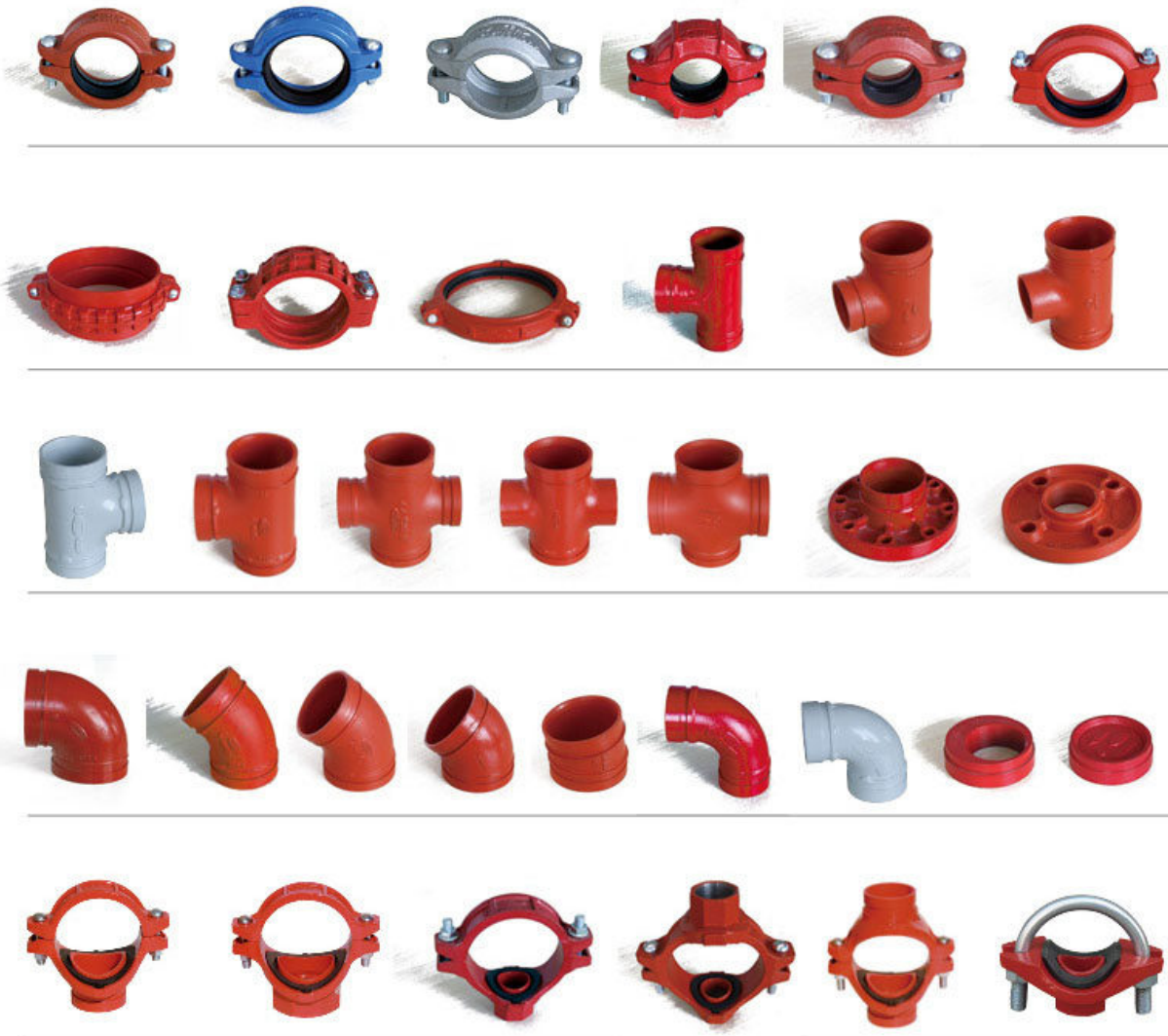


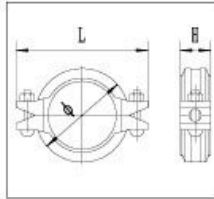
Ductile iron casting conforming to ASTM A536 65-45-12 equal to QT450-12.

