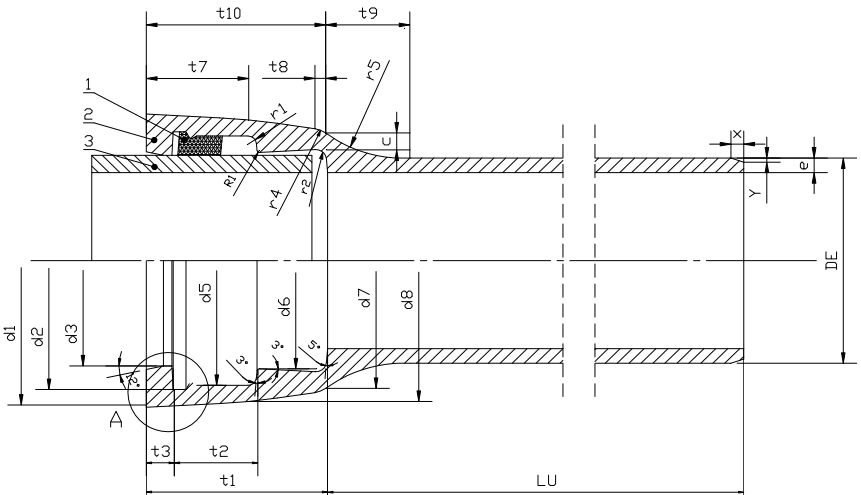
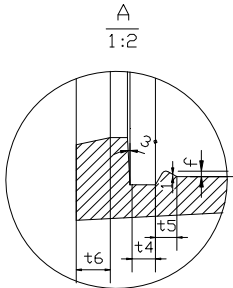


DN	DE		d1	d2		d3		d5		d6		d7	d8	c
80	222	+1	140	123	±1	100.5	±1	119.1	±1	103.2	±2	122	135	8
100	118	-2.8	163	143		120.5		138.9		123.4		142	155.7	8.4
150	170	+1 -2.9	217	195		172.5		190.6		175.3		195.6	209	9.1
200	222	+1 -3	278	250	+1.5 -1	224.5	+1.5 -1	245.2	+1.5	227.8		251	265	9.8
250	274	+1 -3.1	336	301.5		276.5		296.9		279.7		305	323	10.5
300	326	+1 -3.3	393	356.5	+1.8 -1	328.5	+1.8 -1	351.7	+1.8	332.1		368.5	384	11.2
350	378	+1 -3.4	448	408		380.5		403.4		383.8		410.3	433	11.9
400	429	+1 -3.5	500	462	+2.1 -1	431.5	+2.1 -1	457.2	+2.1 -1	435.8	±2.5	463	482.4	12.6
450	480	+1 -3.6	540	514	+2.2 -1	482.5	+2.2 -1	509	+2.2 -1	487		518.4	533	13.3
500	532	+1 -3.8	604	568	+2.4 -1	534.5	+2.4 -1	562.6	+2.4 -1	539.4	±3	569.7	590.6	14
600	635	+1 -4	713	673.4	+2.7 -1	637.5	+2.7 -1	668	+2.7 -1	642.6		676.7	698.8	15.4
700	738	+1 -4.2	824	788	+3.5 -1	740.5	+3.5 -1	779.3	+3.5 -1	745.8	±3.5	789	813	16.8
800	842	+1 -4.5	943	894	+3.8 -1	844.5	+3.8 -1	885.9	+3.8 -1	850	±3.8	892.2	922.3	18.2
900	945	+1 -4.8	1052	1000	+4.1 -1	947.5	+4.1 -1	991.3	+4.1 -1	953.2	±4.1	999.2	1030.5	19.6
1000	1048	+1 -5	1158	1105	+4.4 -1	1050.5	+4.4 -1	1097.1	+4.4 -1	1056.4	±4.4	1106	1139	21
1100	1152	+1 -5.2	1267	1211	+4.7 -1	1155	+4.7 -1	1202.5	+4.7 -1	1160.2	±4.7	1213.5	1247.3	22.4
1200	1255	+1 -5.5	1377	1317	+5 -1	1258	+5 -1	1308	+5 -1	1264	±5	1321	1355.6	23.8
1400	1462	+1 -6	1610	1529	+5.6 -1	1465	+5.6 -1	1509	+5.6 -1	1471	±5.6	1535	1584.5	26.6
1500	1565	+1 -6	1710	1635	+5.6 -1	1570	+5.6 -1	1615	+5.6 -1	1575	±5.6	1641.5	1701.6	28
1600	1668	+1 -6.5	1814	1740	+6.2 -1	1673	+6.2 -1	1717	+6.2 -1	1678	±6.2	1748	1814	29

T Type joint

Type	1	2	3
T	Gasket	Socket	Spigot

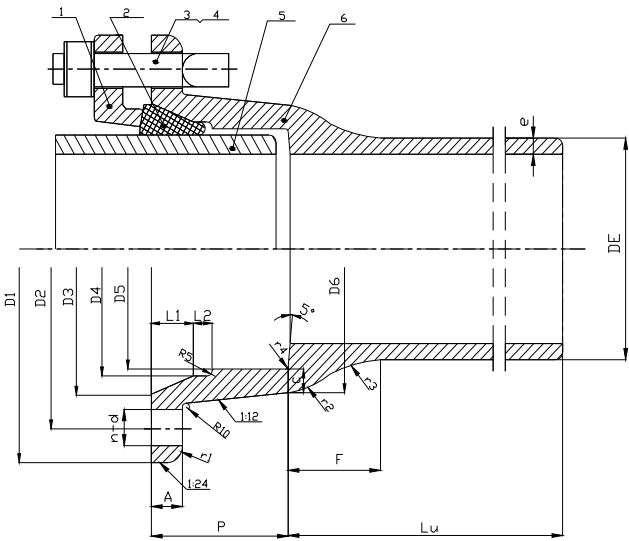


f		t1	t2	t3	t4		t5	t6	t7	t8	t9	t10	r1	r2	r4	r5	X	Y
3.5	+0 -0.8	85	40	12	6		5	8	48	5	39	80	4	5	22	62	6	2
3.5		88	40	12	6		5	8	48	5	39	88	4	5	17	68	9	3
3.5		94	40	12	6		5	8	48	5	43	94	4	5	18.5	74	9	3
4		100	45	15	7		6	10	56	6.2	48	100	4	6	35	70	9	3
4		105	47	15	7		6	10	58	6.8	48	105	4	6	36	72	9	3
4.5		110	50	17	8.5		7	12	61	7.2	56	110	6	7	37	74	9	3
4.5	+0 -1	110	50	17	8.5	+0 -0.5	7	12	61	5.1	55	113	6	7	24.5	98	9	3
5		110	55	19	9.5		8	14	68	5.1	58	116	6	8	26	104	9	3
5		120	55	19	9.5		8	15	68	6	66	120	6	8	28	105	9	3
5.5		120	60	21	11		9	16	75	7	63	120	6	10	29	116	9	3
6		120	65	21	12		10	16	80	9.2	62	120	6	10	32	128	9	3
7	+0 -1.2	150	80	21	18	+0 -0.8	12	16	90	10.6	77	150	8	10	35	140	15	5
8		160	85	21	18		14	16	96.5	12.4	86.5	160	8	10	38	160	15	5
9		175	90	21	20		16	16	103	14.2	92.5	175	8	10	42	175	15	5
9		185	95	22	20		16	16	110	16	103	185	8	10	45	200	15	5
10		200	100	24	23		18	16	116	17	107.5	200	10	12	46.5	207.5	15	5
10		215	105	25	23		18	17	122	17.8	112	215	10	12	48	215	15	5
-	-	239	115	27	25		-	18	125	19	129	239	10	12	100	205	20	7
-	-	250	120	29	26		-	19	149	19	157.5	250	10	10	380	210	21	7
-	-	262	125	30	27		-	20	155	19	165	262	10	10	380	210	21	7

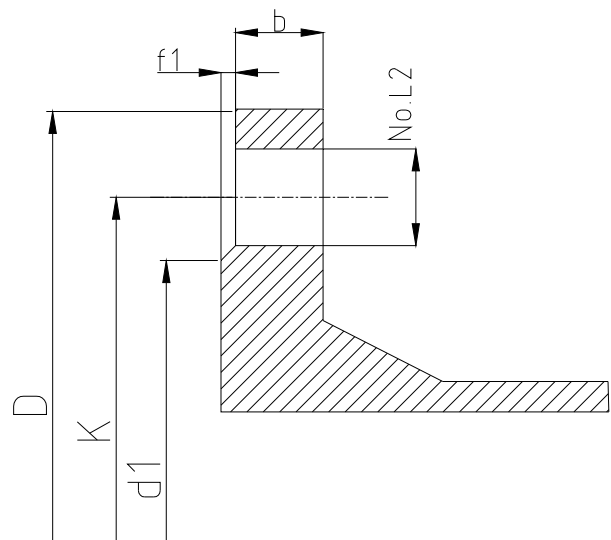
DN	DE		D1	D2	D3	D4		D5		D6
100	118	+1 -3	234	188	148	130	±1	121	+2 -1	140
150	170		288	242	200	182		173		194
200	222		341	295	252	234		225		247
250	274		395	349	304	286		277		301
300	326		455	409	360	342		329		358
350	378		508	462	412	394	±1.5	382	+3 -1	410
400	429		561	515	463	445		433		462
450	480		614	568	514	496		484		515
500	532		667	621	566	548		536		568
600	635		773	727	669	651		639		675
700	738	+1 -4	892	838	780	758	±2	743	+3.5 -2	781
800	842		999	942	884	862		847		888
900	945		1123	1057	987	965		950		994
1000	1048	+1 -5	1231	1160	1090	1068		1054	+3.5 -3	1101
1100	1152	+1 -5.2	1338	1272	1194	1172		1158		1208
1200	1255	+1 -5.5	1444	1378	1297	1275		1261		1314
1400	1462	+1 -6	1657	1591	1504	1482	±2.5	1469	+4	1527
1500	1565		1766	1700	1608	1586		1573	-3	1634
1600	1668		+1 -6.5	1874	1808	1720		1690	1678	+4.5 -3
1800	1875	+1 -7	2089	2023	1927	1897	±2.8	1883	+5 -4	1954
2000	2082	+1 -7.5	2305	2239	2134	2104		2091	+5.5 -4	2168

K Type joint

Type	1	2	3	4	5	6
K	Gland	Gasket	Bolt	Nut	Spigot	Socket



Dimensions of flange



PN10 Flange

Nominal Diameter(DN)	D	k	d1	f1	b	L2	Bolt		Mass(kg)
							Size	No.	
80	200	160	132	3	16	19	M16	8	2.9
100	220	180	156	3	16	19	M16	8	3.3
150	285	240	211	3	16	23	M20	8	4.9
200	340	295	266	3	17	23	M20	8	6.8
250	400	350	319	3	19	23	M20	12	9.6
300	455	400	370	4	20.5	23	M20	12	12.8
350	505	460	429	4	20.5	23	M20	16	14.1
400	565	515	480	4	20.5	28	M24	16	16.3
450	615	565	530	4	21.5	28	M24	20	18.1
500	670	620	582	4	22.5	28	M24	20	21.8
600	780	725	682	5	25	31	M27	20	30.8
700	895	840	794	5	27.5	31	M27	24	40.5
800	1015	950	901	5	30	34	M30	24	54.8
900	1115	1050	1001	5	32.5	34	M30	28	64.3
1000	1230	1160	1112	5	35	37	M33	28	81.4
1200	1455	1380	1328	5	40	40	M36	32	120.9
1400	1675	1590	1530	5	41	43	M39	36	147.8
1600	1915	1820	1750	5	44	49	M45	40	206.4
1800	2115	2020	1950	5	47	49	M45	44	236.8
2000	2325	2230	2150	5	50	49	M45	48	279.4

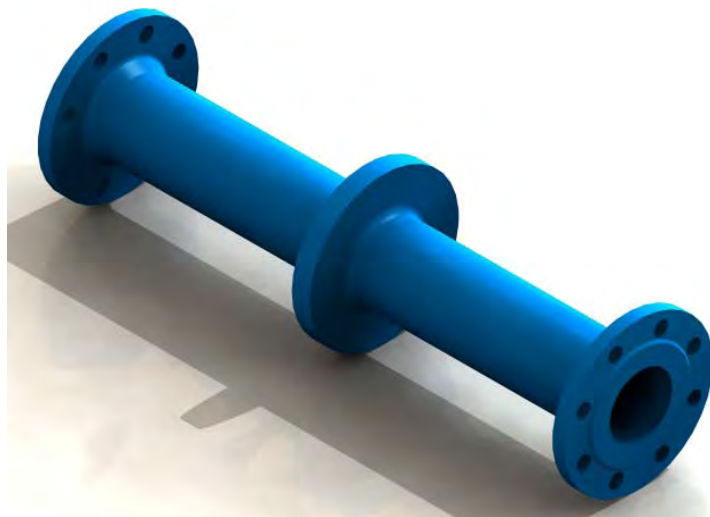
PN16 Flange

Nominal Diameter(DN)	D	k	d1	f1	b	L2	Bolt		Mass(kg)
							Size	No.	
80	200	160	132	3	16	19	M16	8	2.9
100	220	180	156	3	16	19	M16	8	3.3
150	285	240	211	3	16	23	M20	8	4.9
200	340	295	266	3	17	23	M20	12	6.6
250	400	355	319	3	19	28	M24	12	9.2
300	455	410	370	4	20.5	28	M24	12	12.4
350	520	470	429	4	22.5	28	M24	16	17.2
400	580	525	480	4	24	31	M27	16	21.9
450	640	585	548	4	26	31	M27	20	26.7
500	715	650	609	4	27.5	34	M30	20	37
600	840	770	720	5	31	37	M33	20	57.3
700	910	840	794	5	34.5	37	M33	24	55.6
800	1025	950	901	5	38	40	M36	24	74
900	1125	1050	1001	5	41.5	40	M36	28	88.2
1000	1255	1170	1112	5	45	43	M39	28	122.9
1200	1485	1390	1328	5	52	49	M45	32	185.2
1400	1685	1590	1530	5	55	49	M45	36	215.9
1600	1930	1820	1750	5	60	56	M52	40	308.4
1800	2130	2020	1950	5	65	56	M52	44	362.2
2000	2345	2230	2150	5	70	62	M62	48	432.2

