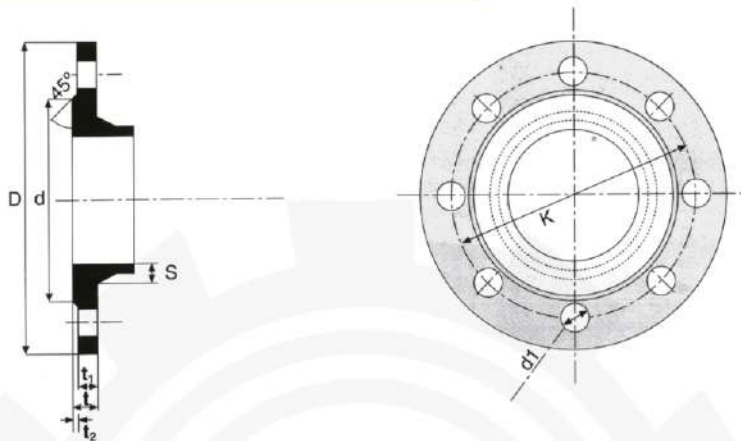


Flanged Type FITTINGS



INTERGRAL FLANGE SPECIFICATIONS

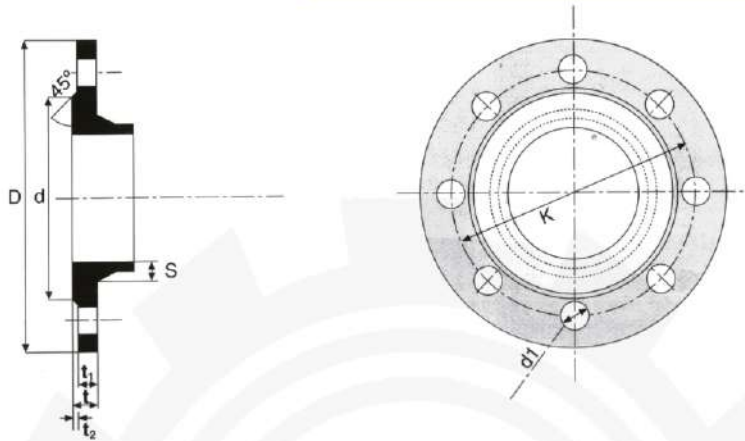


Dimensions in mm.

PN 10 Flange

DN	Dimensions							Holes		Bolts	
	D	d	t	t ₁	t ₂	s	k	Number	d ₁	Diameter	Length
80	200	132	19	16	3	15	160	8	19	M16	65
100	220	156	19	16	3	15	180	8	19	M16	65
125	250	184	19	16	3	15	210	8	19	M16	70
150	285	211	19	16	3	15	240	8	23	M20	70
200	340	266	20	17	3	16	295	8	23	M20	80
250	400	319	22	19	3	17.5	350	12	23	M20	80
300	455	370	24.5	20.5	4	19.5	400	12	23	M20	80
350	505	429	24.5	20.5	4	19.5	460	16	23	M20	85
400	565	480	24.5	20.5	4	19.5	515	16	28	M24	85
450	615	527	25.5	21.5	4	20.5	565	20	28	M24	90
500	670	582	26.5	22.5	4	21	620	20	28	M24	100
600	780	682	30	25	5	24	725	20	31	M27	110
700	895	794	32.5	27.5	5	24	840	24	31	M27	110
800	1015	901	35	30	5	24.5	950	24	34	M30	120
900	1115	1001	37.5	32.5	5	26.5	1050	28	34	M30	130
1000	1230	1112	40	35	5	28	1160	28	37	M33	130
1100	1340	1215	42.5	37.5	5	29.5	1270	32	37	M33	140
1200	1455	1328	45	40	5	31.5	1380	32	40	M36	140
1400	1675	1530	46	41	5	32	1590	36	43	M39	160
1500	1785	1640	47.5	42.5	5	33	1700	36	43	M39	150
1600	1915	1750	49	44	5	34.5	1820	40	49	M45	160
1800	2115	1950	52	47	5	36.5	2020	44	49	M45	160

INTERGRAL FLANGE SPECIFICATIONS

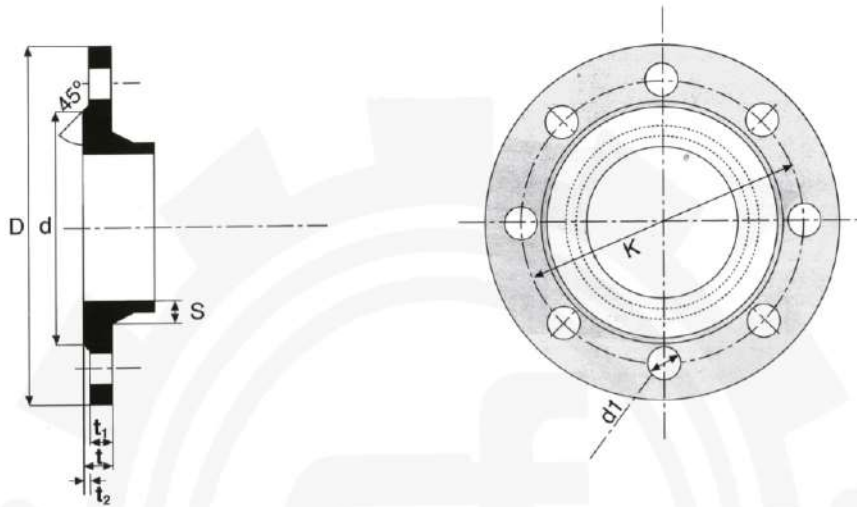


Dimensions in mm.

PN 16 Flange

DN	Dimensions							Holes		Bolts	
	D	d	t	t ₁	t ₂	s	k	Number	d ₁	Diameter	Length
80	200	132	19	16	3	15	160	8	19	M16	65
100	220	156	19	16	3	15	180	8	19	M16	65
125	250	184	19	16	3	15	210	8	19	M16	70
150	285	211	19	16	3	15	240	8	23	M20	70
200	340	266	20	17	3	16	295	12	23	M20	70
250	400	319	22	19	3	17.5	355	12	28	M24	85
300	455	370	24.5	20.5	4	19.5	410	12	28	M24	85
350	520	429	26.5	22.5	4	21	470	16	28	M24	85
400	580	480	28	24	4	22.5	525	16	31	M27	100
450	640	544	30	26	4	23.5	585	20	31	M27	100
500	715	609	31.5	27.5	4	25	650	20	34	M30	110
600	840	720	36	34	5	29	770	20	37	M33	120
700	910	794	39.5	34.5	5	29	840	24	37	M33	130
800	1025	901	43	38	5	30	950	24	40	M36	140
900	1125	1001	46.5	41.5	5	32.5	1050	28	40	M36	140
1000	1255	1112	50	45	5	35	1170	28	43	M39	160
1100	1355	1215	53.5	48.5	5	38	1270	32	43	M39	160
1200	1485	1328	57	52	5	40	1390	32	49	M45	160
1400	1685	1530	60	55	5	42	1590	36	49	M45	180
1500	1820	1640	62.5	57.5	5	43.5	1710	36	56	M52	180
1600	1930	1750	65	60	5	45.5	1820	40	56	M52	200
1800	2130	1950	70	65	5	49	2020	44	56	M52	200

FLANGED & GASKETS SPECIFICATIONS



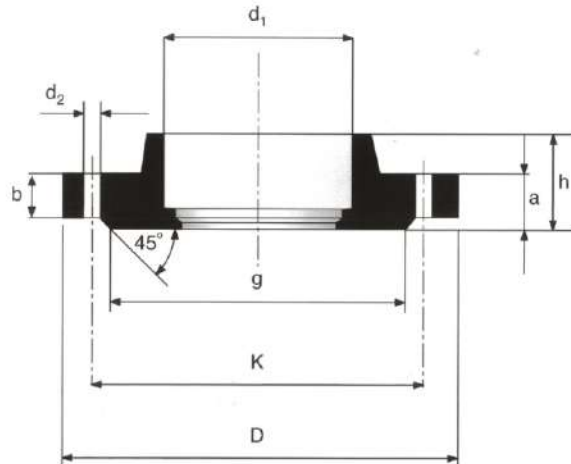
Dimensions in mm.

PN 25 Integral Flange Specification

DN	Dimensions							Holes		Bolts	
	D	d	t	t ₁	t ₂	s	k	Number	d ₁	Diameter	Length
80	200	132	19	16	3	15	160	8	19	M16	64
100	235	156	19	16	3	15	190	8	23	M20	64
125	270	184	19	16	3	15	220	8	28	M24	64
150	300	211	20	17	3	16	250	8	28	M24	68
200	360	274	22	19	3	17.5	310	12	28	M24	76
250	425	330	24.5	21.5	3	19.5	370	12	31	M27	86
300	485	389	27.5	23.5	4	22	430	16	31	M27	94
350	555	448	30	26	4	24	490	16	34	M30	104
400	620	503	32	28	4	25.5	550	16	37	M33	112
450	670	553	34.5	30.5	4	27.5	600	20	37	M33	122
500	730	609	36.5	32.5	4	29	660	20	37	M33	130
600	845	720	42	37	5	33.5	770	20	40	M36	148

FABRICATED PIPES PN 10 NECK FLANGES

Masses, dimensions & drilling details

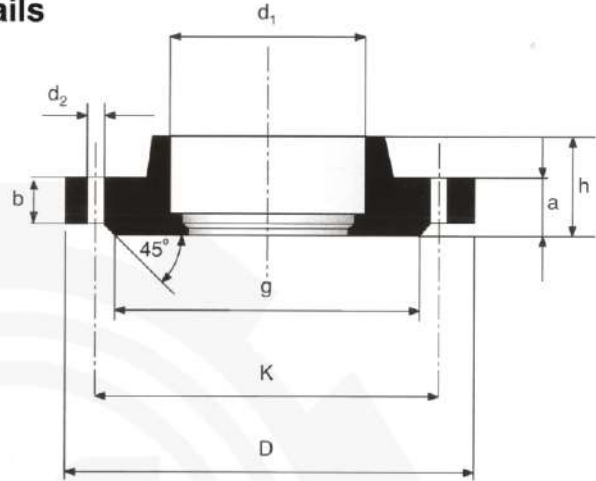


Dimensions in mm.

DN	D	d ₁	g	a	b	h	Bolts Holes Details			Bolts Sizes		Mass (Kg)
							k	NO	d ₂	Diameter	Length	
80	200	98	132	19	16	43	160	8	19	M16	65	3
100	220	118	156	19	16	45	180	8	19	M16	65	4
150	285	170	211	19	16	50	240	8	23	M20	70	6.1
200	340	222	266	20	17	55	295	8	23	M20	80	8.5
250	400	274	319	22	19	60	350	12	23	M20	80	11.8
300	455	326	370	24.5	20.5	65	400	12	23	M20	80	15.6
350	505	378	429	24.5	20.5	70	460	16	23	M20	85	17.6
400	565	429	480	24.5	20.5	75	515	16	28	M24	85	20.5
450	615	480	527	25.5	21.5	80	565	20	28	M24	90	26
500	670	532	582	26.5	22.5	85	620	20	28	M24	100	27.6
600	780	635	682	30	25	95	725	20	31	M27	110	38.4
700	895	738	794	32.5	27.5	105	840	24	31	M27	110	50.2
800	1015	842	901	35	30	115	950	24	34	M30	120	66.7
900	1115	945	1001	37.5	32.5	125	1050	28	34	M30	130	78.7
1000	1230	1048	1112	40	35	135	1160	28	37	M33	130	98.6
1100	1340	1152	1215	42.5	37.5	145	1270	32	37	M33	140	125
1200	1455	1255	1328	45	40	155	1380	32	40	M36	140	144.2
1400	1675	1462	1530	46	41	165	1590	36	43	M39	160	178.2
1500	1785	1565	1640	47.5	42.5	175	1700	36	43	M39	160	220
1600	1915	1668	1750	49	44	185	1820	40	49	M45	160	244.7
1800	2115	1875	1950	52	47	195	2020	44	49	M45	160	283.5

FABRICATED PIPES PN 16 NECK FLANGES

Masses, dimensions & drilling details

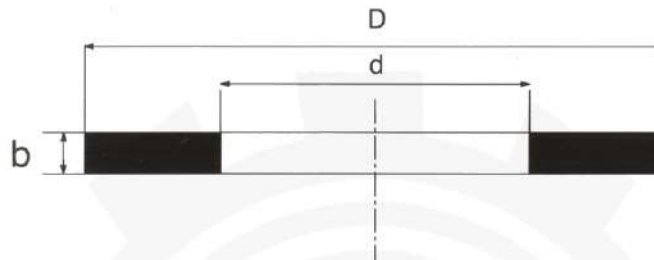


Dimensions in mm.

DN	D	d	g	a	b	h	Bolts Holes Details			Bolts Sizes		Mass (Kg)
							k	NO	d2	Diameter	Length	
80	200	98	132	19	16	43	160	8	19	M16	65	3
100	220	118	156	19	16	45	180	8	19	M16	65	4
150	285	170	211	19	16	50	240	8	23	M20	70	6.1
200	340	222	266	20	17	55	295	12	23	M20	70	8.3
250	400	274	319	22	19	60	355	12	28	M24	85	11.4
300	455	326	370	24.5	20.5	65	410	12	28	M24	85	15.2
350	520	378	429	26.5	22.5	70	470	16	28	M24	85	20.7
400	580	429	480	28	24	75	525	16	31	M27	100	26.1
450	640	480	544	30	26	80	585	20	31	M27	100	35
500	715	532	609	31.5	27.5	85	650	20	34	M30	110	42.8
600	840	635	720	36	31	95	770	20	37	M33	120	64.9
700	910	738	794	39.5	34.5	105	840	24	37	M33	130	65.3
800	1025	842	901	43	38	115	950	24	40	M36	140	85.9
900	1125	945	1001	46.5	41.5	125	1050	28	40	M36	140	102.6
1000	1255	1048	1112	50	45	135	1170	28	43	M39	160	140.1
1100	1355	1152	1215	53.5	48.5	145	1270	32	43	M39	160	180
1200	1485	1255	1328	57	52	155	1390	32	49	M45	160	208.5
1400	1685	1462	1530	60	55	165	1590	36	49	M45	180	246.3
1500	1820	1565	1640	62.5	57.5	175	1710	36	56	M52	180	261
1600	1930	1668	1750	65	60	185	1820	40	56	M52	200	346.7
1800	2130	1875	1950	70	65	195	2020	44	56	M52	200	409.4

FABRICATED PIPES

PUDDLE FLANGED



Dimensions in mm.

