

Flanged Joint Pipe

Flanged pipe is manufactured by screwing the pipe and flange with mating threads. The threads are filled with flange thread sealant before tightening.

Flanged joint pipe should not be used to support itself as a structure in pumping station pipework or similar. Sufficient support brackets should be used to prevent flanges taking moments due to self-weight.

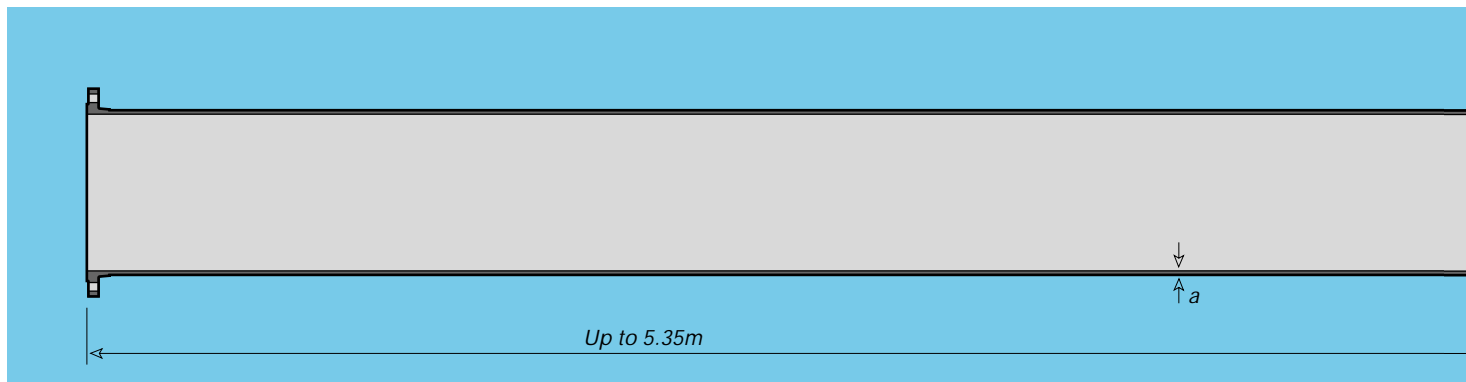
Pipe Barrels

Ductile iron pipe barrels are manufactured to AS/NZS 2280 Class K12.

Maximum length of pipe with screw-on flanges is 5.35m. Minimum length of double flanged pipe with screw-on flanges is as follows:

- a 150 mm for pipes of nominal size DN 80 to DN 150
- b 200 mm for pipes of nominal size DN 200 to DN 450
- c 250 mm for pipes of nominal size DN 500 to DN 600
- d 300 mm for pipes of nominal size DN 750

For barrel weights refer to Mass of Pipe per Metre Length tables for Class K12 TYTON JOINT pipe (refer page 2-10).



Nominal Size	Mean External Diameter $\varnothing y$ <i>mm</i>	Unlined		Cement Lined		Nominal Wall Thickness <i>a</i> <i>mm</i>
		Mean Internal Diameter <i>mm</i>	Mass per metre <i>kg</i>	Mean Internal Diameter <i>mm</i>	Mass per metre <i>kg</i>	
80	96	Not available	Not available	70	17.1	7
100	122	108	17.8	96	22.4	7
150	177	161	29.9	149	37.0	8
200	232	216	39.7	204	49.2	8
225	259	241	49.8	229	60.5	9
250	286	268	55.2	256	67.1	9
300	345	325	74.2	313	88.6	10
375	426	406	92.1	388	119.1	10
450	507	485	120.8	467	153.1	11
500	560	536	145.6	518	181.4	12
600	667	641	188.3	623	231.2	13
750	826	796	269.4	778	322.8	15

Flanges

Pipe flanges manufactured from ductile iron conform to AS 4087 (see tables page 2-22 and 2-23).

Allowable Operating Pressure

Standard pressure screw-on flanges, to AS 4087 Fig. B5, are designed for an allowable operating pressure of 1.6MPa.

