A4E137-145	GS16A4N137-145	137	145	25	110	40	186	238	M12	3,5	5,7
GS16A4E149-157	GS16A4N149-157	149	157	25	110	40	197	249	M12	3,6	7
GS16A4E157-165	GS16A4N157-165	157	165	25	110	40	205	255	M12	3,7	7
GS16A4E164-172	GS16A4N164-172	164	172	25	110	40	212	262	M12	3,8	7
142-G16A4E172-185	142-G16A4N-172-185	172	185	25	142	40	226	250	M16	6	9
142-G16A4E185-198	142-G16A4N-185-198	185	198	25	142	40	236	262	M16	6	10
142-G16A4E198-211	142-G16A4N-198-211	198	211	25	142	40	249	275	M16	7	11
146-G16A4E210-223	146-G16A4N-210-223	210	223	25	146	40	261	287	M16	9	12
146-G16A4E221-234	146-G16A4N-221-234	221	234	25	146	40	272	298	M16	9	13
146-G16A4E234-247	146-G16A4N-234-247	234	247	25	146	40	285	311	M16	10	14
146-G16A4E247-260	146-G16A4N-247-260	247	260	25	146	40	298	324	M16	10	15
146-G16A4E263-276	146-G16A4N-263-276	263	276	25	146	40	314	340	M16	11	17
146-G16A4E277-290	146-G16A4N-277-290	277	290	25	146	40	328	354	M16	11	19



Please note important guidelines on the cover!

PEWOGrip Ø 21 - 172 mm / PN 25 (VITON®)

VITON®	Article No. FKM (Delivery time on request)	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	C _{max}	≈ d	≈ H	M		
Delivery time on request	GS16A4F21-24	21	23	25	45	10	46	76	M6	0,2	0,3
	GS16A4F26-29	26	29	25	45	10	46	76	M6	0,2	0,3
	GS16A4F29-32	29	32	25	45	10	54	84	M6	0,2	0,3
	GS16A4F33-36	33	36	25	45	10	54	84	M6	0,2	0,3
	GS16A4F36-39	36	39	25	60	15	66	104	M8	0,4	0,6
	GS16A4F39-43	39	43	25	60	15	66	104	M8	0,4	0,6
	GS16A4F43-47	43	47,5	25	60	15	74	112	M8	0,4	0,6
	GS16A4F47-52	47,5	52,5	25	60	15	74	112	M8	0,4	0,6
	GS16A4F52-58	52,5	58	25	75	25	85	125	M8	0,6	0,9
	GS16A4F58-64	58	64	25	75	25	85	125	M8	0,6	0,9
	GS16A4F64-72	64	72	25	95	30	108	164	M10	1,4	2,2
	GS16A4F72-80	72	80	25	95	30	108	164	M10	1,4	2,2
	GS16A4F80-88	80	88	25	95	30	124	170	M10	1,6	2,2
	GS16A4F88-96	88	96	25	95	30	124	170	M10	1,6	2,2
	GS16A4F97-105	97	105	25	95	30	141	187	M10	1,7	3,3
	GS16A4F104-112	104	112	25	95	30	141	187	M10	1,7	3,3
	GS16A4F112-120	112	120	25	95	30	158	202	M10	1,9	3,3
	GS16A4F122-130	122	130	25	95	30	158	202	M10	1,9	3,3
	GS16A4F129-137	129	137	25	110	40	178	230	M12	3,4	5,7
	GS16A4F137-145	137	145	25	110	40	186	238	M12	3,5	5,7
	GS16A4F149-157	149	157	25	110	40	197	249	M12	3,6	7
	GS16A4F157-165	157	165	25	110	40	205	255	M12	3,7	7
	GS16A4F164-172	164	172	25	110	40	212	262	M12	3,8	7

Important information:

- Follow the installation and disassembly instructions.
- PN = Working pressure with consideration of the application loads for industrial applications. In case of shipbuilding applications, PN is one PN class below, e.g. PN 25 Industry = PN 16 Shipbuilding.
- PN classes = PN 2.5; PN 6; PN 10; PN 16; PN 25
- Test pressure = PN x 1.5
- The pressure data is given under the precondition that radially rigid steel pipes with a minimum wall thickness are used under static load.
- Use the Technical Manual for other pipe materials.
- Band inserts are necessary for special applications.
- Support sleeves must be used for thermoplastic plastic pipes (PE/PP/PB/PVC/ABS...).

PEWOGRIP Ø 64 - 374 mm / PN 16

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
GS10A4E64-72	GS10A4N64-72	64	72	16	95	30	108	164	M10	1	2,2
GS10A4E72-80	GS10A4N72-80	72	80	16	95	30	108	164	M10	1	2,2
GS10A4E80-88	GS10A4N80-88	80	88	16	95	30	124	170	M10	1,1	2,2
GS10A4E88-96	GS10A4N88-96	88	96	16	95	30	124	170	M10	1,1	2,2
GS10A4E97-105	GS10A4N97-105	97	105	16	95	30	141	187	M10	1,2	3,3
GS10A4E104-112	GS10A4N104-112	104	112	16	95	30	141	187	M10	1,2	3,3
GS10A4E112-120	GS10A4N112-120	112	120	16	95	30	158	202	M10	1,4	3,3
GS10A4E122-130	GS10A4N122-130	122	130	16	95	30	158	202	M10	1,4	3,3
GS10A4E129-137	GS10A4N129-137	129	137	16	110	40	178	230	M12	2,1	5,7
GS10A4E137-145	GS10A4N137-145	137	145	16	110	40	186	238	M12	2,2	5,7
GS10A4E149-157	GS10A4N149-157	149	157	16	110	40	197	249	M12	2,3	7
GS10A4E157-165	GS10A4N157-165	157	165	16	110	40	205	255	M12	2,4	7
GS10A4E164-172	GS10A4N164-172	164	172	16	110	40	212	262	M12	2,5	7
142-G10A4E210-223	142-G10A4N210-223	210	223	16	142	40	261	287	M16	7	12
142-G10A4E221-234	142-G10A4N221-234	221	234	16	142	40	272	298	M16	7	13
142-G10A4E234-247	142-G10A4N234-247	234	247	16	142	40	285	311	M16	7	14
142-G10A4E247-260	142-G10A4N247-260	247	260	16	142	40	298	324	M16	7	15
142-G10A4E263-276	142-G10A4N263-276	263	276	16	142	40	314	340	M16	8	17
142-G10A4E277-290	142-G10A4N277-290	277	290	16	142	40	328	354	M16	8	18
146-G10A4E288-301	146-G10A4N288-301	288	301	16	146	40	339	365	M16	11	20
146-G10A4E301-314	146-G10A4N301-314	301	314	16	146	40	352	378	M16	11	21
146-G10A4E315-328	146-G10A4N315-328	315	328	16	146	40	366	392	M16	12	23
146-G10A4E327-340	146-G10A4N327-340	327	340	16	146	40	378	404	M16	12	24
146-G10A4E340-353	146-G10A4N340-353	340	353	16	146	40	391	417	M16	12	26
146-G10A4E350-363	146-G10A4N350-363	350	363	16	146	40	401	427	M16	13	27
146-G10A4E361-374	146-G10A4N361-374	361	374	16	146	40	412	438	M16	13	29



Please note important guidelines on the cover!

PEWOGrip Ø 64 - 172 mm / PN 16 (VITON®)

VITON®	Article No. FKM (Delivery time on request)	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
Delivery time on request	GS10A4F64-72	64	72	16	95	30	108	164	M10	1,4	2,2
	GS10A4F72-80	72	80	16	95	30	108	164	M10	1,4	2,2
	GS10A4F80-88	80	88	16	95	30	124	170	M10	1,6	2,2
	GS10A4F88-96	88	96	16	95	30	124	170	M10	1,6	2,2
	GS10A4F97-105	97	105	16	95	30	141	187	M10	1,7	3,3
	GS10A4F104-112	104	112	16	95	30	141	187	M10	1,7	3,3
	GS10A4F112-120	112	120	16	95	30	158	202	M10	1,9	3,3
	GS10A4F122-130	122	130	16	95	30	158	202	M10	1,9	3,3
	GS10A4F129-137	129	137	16	110	40	178	230	M12	3,4	5,7
	GS10A4F137-145	137	145	16	110	40	186	238	M12	3,5	5,7
	GS10A4F149-157	149	157	16	110	40	197	249	M12	3,6	7
	GS10A4F157-165	157	165	16	110	40	205	255	M12	3,7	7
	GS10A4F164-172	164	172	16	110	40	212	262	M12	3,8	7

Important information:

- Follow the installation and disassembly instructions.
- PN = Working pressure with consideration of the application loads for industrial applications. In case of shipbuilding applications, PN is one PN class below, e.g. PN 25 Industry = PN 16 Shipbuilding.
- PN classes = PN 2.5; PN 6; PN 10; PN 16; PN 25
- Test pressure = PN x 1.5
- The pressure data is given under the precondition that radially rigid steel pipes with a minimum wall thickness are used under static load.
- Use the Technical Manual for other pipe materials.
- Band inserts are necessary for special applications.
- Support sleeves must be used for thermoplastic plastic pipes (PE/PP/PB/PVC/ABS...).

PEWOGRIIP Ø 172 - 516 mm / PN 10

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm ³ /pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
140-G6A4E172-185	140-G6A4N172-185	172	185	10	140	40	223	250	M16	5	9
140-G6A4E185-198	140-G6A4N185-198	185	198	10	140	40	236	262	M16	5	10
140-G6A4E198-211	140-G6A4N198-211	198	211	10	140	40	249	275	M16	6	11
140-G6A4E210-223	140-G6A4N210-223	210	223	10	140	40	261	287	M16	6	12
140-G6A4E221-234	140-G6A4N221-234	221	234	10	140	40	272	298	M16	6	13
140-G6A4E234-247	140-G6A4N234-247	234	247	10	140	40	285	311	M16	6	14
140-G6A4E247-260	140-G6A4N247-260	247	260	10	140	40	298	324	M16	6	15
140-G6A4E263-276	140-G6A4N263-276	263	276	10	140	40	314	340	M16	6	17
140-G6A4E277-290	140-G6A4N277-290	277	290	10	140	40	328	354	M16	7	18
142-G6A4E288-301	142-G6A4N288-301	288	301	10	142	40	339	365	M16	8	20
142-G6A4E301-314	142-G6A4N301-314	301	314	10	142	40	352	378	M16	8	21
142-G6A4E315-328	142-G6A4N315-328	315	328	10	142	40	366	392	M16	9	23
142-G6A4E327-340	142-G6A4N327-340	327	340	10	142	40	378	404	M16	9	24
142-G6A4E340-353	142-G6A4N340-353	340	353	10	142	40	391	417	M16	9	26
142-G6A4E350-363	142-G6A4N350-363	350	363	10	142	40	401	427	M16	9	27
142-G6A4E361-374	142-G6A4N361-374	361	374	10	142	40	412	438	M16	9	29
146-G6A4E374-387	146-G6A4N374-387	374	387	10	146	40	425	451	M16	13	30
146-G6A4E387-400	146-G6A4N387-400	387	400	10	146	40	438	464	M16	14	32
146-G6A4E400-413	146-G6A4N400-413	400	413	10	146	40	451	477	M16	14	34
146-G6A4E412-425	146-G6A4N412-425	412	425	10	146	40	463	489	M16	14	35
146-G6A4E422-435	146-G6A4N422-435	422	435	10	146	40	473	499	M16	14	36
146-G6A4E438-451	146-G6A4N438-451	438	451	10	146	40	489	515	M16	15	39
146-G6A4E451-464	146-G6A4N451-464	451	464	10	146	40	502	528	M16	15	41
146-G6A4E460-473	146-G6A4N460-473	460	473	10	146	40	511	537	M16	15	42
146-G6A4E476-489	146-G6A4N476-489	476	489	10	146	40	527	553	M16	16	45
146-G6A4E488-501	146-G6A4N488-501	488	501	10	146	40	539	565	M16	16	47
146-G6A4E503-516	146-G6A4N503-516	503	516	10	146	40	554	580	M16	17	49



Please note important guidelines on the cover!

PEWOGRIIP Ø 288 - 745 mm / PN 6

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
140-G2A4E288-301	140-G2A4N288-301	288	301	6	140	40	339	365	M16	7	19
140-G2A4E301-314	140-G2A4N301-314	301	314	6	140	40	352	378	M16	7	21
140-G2A4E315-328	140-G2A4N315-328	315	328	6	140	40	366	392	M16	7	22
140-G2A4E327-340	140-G2A4N327-340	327	340	6	140	40	378	404	M16	7	24
140-G2A4E340-353	140-G2A4N340-353	340	353	6	140	40	391	417	M16	8	25
140-G2A4E350-363	140-G2A4N350-363	350	363	6	140	40	401	427	M16	8	27
140-G2A4E361-374	140-G2A4N361-374	361	374	6	140	40	412	438	M16	8	28
142-G2A4E374-387	142-G2A4N374-387	374	387	6	142	40	425	451	M16	9	30
142-G2A4E387-400	142-G2A4N387-400	387	400	6	142	40	438	464	M16	10	31
142-G2A4E400-413	142-G2A4N400-413	400	413	6	142	40	451	477	M16	10	33
142-G2A4E412-425	142-G2A4N412-425	412	425	6	142	40	463	489	M16	10	35
142-G2A4E422-435	142-G2A4N422-435	422	435	6	142	40	473	499	M16	10	36
142-G2A4E438-451	142-G2A4N438-451	438	451	6	142	40	489	515	M16	11	39
142-G2A4E451-464	142-G2A4N451-464	451	464	6	142	40	502	528	M16	11	41
142-G2A4E460-473	142-G2A4N460-473	460	473	6	142	40	511	537	M16	11	42
142-G2A4E476-489	142-G2A4N476-489	476	489	6	142	40	527	553	M16	11	45
142-G2A4E488-501	142-G2A4N488-501	488	501	6	142	40	539	565	M16	11	47
142-G2A4E503-516	142-G2A4N503-516	503	516	6	142	40	554	580	M16	12	49
146-G2A4E520-533	146-G2A4N520-533	520	533	6	146	40	575	603	M16	17	54
146-G2A4E531-544	146-G2A4N531-544	531	544	6	146	40	586	614	M16	17	56
146-G2A4E546-559	146-G2A4N546-559	546	559	6	146	40	601	629	M16	18	59
146-G2A4E557-570	146-G2A4N557-570	557	570	6	146	40	612	640	M16	18	61
146-G2A4E571-584	146-G2A4N571-584	571	584	6	146	40	626	654	M16	18	63
146-G2A4E600-613	146-G2A4N600-613	600	613	6	146	40	655	683	M16	19	69
146-G2A4E610-623	146-G2A4N610-623	610	623	6	146	40	665	693	M16	19	71
146-G2A4E628-641	146-G2A4N628-641	628	641	6	146	40	683	711	M16	20	75
146-G2A4E648-661	146-G2A4N648-661	648	661	6	146	40	703	731	M16	20	79
146-G2A4E676-689	146-G2A4N676-689	676	689	6	146	40	731	759	M16	21	85
146-G2A4E688-701	146-G2A4N688-701	688	701	6	146	40	743	771	M16	21	88
146-G2A4E700-713	146-G2A4N700-713	700	713	6	146	40	755	783	M16	21	91
146-G2A4E717-730	146-G2A4N717-730	717	730	6	146	40	772	800	M16	22	95
146-G2A4E732-745	146-G2A4N732-745	732	745	6	146	40	787	815	M16	22	99

Important information:

- Follow the installation and disassembly instructions.
- PN = Working pressure with consideration of the application loads for industrial applications. In case of shipbuilding applications, PN is one PN class below, e.g. PN 25 Industry = PN 16 Shipbuilding.
- PN classes = PN 2.5; PN 6; PN 10; PN 16; PN 25
- Test pressure = PN x 1.5
- The pressure data is given under the precondition that radially rigid steel pipes with a minimum wall thickness are used under static load.
- Use the Technical Manual for other pipe materials.
- Band inserts are necessary for special applications.
- Support sleeves must be used for thermoplastic plastic pipes (PE/PP/PB/PVC/ABS...).

PEWOCOMBIGRIP Ø 39 - 363 mm / PN 16

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
CGS16A4E39-43	CGS16A4N39-43	39	43	16	60	15	66	104	M8	0,4	0,6
CGS16A4E47-52	CGS16A4N47-52	47,5	52,5	16	60	15	74	112	M8	0,5	0,6
CGS16A4E58-64	CGS16A4N58-64	58	64	16	75	25	85	125	M8	0,6	0,9
CGS16A4E72-80	CGS16A4N72-80	72	80	16	95	30	108	164	M10	1,4	2,2
CGS16A4E88-96	CGS16A4N88-96	88	96	16	95	30	124	170	M10	1,5	2,2
CGS16A4E104-112	CGS16A4N104-112	104	112	16	95	30	141	187	M10	1,7	3,3
CGS16A4E108-115	CGS16A4N108-115	108	115	16	95	30	141	187	M10	1,7	3,3
CGS16A4E122-130	CGS16A4N122-130	122	130	16	95	30	158	202	M10	1,8	3,3
CGS16A4E137-145	CGS16A4N137-145	137	145	16	110	40	186	238	M12	3,5	5,7
CGS16A4E157-165	CGS16A4N157-165	157	165	16	110	40	205	255	M12	3,7	7
CGS16A4E164-172	CGS16A4N164-172	164	172	16	110	40	212	262	M12	3,8	7
142-CG16A4E172-185	142-CG16A4N172-185	172	185	16	142	40	223	249	M16	6	9
142-CG16A4E195-208	142-CG16A4N195-208	195	208	16	142	40	246	272	M16	7	11
142-CG16A4E215-228	142-CG16A4N215-228	215	228	16	142	40	266	292	M16	7	12
142-CG16A4E247-260	142-CG16A4N247-260	247	260	16	142	40	298	324	M16	8	15
142-CG16A4E269-282	142-CG16A4N269-282	269	282	16	142	40	320	346	M16	9	17
146-CG16A4E312-325	146-CG16A4N312-325	312	325	16	146	40	363	389	M16	11	22
146-CG16A4E350-363	146-CG16A4N350-363	350	363	16	146	40	401	427	M16	12	27

VITON®	Article No. FKM (Delivery time on request)	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
Delivery time on request	CGS16A4F39-43	39	43	16	60	15	66	104	M8	0,4	0,6
	CGS16A4F47-52	47,5	52,5	16	60	15	74	112	M8	0,5	0,6
	CGS16A4F58-64	58	64	16	75	25	85	125	M8	0,6	0,9
	CGS16A4F72-80	72	80	16	95	30	108	164	M10	1,4	2,2
	CGS16A4F88-96	88	96	16	95	30	124	170	M10	1,5	2,2
	CGS16A4F104-112	104	112	16	95	30	141	187	M10	1,7	3,3
	CGS16A4F108-115	108	115	16	95	30	141	187	M10	1,7	3,3
	CGS16A4F122-130	122	130	16	95	30	158	202	M10	1,8	3,3
	CGS16A4F137-145	137	145	16	110	40	186	238	M12	3,5	5,7
	CGS16A4F157-165	157	165	16	110	40	205	255	M12	3,7	7
	CGS16A4F164-172	164	172	16	110	40	212	262	M12	3,8	7



Please note important guidelines on the cover!

PEWOCOMBIGRIP Ø 72 - 515 mm / PN 10

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
CGS10A4E72-80	CGS10A4N72-80	72	80	10	95	30	108	164	M10	1	2,2
CGS10A4E88-96	CGS10A4N88-96	88	96	10	95	30	124	170	M10	1	2,2
CGS10A4E104-112	CGS10A4N104-112	104	112	10	95	30	141	187	M10	1,1	3,3
CGS10A4E108-115	CGS10A4N108-115	108	115	10	95	30	141	187	M10	1,2	3,3
CGS10A4E122-130	CGS10A4N122-130	122	130	10	95	30	158	202	M10	1,2	3,3
CGS10A4E137-145	CGS10A4N137-145	137	145	10	110	40	186	238	M12	2,2	5,7
CGS10A4E157-165	CGS10A4N157-165	157	165	10	110	40	205	255	M12	2,3	7
CGS10A4E164-172	CGS10A4N164-172	164	172	10	110	40	212	262	M12	2,4	7
140-CG10A4E172-185	140-CG10A4N172-185	172	185	10	140	40	223	249	M16	5	9
140-CG10A4E195-208	140-CG10A4N195-208	195	208	10	140	40	246	272	M16	5	10
140-CG10A4E215-228	140-CG10A4N215-228	215	228	10	140	40	266	292	M16	6	12
140-CG10A4E247-260	140-CG10A4N247-260	247	260	10	140	40	298	324	M16	6	15
140-CG10A4E269-282	140-CG10A4N269-282	269	282	10	140	40	320	346	M16	7	17
142-CG10A4E312-325	142-CG10A4N312-325	312	325	10	142	40	363	389	M16	9	21
142-CG10A4E350-363	142-CG10A4N350-363	350	363	10	142	40	401	427	M16	9	26
146-CG10A4E395-408	146-CG10A4N395-408	395	408	10	146	40	446	472	M16	13	33
146-2CG10A4E457-460	146-2CG10A4N457-460	457	460	10	146	40	498	524	M16	17	40
146-2CG10A4E502-515	146-2CG10A4N502-515	502	515	10	146	40	553	579	M16	19	49

PEWOCOMBIGRIP Ø 312 - 640 mm / PN 6

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
140-CG6A4E312-325	140-CG6A4N312-325	312	325	6	140	40	363	389	M16	8	21
140-CG6A4E350-363	140-CG6A4N350-363	350	363	6	140	40	401	427	M16	9	26
142-CG6A4E395-408	142-CG6A4N395-408	395	408	6	142	40	446	472	M16	10	32
142-2CG6A4E457-460	142-2CG6A4N457-460	457	460	6	142	40	498	524	M16	13	39
142-2CG6A4E502-515	142-2CG6A4N502-515	502	515	6	142	40	553	579	M16	14	48
146-3CG6A4E557-570	146-3CG6A4N557-570	557	570	6	146	40	608	634	M16	21	59
146-4CG6A4E627-640	146-4CG6A4N627-640	627	640	6	146	40	678	704	M16	23	72

Important information:

- Follow the installation and disassembly instructions.
- PN = Working pressure with consideration of the application loads for industrial applications. In case of shipbuilding applications, PN is one PN class below, e.g. PN 25 Industry = PN 16 Shipbuilding.
- PN classes = PN 2.5; PN 6; PN 10; PN 16; PN 25
- Test pressure = PN x 1.5
- The pressure data is given under the precondition that radially rigid steel pipes with a minimum wall thickness are used under static load.
- Use the Technical Manual for other pipe materials.
- Band inserts are necessary for special applications.



PEWOPLASTGRIP Ø 39 - 363 mm / PN 16

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
PGS16A4E39-43	PGS16A4N39-43	39	43	16	60	15	66	104	M8	0,4	0,6
PGS16A4E47-52	PGS16A4N47-52	47,5	52,5	16	60	15	74	112	M8	0,5	0,6
PGS16A4E58-64	PGS16A4N58-64	58	64	16	75	25	85	125	M8	0,6	0,9
PGS16A4E72-80	PGS16A4N72-80	72	80	16	95	30	108	164	M10	1,4	2,2
PGS16A4E88-96	PGS16A4N88-96	88	96	16	95	30	124	170	M10	1,5	2,2
PGS16A4E104-112	PGS16A4N104-112	104	112	16	95	30	141	187	M10	1,7	3,3
PGS16A4E108-115	PGS16A4N108-115	108	115	16	95	30	141	187	M10	1,7	3,3
PGS16A4E122-130	PGS16A4N122-130	122	130	16	95	30	158	202	M10	1,8	3,3
PGS16A4E137-145	PGS16A4N137-145	137	145	16	110	40	186	238	M12	3,5	5,7
PGS16A4E157-165	PGS16A4N157-165	157	165	16	110	40	205	255	M12	3,7	7
PGS16A4E164-172	PGS16A4N164-172	164	172	16	110	40	212	262	M12	3,8	7
142-PG16A4E172-185	142-PG16A4N172-185	172	185	16	142	40	223	249	M16	6	9
142-PG16A4E195-208	142-PG16A4N195-208	195	208	16	142	40	246	272	M16	7	11
142-PG16A4E215-228	142-PG16A4N215-228	215	228	16	142	40	266	292	M16	7	12
142-PG16A4E247-260	142-PG16A4N247-260	247	260	16	142	40	298	324	M16	8	15
142-PG16A4E269-282	142-PG16A4N269-282	269	282	16	142	40	320	346	M16	9	17
146-PG16A4E312-325	146-PG16A4N312-325	312	325	16	146	40	363	389	M16	11	22
146-PG16A4E350-363	146-PG16A4N350-363	350	363	16	146	40	401	427	M16	12	27

VITON®	Article No. FKM (Delivery time on request)	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
Delivery time on request	PGS16A4F39-43	39	43	16	60	15	66	104	M8	0,4	0,6
	PGS16A4F47-52	47,5	52,5	16	60	15	74	112	M8	0,5	0,6
	PGS16A4F58-64	58	64	16	75	25	85	125	M8	0,6	0,9
	PGS16A4F72-80	72	80	16	95	30	108	164	M10	1,4	2,2
	PGS16A4F88-96	88	96	16	95	30	124	170	M10	1,5	2,2
	PGS16A4F104-112	104	112	16	95	30	141	187	M10	1,7	3,3
	PGS16A4F108-115	108	115	16	95	30	141	187	M10	1,7	3,3
	PGS16A4F122-130	122	130	16	95	30	158	202	M10	1,8	3,3
	PGS16A4F137-145	137	145	16	110	40	186	238	M12	3,5	5,7
	PGS16A4F157-165	157	165	16	110	40	205	255	M12	3,7	7
	PGS16A4F164-172	164	172	16	110	40	212	262	M12	3,8	7



Please note important guidelines on the cover!

PEWOPLASTGRIP Ø 72 - 515 MM / PN 10

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
PG10A4E72-80	PG10A4N72-80	72	80	10	95	30	108	164	M10	1,00	2,20
PG10A4E88-96	PG10A4N88-96	88	96	10	95	30	124	170	M10	1,00	2,20
PG10A4E104-112	PG10A4N104-112	104	112	10	95	30	141	187	M10	1,10	3,32
PG10A4E108-115	PG10A4N108-115	108	115	10	95	30	141	187	M10	1,20	3,32
PG10A4E122-130	PG10A4N122-130	122	130	10	95	30	158	202	M10	1,20	3,32
PG10A4E137-145	PG10A4N137-145	137	145	10	110	40	186	238	M12	2,20	5,73
PG10A4E157-165	PG10A4N157-165	157	165	10	110	40	205	255	M12	2,30	6,99
PG10A4E164-172	PG10A4N164-172	164	172	10	110	40	212	262	M12	2,40	6,99
140-PG10A4E172-185	140-PG10A4N172-185	172	185	10	140	40	223	249	M16	4,98	8,68
140-PG10A4E195-208	140-PG10A4N195-208	195	208	10	140	40	246	272	M16	5,44	10,36
140-PG10A4E215-228	140-PG10A4N215-228	215	228	10	140	40	266	292	M16	5,84	11,94
140-PG10A4E247-260	140-PG10A4N247-260	247	260	10	140	40	298	324	M16	6,48	14,70
140-PG10A4E269-282	140-PG10A4N269-282	269	282	10	140	40	320	346	M16	6,92	16,76
142-PG10A4E312-325	142-PG10A4N312-325	312	325	10	142	40	363	389	M16	8,64	21,49
142-PG10A4E350-363	142-PG10A4N350-363	350	363	10	142	40	401	427	M16	9,49	25,89
146-PG10A4E395-408	146-PG10A4N395-408	395	408	10	146	40	446	472	M16	13,49	32,53
146-2PG10A4E457-460	146-2PG10A4N457-460	457	460	10	146	40	498	524	M16	17,47	40,09
146-2PG10A4E502-515	146-2PG10A4N502-515	502	515	10	146	40	553	579	M16	19,30	48,95

PEWOPLASTGRIP Ø 312 - 640 mm / PN 6

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
140-PG6A4E312-325	140-PG6A4N312-325	312	325	6	140	40	363	389	M16	7,78	21,18
140-PG6A4E350-363	140-PG6A4N350-363	350	363	6	140	40	401	427	M16	8,54	25,53
142-PG6A4E395-408	142-PG6A4N395-408	395	408	6	142	40	446	472	M16	10,49	31,64
142-2PG6A4E457-460	142-2PG6A4N457-460	457	460	6	142	40	498	524	M16	13,10	38,99
142-2PG6A4E502-515	142-2PG6A4N502-515	502	515	6	142	40	553	579	M16	14,48	47,60
146-3PG6A4E557-570	146-3PG6A4N557-570	557	570	6	146	40	608	634	M16	21,13	58,69
146-4PG6A4E627-640	146-4PG6A4N627-640	627	640	6	146	40	678	704	M16	23,47	72,36

Important information:

- Follow the installation and disassembly instructions.
- PN = Working pressure with consideration of the application loads for industrial applications. In case of shipbuilding applications, PN is one PN class below, e.g. PN 25 Industry = PN 16 Shipbuilding.
- PN classes = PN 2.5; PN 6; PN 10; PN 16; PN 25
- Test pressure = PN x 1.5
- The pressure data is given under the precondition that radially rigid steel pipes with a minimum wall thickness are used under static load.
- Use the Technical Manual for other pipe materials.
- Band inserts are necessary for special applications.



PEWOFLEX Ø 21 - 172 mm / PN 25

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
FS16A4E21-24	FS16A4N21-24	21	23	25	45	10	46	76	M6	0,2	0,3
FS16A4E26-29	FS16A4N26-29	26	29	25	45	10	46	76	M6	0,2	0,3
FS16A4E29-32	FS16A4N29-32	29	32	25	45	10	54	84	M6	0,2	0,3
FS16A4E33-36	FS16A4N33-36	33	36	25	45	10	54	84	M6	0,2	0,3
FS16A4E36-39	FS16A4N36-39	36	39	25	60	15	66	104	M8	0,4	0,6
FS16A4E39-43	FS16A4N39-43	39	43	25	60	15	66	104	M8	0,4	0,6
FS16A4E43-47	FS16A4N43-47	43	47,5	25	60	15	74	112	M8	0,4	0,6
FS16A4E47-52	FS16A4N47-52	47,5	52,5	25	60	15	74	112	M8	0,4	0,6
FS16A4E52-58	FS16A4N52-58	52,5	58	25	75	25	85	125	M8	0,6	0,9
FS16A4E58-64	FS16A4N58-64	58	64	25	75	25	85	125	M8	0,6	0,9
FS16A4E64-72	FS16A4N64-72	64	72	25	95	30	108	164	M10	1	2,2
FS16A4E72-80	FS16A4N72-80	72	80	25	95	30	108	164	M10	1	2,2
FS16A4E80-88	FS16A4N80-88	80	88	25	95	30	124	170	M10	1	2,2
FS16A4E88-96	FS16A4N88-96	88	96	25	95	30	124	170	M10	1	2,2
FS16A4E97-105	FS16A4N97-105	97	105	25	95	30	141	187	M10	1,1	3,3
FS16A4E104-112	FS16A4N104-112	104	112	25	95	30	141	187	M10	1,1	3,3
FS16A4E112-120	FS16A4N112-120	112	120	25	95	30	158	202	M10	1,2	3,3
FS16A4E122-130	FS16A4N122-130	122	130	25	95	30	158	202	M10	1,2	3,3
FS16A4E129-137	FS16A4N129-137	129	137	25	110	40	178	230	M12	2,1	5,7
FS16A4E137-145	FS16A4N137-145	137	145	25	110	40	186	238	M12	2,2	5,7
FS16A4E149-157	FS16A4N149-157	149	157	25	110	40	197	249	M12	2,3	7
FS16A4E157-165	FS16A4N157-165	157	165	25	110	40	205	255	M12	2,3	7
FS16A4E164-172	FS16A4N164-172	164	172	25	110	40	212	262	M12	2,4	7



Please note important guidelines on the cover!

PEWOFLEX Ø 21 - 172 mm / PN 25 (VITON®)

VITON®	Article No. FKM (Delivery time on request)	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	C _{max}	≈ d	≈ H	M		
Delivery time on request	FS16A4F21-24	21	23	25	45	10	46	76	M6	0,2	0,3
	FS16A4F26-29	26	29	25	45	10	46	76	M6	0,2	0,3
	FS16A4F29-32	29	32	25	45	10	54	84	M6	0,2	0,3
	FS16A4F33-36	33	36	25	45	10	54	84	M6	0,2	0,3
	FS16A4F36-39	36	39	25	60	15	66	104	M8	0,4	0,6
	FS16A4F39-43	39	43	25	60	15	66	104	M8	0,4	0,6
	FS16A4F43-47	43	47,5	25	60	15	74	112	M8	0,4	0,6
	FS16A4F47-52	47,5	52,5	25	60	15	74	112	M8	0,4	0,6
	FS16A4F52-58	52,5	58	25	75	25	85	125	M8	0,6	0,9
	FS16A4F58-64	58	64	25	75	25	85	125	M8	0,6	0,9
	FS16A4F64-72	64	72	25	95	30	108	164	M10	1	2,2
	FS16A4F72-80	72	80	25	95	30	108	164	M10	1	2,2
	FS16A4F80-88	80	88	25	95	30	124	170	M10	1	2,2
	FS16A4F88-96	88	96	25	95	30	124	170	M10	1	2,2
	FS16A4F97-105	97	105	25	95	30	141	187	M10	1,1	3,3
	FS16A4F104-112	104	112	25	95	30	141	187	M10	1,1	3,3
	FS16A4F112-120	112	120	25	95	30	158	202	M10	1,2	3,3
	FS16A4F122-130	122	130	25	95	30	158	202	M10	1,2	3,3
	FS16A4F129-137	129	137	25	110	40	178	230	M12	2,1	5,7
	FS16A4F137-145	137	145	25	110	40	186	238	M12	2,2	5,7
	FS16A4F149-157	149	157	25	110	40	197	249	M12	2,3	7
	FS16A4F157-165	157	165	25	110	40	205	255	M12	2,3	7
	FS16A4F164-172	164	172	25	110	40	212	262	M12	2,4	7

Important information:

- Follow the installation and disassembly instructions.
- PN = Working pressure with consideration of the application loads for industrial applications. In case of shipbuilding applications, PN is one PN class below, e.g. PN 25 Industry = PN 16 Shipbuilding.
- PN classes = PN 2.5; PN 6; PN 10; PN 16; PN 25
- Test pressure = PN x 1.5
- The pressure data is given under the precondition that radially rigid steel pipes with a minimum wall thickness are used under static load.
- Use the Technical Manual for other pipe materials.
- Band inserts are necessary for special applications.
- Support sleeves must be used for thermoplastic plastic pipes (PE/PP/PB/PVC/ABS...).

