

Technical Manual

# UNI-Coupling



# UNI-Coupling

+ connecting pipes  
better, quicker  
and safer than  
you are used to

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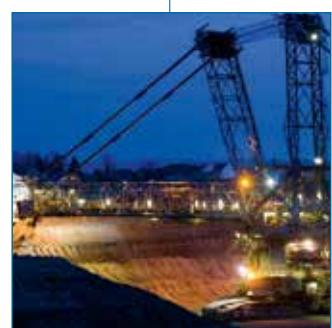
The technical data are not binding and not expressly warranted characteristics of the goods. They are subject to change.  
Please consult our general conditions of supply.

# Connect pipes better, quicker and safer ...

With the UNI-Coupling you can connect pipes the easy way. Better than a threaded connection, quicker than a welded connection and safer than a flanged connection.

The stainless steel UNI-Coupling has a number of advantages that gives it a couple of advantages compared to similar couplers. That is because the UNI-Coupling has two specific parts making this coupler unique. A patented seal that eliminates the risk of leakage and a special shaped anchoring grip ring, which ensures a reliable, restraint connection.

Moreover the UNI-Coupling can be installed quickly and thanks to the wide range, it can effortlessly connect different types of pipes with various outside diameters. Better, quicker and safer than you are used to. The UNI-Coupling offers you an easy to install, time saving and money saving solution.

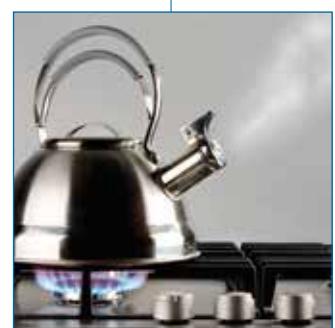
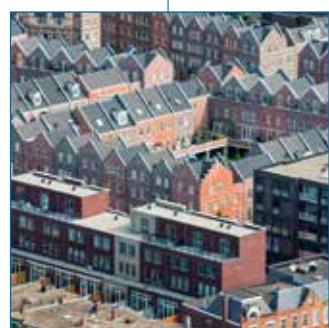
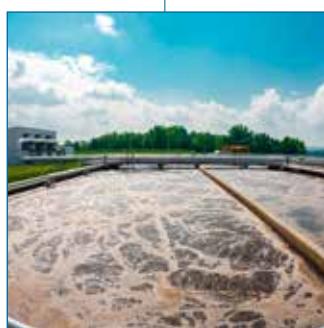


# ... in various applications

The UNI-Coupling has approvals for several applications such as shipbuilding, offshore, water treatment, chemical process industry, commercial buildings and infrastructure:

## Applications:

- + Reverse osmosis
- + Process water
- + Oil pipelines
- + Gas turbines
- + Cooling water
- + Compressed air
- + Rinse water
- + Emergency showers
- + Extinguishing lines
- + Tank storage
- + Bilge water
- + Ballast water
- + Working air
- + Sprinkler lines
- + Drinking water
- + District heating
- + Air conditioning
- + Waste water
- + Water distribution
- + Gas distribution



# High flexibility and safety margins

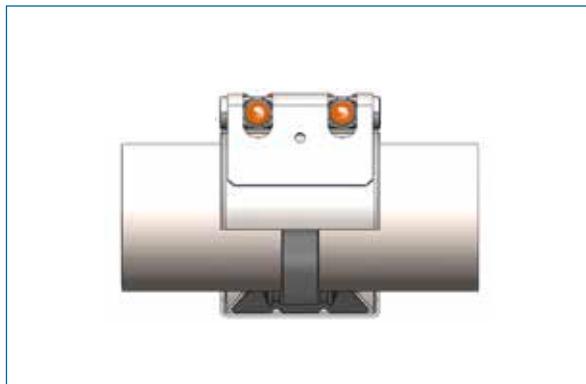
High flexibility and safety margins: the basic principle of UNI-Coupling.

## Two types of UNI-Coupling

UNI-Coupling applies one unique technical principle in two basic types of products and is available for any type of pipe combination to be connected. Based on the well-proven coupling technology, we combine different pipe materials for different applications for our customers.

Their safety and reliability has been proven and certified by public authorities, insurance companies, technical inspectors and licensing institutes for all the major industrial sectors in most industrial countries. You can rely on the UNI-Coupling.

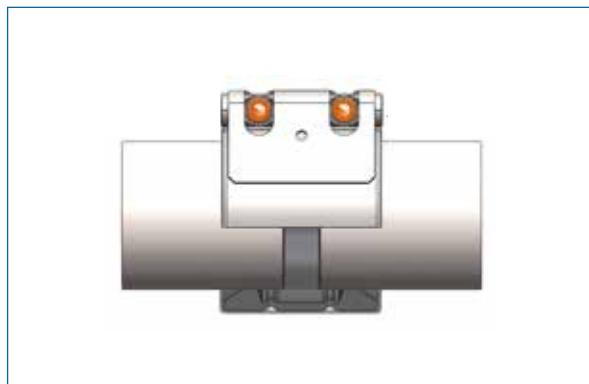
**UNI-Grip / UNI-Plastgrip / UNI-Combigrip**



**Axially restrained**



**UNI-Flex / UNI-Rep**



**Axially flexible**



# Features an unique patent solution

## The patent seal with an integrated compensation solution

Once installed the unique seal with coupling compensation beads makes the use of stainless steel inserts superfluous in most applications. This actively prevents potential corrosion problems.

There will be a progressive sealing effect due to the wedge-shaped structure. This ensures watertight sealing even at high pressures. Due to the solid seal design (without thin lips) robustness of the seal guarantees durability even in harsh conditions.

## Progressive anchoring with spherical profile

Internal pressure or axial forces cause tensil load which is absorbed by the progressive anchoring ring.

The tooth show a spherical profile which ensures a high tip hardness and therefore a solid grip even at the toughest type surface. Especially important when it comes to thin walled stainless steel or cast iron pipes.

Due to the simultaneous cuts of the teeth ( $5^\circ$ ) a firm grip on other surfaces like metallic coated pipes is also guaranteed. This because the teeth penetrate the outer surface and anchor in the pipe wall.

## Fire protection for your safety

For applications in which a fire protection must be guaranteed we meet the high demands of the shipbuilding industry according to ISO 19921/19922. These high requirements are ensured by an additional fire protection.

**Patent seal**



**Axially flexible**



**Progressive anchoring**



**Axially restrained**



# Countless benefits

## Universal use

- ⊕ Suitable for any pipe material
- ⊕ Compatible with any traditional jointing system
- ⊕ Joins pipes of the same or dissimilar materials
- ⊕ Leak-proof joint for liquids, gas and for solids
- ⊕ Quick and simple repairs of damaged pipes without service interruptions
- ⊕ Installation and sealing principle consistent throughout the range
- ⊕ Axially restrained or axially flexible (compensator) versions available

## Economical

- ⊕ Pre-assembled design ensures simple and quick installation
- ⊕ For use on plain-end pipes without the need for costly pipe-end preparation
- ⊕ Simply cut pipes to length, center coupling and tighten bolts
- ⊕ Suitable for thick and thin wall pipes
- ⊕ No expensive installation tools required

## Reliable

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

## Easy handling

- ⊕ Detachable and reusable
- ⊕ Maintenance-free and trouble-free
- ⊕ No time-consuming alignment and fitting work
- ⊕ Easy installation technology
- ⊕ No heat or fire hazard: can be fitted in fire-risk or confined spaces without special equipment

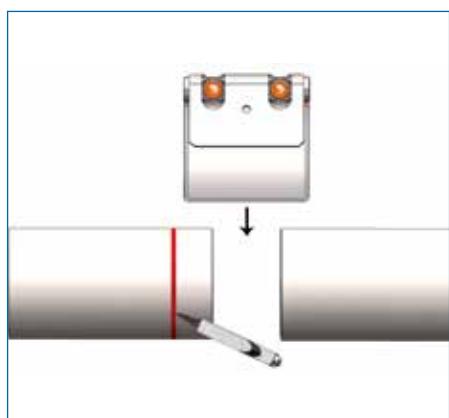
## Durable

- ⊕ Progressive sealing effect
- ⊕ Progressive anchoring effect
- ⊕ Corrosion resistant and temperature resistant
- ⊕ Good resistance to chemicals
- ⊕ Long service life

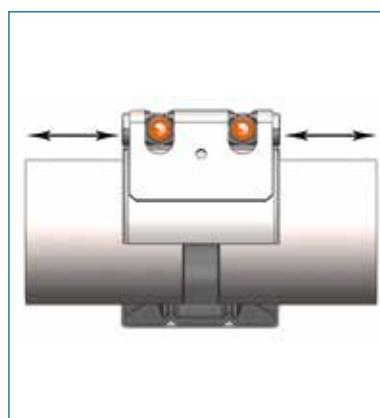
## Space-saving

- ⊕ Compact design for space-saving installation of pipes
- ⊕ Lean insulation, small openings
- ⊕ Needs little space
- ⊕ Choice of mounting position
- ⊕ Lightweight
- ⊕ Increases the payload

## Universal use



## Reliable



## Space-saving



### Safe

- + Absorbs vibrations/oscillations
- + Reduces pressure surges
- + Reduces fatigue fractures
- + Noise reduction increases the comfort for passengers
- + No fire or explosion hazard during installation
- + No cost for protective measures
- + Quadruple safety
- + Absorbs overloading through flexibility

### Damping

- + Increases the life of valves and systems
- + Compensates axial offset and angles
- + Coupler and compensator in one

### Long-lasting stress free

- + Corrosion resistant
- + Good resistance to temperature and chemicals
- + Low torque guarantees long service life

**PN16; Ø 114,3 mm**

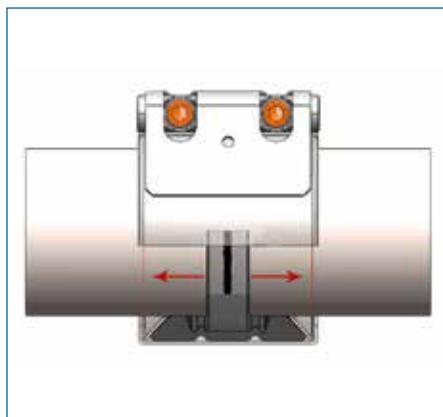
**UNI-Coupling-Connection (2x DN80) 8,7 kg**



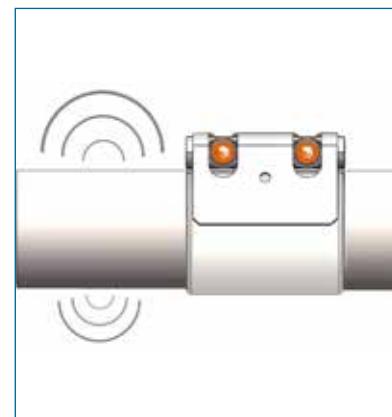
**Flange-Connection (2 x 2 pieces) 21,9 kg**



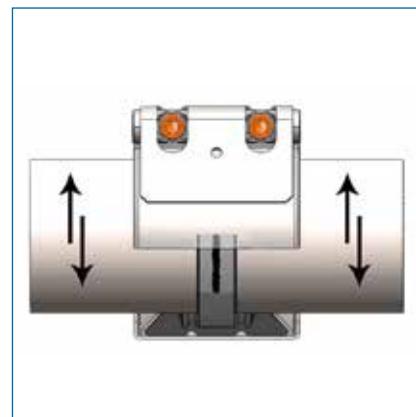
### Safe



### Damping



### Long-lasting stress free



# Approvals

The UNI-Coupling has several approvals on the product. More approvals are pending.

Certificates are on request. Contact your local dealer.

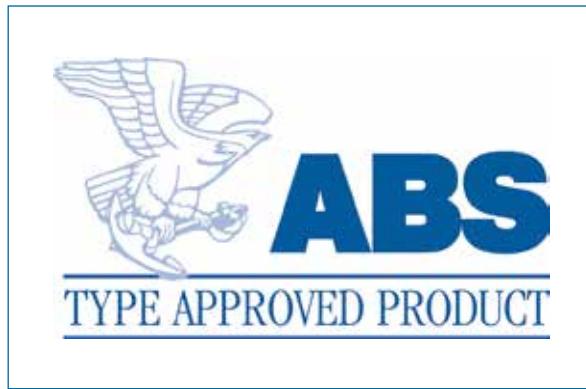
**DET Norske Veritas / Germanischer Lloyd's**



**Lloyd's Register**



**American Bureau of Shipping**



**DVGW**



# Test results

## Corrosion test

Tested according to ASTM B117, DIN EN ISO 9227.

### 264 hours corrosion test

- + Results: after 264 hours (11 days) NO CORROSION



## Other tests

Testing conditions according to DIN 86128-1 / IACS

Reg. 2001 / REV. 7 2007 P2.7.4. For slip on joints (G+F)

Type = Tension-proof + flexible joints)

### Fire test

- + Test results are on request. Ask your local dealer.



### Vacuum test

- + Test results are on request. Ask your local dealer.



## Vibration test

- + Test results are on request. Ask your local dealer.



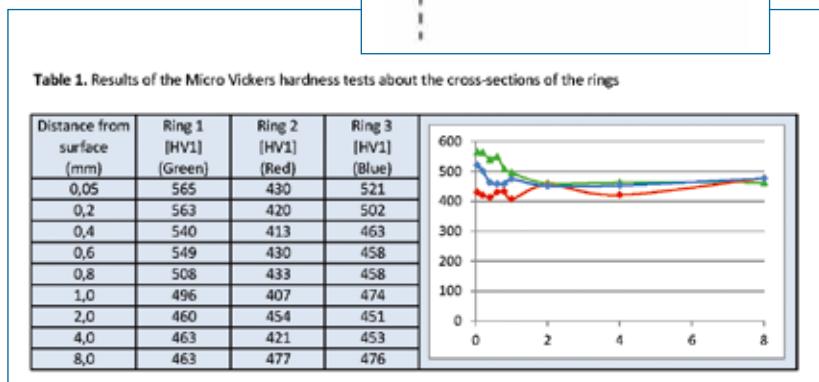
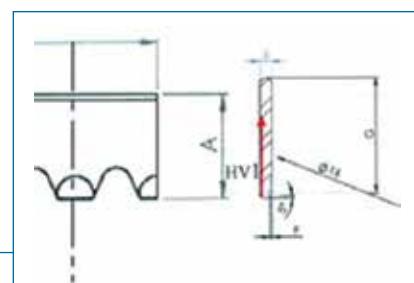
## Gasket test

- + Results: pressure on the seal
- + No pressure on gasket centre
- + No strip insert
- + No corrosion



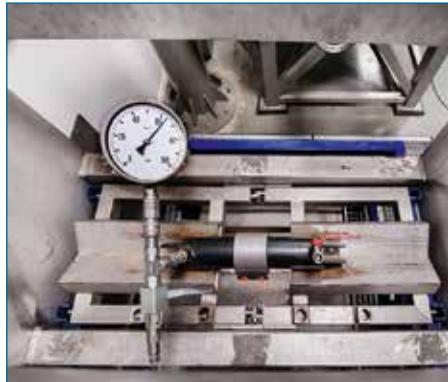
## Anchoring test

- + Results: hardening from: 1450 N/mm<sup>2</sup> (460 HV1) to 1850 N/mm<sup>2</sup> (565 HV1 = 53 HRC)
- + Ring 1 = UNI-Coupling (green), ring 2 (red) and 3 (blue) = competitors



### **Tightness and burstpressure test**

+ Test results are on request. Ask your local dealer.



### **Pullout test**

+ Test results are on request. Ask your local dealer.



# Type overview

The UNI-Coupling is available in various types.

## UNI-Grip

- + To connect metal - metal
- + For restraint jointing
- + With patented wedge shaped seal
- + With 2 grip rings for metal pipes
- + Stainless steel W5 quality

## UNI-Plastgrip

- + To connect plastic - plastic
- + For restraint jointing
- + With patented wedge shaped seal
- + With 2 grip rings for plastic pipes
- + Stainless steel W5 quality

## UNI-Combigrip

- + To connect metal - plastic
- + For restraint jointing
- + With patented wedge shaped seal
- + With 1 grip ring for metal pipes
- + With 1 grip ring for plastic pipes
- + Stainless steel W5 quality

## UNI-Flex

- + To connect metal - plastic
- + To connect metal - metal
- + To connect plastic - plastic
- + For flexible jointing
- + With patented wedge shaped seal
- + Stainless steel W5 quality

## UNI-Rep

- + To connect metal - plastic
- + To connect metal - metal
- + To connect plastic - plastic
- + For flexible jointing
- + With patented wedge shaped seal
- + With clamp mechanism for repairing under pressure
- + Stainless steel W5 quality

## UNI-Grip



## UNI-Flex



## UNI-Plastgrip / UNI-Combigrip



## UNI-Rep



# Technical data



# Technical data overview

Type	OD Ø (mm)	Width (mm)	Pressure PN (bar)
<b>UNI-Grip</b>	21 - 172	45 - 110	16
	188 - 745	137/206 other widths on request	2,5 to 16
<b>UNI-Plastgrip</b>	39 - 165	60 - 110	10
<b>UNI-Combigrip</b>	39 - 165	60 - 110	10
<b>UNI-Flex</b>	21 - 172	45 - 110	16
	188 - 2090	137/206 280/420	2,5 to 16
<b>UNI-Rep</b>	36 - 172	60 - 110	16
	188 - 745	137/206 280/420	6 to 16

<b>Wider range</b>	<b>OD Ø (mm)</b>	<b>Number of couplers</b>	<b>Material quality</b>	<b>Pressure rating</b>
<b>UNI-Coupling</b>	21 - 47,5	7	standard W5	to 5 mm thickness
	47,5 - 172	15	standard W5	to 5 mm thickness

<b>Connecting</b>	<b>Metal - Metal</b>	<b>Plastic - Plastic</b>	<b>Metal - Plastic</b>	<b>Restrained / Flexible</b>
<b>UNI-Grip</b>	X			restrained
<b>UNI-Plastgrip</b>		X		restrained
<b>UNI-Combigrip</b>			X	restrained
<b>UNI-Flex</b>	X	X	X	flexible
<b>UNI-Rep</b>	X	X	X	flexible

<b>Sealing material</b>	<b>EPDM &gt; 21 - 172 mm</b>	<b>EPDM &gt; 180 mm</b>	<b>NBR</b>	<b>Silicone or Viton</b>
<b>Temperature range</b>	-30 °C - +125 °C	-30 °C - +80 °C	-20 °C - +80 °C	on request
<b>Medium</b>	drinking water, waste water, compressed air, alcohol and solids	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	on request

<b>Quality</b>	<b>Housing</b>	<b>Lock bars</b>	<b>Bolts</b>	<b>Anchoring</b>
<b>W5</b>	1.4571 / 316 Ti	1.4571 / 316 Ti	A4 – 80 / 316 Ti	1.4310 / 301

# UNI-Grip L

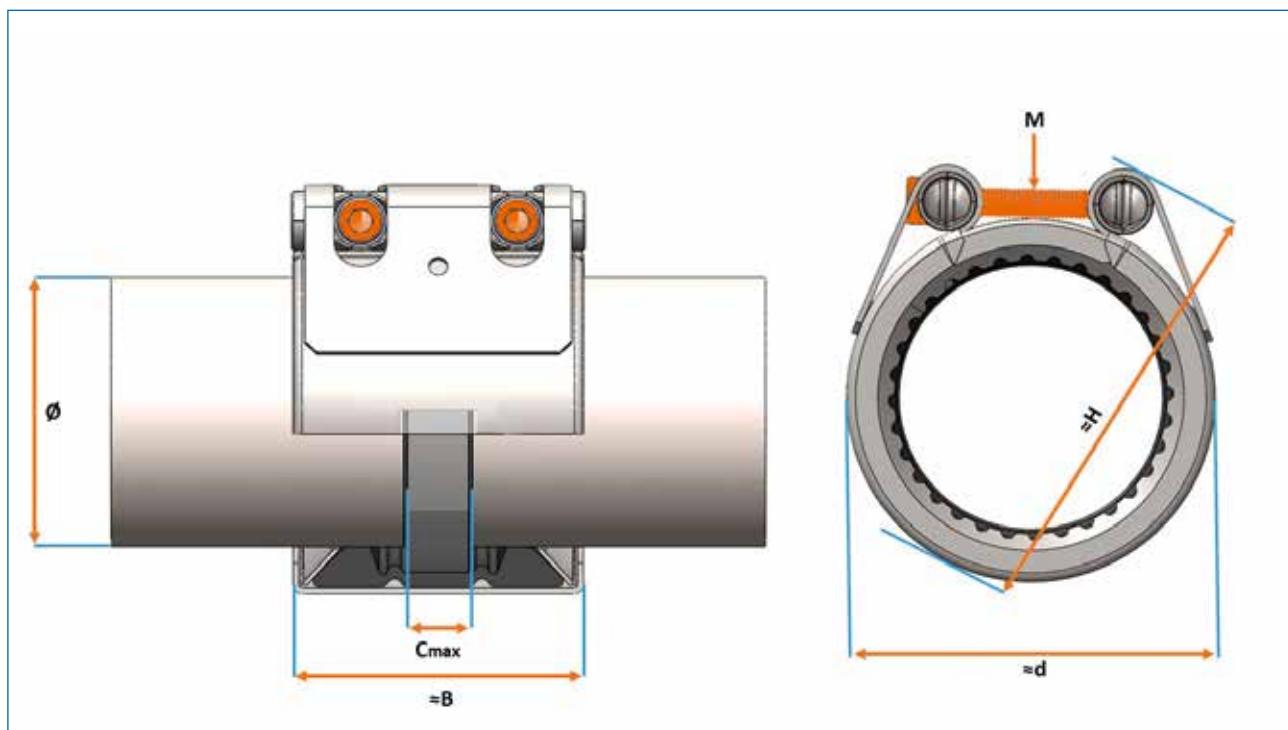
$\varnothing 21 - 172 \text{ mm PN16}$

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
<b>Components</b>			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
<b>Sealing Sleeve Application</b>			
Temperature range	-30 °C up to +125 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	
	EPDM	NBR	Silicone (on request) Viton (on request)

**Important remarks:**

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)

*Technical details are subject to change. Typing error may occur*





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 724 001	779 721 001	21	24	21,3/21,6	16	70	45	10	46	76	M6	7	0,20	10
779 724 002	779 721 002	26	29	26,9/28	16	70	45	10	46	76	M6	7	0,20	10
779 724 003	779 721 003	29	32	30	16	70	45	10	54	84	M6	7	0,20	10
779 724 004	779 721 004	33	36	33,7/35	16	70	45	10	54	84	M6	7	0,20	10
779 724 005	779 721 005	36	39	38	16	60	60	15	66	104	M8	10	0,40	10
779 724 006	779 721 006	39	43	42,4	16	50	60	15	66	104	M8	10	0,40	10
779 724 007	779 721 007	43	47,5	44,5	16	50	60	15	74	112	M8	10	0,40	10
779 724 008	779 721 008	47,5	52,5	48,3	16	50	60	15	74	112	M8	10	0,40	10
779 724 009	779 721 009	52,5	58	54/57	16	50	75	25	85	125	M8	15	0,60	10
779 724 010	779 721 010	58	64	60,3/63	16	40	75	25	85	125	M8	15	0,60	10
779 724 011	779 721 011	64	72	66,6/68/69/70	16	40	95	30	108	164	M10	25	1,40	10
779 724 012	779 721 012	72	80	73/76,1/79,5	16	40	95	30	108	164	M10	25	1,40	10
779 724 013	779 721 013	80	88	84	16	35	95	30	124	170	M10	30	1,60	10
779 724 014	779 721 014	88	96	88,9	16	35	95	30	124	170	M10	30	1,60	10
779 724 015	779 721 015	97	105	98/100,6/101,6/104	16	35	95	30	141	187	M10	40	1,70	10
779 724 016	779 721 016	104	112	104,8/108/110	16	35	95	30	141	187	M10	40	1,70	10
779 724 017	779 721 017	112	120	114,3/118	16	35	95	30	158	202	M10	45	1,90	10
779 724 018	779 721 018	122	130	125/127/129	16	32	95	30	158	202	M10	45	1,90	10
779 724 019	779 721 019	129	137	130,2/131/133	16	32	110	40	178	230	M12	50	3,40	5
779 724 020	779 721 020	137	145	139,7/141,3/141,6	16	32	110	40	186	238	M12	50	3,50	5
779 724 021	779 721 021	149	157	154/155	16	32	110	40	197	249	M12	65	3,60	5
779 724 022	779 721 022	157	165	159	16	32	110	40	205	255	M12	65	3,70	5
779 724 023	779 721 023	164	172	165/168,3	16	32	110	40	212	262	M12	65	3,80	5

# UNI-Grip S

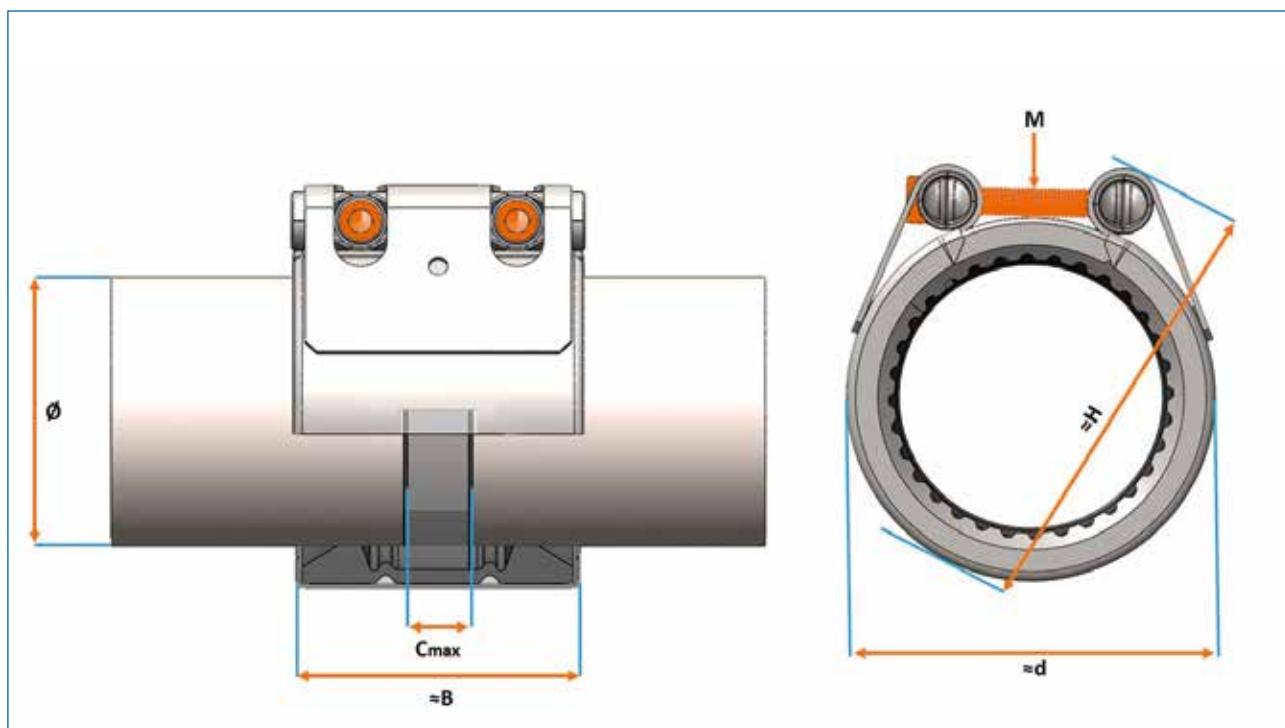
Ø 188 - 290 mm PN16

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
Components			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
Sealing Sleeve Application	EPDM	NBR	Silicone (on request) Viton (on request)
Temperature range	-30 °C up to +80 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)

Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 764 024	779 762 024	188	198	185/187/190/191/193,7/195/196/197	16	25	138	40	236	262	M16	100	6,46	1
779 764 025	779 762 025	201	211	200/202/203/204/205/206/208/210	16	25	138	40	249	275	M16	100	6,66	1
779 764 026	779 762 026	213	223	211/212/215/216/217/219,1/220/222	16	25	140	40	261	287	M16	100	9,18	1
779 764 027	779 762 027	224	234	224/225/226/228/229/230/232/234	16	25	140	40	272	298	M16	100	9,45	1
779 764 028	779 762 028	237	247	236/238/240/241/242/244/244,5/246	16	25	140	40	285	311	M16	100	9,78	1
779 764 029	779 762 029	250	260	248/249/250/252/254/255/256/257/259	16	25	140	40	298	324	M16	100	10,11	1
* 779 764 030	779 762 030	266	276	264/268/267/271/272/273,1/274/275	16	25	140	40	314	340	M16	100	10,51	1
* 779 764 031	779 762 031	280	290	278/280/284/286/287/288/289	16	25	142	40	328	354	M16	100	10,86	1

**Restricted working conditions for CuNiFe tubes with a wall-thickness ≤ to 4 mm. For the pipe dimensions with an asterix, these may only be loaded with max PN2,5.**

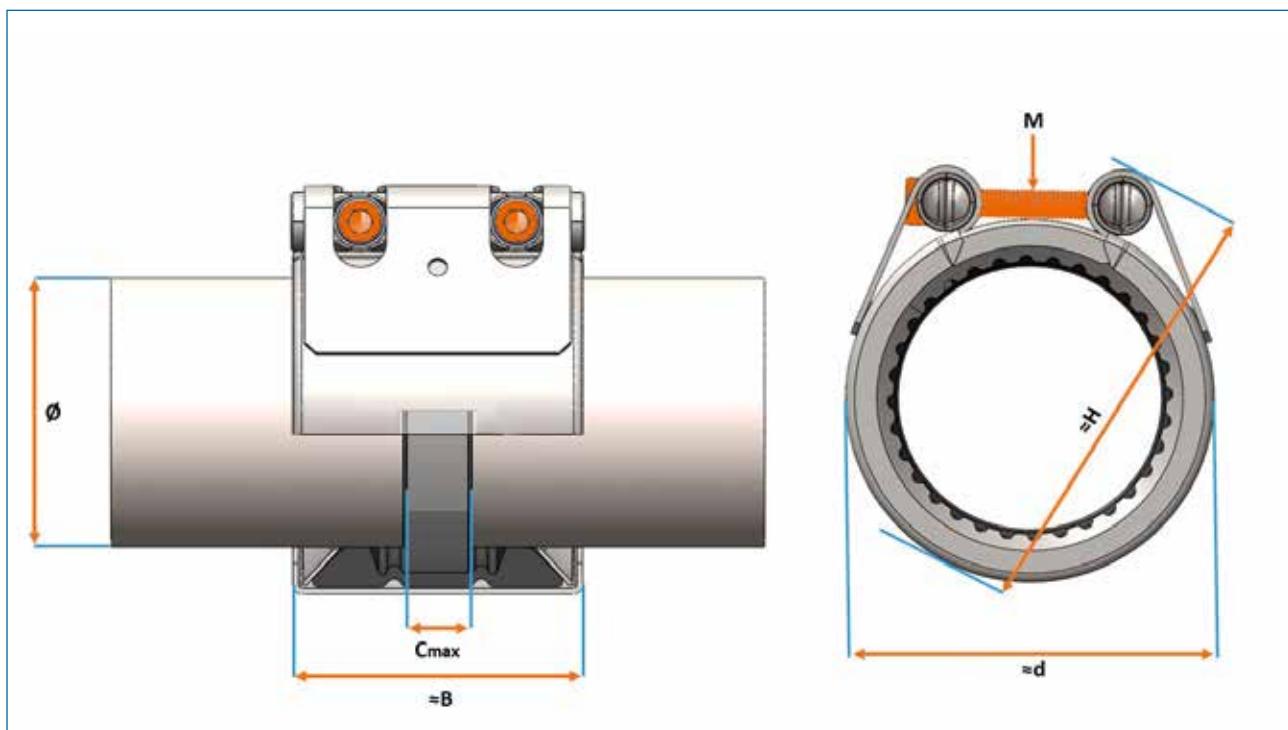
# UNI-Grip LE Ø 64 - 172 mm PN10

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
Components			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
Sealing Sleeve Application	EPDM	NBR	Silicone (on request) Viton (on request)
Temperature range	-30 °C up to +125 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)

Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 724 411	779 721 411	64	72	66,6/68/69/70	10	16	95	30	108	164	M10	25	1,00	10
779 724 412	779 721 412	72	80	73/76,1/79,5	10	16	95	30	108	164	M10	25	1,00	10
779 724 413	779 721 413	80	88	84	10	16	95	30	124	170	M10	30	1,00	10
779 724 414	779 721 414	88	96	88,9	10	16	95	30	124	170	M10	30	1,00	10
779 724 415	779 721 415	97	105	98/100,6/101,6/104	10	16	95	30	141	187	M10	40	1,10	10
779 724 416	779 721 416	104	112	104,8/108/110	10	16	95	30	141	187	M10	40	1,10	10
779 724 417	779 721 417	112	120	114,3/118	10	16	95	30	158	202	M10	45	1,20	10
779 724 418	779 721 418	122	130	125/127/129	10	16	95	30	158	202	M10	45	1,20	10
779 724 419	779 721 419	129	137	130,2/131/133	10	16	110	40	178	230	M12	50	2,10	5
779 724 420	779 721 420	137	145	139,7/141,3/141,6	10	16	110	40	186	238	M12	50	2,20	5
779 724 421	779 721 421	149	157	154/155	10	16	110	40	197	249	M12	50	2,30	5
779 724 422	779 721 422	157	165	159	10	16	110	40	205	255	M12	50	2,30	5
779 724 423	779 721 423	164	172	165/168,3	10	16	110	40	212	262	M12	50	2,40	5

# UNI-Grip S

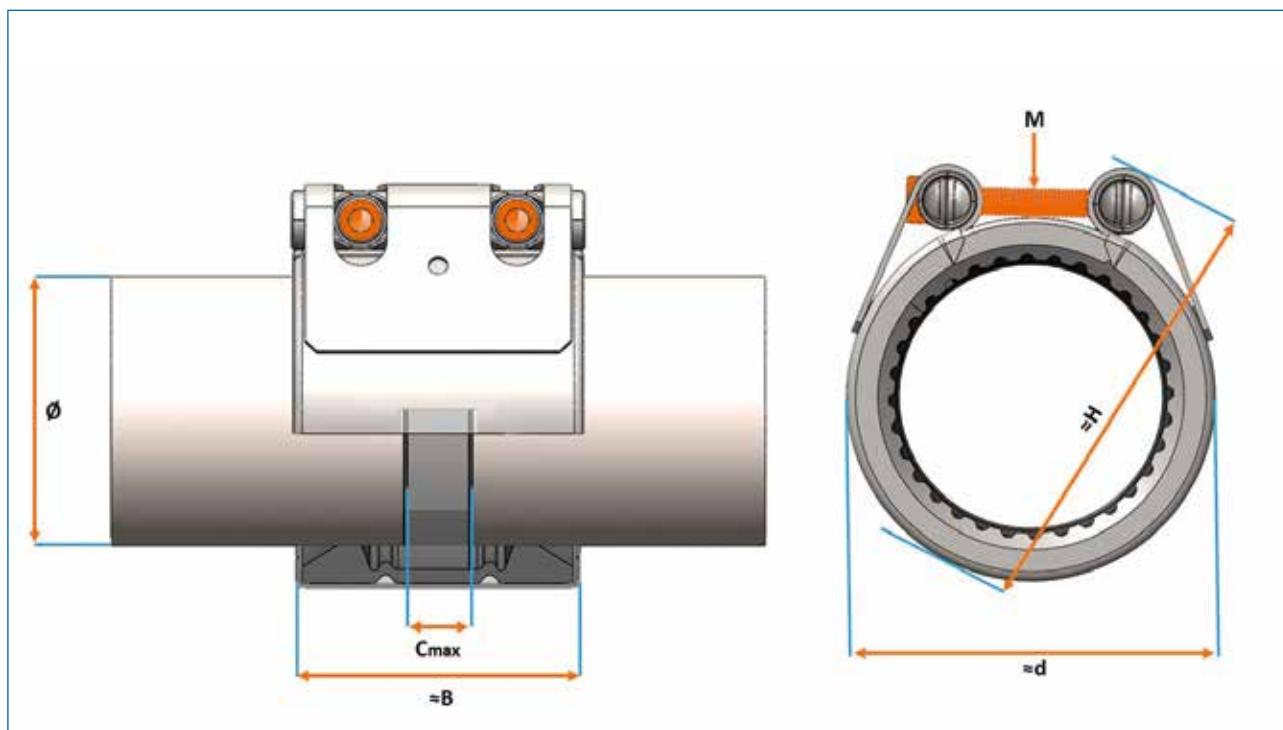
Ø 213 – 374 mm PN10

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
Components			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
Sealing Sleeve Application	EPDM	NBR	Silicone (on request) Viton (on request)
Temperature range	-30 °C up to +80 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)

Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 764 126	779 762 126	213	223	211/212/215/216/217/219,1/220/222	10	16	138	40	261	287	M16	80	6,86	1
779 764 127	779 762 127	224	234	224/225/226/228/229/230/232/234	10	16	138	40	272	298	M16	80	7,03	1
779 764 128	779 762 128	237	247	236/238/240/241/242/244/244,5/246	10	16	138	40	285	311	M16	80	7,24	1
779 764 129	779 762 129	250	260	248/249/250/252/254/255/256/257/259	10	16	138	40	298	324	M16	80	7,45	1
* 779 764 130	779 762 130	266	276	264/268/267/271/272/273,1/274/275	10	16	138	40	314	340	M16	80	7,71	1
* 779 764 131	779 762 131	280	290	278/280/284/286/287/288/289	10	16	140	40	328	354	M16	80	7,93	1
* 779 764 132	779 762 132	291	301	290/292/295/296/298/300	10	16	140	40	339	365	M16	100	11,13	1
* 779 764 133	779 762 133	304	314	304/305/306/308/310/311/313	10	16	140	40	352	378	M16	100	11,46	1
* 779 764 134	779 762 134	318	328	315/316/318/320/321/323,9/326/327	10	16	140	40	366	392	M16	120	11,81	1
* 779 764 135	779 762 135	330	340	330/333,8/334/336/337/339	10	16	140	40	378	404	M16	120	12,11	1
* 779 764 136	779 762 136	343	353	340/342/343/345/346/348/350/352	10	16	140	40	391	417	M16	120	12,43	1
* 779 764 137	779 762 137	353	363	352/353/354/355/355,6/356/358/360/362	10	16	140	40	401	427	M16	120	12,68	1
* 779 764 138	779 762 138	364	374	367/368/372	10	16	142	40	412	438	M16	120	12,96	1

**Restricted working conditions for CuNiFe tubes with a wall-thickness ≤ to 4 mm. For the pipe dimensions with an asterix, these may only be loaded with max PN2,5.**

# UNI-Grip S

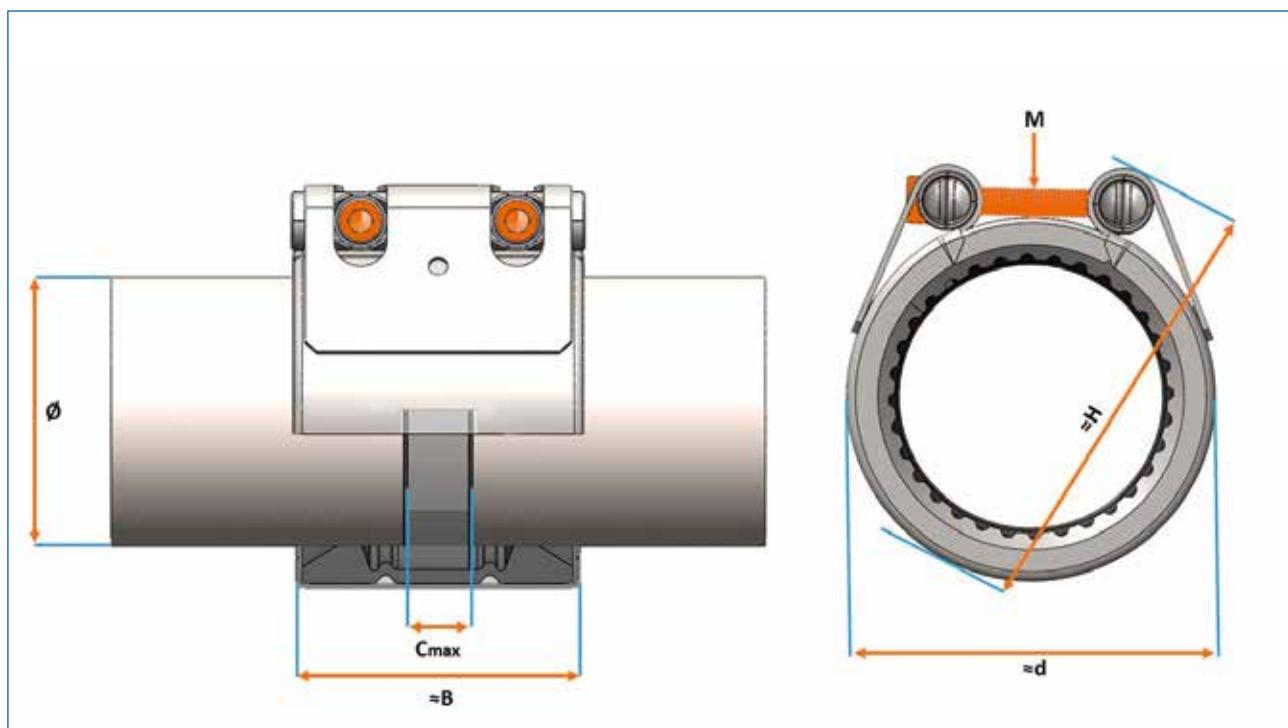
**Ø 188 – 516 mm PN6**

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
<b>Components</b>			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
<b>Sealing Sleeve Application</b>			
Temperature range	-30 °C up to +80 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	
	EPDM	NBR	Silicone (on request) Viton (on request)

## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)

*Technical details are subject to change. Typing error may occur*





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 764 224	779 762 224	188	198	185/187/190/191/193,7/195/196/197	6	10	138	40	236	262	M16	80	5,39	1
779 764 225	779 762 225	201	211	200/202/203/204/205/206/208/210	6	10	138	40	249	275	M16	80	5,57	1
779 764 226	779 762 226	213	223	211/212/215/216/217/219,1/220/222	6	10	138	40	261	287	M16	80	5,74	1
779 764 227	779 762 227	224	234	224/225/226/228/229/230/232/234	6	10	138	40	272	298	M16	80	5,89	1
779 764 228	779 762 228	237	247	236/238/240/241/242/244,5/246	6	10	138	40	285	311	M16	80	6,07	1
779 764 229	779 762 229	250	260	248/249/250/252/254/255/256/257/259	6	10	138	40	298	324	M16	80	6,25	1
* 779 764 230	779 762 230	266	276	264/268/267/271/272/273,1/274/275	6	10	138	40	314	340	M16	80	6,47	1
* 779 764 231	779 762 231	280	290	278/280/284/286/287/288/289	6	10	140	40	328	354	M16	80	6,66	1
* 779 764 232	779 762 232	291	301	290/292/295/296/298/300	6	10	140	40	339	365	M16	100	8,11	1
* 779 764 233	779 762 233	304	314	304/305/306/308/310/311/313	6	10	140	40	352	378	M16	100	8,32	1
* 779 764 234	779 762 234	318	328	315/316/318/320/321/323,9/326/327	6	10	140	40	366	392	M16	100	8,54	1
* 779 764 235	779 762 235	330	340	330/333,8/334/336/337/339	6	10	140	40	378	404	M16	100	8,73	1
* 779 764 236	779 762 236	343	353	340/342/343/345/346/348/350/352	6	10	140	40	391	417	M16	100	8,94	1
* 779 764 237	779 762 237	353	363	352/353/354/355/355,6/356/358/360/362	6	10	140	40	401	427	M16	100	9,10	1
* 779 764 238	779 762 238	364	374	367/368/372	6	10	142	40	412	438	M16	100	9,28	1
* 779 764 239	779 762 239	377	387	376/378/380/382/384/385/386	6	10	142	40	425	451	M16	160	13,28	1
* 779 764 240	779 762 240	390	400	388/392/394/395/396/398/399	6	10	142	40	438	464	M16	160	13,61	1
* 779 764 241	779 762 241	403	413	400/403/404/405/406/406,4/408/410/412	6	10	142	40	451	477	M16	160	13,93	1
779 764 242	779 762 242	415	425	419/420/421	6	10	138	40	463	489	M16	160	14,23	1
779 764 243	779 762 243	425	435	426/427/428/429/430/432/433/434	6	10	138	40	473	499	M16	160	14,48	1
779 764 244	779 762 244	441	451	439/440/441/442/444/448/450	6	10	138	40	489	515	M16	160	14,88	1
779 764 245	779 762 245	454	464	452/453/454/456/457,2/459/460/463	6	10	138	40	502	528	M16	160	15,21	1
779 764 246	779 762 246	463	473	464/468/470	6	10	138	40	511	537	M16	160	15,43	1
779 764 247	779 762 247	479	489	478/480/486/488	6	10	138	40	527	553	M16	160	15,83	1
779 764 248	779 762 248	491	501	490/492/494/496/498/500	6	10	138	40	539	565	M16	160	16,13	1
779 764 249	779 762 249	506	516	504/506/507/508/510/512/514/515	6	10	138	40	554	580	M16	160	16,51	1

**Restricted working conditions for CuNiFe tubes with a wall-thickness ≤ to 4 mm. For the pipe dimensions with an asterix, these may only be loaded with max PN2,5.**

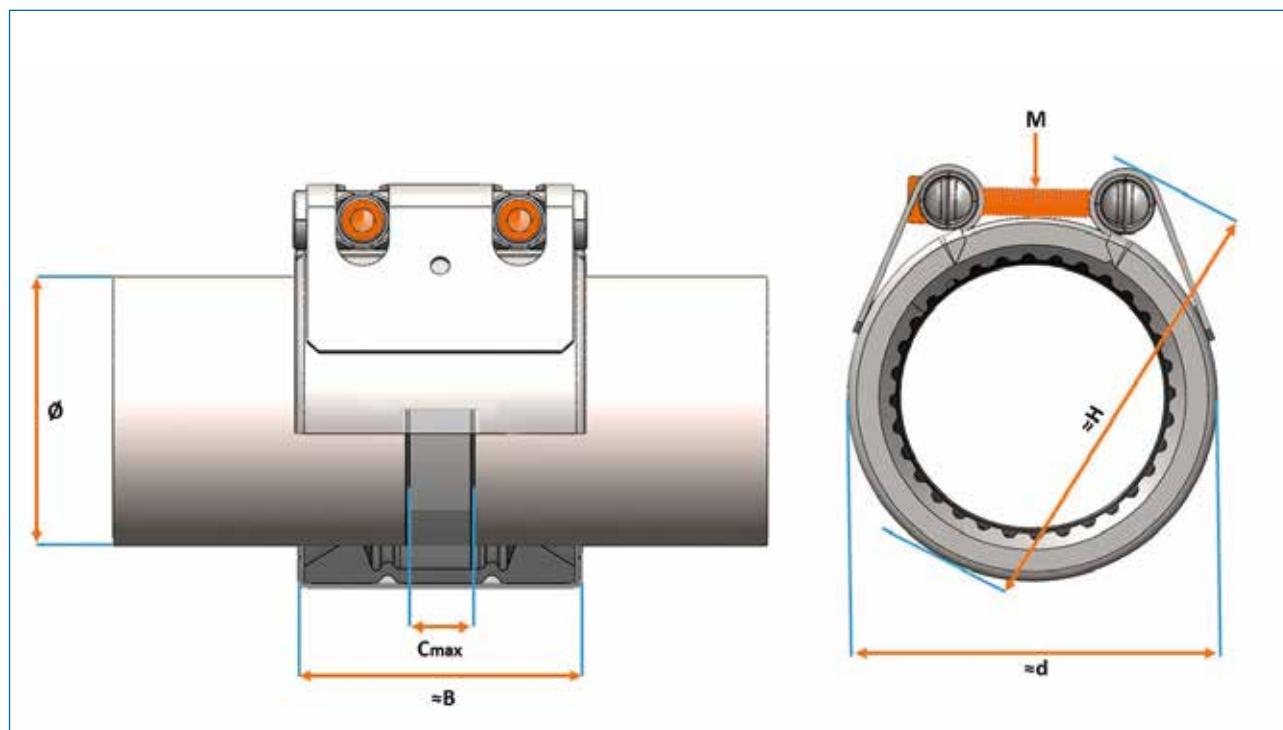
# UNI-Grip S Ø 291 – 745 mm PN2,5

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
Components			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
Sealing Sleeve Application	EPDM	NBR	Silicone (on request) Viton (on request)
Temperature range	-30 °C up to +80 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)

Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 764 332	779 762 332	291	301	290/292/295/296/298/300	2,5	6	138	40	339	365	M16	100	6,81	1
779 764 333	779 762 333	304	314	304/305/306/308/310/311/313	2,5	6	138	40	352	378	M16	100	6,99	1
779 764 334	779 762 334	318	328	315/316/318/320/321/323,9/326/327	2,5	6	138	40	366	392	M16	100	7,19	1
779 764 335	779 762 335	330	340	330/333,8/334/336/337/339	2,5	6	138	40	378	404	M16	100	7,35	1
779 764 336	779 762 336	343	353	340/342/343/345/346/348/350/352	2,5	6	138	40	391	417	M16	100	7,53	1
779 764 337	779 762 337	353	363	352/353/354/355/355,6/356/358/360/362	2,5	6	138	40	401	427	M16	100	7,67	1
779 764 338	779 762 338	364	374	367/368/372	2,5	6	138	40	412	438	M16	100	7,82	1
779 764 339	779 762 339	377	387	376/378/380/382/384/385/386	2,5	6	138	40	425	451	M16	100	9,49	1
779 764 340	779 762 340	390	400	388/392/394/395/396/398/399	2,5	6	138	40	438	464	M16	100	9,70	1
779 764 341	779 762 341	403	413	400/403/404/405/406/406,4/408/410/412	2,5	6	138	40	451	477	M16	100	9,90	1
779 764 342	779 762 342	415	425	419/420/421	2,5	6	138	40	463	489	M16	120	10,10	1
779 764 343	779 762 343	425	435	426/427/428/429/430/432/433/434	2,5	6	138	40	473	499	M16	120	10,26	1
779 764 344	779 762 344	441	451	439/440/441/442/444/448/450	2,5	6	138	40	489	515	M16	120	10,51	1
779 764 345	779 762 345	454	464	452/453/454/456/457,2/459/460/463	2,5	6	138	40	502	528	M16	120	10,72	1
779 764 346	779 762 346	463	473	464/468/470	2,5	6	138	40	511	537	M16	120	10,87	1
779 764 347	779 762 347	479	489	478/480/486/488	2,5	6	138	40	527	553	M16	120	11,12	1
779 764 348	779 762 348	491	501	490/492/494/496/498/500	2,5	6	138	40	539	565	M16	120	11,31	1
779 764 349	779 762 349	506	516	504/506/507/508/510/512/514/515	2,5	6	138	40	554	580	M16	120	11,56	1
779 764 350	779 762 350	523	533	520/521/524/526/530/532	2,5	6	140	40	575	603	M16	160	16,94	1
779 764 351	779 762 351	534	544	537/538/540/542/543	2,5	6	140	40	586	614	M16	160	17,21	1
779 764 352	779 762 352	549	559	546/548/549/550/558	2,5	6	140	40	601	629	M16	160	17,59	1
779 764 353	779 762 353	560	570	559/560/564/568	2,5	6	140	40	612	640	M16	160	17,86	1
779 764 354	779 762 354	574	584	571/572/574/576/582/583	2,5	6	140	40	626	654	M16	160	18,21	1
779 764 355	779 762 355	603	613	600/605/606/609,6/610/612	2,5	6	140	40	655	683	M16	160	18,94	1
779 764 356	779 762 356	613	623	613,7/620/622	2,5	6	140	40	665	693	M16	160	19,19	1
779 764 357	779 762 357	631	641	630/632/633/634/635/640	2,5	6	140	40	683	711	M16	160	19,64	1
779 764 358	779 762 358	651	661	650/651/654/655/658/659/660	2,5	6	140	40	703	731	M16	160	20,14	1
779 764 359	779 762 359	679	689	676/677/678/680/686/688	2,5	6	140	40	731	759	M16	160	20,84	1
779 764 360	779 762 360	691	701	690/691/698/700	2,5	6	140	40	743	771	M16	160	21,14	1
779 764 361	779 762 361	703	713	702,6/705/710/711,2	2,5	6	140	40	755	783	M16	160	21,44	1
779 764 362	779 762 362	720	730	718/720/726/729	2,5	6	140	40	772	800	M16	160	21,86	1
779 764 363	779 762 363	735	745	734/735/738/743/744	2,5	6	140	40	787	815	M16	160	22,24	1

# UNI-Plastgrip L

Ø 39 - 165 mm PN10

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
Components			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
Sealing Sleeve	EPDM	NBR	Silicone (on request) Viton (on request)
Application			
Temperature range	-30 °C up to +125 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