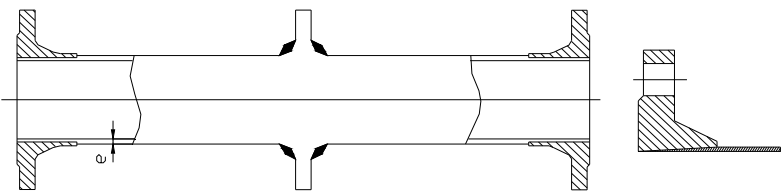
PN25 Flange

Nominal Diameter(DN)	D	k	d1	f1	b	L2	Bolt		Mass(kg)
							Size	No.	
80	200	160	132	3	16	19	M16	8	2.9
100	235	190	156	3	16	23	M20	8	3.8
150	300	250	211	3	17	28	M24	8	5.9
200	360	310	274	3	19	28	M24	12	8.7
250	425	370	330	3	21.5	31	M27	12	13.1
300	485	430	389	4	23.5	31	M27	16	18
350	555	490	448	4	26	34	M30	16	25.5
400	620	550	503	4	28	37	M33	16	33.2
450	670	600	548	4	30.5	37	M33	20	42.2
500	730	660	609	4	32.5	37	M33	20	48.7
600	845	770	720	5	37	40	M36	20	71.5
700	960	875	820	5	41.5	43	M39	24	89
800	1085	990	928	5	46	49	M45	24	122
900	1185	1090	1028	5	50.5	49	M45	28	146
1000	1320	1210	1140	5	55	56	M52	28	194
1100	1420	1310	1240	5	59.5	56	M52	32	224
1200	1530	1420	1350	5	64	56	M52	32	271
1400	1755	1640	1560	5	69	62	M56	36	368
1600	1975	1860	1780	5	76	62	M56	40	486
1800	2195	2070	1985	5	83	70	M64	44	601.9
2000	2425	2300	2210	5	90	70	M64	48	754.9

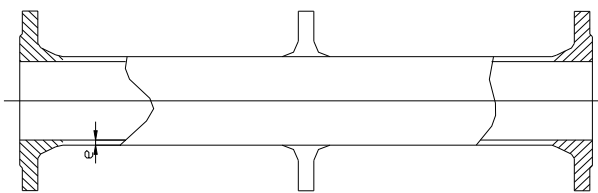
Dimensions of Flanged Pipe



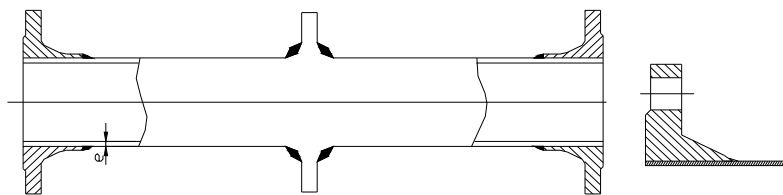
Flanged pipes with
Screwed-on flanges,K9、K12
DN80-DN600
L、L1 to be specified



Flanged pipes with
Screwed-on flanges,K9、K12
DN1200-DN2000
L≤4000mm



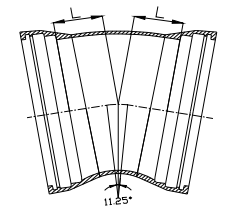
Flanged pipes with
Welded-on flanges,K9
DN80-DN1000
L、L1 to be specified



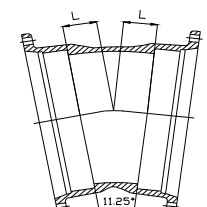
Nominal Diameter(DN)	Body						Weight(KG)				
	k=9		k=10		k=12		Flange. each				Puddle Flange
	e (mm)	kg/m	e (mm)	kg/m	e (mm)	kg/m	PN10	PN16	PN25	PN40	
80	6	12.2	6	12.2	7	14.1	3.5	3.5	3.5	3.5	1.9
100	6.1	15.1	6.1	15.1	7.2	17.7	4	4	4.5	4.5	2.1
150	6.3	22.8	6.5	23.5	7.8	28	6.1	6.1	7.1	9.2	2.8
200	6.4	30.6	7	33.3	8.4	39.7	8.5	8.3	10.4	15.7	4
250	6.8	40.2	7.5	44.3	9	52.8	11.8	11.4	15.3	25.4	5.7
300	7.2	50.8	8	56.3	9.6	67.3	15.6	15.2	20.8	36.3	6.3
350	7.7	63.2	8.5	69.6	10.2	83.1	17.6	20.7	29	-	8.1
400	8.1	75.5	9	83.7	10.8	100	20.5	26.1	37.4	-	10.7
500	9	104.3	10	115.6	12	138.2	27.6	42.8	54.5	-	13.9
600	9.9	137.1	11	152	13.2	181.8	38.4	64.9	79.1	-	18.2
700	10.8	173.9	12	193	14.4	230.8	50.2	65.3	-	-	26.2
800	11.7	215.2	13	238.7	15.6	285.5	66.7	85.9	-	-	34.7
900	12.6	260.2	14	288.7	16.8	345.4	78.7	102.6	-	-	41
1000	13.5	309.3	15	343.2	18	410.6	98.6	140.1	-	-	51.7
1200	15.3	420.1	17	466.1	20.4	557.8	144.2	208.5	-	-	77.1
1400	17.1	547.2	19	607.2	22.8	726.8	178.2	246.3	-	-	90
1600	18.9	690.3	21	766	25.2	916.9	244.7	346.7	-	-	110
1800	20.7	850.1	23	943.4	27.6	1129.3	283.5	409.4	-	-	125
2000	22.5	1026.3	25	1139	30	1363.4	336.4	489.2	-	-	145

Double Socket Bend

T Type



K Type



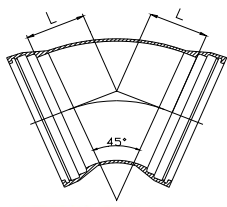
Double Socket 11.25° Bend K=12

Nominal Diameter(DN)	L	Weight(KG)	
		T Type	K Type
80	30	7.1	10.5
100	30	8.9	13.1
150	35	14.8	21.5
200	40	22	29
250	50	30.5	37.5
300	55	40.5	54
350	60	52	65.5
400	65	65	79
450	70	91.9	93.5
500	75	96	108
600	85	134	141
700	95	181	187
800	110	239	234
900	120	306	297
1000	130	381	375
1200	150	568	524
1400	130	747	697
1600	140	1007	914
1800	155	1331	1200
2000	165	1702	1522

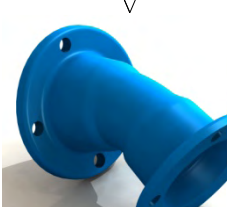
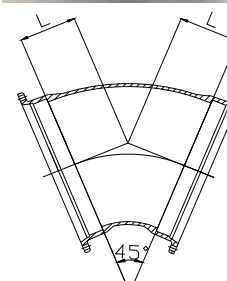
Double Socket 45° Bend K=12

Nominal Diameter(DN)	L	Weight(KG)	
		T Type	K Type
80	55	7.7	11.1
100	65	10.1	14.3
150	85	17.4	24
200	110	27	34
250	130	38.5	45.5
300	150	53	66
350	175	70	83.5
400	195	89	104
450	220	123	127
500	240	139	150
600	285	202	209
700	330	282	289
800	370	378	373
900	415	496	488
1000	460	635	629
1200	550	986	943
1400	515	1273	1223
1600	565	1740	1647
1800	610	2296	2166
2000	660	2970	2791

T Type



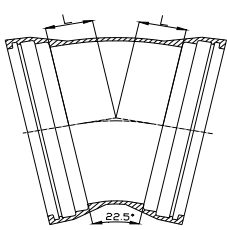
K Type



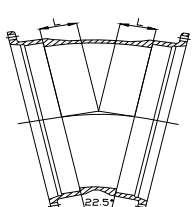
Double Socket 22.5° Bend K=12

Nominal Diameter(DN)	L	Weight(KG)	
		T Type	K Type
80	40	7.3	10.7
100	40	9.3	13.5
150	55	15.9	22.5
200	65	24	30.5
250	75	33.5	40.5
300	85	44.5	58
350	95	58	71
400	110	74	88
450	120	102	105
500	130	111	123
600	150	157	164
700	175	217	223
800	195	287	281
900	220	373	364
1000	240	470	463
1200	285	716	671
1400	260	933	882
1600	280	1259	1167
1800	305	1663	1533
2000	330	2144	1965

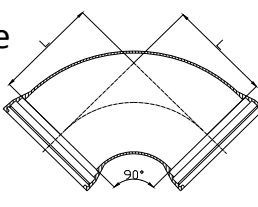
T Type



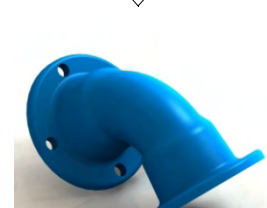
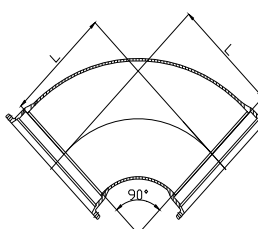
K Type



T Type



K Type



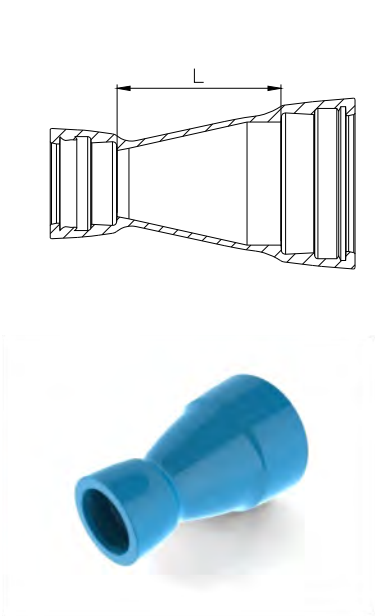
Double Socket 90° Bend K=12

Nominal Diameter(DN)	L	Weight(KG)	
		T Type	K Type
80	100	8.6	12
100	120	11.4	15.6
150	170	20.5	27.5
200	220	33	40
250	270	48.5	55.5
300	320	68	81.5
350	370	97.5	105
400	420	129	134
450	470	163	166
500	520	204	202
600	620	303	290
700	720	455	408
800	820	605	544
900	920	813	720
1000	1020	1045	935
1200	1220	1663	1444
1400	1220	2419	1918
1600	1290	3014	2543
1800	1320	3833	3229
2000	1360	4783	4033

Double socket taper

T Type

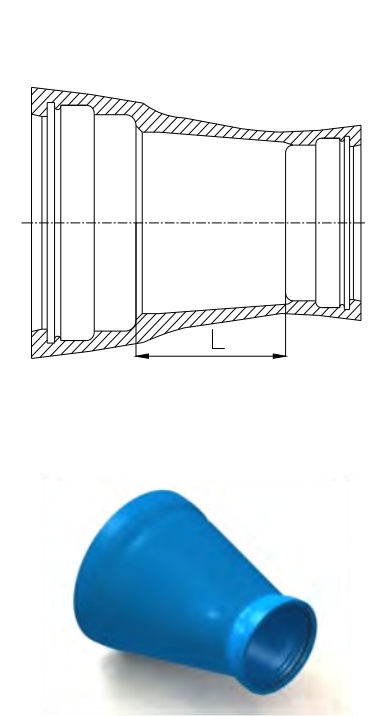
DN80 to DN600



K=12

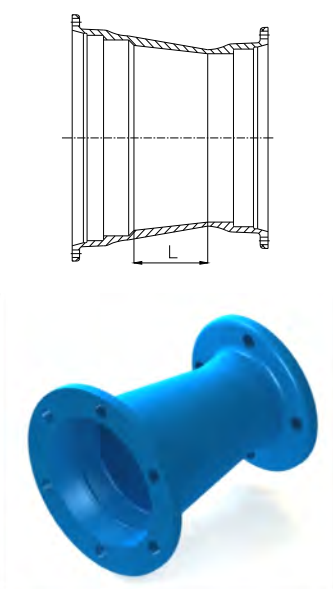
Nominal Diameter(DN)		L	Weight(KG)	
DN	dn		T Type	K Type
100	80	90	8.5	11.9
150	80	190	13.5	18.6
150	100	150	13.8	19.1
200	100	250	20.5	26
200	150	150	21	27
250	150	250	29	36
250	200	150	29	35
300	150	350	39.5	50
300	200	250	39.5	49
300	250	150	38.5	47.5
350	200	360	52	62.5
350	250	260	51	61
350	300	160	49.5	61.5
400	200	460	62	78
400	250	360	66	76.5
400	300	260	64	77
400	350	160	62	73
450	250	460	89.5	94
450	300	360	88.1	97.1
450	350	260	86	88.3
450	400	160	83.1	85.6
500	300	460	97	114
500	350	360	98	110
500	400	260	94	106
500	450	160	99.5	106
600	350	560	151	159
600	400	460	142	152
600	450	360	149	151
600	500	260	131	137
700	400	680	226	215
700	450	580	225	210
700	500	480	194	203
700	600	280	178	184
800	450	780	278	278
800	500	680	285	285
800	600	480	252	279.3
800	700	280	229	230
900	500	880	360	358

