

# FITTINGS FOR PE AND PVC PIPES

Restraint, System 2000



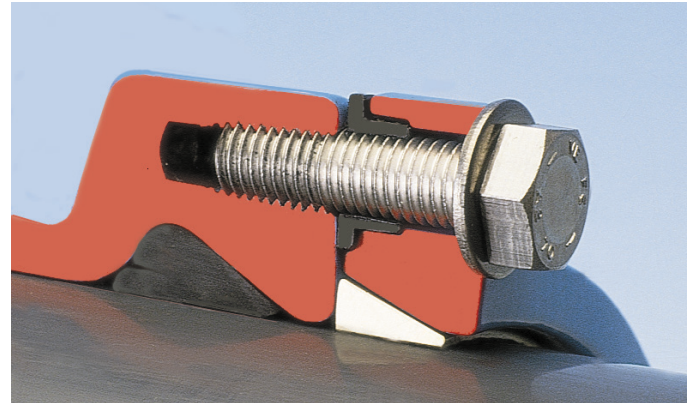
## Design features

- Using a lip seal ring for sealing the pipe allows for easier insertion of the pipe into the System 2000 chamber
- The pipe restraining system is required for pushing the pipe and into the seal chamfer with an appropriate chamfer
- For PE pipes with thin walls (up to 3 mm wall thickness) and low internal pressure we recommend using a support liner
- Suitable for **PE pipes 80/100**, EN 12201, DIN 8074
- For **PVC pipes** according to EN ISO 1452-2

## Material | Technical features

- **Body and lock ring** made of ductile iron, epoxy powder coated
- **Grip ring** made of brass (from DN 300 bronze)
- **Hexagonal bolts** made of stainless steel
- **Lip seal ring** made of elastomer
- **Spacer bushes** made of PE

## System 2000



**Push socket for PE-** (PE 80/100, EN 12201, DIN 8074) **and PVC pipe** (EN ISO 1452-2) - absolutely restraint

## Flange

### No. 0400

equal and reduced  
with integrated flange seal  
DN 50 - 600



## Connector

### No. 0430

Ø Pipe 63 - 355



## Duck foot bend

### No. 5045

DN 80, DN 100



## End cap

### No. 8075

Ø Pipe 63 - 315



## All socket tee

### No. 8515

equal and reduced side outlet  
Ø Pipe 63 - 225



## Double socket tee

### No. 8525

equal and reduced side outlet  
Ø Pipe 63 - 225



## Bend

**No. 8535** 90°

**No. 8545** 45°

**No. 8555** 30°

**No. 8557** 11°

Ø Pipe 63 - 315



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# FITTINGS FOR PE AND PVC PIPES

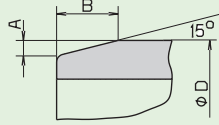
## Restraint, System 2000



### ASSEMBLY INSTRUCTIONS:

For flange adaptors:  
bolt the flange to the mating flange first

Chamfer the pipe -  
use lubricant No. 3443  
(see page L 2/2)  
Do not use oil!

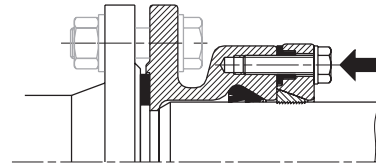
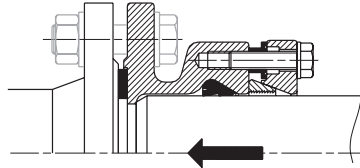
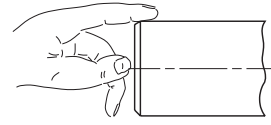
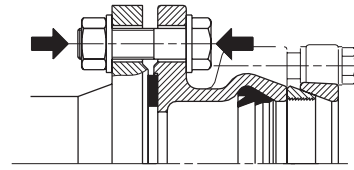


Ø D	A	B
63 - 40	2,5	10
160 - 180	4,0	16
200 - 225	5,0	20
250 - 315	7,0	25
355 - 450	9,0	35
500 - 630	10,0	40

Push the pipe to the end of the socket

For PE pipes with thin walls ( $\geq$  SDR 21) and low internal pressure we recommend using a support liner

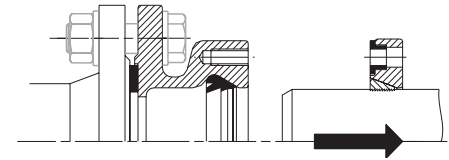
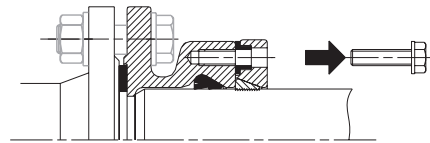
Tighten the lock ring bolts crosswise until lock ring is tight on bushes  
Max. tightening torque for lock ring see page K 3/2



### DISMANTLING INSTRUCTIONS:

Loosen and remove lock ring bolts

Twist and withdraw the pipe



### TENSILE TEST:

The following maximum tensile loads have been established

**Test data:** HAWLE test laboratory tensile testing machine

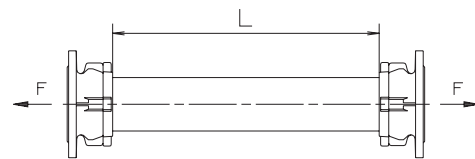
HDPE-Pipe (PE 80) DIN 8074 - EN 12201 | PN 10

Data established by use of a support liner and under 0 bar internal pressure  
Room temperature: 23° C

Speed of tensile test (mm/min.): 0.1 x the free pipe length (L)

The table shows the maximum end load capacity of a System 2000 connection,  
compared with the effective theoretical loads in a PE pipeline with 10 bar

A System 2000 connection provides a safety factor of **4 to 6 times!**



Ø pipe	Theoretical tensile load - (kN*) at 10 bar internal pressure	Max. tensile load (kN*) established in tests
63	3,15	20
75	4,42	28
90	6,37	38
110	9,50	56
125	12,27	63
140	15,40	66
160	20,10	98
180	25,45	130
200	31,40	145
225	39,80	153
250	49,10	233
280	61,60	215
315	77,80	270

\*1 kN = 100 kp

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