PEWOFLEX Ø 172 - 930 mm / PN 25 (width ≈ 140 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
140-F16A4E172-185	140-F16A4N172-185	172	185	25	140	40	223	250	M12	5	9
140-F16A4E185-198	140-F16A4N185-198	185	198	25	140	40	236	262	M12	5	10
140-F16A4E198-211	140-F16A4N198-211	198	211	25	140	40	249	275	M12	5	11
140-F16A4E210-223	140-F16A4N210-223	210	223	25	140	40	261	287	M12	5	12
140-F16A4E221-234	140-F16A4N221-234	221	234	25	140	40	272	298	M12	5	13
140-F16A4E234-247	140-F16A4N234-247	234	247	25	140	40	285	311	M12	6	14
140-F16A4E247-260	140-F16A4N247-260	247	260	25	140	40	298	324	M12	6	15
140-F16A4E263-276	140-F16A4N263-276	263	276	25	140	40	314	340	M12	6	17
142-F16A4E277-290	142-F16A4N277-290	277	290	25	142	40	328	354	M16	8	19
142-F16A4E288-301	142-F16A4N288-301	288	301	25	142	40	339	365	M16	8	20
142-F16A4E301-314	142-F16A4N301-314	301	314	25	142	40	352	378	M16	8	21
142-F16A4E315-328	142-F16A4N315-328	315	328	25	142	40	366	392	M16	8	23
142-F16A4E327-340	142-F16A4N327-340	327	340	25	142	40	378	404	M16	8	24
142-F16A4E340-353	142-F16A4N340-353	340	353	25	142	40	391	417	M16	9	26
142-F16A4E350-363	142-F16A4N350-363	350	363	25	142	40	401	427	M16	9	27
146-F16A4E361-374	146-F16A4N361-374	361	374	25	146	40	412	438	M16	13	29
146-F16A4E374-387	146-F16A4N374-387	374	387	25	146	40	425	451	M16	13	31
146-F16A4E387-400	146-F16A4N387-400	387	400	25	146	40	438	464	M16	13	33
146-F16A4E400-413	146-F16A4N400-413	400	413	25	146	40	451	477	M16	14	35
146-F16A4E412-425	146-F16A4N412-425	412	425	25	146	40	463	489	M16	14	37
146-F16A4E422-435	146-F16A4N422-435	422	435	25	146	40	473	499	M16	14	38
146-F16A4E438-451	146-F16A4N438-451	438	451	25	146	40	489	515	M16	15	41
146-F16A4E451-464	146-F16A4N451-464	451	464	25	146	40	502	528	M16	15	43
146-F16A4E460-473	146-F16A4N460-473	460	473	25	146	40	511	537	M16	15	44
146-F16A4E476-489	146-F16A4N476-489	476	489	25	146	40	527	553	M16	15	47
146-F16A4E488-501	146-F16A4N488-501	488	501	25	146	40	539	565	M16	16	49
146-F16A4E503-516	146-F16A4N503-516	503	516	25	146	40	554	580	M16	16	52
146-F16A4E520-533	146-F16A4N520-533	520	533	25	146	40	575	603	M16	17	56
146-F16A4E531-544	146-F16A4N531-544	531	544	25	146	40	586	614	M16	17	58
146-F16A4E546-559	146-F16A4N546-559	546	559	25	146	40	601	629	M16	17	61
146-F16A4E557-570	146-F16A4N557-570	557	570	25	146	40	612	640	M16	18	63
146-F16A4E571-584	146-F16A4N571-584	571	584	25	146	40	626	654	M16	18	66
146-F16A4E600-613	146-F16A4N600-613	600	613	25	146	40	655	683	M16	19	72
146-F16A4E610-623	146-F16A4N610-623	610	623	25	146	40	665	693	M16	19	74
146-F16A4E628-641	146-F16A4N628-641	628	641	25	146	40	683	711	M16	19	78
146-F16A4E648-661	146-F16A4N648-661	648	661	25	146	40	703	731	M16	20	82
146-F16A4E676-689	146-F16A4N676-689	676	689	25	146	40	731	759	M16	21	89
146-F16A4E688-701	146-F16A4N688-701	688	701	25	146	40	743	771	M16	21	92
146-F16A4E700-713	146-F16A4N700-713	700	713	25	146	40	755	783	M16	21	95
146-F16A4E717-730	146-F16A4N717-730	717	730	25	146	40	772	800	M16	22	99
146-F16A4E732-745	146-F16A4N732-745	732	745	25	146	40	787	815	M16	22	103
146-2F16A4E756-782	146-2F16A4N756-782	756	782	25	146	40	824	852	M16	26	116
146-2F16A4E782-808	146-2F16A4N782-808	782	808	25	146	40	850	878	M16	27	123
146-2F16A4E806-832	146-2F16A4N806-832	806	832	25	146	40	874	902	M16	27	130
146-2F16A4E828-854	146-2F16A4N828-854	828	854	25	146	40	896	924	M16	28	136
146-2F16A4E856-882	146-2F16A4N856-882	856	882	25	146	40	924	952	M16	29	144
146-2F16A4E882-908	146-2F16A4N882-908	882	908	25	146	40	950	978	M16	29	152
146-2F16A4E904-930	146-2F16A4N904-930	904	930	25	146	40	972	1000	M16	30	159

Please note important guidelines on the cover!

PEWOFLEX Ø 263 - 930 mm / PN 25 (width ≈ 210 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
210-F16A4E263-276	210-F16A4N263-276	263	276	25	210	80	333	364	M16	9	26
212-F16A4E277-290	212-F16A4N277-290	277	290	25	212	80	347	378	M16	11	28
212-F16A4E288-301	212-F16A4N288-301	288	301	25	212	80	358	389	M16	12	30
212-F16A4E301-314	212-F16A4N301-314	301	314	25	212	80	371	402	M16	12	32
212-F16A4E315-328	212-F16A4N315-328	315	328	25	212	80	385	416	M16	12	34
212-F16A4E327-340	212-F16A4N327-340	327	340	25	212	80	397	428	M16	13	37
212-F16A4E340-353	212-F16A4N340-353	340	353	25	212	80	410	441	M16	13	39
212-F16A4E350-363	212-F16A4N350-363	350	363	25	212	80	420	451	M16	13	41
216-F16A4E361-374	216-F16A4N361-374	361	374	25	216	80	431	462	M16	19	44
216-F16A4E374-387	216-F16A4N374-387	374	387	25	216	80	444	475	M16	19	47
216-F16A4E387-400	216-F16A4N387-400	387	400	25	216	80	457	488	M16	20	50
216-F16A4E400-413	216-F16A4N400-413	400	413	25	216	80	470	501	M16	20	53
216-F16A4E412-425	216-F16A4N412-425	412	425	25	216	80	482	513	M16	21	55
216-F16A4E422-435	216-F16A4N422-435	422	435	25	216	80	492	523	M16	21	58
216-F16A4E438-451	216-F16A4N438-451	438	451	25	216	80	508	539	M16	22	61
216-F16A4E451-464	216-F16A4N451-464	451	464	25	216	80	521	552	M16	22	64
216-F16A4E460-473	216-F16A4N460-473	460	473	25	216	80	530	561	M16	23	67
216-F16A4E476-489	216-F16A4N476-489	476	489	25	216	80	546	577	M16	23	71
216-F16A4E488-501	216-F16A4N488-501	488	501	25	216	80	558	589	M16	24	74
216-F16A4E503-516	216-F16A4N503-516	503	516	25	216	80	573	604	M16	24	78
216-F16A4E520-533	216-F16A4N520-533	520	533	25	216	80	590	621	M16	25	84
216-F16A4E531-544	216-F16A4N531-544	531	544	25	216	80	601	632	M16	25	87
216-F16A4E546-559	216-F16A4N546-559	546	559	25	216	80	616	647	M16	26	91
216-F16A4E557-570	216-F16A4N557-570	557	570	25	216	80	627	658	M16	26	95
216-F16A4E571-584	216-F16A4N571-584	571	584	25	216	80	641	672	M16	27	99
216-F16A4E600-613	216-F16A4N600-613	600	613	25	216	80	670	701	M16	28	108
216-F16A4E610-623	216-F16A4N610-623	610	623	25	216	80	680	711	M16	28	111
216-F16A4E628-641	216-F16A4N628-641	628	641	25	216	80	698	729	M16	29	117
216-F16A4E648-661	216-F16A4N648-661	648	661	25	216	80	718	749	M16	30	124
216-F16A4E676-689	216-F16A4N676-689	676	689	25	216	80	746	777	M16	31	133
216-F16A4E688-701	216-F16A4N688-701	688	701	25	216	80	758	789	M16	31	138
216-F16A4E700-713	216-F16A4N700-713	700	713	25	216	80	770	801	M16	32	142
216-F16A4E717-730	216-F16A4N717-730	717	730	25	216	80	787	818	M16	32	148
216-F16A4E732-745	216-F16A4N732-745	732	745	25	216	80	802	833	M16	33	154
216-2F16A4E756-782	216-2F16A4N756-782	756	782	25	216	80	839	870	M16	39	174
216-2F16A4E782-808	216-2F16A4N782-808	782	808	25	216	80	865	896	M16	41	184
216-2F16A4E806-832	216-2F16A4N806-832	806	832	25	216	80	889	920	M16	41	194
216-2F16A4E828-854	216-2F16A4N828-854	828	854	25	216	80	911	942	M16	42	204
216-2F16A4E856-882	216-2F16A4N856-882	856	882	25	216	80	939	970	M16	43	216
216-2F16A4E882-908	216-2F16A4N882-908	882	908	25	216	80	965	996	M16	44	228
216-2F16A4E904-930	216-2F16A4N904-930	904	930	25	216	80	987	1018	M16	45	239

Please note important guidelines on the cover!

PEWOFLEX Ø 263 - 930 mm / PN 25 (width ≈ 290 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
285-F16A4E263-276	285-F16A4N263-276	263	276	25	285	100	333	364	M16	12	34
287-F16A4E277-290	287-F16A4N277-290	277	290	25	287	100	347	378	M16	15	37
287-F16A4E288-301	287-F16A4N288-301	288	301	25	287	100	358	389	M16	16	40
287-F16A4E301-314	287-F16A4N301-314	301	314	25	287	100	371	402	M16	16	43
287-F16A4E315-328	287-F16A4N315-328	315	328	25	287	100	385	416	M16	16	46
287-F16A4E327-340	287-F16A4N327-340	327	340	25	287	100	397	428	M16	17	49
287-F16A4E340-353	287-F16A4N340-353	340	353	25	287	100	410	441	M16	17	52
287-F16A4E350-363	287-F16A4N350-363	350	363	25	287	100	420	451	M16	18	55
291-F16A4E361-374	291-F16A4N361-374	361	374	25	291	100	431	462	M16	25	59
291-F16A4E374-387	291-F16A4N374-387	374	387	25	291	100	444	475	M16	26	63
291-F16A4E387-400	291-F16A4N387-400	387	400	25	291	100	457	488	M16	27	66
291-F16A4E400-413	291-F16A4N400-413	400	413	25	291	100	470	501	M16	27	70
291-F16A4E412-425	291-F16A4N412-425	412	425	25	291	100	482	513	M16	28	74
291-F16A4E422-435	291-F16A4N422-435	422	435	25	291	100	492	523	M16	28	77
291-F16A4E438-451	291-F16A4N438-451	438	451	25	291	100	508	539	M16	30	82
291-F16A4E451-464	291-F16A4N451-464	451	464	25	291	100	521	552	M16	30	86
291-F16A4E460-473	291-F16A4N460-473	460	473	25	291	100	530	561	M16	30	89
291-F16A4E476-489	291-F16A4N476-489	476	489	25	291	100	546	577	M16	31	94
291-F16A4E488-501	291-F16A4N488-501	488	501	25	291	100	558	589	M16	32	99
291-F16A4E503-516	291-F16A4N503-516	503	516	25	291	100	573	604	M16	32	104
291-F16A4E520-533	291-F16A4N520-533	520	533	25	291	100	590	621	M16	33	112
291-F16A4E531-544	291-F16A4N531-544	531	544	25	291	100	601	632	M16	34	116
291-F16A4E546-559	291-F16A4N546-559	546	559	25	291	100	616	647	M16	35	122
291-F16A4E557-570	291-F16A4N557-570	557	570	25	291	100	627	658	M16	36	126
291-F16A4E571-584	291-F16A4N571-584	571	584	25	291	100	641	672	M16	36	132
291-F16A4E600-613	291-F16A4N600-613	600	613	25	291	100	670	701	M16	37	144
291-F16A4E610-623	291-F16A4N610-623	610	623	25	291	100	680	711	M16	38	148
291-F16A4E628-641	291-F16A4N628-641	628	641	25	291	100	698	729	M16	39	156
291-F16A4E648-661	291-F16A4N648-661	648	661	25	291	100	718	749	M16	40	165
291-F16A4E676-689	291-F16A4N676-689	676	689	25	291	100	746	777	M16	41	178
291-F16A4E688-701	291-F16A4N688-701	688	701	25	291	100	758	789	M16	42	183
291-F16A4E700-713	291-F16A4N700-713	700	713	25	291	100	770	801	M16	42	189
291-F16A4E717-730	291-F16A4N717-730	717	730	25	291	100	787	818	M16	44	198
291-F16A4E732-745	291-F16A4N732-745	732	745	25	291	100	802	833	M16	44	205
291-2F16A4E756-782	291-2F16A4N756-782	756	782	25	291	100	839	870	M16	52	232
291-2F16A4E782-808	291-2F16A4N782-808	782	808	25	291	100	865	896	M16	54	246
291-2F16A4E806-832	291-2F16A4N806-832	806	832	25	291	100	889	920	M16	55	259
291-2F16A4E828-854	291-2F16A4N828-854	828	854	25	291	100	911	942	M16	56	272
291-2F16A4E856-882	291-2F16A4N856-882	856	882	25	291	100	939	970	M16	57	289
291-2F16A4E882-908	291-2F16A4N882-908	882	908	25	291	100	965	996	M16	59	304
291-2F16A4E904-930	291-2F16A4N904-930	904	930	25	291	100	987	1018	M16	60	318

Please note important guidelines on the cover!

PEWOFLEX Ø 263 - 930 mm / PN 25 (width ≈ 430 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
425-F16A4E263-276	425-F16A4N263-276	263	276	25	425	200	333	364	M16	18	51
427-F16A4E277-290	427-F16A4N277-290	277	290	25	427	200	347	378	M16	23	56
427-F16A4E288-301	427-F16A4N288-301	288	301	25	427	200	358	389	M16	23	60
427-F16A4E301-314	427-F16A4N301-314	301	314	25	427	200	371	402	M16	24	64
427-F16A4E315-328	427-F16A4N315-328	315	328	25	427	200	385	416	M16	25	69
427-F16A4E327-340	427-F16A4N327-340	327	340	25	427	200	397	428	M16	25	73
427-F16A4E340-353	427-F16A4N340-353	340	353	25	427	200	410	441	M16	26	78
427-F16A4E350-363	427-F16A4N350-363	350	363	25	427	200	420	451	M16	26	82
431-F16A4E361-374	431-F16A4N361-374	361	374	25	431	200	431	462	M16	38	88
431-F16A4E374-387	431-F16A4N374-387	374	387	25	431	200	444	475	M16	39	94
431-F16A4E387-400	431-F16A4N387-400	387	400	25	431	200	457	488	M16	40	99
431-F16A4E400-413	431-F16A4N400-413	400	413	25	431	200	470	501	M16	41	105
431-F16A4E412-425	431-F16A4N412-425	412	425	25	431	200	482	513	M16	42	110
431-F16A4E422-435	431-F16A4N422-435	422	435	25	431	200	492	523	M16	42	115
431-F16A4E438-451	431-F16A4N438-451	438	451	25	431	200	508	539	M16	44	123
431-F16A4E451-464	431-F16A4N451-464	451	464	25	431	200	521	552	M16	45	129
431-F16A4E460-473	431-F16A4N460-473	460	473	25	431	200	530	561	M16	45	133
431-F16A4E476-489	431-F16A4N476-489	476	489	25	431	200	546	577	M16	47	141
431-F16A4E488-501	431-F16A4N488-501	488	501	25	431	200	558	589	M16	47	148
431-F16A4E503-516	431-F16A4N503-516	503	516	25	431	200	573	604	M16	49	156
431-F16A4E520-533	431-F16A4N520-533	520	533	25	431	200	590	621	M16	50	168
431-F16A4E531-544	431-F16A4N531-544	531	544	25	431	200	601	632	M16	51	174
431-F16A4E546-559	431-F16A4N546-559	546	559	25	431	200	616	647	M16	52	183
431-F16A4E557-570	431-F16A4N557-570	557	570	25	431	200	627	658	M16	53	189
431-F16A4E571-584	431-F16A4N571-584	571	584	25	431	200	641	672	M16	54	198
431-F16A4E600-613	431-F16A4N600-613	600	613	25	431	200	670	701	M16	56	216
431-F16A4E610-623	431-F16A4N610-623	610	623	25	431	200	680	711	M16	57	222
431-F16A4E628-641	431-F16A4N628-641	628	641	25	431	200	698	729	M16	58	234
431-F16A4E648-661	431-F16A4N648-661	648	661	25	431	200	718	749	M16	59	247
431-F16A4E676-689	431-F16A4N676-689	676	689	25	431	200	746	777	M16	62	267
431-F16A4E688-701	431-F16A4N688-701	688	701	25	431	200	758	789	M16	62	275
431-F16A4E700-713	431-F16A4N700-713	700	713	25	431	200	770	801	M16	63	284
431-F16A4E717-730	431-F16A4N717-730	717	730	25	431	200	787	818	M16	65	296
431-F16A4E732-745	431-F16A4N732-745	732	745	25	431	200	802	833	M16	66	308
431-2F16A4E756-782	431-2F16A4N756-782	756	782	25	431	200	839	870	M16	78	347
431-2F16A4E782-808	431-2F16A4N782-808	782	808	25	431	200	865	896	M16	80	369
431-2F16A4E806-832	431-2F16A4N806-832	806	832	25	431	200	889	920	M16	82	389
431-2F16A4E828-854	431-2F16A4N828-854	828	854	25	431	200	911	942	M16	84	408
431-2F16A4E856-882	431-2F16A4N856-882	856	882	25	431	200	939	970	M16	86	433
431-2F16A4E882-908	431-2F16A4N882-908	882	908	25	431	200	965	996	M16	88	456
431-2F16A4E904-930	431-2F16A4N904-930	904	930	25	431	200	987	1018	M16	89	477

Please note important guidelines on the cover!

PEWOFLEX Ø 172 - 1370 mm / PN 16 (width ≈ 140 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
138-F10A4E172-185	138-F10A4N172-185	172	185	16	138	40	223	250	M12	4	9
138-F10A4E185-198	138-F10A4N185-198	185	198	16	138	40	236	262	M12	4	10
138-F10A4E198-211	138-F10A4N198-211	198	211	16	138	40	249	275	M12	4	11
138-F10A4E210-223	138-F10A4N210-223	210	223	16	138	40	261	287	M12	4	12
138-F10A4E221-234	138-F10A4N221-234	221	234	16	138	40	272	298	M12	4	13
138-F10A4E234-247	138-F10A4N234-247	234	247	16	138	40	285	311	M12	4	14
138-F10A4E247-260	138-F10A4N247-260	247	260	16	138	40	298	324	M12	4	15
138-F10A4E263-276	138-F10A4N263-276	263	276	16	138	40	314	340	M12	5	17
140-F10A4E277-290	140-F10A4N277-290	277	290	16	140	40	328	354	M12	6	18
140-F10A4E288-301	140-F10A4N288-301	288	301	16	140	40	339	365	M12	6	20
140-F10A4E301-314	140-F10A4N301-314	301	314	16	140	40	352	378	M12	6	21
140-F10A4E315-328	140-F10A4N315-328	315	328	16	140	40	366	392	M12	7	23
140-F10A4E327-340	140-F10A4N327-340	327	340	16	140	40	378	404	M12	7	24
140-F10A4E340-353	140-F10A4N340-353	340	353	16	140	40	391	417	M12	7	26
140-F10A4E350-363	140-F10A4N350-363	350	363	16	140	40	401	427	M12	7	27
142-F10A4E361-374	142-F10A4N361-374	361	374	16	142	40	412	438	M12	9	29
142-F10A4E374-387	142-F10A4N374-387	374	387	16	142	40	425	451	M12	9	30
142-F10A4E387-400	142-F10A4N387-400	387	400	16	142	40	438	464	M12	9	32
142-F10A4E400-413	142-F10A4N400-413	400	413	16	142	40	451	477	M12	10	34
142-F10A4E412-425	142-F10A4N412-425	412	425	16	142	40	463	489	M12	10	36
142-F10A4E422-435	142-F10A4N422-435	422	435	16	142	40	473	499	M12	10	37
142-F10A4E438-451	142-F10A4N438-451	438	451	16	142	40	489	515	M12	10	40
142-F10A4E451-464	142-F10A4N451-464	451	464	16	142	40	502	528	M12	10	42
142-F10A4E460-473	142-F10A4N460-473	460	473	16	142	40	511	537	M12	11	43
142-F10A4E476-489	142-F10A4N476-489	476	489	16	142	40	527	553	M12	11	46
142-F10A4E488-501	142-F10A4N488-501	488	501	16	142	40	539	565	M12	11	48
142-F10A4E503-516	142-F10A4N503-516	503	516	16	142	40	554	580	M12	11	51
142-F10A4E520-533	142-F10A4N520-533	520	533	16	142	40	575	603	M16	12	55
142-F10A4E531-544	142-F10A4N531-544	531	544	16	142	40	586	614	M16	12	57
142-F10A4E546-559	142-F10A4N546-559	546	559	10	142	40	601	629	M16	12	59
142-F10A4E557-570	142-F10A4N557-570	557	570	16	142	40	612	640	M16	12	61
142-F10A4E571-584	142-F10A4N571-584	571	584	16	142	40	626	654	M16	12	64
142-F10A4E600-613	142-F10A4N600-613	600	613	16	142	40	655	683	M16	13	70
142-F10A4E610-623	142-F10A4N610-623	610	623	16	142	40	665	693	M16	13	72
142-F10A4E628-641	142-F10A4N628-641	628	641	16	142	40	683	711	M16	13	76
142-F10A4E648-661	142-F10A4N648-661	648	661	16	142	40	703	731	M16	14	80
142-F10A4E676-689	142-F10A4N676-689	676	689	16	142	40	731	759	M16	14	87
142-F10A4E688-701	142-F10A4N688-701	688	701	16	142	40	743	771	M16	14	89
142-F10A4E700-713	142-F10A4N700-713	700	713	16	142	40	755	783	M16	14	92
142-F10A4E717-730	142-F10A4N717-730	717	730	16	142	40	772	800	M16	15	96
142-F10A4E732-745	142-F10A4N732-745	732	745	16	142	40	787	815	M16	15	100
142-2F10A4E756-782	142-2F10A4N756-782	756	782	16	142	40	824	852	M16	18	113
142-2F10A4E782-808	142-2F10A4N782-808	782	808	16	142	40	850	878	M16	19	120
142-2F10A4E806-832	142-2F10A4N806-832	806	832	16	142	40	874	902	M16	19	126
142-2F10A4E828-854	142-2F10A4N828-854	828	854	16	142	40	896	924	M16	20	132
142-2F10A4E856-882	142-2F10A4N856-882	856	882	16	142	40	924	952	M16	20	141
142-2F10A4E882-908	142-2F10A4N882-908	882	908	16	142	40	950	978	M16	20	148
142-2F10A4E904-930	142-2F10A4N904-930	904	930	16	142	40	972	1000	M16	21	155
146-2F10A4E936-962	146-2F10A4N936-962	936	962	16	146	40	1004	1032	M16	31	169
146-2F10A4E961-987	146-2F10A4N961-987	961	987	16	146	40	1029	1057	M16	31	177
146-2F10A4E984-1010	146-2F10A4N984-1010	984	1010	16	146	40	1052	1080	M16	32	185
146-2F10A4E1004-1030	146-2F10A4N1004-1030	1004	1030	16	146	40	1072	1100	M16	32	192
146-2F10A4E1104-1130	146-2F10A4N1104-1130	1104	1130	16	146	40	1176	1206	M16	35	229
146-3F10A4E1192-1231	146-3F10A4N1192-1231	1192	1231	16	146	40	1277	1307	M16	41	270
146-3F10A4E1331-1370	146-3F10A4N1331-1370	1331	1370	16	146	40	1416	1446	M16	44	330

Please note important guidelines on the cover!

PEWOFLEX Ø 263 - 1370 mm / PN 16 (width ≈ 210 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
208-F10A4E263-276	208-F10A4N263-276	263	276	16	208	80	333	364	M16	7	25
210-F10A4E277-290	210-F10A4N277-290	277	290	16	210	80	347	378	M16	9	28
210-F10A4E288-301	210-F10A4N288-301	288	301	16	210	80	358	389	M16	9	29
210-F10A4E301-314	210-F10A4N301-314	301	314	16	210	80	371	402	M16	10	32
210-F10A4E315-328	210-F10A4N315-328	315	328	16	210	80	385	416	M16	10	34
210-F10A4E327-340	210-F10A4N327-340	327	340	16	210	80	397	428	M16	10	36
210-F10A4E340-353	210-F10A4N340-353	340	353	16	210	80	410	441	M16	10	39
210-F10A4E350-363	210-F10A4N350-363	350	363	16	210	80	420	451	M16	11	40
212-F10A4E361-374	212-F10A4N361-374	361	374	16	212	80	431	462	M16	13	43
212-F10A4E374-387	212-F10A4N374-387	374	387	16	212	80	444	475	M16	14	46
212-F10A4E387-400	212-F10A4N387-400	387	400	16	212	80	457	488	M16	14	48
212-F10A4E400-413	212-F10A4N400-413	400	413	16	212	80	470	501	M16	14	51
212-F10A4E412-425	212-F10A4N412-425	412	425	16	212	80	482	513	M16	15	54
212-F10A4E422-435	212-F10A4N422-435	422	435	16	212	80	492	523	M16	15	56
212-F10A4E438-451	212-F10A4N438-451	438	451	16	212	80	508	539	M16	15	60
212-F10A4E451-464	212-F10A4N451-464	451	464	16	212	80	521	552	M16	16	63
212-F10A4E460-473	212-F10A4N460-473	460	473	16	212	80	530	561	M16	16	65
212-F10A4E476-489	212-F10A4N476-489	476	489	16	212	80	546	577	M16	16	69
212-F10A4E488-501	212-F10A4N488-501	488	501	16	212	80	558	589	M16	17	72
212-F10A4E503-516	212-F10A4N503-516	503	516	16	212	80	573	604	M16	17	76
212-F10A4E520-533	212-F10A4N520-533	520	533	16	212	80	590	621	M16	17	82
212-F10A4E531-544	212-F10A4N531-544	531	544	16	212	80	601	632	M16	18	85
212-F10A4E546-559	212-F10A4N546-559	546	559	16	212	80	616	647	M16	18	89
212-F10A4E557-570	212-F10A4N557-570	557	570	16	212	80	627	658	M16	18	92
212-F10A4E571-584	212-F10A4N571-584	571	584	16	212	80	641	672	M16	19	96
212-F10A4E600-613	212-F10A4N600-613	600	613	16	212	80	670	701	M16	19	105
212-F10A4E610-623	212-F10A4N610-623	610	623	16	212	80	680	711	M16	19	108
212-F10A4E628-641	212-F10A4N628-641	628	641	16	212	80	698	729	M16	20	114
212-F10A4E648-661	212-F10A4N648-661	648	661	16	212	80	718	749	M16	20	120
212-F10A4E676-689	212-F10A4N676-689	676	689	16	212	80	746	777	M16	21	130
212-F10A4E688-701	212-F10A4N688-701	688	701	16	212	80	758	789	M16	21	134
212-F10A4E700-713	212-F10A4N700-713	700	713	16	212	80	770	801	M16	22	138
212-F10A4E717-730	212-F10A4N717-730	717	730	16	212	80	787	818	M16	22	144
212-F10A4E732-745	212-F10A4N732-745	732	745	16	212	80	802	833	M16	22	150
212-2F10A4E756-782	212-2F10A4N756-782	756	782	16	212	80	839	870	M16	28	169
212-2F10A4E782-808	212-2F10A4N782-808	782	808	16	212	80	865	896	M16	28	180
212-2F10A4E806-832	212-2F10A4N806-832	806	832	16	212	80	889	920	M16	29	189
212-2F10A4E828-854	212-2F10A4N828-854	828	854	16	212	80	911	942	M16	29	199
212-2F10A4E856-882	212-2F10A4N856-882	856	882	16	212	80	939	970	M16	30	211
212-2F10A4E882-908	212-2F10A4N882-908	882	908	16	212	80	965	996	M16	31	222
212-2F10A4E904-930	212-2F10A4N904-930	904	930	16	212	80	987	1018	M16	31	232
216-2F10A4E936-962	216-2F10A4N936-962	936	962	16	216	80	1019	1050	M16	46	254
216-2F10A4E961-987	216-2F10A4N961-987		987	16	216	80	1044	1075	M16	47	266
216-2F10A4E984-1010	216-2F10A4N984-1010	984	1010	16	216	80	1067	1098	M16	48	278
216-2F10A4E1004-1030	216-2F10A4N1004-1030	1004	1030	16	216	80	1087	1118	M16	48	288
216-2F10A4E1104-1130	216-2F10A4N1104-1130	1104	1130	16	216	80	1188	1218	M16	52	344
216-3F10A4E1192-1231	216-3F10A4N1192-1231	1192	1231	16	216	80	1289	1319	M16	61	405
216-3F10A4E1331-1370	216-3F10A4N1331-1370	1331	1370	16	216	80	1428	1458	M16	66	496

Please note important guidelines on the cover!

PEWOFLEX Ø 263 - 1370 mm / PN 16 (width ≈ 290 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
283-F10A4E263-276	283-F10A4N263-276	263	276	16	283	100	333	364	M16	9	34
285-F10A4E277-290	285-F10A4N277-290	277	290	16	285	100	347	378	M16	12	37
285-F10A4E288-301	285-F10A4N288-301	288	301	16	285	100	358	389	M16	13	39
285-F10A4E301-314	285-F10A4N301-314	301	314	16	285	100	371	402	M16	13	42
285-F10A4E315-328	285-F10A4N315-328	315	328	16	285	100	385	416	M16	13	45
285-F10A4E327-340	285-F10A4N327-340	327	340	16	285	100	397	428	M16	14	48
285-F10A4E340-353	285-F10A4N340-353	340	353	16	285	100	410	441	M16	14	51
285-F10A4E350-363	285-F10A4N350-363	350	363	16	285	100	420	451	M16	15	54
287-F10A4E361-374	287-F10A4N361-374	361	374	16	287	100	431	462	M16	18	57
287-F10A4E374-387	287-F10A4N374-387	374	387	16	287	100	444	475	M16	18	61
287-F10A4E387-400	287-F10A4N387-400	387	400	16	287	100	457	488	M16	19	65
287-F10A4E400-413	287-F10A4N400-413	400	413	16	287	100	470	501	M16	19	68
287-F10A4E412-425	287-F10A4N412-425	412	425	16	287	100	482	513	M16	20	72
287-F10A4E422-435	287-F10A4N422-435	422	435	16	287	100	492	523	M16	20	75
287-F10A4E438-451	287-F10A4N438-451	438	451	16	287	100	508	539	M16	20	80
287-F10A4E451-464	287-F10A4N451-464	451	464	16	287	100	521	552	M16	21	84
287-F10A4E460-473	287-F10A4N460-473	460	473	16	287	100	530	561	M16	22	87
287-F10A4E476-489	287-F10A4N476-489	476	489	16	287	100	546	577	M16	22	92
287-F10A4E488-501	287-F10A4N488-501	488	501	16	287	100	558	589	M16	22	96
287-F10A4E503-516	287-F10A4N503-516	503	516	16	287	100	573	604	M16	22	101
287-F10A4E520-533	287-F10A4N520-533	520	533	16	287	100	590	621	M16	23	109
287-F10A4E531-544	287-F10A4N531-544	531	544	16	287	100	601	632	M16	23	113
287-F10A4E546-559	287-F10A4N546-559	546	559	16	287	100	616	647	M16	24	119
287-F10A4E557-570	287-F10A4N557-570	557	570	16	287	100	627	658	M16	24	123
287-F10A4E571-584	287-F10A4N571-584	571	584	16	287	100	641	672	M16	25	128
287-F10A4E600-613	287-F10A4N600-613	600	613	16	287	100	670	701	M16	26	140
287-F10A4E610-623	287-F10A4N610-623	610	623	16	287	100	680	711	M16	26	144
287-F10A4E628-641	287-F10A4N628-641	628	641	16	287	100	698	729	M16	27	152
287-F10A4E648-661	287-F10A4N648-661	648	661	16	287	100	718	749	M16	28	161
287-F10A4E676-689	287-F10A4N676-689	676	689	16	287	100	746	777	M16	28	173
287-F10A4E688-701	287-F10A4N688-701	688	701	16	287	100	758	789	M16	28	179
287-F10A4E700-713	287-F10A4N700-713	700	713	16	287	100	770	801	M16	29	184
287-F10A4E717-730	287-F10A4N717-730	717	730	16	287	100	787	818	M16	29	193
287-F10A4E732-745	287-F10A4N732-745	732	745	16	287	100	802	833	M16	30	200
287-2F10A4E756-782	287-2F10A4N756-782	756	782	16	287	100	839	870	M16	37	226
287-2F10A4E782-808	287-2F10A4N782-808	782	808	16	287	100	865	896	M16	38	239
287-2F10A4E806-832	287-2F10A4N806-832	806	832	16	287	100	889	920	M16	38	253
287-2F10A4E828-854	287-2F10A4N828-854	828	854	16	287	100	911	942	M16	39	265
287-2F10A4E856-882	287-2F10A4N856-882	856	882	16	287	100	939	970	M16	40	281
287-2F10A4E882-908	287-2F10A4N882-908	882	908	16	287	100	965	996	M16	41	297
287-2F10A4E904-930	287-2F10A4N904-930	904	930	16	287	100	987	1018	M16	42	310
291-2F10A4E936-962	291-2F10A4N936-962	936	962	16	291	100	1019	1050	M16	61	339
291-2F10A4E961-987	291-2F10A4N961-987	961	987	16	291	100	1044	1075	M16	62	355
291-2F10A4E984-1010	291-2F10A4N984-1010	984	1010	16	291	100	1067	1098	M16	64	370
291-2F10A4E1004-1030	291-2F10A4N1004-1030	1004	1030	16	291	100	1087	1118	M16	65	384
291-2F10A4E1104-1130	291-2F10A4N1104-1130	1104	1130	16	291	100	1188	1218	M16	78	458
291-3F10A4E1192-1231	291-3F10A4N1192-1231	1192	1231	16	291	100	1289	1319	M16	91	540
291-3F10A4E1331-1370	291-3F10A4N1331-1370	1331	1370	16	291	100	1428	1458	M16	99	661

Please note important guidelines on the cover!