Coating: 1. painting 2. epoxy 3. dacromet 4. galvanized

Color: 1. Red 2. Blue 3. White 4. Orange

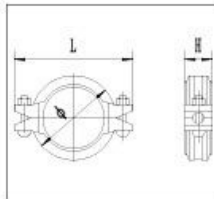


Rigid Coupling



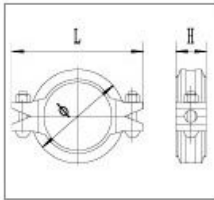
Nominal Size mm/in	Pipe O.D mm/in	Working Pressure PSI/MPa	Bolt Size No.-Size mm	Dimensions mm/in		
				Ø	L	H
25	33.7	500	2-M10x45	60	102	45
1	1.327	3.45		2.362	4.016	1.772
32	42.4	500	2-M10x45	70	106	44
1¼	1.669	3.45		2.756	4.173	1.732
40	48.3	500	2-M10x45	73	108	44
1½	1.900	3.45		2.874	4.252	1.732
50	57.0	500	2-M10x55	83	122	45
2	2.245	3.45		3.268	4.803	1.772
50	60.3	500	2-M10x55	87	123	44
2	2.375	3.45		3.425	4.843	1.732
65	73.0	500	2-M10x55	100	138	44
2½	2.875	3.45		3.937	5.433	1.732
65	76.1	500	2-M10x55	103	142	45
2½	3.000	3.45		4.055	5.591	1.772
80	88.9	500	2-M12x60	117	166	45
3	3.500	3.45		4.606	6.535	1.772
100	108.0	500	2-M12x65	137	188	48
4	4.250	3.45		5.393	7.401	1.889
100	114.3	500	2-M12x65	139	190	49
4	4.500	3.45		5.472	7.480	1.929
125	133.0	400	2-M12x75	163	210	49
5	5.250	2.75		6.417	8.268	1.929
125	139.7	400	2-M12x75	168	218	49
5	5.500	2.75		6.614	8.583	1.929
150	159.0	400	2-M12x75	192	242	49
6	6.250	2.75		7.559	9.528	1.929
150	165.1	400	2-M12x75	193	241	49
6	6.500	2.75		7.598	9.488	1.929
150	168.3	400	2-M12x75	198.5	249	50
6	6.625	2.75		7.815	9.803	1.969
200	219.1	300	2-M16x85	253	320	59
8	8.625	2.07		9.961	12.598	2.323
250	273	300	2-M22x130	335	426	68
10	10.748	2.07		13.189	16.772	2.677
300	323.9	300	2-M22x130	380	470	65
12	12.752	2.07		14.96	18.504	2.559