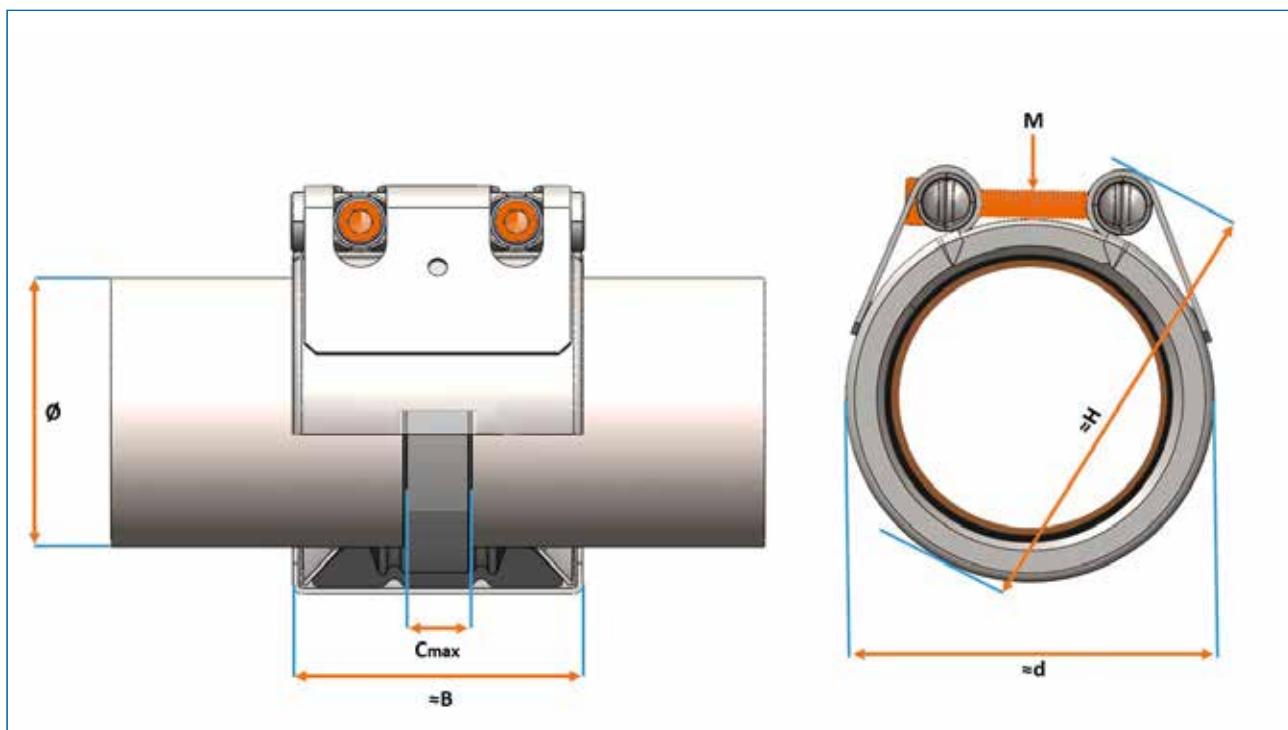
## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)
- For safe installation on PE/PP/PB pipes use insert stiffeners (on page 78)**

Insert stiffener for PE/PP/PB pipe



Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 732 006	779 729 006	39	43	42,4/40	10	16	60	15	66	104	M8	10	0,40	10
779 732 008	779 729 008	47,5	52,5	48,3/50	10	16	60	15	74	112	M8	10	0,50	10
779 732 010	779 729 010	58	64	60,3/63	10	16	75	25	85	125	M8	15	0,60	10
779 732 012	779 729 012	72	80	73/75/76,1/79,5	10	16	95	30	108	164	M10	25	1,40	10
779 732 014	779 729 014	88	96	88,9/90	10	16	95	30	124	170	M10	30	1,50	10
779 732 016	779 729 016	104	112	104,8/108/110	10	16	95	30	141	187	M10	30	1,70	10
779 732 018	779 729 018	122	130	125/127/129	10	16	95	30	158	202	M10	35	1,70	10
779 732 020	779 729 020	137	145	139,7/140/141,3/141,6	10	16	110	40	186	238	M12	40	1,80	5
779 732 022	779 729 022	157	165	159/160	10	16	110	40	205	255	M12	65	3,50	5

# UNI-Combigrasp L

$\varnothing 39 - 165 \text{ mm PN}10$

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
<b>Components</b>			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
<b>Sealing Sleeve Application</b>			
Temperature range	-30 °C up to +125 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

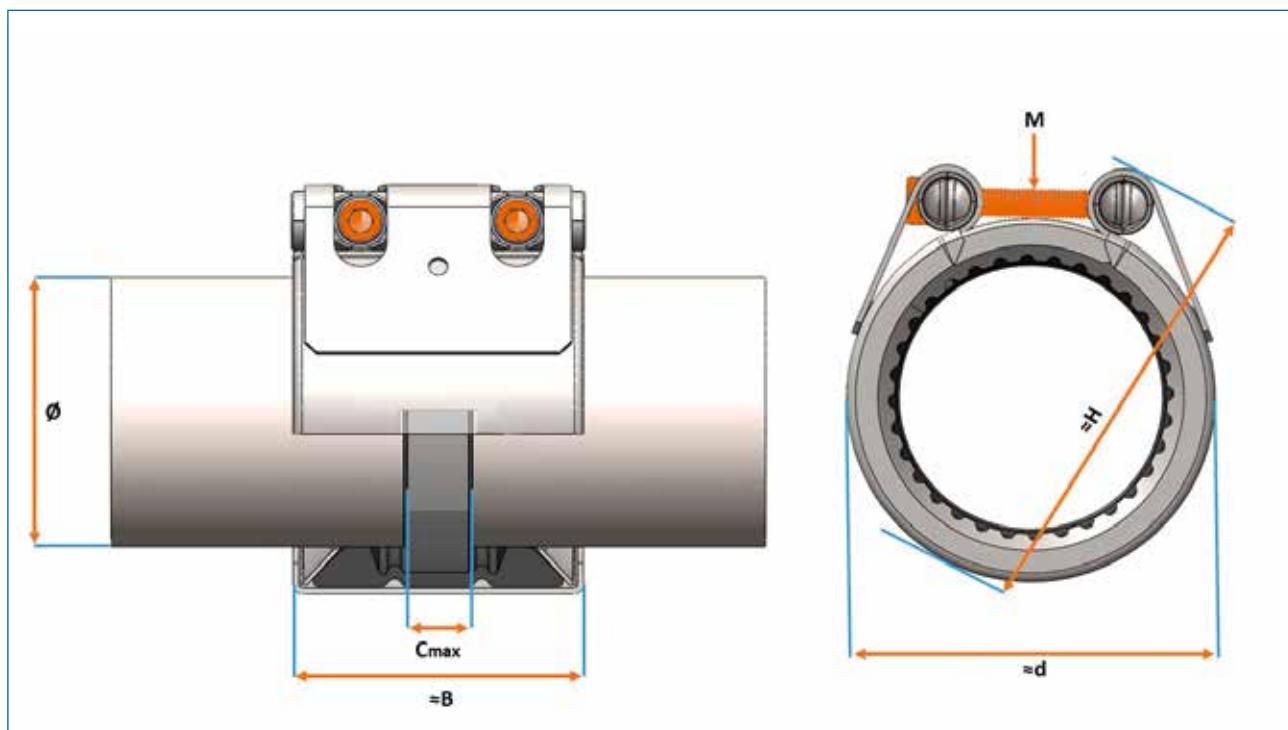
## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)
- For safe installation on PE/PP/PB pipes use insert stiffeners (on page 78)**

Insert stiffener for PE/PP/PB pipe



Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 740 006	779 737 006	39	43	42,4/40	10	16	60	15	66	104	M8	10	0,40	10
779 740 008	779 737 008	47,5	52,5	48,3/50	10	16	60	15	74	112	M8	10	0,50	10
779 740 010	779 737 010	58	64	60,3/63	10	16	75	25	85	125	M8	15	0,60	10
779 740 012	779 737 012	72	80	73/75/76,1/79,5	10	16	95	30	108	164	M10	25	1,40	10
779 740 014	779 737 014	88	96	88,9/90	10	16	95	30	124	170	M10	30	1,50	10
779 740 016	779 737 016	104	112	104,8/108/110	10	16	95	30	141	187	M10	30	1,70	10
779 740 017	779 737 017	108	115	108/110/114,3	10	16	95	30	141	187	M10	35	1,70	10
779 740 018	779 737 018	122	130	125/127/129	10	16	95	30	158	202	M10	40	1,80	10
779 740 020	779 737 020	137	145	139,7/140/141,3/141,6	10	16	110	40	186	238	M12	40	3,50	5
779 740 022	779 737 022	157	165	159/160	10	16	110	40	205	255	M12	65	3,70	5

# UNI-Flex L

Ø 21 - 172 mm PN16

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
Components			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
Sealing Sleeve Application	EPDM	NBR	Silicone (on request) Viton (on request)
Temperature range	-30 °C up to +125 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

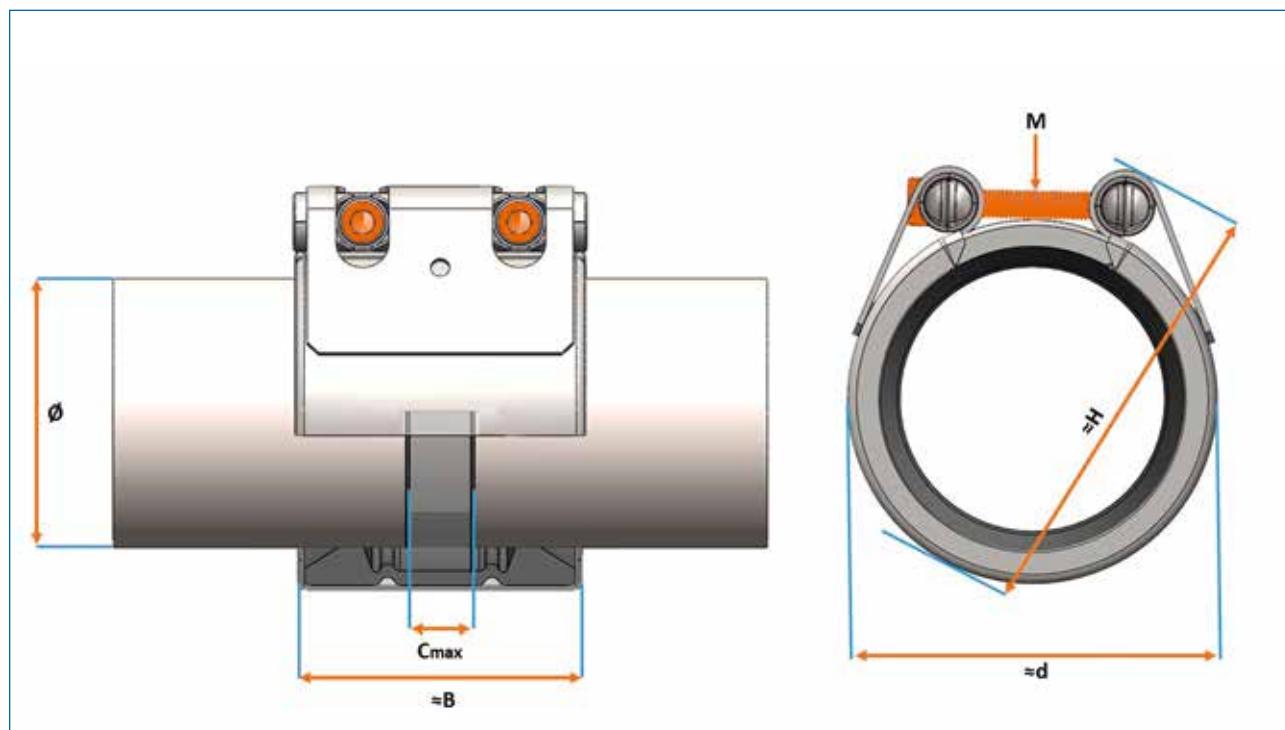
## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)
- For safe installation on PE/PP/PB pipes use insert stiffeners (on page 78)**

Insert stiffener for PE/PP/PB pipe



Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 812 001	779 809 001	21	24	21,3/21,6	16	25	45	10	46	76	M6	3	0,20	10
779 812 002	779 809 002	26	29	26,9/28	16	25	45	10	46	76	M6	3	0,20	10
779 812 003	779 809 003	29	32	30	16	25	45	10	54	84	M6	3	0,20	10
779 812 004	779 809 004	33	36	33,7/35	16	25	45	10	54	84	M6	3	0,20	10
779 812 005	779 809 005	36	39	38	16	25	60	15	66	104	M8	5	0,40	10
779 812 006	779 809 006	39	43	42,4	16	25	60	15	66	104	M8	5	0,40	10
779 812 007	779 809 007	43	47,5	44,5	16	25	60	15	74	112	M8	5	0,40	10
779 812 008	779 809 008	47,5	52,5	48,3	16	25	60	15	74	112	M8	5	0,40	10
779 812 009	779 809 009	52,5	58	54/57	16	25	75	25	85	125	M8	5	0,60	10
779 812 010	779 809 010	58	64	60,3/63	16	25	75	25	85	125	M8	5	0,60	10
779 812 011	779 809 011	64	72	66,6/68/69/70	16	25	95	30	108	164	M10	10	1,00	10
779 812 012	779 809 012	72	80	73/76,1/79,5	16	25	95	30	108	164	M10	10	1,00	10
779 812 013	779 809 013	80	88	84	16	25	95	30	124	170	M10	10	1,00	10
779 812 014	779 809 014	88	96	88,9	16	25	95	30	124	170	M10	10	1,00	10
779 812 015	779 809 015	97	105	98/100,6/101,6/104	16	25	95	30	141	187	M10	10	1,10	10
779 812 016	779 809 016	104	112	104,8/108/110	16	25	95	30	141	187	M10	10	1,10	10
779 812 017	779 809 017	112	120	114,3/118	16	25	95	30	158	202	M10	12,5	1,20	10
779 812 018	779 809 018	122	130	125/127/129	16	25	95	30	158	202	M10	12,5	1,20	10
779 812 019	779 809 019	129	137	130,2/131/133	16	25	110	40	178	230	M12	20	2,10	5
779 812 020	779 809 020	137	145	139,7/141,3/141,6	16	25	110	40	186	238	M12	25	2,20	5
779 812 021	779 809 021	149	157	154/155	16	25	110	40	197	249	M12	30	2,30	5
779 812 022	779 809 022	157	165	159	16	25	110	40	205	255	M12	30	2,30	5
779 812 023	779 809 023	164	172	165/168,3	16	25	110	40	212	262	M12	30	2,40	5

# UNI-Flex S

Ø 188 - 745 mm PN16

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
Components			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
Sealing Sleeve Application	EPDM	NBR	Silicone (on request) Viton (on request)
Temperature range	-30 °C up to +80 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

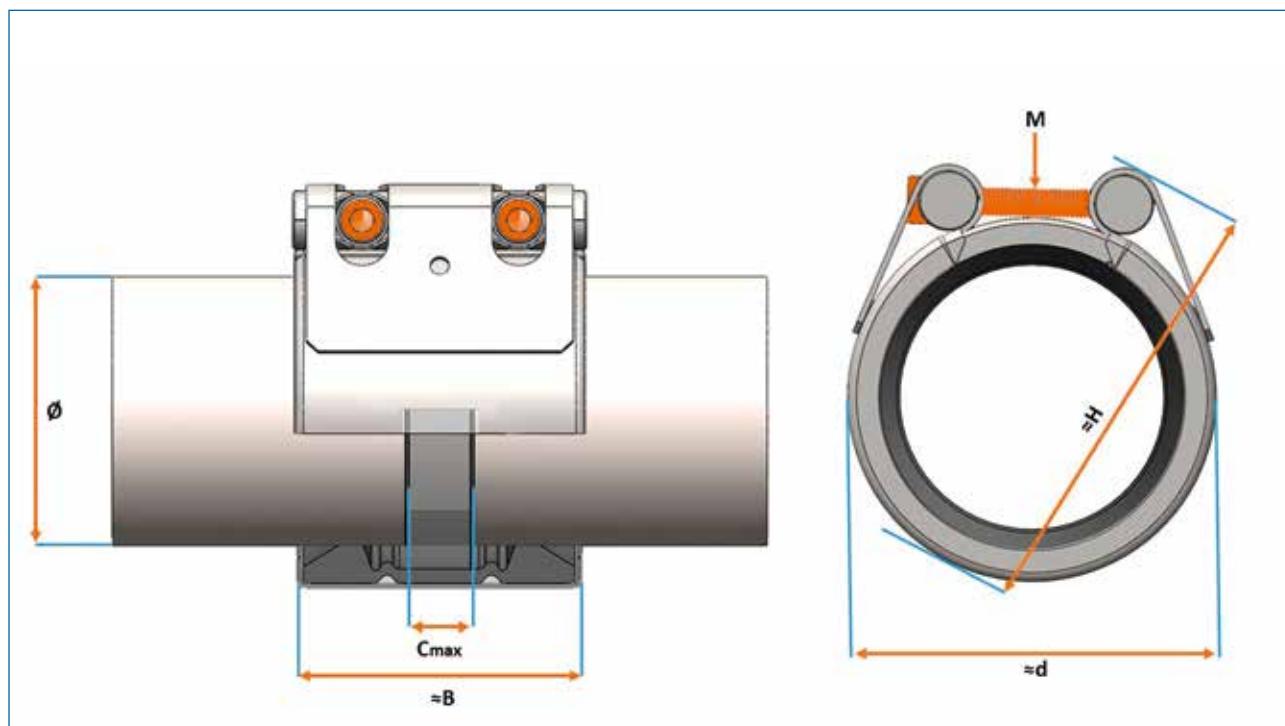
## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)
- For safe installation on PE/PP/PB pipes use insert stiffeners (on page 78)**

Insert stiffener for PE/PP/PB pipe



Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 864 024	779 862 024	188	198	185/187/190/191/193,7/195/196/197	16	25	140	40	236	262	M12	30	5,04	1
779 864 025	779 862 025	201	211	200/202/203/204/205/206/208/210	16	25	140	40	249	275	M12	30	5,19	1
779 864 026	779 862 026	213	223	211/212/215/216/217/219,1/220/222	16	25	140	40	261	287	M12	30	5,34	1
779 864 027	779 862 027	224	234	224/225/226/228/229/230/232/234	16	25	140	40	272	298	M12	30	5,47	1
779 864 028	779 862 028	237	247	236/238/240/241/242/244,5/246	16	25	140	40	285	311	M12	30	5,63	1
779 864 029	779 862 029	250	260	248/249/250/252/254/255/256/257/259	16	25	140	40	298	324	M12	30	5,79	1
779 864 030	779 862 030	266	276	264/268/267/271/272/273,1/274/275	16	25	140	40	314	340	M12	30	5,98	1
779 864 031	779 862 031	280	290	278/280/284/286/287/288/289	16	25	142	40	328	354	M16	30	7,58	1
779 864 032	779 862 032	291	301	290/292/295/296/298/300	16	25	142	40	339	365	M16	30	7,76	1
779 864 033	779 862 033	304	314	304/305/306/308/310/311/313	16	25	142	40	352	378	M16	30	7,97	1
779 864 034	779 862 034	318	328	315/316/318/320/321/323,9/326/327	16	25	142	40	366	392	M16	30	8,19	1
779 864 035	779 862 035	330	340	330/333,8/334/336/337/339	16	25	142	40	378	404	M16	50	8,39	1
779 864 036	779 862 036	343	353	340/342/343/345/346/348/350/352	16	25	142	40	391	417	M16	50	8,60	1
779 864 037	779 862 037	353	363	352/353/354/355/355,6/356/358/360/362	16	25	142	40	401	427	M16	50	8,76	1
779 864 038	779 862 038	364	374	367/368/372	16	25	146	40	412	438	M16	50	12,61	1
779 864 039	779 862 039	377	387	376/378/380/382/384/385/386	16	25	146	40	425	451	M16	50	12,94	1
779 864 040	779 862 040	390	400	388/392/394/395/396/398/399	16	25	146	40	438	464	M16	50	13,26	1
779 864 041	779 862 041	403	413	400/403/404/405/406/406,4/408/410/412	16	25	146	40	451	477	M16	50	13,59	1
779 864 042	779 862 042	415	425	419/420/421	16	25	146	40	463	489	M16	50	13,89	1
779 864 043	779 862 043	425	435	426/427/428/429/430/432/433/434	16	25	146	40	473	499	M16	50	14,14	1
779 864 044	779 862 044	441	451	439/440/441/442/444/448/450	16	25	146	40	489	515	M16	50	14,54	1
779 864 045	779 862 045	454	464	452/453/454/456/457,2/459/460/463	16	25	146	40	502	528	M16	50	14,87	1
779 864 046	779 862 046	463	473	464/468/470	16	25	146	40	511	537	M16	50	15,09	1
779 864 047	779 862 047	479	489	478/480/486/488	16	25	146	40	527	553	M16	50	15,49	1
779 864 048	779 862 048	491	501	490/492/494/496/498/500	16	25	146	40	539	565	M16	50	15,80	1
779 864 049	779 862 049	506	516	504/506/507/508/510/512/514/515	16	25	146	40	554	580	M16	50	16,17	1
779 864 050	779 862 050	523	533	520/521/524/526/530/532	16	25	146	40	575	603	M16	60	16,60	1
779 864 051	779 862 051	534	544	537/538/540/542/543	16	25	146	40	586	614	M16	60	16,87	1
779 864 052	779 862 052	549	559	546/548/549/550/558	16	25	146	40	601	629	M16	60	17,25	1
779 864 053	779 862 053	560	570	559/560/564/568	16	25	146	40	612	640	M16	60	17,53	1
779 864 054	779 862 054	574	584	571/572/574/576/582/583	16	25	146	40	626	654	M16	60	17,88	1
779 864 055	779 862 055	603	613	600/605/606/609,6/610/612	16	25	146	40	655	683	M16	60	18,60	1
779 864 056	779 862 056	613	623	613,7/620/622	16	25	146	40	665	693	M16	70	18,85	1
779 864 057	779 862 057	631	641	630/632/633/634/635/640	16	25	146	40	683	711	M16	70	19,31	1
779 864 058	779 862 058	651	661	650/651/654/655/658/659/660	16	25	146	40	703	731	M16	70	19,81	1
779 864 059	779 862 059	679	689	676/677/678/680/686/688	16	25	146	40	731	759	M16	70	20,51	1
779 864 060	779 862 060	691	701	690/691/698/700	16	25	146	40	743	771	M16	70	20,81	1
779 864 061	779 862 061	703	713	702,6/705/710/711,2	16	25	146	40	755	783	M16	70	21,11	1
779 864 062	779 862 062	720	730	718/720/726/729	16	25	146	40	772	800	M16	70	21,54	1
779 864 063	779 862 063	735	745	734/735/738/743/744	16	25	146	40	787	815	M16	70	21,91	1

# UNI-Flex S2

$\varnothing 762 - 930 \text{ mm PN16}$

S2 = 2 pieces

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
<b>Components</b>			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
<b>Sealing Sleeve Application</b>			
Temperature range	-30 °C up to +80 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

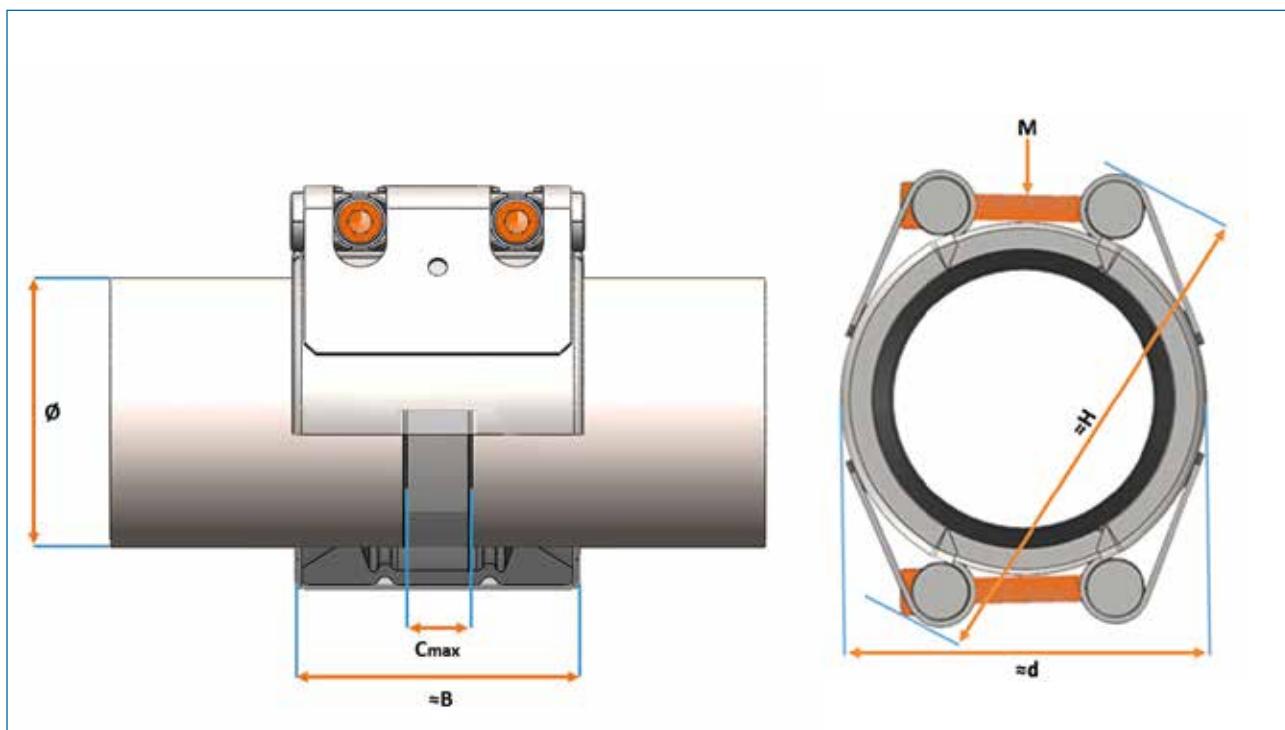
## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)
- For safe installation on PE/PP/PB pipes use insert stiffeners (on page 78)**

Insert stiffener for PE/PP/PB pipe



Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 864 064	779 862 064	762	782	760/761/762/768/769/770/773/780	16	25	146	40	824	852	M16	70	26,08	1
779 864 065	779 862 065	788	808	784/786/790/798/800/801/806	16	25	146	40	850	878	M16	70	26,73	1
779 864 066	779 862 066	812	832	807,2/808/812,8/820/822/824/826/830	16	25	146	40	874	902	M16	70	27,33	1
779 864 067	779 862 067	834	854	832/840/842/848/852	16	25	146	40	896	924	M16	80	27,88	1
779 864 068	779 862 068	862	882	859,5/864/868/869/879/880	16	25	146	40	924	952	M16	80	28,58	1
779 864 069	779 862 069	888	908	886/891/896/900/903/905,8	16	25	146	40	950	978	M16	80	29,23	1
779 864 070	779 862 070	910	930	912,4/914,4/915/920/924/927/928	16	25	146	40	972	1000	M16	80	29,79	1

# UNI-Flex S

Ø 188 - 745 mm PN10

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
Components			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
Sealing Sleeve Application	EPDM	NBR	Silicone (on request) Viton (on request)
Temperature range	-30 °C up to +80 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

