



KUBOTA Corporation

Pipe Systems Global Marketing & Sales Dept.
1-3, Kyobashi 2-chome, Chuo-ku, Tokyo, 104-8307, JAPAN
Tel:+81-3-3245-3228
Fax:+81-3-3245-3830
Website:<https://www.kubota.com/products/ironpipe/>
E-mail:kbt_g.ironpipe@kubota.com

KUBOTA Membrane USA Corporation

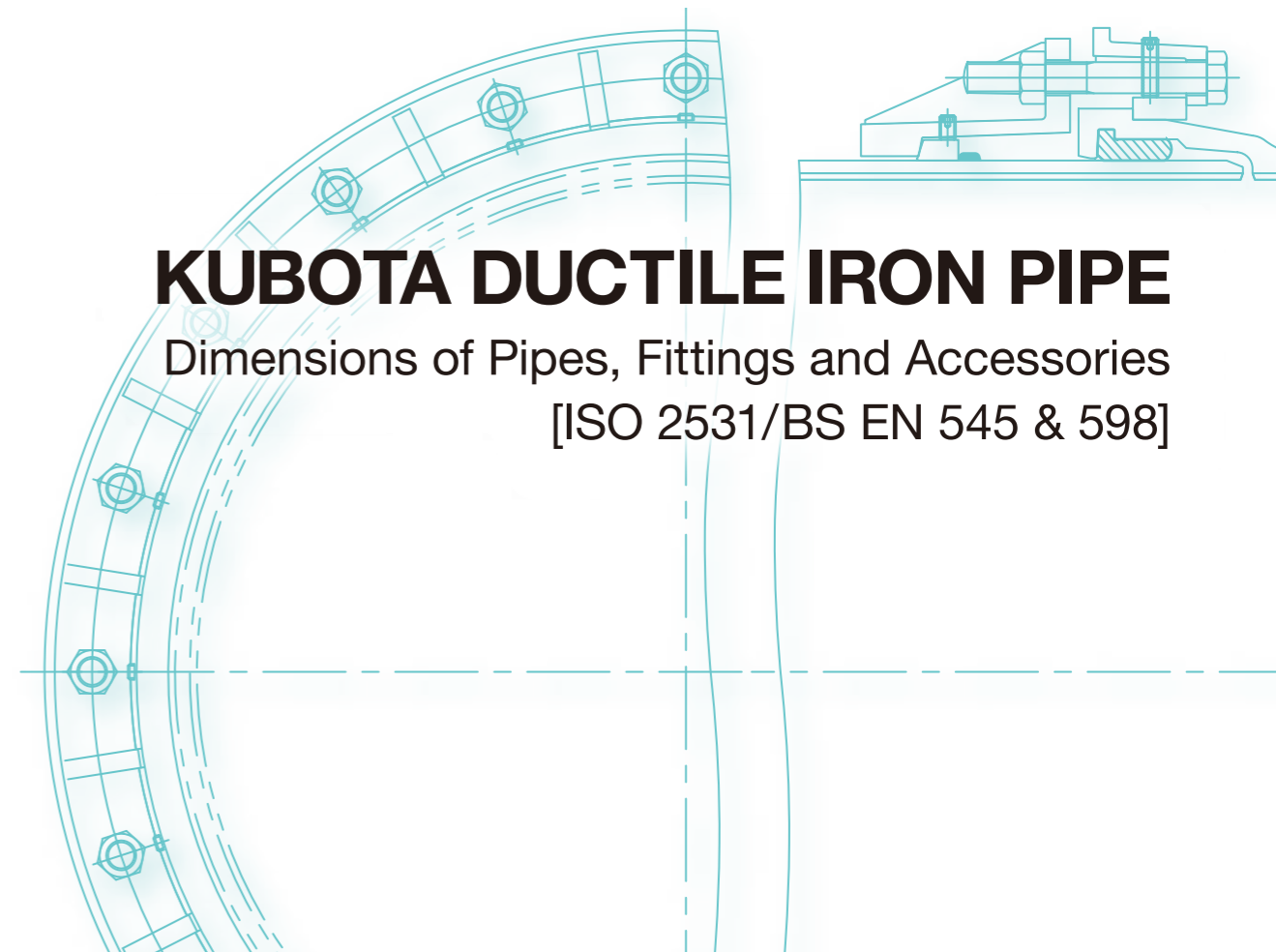
ERDIP Dept. / LA Office
3528 Torrance Boulevard, Suite 112,
Torrance, CA 90503, USA
Tel : +1-424-358-5200
Website : <https://www.kubota-membrane.com/page/erdip>
E-mail : kbt_g.erdip-usa@kubota.com



Ductile Iron Pipes Website



Facebook



KUBOTA DUCTILE IRON PIPE

Dimensions of Pipes, Fittings and Accessories
[ISO 2531/BS EN 545 & 598]

CONTENTS

■ SPECIFICATIONS	1
■ CENTRIFUGALLY CAST PIPES	3
■ DIMENSIONS OF FLANGES	9
■ FLANGED PIECES	11
■ FITTINGS	13
■ ACCESSORIES	33
■ RESTRAINT SYSTEM	37
■ JACKING PIPES	38

Applicable Standards

1. Pipes and fittings conform to the requirements of International Standard ISO 2531 and British Standard BS EN 545 & 598.
2. Pipes and fittings of DN2100 are according to the extension of ISO Requirements.

Standard Wall Thickness

Nominal wall thickness of pipes : K-class or C-class

<For K-class>

$$T = K (0.5 + 0.001D)$$

where, D : Nominal diameter

K : Coefficient (K = 7, 8, 9, 10, 11, 12...)

<For C-class>

C20 , C25 , ..., C100

Dimensions in millimeters

NOMINAL DIAMETER DN	WALL THICKNESS		
	CENTRIFUGALLY CAST PIPES (K = 9)	CENTRIFUGALLY CAST PIPES (C class)	FITTINGS
80	6.0	4.4	7.0
100	6.0	4.4	7.2
150	6.0	4.5	7.8
200	6.3	4.7	8.4
250	6.8	5.5	9.0
300	7.2	6.2	9.6
350	7.7	6.4	10.2
400	8.1	6.5	10.8
450	8.6	6.9	11.4
500	9.0	7.5	12.0
600	9.9	8.7	13.2
700	10.8	8.8	14.4
800	11.7	9.6	15.6
900	12.6	10.6	16.8
1000	13.5	11.6	18.0
1100	14.4	12.6	19.2
1200	15.3	13.6	20.4
1400	17.1	15.7	22.8
1500	18.0	16.7	24.0
1600	18.9	17.7	25.2
1800	20.7	19.7	27.6
2000	22.5	21.8	30.0
2100	23.4	-	31.2
2200	24.3	23.8	32.4
2400	26.1	25.8	34.8
2600	27.9	27.9	37.2

Works Hydrostatic Test Pressure

<For K-class>

(bar)

NOMINAL DIAMETER DN	WORKS TEST PRESSURE	
	CENTRIFUGALLY CAST PIPES (K9)	FITTINGS
80 to 300	50	25 ¹⁾
350 to 600	40	16
700 to 1000	32	10
1100 to 2000	25	10
2100 to 2600	18	10

Note 1) 16 bar for fittings with PN10 flange

<For C-class>

(bar)

NOMINAL DIAMETER DN	WORKS TEST PRESSURE	
	CENTRIFUGALLY CAST PIPES	FITTINGS
80 to 300	The internal hydrostatic pressure shall be raised until it reaches the works hydrostatic test pressure equal to the pressure class and limited to the pressure of preferred classes.	25 ¹⁾
350 to 600		16
700 to 1000		10
1100 to 2000		10
2100 to 2600		10

Note 1) 16 bar for fittings with PN10 flange

Mechanical Properties

TYPE OF CASTING	Minimum tensile strength, Rm MPa	Minimum elongation after fracture, A %	
		DN80 to DN1000	DN1100 to DN2600
CENTRIFUGALLY CAST PIPES	420	10	7
FITTINGS	420	5	5

1. Upon agreement, the 0.2% proof stress (Rp0.2) may be measured. It shall be not less than:
270 MPa when A ≥12% for DN80 to DN 1000 or A ≥10% for DN >1000;
300 MPa in other cases
2. In case of dispute, Brinell hardness will be measured. It shall be maximum:
230 HBW for centrifugally cast pipes or 250 HBW for fittings.

Standard Coating and Lining

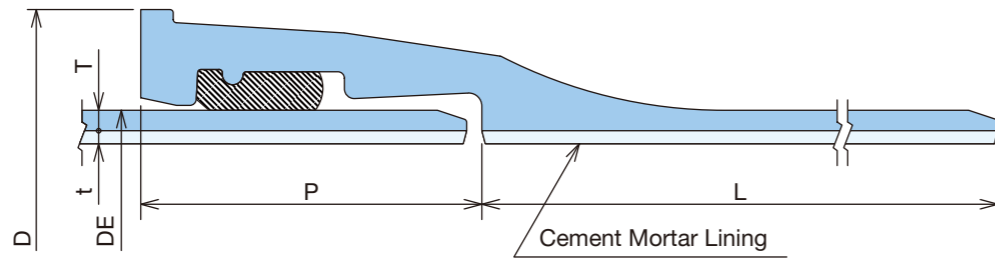
	CENTRIFUGALLY CAST PIPES	FITTINGS
OUTSIDE	Metallic zinc spray or zinc rich paint with bituminous paint	Zinc rich paint with bituminous paint
INSIDE	Cement mortar lining	Epoxy coating

Upon request, other types of coating or lining may be applied.

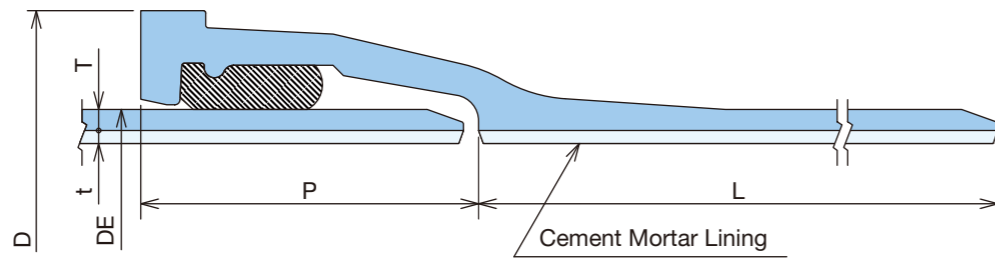
CENTRIFUGALLY CAST PIPES

Push-on Joint T-type

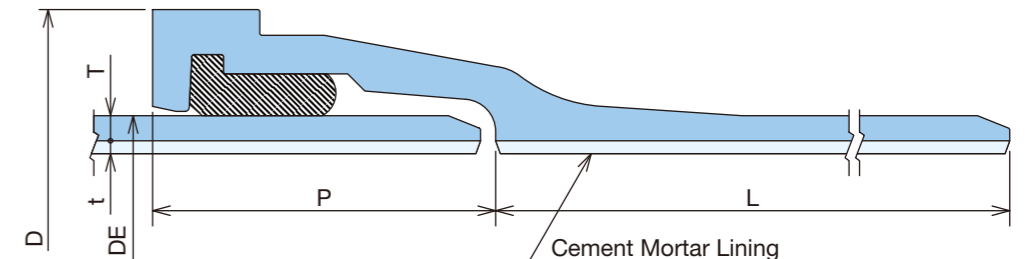
DN 80 to DN 250



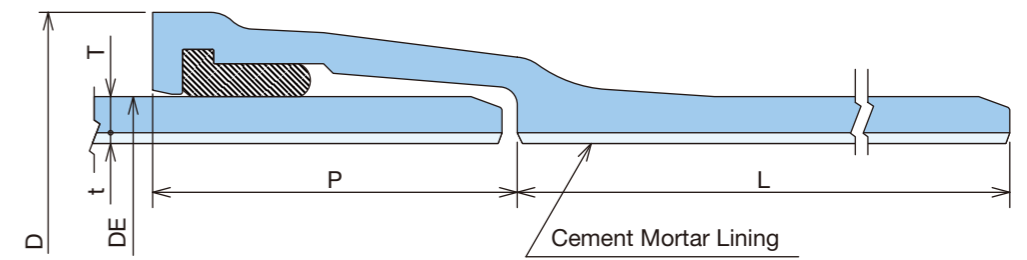
DN 300 to DN 600



DN 700 to DN 1600



DN 1800 to DN 2000



Dimensions in millimeters

NOMINAL DIAMETER DN	THICKNESS									OUTSIDE DIAMETER DE	D	P	NOMINAL LAYING LENGTH L
	T								t				
	C20	C25	C30	C40	C50	C64	C100	K-9					
80	-	-	-	4.4	4.4 (4.9)	4.4 (5.4)	4.8 (6.1)	6.0	4.0	98	149	77	4000
100	-	-	-	4.4	4.4 (4.9)	4.4 (5.4)	5.5 (6.1)	6.0	4.0	118	174	81	4000
150	-	-	-	4.5	4.5 (5.0)	5.3 (5.5)	7.4	6.0	4.0	170	229	90	5000
200	-	-	-	4.7	5.4	6.5	9.2	6.3	4.0	222	284	105	5000
250	-	-	-	5.5	6.4	7.8	11.1	6.8	4.0	274	337	110	5000
300	-	-	5.1	6.2	7.4	8.9	12.9	7.2	4.0	326	389	115	6000
350	-	5.1	6.4	7.1	8.4	10.2	14.8	7.7	5.0	378	454	130	6000
400	-	5.5	6.5	7.8	9.3	11.3	16.5	8.1	5.0	429	505	130	6000
450	-	6.1	6.9	8.6	10.3	12.6	18.4	8.6	5.0	480	558	130	6000
500	-	6.5	7.5	9.3	11.2	13.7	20.2	9.0	5.0	532	612	135	6000
600	-	7.6	8.7	10.9	13.1	16.1	23.8	9.9	5.0	635	717	140	6000
700	7.3	8.8	9.9	12.4	15.0	18.5	27.5	10.8	6.0	738	835	155	6000
800	8.1	9.6	11.1	14.0	16.9	21.0	-	11.7	6.0	842	941	160	6000
900	8.9	10.6	12.3	15.5	18.8	23.4	-	12.6	6.0	945	1048	175	6000
1000	9.8	11.6	13.4	17.1	20.7	-	-	13.5	6.0	1048	1159	185	6000
1100	10.6	12.6	14.7	18.7	22.7	-	-	14.4	6.0	1152	1266	200	6000
1200	11.4	13.6	15.8	20.2	-	-	-	15.3	6.0	1255	1372	215	6000
1400	13.1	15.7	18.2	-	-	-	-	17.1	9.0	1462	1509	245	6000
1500	13.9	16.7	19.4	-	-	-	-	18.0	9.0	1565	1700	260	6000
1600	14.8	17.7	20.6	-	-	-	-	18.9	9.0	1668	1808	275	6000
1800	16.4	19.7	23.0	-	-	-	-	20.7	9.0	1875	2016	305	5000
1800	16.4	19.7	23.0	-	-	-	-	20.7	9.0	1875	2016	305	6000
2000	18.1	21.8	25.4	-	-	-	-	22.5	9.0	2082	2231	335	5000