Flexible Coupling



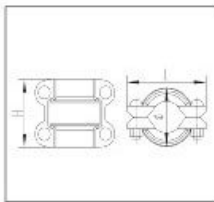
Nominal Size mm/in	Pipe O.D mm/in	Working Pressure PSI/MPa	Bolt Size No.-Size mm	Dimensions mm/in		
				Ø	L	H
25	33.7	500	2-M10x45	60	98	43.5
1	1.327	3.45		2.362	3.858	1.713
32	42.4	500	2-M10x45	67	106	44
1¼	1.669	3.45		2.638	4.173	1.732
40	48.3	500	2-M10x45	73	108	44
1½	1.900	3.45		2.874	4.252	1.732
50	57.0	500	2-M10x55	83	122	45
2	2.245	3.45		3.268	4.803	1.772
50	60.3	500	2-M10x55	87	123	44
2	2.375	3.45		3.425	4.843	1.732
65	73.0	500	2-M10x55	100	138	44
2½	2.875	3.45		3.937	5.433	1.732
65	76.1	500	2-M10x55	103	142	45
2½	3.000	3.45		4.055	5.591	1.772
80	88.9	500	2-M12x60	117	166	45
3	3.500	3.45		4.606	6.535	1.772
100	108.0	500	2-M12x65	137	188	48
4	4.250	3.45		5.393	7.401	1.889
100	114.3	500	2-M12x65	139	190	49
4	4.500	3.45		5.472	7.480	1.929
125	133.0	400	2-M12x75	163	210	49
5	5.250	2.75		6.417	8.268	1.929
125	139.7	400	2-M12x75	168	218	49
5	5.500	2.75		6.614	8.583	1.929
150	159.0	400	2-M12x75	190	239	49
6	6.250	2.75		7.48	9.409	1.929
150	165.1	400	2-M12x75	193	241	49
6	6.500	2.75		7.598	9.488	1.929
150	168.3	400	2-M12x75	198.5	249	50
6	6.625	2.75		7.815	9.803	1.969
200	219.1	300	2-M16x85	253	320	59
8	8.625	2.07		9.961	12.598	2.323
250	273	300	2-M22x130	317	401	63
10	10.748	2.07		12.48	15.787	2.48
300	323.9	300	2-M22x130	375	455	64
12	12.752	2.07		14.764	17.913	2.52
350	355.6	300	3-M22x130	418	508	74
14	14	2.07		16.457	20	2.913
350	377	300	3-M22x130	441	535	78
14	14.843	2.07		17.362	21.063	3.071
400	406.4	300	3-M22x130	467	567	78
16	16	2.07		18.386	22.323	3.071
400	425.5	300	2-M22x130	486	580	78
16	16.752	2.07		19.134	22.835	3.071

Shouldered Coupling



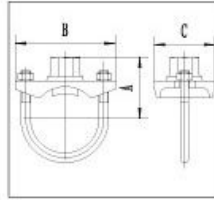
Nominal Size mm/in	Pipe O.D mm/in	Working Pressure PSI/MPa	Bolt Size	Dimensions mm/in		
			No. - Size mm	Ø	L	H
50	60.3	300	2-M12x60	97	132	48
2	2.375	2.07		3.957	5.197	1.89
80	88.9	300	2-M12x75	125	170	48
3	3.500	2.07		4.921	6.692	1.89
100	114.3	300	2-M12x75	157	205	52
4	4.500	2.07		6.181	8.070	2.047
150	165.1	300	2-M16x85	213	272	52
6	6.500	2.07		8.386	10.708	2.047
200	219.1	300	2-M20x100	278	345	60
8	8.625	2.07		10.945	13.583	2.362
250	273	300	2-M22x130	340	415	64
10	10.748	2.07		13.38	16.339	2.52
300	323.9	300	2-M22x130	387	474	64
12	12.752	2.07		15.236	18.661	2.52
350	377	300	2-M22x130	438	518	76
14	14.843	2.07		17.244	20.394	2.992
400	425.5	300	2-M30x140	506	605	76
16	16.752	2.07		19.921	23.819	2.992

HDPE Coupling



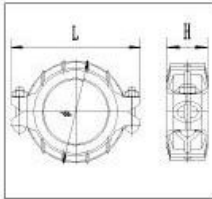
Nominal Size mm/in	Pipe O.D mm/in	Working Pressure PSI/MPa	Bolt Size	Dimensions mm/in		
			No. - Size mm	Ø	L	H
50	60.3	300	4-M12x60	83	120	116
2	2.375	2.07		3.268	4.724	4.567
	63	300	4-M10x55	89	116	105
	2.48	2.07		3.504	4.567	4.134
	110	300	4-M12x75	137	180	110
	4.33	2.07		5.394	7.087	4.331
	160	300	4-M12x75	188	235	118
	6.299	2.07		7.402	9.252	4.646
150	168.3	300	4-M16x85	202	252	150
6	6.626	2.07		7.953	9.921	5.906
200	219.1	300	4-M16x85	258	320	152
8	8.626	2.07		10.157	12.598	5.984
	252	300	4-M16x100	288	350	141
	9.921	2.07		11.339	13.780	5.551
250	273	300	4-M20x100	313	390	165
10	10.748	2.07		12.323	15.354	6.496

