



## SPECIFICATION – Dimensional Requirements

### STANDARD WALL THICKNESS

Nominal Size DN	Pipes Centrifugally Cast		Fittings
	Wall thickness (mm) (Barrel)		Wall thickness (mm)
	Class 40	K9	K12
100	4.8	6.0	7.2
150	5.0	6.0	7.8
200	5.4	6.3	8.4
250	5.8	6.8	9.0
300	6.2	7.2	9.6
350	7.0	7.7	10.2
400	7.8	8.1	10.8
450		8.6	11.4
500		9.0	12.0
600		9.9	13.2
700		10.8	14.4

### MECHANICAL PROPERTIES

	Centrifugally cast pipes	Fittings
	DN100 to DN700	DN100 to DN700
Tensile strength	Min 420 N/mm <sup>2</sup>	Min 420 N/mm <sup>2</sup>
Elongation	Min 10%	Min 5%
Hardness	Max 230 HB	Max 250 HB

### HYDROSTATIC TEST PRESSURE

Nominal Diameter	Centrifugally cast pipes	Fittings
DN100 to DN300 (K9)	50 bar	25 bar
DN350 to DN600 (K9)	40 bar	16 bar
DN700 (K9)	32 bar	10 bar
DN100 to DN 400 (Class 40)	40 bar	-

### COATINGS AND LININGS FOR PIPES AND FITTINGS

	Centrifugally cast pipes	Fittings
External	Metallic zinc and bitumen coating	Bitumen coating*
Internal	Cement mortar lining	Cement mortar lining

\* Bitumen coating in compliance with BS 3416 Type II : 1991

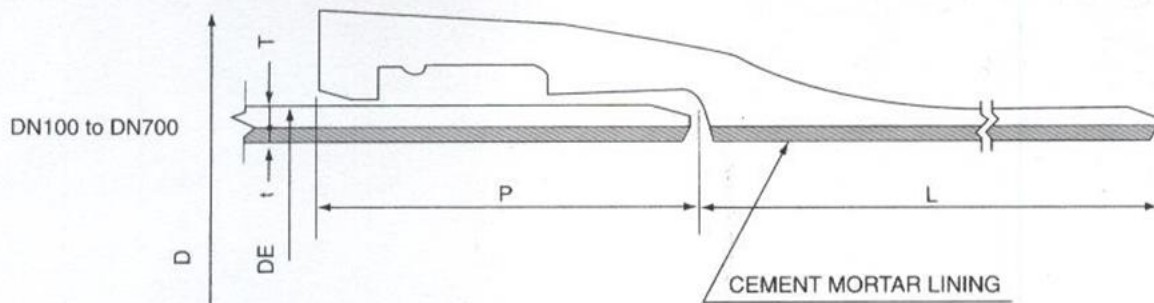
### THICKNESS OF CEMENT MORTAR LINING

DN	Thickness (mm)		
	Nominal value	Limit deviation	individual minimum
100 to 300	4	- 1.5	2.5
350 to 600	5	- 2.0	3.0
700	6	- 2.5	3.5