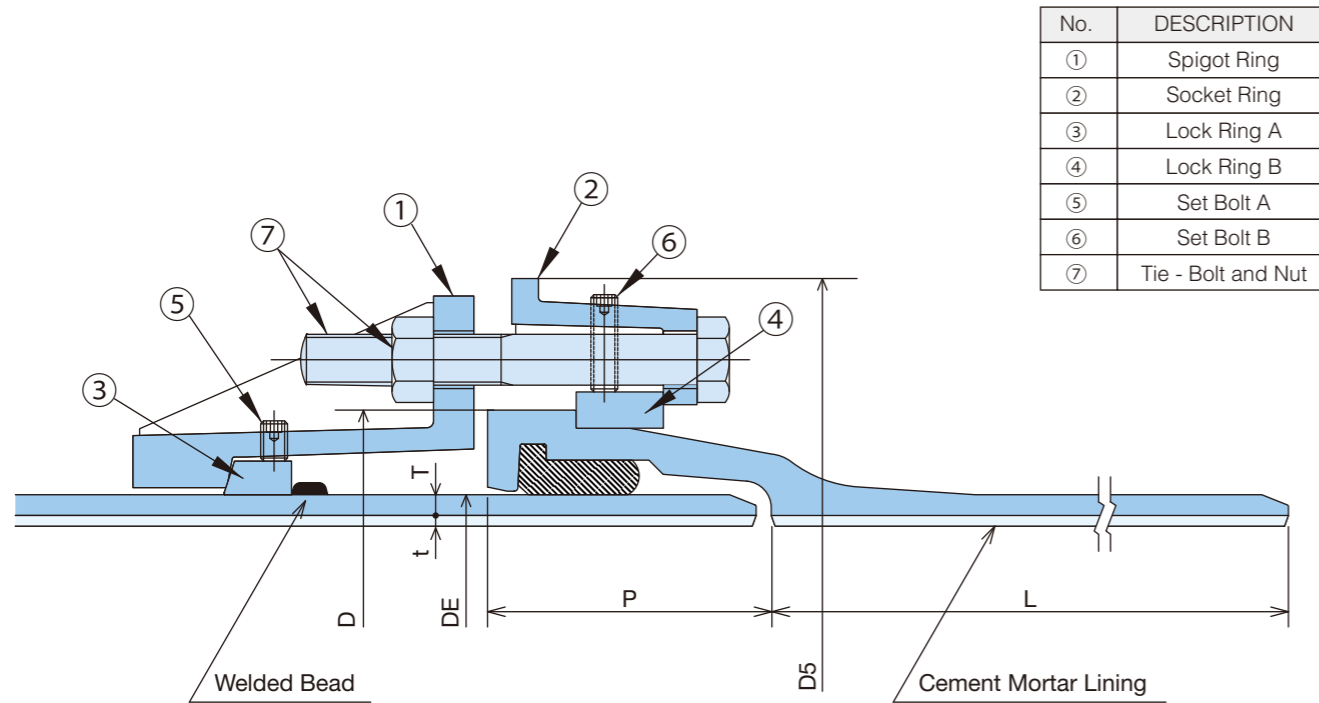
Dimensions in millimeters

NOMINAL DIAMETER DN	MASS (kg)																
	C20		C25		C30		C40		C50		C64		C100		K-9		
	IRON	CEMENT MORTAR LINING	IRON	CEMENT MORTAR LINING	IRON	CEMENT MORTAR LINING	IRON	CEMENT MORTAR LINING	IRON	CEMENT MORTAR LINING	IRON	CEMENT MORTAR LINING	IRON	CEMENT MORTAR LINING	IRON	CEMENT MORTAR LINING	
80	-	-	-	-	-	-	40.0	10.3	40.0	10.3	40.0	10.3	43.5	10.2	52.5	9.9	80
100	-	-	-	-	-	-	49.0	12.7	49.0	12.7	49.0	12.7	59.5	12.4	64.5	12.3	100
150	-	-	-	-	-	-	90.5	23.5	90.5	23.5	105	23.5	141	23.0	117	23.0	150
200	-	-	-	-	-	-	126	31.5	142	31.0	168	31.0	229	30.0	163	31.0	200
250	-	-	-	-	-	-	179	39.0	205	39.0	246	38.5	339	37.5	217	38.5	250
300	-	-	-	-	235	56.5	281	56.0	331	55.5	392	55.0	554	53.5	322	55.5	300
350	-	-	277	82.0	340	81.5	374	81.0	437	80.5	523	80.0	739	77.5	403	81.0	350
400	-	-	337	93.5	392	93.0	464	92.5	546	91.5	655	91.0	932	88.5	480	92.0	400
450	-	-	416	105	466	104	571	104	675	103	815	102	1161	99.0	571	104	450
500	-	-	491	116	560	116	683	115	813	114	981	113	1411	110	663	115	500
600	-	-	682	139	772	139	952	138	1131	137	1372	135	1981	132	871	138	600
700	781	195	925	194	1030	193	1865	192	1513	191	1841	189	2668	184	1116	193	700
800	986	223	1150	222	1314	221	2399	219	1941	218	2379	216	-	-	1379	221	800
900	1218	250	1427	249	1635	248	2982	246	2425	245	2976	242	-	-	1672	248	900
1000	1488	278	1733	277	1978	276	3649	274	2961	272	-	-	-	-	1991	276	1000
1100	1774	305	2074	304	2388	303	4390	301	3573	299	-	-	-	-	2343	303	1100
1200	2083	333	2443	332	2801	330	5171	328	-	-	-	-	-	-	2720	331	1200
1400	2814	581	3309	579	3784	577	-	-	-	-	-	-	-	-	3575	578	1400
1500	3194	622	3765	620	4314	618	-	-	-	-	-	-	-	-	4029	619	1500
1600	3646	663	4277	661	4905	659	-	-	-	-	-	-	-	-	4537	660	1600
1800	3889	622	4561	620	5231	618	-	-	-	-	-	-	-	-	4764	619	1800
1800	4564	746	5371	744	6174	741	-	-	-	-	-	-	-	-	5615	743	1800
2000	4796	691	5633	689	6444	686	-	-	-	-	-	-	-	-	5791	688	2000

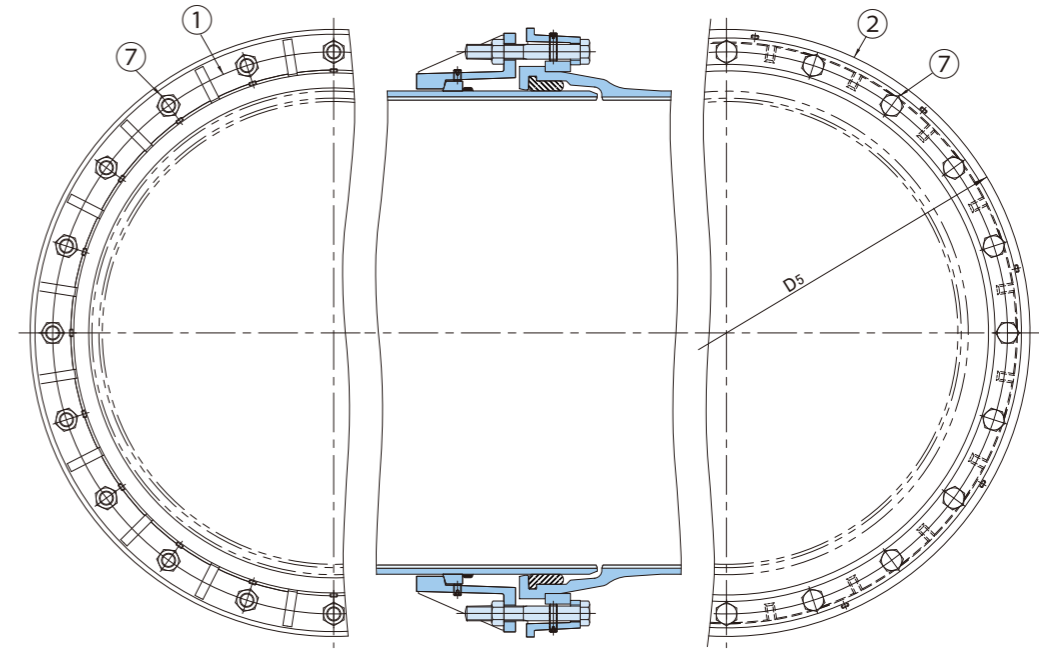
Note) 1. Shaded areas show wall thickness and mass of preferred classes.
2. The values noted in brackets show wall thickness and mass for BS EN 545.

CENTRIFUGALLY CAST PIPES

Restrained Push-on Joint TLH-type



No.	DESCRIPTION
①	Spigot Ring
②	Socket Ring
③	Lock Ring A
④	Lock Ring B
⑤	Set Bolt A
⑥	Set Bolt B
⑦	Tie - Bolt and Nut



Dimensions in millimeters

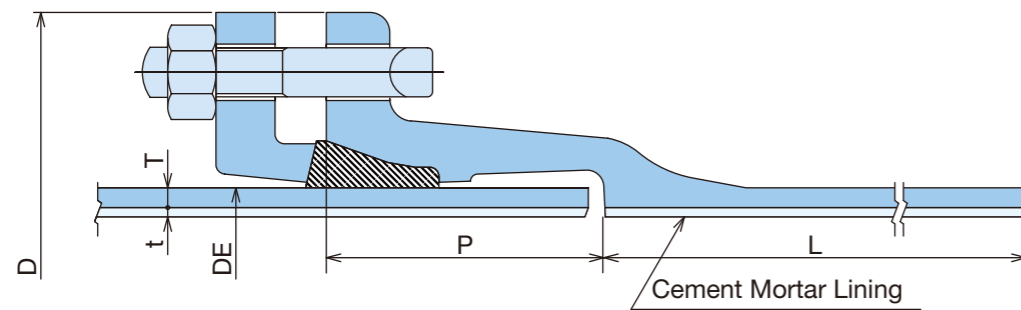
NOMINAL DIAMETER DN	THICKNESS		OUTSIDE DIAMETER DE	D	D5
	T	t			
	K-9				
400	8.1	5.0	429	505	626
450	8.6	5.0	480	558	681
500	9.0	5.0	532	612	741
600	9.9	5.0	635	717	850
700	10.8	6.0	738	835	976
800	11.7	6.0	842	941	1083
900	12.6	6.0	945	1048	1204
1000	13.5	6.0	1048	1159	1319
1100	14.4	6.0	1152	1266	1430
1200	15.3	6.0	1255	1372	1550
1400	17.1	9.0	1462	1593	1777
1500	18.0	9.0	1565	1700	1888
1600	18.9	9.0	1668	1808	2002

Dimensions in millimeters

P	NOMINAL LAYING LENGTH L	MASS (kg)		NOMINAL DIAMETER DN
		K-9		
		IRON	CEMENT MORTAR LINING	
130	6000	481	92.0	400
130	6000	572	104	450
135	6000	663	115	500
140	6000	871	138	600
155	6000	1116	193	700
160	6000	1380	221	800
175	6000	1673	248	900
185	6000	1992	276	1000
200	6000	2344	303	1100
215	6000	2721	331	1200
245	6000	3578	578	1400
260	6000	4032	619	1500
275	6000	4540	660	1600

CENTRIFUGALLY CAST PIPES

Mechanical Joint K-type



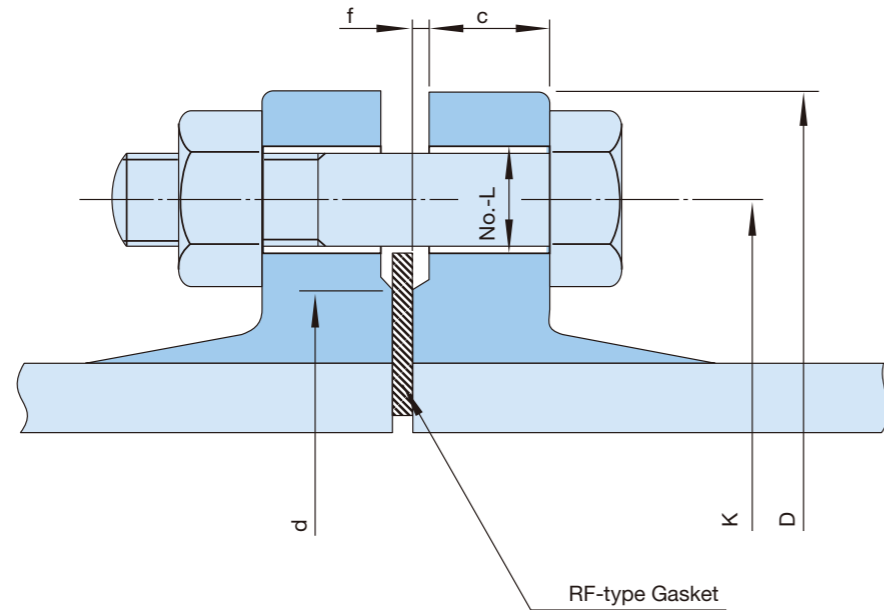
Dimensions in millimeters

NOMINAL DIAMETER	THICKNESS				OUTSIDE DIAMETER	D	P	NOMINAL LAYING LENGTH	MASS (kg)							
	T			t					DE	L	C20		C25		K-9	
	C20	C25	K-9								IRON	CEMENT MORTAR LINING	IRON	CEMENT MORTAR LINING	IRON	CEMENT MORTAR LINING
80					98	202	80									
100					118	232	80									
150					170	287	90									
200					222	336	90									
250					274	394	90									
300					326	445	110									
350					378	504	110									
400					429	556	110									
450					480	613	110									
500					532	664	110									
600					635	771	110									
700					738	893	120									
800					842	998	120									
900					945	1118	120									
1000					1048	1226	130									
1100					1152	1332	130									
1200					1255	1438	130									
1400					1462	1671	135									
1500					1565	1766	140									
1600					1668	1876	160									
1800					1875	2088	170									
2000					2082	2303	180									
2100	-	-	23.4	12.0	2164	2388	185	4000	-	-	-	-	5034	762		
2100	-	-	23.4	12.0	2164	2388	185	5000	-	-	-	-	6143	952		
2200	19.8	23.8	24.3	12.0	2280	2507	190	4000	4637	806	5429	804	5528	803		
2200	19.8	23.8	24.3	12.0	2280	2507	190	5000	5628	1008	6619	1004	6742	1004		
2400	21.4	25.8	26.1	12.0	2458	2692	200	4000	5423	870	6363	867	6427	866		
2600	23.1	27.9	27.9	12.0	2684	2928	230	4000	6458	950	7577	947	7577	947		

Note) Shaded areas show wall thickness and mass of preferred classes.
Mechanical Joint K-type is available for centrifugally cast pipes of DN2100 & above and fittings.

DIMENSIONS OF FLANGES

RF-type



NOTE:

Bolt holes shall be arranged symmetrically about the horizontal centerline through the flange faces.
In case of tees, this horizontal centerline is defined with the face of the branch flange held parallel to the vertical plane.

PN10

Dimensions in millimeters

NOMINAL DIAMETER DN	d	D	c	f	K	L	BOLTS		MASS (kg)
							SIZE	No.	
80	132	200	16.0	3	160	19	M16	8	2.9
100	156	220	16.0	3	180	19	M16	8	3.3
150	211	285	16.0	3	240	23	M20	8	5.1
200	266	340	17.0	3	295	23	M20	8	7.1
250	319	400	19.0	3	350	23	M20	12	9.9
300	370	455	20.5	4	400	23	M20	12	12.9
350	429	505	20.5	4	460	23	M20	16	14.7
400	480	565	20.5	4	515	28	M24	16	17.7
450	530	615	21.5	4	565	28	M24	20	20.2
500	582	670	22.5	4	620	28	M24	20	24.3
600	682	780	25.0	5	725	31	M27	20	33.1
700	794	895	27.5	5	840	31	M27	24	46.3
800	901	1015	30.0	5	950	34	M30	24	62.1
900	1001	1115	32.5	5	1050	34	M30	28	73.0
1000	1112	1230	35.0	5	1160	37	M33	28	92.9
1100	1218	1340	37.5	5	1270	37	M33	32	112.8
1200	1328	1455	40.0	5	1380	40	M36	32	138.0
1400	1530	1675	41.0	5	1590	43	M39	36	174.7
1500	1640	1785	42.5	5	1700	43	M39	36	201.4
1600	1750	1915	44.0	5	1820	49	M45	40	241.8
1800	1950	2115	47.0	5	2020	49	M45	44	281.9
2000	2150	2325	50.0	5	2230	49	M45	48	336.5
2100	2270	2430	51.5	5	2335	49	M45	52	395.4
2200	2370	2550	53.0	6	2440	56	M52	52	425.2
2400	2570	2760	56.0	6	2650	56	M52	56	542.2
2600	2780	2960	59.0	6	2850	56	M52	60	570.0

PN16

Dimensions in millimeters

NOMINAL DIAMETER DN	d	D	c	f	K	L	BOLTS		MASS (kg)
							SIZE	No.	
80	132	200	16.0	3	160	19	M16	8	2.9
100	156	220	16.0	3	180	19	M16	8	3.3
150	211	285	16.0	3	240	23	M20	8	5.1
200	266	340	17.0	3	295	23	M20	12	6.9
250	319	400	19.0	3	355	28	M24	12	9.6
300	370	455	20.5	4	410	28	M24	12	12.6
350	429	520	22.5	4	470	28	M24	16	17.4
400	480	580	24.0	4	525	31	M27	16	22.2
450	548	640	26.0	4	585	31	M27	20	28.1
500	609	715	27.5	4	650	34	M30	20	37.7
600	720	840	31.0	5	770	37	M33	20	55.8
700	794	910	34.5	5	840	37	M33	24	56.6
800	901	1025	38.0	5	950	40	M36	24	74.0
900	1001	1125	41.5	5	1050	40	M36	28	86.0
1000	1112	1255	45.0	5	1170	43	M39	28	124.3
1100	1218	1355	48.5	5	1270	43	M39	32	139.9
1200	1328	1485	52.0	5	1390	49	M45	32	183.9
1400	1530	1685	55.0	5	1590	49	M45	36	212.7
1500	1640	1820	57.5	5	1710	56	M52	36	273.2
1600	1750	1930	60.0	5	1820	56	M52	40	314.2
1800	1950	2130	65.0	5	2020	56	M52	44	358.9
2000	2150	2345	70.0	5	2230	62	M56	48	437.3
2100	2260	2450	72.5	5	2335	62	M56	52	517.1
2200	2370	2555	75.0	6	2440	62	M56	52	542.2
2400	2570	2765	80.0	6	2650	62	M56	56	715.7
2600	2780	2965	85.0	6	2850	62	M56	60	731.2

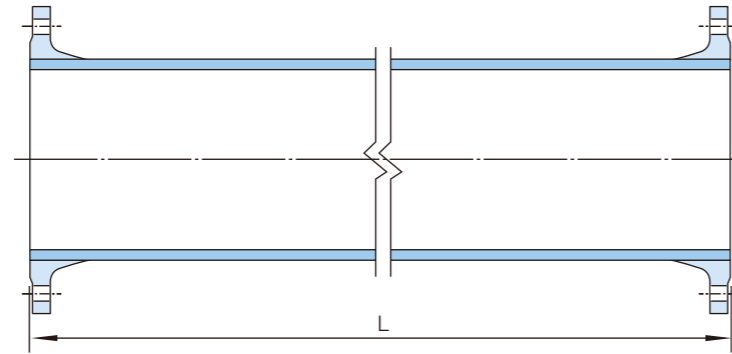
PN25

Dimensions in millimeters

NOMINAL DIAMETER DN	d	D	c	f	K	L	BOLTS		MASS (kg)
							SIZE	No.	
80	132	200	16.0	3	160	19	M16	8	2.9
100	156	235	16.0	3	190	23	M20	8	3.8
150	211	300	17.0	3	250	28	M24	8	6.1
200	274	360	19.0	3	310	28	M24	12	8.9
250	330	425	21.5	3	370	31	M27	12	13.2
300	389	485	23.5	4	430	31	M27	16	18.0
350	448	555	26.0	4	490	34	M30	16	25.3
400	503	620	28.0	4	550	37	M33	16	33.2
450	548	670	30.5	4	600	37	M33	20	39.0
500	609	730	32.5	4	660	37	M33	20	48.3
600	720	845	37.0	5	770	40	M36	20	69.2
700	820	960	41.5	5	875	43	M39	24	91.4
800	928	1085	46.0	5	990	49	M45	24	123.2
900	1028	1185	50.5	5	1090	49	M45	28	142.8
1000	1140	1320	55.0	5	1210	56	M52	28	197.7
1100	1240	1420	59.5	5	1310	56	M52	32	221.2
1200	1350	1530	64.0	5	1420	56	M52	32	268.1
1400	1560	1755	69.0	5	1640	62	M56	36	365.8
1500	1670	1865	72.5	5	1750	62	M56	36	426.2
1600	1780	1975	76.0	5	1860	62	M56	40	485.7
1800	1985	2195	83.0	5	2070	70	M64	44	573.4
2000	2210	2425	90.0	5	2300	70	M64	48	786.9