DN700 to DN2000

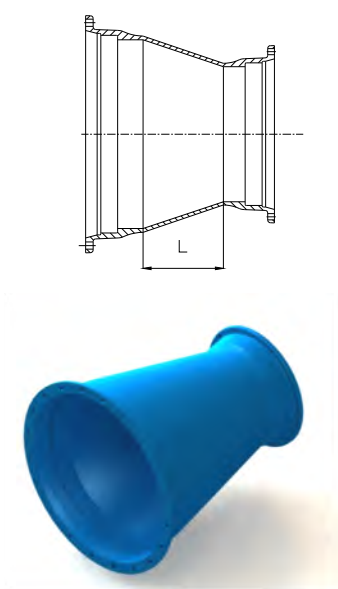


K Type

DN80 to DN600



DN700 to DN2000



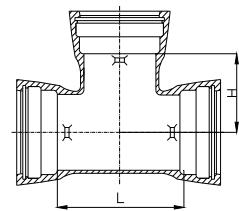
K=12

Nominal Diameter(DN)		L	Weight(KG)	
DN	dn		T Type	K Type
900	600	680	341	339
900	700	480	318	353.1
900	800	280	288	327
1000	600	880	446	445
1000	700	680	427	422
1000	800	480	392	451
1000	900	280	354	416
1200	700	1080	699	667
1200	800	880	668	631
1200	900	680	630	591
1200	1000	480	570	637
1400	800	760	877	716
1400	900	660	906	710
1400	1000	560	1015	663
1400	1200	360	711	698
1600	1000	760	1427	960
1600	1200	560	1355	919
1600	1400	360	951	879
1800	1200	760	-	1238
1800	1400	560	-	1198
1800	1600	360	1235	1123
2000	1200	960	-	1620
2000	1400	760	-	1579

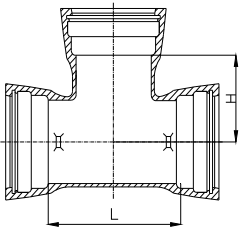
All Socket Tee

T Type

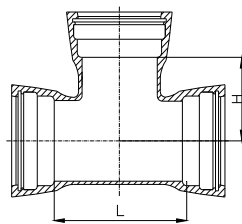
DN80 to DN250



DN300 to DN600



DN700 to DN2000



K=14

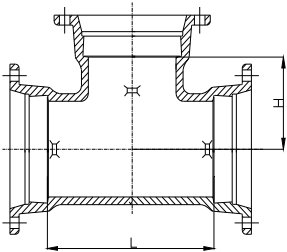
Nominal Diameter(DN)		L	H	Weight(KG)	
DN	dn			T Type	K Type
80	80	170	85	12.4	17.7
100	80	170	95	14.8	21.5
100	100	190	95	16.1	23.5
150	80	170	120	21.5	29.5
150	100	195	120	23.5	31
150	150	255	125	28	35.6
200	80	175	145	30	37.9
200	100	200	145	32	38.8
200	150	255	150	37	45
200	200	315	155	43	50.5
250	100	200	215	47.8	49
250	150	255	220	59	61
250	200	315	225	63.5	63.5
250	250	375	230	71.5	71.5
300	100	205	235	54.5	66.5
300	150	260	240	68	80.5
300	200	320	245	72	84.5
300	300	435	260	91	106
350	100	205	260	71	78
350	150	260	265	87	95
350	200	325	270	91	98
350	300	435	285	111	122
350	350	495	290	124	133
400	100	210	285	83	92
400	150	265	290	101	111
400	200	325	295	105	114
400	300	435	310	127	140
400	400	560	320	155	167
450	150	270	320	117	128
450	200	325	320	127	131
450	300	445	335	149	160
450	400	560	345	175	188
450	450	620	350	190	203
500	150	275	345	137	145
500	200	330	345	141	148
500	300	450	360	174	179
500	400	565	370	199	210
500	500	680	380	234	242
600	150	285	395	185	184
600	200	340	395	188	187

K=14

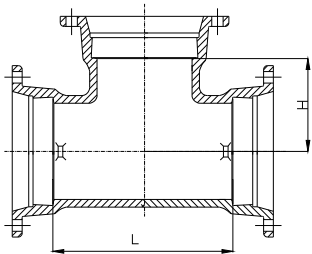
Nominal Diameter(DN)		L	H	Weight(KG)	
DN	dn			T Type	K Type
600	300	455	410	231	223
600	400	570	420	258	259
600	600	800	440	343	337
700	200	395	445	289	250
700	300	575	460	326	292
700	400	575	470	361	333
700	600	810	490	461	422
700	700	925	500	536	475
800	200	350	495	353	301
800	300	580	510	399	350
800	400	580	520	439	398
800	600	815	540	586	556
800	800	1045	560	701	618
900	200	355	545	458	370
900	400	590	570	556	484
900	600	820	590	833	739
900	800	1050	615	903	777
900	900	1170	625	944	806
1000	200	360	595	557	453
1000	400	595	620	672	584
1000	600	830	640	1008	936
1000	800	1055	665	1129	971
1000	1000	1290	685	1209	1033
1200	400	605	720	978	819
1200	600	840	740	1139	950
1200	800	1070	765	1449	1129
1200	1000	1300	785	1657	1331
1200	1200	1535	805	1900	1547
1400	600	1030	840	1679	1422
1400	800	1260	865	1910	1614
1400	1000	1495	885	2440	1886
1400	1200	1725	905	2795	2133
1400	1400	1960	930	3124	2436
1600	600	1040	940	2245	1806
1600	800	1275	965	2546	2078
1600	1000	1505	985	2851	2363
1600	1200	1740	1010	3663	2660
1600	1400	1970	1030	4066	2992
1600	1600	2200	1050	4474	3346
1800	600	1055	1040	-	2272
1800	800	1285	1015	-	2591
1800	1000	1520	1085	-	2933
1800	1200	1750	1110	-	3274
1800	1400	1980	1130	-	3652
1800	1600	2215	1150	-	4052
1800	1800	2445	1175	-	4498
2000	600	1065	1140	-	2793
2000	800	1300	1165	-	3179
2000	1000	1530	1185	-	3572
2000	1200	1760	1210	-	3968
2000	1400	1995	1230	-	4407
2000	1600	2225	1250	-	4850
2000	1800	2460	1275	-	5346
2000	2000	2690	1295	-	5873

K Type

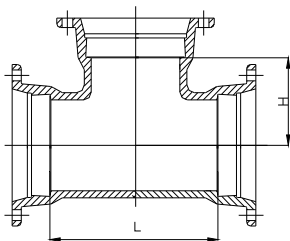
DN80 to DN250



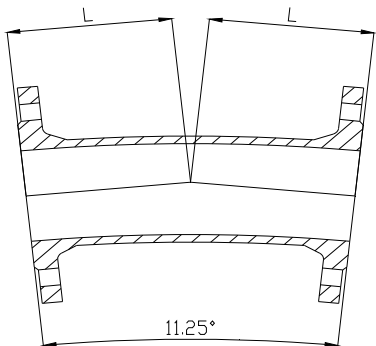
DN300 to DN600



DN700 to DN2000



Double Flanged bend

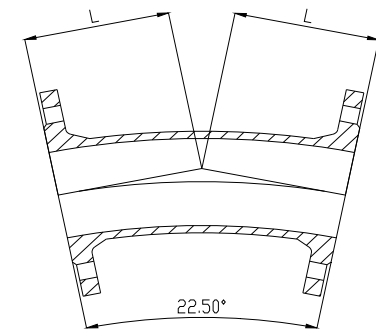


Double Flanged Bend 11.25°, K=12

Nominal Diameter(DN)	L	Weight(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
200	180	29.9	29	32
250	350	55.9	56	64
300	400	79.3	79	90
350	298	79	84	100.4
400	324	100	109	131
450	349	123	139	166
500	375	152	179	201
600	426	222	269	299
700	478	313	336	399
800	529	426	455	554
900	581	546	584	705
1000	632	704	773	929
1200	735	1094	1204	1403
1400	835	1560	1674	1975
1600	940	2203	2382	2736
1800	345	1258	1566	2046
2000	375	1694	1970	2176

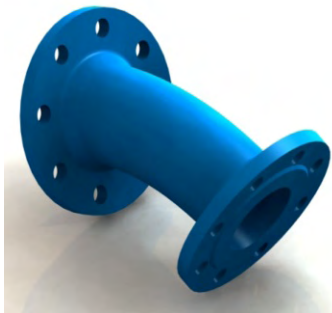
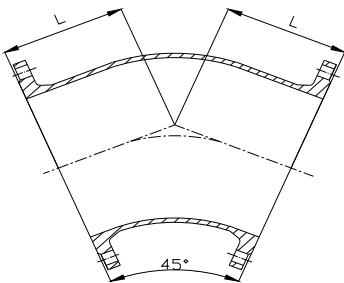
Double Flanged Bend 22.5°, K=12

Nominal Diameter(DN)	L	Weight(KG)		
		PN10	PN16	PN25
80	130	9.4	9.4	9.4
100	140	11.5	11.5	12.5
150	160	18.7	18.7	21
200	180	27.9	28	32
250	350	55.9	56	63
300	400	78.8	78.8	89
350	298	77.3	84	99.9
400	324	96.7	109	131
450	349	122	138	166
500	375	146	178	199.8
600	426	215.2	268	296.6
700	478	311	334	397
800	529	423	453	552
900	581	543	599.2	702
1000	632	700	769	925
1200	735	1088	1198	1397
1400	835	1551	1832	1969
1600	940	2180	2369	2723
1800	480	1640	1864	2344
2000	520	2081	2357	3063



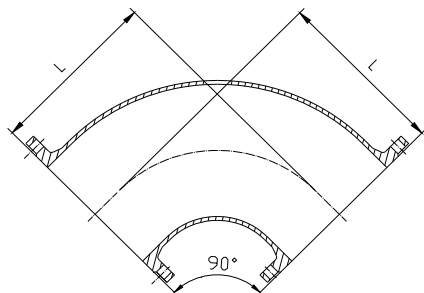
Double Flanged Bend 45°, K=12

Nominal Diameter(DN)	L	Weight(KG)		
		PN10	PN16	PN25
80	130	9.3	9.3	9.3
100	140	11.3	11.3	12.4
150	160	18.5	18.5	20.5
200	180	27.5	27	31
250	350	55	54	62
300	400	78	77	88
350	296	76	83	89
400	324	96	107	129
450	349	120	135	157
500	375	145	175	198
600	426	212	266	294
700	478	296	326	389
800	529	403	442	541
900	581	519	567	688
1000	632	668	751	907
1200	750	1050	1178	1377
1400	775	1388	1521	1829
1600	845	1915	2119	2473
1800	910	2465	2717	3197
2000	980	3149	3455	4161



Double Flanged Bend 90°, K=12

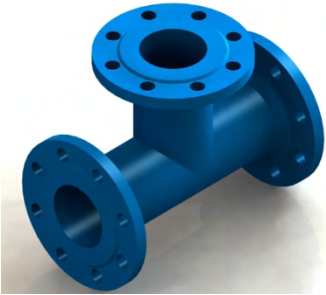
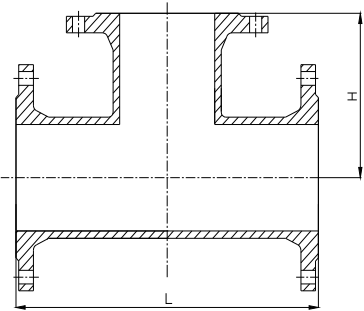
Nominal Diameter(DN)	L	Weight(KG)		
		PN10	PN16	PN25
80	165	9.6	9.6	9.6
100	180	11.9	11.9	12.9
150	220	20	20	22
200	260	31	30.5	34.5
250	350	50	49.5	57
300	400	70	70	81
350	450	90	96	113
400	500	116	127	149
450	555	147	163	184
500	600	181	211	235
600	700	272	325	353
700	800	386	416	479
800	900	533	572	671
900	1000	698	745	866
1000	1100	907	990	1146
1200	1300	1452	1562	1767
1400	1350	1948	2062	2373
1600	1450	2663	2841	3206
1800	1500	3348	3572	4060