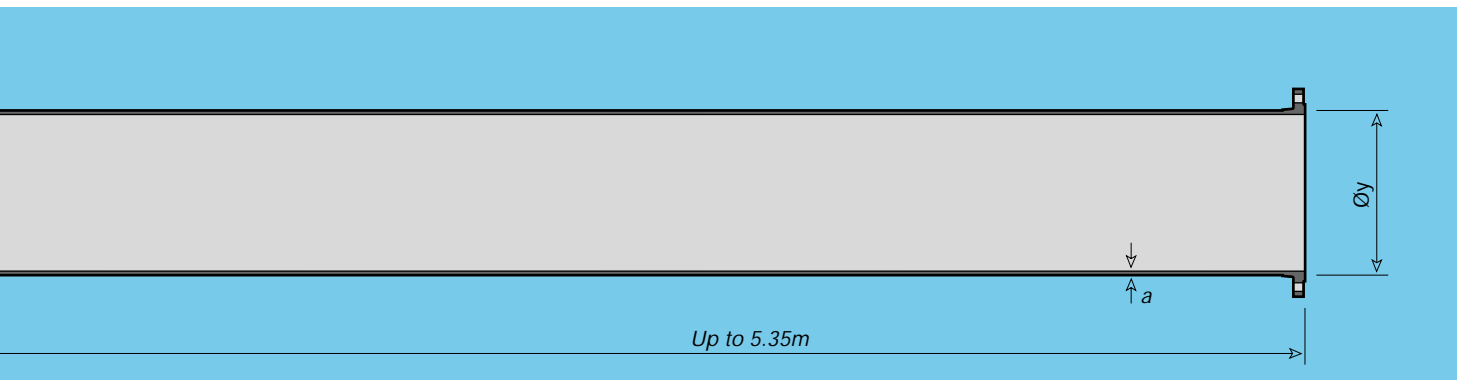
High pressure screw-on flanges, to AS 4087 Fig. B6, are designed for an allowable operating pressure of 3.5MPa.

Flange Thread Sealant

There are a number of jointing compounds that can be used for sealing and epoxy resin is used for normal applications. The epoxy resin is unaffected by water, sewage and aqueous industrial waste and cures to a hard clear corrosion resistant and corrosion protective solid. It is resistant to water absorption and will not impart colour, odour, taste or toxic constituents to potable water. Special sealants are available for use where pipes will carry chemical solutions.

Thread Form

Tyco Water employs tapered thread forms for leak tight assurance.



Nominal Size	Standard Pressure Class 16 Screw-on Flanges			High Pressure Class 35 Screw-on Flanges		
	Allowable Operating Pressure*	Allowable Maximum Operating Pressure**	Allowable Site Test Pressure†	Allowable Operating Pressure*	Allowable Maximum Operating Pressure**	Allowable Site Test Pressure†
DN	MPa	MPa	MPa	MPa	MPa	MPa
80	1.6	1.9	2.4	3.5	4.2	4.7
100	1.6	1.9	2.4	3.5	4.2	4.7
150	1.6	1.9	2.4	3.5	4.2	4.7
200	1.6	1.9	2.4	3.5	4.2	4.7
225	1.6	1.9	2.4	3.5	4.2	4.7
250	1.6	1.9	2.4	3.5	4.2	4.7
300	1.6	1.9	2.4	3.5	4.2	4.7
375	1.6	1.9	2.4	3.5	4.2	4.7
450	1.6	1.9	2.4	3.5	4.2	4.7
500	1.6	1.9	2.4	3.5	4.2	4.7
600	1.6	1.9	2.4	3.5	4.2	4.7
750	1.6	1.9	2.4	3.5	4.2	4.7

* Allowable Operating Pressure (AOP)
– the allowable internal pressure, excluding surge, that a component can safely withstand in service.

** Allowable Maximum Operating Pressure (AMOP)
– the maximum internal pressure, including surge, that a component can safely withstand in service.

† Allowable Site Test Pressure (ASTP)
– the maximum pressure applied on site in a newly installed pipeline.