FLANGED PIECES

Flanged Pipes



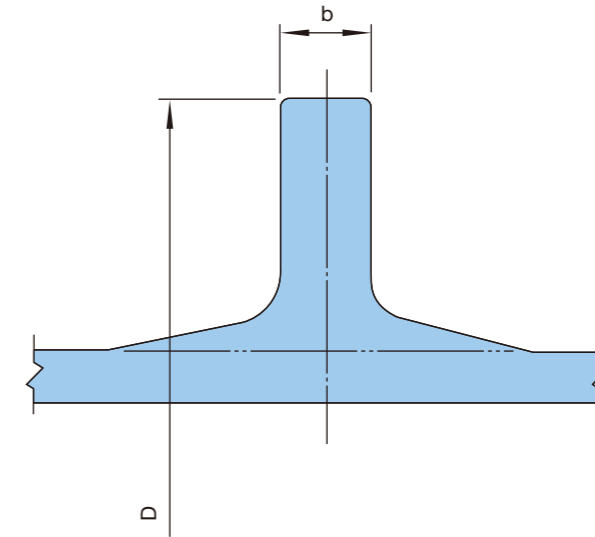
Dimensions in millimeters

NOMINAL DIAMETER DN	THICKNESS	L		Mass(kg) ¹⁾
		One-Flange Max.	Double Flange Max.	PIPE (kg/m)
80	7.0	3000	3000	14.1
100	7.2	3000	3000	17.7
150	7.8	4000	4000	28.0
200	8.4	4000	4000	39.7
250	9.0	4000	4000	52.8
300	9.6	4000	4000	67.3
350	10.2	4000	4000	83.1
400	10.8	4000	4000	100.0
450	11.4	4000	4000	118.3
500	12.0	4000	4000	138.2
600	13.2	4000	4000	181.8
700	14.4	4000	4000	230.8
800	15.6	4000	4000	285.5
900	16.8	4000	4000	345.4
1000	18.0	4000	4000	410.6
1100	19.2	4000	4000	481.7
1200	20.4	4000	4000	557.8
1400	22.8	4000	4000	726.8
1500	24.0	4000	4000	819.1
1600	25.2	3000	2500	916.9
1800	27.6	3000	2500	1129.3
2000	30.0	3000	2500	1363.4
2100	31.2	3000	2500	1473.8
2200	32.4	3000	2500	1612.9
2400	34.8	2500	2300	1867.7
2600	37.2	2000	1600	2180.7

11 Note1) The values of mass show barrel portion of flanged pipe. As for values of flange mass, please see the table on page 9 and 10.

Puddle Flange

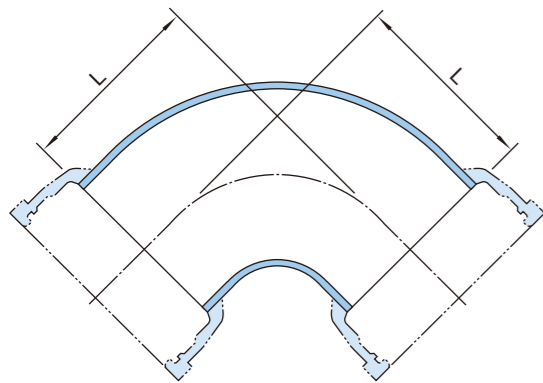
Cast-on Type



Dimensions in millimeters

NOMINAL DIAMETER DN	D	b	MASS (kg)
80	200	19	3.8
100	220	19	4.4
150	285	19	6.7
200	340	20	9.2
250	400	22	12.8
300	455	25	17.0
350	505	25	19.5
400	565	25	24.2
450	615	26	27.9
500	670	27	33.4
600	780	30	46.5
700	895	33	62.7
800	1015	35	82.4
900	1115	38	98.2
1000	1230	40	123.6
1100	1340	43	151.7
1200	1455	45	182.1
1400	1675	46	234.3
1500	1785	48	268.7
1600	1898	49	305.1
1800	2115	52	379.2
2000	2325	55	452.9
2100	2430	57	523.2
2200	2550	59	577.0
2400	2760	62	717.6
2600	2972	65	794.3

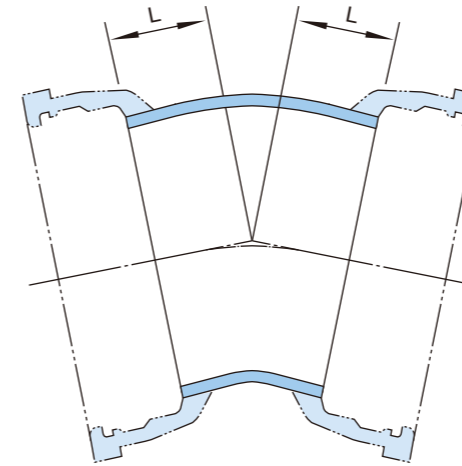
Double Socket 90° Bend



Dimensions in millimeters

NOMINAL DIAMETER DN	L	MASS(kg)		
		T-type	TLH-type	K-type
80	100	9.0	-	12.0
100	120	12.1	-	15.6
150	170	22.0	-	27.5
200	220	36.5	-	40.0
250	270	51.5	-	55.5
300	320	70.5	-	81.5
350	370	97.5	-	105
400	420	124	124	134
450	470	156	156	166
500	520	193	193	202
600	620	280	280	290
700	720	408	408	408
800	820	548	548	544
900	920	728	728	720
1000	1020	942	942	935
1100	1120	1200	1200	1168
1200	1220	1496	1496	1444
1400	1220	2026	2026	1918
1500	1270	2353	2353	2230
1600	1290	2726	2726	2543
1800	1320	3527	-	3229
2000	1360	4458	-	4033

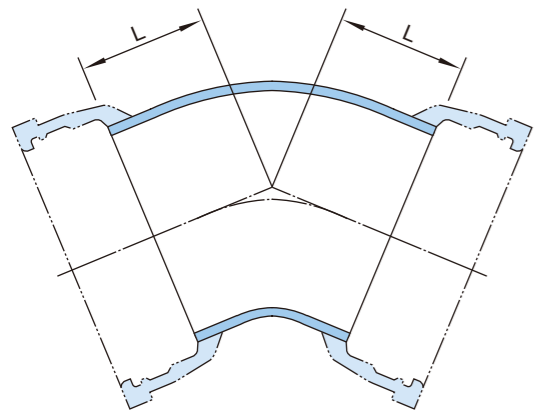
Double Socket 22 1/2° Bend



Dimensions in millimeters

NOMINAL DIAMETER DN	L	MASS(kg)		
		T-type	TLH-type	K-type
80	40	7.7	-	10.7
100	40	10.0	-	13.5
150	55	17.3	-	22.5
200	65	27.5	-	30.5
250	75	36.0	-	40.5
300	85	47.0	-	58.0
350	95	64.0	-	71.0
400	110	78.5	78.5	88.0
450	120	95.0	95.0	105
500	130	113	113	123
600	150	154	154	164
700	175	223	223	223
800	195	285	285	281
900	220	372	372	364
1000	240	469	469	463
1100	265	592	592	560
1200	285	724	724	671
1400	260	990	990	882
1500	270	1134	1134	1011
1600	280	1349	1349	1167
1800	305	1831	-	1533
2000	330	2390	-	1965
2100	340	-	-	2173
2200	355	-	-	2441
2400	380	-	-	2986
2600	400	-	-	3778

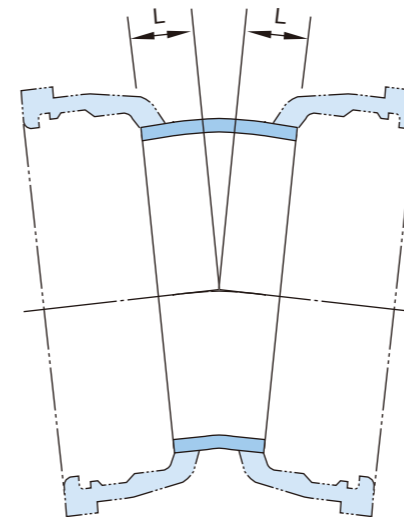
Double Socket 45° Bend



Dimensions in millimeters

NOMINAL DIAMETER DN	L	MASS(kg)		
		T-type	TLH-type	K-type
80	55	8.1	-	11.1
100	65	10.8	-	14.3
150	85	18.8	-	24.0
200	110	31.0	-	34.0
250	130	41.5	-	45.5
300	150	55.0	-	66.0
350	175	76.0	-	83.5
400	195	94.0	94.0	104
450	220	117	117	127
500	240	141	141	150
600	285	199	199	209
700	330	288	288	289
800	370	376	376	373
900	415	495	495	488
1000	460	635	635	628
1100	505	804	804	772
1200	550	995	995	943
1400	515	1331	1331	1223
1500	540	1540	1540	1417
1600	565	1829	1829	1647
1800	610	2464	-	2166
2000	660	3216	-	2791
2100	685	-	-	3107
2200	710	-	-	3494
2400	755	-	-	4272
2600	805	-	-	5401

Double Socket 11 1/4° Bend

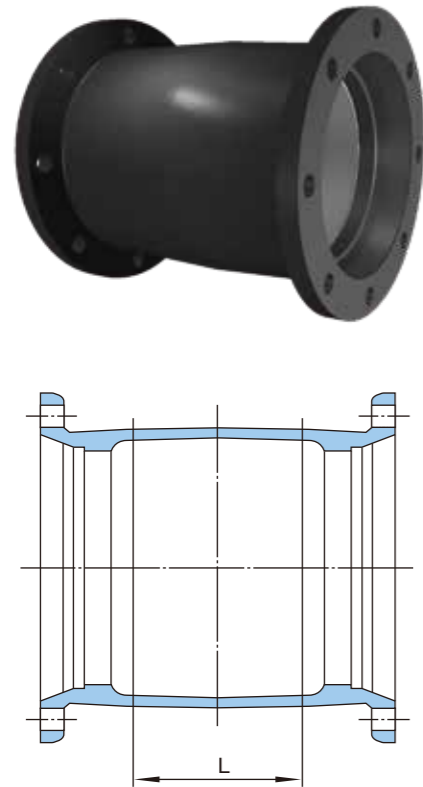


Dimensions in millimeters

NOMINAL DIAMETER DN	L	MASS(kg)		
		T-type	TLH-type	K-type
80	30	7.4	-	10.5
100	30	9.7	-	13.1
150	35	16.2	-	21.5
200	40	25.5	-	29.0
250	50	33.5	-	37.5
300	55	43.0	-	54.0
350	60	58.0	-	65.5
400	65	70.0	70.0	79.0
450	70	83.5	83.5	93.5
500	75	98.5	98.5	108
600	85	131	131	141
700	95	187	187	187
800	110	237	237	234
900	120	304	304	297
1000	130	381	381	375
1100	140	474	474	442
1200	150	576	576	524
1400	130	804	804	697
1500	135	916	916	794
1600	140	1096	1096	914
1800	155	1498	-	1200
2000	165	1948	-	1522
2100	185	-	-	1725
2200	190	-	-	1919
2400	205	-	-	2345
2600	215	-	-	2987

Note) Please refer to centrifugally cast pipes for the dimensions of socket, Push on joint T-type, Restrained push on joint TLH-type and Mechanical joint K-type respectively.

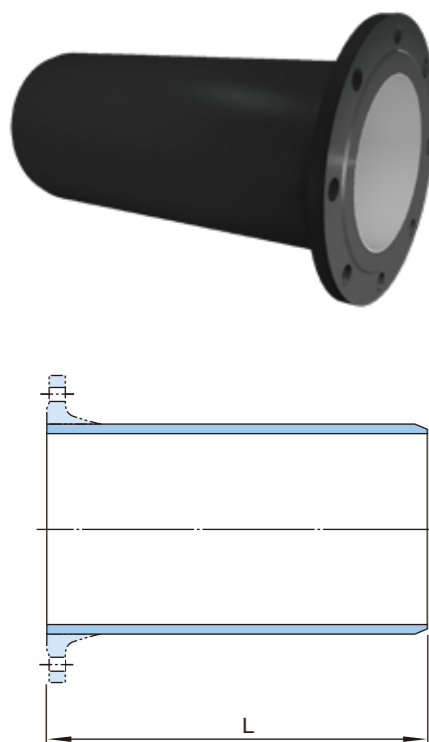
Collar K-type



Dimensions in millimeters

NOMINAL DIAMETER DN	L	MASS(kg)
80	160	12.9
100	160	15.8
150	165	23.5
200	170	30.0
250	175	38.5
300	180	54.0
350	185	67.5
400	190	81.0
450	195	96.0
500	200	109
600	210	140
700	220	185
800	230	225
900	240	278
1000	250	348
1100	260	407
1200	270	472
1400	340	701
1500	350	783
1600	360	920
1800	380	1172
2000	400	1461
2100	410	1613
2200	420	1794
2400	440	2146
2600	460	2736

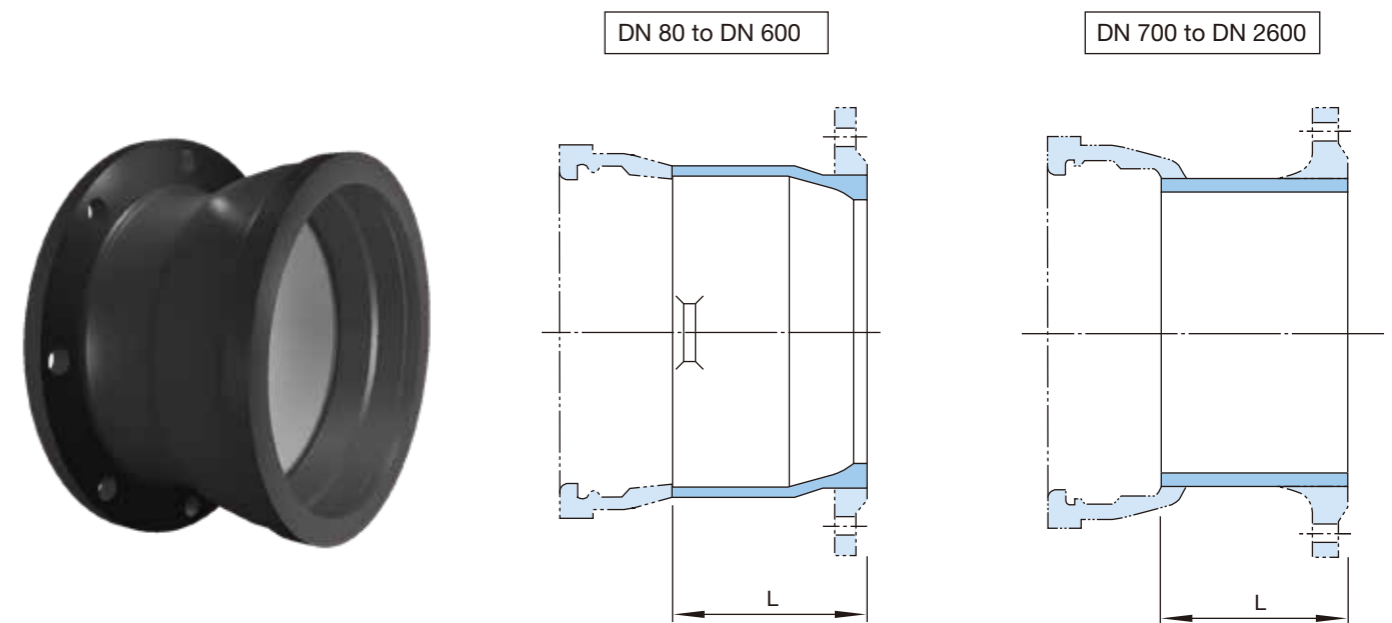
Flanged Spigot



Dimensions in millimeters

NOMINAL DIAMETER DN	L	MASS(kg)		
		T-K-type		
		PN10	PN16	PN25
80	350	7.8	7.8	7.8
100	360	9.7	9.7	10.2
150	380	15.8	15.8	16.7
200	400	23.0	23.0	25.0
250	420	32.0	32.0	35.5
300	440	42.5	42.0	47.5
350	460	53.0	55.5	63.5
400	480	65.5	70.0	81.0
450	500	79.5	87.5	98.0
500	520	96.0	110	120
600	560	135	158	171
700	600	185	195	230
800	600	233	245	295
900	600	280	293	350
1000	600	339	371	444
1100	600	402	429	510
1200	600	473	519	603
1400	710	691	729	882
1500	745	812	883	1036
1600	780	957	1029	1201
1800	850	1242	1319	-
2000	920	1591	1692	-
2100	955	1803	1925	-
2200	990	2022	2139	-
2400	1060	2522	2695	-
2600	1130	3034	3195	-