All Flanged Tee

K=14

Nominal Diameter(DN)	L	H	Weight(KG)		
			PN10	PN16	PN25
40/40	280	140	8.2	8.2	8.2
50/50	300	150	10.4	10.4	10.4
60/60	320	160	11.8	11.8	11.5
65/65	330	165	13.3	13.3	13
80/80	330	165	15.6	15.6	15.6
100/80	360	175	18.4	18.4	19.6
100/100	360	180	19.4	19.4	21
125/80	400	100	23	23	24.5
125/100	400	195	24	24	26
125/125	400	200	25.5	25.5	27.5
150/80	440	205	28.5	28.5	31
150/100	440	210	29.5	29.5	32
150/150	440	220	32.5	32.5	36
200/80	520	235	42	41.5	46
200/100	520	240	43	42	47.5
200/150	520	250	46	45.5	51
200/200	520	260	49.5	49	56
250/100	700	275	68	67	75
250/150	700	300	68	67	74.8
250/200	700	325	76	75	85
250/250	700	350	82	81	93
300/100	800	300	94	93	105
300/150	800	350	97	96	109
300/200	800	350	102	101	114
300/300	800	400	116	115	131
350/100	850	325	116	122	139
350/150	850	325	118	125	143
350/200	850	325	121	128	146
350/300	850	425	138	147	170
350/350	850	425	142	151	176
400/100	900	350	143	154	177
400/150	900	350	148	157	181
400/200	900	350	148	159	184
400/300	900	450	167	116	204
400/400	900	450	174	191	225
450/100	950	375	177	193	216
450/150	950	375	180	196	220
450/200	950	375	183	199	224
450/300	950	475	199	215	244
450/400	950	475	210	230	264
450/450	950	475	216	240	275
500/100	1000	400	210	241	265
500/150	1000	400	215	244	268
500/200	1000	400	215	245	271
500/300	1000	500	235	263	292
500/400	1000	500	242	276	311
500/500	1000	500	252	297	332
600/150	1100	450	307	356	386
600/200	1100	450	305	358	388
600/300	1100	550	326	375	410
600/400	1100	550	329	387	427
600/600	1100	550	355	434	477
700/200	650	525	258	298	363
700/300	760	540	344	370	439
700/400	870	555	343	379	453

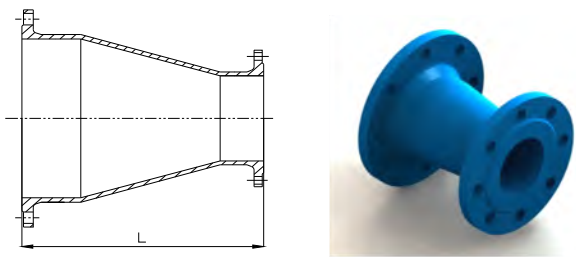


K=14

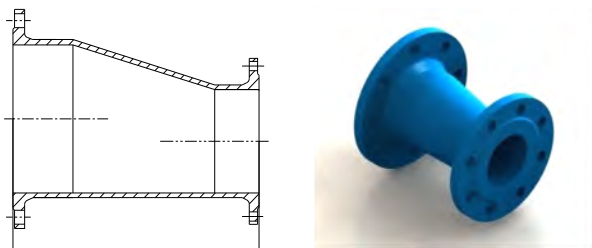
Nominal Diameter(DN)	L	H	Weight(KG)		
			PN10	PN16	PN25
700/600	1200	585	468	519	596
700/700	1200	600	477	523	617
800/200	690	585	352	390	491
800/300	800	600	440	478	582
800/400	910	615	441	484	593
800/600	1350	645	613	678	790
800/800	1350	675	657	715	862
900/200	730	645	436	484	607
900/400	950	675	541	594	726
900/600	1500	705	787	860	996
900/800	1500	735	835	901	1071
900/900	1500	750	853	924	1106
1000/200	770	705	546	629	787
1000/400	990	735	668	755	922
1000/600	1650	765	1007	1116	1287
1000/800	1650	795	1072	1191	1396
1000/1000	1650	825	1105	1229	1463
1200/400	1070	855	1008	1131	1302
1200/600	1240	885	1101	1256	1470
1200/800	1470	915	1291	1439	1687
1200/1000	1700	945	1494	1664	1941
1200/1200	1935	975	1806	1970	2269
1400/600	1550	980	1555	1818	2138
1400/800	1760	1010	1886	2041	2395
1400/1000	2015	1040	2131	2309	2692
1400/1200	2245	1070	2262	2431	2836
1400/1400	2475	1100	2545	2715	3173
1600/600	1600	1090	2167	2398	2767
1600/800	1835	1120	2452	2675	3079
1600/1000	2065	1150	2740	2986	3418
1600/1200	2300	1180	3058	3327	3781
1600/1400	2530	1210	3208	3444	3950
1600/1600	2760	1240	3586	3854	4385
1800/600	1655	1200	2694	2972	3467
1800/800	1885	1230	3023	3299	3828
1800/1000	2120	1260	3375	3669	4227
1800/1200	2350	1290	3740	4056	4636
1800/1400	2320	1320	3910	4190	4822
1800/1600	2540	1350	4328	4641	5298
1800/1800	2760	1380	4750	5086	5806
2000/600	1705	1310	3309	3642	4362
2000/800	1720	1340	3505	3796	4551
2000/1000	2170	1370	4412	4459	5243
2000/1200	2160	1400	4314	4644	5450
2000/1400	2635	1430	4966	5340	6198
2000/1600	2600	1460	5202	5567	6450
2000/1800	2820	1490	5668	6055	7001
2000/2000	3040	1520	6185	6599	7658

Double Flanged Taper

Concentric Type



Flat Type



K=12

Nominal Diameter(DN)	L	Weight(KG)		
		PN10	PN16	PN25
100/80	200	9.3	9.3	9.8
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
200/150	300	22	21.5	25
250/150	600	39	39	43.5
250/200	300	30	29.5	35.5
300/150	650	48.5	48.5	55
300/200	600	52	51.5	59
300/250	300	40.5	39.5	49
350/200	650	61.5	64	74
350/250	600	65.5	67.5	79
350/300	300	49.5	52	66
400/200	700	73.5	77.5	90.5
400/250	650	77	81.5	96
400/300	600	80.5	85	101
400/350	300	58	67	86
450/250	700	89.5	97	112
450/300	650	93.5	101	117
450/350	600	95.6	106	126
450/400	300	70.5	83	105
500/300	700	109	122	138
500/350	650	111	127	145
500/400	600	110	130	153
500/450	300	83	104	126
600/350	750	147	174	193
600/400	700	150	178	201
600/450	650	151	183	206
600/500	600	149	190	216
700/400	800	196	212	255
700/450	750	197	217	259
700/500	700	200	225	268
700/600	600	195	236	282

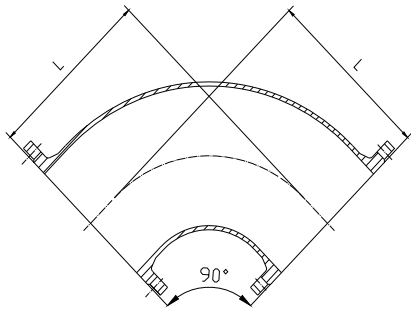
K=12

Nominal Diameter(DN)	L	Weight(KG)		
		PN10	PN16	PN25
800/600	700	260	298	363
800/700	600	250	285	371
900/500	1000	338	370	443
900/600	800	318	360	436
900/700	700	321	352	444
900/800	600	308	352	462
1000/600	1000	422	490	583
1000/700	800	396	442	551
1000/800	700	399	448	575
1000/900	600	373	438	577
1200/700	1345	711	777	908
1200/800	1160	688	758	908
1200/900	975	652	726	887
1200/1000	790	586	692	879
1200/1100	605	566	655	850
1400/800	1590	1034	1105	1308
1400/900	1405	998	1074	1288
1400/1000	1220	961	1052	1236
1400/1100	1035	914	1005	1253
1400/1200	850	814	947	1199
1600/1000	1650	1424	1547	1802
1600/1100	1465	1377	1502	1774
1600/1200	1280	1324	1468	1745
1600/1400	910	1103	1273	1602
1600/1500	725	1073	1250	1594
1800/1100	1895	1910	2057	2392
1800/1200	1710	1858	2024	2363
1800/1400	1340	1701	1870	2263
1800/1500	1155	1610	1810	2216
1800/1600	970	1436	1664	2081
2000/1200	2140	2512	2705	3068
2000/1400	1770	2358	2553	3059
2000/1500	1585	2268	2492	3014

Double Flanged 90° Long Radius Bend

K=12

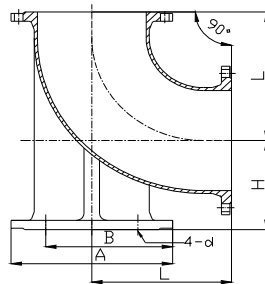
Nominal Diameter(DN)	L	Weight(KG)		
		PN10	PN16	PN25
80	380	14.5	14.5	14.5
100	400	18	18	19
150	450	30.1	30.1	32.1
200	500	45.9	45.4	49.6
250	550	66.4	65.2	73.2
300	600	89.5	90.1	101
350	650	115.8	121.6	138.4
400	700	117	157.4	184
450	750	184	184	221
500	800	222	252.6	275.8
600	900	326.2	377	407.6
700	1000	454.4	484.2	552
800	1100	617.4	655	759
900	1200	798.6	846.4	975
1000	1300	1025	1108	1272
1200	1500	1592.8	1721.6	1936



Double Flanged 90° Duckfoot Bend

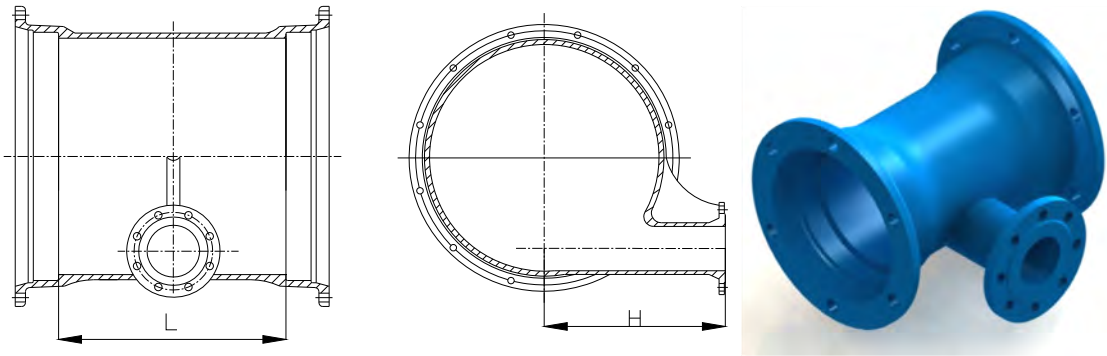
K=12

Nominal Diameter(DN)	L	H	A	B	d	Weight(KG)		
						PN10	PN16	PN25
80	165	110	180	120	19	14.1	14.1	14.1
100	180	125	200	130	23	17.3	17.8	18.8
150	220	160	250	165	28	30	30	32
200	250	190	300	215	28	46.5	46	50.5
250	350	225	350	250	31	75	75	82
300	400	255	400	300	31	106	105	116
350	450	290	450	350	34	139	145	162
400	500	320	500	390	37	178	189	212
450	550	350	550	440	37	245	261	283
500	600	385	600	490	37	283	313	337
600	700	450	700	580	40	428	481	509
700	800	515	800	680	43	684	708	
800	900	580	900	770	49	944	974	
900	1000	645	1000	870	49	1252	1290	
1000	1100	710	1100	960	56	1629	1698	
1200	1300	840	1300	1160	56	2599	2709	

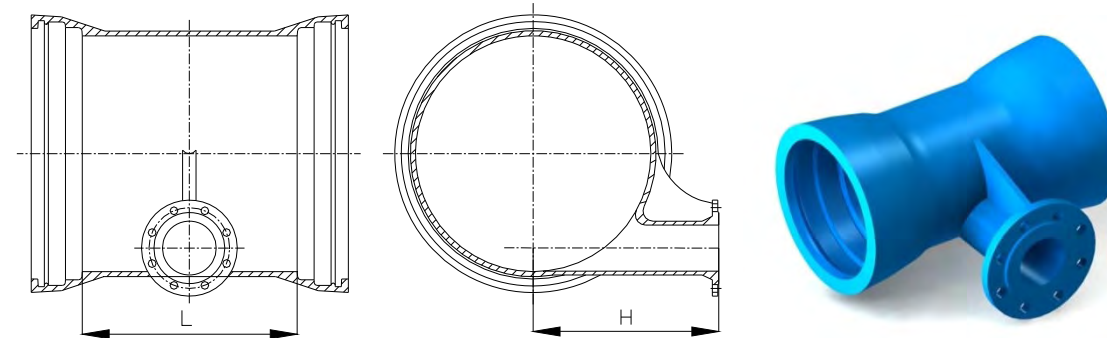


Double Socket Level Invent Tee With Flanged Branch

K Type



T Type

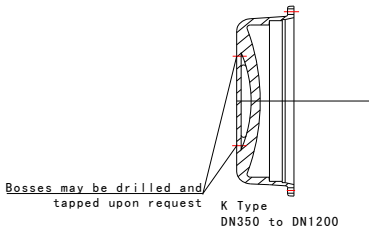
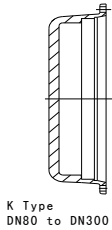