PN 10

DN	D	d	b	Mass (approx.)
80	200	98	19	3.3
100	220	118	19	3.7
150	285	170	19	5.6
200	340	222	20	7.4
250	400	274	22	10.5
300	455	326	24.5	13.8
350	505	378	24.5	15.4
400	565	429	24.5	18.5
450	615	480	25.5	21
500	670	532	26.5	24.5
600	780	635	30	34.4
700	895	738	32.5	46.5
800	1015	842	35	62.7
900	1115	945	37.5	73.2
1000	1230	1048	40	92.5
1100	1340	1152	42.5	111
1200	1455	1255	45	136
1400	1675	1462	46	171.4
1500	1785	1565	47.5	195.2
1600	1915	1668	49	241.7
1800	2115	1875	52	277.6

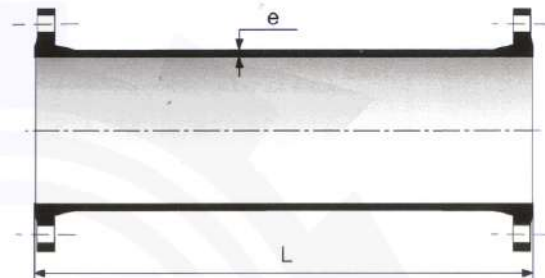
Dimensions in mm.

PN 16

DN	D	d	b	Mass (approx.)
80	200	98	19	3.3
100	220	118	19	3.7
150	285	170	19	5.6
200	340	222	20	7.4
250	400	274	22	10.5
300	455	326	24.5	13.8
350	520	378	26.5	18.9
400	580	429	28	23.8
450	640	480	30	30
500	715	532	31.5	40
600	840	635	36	60.7
700	910	738	39.5	62.5
800	1025	842	43	81.9
900	1125	945	46.5	96.6
1000	1255	1048	50	132.9
1100	1355	1152	53.5	151.8
1200	1485	1255	57	200.3
1400	1685	1462	60	234.7
1500	1820	1565	62.5	300.7
1600	1930	1668	65	341.6
1800	2130	1875	70	398.5

CAST PIPES

DOUBLE FLANGED PIPES

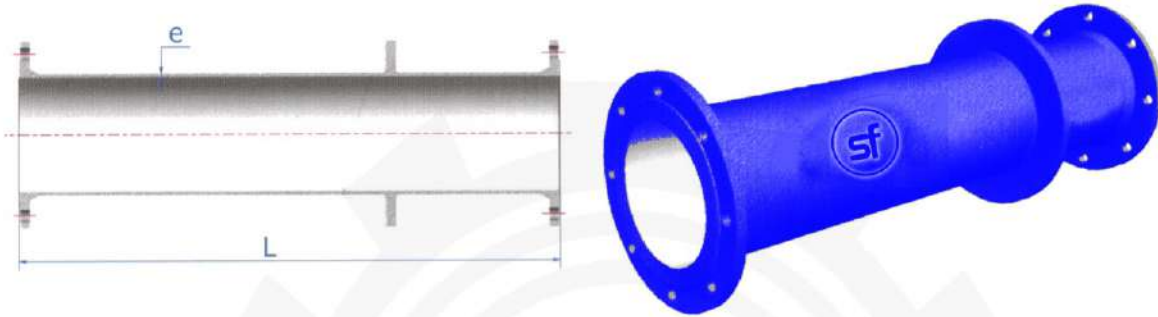


Dimensions in mm.

DN	e	Mass (Kg) for Pipe With the length of ... (mm)					
		PN 10			PN 16		
		1000	1500	2000	1000	1500	2000
80	8.1	22	x	x	22	x	x
100	8.4	27	x	x	27	x	x
150	9.1	42	58	x	42	58	x
200	9.8	60	83	x	59	82	x
250	10.5	81	111	x	80	110	x
300	11.2	104	143	182	103	142	181
350	11.9	125	173	221	131	179	227
400	12.6	149	207	265	160	218	276
450	13.3	178	247	315	194	265	331
500	14	204	285	365	235	315	395
600	15.4	273	379	484	326	432	537
700	16.8	349	484	618	380	514	648
800	18.2	442	608	774	480	646	812
900	19.6	530	731	932	578	779	980
1000	21	641	879	1118	724	962	1201
1100	22.4	786	1066	1346	856	1136	1416
1200	23.8	891	1215	1540	1019	1344	1668
1400	26.6	1141	1564	1987	1278	1700	2123
1500	28	1357	1834	2310	1533	2010	2486
1600	29.4	1480	2013	2547	1684	2217	2751
1800	32.2	1787	2444	3101	2039	2696	3353

CAST PIPES

DOUBLE FLANGED PIPE WITH PUDDLE

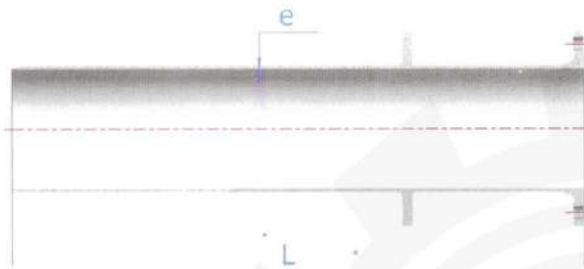


Dimensions in mm.

DN	e	Mass (Kg) for Pipe With the length of ... (mm)					
		PN 10			PN 16		
		1000	1500	2000	1000	1500	2000
80	8.1	25	x	x	25	x	x
100	8.4	30	x	x	30	x	x
150	9.1	47	63	x	47	63	x
200	9.8	67	90	x	66	89	x
250	10.5	90	121	x	89	120	x
300	11.2	117	156	195	115	154	193
350	11.9	139	187	235	148	196	245
400	12.6	165	223	281	182	240	298
450	13.3	198	267	336	222	291	360
500	14	226	306	387	272	352	432
600	15.4	304	409	515	383	489	595
700	16.8	390	524	658	435	569	704
800	18.2	497	663	829	554	720	886
900	19.6	595	796	996	666	867	1068
1000	21	722	961	1200	846	1085	1324
1100	22.4	899	1179	1460	1004	1284	1564
1200	23.8	1012	1336	1661	1205	1529	1854
1400	26.6	1289	1712	2135	1493	1916	2339
1500	28	1559	2036	2512	1823	2300	2776
1600	29.4	1686	2220	2753	1992	2526	3059
1800	32.2	2023	2680	3337	2401	3058	3715

CAST PIPES

FLANGED SPIGOT PIPE WITH PUDDLE

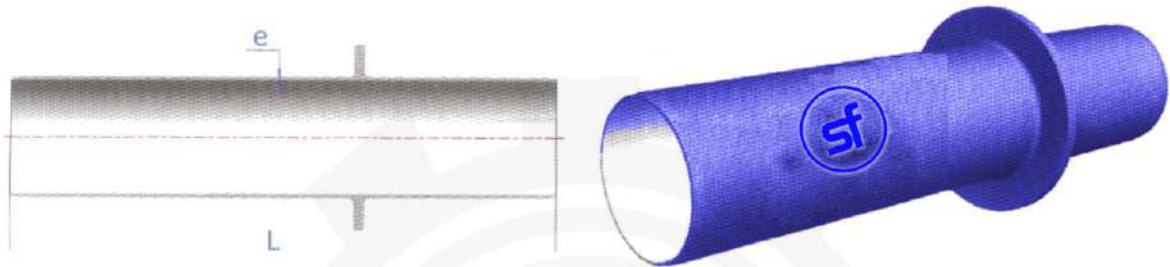


Dimensions in mm.

DN	e	Mass (Kg) for Pipe With the length of ... (mm)					
		PN 10			PN 16		
		1000	1500	2000	1000	1500	2000
80	8.1	22	x	x	22	x	x
100	8.4	27	x	x	27	x	x
150	9.1	42	58	x	42	58	x
200	9.8	60	83	x	59	82	x
250	10.5	81	111	x	80	110	x
300	11.2	104	143	182	103	142	181
350	11.9	125	173	221	131	179	227
400	12.6	149	207	265	160	218	276
450	13.3	178	247	315	194	265	331
500	14	204	285	365	235	315	395
600	15.4	273	379	484	326	432	537
700	16.8	349	484	618	380	514	648
800	18.2	442	608	774	480	646	812
900	19.6	530	731	932	578	779	980
1000	21	641	879	1118	724	962	1201
1100	22.4	786	1066	1346	856	1136	1416
1200	23.8	891	1215	1540	1019	1344	1668
1400	26.6	1141	1564	1987	1278	1700	2123
1500	28	1357	1834	2310	1533	2010	2486
1600	29.4	1480	2013	2547	1684	2217	2751
1800	32.2	1787	2444	3101	2039	2696	3353

CAST PIPES

DOUBLE SPIGOT PIPE WITH PUDDLE



Dimensions in mm.

DN	e	Mass (Kg) for Pipe With the length of ... (mm)					
		PN 10			PN 16		
		1000	1500	2000	1000	1500	2000
80	8.1	19	x	x	19	x	x
100	8.4	24	x	x	24	x	x
150	9.1	37	54	x	37	54	x
200	9.8	53	76	x	53	76	x
250	10.5	71	102	x	71	101	x
300	11.2	91	130	169	91	130	169
350	11.9	111	159	207	114	162	210
400	12.6	133	191	249	138	196	254
450	13.3	158	227	295	166	235	303
500	14	182	263	343	198	278	358
600	15.4	242	348	453	269	374	480
700	16.8	309	443	577	324	458	592
800	18.2	387	553	719	406	572	738
900	19.6	466	667	868	490	691	892
1000	21	559	798	1037	601	840	1078
1100	22.4	673	953	1234	708	988	1269
1200	23.8	770	1094	1419	834	1159	1483
1400	26.6	994	1416	1839	1062	1485	1907
1500	28	1155	1632	2108	1243	1720	2196
1600	29.4	1273	1807	2340	1375	1909	2442
1800	32.2	1551	2208	2865	1676	2334	2991

FLANGED TYPE FITTINGS

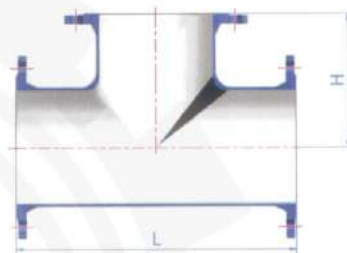
ALL FLANGED TEE SPECIFICATIONS

DN 80 - DN 700



Dimensions in mm.

Nominal size		Dimensions		Mass (Kg)		
DN	dn	L	H	PN 10	PN 16	PN 25
80	80	330	165	15.6	15.6	15.6
100	80	360	175	18.4	18.4	19.5
	100	360	180	19.4	19.4	21
125	80	400	190	23	23	24.5
	100	400	195	24	24	26
	125	400	200	25.5	25.5	27.5
150	80	440	205	28.5	28.5	31
	100	440	210	29.5	29.5	32
	150	440	220	32.5	32.5	36
200	80	520	235	42	41.5	46
	100	520	240	43	42	47.5
	150	520	250	46	45.5	51
	200	520	260	48	49	56
250	100	700	275	63	67	75
	150	700	325	73.5	73	81
	200	700	325	76	75	85
	250	700	350	82	81	93
300	100	800	300	94	93	105
	150	800	350	99	98.5	110
	200	800	350	102	101	114
	300	800	400	116	115	131
350	100	850	325	116	122	139
	150	850	325	120	126	143
	200	850	325	121	128	146
	300	850	425	140	145	166
400	350	850	425	142	151	176
	100	900	350	143	154	177
	150	900	350	149	158	181
	200	900	350	148	159	184
400	300	900	450	168	177	204
	400	900	450	174	191	225



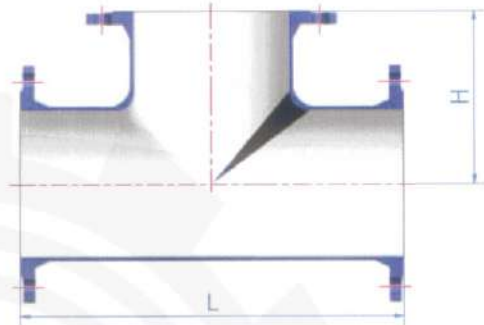
Dimensions in mm.

Nominal size		Dimensions		Mass (Kg)		
DN	dn	L	H	PN 10	PN 16	PN 25
450	100	950	375	177	193	215
	150	950	375	180	196	219
	200	950	375	183	199	222
	300	950	475	199	215	242
	400	950	475	210	230	263
	450	950	475	216	240	272
500	100	1000	400	210	241	265
	150	1000	400	218	245	267
	200	1000	400	220	248	271
	300	1000	500	237	264	291
	400	1000	500	242	276	311
	500	1000	500	252	297	332
600	150	1100	450	309	356	381
	200	1100	450	305	358	388
	300	1100	550	328	375	404
	400	1100	550	329	387	427
	600	1100	550	355	434	477
	700	200	650	525	258	298
300		760	540	319	342	-
400		870	555	343	379	-
600		1200	585	476	523	-
700		1200	600	477	523	-

FLANGED TYPE FITTINGS

ALL FLANGED TEE SPECIFICATIONS

DN 800 - DN 1800



Dimensions in mm.

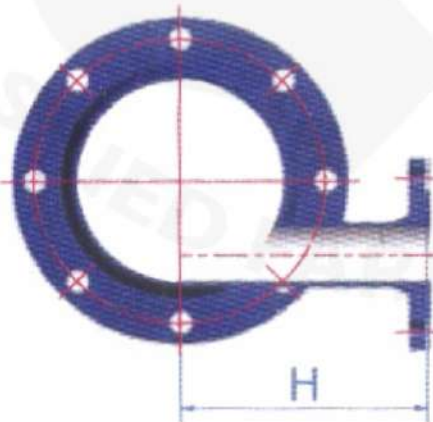
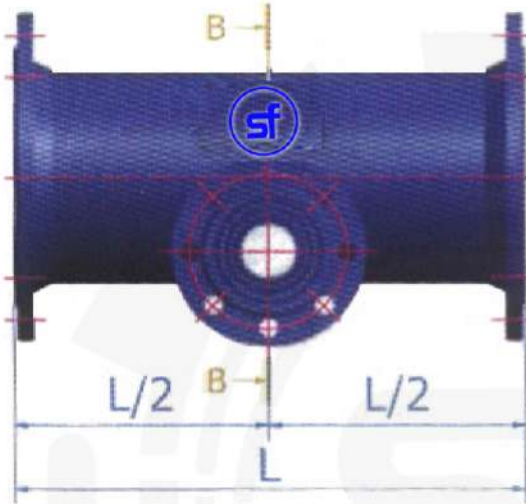
Nominal size		Dimensions		Mass (Kg)		
DN	dn	L	H	PN 10	PN 16	PN 25
800	200	690	585	352	390	—
	300	800	600	413	443	—
	400	910	615	441	484	—
	600	1350	645	613	678	—
	800	1350	675	657	715	—
900	200	730	645	436	484	—
	400	950	675	541	594	—
	600	1500	705	787	860	—
	800	1500	735	860	913	—
	900	1500	750	895	925	—
1000	200	770	705	546	629	—
	400	990	735	668	755	—
	600	1650	765	1007	1116	—
	800	1650	795	1085	1168	—
	1000	1650	825	1105	1229	—
1100	400	1030	795	839	913	—
	600	1250	825	990	1083	—
	800	1470	855	1160	1245	—
	1000	1690	885	1345	1450	—
	1100	1800	900	1450	1555	—
1200	600	1240	885	1101	1256	—
	800	1470	915	1291	1439	—
	1000	1700	945	1494	1664	—
	1200	1950	975	1806	1970	—

Dimensions in mm.