PEWOFLEX Ø 263 - 1370 mm / PN 16 (width ≈ 430 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
423-F10A4E263-276	423-F10A4N263-276	263	276	16	423	200	333	364	M16	14	50
425-F10A4E277-290	425-F10A4N277-290	277	290	16	425	200	347	378	M16	18	55
425-F10A4E288-301	425-F10A4N288-301	288	301	16	425	200	358	389	M16	19	59
425-F10A4E301-314	425-F10A4N301-314	301	314	16	425	200	371	402	M16	19	63
425-F10A4E315-328	425-F10A4N315-328	315	328	16	425	200	385	416	M16	20	68
425-F10A4E327-340	425-F10A4N327-340	327	340	16	425	200	397	428	M16	20	72
425-F10A4E340-353	425-F10A4N340-353	340	353	16	425	200	410	441	M16	21	77
425-F10A4E350-363	425-F10A4N350-363	350	363	16	425	200	420	451	M16	22	81
427-F10A4E361-374	427-F10A4N361-374	361	374	16	427	200	431	462	M16	27	86
427-F10A4E374-387	427-F10A4N374-387	374	387	16	427	200	444	475	M16	27	91
427-F10A4E387-400	427-F10A4N387-400	387	400	16	427	200	457	488	M16	29	97
427-F10A4E400-413	427-F10A4N400-413	400	413	16	427	200	470	501	M16	29	102
427-F10A4E412-425	427-F10A4N412-425	412	425	16	427	200	482	513	M16	29	108
427-F10A4E422-435	427-F10A4N422-435	422	435	16	427	200	492	523	M16	30	112
427-F10A4E438-451	427-F10A4N438-451	438	451	16	427	200	508	539	M16	31	119
427-F10A4E451-464	427-F10A4N451-464	451	464	16	427	200	521	552	M16	31	126
427-F10A4E460-473	427-F10A4N460-473	460	473	16	427	200	530	561	M16	32	130
427-F10A4E476-489	427-F10A4N476-489	476	489	16	427	200	546	577	M16	32	138
427-F10A4E488-501	427-F10A4N488-501	488	501	16	427	200	558	589	M16	33	144
427-F10A4E503-516	427-F10A4N503-516	503	516	16	427	200	573	604	M16	34	152
427-F10A4E520-533	427-F10A4N520-533	520	533	16	427	200	590	621	M16	35	164
427-F10A4E531-544	427-F10A4N531-544	531	544	16	427	200	601	632	M16	35	170
427-F10A4E546-559	427-F10A4N546-559	546	559	16	427	200	616	647	M16	36	178
427-F10A4E557-570	427-F10A4N557-570	557	570	16	427	200	627	658	M16	36	184
427-F10A4E571-584	427-F10A4N571-584	571	584	16	427	200	641	672	M16	37	193
427-F10A4E600-613	427-F10A4N600-613	600	613	16	427	200	670	701	M16	38	210
427-F10A4E610-623	427-F10A4N610-623	610	623	16	427	200	680	711	M16	39	216
427-F10A4E628-641	427-F10A4N628-641	628	641	16	427	200	698	729	M16	40	228
427-F10A4E648-661	427-F10A4N648-661	648	661	16	427	200	718	749	M16	41	241
427-F10A4E676-689	427-F10A4N676-689	676	689	16	427	200	746	777	M16	42	260
427-F10A4E688-701	427-F10A4N688-701	688	701	16	427	200	758	789	M16	43	268
427-F10A4E700-713	427-F10A4N700-713	700	713	16	427	200	770	801	M16	43	277
427-F10A4E717-730	427-F10A4N717-730	717	730	16	427	200	787	818	M16	44	289
427-F10A4E732-745	427-F10A4N732-745	732	745	16	427	200	802	833	M16	45	300
427-2F10A4E756-782	427-2F10A4N756-782	756	782	16	427	200	839	870	M16	55	338
427-2F10A4E782-808	427-2F10A4N782-808	782	808	16	427	200	865	896	M16	57	359
427-2F10A4E806-832	427-2F10A4N806-832	806	832	16	427	200	889	920	M16	58	379
427-2F10A4E828-854	427-2F10A4N828-854	828	854	16	427	200	911	942	M16	59	397
427-2F10A4E856-882	427-2F10A4N856-882	856	882	16	427	200	939	970	M16	61	422
427-2F10A4E882-908	427-2F10A4N882-908	882	908	16	427	200	965	996	M16	61	445
427-2F10A4E904-930	427-2F10A4N904-930	904	930	16	427	200	987	1018	M16	62	465
431-2F10A4E936-962	431-2F10A4N936-962	936	962	16	431	200	1019	1050	M16	92	508
431-2F10A4E961-987	431-2F10A4N961-987	961	987	16	431	200	1044	1075	M16	94	532
431-2F10A4E984-1010	431-2F10A4N984-1010	984	1010	16	431	200	1067	1098	M16	95	556
431-2F10A4E1004-1030	431-2F10A4N1004-1030	1004	1030	16	431	200	1087	1118	M16	97	576
431-2F10A4E1104-1130	431-2F10A4N1104-1130	1104	1130	16	431	200	1188	1218	M16	117	687
431-3F10A4E1192-1231	431-3F10A4N1192-1231	1192	1231	16	431	200	1289	1319	M16	137	810
431-3F10A4E1331-1370	431-3F10A4N1331-1370	1331	1370	16	431	200	1428	1458	M16	148	991

Please note important guidelines on the cover!

PEWOFLEX Ø 277 - 1471 mm / PN 10 (width ≈ 140 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
138-F6A4E277-290	138-F6A4N277-290	277	290	10	138	40	328	354	M12	5	18
138-F6A4E288-301	138-F6A4N288-301	288	301	10	138	40	339	365	M12	5	19
138-F6A4E301-314	138-F6A4N301-314	301	314	10	138	40	352	378	M12	5	21
138-F6A4E315-328	138-F6A4N315-328	315	328	10	138	40	366	392	M12	5	22
138-F6A4E327-340	138-F6A4N327-340	327	340	10	138	40	378	404	M12	5	24
138-F6A4E340-353	138-F6A4N340-353	340	353	10	138	40	391	417	M12	5	25
138-F6A4E350-363	138-F6A4N350-363	350	363	10	138	40	401	427	M12	5	27
138-F6A4E361-374	138-F6A4N361-374	361	374	10	138	40	412	438	M12	5	28
138-F6A4E374-387	138-F6A4N374-387	374	387	10	138	40	425	451	M12	5	30
138-F6A4E387-400	138-F6A4N387-400	387	400	10	138	40	438	464	M12	6	31
138-F6A4E400-413	138-F6A4N400-413	400	413	10	138	40	451	477	M12	6	33
138-F6A4E412-425	138-F6A4N412-425	412	425	10	138	40	463	489	M12	6	35
138-F6A4E422-435	138-F6A4N422-435	422	435	10	138	40	473	499	M12	6	36
138-F6A4E438-451	138-F6A4N438-451	438	451	10	138	40	489	515	M12	6	39
138-F6A4E451-464	138-F6A4N451-464	451	464	10	138	40	502	528	M12	6	41
138-F6A4E460-473	138-F6A4N460-473	460	473	10	138	40	511	537	M12	6	42
138-F6A4E476-489	138-F6A4N476-489	476	489	10	138	40	527	553	M12	6	45
138-F6A4E488-501	138-F6A4N488-501	488	501	10	138	40	539	565	M12	6	47
138-F6A4E503-516	138-F6A4N503-516	503	516	10	138	40	554	580	M12	6	49
140-F6A4E520-533	140-F6A4N520-533	520	533	10	140	40	575	603	M12	9	54
140-F6A4E531-544	140-F6A4N531-544	531	544	10	140	40	586	614	M12	9	56
140-F6A4E546-559	140-F6A4N546-559	546	559	10	140	40	601	629	M12	9	59
140-F6A4E557-570	140-F6A4N557-570	557	570	10	140	40	612	640	M12	10	61
140-F6A4E571-584	140-F6A4N571-584	571	584	10	140	40	626	654	M12	10	63
140-F6A4E600-613	140-F6A4N600-613	600	613	10	140	40	655	683	M12	10	69
140-F6A4E610-623	140-F6A4N610-623	610	623	10	140	40	665	693	M12	10	71
140-F6A4E628-641	140-F6A4N628-641	628	641	10	140	40	683	711	M12	10	75
140-F6A4E648-661	140-F6A4N648-661	648	661	10	140	40	703	731	M12	11	79
140-F6A4E676-689	140-F6A4N676-689	676	689	10	140	40	731	759	M12	11	85
140-F6A4E688-701	140-F6A4N688-701	688	701	10	140	40	743	771	M12	11	88
140-F6A4E700-713	140-F6A4N700-713	700	713	10	140	40	755	783	M12	11	91
140-F6A4E717-730	140-F6A4N717-730	717	730	10	140	40	772	800	M12	11	95
140-F6A4E732-745	140-F6A4N732-745	732	745	10	140	40	787	815	M12	12	99
140-2F6A4E756-782	140-2F6A4N756-782	756	782	10	140	40	824	852	M12	15	111
140-2F6A4E782-808	140-2F6A4N782-808	782	808	10	140	40	850	878	M12	15	118
140-2F6A4E806-832	140-2F6A4N806-832	806	832	10	140	40	874	902	M12	15	125
140-2F6A4E828-854	140-2F6A4N828-854	828	854	10	140	40	896	924	M12	16	131
140-2F6A4E856-882	140-2F6A4N856-882	856	882	10	140	40	924	952	M12	16	139
140-2F6A4E882-908	140-2F6A4N882-908	882	908	10	140	40	950	978	M12	16	146
140-2F6A4E904-930	140-2F6A4N904-930	904	930	10	140	40	972	1000	M12	17	153
142-2F6A4E936-962	142-2F6A4N936-962	936	962	10	142	40	1004	1032	M16	21	165
142-2F6A4E961-987	142-2F6A4N961-987	961	987	10	142	40	1029	1057	M16	22	173
142-2F6A4E984-1010	142-2F6A4N984-1010	984	1010	10	142	40	1052	1080	M16	22	180
142-2F6A4E1004-1030	142-2F6A4N1004-1030	1004	1030	10	142	40	1072	1100	M16	22	187
142-2F6A4E1044-1070	142-2F6A4N1044-1070	1044	1070	10	142	40	1116	1146	M16	23	203
142-2F6A4E1076-1102	142-2F6A4N1076-1102	1076	1102	10	142	40	1148	1178	M16	24	214
142-2F6A4E1104-1130	142-2F6A4N1104-1130	1104	1130	10	142	40	1176	1206	M16	24	225
142-3F6A4E1138-1177	142-3F6A4N1138-1177	1138	1177	10	142	40	1223	1253	M16	28	241
142-3F6A4E1192-1231	142-3F6A4N1192-1231	1192	1231	10	142	40	1277	1307	M16	29	262
142-3F6A4E1241-1280	142-3F6A4N1241-1280	1241	1280	10	142	40	1326	1356	M16	29	282
142-3F6A4E1331-1370	142-3F6A4N1331-1370	1331	1370	10	142	40	1416	1446	M16	31	321
142-3F6A4E1432-1471	142-3F6A4N1432-1471	1432	1471	10	142	40	1513	1541	M12	32	368

Please note important guidelines on the cover!

PEWOFLEX Ø 277 - 1471 mm / PN 10 (width ≈ 210 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
208-F6A4E277-290	208-F6A4N277-290	277	290	10	208	80	347	378	M16	7	27
208-F6A4E288-301	208-F6A4N288-301	288	301	10	208	80	358	389	M16	7	29
208-F6A4E301-314	208-F6A4N301-314	301	314	10	208	80	371	402	M16	7	31
208-F6A4E315-328	208-F6A4N315-328	315	328	10	208	80	385	416	M16	7	34
208-F6A4E327-340	208-F6A4N327-340	327	340	10	208	80	397	428	M16	8	36
208-F6A4E340-353	208-F6A4N340-353	340	353	10	208	80	410	441	M16	8	38
208-F6A4E350-363	208-F6A4N350-363	350	363	10	208	80	420	451	M16	8	40
208-F6A4E361-374	208-F6A4N361-374	361	374	10	208	80	431	462	M16	8	42
208-F6A4E374-387	208-F6A4N374-387	374	387	10	208	80	444	475	M16	8	45
208-F6A4E387-400	208-F6A4N387-400	387	400	10	208	80	457	488	M16	8	47
208-F6A4E400-413	208-F6A4N400-413	400	413	10	208	80	470	501	M16	8	50
208-F6A4E412-425	208-F6A4N412-425	412	425	10	208	80	482	513	M16	9	52
208-F6A4E422-435	208-F6A4N422-435	422	435	10	208	80	492	523	M16	9	55
208-F6A4E438-451	208-F6A4N438-451	438	451	10	208	80	508	539	M16	9	58
208-F6A4E451-464	208-F6A4N451-464	451	464	10	208	80	521	552	M16	9	61
208-F6A4E460-473	208-F6A4N460-473	460	473	10	208	80	530	561	M16	9	63
208-F6A4E476-489	208-F6A4N476-489	476	489	10	208	80	546	577	M16	9	67
208-F6A4E488-501	208-F6A4N488-501	488	501	10	208	80	558	589	M16	10	70
208-F6A4E503-516	208-F6A4N503-516	503	516	10	208	80	573	604	M16	10	74
210-F6A4E520-533	210-F6A4N520-533	520	533	10	210	80	590	621	M16	14	81
210-F6A4E531-544	210-F6A4N531-544	531	544	10	210	80	601	632	M16	14	84
210-F6A4E546-559	210-F6A4N546-559	546	559	10	210	80	616	647	M16	14	88
210-F6A4E557-570	210-F6A4N557-570	557	570	10	210	80	627	658	M16	14	91
210-F6A4E571-584	210-F6A4N571-584	571	584	10	210	80	641	672	M16	15	95
210-F6A4E600-613	210-F6A4N600-613	600	613	10	210	80	670	701	M16	15	104
210-F6A4E610-623	210-F6A4N610-623	610	623	10	210	80	680	711	M16	15	107
210-F6A4E628-641	210-F6A4N628-641	628	641	10	210	80	698	729	M16	16	112
210-F6A4E648-661	210-F6A4N648-661	648	661	10	210	80	718	749	M16	16	119
210-F6A4E676-689	210-F6A4N676-689	676	689	10	210	80	746	777	M16	16	128
210-F6A4E688-701	210-F6A4N688-701	688	701	10	210	80	758	789	M16	17	132
210-F6A4E700-713	210-F6A4N700-713	700	713	10	210	80	770	801	M16	17	137
210-F6A4E717-730	210-F6A4N717-730	717	730	10	210	80	787	818	M16	17	143
210-F6A4E732-745	210-F6A4N732-745	732	745	10	210	80	802	833	M16	17	148
210-2F6A4E756-782	210-2F6A4N756-782	756	782	10	210	80	839	870	M16	22	167
210-2F6A4E782-808	210-2F6A4N782-808	782	808	10	210	80	865	896	M16	23	177
210-2F6A4E806-832	210-2F6A4N806-832	806	832	10	210	80	889	920	M16	23	187
210-2F6A4E828-854	210-2F6A4N828-854	828	854	10	210	80	911	942	M16	23	196
210-2F6A4E856-882	210-2F6A4N856-882	856	882	10	210	80	939	970	M16	24	208
210-2F6A4E882-908	210-2F6A4N882-908	882	908	10	210	80	965	996	M16	24	219
210-2F6A4E904-930	210-2F6A4N904-930	904	930	10	210	80	987	1018	M16	25	229
212-2F6A4E936-962	212-2F6A4N936-962	936	962	10	212	80	1019	1050	M16	32	247
212-2F6A4E961-987	212-2F6A4N961-987	961	987	10	212	80	1044	1075	M16	33	259
212-2F6A4E984-1010	212-2F6A4N984-1010	984	1010	10	212	80	1067	1098	M16	33	271
212-2F6A4E1004-1030	212-2F6A4N1004-1030	1004	1030	10	212	80	1087	1118	M16	34	281
212-2F6A4E1044-1070	212-2F6A4N1044-1070	1044	1070	10	212	80	1127	1158	M16	35	304
212-2F6A4E1076-1102	212-2F6A4N1076-1102	1076	1102	10	212	80	1159	1190	M16	35	322
212-2F6A4E1104-1130	212-2F6A4N1104-1130	1104	1130	10	212	80	1187	1218	M16	36	337
212-3F6A4E1138-1177	212-3F6A4N1138-1177	1138	1177	10	212	80	1234	1265	M16	42	362
212-3F6A4E1192-1231	212-3F6A4N1192-1231	1192	1231	10	212	80	1288	1319	M16	43	394
212-3F6A4E1241-1280	212-3F6A4N1241-1280	1241	1280	10	212	80	1337	1368	M16	44	424
212-3F6A4E1331-1370	212-3F6A4N1331-1370	1331	1370	10	212	80	1427	1458	M16	46	482
212-3F6A4E1432-1471	212-3F6A4N1432-1471	1432	1471	10	212	80	1528	1559	M16	48	552

Please note important guidelines on the cover!

PEWOFLEX Ø 277 - 1471 mm / PN 10 (width ≈ 290 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
283-F6A4E277-290	283-F6A4N277-290	277	290	10	283	100	347	378	M16	9	36
283-F6A4E288-301	283-F6A4N288-301	288	301	10	283	100	358	389	M16	10	39
283-F6A4E301-314	283-F6A4N301-314	301	314	10	283	100	371	402	M16	10	42
283-F6A4E315-328	283-F6A4N315-328	315	328	10	283	100	385	416	M16	10	45
283-F6A4E327-340	283-F6A4N327-340	327	340	10	283	100	397	428	M16	10	48
283-F6A4E340-353	283-F6A4N340-353	340	353	10	283	100	410	441	M16	10	51
283-F6A4E350-363	283-F6A4N350-363	350	363	10	283	100	420	451	M16	11	53
283-F6A4E361-374	283-F6A4N361-374	361	374	10	283	100	431	462	M16	11	56
283-F6A4E374-387	283-F6A4N374-387	374	387	10	283	100	444	475	M16	11	59
283-F6A4E387-400	283-F6A4N387-400	387	400	10	283	100	457	488	M16	11	63
283-F6A4E400-413	283-F6A4N400-413	400	413	10	283	100	470	501	M16	11	66
283-F6A4E412-425	283-F6A4N412-425	412	425	10	283	100	482	513	M16	11	70
283-F6A4E422-435	283-F6A4N422-435	422	435	10	283	100	492	523	M16	12	73
283-F6A4E438-451	283-F6A4N438-451	438	451	10	283	100	508	539	M16	12	78
283-F6A4E451-464	283-F6A4N451-464	451	464	10	283	100	521	552	M16	12	82
283-F6A4E460-473	283-F6A4N460-473	460	473	10	283	100	530	561	M16	12	84
283-F6A4E476-489	283-F6A4N476-489	476	489	10	283	100	546	577	M16	12	89
283-F6A4E488-501	283-F6A4N488-501	488	501	10	283	100	558	589	M16	13	93
283-F6A4E503-516	283-F6A4N503-516	503	516	10	283	100	573	604	M16	13	99
285-F6A4E520-533	285-F6A4N520-533	520	533	10	285	100	590	621	M16	18	108
285-F6A4E531-544	285-F6A4N531-544	531	544	10	285	100	601	632	M16	18	112
285-F6A4E546-559	285-F6A4N546-559	546	559	10	285	100	616	647	M16	19	117
285-F6A4E557-570	285-F6A4N557-570	557	570	10	285	100	627	658	M16	19	121
285-F6A4E571-584	285-F6A4N571-584	571	584	10	285	100	641	672	M16	19	127
285-F6A4E600-613	285-F6A4N600-613	600	613	10	285	100	670	701	M16	20	138
285-F6A4E610-623	285-F6A4N610-623	610	623	10	285	100	680	711	M16	20	142
285-F6A4E628-641	285-F6A4N628-641	628	641	10	285	100	698	729	M16	21	150
285-F6A4E648-661	285-F6A4N648-661	648	661	10	285	100	718	749	M16	21	159
285-F6A4E676-689	285-F6A4N676-689	676	689	10	285	100	746	777	M16	22	171
285-F6A4E688-701	285-F6A4N688-701	688	701	10	285	100	758	789	M16	22	176
285-F6A4E700-713	285-F6A4N700-713	700	713	10	285	100	770	801	M16	23	182
285-F6A4E717-730	285-F6A4N717-730	717	730	10	285	100	787	818	M16	23	190
285-F6A4E732-745	285-F6A4N732-745	732	745	10	285	100	802	833	M16	23	197
285-2F6A4E756-782	285-2F6A4N756-782	756	782	10	285	100	839	870	M16	29	223
285-2F6A4E782-808	285-2F6A4N782-808	782	808	10	285	100	865	896	M16	30	236
285-2F6A4E806-832	285-2F6A4N806-832	806	832	10	285	100	889	920	M16	31	249
285-2F6A4E828-854	285-2F6A4N828-854	828	854	10	285	100	911	942	M16	31	261
285-2F6A4E856-882	285-2F6A4N856-882	856	882	10	285	100	939	970	M16	32	277
285-2F6A4E882-908	285-2F6A4N882-908	882	908	10	285	100	965	996	M16	33	293
285-2F6A4E904-930	285-2F6A4N904-930	904	930	10	285	100	987	1018	M16	33	306
287-2F6A4E936-962	287-2F6A4N936-962	936	962	10	287	100	1019	1050	M16	43	330
287-2F6A4E961-987	287-2F6A4N961-987	961	987	10	287	100	1044	1075	M16	43	346
287-2F6A4E984-1010	287-2F6A4N984-1010	984	1010	10	287	100	1067	1098	M16	44	361
287-2F6A4E1004-1030	287-2F6A4N1004-1030	1004	1030	10	287	100	1087	1118	M16	45	374
287-2F6A4E1044-1070	287-2F6A4N1044-1070	1044	1070	10	287	100	1127	1158	M16	46	406
287-2F6A4E1076-1102	287-2F6A4N1076-1102	1076	1102	10	287	100	1159	1190	M16	47	429
287-2F6A4E1104-1130	287-2F6A4N1104-1130	1104	1130	10	287	100	1187	1218	M16	48	449
287-3F6A4E1138-1177	287-3F6A4N1138-1177	1138	1177	10	287	100	1234	1265	M16	55	482
287-3F6A4E1192-1231	287-3F6A4N1192-1231	1192	1231	10	287	100	1288	1319	M16	57	525
287-3F6A4E1241-1280	287-3F6A4N1241-1280	1241	1280	10	287	100	1337	1368	M16	59	565
287-3F6A4E1331-1370	287-3F6A4N1331-1370	1331	1370	10	287	100	1427	1458	M16	62	643
287-3F6A4E1432-1471	287-3F6A4N1432-1471	1432	1471	10	287	100	1528	1559	M16	64	736

Please note important guidelines on the cover!

PEWOFLEX Ø 277 - 1471 mm / PN 10 (width ≈ 430 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
423-F6A4E277-290	423-F6A4N277-290	277	290	10	423	200	347	378	M16	14	55
423-F6A4E288-301	423-F6A4N288-301	288	301	10	423	200	358	389	M16	14	58
423-F6A4E301-314	423-F6A4N301-314	301	314	10	423	200	371	402	M16	15	62
423-F6A4E315-328	423-F6A4N315-328	315	328	10	423	200	385	416	M16	15	67
423-F6A4E327-340	423-F6A4N327-340	327	340	10	423	200	397	428	M16	15	71
423-F6A4E340-353	423-F6A4N340-353	340	353	10	423	200	410	441	M16	16	76
423-F6A4E350-363	423-F6A4N350-363	350	363	10	423	200	420	451	M16	16	80
423-F6A4E361-374	423-F6A4N361-374	361	374	10	423	200	431	462	M16	16	84
423-F6A4E374-387	423-F6A4N374-387	374	387	10	423	200	444	475	M16	16	89
423-F6A4E387-400	423-F6A4N387-400	387	400	10	423	200	457	488	M16	17	94
423-F6A4E400-413	423-F6A4N400-413	400	413	10	423	200	470	501	M16	17	100
423-F6A4E412-425	423-F6A4N412-425	412	425	10	423	200	482	513	M16	17	105
423-F6A4E422-435	423-F6A4N422-435	422	435	10	423	200	492	523	M16	17	109
423-F6A4E438-451	423-F6A4N438-451	438	451	10	423	200	508	539	M16	18	116
423-F6A4E451-464	423-F6A4N451-464	451	464	10	423	200	521	552	M16	18	122
423-F6A4E460-473	423-F6A4N460-473	460	473	10	423	200	530	561	M16	18	127
423-F6A4E476-489	423-F6A4N476-489	476	489	10	423	200	546	577	M16	19	134
423-F6A4E488-501	423-F6A4N488-501	488	501	10	423	200	558	589	M16	19	140
423-F6A4E503-516	423-F6A4N503-516	503	516	10	423	200	573	604	M16	20	148
425-F6A4E520-533	425-F6A4N520-533	520	533	10	425	200	590	621	M16	27	161
425-F6A4E531-544	425-F6A4N531-544	531	544	10	425	200	601	632	M16	28	167
425-F6A4E546-559	425-F6A4N546-559	546	559	10	425	200	616	647	M16	28	176
425-F6A4E557-570	425-F6A4N557-570	557	570	10	425	200	627	658	M16	29	182
425-F6A4E571-584	425-F6A4N571-584	571	584	10	425	200	641	672	M16	29	190
425-F6A4E600-613	425-F6A4N600-613	600	613	10	425	200	670	701	M16	30	207
425-F6A4E610-623	425-F6A4N610-623	610	623	10	425	200	680	711	M16	31	214
425-F6A4E628-641	425-F6A4N628-641	628	641	10	425	200	698	729	M16	31	225
425-F6A4E648-661	425-F6A4N648-661	648	661	10	425	200	718	749	M16	32	238
425-F6A4E676-689	425-F6A4N676-689	676	689	10	425	200	746	777	M16	33	257
425-F6A4E688-701	425-F6A4N688-701	688	701	10	425	200	758	789	M16	33	265
425-F6A4E700-713	425-F6A4N700-713	700	713	10	425	200	770	801	M16	34	273
425-F6A4E717-730	425-F6A4N717-730	717	730	10	425	200	787	818	M16	35	285
425-F6A4E732-745	425-F6A4N732-745	732	745	10	425	200	802	833	M16	35	296
425-2F6A4E756-782	425-2F6A4N756-782	756	782	10	425	200	839	870	M16	44	334
425-2F6A4E782-808	425-2F6A4N782-808	782	808	10	425	200	865	896	M16	45	355
425-2F6A4E806-832	425-2F6A4N806-832	806	832	10	425	200	889	920	M16	46	374
425-2F6A4E828-854	425-2F6A4N828-854	828	854	10	425	200	911	942	M16	47	392
425-2F6A4E856-882	425-2F6A4N856-882	856	882	10	425	200	939	970	M16	48	416
425-2F6A4E882-908	425-2F6A4N882-908	882	908	10	425	200	965	996	M16	49	439
425-2F6A4E904-930	425-2F6A4N904-930	904	930	10	425	200	987	1018	M16	50	459
427-2F6A4E936-962	427-2F6A4N936-962	936	962	10	427	200	1019	1050	M16	64	495
427-2F6A4E961-987	427-2F6A4N961-987	961	987	10	427	200	1044	1075	M16	65	519
427-2F6A4E984-1010	427-2F6A4N984-1010	984	1010	10	427	200	1067	1098	M16	66	542
427-2F6A4E1004-1030	427-2F6A4N1004-1030	1004	1030	10	427	200	1087	1118	M16	67	562
427-2F6A4E1044-1070	427-2F6A4N1044-1070	1044	1070	10	427	200	1127	1158	M16	69	609
427-2F6A4E1076-1102	427-2F6A4N1076-1102	1076	1102	10	427	200	1159	1190	M16	71	643
427-2F6A4E1104-1130	427-2F6A4N1104-1130	1104	1130	10	427	200	1187	1218	M16	72	674
427-3F6A4E1138-1177	427-3F6A4N1138-1177	1138	1177	10	427	200	1234	1265	M16	83	723
427-3F6A4E1192-1231	427-3F6A4N1192-1231	1192	1231	10	427	200	1288	1319	M16	86	787
427-3F6A4E1241-1280	427-3F6A4N1241-1280	1241	1280	10	427	200	1337	1368	M16	88	847
427-3F6A4E1331-1370	427-3F6A4N1331-1370	1331	1370	10	427	200	1427	1458	M16	92	964
427-3F6A4E1432-1471	427-3F6A4N1432-1471	1432	1471	10	427	200	1528	1559	M16	96	1104

Please note important guidelines on the cover!

PEWOFLEX Ø 520 - 2090 mm / PN 6 (width ≈ 140 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
138-F2A4E520-533	138-F2A4N520-533	520	533	6	138	40	575	603	M12	7	53
138-F2A4E531-544	138-F2A4N531-544	531	544	6	138	40	586	614	M12	7	55
138-F2A4E546-559	138-F2A4N546-559	546	559	6	138	40	601	629	M12	7	58
138-F2A4E557-570	138-F2A4N557-570	557	570	6	138	40	612	640	M12	7	60
138-F2A4E571-584	138-F2A4N571-584	571	584	6	138	40	626	654	M12	7	63
138-F2A4E600-613	138-F2A4N600-613	600	613	6	138	40	655	683	M12	7	68
138-F2A4E610-623	138-F2A4N610-623	610	623	6	138	40	665	693	M12	7	70
138-F2A4E628-641	138-F2A4N628-641	628	641	6	138	40	683	711	M12	7	74
138-F2A4E648-661	138-F2A4N648-661	648	661	6	138	40	703	731	M12	8	78
138-F2A4E676-689	138-F2A4N676-689	676	689	6	138	40	731	759	M12	8	84
138-F2A4E688-701	138-F2A4N688-701	688	701	6	138	40	743	771	M12	8	87
138-F2A4E700-713	138-F2A4N700-713	700	713	6	138	40	755	783	M12	8	90
138-F2A4E717-730	138-F2A4N717-730	717	730	6	138	40	772	800	M12	8	94
138-F2A4E732-745	138-F2A4N732-745	732	745	6	138	40	787	815	M12	8	97
138-2F2A4E756-782	138-2F2A4N756-782	756	782	6	138	40	824	852	M12	11	110
138-2F2A4E782-808	138-2F2A4N782-808	782	808	6	138	40	850	878	M12	11	117
138-2F2A4E806-832	138-2F2A4N806-832	806	832	6	138	40	874	902	M12	11	123
138-2F2A4E828-854	138-2F2A4N828-854	828	854	6	138	40	896	924	M12	12	129
138-2F2A4E856-882	138-2F2A4N856-882	856	882	6	138	40	924	952	M12	12	137
138-2F2A4E882-908	138-2F2A4N882-908	882	908	6	138	40	950	978	M12	12	144
138-2F2A4E904-930	138-2F2A4N904-930	904	930	6	138	40	972	1000	M12	12	151
140-2F2A4E936-962	140-2F2A4N936-962	936	962	6	140	40	1004	1032	M12	17	163
140-2F2A4E961-987	140-2F2A4N961-987	961	987	6	140	40	1029	1057	M12	17	171
140-2F2A4E984-1010	140-2F2A4N984-1010	984	1010	6	140	40	1052	1080	M12	17	178
140-2F2A4E1004-1030	140-2F2A4N1004-1030	1004	1030	6	140	40	1072	1100	M12	18	185
140-2F2A4E1044-1070	140-2F2A4N1044-1070	1044	1070	6	140	40	1116	1146	M12	18	200
140-2F2A4E1076-1102	140-2F2A4N1076-1102	1076	1102	6	140	40	1148	1178	M12	19	212
140-2F2A4E1104-1130	140-2F2A4N1104-1130	1104	1130	6	140	40	1176	1206	M12	19	222
140-3F2A4E1138-1177	140-3F2A4N1138-1177	1138	1177	6	140	40	1223	1253	M12	22	240
140-3F2A4E1192-1231	140-3F2A4N1192-1231	1192	1231	6	140	40	1277	1307	M12	23	261
140-3F2A4E1241-1280	140-3F2A4N1241-1280	1241	1280	6	140	40	1326	1356	M12	23	281
140-3F2A4E1331-1370	140-3F2A4N1331-1370	1331	1370	6	140	40	1416	1446	M12	24	319
140-3F2A4E1413-1452	140-3F2A4N1413-1452	1413	1452	6	140	40	1498	1528	M12	25	356
142-3F2A4E1432-1471	142-3F2A4N1432-1471	1432	1471	6	142	40	1517	1547	M12	26	365
142-3F2A4E1529-1568	142-3F2A4N1529-1568	1529	1568	6	142	40	1614	1644	M12	34	411
142-4F2A4E1620-1672	142-4F2A4N1620-1672	1620	1672	6	142	40	1718	1748	M12	39	465
142-4F2A4E1827-1879	142-4F2A4N1827-1879	1827	1879	6	142	40	1925	1955	M12	42	580
142-4F2A4E2000-2052	142-4F2A4N2000-2052	2000	2052	6	142	40	2098	2128	M12	45	687
142-4F2A4E2038-2090	142-4F2A4N2038-2090	2038	2090	6	142	40	2136	2166	M12	45	712

Please note important guidelines on the cover!