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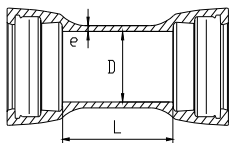
Nominal Diameter(DN)		L	H	Weight(KG)					
				T Type			K Type		
DN	dn			PN10	PN16	PN25	PN10	PN16	PN25
200	80	245	250	39.5	39.5	39.5	43	43	43
250	80	250	275	49.5	49.5	49.5	54	54	54
300	80	255	300	62	62	62	73.5	73.5	73.5
350	100	280	325	83	83	84	90.5	90.5	91
400	100	280	350	97.5	97.5	99	107	107	108
450	100	285	375	115	115	117	125	125	126
500	100	290	400	134	134	136	143	143	144
600	100	295	450	173	173	175	183	183	183
700	150	360	500	255	255	257	255	255	256
800	150	365	550	335	335	336	310	310	311
900	150	370	600	382	383	384	382	382	383
1000	200	435	650	501	501	504	501	501	503
1200	200	445	750	679	679	682	679	679	681
1400	200	460	850	939	939	942	939	939	940
1600	400	700	950	1472	1476	1488	1472	1476	1487
1800	400	715	1050	1872	1872	1884	1872	1876	1887
2000	400	725	1150	2320	2325	2337	2320	2325	2336

K Type Cap

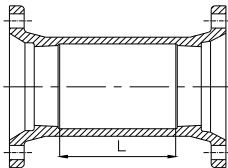
Nominal Diameter(DN)	L	Weight(KG)
80	80	5.8
100	80	7.5
150	90	12.6
200	90	17.5
250	90	24.5
300	110	36
350	110	49.5
400	110	62
450	110	76
500	110	90.5
600	110	127
700	120	175
800	120	227
900	120	295
1000	130	379
1200	130	567



T Type Collar



K Type Collar



K=12

Nominal Diameter(DN)	e	d	L	Weight(KG)
80	7	109	160	7.9
100	7.2	130	160	9.9
150	7.8	183	165	15.9
200	8.4	235	170	23
250	9	288	175	31.5
300	9.6	340	180	41
350	10.2	393	185	52
400	10.8	445	190	64
450	11.4	498	195	91
500	12	550	200	93
600	13.2	655	210	129
700	14.4	760	220	172
800	15.6	865	230	223
900	16.8	970	240	282
1000	18	1075	250	349
1200	20.4	1285	270	560
1400	22.8	1477	340	816
1600	25.2	1683	360	1024
1800	27.6	1906	380	1427
2000	30	2095	400	1818

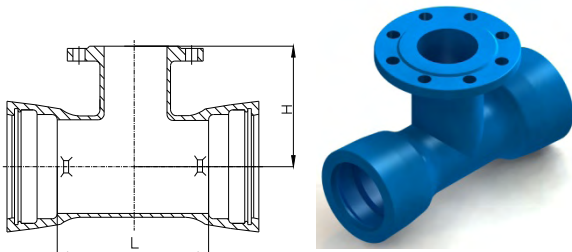
K=12

Nominal Diameter(DN)	L	Weight(KG)
80	160	12.9
100	160	15.8
150	165	23.5
200	170	30
250	175	38.5
300	180	54
350	185	67.5
400	190	81
450	195	96
500	200	109
600	210	140
700	220	185
800	230	225
900	240	278
1000	250	348
1200	270	472
1400	340	701
1600	360	920
1800	380	1172
2000	400	1461

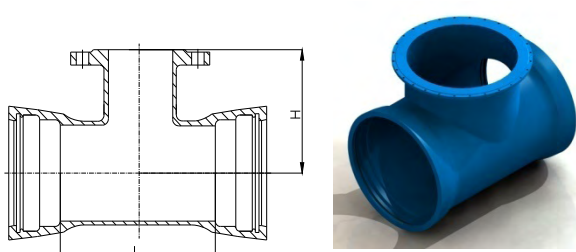
Double Socket Tee. With Flanged Branch

T Type

DN80 to DN600



DN700 to DN2000



K=14

Nominal Diameter(DN)		L	H	Weight (KG)					
				T Type			K Type		
				PN10	PN16	PN25	PN10	PN16	PN25
80	80	170	165	13.5	13.5	13.5	16.7	16.7	16.7
100	80	170	175	15.8	15.8	15.8	19.7	19.7	19.7
100	100	190	180	17.2	17.2	17.7	21	21	21.5
150	80	170	205	23	23	23	28.5	28.5	28.5
150	100	195	210	24.5	24.5	25	30.5	30.5	31.5
150	150	255	220	29.5	29.5	30.5	35.5	35.5	36.5
200	80	175	235	31.5	31.5	31.5	36.5	36.5	36.5
200	100	200	240	33.5	33.5	34	38.5	38.5	39
200	150	255	250	39	39	40	44.5	44.5	45.5
200	200	315	260	45.6	46	47.5	51.5	51	53
250	80	200	270	44	44	44	47	47	47
250	100	200	270	43.5	43.5	44	48	48	48.5
250	150	260	280	57	57	59	59	59	60
250	200	315	290	57	57	59	62.5	62	64
250	250	375	300	65	66	69	71.5	71	74.5
300	80	180	295	53	53	53	64	64	64
300	100	205	300	55	55	56	65	65	65.5
300	150	260	310	64	64	69	78.5	78.5	79.5
300	200	320	320	71	70	73	81.5	81.5	83.5
300	300	435	340	89	91	95	102	102	107
350	80	185	325	70.5	70.5	70.5	76	76	76
350	100	205	330	68	68	68	76.5	76.5	77
350	150	260	340	87.5	87.5	89.5	93	93	94
350	200	325	350	86	86	88	96	96	98
350	250	375	360	103	114	125	114	124	135
350	300	435	370	113	118	129	118	118	123
350	350	495	380	117	120	129	129	132	139
400	80	185	360	80	80	80	90	90	90
400	100	210	360	83	83	83	91	91	91.5
400	150	265	370	88	88	90	109	109	110
400	200	325	380	103	102	104	113	112	114
400	250	375	390	119	118	122	127	128	132
400	300	435	400	129	128	137	137	156	142
400	350	495	410	143	146	153	158	186	163
400	400	560	420	150	156	167	163	167	178
450	80	190	385	97.5	97.5	97.5	105	105	105
450	100	215	395	106	106	107	106	106	106

K=14

Nominal Diameter(DN)		L	H	Weight (KG)					
				T Type			K Type		
				PN10	PN16	PN25	PN10	PN16	PN25
450	150	270	400	119	119	120	127	127	128
450	200	325	410	122	122	124	130	130	132
450	250	375	420	141	141	141	149	149	153
450	300	455	430	149	149	154	157	157	162
450	350	495	440	166	169	169	174	177	186
450	400	560	450	177	181	192	185	189	200
450	450	620	460	192	200	211	200	208	219
500	80	195	420	110	110	110	119	119	119
500	100	215	420	116	116	117	120	120	120
500	150	275	430	126	126	131	143	143	144
500	200	330	440	142	141	143	147	146	148
500	250	380	450	165	171	169	172	171	177
500	300	450	460	165	165	169	177	177	182
500	350	500	470	192	195	203	198	201	210
500	400	565	480	199	205	216	207	212	223
500	450	620	490	220	228	244	226	235	250
500	500	680	500	232	247	259	242	256	266
700	700	925	600	460	475	506	476	488	521
800	100	350	570	304	304	305	295	295	295
800	150	350	580	305	308	306	298	298	299
800	200	350	586	306	306	308	302	301	303
800	300	580	600	371	371	377	362	362	368
800	400	580	615	398	403	414	396	401	412
800	500	815	630	522	537	549	513	528	540
800	600	1045	645	579	605	620	579	603	614
800	700	1045	660	620	635	669	611	626	660
800	800	1045	675	623	642	691	631	646	699
900	100	355	630	378	378	378	365	365	366
900	150	355	640	376	376	377	368	368	369
900	200	355	645	379	379	381	371	371	373
900	300	590	660	455	455	461	442	442	448
900	400	590	675	490	495	506	484	488	499
900	500	820	690	666	681	693	653	668	690
900	600	820	705	748	774	789	745	769	780
900	700	1050	720	788	803	837	775	790	824
900	800	1050	735	808	823	872	795	810	863
900	900	1170	750	814	838	899	822	841	907

K=14

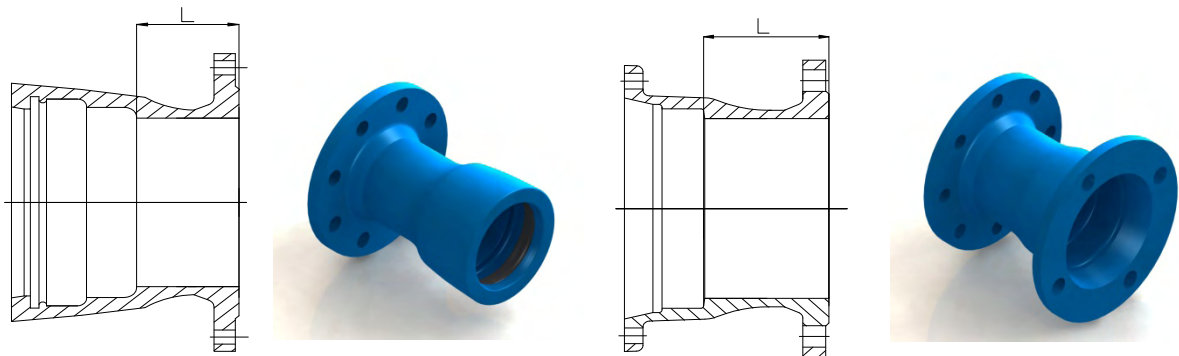
Nominal Diameter (DN)		L	H	Weight (KG)					
				T Type			K Type		
				PN10	PN16	PN25	PN10	PN16	PN25
600	80	220	480	150	150	150	151	151	151
600	100	220	480	159	159	161	152	152	153
600	150	285	490	170	170	172	183	183	184
600	200	340	500	189	189	191	187	187	188
600	250	380	510	219	218	222	215	215	218
600	300	455	520	235	235	240	222	222	227
600	350	500	530	252	255	263	247	251	260
600	400	570	540	258	263	274	258	263	274
600	450	620	550	285	293	309	281	289	305
600	500	685	560	304	309	331	301	305	327
600	600	800	580	340	366	380	345	368	380
700	100	345	510	240	240	241	243	243	244
700	150	345	520	241	242	242	246	246	247
700	200	345	525	242	242	244	250	249	251
700	300	575	540	300	300	306	301	301	307
700	400	575	555	320	325	336	329	334	345
700	500	810	570	391	406	418	392	407	409
700	600	810	585	421	445	460	422	445	457
1000	100	360	690	461	461	462	461	461	462
1000	150	360	700	560	566	561	451	451	452
1000	200	360	705	462	462	464	455	455	457
1000	300	595	720	552	552	558	552	552	558
1000	400	595	735	591	596	607	586	591	602
1000	500	830	750	852	867	879	852	867	879
1000	600	1290	765	947	973	988	946	970	981
1000	700	1055	780	985	1000	1032	985	1000	1032
1000	800	1055	795	1006	1021	1070	994	1009	1074
1000	900	1290	810	1052	1076	1137	1052	1076	1137
1000	1000	1290	825	1044	1086	1192	1059	1094	1192
1200	100	375	810	676	676	676	676	676	676
1200	150	375	820	678	678	678	678	678	678
1200	200	375	825	836	838	840	618	618	620
1200	300	605	840	769	769	775	769	769	775
1200	400	605	855	852	856	867	787	792	803
1200	500	840	870	968	973	995	968	973	995
1200	600	840	885	1000	1027	1042	967	991	1003
1200	700	1070	900	1169	1184	1218	1169	1184	1218
1200	800	1070	915	1190	1210	1259	1162	1177	1295
1200	900	1300	930	1367	1427	1452	1367	1427	1452
1200	1000	1300	945	1406	1448	1526	1372	1406	1556
1200	1200	1535	975	1682	1736	1836	1617	1672	1846
1400	100	385	910	1120	1120	1120	1120	1120	1120
1400	200	385	920	1189	1189	1189	1189	1189	1189
1400	400	800	950	1341	1368	1379	1221	1226	1237
1400	600	1030	980	1478	1505	1520	1441	1464	1426
1400	800	1260	1010	1709	1728	1777	1677	1692	1777
1400	1000	1495	1040	1955	1996	2074	1929	1964	2075
1400	1200	1725	1070	2375	2439	2539	2205	2260	2539
1400	1400	1960	1100	2697	2765	2917	2501	2557	2917
1600	100	400	1020	1261	1261	1261	1261	1261	1261
1600	200	400	1030	1361	1361	1361	1361	1361	1361
1600	400	810	1060	1561	1565	1576	1561	1565	1576
1600	600	1040	1090	1908	1934	1949	1831	1854	1866
1600	800	1275	1120	2192	2211	2261	2121	2136	2189
1600	1000	1505	1150	2480	2522	2600	2416	2451	2536
1600	1200	1740	1180	2799	2863	2962	2743	2798	2907
1600	1400	1970	1210	3129	3186	3349	3073	3130	3293
1600	1600	2200	1240	3511	3517	3648	3461	3551	3741
1800	600	1055	1200	2414	2440	2455	2302	2326	2337
1800	800	1285	1230	2748	2767	2817	2642	2657	2710
1800	1000	1520	1260	3095	3137	3215	2998	3032	3118
1800	1200	1750	1290	3460	3524	3624	3371	3426	3835
1800	1400	1980	1320	—	—	—	3750	3807	3970
1800	1600	2215	1350	—	—	—	4188	4277	4468
1800	1800	2445	1380	—	—	—	4624	4735	4990
2000	600	1065	1310	2988	3015	3030	2830	2853	2865
2000	800	1300	1340	—	—	—	3239	3254	3307
2000	1000	1530	1370	3790	3832	3410	3648	3682	3768
2000	1200	1760	1400	—	—	—	4079	4134	4243
2000	1400	1995	1430	4645	4713	4865	4523	4580	4743
2000	1600	2225	1460	—	—	—	5007	5097	5287
2000	1800	2460	1490	—	—	—	5497	5609	5863
2000	2000	2690	1520	—	—	—	6030	6168	6506