Nominal size		Dimensions		Mass (Kg)	
DN	dn	L	H	PN 10	PN 16
1400	600	1550	980	1555	1818
	800	1760	1010	1886	2041
	1000	2015	1040	2131	2309
	1200	1980	1070	2262	2431
	1400	2200	1100	2545	2715
1500	600	1350	1035	1762	1951
	800	1570	1065	2002	2193
	1000	1790	1095	2263	2474
	1200	2010	1125	2552	2782
	1400	2230	1155	2851	3084
1600	1500	2340	1170	3021	3284
	600	1600	1090	2167	2398
	800	1835	1120	2452	2675
	1000	2065	1150	2740	2986
	1200	2300	1180	3058	3327
1800	1400	2260	1210	3208	3444
	1600	2480	1240	3586	3854
	600	1655	1200	2694	2972
	800	1835	1230	3023	3299
	1000	2120	1260	3375	3669
	1200	2350	1290	3740	4056
	1400	2320	1320	3910	4190
	1600	2540	1350	4328	4641
1800	2760	1380	4750	5086	

ALL FLANGED LEVEL INVERT TEE

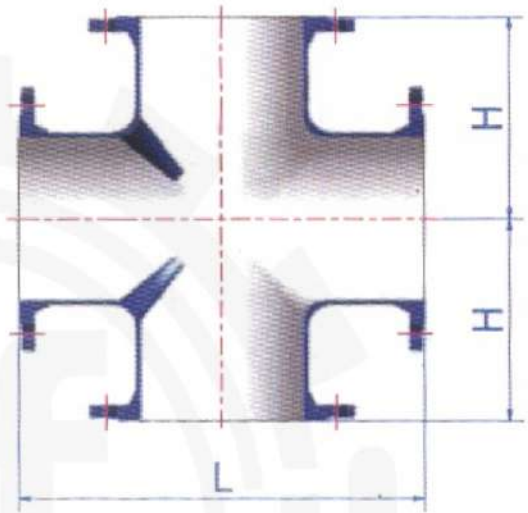
Dimensions in mm.



Nominal size		Dimensions		Mass (Kg)
DN	dn	L	H	
100	80	360	195	19.5
150	80	440	220	29.5
200	80	520	250	42.5
	100	520	250	43.5
250	80	700	275	66
	100	700	275	68
300	80	800	305	92
	100	800	305	95.5
350	150	800	305	99
	80	850	340	121
	100	850	340	123
400	150	850	340	128
	80	900	365	153
	100	900	365	156
450	150	900	365	162
	200	900	365	167
	80	950	380	188
500	100	950	380	189
	150	950	380	197
	200	950	380	202
600	80	1000	400	237
	100	1000	400	241
	150	1000	400	248
700	200	1000	400	255
	80	1100	450	350
	100	1100	450	351
800	150	1100	450	360
	200	1100	450	370
	150	600	500	262
900	200	650	500	268
	150	670	540	379
1000	200	690	540	388
	150	720	580	481
1100	200	730	580	483
	150	770	630	625
1200	200	770	630	627
	150	800	660	743
	200	850	660	773
	150	800	700	910
	200	850	700	945

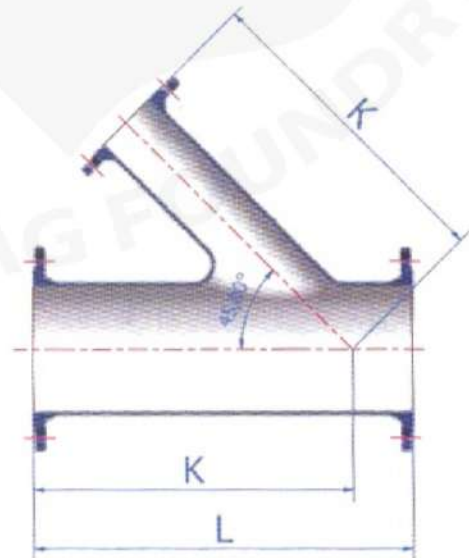
All Flanged Cross Dimensions in mm.

Nominal size		Dimensions		Mass (Kg)
DN	dn	L	H	
80	80	330	165	20.5
100	100	360	180	24.5
150	150	440	220	40.2
200	200	520	260	59.3
250	250	700	350	97.7
300	300	800	400	142.8
350	350	850	425	188.2
400	400	900	450	235.8
450	450	950	475	286
500	500	1000	500	369.7
600	600	1100	550	541.9



All Flanged Angle Branch Dimensions in mm.

Nominal size		Dimensions		Mass (Kg)
DN	dn	L	H	
80	80	500	375	20.5
100	100	540	405	24.5
150	150	640	480	40.2
200	200	735	560	59.3
250	250	830	640	97.7
300	300	930	715	142.8
350	350	950	790	188.2
400	400	970	870	235.8
450	450	1060	950	286
500	500	1140	1025	369.7
600	600	1310	1180	541.9



FLANGED BENDS SPECIFICATIONS

45° Double Flanged Bend



90° Double Flanged Bend



Dimensions in mm.

DN	B	Mass (Kg)		
		PN 10	PN 16	PN 25
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	70	70	81
350	298	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	-
800	529	403	442	-
900	581	519	567	-
1000	632	668	751	-
1100	683	857	927	-
1200	750	1050	1178	-
1400	775	1388	1524	-
1500	810	1677	1853	-
1600	845	1915	2119	-
1800	910	2465	2717	-

Dimensions in mm.

DN	B	Mass (Kg)		
		PN 10	PN 16	PN 25
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
250	350	50	49.5	57
300	400	77	78	88
350	450	90	96	113
400	500	116	127	149
450	550	147	163	184
500	600	181	211	235
600	700	272	325	352
700	800	386	416	-
800	900	533	572	-
900	1000	698	745	-
1000	1100	907	990	-
1100	1200	1164	1234	-
1200	1300	1452	1562	-
1400	1350	1948	2062	-
1500	1400	2273	2449	-
1600	1450	2663	2841	-
1800	1500	3348	3572	-

FLANGED TYPE FITTINGS FLANGED BENDS SPECIFICATIONS

11.25° Double Flanged Bend



22.50° Double Flanged Bend



Dimensions in mm.

DN	B	Mass (Kg)		
		PN 10	PN 16	PN 25
80	130	9.5	9.5	9.5
100	140	11.5	11.5	12.5
150	160	18.7	18.7	20.6
200	180	27.9	27.9	31.6
250	350	55.9	55.9	63.3
300	400	79.3	78	89.5
350	298	77.8	83.6	100.4
400	324	97.2	108.4	131
450	349	123	139	160
500	375	147	177.6	200.8
600	426	216	268.8	298.6
700	478	301	331.2	—
800	529	411.4	449	—
900	581	528.6	576.4	—
1000	632	681	764	—
1100	683	882	952	—
1200	735	1059.8	1188.6	—
1400	835	1506.2	1611.6	—
1500	885	1849	2025	—
1600	940	2132	2336.6	—
1800	345	1250.8	1279	—

Dimensions in mm.

DN	B	Mass (Kg)		
		PN 10	PN 16	PN 25
80	130	9.4	9.4	9.3
100	140	11.5	11.5	12.5
150	160	18.7	18.7	19.7
200	180	27.9	27.4	31.6
250	350	55.9	55.2	62.8
300	400	78.9	77.5	89
350	298	77.3	83.6	99.9
400	324	96.7	108.4	131
450	349	122	138	160
500	375	146	176.6	199.8
600	426	215.2	267.6	296.6
700	478	299.4	329.2	—
800	529	408.4	447	—
900	581	525.6	577	—
1000	632	677	760	—
1100	683	877	947	—
1200	735	1053.1	1182.6	—
1400	835	1497.2	1632	—
1500	886	1838	2014	—
1600	940	2119.2	2323.6	—
1800	480	1548.8	1801	—

DUCK FOOT BEND



Dimensions in mm.

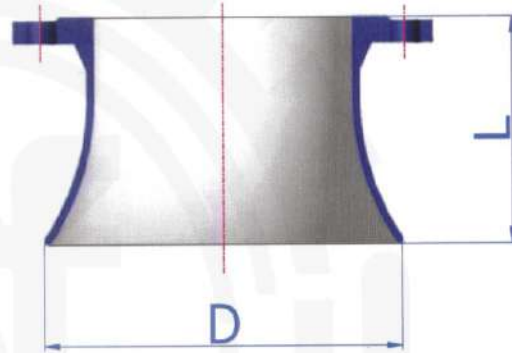
90 Degrees Duck Foot Bend

DN	Dimensions					Mass (Kg)		
	L	C	d	B	d1	PN 10	PN 15	PN 25
80	165	110	180	120	7	14.1	14.1	14.1
100	180	125	200	130	7.2	17.3	17.8	18.8
150	220	160	250	165	7.8	30	30	32
200	250	190	300	215	8.4	46	46.5	50.5
250	350	225	350	250	9	75	75	82
300	400	255	400	300	9.6	105	106	116
350	450	290	450	350	10.6	139	145	162
400	500	320	500	390	10.8	178	189	212
450	550	350	550	440	11.4	245	261	283
500	600	385	600	490	12	283	313	337
600	700	450	700	580	13.2	428	481	509
700	800	515	800	680	14.4	684	708	—
800	900	580	900	770	15.6	944	974	—
900	1000	645	1000	870	16.8	1252	1290	—
1000	1100	710	1100	960	18	1629	1698	—
1100	1200	775	1200	1060	19	2080	2150	—
1200	1300	840	1300	1160	20.4	2599	2709	—
1400	1500	970	1500	x	22.8	3200	—	—
1500	1600	1029	1600	x	24	3650	—	—
1600	1700	1090	1700	x	25.2	4100	—	—

FLANGED TYPE FITTINGS BELL MOUTH

Dimensions in mm.

Nominal size		L	Mass (Kg)		
DN	dn		PN 10	PN 16	PN 25
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	28.5	33.5
350	460	220	35	38.5	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	120	132
700	865	345	135	146	-
800	980	380	182	197	-
900	1095	415	231	250	-
1000	1210	450	297	331	-
1100	1325	485	370	405	-
1200	1440	520	457	512	-
1400	1670	590	646	702	-
1500	1780	625	763	851	-
1600	1900	660	906	995	-
1800	2130	730	1185	1297	-

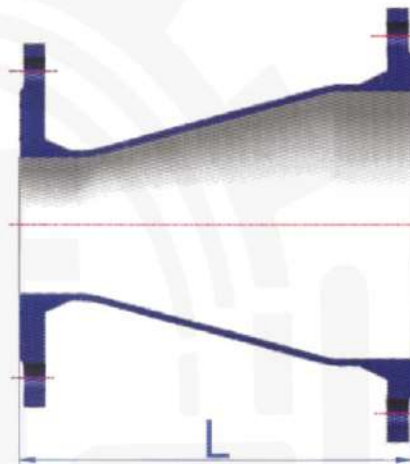


FLANGED REDUCERS SPECIFICATIONS

Dimensions in mm.

Nominal size		L	Mass (Kg)		
DN	dn		PN 10	PN 16	PN 25
80	65	160	9	9	9.5
100	80	200	9.3	9.3	9.8
125	100	200	11.3	11.3	12.5
150	80	400	16.4	16.4	17.4
	100	300	15.3	15.3	16.8
200	125	200	14	14	15.5
	100	600	27.5	27.5	30
250	150	300	22	21.5	25
	150	600	39	39	43.5
300	200	300	30	29.5	35.5
	150	650	48.5	48.5	55
350	200	600	52	51.5	59
	250	300	40.5	39.5	49
400	200	650	61.5	64	74
	250	600	65.5	67.5	79
450	300	300	49.5	52.5	66
	200	700	73.5	77.5	90.5
	250	650	77	81.5	96
500	300	600	80.5	85	101
	350	300	58	67	86
	250	700	89.5	97	112
550	300	650	93.5	101	117
	350	600	95.6	106	126
	400	300	70.5	83	105
600	300	700	109	122	138
	350	650	111	127	145
	400	600	110	130	153
650	450	300	83	104	126
	350	750	147	174	193
	400	700	150	178	201
700	450	650	151	183	206
	500	600	149	190	216
	400	800	196	212	-
	450	750	197	217	-
	500	700	200	255	-
	600	600	195	236	-

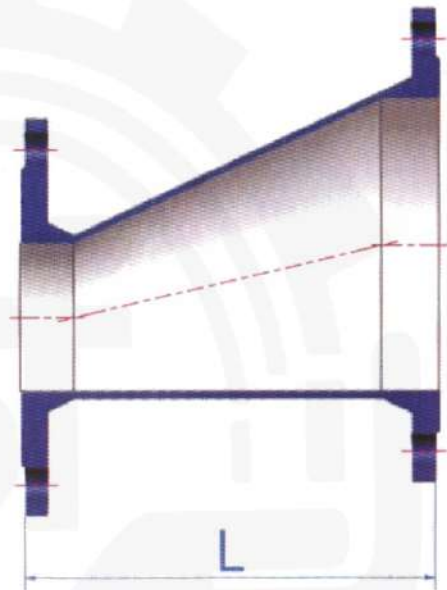
Concentric / Eccentric



Dimensions in mm.

Nominal size		L	Mass (Kg)	
DN	dn		PN 10	PN 16
800	450	900	263	286
	500	800	256	284
	600	700	260	298
	700	600	250	285
900	500	1000	338	370
	600	800	318	360
	700	700	321	352
	800	600	308	352
1000	600	1000	422	490
	700	800	396	442
	800	700	399	448
	900	600	373	438
1200	700	1345	711	777
	800	1160	688	758
	900	975	652	726
	1000	790	586	692
1400	800	1590	1034	1105
	900	1405	998	1074
	1000	1220	961	1052
	1100	1035	914	1005
1500	1200	850	814	947
	900	1620	1211	1317
	1000	1435	1174	1297
	1100	1250	1127	1250
1600	1200	1065	1074	1216
	1400	695	914	1058
	1000	1650	1424	1547
	1100	1465	1377	1502
1800	1200	1280	1324	1468
	1400	910	1103	1273
	1500	725	1073	1250
	1100	1895	1910	2057
1800	1200	1710	1858	2024
	1400	1340	1701	1870
	1500	1155	1610	1810
	1600	970	1436	1664

Concentric / Eccentric



BLANK FLANGE

Dimensions in mm.

PN 10

DN	Dimensions				Mass (Kg)
	D	a	b	c	
100	220	19	16	3	4.3
150	285	19	16	3	7.2
200	340	20	17	3	11
250	400	22	19	3	16.9
300	455	24.5	20.5	4	24
350	505	24.5	20.5	4	29.5
400	565	24.5	20.5	4	36.5
500	670	26.5	22.5	4	56
600	780	30	25	5	85
700	895	32.5	27.5	5	123
800	1015	35	30	5	172
900	1115	37.5	32.5	5	224
1000	1230	40	35	5	293
1200	1455	45	40	5	575
1400	1675	46	41	5	739
1600	1915	49	44	5	1239
1800	2115	52	47	5	1717

Dimensions in mm.