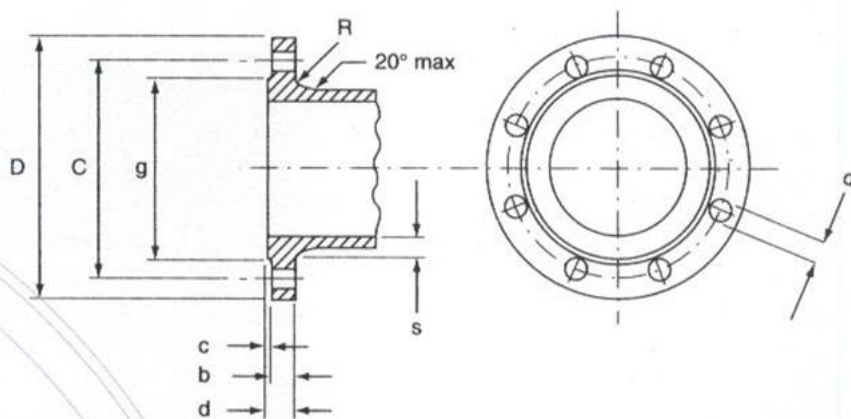
**PUSH-IN JOINT DUCTILE IRON PIPES**

**DIMENSIONS FOR CLASS 40 AND CLASS K-9 (All dimensions in millimetres)**



Nominal Diameter DN	DE Nominal Outer Diameter	D Outer Diameter of Socket +,- 5mm	P Depth of Socket +,- 5mm	T Thickness of pipe (Barrel)		t Thickness of Cement Mortar Lining	L Working Length
				Class 40	K9		
100	118	160	85	4.8	6.0	4.0	6000
150	170	215	90	5.0	6.0	4.0	6000
200	222	275	100	5.4	6.3	4.0	6000
250	274	325	105	5.8	6.8	4.0	6000
300	326	380	110	6.2	7.2	4.0	6000
350	378	445	110	7.0	7.7	5.0	6000
400	429	495	115	7.8	8.1	5.0	6000
450	480	550	120		8.6	5.0	6000
500	532	600	120		9.0	5.0	6000
600	635	710	120		9.9	5.0	6000
700	738	815	155		10.8	6.0	6000

**DIMENSIONS OF FLANGES (Refer to Page 3 - Flanges Specifications)**



NOTE: The figure is schematic





## ■ SPECIFICATION – Dimensional Requirements

### PN 10 FLANGE

Nominal Diameter(DN)	D	C	g	a	b	c	BOLT			MASS (kg)	R
							Size	No	d		
80	200	160	132	19.0	16.0	3	M16	8	19	2.9	6
100	220	180	156	19.0	16.0	3	M16	8	19	3.3	6
150	285	240	211	19.0	16.0	3	M20	8	23	4.9	8
200	340	295	266	20.0	17.0	3	M20	8	23	6.8	8
250	400	350	319	22.0	19.0	3	M20	12	23	9.6	10
300	455	400	370	24.5	20.5	4	M20	12	23	12.8	10
350	505	460	429	24.5	20.5	4	M20	16	23	14.1	10
400	565	515	480	24.5	20.5	4	M24	16	28	16.3	10
450	615	565	530	25.5	21.5	4	M24	20	28	18.1	12
500	670	620	582	26.5	22.5	4	M24	20	28	21.8	12
600	780	725	682	30.0	25.0	5	M27	20	31	30.8	12
700	895	840	794	32.5	27.0	5	M27	24	31	42.0	12

### PN 16 FLANGE

Nominal Diameter(DN)	D	C	g	a	b	c	BOLT			MASS (kg)	R
							Size	No	d		
80	200	160	132	19.0	16.0	3	M16	8	19	2.9	6
100	220	180	156	19.0	16.0	3	M16	8	19	3.3	6
150	285	240	211	19.0	16.0	3	M20	8	23	4.9	8
200	340	295	266	20.0	17.0	3	M20	12	23	6.6	8
250	400	355	319	22.0	19.0	3	M24	12	28	9.2	10
300	455	410	370	24.5	20.5	4	M24	12	28	12.4	10
350	520	470	429	26.5	22.5	4	M24	16	28	17.2	10
400	580	525	480	28.0	24.0	4	M27	16	31	21.9	10
450	640	585	548	30.0	26.0	4	M27	20	31	26.7	12
500	715	650	609	31.5	27.5	4	M30	20	34	37.0	12
600	840	770	720	36.0	31.0	5	M33	20	37	57.3	12
700	910	840	794	39.5	34.5	5	M33	24	37	57.0	12

### PN 25 FLANGE

Nominal Diameter(DN)	D	C	g	a	b	c	BOLT			MASS (kg)	R
							Size	No	d		
80	200	160	132	19.0	16.0	3	M16	8	19	2.9	6
100	235	190	156	19.0	16.0	3	M20	8	23	3.8	6
150	300	250	211	20.0	17.0	3	M24	8	28	5.9	8
200	360	310	274	22.0	19.0	3	M24	12	28	8.7	8
250	425	370	330	24.5	21.5	3	M27	12	31	13.1	10
300	485	430	389	27.5	23.5	4	M27	16	31	18.0	10
350	555	490	448	30.0	26.0	4	M30	16	34	25.5	10
400	620	550	503	32.0	28.0	4	M33	16	37	33.2	10
450	670	600	548	34.5	30.5	4	M33	20	37	42.2	12
500	730	660	609	36.5	32.5	4	M33	20	37	48.7	12
600	845	770	720	42.0	37.0	5	M36	20	40	71.5	12
700	960	875	820	46.5	41.5	5	M39	24	43	89.0	12