Flanged socket

T Type

K Type



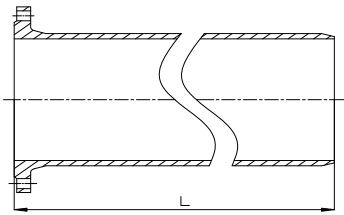
K=12

Nominal Diameter(DN)	L	Weight(KG)					
		T Type			K Type		
		PN10	PN16	PN25	PN10	PN16	PN25
80	130	7.4	7.4	7.4	9.3	9.3	9.3
100	130	9	9	9.5	11.3	11.3	12.5
150	135	14.2	14.2	15.2	18	18	19
200	140	20.5	20	22	24.5	24	26
250	145	28	27.5	31.5	32.5	32	35.5
300	150	37	36.5	42	44.5	44	49.5
350	155	45	48	56	53	55.5	63
400	160	55	60	71	64	68	78.5
450	165	70.5	78	88.5	74.5	82	92.5
500	170	78	93	104	87	100	110
600	180	108	135	149	115	138	149
700	190	144	159	216	162	174	211
800	200	189	208	287	205	220	274
900	210	235	258	356	252	271	341
1000	220	293	324	458	317	351	458
1200	240	456	521	664	450	505	664
1400	310	654	723	882	654	711	882
1600	330	837	989	1166	873	963	1176
1800	350	1125	1251	1491	1103	1214	1503
2000	370	1414	1567	1920	1378	1516	1933

Flanged spigot

K=12

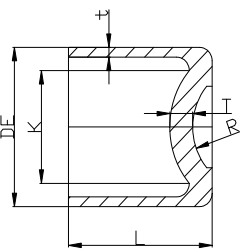
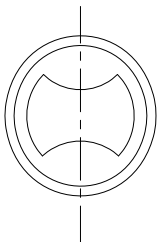
Nominal Diameter(DN)	L	Weight(KG)		
		PN10	PN16	PN25
80	350	7.8	7.8	7.8
100	360	9.6	9.6	10.2
150	380	15.6	15.6	16.6
200	400	22.5	22.5	24.5
250	420	32	31.5	35.5
300	440	43	42.5	47.5
350	460	52	55	64
400	480	64	70	81
450	500	78	87	98
500	520	94	109	121
600	560	133	159	173
700	600	179	194	225
800	600	226	245	294
900	600	272	295	356
1000	600	328	369	447
1200	600	456	520	620
1400	710	664	732	884
1600	780	922	1024	1201
1800	850	1196	1322	1562
2000	920	1534	1687	2040



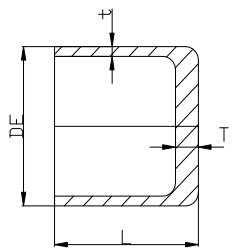
Plugs

K=12

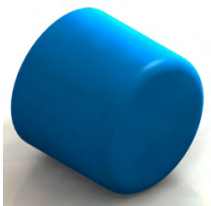
Nominal Diameter(DN)	T Type		K Type	
	L	Weight(KG)	L	Weight(KG)
80	200	3.8	92	5.1
100	200	4.5	93	6.7
250	225	9.5	104	10.9
200	250	14.8	105	15.5
250	250	21.5	106	21.5
300	275	33.5	127	31
350	275	45.5	128	40.4
400	275	56	129	53
450	275	68.5	130	63
500	275	81	131	75.5
600	300	112	132	116
700	300	193	143	166
800	300	259	144	250
900	350	337	145	333
1000	350	437	156	434
1200	350	783	160	671



OVER DN300



up to and including DN300





Blank Flange

K=12

Nominal Diameter(DN)	Weight (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	10.8	13.3
250	16.9	16.6	21
300	24	23.5	30
350	29.5	33.5	43.5
400	36.5	44.5	58
450	50	63.5	79
500	56	77	94
600	85	121	144
700	123	156	-
800	172	218	-
900	224	286	-
1000	293	387	-
1200	575	662	-
1400	739	994	-
1600	1239	1409	-
1800	1717	1858	-
2000	2272	2407	-

Flange Bellmouth

K=12

Nominal Diameter(DN)	D	L	Weight (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	14.8	16.8
250	345	183	21	20.5	24.5
300	405	205	28.5	28.5	33.5
350	460	220	35.5	38	46
400	520	240	45	49.5	60.5
450	575	255	54	62	73
500	635	275	67	80	91
600	750	310	96.5	120	132
700	865	345	135	146	
800	980	380	182	197	
900	1095	415	231	250	
1000	1210	450	297	331	
1200	1440	520	457	512	
1400	1670	590	646	702	
1600	1900	660	906	995	
1800	2130	730	1185	1297	
2000	2360	800	1530	1668	

Double Flanged Pipes

K=12

Nominal Diameter(DN)	L	Weight (KG)
80	150	6.8
80	200	7.5
80	250	8.2
100	250	10.8
150	250	15.4
150	250	16.3
200	250	21.5
200	250	23
250	250	30
250	250	34.5
300	250	44
350	250	59
400	250	65
400	250	71
450	250	89.5
500	250	115
500	350	133
600	300	178
700	500	261.8
700	500	289
800	500	317
800	500	356
900	500	420
1000	500	514
1100	500	575
1200	500	718

Split Puddle Flanges of Ductile Iron (Designed for use on spun ductile iron pipes only)

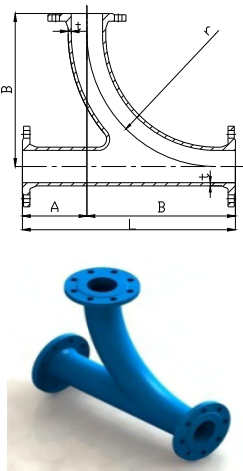
K=12

Nominal Diameter(DN)	D	L	d	Weight(KG)
80	260	110	100	11.5
100	305	110	120	14.5
150	390	130	172	23
200	430	130	224	28
250	490	130	276	37
300	555	130	329	46
350	610	130	381	50
400	660	150	432	62
450	725	150	483	73
500	790	150	535	85
600	900	165	638	120
700	1000	165	746	144
800	1100	185	850	189
900	1200	185	953	221
1000	1340	200	1056	309
1100	1440	200	1160	345
1200	1570	225	1263	441
1400	1780	225	1470	540
1600	1996	225	1686	608



All Flanged Radial Tees

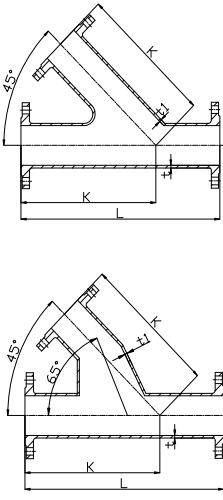
K=14



Nominal Diameter		t	L	A	B	r	Weight(KG) PN16
DN	dn						
80	80	8.1	545	165	380	330	23
100	100	8.4	580	180	400	340	29.5
150	150	9.1	670	220	450	385	47.9
200	200	9.8	760	260	500	430	71.6
250	250	10.5	900	350	550	475	104.8
300	300	11.2	1000	400	600	515	144.5
350	350	11.9	1100	450	650	560	203.4
400	400	12.6	1200	500	700	605	263.1
450	450	13.3	1300	550	750	650	332
500	500	14	1400	600	800	690	421.9
600	600	15.4	1600	700	900	780	623.7

All Flanged 45° Angle Branches

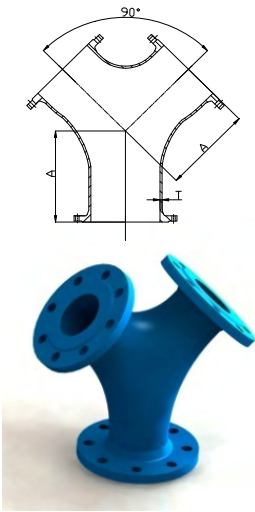
K=14



Nominal Diameter		Type	t	tl	L	K	Weight(kg) PN16
DN	dn						
80	80	N	8.1	8.1	500	375	21
100	100	N	8.4	8.4	540	405	27
150	150	N	9.1	9.1	640	480	46.4
200	200	N	9.8	9.8	735	560	70.1
250	250	N	10.5	10.5	830	640	103.8
300	300	N	11.2	11.2	930	715	145.5
350	350	M	11.9	11.9	880	790	167.4
400	400	M	12.6	12.6	970	870	204.1
450	450	M	13.3	13.3	1060	950	277
500	500	M	14	14	1140	1025	350.9
600	600	M	15.4	15.4	1310	1180	540.7

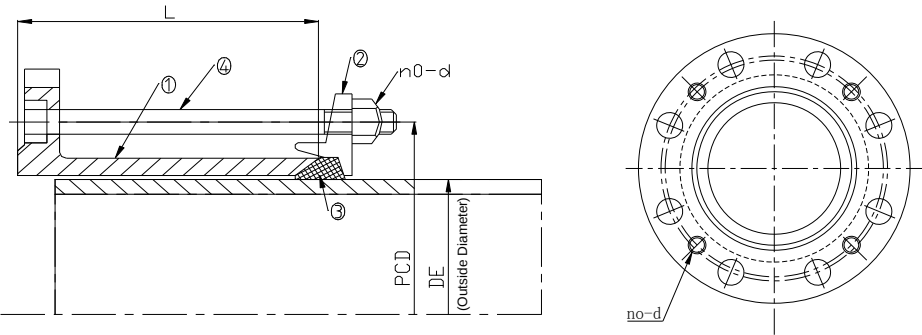
All Flanged "Y" Tees

K=14

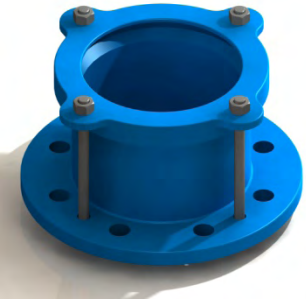


Nominal Diameter	T	A	Weight(kg) PN16
80	8.1	165	15.6
100	8.4	180	19.3
150	9.1	220	31.9
200	9.8	260	48.1
250	10.5	350	79.8
300	11.2	400	113.5
350	11.9	450	165.4
400	12.6	500	219.1
450	13.3	550	280
500	14	600	363.9
600	15.4	700	562.7

Flange Adaptor



NO.	DESCRIPTION	MATERIAL
①	FLANGE ADAPTOR	DUCTILE IRON
②	GLAND	DUCTILE IRON
③	GASKET	RUBBER
④	BLOT & NUT	MILD STEEL

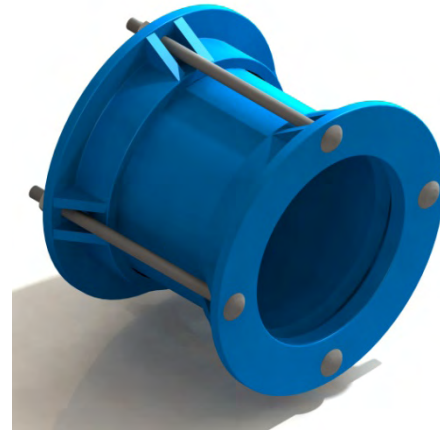
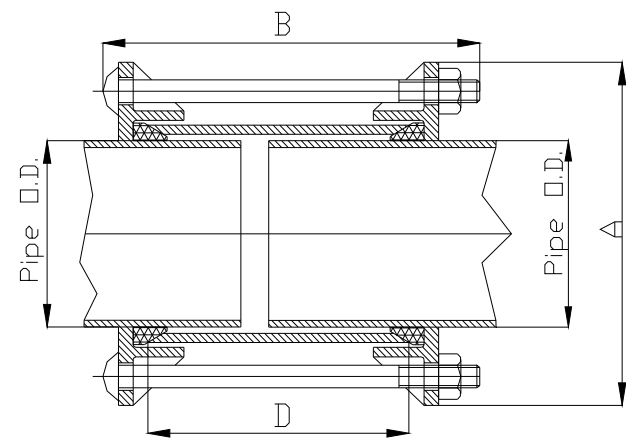