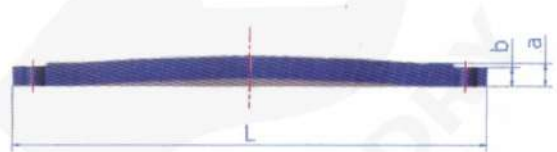
PN 16

DN	Dimensions				Mass (Kg)
	D	a	b	c	
100	220	19	16	3	4.3
150	285	19	16	3	7.2
200	340	20	17	3	10.8
250	400	22	19	3	16.6
300	455	24.5	20.5	4	23.5
350	520	26.5	22.5	4	33.5
400	580	28	24	4	44.5
500	715	31.5	27.5	4	77
600	840	36	31	5	121
700	910	39.5	34.5	5	156
800	1025	43	38	5	218
900	1125	46.5	41.5	5	286
1000	1255	50	45	5	387
1200	1485	57	52	5	662
1400	1685	60	55	5	994
1600	1930	65	60	5	1409
1800	2130	70	65	5	1858

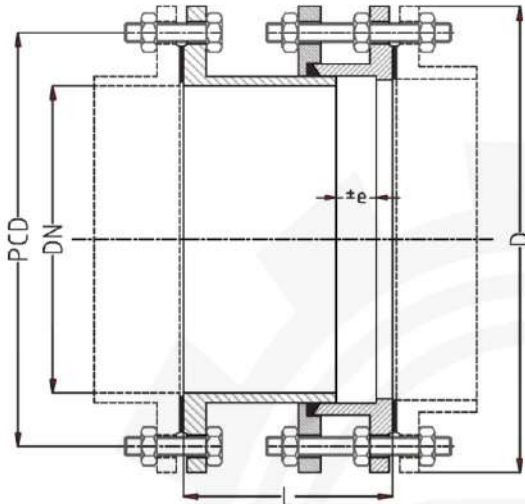
Dimensions in mm.

PN 25

DN	Dimensions				Mass (Kg)
	D	a	b	c	
100	235	19	16	3	4.8
150	300	20	17	3	8.3
200	360	22	19	3	13.3
250	425	24.5	21.5	3	21
300	485	27.5	23.5	4	30
350	555	30	25	4	43.5
400	620	32	28	4	58
500	730	36.5	32.5	4	94
600	845	42	37	5	144

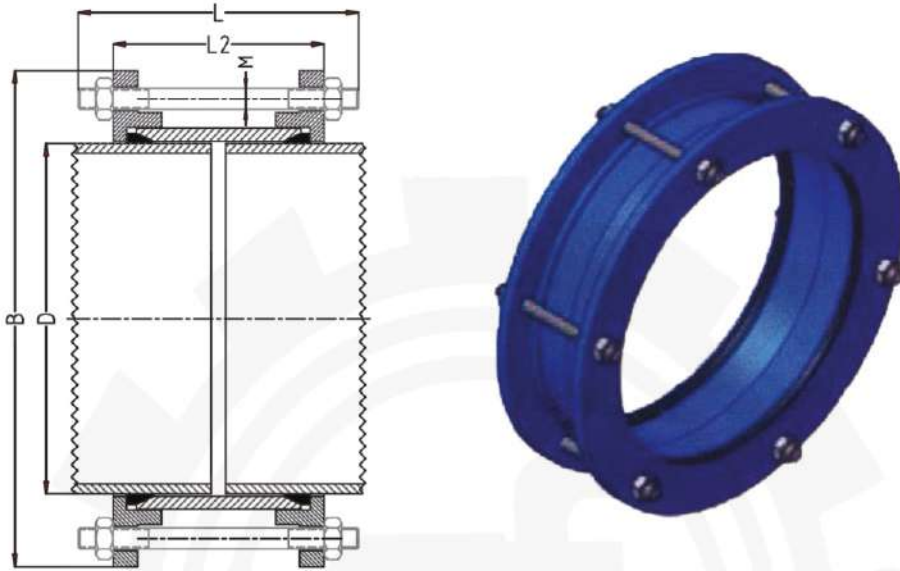


FLEXIBLE DISMANTLING JOINT DIMENSIONS



DN	L	e	Pressure 10 Bar			Pressure 16 Bar		
			D	PCD	N	D	PCD	N
80	230	50	200	160	8	200	160	8
100	230	50	220	180	8	220	180	8
125	230	50	250	210	8	250	210	8
150	230	50	285	240	8	285	240	8
200	260	50	340	295	8	340	295	12
250	260	50	400	350	12	400	355	12
300	260	50	455	400	12	455	410	12
350	265	50	505	460	16	520	470	16
400	265	50	565	515	16	580	525	16
450	265	50	615	565	20	640	585	20
500	265	50	670	620	20	715	650	20
600	285	50	780	725	20	840	770	20
700	285	50	895	840	24	910	840	24
800	340	50	1015	950	24	1025	950	24
900	340	50	1115	1050	28	1125	1050	28
1000	340	50	1230	1160	28	1255	1170	28
1200	370	50	1455	1380	32	1485	1390	32
1400	370	50	1675	1590	36	1685	1590	36
1500	370	50	1785	1700	36	1820	1710	36
1600	400	50	1915	1820	40	1930	1820	40
1800	400	50	2115	2020	44	2130	2020	44

FLEXIBLE JOINT (GIBAULT)



DN	B	D	L	L2	M
100	220	116.8	140	90	12
150	285	168.2	150	100	12
200	340	219.6	160	115	12
250	400	271	175	130	12
300	455	322.4	200	140	16
350	505	373.8	200	140	16
400	565	425.2	210	150	16
450	615	476.6	220	160	16
500	670	528	230	170	16
600	780	630.8	260	200	16
700	895	733.6	270	210	16
800	1015	836.4	280	220	16
900	1115	939.2	315	235	20
1000	1230	1042.2	235	250	20
1200	1455	1247.6	245	260	20
1400	1675	1453.2	270	270	20
1500	1785	1556	450	300	24
1600	1915	1658.8	460	310	24
1800	2115	1864.4	470	320	24

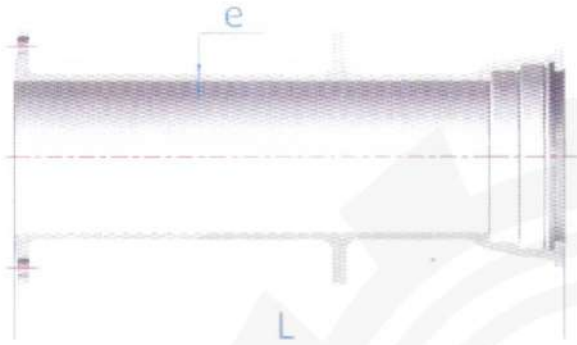
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Socket Type FITTINGS



CAST PIPES

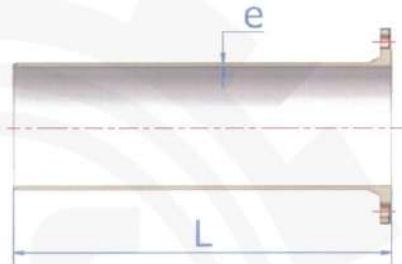
FLANGED SOCKET PIPE WITH PUDDLE



Dimensions in mm.

DN	e	Mass (Kg) for Pipe With the length of ... (mm)					
		PN 10			PN 16		
		1000	1500	2000	1000	1500	2000
80	8.1	25	x	x	25	x	x
100	8.4	31	x	x	31	x	x
150	9.1	49	66	x	49	66	x
200	9.8	70	93	x	70	93	x
250	10.5	95	125	x	94	125	x
300	11.2	122	161	200	122	161	200
350	11.9	148	197	245	155	203	251
400	12.6	178	236	294	189	247	306
450	13.3	190	258	327	198	266	335
500	14	247	327	408	277	258	438
600	15.4	332	438	544	385	491	597
700	16.8	429	563	697	459	593	727
800	18.2	544	710	876	583	749	915
900	19.6	543	744	945	591	792	993
1000	21	802	1041	1280	885	1124	1363
1100	22.4	816	1097	1377	751	1132	1412
1200	23.8	1129	1453	1778	1257	1582	1906
1400	26.6	1421	1844	2266	1557	1980	2403
1500	28	1835	2360	2880	2030	2550	3075
1600	29.4	1855	2389	2922	2059	2593	3126
1800	32.2	2277	2935	3592	2529	3186	3843

SOCKET & STRAIGHT SPIGOT



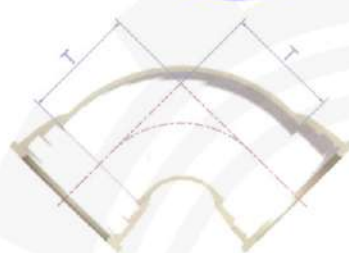
Socket Fittings Specification
Dimensions in mm.

DN	e	L	Mass (approx.) Kg.	
			PN10	PN16
65	7	125	6.4	6.4
80	7	130	7.4	7.4
100	7.2	130	9	9
125	7.5	135	11.5	11.5
150	7.8	135	14.2	14.2
200	8.4	140	20.5	20
250	9	145	28	27.5
300	9.6	150	37	36.5
350	10.2	155	45	48
400	10.8	160	55	60
450	11.4	165	70	80
500	12	170	78	93
600	13.2	180	108	135
700	14.4	190	144	159
800	15.6	200	189	209
900	16.8	210	235	258
1000	18	220	293	324

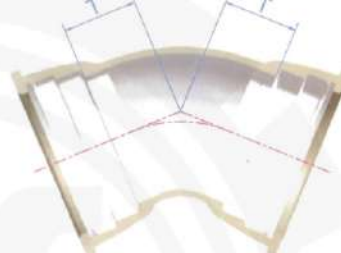
Straight Spigot
Dimensions in mm.

DN	e	L	Mass (approx.) Kg.	
			PN10	PN16
65	7	345	6.5	6.5
80	7	350	7.8	7.8
100	7.2	360	9.6	9.6
125	7.5	370	12.4	12.4
150	7.8	380	15.6	15.6
200	8.4	400	22.5	22.5
250	9	420	32	31.5
300	9.6	440	43	42.5
350	10.2	460	52	55
400	10.8	480	64	70
500	12	520	94	109
600	13.2	560	133	159
700	14.4	600	179	194
800	15.6	600	226	245
900	16.8	600	272	295
1000	18	600	328	369

SOCKET TYPE FITTINGS



90° Double Socket Bend



45° Double Socket Bend

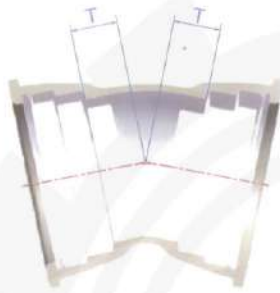
Dimensions in mm.

DN	e	t	Mass (Kg)
80	7	100	8.6
100	7.2	120	11.4
125	7.5	145	15.7
150	7.8	170	20.5
200	8.4	220	33
250	9	270	48.5
300	9.6	320	68
350	10.2	370	97.5
400	10.8	420	124
450	11.4	470	156
500	12	520	193
600	13.2	620	280
700	14.4	720	455
800	15.6	820	605
900	16.8	920	813
1000	18	1020	1054
1200	20.4	1220	1663
1400	22.8	1220	2220
1600	25.2	1290	3050
1800	28.8	1320	3229

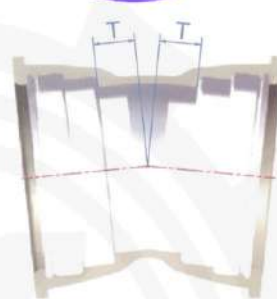
Dimensions in mm.

DN	e	t	Mass (Kg)
80	7	55	7.7
100	7.2	65	10
125	7.5	75	13.6
150	7.8	85	17.4
200	8.4	110	27
250	9	130	38.5
300	9.6	150	53
350	10.2	175	70
400	10.8	195	89
450	11.4	220	117
500	12	240	139
600	13.2	285	202
700	14.4	330	282
800	15.6	370	378
900	16.8	415	496
1000	18	460	635
1200	20.4	550	986
1400	22.8	515	1273
1600	25.2	565	1740
1800	28.8	610	2296

SOCKET TYPE FITTINGS



22.15° Double Socket Bend



11.25° Double Socket Bend

Dimensions in mm.

DN	e	t	Mass (Kg)
80	7	40	7.3
100	7.2	40	9.3
125	7.5	50	12.6
150	7.8	55	15.9
200	8.4	65	24
250	9	75	33.5
300	9.6	85	44.5
350	10.2	95	58
400	10.8	110	74
450	11.4	120	95
500	12	130	111
600	13.2	150	157
700	14.4	175	217
800	15.6	195	287
900	16.8	220	373
1000	18	240	470
1200	20.4	285	716
1400	22.8	260	933
1600	25.2	280	1259
1800	28.8	305	1663

Dimensions in mm.

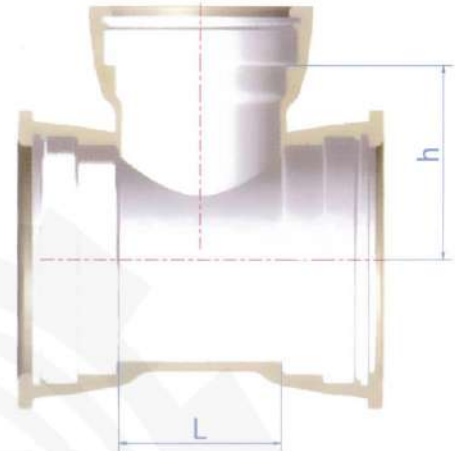
DN	e	t	Mass (Kg)
80	7	30	7.1
100	7.2	30	8.9
125	7.5	35	11.9
150	7.8	35	14.8
200	8.4	40	22
250	9	50	30.5
300	9.6	55	40.5
350	10.2	60	52
400	10.8	65	65
450	11.4	70	83.5
500	12	75	96
600	13.2	85	134
700	14.4	95	181
800	15.6	110	239
900	16.8	120	305
1000	18	130	381
1200	20.4	150	568
1400	22.8	130	747
1600	25.2	140	1007
1800	28.8	155	1331

SOCKET TYPE FITTINGS

TEE SOCKET FITTINGS SPECIFICATIONS

All Socket Tee Dimensions in mm.

DN	dn	Dimensions		Mass (Kg)
		L	h	
80	80	170	85	12.4
100	80	170	95	14.8
	100	190	95	16.1
150	80	170	120	21.5
	100	195	120	23.5
	150	255	125	28
200	80	175	145	30
	100	200	145	32
	150	255	150	37
	200	315	155	43
250	100	200	170	--
	200	315	182	--
	250	375	230	--
300	100	205	195	--
	200	320	210	--
	300	435	220	--
350	100	205	260	--
	150	265	225	--
	350	495	290	--
400	100	210	285	--
	200	325	295	--
	400	560	320	--



Dimensions in mm.