Flanged Socket

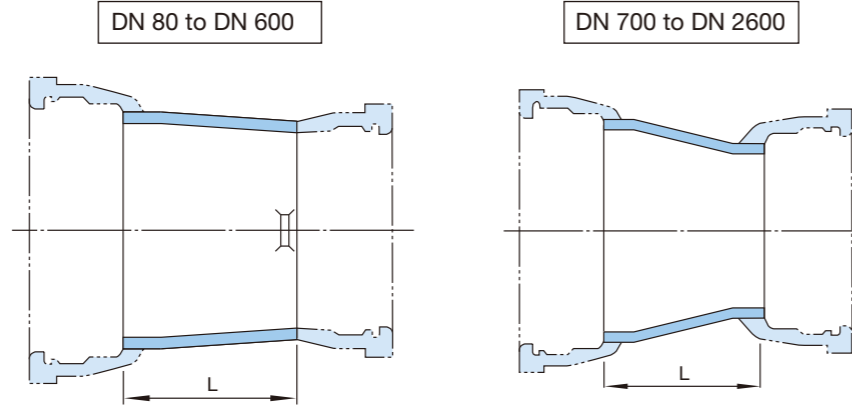


Dimensions in millimeters

NOMINAL DIAMETER DN	L	MASS(kg)								
		T-type			TLH-type			K-type		
		PN10	PN16	PN25	PN10	PN16	PN25	PN10	PN16	PN25
80	130	8.3	8.3	8.3	-	-	-	9.3	9.3	9.3
100	130	10.2	10.2	10.7	-	-	-	11.3	11.3	12.5
150	135	16.4	16.4	17.3	-	-	-	18.0	18.0	19.0
200	140	24.5	24.0	26.0	-	-	-	24.5	24.0	26.0
250	145	32.0	32.0	35.5	-	-	-	32.5	32.0	35.5
300	150	39.0	39.0	44.0	-	-	-	44.5	44.0	49.5
350	155	47.0	50.5	60.0	-	-	-	53.0	55.5	63.0
400	160	60.0	64.0	75.0	60.0	64.0	75.0	64.0	68.0	78.5
450	165	70.5	78.0	88.5	70.5	78.0	88.5	74.5	82.0	92.5
500	170	84.0	96.5	107	84.0	96.5	107	87.0	100	110
600	180	112	135	146	112	135	146	115	138	149
700	190	162	172	207	162	172	207	162	172	207
800	200	207	218	268	207	218	268	205	217	266
900	210	256	269	326	256	269	326	252	265	322
1000	220	320	352	425	320	352	425	317	348	422
1100	230	393	420	502	393	420	502	377	404	486
1200	240	476	522	606	476	522	606	450	496	580
1400	310	708	746	899	708	746	899	654	692	845
1500	320	811	883	1036	811	883	1036	750	822	975
1600	330	964	1037	1208	964	1037	1208	873	946	1117
1800	350	1252	1329	-	-	-	-	1103	1180	-
2000	370	1590	1691	-	-	-	-	1378	1478	-
2100	380	-	-	-	-	-	-	1546	1667	-
2200	390	-	-	-	-	-	-	1708	1825	-
2400	410	-	-	-	-	-	-	2098	2272	-
2600	480	-	-	-	-	-	-	2642	2803	-

Note) Please refer to centrifugally cast pipes for the dimensions of socket, Push on joint T-type, Restrained push on joint TLH-type and Mechanical joint K-type respectively.

Double Socket Taper



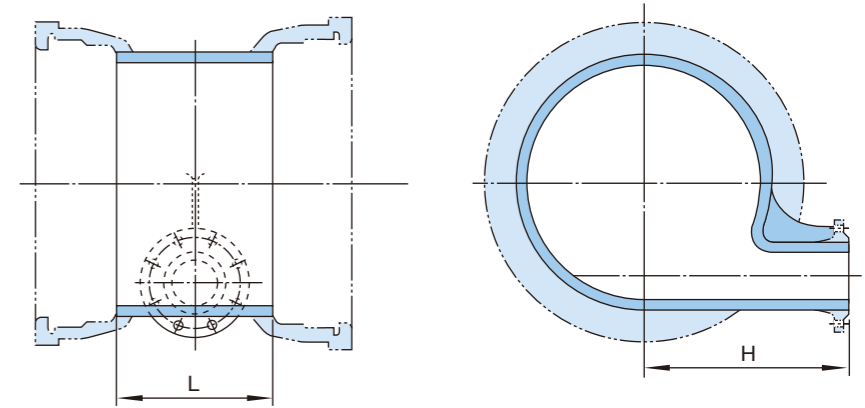
Dimensions in millimeters

NOMINAL DIAMETER		L	MASS(kg)		
DN	dn		T-type	TLH-type	K-type
100	80	90	9.2	-	11.9
150	80	190	14.9	-	18.6
150	100	150	15.3	-	19.1
200	100	250	23.5	-	26.0
200	150	150	24.0	-	27.0
250	150	250	32.5	-	36.0
250	200	150	33.0	-	35.0
300	150	350	43.0	-	50.0
300	200	250	43.5	-	49.0
300	250	150	41.5	-	47.5
350	200	360	59.0	-	62.5
350	250	260	57.0	-	61.0
350	300	160	52.5	-	61.5
400	200	460	73.5	73.5	78.0
400	250	360	72.0	72.0	76.5
400	300	260	67.5	67.5	77.0
400	350	160	66.0	66.0	73.0
450	250	460	89.0	89.0	94.0
450	300	360	84.5	84.5	94.5
450	350	260	83.0	83.0	91.0
450	400	160	77.5	77.5	86.5
500	300	460	104	104	114
500	350	360	103	103	110
500	400	260	97.0	97.0	106
500	450	160	90.5	90.5	99.0
600	350	560	149	149	157
600	400	460	143	143	152
600	450	360	137	137	146
600	500	260	129	129	137
700	400	680	210	210	215
700	450	580	205	205	210
700	500	480	198	198	203
700	600	280	179	179	184
800	450	780	275	275	278
800	500	680	268	268	271
800	600	480	249	249	252
800	700	280	231	231	230
900	500	880	358	358	358
900	600	680	338	338	339
900	700	480	320	320	316
900	800	280	286	286	281
1000	600	880	443	443	445
1000	700	680	425	425	422
1000	800	480	391	391	386
1000	900	280	353	353	346
1100	700	880	550	550	534
1100	800	680	516	516	498
1100	900	480	478	478	458
1100	1000	280	432	432	412
1200	700	1080	693	693	667
1200	800	880	659	659	631
1200	900	680	621	621	591
1200	1000	480	574	574	544
1200	1100	280	520	520	478

Dimensions in millimeters

NOMINAL DIAMETER		L	MASS(kg)		
DN	dn		T-type	TLH-type	K-type
1400	800	760	772	772	716
1400	900	660	768	768	710
1400	1000	560	761	761	704
1400	1100	460	755	755	685
1400	1200	360	743	743	663
1500	900	760	894	894	828
1500	1000	660	887	887	822
1500	1100	560	880	880	803
1500	1200	460	868	868	781
1500	1400	260	857	857	742
1600	1000	760	1055	1055	960
1600	1100	660	1048	1048	941
1600	1200	560	1036	1036	919
1600	1400	360	1024	1024	879
1600	1500	260	994	994	841
1800	1100	860	1426		1261
1800	1200	760	1419		1238
1800	1400	560	1402		1198
1800	1500	460	1392		1160
1800	1600	360	1372		1123
2000	1200	960	1865		1620
2000	1400	760	1847		1579
2000	1500	660	1836		1540
2000	1600	560	1816		1503
2000	1800	360	1773		1411
2100	1200	1060			1820
2100	1400	860			1781
2100	1500	760			1742
2100	1600	660			1705
2100	1800	460			1614
2100	2000	260			1496
2200	1400	960			2015
2200	1500	860			1976
2200	1600	760			1938
2200	1800	560			1846
2200	2000	360			1726
2200	2100	260			1645
2400	1500	1060			2478
2400	1600	960			2441
2400	1800	760			2350
2400	2000	560			2231
2400	2100	460			2149
2400	2200	360			2071
2600	1600	1160			3119
2600	1800	960			3025
2600	2000	760			2904
2600	2100	660			2819
2600	2200	560			2741
2600	2400	360			2545

Double Socket Level Invert Tee with Flanged Branch

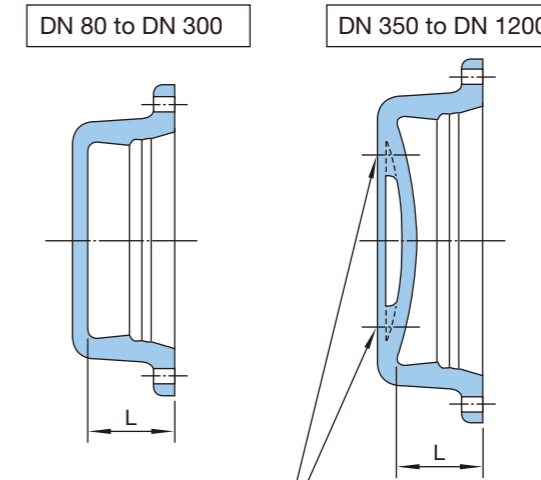


Dimensions in millimeters

NOMINAL DIAMETER		L	H	MASS(kg)								
DN	dn			T-type			TLH-type			K-type		
				PN10	PN16	PN25	PN10	PN16	PN25	PN10	PN16	PN25
200	80	245	250	37.5	37.5	37.5	-	-	-	41.0	41.0	41.0
250	80	250	275	47.0	47.0	47.0	-	-	-	51.5	51.5	51.5
300	80	255	300	59.0	59.0	59.0	-	-	-	70.0	70.0	70.0
350	100	280	325	78.5	78.5	79.0	-	-	-	86.0	86.0	86.5
400	100	280	350	92.5	92.5	93.0	92.5	92.5	93.0	102	102	102
450	100	285	375	109	109	109	109	109	109	119	119	120
500	100	290	400	127	127	127	127	127	127	136	136	136
600	100	295	450	163	163	164	163	163	164	173	173	174
700	150	360	500	240	240	241	240	240	241	241	241	242
800	150	365	550	295	295	296	295	295	296	291	291	292
900	150	370	600	367	367	368	367	367	368	359	359	360
1000	200	435	650	476	476	478	476	476	478	469	469	471
1100	200	440	700	577	577	579	577	577	579	545	545	547
1200	200	445	750	686	686	688	686	686	688	634	634	636
1400	200	460	850	986	986	988	986	986	988	878	878	880
1500	200	465	900	1116	1116	1118	1116	1116	1118	993	993	995
1600	400	700	950	1540	1544	1555	1540	1544	1555	1358	1362	1373
1800	400	715	1050	2025	2030	-	-	-	-	1728	1732	-
2000	400	725	1150	2570	2574	-	-	-	-	2144	2149	-
2100	400	730	1200	-	-	-	-	-	-	2347	2352	-
2200	400	735	1250	-	-	-	-	-	-	2591	2595	-
2400	400	750	1350	-	-	-	-	-	-	3098	3102	-
2600	400	760	1450	-	-	-	-	-	-	3842	3847	-

Note) 1. Please refer to centrifugally cast pipes for the dimensions of socket, Push on joint T-type, Restrained push on joint TLH-type and Mechanical joint K-type respectively.
2. Please consult Kubota for other sizes.

Cap K-type



Dimensions in millimeters

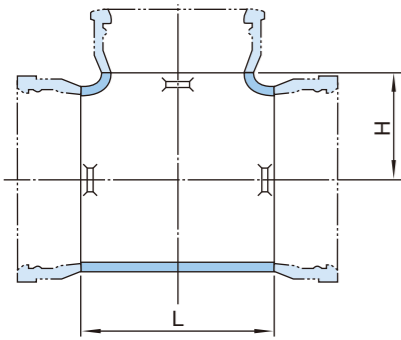
NOMINAL DIAMETER DN	L	MASS(kg)
80	80	5.8
100	80	7.5
150	90	12.6
200	90	17.5
250	90	24.5
300	110	38
350	110	49.5
400	110	62
450	110	76
500	110	90.5
600	110	127
700	120	175
800	120	227
900	120	295
1000	130	379
1100	130	466
1200	130	567

Bosses may be drilled and tapped upon request.

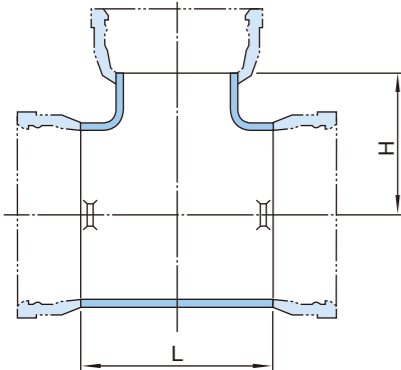
All Socket Tee



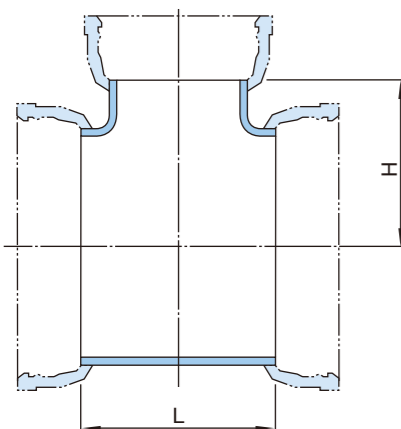
DN 80 to DN 250



DN 300 to DN 600



DN 700 to DN 2600



Dimensions in millimeters

NOMINAL DIAMETER		L	H	MASS(kg)		
DN	dn			T-type	TLH-type	K-type
80	80	170	85	13.4	-	16.4
100	80	170	95	16.0	-	19.2
100	100	190	95	17.5	-	21.0
150	80	170	120	23.5	-	27.5
150	100	195	120	25.0	-	29.5
150	150	255	125	30.0	-	35.0
200	80	175	145	34.0	-	35.0
200	100	200	145	36.0	-	37.0
200	150	255	150	41.5	-	43.0
200	200	315	155	48.5	-	48.5
250	100	200	210	45.5	-	47.0
250	150	260	220	52.5	-	54.0
250	200	315	220	60.0	-	60.0
250	250	375	230	67.5	-	68.0
300	100	205	235	52.0	-	63.0
300	150	260	245	59.5	-	71.0
300	200	320	245	68.0	-	78.0
300	300	435	260	84.5	-	100
350	100	205	260	67.5	-	74.0
350	150	325	270	81.5	-	89.0
350	200	325	270	86.0	-	91.5
350	300	440	285	104	-	115
350	350	495	290	116	-	125
400	100	210	285	79.0	79.0	87.5
400	150	325	295	94.5	94.5	104
400	200	325	295	99.0	99.0	106
400	300	440	310	119	119	132
400	400	560	320	144	144	156
450	150	330	320	110	110	120
450	200	330	320	114	114	122
450	300	445	335	136	136	150
450	400	560	345	163	163	175
450	450	620	350	176	176	190
500	150	330	345	127	127	135
500	200	330	345	131	131	138
500	300	450	360	156	156	168
500	400	565	370	184	184	196
500	500	680	380	214	214	225
600	150	340	395	164	164	172
600	200	340	395	167	167	174
600	300	455	410	196	196	208
600	400	570	420	229	229	240
600	600	800	440	298	298	310
700	200	345	445	235	235	236
700	300	460	460	269	269	275
700	400	575	470	306	306	311
700	600	810	490	385	385	390
700	700	925	500	437	437	438
800	200	350	495	287	287	283
800	300	465	510	327	327	329
800	400	580	520	370	370	371
800	600	1045	540	525	525	527
800	800	1045	565	572	572	567
900	200	355	545	356	356	348
900	400	590	570	454	454	451
900	600	1170	590	675	675	672
900	800	1170	615	719	719	709
900	900	1170	625	817	817	806
1000	200	360	595	434	434	427
1000	400	595	620	546	546	544
1000	600	1290	640	851	851	850
1000	800	1290	665	980	980	971
1000	1000	1290	685	1043	1043	1033
1100	400	600	670	655	655	628
1100	600	830	690	850	850	823
1100	800	1065	715	1020	1020	986
1100	1000	1295	735	1208	1208	1172
1100	1100	1410	745	1315	1315	1267
1200	400	605	720	773	773	725
1200	600	840	740	997	997	950
1200	800	1070	765	1183	1183	1129
1200	1000	1300	785	1387	1387	1331
1200	1200	1535	805	1625	1625	1547