U-Bolt Mechanical Tee Threaded



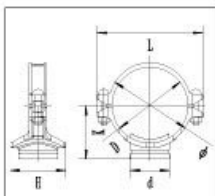
Nominal Size mm/in	Pipe O.D mm/in	Working Pressure PSI/MPa	U Bolt Size	Dimensions mm/in			Hole cutting dimensions mm/in
			NO. - Size mm	A	B	C	
25x15	33.7x21.3	300	M10x25	49	76	43	24
1x1/2	1.327x0.839	2.07		1.929	2.992	1.654	0.945
25x20	33.7x26.9	300	M10x25	58	84	43	24
1x3/4	1.327x1.059	2.07		2.283	3.307	1.693	0.945
32x15	42.4x21.3	300	M10x28.5	43	90	56	30
1 1/4x1/2	1.669x0.839	2.07		1.693	3.543	2.205	1.181
32x20	42.4x26.9	300	M10x28.5	45	90	56	30
1 1/4x3/4	1.669x1.059	2.07		1.772	3.543	2.205	1.181
32x25	42.4x33.7	300	M10x28.5	50	90	56	30
1 1/4x1	1.669x1.327	2.07		1.969	3.543	2.205	1.181
40x15	48.3x21.3	300	M10x28.5	43	93	59	30
1 1/2x1/2	1.900x0.839	2.07		1.693	3.661	2.323	1.181
40x20	48.3x26.9	300	M10x28.5	54	93	59	30
1 1/2x3/4	1.900x1.059	2.07		2.126	3.661	2.323	1.181
40x25	48.3x33.7	300	M10x28.5	58	93	59	30
1 1/2x1	1.900x1.327	2.07		2.283	3.661	2.323	1.181
50x15	60.3x21.3	300	M10x30	54	96	59	30
2x1/2	2.375x0.839	2.07		2.126	3.780	2.323	1.181
50x20	60.3x26.9	300	M10x30	56	96	59	30
2x3/4	2.375x1.059	2.07		2.205	3.780	2.323	1.181
50x25	60.3x33.7	300	M10x30	66	96	59	30
2x1	2.375x1.327	2.07		2.598	3.780	2.323	1.181
65x15	73.1x21.3	300	M10x30	60	110	59	30
	2.878x0.839	2.07		2.362	4.331	2.323	1.181
65x20	73.1x26.9	300	M10x30	63	110	59	30
	2.878x1.059	2.07		2.480	4.331	2.323	1.181
65x25	73.1x33.7	300	M10x30	70	110	59	30
	2.878x1.327	2.07		2.756	4.331	2.323	1.181
65x15	76.1x21.3	300	M10x30	61	110	59	30
	2.996x0.839	2.07		2.402	4.331	2.323	1.181
65x20	76.1x26.9	300	M10x30	67	110	59	30
	2.996x1.059	2.07		2.638	4.331	2.323	1.181
65x25	76.1x33.7	300	M10x30	74	110	59	30
	2.847x1.327	2.07		2.913	4.331	2.323	1.181