DN	dn	Dimensions	
		L	h
500	150	275	345
	200	330	345
	300	450	360
	500	680	380
600	150	280	395
	200	340	395
	600	800	440
700	200	345	445
	400	575	470
	700	925	500
800	200	350	495
	400	580	520
	600	815	540
	800	1045	565
900	200	355	545
	400	590	570
	600	820	590
	900	1170	625
1000	200	360	595
	400	595	620
	600	825	640
	1000	1290	685
1200	400	605	720
	600	840	720
	1200	1535	805



DOUBLE SOCKET TEE WITH FLANGED BRANCH

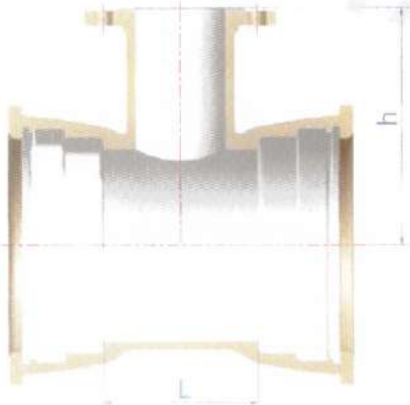
Dimensions in mm.

DN	dn	Dimensions		Mass (Kg)	
		L	h	PN 10	PN 16
80	80	170	165	13.5	13.5
100	80	170	175	15.8	15.8
	100	190	180	17.2	17.2
150	80	170	205	23	23
	100	195	210	24.5	24.5
	150	255	220	29.5	29.5
200	80	175	235	31.5	31.5
	100	200	240	33.5	33.5
	150	255	250	39	39
	200	315	360	45.6	46
250	100	200	270	43.5	43.5
	200	315	290	43.5	43.5
	250	375	300	43.5	43.5
300	100	205	300	43.5	43.5
	200	320	320	71	70
	300	435	340	89	91
350	100	205	330	68	68
	200	265	350	86	86
	350	495	380	117	120
400	100	210	360	83	83
	200	325	380	103	102
	400	560	420	150	156
500	150	275	420	116	116
	200	330	440	142	141
	400	450	480	199	205
	500	680	500	232	247
600	200	280	500	189	189
	400	340	540	258	263
	600	800	580	340	366

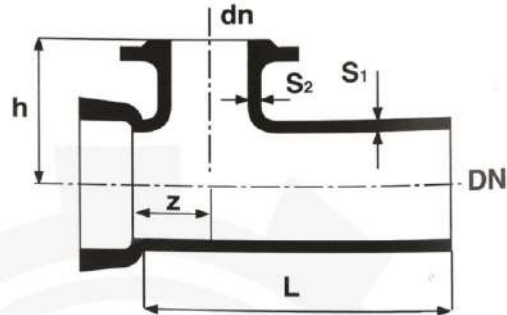


Dimensions in mm.

DN	dn	Dimensions		Mass (Kg)	
		L	h	PN 10	PN 16
700	200	345	525	300	310
	400	575	555	320	325
	700	925	600	460	475
800	200	350	585	306	306
	400	580	615	398	403
	600	1045	645	579	605
	800	1045	675	623	642
900	200	355	345	379	379
	400	590	675	490	495
	600	1170	705	748	774
1000	900	1170	750	814	838
	200	360	705	462	462
	400	595	735	591	596
	600	1290	765	947	973
1200	1000	1290	825	1044	1088
	600	840	885	1000	1027
	800	1070	915	1190	1210
1400	1000	1300	945	1406	1448
	600	1030	980	1478	1505
	800	1260	1010	1709	1728
1500	1000	1495	1040	1955	1996
	600	1035	1035	-	-
	800	1270	1065	-	-
	1000	1500	1095	-	-
1600	600	1040	1090	1908	1934
	1000	1505	1150	2480	2522
	1200	1740	1180	2799	2863
1800	600	1055	1200	2414	2440
	800	1285	1230	2748	2767
	1000	1520	1260	3095	3137
	1200	1740	1290	3460	3524



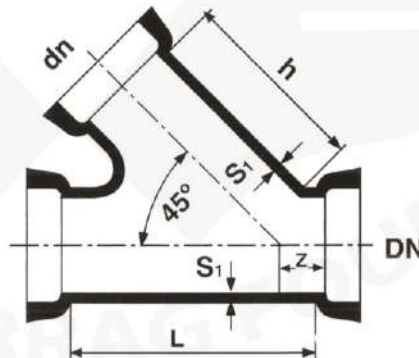
SOCKET PIPE WITH FLANGED BRANCH (WORKSNORM)



Dimensions in mm.

Nominal size		L	h	z	s1	s2	Mass (approx.) Kg	
DN	dn						PN 10	PN 16
100	80	400	175	85	8.4	8.1	16	16
	100		180	95		8.4	17	17
150	80	500	205	85	9.1	8.1	26.5	26.5
	100		210	97.5		8.4	27.5	27.5
	150		220	127.5		9.1	30.5	30.5
200	80	500	235	87.5	9.8	8.1	36	36
	100		240	100		8.4	37	37
	150	580	250	127.5		9.1	43.5	43.5
	200		260	157.5		9.8	47.5	47

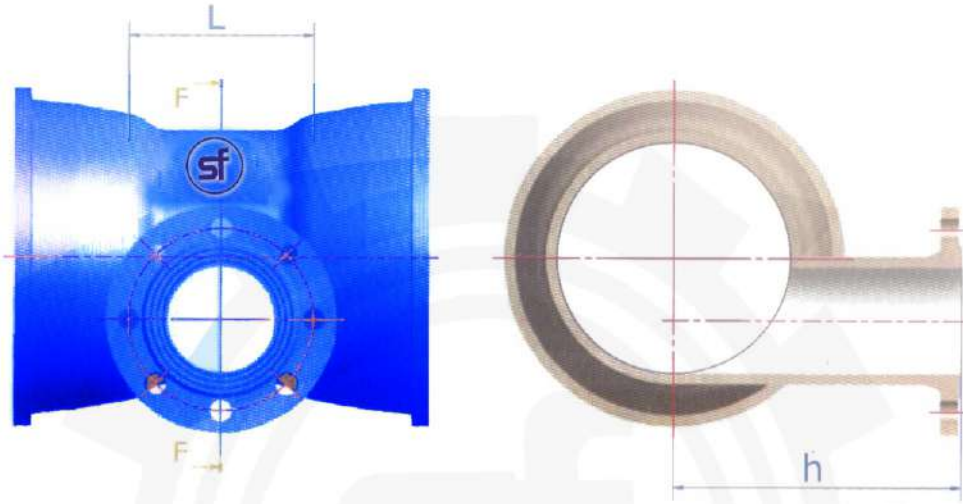
All Socket 45° Angel Branch (Worksnorm)



Dimensions in mm.

Nominal size		L	h	z	s1	Mass (approx.) Kg
DN	dn					
100	100	400	305	95	8.4	27
150	150	495	380	115	9.1	44
200	200	590	455	135	9.8	68
250	250	685	530	155	10.5	100
300	300	775	605	175	11.2	145
400	400	970	755	215	12.6	287

DOUBLE SOCKET LEVEL INVERT TEE WITH FLANGED BRANCH



Dimensions in mm.



DN	dn	Dimensions		Mass (Kg)	
		L	H	PN 10	PN 16
150	80	190	220	35	35
200	80	190	250	40	40
250	80	220	275	50	50
250	100	220	275	52	52
300	80	220	305	62	62
300	100	220	305	64	64
350	100	225	340	83	83
400	100	225	365	98	98
450	100	230	380	115	115
500	100	230	400	134	134
600	100	355	435	173	173
700	200	360	500	300	300
800	200	360	540	370	370
900	200	370	580	475	475
1000	200	370	630	570	570
1100	200	375	660	725	725
1200	200	375	700	840	840

SOCKET TYPE FITTINGS REDUCER SPECIFICATIONS

Double Socket Reducer

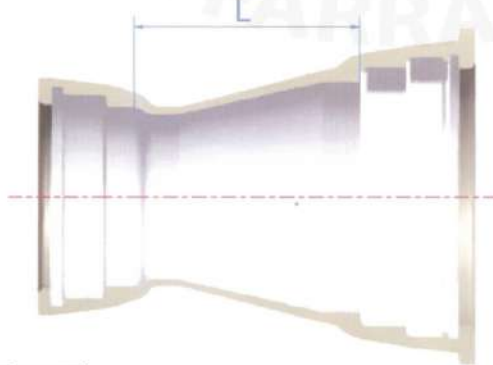
Dimensions in mm.

DN	d	L	Mass (Kg)
100	80	90	-
150	80	190	-
	100	150	18
200	100	250	25
	150	150	26
250	150	250	35
	200	150	34
300	150	350	49
	200	250	47
350	250	150	46
	200	360	-
400	300	160	-
	200	460	82
450	250	360	80
	300	260	87
500	300	360	99
	400	160	92
600	300	460	111
	400	260	103
700	450	160	98
	400	460	156
800	500	260	131
	400	680	-
900	500	480	-
	600	280	-
1000	500	680	-
	600	480	252
1100	700	280	229

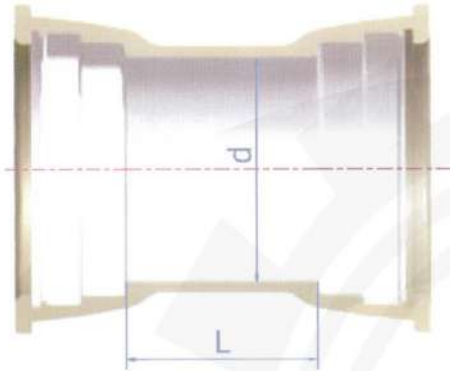


Dimensions in mm.

DN	d	L	Mass (Kg)
900	500	880	-
	600	680	-
	700	480	-
	800	280	-
1000	600	840	-
	700	680	-
	800	480	-
1200	900	280	-
	700	1020	-
	800	870	-
1400	900	670	-
	1000	480	-
	800	760	-
	900	660	-
1500	1000	560	-
	1200	360	-
	1000	660	-
1600	1200	460	-
	1400	360	-
	1000	760	-
1800	1200	560	-
	1400	360	-
	1500	260	-
2000	1200	760	-
	1400	560	-
2200	1600	360	-



COLLAR

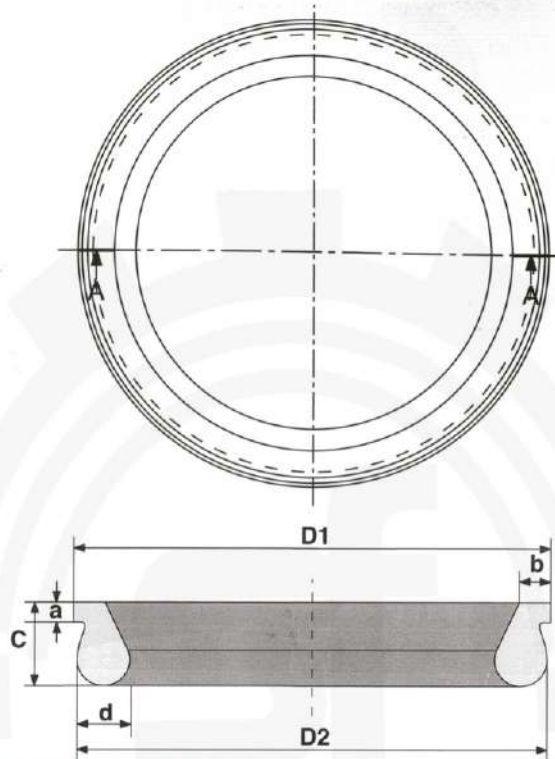


Dimensions in mm.

DN	d	L	Mass (Kg)
80	109	160	7.9
100	130	160	9.9
150	183	165	15.9
200	235	170	23
250	288	175	31.5
300	340	180	41
350	393	185	52
400	445	190	64
450	498	195	88
500	550	200	93
600	655	210	129
700	760	220	172
800	865	230	223
900	970	240	282
1000	1075	250	349
1100	1180	260	479
1200	1285	270	560
1400	1477	340	816
1500	1580	350	974
1600	1683	360	1094
1800	1889	380	1427

SOCKET TYPE FITTINGS

TYPE OF FLEXIBLE SOCKET JOINTS



Dimensions in mm.

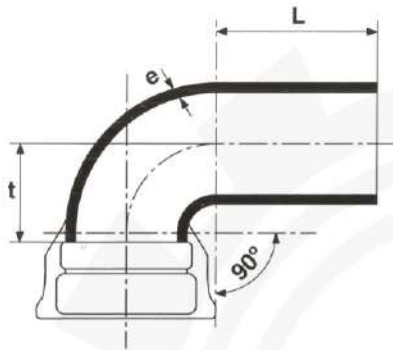
DN	Dimensions					
	D1	D2	b	c	d	e
80	128	126	10	26	15	6.5
100	148	146	10	26		6.5
150	202	200	10	26	16	6.5
200	258	256	11	30	18	6.5
250	313	310	11	32	18.5	6.5
300	369	366	12	34	19.5	7
350	424	420	12	34	19.5	8
400	479	475	13	36	21	8
450	532	528	13	38	21.5	8
500	588	583	14.5	44	24	9
600	697	692	15.5	47	26	10
700	795	790	19	54	31.5	12
800	919	913	21	60	35.5	13
900	1026	1020	22.5	65	37.5	14
1000	1133	1127	22.5	70	39.5	14
1200	1357	1351	22	68	39	13.5
1400	1581	1561	22	64	38.5	13.5



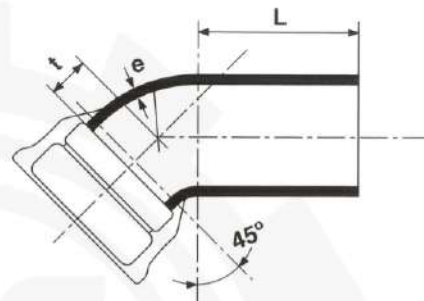
U.P.V.C FITTINGS



SOCKET SPIGOT BEND



Socket Spigot 90° Bend



Socket Spigot 45° Bend

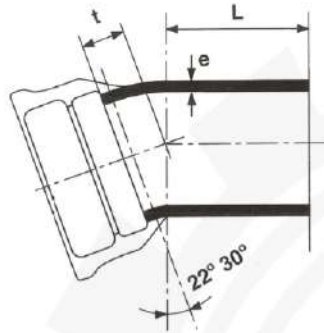
Dimensions in mm.

DN	e	t	L	Mass (Approx.)Kg. PN10/16
80	7	100	280	9.2
100	7.2	120	295	12.4
150	7.8	170	325	22.5
200	8.4	220	355	39
300	9.6	320	355	81
400	10.8	420	400	175
500	12	520	400	197
600	13.2	620	500	270

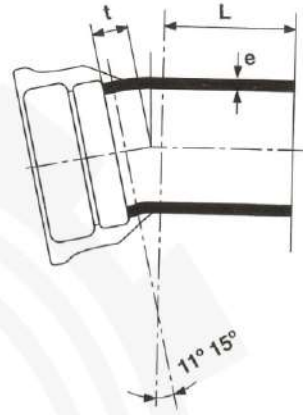
Dimensions in mm.