K=12

Nominal Diameter(DN)	PIPE O.D. DE	L	PCD	Stud Bolt		Weight(KG)	
				Size	No.	PN10	PN16
80	98	73	166	M12	4	10	10
100	118	76	187	M12	4	10.6	10.6
150	170	76	240	M12	4	16.8	16.8
200	222	76	293	M12	4	23	22.5
250	274	76	346	M12	6	30	29.5
300	326	90	410	M12	6	40	39.5
350	378	90	469	M16	8	46	49
400	429	110	521	M16	8	58	62.5
450	480	110	573	M16	10	68	76
500	532	110	626	M16	10	80	93
600	635	115	730	M16	10	104	127.5
700	738	115	837	M16	12	142	153.5
800	842	115	943	M16	12	180	195
900	945	115	1047	M16	14	216	235
1000	1048	115	1159	M16	14	278.5	313
1200	1255	130	1368	M16	16	413.5	468.5
1400	1462	130	1582	M20	18	470	580
1600	1668	190	1790	M20	20	-	-
1800	1875	190	1999	M20	22	-	-
2000	2082	190	2208	M20	24	-	-



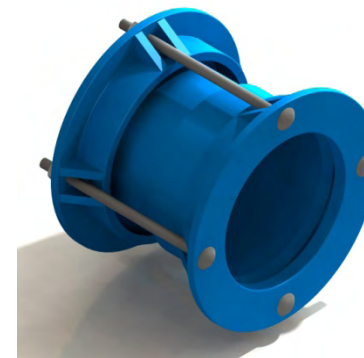
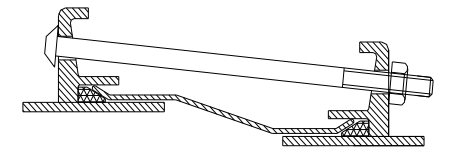
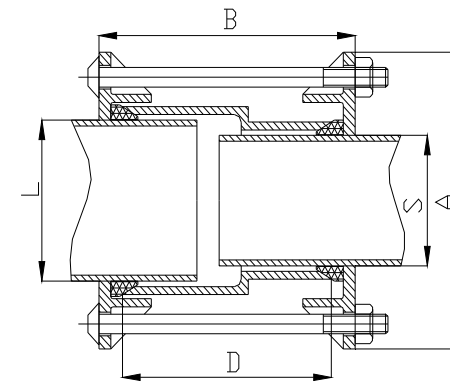
Flexibie Couping



K=12

Nominal Diameter(DN)	PIPE O.D.	A	B	D	Hole No.	Bolts	Weight(KG)
80	98	187	166	102	4	M12x165	8
100	118	209	166	102	4	M12x165	10
150	170	264	173	102	4	M12x175	15
200	222	319	173	102	6	M12x175	23
250	274	373	173	102	6	M12x175	27
300	326	430	173	102	6	M12x175	37
350	378	492	252	152	8	M16x240	45
400	429	547	252	152	8	M16x240	53
450	480	599	252	152	10	M16x240	59
500	532	653	252	152	10	M16x240	67
600	635	758	252	152	10	M16x240	110
700	738	867	252	152	12	M16x240	159
800	842	973	252	152	12	M16x240	181
900	945	1083	278	178	14	M16x275	250
1000	1048	1187	278	178	14	M16x275	315
1100	1152	1306	290	178	16	M16x285	-
1200	1255	1410	290	178	16	M16x285	380

Stepped Coupling

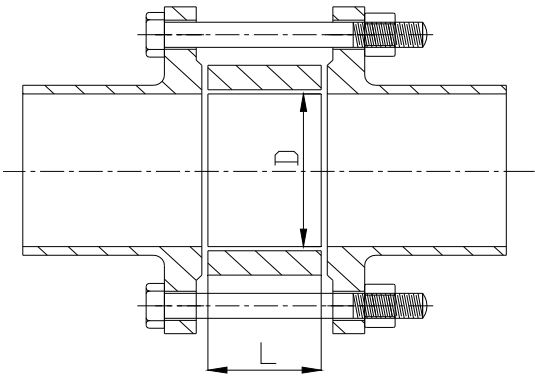


K=12

Nominal Diameter(DN)	Pipe O.D. Range		A	B	D	Hole No.	Bolts	Weight(KG)
80	98	90	187	166	102	4	M12x165	4.9
100	118	110	209	166	102	4	M12x165	5.4
150	170	160	264	173	102	4	M12x175	8.6
200	222	225	319	173	102	6	M12x175	11.5
250	274	267	373	173	102	6	M12x175	16.5
300	326	325	430	173	102	6	M12x175	17.8
350	378	360	492	254	152	8	M16x240	28
400	429	412	547	254	152	8	M16x240	32.6
450	480	463	599	254	152	10	M16x240	39
500	532	514	653	254	152	10	M16x240	42
600	635	616	758	254	152	10	M16x240	57
700	738	718	867	254	152	12	M16x240	65
800	842	820	973	254	152	12	M16x240	80
900	945	922	1083	280	178	14	M16x275	98
1000	1048	1027	1187	280	178	14	M16x275	105
1100	1152	1118	1306	290	178	16	M16x285	136
1200	1255	1255	1410	290	178	16	M16x285	159



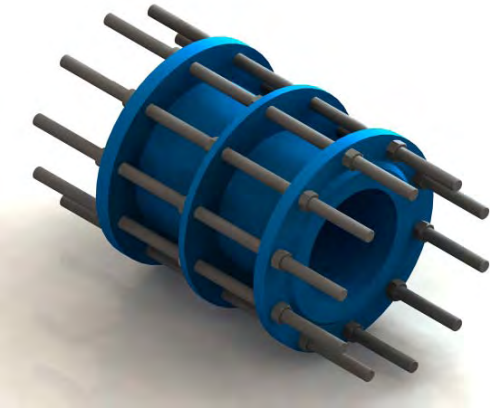
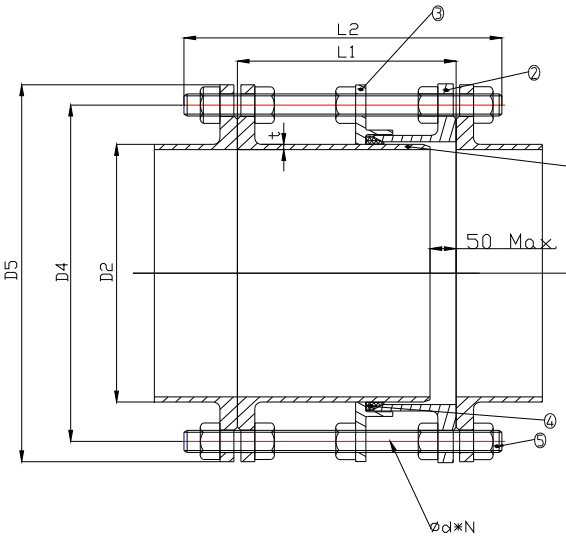
Pipe Blocks



K=12

Nominal Diameter(DN)	Actual int. dia.	L		D			Weight(KG)		
		Min	Max	PN10	PN16	PN25	PN10	PN16	PN25
80	76	15	105	133	133	133	66	66	66
100	100	15	120	153	153	159	74.2	74.2	84.6
150	150	15	130	209	209	214	117.3	117.3	129
200	200	15	140	264	264	274	164.4	164.4	194.2
250	250	20	155	319	319	331	217.4	217.4	260.6
300	300	20	170	367	367	389	247.4	247.4	339.5
350	350	20	180	427	432	446	331.3	355.1	423.1
400	400	20	195	477	484	503	373.9	411.2	515
450	450	20	205	527	544	553	416.5	517.4	572
500	500	20	220	582	606	613	491.3	649.1	696.4
600	600	30	245	682	721	718	582.1	885.1	861.2
700	704	30	230	794	794	820	746	746	979
800	802	30	230	901	901	928	934	934	1207
900	897	30	250	1001	1001	1028	1093	1093	1396
1000	1003	35	270	1112	1112	1140	1276	1276	1626
1100	1100	35	290	1218	1218	1240	1515	1515	1814
1200	1203	35	310	1328	1328	1350	1752	1752	2078
1400	1404	40	375	1530	1530	-	2047	2047	-
1600	1604	40	375	1750	1750	-	2711	2711	-

Dismanting Adaptor

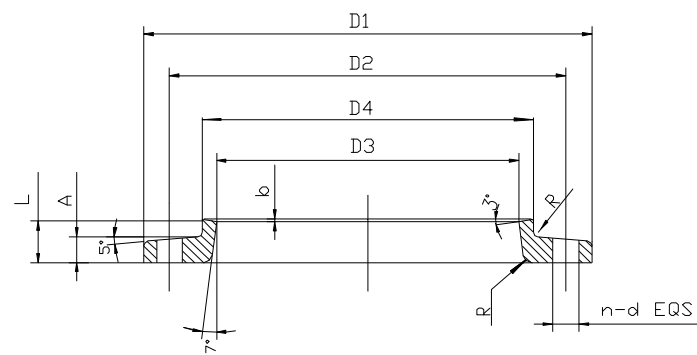


K=12

Nominal Diameter(DN)	Dimension L (mm)				Weight (KG)			
	PN				PN			
	10	16	25	40	10	16	25	40
100	200	200	220	220	20	20	33	33
150	-	-	220	230	25	25	42	42
200	-	220	230	240	34	34	53	53
250	220	230	230	260	48	48	74	90
300	-	250	250	280	65	74	102	140
350	230	260	250	290	72	92	131	192
400	-	270	270	340	94	126	193	253
450	250	270	280	340	122	162	246	362
500	-	280	300	380	140	190	280	433
600	260	300	320	390	162	240	324	504
700	-	300	340	420	205	330	432	761
800	-	320	360	450	256	368	571	915
900	290	320	380	480	352	482	801	1321
1000	-	340	400	500	405	546	886	1610
1200	320	360	450	-	484	715	1270	1804



Gland



DN	D1	D2	D3	D4	A	L	R	b	n-d(Holes)	weight/kg
100	234	188	122	146	16	35	5	2	4-23	4.1
150	288	242	174	198	17	36	5	2	6-23	5.7
200	341	295	226	250	18	37	5	2	6-23	7.5
250	395	349	278	302	19	38	5	2	8-23	9.5
300	455	409	330	354	20	39	5	2	8-23	12.2
350	508	462	382	406	21	40	5	2	10-23	14.6
400	561	515	433	457	22	41	7	2	12-23	17.2
500	667	621	536	560	24	43	7	2	14-23	22.9
600	773	727	639	663	25	44	7	2	14-23	28.5
700	892	838	743	773	26	45	7	2.5	16-27	38.6
800	999	945	847	877	28	47	9	2.5	20-27	47.4
900	1123	1057	950	980	29	48	9	2.5	20-33	61.9
1000	1231	1165	1054	1083	30	49	9	2.5	20-33	63.8
1100	1338	1272	1158	1187	31	50	9	2.5	24-33	68.5
1200	1444	1378	1262	1290	32	51	9	2.5	28-33	82.5
1400	1657	1591	1469	1497	34	53	9	3	28-33	104
1500	1766	1700	1573	1605	35	54	9	3	30-33	119
1600	1874	1808	1676	1711	36	55	9	3	30-33	123
1800	2089	2023	1883	1918	38	57	11	3	34-33	162

T Type

Rubber Gasket DN80 to DN 1400

DN1600 to DN2000



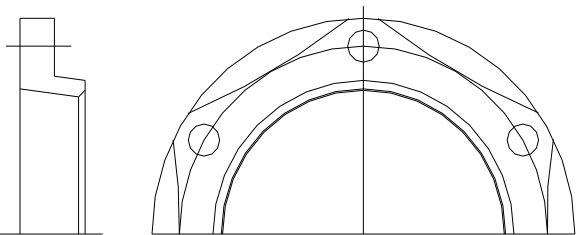
K Type

Ductile Iron Gland

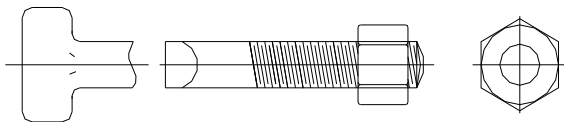
for gland of DN800 or above
follows dotted line
Outside of the gland may
be polygon shape, but that
of DN800 or above should
be concentric

Ductile Iron T-Head Bolts and Nuts

Nominal Diameter	Size and Length	No. of Bolts
80	M16*85	4
100	M20*90	4
150	M20*90	6
200	M20*90	6
250	M20*100	8
300	M20*100	8
350	M20*110	10
400	M20*110	12
450	M20*110	12
500	M20*120	14
600	M24*120	14
700	M24*120	16
800	M24*120	20
900	M30*130	20
1000	M30*130	20
1200	M30*140	28
1400	M30*150	28
1600	M30*150	30
1800	M30*150	34
2000	M30*160	36



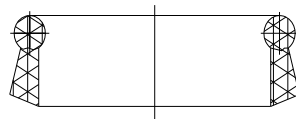
Ductile Iron T-Head Bolts and Nuts



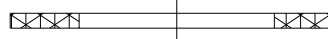


K Type

Rubber Gasket DN80 to DN2000

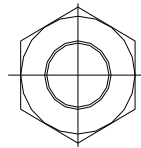
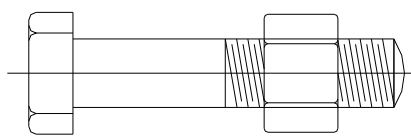