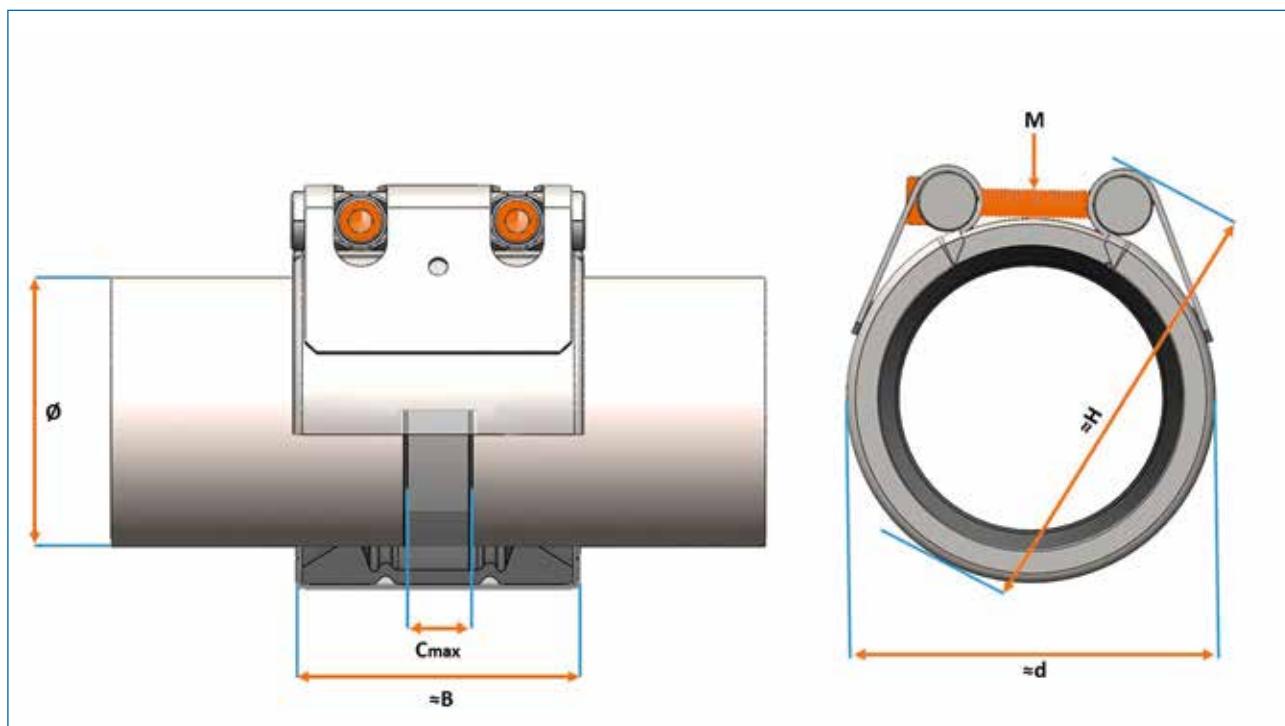
## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)
- For safe installation on PE/PP/PB pipes use insert stiffeners (on page 78)**

Insert stiffener for PE/PP/PB pipe



Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 864 124	779 862 124	188	198	185/187/190/191/193,7/195/196/197	10	16	138	40	236	262	M12	30	3,95	1
779 864 125	779 862 125	201	211	200/202/203/204/205/206/208/210	10	16	138	40	249	275	M12	30	4,05	1
779 864 126	779 862 126	213	223	211/212/215/216/217/219,1/220/222	10	16	138	40	261	287	M12	30	4,14	1
779 864 127	779 862 127	224	234	224/225/226/228/229/230/232/234	10	16	138	40	272	298	M12	30	4,23	1
779 864 128	779 862 128	237	247	236/238/240/241/242/244/244,5/246	10	16	138	40	285	311	M12	30	4,33	1
779 864 129	779 862 129	250	260	248/249/250/252/254/255/256/257/259	10	16	138	40	298	324	M12	30	4,44	1
779 864 130	779 862 130	266	276	264/268/267/271/272/273,1/274/275	10	16	138	40	314	340	M12	30	4,56	1
779 864 131	779 862 131	280	290	278/280/284/286/287/288/289	10	16	140	40	328	354	M12	30	6,15	1
779 864 132	779 862 132	291	301	290/292/295/296/298/300	10	16	140	40	339	365	M12	30	6,28	1
779 864 133	779 862 133	304	314	304/305/306/308/310/311/313	10	16	140	40	352	378	M12	30	6,44	1
779 864 134	779 862 134	318	328	315/316/318/320/321/323,9/326/327	10	16	140	40	366	392	M12	30	6,61	1
779 864 135	779 862 135	330	340	330/333,8/334/336/337/339	10	16	140	40	378	404	M12	40	6,75	1
779 864 136	779 862 136	343	353	340/342/343/345/346/348/350/352	10	16	140	40	391	417	M12	40	6,91	1
779 864 137	779 862 137	353	363	352/353/354/355/355,6/356/358/360/362	10	16	140	40	401	427	M12	40	7,03	1
779 864 138	779 862 138	364	374	367/368/372	10	16	142	40	412	438	M12	40	8,93	1
779 864 139	779 862 139	377	387	376/378/380/382/384/385/386	10	16	142	40	425	451	M12	40	9,14	1
779 864 140	779 862 140	390	400	388/392/394/395/396/398/399	10	16	142	40	438	464	M12	40	9,35	1
779 864 141	779 862 141	403	413	400/403/404/405/406/406,4/408/410/412	10	16	142	40	451	477	M12	40	9,56	1
779 864 142	779 862 142	415	425	419/420/421	10	16	142	40	463	489	M12	40	9,75	1
779 864 143	779 862 143	425	435	426/427/428/429/430/432/433/434	10	16	142	40	473	499	M12	40	9,91	1
779 864 144	779 862 144	441	451	439/440/441/442/444/448/450	10	16	142	40	489	515	M12	40	10,17	1
779 864 145	779 862 145	454	464	452/453/454/456/457,2/459/460/463	10	16	142	40	502	528	M12	40	10,38	1
779 864 146	779 862 146	463	473	464/468/470	10	16	142	40	511	537	M12	40	10,53	1
779 864 147	779 862 147	479	489	478/480/486/488	10	16	142	40	527	553	M12	40	10,78	1
779 864 148	779 862 148	491	501	490/492/494/496/498/500	10	16	142	40	539	565	M12	40	10,98	1
779 864 149	779 862 149	506	516	504/506/507/508/510/512/514/515	10	16	142	40	554	580	M12	40	11,22	1
779 864 150	779 862 150	523	533	520/521/524/526/530/532	10	16	142	40	575	603	M16	50	11,49	1
779 864 151	779 862 151	534	544	537/538/540/542/543	10	16	142	40	586	614	M16	50	11,67	1
779 864 152	779 862 152	549	559	546/548/549/550/558	10	16	142	40	601	629	M16	50	11,91	1
779 864 153	779 862 153	560	570	559/560/564/568	10	16	142	40	612	640	M16	50	12,09	1
779 864 154	779 862 154	574	584	571/572/574/576/582/583	10	16	142	40	626	654	M16	50	12,31	1
779 864 155	779 862 155	603	613	600/605/606/609,6/610/612	10	16	142	40	655	683	M16	50	12,78	1
779 864 156	779 862 156	613	623	613,7/620/622	10	16	142	40	665	693	M16	60	12,94	1
779 864 157	779 862 157	631	641	630/632/633/634/635/640	10	16	142	40	683	711	M16	60	13,23	1
779 864 158	779 862 158	651	661	650/651/654/655/658/659/660	10	16	142	40	703	731	M16	60	13,55	1
779 864 159	779 862 159	679	689	676/677/678/680/686/688	10	16	142	40	731	759	M16	60	14,00	1
779 864 160	779 862 160	691	701	690/691/698/700	10	16	142	40	743	771	M16	60	14,19	1
779 864 161	779 862 161	703	713	702,6/705/710/711,2	10	16	142	40	755	783	M16	60	14,39	1
779 864 162	779 862 162	720	730	718/720/726/729	10	16	142	40	772	800	M16	60	14,66	1
779 864 163	779 862 163	735	745	734/735/738/743/744	10	16	142	40	787	815	M16	60	14,90	1

# UNI-Flex S2/S3

$\varnothing 762 - 1452 \text{ mm PN}10$

S2 = 2 pieces to  $\varnothing 1130 \text{ mm}$ , S3 = 3 pieces from  $\varnothing 1147 \text{ mm}$

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
<b>Components</b>			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
<b>Sealing Sleeve Application</b>			
Temperature range	-30 °C up to +80 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

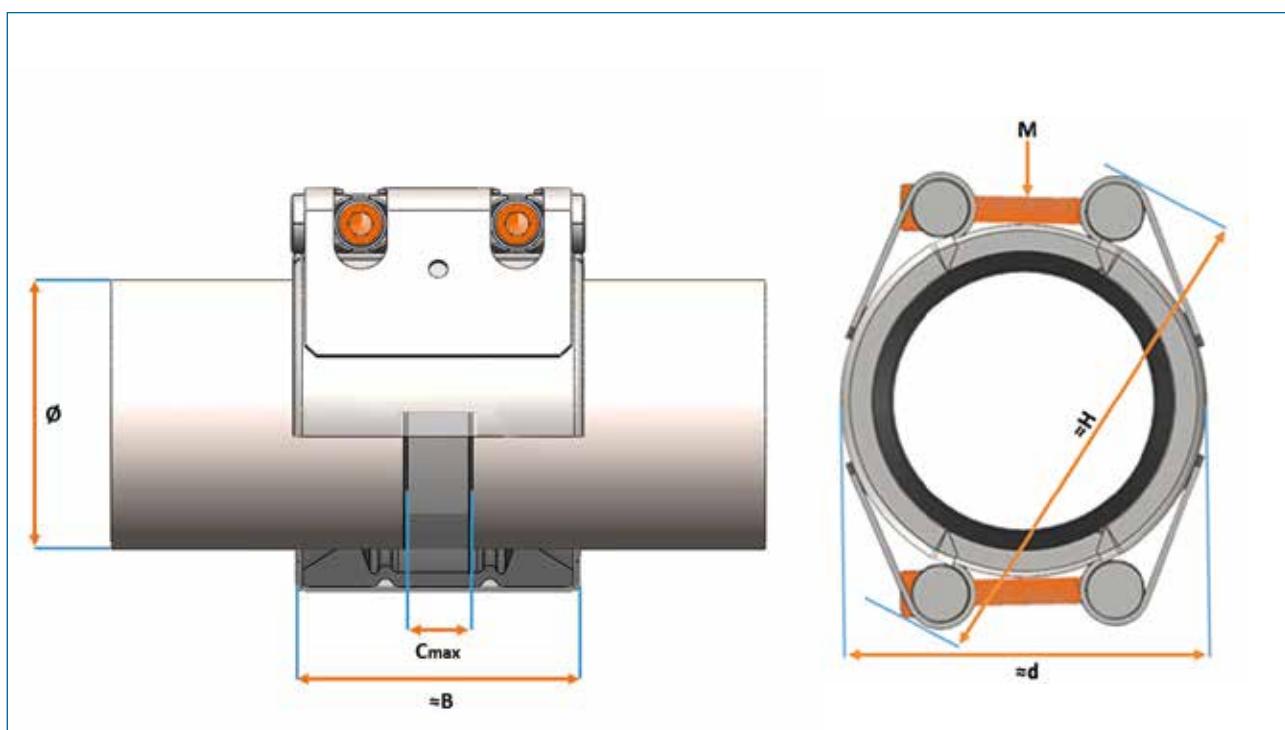
## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)
- For safe installation on PE/PP/PB pipes use insert stiffeners (on page 78)**

Insert stiffener for PE/PP/PB pipe



Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 864 164	779 862 164	762	782	760/761/762/768/769/770/773/780	10	16	142	40	824	852	M16	60	18,41	1
779 864 165	779 862 165	788	808	784/786/790/798/800/801/806	10	16	142	40	850	878	M16	60	18,83	1
779 864 166	779 862 166	812	832	807,2/808/812,8/820/822/824/826/830	10	16	142	40	874	902	M16	60	19,22	1
779 864 167	779 862 167	834	854	832/840/842/848/852	10	16	142	40	896	924	M16	60	19,57	1
779 864 168	779 862 168	862	882	859,5/864/868/869/879/880	10	16	142	40	924	952	M16	60	20,02	1
779 864 169	779 862 169	888	908	886/891/896/900/903/905,8	10	16	142	40	950	978	M16	60	20,44	1
779 864 170	779 862 170	910	930	912,4/914,4/915/920/924/927/928	10	16	142	40	972	1000	M16	60	20,79	1
779 864 171	779 862 171	942	962	940/945/950/951/952/956/960	10	16	146	40	1004	1032	M16	60	30,59	1
779 864 172	779 862 172	967	987	964,2/965/970/977/978/984,5	10	16	146	40	1029	1057	M16	60	31,21	1
779 864 173	779 862 173	990	1010	989/990/992/996/1000/1008	10	16	146	40	1052	1080	M16	60	31,79	1
779 864 174	779 862 174	1010	1030	1015/1016/1020/1024/1027	10	16	146	40	1072	1100	M16	60	32,29	1
779 864 175	779 862 175	1050	1070	1044/1048/1054/1057/1068,3	10	16	146	40	1116	1146	M16	80	33,30	1
779 864 176	779 862 176	1082	1102	1080/1086/1090,2/1100	10	16	146	40	1148	1178	M16	80	34,10	1
779 864 177	779 862 177	1110	1130	1118/1120,6/1128	10	16	146	40	1176	1206	M16	80	34,80	1
779 864 178	779 862 178	1147	1177	1143/1144/1152/1167/1172,5/1174	10	16	146	40	1223	1253	M16	80	39,21	1
779 864 179	779 862 179	1201	1231	1200/1220/1228	10	16	146	40	1277	1307	M16	80	40,57	1
779 864 180	779 862 180	1250	1280	1255/1256/1261/1276,6	10	16	146	40	1326	1356	M16	80	41,80	1
779 864 181	779 862 181	1340	1370	1358	10	16	146	40	1416	1446	M16	80	44,05	1
779 864 182	779 862 182	1422	1452	1420/1422/1449	10	16	146	40	1498	1528	M16	80	46,11	1

# UNI-Flex S

$\varnothing$  280 - 745 mm PN6

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
<b>Components</b>			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
<b>Sealing Sleeve Application</b>			
Temperature range	-30 °C up to +80 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

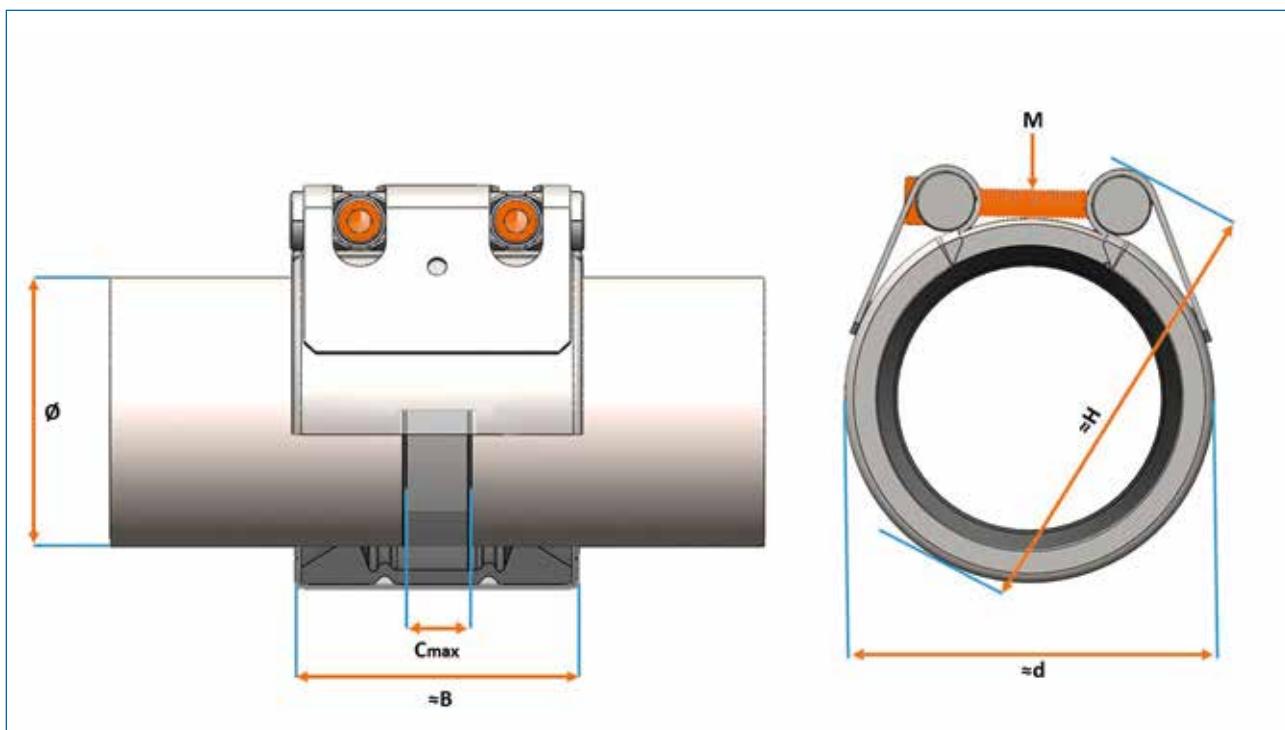
**Important remarks:**

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)
- For safe installation on PE/PP/PB pipes use insert stiffeners (on page 78)**

Insert stiffener for PE/PP/PB pipe



Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 864 231	779 862 231	280	290	278/280/284/286/287/288/289	6	10	138	40	328	354	M12	30	4,67	1
779 864 232	779 862 232	291	301	290/292/295/296/298/300	6	10	138	40	339	365	M12	30	4,76	1
779 864 233	779 862 233	304	314	304/305/306/308/310/311/313	6	10	138	40	352	378	M12	30	4,86	1
779 864 234	779 862 234	318	328	315/316/318/320/321/323,9/326/327	6	10	138	40	366	392	M12	30	4,97	1
779 864 235	779 862 235	330	340	330/333,8/334/336/337/339	6	10	138	40	378	404	M12	40	5,07	1
779 864 236	779 862 236	343	353	340/342/343/345/346/348/350/352	6	10	138	40	391	417	M12	40	5,17	1
779 864 237	779 862 237	353	363	352/353/354/355/355,6/356/358/360/362	6	10	138	40	401	427	M12	40	5,25	1
779 864 238	779 862 238	364	374	367/368/372	6	10	138	40	412	438	M12	40	5,34	1
779 864 239	779 862 239	377	387	376/378/380/382/384/385/386	6	10	138	40	425	451	M12	40	5,44	1
779 864 240	779 862 240	390	400	388/392/394/395/396/398/399	6	10	138	40	438	464	M12	40	5,54	1
779 864 241	779 862 241	403	413	400/403/404/405/406/406,4/408/410/412	6	10	138	40	451	477	M12	40	5,64	1
779 864 242	779 862 242	415	425	419/420/421	6	10	138	40	463	489	M12	40	5,74	1
779 864 243	779 862 243	425	435	426/427/428/429/430/432/433/434	6	10	138	40	473	499	M12	40	5,82	1
779 864 244	779 862 244	441	451	439/440/441/442/444/448/450	6	10	138	40	489	515	M12	40	5,94	1
779 864 245	779 862 245	454	464	452/453/454/456/457,2/459/460/463	6	10	138	40	502	528	M12	40	6,05	1
779 864 246	779 862 246	463	473	464/468/470	6	10	138	40	511	537	M12	40	6,12	1
779 864 247	779 862 247	479	489	478/480/486/488	6	10	138	40	527	553	M12	40	6,24	1
779 864 248	779 862 248	491	501	490/492/494/496/498/500	6	10	138	40	539	565	M12	40	6,34	1
779 864 249	779 862 249	506	516	504/506/507/508/510/512/514/515	6	10	138	40	554	580	M12	40	6,46	1
779 864 250	779 862 250	523	533	520/521/524/526/530/532	6	10	140	40	575	603	M12	50	9,08	
779 864 251	779 862 251	534	544	537/538/540/542/543	6	10	140	40	586	614	M12	50	9,22	1
779 864 252	779 862 252	549	559	546/548/549/550/558	6	10	140	40	601	629	M12	50	9,40	1
779 864 253	779 862 253	560	570	559/560/564/568	6	10	140	40	612	640	M12	50	9,53	1
779 864 254	779 862 254	574	584	571/572/574/576/582/583	6	10	140	40	626	654	M12	50	9,70	1
779 864 255	779 862 255	603	613	600/605/606/609,6/610/612	6	10	140	40	655	683	M12	50	10,05	1
779 864 256	779 862 256	613	623	613,7/620/622	6	10	140	40	665	693	M12	60	10,17	1
779 864 257	779 862 257	631	641	630/632/633/634/635/640	6	10	140	40	683	711	M12	60	10,39	1
779 864 258	779 862 258	651	661	650/651/654/655/658/659/660	6	10	140	40	703	731	M12	60	10,63	1
779 864 259	779 862 259	679	689	676/677/678/680/686/688	6	10	140	40	731	759	M12	60	10,97	1
779 864 260	779 862 260	691	701	690/691/698/700	6	10	140	40	743	771	M12	60	11,11	1
779 864 261	779 862 261	703	713	702,6/705/710/711,2	6	10	140	40	755	783	M12	60	11,26	1
779 864 262	779 862 262	720	730	718/720/726/729	6	10	140	40	772	800	M12	60	11,46	1
779 864 263	779 862 263	735	745	734/735/738/743/744	6	10	140	40	787	815	M12	60	11,65	1

# UNI-Flex S2/S3

$\varnothing 762 - 1471 \text{ mm PN6}$

S2 = 2 pieces to  $\varnothing 1130 \text{ mm}$ , S3 = 3 pieces from  $\varnothing 1147 \text{ mm}$

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)	
<b>Components</b>				
Casing	1.4571/316 Ti	1.4301/304	1.4016/430	
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti	
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141	
Anchoring rings	1.4310/301	1.4310/301	1.4310/301	
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	
<b>Sealing Sleeve</b>	EPDM	NBR	Silicone (on request)	Viton (on request)
<b>Application</b>				
Temperature range	-30 °C up to +80 °C	-20 °C up to +80 °C		
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons		

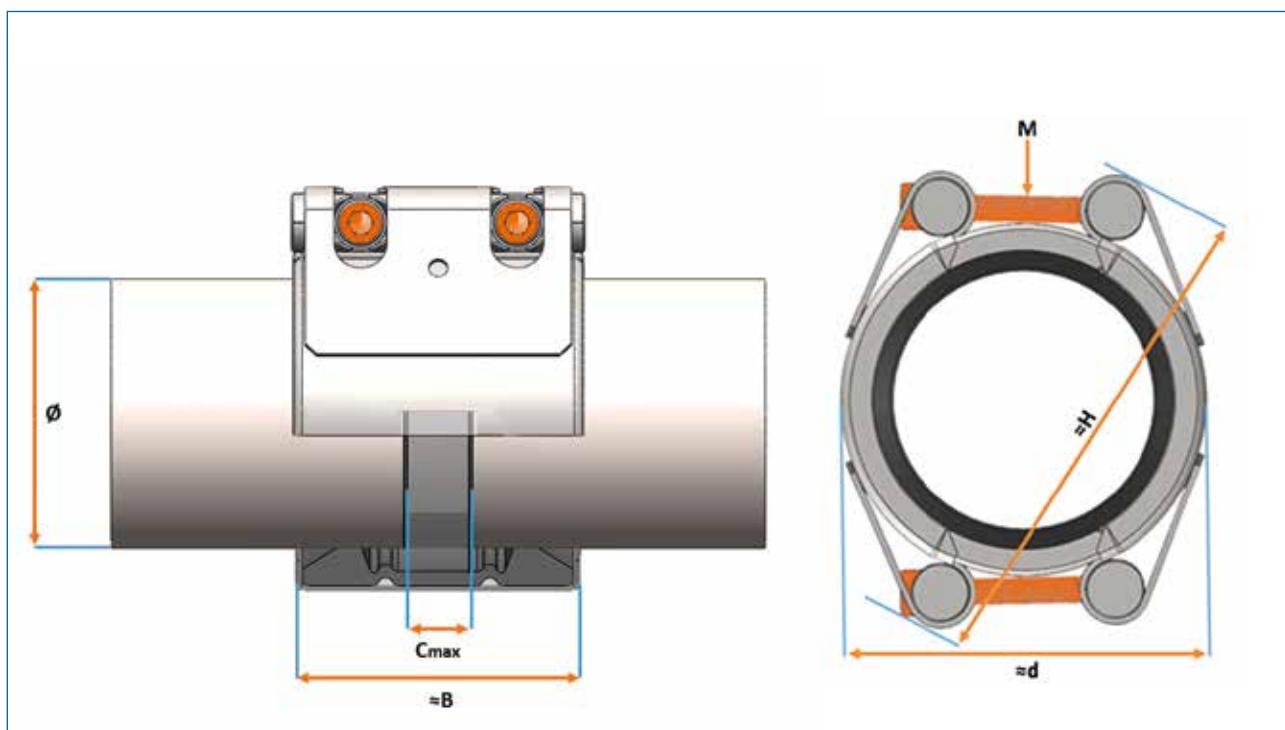
## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)
- For safe installation on PE/PP/PB pipes use insert stiffeners (on page 78)**

Insert stiffener for PE/PP/PB pipe



Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 864 264	779 862 264	762	782	760/761/762/768/769/770/773/780	6	10	140	40	824	852	M12	60	14,74	1
779 864 265	779 862 265	788	808	784/786/790/798/800/801/806	6	10	140	40	850	878	M12	60	15,05	1
779 864 266	779 862 266	812	832	807,2/808/812,8/820/822/824/826/830	6	10	140	40	874	902	M12	60	15,34	1
779 864 267	779 862 267	834	854	832/840/842/848/852	6	10	140	40	896	924	M12	60	15,61	1
779 864 268	779 862 268	862	882	859,5/864/868/869/879/880	6	10	140	40	924	952	M12	60	15,94	1
779 864 269	779 862 269	888	908	886/891/896/900/903/905,8	6	10	140	40	950	978	M12	60	16,26	1
779 864 270	779 862 270	910	930	912,4/914,4/915/920/924/927/928	6	10	140	40	972	1000	M12	60	16,52	1
779 864 271	779 862 271	942	962	940/945/950/951/952/956/960	6	10	142	40	1004	1032	M16	60	21,31	1
779 864 272	779 862 272	967	987	964,2/965/970/977/978/984,5	6	10	142	40	1029	1057	M16	60	21,71	1
779 864 273	779 862 273	990	1010	989/990/992/996/1000/1008	6	10	142	40	1052	1080	M16	60	22,08	1
779 864 274	779 862 274	1010	1030	1015/1016/1020/1024/1027	6	10	142	40	1072	1100	M16	60	22,40	1
779 864 275	779 862 275	1050	1070	1044/1048/1054/1057/1068,3	6	10	142	40	1116	1146	M16	80	23,04	1
779 864 276	779 862 276	1082	1102	1080/1086/1090,2/1100	6	10	142	40	1148	1178	M16	80	23,56	1
779 864 277	779 862 277	1110	1130	1118/1120,6/1128	6	10	142	40	1176	1206	M16	80	24,01	1
779 864 278	779 862 278	1147	1177	1143/1144/1152/1167/1172,5/1174	6	10	142	40	1223	1253	M16	80	27,68	1
779 864 279	779 862 279	1201	1231	1200/1220/1228	6	10	142	40	1277	1307	M16	80	28,55	1
779 864 280	779 862 280	1250	1280	1255/1256/1261/1276,6	6	10	142	40	1326	1356	M16	80	29,34	1
779 864 281	779 862 281	1340	1370	1358	6	10	142	40	1416	1446	M16	80	30,79	1
779 864 282	779 862 282	1422	1452	1420/1422/1449	6	10	142	40	1498	1528	M16	80	32,11	1
779 864 283	779 862 283	1441	1471	1462/1468	6	10	142	40	1517	1547	M16	80	32,41	1