DN	e	t	L	Mass (Approx.)Kg. PN 10 /16
80	7	55	280	8.3
100	7.2	65	295	13
150	7.8	85	325	22
200	8.4	110	355	32
300	9.6	150	355	60
400	10.8	195	400	100
500	12	240	400	152
600	13.2	285	500	235

SOCKET SPIGOT BEND



Socket Spigot 22.30° Bend



Socket Spigot 11.15° Bend

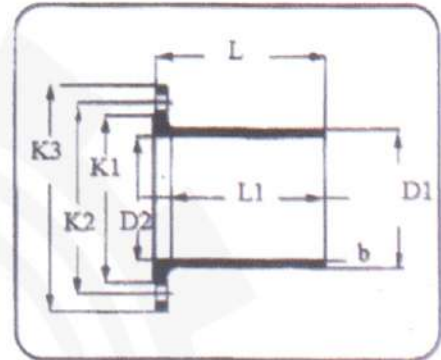
Dimensions in mm.

DN	e	t	L	Mass (Approx.)Kg. PN 10/16
80	7	40	280	8
100	7.2	40	295	10.5
150	7.8	55	325	18
200	8.4	65	355	28
300	9.6	85	355	50
400	10.8	110	400	85
500	12	130	400	125
600	13.2	150	500	190

Dimensions in mm.

DN	e	t	L	Mass (Approx.)Kg. PN 10/16
80	7	30	280	7.7
100	7.2	30	295	10
150	7.8	35	225	17
200	8.4	40	355	26
300	9.6	55	335	47
400	10.8	65	400	67
500	12	75	400	110
600	13.2	85	500	167

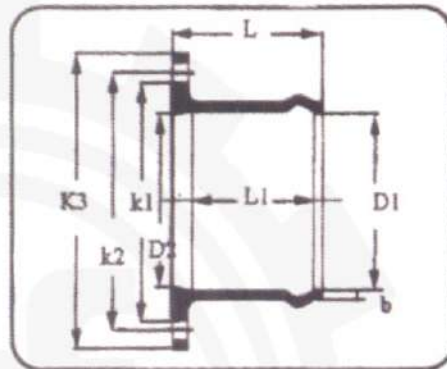
FLANGED SPIGOT



Dimensions in mm.

DN	D1	D2	L	L1	K1	K2 10 16	K3 10 16	Holes		b	Mass (Kg)
								PN 10	PN 16		
63	63	47	115	95	95	125/135	175	4	4	8	4
75	75	61	135	115	115	125/135	185	4	4	8	4.5
90	90	72	140	120	135	160	200	4	8	9	6
110	110	92	158	130	150	180	200	8	8	9	8
125	125	106	160	135	180	210	250	8	8	9.5	10
140	140	12	172	150	185	210	250	8	8	10	10.5
160	160	140	180	160	205	240	285	8	8	10	13
200	200	178	185	145	260	295	340	8	12	11	21
225	225	203	227	200	270	295	340	8	12	11	21
250	250	226	180	150	310	350/355	395/405	12	12	12	31
280	280	256	185	150	315	350/355	395/405	12	12	12	32
315	315	289	235	205	355	400/410	445/460	12	12	15	37
355	355	300	270	240	365	400/415	445/460	12	12	16	58
355	355	327	270	240	415	460/470	505/520	16	16	16	62
400	400	380	290	255	476	515/525	565/580	16	16	18	67
450	450	410	305	265	480	515/525	565/580	16	16	18	92
500	500	445	325	276	525	565/585	615/640	20	20	20	122

FLANGED SOCKET



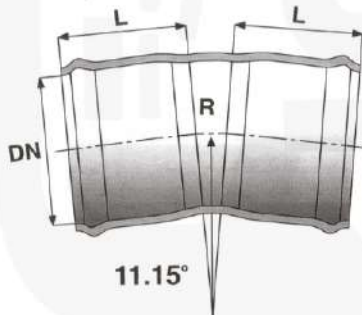
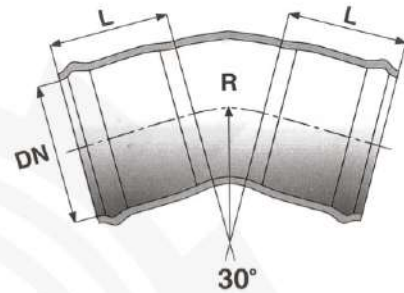
Dimensions in mm.

DN	D1	D2	L	L1	K1	K2 10 16	K3 10 16	Holes		b	Mass (Kg)
								PN 10	PN 16		
63	65.5	50	120	100	100	125/135	175	4	4	8	4
75	77.3	65	120	100	115	125/135	185	4	4	8	4.5
90	92.3	80	120	100	135	160	200	4	8	9	6
110	112.6	100	125	105	150	180	220	8	8	9	7
125	128	115	164	141	180	210	250	8	8	9.5	10
140	143	125	145	110	185	210	250	8	8	10	10.5
160	163.5	150	145	120	205	240	285	8	8	10	13
200	203.5	195	148	160	263	295	340	8	12	11	19
225	228.5	200	190	140	270	295	340	8	12	11	20
250	253.5	235	210	175	315	350/355	395/405	12	12	12	31
280	283.5	250	225	195	315	350/355	395/405	12	12	12	32
315	318.5	300	424	210	355	400/410	455/460	12	12	15	43
355	358.5	300	265	225	360	400/410	455/460	12	12	16	56
355	358.5	330	265	225	415	460/470	505/520	16	16	16	60
400	404	360	260	220	460	515/525	565/580	16	16	18	70
450	445	400	290	250	470	515/525	565/580	16	16	18 1	77
500	405	455	315	275	530	565/585	615/640	20	20	20	91

DOUBLE SOCKET BEND

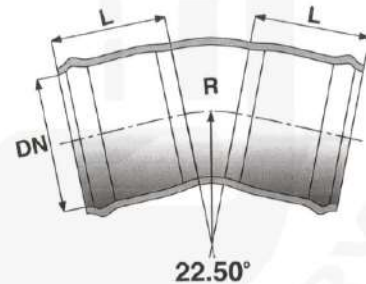
30° Double Socket Bend Dimensions in mm.

DN	R	L	Mass (Kg)
63	50	102	2.7
75	60	113	3.7
90	80	120.5	5
110	100	128	7.1
125	125	133.5	9.2
140	125	139.5	11.5
160	150	149.5	15.9
200	200	165.7	24.4
225	200	186	31.4
250	250	204	39.6
280	250	208	43
315	300	219	63.1



11.15° Double Socket Bend Dimensions in mm.

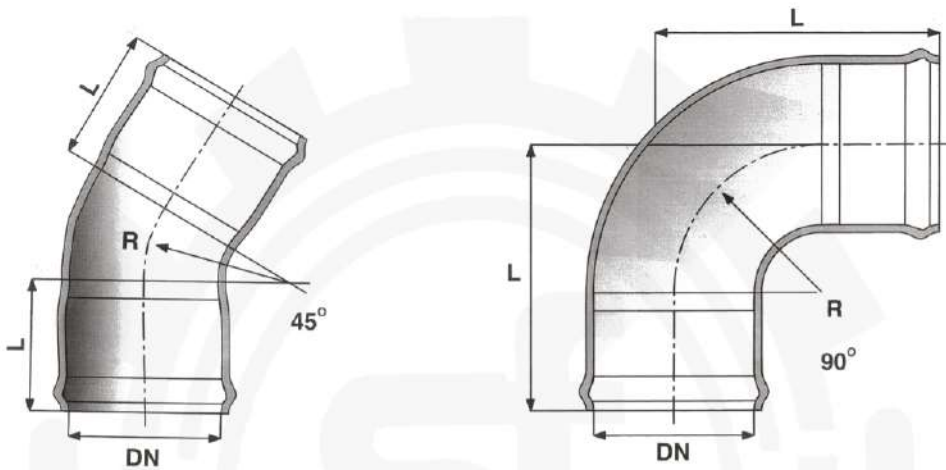
DN	R	L	Mass (Kg)
63	50	102	2.5
75	60	113	3
90	80	120.5	5
110	100	128	6.5
125	125	133.5	8.5
140	125	139.5	10.1
160	150	149.5	15.5
200	200	165.7	20.8
225	200	186	32
250	250	204	33
280	250	208	41.7
315	300	219	45



22.50° Double Socket Bend Dimensions in mm.

DN	R	L	Mass (Kg)
63	50	102	2.5
75	60	113	3.3
90	80	120.5	4.8
110	100	128	6.5
125	125	133.5	8.8
140	125	139.5	11
160	150	149.5	15
200	200	165.7	23
225	200	186	35
250	250	204	36
280	250	208	45.5
315	300	219	59.5

DOUBLE SOCKET BEND



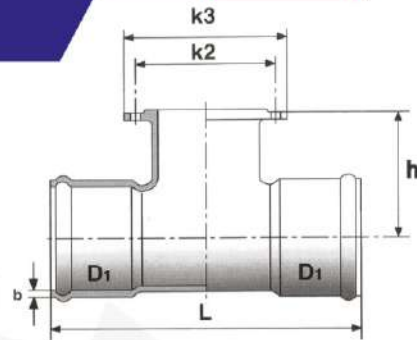
45° Double Socket Bend
Dimensions in mm.

DN	R	L	Mass (Kg)
63	50	102	2.8
75	60	113	4
90	80	120.5	5.5
110	100	128	7.5
125	125	133.5	10.3
140	125	139.5	13
160	150	149.5	17
200	200	165.7	26
225	200	186	36
250	250	204	43
280	250	208	49.5
315	300	219	70.5
355	350	227	88
400	400	234	120
500	505	244	165

90° Double Socket Bend
Dimensions in mm.

DN	R	L	Mass (Kg)
63	50	152	3
75	60	173	4.5
90	80	200	5.7
110	100	228	9.2
125	125	258	11.5
140	125	264	15.5
160	150	299	21
200	200	365	31.5
225	200	386	39
250	250	445	52
280	250	458	53.2
315	300	519	92.5
355	350	577	110
400	400	634	180
500	505	749	245

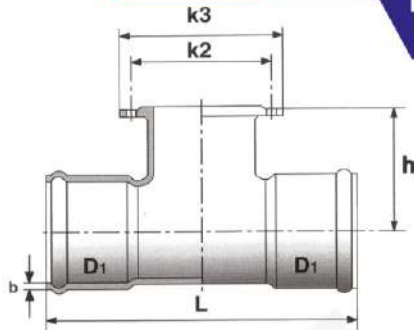
DOUBLE SOCKET TEE WITH FLANGED BRANCH



Dimensions in mm.

DN x dn	D1	L	h	b	K2	K3	Holes		Mass (Kg).
							PN 10	PN 16	
63x50/60	65.3	280	140	8	125/135	175	4	4	8
75x50/60	77.3	295	151	8	125/135	175	4	4	8.5
90x50/60	92.3	292	160	9	125/135	175	4	4	9
90x80	92.3	328	165	9	160	200	4	8	12
110x50/60	112.5	326	172	9	125/135	175	4	4	13
110x80	112.5	330	172	9	160	200	4	8	14
110x110	112.5	355	175	9	180	220	8	8	16
125x50/60	128	440	233	9.5	125/135	175	4	8	18
125x80	128	440	233	9.5	160	200	4	4	18
125x100	128	440	233	9.5	180	220	8	8	20
125x125	128	440	235	10	210	250	8	8	22
140x50/60	143.3	350	190	10	125/135	175	4	8	17
140x80	143.3	360	200	10	160	200	4	4	17
140x100	143.3	370	200	10	180	220	8	8	18
140x125	143.3	428	202	10	210	250	8	8	22
160x50/60	163.5	376	200	10	125/135	175	4	8	20
160x80	163.5	376	200	10	160	200	4	4	21
160x100	163.5	376	202	10	180	202	8	8	22
160x125	163.5	473	206	10	210	250	8	8	26
160x150	163.5	473	208	11	240	285	8	8	30
200x50/60	203.5	480	220	11	125/135	175	4	4	29
200x80	203.5	480	220	11	160	200	4	8	30
200x100	203.5	480	230	11	180	220	8	8	32
200x125	203.5	530	240	11	210	250	8	8	33
200x150	203.5	530	270	11	240	258	8	8	35
200x200	203.5	490	270	11	295	240	8	12	50
225x50/60	228.5	490	230	11	125/135	175	4	4	36
225x80	228.5	490	230	11	160	200	4	8	36
225x100	228.5	490	240	11	180	220	8	8	39
225x125	228.5	490	260	11	210	250	8	8	41
225x150	228.5	490	270	11	240	285	8	8	43
225x200	228.5	530	400	11	295	340	8	12	55
250x50/60	253.5	535	230	12	125/135	175	4	4	50
250x80	253.5	535	230	12	160	200	4	8	50

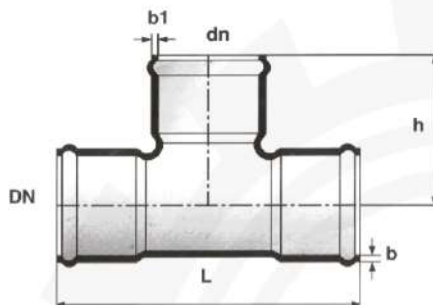
DOUBLE SOCKET TEE WITH FLANGED BRANCH



Dimensions in mm.

DNXd _n	D ₁	L	h	b	K ₂	K ₃	Holes		Mass (Kg)
							PN 10	PN 16	
250x100	254	535	230	12	180	220	8	8	50
250x125	254	535	240	12	210	250	8	8	54
250x150	254	535	240	12	240	285	8	8	54
250x200	254	655	250	12	295	340	8	12	75
250x250	254	655	250	12	350/355	395/405	12	12	78
280x80	284	542	240	12	160	200	4	8	52
280x100	284	542	240	12	180	220	8	8	58
280x125	284	542	240	12	210	250	8	8	62
280x150	284	542	240	12	240	285	8	8	66
280x200	284	710	270	12	295	340	8	12	75
280x250	284	710	270	12	250/355	395/405	12	12	77
315x80	319	490	250	9	160	200	4	8	55
315x100	319	490	250	9	180	220	8	8	57
315x125	319	490	250	9.5	210	250	8	8	61
315x150	319	490	250	10	240	285	8	8	62
315x200	319	600	270	11	295	340	12	12	110
315x250	319	600	270	12	350/355	295/405	12	12	110
315x300	319	600	280	9	400/410	245/480	12	12	110
355x100	359	600	310	9.5	180	220	8	8	75
355x125	359	600	310	10	210	250	8	8	76
355x150	359	600	310	11	240	285	8	8	77
355x200	359	840	340	12	295	340	8	12	105
355x250	359	840	340	14	350/355	395/405	12	12	115
355x300	359	840	350	9	400/410	400/460	12	12	122
400x100	404	710	310	9.5	180	220	8	8	100
400x125	404	710	310	10	210	250	8	8	102
400x150	404	710	310	11	240	285	8	8	105
400x200	404	880	340	12	295	340	8	12	118
400x250	404	880	340	12	350/355	395/405	12	12	125
400x300	405	880	350	14	400/410	455/460	12	12	135
400x350	405	880	350	14	460/470	505/520	16	16	140
500x100	404	710	400	9	180	220	8	8	150
500x125	404	710	400	9.5	210	250	8	8	145
500x150	404	710	400	10	240	285	8	8	158

ALL SOCKET TEE



Dimensions in mm.