PEWOFLEX Ø 520 - 2090 mm / PN 6 (width ≈ 210 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
208-F2A4E520-533	208-F2A4N520-533	520	533	6	208	80	590	621	M16	10	80
208-F2A4E531-544	208-F2A4N531-544	531	544	6	208	80	601	632	M16	10	83
208-F2A4E546-559	208-F2A4N546-559	546	559	6	208	80	616	647	M16	10	87
208-F2A4E557-570	208-F2A4N557-570	557	570	6	208	80	627	658	M16	10	90
208-F2A4E571-584	208-F2A4N571-584	571	584	6	208	80	641	672	M16	11	94
208-F2A4E600-613	208-F2A4N600-613	600	613	6	208	80	670	701	M16	11	102
208-F2A4E610-623	208-F2A4N610-623	610	623	6	208	80	680	711	M16	11	105
208-F2A4E628-641	208-F2A4N628-641	628	641	6	208	80	698	729	M16	11	111
208-F2A4E648-661	208-F2A4N648-661	648	661	6	208	80	718	749	M16	11	117
208-F2A4E676-689	208-F2A4N676-689	676	689	6	208	80	746	777	M16	12	126
208-F2A4E688-701	208-F2A4N688-701	688	701	6	208	80	758	789	M16	12	131
208-F2A4E700-713	208-F2A4N700-713	700	713	6	208	80	770	801	M16	12	135
208-F2A4E717-730	208-F2A4N717-730	717	730	6	208	80	787	818	M16	12	141
208-F2A4E732-745	208-F2A4N732-745	732	745	6	208	80	802	833	M16	12	146
208-2F2A4E756-782	208-2F2A4N756-782	756	782	6	208	80	839	870	M16	16	165
208-2F2A4E782-808	208-2F2A4N782-808	782	808	6	208	80	865	896	M16	17	175
208-2F2A4E806-832	208-2F2A4N806-832	806	832	6	208	80	889	920	M16	17	184
208-2F2A4E828-854	208-2F2A4N828-854	828	854	6	208	80	911	942	M16	17	193
208-2F2A4E856-882	208-2F2A4N856-882	856	882	6	208	80	939	970	M16	18	205
208-2F2A4E882-908	208-2F2A4N882-908	882	908	6	208	80	965	996	M16	18	217
208-2F2A4E904-930	208-2F2A4N904-930	904	930	6	208	80	987	1018	M16	18	226
210-2F2A4E936-962	210-2F2A4N936-962	936	962	6	210	80	1019	1050	M16	25	244
210-2F2A4E961-987	210-2F2A4N961-987	961	987	6	210	80	1044	1075	M16	26	256
210-2F2A4E984-1010	210-2F2A4N984-1010	984	1010	6	210	80	1067	1098	M16	26	267
210-2F2A4E1004-1030	210-2F2A4N1004-1030	1004	1030	6	210	80	1087	1118	M16	27	277
210-2F2A4E1044-1070	210-2F2A4N1044-1070	1044	1070	6	210	80	1127	1158	M16	27	300
210-2F2A4E1076-1102	210-2F2A4N1076-1102	1076	1102	6	210	80	1159	1190	M16	28	317
210-2F2A4E1104-1130	210-2F2A4N1104-1130	1104	1130	6	210	80	1187	1218	M16	28	332
210-3F2A4E1138-1177	210-3F2A4N1138-1177	1138	1177	6	210	80	1234	1265	M16	33	360
210-3F2A4E1192-1231	210-3F2A4N1192-1231	1192	1231	6	210	80	1288	1319	M16	34	391
210-3F2A4E1241-1280	210-3F2A4N1241-1280	1241	1280	6	210	80	1337	1368	M16	36	421
210-3F2A4E1331-1370	210-3F2A4N1331-1370	1331	1370	6	210	80	1427	1458	M16	37	478
210-3F2A4E1413-1452	210-3F2A4N1413-1452	1413	1452	6	210	80	1509	1540	M16	38	534
210-3F2A4E1432-1471	210-3F2A4N1432-1471	1432	1471	6	210	80	1528	1559	M16	39	547
212-3F2A4E1529-1568	212-3F2A4N1529-1568	1529	1568	6	212	80	1625	1656	M16	51	617
212-4F2A4E1620-1672	212-4F2A4N1620-1672	1620	1672	6	212	80	1729	1760	M16	58	697
212-4F2A4E1827-1879	212-4F2A4N1827-1879	1827	1879	6	212	80	1936	1967	M16	63	871
212-4F2A4E2000-2052	212-4F2A4N2000-2052	2000	2052	6	212	80	2109	2140	M16	68	1030
212-4F2A4E2038-2090	212-4F2A4N2038-2090	2038	2090	6	212	80	2147	2178	M16	68	1067

Important information:

- Follow the installation and disassembly instructions.
- PN = Working pressure with consideration of the application loads for industrial applications. In case of shipbuilding applications, PN is one PN class below, e.g. PN 25 Industry = PN 16 Shipbuilding.
- PN classes = PN 2.5; PN 6; PN 10; PN 16; PN 25
- Test pressure = PN x 1.5
- The pressure data is given under the precondition that radially rigid steel pipes with a minimum wall thickness are used under static load.
- Use the Technical Manual for other pipe materials.
- Band inserts are necessary for special applications.
- Support sleeves must be used for thermoplastic plastic pipes (PE/PP/PB/PVC/ABS...).

PEWOFLEX Ø 520 - 2090 mm / PN 6 (width ≈ 290 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
283-F2A4E520-533	283-F2A4N520-533	520	533	6	283	100	590	621	M16	13	106
283-F2A4E531-544	283-F2A4N531-544	531	544	6	283	100	601	632	M16	13	110
283-F2A4E546-559	283-F2A4N546-559	546	559	6	283	100	616	647	M16	14	116
283-F2A4E557-570	283-F2A4N557-570	557	570	6	283	100	627	658	M16	14	120
283-F2A4E571-584	283-F2A4N571-584	571	584	6	283	100	641	672	M16	14	125
283-F2A4E600-613	283-F2A4N600-613	600	613	6	283	100	670	701	M16	14	136
283-F2A4E610-623	283-F2A4N610-623	610	623	6	283	100	680	711	M16	15	140
283-F2A4E628-641	283-F2A4N628-641	628	641	6	283	100	698	729	M16	15	148
283-F2A4E648-661	283-F2A4N648-661	648	661	6	283	100	718	749	M16	15	156
283-F2A4E676-689	283-F2A4N676-689	676	689	6	283	100	746	777	M16	16	169
283-F2A4E688-701	283-F2A4N688-701	688	701	6	283	100	758	789	M16	16	174
283-F2A4E700-713	283-F2A4N700-713	700	713	6	283	100	770	801	M16	16	180
283-F2A4E717-730	283-F2A4N717-730	717	730	6	283	100	787	818	M16	16	188
283-F2A4E732-745	283-F2A4N732-745	732	745	6	283	100	802	833	M16	17	195
283-2F2A4E756-782	283-2F2A4N756-782	756	782	6	283	100	839	870	M16	22	220
283-2F2A4E782-808	283-2F2A4N782-808	782	808	6	283	100	865	896	M16	22	233
283-2F2A4E806-832	283-2F2A4N806-832	806	832	6	283	100	889	920	M16	23	246
283-2F2A4E828-854	283-2F2A4N828-854	828	854	6	283	100	911	942	M16	23	258
283-2F2A4E856-882	283-2F2A4N856-882	856	882	6	283	100	939	970	M16	24	274
283-2F2A4E882-908	283-2F2A4N882-908	882	908	6	283	100	965	996	M16	24	289
283-2F2A4E904-930	283-2F2A4N904-930	904	930	6	283	100	987	1018	M16	24	302
285-2F2A4E936-962	285-2F2A4N936-962	936	962	6	285	100	1019	1050	M16	34	326
285-2F2A4E961-987	285-2F2A4N961-987	961	987	6	285	100	1044	1075	M16	34	341
285-2F2A4E984-1010	285-2F2A4N984-1010	984	1010	6	285	100	1067	1098	M16	35	356
285-2F2A4E1004-1030	285-2F2A4N1004-1030	1004	1030	6	285	100	1087	1118	M16	36	369
285-2F2A4E1044-1070	285-2F2A4N1044-1070	1044	1070	6	285	100	1127	1158	M16	36	401
285-2F2A4E1076-1102	285-2F2A4N1076-1102	1076	1102	6	285	100	1159	1190	M16	37	423
285-2F2A4E1104-1130	285-2F2A4N1104-1130	1104	1130	6	285	100	1187	1218	M16	38	443
285-3F2A4E1138-1177	285-3F2A4N1138-1177	1138	1177	6	285	100	1234	1265	M16	44	480
285-3F2A4E1192-1231	285-3F2A4N1192-1231	1192	1231	6	285	100	1288	1319	M16	46	522
285-3F2A4E1241-1280	285-3F2A4N1241-1280	1241	1280	6	285	100	1337	1368	M16	47	561
285-3F2A4E1331-1370	285-3F2A4N1331-1370	1331	1370	6	285	100	1427	1458	M16	49	638
285-3F2A4E1413-1452	285-3F2A4N1413-1452	1413	1452	6	285	100	1509	1540	M16	51	711
285-3F2A4E1432-1471	285-3F2A4N1432-1471	1432	1471	6	285	100	1528	1559	M16	51	729
287-3F2A4E1529-1568	287-3F2A4N1529-1568	1529	1568	6	287	100	1625	1656	M16	68	823
287-4F2A4E1620-1672	287-4F2A4N1620-1672	1620	1672	6	287	100	1729	1760	M16	77	929
287-4F2A4E1827-1879	287-4F2A4N1827-1879	1827	1879	6	287	100	1936	1967	M16	84	1161
287-4F2A4E2000-2052	287-4F2A4N2000-2052	2000	2052	6	287	100	2109	2140	M16	89	1374
287-4F2A4E2038-2090	287-4F2A4N2038-2090	2038	2090	6	287	100	2147	2178	M16	91	1423

Please note important guidelines on the cover!

PEWOFLEX Ø 520 - 2090 mm / PN 6 (width ≈ 430 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
423-F2A4E520-533	423-F2A4N520-533	520	533	6	423	200	590	621	M16	20	159
423-F2A4E531-544	423-F2A4N531-544	531	544	6	423	200	601	632	M16	20	165
423-F2A4E546-559	423-F2A4N546-559	546	559	6	423	200	616	647	M16	20	174
423-F2A4E557-570	423-F2A4N557-570	557	570	6	423	200	627	658	M16	21	180
423-F2A4E571-584	423-F2A4N571-584	571	584	6	423	200	641	672	M16	21	189
423-F2A4E600-613	423-F2A4N600-613	600	613	6	423	200	670	701	M16	22	204
423-F2A4E610-623	423-F2A4N610-623	610	623	6	423	200	680	711	M16	22	210
423-F2A4E628-641	423-F2A4N628-641	628	641	6	423	200	698	729	M16	22	222
423-F2A4E648-661	423-F2A4N648-661	648	661	6	423	200	718	749	M16	23	234
423-F2A4E676-689	423-F2A4N676-689	676	689	6	423	200	746	777	M16	24	252
423-F2A4E688-701	423-F2A4N688-701	688	701	6	423	200	758	789	M16	24	261
423-F2A4E700-713	423-F2A4N700-713	700	713	6	423	200	770	801	M16	24	270
423-F2A4E717-730	423-F2A4N717-730	717	730	6	423	200	787	818	M16	24	282
423-F2A4E732-745	423-F2A4N732-745	732	745	6	423	200	802	833	M16	25	291
423-2F2A4E756-782	423-2F2A4N756-782	756	782	6	423	200	839	870	M16	33	330
423-2F2A4E782-808	423-2F2A4N782-808	782	808	6	423	200	865	896	M16	33	351
423-2F2A4E806-832	423-2F2A4N806-832	806	832	6	423	200	889	920	M16	34	369
423-2F2A4E828-854	423-2F2A4N828-854	828	854	6	423	200	911	942	M16	35	387
423-2F2A4E856-882	423-2F2A4N856-882	856	882	6	423	200	939	970	M16	35	411
423-2F2A4E882-908	423-2F2A4N882-908	882	908	6	423	200	965	996	M16	36	432
423-2F2A4E904-930	423-2F2A4N904-930	904	930	6	423	200	987	1018	M16	36	453
425-2F2A4E936-962	425-2F2A4N936-962	936	962	6	425	200	1019	1050	M16	51	489
425-2F2A4E961-987	425-2F2A4N961-987	961	987	6	425	200	1044	1075	M16	52	513
425-2F2A4E984-1010	425-2F2A4N984-1010	984	1010	6	425	200	1067	1098	M16	53	534
425-2F2A4E1004-1030	425-2F2A4N1004-1030	1004	1030	6	425	200	1087	1118	M16	53	555
425-2F2A4E1044-1070	425-2F2A4N1044-1070	1044	1070	6	425	200	1127	1158	M16	55	600
425-2F2A4E1076-1102	425-2F2A4N1076-1102	1076	1102	6	425	200	1159	1190	M16	56	636
425-2F2A4E1104-1130	425-2F2A4N1104-1130	1104	1130	6	425	200	1187	1218	M16	57	666
425-3F2A4E1138-1177	425-3F2A4N1138-1177	1138	1177	6	425	200	1234	1265	M16	67	720
425-3F2A4E1192-1231	425-3F2A4N1192-1231	1192	1231	6	425	200	1288	1319	M16	68	783
425-3F2A4E1241-1280	425-3F2A4N1241-1280	1241	1280	6	425	200	1337	1368	M16	70	843
425-3F2A4E1331-1370	425-3F2A4N1331-1370	1331	1370	6	425	200	1427	1458	M16	73	957
425-3F2A4E1413-1452	425-3F2A4N1413-1452	1413	1452	6	425	200	1509	1540	M16	76	1068
425-3F2A4E1432-1471	425-3F2A4N1432-1471	1432	1471	6	425	200	1528	1559	M16	77	1095
427-3F2A4E1529-1568	427-3F2A4N1529-1568	1529	1568	6	427	200	1625	1656	M16	102	1233
427-4F2A4E1620-1672	427-4F2A4N1620-1672	1620	1672	6	427	200	1729	1760	M16	116	1395
427-4F2A4E1827-1879	427-4F2A4N1827-1879	1827	1879	6	427	200	1936	1967	M16	126	1740
427-4F2A4E2000-2052	427-4F2A4N2000-2052	2000	2052	6	427	200	2109	2140	M16	134	2061
427-4F2A4E2038-2090	427-4F2A4N2038-2090	2038	2090	6	427	200	2147	2178	M16	136	2136

Important information:

- Follow the installation and disassembly instructions.
- PN = Working pressure with consideration of the application loads for industrial applications. In case of shipbuilding applications, PN is one PN class below, e.g. PN 25 Industry = PN 16 Shipbuilding.
- PN classes = PN 2.5; PN 6; PN 10; PN 16; PN 25
- Test pressure = PN x 1.5
- The pressure data is given under the precondition that radially rigid steel pipes with a minimum wall thickness are used under static load.
- Use the Technical Manual for other pipe materials.
- Band inserts are necessary for special applications.
- Support sleeves must be used for thermoplastic plastic pipes (PE/PP/PB/PVC/ABS...).

VENTILATION SYSTEM WASTEWATER TREATMENT PLANT



PEWOFLEX 138-F6A4E318-328 PN 10 (Pipe diameter Ø 323 mm, compressed air , EPDM)



COMPRESSED AIR PIPE CONNECTION ALUMINIUM/STAINLESSSTEEL



PEWOGRIP GS16A4E97-105



PEWOREP Ø 36 - 172 mm / PN 25 (one closure)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
RS16A4E36-39	RS16A4N36-39	36	39	25	60	15	66	104	M8	0,4	0,6
RS16A4E39-43	RS16A4N39-43	39	43	25	60	15	66	104	M8	0,4	0,6
RS16A4E43-47	RS16A4N43-47	43	47,5	25	60	15	74	112	M8	0,4	0,6
RS16A4E47-52	RS16A4N47-52	47,5	52,5	25	60	15	74	112	M8	0,4	0,6
RS16A4E52-58	RS16A4N52-58	52,5	58	25	75	25	85	125	M8	0,6	0,9
RS16A4E58-64	RS16A4N58-64	58	64	25	75	25	85	125	M8	0,6	0,9
RS16A4E64-72	RS16A4N64-72	64	72	25	95	30	108	164	M10	1	2,2
RS16A4E72-80	RS16A4N72-80	72	80	25	95	30	108	164	M10	1	2,2
RS16A4E80-88	RS16A4N80-88	80	88	25	95	30	124	170	M10	1	2,2
RS16A4E88-96	RS16A4N88-96	88	96	25	95	30	124	170	M10	1	2,2
RS16A4E97-105	RS16A4N97-105	97	105	25	95	30	141	187	M10	1,1	3,3
RS16A4E104-112	RS16A4N104-112	104	112	25	95	30	141	187	M10	1,1	3,3
RS16A4E112-120	RS16A4N112-120	112	120	25	95	30	158	202	M10	1,2	3,3
RS16A4E122-130	RS16A4N122-130	122	130	25	95	30	158	202	M10	1,2	3,3
RS16A4E129-137	RS16A4N129-137	129	137	25	110	40	178	230	M12	2,1	5,7
RS16A4E137-145	RS16A4N137-145	137	145	25	110	40	186	238	M12	2,2	5,7
RS16A4E149-157	RS16A4N149-157	149	157	25	110	40	197	249	M12	2,3	7
RS16A4E157-165	RS16A4N157-165	157	165	25	110	40	205	255	M12	2,3	7
RS16A4E164-172	RS16A4N164-172	164	172	25	110	40	212	262	M12	2,4	7

VITON®	Article No. FKM (Delivery time on request)	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
Delivery time on request	RS16A4F36-39	36	39	25	60	15	66	104	M8	0,4	0,6
	RS16A4F39-43	39	43	25	60	15	66	104	M8	0,4	0,6
	RS16A4F43-47	43	47,5	25	60	15	74	112	M8	0,4	0,6
	RS16A4F47-52	47,5	52,5	25	60	15	74	112	M8	0,4	0,6
	RS16A4F52-58	52,5	58	25	75	25	85	125	M8	0,6	0,9
	RS16A4F58-64	58	64	25	75	25	85	125	M8	0,6	0,9
	RS16A4F64-72	64	72	25	95	30	108	164	M10	1	2,2
	RS16A4F72-80	72	80	25	95	30	108	164	M10	1	2,2
	RS16A4F80-88	80	88	25	95	30	124	170	M10	1	2,2
	RS16A4F88-96	88	96	25	95	30	124	170	M10	1	2,2
	RS16A4F97-105	97	105	25	95	30	141	187	M10	1,1	3,3
	RS16A4F104-112	104	112	25	95	30	141	187	M10	1,1	3,3
	RS16A4F112-120	112	120	25	95	30	158	202	M10	1,2	3,3
	RS16A4F122-130	122	130	25	95	30	158	202	M10	1,2	3,3
	RS16A4F129-137	129	137	25	110	40	178	230	M12	2,1	5,7
	RS16A4F137-145	137	145	25	110	40	186	238	M12	2,2	5,7
	RS16A4F149-157	149	157	25	110	40	197	249	M12	2,3	7
	RS16A4F157-165	157	165	25	110	40	205	255	M12	2,3	7
	RS16A4RS164-172	164	172	25	110	40	212	262	M12	2,4	7

Please note important guidelines on the cover!

PEWOREP Ø 36 - 172 mm / PN 25 (two closures)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm ³ /pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
2RS16A4E41-52	2RS16A4N41-52	41	52	25	60	15	74	112	M8	0,6	0,6
2RS16A4E52-64	2RS16A4N52-64	52	64	25	75	25	85	125	M8	0,8	0,9
2RS16A4E64-80	2RS16A4N64-80	64	80	25	95	30	108	164	M10	1,3	2,2
2RS16A4E80-96	2RS16A4N80-96	80	96	25	95	30	124	170	M10	1,4	2,2
2RS16A4E96-112	2RS16A4N96-112	96	112	25	95	30	141	187	M10	1,5	2,2
2RS16A4E114-130	2RS16A4N114-130	114	130	25	95	30	158	202	M10	1,8	3,3
2RS16A4E129-145	2RS16A4N129-145	129	145	25	110	40	186	238	M12	2,4	6
2RS16A4E141-157	2RS16A4N141-157	141	157	25	110	40	197	249	M12	2,6	7
2RS16A4E156-172	2RS16A4N156-172	156	172	25	110	40	212	262	M12	2,8	7



Important information:

- Follow the installation and disassembly instructions.
- PN = Working pressure with consideration of the application loads for industrial applications. In case of shipbuilding applications, PN is one PN class below, e.g. PN 25 Industry = PN 16 Shipbuilding.
- PN classes = PN 2.5; PN 6; PN 10; PN 16; PN 25
- Test pressure = PN x 1.5
- The pressure data is given under the precondition that radially rigid steel pipes with a minimum wall thickness are used under static load.
- Use the Technical Manual for other pipe materials.
- Band inserts are necessary for special applications.
- Support sleeves must be used for thermoplastic plastic pipes (PE/PP/PB/PVC/ABS...).

PEWOREP Ø 172 - 745 mm / PN 25 (width ≈ 140 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
140-2R16A4E172-198	140-2R16A4N172-198	172	198	25	140	40	236	262	M12	8	11
140-2R16A4E197-223	140-2R16A4N197-223	197	223	25	140	40	261	287	M12	8	13
140-2R16A4E221-247	140-2R16A4N221-247	221	247	25	140	40	285	311	M12	8	15
140-2R16A4E250-276	140-2R16A4N250-276	250	276	25	140	40	314	340	M12	9	18
142-2R16A4E275-301	142-2R16A4N275-301	275	301	25	142	40	339	365	M12	11	21
142-2R16A4E302-328	142-2R16A4N302-328	302	328	25	142	40	366	392	M12	11	24
142-2R16A4E327-353	142-2R16A4N327-353	327	353	25	142	40	391	417	M12	12	28
146-2R16A4E348-374	146-2R16A4N348-374	348	374	25	146	40	412	438	M16	16	31
146-2R16A4E374-400	146-2R16A4N374-400	374	400	25	146	40	438	464	M16	17	35
146-2R16A4E399-425	146-2R16A4N399-425	399	425	25	146	40	463	489	M16	17	39
146-2R16A4E425-451	146-2R16A4N425-451	425	451	25	146	40	489	515	M16	18	43
146-2R16A4E447-473	146-2R16A4N447-473	447	473	25	146	40	511	537	M16	19	47
146-2R16A4E475-501	146-2R16A4N475-501	475	501	25	146	40	539	565	M16	19	51
146-2R16A4E490-516	146-2R16A4N490-516	490	516	25	146	40	554	580	M16	20	54
146-2R16A4E507-533	146-2R16A4N507-533	507	533	25	146	40	575	603	M16	20	59
146-2R16A4E533-559	146-2R16A4N533-559	533	559	25	146	40	601	629	M16	21	64
146-2R16A4E558-584	146-2R16A4N558-584	558	584	25	146	40	626	654	M16	21	69
146-2R16A4E587-613	146-2R16A4N587-613	587	613	25	146	40	655	683	M16	22	75
146-2R16A4E615-641	146-2R16A4N615-641	615	641	25	146	40	683	711	M16	23	81
146-2R16A4E635-661	146-2R16A4N635-661	635	661	25	146	40	703	731	M16	23	86
146-2R16A4E663-689	146-2R16A4N663-689	663	689	25	146	40	731	759	M16	24	92
146-2R16A4E687-713	146-2R16A4N687-713	687	713	25	146	40	755	783	M16	25	98
146-2R16A4E704-730	146-2R16A4N704-730	704	730	25	146	40	772	800	M16	25	102
146-2R16A4E719-745	146-2R16A4N719-745	719	745	25	146	40	787	815	M16	25	106

Please note important guidelines on the cover!

PEWOREP Ø 250 - 745 mm / PN 25 (width ≈ 210 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
210-2R16A4E250-276	210-2R16A4N250-276	250	276	25	210	80	333	366	M16	13	27
212-2R16A4E275-301	212-2R16A4N275-301	275	301	25	212	80	358	391	M16	16	32
212-2R16A4E302-328	212-2R16A4N302-328	302	328	25	212	80	385	418	M16	17	37
212-2R16A4E327-353	212-2R16A4N327-353	327	353	25	212	80	410	443	M16	18	41
216-2R16A4E348-374	216-2R16A4N348-374	348	374	25	216	80	431	464	M16	24	47
216-2R16A4E374-400	216-2R16A4N374-400	374	400	25	216	80	457	490	M16	25	52
216-2R16A4E399-425	216-2R16A4N399-425	399	425	25	216	80	482	515	M16	27	58
216-2R16A4E425-451	216-2R16A4N425-451	425	451	25	216	80	508	541	M16	27	64
216-2R16A4E447-473	216-2R16A4N447-473	447	473	25	216	80	530	563	M16	28	70
216-2R16A4E475-501	216-2R16A4N475-501	475	501	25	216	80	558	591	M16	29	77
216-2R16A4E490-516	216-2R16A4N490-516	490	516	25	216	80	573	606	M16	30	81
216-2R16A4E507-533	216-2R16A4N507-533	507	533	25	216	80	590	623	M16	30	88
216-2R16A4E533-559	216-2R16A4N533-559	533	559	25	216	80	616	649	M16	31	95
216-2R16A4E558-584	216-2R16A4N558-584	558	584	25	216	80	641	674	M16	32	103
216-2R16A4E587-613	216-2R16A4N587-613	587	613	25	216	80	670	703	M16	33	112
216-2R16A4E615-641	216-2R16A4N615-641	615	641	25	216	80	698	731	M16	34	121
216-2R16A4E635-661	216-2R16A4N635-661	635	661	25	216	80	718	751	M16	35	128
216-2R16A4E663-689	216-2R16A4N663-689	663	689	25	216	80	746	779	M16	36	138
216-2R16A4E687-713	216-2R16A4N687-713	687	713	25	216	80	770	803	M16	37	147
216-2R16A4E704-730	216-2R16A4N704-730	704	730	25	216	80	787	820	M16	38	153
216-2R16A4E719-745	216-2R16A4N719-745	719	745	25	216	80	802	835	M16	39	159

Important information:

- Follow the installation and disassembly instructions.
- PN = Working pressure with consideration of the application loads for industrial applications. In case of shipbuilding applications, PN is one PN class below, e.g. PN 25 Industry = PN 16 Shipbuilding.
- PN classes = PN 2.5; PN 6; PN 10; PN 16; PN 25
- Test pressure = PN x 1.5
- The pressure data is given under the precondition that radially rigid steel pipes with a minimum wall thickness are used under static load.
- Use the Technical Manual for other pipe materials.
- Band inserts are necessary for special applications.
- Support sleeves must be used for thermoplastic plastic pipes (PE/PP/PB/PVC/ABS...).

PEWOREP Ø 250 - 745 mm / PN 25 (width ≈ 290 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
285-2R16A4E250-276	285-2R16A4N250-276	250	276	25	285	100	333	366	M16	18	37
287-2R16A4E275-301	287-2R16A4N275-301	275	301	25	287	100	358	391	M16	22	43
287-2R16A4E302-328	287-2R16A4N302-328	302	328	25	287	100	385	418	M16	23	49
287-2R16A4E327-353	287-2R16A4N327-353	327	353	25	287	100	410	443	M16	23	55
291-2R16A4E348-374	291-2R16A4N348-374	348	374	25	291	100	431	464	M16	32	62
291-2R16A4E374-400	291-2R16A4N374-400	374	400	25	291	100	457	490	M16	34	70
291-2R16A4E399-425	291-2R16A4N399-425	399	425	25	291	100	482	515	M16	35	77
291-2R16A4E425-451	291-2R16A4N425-451	425	451	25	291	100	508	541	M16	37	86
291-2R16A4E447-473	291-2R16A4N447-473	447	473	25	291	100	530	563	M16	37	93
291-2R16A4E475-501	291-2R16A4N475-501	475	501	25	291	100	558	591	M16	39	103
291-2R16A4E490-516	291-2R16A4N490-516	490	516	25	291	100	573	606	M16	39	108
291-2R16A4E507-533	291-2R16A4N507-533	507	533	25	291	100	590	623	M16	40	117
291-2R16A4E533-559	291-2R16A4N533-559	533	559	25	291	100	616	649	M16	42	127
291-2R16A4E558-584	291-2R16A4N558-584	558	584	25	291	100	641	674	M16	43	137
291-2R16A4E587-613	291-2R16A4N587-613	587	613	25	291	100	670	703	M16	44	150
291-2R16A4E615-641	291-2R16A4N615-641	615	641	25	291	100	698	731	M16	46	162
291-2R16A4E635-661	291-2R16A4N635-661	635	661	25	291	100	718	751	M16	47	171
291-2R16A4E663-689	291-2R16A4N663-689	663	689	25	291	100	746	779	M16	48	184
291-2R16A4E687-713	291-2R16A4N687-713	687	713	25	291	100	770	803	M16	49	196
291-2R16A4E704-730	291-2R16A4N704-730	704	730	25	291	100	787	820	M16	50	204
291-2R16A4E719-745	291-2R16A4N719-745	719	745	25	291	100	802	835	M16	51	212

Please note important guidelines on the cover!

PEWOREP Ø 250 - 745 mm / PN 25 (width ≈ 430 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
425-2R16A4E250-276	425-2R16A4N250-276	250	276	25	425	200	333	366	M16	26	55
427-2R16A4E275-301	427-2R16A4N275-301	275	301	25	427	200	358	391	M16	33	64
427-2R16A4E302-328	427-2R16A4N302-328	302	328	25	427	200	385	418	M16	34	73
427-2R16A4E327-353	427-2R16A4N327-353	327	353	25	427	200	410	443	M16	35	83
431-2R16A4E348-374	431-2R16A4N348-374	348	374	25	431	200	431	464	M16	48	94
431-2R16A4E374-400	431-2R16A4N374-400	374	400	25	431	200	457	490	M16	50	105
431-2R16A4E399-425	431-2R16A4N399-425	399	425	25	431	200	482	515	M16	52	116
431-2R16A4E425-451	431-2R16A4N425-451	425	451	25	431	200	508	541	M16	55	129
431-2R16A4E447-473	431-2R16A4N447-473	447	473	25	431	200	530	563	M16	56	140
431-2R16A4E475-501	431-2R16A4N475-501	475	501	25	431	200	558	591	M16	58	154
431-2R16A4E490-516	431-2R16A4N490-516	490	516	25	431	200	573	606	M16	59	163
431-2R16A4E507-533	431-2R16A4N507-533	507	533	25	431	200	590	623	M16	60	176
431-2R16A4E533-559	431-2R16A4N533-559	533	559	25	431	200	616	649	M16	62	191
431-2R16A4E558-584	431-2R16A4N558-584	558	584	25	431	200	641	674	M16	65	206
431-2R16A4E587-613	431-2R16A4N587-613	587	613	25	431	200	670	703	M16	66	224
431-2R16A4E615-641	431-2R16A4N615-641	615	641	25	431	200	698	731	M16	68	243
431-2R16A4E635-661	431-2R16A4N635-661	635	661	25	431	200	718	751	M16	70	257
431-2R16A4E663-689	431-2R16A4N663-689	663	689	25	431	200	746	779	M16	72	276
431-2R16A4E687-713	431-2R16A4N687-713	687	713	25	431	200	770	803	M16	74	294
431-2R16A4E704-730	431-2R16A4N704-730	704	730	25	431	200	787	820	M16	76	307
431-2R16A4E719-745	431-2R16A4N719-745	719	745	25	431	200	802	835	M16	76	318

Important information:

- Follow the installation and disassembly instructions.
- PN = Working pressure with consideration of the application loads for industrial applications. In case of shipbuilding applications, PN is one PN class below, e.g. PN 25 Industry = PN 16 Shipbuilding.
- PN classes = PN 2.5; PN 6; PN 10; PN 16; PN 25
- Test pressure = PN x 1.5
- The pressure data is given under the precondition that radially rigid steel pipes with a minimum wall thickness are used under static load.
- Use the Technical Manual for other pipe materials.
- Band inserts are necessary for special applications.
- Support sleeves must be used for thermoplastic plastic pipes (PE/PP/PB/PVC/ABS...).

PEWOREP Ø 172 - 745 mm / PN 16 (width ≈ 140 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm ³ /pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
138-2R10A4E172-198	138-2R10A4N172-198	172	198	16	138	40	236	262	M12	6	11
138-2R10A4E197-223	138-2R10A4N197-223	197	223	16	138	40	261	287	M12	7	13
138-2R10A4E221-247	138-2R10A4N221-247	221	247	16	138	40	285	311	M12	7	15
138-2R10A4E250-276	138-2R10A4N250-276	250	276	16	138	40	314	340	M12	7	18
140-2R10A4E275-301	140-2R10A4N275-301	275	301	16	140	40	339	365	M12	9	21
140-2R10A4E302-328	140-2R10A4N302-328	302	328	16	140	40	366	392	M12	9	24
140-2R10A4E327-353	140-2R10A4N327-353	327	353	16	140	40	391	417	M12	10	27
142-2R10A4E348-374	142-2R10A4N348-374	348	374	16	142	40	412	438	M12	12	30
142-2R10A4E374-400	142-2R10A4N374-400	374	400	16	142	40	438	464	M12	12	34
142-2R10A4E399-425	142-2R10A4N399-425	399	425	16	142	40	463	489	M12	13	38
142-2R10A4E425-451	142-2R10A4N425-451	425	451	16	142	40	489	515	M12	13	42
142-2R10A4E447-473	142-2R10A4N447-473	447	473	16	142	40	511	537	M12	14	45
142-2R10A4E475-501	142-2R10A4N475-501	475	501	16	142	40	539	565	M12	14	50
142-2R10A4E490-516	142-2R10A4N490-516	490	516	16	142	40	554	580	M12	14	53
142-2R10A4E507-533	142-2R10A4N507-533	507	533	16	142	40	575	603	M12	15	57
142-2R10A4E533-559	142-2R10A4N533-559	533	559	16	142	40	601	629	M12	15	62
142-2R10A4E558-584	142-2R10A4N558-584	558	584	16	142	40	626	654	M12	15	67
142-2R10A4E587-613	142-2R10A4N587-613	587	613	16	142	40	655	683	M12	16	73
142-2R10A4E615-641	142-2R10A4N615-641	615	641	16	142	40	683	711	M12	16	79
142-2R10A4E635-661	142-2R10A4N635-661	635	661	16	142	40	703	731	M12	17	83
142-2R10A4E663-689	142-2R10A4N663-689	663	689	16	142	40	731	759	M12	17	90
142-2R10A4E687-713	142-2R10A4N687-713	687	713	16	142	40	755	783	M12	17	95
142-2R10A4E704-730	142-2R10A4N704-730	704	730	16	142	40	772	800	M12	18	100
142-2R10A4E719-745	142-2R10A4N719-745	719	745	16	142	40	787	815	M12	18	103

Please note important guidelines on the cover!