# UNI-Flex S

$\varnothing 523 - 745 \text{ mm PN}2,5$

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
<b>Components</b>			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
<b>Sealing Sleeve Application</b>			
Temperature range	-30 °C up to +80 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

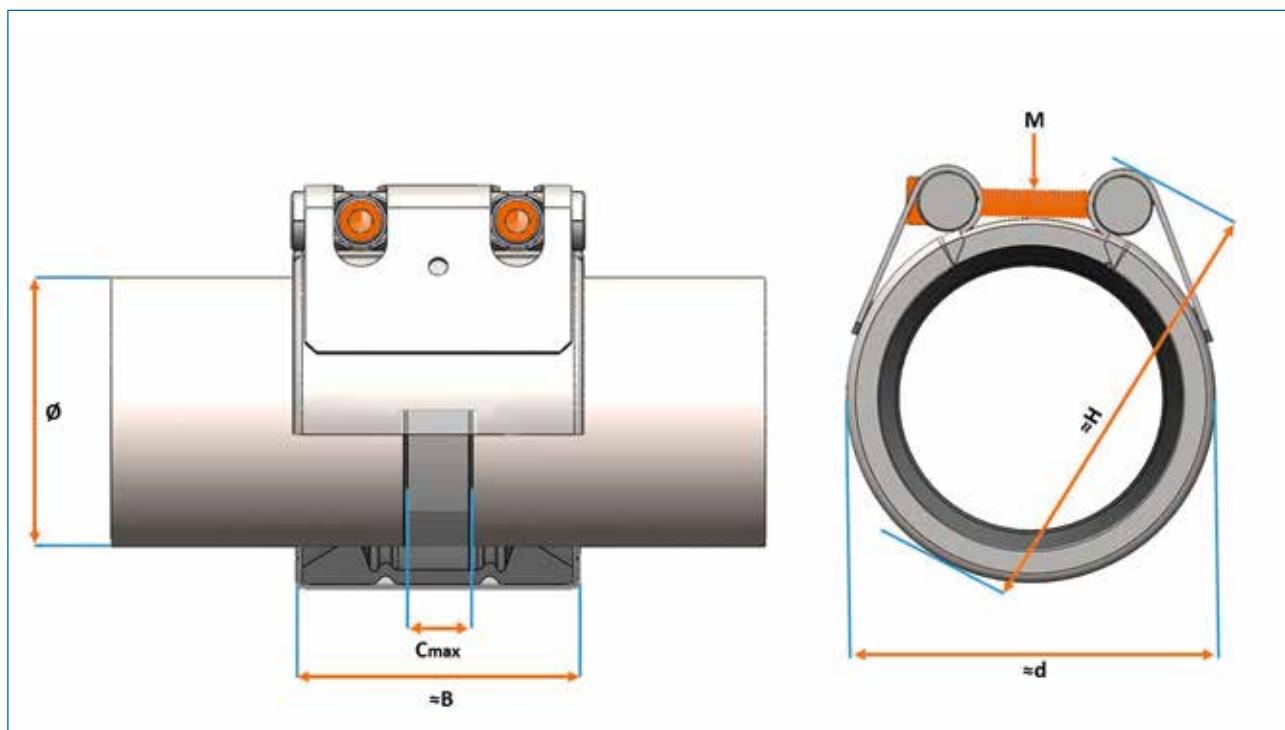
**Important remarks:**

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)
- For safe installation on PE/PP/PB pipes use insert stiffeners (on page 78)**

Insert stiffener for PE/PP/PB pipe



Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 864 350	779 862 350	523	533	520/521/524/526/530/532	2,5	6	138	40	575	603	M12	60	6,59	1
779 864 351	779 862 351	534	544	537/538/540/542/543	2,5	6	138	40	586	614	M12	60	6,68	1
779 864 352	779 862 352	549	559	546/548/549/550/558	2,5	6	138	40	601	629	M12	60	6,80	1
779 864 353	779 862 353	560	570	559/560/564/568	2,5	6	138	40	612	640	M12	60	6,88	1
779 864 354	779 862 354	574	584	571/572/574/576/582/583	2,5	6	138	40	626	654	M12	60	6,99	1
779 864 355	779 862 355	603	613	600/605/606/609,6/610/612	2,5	6	138	40	655	683	M12	60	7,22	1
779 864 356	779 862 356	613	623	613,7/620/622	2,5	6	138	40	665	693	M12	70	7,30	1
779 864 357	779 862 357	631	641	630/632/633/634/635/640	2,5	6	138	40	683	711	M12	70	7,44	1
779 864 358	779 862 358	651	661	650/651/654/655/658/659/660	2,5	6	138	40	703	731	M12	70	7,60	1
779 864 359	779 862 359	679	689	676/677/678/680/686/688	2,5	6	138	40	731	759	M12	70	7,82	1
779 864 360	779 862 360	691	701	690/691/698/700	2,5	6	138	40	743	771	M12	70	7,92	1
779 864 361	779 862 361	703	713	702,6/705/710/711,2	2,5	6	138	40	755	783	M12	70	8,01	1
779 864 362	779 862 362	720	730	718/720/726/729	2,5	6	138	40	772	800	M12	70	8,15	1
779 864 363	779 862 363	735	745	734/735/738/743/744	2,5	6	138	40	787	815	M12	70	8,26	1

# UNI-Flex S2/S3/S4 Ø 762 - 2090 mm PN2,5

S2 = 2 pieces to Ø 1130 mm, S3 = 3 pieces from Ø 1147 mm - 1568 mm, S4 = 4 pieces from Ø 1632 mm

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
Components			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
Sealing Sleeve Application	EPDM	NBR	Silicone (on request) Viton (on request)
Temperature range	-30 °C up to +80 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

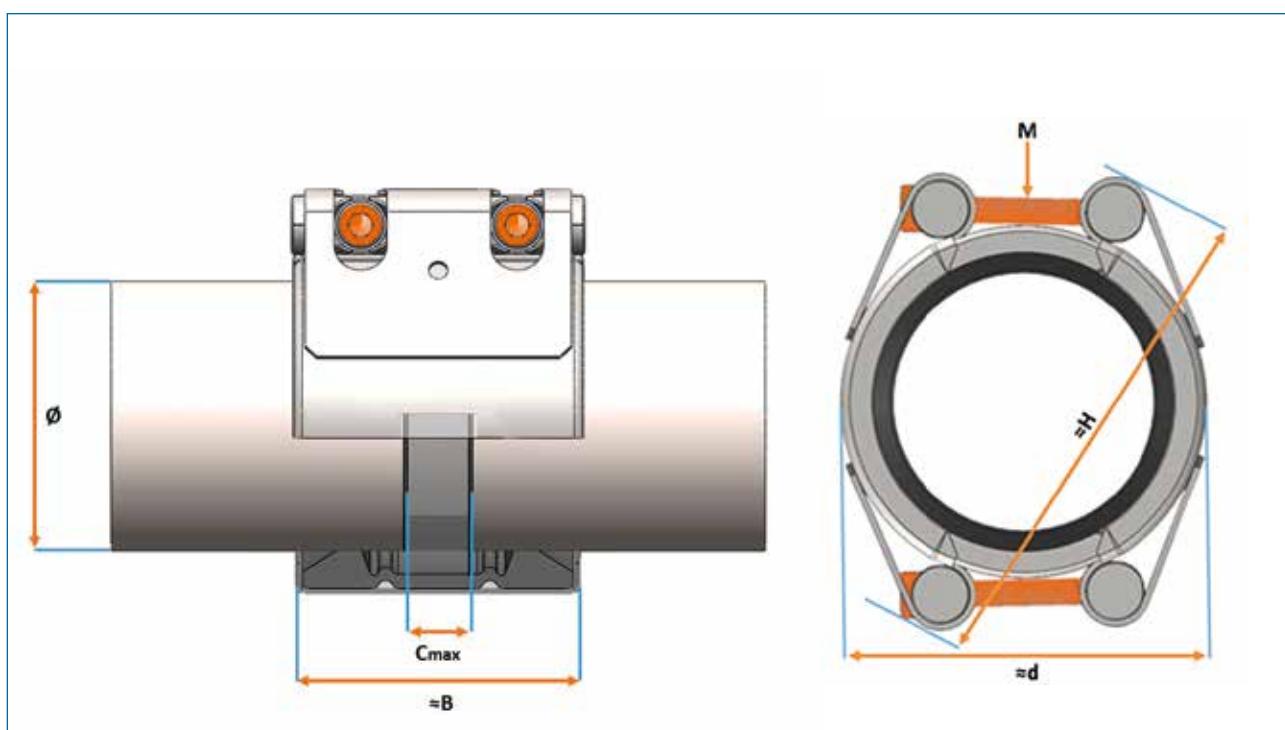
## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)
- For safe installation on PE/PP/PB pipes use insert stiffeners (on page 78)**

Insert stiffener for PE/PP/PB pipe



Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 864 364	779 862 364	762	782	760/761/762/768/769/770/773/780	2,5	6	138	40	824	852	M12	70	10,94	1
779 864 365	779 862 365	788	808	784/786/790/798/800/801/806	2,5	6	138	40	850	878	M12	70	11,15	1
779 864 366	779 862 366	812	832	807,2/808/812,8/820/822/824/826/830	2,5	6	138	40	874	902	M12	70	11,33	1
779 864 367	779 862 367	834	854	832/840/842/848/852	2,5	6	138	40	896	924	M12	70	11,51	1
779 864 368	779 862 368	862	882	859,5/864/868/869/879/880	2,5	6	138	40	924	952	M12	70	11,73	1
779 864 369	779 862 369	888	908	886/891/896/900/903/905,8	2,5	6	138	40	950	978	M12	70	11,93	1
779 864 370	779 862 370	910	930	912,4/914,4/915/920/924/927/928	2,5	6	138	40	972	1000	M12	70	12,11	1
779 864 371	779 862 371	942	962	940/945/950/951/952/956/960	2,5	6	140	40	1004	1032	M12	80	16,91	1
779 864 372	779 862 372	967	987	964,2/965/970/977/978/984,5	2,5	6	140	40	1029	1057	M12	80	17,21	1
779 864 373	779 862 373	990	1010	989/990/992/996/1000/1008	2,5	6	140	40	1052	1080	M12	80	17,49	1
779 864 374	779 862 374	1010	1030	1015/1016/1020/1024/1027	2,5	6	140	40	1072	1100	M12	80	17,73	1
779 864 375	779 862 375	1050	1070	1044/1048/1054/1057/1068,3	2,5	6	140	40	1116	1146	M12	80	18,22	1
779 864 376	779 862 376	1082	1102	1080/1086/1090,2/1100	2,5	6	140	40	1148	1178	M12	80	18,60	1
779 864 377	779 862 377	1110	1130	1118/1120,6/1128	2,5	6	140	40	1176	1206	M12	80	18,94	1
779 864 378	779 862 378	1147	1177	1143/1144/1152/1167/1172,5/1174	2,5	6	140	40	1223	1253	M12	80	22,15	1
779 864 379	779 862 379	1201	1231	1200/1220/1228	2,5	6	140	40	1277	1307	M12	80	22,80	1
779 864 380	779 862 380	1250	1280	1255/1256/1261/1276,6	2,5	6	140	40	1326	1356	M12	80	23,40	1
779 864 381	779 862 381	1340	1370	1358	2,5	6	140	40	1416	1446	M12	80	24,48	1
779 864 382	779 862 382	1422	1452	1420/1422/1449	2,5	6	140	40	1498	1528	M12	80	25,47	1
779 864 383	779 862 383	1441	1471	1462/1468	2,5	6	142	40	1517	1547	M12	80	25,70	1
779 864 384	779 862 384	1538	1568	1560/1565	2,5	6	142	40	1614	1644	M12	80	33,97	1
779 864 385	779 862 385	1632	1672	1620/1626/1640/1668	2,5	6	142	40	1718	1748	M12	80	38,56	1
779 864 386	779 862 386	1839	1879	1820/1829/1844/1875	2,5	6	142	40	1925	1955	M12	80	41,89	1
779 864 387	779 862 387	2012	2052	2020/2032/2048	2,5	6	142	40	2098	2128	M12	80	44,67	1
779 864 388	779 862 388	2050	2090	2082	2,5	6	142	40	2136	2166	M12	80	45,28	1

# UNI-Rep L

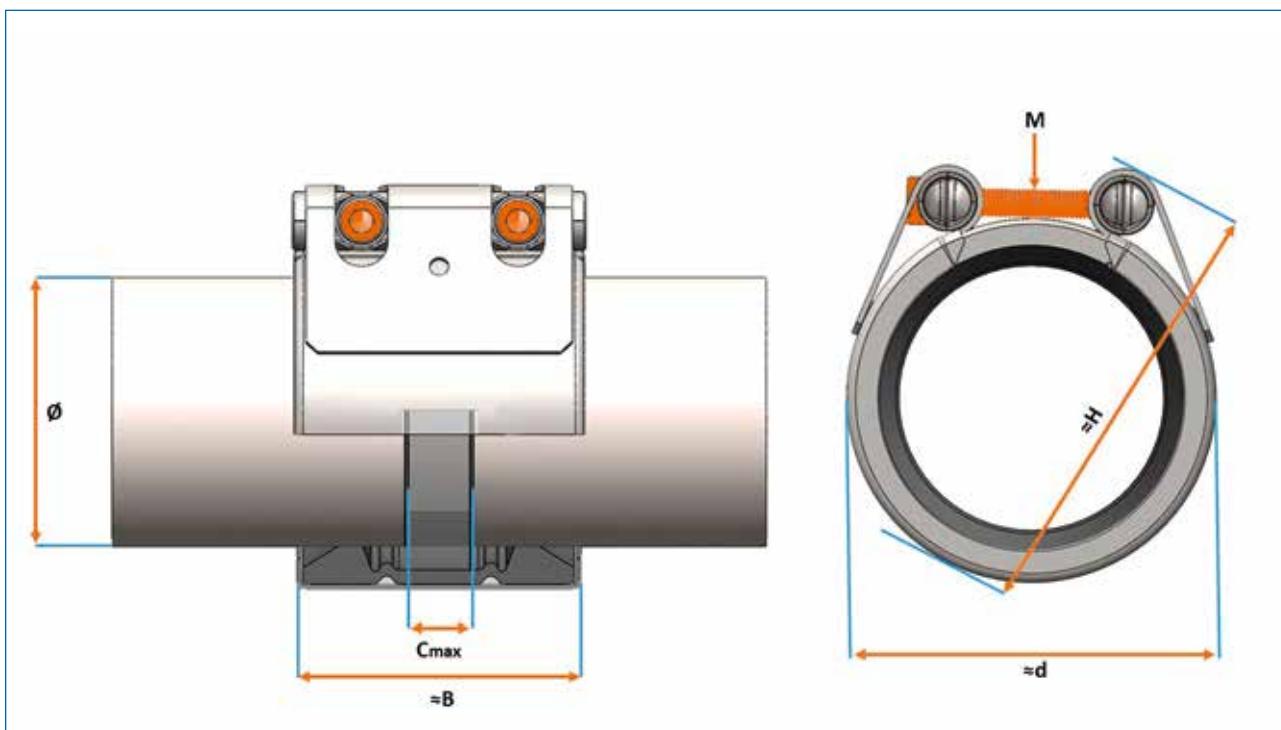
Ø 36 - 172 mm PN16

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
Components			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
Sealing Sleeve Application	EPDM	NBR	Silicone (on request) Viton (on request)
Temperature range	-30 °C up to +125 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)

Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 912 005	779 909 005	36	39	38	16	60	60	15	66	104	M8	5	0,40	10
779 912 006	779 909 006	39	43	42,4	16	50	60	15	66	104	M8	5	0,40	10
779 912 007	779 909 007	43	47,5	44,5	16	50	60	15	74	112	M8	5	0,40	10
779 912 008	779 909 008	47,5	52,5	48,3	16	50	60	15	74	112	M8	5	0,40	10
779 912 009	779 909 009	52,5	58	54/57	16	50	75	25	85	125	M8	5	0,60	10
779 912 010	779 909 010	58	64	60,3/63	16	40	75	25	85	125	M8	5	0,60	10
779 912 011	779 909 011	64	72	66,6/68/69/70	16	40	95	30	108	164	M10	10	1,00	10
779 912 012	779 909 012	72	80	73/76,1/79,5	16	40	95	30	108	164	M10	10	1,00	10
779 912 013	779 909 013	80	88	84	16	35	95	30	124	170	M10	10	1,00	10
779 912 014	779 909 014	88	96	88,9	16	35	95	30	124	170	M10	10	1,00	10
779 912 015	779 909 015	97	105	98/100,6/101,6/104	16	35	95	30	141	187	M10	10	1,10	10
779 912 016	779 909 016	104	112	104,8/108/110	16	35	95	30	141	187	M10	10	1,10	10
779 912 017	779 909 017	112	120	114,3/118	16	35	95	30	158	202	M10	12,5	1,20	10
779 912 018	779 909 018	122	130	125/127/129	16	32	95	30	158	202	M10	12,5	1,20	10
779 912 019	779 909 019	129	137	130,2/131/133	16	32	110	40	178	230	M12	20	2,10	5
779 912 020	779 909 020	137	145	139,7/141,3/141,6	16	32	110	40	186	238	M12	25	2,20	5
779 912 021	779 909 021	149	157	154/155	16	32	110	40	197	249	M12	30	2,30	5
779 912 022	779 909 022	157	165	159	16	32	110	40	205	255	M12	30	2,30	5
779 912 023	779 909 023	164	172	165/168,3	16	32	110	40	212	262	M12	30	2,40	5

# UNI-Rep S2

$\varnothing 188 - 745 \text{ mm PN16}$

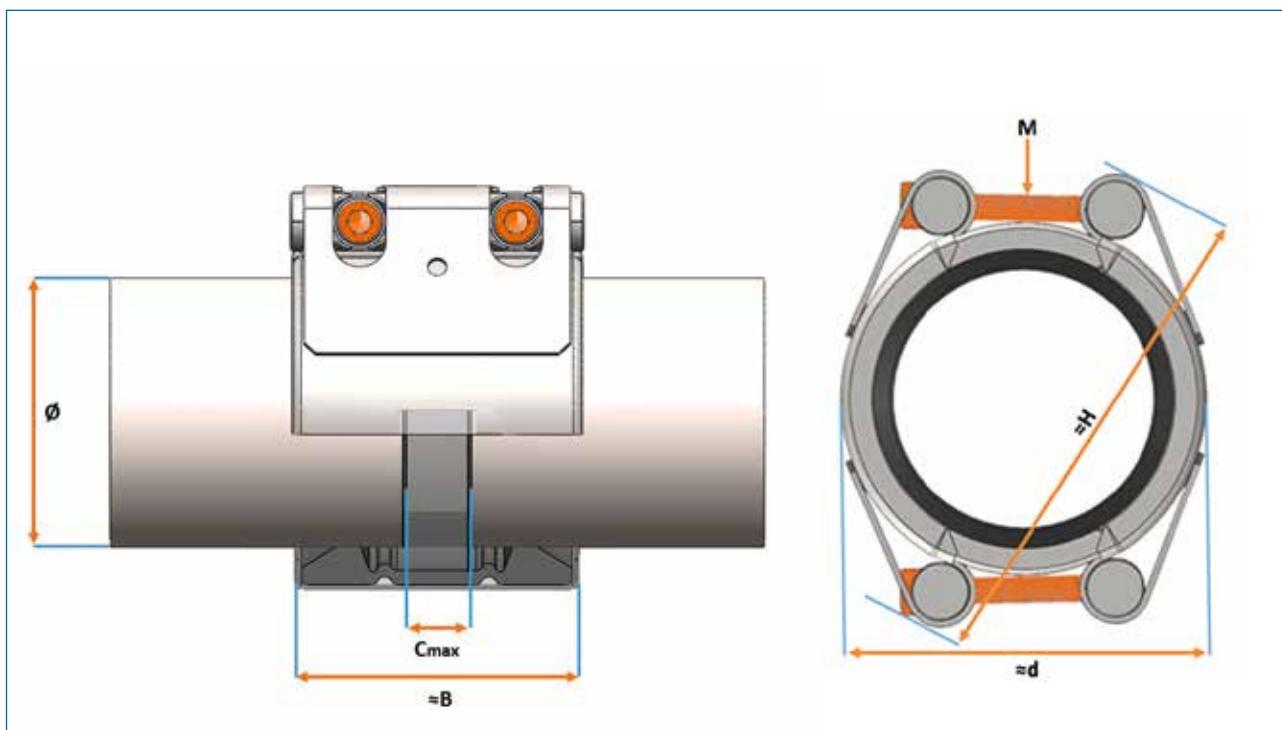
S2 = 2 pieces

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
<b>Components</b>			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
<b>Sealing Sleeve Application</b>			
Temperature range	-30 °C up to +80 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)

Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 964 024	779 962 024	188	198	185/187/190/191/193,7/195/196/197	16	25	140	40	236	262	M12	30	7,80	1
779 964 025	779 962 025	201	211	200/202/203/204/205/206/208/210	16	25	140	40	249	275	M12	30	7,96	1
779 964 026	779 962 026	213	223	211/212/215/216/217/219,1/220/222	16	25	140	40	261	287	M12	30	8,10	1
779 964 027	779 962 027	224	234	224/225/226/228/229/230/232/234	16	25	140	40	272	298	M12	30	8,24	1
779 964 028	779 962 028	237	247	236/238/240/241/242/244/244,5/246	16	25	140	40	285	311	M12	30	8,39	1
779 964 029	779 962 029	250	260	248/249/250/252/254/255/256/257/259	16	25	140	40	298	324	M12	30	8,55	1
779 964 030	779 962 030	266	276	264/268/267/271/272/273,1/274/275	16	25	140	40	314	340	M12	30	8,74	1
779 964 031	779 962 031	280	290	278/280/284/286/287/288/289	16	25	142	40	328	354	M16	30	10,66	1
779 964 032	779 962 032	291	301	290/292/295/296/298/300	16	25	142	40	339	365	M16	30	10,84	1
779 964 033	779 962 033	304	314	304/305/306/308/310/311/313	16	25	142	40	352	378	M16	30	11,05	1
779 964 034	779 962 034	318	328	315/316/318/320/321/323,9/326/327	16	25	142	40	366	392	M16	30	11,27	1
779 964 035	779 962 035	330	340	330/333,8/334/336/337/339	16	25	142	40	378	404	M16	50	11,46	1
779 964 036	779 962 036	343	353	340/342/343/345/346/348/350/352	16	25	142	40	391	417	M16	50	11,67	1
779 964 037	779 962 037	353	363	352/353/354/355/355,6/356/358/360/362	16	25	142	40	401	427	M16	50	11,83	1
779 964 038	779 962 038	364	374	367/368/372	16	25	146	40	412	438	M16	50	16,10	1
779 964 039	779 962 039	377	387	376/378/380/382/384/385/386	16	25	146	40	425	451	M16	50	16,42	1
779 964 040	779 962 040	390	400	388/392/394/395/396/398/399	16	25	146	40	438	464	M16	50	16,75	1
779 964 041	779 962 041	403	413	400/403/404/405/406/406,4/408/410/412	16	25	146	40	451	477	M16	50	17,08	1
779 964 042	779 962 042	415	425	419/420/421	16	25	146	40	463	489	M16	50	17,38	1
779 964 043	779 962 043	425	435	426/427/428/429/430/432/433/434	16	25	146	40	473	499	M16	50	17,63	1
779 964 044	779 962 044	441	451	439/440/441/442/444/448/450	16	25	146	40	489	515	M16	50	18,03	1
779 964 045	779 962 045	454	464	452/453/454/456/457,2/459/460/463	16	25	146	40	502	528	M16	50	18,35	1
779 964 046	779 962 046	463	473	464/468/470	16	25	146	40	511	537	M16	50	18,58	1
779 964 047	779 962 047	479	489	478/480/486/488	16	25	146	40	527	553	M16	50	18,98	1
779 964 048	779 962 048	491	501	490/492/494/496/498/500	16	25	146	40	539	565	M16	50	19,28	1
779 964 049	779 962 049	506	516	504/506/507/508/510/512/514/515	16	25	146	40	554	580	M16	50	19,66	1
779 964 050	779 962 050	523	533	520/521/524/526/530/532	16	25	146	40	575	603	M16	60	20,08	1
779 964 051	779 962 051	534	544	537/538/540/542/543	16	25	146	40	586	614	M16	60	20,36	1
779 964 052	779 962 052	549	559	546/548/549/550/558	16	25	146	40	601	629	M16	60	20,74	1
779 964 053	779 962 053	560	570	559/560/564/568	16	25	146	40	612	640	M16	60	21,01	1
779 964 054	779 962 054	574	584	571/572/574/576/582/583	16	25	146	40	626	654	M16	60	21,36	1
779 964 055	779 962 055	603	613	600/605/606/609,6/610/612	16	25	146	40	655	683	M16	60	22,09	1
779 964 056	779 962 056	613	623	613,7/620/622	16	25	146	40	665	693	M16	70	22,34	1
779 964 057	779 962 057	631	641	630/632/633/634/635/640	16	25	146	40	683	711	M16	70	22,79	1
779 964 058	779 962 058	651	661	650/651/654/655/658/659/660	16	25	146	40	703	731	M16	70	23,29	1
779 964 059	779 962 059	679	689	676/677/678/680/686/688	16	25	146	40	731	759	M16	70	23,99	1
779 964 060	779 962 060	691	701	690/691/698/700	16	25	146	40	743	771	M16	70	24,30	1
779 964 061	779 962 061	703	713	702,6/705/710/711,2	16	25	146	40	755	783	M16	70	24,60	1
779 964 062	779 962 062	720	730	718/720/726/729	16	25	146	40	772	800	M16	70	25,02	1
779 964 063	779 962 063	735	745	734/735/738/743/744	16	25	146	40	787	815	M16	70	25,40	1