DNx _{dn}	L	H	b	b ₁	Mass (Kg)
225x200	540	380	11	11	46
225x225	540	380	11	11	47
250x63-110	535	230	12	9	45
250x125-160	535	230	12	10	47
250x200-250	655	240	12	12	66
280x63-110	542	240	12	9	50
280x125-160	542	240	12	10	60
280x200-280	710	260	12	12	78
315x110-160	795	250	14	10	68
315x200-225	745	270	14	11	88
315x250-315	754	270	14	14	105
355x110-160	600	310	14	10	75
355x200-250	840	340	14	12	92
355x280-355	840	350	14	14	108
400x110-160	710	310	16	10	100
400x200-280	880	340	16	12	110
400x315-400	880	340	16	16	150
500x110-160	710	340	18	10	150

All Socket tee

Dimensions in mm.

DNx _{dn}	L	H	b	b ₁	Mass (Kg)
63x63	280	137	8	8	4.8
75x63	295	147	8	8	6
75x75	295	149	8	8	6
90x63	302	149	9	8	7.8
90x75	302	149	9	8	8.2
90x90	328	164	9	9	8.8
110x63	326	158	9	8	10
110x75	326	158	9	8	11
110x90	352	173	9	9	11
110x110	372	186	9	9	12.5
125x63	440	180	9.5	8	15
125x75	440	180	9.5	8	15
125x90	440	190	9.5	9	16
125x110	440	200	9.5	9	17
125x125	440	220	9.5	9.5	18
140x63	350	171	10	8	13
140x75	350	171	10	8	14
140x90	378	186	10	9	16
140x110	398	199	10	9	17
140x125	428	210	10	9.5	18

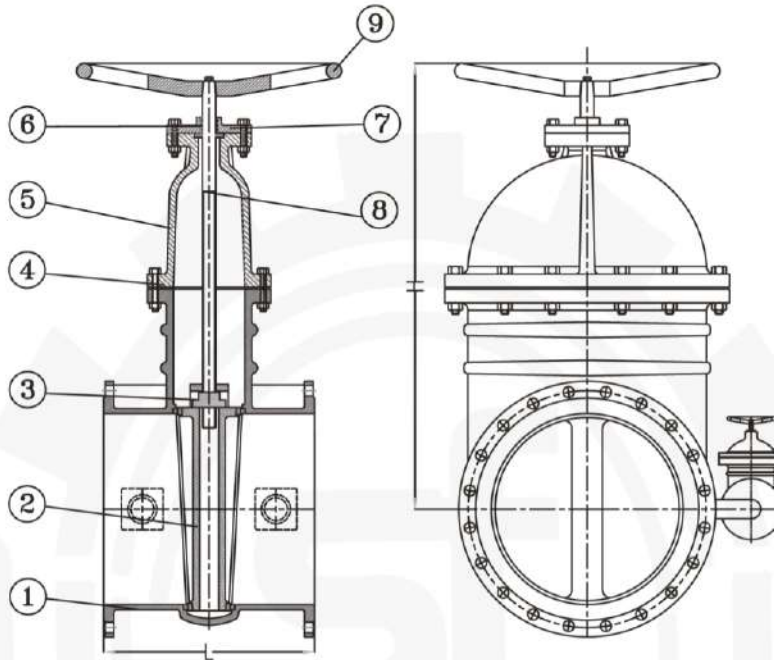
Dimensions in mm.

DNx _{dn}	L	H	b	b ₁	Mass (Kg)
140x140	428	213	10	10	18.5
160x63	376	180	10	8	20
160x75	376	180	10	8	21
160x90	402	195	10	9	21
160x110	422	208	10	9	22
160x125	473	235	10	9.5	24
160x140	473	235	10	10	24
160x160	473	235	10	10	25
200x63-75	480	210	11	8	29
200x90	480	220	11	9	30
200x110	480	235	11	9	31
200x125	480	240	11	9.5	32
200x140	480	250	11	10	32
200x160	530	260	11	10	34
200x200	530	265	11	11	35
225x63-75	490	225	11	8	33
225x90-110	490	230	11	9	34
225x125	490	260	11	9.5	35
225x140	490	260	11	10	36
225x160	540	380	11	10	40

Valves & PENSTOCKS



GATE VALVE (NON-RISING STEM-BY BASS)



Dimensions in mm.

DN	L	H
400	525	925
450	550	1020
500	550	1120
600	600	1280
700	700	1450
800	750	1640
900	800	1850
1000	800	2030
1200	850	2200

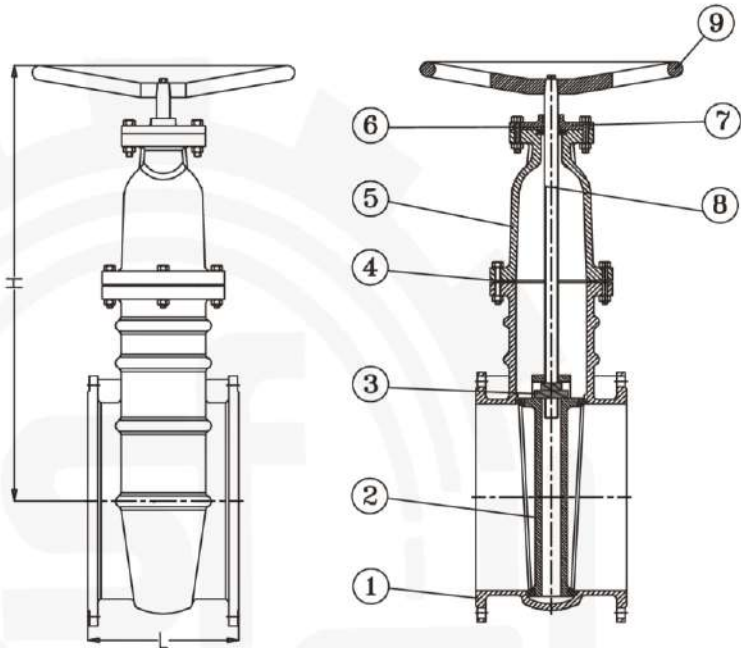
NO	PART LIST	MATERIAL
1	BODY	GGG 50
2	WEDGE	GGG 50
3	Sealing Ring	BRONZE
4	Stem	STAINLESS STEEL
5	BONNET	GGG 50
6	Packing	NBR
7	GALAND	GGG 50
8	Stem Support	STEEL
9	HAND WHEEL	GGG 50
10	NAT	GGG 50

Face To Face From(100-1200mm) DIN 5725/1083
GATE GATE VALVE (NON-RISING STEM- BY
Bass) PN 10 BAR / PN 16 PAR

The Company Its Rights for Modifiction Without notice

Dimensions in mm.

DN	L	H
50	150	200
65	150	200
80	180	250
100	190	270
150	210	400
200	230	490
250	250	580
300	270	735
350	290	830
400	310	925
450	330	1020
500	350	1120
600	390	1280
700	430	1450
800	470	1640
900	510	1850
1000	550	2030
1200	590	2200



NO	PART LIST	MATER/AL
1	BODY	GGG 50
2	WEDGE	GGG 50
3	NAT	BRONZE
4	GASKEG	ASBESTOS FREE
5	BONNET	GGG 50
6	STEM SEAL	RABAER
7	GALAND	GGG 50
8	STEM	STAINLESS STEEL
9	HAND WHEEL	GGG 50

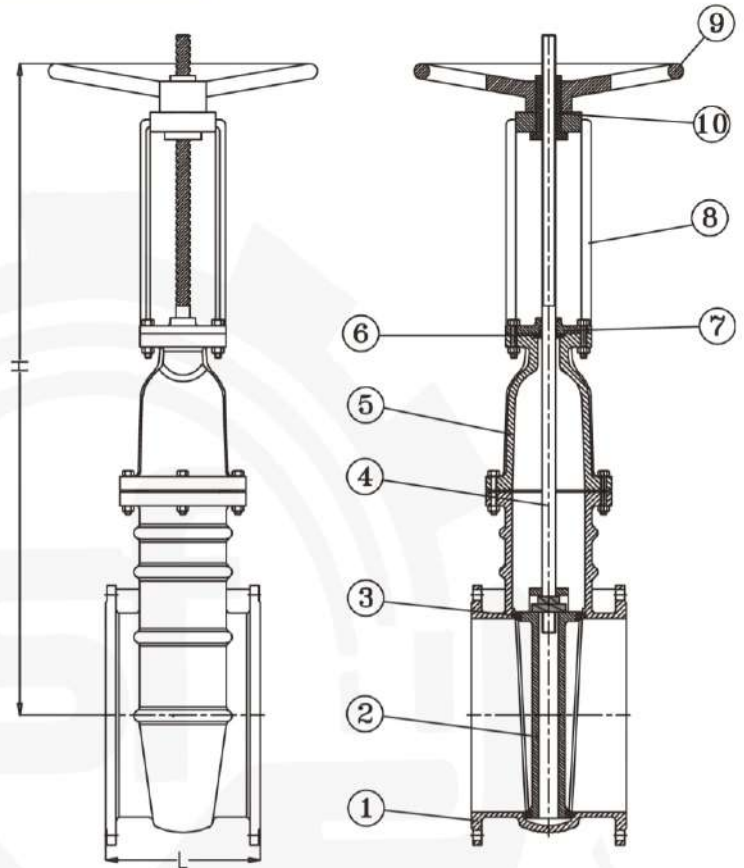
Face To Face s From(50-1200mm)DIN 5725/1083
 GATE VALVE (NON-RISING STEM) PN 10 BAR /
 PN 16 PAR

The Company Its Rights for Modifiotion Without notice

GATE VALVE (RISING STEM)

Dimensions in mm.

DN	L	H
100	190	470
150	210	650
200	230	790
250	250	930
300	270	1150
350	290	1320
400	310	1470
450	330	1620
500	350	1770
600	390	2030
700	430	2300
800	470	2600
900	510	2800
1000	550	3200
1200	590	3400



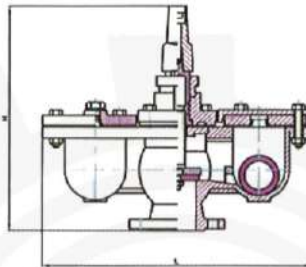
NO	PART LIST	MA TERIAL
1	BODY	GGG 50
2	WEDGE	GGG 50
3	Sealing Ring	BRONZE
4	Stem	STAINLESS STEEL
5	BONNET	GGG 50
6	Packing	NBR
7	GALAND	GGG 50
8	Stem Support	STEEL
9	HAND WHEEL	GGG 50
10	NAT	GGG 50

Face To Face s From(65-300mzn)DIN
5725/1083 GATE VALVE (RISING STEM) PN
10 BAR /PN16 BAR

The Company Its Rights for Modification Without notice

TYPE A - PN10/16 Dimensions in mm.

Size(DN)	L	H
50	468	388
65	468	388
80	468	388
100	555	472
150	742	550
200	850	620

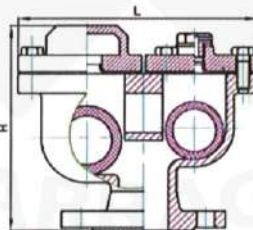


MATERIAL	
Body	Cast Iron/Ductile Iron
Cover	Cast Iron/Ductile Iron
Ball	NBR/ABS
Stem	Stainless Steel/Brass

Remark: Our design can be suitable for all standards (BS, DIN, ANSI, J IS standard etc.)

TYPE B - PN10/16 Dimensions in mm.

Size(DN)	L	H
50	240	211
65	256	211
80	305	261
100	328	269
150	392	320
200	455	370

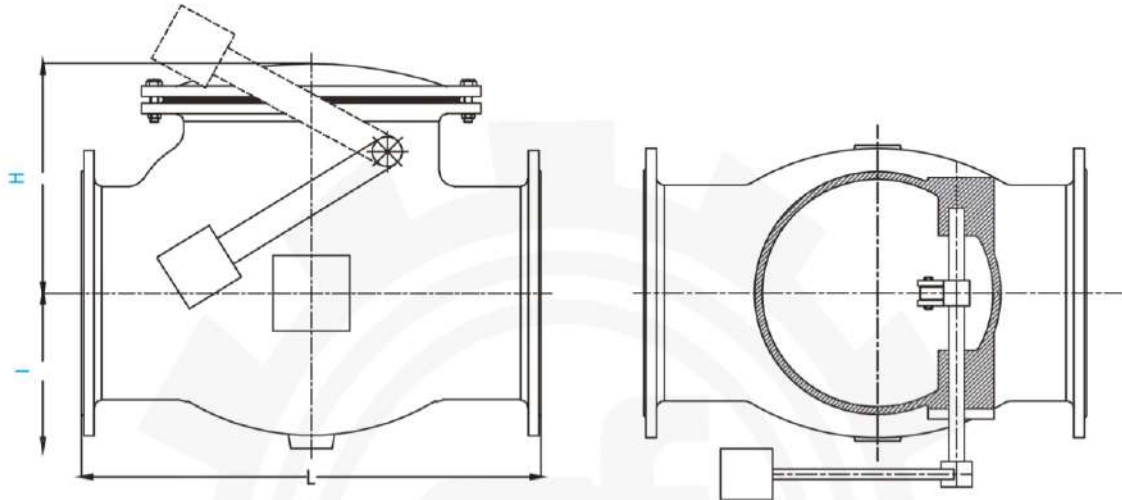


MATERIAL	
Body	Cast Iron/Ductile Iron
Cover	Cast Iron/Ductile Iron
Ball	NBR/ABS

Remark: Our design can be suitable for all standards (BS, DIN, ANSI, J IS standard etc.)

The Company Its Rights for Modifiotion Without notice

NON- RETURN VALVE



Dimensions in mm.

