

Dedicated coupling Series C2 11

Enables connection and sealing of two pipes' ends.



Description

- For steel and ductile iron pipes.
Others materials on request.
- Ease of installation:
 - Angular deflection,
 - Accommodates misalignment,
 - Important setting gap.
- Reliability:
 - Permanent leak tight joint when compressing the gasket between the end flange and the sleeve onto the pipe surface.
 - Epoxy powder coating and bolting made of steel.
Other coating on request.
- Conformity to standards:
 - EN 545: Ductile iron pipes, fittings, accessories and their joints for water pipelines – requirements and test methods.
 - EN 1092-1: Flanges and their joints – Circular flanges for pipes, valves, fittings and accessories, PN designated.
 - ISO 2531: Ductile iron pipes, fittings, accessories and their joints for water applications.
- Approval:
 - Drinking water approved.
- Nota:
This coupling does not resist to longitudinal forces and pipe pull out will occur. Ensure adequate restraint is provided.

Technical data

- Range:
Straight coupling:
 - DN 350 to 1600 – PN according to DN.Stepped coupling
 - DN 350 to 1600 – PN according to DN.Other sizes on request.
- Temperatures: +0°C to +60°C.

Applications

- Drinking water networks.
- Pumping, treatment, watertank.
- Fire protection networks.
- Irrigation networks.
- Sewage networks and rain waters drainage (WC type - NF EN 681-1).

General information

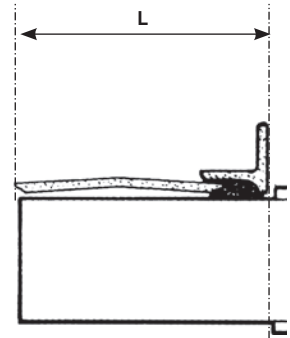
Pipe end preparation:

At the end of the pipe in the area of the seal, pipe surface should be clean, smooth free from bumps, score marks, round. Equally pipe wrapping should be removed. To obtain a good tightness it is necessary to prepare the pipe end on a "L" distance of 250mm.

Tolerances as stated in the tables. Information show the outside diameter tolerances at the ends of the pipes. Some pipes have bigger tolerances, in that case please precise when ordering the exact external diameter. The best way to define the diameter is to measure the circumference.

Setting gap:

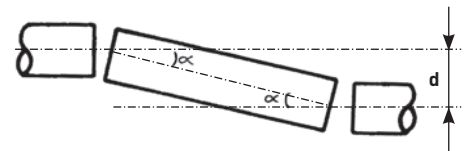
To allow pipe movements, it is necessary to have a gap between 2 pipes ends. Minimum and maximum gaps allow angular and axial movements



Angular deflection:

Angular deflection is accommodated by the flexibility of the gasket without compromising the seal.

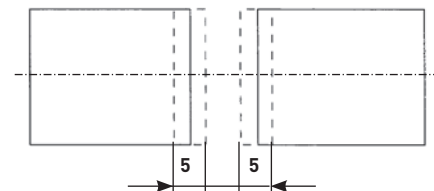
Two couplings or flange adaptors are necessary to accommodate a misalignment. The length of the closing pipe depends on the angular deflection α and on the misalignment (d).



Expansion – Contraction:

Each coupling can accommodate 10 mm of pipe movement and 5 mm for a flange adaptor.

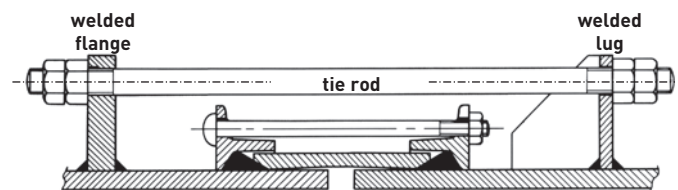
Expansion and contraction due to the temperatures variations are achieved by the deformation of the gasket.