PEWOREP Ø 250 - 745 mm / PN 16 (width ≈ 210 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
208-2R10A4E250-276	208-2R10A4N250-276	250	276	16	208	80	333	366	M16	11	27
210-2R10A4E275-301	210-2R10A4N275-301	275	301	16	210	80	358	391	M16	14	32
210-2R10A4E302-328	210-2R10A4N302-328	302	328	16	210	80	385	418	M16	15	37
210-2R10A4E327-353	210-2R10A4N327-353	327	353	16	210	80	410	443	M16	15	41
212-2R10A4E348-374	212-2R10A4N348-374	348	374	16	212	80	431	464	M16	18	47
212-2R10A4E374-400	212-2R10A4N374-400	374	400	16	212	80	457	490	M16	19	52
212-2R10A4E399-425	212-2R10A4N399-425	399	425	16	212	80	482	515	M16	19	58
212-2R10A4E425-451	212-2R10A4N425-451	425	451	16	212	80	508	541	M16	20	64
212-2R10A4E447-473	212-2R10A4N447-473	447	473	16	212	80	530	563	M16	20	70
212-2R10A4E475-501	212-2R10A4N475-501	475	501	16	212	80	558	591	M16	22	77
212-2R10A4E490-516	212-2R10A4N490-516	490	516	16	212	80	573	606	M16	21	81
212-2R10A4E507-533	212-2R10A4N507-533	507	533	16	212	80	590	623	M16	22	88
212-2R10A4E533-559	212-2R10A4N533-559	533	559	16	212	80	616	649	M16	23	95
212-2R10A4E558-584	212-2R10A4N558-584	558	584	16	212	80	641	674	M16	24	103
212-2R10A4E587-613	212-2R10A4N587-613	587	613	16	212	80	670	703	M16	24	112
212-2R10A4E615-641	212-2R10A4N615-641	615	641	16	212	80	698	731	M16	25	121
212-2R10A4E635-661	212-2R10A4N635-661	635	661	16	212	80	718	751	M16	25	128
212-2R10A4E663-689	212-2R10A4N663-689	663	689	16	212	80	746	779	M16	26	138
212-2R10A4E687-713	212-2R10A4N687-713	687	713	16	212	80	770	803	M16	26	147
212-2R10A4E704-730	212-2R10A4N704-730	704	730	16	212	80	787	820	M16	27	153
212-2R10A4E719-745	212-2R10A4N719-745	719	745	16	212	80	802	835	M16	27	159

Important information:

- Follow the installation and disassembly instructions.
- PN = Working pressure with consideration of the application loads for industrial applications. In case of shipbuilding applications, PN is one PN class below, e.g. PN 25 Industry = PN 16 Shipbuilding.
- PN classes = PN 2.5; PN 6; PN 10; PN 16; PN 25
- Test pressure = PN x 1.5
- The pressure data is given under the precondition that radially rigid steel pipes with a minimum wall thickness are used under static load.
- Use the Technical Manual for other pipe materials.
- Band inserts are necessary for special applications.
- Support sleeves must be used for thermoplastic plastic pipes (PE/PP/PB/PVC/ABS...).

PEWOREP Ø 250 - 745 mm / PN 16 (width ≈ 290 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
283-2R10A4E250-276	283-2R10A4N250-276	250	276	16	283	100	333	366	M16	15	37
285-2R10A4E275-301	285-2R10A4N275-301	275	301	16	285	100	358	391	M16	19	43
285-2R10A4E302-328	285-2R10A4N302-328	302	328	16	285	100	385	418	M16	19	49
285-2R10A4E327-353	285-2R10A4N327-353	327	353	16	285	100	410	443	M16	19	55
287-2R10A4E348-374	287-2R10A4N348-374	348	374	16	287	100	431	464	M16	24	62
287-2R10A4E374-400	287-2R10A4N374-400	374	400	16	287	100	457	490	M16	25	70
287-2R10A4E399-425	287-2R10A4N399-425	399	425	16	287	100	482	515	M16	26	77
287-2R10A4E425-451	287-2R10A4N425-451	425	451	16	287	100	508	541	M16	27	86
287-2R10A4E447-473	287-2R10A4N447-473	447	473	16	287	100	530	563	M16	27	93
287-2R10A4E475-501	287-2R10A4N475-501	475	501	16	287	100	558	591	M16	28	103
287-2R10A4E490-516	287-2R10A4N490-516	490	516	16	287	100	573	606	M16	29	108
287-2R10A4E507-533	287-2R10A4N507-533	507	533	16	287	100	590	623	M16	29	117
287-2R10A4E533-559	287-2R10A4N533-559	533	559	16	287	100	616	649	M16	30	127
287-2R10A4E558-584	287-2R10A4N558-584	558	584	16	287	100	641	674	M16	31	137
287-2R10A4E587-613	287-2R10A4N587-613	587	613	16	287	100	670	703	M16	32	150
287-2R10A4E615-641	287-2R10A4N615-641	615	641	16	287	100	698	731	M16	33	162
287-2R10A4E635-661	287-2R10A4N635-661	635	661	16	287	100	718	751	M16	33	171
287-2R10A4E663-689	287-2R10A4N663-689	663	689	16	287	100	746	779	M16	34	184
287-2R10A4E687-713	287-2R10A4N687-713	687	713	16	287	100	770	803	M16	35	196
287-2R10A4E704-730	287-2R10A4N704-730	704	730	16	287	100	787	820	M16	36	204
287-2R10A4E719-745	287-2R10A4N719-745	719	745	16	287	100	802	835	M16	36	212

Please note important guidelines on the cover!

PEWOREP Ø 250 - 745 mm / PN 16 (width ≈ 430 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
423-2R10A4E250-276	423-2R10A4N250-276	250	276	16	423	200	333	366	M16	22	55
425-2R10A4E275-301	425-2R10A4N275-301	275	301	16	425	200	358	391	M16	27	64
425-2R10A4E302-328	425-2R10A4N302-328	302	328	16	425	200	385	418	M16	28	73
425-2R10A4E327-353	425-2R10A4N327-353	327	353	16	425	200	410	443	M16	29	83
427-2R10A4E348-374	427-2R10A4N348-374	348	374	16	427	200	431	464	M16	36	94
427-2R10A4E374-400	427-2R10A4N374-400	374	400	16	427	200	457	490	M16	37	105
427-2R10A4E399-425	427-2R10A4N399-425	399	425	16	427	200	482	515	M16	39	116
427-2R10A4E425-451	427-2R10A4N425-451	425	451	16	427	200	508	541	M16	40	129
427-2R10A4E447-473	427-2R10A4N447-473	447	473	16	427	200	530	563	M16	41	140
427-2R10A4E475-501	427-2R10A4N475-501	475	501	16	427	200	558	591	M16	42	154
427-2R10A4E490-516	427-2R10A4N490-516	490	516	16	427	200	573	606	M16	43	163
427-2R10A4E507-533	427-2R10A4N507-533	507	533	16	427	200	590	623	M16	44	176
427-2R10A4E533-559	427-2R10A4N533-559	533	559	16	427	200	616	649	M16	45	191
427-2R10A4E558-584	427-2R10A4N558-584	558	584	16	427	200	641	674	M16	46	206
427-2R10A4E587-613	427-2R10A4N587-613	587	613	16	427	200	670	703	M16	48	224
427-2R10A4E615-641	427-2R10A4N615-641	615	641	16	427	200	698	731	M16	49	243
427-2R10A4E635-661	427-2R10A4N635-661	635	661	16	427	200	718	751	M16	50	257
427-2R10A4E663-689	427-2R10A4N663-689	663	689	16	427	200	746	779	M16	51	276
427-2R10A4E687-713	427-2R10A4N687-713	687	713	16	427	200	770	803	M16	52	294
427-2R10A4E704-730	427-2R10A4N704-730	704	730	16	427	200	787	820	M16	53	307
427-2R10A4E719-745	427-2R10A4N719-745	719	745	16	427	200	802	835	M16	54	318

Important information:

- Follow the installation and disassembly instructions.
- PN = Working pressure with consideration of the application loads for industrial applications. In case of shipbuilding applications, PN is one PN class below, e.g. PN 25 Industry = PN 16 Shipbuilding.
- PN classes = PN 2.5; PN 6; PN 10; PN 16; PN 25
- Test pressure = PN x 1.5
- The pressure data is given under the precondition that radially rigid steel pipes with a minimum wall thickness are used under static load.
- Use the Technical Manual for other pipe materials.
- Band inserts are necessary for special applications.
- Support sleeves must be used for thermoplastic plastic pipes (PE/PP/PB/PVC/ABS...).

PEWOREP Ø 264 - 745 mm / PN 10 (width ≈ 140 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
138-2R6A4E264-290	138-2R6A4N264-290	264	290	10	138	40	328	354	M12	7	20
138-2R6A4E275-301	138-2R6A4N275-301	275	301	10	138	40	339	365	M12	7	21
138-2R6A4E302-328	138-2R6A4N302-328	302	328	10	138	40	366	392	M12	7	24
138-2R6A4E327-353	138-2R6A4N327-353	327	353	10	138	40	391	417	M12	8	27
138-2R6A4E348-374	138-2R6A4N348-374	348	374	10	138	40	412	438	M12	8	30
138-2R6A4E374-400	138-2R6A4N374-400	374	400	10	138	40	438	464	M12	8	33
138-2R6A4E399-425	138-2R6A4N399-425	399	425	10	138	40	463	489	M12	8	37
138-2R6A4E425-451	138-2R6A4N425-451	425	451	10	138	40	489	515	M12	8	41
138-2R6A4E447-473	138-2R6A4N447-473	447	473	10	138	40	511	537	M12	9	44
138-2R6A4E475-501	138-2R6A4N475-501	475	501	10	138	40	539	565	M12	9	49
138-2R6A4E490-516	138-2R6A4N490-516	490	516	10	138	40	554	580	M12	9	51
140-2R6A4E507-533	140-2R6A4N507-533	507	533	10	140	40	575	603	M12	12	56
140-2R6A4E533-559	140-2R6A4N533-559	533	559	10	140	40	601	629	M12	12	61
140-2R6A4E558-584	140-2R6A4N558-584	558	584	10	140	40	626	654	M12	12	66
140-2R6A4E587-613	140-2R6A4N587-613	587	613	10	140	40	655	683	M12	13	72
140-2R6A4E615-641	140-2R6A4N615-641	615	641	10	140	40	683	711	M12	13	78
140-2R6A4E635-661	140-2R6A4N635-661	635	661	10	140	40	703	731	M12	13	82
140-2R6A4E663-689	140-2R6A4N663-689	663	689	10	140	40	731	759	M12	14	89
140-2R6A4E687-713	140-2R6A4N687-713	687	713	10	140	40	755	783	M12	14	94
140-2R6A4E704-730	140-2R6A4N704-730	704	730	10	140	40	772	800	M12	14	98
140-2R6A4E719-745	140-2R6A4N719-745	719	745	10	140	40	787	815	M12	14	102

PEWOREP Ø 264 - 745 mm / PN 10 (width ≈ 210 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
208-2R6A4E264-290	208-2R6A4N264-290	264	290	10	208	80	347	380	M16	11	27
208-2R6A4E275-301	208-2R6A4N275-301	275	301	10	208	80	358	391	M16	11	32
208-2R6A4E302-328	208-2R6A4N302-328	302	328	10	208	80	385	418	M16	11	37
208-2R6A4E327-353	208-2R6A4N327-353	327	353	10	208	80	410	443	M16	11	41
208-2R6A4E348-374	208-2R6A4N348-374	348	374	10	208	80	431	464	M16	12	47
208-2R6A4E374-400	208-2R6A4N374-400	374	400	10	208	80	457	490	M16	13	52
208-2R6A4E399-425	208-2R6A4N399-425	399	425	10	208	80	482	515	M16	12	58
208-2R6A4E425-451	208-2R6A4N425-451	425	451	10	208	80	508	541	M16	13	64
208-2R6A4E447-473	208-2R6A4N447-473	447	473	10	208	80	530	563	M16	13	70
208-2R6A4E475-501	208-2R6A4N475-501	475	501	10	208	80	558	591	M16	13	77
208-2R6A4E490-516	208-2R6A4N490-516	490	516	10	208	80	573	606	M16	13	81
210-2R6A4E507-533	210-2R6A4N507-533	507	533	10	210	80	590	623	M16	18	88
210-2R6A4E533-559	210-2R6A4N533-559	533	559	10	210	80	616	649	M16	18	95
210-2R6A4E558-584	210-2R6A4N558-584	558	584	10	210	80	641	674	M16	19	103
210-2R6A4E587-613	210-2R6A4N587-613	587	613	10	210	80	670	703	M16	19	112
210-2R6A4E615-641	210-2R6A4N615-641	615	641	10	210	80	698	731	M16	20	121
210-2R6A4E635-661	210-2R6A4N635-661	635	661	10	210	80	718	751	M16	21	128
210-2R6A4E663-689	210-2R6A4N663-689	663	689	10	210	80	746	779	M16	21	138
210-2R6A4E687-713	210-2R6A4N687-713	687	713	10	210	80	770	803	M16	21	147
210-2R6A4E704-730	210-2R6A4N704-730	704	730	10	210	80	787	820	M16	21	153
210-2R6A4E719-745	210-2R6A4N719-745	719	745	10	210	80	802	835	M16	22	159

Please note important guidelines on the cover!

PEWOREP Ø 264 - 745 mm / PN 10 (width ≈ 290 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
283-2R6A4E264-290	283-2R6A4N264-290	264	290	10	283	100	347	380	M16	14	37
283-2R6A4E275-301	283-2R6A4N275-301	275	301	10	283	100	358	391	M16	14	43
283-2R6A4E302-328	283-2R6A4N302-328	302	328	10	283	100	385	418	M16	15	49
283-2R6A4E327-353	283-2R6A4N327-353	327	353	10	283	100	410	443	M16	15	55
283-2R6A4E348-374	283-2R6A4N348-374	348	374	10	283	100	431	464	M16	16	62
283-2R6A4E374-400	283-2R6A4N374-400	374	400	10	283	100	457	490	M16	17	70
283-2R6A4E399-425	283-2R6A4N399-425	399	425	10	283	100	482	515	M16	16	77
283-2R6A4E425-451	283-2R6A4N425-451	425	451	10	283	100	508	541	M16	17	86
283-2R6A4E447-473	283-2R6A4N447-473	447	473	10	283	100	530	563	M16	17	93
283-2R6A4E475-501	283-2R6A4N475-501	475	501	10	283	100	558	591	M16	18	103
283-2R6A4E490-516	283-2R6A4N490-516	490	516	10	283	100	573	606	M16	18	108
285-2R6A4E507-533	285-2R6A4N507-533	507	533	10	285	100	590	623	M16	24	117
285-2R6A4E533-559	285-2R6A4N533-559	533	559	10	285	100	616	649	M16	24	127
285-2R6A4E558-584	285-2R6A4N558-584	558	584	10	285	100	641	674	M16	25	137
285-2R6A4E587-613	285-2R6A4N587-613	587	613	10	285	100	670	703	M16	26	150
285-2R6A4E615-641	285-2R6A4N615-641	615	641	10	285	100	698	731	M16	26	162
285-2R6A4E635-661	285-2R6A4N635-661	635	661	10	285	100	718	751	M16	27	171
285-2R6A4E663-689	285-2R6A4N663-689	663	689	10	285	100	746	779	M16	28	184
285-2R6A4E687-713	285-2R6A4N687-713	687	713	10	285	100	770	803	M16	29	196
285-2R6A4E704-730	285-2R6A4N704-730	704	730	10	285	100	787	820	M16	29	204
285-2R6A4E719-745	285-2R6A4N719-745	719	745	10	285	100	802	835	M16	29	212

PEWOREP Ø 264 - 745 mm / PN 10 (width ≈ 430 mm)

Article No. EPDM	Article No. NBR	OD Ø min.	OD Ø max.	Pressure PN	Coupling dimensions not fitted					Weight ≈ kg/pcs.	Volume ≈ dm³/pcs.
					≈ B	c _{max}	≈ d	≈ H	M		
423-2R6A4E264-290	423-2R6A4N264-290	264	290	10	423	200	347	380	M16	21	54
423-2R6A4E275-301	423-2R6A4N275-301	275	301	10	423	200	358	391	M16	22	64
423-2R6A4E302-328	423-2R6A4N302-328	302	328	10	423	200	385	418	M16	22	74
423-2R6A4E327-353	423-2R6A4N327-353	327	353	10	423	200	410	443	M16	23	82
423-2R6A4E348-374	423-2R6A4N348-374	348	374	10	423	200	431	464	M16	23	94
423-2R6A4E374-400	423-2R6A4N374-400	374	400	10	423	200	457	490	M16	25	104
423-2R6A4E399-425	423-2R6A4N399-425	399	425	10	423	200	482	515	M16	25	116
423-2R6A4E425-451	423-2R6A4N425-451	425	451	10	423	200	508	541	M16	25	128
423-2R6A4E447-473	423-2R6A4N447-473	447	473	10	423	200	530	563	M16	26	140
423-2R6A4E475-501	423-2R6A4N475-501	475	501	10	423	200	558	591	M16	26	154
423-2R6A4E490-516	423-2R6A4N490-516	490	516	10	423	200	573	606	M16	27	162
425-2R6A4E507-533	425-2R6A4N507-533	507	533	10	425	200	590	623	M16	36	176
425-2R6A4E533-559	425-2R6A4N533-559	533	559	10	425	200	616	649	M16	37	190
425-2R6A4E558-584	425-2R6A4N558-584	558	584	10	425	200	641	674	M16	37	206
425-2R6A4E587-613	425-2R6A4N587-613	587	613	10	425	200	670	703	M16	38	224
425-2R6A4E615-641	425-2R6A4N615-641	615	641	10	425	200	698	731	M16	40	242
425-2R6A4E635-661	425-2R6A4N635-661	635	661	10	425	200	718	751	M16	40	256
425-2R6A4E663-689	425-2R6A4N663-689	663	689	10	425	200	746	779	M16	41	276
425-2R6A4E687-713	425-2R6A4N687-713	687	713	10	425	200	770	803	M16	43	294
425-2R6A4E704-730	425-2R6A4N704-730	704	730	10	425	200	787	820	M16	43	306
425-2R6A4E719-745	425-2R6A4N719-745	719	745	10	425	200	802	835	M16	43	318

Please note important guidelines on the cover!

MONTAGEANLEITUNG / FITTING INSTRUCTIONS

PEWOG RIP / PEWOCOMBIGRIP / PEWOPLASTGRIP / PEWOFLEX

Vorbereitungen / Preparations

-
-
-
-
- Gewährleistung / warranty
Nur in Verbindung mit PEWOBAR Stützhülsen
Only in conjunction with PEWOBAR support sleeves
- UNI COUPLING
CGS16A4E108-115

Ø 108 115	EPDM	45 Nm 33,1 ft.lb	PN16 232 psi	35 bar 507 psi
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COMPLETE STAINLESS STEEL AISI 316
MADE IN HOLLAND, INTERNATIONAL PATENTS

<PLASTIC PULL OUT RESISTANT METAL>

INSTRUCTIONS 0-10 MM Ø1-Ø2 MAX. 3 MM
- C_{max} ≥ 5 mm

Montage der Kupplung / Installation of the coupling

-
- max. 2 x 360°
- max. 2 x 360°

SCHRAUBEN ANZIEHEN
1. ABWECHSELND UND GLEICHMÄßIG
2. BIS ZUM ANGEgebenEN DREHMOMENT
3. MEHRFACHS WECHSELSEITIG
DREHMOMENT PRÜFEN

1. ALTERNATELY AND EVENLY
2. TILL RIGHT TORQUE IS REACHED
3. RECHECK TORQUE
MULTIPLE TIMES

UNI COUPLING
GS16A4E112-120

Ø 112 120	EPDM	45 Nm 33,1 ft.lb	PN16 232 psi	35 bar 507 psi
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COMPLETE STAINLESS STEEL AISI 316
MADE IN HOLLAND, INTERNATIONAL PATENTS

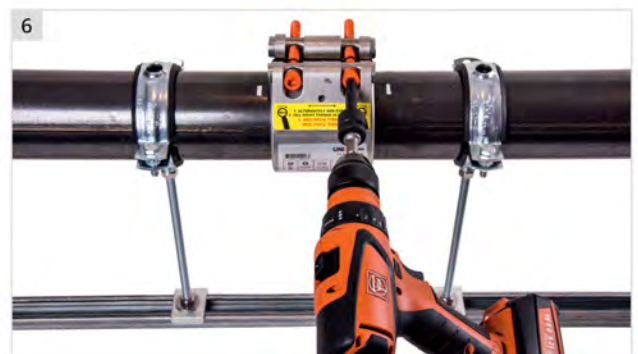
<METAL PULL OUT RESISTANT METAL>

INSTRUCTIONS 0-10 MM Ø1-Ø2 MAX. 3 MM

max. 2 x 360°

45 Nm
22,1 ft.lb
- 1 4. Disassembly instructions
2 2. Preparations
3 3. Fit the coupling

PEWOREP



SUPPORT SLEEVES WITH WEDGE

Article No.	PE Pipe size	Length mm
S63X3,6	63 SDR 17	175
S63X5,8-5,1	63 SDR 11	175
S63X8,6	63 SDR 7,4	175

S75X4,3	75 SDR 17	175
S75X6,8-6,5	75 SDR 11	175
S75X10,3	75 SDR 7,4	175

S90X2,7-2,2	90 SDR 41	175
S90X5,4-5,1	90 SDR 17/17,6	175
S90X8,2-7,8	90 SDR 11	175
S90X12,3	90 SDR 7,4	175

S110X6,6-6,3	110 SDR 17/17,6	175
S110X10,0-9,5-9,1	110 SDR 11	175
S110X15,1	110 SDR 7,4	175

S125X3,7-3,1	125 SDR 41	175
S125X7,4-7,1	125 SDR 17/17,6	175
S125X11,4	125 SDR 11	175

S140X12,8	140 SDR 17/17,6	175
S140X8,0	140 SDR 11	175

S160X4,5-3,9	160 SDR 41	200
S160X9,5-9,1	160 SDR 17/17,6	200
S160X14,6	160 SDR 11	200

S180X6,0	180 SDR 33	200
S180X10,7-10,2	180 SDR 17/17,6	200
S180X16,4	180 SDR 11	200

S200X6,9	200 SDR 33	200
S200X11,9-11,4	200 SDR 17/17,6	200
S200X18,2	200 SDR 11	200

**Material: Stainless steel
AISI 304 (1.4301 / A2).**

**Other sizes available
on request.**



Article No.	PE Pipe size	Length mm
S225X6,3-5,5	225 SDR 41	225
S225X13,4-12,8	225 SDR 17/17,6	225
S225X20,5	225 SDR 11	225
S225X16,6	225 SDR 13,6	225

S250X9,6	250 SDR 26	225
S250X14,8-14,2	250 SDR 17/17,6	225
S250X22,7	250 SDR 11	225

S280X8,7	280 SDR 33	225
S280X16,6-15,9	280 SDR 17/17,6	225
S280X25,4	280 SDR 11	225

S315X9,2	315 SDR 34	225
S315X12,4	315 SDR 26	225
S315X17,9	315 SDR 17,6	225
S315X18,7	315 SDR 17	225
S315X28,6	315 SDR 11	225

S355X20,1	355 SDR 17,6	225
S355X32,3	355 SDR 11	225
S355X35,0	355 SDR 10	225
S355X40,0	355 SDR 8,9	225

S400X12,4	400 SDR 32	225
S400X15,4	400 SDR 26	225
S400X20,5	400 SDR 20	225
S400X22,7-23,7	400 SDR 17/17,6	225
S400X36,4	400 SDR 11	225

S450X25,2	450 SDR 17,6	225
S450X26,7	450 SDR 17	225
S450X33,1	450 SDR 13,6	225
S450X40,9	450 SDR 11	225

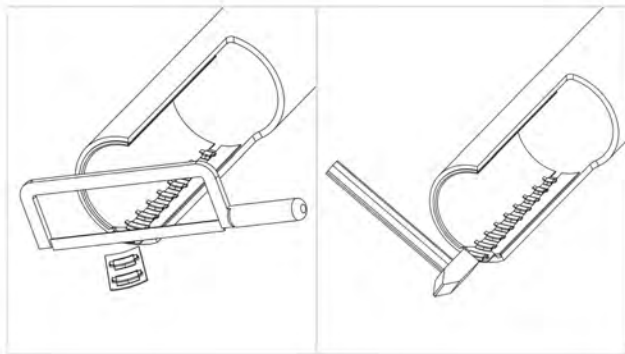
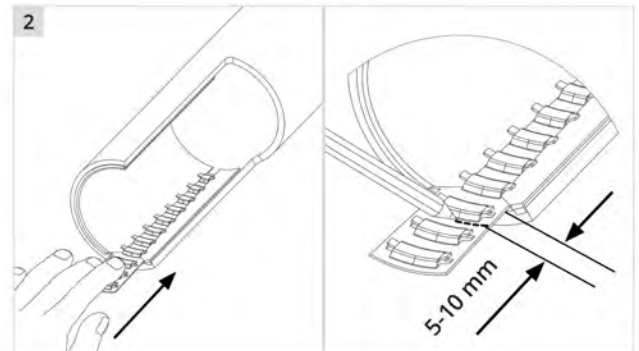
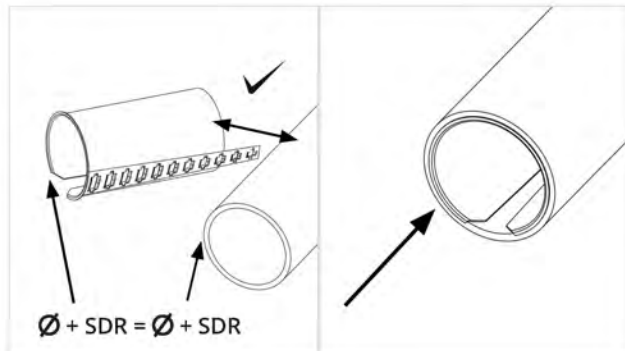
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	560 *	-
	630 *	-
	710 *	-
	800 *	-
	900 *	-
	1000 *	-
	1200 *	-
	1400 *	-
	1600 *	-

* For non-standard dimensions and less than 10 items per size, extra machine costs of € 250 net will be charged.

MONTAGEANLEITUNG / FITTING INSTRUCTIONS

STÜTZHÜLSEN MIT KEIL / SUPPORT SLEEVES WITH WEDGE



SUPPORT SLEEVES WITHOUT WEDGE

Article No.	PE pipe size	Length mm
SE040X2,3	040 SDR 17,6	100
SE040X3,6	040 SDR 11	100
SE050X1,9	050 SDR 26	100
SE050X2,9	050 SDR 17,6/17	100
SE050X3,1	050 SDR 16,6	100
SE050X3,7	050 SDR 13,6	100
SE050X4,6	050 SDR 11	100
SE063X1,8	063 SDR 41	100
SE063X2,0	063 SDR 33	100
SE063X2,5	063 SDR 26	100
SE063X2,9	063 SDR 22	100
SE063X3,0	063 SDR 21	100
SE063X3,6	063 SDR 17,6	100
SE063X3,8	063 SDR 17/17,6	100
SE063X4,7	063 SDR 13,6	100
SE063X5,8	063 SDR 11	100
SE063X7,1	063 SDR 9	100
SE063X8,6	063 SDR 7,4	100
SE075X1,9	075 SDR 41	100
SE075X2,3	075 SDR 33	100
SE075X2,9	075 SDR 26	100
SE075X3,5	075 SDR 22	100
SE075X3,6	075 SDR 21	100
SE075X4,3	075 SDR 17,6/17	100
SE075X4,5	075 SDR 17	100
SE075X5,6	075 SDR 13,6	100
SE075X6,8	075 SDR 11	100
SE075X8,4	075 SDR 9	100
SE075X10,3	075 SDR 7,4	100
SE090X2,2	090 SDR 41	120
SE090X2,8	090 SDR 33	120
SE090X3,5	090 SDR 26	120
SE090X4,1	090 SDR 22	120
SE090X4,3	090 SDR 21	120
SE090X5,2	090 SDR 17,6/17	120
SE090X5,4	090 SDR 17	120
SE090X6,7	090 SDR 13,6	120
SE090X8,2	090 SDR 11	120
SE090X10,1	090 SDR 9	120
SE090X12,0	090 SDR 7,5	120
SE090X12,3	090 SDR 7,4	120
SE110X2,7	110 SDR 41	120
SE110X3,3	110 SDR 34	120
SE110X3,4	110 SDR 33	120
SE110X4,2	110 SDR 26	120
SE110X5,0	110 SDR 22	120
SE110X5,3	110 SDR 21	120
SE110X6,3	110 SDR 17,6/17	120
SE110X6,6	110 SDR 17	120
SE110X8,1	110 SDR 13,6	120
SE110X10,0	110 SDR 11	120
SE110X12,3	110 SDR 9	120
SE110X15,1	110 SDR 7,4	120

MATERIAL: EDELSTAHL AISI 304



Article No.	PE pipe size	Length mm
SE125X3,1	125 SDR 41	120
SE125X3,8	125 SDR 34	120
SE125X3,9	125 SDR 33	120
SE125X4,8	125 SDR 26	120
SE125X5,7	125 SDR 22	120
SE125X6,0	125 SDR 21	120
SE125X7,1	125 SDR 17,6/17	120
SE125X7,4	125 SDR 17	120
SE125X9,2	125 SDR 13,6	120
SE125X11,4	125 SDR 11	120
SE125X14,0	125 SDR 9	120
SE125X17,1	125 SDR 7,4	120
SE140X3,5	140 SDR 41	140
SE140X4,3	140 SDR 33	140
SE140X5,4	140 SDR 26	140
SE140X6,4	140 SDR 22	140
SE140X6,7	140 SDR 21	140
SE140X8,0	140 SDR 17,6/17	140
SE140X8,3	140 SDR 17	140
SE140X10,3	140 SDR 13,6	140
SE140X12,7	140 SDR 11	140
SE140X15,7	140 SDR 9	140
SE140X19,2	140 SDR 7,4	140
SE160X21,9	160 SDR 7,4	140
SE160X4,0	160 SDR 41	140
SE160X4,8	160 SDR 34	140
SE160X4,9	160 SDR 33	140
SE160X6,2	160 SDR 26	140
SE160X7,3	160 SDR 22	140
SE160X7,7	160 SDR 21	140
SE160X9,1	160 SDR 17,6/17	140
SE160X9,5	160 SDR 17	140
SE160X11,8	160 SDR 13,6	140
SE160X14,6	160 SDR 11	140
SE160X17,9	160 SDR 9	140
SE160X21,9	160 SDR 7,4	140
SE180X4,4	180 SDR 41	140
SE180X5,5	180 SDR 33	140
SE180X6,9	180 SDR 26	140
SE180X8,2	180 SDR 22	140
SE180X8,6	180 SDR 21	140
SE180X10,2	180 SDR 17,6	140
SE180X10,7	180 SDR 17	140
SE180X13,3	180 SDR 13,6	140
SE180X16,4	180 SDR 11	140
SE180X20,1	180 SDR 9	140
SE180X24,6	180 SDR 7,4	140
SE200X4,9	200 SDR 41	160
SE200X5,9	200 SDR 34	160
SE200X6,1	200 SDR 33	160
SE200X7,7	200 SDR 26	160
SE200X9,1	200 SDR 22	160
SE200X9,6	200 SDR 21	160
SE200X11,4	200 SDR 17,6	160
SE200X11,9	200 SDR 17	160
SE200X14,7	200 SDR 13,6	160
SE200X18,2	200 SDR 11	160
SE200X22,4	200 SDR 9	160
SE200X27,4	200 SDR 7,4	160

Article No.	PE pipe size	Length mm
SE225X5,5	225 SDR 41	160
SE225X6,9	225 SDR 33	160
SE225X8,6	225 SDR 26	160
SE225X10,3	225 SDR 22	160
SE225X10,8	225 SDR 21	160
SE225X12,8	225 SDR 17,6	160
SE225X13,4	225 SDR 17	160
SE225X16,6	225 SDR 13,6	160
SE225X20,5	225 SDR 11	160
SE225X25,2	225 SDR 9	160
SE225X30,0	225 SDR 7,5	160
SE225X30,8	225 SDR 7,4	160
SE250X6,2	250 SDR 41	160
SE250X7,4	250 SDR 34	160
SE250X7,7	250 SDR 33	160
SE250X9,6	250 SDR 26	160
SE250X11,4	250 SDR 22	160
SE250X11,9	250 SDR 21	160
SE250X14,2	250 SDR 17,6	160
SE250X14,8	250 SDR 17	160
SE250X18,4	250 SDR 13,6	160
SE250X22,7	250 SDR 11	160
SE250X27,9	250 SDR 9	160
SE250X33,3	250 SDR 7,5	160
SE250X34,2	250 SDR 7,4	160
SE280X6,9	280 SDR 41	160
SE280X8,6	280 SDR 33	160
SE280X10,7	280 SDR 26	160
SE280X12,8	280 SDR 22	160
SE280X13,4	280 SDR 21	160
SE280X15,9	280 SDR 17,6	160
SE280X16,6	280 SDR 17	160
SE280X16,9	280 SDR 16,6	160
SE280X20,6	280 SDR 13,6	160
SE280X25,4	280 SDR 11	160
SE280X31,3	280 SDR 9	160
SE280X38,3	280 SDR 7,4	160
SE315X7,7	315 SDR 41	160
SE315X9,3	315 SDR 34	160
SE315X9,7	315 SDR 33	160
SE315X12,1	315 SDR 26	160
SE315X14,4	315 SDR 22	160
SE315X15,0	315 SDR 21	160
SE315X17,9	315 SDR 17,6	160
SE315X18,7	315 SDR 17	160
SE315X23,2	315 SDR 13,6	160
SE315X28,7	315 SDR 11	160
SE315X35,2	315 SDR 9	160
SE315X43,1	315 SDR 7,4	160
SE355X8,7	355 SDR 41	160
SE355X10,9	355 SDR 33	160
SE355X13,6	355 SDR 26	160
SE355X16,2	355 SDR 22	160
SE355X16,9	355 SDR 21	160
SE355X20,1	355 SDR 17,6	160
SE355X21,1	355 SDR 17	160
SE355X21,4	355 SDR 16,6	160
SE355X26,1	355 SDR 13,6	160
SE355X32,2	355 SDR 11	160
SE355X39,7	355 SDR 9	160
SE355X48,5	355 SDR 7,4	160

Nur / only PEWOCOMBIGRIP / PEWOPLASTGRIP

MONTAGEANLEITUNG / INSTALLATION INSTRUCTIONS



ECO-STÜTZHÜLSEN OHNE KEIL / SUPPORT SLEEVES WITHOUT WEDGE



PEWOFIRE / FIRE-RESISTANT HOUSING

„Materials – Components“	(Standard)
Housing	1.4571 / 316 TI
Fire-resistant material	Fire-resistant cladding

Important information:

- Follow the installation and disassembly instructions.
- Fire test according to ISO standard 19921/19922.
- Stainless steel 1.4571 (W5) quality.
- Transforms regular couplings into fire safety couplings.
- Other dimensions on request.