Dimensions in millimeters

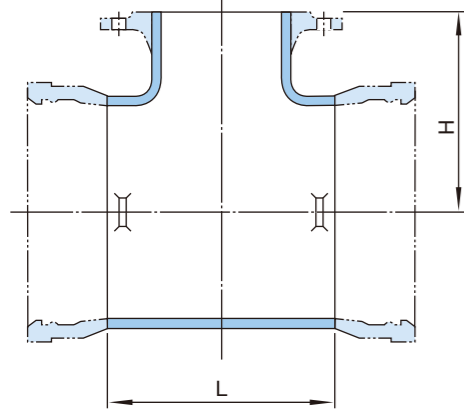
NOMINAL DIAMETER		L	H	MASS(kg)			
DN	dn			T-type	TLH-type	K-type	
						Non-ribbed	Ribbed
1400	600	1030	840	1525	1525	1422	-
1400	800	1260	865	1752	1752	1642	-
1400	1000	1495	885	1998	1998	1886	-
1400	1200	1725	905	2267	2267	2133	-
1400	1400	1960	930	2598	2598	2436	-
1500	600	1035	890	1718	1718	1601	-
1500	800	1270	915	1972	1972	1848	-
1500	1000	1500	935	2434	2434	2308	-
1500	1200	1730	955	2755	2755	2606	-
1500	1400	1965	980	3138	3138	2961	-
1500	1500	2080	990	3323	3323	3139	-
1600	600	1040	940	1984	1984	1807	-
1600	800	1275	965	2451	2451	2267	-
1600	1000	1505	985	2771	2771	2586	-
1600	1200	1740	1010	3127	3127	2919	-
1600	1400	1970	1030	3524	3524	3287	-
1600	1600	2200	1050	3953	3953	3680	-
1800	600	1055	1040	2372	-	2079	-
1800	800	1285	1065	2660	-	2357	-
1800	1000	1520	1085	2962	-	2658	-
1800	1200	1750	1110	3287	-	2957	-
1800	1400	1980	1130	3644	-	3291	-
1800	1600	2215	1150	4450	-	4052	-
1800	1800	2445	1175	4944	-	4498	-
2000	600	1065	1140	2979	-	2558	-
2000	800	1300	1165	3324	-	2894	-
2000	1000	1530	1185	3669	-	3238	-
2000	1200	1760	1210	4042	-	3584	-
2000	1400	1995	1230	4451	-	3971	-
2000	1600	2225	1250	4887	-	4361	-
2000	1800	2460	1275	5921	-	5346	-
2000	2000	2690	1295	6511	-	5873	-
2100	800	1305	1215	-	-	3153	-
2100	1000	1535	1235	-	-	3521	-
2100	1200	1770	1260	-	-	3899	-
2100	1400	2000	1280	-	-	4303	-
2100	1600	2230	1300	-	-	4715	-
2100	1800	2465	1325	-	-	5176	5802
2100	2000	2695	1345	-	-	5658	6314
2100	2100	2810	1355	-	-	5914	6472
2200	800	1310	1265	-	-	3463	-
2200	1000	1540	1285	-	-	3860	-
2200	1200	1775	1310	-	-	4267	-
2200	1400	2005	1330	-	-	4697	-
2200	1600	2240	1350	-	-	5144	-
2200	1800	2470	1375	-	-	5622	6286
2200	2000	2700	1395	-	-	6126	6859
2200	2200	2935	1415	-	-	6676	7353
2400	800	1320	1365	-	-	4089	-
2400	1000	1555	1385	-	-	4551	-
2400	1200	1785	1410	-	-	5005	-
2400	1400	2020	1430	-	-	5499	-
2400	1600	2250	1450	-	-	5989	-
2400	1800	2480	1475	-	-	6518	7399
2400	2000	2715	1495	-	-	7080	7961
2400	2200	2945	1515	-	-	7660	8615
2400	2400	3180	1540	-	-	8314	9112
2600	800	1335	1465	-	-	4994	-
2600	1000	1565	1485	-	-	5513	-
2600	1200	1800	1510	-	-	6043	-
2600	1400	2030	1530	-	-	6590	-
2600	1600	2260	1550	-	-	7142	-
2600	1800	2495	1575	-	-	7740	8887
2600	2000	2725	1595	-	-	8349	9507
2600	2200	2960	1615	-	-	8994	10155
2600	2400	3190	1640	-	-	9681	10965
2600	2600	3420	1660	-	-	10491	11614

Note) 1. Please refer to centrifugally cast pipes for the dimensions of socket, Push on joint T-type, Restrained push on joint TLH-type and Mechanical joint K-type respectively.
2. Please consult Kubota for other sizes.

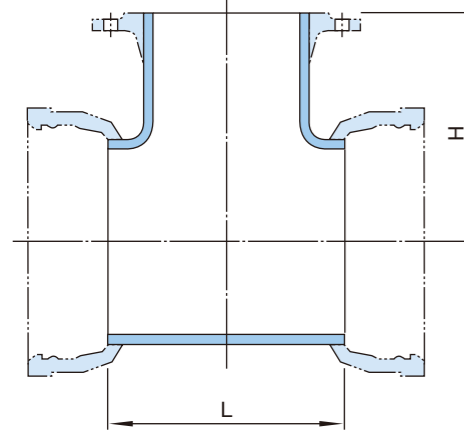
Double Socket Tee with Flanged Branch



DN 80 to DN 600



DN 700 to DN 2600



Dimensions in millimeters

NOMINAL DIAMETER		L	H	MASS(kg)								
DN	dn			T-type			TLH-type			K-type		
				PN10	PN16	PN25	PN10	PN16	PN25	PN10	PN16	PN25
80	80	170	165	14.0	14.0	14.0	-	-	-	16.0	16.0	16.0
100	80	170	175	16.7	16.7	16.7	-	-	-	18.9	18.9	18.9
100	100	190	180	17.9	17.9	18.4	-	-	-	20.0	20.0	20.5
150	80	170	205	24.5	24.5	24.5	-	-	-	27.5	27.5	27.5
150	100	195	210	26.0	26.0	26.5	-	-	-	29.0	29.0	29.5
150	150	255	220	31.0	31.0	32.0	-	-	-	34.0	34.0	35.0
200	80	175	235	35.0	35.0	35.0	-	-	-	35.0	35.0	35.0
200	100	200	240	37.0	37.0	37.5	-	-	-	37.0	37.0	37.5
200	150	255	250	42.5	42.5	43.5	-	-	-	42.5	42.5	43.5
200	200	315	260	48.5	48.0	50.0	-	-	-	48.5	48.0	50.0
250	80	200	270	45.0	45.0	45.0	-	-	-	45.0	45.0	45.0
250	100	200	270	45.5	45.5	46.0	-	-	-	46.0	46.0	46.5
250	150	260	290	52.5	52.5	53.5	-	-	-	52.5	52.5	53.5
250	200	315	290	58.5	58.5	60.5	-	-	-	59.0	58.5	60.5
250	250	375	300	66.5	66.5	70.0	-	-	-	67.0	66.5	70.0
300	80	205	300	51.5	51.5	51.5	-	-	-	61.5	61.5	61.5
300	100	205	300	52.5	52.5	53.0	-	-	-	62.5	62.5	63.0
300	150	260	320	59.5	59.5	60.5	-	-	-	69.5	69.5	70.5
300	200	320	320	67.0	67.0	69.0	-	-	-	77.0	77.0	79.0
300	300	435	340	85.0	85.0	90.5	-	-	-	95.0	95.0	100.0
350	80	205	330	67.5	67.5	67.5	-	-	-	73.0	73.0	73.0
350	100	205	330	68.0	68.0	68.5	-	-	-	73.5	73.5	74.0
350	150	325	350	82.0	82.0	83.0	-	-	-	88.0	88.0	89.0
350	200	325	350	85.0	85.0	87.0	-	-	-	90.5	90.5	92.5
350	300	440	370	105	105	110	-	-	-	110	110	116
350	350	495	380	114	117	125	-	-	-	120	122	130
400	80	210	360	79.0	79.0	79.0	79.0	79.0	79.0	86.5	86.5	86.5
400	100	210	360	79.5	79.5	80.0	79.5	79.5	80.0	87.5	87.5	88.0
400	150	270	380	89.5	89.5	90.5	89.5	89.5	90.5	97.0	97.0	98.0
400	200	325	380	98.5	98.5	100	98.5	98.5	100	106	106	108
400	300	440	400	120	120	125	120	120	125	128	127	133
400	400	560	420	143	148	159	143	148	159	151	155	166
450	80	215	395	92.5	92.5	92.5	92.5	92.5	92.5	101	101	101
450	100	215	395	93.5	93.5	94.0	93.5	93.5	94.0	102	102	102
450	150	330	410	111	111	112	111	111	112	119	119	120
450	200	330	410	114	114	116	114	114	116	122	122	124
450	300	445	430	138	138	143	138	138	143	146	146	151
450	400	560	450	163	167	178	163	167	178	171	175	186
450	450	620	460	176	184	195	176	184	195	184	192	203
500	80	215	420	107	107	107	107	107	107	114	114	114
500	100	215	420	108	108	109	108	108	109	115	115	115
500	150	330	440	129	129	130	129	129	130	135	135	136
500	200	330	440	132	131	133	132	131	133	138	138	140
500	300	450	460	159	158	164	159	158	164	165	165	170
500	400	565	480	185	190	201	185	190	201	192	196	207
500	500	680	500	216	229	240	216	229	240	222	236	246
600	80	220	480	138	138	138	138	138	138	144	144	144
600	100	220	480	139	139	139	139	139	139	145	145	146
600	150	340	500	166	166	167	166	166	167	172	172	173
600	200	340	500	169	168	170	169	168	170	175	175	177
600	300	455	520	200	200	205	200	200	205	207	206	212
600	400	575	540	232	236	247	232	236	247	238	243	254
600	600	800	580	307	330	343	307	330	343	314	336	350
700	100	345	525	229	229	230	229	229	230	230	230	230
700	150	345	525	232	232	233	232	232	233	233	233	234
700	200	345	525	235	235	237	235	235	237	236	236	238
700	400	575	555	305	310	321	305	310	321	306	310	321
700	600	810	585	386	409	422	386	409	422	387	409	423
700	700	925	600	435	445	480	435	445	480	436	446	481
800	100	350	585	282	282	282	282	282	282	278	278	279
800	150	350	585	285	285	286	285	285	286	281	281	282
800	200	350	585	288	288	290	288	288	290	284	284	286
800	400	580	615	371	375	386	371	375	386	367	372	383
800	600	1045	645	529	552	565	529	552	565	526	548	562
800	800	1045	675	578	590	639	578	590	639	575	586	636
900	150	355	645	355	355	356	355	355	356	347	347	348
900	200	355	645	358	358	360	358	358	360	350	350	352
900	400	590	675	456	461	472	456	461	472	449	453	464
900	600	1170	705	682	705	718	682	705	718	674	697	710
900	800	1170	735	729	741	790	729	741	790	721	733	782
900	900	1170	750	830	843	900	830	843	900	822	835	892
1000	150	360	705	434	434	435	434	434	435	427	427	428
1000	200	360	705	437	437	439	437	437	439	430	430	432
1000	400	595	735	551	556	567	551	556	567	544	549	560
1000	600	1290	765	861	884	898	861	884	898	855	877	891
1000	800	1290	795	1001	1013	1062	1001	1013	1062	994	1006	1055
1000	1000	1290	825	1066	1098	1171	1066	1098	1171	1059	1091	1164

Dimensions in millimeters

NOMINAL DIAMETER		L	H	MASS(kg)								
DN	dn			T-type			TLH-type			K-type		
				PN10	PN16	PN25	PN10	PN16	PN25	PN10	PN16	PN25
1100	200	370	765	534	533	535	534	533	535	502	501	503
1100	400	600	795	662	667	678	662	667	678	630	635	646
1100	600	830	825	868	891	904	868	891	904	836	859	872
1100	800	1065	855	1047	1059	1108	1047	1059	1108	1015	1027	1076
1100	1000	1295	885	1238	1269	1342	1238	1269	1342	1206	1237	1310
1100	1100	1410	900	1345	1372	1454	1345	1372	1454	1313	1340	1422
1200	200	375	825	635	635	637	635	635	637	583	583	585
1200	400	605	855	782	786	797	782	786	797	730	734	745
1200	600	840	885	1020	1042	1056	1020	1042	1056	967	990	1004
1200	800	1070	915	1215	1227	1276	1215	1227	1276	1163	1175	1224
1200	1000	1300	945	1424	1456	1529	1424	1456	1529	1372	1403	1477
1200	1200	1535	975	1669	1715	1799	1669	1715	1799	1617	1663	1747
1400	400	800	950	1232	1236	1247	1232	1236	1247	1124	1129	1140
1400	600	1030	980	1549	1572	1585	1549	1572	1585	1441	1464	1478
1400	800	1260	1010	1786	1798	1847	1786	1798	1847	1678	1690	1739
1400	1000	1495	1040	2038	2069	2143	2038	2069	2143	1930	1961	2035
1400	1200	1725	1070	2314	2360	2444	2314	2360	2444	2206	2252	2336
1400	1400	1960	1100	2608	2646	2799	2608	2646	2799	2501	2539	2692
1500	400	805	1005	1391	1395	1406	1391	1395	1406	1268	1273	1284
1500	600	1035	1035	1745	1768	1781	1745	1768	1781	1623	1645	1656
1500	800	1270	1065	2011	2023	2072	2011	2023	2072	1888	1900	1949
1500	1000	1500	1095	2492	2523	2597	2492	2523	2597	2369	2401	2474
1500	1200	1730	1125	2825	2871	2955	2825	2871	2955	2703	2749	2833
1500	1400	1965	1155	3178	3216	3369	3178	3216	3369	3055	3093	3246
1500	1500	2080	1170	3372	3444	3597	3372	3444	3597	3250	3321	3474
1600	400	810	1060	1619	1624	1635	1619	1624	1635	1437	1442	145

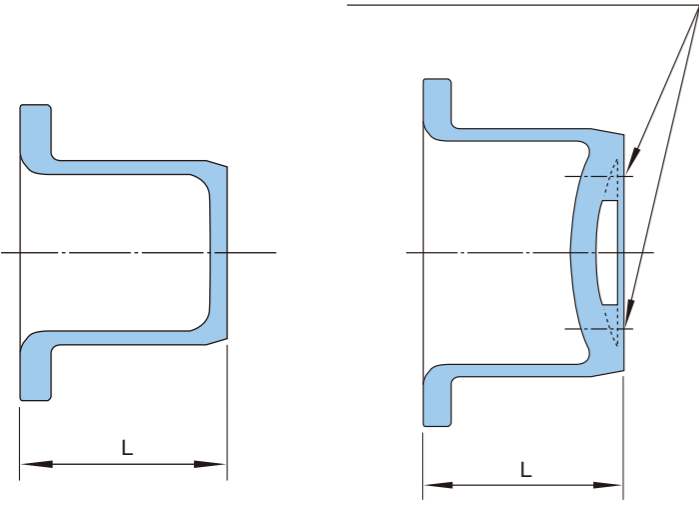
Plug

T-type

DN 80 to DN 300

DN 350 to DN 600

Bosses may be drilled and tapped upon request.



Dimensions in millimeters

NOMINAL DIAMETER DN	T-type		K-type	
	L	MASS(kg)	L	MASS(kg)
80	113	3.6	92	5.1
100	120	5.1	93	6.7
150	130	8.9	104	10.9
200	146	14.1	105	15.5
250	152	20.5	106	21.5
300	159	29.0	127	31.0
350	176	42.5	128	40.5
400	178	53.5	129	53.0
450	180	67.0	130	63.0
500	187	82.5	131	75.5
600	194	119	132	116
700	-	-	143	166
800	-	-	144	250
900	-	-	145	333
1000	-	-	156	434
1100	-	-	158	538
1200	-	-	160	671

K-type

DN 80 to DN 250

DN 300 to DN 350

DN 400 to DN 500

DN 600 to DN 1200

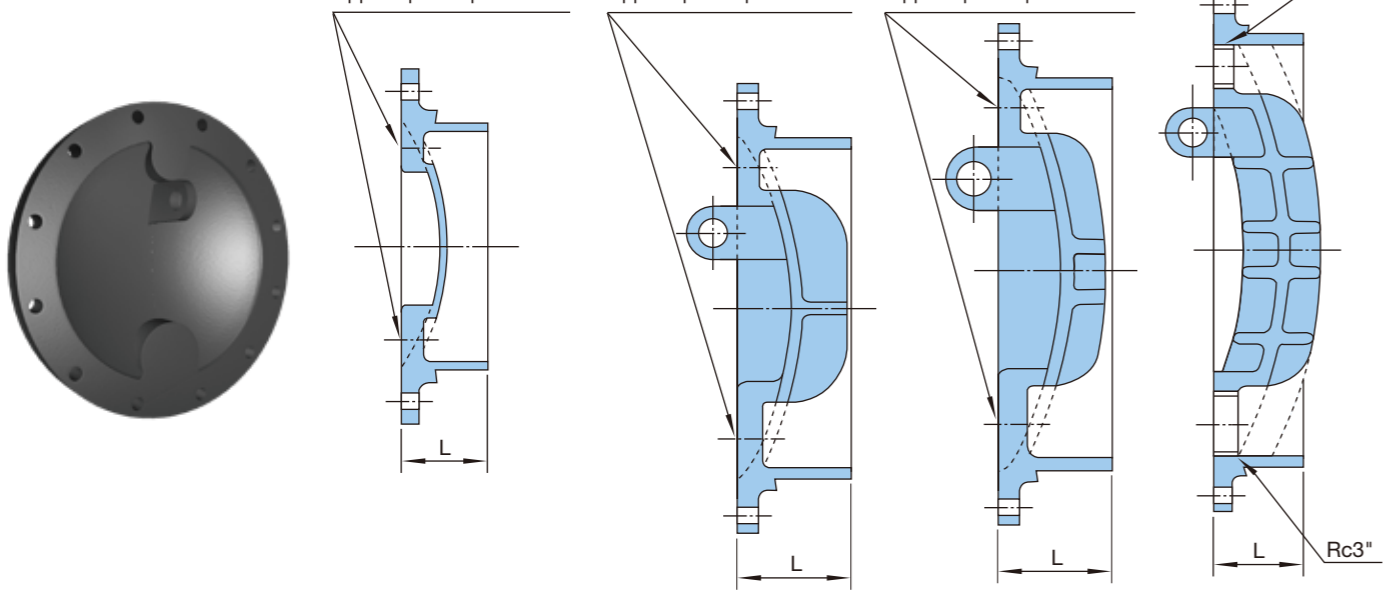
Bosses may be drilled and tapped upon request.