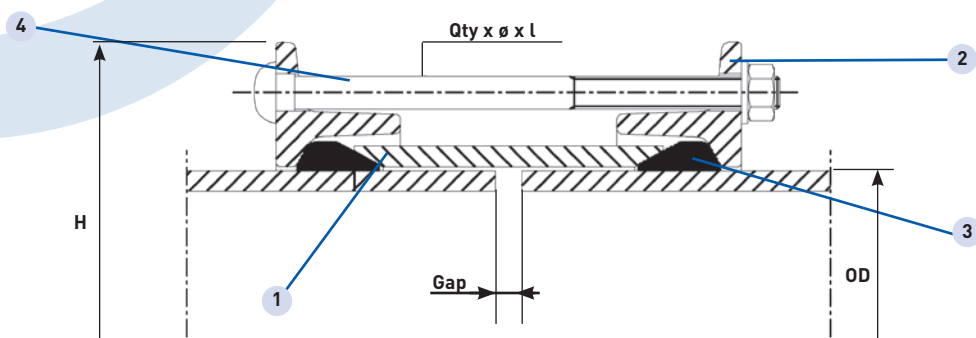


Harness pipe assembly:

Pipelines under pressure are subject to longitudinal forces which tend to separate the various pieces of the piping system. It is important to consider these forces when designing and installing the piping system and appropriated means of resisting them must be used to prevent failure on the pipeline.

A single coupling or flange adaptor does not prevent the pipes from pulling out and pipes must be harnessed. Using steel pipes harnessing consists of pairs of tie rods located in harnessed lugs or flanges welded on the pipe.





Item	Designation	Qty	Materials	Standards
1	Sleeve	1	Welded steel	EN 10025
2	End-flanges	2	Welded steel	EN 10025
3	Gaskets	2	EPDM*	EN 681-1
4	Bolts	acc/DN	Mild steel HD galvanised **	EN 25032
	Coating		Blue epoxy powder*** RAL 5015 250 µm	

* Nitrile on request.

** Stainless steel 316 on request.

*** Other on request.

For steel pipes

DN	OD	Pipe tolerance mm	Bolts Qty x ø x l. mm	H mm	Gap Min.-Max mm	PN bar	Weight kg
350	355.6	+2.4 - 0.8	6xM12x235	451	10 -70	16	19
400	406.4	+2.4 - 0.8	8xM12x235	502	10 -70	16	22
450	457.2	+2.4 - 0.8	8xM12x235	552	10 -70	16	25
500	508	+2.4 - 0.8	10xM12x235	603	10 -70	16	28
600	610	+2.4 - 0.8	12xM12x235	705	10 -70	16	34
700	711.2	+2.4 - 0.8	14xM16x230	811	10 -70	10	47
800	813	+2.4 - 0.8	14xM16x230	913	10 -70	10	53
900	914.4	+2.4 - 0.8	16xM16x230	1014	10 -70	10	60
1000	1016	+2.4 - 0.8	18xM16x245	1129	10 -70	10	70
1100	1118	+2.4 - 0.8	20xM16x245	1231	10 -70	10	77
1200	1220	+2.4 - 0.8	22xM16x245	1333	10 -70	10	118
1400	1420	+2.4 - 0.8	24xM16x260	1551	10 -70	10	168
1500	1520	+2.4 - 0.8	28xM16x260	1651	10 -70	10	181
1600	1620	+2.4 - 0.8	28xM16x260	1751	10 -70	10	198

Other sizes, on request.