Article No.	OD Ø min.	OD Ø max.	Compatible with coupling range
FA4-21-29	21	29	21-24/26-29
FA4-29-36	29	36	29-32/33-36
FA4-36-43	36	43	36-39/39-43
FA4-43-52	43	52,5	43-47,5/47,5-52,5
FA4-52-64	52,5	64	52,5-58/58-64
FA4-64-80	64	80	64-72/72-80
FA4-80-96	80	96	80-88/88-96
FA4-97-113	97	113	97-105/104-112
FA4-113-130	113	130	112-120/122-130
FA4-130-138	130	138	129-137
FA4-138-146	138	146	137-145
FA4-149-157	149	157	149-157
FA4-157-165	157	165	157-165
FA4-164-172	164	172	164-172



Article No.	OD Ø min.	OD Ø max.	Compatible with coupling range
FA4-172-185	172	185	175-185
FA4-185-198	185	198	188-198
FA4-198-211	198	211	201-211
FA4-210-223	210	223	213-223
FA4-221-234	221	234	224-234
FA4-234-247	234	247	237-247
FA4-247-260	247	260	250-260
FA4-263-276	263	276	266-276
FA4-277-290	277	290	280-290
FA4-288-301	288	301	291-301
FA4-301-314	301	314	304-314
FA4-315-328	315	328	318-328
FA4-327-340	327	340	330-340
FA4-340-353	340	353	343-353
FA4-350-363	350	363	353-363
FA4-361-374	361	374	364-374
FA4-374-387	374	387	377-387
FA4-387-400	387	400	390-400
FA4-400-413	400	413	403-413
FA4-412-425	412	425	415-425



PEWOFIRE – INSTALLATION INSTRUCTIONS



SAFE, FLEXIBLE AND TIGHT



SAFE, FLEXIBLE AND TIGHT



PEWOCLAMP

PEWOCLAMP repair clamps are used for the permanent repair of damaged pipes above and below ground

For water, gas and petrochemical fluid



Application

Following types of damage can be repaired with PEWOBAR repair clamps:



Pipe Longitudinal connection



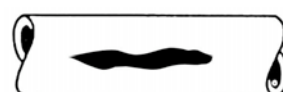
angled pipes



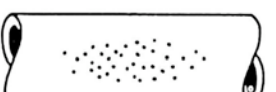
Damage due to broken pipes



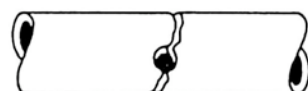
Ends of pipe misaligned



Longitudinal cracks



Pit holes



Cracked pipe after hot tap



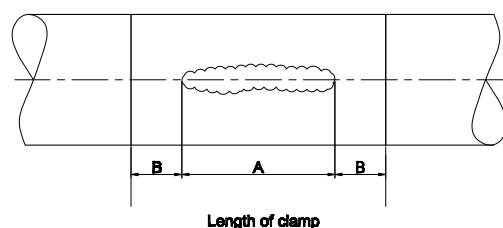
Torn sockets or welded tees



Broken asbestos-cement pipe Coupling



Burst rubber in asbestos-cement pipe coupling



Product length

- The length of the clamp = $A + 2B$, but minimum pipe diameter. A = length of crack or hole, B = a minimum of 75 mm, depending on the length of crack, size of hole or opening and pressure.
- For PVC pipes, the width of the clamps should be 50% longer and bolt torque should be reduced by 50%. We prefer that you consult your PEWOBAR distributor.

Installation conditions

- The maximum allowable distance between two pipe ends should not exceed 10 mm.
- The maximum allowable deflection is 2 degrees.
- The maximum allowable offset should not exceed 3 mm.

PEWOCLAMP

Product ranges

- PEWOCLAMP one Bolt / one Part repair clamps have a working range of 4-11 mm depending on the diameter.
- PEWOCLAMP one Part repair clamps have a working range of 7-11 mm depending on the diameter.
 - Pipe DN 15 up to and including DN 150: 16 bar
 - Pipe DN 175 up to and including DN 300: 10 bar
- PEWOCLAMP two Part repair clamps have a working range of 20-22 mm depending on the diameter.
 - Pipe DN 80 up to and including DN 150: 16 bar
 - Pipe DN 175 up to and including DN 500: 10 bar
- PEWOCLAMP three Part repair clamps have a working range of 30-33 mm depending on the diameter.
 - Pipe DN 250 up to and including DN 500: 10 bar
 - Pipe DN 500 up to and including DN 600: 6 bar
 - Pipe DN 700: 4 bar
 - Pipe DN 800: 2 bar

Material specification

- All metal parts: stainless steel AISI 304 (1.4301) or AISI 316L (1.4404).
- Metal parts have been deburred and are sonar passivated to restore the corrosion resistance to its original state after the welding process.
- Extra strong U-shaped lifter bars.
- Stainless steel, electrolytic zinc plated nuts to prevent galling.
- Wide diameter stainless steel washers.
- Snap Clamp materials deviate from above specifications. Specifications available on the Snap Clamp product page.

Others

- No loose parts that may get lost during installation.
- No special tools required: a simple wrench will do the job.
- Under most circumstances the clamps can be installed without releasing the pressure on the pipe.
- The clamps are separately packed into strong double-rib cartons. For export overseas we use strong, seaworthy crates.
- Repair clamps type PEWOCLAMP are available with additional grip for easier installation in smaller clamp sizes.

The vulcanized bridge plate guarantees a leakproof sealing.



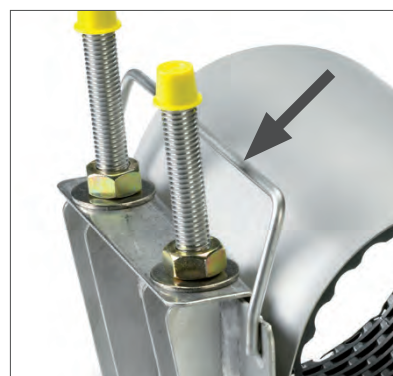
Rubber gasket specification

PEWOBAR repair clamps can be supplied with the following types of rubber depending on the type of repair clamp:

EPDM	- potable water - waste water	max 60 degr. C.
EPDM HT	- potable water - waste water	max 150 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.
VITON	- several chemicals please contact PEWOBAR	max 200 degr. C.

Our rubber gaskets are certified to European standards, such as ACS (France) and WRAS (UK). Please contact us for a detailed list of current certifications

- The rubber is tapered and has a waffle pattern.
- The rubber is 50 degrees shore for rough surfaces.
- Seamless rubber lining for every clamp diameter up to and including 300 mm OD.
- Bridge plate is vulcanized into the rubber gasket.
- Special tape is used to fix the rubber gasket to the stainless steel band. This tape is flexible and reinforced with glassfiber thread to withstand hot and humid conditions and guarantee a long storage capability.



PEWOCLAMP ERS

PEWOCLAMP ERS

stainless steel Emergency Repair Set (ERS)

are used for the permanent repair of damaged pipes

For water, gas and petrochemical fluid



Application

The function of the emergency repair set is to reduce the stock that has to be carried by the water companies and to improve the availability of clamps in case of emergency repairs.

Especially for larger repair clamps that are relatively seldom used, it is convenient to have the combi repair clamp available so that any required clamp with a diameter between 91 and 780 mm can be assembled from these sections in the emergency repair set.

These sections are packed in a wooden crate and each time that two or more sections are used, the used sections can be re-ordered to complete the crate for the next emergency.

These sections, which increase in size, are marked A, B, C, D and E.

Standard section length is 400 mm

Clamp combinations

Use the table on the second page on the right to find the right combination of clamp sections for the range you need. This combination list is also supplied with a complete emergency repair set.

Pressure ratings

The pressure for which the clamp can be used varies with the number of sections, pipe diameter, medium etc. Use the following table as a guide:

Pipe OD	For water	For gas
91-271	16 Bar	6 Bar
272-374	10 Bar	4 Bar
365-545	10 Bar	3 Bar
546-632	6 Bar	1 Bar
632-669	4 Bar	0,5 Bar
669-780	2 Bar	0,5 Bar

Nominal working pressure under ideal circumstances.

Available rubber gaskets

Emergency Repair Sets can be supplied with the following types of rubber:

EPDM	- potable water - waste water	max 60 degr. C.
EPDM HT	- potable water - waste water	max 150 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.
VITON	- several chemicals please contact PEWOBAR	max 200 degr. C.

Our rubber gaskets are certified to European standards, such as ACS (France) and WRAS (UK). Please contact us for a detailed list of current certifications

PEWOCLAMP ERS

Clamp combinations:

PEWOCLAMP (one part)	Plate lenght	Clamp length	Range	
			Min. OD	Max. OD
A	317	400 / 500 / 600	91	98
B	383	400 / 500 / 600	111	121
C	446	400 / 500 / 600	131	141
D	543	400 / 500 / 600	162	172
E	637	400 / 500 / 600	193	203

PEWOCLAMP (two parts)	Combined with	Plate lenght	Clamp length	Range	
				Min. OD	Max. OD
A	B	700	400 / 500 / 600	213	233
	C	763	400 / 500 / 600	233	253
	D	860	400 / 500 / 600	264	284
	E	954	400 / 500 / 600	295	315
B	C	829	400 / 500 / 600	253	273
	D	926	400 / 500 / 600	284	304
	E	1020	400 / 500 / 600	314	334
C	D	989	400 / 500 / 600	304	324
	E	1083	400 / 500 / 600	335	355
D	E	1180	400 / 500 / 600	366	386

PEWOCLAMP (three parts)	Combined with	Plate lenght	Clamp length	Range	
				Min. OD	Max. OD
A	B and C	1146	400 / 500 / 600	354	384
	B and D	1243	400 / 500 / 600	386	416
	B and E	1337	400 / 500 / 600	416	446
	C and D	1306	400 / 500 / 600	406	436
	C and E	1400	400 / 500 / 600	436	466
	D and E	1497	400 / 500 / 600	467	497
B	C and D	1327	400 / 500 / 600	426	456
	C and E	1466	400 / 500 / 600	456	486
	D and E	1563	400 / 500 / 600	487	517
C	D and E	1626	400 / 500 / 600	508	538

PEWOCLAMP (four parts)	Combined with	Plate lenght	Clamp length	Range	
				Min. OD	Max. OD
A	B, C and D	1689	400 / 500 / 600	527	567
	B, C and E	1783	400 / 500 / 600	558	598
	B, D and E	1880	400 / 500 / 600	589	629
D	D, E and A	1327	400 / 500 / 600	609	649
C	C, D and E	1626	400 / 500 / 600	629	669

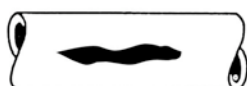
PEWOCLAMP (five parts)	Combined with	Plate lenght	Clamp length	Range	
				Min. OD	Max. OD
A	B, C, D and E	2326	400 / 500 / 600	730	780

PEWOSNAPCLAMP

PEWOSNAPCLAMP repair clamps are used for the permanent repair of damaged pipes above and below ground

For water, gas and petrochemical fluid

Following types of damage can be repaired:



Cracks / Local damage



Pit holes

- Ductile Iron (DI)
- Cast Iron (CI)
- Copper
- Steel (St.)
- Snap Clamp repair clamps have working range of 3-7 mm depending on the diameter.

Pressure ratings

- Pipe OD 21-111 mm 16 bar
- Pipe OD 112-229 mm 10 bar
- Pipe OD 272-329 mm 6 bar

Maximum pressure for gas pipes is 4 bar (for all pipe od's up to incl. 329 mm)

Available sizes

Snap Clamps are available for pipes up to DN 300 and length 75, 150 and 225 mm. We will send you a price-list with all available ranges upon request. For larger ranges we can supply double band snap clamps.



Material specification

- Lugs: ductile iron GGG 40 according to DIN 1693 or malleable iron GTW 40 according to DIN 1692, surface sheradized with 15 microns zinc.
- Band: stainless steel according to AISI 304.
- Bolts: special mushroom head square neck bolts. Bolt size M10 up to 2" and M12 for larger sizes. Material according to class 4.6, surface galvanized with 5 microns zinc.
- Hexagon nuts: according to DIN 934 class 5, surface galvanized with 5 microns zinc.
- Washer: according to DIN 125a, surface galvanized with 5 microns zinc.

Available rubber gaskets

Snap Clamps clamps can be supplied with the following types of rubber:

EPDM	- potable water - waste water	max 60 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.

PEWOBAR

is ready for the future

Our machinery has been up-dated and our entire building is equipped with all the latest environmentally friendly technologies:

- (geothermal installation, ultrasonic stain bath),
- automation systems (ERP, EXACT, bar code printers, VOIP),
- production technologies (MIG/MAG /TIG welding robots),
- PLC-controlled automated cutting and punching line.

As a group we also ensure that our products meet the current international standards for drinking water pipes, gas supply, etc. This means that we can supply gaskets in EPDM, NBR and VITON with various labels (ACS, WRAS, BS, KTW). For our repair clamps, we use only high quality stainless steel (AISI 316 (EN 1.4401) / AISI 304 (EN 1.4301)). Outlets and flanges are available to meet all international standards (ANSI, DIN and EN). Of course we are a NEN-EN-ISO 9001:2008 certified company .

Our experienced staff is educated and fully trained to help customers solve all possible issues related to pipe repair and hot tapping as well as providing useful advice. Our "special products division" has skilled and certified welders that guarantee high quality results for our specially engineered products.



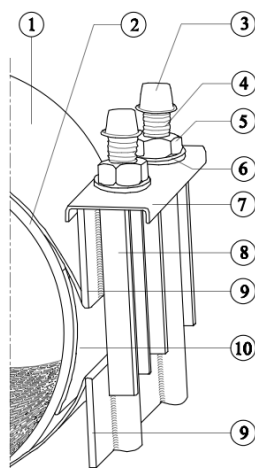
At the same time we moved to a new location and united our forces, we also streamlined and adjusted production processes where necessary.



PEWOCLAMP one Part

Installation Instruction Repair Clamp PEWOCLAMP one part Coupling

1. Scale
2. Clamp gasket
3. Bolt cap
4. Bolt
5. Nut
6. SS Washer
7. Bridge plate
8. Lug
9. Sidebar
10. Armour



Installation:

Step 1

Mark the pipe where the ends of the clamp will be. After installation use this mark to confirm that the clamp has been properly positioned.

Step 2

Thoroughly clean the pipe surface area to be covered by the clamp.
Apply lubricant to pipe and rubber inside the clamp to ensure a proper seal. **DO NOT use grease!**

Step 3

Back off nuts to end of bolts, but **DO NOT REMOVE THEM**. Open up the clamp and put the upper scale on the pipe. (Fig. 1).
At one side the bridge plate of the underscale has to be suspended over the lugs. Hinge the suspended underscale under the pipe (Fig. 2).

Note: If necessary (because of excessive leakage) steps 3 and 4 can be performed beside the pipe fracture or damage.
Then slide the clamp over the fracture after snapping the bridge plate onto the lugs.

Step 4

Snap the bridge plate **OVER** the lugs (Fig. 3). Do not use force. Be sure that the armour slides under the scale and that the gasket tails are not folded under, but are lying flat around the pipe. Pull the bridge plates towards each other and tighten the nuts by hand first.

Step 5

Then use a torque wrench with a handle of at least 300 mm in length (Fig. 4) to tighten the nuts evenly in 20 Nm increments.

Recommended torque	Wrench size:	
	M12: 65 Nm	19
	M14: 85 Nm	22
	M16: 110 Nm	24

Always pressure test for leaks before backfilling the ditch. If leakage occurs repeat step 3, 4 & 5. Then pressure test again.

Step 6

Wait 20 minutes and then retighten to proper torque.
Backfill and compact carefully around clamp.

Note: When installed on plastic pipes, please contact your supplier.

IMPORTANT: Always check that you have a correct and fully functional product before you start any excavations or repairs. When in doubt, take a spare unit with you to avoid delaying the work.

Before installation:

1. Check the diameter of the pipe and make sure you are using correctly sized clamps.
2. Clean the pipe to remove as much dirt and corrosion as possible from the surface. Scrape the pipe to remove dirt and corrosion so that the surface is smooth.
3. Make sure no foreign material sticks to the gasket as it is wrapped around the pipe, nor becomes lodged between gasket and pipe as the nuts are tightened.
4. Keep threads free of foreign material to facilitate tightening.
5. Use a torque wrench to achieve proper torque. Also make sure you use the right wrench size (step 5).
6. Bolts are often not sufficiently tightened if a torque wrench is not used. Take extra care in this situation to ensure proper tightening.

Fig. 1

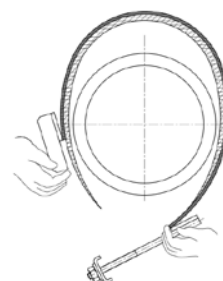


Fig. 2

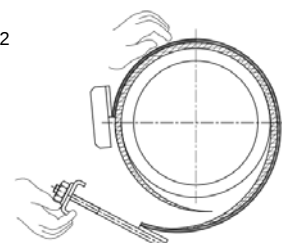


Fig. 3

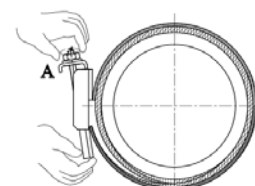


Fig. 3a

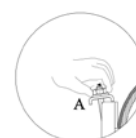
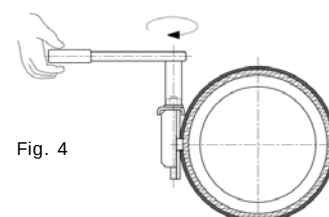


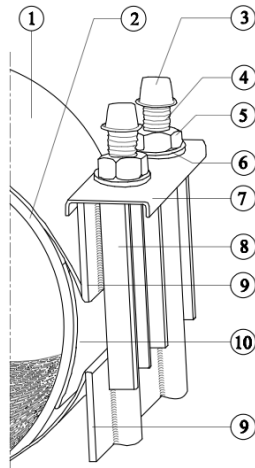
Fig. 4



PEWOCLAMP two or multipart Part

Installation Instruction Repair Clamp PEWOCLAMP two or multi partcoupling

1. Upper scale
2. Clamp gasket
3. Bolt cap
4. Bolt
5. Nut
6. SS Washer
7. Bridge plate
8. Lug
9. Sidebar
10. Armour



Installation:

Step 1

Mark the pipe where the ends of the clamp will be. After installation use this mark to confirm that the clamp has been properly positioned.

Step 2

Thoroughly clean the pipe surface area to be covered by the clamp. Apply lubricant to pipe and rubber inside the clamp to ensure a proper seal. **DO NOT use grease!**

Step 3

Back off nuts to end of bolts, but **DO NOT REMOVE THEM**. Open up the clamp and put the upper scale on the pipe. (Fig. 1). At one side the bridge plate of the underscale has to be suspended over the lugs. Hinge the suspended underscale under the pipe (Fig. 2).

Note: If necessary (because of excessive leakage) steps 3 and 4 can be performed beside the pipe fracture or damage. Then slide the clamp over the fracture after snapping the bridge plate onto the lugs.

Step 4

Snap the bridge plate **OVER** the lugs (Fig. 3). Do not use force. Be sure that the armour slides under the scale and that the gasket tails are not folded under, but are lying flat around the pipe. Pull the bridge plates towards each other and tighten the nuts by hand first.

Step 5

Then use a torque wrench with a handle of at least 300 mm in length (Fig. 4) to tighten the nuts evenly in 20 Nm increments and in the specified order (Fig. 5).

Recommended torque	Wrench size:	
	M12: 65 Nm	19
	M14: 85 Nm	22
	M16: 110 Nm	24

Always pressure test for leaks before backfilling the ditch. If leakage occurs repeat step 3, 4 & 5. Then pressure test again.

Step 6

Wait 20 minutes and then retighten to proper torque. Backfill and compact carefully around clamp.

Note: When installed on plastic pipes, please contact your supplier.

IMPORTANT: Always check that you have a correct and fully functional product before you start any excavations or repairs. When in doubt, take a spare unit with you to avoid delaying the work.

Before installation:

1. Check the diameter of the pipe and make sure you are using correctly sized clamps.
2. Clean the pipe to remove as much dirt and corrosion as possible from the surface. Scrape the pipe to remove dirt and corrosion so that the surface is smooth.
3. Make sure no foreign material sticks to the gasket as it is wrapped around the pipe, nor becomes lodged between gasket and pipe as the nuts are tightened.
4. Keep threads free of foreign material to facilitate tightening.
5. Use a torque wrench to achieve proper torque. Also make sure you use the right wrench size (step 5).
6. Bolts are often not sufficiently tightened if a torque wrench is not used. Take extra care in this situation to ensure proper tightening.

Fig. 1

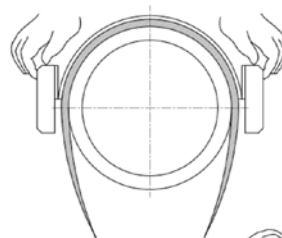


Fig. 2

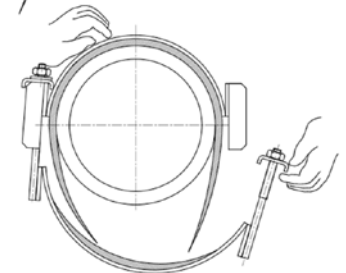


Fig. 3

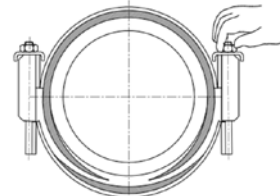


Fig. 4

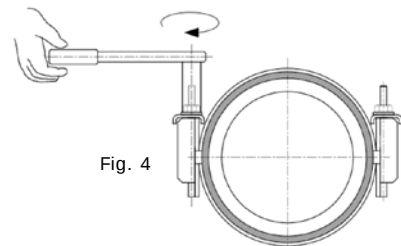
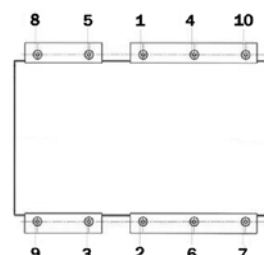


Fig. 5



PEWO-T-SADDLE

PEWO-T-SADDLE stainless steel drilling saddles type are used for making connections to

valves, t-joints (branch pipes), shut-off valves, pipe and conduit fittings, etc.

For water, gas and petrochemical fluid

Application

PEWO-T-SADDLE can be supplied with special branch pipes (among others, POLVA and branch pipes with male and female threading). Under most circumstances the clamps can be installed without releasing the pressure on the pipe.

Pressure ratings

Pressure ratings for water ** depend on the type of break or damage, pipe OD, medium etc.

- Pipe DN 40 up to and including DN 150: 16 bar
- Pipe DN 175 up to and including DN 300: 10 bar

*** Please contact PEWOBAR or your distributor for more information regarding pressures on gas pipes.*

Available sizes

PEWO-T-SADDLE can be supplied with branch sizes starting at 1/2" to 2". Special branch sizes can be supplied on request. We can also supply the required branch pipes for blow-forming equipment applications.

PEWO-T-SADDLE are available in many different working ranges for pipes of DN 80 up to and including DN 350. Please consult our price-list for more details on the working ranges. The length of the drilling saddle is standard 150 mm.



Material specification

- All metal parts: stainless steel AISI 304 or AISI 316L.
- Metal parts have been deburred and are passivated to restore the corrosion resistance to its original state after the welding process.
- Double band (two sections) with a working range of 18-22 mm depending on the diameter. For an overview of all working ranges please see our price-list.
- Seamless rubber lining for every clamp diameter.
- U-shaped lifter bars.
- Stainless steel, electrolytic zinc plated nuts to prevent galling.
- Stainless steel washers.

Available rubber gaskets

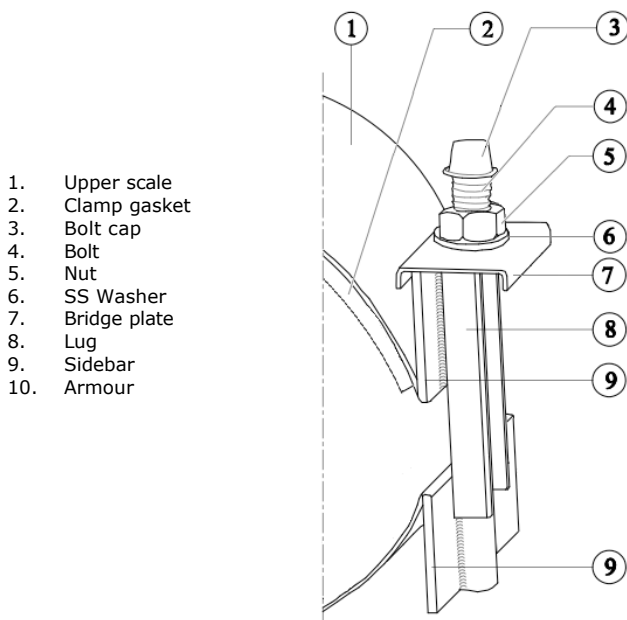
PEWO-T-SADDLE can be supplied with standard certified NBR rubber gaskets in the upper scale, EPDM on request. The rubber is tapered and has a waffle pattern. Band gasket is always EPDM.

EPDM	- potable water - waste water	max 60 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.

Our rubber gaskets are certified to European standards, such as ACS (France) and WRAS (UK). Please contact us for a detailed list of current certifications.

PEWO-T-SADDLE

PEWO-T-SADDLE Installation Instruction Tapping Saddle



Installation:

Step 1

Mark the pipe where the ends of the saddle will be. After installation use this mark to confirm that the saddle has been properly positioned.

Step 2

Thoroughly clean the pipe surface area to be covered by the clamp.
Apply lubricant to pipe and rubber inside the clamp to ensure a proper seal. **DO NOT use grease!**

Step 3

Back off nuts to end of bolts, but **DO NOT REMOVE THEM**. Place the upper scale on the pipe and bring it into position. At one side the bridge plate of the strap has to be suspended over the lugs. Hinge the suspended strap under the pipe (Fig. 1).

Step 4

Snap the bridge plate **ONTO** the lugs (Fig. 2). Pull the bridge plates towards each other and tighten the nuts by hand first.

Step 5

Then use a torque wrench with a handle of at least 300 mm in length to tighten the nuts evenly in 20 Nm (Fig. 3). **Recommended torque:**
 $< \text{DN } 150$: Max. 90 Nm
 $\geq \text{DN } 150$: Max. 110 Nm

Always pressure test for leaks before backfilling the ditch. If leakage occurs repeat step 3, 4 & 5. Then pressure test again.

Step 6

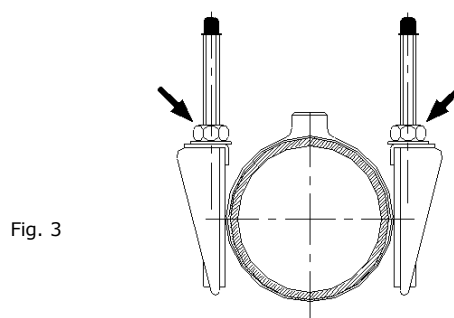
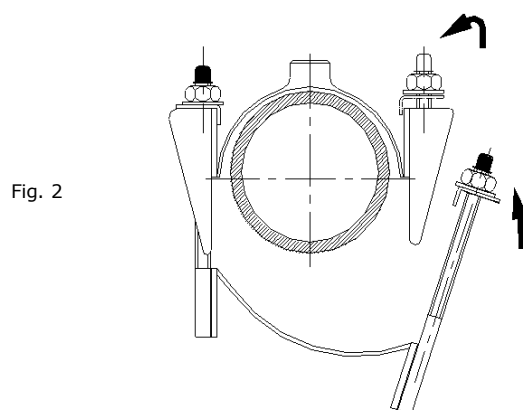
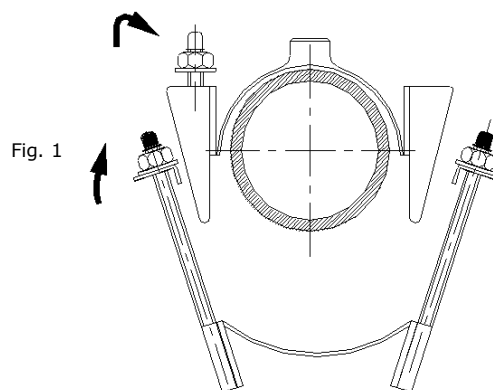
Wait 20 minutes and then retighten to proper torque.
Backfill and compact carefully around clamp.

Note: When installed on plastic pipes, please contact your supplier.

IMPORTANT: Always check that you have a correct and fully functional product before you start any excavations or repairs. When in doubt, take a spare unit with you to avoid delaying the work.

Before installation:

1. Check the diameter of the pipe and make sure you are using correctly sized saddles.
2. Clean the pipe to remove as much dirt and corrosion as possible from the surface. Scrape the pipe to remove dirt and corrosion so that the surface is smooth.
3. Make sure no foreign material sticks to the gasket as it is wrapped around the pipe, nor becomes lodged between gasket and pipe as the nuts are tightened.
4. Keep threads free of foreign material to facilitate tightening.
5. Use a torque wrench to achieve proper torque (step 5).
6. Bolts are often not sufficiently tightened if a torque wrench is not used. Take extra care in this situation to ensure proper tightening.



PEWO-T-CLAMP-FLANGE

PEWOBAR stainless steel tapping tee type PEWO-T-CLAMP-FLANGE are used for permanent (hot) taps on several pipe types

For water, gas and petrochemical fluid



Application

The PEWO-T-CLAMP-FLANGE is in fact a reinforced double band clamp with a flanged outlet. The standard working range is 20mm. The upper body is reinforced to accommodate the installation of valves and drilling equipment.

The full circumferential seal allows you to tap size on size with confidence. No more need for heavy, hard to assemble, cast iron sleeves. The full circle design reduces stress on the pipe opposite of the tap and reinforces the pipe.

The tapping tee is easy to install. No specially trained personnel or tools needed. A wrench to tighten bolts is the only tool required to install the sleeve.

The built-in range of 20 mm allows one sleeve to fit various classes of steel, PVC, ductile iron, cast iron or asbestos-cement pipe which results in inventory reduction. The high tensile strength of stainless steel allows us to manufacture the lightest tapping sleeve in the industry. Easy to handle and less load on the pipe.

The clamps can be used on following pipe types:

- Ductile Iron (DI)
- Cast Iron (CI)
- Steel (St.)
- Asbestos Cement (AC)
- PE coated steel
- PVC*
- GRP*
- PE*

** If pipe repair clamps are to be used on plastic pipes, please always contact PEWOBAR or a PEWOBAR distributor for more information regarding the application and restrictions on these pipe types.*

Available sizes

PEWO-T-CLAMP-FLANGE tapping tee clamps are available for pipe diameters from DN 80 up to and including DN 800. Standard length: 500 mm. Besides our standard program, we are able to manufacture any range or length that you may require.

Material specification

Other tapping tee rubber gasket and product material specifications are identical to the specifications of the standard repair clamps.

Pressure ratings

Pressure ratings depend on the type of pipe, branch OD, medium etc. In general, PEWO-T-CLAMP-FLANGE tapping Tees are for use on pipes up to and including DN 600 mm and can resist a pressure of 16 bar. Please contact PEWOBAR or your distributor for more information regarding pressures on gas pipes.

Flange design

Flanges are drilled acc. to DIN 2576 and NEN 1092-1. The flange thickness is 24 mm for flanges up to DN 200 and 26 mm for flanges up to up to DN 300. Standard flanges are flat faced PN 10, but raised faced, ASA and PN 16 flanges are available upon request.

PEWO-T-CLAMP-FLANGE

Material specification:

- All metal parts: stainless steel AISI 304 or AISI 316L.
- Metal parts have been deburred and are passivated to restore the corrosion resistance to its original state after the welding process.
- Double band (two sections). For detailed working ranges please see our price-list.
- Standard certified rubber gaskets EPDM or NBR. The rubber is tapered and has a waffle pattern.
- Seamless rubber lining for every clamp diameter.
- Bridge plates are vulcanized into the rubber gasket.
- U-shaped lifter bars.
- Stainless steel, electrolytic zinc plated nuts to prevent galling.
- Stainless steel washers.
- No loose parts that may get lost during installation.
- No special tools required: a simple wrench will do the job.
- Special tape is used to fix the rubber gasket to the stainless steel band. This tape is flexible and reinforced with glassfibre thread to withstand hot and humid conditions and guarantee a long storage capability.
- The PEWO-T-CLAMP-FLANGE tapping sleeve is designed for under pressure drilling (hot taps).

Pressure ratings (for water):

Pressure ratings depend on the type of pipe, branch OD, medium etc. In general, PEWO-T-CLAMP-FLANGE tapping Tees are for use on pipes up to and including DN 600 mm and can resist a pressure of 16 bar. Please contact PEWOBAR or your distributor for more information regarding pressures on gas pipes.

Flange design:

Flanges are drilled acc. to DIN 2576 and NEN 1092-1. The flange thickness is 24 mm for flanges up to DN 200 and 26 mm for flanges up to up to DN 300. Standard flanges are flat faced PN 10, but raised faced, ASA and PN 16 flanges are available upon request.

Depending on OD and flange size the branch can be supported by an additional reinforcement. Pipe and valve should always be supported according to standard codes of practice.

Size on size tapping sleeves require the use of an undersized shell cutter. Please ask your distributor for more information.

PEWO-T-CLAMP-FLANGE sleeve can be used to repair the following pipe types:

- Ductile Iron (DI)
- Cast Iron (CI)
- Steel (St.)
- Asbestos Cement (AC)
- PE coated steel
- PVC*
- GRP*
- PE*

** If pipe repair clamps are to be used on plastic pipes, please always contact PEWOBAR or a PEWOBAR distributor for more information regarding the application and restrictions on these pipe types.*

Rubber gasket specification

PEWO-T-CLAMP-FLANGE can be supplied with the following types of rubber depending on the type of repair clamp:

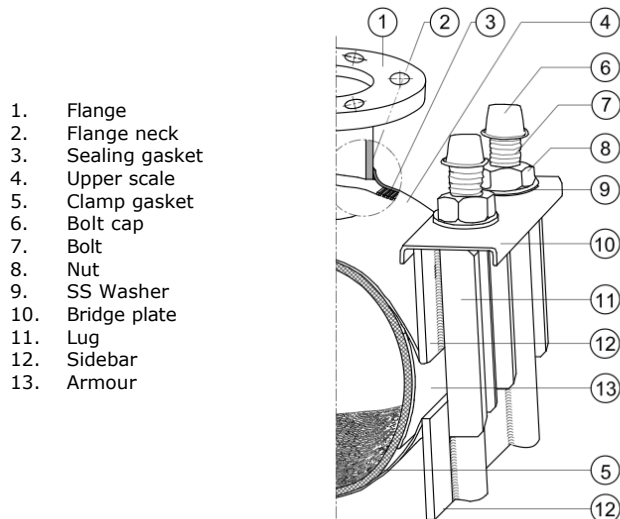
EPDM	- potable water - waste water	max 60 degr. C.
EPDM HT	- potable water - waste water	max 150 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.
VITON	- several chemicals please contact PEWOBAR	max 200 degr. C.