Bosses may be drilled and tapped upon request.

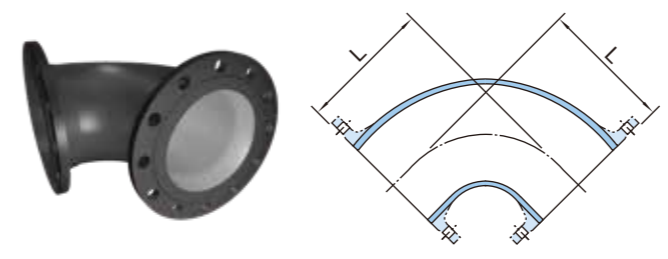
Bosses may be drilled and tapped upon request.

Rc2"

Rc3"



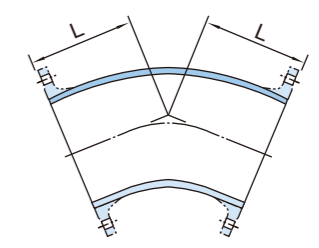
Double Flanged 90° Bend



Dimensions in millimeters

NOMINAL DIAMETER DN	L	MASS(kg)		
		PN10	PN16	PN25
80	165	9.6	9.6	9.6
100	180	12.0	12.0	13.0
150	220	20.5	20.5	22.5
200	260	31.5	31.0	35.0
250	350	50.5	49.5	57.0
300	400	70.0	69.5	80.0
350	450	90.5	96.0	112
400	500	117	126	148
450	550	147	162	184
500	600	184	211	232
600	700	275	321	348
700	800	394	415	485
800	900	543	567	665
900	1000	708	734	847
1000	1100	919	982	1129
1100	1200	1164	1218	1380
1200	1300	1452	1544	1712
1400	1350	1948	2024	2330
1500	1400	2273	2416	2722
1600	1450	2663	2807	3150
1800	1500	3348	3502	3931
2000	1550	4151	4352	5051

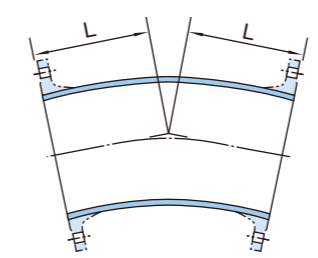
Double Flanged 45° Bend



Dimensions in millimeters

NOMINAL DIAMETER DN	L	MASS(kg)		
		PN10	PN16	PN25
80	130	9.3	9.3	9.3
100	140	11.4	11.4	12.5
150	160	18.9	18.9	21.0
200	180	28.0	27.5	31.5
250	350	55.5	54.5	62.0
300	400	77.5	76.5	87.5
350	298	77.0	82.5	98.0
400	324	97.5	107	129
450	349	120	135	157
500	375	148	175	196
600	426	215	260	287
700	478	304	325	394
800	529	414	438	536
900	581	531	557	671
1000	632	684	746	893
1100	683	857	911	1073
1200	735	1062	1154	1323
1400	775	1431	1507	1813
1500	810	1677	1821	2127
1600	845	1972	2117	2460
1800	910	2539	2693	-
2000	980	3243	3444	-
2100	850	3204	3447	-
2200	880	3585	3819	-
2400	945	4486	4833	-
2600	1005	5363	5685	-

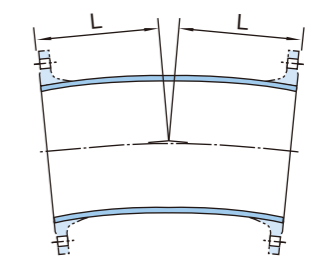
Double Flanged 22 1/2° Bend



Dimensions in millimeters

NOMINAL DIAMETER DN	L	MASS(kg)		
		PN10	PN16	PN25
80	130	9.4	9.4	9.4
100	140	11.5	11.5	12.5
150	160	19.1	19.1	21.0
200	180	28.5	28.0	32.0
250	350	56.5	56.0	63.0
300	400	79.0	78.5	89.0
350	298	78.5	84.0	99.5
400	324	99.5	109	131
450	349	122	138	160
500	375	151	178	199
600	426	220	265	292
700	478	311	332	401
800	529	423	447	545
900	581	543	569	683
1000	632	700	762	909
1100	683	877	931	1094
1200	735	1088	1180	1348
1400	835	1551	1627	1933
1500	885	1838	1982	2288
1600	940	2190	2335	2678
1800	480	1640	1794	-
2000	520	2081	2283	-
2100	540	2371	2615	-
2200	560	2644	2878	-
2400	600	3310	3657	-
2600	640	3912	4235	-

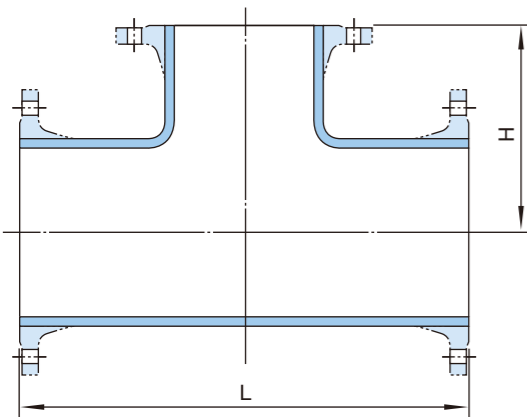
Double Flanged 11 1/4° Bend



Dimensions in millimeters

NOMINAL DIAMETER DN	L	MASS(kg)		
		PN10	PN16	PN25
80	130	9.5	9.5	9.5
100	140	11.5	11.5	12.5
150	160	19.1	19.1	21.0
200	180	28.5	28.0	32.0
250	350	56.5	56.0	63.5
300	400	79.5	79.0	89.5
350	298	79.0	84.0	100
400	324	100	109	131
450	349	123	139	160
500	375	152	179	200
600	426	221	266	294
700	478	313	333	403
800	529	426	449	548
900	581	546	572	686
1000	632	704	766	913
1100	683	882	936	1099
1200	735	1094	1186	1354
1400	835	1560	1636	1942
1500	885	1849	1933	2299
1600	940	2203	2348	2691
1800	345	1342	1496	-
2000	375	1694	1896	-
2100	390	1939	2182	-
2200	405	2155	2389	-
2400	435	2707	3054	-
2600	465	3166	3488	-

All Flanged Tee



Dimensions in millimeters

NOMINAL DIAMETER		L	H	MASS(kg)		
DN	dn			PN10	PN16	PN25
80	80	330	165	14.9	14.9	14.9
100	80	360	175	17.4	17.4	18.4
100	100	360	180	18.2	18.2	19.7
150	80	440	205	27.0	27.0	29.0
150	100	440	210	28.0	28.0	30.5
150	150	440	220	31.0	31.0	34.0
200	80	520	235	39.5	39.0	43.0
200	100	520	240	40.5	40.0	44.5
200	150	520	250	43.5	43.0	48.0
200	200	520	260	47.0	46.5	52.5
250	100	700	275	62.5	62.0	69.5
250	150	700	325	67.0	66.0	74.5
250	200	700	325	70.5	69.5	79.0
250	250	700	350	76.5	75.5	86.0
300	100	800	300	85.5	84.5	96.0
300	150	800	350	89.5	89.0	101
300	200	800	350	93.0	92.5	105
300	300	800	400	106	105	121
350	100	850	325	106	111	127
350	150	850	325	109	114	131
350	200	850	325	111	117	134
350	300	850	425	126	131	153
350	350	850	425	131	139	162
400	100	900	350	131	140	163
400	150	900	350	134	143	166
400	200	900	350	137	146	170
400	300	900	450	152	160	188
400	400	900	450	162	175	208
450	100	950	375	159	174	197
450	150	950	375	161	177	200
450	200	950	375	164	180	204
450	300	950	475	179	194	222
450	400	950	475	189	209	242
450	450	950	475	194	218	250
500	100	1000	400	193	220	241
500	150	1000	400	195	222	244
500	200	1000	400	198	225	248
500	300	1000	500	213	239	266
500	400	1000	500	222	254	286
500	500	1000	500	235	275	307
600	150	1100	450	275	320	348
600	200	1100	450	278	323	352
600	300	1100	550	292	338	370
600	400	1100	550	301	351	389
600	600	1100	550	328	396	436
700	200	650	525	255	276	347
700	300	760	540	289	310	385
700	400	870	555	323	348	429
700	600	1200	585	426	469	552
700	700	1200	600	448	479	584
800	200	690	585	335	358	459
800	300	800	600	375	398	502
800	400	910	615	415	443	552
800	600	1350	645	566	612	724
800	800	1350	675	615	651	798
900	200	730	645	412	438	554
900	400	950	675	506	536	661
900	600	1500	705	721	770	897
900	800	1500	735	768	806	968
900	900	1500	750	887	926	1097
1000	200	770	705	517	580	729
1000	400	990	735	625	692	850
1000	600	1650	765	921	1007	1167
1000	800	1650	795	1085	1160	1356
1000	1000	1650	825	1150	1244	1464
1100	400	1030	795	756	814	988
1100	600	1250	825	990	1067	1243
1100	800	1470	855	1160	1227	1438
1100	1000	1690	885	1345	1431	1667
1100	1100	1800	900	1450	1531	1775
1200	400	1070	855	908	1005	1184
1200	600	1290	885	1179	1293	1475
1200	800	1510	915	1368	1472	1689
1200	1000	1730	945	1570	1693	1935
1200	1200	1950	975	1806	1943	2196

Note) Please consult Kubota for other sizes.

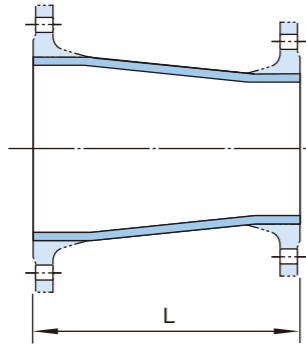
Dimensions in millimeters

NOMINAL DIAMETER		L	H	MASS(kg)		
DN	dn			PN10	PN16	PN25
1400	600	1555	980	1727	1825	2145
1400	800	1775	1010	1955	2043	2398
1400	1000	1995	1040	2194	2302	2681
1400	1200	2215	1070	2462	2584	2974
1400	1400	2435	1100	2744	2858	3317
1500	600	1585	1035	1977	2143	2462
1500	800	1805	1065	2228	2383	2738
1500	1000	2025	1095	2769	2944	3324
1500	1200	2245	1125	3092	3281	3672
1500	1400	2465	1155	3428	3610	4069
1500	1500	2575	1170	3617	3833	4292
1600	600	1615	1090	2271	2438	2795
1600	800	1835	1120	2828	2984	3377
1600	1000	2055	1150	3148	3324	3740
1600	1200	2275	1180	3496	3686	4113
1600	1400	2495	1210	3855	4038	4534
1600	1600	2715	1240	4276	4493	5007
1800	600	1675	1200	2516	2693	-
1800	800	1895	1230	2801	2967	-
1800	1000	2115	1260	3093	3279	-
1800	1200	2335	1290	3408	3608	-
1800	1400	2555	1320	3727	3919	-
1800	1600	2775	1350	4637	4864	-
1800	1800	2995	1380	5059	5290	-
2000	600	1735	1310	3101	3325	-
2000	800	1955	1340	3437	3650	-
2000	1000	2175	1370	3778	4011	-
2000	1200	2395	1400	4140	4388	-
2000	1400	2615	1430	4505	4745	-
2000	1600	2835	1460	4916	5190	-
2000	1800	3055	1490	6041	6320	-
2000	2000	3275	1520	6558	6860	-
2100	800	1750	1395	3474	3729	-
2100	1000	1970	1425	3840	4114	-
2100	1200	2190	1455	4226	4516	-
2100	1400	2410	1485	4615	4897	-
2100	1600	2630	1515	5049	5365	-
2100	1800	2850	1545	5475	6422*	-
2100	2000	3070	1575	5941	6941*	-
2100	2100	3180	1590	6221	7144*	-
2200	800	1780	1450	3823	4069	-
2200	1000	2000	1480	4218	4483	-
2200	1200	2220	1510	4632	4912	-
2200	1400	2440	1540	5048	5320	-
2200	1600	2660	1570	5508	5814	-
2200	1800	2880	1600	5959	6934*	-
2200	2000	3100	1630	6448	7516*	-
2200	2200	3320	1660	7007	8035*	-
2400	800	1840	1560	4631	4990	-
2400	1000	2060	1590	5083	5461	-
2400	1200	2280	1620	5553	5946	-
2400	1400	2500	1650	6023	6408	-
2400	1600	2720	1680	6536	6955	-
2400	1800	2940	1710	7038	8343*	-
2400	2000	3160	1740	7576	8905*	-
2400	2200	3380	1770	8175	9594*	-
2400	2400	3600	1800	8840	10158*	-
2600	800	1900	1670	5392	5726	-
2600	1000	2120	1700	5909	6263	-
2600	1200	2340	1730	6444	6812	-
2600	1400	2560	1760	6977	7337	-
2600	1600	2780	1790	7551	7946	-
2600	1800	3000	1820	8113	9659*	-
2600	2000	3220	1850	8708	10289*	-
2600	2200	3440	1880	9361	10962*	-
2600	2400	3660	1910	10069	11849*	-
2600	2600	3880	1940	10738	12345*	-

Remark : * is ribbed type

Double Flanged Taper

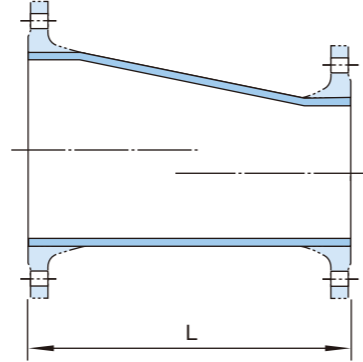
Concentric-type



Dimensions in millimeters

NOMINAL DIAMETER		L	MASS(kg)		
DN	dn		PN10	PN16	PN25
100	80	200	9.4	9.4	9.9
150	80	400	16.4	16.4	17.4
150	100	300	15.3	15.3	16.8
200	100	600	27.5	27.5	30.0
200	150	300	22.5	22.0	25.0
250	150	600	39.0	39.0	43.5
250	200	300	31.0	30.5	36.0
300	150	650	48.5	48.5	55.0
300	200	600	52.0	51.5	59.0
300	250	300	41.0	40.0	49.0
350	200	650	61.5	64.0	74.0
350	250	600	65.5	67.5	79.0
350	300	300	50.0	52.5	66.0
400	200	700	73.5	77.5	90.5
400	250	650	77.0	81.5	96.0
400	300	600	80.5	85.0	101
400	350	300	60.0	67.0	86.0
450	250	700	89.5	97.0	112
450	300	650	93.5	101	117
450	350	600	95.5	106	125
450	400	300	70.5	83.0	105
500	300	700	109	122	138
500	350	650	111	127	145
500	400	600	113	131	153
500	450	300	83.0	104	126
600	350	750	147	172	193
600	400	700	149	176	201
600	450	650	151	181	206
600	500	600	153	190	214
700	400	800	196	211	256
700	450	750	197	215	261
700	500	700	200	223	269
700	600	600	203	236	284
800	450	900	263	283	343
800	500	800	256	281	341
800	600	700	259	294	356
800	700	600	263	286	370
900	500	1000	338	364	431
900	600	800	317	353	423
900	700	700	321	345	436
900	800	600	325	349	455
1000	600	1000	421	475	562
1000	700	800	396	438	546
1000	800	700	399	442	565
1000	900	600	393	437	567
1100	700	1000	515	552	668
1100	800	800	483	522	652
1100	900	700	476	516	654
1100	1000	600	474	532	687
1200	700	1345	711	767	886
1200	800	1160	688	746	879
1200	900	975	652	711	852
1200	1000	790	614	691	849
1200	1100	605	566	639	804

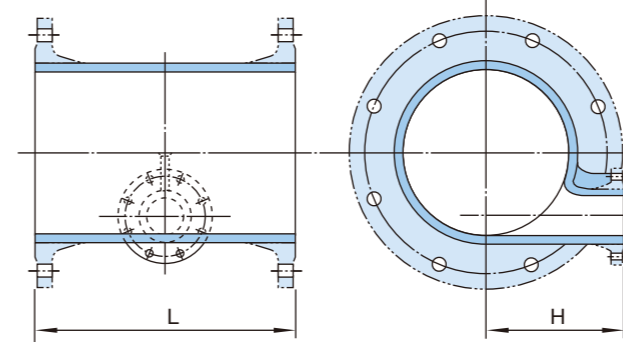
Flat-type



Dimensions in millimeters

NOMINAL DIAMETER		L	MASS(kg)		
DN	dn		PN10	PN16	PN25
1400	800	1590	1034	1084	1286
1400	900	1405	998	1049	1259
1400	1000	1220	961	1031	1257
1400	1100	1035	914	979	1213
1400	1200	850	859	943	1181
1500	900	1620	1211	1295	1505
1500	1000	1435	1174	1277	1504
1500	1100	1250	1127	1226	1461
1500	1200	1065	1074	1191	1428
1500	1400	695	914	1023	1330
1600	1000	1650	1424	1527	1772
1600	1100	1465	1377	1477	1730
1600	1200	1280	1324	1442	1698
1600	1400	910	1165	1276	1600
1600	1500	725	1073	1217	1542
1800	1100	1895	1910	2014	
1800	1200	1710	1858	1981	
1800	1400	1340	1701	1816	
1800	1500	1155	1610	1759	
1800	1600	970	1517	1667	
2000	1200	2140	2512	2658	
2000	1400	1770	2358	2497	
2000	1500	1585	2268	2441	
2000	1600	1400	2176	2350	
2000	1800	1030	1903	2081	
2100	1200	2355	2897	3064	
2100	1400	1985	2747	2906	
2100	1500	1800	2659	2852	
2100	1600	1615	2569	2763	
2100	1800	1245	2300	2499	
2100	2000	875	1974	2196	
2200	1400	2200	3158	3313	
2200	1500	2015	3070	3259	
2200	1600	1830	2980	3170	
2200	1800	1460	2712	2906	
2200	2000	1090	2385	2603	
2200	2100	905	2218	2457	
2400	1500	2445	4006	4251	
2400	1600	2260	3919	4165	
2400	1800	1890	3657	3907	
2400	2000	1520	3338	3612	
2400	2100	1335	3171	3466	
2400	2200	1150	2970	3261	
2600	1600	2690	4943	5177	
2600	1800	2320	4682	4921	
2600	2000	1950	4364	4626	
2600	2100	1765	4194	4477	
2600	2200	1580	3996	4274	
2600	2400	1210	3563	3898	

All Flanged Level Invert Tee

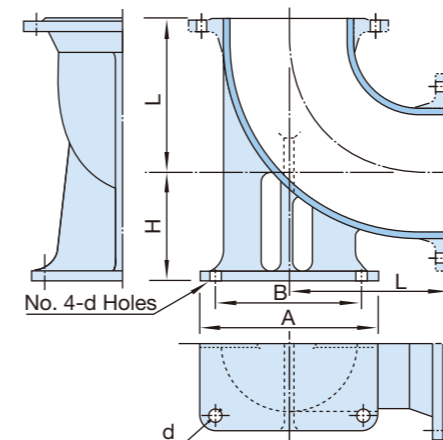


Dimensions in millimeters

NOMINAL DIAMETER		L	H	MASS(kg)		
DN	dn			PN10	PN16	PN25
200	80	520	250	40.5	40.0	44.0
250	80	700	275	62.5	62.0	69.0
300	80	800	300	85.5	85.0	96.0
350	100	850	325	107	113	129
400	100	900	350	133	142	165
450	100	950	375	161	177	199
500	100	1000	400	195	222	244
600	100	1100	450	276	321	349
700	150	650	500	257	278	348
800	150	690	550	337	361	460
900	150	730	600	416	442	557
1000	200	770	650	526	588	737
1100	200	810	700	642	696	861
1200	200	850	750	779	871	1041

Note) Please consult Kubota for other sizes.