For ductile iron pipes

DN	OD	Pipe tolerance mm	Bolts Nb x ø x l. mm	H mm	Gap Min.-Max. mm	PN bar	Weight kg
350	378	+1,0 - 2,0	6xM12x235	473	10 -70	16	20
400	429	+1,0 - 2,0	8xM12x235	524	10 -70	16	24
450	480	+1,0 - 2,0	8xM12x235	575	10 -70	16	26
500	532	+1,0 - 2,0	10xM12x235	627	10 -70	16	30
600	635	+1,0 - 2,0	12xM12x235	730	10 -70	10	35
700	738	+1,0 - 2,0	14xM16x230	838	10 -70	10	49
800	842	+1,0 - 2,0	14xM16x230	942	10 -70	10	55
900	945	+1,0 - 2,0	16xM16x230	1045	10 -70	10	62
1000	1048	+1,0 - 2,0	20xM16x245	1161	10 -70	10	74
1100	1152	+1,0 - 2,0	20xM16x245	1267	10 -70	10	79
1200	1255	+1,0 - 2,0	22xM16x260	1386	10 -70	10	121
1400	1462	+1,0 - 2,0	24xM16x260	1593	10 -70	10	173
1500	1565	+1,0 - 2,0	28xM16x260	1696	10 -70	10	168
1600	1668	+1,0 - 2,0	28xM16x260	1799	10 -70	10	200

Other sizes, on request.

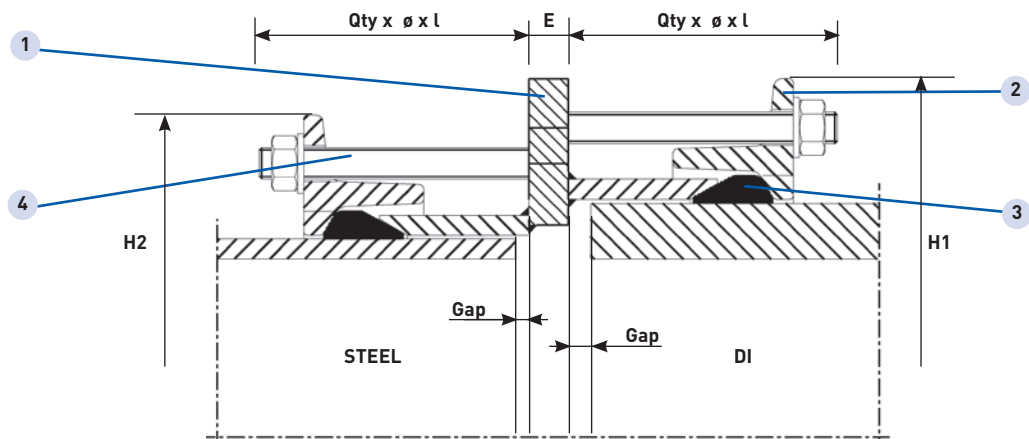
PN

- According to above information.
- Other PN, on request.

Angular deflection per coupling

- DN350 to 450 ± 6°
- DN500 and 600 ± 5°
- DN600 to 750 ± 4°
- DN800 to 1200 ± 3°
- DN1250 to 1600 ± 2°

Stepped coupling



Item	Designation	Qty	Materials	Standards
1	Sleeve	1	Welded steel	EN 10025
2	End-flange	2	Welded steel	EN 10025
3	Gaskets	2	EPDM*	EN 681-1
4	Bolts	1	Mild steel HD galvanised	EN 25032
	Coating	acc/DN	Blue epoxy powder** RAL 5015 250 µm	

* Nitrile on request.

** Other on request.

DN	OD DI/Steel	Pipes tolerances		Bolts Qty x ø x l	H1 mm	H2 mm	Gap Min.-Max.mm	PN bar	Weight kg
		DI mm	Steel mm						
900	945/914	+1 / -2.0	+2.4 / -0.8	2x14xM16x150	1045	1014	10 - 70	10	112
1000	1048/1016	+1 / -2.0	+2.4 / -0.8	2x14xM16x150	1161	1129	10 - 70	10	133
1100	1154/1118	+1 / -2.0	+2.4 / -0.8	2x16xM16x150	1267	1231	10 - 70	10	145
1200	1255/1219	+1 / -2.0	+2.4 / -0.8	2x16xM16x160	1386	1315	10 - 70	10	210

E= 20/25 mm

Other sizes, on request.

PN

- According to above table.
- Other PN, on request.