Our rubber gaskets are certified to European standards, such as ACS (France) and WRAS (UK). Please contact us for a detailed list of current certifications

- The rubber is tapered and has a waffle pattern.
- The rubber is 50 degrees shore for rough surfaces.
- Seamless rubber lining for every clamp diameter up to and including 300 mm OD.
- Bridge plate is vulcanized into the rubber gasket.
- Special tape is used to fix the rubber gasket to the stainless steel band. This tape is flexible and reinforced with glassfibre thread to withstand hot and humid conditions and guarantee a long storage capability.

PEWO-T-CLAMP-FLANGE

PEWO-T-CLAMP-FLANGE Installation instruction Tapping Sleeve



Installation:

Step 1

Mark the pipe where the ends of the Huwa-T will be.

Step 2

Remove nuts, washers and bridge plates from the bolts.

Step 3

Apply lubricant to pipe and rubber in upper and lower scale. **DO NOT use grease!**

Step 4

Place the upper scale with the flange on the pipe and bring it into position (Fig. 1).

Step 5

Bring the lower scale into position (Fig. 2), making sure that the bolts are located between the lugs on the upper scale. Check the gasket edges along the upper and lower scales to be sure they overlap and are not folded over.

Step 6

Make sure the wire ends are properly cleaned too ensure there is no cold welding. Replace the bridge plates, washers and nuts and tighten the nuts by hand (Fig. 3).

Tighten the nuts evenly in the specified order (Fig. 5), starting with 20 Nm up to: 40-60-80-100 to a max. of 120 Nm. Keep checking with a water level whether the flange is in the right position.

The gap between the upper and lower scale on either side should be the same when nuts are not fully torqued (Fig. 6). Torque down all nuts evenly.

Always pressure test for leaks before making a hot tap or backfilling the ditch.

If leakage occurs repeat step 5 and 6. Then pressure test again.

Step 7

Wait 20 minutes and then retighten to proper torque.

Backfill and compact carefully around clamp.

If necessary support the SST according to standard codes of practice when heavy accessories are attached to it.

Note: When installed on plastic pipes, please contact your supplier.

IMPORTANT: Always check that you have a correct and fully functional product before you start any excavations or repairs. When in doubt, take a spare unit with you to avoid delaying the work.

Before installation:

1. Check the diameter of the pipe and make sure you are using a correctly sized product.
2. Make sure that the sealing gasket is fitted evenly around the outlet.
3. Clean the pipe to remove as much dirt and corrosion as possible from the surface. Scrape the pipe to remove dirt and corrosion so that the surface is smooth.
4. Keep threads free of foreign material to facilitate tightening
5. Avoid loose fitting wrenches, or wrenches too short to achieve proper torque on nuts.

Fig. 1

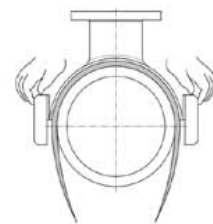


Fig. 2

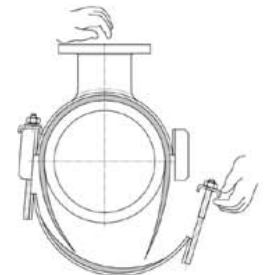


Fig. 3

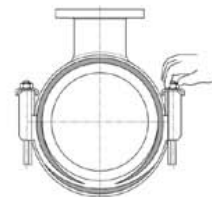


Fig. 4

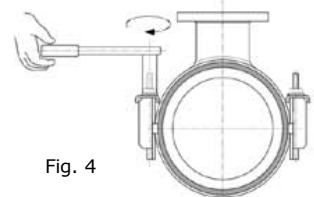


Fig. 5

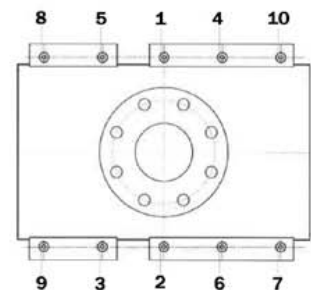
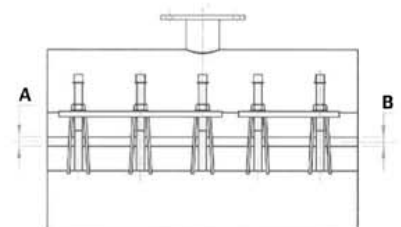


Fig. 6



PEWO-T-CLAMP-FLANGE



PEWO-T-CLAMP-THREAD

PEWO-T-CLAMP-THREAD stainless steel tapping clamps are used to make permanent (hot) taps on different pipe types

For water, gas and petrochemical fluid



Application

PEWO-T-CLAMP-THREAD clamps can be equipped with a threaded outlet up to 4". The standard outlets are threaded according to ISO/DIN or BSP. American CC or IP threads can be supplied upon request.

The clamps can be used on following pipe types:

- Ductile Iron (DI)
- Cast Iron (CI)
- Steel (St.)
- Asbestos Cement (AC)
- PE coated steel
- PVC*
- GRP*
- PE*

** If pipe repair clamps are to be used on plastic pipes, please always contact PEWOBAR or a PEWOBAR distributor for more information regarding the application and restrictions on these pipe types.*

Pressure ratings

Pressure ratings for water ** depends on the type of break or damage, pipe OD, medium etc.

- Pipe DN 40 up to and including DN 150: 16 bar
- Pipe DN 175 up to and including DN 300: 10 bar

Our clamps can be modified to cope with higher working pressures.

*** Please contact PEWOBAR or your distributor for more information regarding pressures on gas pipes.*

Available sizes

PEWO-T-CLAMP-THREAD one Part tapping clamps are available from range 38-42. Available lengths: 150, 200, 250, 300, 400, 500 and 600 mm.

PEWO-T-CLAMP-THREAD two Part tapping clamps are available from ranges 88-110. Available lengths: 200, 250, 300, 400, 500 and 600 mm.

Outlet size	Available on pipe Ø	Min. width in mm
1/2"	≥ 38 mm	150
3/4"	≥ 44 mm	150
1"	≥ 48 mm	150
1, 1/4"	≥ 60 mm	150
1, 1/2"	≥ 60 mm	200
2"	≥ 82 mm	200
2, 1/2" ***	≥ 110 mm	200
3" ***	≥ 130 mm	300
4" ***	≥ 155 mm	400

**** Only available two Part clamps, with a reinforced upper scale.*

Material specification

- Sockets and nipples are threaded according to ISO 7/DIN or BSP. Special designed outlets are available on request. Please contact your distributor.
- The outlets are 100 % air tested after welding.

Other tapping clamp rubber gasket and product material specifications are identical to the specifications of the standard repair clamps.

PEWO-T-CLAMP-THREAD

Material specification

- All metal parts: stainless steel AISI 304 (1.4301) or AISI 316L (1.4404).
- Metal parts have been deburred and are sonar passivated to restore the corrosion resistance to its original state after the welding process.
- Extra strong U-shaped lifter bars.
- Stainless steel, electrolytic zinc plated nuts to prevent galling.
- Wide diameter stainless steel washers.
- Sockets and nipples are threaded according to ISO 7/DIN or BSP. Special designed outlets are available on request. Please contact your distributor.
- The outlets are 100 % air tested after welding.

Others

- No loose parts that may get lost during installation.
- No special tools required: a simple wrench will do the job.
- Under most circumstances the clamps can be installed without releasing the pressure on the pipe.
- The clamps are separately packed into strong double-rib cartons. For export overseas we use strong, seaworthy crates.
- Repair clamps type PEWOCLAMP are available with additional grip for easier installation in smaller clamp sizes.

Rubber gasket specification

PEWO-T-CLAMP-THREAD can be supplied with the following types of rubber depending on the type of repair clamp:

EPDM	- potable water - waste water	max 60 degr. C.
EPDM HT	- potable water - waste water	max 150 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.
VITON	- several chemicals please contact PEWOBAR	max 200 degr. C.

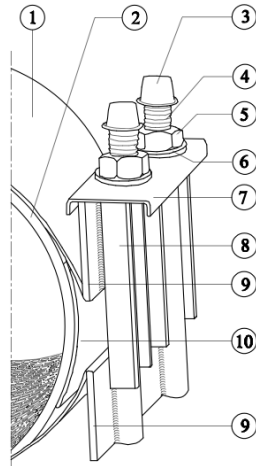
Our rubber gaskets are certified to European standards, such as ACS (France) and WRAS (UK). Please contact us for a detailed list of current certifications

- The rubber is tapered and has a waffle pattern.
- The rubber is 50 degrees shore for rough surfaces.
- Seamless rubber lining for every clamp diameter up to and including 300 mm OD.
- Bridge plate is vulcanized into the rubber gasket.
- Special tape is used to fix the rubber gasket to the stainless steel band. This tape is flexible and reinforced with glassfiber thread to withstand hot and humid conditions and guarantee a long storage capability.

PEWO-T-CLAMP-THREAD one Part

Installation Instruction Repair Clamp PEWOCLAMP one part Coupling

1. Scale
2. Clamp gasket
3. Bolt cap
4. Bolt
5. Nut
6. SS Washer
7. Bridge plate
8. Lug
9. Sidebar
10. Armour



Installation:

Step 1

Mark the pipe where the ends of the clamp will be. After installation use this mark to confirm that the clamp has been properly positioned.

Step 2

Thoroughly clean the pipe surface area to be covered by the clamp.
Apply lubricant to pipe and rubber inside the clamp to ensure a proper seal. **DO NOT use grease!**

Step 3

Back off nuts to end of bolts, but **DO NOT REMOVE THEM**. Open up the clamp and put the upper scale on the pipe. (Fig. 1).
At one side the bridge plate of the underscale has to be suspended over the lugs. Hinge the suspended underscale under the pipe (Fig. 2).

Note: If necessary (because of excessive leakage) steps 3 and 4 can be performed beside the pipe fracture or damage.
Then slide the clamp over the fracture after snapping the bridge plate onto the lugs.

Step 4

Snap the bridge plate **OVER** the lugs (Fig. 3). Do not use force. Be sure that the armour slides under the scale and that the gasket tails are not folded under, but are lying flat around the pipe. Pull the bridge plates towards each other and tighten the nuts by hand first.

Step 5

Then use a torque wrench with a handle of at least 300 mm in length (Fig. 4) to tighten the nuts evenly in 20 Nm increments.

Recommended torque	Wrench size:	
	M12: 65 Nm	19
	M14: 85 Nm	22
	M16: 110 Nm	24

Always pressure test for leaks before backfilling the ditch. If leakage occurs repeat step 3, 4 & 5. Then pressure test again.

Step 6

Wait 20 minutes and then retighten to proper torque.
Backfill and compact carefully around clamp.

Note: When installed on plastic pipes, please contact your supplier.

IMPORTANT: Always check that you have a correct and fully functional product before you start any excavations or repairs. When in doubt, take a spare unit with you to avoid delaying the work.

Before installation:

1. Check the diameter of the pipe and make sure you are using correctly sized clamps.
2. Clean the pipe to remove as much dirt and corrosion as possible from the surface. Scrape the pipe to remove dirt and corrosion so that the surface is smooth.
3. Make sure no foreign material sticks to the gasket as it is wrapped around the pipe, nor becomes lodged between gasket and pipe as the nuts are tightened.
4. Keep threads free of foreign material to facilitate tightening.
5. Use a torque wrench to achieve proper torque. Also make sure you use the right wrench size (step 5).
6. Bolts are often not sufficiently tightened if a torque wrench is not used. Take extra care in this situation to ensure proper tightening.

Fig. 1

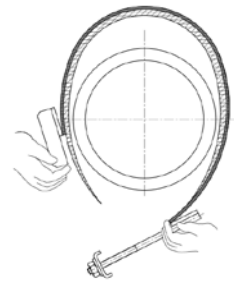


Fig. 2

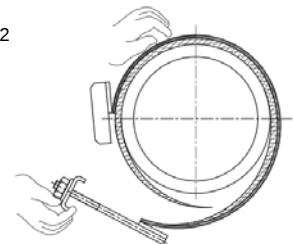


Fig. 3

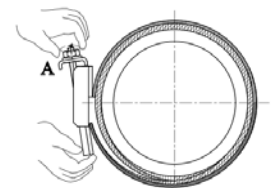


Fig. 3a

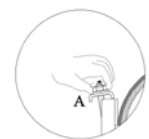
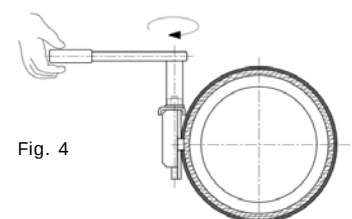


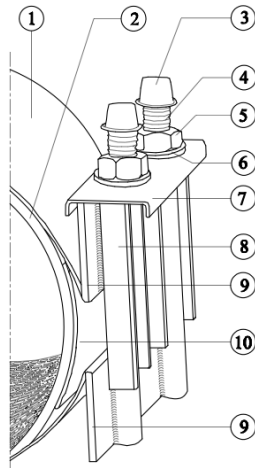
Fig. 4



PEWO-T-CLAMP-THREAD two or multipart Part

Installation Instruction Repair Clamp PEWOCLAMP two or multi partcoupling

1. Upper scale
2. Clamp gasket
3. Bolt cap
4. Bolt
5. Nut
6. SS Washer
7. Bridge plate
8. Lug
9. Sidebar
10. Armour



IMPORTANT: Always check that you have a correct and fully functional product before you start any excavations or repairs. When in doubt, take a spare unit with you to avoid delaying the work.

Before installation:

1. Check the diameter of the pipe and make sure you are using correctly sized clamps.
2. Clean the pipe to remove as much dirt and corrosion as possible from the surface. Scrape the pipe to remove dirt and corrosion so that the surface is smooth.
3. Make sure no foreign material sticks to the gasket as it is wrapped around the pipe, nor becomes lodged between gasket and pipe as the nuts are tightened.
4. Keep threads free of foreign material to facilitate tightening.
5. Use a torque wrench to achieve proper torque. Also make sure you use the right wrench size (step 5).
6. Bolts are often not sufficiently tightened if a torque wrench is not used. Take extra care in this situation to ensure proper tightening.

Installation:

Step 1

Mark the pipe where the ends of the clamp will be. After installation use this mark to confirm that the clamp has been properly positioned.

Step 2

Thoroughly clean the pipe surface area to be covered by the clamp.
Apply lubricant to pipe and rubber inside the clamp to ensure a proper seal. **DO NOT use grease!**

Step 3

Back off nuts to end of bolts, but **DO NOT REMOVE THEM**. Open up the clamp and put the upper scale on the pipe. (Fig. 1).
At one side the bridge plate of the underscale has to be suspended over the lugs. Hinge the suspended underscale under the pipe (Fig. 2).

Note: If necessary (because of excessive leakage) steps 3 and 4 can be performed beside the pipe fracture or damage.
Then slide the clamp over the fracture after snapping the bridge plate onto the lugs.

Step 4

Snap the bridge plate **OVER** the lugs (Fig. 3). Do not use force. Be sure that the armour slides under the scale and that the gasket tails are not folded under, but are lying flat around the pipe. Pull the bridge plates towards each other and tighten the nuts by hand first.

Step 5

Then use a torque wrench with a handle of at least 300 mm in length (Fig. 4) to tighten the nuts evenly in 20 Nm increments and in the specified order (Fig. 5).

Recommended torque	Wrench size:	
	M12: 65 Nm	19
	M14: 85 Nm	22
	M16: 110 Nm	24

Always pressure test for leaks before backfilling the ditch. If leakage occurs repeat step 3, 4 & 5. Then pressure test again.

Step 6

Wait 20 minutes and then retighten to proper torque.
Backfill and compact carefully around clamp.

Note: When installed on plastic pipes, please contact your supplier.

Fig. 1

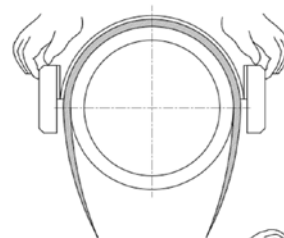


Fig. 2

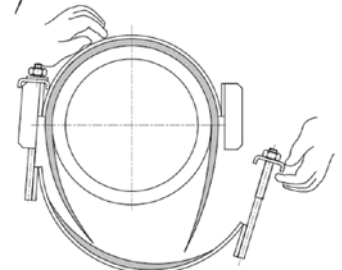


Fig. 3

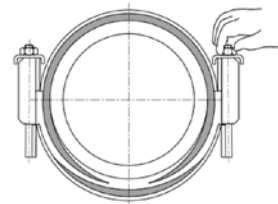


Fig. 4

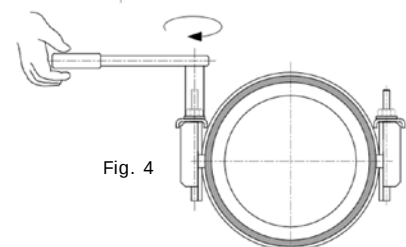
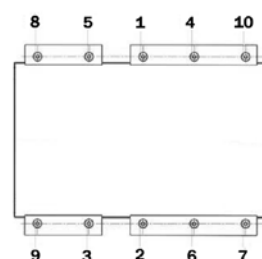


Fig. 5



PEWOTAPE – SP – ST

Amended SOLAS regulations of IMO, International Marine Organization, has been executed since July 1998 and the provision of II-2/15.2.11, for new ships with more than 375 KW output power, has been obliged to treat to prevent outbreak of splashing of flammable fluid from piping which contacts on high temperature surface of exhaust pipe or other mechanical portion when a pipe

joint, a valve, a pressure gauge or a joint for auxiliary components becomes loose due to vibration, fatigue, deterioration of materials, excess tension or when a pin hole or a crack is formed in the pipe itself or when a welder portion is broken or when the attachment of a device to the piping become incomplete.

PEWOTAPE – SPRAY – STOP – FLANGESET

Articel No.	Description	Flange DN	Tapedimension not fitted			Verpackungsdaten		
			B1	B2	T	≈ kg/pcs.	≈ dm³/pcs.	dimensions/ piece*
DN-15-SP-ST-Tape-300-35	DN 15 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	15	300	35	0,3	0,17	6,3	435 X 120 X 120
DN-20-SP-ST-Tape-300-35	DN 20 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	20	300	35	0,3	0,20	6,3	435 X 120 X 120
DN-25-SP-ST-Tape-300-35	DN 25 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	25	300	35	0,3	0,21	6,3	435 X 120 X 120
DN-32-SP-ST-Tape-350-35	DN 32 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	32	350	35	0,3	0,29	6,3	435 X 120 X 120
DN-40-SP-ST-Tape-350-35	DN 40 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	40	350	35	0,3	0,30	6,3	435 X 120 X 120
DN-50-SP-ST-Tape-350-50	DN 50 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	50	350	50	0,3	0,35	7,3	510 X 120 X 120
DN-65-SP-ST-Tape-375-50	DN 65 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	65	375	50	0,3	0,42	7,3	510 X 120 X 120
DN-80-SP-ST-Tape-375-50	DN 80 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	80	375	50	0,3	0,45	7,3	510 X 120 X 120
DN-100-SP-ST-Tape-375-50	DN 100 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	100	375	50	0,3	0,49	7,3	510 X 120 X 120
DN-125-SP-ST-Tape-425-50	DN 125 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	125	425	50	0,3	0,62	8,8	610 X 120 X 120
DN-150-SP-ST-Tape-425-75	DN 150 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	150	425	75	0,3	0,73	8,8	610 X 120 X 120
DN-200-SP-ST-Tape-425-75	DN 200 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	200	425	75	0,3	0,87	8,8	610 X 120 X 120
DN-250-SP-ST-Tape-475-75	DN 250 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	250	475	75	0,3	1,13	12,4	860 X 120 X 120
DN-300-SP-ST-Tape-500-75	DN 300 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	300	500	75	0,3	1,36	12,4	860 X 120 X 120
DN-350-SP-ST-Tape-525-100	DN 350 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	350	525	100	0,3	1,67	12,4	860 X 120 X 120
DN-400-SP-ST-Tape-550-100	DN 400 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	400	550	100	0,3	1,94	12,4	860 X 120 X 120
DN-450-SP-ST-Tape-600-100	DN 450 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	450	600	100	0,3	2,27	12,4	860 X 120 X 120
DN-500-SP-ST-Tape-650-100	DN 500 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	500	650	100	0,3	2,72	12,4	860 X 120 X 120
DN-600-SP-ST-Tape-725-100	DN 600 FLANGESET SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	600	725	100	-	3,52	13,7	1010 X 120 X 120

* in mm

PEWOTAPE – SP – ST

Spray-Stop is a superb anti-splash and -spray tape for a wide range of applications. Designed by experienced safety specialists, this high-tech laminated, multi-layer aluminum tape prevents spray-outs of hot or hazardous liquids from piping systems. Spray-Stop can help prevent fires, explosions or other potentially catastrophic mishaps. According to the SOLAS

amendment chapter 2-2 regulation, ships are required to apply proper protection systems to prevent leakage and splashing of flammable oils from FO, LO and other piping. Spray-Stop is an excellent choice for this and complies with IMO A653 (6) regulations.



SPRAY-STOP – Special advantages:

- Multilayer Aluminum/Glasscloth/PET Liner with special adhesive 1 Color printed with logo "Spray-Stop" and T-iss
- High plasticity and flexibility
- No preheating of the surface required
- Simple manual processing
- High degree of stability
- Temperature: -70° ~ 200°C above
- Adhesion: 1000g above; 25mm g/f
- Shelf Life: Minimum 3 years when properly stored
- Approved: ABS, BV, DNVGL, NKK, KR, LR, CCS, RINA

USAGE

Maximum Temperature 200° C & 20 bar (300 PSI)

- Fuel oil injection pipes, fuel oil service pipes, fuel oil valve cooling oil pipe attached to diesel engines
- Lube oil service pipes and hydraulic oil pipes attached to diesel engines
- Flammable oil pipes
- Flammable oil pump and strainer
- Fuel oil heater
- Lube oil heater and cooler
- Fuel oil purifier – Lube oil purifier
- Fuel oil burning unit for boiler, thermal oil heater, inert gas generator and incinerator
- Level gauge, fittings and oil tray of flammable oil tanks
- Sounding pipe head of double bottom fuel oil tank
- Special pipe joint (threaded pipe joint, compression fitting joint, etc.) and expansion joint in the oil piping

The preceding areas of fire risk should be protected from the following sources of ignition:

- Exhaust gas pipe
- Steam pipe
- Turbo charger
- Electrical equipment
- Boiler, thermal oil heater, incinerator
- Welding spatter, cigarettes, etc.

INSTALLATION GUIDE Flange Set

1. Clean the site where the tape will be installed
2. During the installation take the widest tape and center it on the flange and wind it easily without force around the flange 2X to the site, gradually peel back the backside of the tape. Do not remove the backside layer completely before the installation because oil, spills, dust can cause adhesion problems
3. If t he flange, press both sides clockwise towards the tube surface
4. Press the excess tape evenly on the pipe surface
5. Now take one of the narrow tapes and wrap it over the pressed ide
6. Punch a drain hole in the tape after installing.

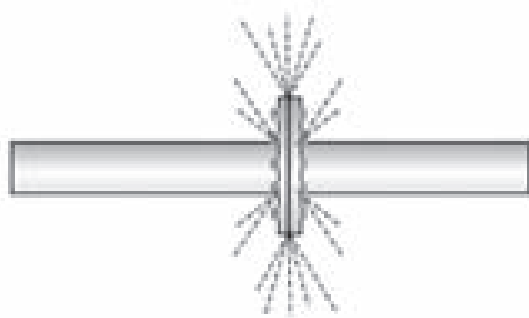
Note: Tape is not a seal for leakage.

PEWOTAPE – SP – ST

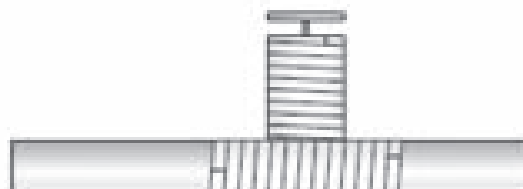
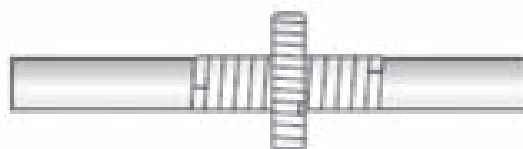
PEWOTAPE – SPRAY – STOP – 10 M ROLL

Artikel-No.	IMPA No.	Description	Tapedimension not fitted			weight ≈ kg/pcs.	Packaging volume ≈ dm³/psc.	Packaging dimensions/ piece
			B1	B2	T			
SP-ST-Tape-35	87 18 01	SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	35	10000	0,3	0,35	0,7	50 X 120 X 120
SP-ST-Tape-50	87 18 02	SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	50	10000	0,3	0,55	0,7	50 X 120 X 120
SP-ST-Tape-75	-	SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	75	10000	0,3	0,75	1,4	100 X 120 X 120
SP-ST-Tape-100	87 18 04	SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	100	10000	0,3	1,10	1,4	100 X 120 X 120
SP-ST-Tape-140	87 18 03	SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	140	10000	0,3	1,50	2,2	150 X 120 X 120
SP-ST-Tape-250	87 18 07	SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	250	10000	0,3	2,75	3,7	260 X 120 X 120
SP-ST-Tape-500	87 18 05	SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	500	10000	0,3	5,50	7,5	520 X 120 X 120
SP-ST-Tape-1000	87 18 06	SPRAY-STOP HIGH PREVENTION TAPE UP TO 200°C / 20 BAR (300 PSI)	1000	10000	0,3	11,00	14,5	1010 X 120 X 120

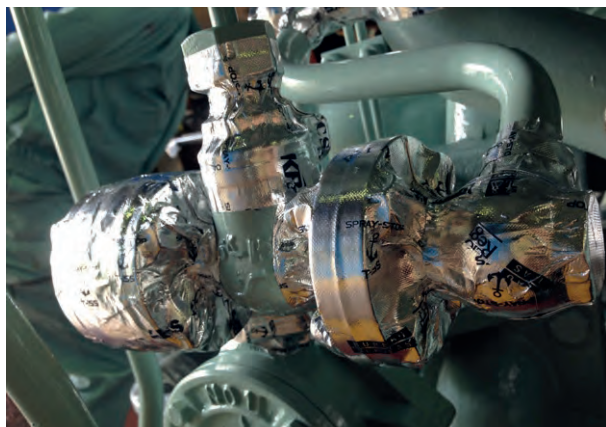
before



after



PEWOTAPE – SP – ST



SPRAY-STOP – Special advantages

- Multilayer Aluminum/Glasscloth/PET Liner with special adhesive 1 Color printed with logo “Spray-Stop” and T-iss
- High plasticity and flexibility.
- No preheating of the surface required.
- Simple manual processing.
- High degree of stability
- Temperature: -70° ~ 200°C above
- Adhesion: 1000g above; 25mm g/f
- Shelf Life: Minimum 3 years when properly stored
- Approved: ABS, BV, DNVGL, NKK, KR, LR, CCS, RINA

USAGE

Maximum Temperature 200° C & 20 bar (300 PSI)

- Fuel oil injection pipes, fuel oil service pipes, fuel oil valve cooling oil pipe attached to diesel engines
- Lube oil service pipes and hydraulic oil pipes attached to diesel engines
- Flammable oil pipes
- Flammable oil pump and strainer
- Fuel oil heater
- Lube oil heater and cooler
- Fuel oil purifier – Lube oil purifier
- Fuel oil burning unit for boiler, thermal oil heater, inert gas generator and incinerator
- Level gauge, fittings and oil tray of flammable oil tanks
- Sounding pipe head of double bottom fuel oil tank
- Special pipe joint (threaded pipe joint, compression fitting joint, etc.) and expansion joint in the oil piping

The preceding areas of fire risk should be protected from the following sources of ignition:

- Exhaust gas pipe
- Steam pipe
- Turbo charger
- Electrical equipment
- Boiler, thermal oil heater, incinerator
- Welding spatter, cigarettes, etc.

INSTALLATION GUIDE 10 m Roll

1. Cut tape to the right length before placing. The length should be a little longer than needed. Leave the back layer of the tape on. Clean the site where the tape will be installed.
2. During the installation to the site, gradually peel back the backside of the tape. Do not remove the backside layer completely before the installation because oil, spills, dust can cause adhesion problems.
3. If you have to install the tape at a place where there is no smooth surface, wrap tape two (2) or more times around the pipe or equipment in order to protect against splashes.
4. During the installation, continue to wind the tape making sure to cover a minimum of 1/3 of the former area of the installed tape. You do not need extra force for the application of the tape; however, a little pressure by hand will not harm the installation.
5. Use a knife or scissors to remove SprayStop tape. Removed tape cannot be reused!
6. Punch a drain hole in the tape after installing. Note: Tape is not a seal for leakage.

PEWOTAPE – ANTI-CORROSION TAPES

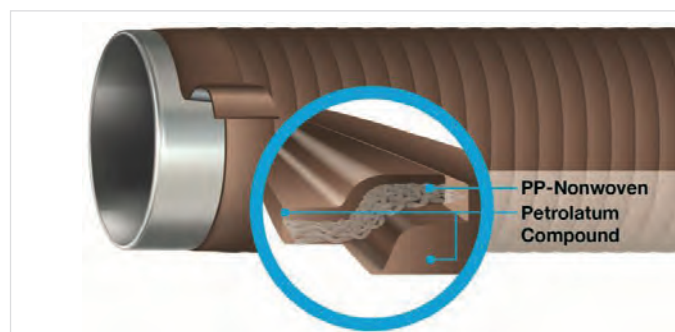
Bonding system for the corrosion protection coating of metal pipes and pipelines according to DIN 30672, EN 12068, ASTM and AWWA. Tested for decades, this is a proven corrosion protection system - for high mechanical and corrosive loads.

For a century now, DENSO Group Germany represents experience, quality and reliability for corrosion prevention and sealing technology. The success of the internationally leading corporation is based on the development of the „DENSO-Tape“, which was already patented in 1927 as the first product world-wide for the passive corrosion prevention of pipelines.

Since then, the DENSO Group Germany establishes and guarantees the highest quality standards with technically trend-setting products. Research, development and production take place exclusively in Germany. Our employees continuously implement safe and individual solutions in a personal cooperation with the customer.

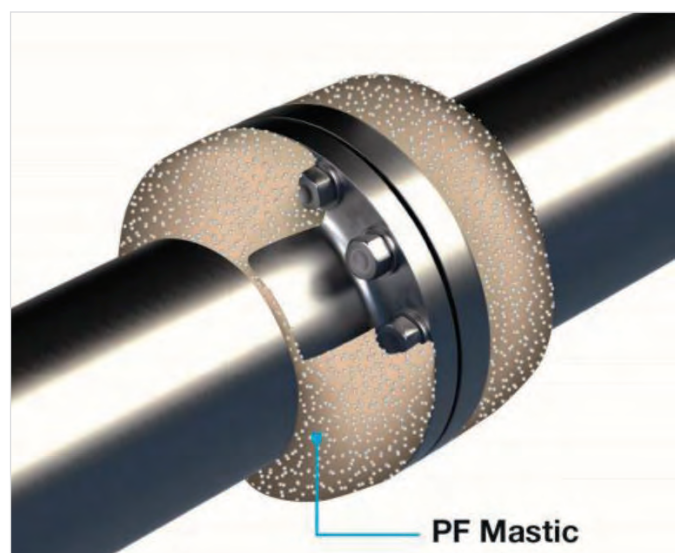
PEWOTAPE – FEU

Article No.	Description	Coupling dimensions not fitted			Weight ≈ kg/pcs.	Volume ≈ dm ³ /pcs.
		≈ W (mm)	≈ L (m)	≈ D (mm)		
2-TAPE-PF-MASTIC	Vaseline-based filling compound for filling cavities				1,00	2,00
12-TAPE-PF-MASTIC	Vaseline-based filling compound for filling cavities				6,00	12,00
30-10-TAPE-FEU	Plastic Vaseline tape for sealing and corrosion protection up to 70°C	30	10	1,00	0,33	0,61
50-10-TAPE-FEU	Plastic Vaseline tape for sealing and corrosion protection up to 70°C	50	10	1,00	0,55	1,02
100-10-TAPE-FEU	Plastic Vaseline tape for sealing and corrosion protection up to 70°C	100	10	1,00	1,10	2,04



FEU – Special advantages:

- For operating temperatures of -40°C (-40°F) to +70°C (+158°F).
- For design temperatures of -50°C (-58°F) to +80°C (+176°F).
- High plasticity and flexibility.
- No preheating of the surface required.
- Simple manual processing.



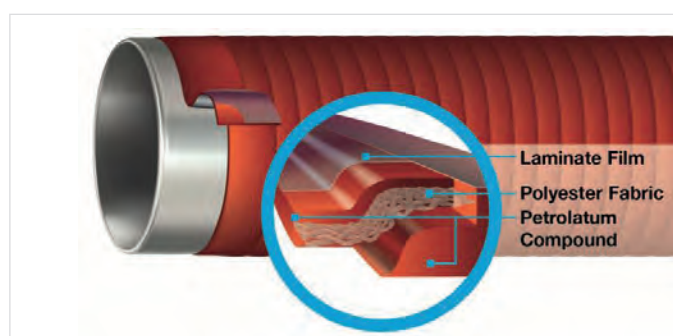
PEWOTAPE-PF Mastic is a Vaseline-based filling compound for filling cavities as well as for compensating uneven surfaces on underground pipe components (e.g. flanges and fittings). The content of polystyrene spheres makes PEWOTAPE-PF Mastic easier to apply than conventional Vaseline filling compounds, especially at low temperatures.