Double Flanged 90° Duckfoot Bend



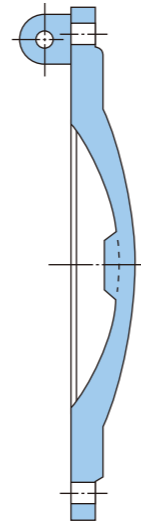
Dimensions in millimeters

NOMINAL DIAMETER DN	L	H	A	B	d	MASS(kg)		
						PN10	PN16	PN25
80	165	110	180	120	19	14.8	14.8	14.8
100	180	125	200	130	23	18.2	18.2	19.2
150	220	160	250	165	28	31.5	31.5	33.5
200	260	190	300	215	28	49.0	48.5	52.5
250	350	225	350	250	31	78.5	77.5	85.0
300	400	255	400	300	31	111	111	121
350	450	290	450	350	34	147	153	168
400	500	320	500	390	37	192	201	223
450	550	350	550	440	37	245	261	283
500	600	385	600	490	37	309	336	357
600	700	450	700	580	40	474	519	546
700	800	515	800	680	43	684	705	775
800	900	580	900	770	49	944	968	1066
900	1000	645	1000	870	49	1252	1278	1391
1000	1100	710	1100	960	56	1629	1692	1839
1100	1200	775	1200	1060	56	2080	2134	2296
1200	1300	840	1300	1160	56	2599	2691	2859

Blank Flange

DN 80 to DN 300

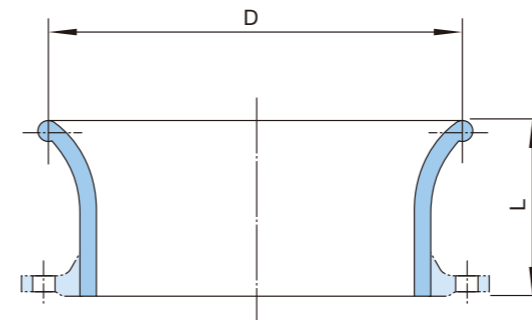
DN 350 to DN 2600



Dimensions in millimeters

NOMINAL DIAMETER DN	MASS(kg)		
	PN10	PN16	PN25
80	3.5	3.5	3.5
100	4.3	4.3	4.8
150	7.2	7.2	8.3
200	11.0	10.8	13.3
250	16.9	16.6	21.0
300	24.0	23.0	30.0
350	32.5	37.0	46.5
400	40.5	48.5	62.5
450	50.0	63.5	79.0
500	62.0	83.0	100
600	94.0	130	154
700	136	169	220
800	189	235	309
900	244	307	402
1000	319	413	539
1100	405	518	674
1200	504	659	842
1400	687	904	1192
1500	808	1092	1417
1600	955	1280	1664
1800	1240	1687	2223
2000	1630	2226	2986
2100	1777	2457	-
2200	2014	2782	-
2400	2514	3498	-
2600	3040	4268	-

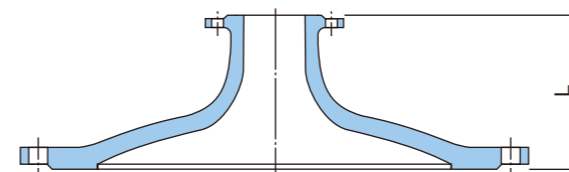
Flanged Bellmouth



Dimensions in millimeters

NOMINAL DIAMETER DN	D	L	MASS(kg)		
			PN10	PN16	PN25
80	150	130	5.2	5.2	5.2
100	175	135	6.2	6.2	6.7
150	230	150	10.1	10.1	11.1
200	290	170	15.0	14.8	16.8
250	345	185	21.0	20.5	24.5
300	405	205	28.5	28.5	33.5
350	460	220	35.5	38.0	46.0
400	520	240	45.0	49.5	60.5
450	575	255	54.0	62.0	73.0
500	635	275	67.0	80.0	91.0
600	750	310	96.0	119	132
700	865	345	135	145	180
800	980	380	182	194	243
900	1095	415	231	244	301
1000	1210	450	297	328	402
1100	1325	485	370	397	478
1200	1440	520	457	503	587
1400	1670	590	646	684	837
1500	1785	625	763	835	988
1600	1900	660	906	978	1150
1800	2130	730	1185	1262	1476
2000	2360	800	1530	1631	1980
2100	2475	835	1753	1875	-
2200	2590	870	1964	2081	-
2400	2820	940	2485	2659	-
2600	3050	1010	2989	3150	-

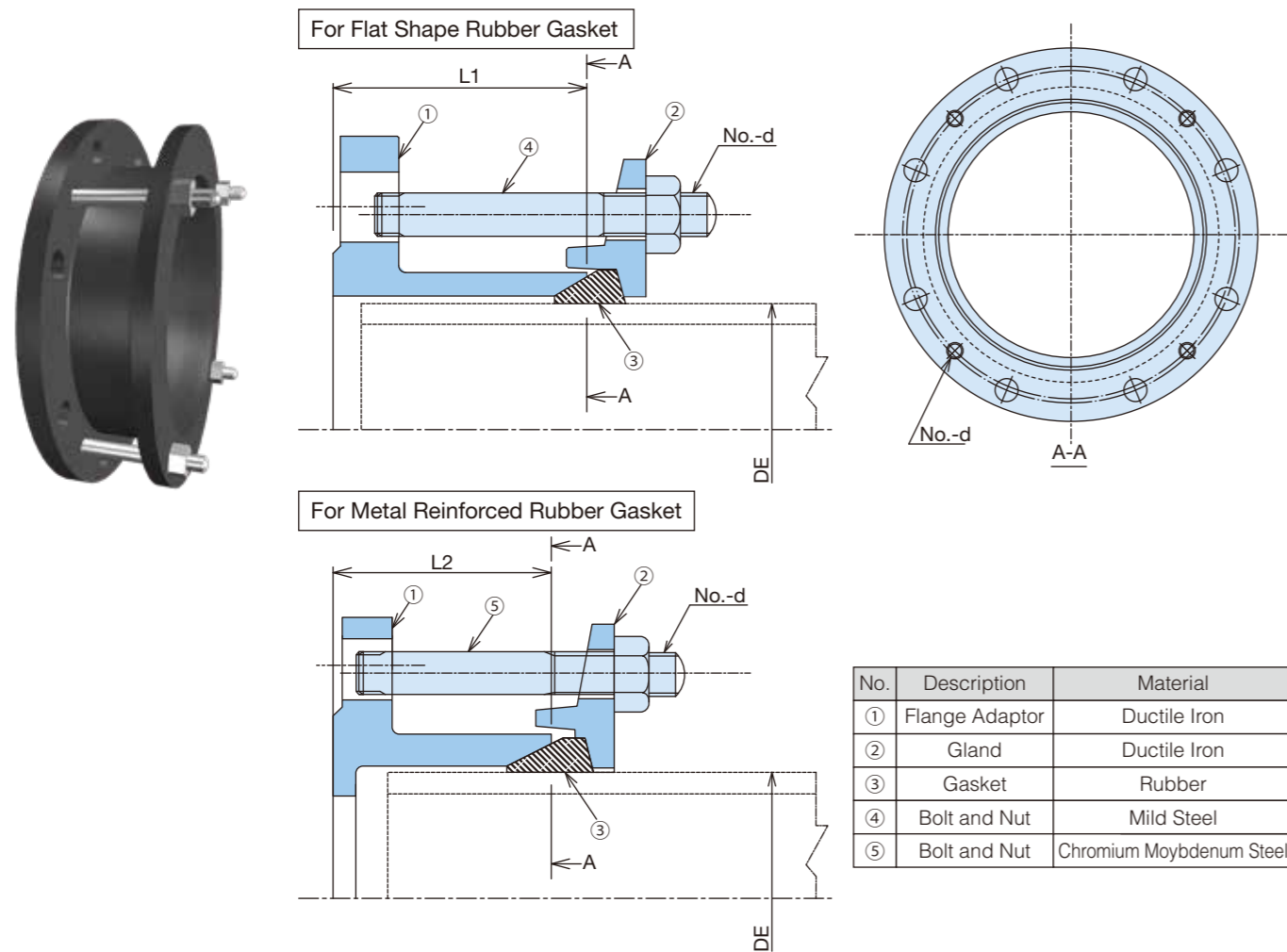
Flanged Cover



Dimensions in millimeters

NOMINAL DIAMETER		L	MASS(kg)		
DN	dn		PN10	PN16	PN25
600	80	240	104	140	163
600	100	240	105	141	165
600	150	240	111	146	170
600	200	240	116	152	177

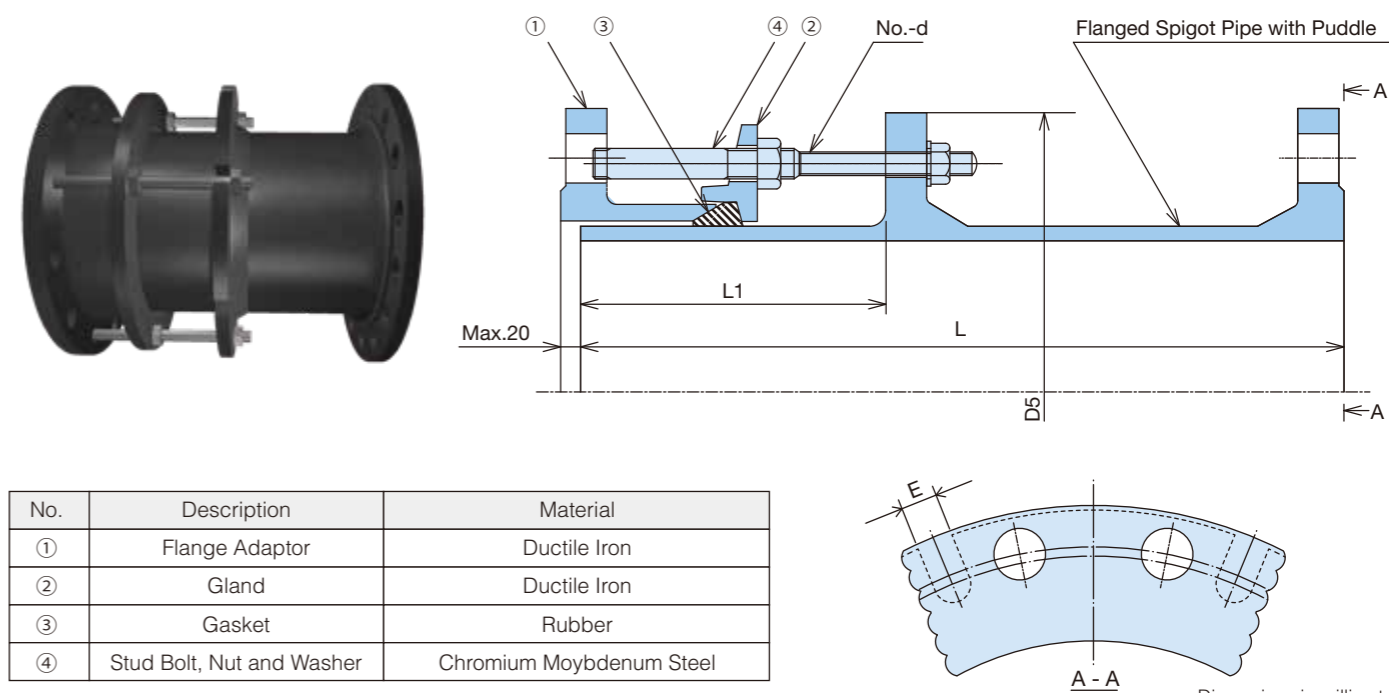
Flange Adaptor



Dimensions in millimeters

NOMINAL DIAMETER DN	PIPE OUTSIDE DIAMETER DE	L1	L2	STUD BOLTS			MASS(kg)		
				SIZE d	No.		PN10	PN16	PN25
					PN10	PN16			
80	98	70	90	M16	4	4	4.3	4.3	4.3
100	118	70	90	M16	4	4	5.1	5.1	5.6
150	170	75	95	M16	4	4	7.7	7.7	8.6
200	222	75	95	M16	4	6	10.3	10.1	11.8
250	274	90	110	M16	6	6	14.6	14.3	17.4
300	326	90	110	M16	6	8	21.0	21.0	25.0
350	378	100	120	M20	8	8	25.0	27.5	34.0
400	429	100	120	M20	8	8	29.5	33.0	42.5
450	480	100	120	M20	10	10	33.0	39.5	48.0
500	532	100	120	M20	10	10	38.0	50.0	57.5
600	635	100	120	M20	10	10	48.5	70.0	78.5
700	738	100	120	M20	12	12	61.0	71.5	99.0
800	842	100	120	M20	12	12	78.0	90.5	130.0
900	945	100	125	M20	14	14	91.0	106	153
1000	1048	105	130	M20	14	14	123	151	211
1100	1152	110	140	M20	16	16	148	174	243
1200	1255	115	145	M20	16	16	177	221	292
1400	1462	145	175	M24	18	18	237	278	390
1500	1565	155	190	M24	18	18	276	345	455
1600	1668	165	210	M24	20	20	338	405	529
1800	1875	185	220	M24	22	-	394	473	-
2000	2082	205	240	M24	24	-	473	567	-
2100	2164	215	250	M24	26	-	581	690	-
2200	2280	225	260	M24	26	-	631	736	-
2400	2458	245	290	M24	28	-	834	945	-
2600	2684	265	310	M24	30	-	913	1058	-

Restrained Flange Adaptor

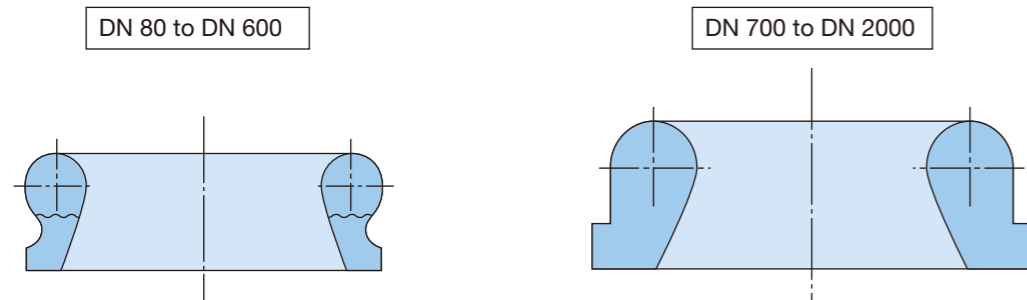


No.	Description	Material
①	Flange Adaptor	Ductile Iron
②	Gland	Ductile Iron
③	Gasket	Rubber
④	Stud Bolt, Nut and Washer	Chromium Moybdenum Steel

NOMINAL DIAMETER DN	D5	E	L1	L	STUD BOLTS		MASS(kg)	
					SIZE d	No.	PN10	PN16
80	204	15	160	350	M16	4	11.0	11.0
100	225	15	160	360	M16	4	13.4	13.4
150	278	15	160	380	M16	4	21.0	21.0
200	331	15	160	400	M16	4	30.0	30.0
250	384	15	160	420	M16	6	41.5	41.0
300	448	15	190	440	M16	6	56.0	56.0
350	515	19	190	460	M20	8	70.0	72.5
400	567	19	190	480	M20	8	85.5	90.0
450	619	19	190	500	M20	10	102	110
500	672	19	195	520	M20	10	123	136
600	776	19	195	560	M20	10	172	196
700	883	19	205	600	M20	12	232	245
800	989	19	205	600	M20	12	292	306
900	1093	19	205	600	M20	14	351	367
1000	1205	19	210	600	M20	14	428	463
1100	1310	19	220	600	M20	16	508	539
1200	1414	19	225	600	M20	16	595	645

T-type Joint

Rubber Gasket

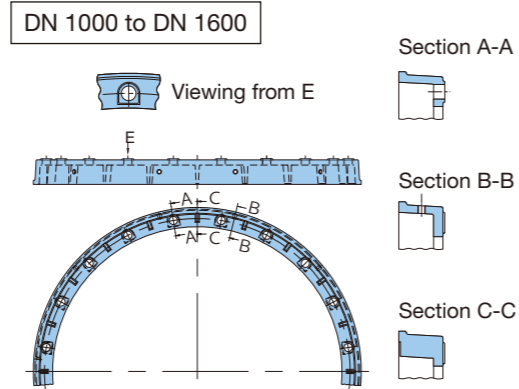
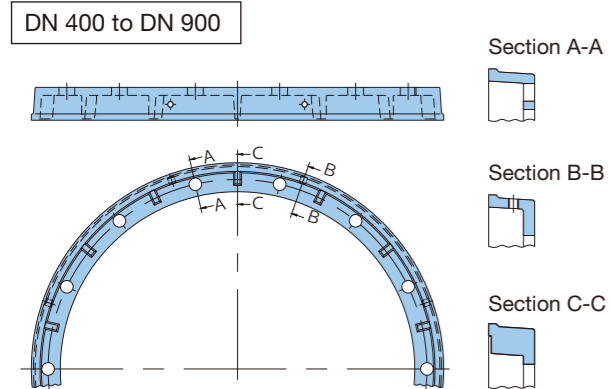


TLH-type Joint

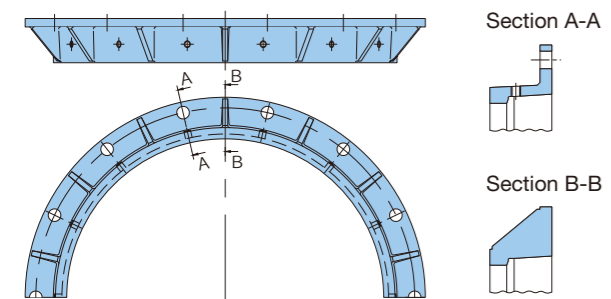
Rubber Gasket

Rubber gasket is identical to T-type rubber gasket.