# UNI-Rep S2

$\varnothing 188 - 745 \text{ mm PN10}$

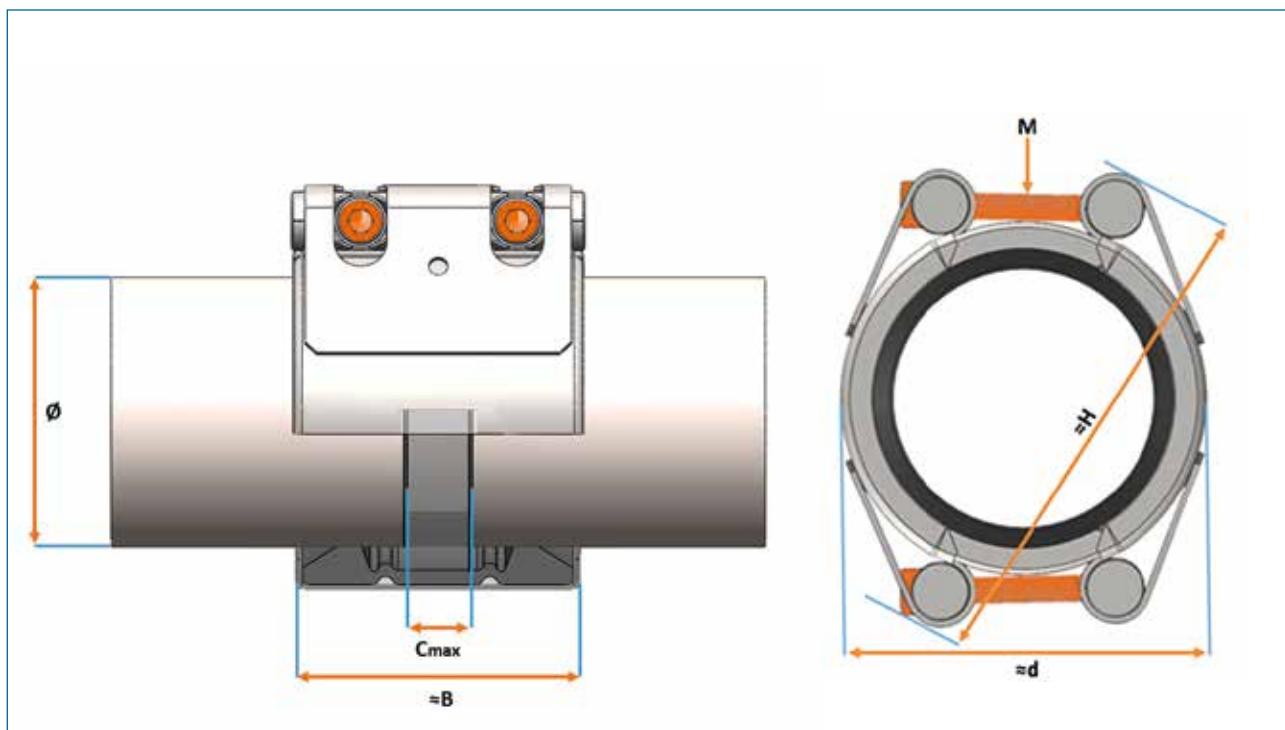
S2 = 2 pieces

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
<b>Components</b>			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
<b>Sealing Sleeve Application</b>			
Temperature range	-30 °C up to +80 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)

Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 964 124	779 962 124	188	198	185/187/190/191/193,7/195/196/197	10	16	138	40	236	262	M12	30	6,41	1
779 964 125	779 962 125	201	211	200/202/203/204/205/206/208/210	10	16	138	40	249	275	M12	30	6,51	1
779 964 126	779 962 126	213	223	211/212/215/216/217/219,1/220/222	10	16	138	40	261	287	M12	30	6,61	1
779 964 127	779 962 127	224	234	224/225/226/228/229/230/232/234	10	16	138	40	272	298	M12	30	6,69	1
779 964 128	779 962 128	237	247	236/238/240/241/242/244/244,5/246	10	16	138	40	285	311	M12	30	6,80	1
779 964 129	779 962 129	250	260	248/249/250/252/254/255/256/257/259	10	16	138	40	298	324	M12	30	6,90	1
779 964 130	779 962 130	266	276	264/268/267/271/272/273,1/274/275	10	16	138	40	314	340	M12	30	7,02	1
779 964 131	779 962 131	280	290	278/280/284/286/287/288/289	10	16	140	40	328	354	M12	30	8,91	1
779 964 132	779 962 132	291	301	290/292/295/296/298/300	10	16	140	40	339	365	M12	30	9,05	1
779 964 133	779 962 133	304	314	304/305/306/308/310/311/313	10	16	140	40	352	378	M12	30	9,20	1
779 964 134	779 962 134	318	328	315/316/318/320/321/323,9/326/327	10	16	140	40	366	392	M12	30	9,37	1
779 964 135	779 962 135	330	340	330/333,8/334/336/337/339	10	16	140	40	378	404	M12	40	9,52	1
779 964 136	779 962 136	343	353	340/342/343/345/346/348/350/352	10	16	140	40	391	417	M12	40	9,67	1
779 964 137	779 962 137	353	363	352/353/354/355/355,6/356/358/360/362	10	16	140	40	401	427	M12	40	9,79	1
779 964 138	779 962 138	364	374	367/368/372	10	16	142	40	412	438	M12	40	12,01	1
779 964 139	779 962 139	377	387	376/378/380/382/384/385/386	10	16	142	40	425	451	M12	40	12,22	1
779 964 140	779 962 140	390	400	388/392/394/395/396/398/399	10	16	142	40	438	464	M12	40	12,43	1
779 964 141	779 962 141	403	413	400/403/404/405/406/406,4/408/410/412	10	16	142	40	451	477	M12	40	12,64	1
779 964 142	779 962 142	415	425	419/420/421	10	16	142	40	463	489	M12	40	12,83	1
779 964 143	779 962 143	425	435	426/427/428/429/430/432/433/434	10	16	142	40	473	499	M12	40	12,99	1
779 964 144	779 962 144	441	451	439/440/441/442/444/448/450	10	16	142	40	489	515	M12	40	13,25	1
779 964 145	779 962 145	454	464	452/453/454/456/457,2/459/460/463	10	16	142	40	502	528	M12	40	13,46	1
779 964 146	779 962 146	463	473	464/468/470	10	16	142	40	511	537	M12	40	13,60	1
779 964 147	779 962 147	479	489	478/480/486/488	10	16	142	40	527	553	M12	40	13,86	1
779 964 148	779 962 148	491	501	490/492/494/496/498/500	10	16	142	40	539	565	M12	40	14,05	1
779 964 149	779 962 149	506	516	504/506/507/508/510/512/514/515	10	16	142	40	554	580	M12	40	14,29	1
779 964 150	779 962 150	523	533	520/521/524/526/530/532	10	16	142	40	575	603	M16	50	14,57	1
779 964 151	779 962 151	534	544	537/538/540/542/543	10	16	142	40	586	614	M16	50	14,74	1
779 964 152	779 962 152	549	559	546/548/549/550/558	10	16	142	40	601	629	M16	50	14,99	1
779 964 153	779 962 153	560	570	559/560/564/568	10	16	142	40	612	640	M16	50	15,16	1
779 964 154	779 962 154	574	584	571/572/574/576/582/583	10	16	142	40	626	654	M16	50	15,39	1
779 964 155	779 962 155	603	613	600/605/606/609,6/610/612	10	16	142	40	655	683	M16	50	15,85	1
779 964 156	779 962 156	613	623	613,7/620/622	10	16	142	40	665	693	M16	60	16,02	1
779 964 157	779 962 157	631	641	630/632/633/634/635/640	10	16	142	40	683	711	M16	60	16,30	1
779 964 158	779 962 158	651	661	650/651/654/655/658/659/660	10	16	142	40	703	731	M16	60	16,63	1
779 964 159	779 962 159	679	689	676/677/678/680/686/688	10	16	142	40	731	759	M16	60	17,08	1
779 964 160	779 962 160	691	701	690/691/698/700	10	16	142	40	743	771	M16	60	17,27	1
779 964 161	779 962 161	703	713	702,6/705/710/711,2	10	16	142	40	755	783	M16	60	17,46	1
779 964 162	779 962 162	720	730	718/720/726/729	10	16	142	40	772	800	M16	60	17,74	1
779 964 163	779 962 163	735	745	734/735/738/743/744	10	16	142	40	787	815	M16	60	17,98	1

# UNI-Rep S2

$\varnothing 280 - 745 \text{ mm PN}6$

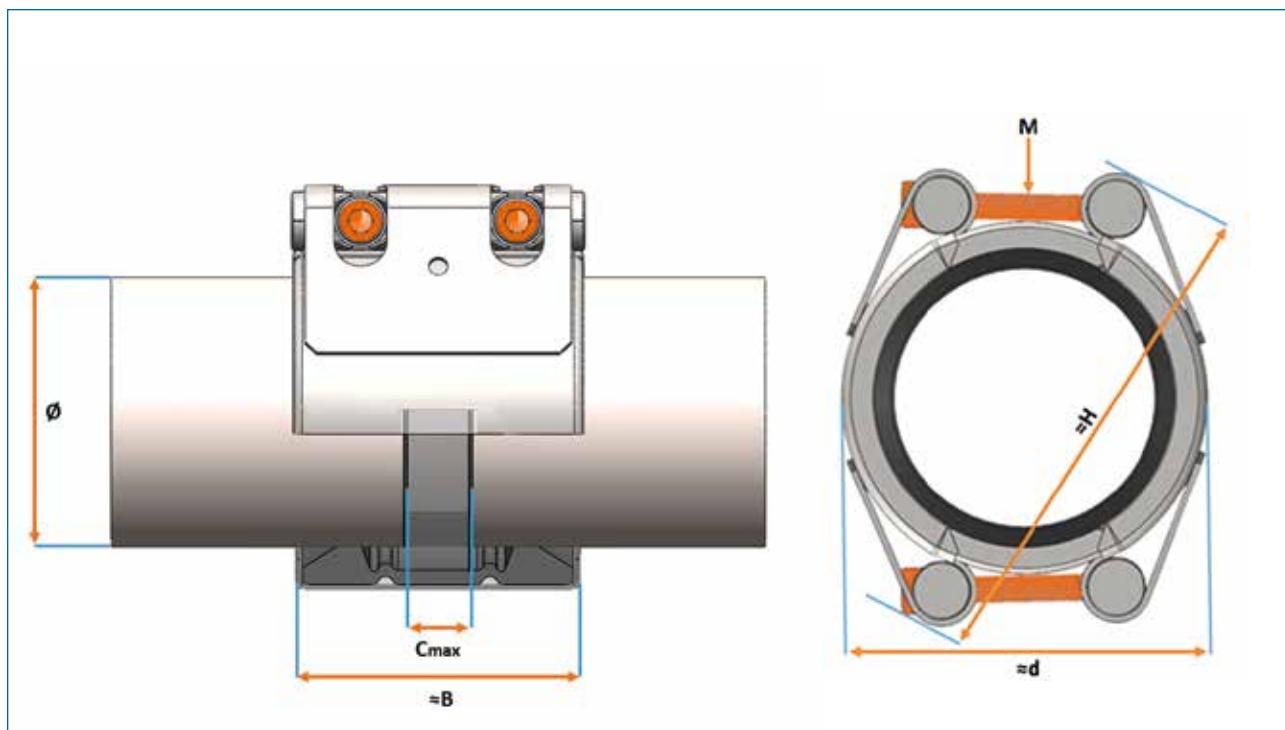
S2 = 2 pieces

Steel materials	W5 (standard)	W4 (on request)	W2 (on request)
<b>Components</b>			
Casing	1.4571/316 Ti	1.4301/304	1.4016/430
Bolts	A4-80/316 Ti	A4-80/316 Ti	A4-80/316 Ti
Bars	1.4571/316 Ti	1.4301/304	1.0760 /1141
Anchoring rings	1.4310/301	1.4310/301	1.4310/301
Strip insert (Option)	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA	1.4571 (316 Ti)/PP/PA
<b>Sealing Sleeve Application</b>			
Temperature range	-30 °C up to +80 °C	-20 °C up to +80 °C	
Medium	drinking water, waste water, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	

## Important remarks:

- Follow fitting/disassembly instructions
- WP = Working pressure considering the application loads
- Test pressure = WP x 1.5 (for example industry, water supply etc.)
- The pressure values are valid for radial rigid carbon steel pipes with a minimal wall-thickness under static load
- For other pipe materials see the table on page 64
- Strip inserts are required for special applications
- PN = shipbuilding industry 4 X safety factor
- WP = industrial applications 1,5 X safety factor
- Free from paint wetting disruptive substances (EPDM or NBR)

Technical details are subject to change. Typing error may occur





Code EPDM	Code NBR	OD Ø min.	OD Ø max.	OD Ø Nominal	Pressure			Coupling dimensions				Torque rate (Nm)	Weight ≈ kg/ pce.	Pack qty
					PN	WP	≈ B	C max.	≈ d	≈ H	M			
779 964 231	779 962 231	280	290	278/280/284/286/287/288/289	6	10	138	40	328	354	M12	30	7,14	1
779 964 232	779 962 232	291	301	290/292/295/296/298/300	6	10	138	40	339	365	M12	30	7,22	1
779 964 233	779 962 233	304	314	304/305/306/308/310/311/313	6	10	138	40	352	378	M12	30	7,32	1
779 964 234	779 962 234	318	328	315/316/318/320/321/323,9/326/327	6	10	138	40	366	392	M12	30	7,44	1
779 964 235	779 962 235	330	340	330/333,8/334/336/337/339	6	10	138	40	378	404	M12	40	7,53	1
779 964 236	779 962 236	343	353	340/342/343/345/346/348/350/352	6	10	138	40	391	417	M12	40	7,63	1
779 964 237	779 962 237	353	363	352/353/354/355/355,6/356/358/360/362	6	10	138	40	401	427	M12	40	7,71	1
779 964 238	779 962 238	364	374	367/368/372	6	10	138	40	412	438	M12	40	7,80	1
779 964 239	779 962 239	377	387	376/378/380/382/384/385/386	6	10	138	40	425	451	M12	40	7,90	1
779 964 240	779 962 240	390	400	388/392/394/395/396/398/399	6	10	138	40	438	464	M12	40	8,00	1
779 964 241	779 962 241	403	413	400/403/404/405/406/406,4/408/410/412	6	10	138	40	451	477	M12	40	8,11	1
779 964 242	779 962 242	415	425	419/420/421	6	10	138	40	463	489	M12	40	8,20	1
779 964 243	779 962 243	425	435	426/427/428/429/430/432/433/434	6	10	138	40	473	499	M12	40	8,28	1
779 964 244	779 962 244	441	451	439/440/441/442/444/448/450	6	10	138	40	489	515	M12	40	8,41	1
779 964 245	779 962 245	454	464	452/453/454/456/457,2/459/460/463	6	10	138	40	502	528	M12	40	8,51	1
779 964 246	779 962 246	463	473	464/468/470	6	10	138	40	511	537	M12	40	8,58	1
779 964 247	779 962 247	479	489	478/480/486/488	6	10	138	40	527	553	M12	40	8,71	1
779 964 248	779 962 248	491	501	490/492/494/496/498/500	6	10	138	40	539	565	M12	40	8,80	1
779 964 249	779 962 249	506	516	504/506/507/508/510/512/514/515	6	10	138	40	554	580	M12	40	8,92	1
779 964 250	779 962 250	523	533	520/521/524/526/530/532	6	10	140	40	575	603	M12	50	11,85	1
779 964 251	779 962 251	534	544	537/538/540/542/543	6	10	140	40	586	614	M12	50	11,98	1
779 964 252	779 962 252	549	559	546/548/549/550/558	6	10	140	40	601	629	M12	50	12,16	1
779 964 253	779 962 253	560	570	559/560/564/568	6	10	140	40	612	640	M12	50	12,30	1
779 964 254	779 962 254	574	584	571/572/574/576/582/583	6	10	140	40	626	654	M12	50	12,46	1
779 964 255	779 962 255	603	613	600/605/606/609,6/610/612	6	10	140	40	655	683	M12	50	12,81	1
779 964 256	779 962 256	613	623	613,7/620/622	6	10	140	40	665	693	M12	60	12,94	1
779 964 257	779 962 257	631	641	630/632/633/634/635/640	6	10	140	40	683	711	M12	60	13,15	1
779 964 258	779 962 258	651	661	650/651/654/655/658/659/660	6	10	140	40	703	731	M12	60	13,39	1
779 964 259	779 962 259	679	689	676/677/678/680/686/688	6	10	140	40	731	759	M12	60	13,73	1
779 964 260	779 962 260	691	701	690/691/698/700	6	10	140	40	743	771	M12	60	13,88	1
779 964 261	779 962 261	703	713	702,6/705/710/711,2	6	10	140	40	755	783	M12	60	14,02	1
779 964 262	779 962 262	720	730	718/720/726/729	6	10	140	40	772	800	M12	60	14,23	1
779 964 263	779 962 263	735	745	734/735/738/743/744	6	10	140	40	787	815	M12	60	14,41	1

# Accessories

## Strip inserts

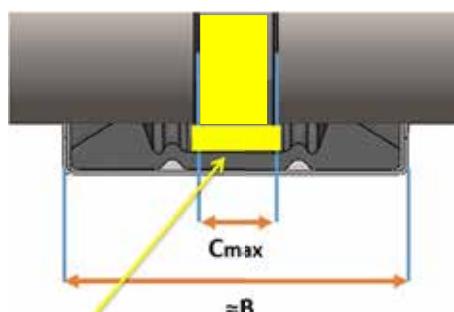
Strip inserts protect the sealing sleeve against mechanical or chemical damage in the pipe end area.

Strip inserts are required for:

- External pressure (e.g. underwater pipeline)
- Vacuum  $\geq 0,5$  bar A pressure (e.g. suction line)
- Swelling of the rubber caused by contact with chemicals

Subsequent installation of strip inserts for all types of couplings is possible. Strip insert quality depends on the medium and temperature. Steel strip inserts for higher temperatures, vacuum and external pressure are in 316 Ti (1.4571). T-Strip inserts are in PE.

## Strip insert



Strip inserts are required for special application

## Fitting plier



## Fitting plier / fitting belt

For convenient assembling of the UNI-Rep couplings we recommend to use a plier. The plier uses the bores in the housing in order to close the coupling – this enables you to manually tighten the bolts. In case of bigger diameters ( $>300$ mm) use a fitting belt.

## Torque wrench

Always assemble the UNI-Couplings using a torque wrench. Each UNI-Coupling shows the right torque on the housing – with a torque wrench you make sure that the UNI-Coupling is not overstressed.

## Torque wrench



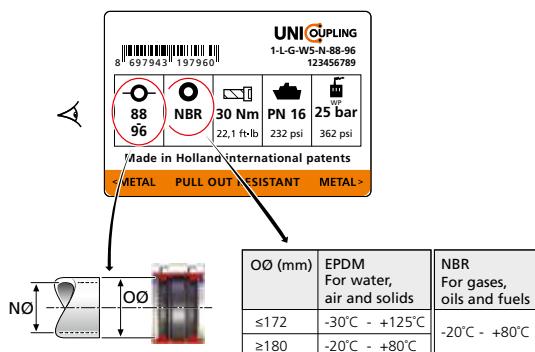
## Fitting plier



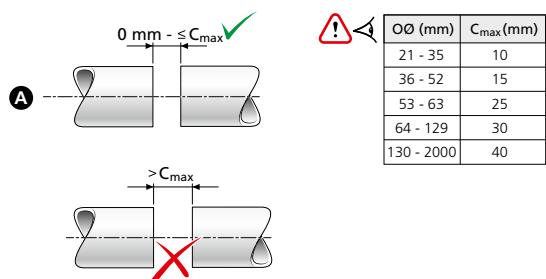
# Installation manual

## 1. Installation conditions

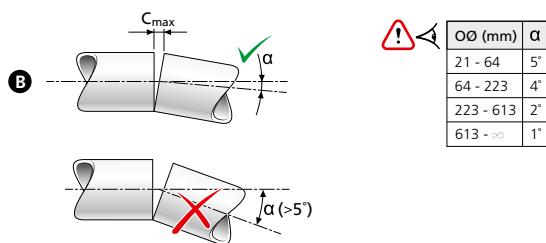
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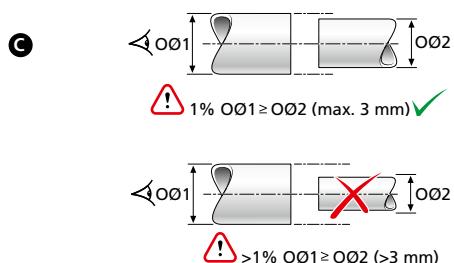
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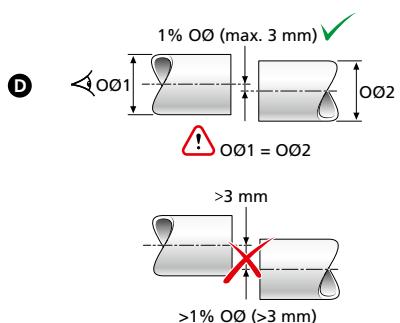
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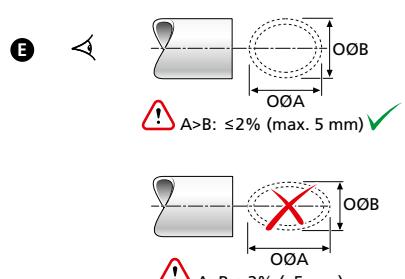
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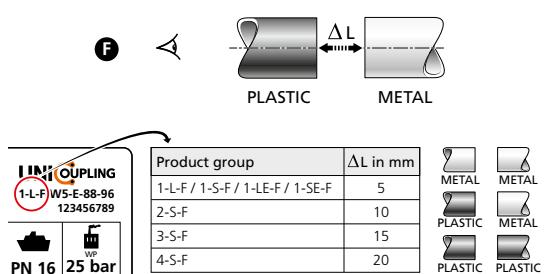
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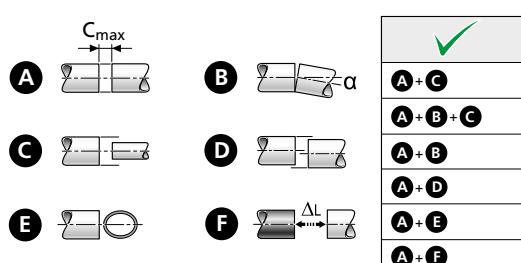
6.



7.



8.

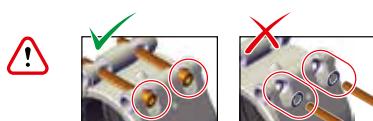


## 2. Preparations

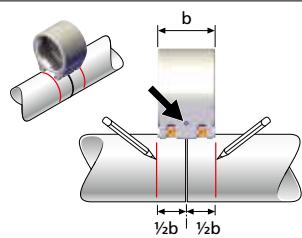
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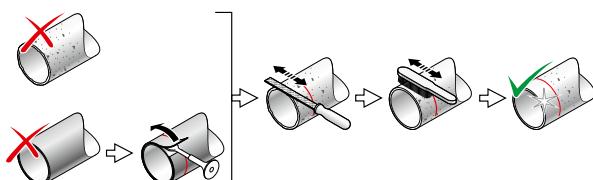
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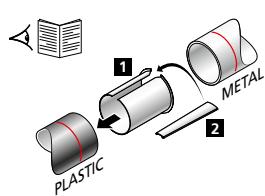
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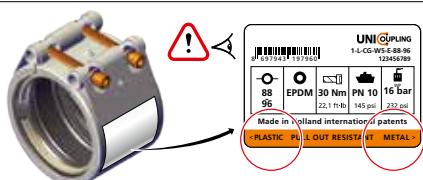
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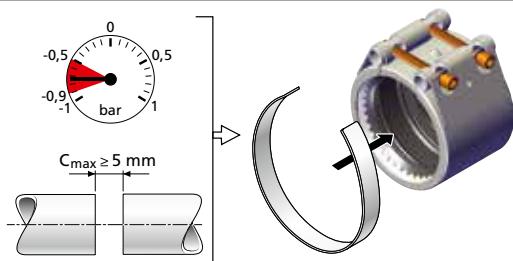
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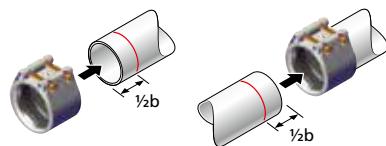


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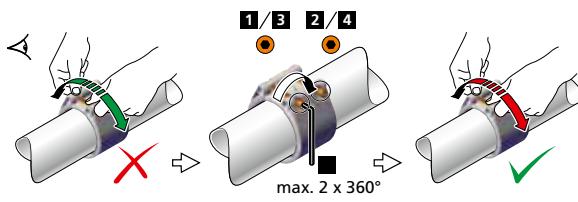
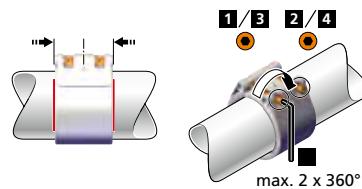


## 3. Fit the coupling

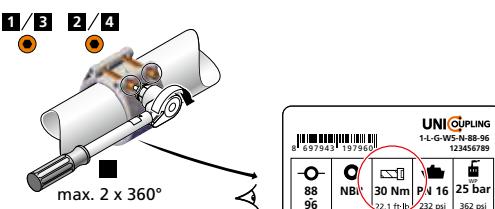
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2.

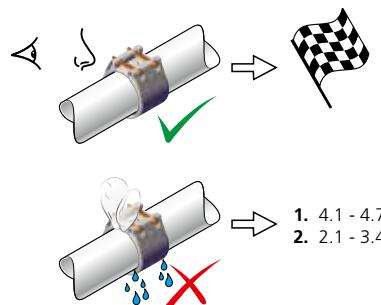


3.



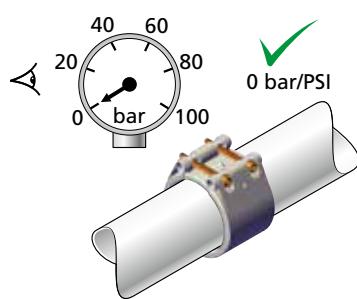
! ✓ 30 Nm

4.

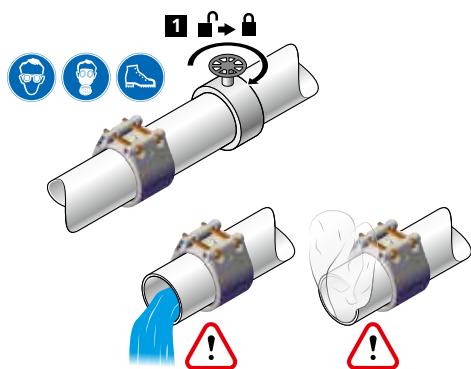


#### 4. Disassembly instructions

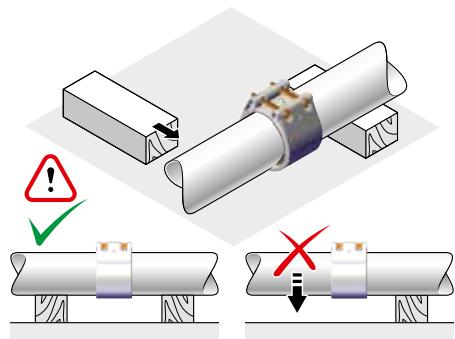
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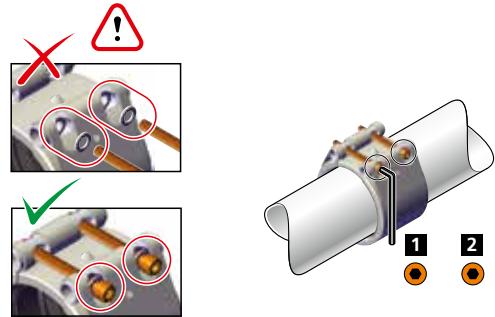
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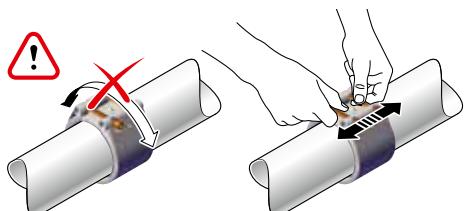
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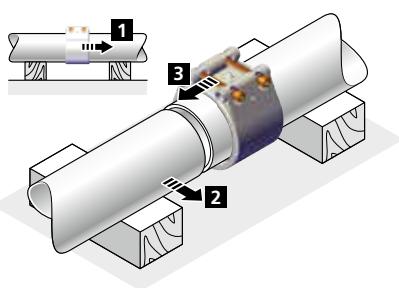
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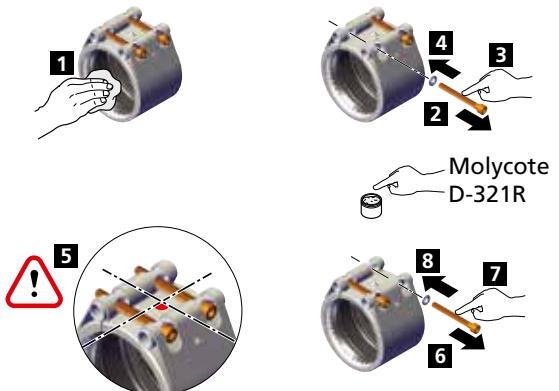
5.