Rubber Gasket for Raised Faced Flange



Flange Joint Accessorles

Mild Steel Bolts and Nuts

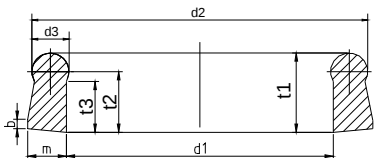


Mild Steel Bolts and Nuts

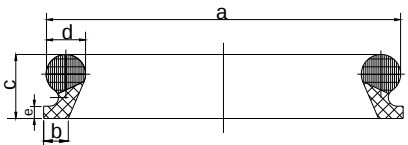
Nominal Diameter	Size and Length	No.of Bolts	Size and Length	No.of Bolts	Size and Length	No.of Bolts
80	M16*65	8	M16*65	8	M16*65	8
100	M16*65	8	M16*65	8	M20*70	8
150	M20*70	8	M20*70	8	M24*80	8
200	M20*70	8	M20*70	8	M24*80	12
250	M20*80	12	M24*85	12	M27*90	12
300	M20*80	12	M24*85	12	M27*90	16
350	M20*80	16	M24*85	16	M30*110	16
400	M24*85	16	M27*100	16	M33*120	16
450	M24*85	20	M27*100	20	M33*120	20
500	M24*85	20	M30*110	20	M33*120	20
600	M27*100	20	M33*120	20	M36*140	20
700	M27*100	24	M33*120	24		
800	M30*110	24	M36*140	24		
900	M30*120	28	M36*140	28		
1000	M33*130	28	M39*150	28		
1200	M36*140	32	M45*170	32		
1400	M39*150	36	M45*180	36		
1600	M45*160	40	M52*190	40		
1800	M45*160	44	M52*200	44		
2000	M45*170	48	M56*230	48		

Rubber Gasket

DN	a	b	c	d	e
80	126	10	26	16	5
100	146	10	26	16	5
150	200	10	26	16	5
200	256	11	30	18	6
250	310	11	32	18	6
300	366	12	34	19.5	7
350	420	12	34	19.5	7
400	475	13	36	21.5	8
450	528	13	38	21.5	8
500	583	14.5	44	24	9
600	692	14.5	47	26	10
700	803	20	55	33.5	16
800	913	21	60	35.5	16
900	1020	22	65	37.5	18
1000	1127	23	70	39.5	18
1200	1345	27	78	43.5	20

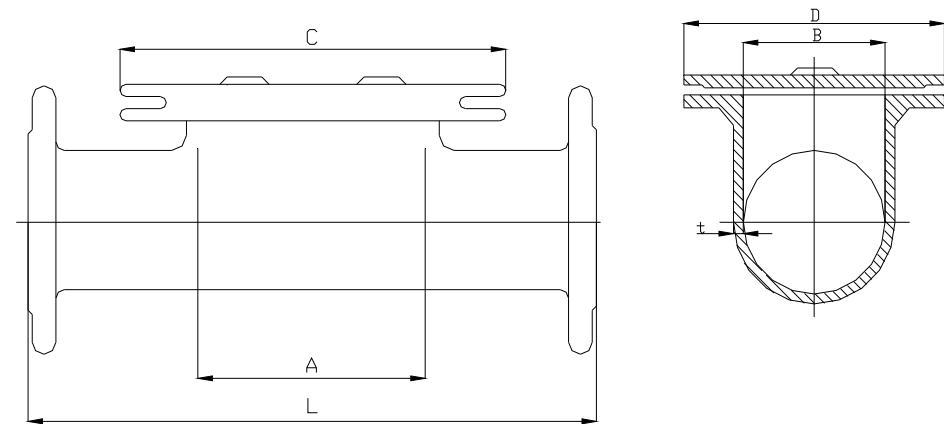


DN	d1	d2	d3	t1	b	m
100	116	111	11	45	4	15
150	167	162	11	45	4	15
200	218	213	11	45	4	15
250	269	264	11	45	4	15
300	319	312	15	49	4	18
350	370	363	15	49	4	18
400	420	413	15	49	4	18
450	471	465	15	49	4	18
500	521	514	15	49	4	18
600	622	615	15	49	4	18
700	723	716	18	61	4	21
800	825	818	18	61	4	21
900	926	919	18	61	4	21
1000	1027	1020	18	62	5	21
1100	1130	1123	18	62	5	21
1200	1230	1223	20	62	5	21.5
1400	1430	1423	20	62	5	21.5
1500	1532	1525	20	62	5	21.5
1600	1635	1628	23	80	5	27
1800	1833	1825	23	80	5	27
2000	2035	2027	23	80	5	27
2200	2235	2227	23	80	5	27
2400	2440	2432	23	80	5	27
2600	2645	2637	23	80	5	27





Double Flanged Hatchboxes

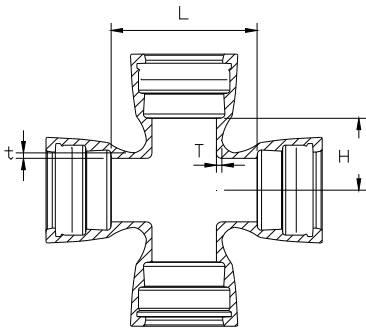


Nominal Diameter	t	L	Clear opening		Cover		Number and size of studs	Number and size of studs	Mass
			A	B	C	D			(kg)
DN									PN16
80	8.1	800	400	80	520	200	----	10 X M16	65.0
100	8.4	800	400	100	535	235	----	10 X M20	70.0
150	9.1	800	400	150	550	300	4 X M24	10 X M24	85.0
200	9.8	800	400	200	560	360	4 X M24	12 X M24	98.5
250	10.5	950	500	250	675	425	4 X M27	14 X M27	140.0
300	11.2	950	500	300	685	485	6 X M27	18 X M27	188.0
350	11.9	950	500	350	705	555	6 X M30	18 X M30	252.0
400	12.6	1100	600	400	820	620	6 X M33	18 X M33	310.0
450	13.3	1100	600	450	820	670	6 X M33	20 X M33	367.0
500	14.0	1200	600	500	830	730	4 X M33	22 X M33	422.0
600	15.4	1200	600	600	845	845	4 X M36	22 X M36	474.0

Maximum hydraulic working pressure rating 10 bar.
Recommended maximum site hydraulic test pressure 16 bar.
Hatchboxes in sizes less than 250 mm have flat covers as shown.

All-socket crosses

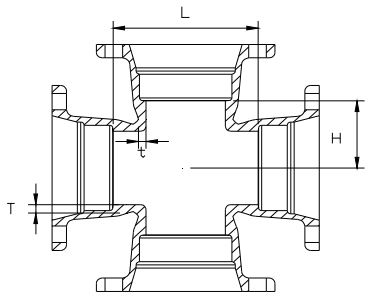
T Type



Nominal Diameter(DN)		T	t	L	H	Weight (KG)	
DN	dn					T Type	K Type
100	100	7.2	7.2	190	95	19.8	29.3
150	100	7.8	7.2	195	120	126.6	36.4
150	150	7.8	7.8	255	125	33.6	43.8
200	100	8.4	7.2	200	145	34.2	43.4
200	150	8.4	7.8	255	150	41.7	51.2
200	200	8.4	8.4	315	155	50.9	59.7
250	100	9	7.2	200	170	44.9	52.4
250	150	9	7.8	260	175	57.9	65.8
250	200	9	8.4	315	180	64.2	71.4
250	250	9	9	375	190	75.1	80.7
300	100	9.6	7.2	205	195	55.7	71.2
300	150	9.6	7.8	260	200	71.1	87
300	200	9.6	8.4	320	205	77.6	92.8
300	250	9.6	9	375	210	93.3	107
300	300	9.6	9.6	435	220	101	123
350	200	10.2	8.4	320	235	91.7	107
350	250	10.2	9	380	240	110	123
350	300	10.2	9.6	440	245	123	144
350	350	10.2	10.2	495	250	187	157
400	200	10.8	8.4	325	255	108	122
400	250	10.8	9	385	265	130	143
400	300	10.8	9.6	440	270	142	163
400	350	10.8	10.2	500	275	157	178
400	400	10.8	10.8	560	280	177	198
500	250	12	9	390	315	174	183
500	300	12	9.6	450	320	191	208
500	350	12	10.2	505	325	207	223
500	400	12	10.8	565	330	223	239
500	500	12	12	680	340	272	284
600	300	13.2	9.6	455	370	249	256
600	350	13.2	10.2	510	375	267	274



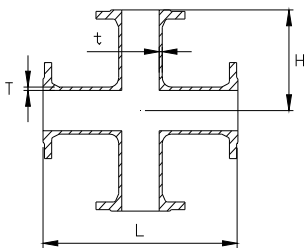
K Type



Nominal Diameter(DN)		T	t	L	H	Weight (KG)	
DN	dn					T Type	K Type
600	400	13.2	10.8	570	380	278	284
600	500	13.2	12	685	390	330	332
600	600	13.2	13.2	800	400	399	392
700	350	14.4	10.2	520	425	413	410
700	400	14.4	10.8	575	430	447	441
700	500	14.4	12	690	440	520	510
700	600	14.4	13.2	810	450	607	589
700	700	14.4	14.4	925	460	712	691
800	400	15.6	10.8	580	480	548	527
800	500	15.6	12	700	490	682	608
800	600	15.6	13.2	815	500	725	692
800	700	15.6	14.4	930	510	831	796
800	800	15.6	15.6	1045	525	963	914
900	500	16.8	12	705	540	757	729
900	600	16.8	13.2	820	550	859	823
900	700	16.8	14.4	935	560	969	930
900	800	16.8	15.6	1050	575	1105	1052
900	900	16.8	16.8	1170	585	1262	1205
1000	600	18	13.2	825	600	1011	1003
1000	700	18	14.4	940	610	1130	1120
1000	800	18	15.6	960	625	1276	1251
1000	900	18	16.8	1175	635	1432	1404
1000	1000	18	18	1290	645	1612	1612
1100	700	19.2	14.4	950	660	1312	1257
1100	800	19.2	15.6	1065	675	1459	1390
1100	900	19.2	16.8	1180	685	1622	1549
1100	1000	19.2	18	1295	695	1803	1759
1100	1100	19.2	19.2	1410	705	2011	1922
1200	800	20.4	15.6	1070	725	1677	1652
1200	900	20.4	16.8	1185	735	1847	1818
1200	1000	20.4	18	1300	745	2034	2034
1200	1100	20.4	19.2	1420	755	2246	2701
1200	1200	20.4	20.4	1535	765	2497	2497
1400	900	22.8	16.8	1200	835	2261	2232
1400	1000	22.8	18	1315	845	2468	2468
1400	1100	22.8	19.2	1430	855	2683	2639
1400	1200	22.8	20.4	1545	865	2940	2940
1400	1400	22.8	22.8	1780	890	3446	3446

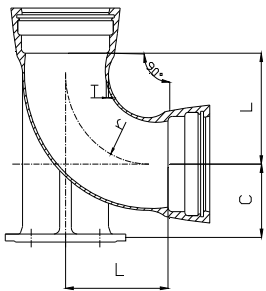
All Flanged Cross

Nominal Diameter(DN)		T	t	L	H	Weight (KG)
DN	dn					PN16
80	80	8.1	8.1	330	165	20.5
100	100	8.4	8.4	360	180	24.5
150	150	9.1	9.1	440	220	41.1
200	200	9.8	9.8	520	260	60.9
250	250	10.5	10.5	700	350	101
300	300	11.2	11.2	800	400	143
350	350	11.9	11.9	850	425	186
400	400	12.6	12.6	900	450	234
450	450	13.3	13.3	950	475	354
500	500	14	14	1000	500	359
600	600	15.4	15.4	1100	550	521



90° Double Socket Duckfoot Bend

Nominal Diameter(DN)		T	L	r	c	d	Weight (KG)
DN	DN						
80	80	7	100	80	110	180	11.3
100	100	7.2	120	95	125	200	14.8
150	150	7.8	170	145	160	250	28.5
200	200	8.4	220	195	190	300	44.5
250	250	9	270	245	225	350	68.5
300	300	9.6	320	290	225	400	100
350	350	10.2	370	340	290	450	133
400	400	10.8	420	390	320	500	180
450	450	11.4	470	435	355	550	230
500	500	12	520	485	385	600	294
600	600	13.2	620	580	450	700	442
700	700	14.4	720	655	515	800	618
800	800	15.6	820	745	580	900	832
900	900	16.8	920	855	645	1000	1113
1000	1000	18	1020	945	710	1100	1435
1100	1100	19.2	1120	1065	775	1200	1781
1200	1200	20.4	1220	1155	840	1300	2153



All Socket tees with 45° Angle branch

Nominal Diameter(DN)		T	t	L	H	Weight (KG)
DN	dn					
80	80	8.1	8.1	500	375	21.4
100	100	8.4	8.4	540	405	26.8
150	150	9.1	9.1	640	480	46
200	200	9.8	9.8	735	560	71.5
250	250	10.5	10.5	830	640	104
300	300	11.2	11.2	930	715	145
350	350	11.9	11.9	880	790	186
400	400	12.6	12.6	970	870	242
450	450	13.3	13.3	1060	950	307
500	500	14	14	1140	1025	383
600	600	15.4	15.4	1310	1180	567