PF – Special advantages:

- Tremendous malleability and modelling properties
- Very easy to work by hand
- Low density
- High degree of stability
- Durable corrosion protection thanks to Vaseline
- Compatible with all PEWOTAPE Vaseline tapes

PEWOTAPE – CAL

Article No.	Description	Coupling dimensions not fitted			Weight ≈ kg/pcs.	Volume ≈ dm ³ /pcs.
		≈ W (mm)	≈ L (m)	≈ D (mm)		
1-TAPE-CAL-PRIMER	Solvent-based primer for TAPE-CAL				2,00	2,00
2-TAPE-PF-MASTIC	Vaseline-based filling compound for filling cavities				1,00	2,00
12-TAPE-PF-MASTIC	Vaseline-based filling compound for filling cavities				6,00	12,00
50-10-TAPE-CAL	Plastic Vaseline tape for sealing and corrosion protection up to 100°C	50	10,0	1,20	0,80	0,44
100-10-TAPE-CAL	Plastic Vaseline tape for sealing and corrosion protection up to 100°C	100	10,0	1,20	1,60	1,02



CAL – Special advantages:

- For operating temperatures of -40°C (-40°F) to +110°C (+230°F).
- For design temperatures of -50°C (-58°F) to +120°C (+248°F).
- High plasticity and flexibility.
- Electrically insulating and diffusion re-sistant.
- No preheating of the surface required.

PEWOTAPE-CAL is a corrosion prevention tape that can be processed cold on the basis of polymer modified petrolatum. PEWOTAPE-CAL consist of an impregnated polyester fabric, which is coated on both sides with a corrosion prevention petrolatum mastic. The petrolatum mastic is stabilized by polymer additives and therefore permits application temperatures of up to +110°C (+230°F).

PEWOTAPE-CAL has a peel strength, which is exceptional for petrolatum tapes, even for higher temperatures, and provides a good flexibility.

In addition PEWOTAPE-CAL provides a single side laminated PP film, which prevents a washing out of the protective mass, e.g. caused by rising or falling groundwater.

PEWOTAPE-CAL will be wrapped in spirals with the film side to the outside and with at least 50% overlapping around the pipe.

PEWOTAPE-CAL is ideally suited for the encasing of pipelines and a pipeline armatures, which carry hot media and which are located in warm environments.

PEWOTAPE-CAL can also be applied to surfaces that are not preheated. For surface temperatures of less than +50°C (+122°F), a coating of the surface takes place initially with the PEWOTAPE-CAL Primer, a petrolatum mastic that can be processed easily by hand, which achieves a fast and complete coverage of the surface and a good adhesive connection to the PEWOTAPE-CAL tape.

PEWOTAPE – FEU + CAL – INSTALLATION INSTRUCTIONS



PEWOTAPE – TAPE SYSTEMS

Installation must be done according to local regulations and usual safety precautions. Follow safety instructions given on DENSOLEN®-Primer.

Application temperature

Pipe surface	min. +3°C (+5°F) above dew point up to +85°C (+185°F)
Ambient	-40° up to +60°C (-40° up to +140°F)
DENSOLEN®-HT Primer	-10° up to +40°C (+14° up to +104°F)
DENSOLEN®-MT25 Primer	-10° up to +50°C (+14° up to +122°F)
DENSOLEN® Tape	-10° up to +50°C (+14° up to +122°F)

In order to avoid wrinkling due to thermal elongation of the PE carrier film, the temperature difference between pipe surface (before and after tape application) and tape roll should be max. +30 °C (+54 °F).

Under prolonged exposure to sunlight, the finished wrapping should be covered with a suitable material (e.g. DENSOLEN® -DRM PP Rockshield).

Alternatively a white outerwrap with UV stabilizer such as DENSOLEN®-R20 HT should preferably be used in case of two tape systems.

Steel surface condition

Cleanliness (ISO 8501-1)
Roughness (ISO 8503-1)

min. ST2
20 - 100 µm

1. Cleaning



- The areas to be coated (steel surface and adjacent factory coating) have to be clean, dry, and free from grease and dust.
- All contamination which might act as a release agent (e.g. grease, oil, varnishes, temporary protecting paints, coupling agents) have to be completely removed prior to tape application. Use suitable solvent if necessary.

2. Drying



- Humidity and ice have to be removed by drying with a torch flame.

3. Surface Preparation



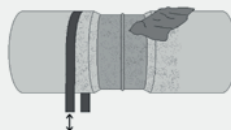
- Cleaning of steel surface can be done by wire brushing or abrasive blast cleaning.
- Any existing scale has to be removed by abrasive blast cleaning.

4. Transition to Factory Coating



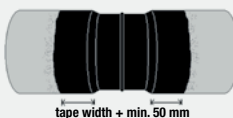
- Transitions to adjacent factory coating should be bevelled by use of a round shaped rasp (recommended angle: app. 30°). Remove grinding dust.

5. Preparation of Factory Coating



- Adjacent factory coating has to be cleaned in a width of app. 150 mm. Use suitable solvent, if necessary.
- Cleaned factory coating has to be circumferentially roughened with coarse emery cloth. Remove grinding dust.

6. Priming



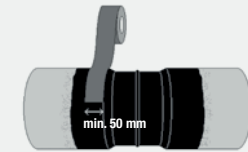
- Thoroughly stir DENSOLEN®-Primer in original drum until any bottom settlements are dissolved.
- By using a brush or roller apply a thin even coat of primer to the cleaned and dried surface.
- The factory coating has to be primed in a width of "tape width plus min. 50 mm" on each side.
- After use immediately close and seal primer drum. Clean brush or roller with suitable solvent (e.g. white spirit).

7. Priming - Drying



- Let the primer dry until it is tack free.
- The drying time depends on ambient temperature and air movement (approx. 10-30 min.).
- The primed surface should be wrapped latest within 6 h. Otherwise or in case of contamination (e.g. dust) the primer coat has to be renewed.

8. Innerwrap



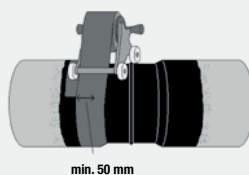
- In case of hand wrapping (tape width max. 50 mm) start with one circumferential wrap before spirally wrapping the tape. (start of wrapping: min. 50 mm on factory coating).
- Spirally wrap tape (e.g. DENSOLEN® 3-ply tapes with grey side facing the pipe surface) under tension with min. 50% overlap around the pipe.

9. Innerwrap



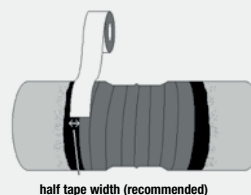
- Tape tension is sufficient, if tape width is narrowed by app. 1% during application.
- Remove interleaving.
- The tape wrapping should cover the full circumference of the adjacent factory coating by a width of min. 50 mm.

10. DENSOMAT® Wrapping



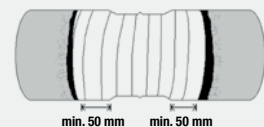
- When using DENSOMAT® wrapping devices, wrapping can start in spiral motion instead of one circumferential wrap (inner- and outerwrap).
- Start of wrapping on factory coating: min. 1.5 times of tape width.

11. Outerwrap



- In case of hand wrapping (tape width max. 50 mm) start with one circumferential wrap before spirally wrapping the tape.
- The outerwrap should at least fully cover the innerwrap. It is recommended to start wrapping by covering the innerwrap by ½ of tape width.
- Spirally wrap the outerwrap tape (e.g. DENSOLEN® 3-ply tapes with grey side facing the pipe surface) under tension with min 50% overlap around the pipe.

12. Outerwrap



- Tape overlap: Min. 50%.
- Tape tension is sufficient, if tape width is narrowed by app. 1% during application.
- Remove interleaving.
- The tape wrapping should cover the full circumference of the adjacent factory coating by a width of min. 50 mm.

Testing

- No wrinkles are allowed in the finished wrapping on visual testing.
- The wrapping has to be tested for freedom from pores with high voltage holiday detector. Test voltage: 5 kV + 5 kV per mm of coating thickness, max. 25 kV.

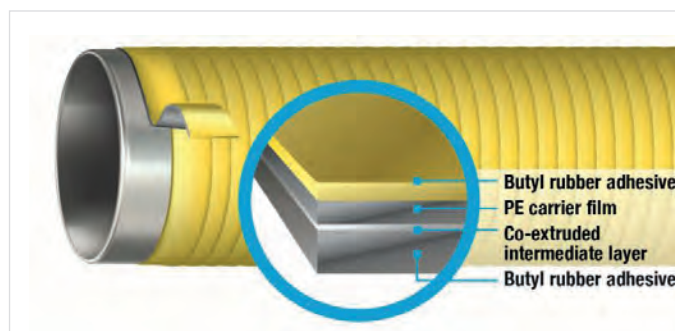
Recommendations

- It is highly recommended to use DENSOMAT® wrapping devices for application of tapes wider than or equal to 50 mm.
- In order to ensure that tapes are applied with sufficient wrapping tension, the tape width should be limited to max. 150 mm.

- The above application instruction can also be transferred to the wrapping of full pipe length or pipe bends.

PEWOTAPE – AS40 PLUS

Article No.	Description	Coupling dimensions not fitted			Weight ≈ kg/pcs.	Volume ≈ dm ³ /pcs.
		≈ W (mm)	≈ L (m)	≈ D (mm)		
1-TAPE-HT-PRIMER	Solvent-based primer for TAPE-AS40 / R20HT / ET100 products				0,92	1,90
30-8-3-TAPE-WP-B	Permanently elastic butyl rubber filling compound for smoothing uneven areas	30	3	8,00	1,00	0,71
40-4-2-TAPE-WP-B	Permanently elastic butyl rubber filling compound for smoothing uneven areas	40	2	5,00	0,56	0,40
30-15-TAPE-AS40-B	3-layer corrosion protection system DVGW according to DIN 30672/EN 12068 B50/C50 to 85° C Black	30	15	0,80	0,52	0,61
50-15-TAPE-AS40-B	3-layer corrosion protection system DVGW according to DIN 30672/EN 12068 B50/C50 to 85° C Black	50	15	0,80	0,85	1,02
100-15-TAPE-AS40-B	3-layer corrosion protection system DVGW according to DIN 30672/EN 12068 B50/C50 to 85° C Black	100	15	0,80	1,70	2,04
30-15-TAPE-AS40-Y	3-layer corrosion protection system DVGW according to DIN 30672/EN 12068 B50/C50 to 85° C Yellow	30	15	0,80	0,52	0,61
50-15-TAPE-AS40-Y	3-layer corrosion protection system DVGW according to DIN 30672/EN 12068 B50/C50 to 85° C Yellow	50	15	0,80	0,85	1,02
100-15-TAPE-AS40-Y	3-layer corrosion protection system DVGW according to DIN 30672/EN 12068 B50/C50 to 85° C Yellow	100	15	0,80	1,70	2,04



Special advantages:

- Real co-extruded three-layer tape.
- Proven corrosion protection technology for over 40 years.
- Easy to work with thanks to pliant yet highly tear-proof film.
- DIN-DVGW approved system: B 50 and C 50 (EN 12068, DIN 30672).
- Compatible with factory coatings made from PE, PP, FBE, PU, CTE and bitumen.
- For temperatures up to +85°C

PEWOTAPE-AS40 Plus is a cold-workable single-tape system for the corrosion protection of metal pipes and pipelines in high mechanical and corrosive load classes.

PEWOTAPE-AS40 Plus has been the established anti-corrosion system for cold-workable corrosion protection tapes worldwide since 1972 as a result of its outstanding properties. Thanks to its innovative formula, the tapes wash out fully in the overlapping area and form a resistant hose-like coating.

PEWOTAPE-AS40 Plus is a DIN-DVGW approved system and can be processed as 3-layer (B 50) or 4-layer (C 50), depending on the required protection class.

Approved at:



Standards reference (4-layer):
(Reg.No.:NV5180AL0188)

- EN 12068 – C 50
- DIN 30672 – C 50

Standards reference (3-layer):
(Reg.No.:NV5180AR0756)

- EN 12068 – B 50
- DIN 30672 – B 50

PEWOTAPE-AS40 Plus is practically impermeable to water vapour and oxygen and is resistant to soil bacteria and electrolytes.

PEWOTAPE-AS40 Plus is compatible with factory coatings made from PE, PP, FBE, PU, CTE and bitumen.

The **PEWOTAPE-AS40 Plus** system comprises:

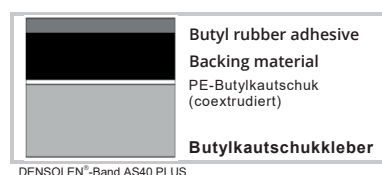
PEWOBAR-HT Primer

A solvent-based undercoat according to EN 12068 and DIN 30672 for corrosion protection with **PEWOBAR** tapes. See separate product information on the **PEWOBAR-HT**.

PEWOTAPE-AS40 Plus

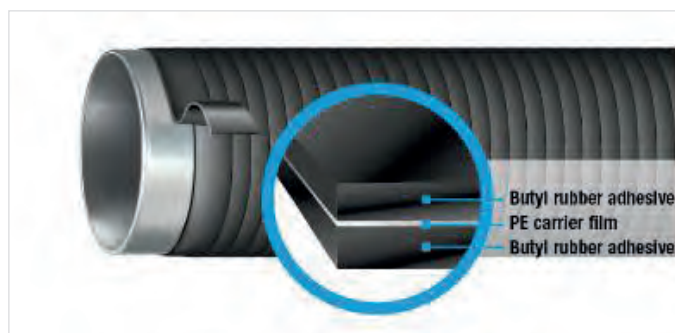
A real co-extruded 3-layer plastic tape made from stabilised polyethylene backing material with butyl rubber adhesive on both sides.

PEWOTAPE-AS40 Plus has a thickness of ≥ 0.8 mm.



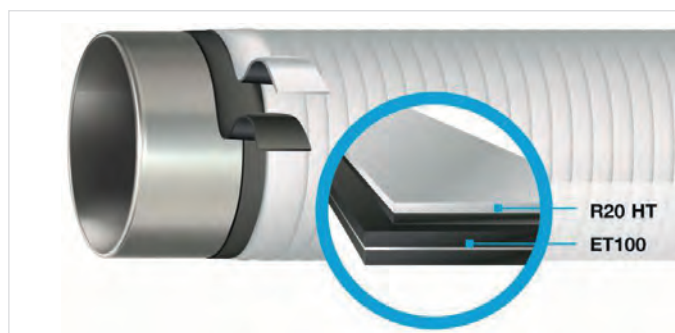
PEWOTAPE – ET100 + R20 HT

Article No.	Description	Coupling dimensions not fitted			Weight ≈ kg/pcs.	Volume ≈ dm ³ /pcs.
		≈ W (mm)	≈ L (m)	≈ D (mm)		
1-TAPE-HT-PRIMER	Solvent-based primer for TAPE-AS40 / R20HT / ET100 products				0,92	1,90
30-8-3-TAPE-WP-B	Permanently elastic butyl rubber filling compound for smoothing uneven areas	30	3	8,00	1,00	0,71
40-4-2-TAPE-WP-B	Permanently elastic butyl rubber filling compound for smoothing uneven areas	40	2	5,00	0,56	0,40
30-12-TAPE-ET100-B	3-layer corrosion protection system DVGW according to DIN 30672/EN 12068 B70 bis 100° C Black	30	12,5	1,00	0,44	0,61
50-12-TAPE-ET100-B	3-layer corrosion protection system DVGW according to DIN 30672/EN 12068 B70 bis 100° C Black	50	12,5	1,00	0,83	1,02
100-12-TAPE-ET100-B	3-layer corrosion protection system DVGW according to DIN 30672/EN 12068 B70 bis 100° C Black	100	12,5	1,00	1,66	2,04
30-30-TAPE-R20HT-B	2-layer corrosion protection system DVGW according to DIN 30672/EN 12068 B70 bis 100° C Black	30	30	0,50	0,55	0,61
50-30-TAPE-R20HT-B	2-layer corrosion protection system DVGW according to DIN 30672/EN 12068 B70 bis 100° C Black	50	30	0,50	0,92	1,02
100-30-TAPE-R20HT-B	2-layer corrosion protection system DVGW according to DIN 30672/EN 12068 B70 bis 100° C Black	100	30	0,50	1,84	2,04



ET100 – Special advantages:

- For operating temperatures to +100°C.
- No need to heat the pipe surface.
- Highly pliant butyl rubber tape
- Washes fully in the overlapping area and forms a hose-like coating.
- Compatible with factory coatings made from PE, PP, FBE, PU, CTE and bitumen.



ET100 + R20 HT – Special advantages:

- Excellent corrosion prevention for pipelines with high service temperatures.
- Especially thick and adaptable inner layer made from butyl rubber tape with a thickness of 1.0 mm.
- Exceeds the requirements of stress class **B 70** in accordance with EN 12068.
- Enagás / Spain approved system: **B 70** (EN 12068, DIN 30672).
- Compatible with factory coatings made of PE, PP, FBE, PU, CTE and bitumen.
- For temperatures up to +100 °C (+212 °F).

TOOLS

We recommend pliers for convenient installation of the PEWOREP couplings. These are applied onto the holes in the housing in order to close the coupling. This makes it possible to screw the bolts by hand.

Case, complete Ø 21 -172 (Article No.: W-Set-1)

- Fein 4-level cordless screwdriver with brushless motor
- 1/2" impact wrench socket set (H5; H6; H8; H10; H14)
- Drill adapter set (1/4"; 3/8"; 1/2")
- HAZET torque wrench 3-65 Nm 2% accuracy
- 3/8" impact wrench socket set (H5; H6; H8; H10; H14)
- Case without content Ø 21 -172
- Clamp for PEWOREP couplings Ø 21 -172



Case, complete Ø 172 - 2000 (Article No.: W-Set-2)

- Fine cordless screwdriver 18 V/2 Ah; 250 Nm
- HAZET torque wrench 35-200 Nm 4% accuracy
- 1/2" impact wrench socket set (H5; H6; H8; H10; H14), 2 sets
- Case without content Ø 172 - 2000
- Clamp for PEWOREP couplings Ø 172 - 2000, 2 items



Case without content (Article No.: W-Koffer-1)1)

- Case without content Ø 21 - 2000



Torque wrench case Ø 21 -172 (Article No.: W-Set-4)

- HAZET torque wrench 3-65 Nm 2% accuracy
- 3/8" impact wrench socket set (H5; H6; H8; H10; H14)
- Case without content Ø 21 - 2000



Torque wrench case Ø 172 - 2000 (Article No.: W-Set-5)

- HAZET torque wrench 35-200 Nm 4% accuracy
- 1/2" impact wrench socket set (H5; H6; H8; H10; H14)
- Case without content Ø 21 - 2000



Cordless screwdriver case Ø 21 -172 (Article No.: W-Set-6)

- Fine-4-level cordless screwdriver with brushless motor
- 1/2" impact wrench socket set (H5; H6; H8; H10; H14)
- Drill adapter set (1/4"; 3/8"; 1/2")
- Case without content Ø 21 - 2000



Cordless screwdriver case Ø 172 - 2000 (Article No.: W-Set-7)

- Fine-4-level cordless screwdriver 18 V/2 Ah; 250 Nm
- 1/2" impact wrench socket set (H5; H6; H8; H10; H14)
- Case without content Ø 21 - 2000



Article No.	Socket, adapter sets and clamp
W-H socket set 1	3/8" impact wrench socket set (H5; H6; H8; H10; H14)
W-H socket set 2	1/2" impact wrench socket set (H5; H6; H8; H10; H14)
W-B-Adapter	Drill adapter set (1/4"; 3/8"; 1/2")
W-Repzange-1	Clamp for PEWOREP couplings Ø 21 -172
W-Repzange-2	Clamp for PEWOREP couplings Ø 172 - 2000



TERMS AND CONDITIONS OF BUSINESS OF PEWOBAR GMBH

1. Scope of Application

The present General Terms and Conditions shall apply to all present and future business relations between any entity of the PEWOBAR GMBH (hereinafter referred to as "PEWOBAR") and the Purchaser even if they are not explicitly agreed on again. They shall supersede all previous agreements between the parties relating to a purchase order and supplant any Purchaser's terms and conditions for such order. Counter-confirmations by the Purchaser with reference to its own general terms and conditions are hereby rejected. In particular, and without limitation, a receipt, acceptance, acknowledgement or confirmation by PEWOBAR of any purchase order containing or referencing conflicting, different or additional terms, conditions or provisions shall not constitute a waiver, alteration or modification of the present General Terms and Conditions. These General Terms and Conditions are applicable as of the date of acceptance of the purchase order in full and as the sole and exclusive agreement between PEWOBAR and the Purchaser with regard to the order. They are an integral part of every contract, quotation or offer of PEWOBAR.

Any deviating, contradictory or supplementary general terms and conditions, even if known, shall not become a component part of the contract, unless their application has been expressly agreed in writing.

2. Quotation, Documents

2.1 PEWOBAR shall be the exclusive owner of all rights in particular, without limitation, property rights and copyrights in drawings or other documentation relating to the goods; they must neither be exploited nor made available to third parties without prior approval by PEWOBAR.

2.2 The Purchaser shall inform PEWOBAR already at the quotation stage of any unusual kind of stress to which the products to be delivered will be subjected and point out any other risks which could arise in the course of their use.

2.3 If quotations or order confirmations refer to PEWOBAR'S product catalogue or brochure material, only the most recent version thereof shall be relevant.

3. Conclusion of Contract

3.1 PEWOBAR quotations are subject to change without notice.

3.2 Within the limits of what is reasonable, PEWOBAR reserves the right to technical modifications of the products, modifications of form, color, and/or weight as well as formal and technical product improvements in order to maintain the state of the art.

3.3 By placing an order for the goods the Purchaser makes a binding offer to purchase the ordered goods.

3.4 PEWOBAR reserves the right to accept the offer based on the quotation within a period of two weeks following receipt of the order. The acceptance can be declared either in writing or by delivering the goods.

3.5 Purchase orders can only be made by the Purchaser up to a maximum net purchase value equal to the difference between the amount of an agreed credit limit and the amount currently owed to PEWOBAR for products purchased or otherwise outstanding to PEWOBAR. PEWOBAR reserves the right to apply for the first time or modify a credit limit for the Purchaser at any time by providing eight weeks prior written notice, provided that in such case the Purchaser shall be entitled within such eight weeks period to terminate the Agreement with immediate effect and that failing such termination the credit limit shall apply with effect of the first day following expiry of the eight weeks period.

3.6 PEWOBAR reserves the right to assign or to factor any demands or claims arising from the business relationship with the Purchaser to any third Party.

4. Prices

4.1 Prices are stated ex-work, excluding one-way packaging which shall be calculated separately and added at cost price.

4.2 Prices do not include V.A.T. which will be shown separately on the invoice in the respective legally applicable amount.

4.3 If the relevant factors for price-setting (e.g. wages and/or costs of materials and/or supplies) change subsequent to the conclusion of this contract, then PEWOBAR shall be entitled to adapt its prices accordingly, provided that the changes were not caused by PEWOBAR. Upon request by Purchaser, PEWOBAR shall provide evidence for such changes.

5. Payment, Payment Default, Insolvency

5.1 Invoices, of the net value of goods, are payable within 8 days following the invoice date.

5.2 Offsetting by the Purchaser shall be excluded, unless made with claims that are recognized by binding judgment or uncontested.

5.3 Purchaser shall only be entitled to withhold its performance to the extent his claim for performance is based on the same contract.

5.4 In the event that the Purchaser is in default with his payments, PEWOBAR shall be entitled to charge interest in the amount of 8% above the basic interest rate. PEWOBAR reserves the right to claim additional damages.

5.5 In case of default PEWOBAR shall be entitled to call due any accounts not yet due in the current business relationship with Purchaser.

5.6 If it becomes evident subsequent to the conclusion of the contract that PEWOBAR's payment claims are in jeopardy due to the Purchaser's inability to pay, PEWOBAR shall be entitled, if PEWOBAR is obligated to make advance deliveries or payments, to withhold its performance and to set the Purchaser a reasonable time period until the expiry of which Purchaser shall either make contemporaneous payments against PEWOBAR's delivery or furnish the respective collateral. If the term set expires unsuccessfully, PEWOBAR shall be entitled to withdraw from the contract and claim compensation of damages incurred.

PEWOBAR may also withdraw from the contract if the Purchaser or a third party files for insolvency over the assets of the Purchaser's. The same shall apply in the event that insolvency proceedings are opened over Purchaser's assets or such opening is denied due to lack of assets.

5.7 In any case, any late payment, after a formal demand, will apply a penalty the amount of which shall be set by PEWOBAR. In the event of dispute, the appropriateness of the penalty shall be reviewed by the competent court.

5.8 Whatever the means of payment used, payment shall not be deemed to have been affected before PEWOBAR's account has been fully and irrevocably credited.

6. Delivery Dates

6.1 Agreed delivery dates or periods are deemed to be met if the goods to be delivered are ready for shipment before the set delivery date or period expires.

6.2 If the parties, instead of specifying the date of delivery, have specified a period of time until the expiry of which the delivery shall take place, such period shall start to run as soon as the contract is concluded, all statutory or contractual formalities have been completed, payments due at the conclusion of the contract have been made, any agreed securities have been given and any other statutory or contractual preconditions have been fulfilled. If instead the parties have specified a delivery date and any of such conditions are not met, then the delivery date shall be postponed accordingly.

6.3 PEWOBAR shall be entitled to make reasonable partial deliveries.

7. Delay

7.1 If delay in delivery is caused by any of the circumstances mentioned in Clause 12 or by an act or omission on the part of the Purchaser, including suspension under Clause 5.6, the time for delivery shall be extended by a period which is reasonable having regard to all the circumstances of the case. This provision applies regardless of whether the reason for the delay occurs before or after the agreed time for delivery.

7.2 If the Purchaser anticipates to be unable to accept delivery of the goods at the agreed delivery time, Purchaser shall forthwith notify PEWOBAR in writing thereof, stating the reason and, if possible, specifying the time when Purchaser will be able to accept delivery.

7.3 If the Purchaser fails to accept delivery at the agreed delivery time Purchaser shall nevertheless pay any part of the purchase price which becomes due on delivery, as if delivery had taken place. PEWOBAR shall arrange for storage of the goods at the risk and the expense of the Purchaser. PEWOBAR shall also, if the Purchaser so requires, insure the goods at the Purchaser's expense.

7.4 Unless the Purchaser's failure to accept delivery is due to any such circumstance as mentioned in Clause 12, PEWOBAR may by notice in writing require the Purchaser to accept the delivery within a final reasonable period of grace. If, for any reason for which PEWOBAR cannot be held responsible, the Purchaser fails to accept delivery within such period of grace, PEWOBAR may by notice in writing terminate the contract in whole or in part with immediate effect. PEWOBAR shall then be entitled to compensation of damages suffered by reason of the Purchaser's default.

7.5 In the event that PEWOBAR is in default of delivery the Purchaser may withdraw from the contract, provided that the Purchaser had set a reasonable period of grace for effecting delivery and that PEWOBAR had not shipped the goods, or any parts thereof, when this period of grace expired. After the period of grace has expired, the Purchaser is entitled to withdraw from the contract for the outstanding part of the delivery. In the case that PEWOBAR made a partial delivery, the Purchaser can only withdraw from the contract as a whole if the Purchaser cannot use the partial delivery due to the default.

7.6 Risk shall transfer to the Purchaser as soon as the consignment has been handed-over to the person transporting it or has left PEWOBAR's storage area in order to be dispatched, without prejudice to the right of PEWOBAR to rely on the benefit of the retention of title set forth in Clause 8 or to make use of its right of retention set forth in Clause 5.6. In case that dispatch becomes impossible for reasons not caused by PEWOBAR, risk is transferred to the Purchaser upon notification of readiness to dispatch. Unless otherwise agreed, all operations involving transport, handling, storage, insurance, customs and maintenance shall be carried out by and be paid for by the Purchaser.

7.7 All other claims against PEWOBAR for default shall be excluded except where PEWOBAR has been culpable of willful intent or gross negligence.

7.8 In the present General Terms and Conditions gross negligence shall mean an act or omission implying either a failure to pay due regard to serious consequences which a conscientious supplier/manufacturer would PEWOBAR Fully foresee as likely to ensue, or a deliberate disregard of the consequences of such act or omission.

8. Retention of Title

8.1 The delivered goods will remain our property until all our present and future payment claims against the Purchaser arising in connection with the delivered goods, have been fulfilled.

8.2 The Purchaser shall be entitled to resell the goods retained in our property (hereinafter referred to as "Reserved Goods") in the ordinary course of business. The Purchaser hereby assigns to PEWOBAR all accounts receivables arising from such resale, in particular, without limitation the payment claims against Purchaser's customers.

8.3 In the event that Reserved Goods are combined with other goods that are not PEWOBAR's property PEWOBAR shall have joint title in the combined goods pro rata to the delivery price agreed between the Purchaser and PEWOBAR for the Reserved Goods compared to the value of the other goods so combined with the Reserved Goods, at the time of the combination. For any combined goods the same rules apply as for the Reserved Goods.

8.4 In the event that Reserved Goods are resold together with other goods that are not PEWOBAR's property, the Purchaser's claim against its customer in the amount of the delivery price agreed between the Purchaser and PEWOBAR for the Reserved Goods is deemed assigned to PEWOBAR.

8.5 The Purchaser shall be authorized to collect these accounts receivable even after the assignment, without prejudice to PEWOBAR's right to collect these receivables itself. PEWOBAR undertakes to refrain from doing so, however, as long as the Purchaser duly meets its payment obligations. In the event that the Purchaser makes use of the collection authorization, the collected proceeds in the amount of the delivery price agreed between the Purchaser and PEWOBAR for the Reserved Goods shall be payable to PEWOBAR.

8.6 In the event that PEWOBAR accepts bills of exchange as means of payment, PEWOBAR's retention of title continues until it is established that recourse can no longer be taken to PEWOBAR for these bills of exchange.

8.7 PEWOBAR undertakes to release the collateral to which PEWOBAR is entitled in the amount in which its value exceeds the accounts receivable to be collateralized, to the extent that these have not yet been paid, by more than 20%.

8.8 The Purchaser shall notify PEWOBAR without undue delay of any seizure or similar acts by third parties in order to put PEWOBAR in the position to take legal steps against such acts or otherwise protect its interest.

9. Complaints/Liability for Defects

9.1 The Purchaser shall inspect the deliveries without undue delay after receipt and notify PEWOBAR without undue delay in writing of any apparent defects, short or wrong deliveries discovered upon inspection, stating the reasons for the complaint.

9.2 The notice shall contain a description of the defect.

9.3 If the Purchaser fails to notify PEWOBAR in writing of an apparent defect within the time limits set forth in Clause 9.1 Purchaser shall lose

its right to have the defect remedied.

10. Rights in the Case of Defects/Warranty

10.1 The quality owed to the Purchaser shall be determined by the quality agreed with the Purchaser or the quality and general purpose of use stated by PEWOBAR. If PEWOBAR's delivery is based on individual drawings, specifications or samples provided by the Purchaser, the same is also responsible for the suitability of the delivered goods for the intended purpose of use.

10.2 In case of a justified notice of defect, PEWOBAR shall provide subsequent fulfillment by replacement delivery or reworking. If PEWOBAR does not fulfill within a reasonable time period set by Purchaser or if such subsequent fulfillment fails then the Purchaser shall have the right to demand a price reduction or, in the case of a material breach of contract, to withdraw from the contract.

If only parts of the delivery are defective, the right to subsequent fulfillment relates only to the defective part of the delivery, unless the Purchaser is unable to use the partial delivery.

10.3 If the Purchaser has given such notice as mentioned in Clause 9 and no defect is found for which PEWOBAR is liable, PEWOBAR shall be entitled to compensation for the costs incurred as a result of the notice.

10.4 PEWOBAR shall not be liable for defects arising out of the materials provided, or a design stipulated or specified by the Purchaser.

10.5 PEWOBAR shall be liable only for defects which appear under the conditions of operation provided for in the contract and under proper use of the goods. Such liability of PEWOBAR shall not cover defects which are caused by faulty maintenance, incorrect erection or faulty repair by the Purchaser, or by alterations carried out without the consent of PEWOBAR in writing.

10.6 Save as stipulated in Clause 10.1-10.4, PEWOBAR shall not be liable for defects including, without limitation, damages the defect may cause like for instance loss of production, loss of profit and other indirect damages.

11. Limitation of Liability, Product Liability

11.1 In the event of willful intent or gross negligence of PEWOBAR or its statutory representatives or vicarious agents PEWOBAR shall be liable pursuant to the applicable statutory provisions. Unless in the event of willful intent or gross negligence, PEWOBAR's liability shall be limited to the direct average damage foreseeable in relation to such type of goods and typical for such contracts.

11.2 PEWOBAR shall not be liable for slightly negligent breaches of non-significant contract duties.

11.3 Unless otherwise stated in these General Terms and Conditions there shall be no liability for either party towards the other party for loss of production, loss of profit, loss of use, loss of contracts or for any other consequential or indirect damages whatsoever.

11.4 The above-mentioned limitations of liability do not concern claims of the Purchaser arising out of compulsory statutory product liability or in the case of personal injury or damage to health, or loss of life when these can be attributed to PEWOBAR.

11.5 Unless otherwise stated herein above, PEWOBAR's liability shall be excluded.

11.6 Any claims for compensation of damages that can be raised by the Purchaser due to a defect become statute-barred on the expiry of twelve months following the transfer of the risk. This does not apply if PEWOBAR can be accused of fraudulent intent.

12. Disputes and Applicable Law

12.1 Any action or proceedings by one party against the respective other party may be brought in any court(s) having jurisdiction over the location of the respective supplying entity of the PEWOBAR GmbH.

12.2 This contract is to be construed according to the laws of the country (and state/province, if applicable) of the respective supplying entity of the PEWOBAR GmbH, excluding, however, the provisions of the United Nations Convention on Contracts for the International Sale of Goods and any provision on the conflict of laws that would require application of another choice of law.

APPROVALS AND CERTIFICATES

DVGW



- + **Drinking water applications**
Elastomer Guidelines of the Federal
Environmental Agency (UBA)
(Formerly KTW Recommendation 1.3.13 D1 / D2)
DVGW Worksheet W270;
DIN EN 681 (WA / WB / WC / WD)
- + **Gas applications**
DVGW GAS according to DIN 3387 / G5600-1



IACS



- + According to IACS standard
- + DIN 86128 Part 1/2 for design
and tests



Bureau Veritas



DET Norske Veritas /
Germanischer
Lloyd



Lloyd's
Register



American Bureau
of Shipping



PEWOBAR GmbH

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Web: www.pewobar.de

Online-Checklist:



Own test laboratory

- Corrosion tests
- Fire tests
- Vacuum tests
- Vibration tests
- Bending tests
- Pressure tests
- Tensile tests