6.



7.



# Dimensions

and minimal wall-thickness at nominal pressure PN

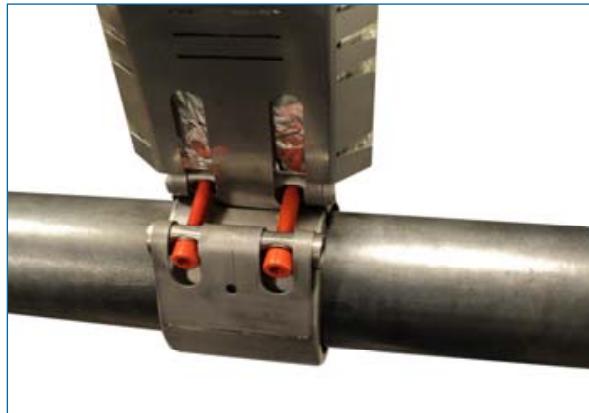
Minimum Pipe wall-thickness

Pipe Ø	Nominal Ø	Stainless steel tube	CuNi10Fe (DIN)		
Metric (mm)	Ips (inch)	Metric (dn)	Ips (nom)	UNI-Grip (mm)	CuNi10Mn1Fe (ISO)
26,9	1.050	20	3/4	1.5	1.5
30,0	1.180	25	1.2	1.5	1.5
33,7	1.325	25	1	1.5	2.0
38,0	1.495	32	1.5	1.5	2.0
42,4	1.670	32	1 1/4	1.5	2.0
44,5	1.750	40	1.75	1.5	2.0
48,3	1.900	40	1 1/2	1.5	2.0
54,0	2.125	50	2.125	1.5	2.0
57,0	2.245	50	2.25	1.5	2.0
60,3	2.375	50	2	1.5	2.0
66,6	2.625	65	2 1/2	2.0	2.0
70,0	2.756	65	2 1/2	2.0	2.0
73,0	2.875	65	2 1/2	2.0	2.0
76,1	[3.000]	65		2.0	2.0
79,5	3.125	65	3	2.0	2.0
84,0	3.305	80	3.3	2.0	2.0
88,9	3.500	80	3	2.0	2.0
100,6	3.960	80	[3]	2.0	2.3
101,6	[4.000]	90	[3 1/2]	2.0	2.3
104,0	4.095	100	4.1	2.0	2.3
104,8	4.125	100	[4]	2.0	2.3
108,0	4.250	100	4 1/4	2.0	2.3
114,3	4.500	100	4	2.0	2.3
127,0	5.000	100	4 1/2	2.6	3.0
129,0	5.080	125	5	2.6	3.0
130,2	5.125	125	[5]	2.6	3.0
<sup>8</sup> 131,0				3.0	
133,0	5.235	125	5 1/4	2.6	3.0
139,7	[5.500]	125	[5 1/2]	2.6	3.0
141,3	5.565	125	5	2.6	3.0
154,0	6.065	150	6.1	2.6	3.0
<sup>8</sup> 155,0				2,5	
159,0	6.260	150	6 1/4	2.6	3.0
168,3	6.625	150	6	2.6	3.5
193,7	7.625	200	7.6	3.0	3.5
<sup>8</sup> 206,0				3.0	
219,1	8.625	200	8	3.0	3.5
244,5	9.625	225	9	on request	4.5
<sup>8</sup> 256,0				on request	
267,0	10.510	250	10.5	on request	4.5
273,0	10.750	250	10	on request	5.0
<sup>8</sup> 306,0				on request	
323,9	12.750	300	12	on request	5.5
355,6	14.000	350	14	on request	6.0
406,4	16.000	400	16	on request	8.0
457,2	18.000	450	18	on request	9.0
508,0	20.000	500	20	on request	10.0
558,8	22.000	550	22	on request	10.0
609,6	24.000	600	24	on request	12.0

Thinner walls are possible at lower pressures; please contact your local dealer.

<sup>8</sup> Standard pipe dimension for stainless steel (outer diameter related to the wall-thickness)

# Fire protection housing



# Installation time

and dimension comparison

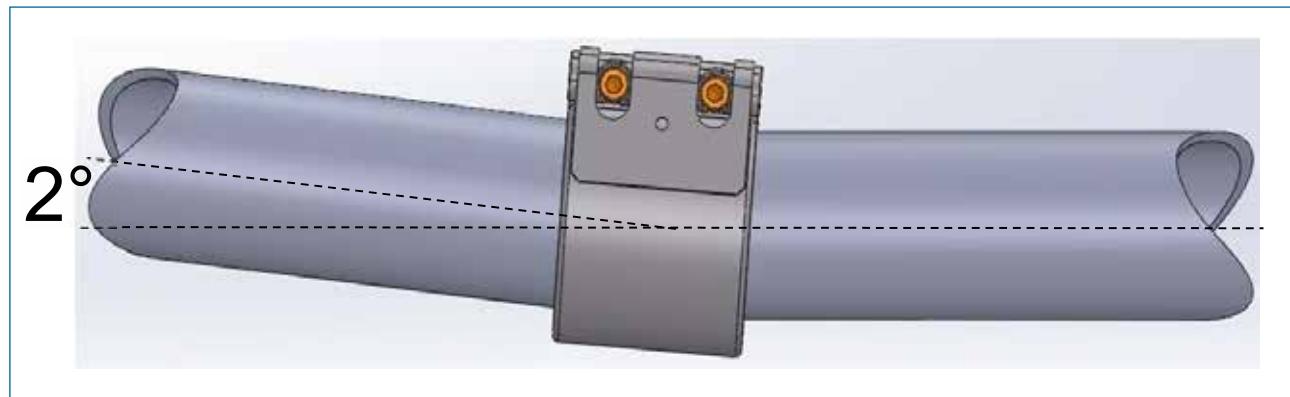
The installation time includes:

- Marking of half the coupling width on both pipe ends
- Fitting the coupling over pipe ends and correct alignment
- Tightening the bolts with a torque wrench

Pipe Ø	Nominal Ø	Installation time per coupling (min)		
Metric (mm)	Ips (inch)	Metric (dn)	Ips (nom)	
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

# Angular deflection

UNI-coupling couplings cover angular deflection of pipes up to 2° (4°) in any direction.

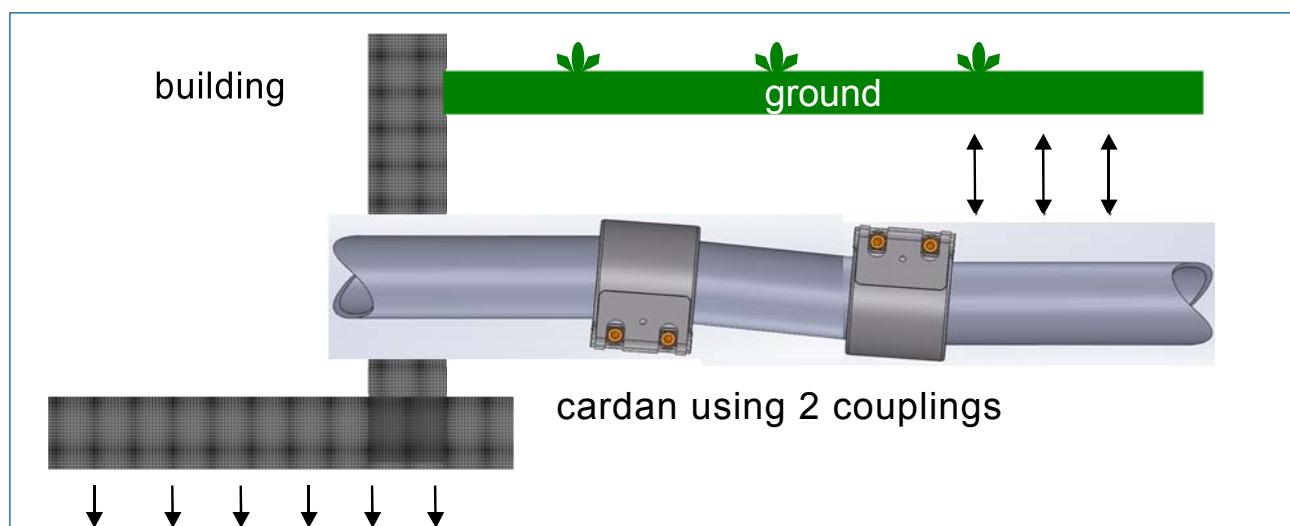


The 2° angular deflection corresponds to 35 mm per meter pipe length.

The installation is very easy and there is no need of costly pipe alignment.

It is possible to fit the pipe with angular deflection and to use the joint for dynamic angular movement, after fitting under working conditions of the pipe system.

**Example:** Ground settlement



**Note:** Pipe end gap C max must always be kept.

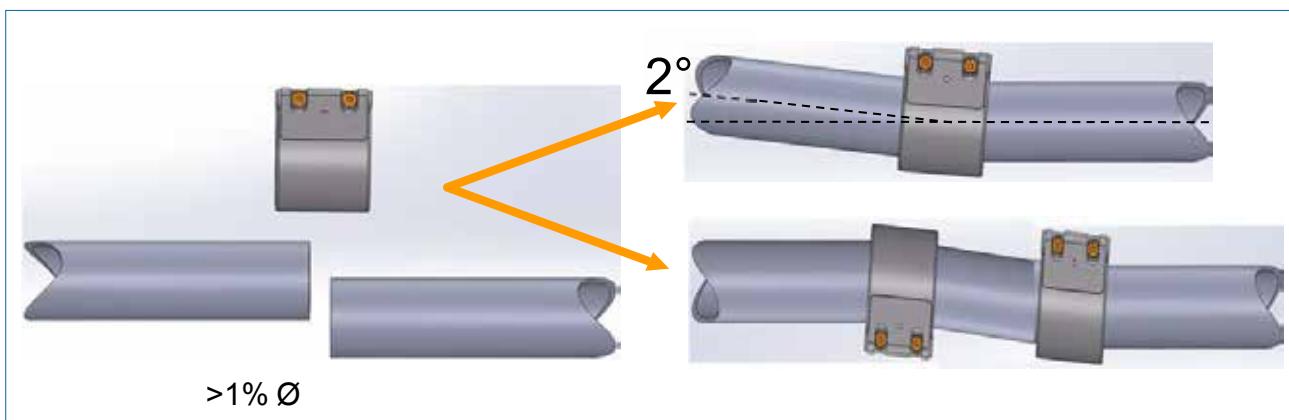
# Axial misalignment

UNI-Coupling couplings generally allow misalignment of the pipe axis. We recommend to avoid misalignment or to absorb this, either to an angularity of max 2° or use an intermediate piece (see fitting-/disassembly Instructions on page...).

Since a „zero misalignment“ is hard to organize,

a minimal misalignment is tolerated. The following rule explains the value of tolerable misalignment; aimed to be kept as small as possible:

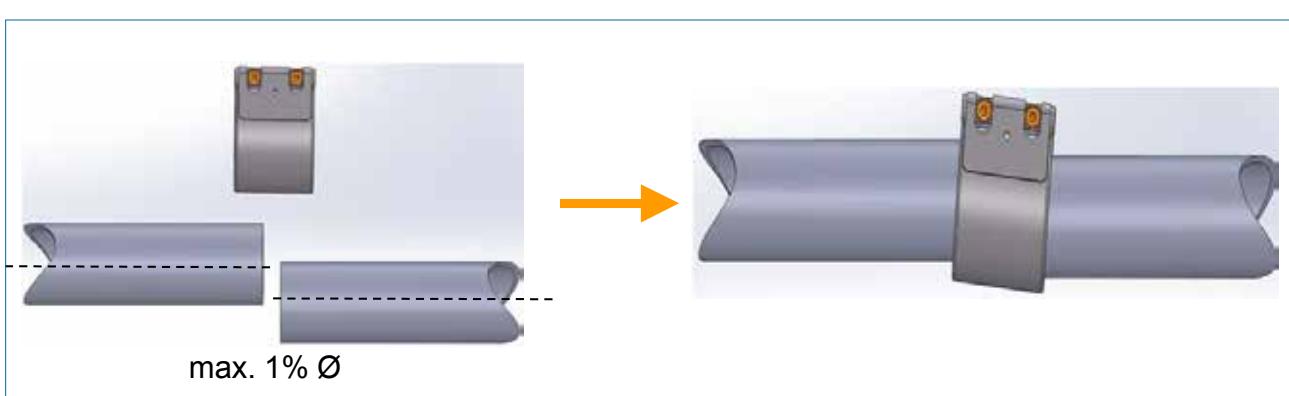
**‘For fixed pipe ends, a misalignment of up to 1% (max. 3 mm) of corresponding pipe OD can be tolerated without any restrictions. It does not affect the correct fitting of the UNI-Coupling’.**



Where the pipeline guides are sufficiently spaced from the pipe end, the butt ends can be rectified by hand with low force, approx. 500 N. The remaining axial misalignment after tightening the lock bolts is low. For such an application a larger misalignment before connecting can be admitted, according to the following rule:

**„A misalignment up to 1% in fitted position has no negative influence on the function of the UNI-Flex and UNI-Rep pipe couplings and therefore is tolerable up to pipe OD of 300 mm“.**

Under such conditions a slight sloping of the coupling on the pipe ends has to be expected.



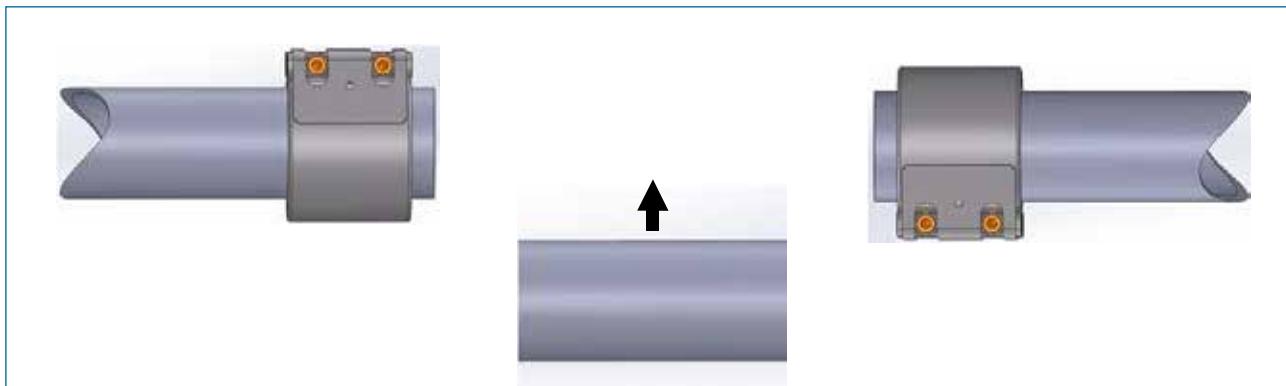
# Retrofitting of pipe sections and fittings

Due to the large scale of clearance, the high allowable fitting gap and the wide tolerance of UNI-Coupling it is predestinated as an ideal construction element for retrofitting of pipe sections and fittings during repair work or change of pipeline direction.

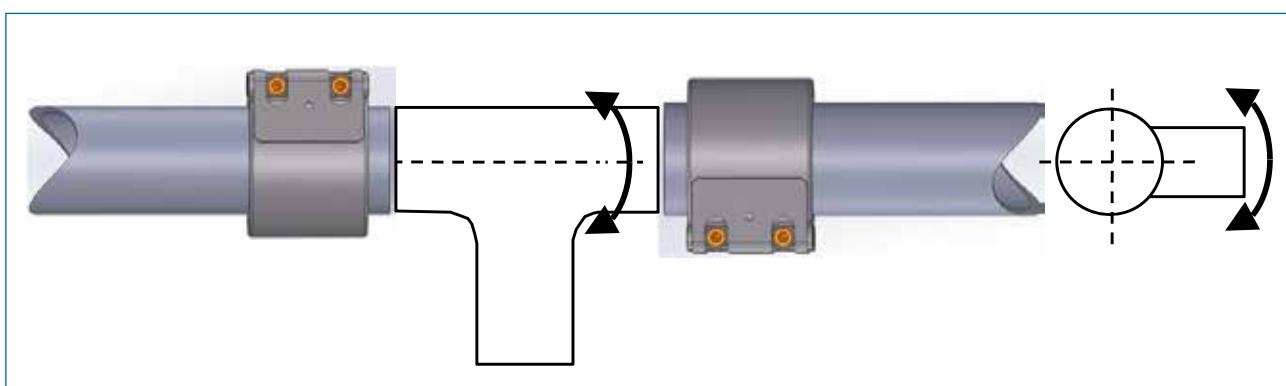


UNI-Flex and UNI-Rep pipe couplings do not absorb bending or torsion forces. Pressure lines must be supported, anchored and guided.

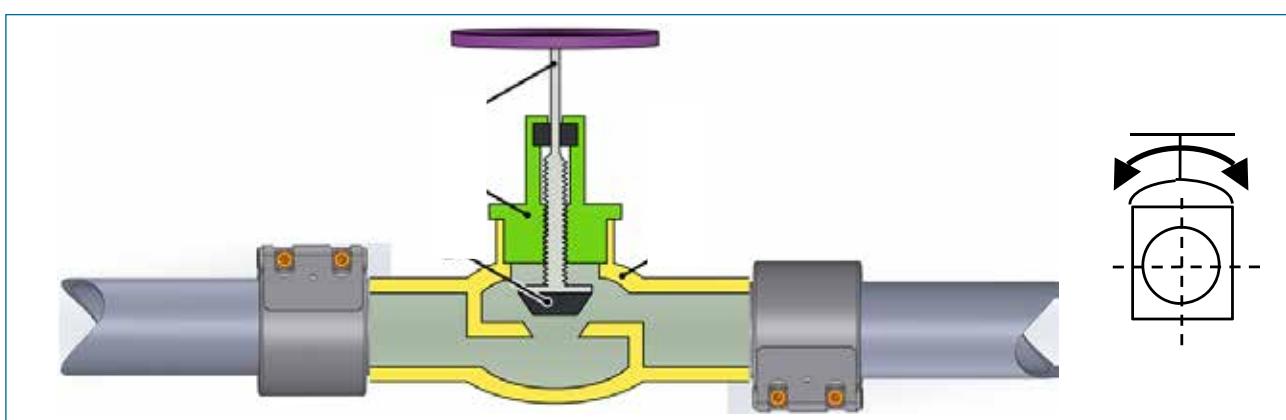
Pipe section for existing or new pipelines



Fitting (T), position and direction of the branch free to choose



Valve with plain ends, rotatable to any position



# Axial movement/change in length (dilatation)

Change of temperature in pipeline systems cause axial movement and tensile or pressure stress which must be compensated by adequate countermeasures.

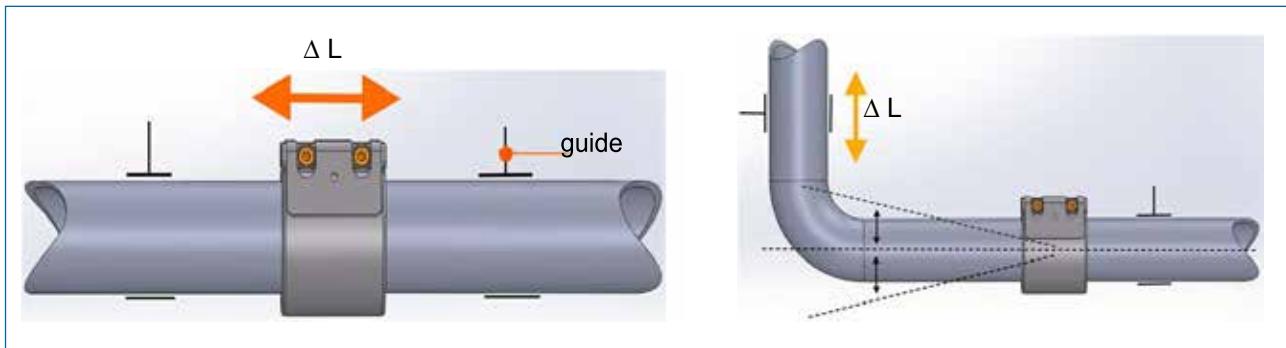


UNI-Flex and UNI-Rep pipe couplings do not absorb bending or torsion forces. Pressure lines must be supported, anchored and guided.

UNI-Flex and UNI-Rep pipe couplings are able to

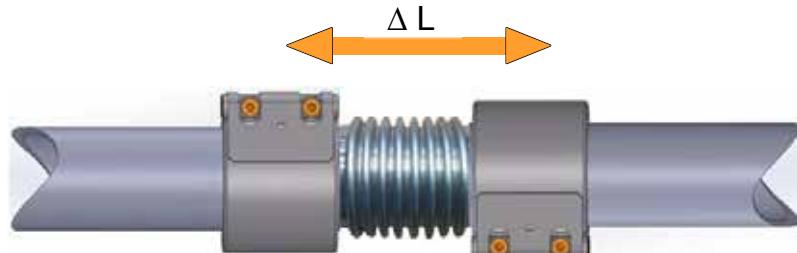
compensate axial movement of straight pipe sections, up to 20 mm depending on the size of coupling.

- compensation of axial movement
- no abrasion on the sealing sleeve
- escaping space for rubber expansion under temperature
- stress-free pipeline without additional means (see below)



**Note:** Pipe end gap C max. must always be kept.

Larger axial movements need compensation like traditional compensators



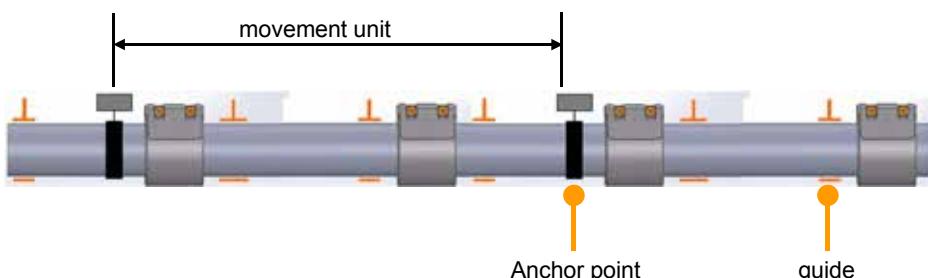
### **Anchor points and guides with axial movement**

Clever fastening of pipe sections which are exposed to axial movement due to temperature influences can be divided into 'movement units' and be joined very economically with UNI-Flex and UNI-Rep pipe couplings as compensator.

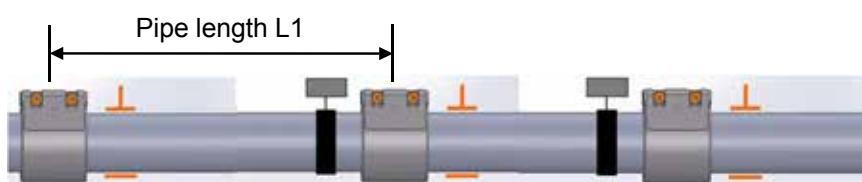


UNI-Flex and UNI-Rep pipe couplings do not absorb bending or torsion forces. Pressure lines must be supported, anchored and guided.

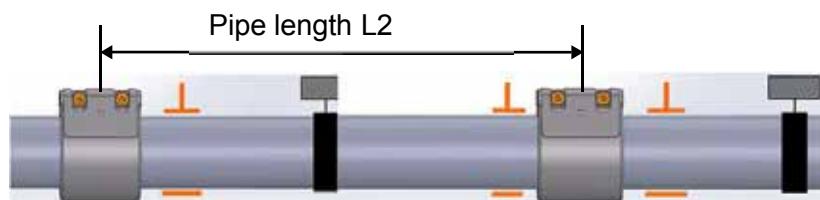
The distance between 2 anchor points forms a movement unit.



The movement between the 2 anchor points shall not exceed the admissible value given for one joint.

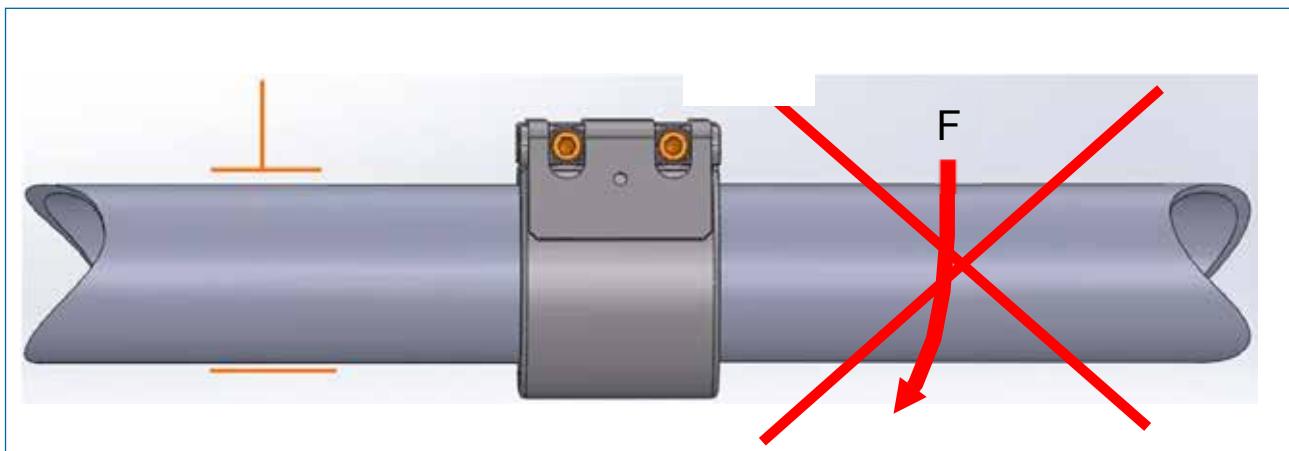


Depending on the value of axial movement every second anchor point can be replaced by guidance.