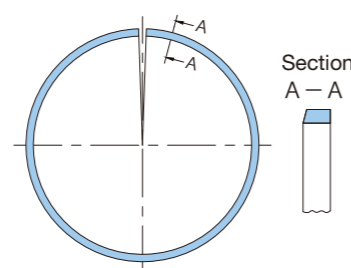
Socket Ring



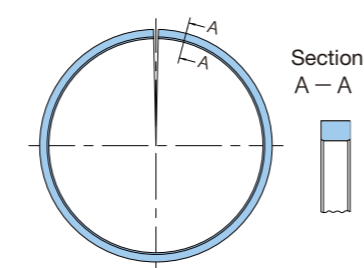
Spigot Ring



Lock Ring A

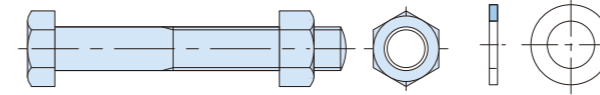


Lock Ring B



Tie-Bolt and Nut

Washer



Tie-Bolts and Nuts Dimensions in millimeters

DN	SIZE and LENGTH	No.	No. of WASHER
400	M22×150	8	-
450	M22×150	8	-
500	M24×160	10	-
600	M24×170	12	-
700	M27×210	14	-
800	M27×220	16	-
900	M30×240	16	16
1000	M30×240	20	20
1100	M30×250	24	24
1200	M36×270	24	24
1400	M36×300	28	28
1500	M36×310	32	32
1600	M39×330	32	32

Set Bolt A

Set Bolt B

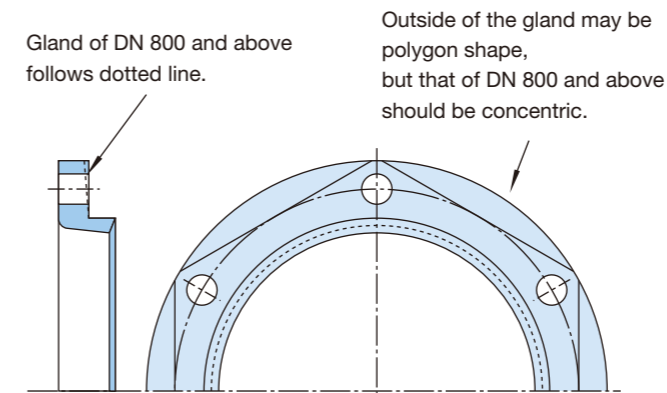


Set Bolts A , Set Bolts B Dimensions in millimeters

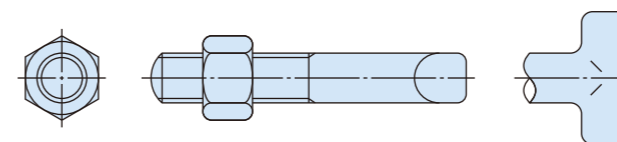
DN	SET BOLTS A		SET BOLTS B	
	SIZE and LENGTH	No.	SIZE and LENGTH	No.
400	M10×20	8	M10×50	4
450	M12×20	8	M12×50	4
500	M16×20	10	M16×50	6
600	M16×20	12	M16×55	6
700	M16×20	14	M16×55	8
800	M16×20	16	M16×55	8
900	M16×20	16	M16×60	8
1000	M16×25	20	M16×60	10
1100	M20×25	24	M20×60	10
1200	M20×25	24	M20×70	10
1400	M20×25	28	M20×70	10
1500	M20×25	32	M20×70	10
1600	M20×25	32	M20×75	10

K-type Joint

Ductile Iron Gland

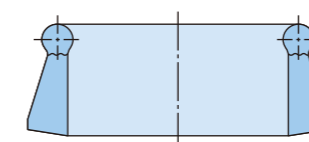


Ductile Iron T-head Bolt and Nut



Rubber Gasket

DN 80 to DN 2600

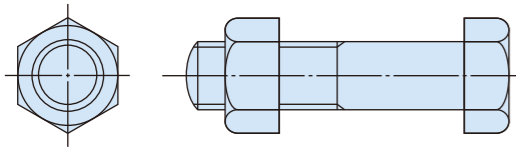


Ductile Iron T-head Bolts and Nuts Dimensions in millimeters

NOMINAL DIAMETER DN	SIZE and LENGTH	No. of BOLTS
80	M16× 85	4
100	M20× 90	4
150	M20× 90	6
200	M20× 90	6
250	M20× 90	8
300	M20×100	8
350	M20×100	10
400	M20×110	12
450	M20×110	12
500	M20×110	14
600	M20×120	14
700	M24×120	16
800	M24×120	20
900	M30×130	20
1000	M30×130	20
1100	M30×140	24
1200	M30×140	28
1400	M30×150	28
1500	M30×150	28
1600	M30×150	30
1800	M30×150	34
2000	M30×160	36
2100	M30×160	38
2200	M30×170	40
2400	M30×170	44
2600	M30×180	48

Flange Joint (RF-Raised Face Type)

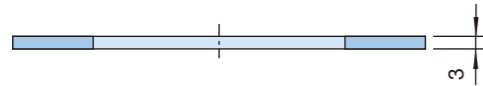
Mild Steel Bolt and Nut



Rubber Gasket

Flat Shape Rubber Gasket

DN 80 to DN 1000

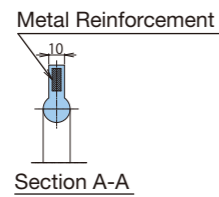
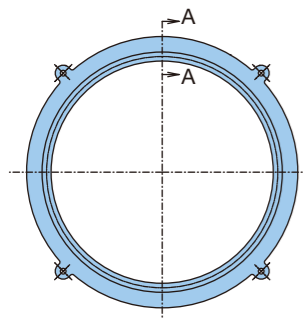


Mild Steel Bolts and Nuts for Flat Shape Rubber Gasket Dimensions in millimeters

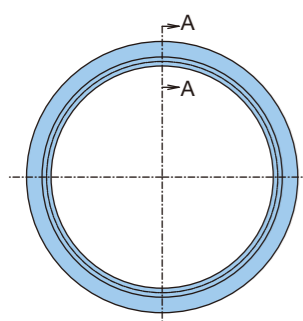
NOMINAL DIAMETER DN	PN10 FLANGE		PN16 FLANGE	
	SIZE and LENGTH	No. of BOLTS	SIZE and LENGTH	No. of BOLTS
80	M16x 65	8	M16x 65	8
100	M16x 65	8	M16x 65	8
150	M20x 70	8	M20x 70	8
200	M20x 70	8	M20x 70	12
250	M20x 75	12	M24x 80	12
300	M20x 80	12	M24x 85	12
350	M20x 80	16	M24x 90	16
400	M24x 85	16	M27x 95	16
450	M24x 90	20	M27x100	20
500	M24x 90	20	M30x110	20
600	M27x100	20	M33x120	20
700	M27x110	24	M33x130	24
800	M30x120	24	M36x140	24
900	M30x120	28	M36x150	28
1000	M33x130	28	M39x160	28

Metal Reinforced Rubber Gasket

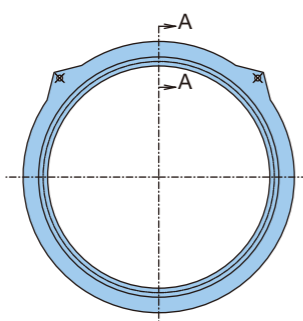
DN 80 to DN 800



DN 900 to DN 1600



DN 1800 to DN 2600



Mild Steel Bolts and Nuts for Metal Reinforced Rubber Gasket Dimensions in millimeters

NOMINAL DIAMETER DN	PN10 FLANGE		PN16 FLANGE		PN25 FLANGE	
	SIZE and LENGTH	No. of BOLTS	SIZE and LENGTH	No. of BOLTS	SIZE and LENGTH	No. of BOLTS
80	M16x 75	8	M16x 75	8	M16x 75	8
100	M16x 75	8	M16x 75	8	M20x 75	8
150	M20x 75	8	M20x 75	8	M24x 85	8
200	M20x 80	8	M20x 80	12	M24x 85	12
250	M20x 85	12	M24x 85	12	M27x 95	12
300	M20x 90	12	M24x 95	12	M27x100	16
350	M20x 90	16	M24x100	16	M30x120	16
400	M24x 95	16	M27x110	16	M33x120	16
450	M24x 95	20	M27x110	20	M33x130	20
500	M24x100	20	M30x120	20	M33x130	20
600	M27x110	20	M33x130	20	M36x150	20
700	M27x120	24	M33x140	24	M39x160	24
800	M30x130	24	M36x150	24	M45x170	24
900	M30x130	28	M36x160	28	M45x180	28
1000	M33x140	28	M39x160	28	M52x200	28
1100	M33x140	32	M39x170	32	M52x210	32
1200	M36x150	32	M45x180	32	M52x220	32
1400	M39x160	36	M45x190	36	M56x230	36
1500	M39x160	36	M52x200	36	M56x240	36
1600	M45x170	40	M52x210	40	M56x250	40
1800	M45x170	44	M52x220	44	-	-
2000	M45x180	48	M56x230	48	-	-
2100	M45x180	52	M56x240	52	-	-
2200	M52x200	52	M56x240	52	-	-
2400	M52x200	56	M56x250	56	-	-
2600	M52x210	60	M56x260	60	-	-

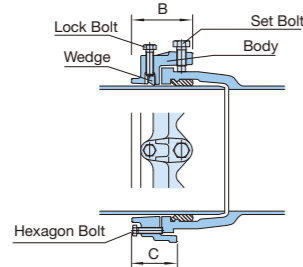
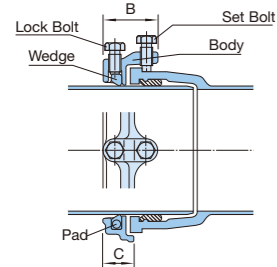
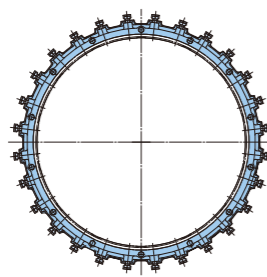
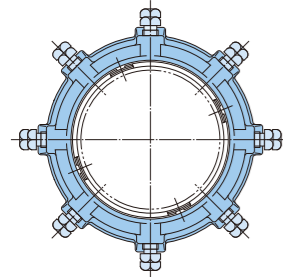
Note) KUBOTA recommend to use Metal Reinforced Rubber Gasket for shaded areas.

KUBOLOCK-T



DN 80 to DN 600

DN 700 to DN 1200



Dimensions in millimeters

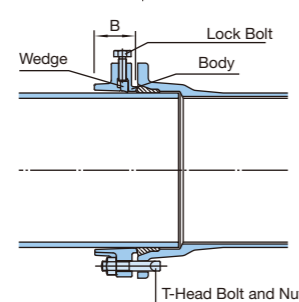
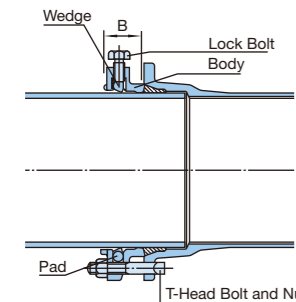
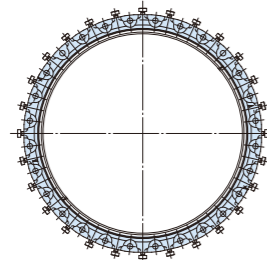
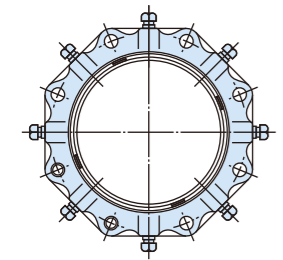
NOMINAL DIAMETER DN	B	C	SET BOLTS		LOCK BOLTS		HEXAGON BOLT		MASS (kg) (Approx.)
			SIZE	No.	SIZE	No.	SIZE	No.	
80	83.0	47.0	M20	3	M20	3	-	-	4.3
100	84.0	48.0	M20	3	M20	3	-	-	5.3
150	85.0	49.0	M20	4	M20	4	-	-	7.4
200	86.5	50.5	M20	6	M20	6	-	-	9.9
250	86.5	51.5	M20	8	M20	8	-	-	12.5
300	95.5	54.5	M20	8	M20	8	-	-	14.2
350	102	56.0	M20	10	M20	10	-	-	20.6
400	109	63.0	M20	12	M20	12	-	-	26.0
450	119	69.0	M24	12	M20	12	-	-	28.7
500	122	73.0	M24	14	M20	14	-	-	34.6
600	126	76.0	M24	14	M20	14	-	-	42.8
700	163	123	M24	16	M22	16	M16	8	102
800	164	124	M24	20	M22	20	M16	10	121
900	189	136	M30	20	M24	20	M16	10	184
1000	194	142	M30	20	M24	20	M20	10	207
1100	196	145	M30	24	M24	24	M20	12	239
1200	196	144	M30	28	M24	28	M20	14	271

KUBOLOCK-K



DN 80 to DN 600

DN 700 to DN 1200



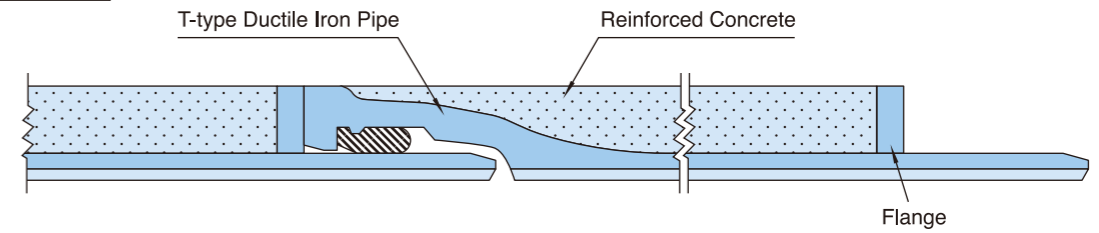
Dimensions in millimeters

NOMINAL DIAMETER DN	B	LOCK BOLTS		T-Head BOLT and NUT		MASS (kg) (Approx.)
		SIZE	No.	SIZE	No.	
80	55.0	M20	2	M16	4	2.8
100	55.0	M20	2	M20	4	3.2
150	55.0	M20	3	M20	6	5.1
200	56.0	M20	6	M20	6	7.6
250	56.0	M20	8	M20	8	9.5
300	57.0	M20	8	M20	8	11.2
350	63.5	M20	10	M20	10	14.6
400	70.0	M20	12	M20	12	17.4
450	73.0	M20	12	M20	12	21.2
500	78.5	M20	14	M20	14	24.7
600	83.0	M20	14	M20	14	33.4
700	110	M22	16	M24	16	69.4
800	115	M22	20	M24	20	79.5
900	125	M24	20	M30	20	111
1000	125	M24	20	M30	20	131
1100	128	M24	24	M30	24	153
1200	130	M24	28	M30	28	180

Push-on Joint T-type (for Jacking Method)

No casing pipes / No trench excavation are required.

DN 250 to DN 1600



Note) Please consult Kubota for detailed information.