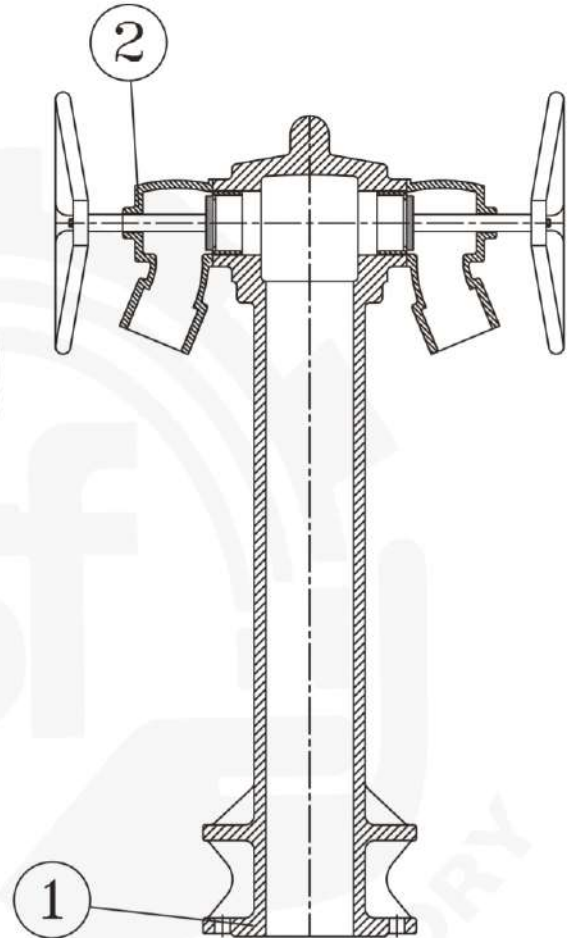
PN10/16

DN	L	H	HI
100	300	150	100
150	400	205	135
200	500	250	170
250	600	290	190
300	700	360	210
350	800	460	250
400	900	515	320
500	1000	570	370
600	1100	630	440
700	1200	680	490
800	1350	730	570
900	1500	820	660
1000	1650	950	740



Face To Face According to (3202)F6
Flanges According TO ISO 2531

The Company Its Rights for Modifiction Without notice



NO	PART LIST	MATERIAL
1	BODY	GGG / GG
2	COPPER VALVE OUT LET	BRONZE

According to the Egyptian Standard specifications
EN 14384-1561 -7775



حنفية حريق ارضية (A40)



حنفية حريق رأسية (BE25)



حنفية حريق رأسية (BE55)



حنفية حريق رأسية (BE50)



حنفية حريق ارضية (R35)



حنفية حريق رأسية KE5000



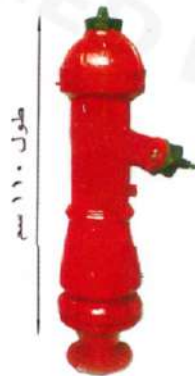
حنفية رأيسية KA6000



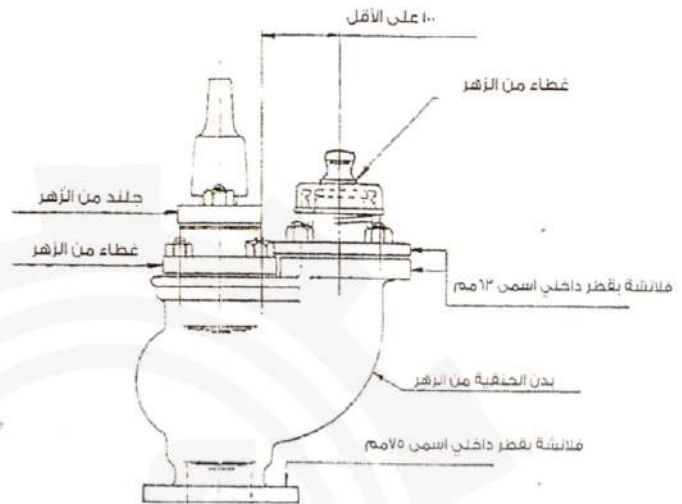
حنفية حريق رأسية (BA100)



محبس سكينه (V100)

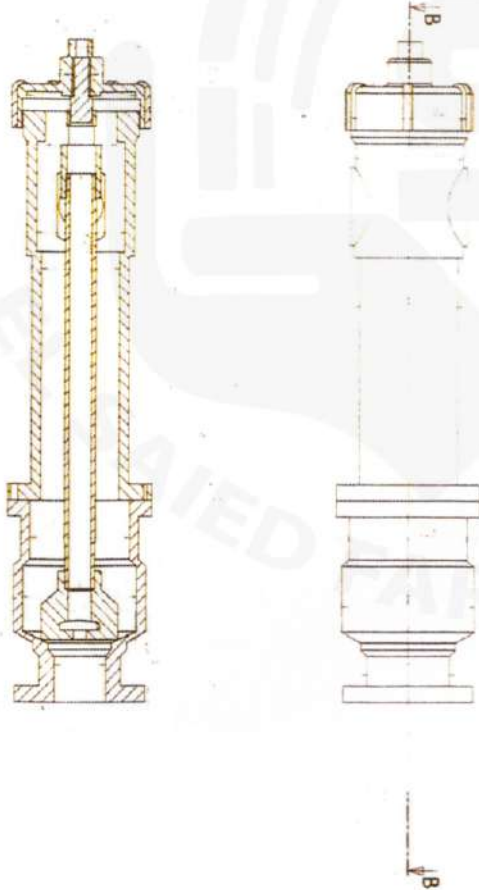


حنفية حريق ارضية (A45)

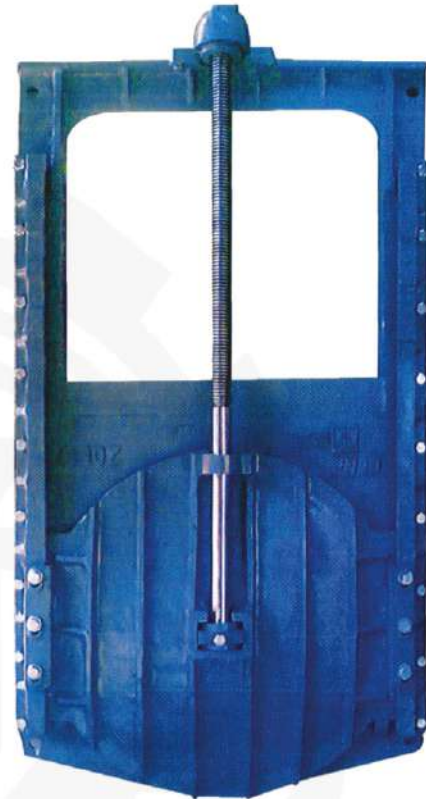
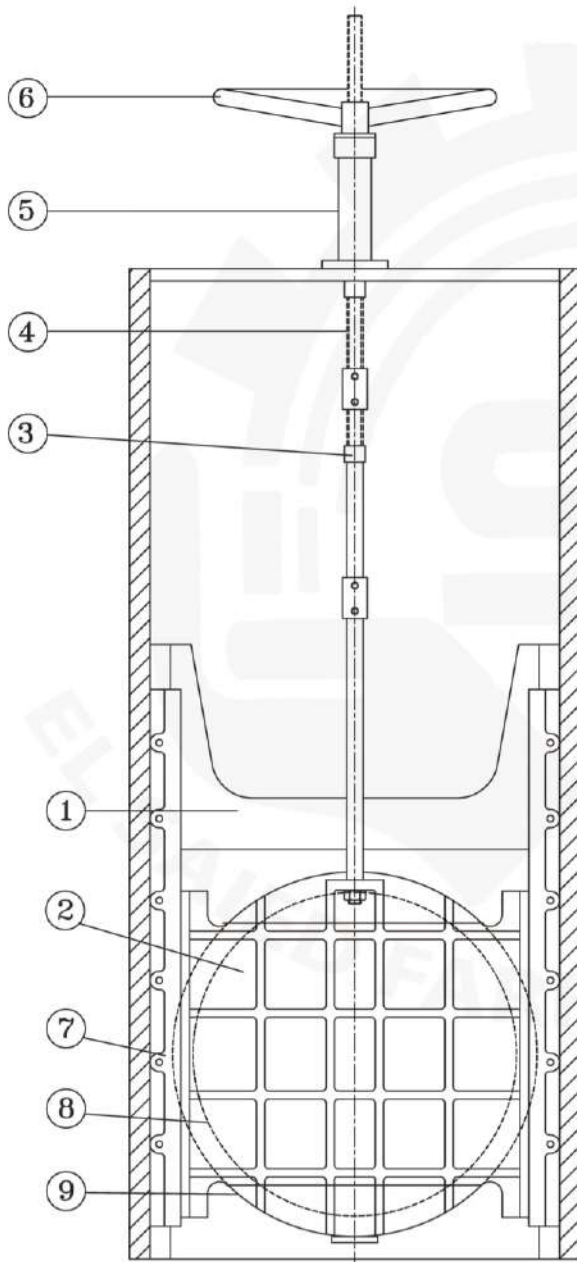


شكل استرشادي لخنقية صريق ذات محبس لولبي

SECTION B-B
SCALE 1 : 4



PENSTOCKS



NO	PART LIST	MATERIAL
1	BODY	GGG/GG
2	WEDGE	GGG/GG
3	COUPLING	GGG/GG
4	RISING SHAFT	ST.ST
5	RISING HOLDER	GGG/GG
6	HAND WHEEL	GGG/GG
7	GUIDE BRACKET	GG25
8	BODY SEAT	BRONZE
9	WEDGE SEAT	BRONZE

Penstock Frame And Door Made Of GGG /GG
 Operated by Hand Wheel.
 With Rising Spindle made of stainless steel.
 Guide bracket bolt in oattern.
 Seat surface of gate made of gunmtail(Brass)

Manhole COVERS



CAST IRON MANHOLE COVERS



غطاء غرف تفتيش مجوز
وزن ٨٠ ك / ١٠٠ ك / ١٢٥ ك



غطاء غرف تفتيش كهرباء - تليفونات
مقاس داخلي ٤٠٠ * ٤٠٠ / ٦٠٠ * ٦٠٠ - ٩٠٠ * ٩٠٠ مم



غطاء مطر بمفصلات مقاس ٤٠٠ * ٦٠٠ مم
حمل اختبار ٤٠ طن من الزهر المرن



غطاء غرف تفتيش
مقاس داخلي ٦٠٠ * ٩٠٠ مم



غطاء مطر ثلاث قطع مقاس ٤٠٠ * ٦٠٠ مم
من الزهر الرمادي



غطاء مطر ثلاث قطع مقاس ٤٠٠ * ٦٠٠ مم
من الزهر الرمادي



غطاء شارع صغير
ارتفاع ٢٨ سم



غطاء شارع صغير
ارتفاع ١٣ سم



درج سلم طول ٣٢ - ٣٨ سم



غطاء صرف صحي قطر داخلي ٦٠٠ مم



غطاء صرف صحي قطر داخلي ٦٠٠ مم



غطاء غرف تفتيش ٦٠٠ × ٦٠٠ مم



غطاء صرف صحي قطر داخلي ٦٠٠ مم



غطاء صرف صحي قطر داخلي ٦٠٠ مم وزن ٢٨٥ ك



غطاء صرف صحي قطر داخلي ٥٠٠ مم

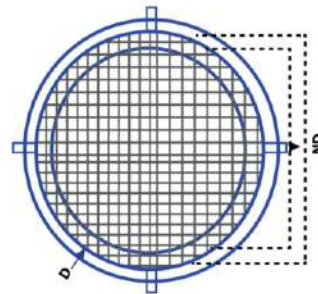
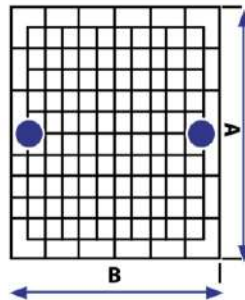


درج سلم بحاري



وصلات منزلية
(بريزة نحاس)

GRP MANHOLE COVERS



المواصفات الفنية

تصنع الأغطية من مادة البوليمر المسلح بالألياف الزجاجية مع إضافة بعض المواد المائلة كالسليكا وبعض الإضافات الراتنجية لتحقيق المواصفات المطلوبة.

المقاسات المتوفرة

الدائري الفتحة الحرة: قطر ٦ سم - قطر ١٦ سم
المربع الفتحة الحرة: ٣٠/٣٠ سم - ٦٠/٦٠ سم - ١٢٠/١٢٠ سم - ١٨٠/١٨٠ سم
أغطية الأمطار الفتحة الحرة: ٤٠/٣٠ سم - ٤٠/٥٠ سم - ٤٠/٦٠ سم - ٦٠/٦٠ سم
غرف تفتيش كاملة بالغطاء: جميع المقاسات
أيضاً يقوم المصنع بتصنيع جميع المقاسات الخاصة.

الأحمال:

يقوم المصنع بإنتاج جميع الأحمال المطلوبة علم حسب المواصفات الفنية وذلك يبدأ من ١ طن إلى ٤٠ طن وما يزيد عن ٤٠ طن وذلك بناءً علم حسب الأحمال المطلوبة.

مميزات الأغطية ال GRP

- مقاومة عالية للكسر والصدمات والبرق والإحتكاك.
- تصنع بدقة عالية لتتحمل الأحمال العالية ومحكمة الغلق.
- تصنع بكافة الألوان المطلوبة من العميل.
- يكتب عليهما البيانات الخاصة بالمشروع حسب طلب العميل.
- مقاومة تماماً لجميع أنواع الأحماض والقلويات وأبخرة الصراف.
- المادة غير قابلة للتدوير.

GULLY GRATINGS



جريليا + ٢/١ مجري بزواية من الزهر الرمادي
عرض ١٠٨٠ سم بطول ٥٠ سم

جريليا + ٢/١ مجري بزواية

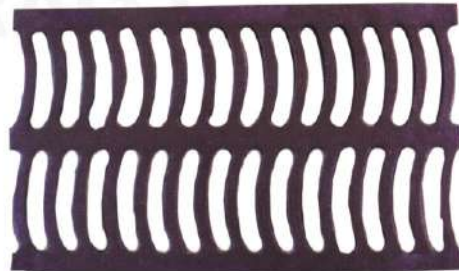


نصف مجري بزواية بمخرج (ولد)

دليل يمين و دليل شمال لجميع الجريليات
طول متر
من الزهر المرن



نصف مجري بدون زاوية



جريليات صرف مياة من الزهر المرن

National Organization
For Potable Water & Sanitary Drainage
Administration of Testing & Industry Supervision

الهيئة القومية
لمياه الشرب والصرف الصحي
إدارة الاختبارات والرقابة على الصناعة

شهادة اعتماد منشأة إنتاجية

(المسابك)

اسم المنشأة : مسبك معادن - السيد فراج
عنوان الإدارة : الكوم الأحمر - اوسيم - الجيزة
عنوان المصنع : الكوم الأحمر - اوسيم - الجيزة
السجل التجارى : ٧٤٨٠٩ مكتب سجل تجارى :
بعض رقم تسجيل ضريبي : ٧٣-٧٤٨-٨٠٠ مأمورية: امياه ثان-محافظة: الجيزة
سجل صناعي رقم : ٦٩١٩ سنة الإصدار : ٢٠٠٣/٢/٢٤ نوعية الصناعة : معدنية
رخصة : (دائمة) ملف رقم : ٦٣ (حى / مدينة) : اوسيم محافظة : الجيزة
موافقة شلون البيئة : رقم القيد : التاريخ : الجهة :

أهم المنتجات المعتمدة لدى الهيئة :-

- ١- أغطية زهر رمادي والمرن
- ٢- درج سلم زهر رمادي والمرن
- ٣- قطع خاصة زهر رمادي والمرن حتى قطر ٧٠٠مم

- طبقا للمواصفات القياسية المصرية والعالمية
- يتم الالتزام بتعليمات الإدارة و الموضحة خلفه وفي حاله مخالفتها يعتبر لاغى
- شهادة الاعتماد لا يعمل بها كبديل عن شهادات الاختبار التي تصدر لكل أمر توريد على حده

المشرف العام

مهندسة /
" ايمان احمد سليم "



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