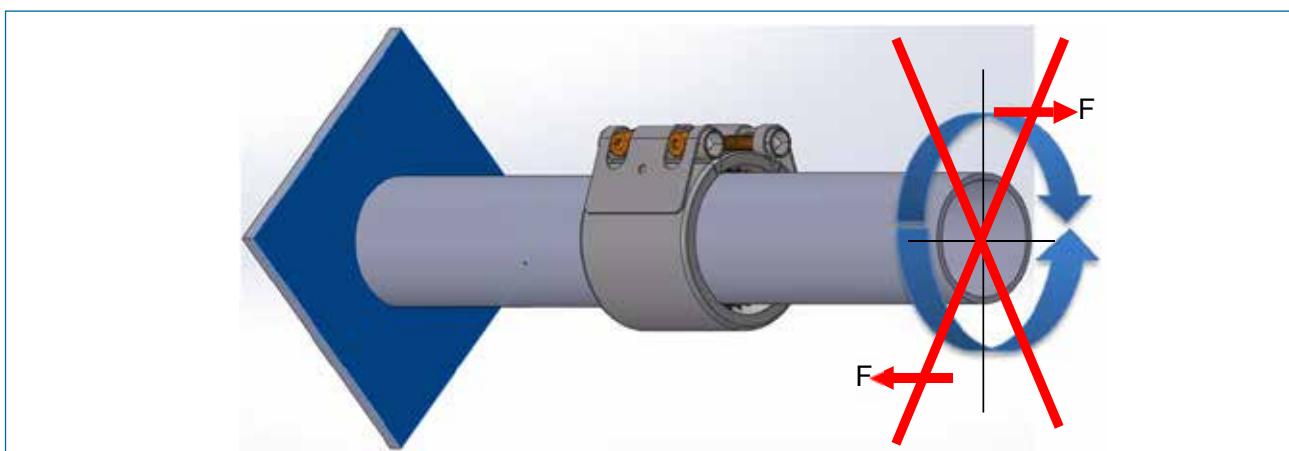
# Bending/torsion

## Bending



UNI-Coupling pipe couplings do not absorb bending or torsion forces. Pressure lines must be supported, anchored and guided.

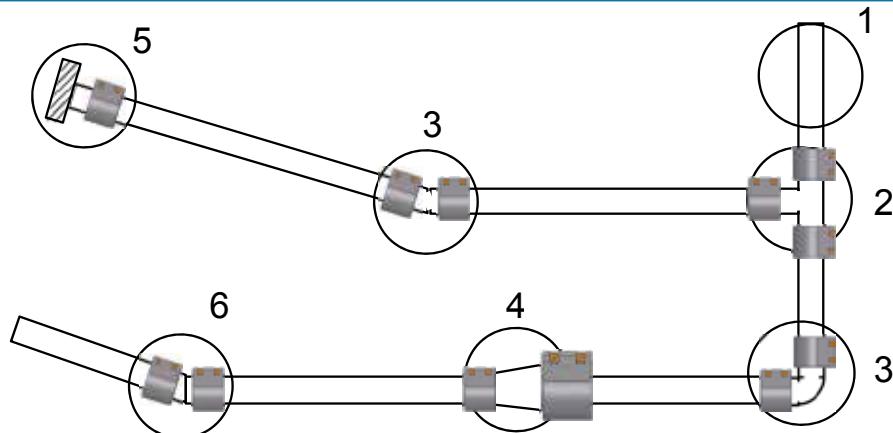
## Torsion



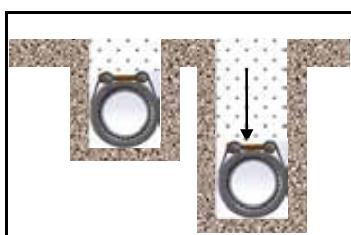
# Buried pipelines



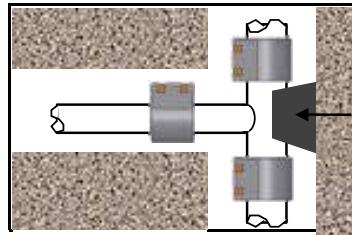
UNI-Flex and UNI-Rep pipe couplings do not absorb axial forces. Structural measures for buried pipelines must be taken in order to take up axial forces (e.g. lean concrete abutment)



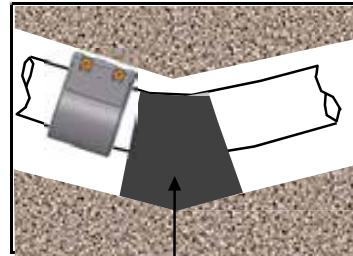
**1** sufficient back fill weight to prevent side thrust or buckling



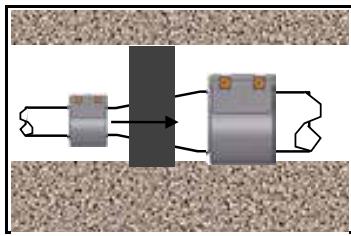
**2** Tees (e.g. concrete thrust blocks)



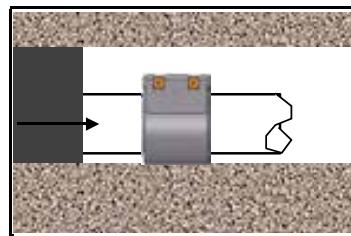
**3** bends, direction changes



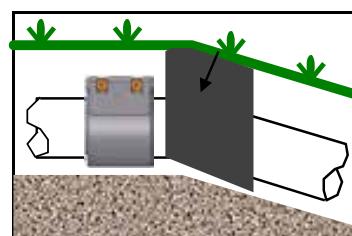
**4** OD reductions



**5** blank ends



**6** inclination changes



The arrows indicate the counterforce of the abutment.

# Free installed pipelines

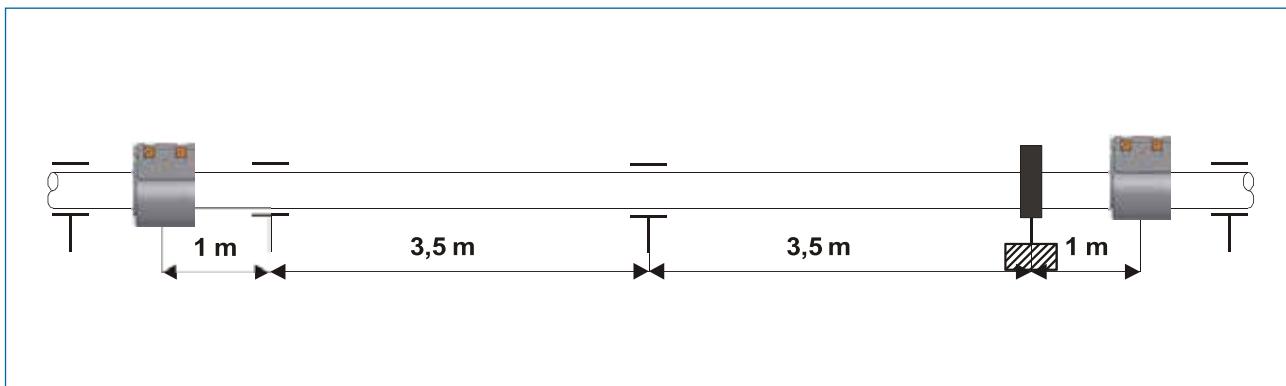


UNI-Flex and UNI-Rep pipe couplings do not absorb axial forces.

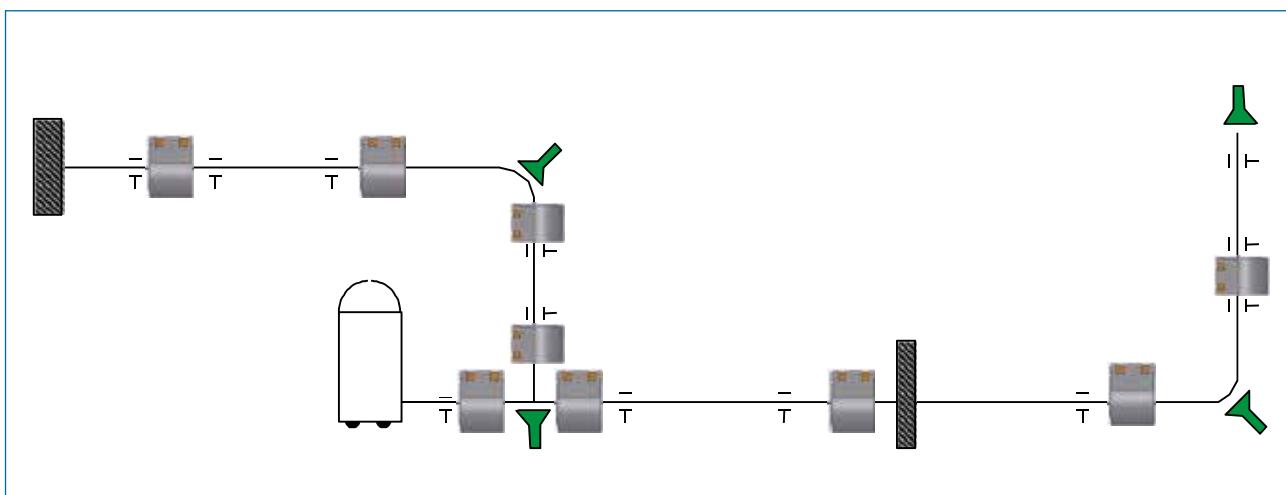
**Important:** Pressure lines must be supported, anchored and guided. Depending on installation situation supports have to be changed to anchor points.

**Guideline:** One anchor point and at least one guide point per each pipe section!

Structural measures for free installed pipelines – example for a 9 m pipe length:



Application example:



# Installation of vertical pipelines

UNI-Grip pipe couplings are the ideal joints to keep plain-ended metal pipe sections in vertical installations perfectly tight and axially restrained.

In the extreme case of a vertical free hanging pump pressure main the appearing forces for each coupling shall be calculated based on the following values:

- weight of pipe sections
- weight of couplings (joints)
- weight of pump
- weight of water column in pipes
- force factor resulting from internal pressure and possible pressure surges

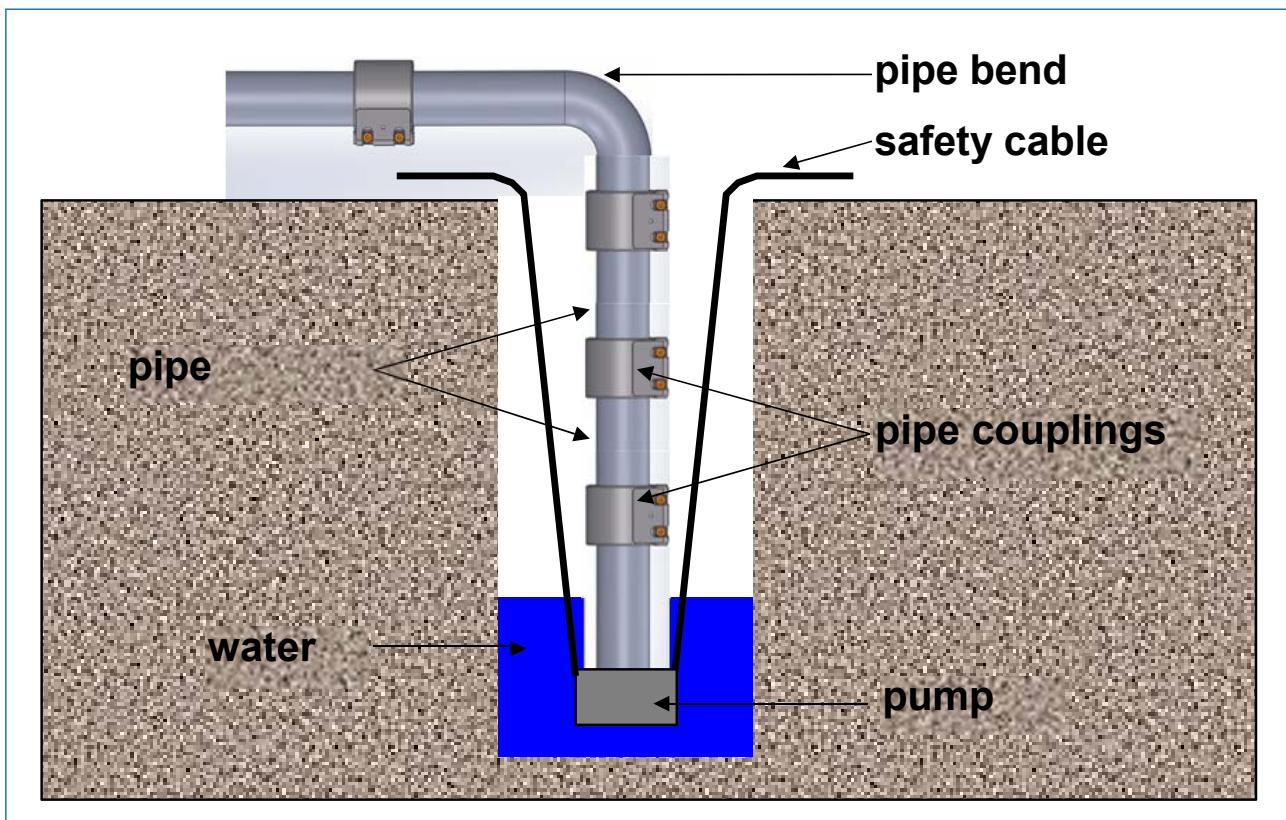
UNI-Grip, UNI-Combigrip and UNI-Plastgrip pipe couplings deliver sufficient resistance against torsion, resulting from switching on or off the pump (please ask pump manufacturer for details).

## Application examples

- drilling hole pump lines
- fresh water pump lines
- heat pumps
- shaft pipelines
- charge and discharge systems of silos, tanks and containers



**Note:** The application of UNI-Combigrip and UNI-Plastgrip couplings for „installation of vertical pipelines“ is not recommended.



# Electrical conductivity UNI-Flex/UNI-Rep

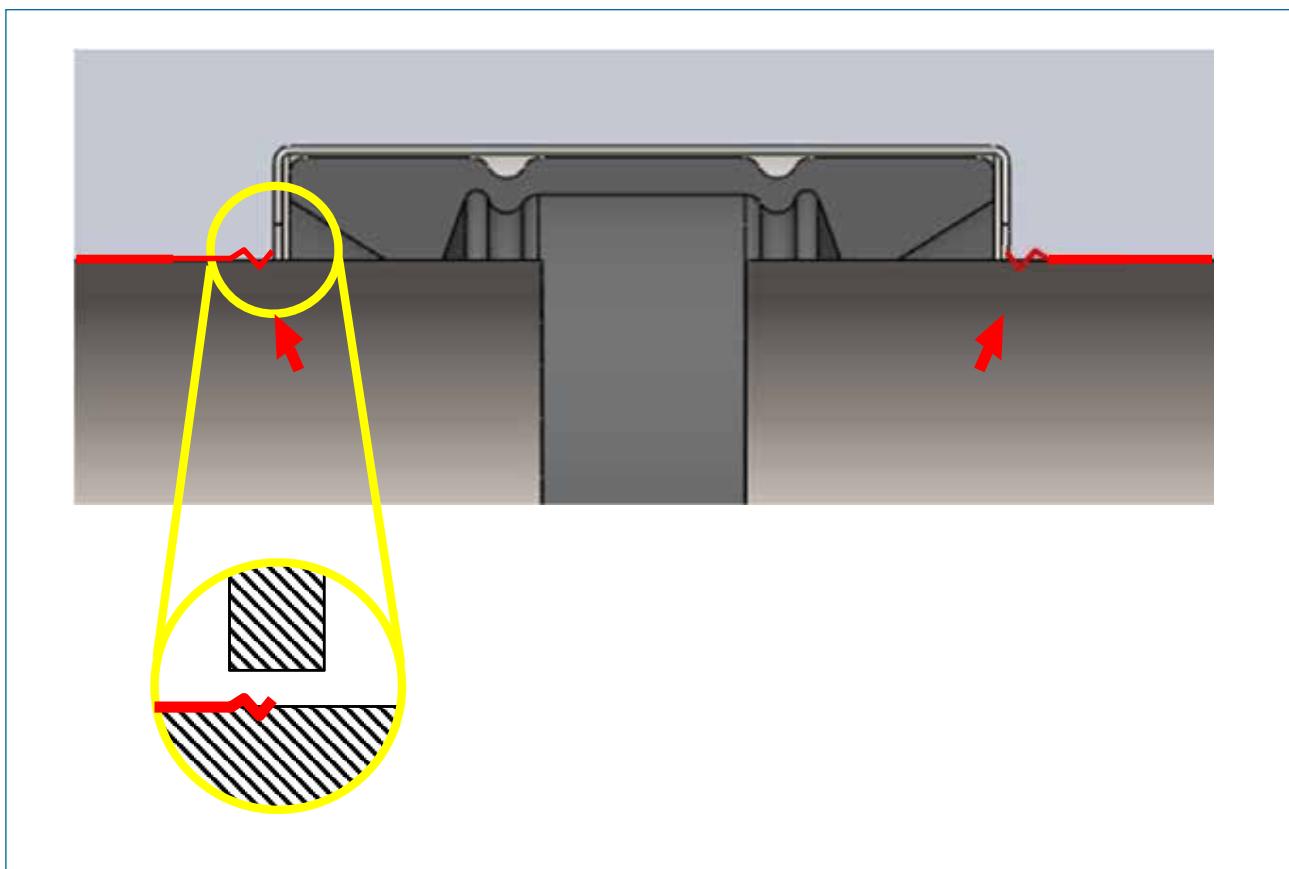


UNI-Flex and UNI-Rep pipe couplings do NOT provide electrical conductivity from pipe to pipe.

However, they shall not be used as 'insulation piece'. Even under prescribed fitting conditions an electrical contact between the housing of the coupling or the strip insert and the pipe surface can occur.

If electrical conductivity is required it can be achieved by bridging over the coupling from pipe to pipe with an earthing strap.

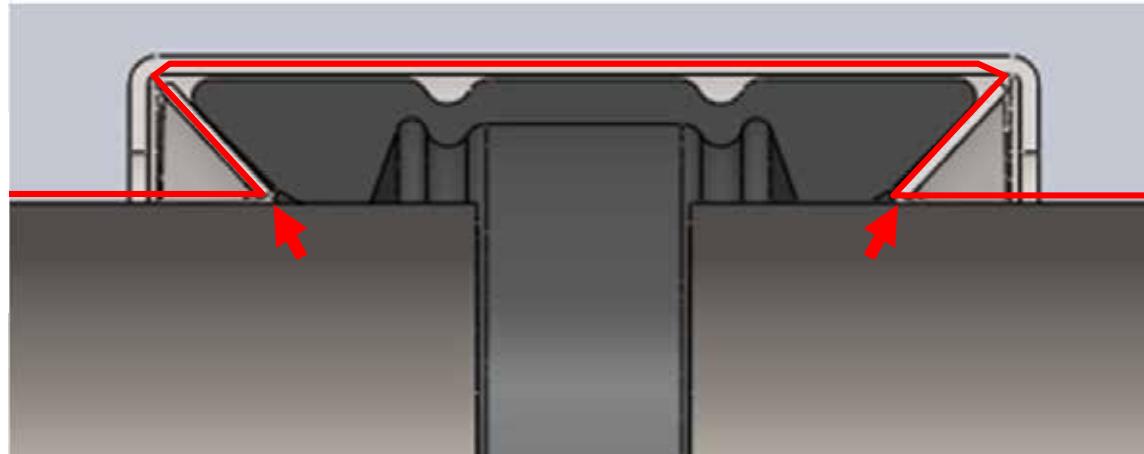
Is there a positive need to prevent electrical conductivity of the pipe joint (insulation), the electrical insulation of the pipeline elements can be achieved by coupling-in a section of plastic pipe of one metre in length.



# Electrical conductivity UNI-Grip

UNI-Grip pipe couplings guarantee electrical conductivity for metal to metal pipe by bridging over from pipe to pipe through the metallic anchoring mechanism.

Measurements have proven a sufficiently low electrical transition resistance of UNI-Grip pipe couplings.



Electrical conductivity is ensured due to the anchoring rings gripping into the metallic pure surface of the pipe.



**Note:** Due to the use of plastic pipes, there is no electrical conductivity with UNI-Combigrasp and UNI-Plastgrip pipe couplings.

# Insert stiffeners



## Insert stiffener Economy

- ⊕ Suitable for PE, PVC, PB and other plastic pipes
- ⊕ Stainless steel A2 quality (AISI 304)
- ⊕ For pipe sizes >d355 use an insert stiffener with wedge
- ⊕ Other dimensions and A4 quality (AISI 316) on request

<b>d x e [mm]</b>	<b>SDR</b>	<b>L [mm]</b>	<b>Code</b>	<b>gewicht [kg]</b>
40 x 3,7	11,0	100	<b>o.a</b>	o.a
50 x 4,6	11,0	100	<b>709 026 203</b>	0,095
50 x 2,9	17,6 / 17,0	100	<b>709 026 206</b>	0,102
63 x 5,8	11,0	100	<b>709 026 211</b>	0,121
63 x 3,6	17,6 / 17,0	100	<b>709 026 214</b>	0,132
63 x 2,0	33	100	<b>709 026 217</b>	0,140
63 x 1,5	41	100	<b>709 026 415</b>	0,140
75 x 6,8	11,0	100	<b>709 026 220</b>	0,152
75 x 4,3	17,6 / 17,0	100	<b>709 026 223</b>	0,158
75 x 1,9	41	100	<b>709 026 227</b>	0,170
90 x 8,2	11,0	120	<b>709 026 230</b>	0,210
90 x 5,2	17,6 / 17,0	120	<b>709 026 233</b>	0,227
90 x 2,8	33	120	<b>709 026 236</b>	0,243
90 x 2,2	41	120	<b>709 026 238</b>	0,247
110 x 10,0	11,0	120	<b>709 026 242</b>	0,257
110 x 6,3	17,6 / 17,0	120	<b>709 026 245</b>	0,279
110 x 3,4	33	120	<b>709 026 248</b>	0,299
110 x 2,7	41	120	<b>709 026 250</b>	0,302
125 x 11,4	11,0	120	<b>709 026 254</b>	0,293
125 x 7,2	17,6 / 17,0	120	<b>709 026 257</b>	0,317
140 x 12,7	11,0	140	<b>709 026 266</b>	0,383
140 x 8,0	17,6 / 17,0	140	<b>709 026 269</b>	0,416
160 x 14,6	11,0	140	<b>709 026 278</b>	0,655
160 x 9,1	17,6 / 17,0	140	<b>709 026 281</b>	0,711
160 x 4,9	33	140	<b>709 026 284</b>	0,760
160 x 4,0	41	140	<b>709 026 286</b>	0,770
180 x 16,4	11,0	140	<b>709 026 290</b>	0,739
180 x 10,7	17,0	140	<b>709 026 408</b>	0,801
180 x 10,3	17,6	140	<b>709 026 293</b>	0,804
200 x 18,2	11,0	160	<b>709 026 302</b>	0,940
200 x 11,9	17,0	160	<b>709 026 409</b>	1,018
200 x 11,4	17,6	160	<b>709 026 305</b>	1,024
200 x 6,1	33	160	<b>709 026 308</b>	1,090
200 x 4,9	41	160	<b>709 026 310</b>	1,104
225 x 20,5	11,0	160	<b>709 026 314</b>	1,060
225 x 13,4	17,0	160	<b>709 026 410</b>	1,146
225 x 12,8	17,6	160	<b>709 026 317</b>	1,155
250 x 22,8	11,0	160	<b>709 026 326</b>	1,567
250 x 14,8	17,0	160	<b>709 026 411</b>	1,697
250 x 14,3	17,6	160	<b>709 026 329</b>	1,705
250 x 7,6	33	160	<b>709 026 332</b>	1,817
250 x 6,1	41	160	<b>709 026 334</b>	1,840
280 x 25,5	11,0	160	<b>709 026 338</b>	1,760
280 x 16,6	17,0	160	<b>709 026 340</b>	1,904
280 x 16,0	17,6	160	<b>709 026 341</b>	1,914
315 x 28,7	11,0	160	<b>709 026 350</b>	1,979
315 x 18,7	17,0	160	<b>709 026 413</b>	2,144
315 x 17,9	17,6	160	<b>709 026 353</b>	2,157
315 x 9,6	33	160	<b>709 026 356</b>	2,294
315 x 7,7	41	160	<b>709 026 358</b>	2,324
355 x 32,3	11,0	160	<b>709 026 362</b>	2,324
355 x 21,1	17,0	160	<b>709 026 414</b>	2,416
355 x 20,2	17,6	160	<b>709 026 365</b>	2,431

PF 1 54 323 064



### Insert stiffener with wedge

- ⊕ Suitable for PE, PVC, PB and other plastic pipes
- ⊕ Stainless steel A2 quality (AISI 304)
- ⊕ d63 - d1600
- ⊕ Other dimensions and A4 quality (AISI 316) on request

d x e [mm]	SDR	L [mm]	Code	gewicht [kg]
355 x 32.3	11.0	225	<b>709 026 128</b>	1,780
370 x 35.0	11.0	225	<b>709 026 133</b>	1,000
400 x 15.4	26.0	225	<b>709 026 140</b>	1,000
400 x 22.7	17.6	225	<b>709 026 139</b>	2,561
400 x 36.4	11.0	225	<b>709 026 138</b>	1,000
450 x 25.5	17.6	225	<b>709 026 149</b>	1,000
450 x 41.0	11.0	225	<b>709 026 148</b>	1,000
500 x 28.3	17.6	225	<b>709 026 159</b>	0,359
500 x 45.5	11.0	225	<b>709 026 158</b>	1,000
560 x 31.7	17.6	225	<b>709 026 169</b>	3,900
560 x 51.0	11.0	225	<b>709 026 168</b>	1,000
630 x 35.7	17.6	225	<b>709 026 179</b>	4,785
630 x 57.3	11.0	225	<b>709 026 178</b>	4,470
710 x 40.2	17.6	225	<b>709 026 189</b>	1,000
710 x 64.5	11.0	225	<b>709 026 188</b>	1,000
800 x 45.3	17.6	225	<b>709 026 199</b>	1,000
800 x 72.7	11.0	225	<b>709 026 198</b>	1,000
900 x 51.2	17.6	225	<b>709 026 183</b>	1,070
900 x 81.8	11.0	225	<b>709 026 182</b>	1,070
1000 x 56.8	17.6	225	<b>709 026 191</b>	1,150
1000 x 90.9	11.0	225	<b>709 026 192</b>	1,070
1200 x 109.1	11.0	225	<b>709 026 184</b>	1,070
1400 x 79.6	17.6	225	<b>709 026 187</b>	1,070
1400 x 127.3	11.0	225	<b>709 026 186</b>	1,070
1600 x 90.9	17.6	225	<b>709 026 196</b>	1,070
1600 x 145.5	11.0	225	<b>709 026 195</b>	1,070
PF 1 54 323 065				

# Checklist

for information request

## Criteria:

Employed pipe materials acc. DIN / AISI

Strength of the pipe materials to be joined

Pipe outside diameters (OD)

Wall thickness

Working pressure

Test pressure

Connecting technique used up to now

Medium to be conveyed

Temperature of medium in °C, min./max.

Surrounding medium

Surrounding temperature

Pipe laying (open, in shaft or buried)

Type approval desired

Estimated quantity of joints

## Notes

## Notes

## Notes

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