Reducing Flexible Coupling



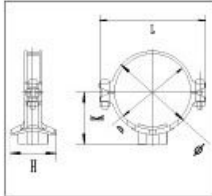
Nominal Size mm/in	Pipe O.D mm/in	Working Pressure PSI/MPa	Bolt Size No.-Size mm	Dimensions mm/in		
				Ø	L	H
50x32 2x1½	60.3x42.4 2.375x1.669	300 2.07	2-M10x55	90 3.543	129 5.079	47 1.850
50x40 2x1½	60.3x48.3 2.375x1.900	300 2.07	2-M10x55	90 3.543	129 5.079	47 1.850
65x40 2½x1½	73.0x48.3 2.874x1.900	300 2.07	2-M10x55	101 3.976	137 5.394	48 1.890
65x50 2½x2	73.0x60.3 2.874x2.375	300 2.07	2-M10x55	101 3.976	137 5.394	48 1.890
65x40 2½x1½	76.1x48.3 2.996x1.900	300 2.07	2-M10x55	105 4.134	140 5.512	48 1.890
65x50 2x2	76.1x60.3 2.996x2.375	300 2.07	2-M10x55	105 4.134	140 5.512	48 1.890
80x50 3x2	88.9x60.3 3.500x2.375	300 2.07	2-M12x65	120 4.724	164 6.457	48 1.890
80x65 3x2½	88.9x73.0 3.500x2.874	300 2.07	2-M12x65	120 4.724	164 6.457	48 1.890
80x65 3x2½	88.9x76.1 3.500x2.996	300 2.07	2-M12x65	120 4.724	164 6.457	48 1.890
100x40 4x1½	114.3x48.3 4.500x1.900	300 2.07	2-M12x65	150 5.906	195 7.677	49 1.929
100x50 4x2	114.3x60.3 4.500x2.375	300 2.07	2-M12x65	150 5.906	195 7.677	49 1.929
100x65 4x2½	114.3x76.1 4.500x2.996	300 2.07	2-M12x65	150 5.906	195 7.677	49 1.929
100x80 4x3	114.3x88.9 4.500x3.500	300 2.07	2-M12x65	150 5.906	195 7.677	49 1.929
125x50 5x2	139.7x60.3 5.500x2.375	300 2.07	2-M12x65	177 6.969	222 8.740	48.5 1.909
125x65 5x2½	139.7x76.1 5.500x2.996	300 2.07	2-M12x65	177 6.969	222 8.740	48.5 1.909
125x80 5x3	139.7x88.9 5.500x3.500	300 2.07	2-M12x65	177 6.969	222 8.740	48.5 1.909
125x100 5x4	139.7x114.3 5.500x4.500	300 2.07	2-M12x65	177 6.969	222 8.740	48.5 1.909
150x65 6x2½	165.1x76.1 6.500x2.996	300 2.07	2-M12x75	203 7.992	235 9.252	50 1.969
150x80 6x3	165.1x88.9 6.500x3.500	300 2.07	2-M12x75	203 7.992	235 9.252	50 1.969
150x100 6x4	165.1x114.3 6.500x4.500	300 2.07	2-M12x75	203 7.992	235 9.252	50 1.969
150x65 6x2½	168.3x76.1 6.625x2.996	300 2.07	2-M12x75	203 7.992	235 9.252	50 1.969
150x80 6x3	168.3x88.9 6.625x3.500	300 2.07	2-M12x75	203 7.992	235 9.252	50 1.969
150x100 6x4	168.3x114.3 6.625x4.500	300 2.07	2-M12x75	203 7.992	235 9.252	50 1.969
150x125 6x5	168.3x139.7 6.625x5.500	300 2.07	2-M12x75	203 7.992	235 9.252	50 1.969
200x65 8x2½	219.1x76.1 8.625x2.996	300 2.07	2-M16x100	264 10.394	313 12.323	60 2.362
200x80 8x3	219.1x88.9 8.625x3.500	300 2.07	2-M16x100	264 10.394	313 12.323	60 2.362
200x100 8x4	219.1x114.3 8.625x4.500	300 2.07	2-M16x100	264 10.394	313 12.323	60 2.362
200x125 8x5	219.1x139.7 8.625x5.500	300 2.07	2-M16x100	264 10.394	313 12.323	60 2.362
200x150 8x2½	219.1x165.1 8.625x6.500	300 2.07	2-M16x100	264 10.394	313 12.323	60 2.362
200x150 8x6	219.1x168.3 8.625x6.625	300 2.07	2-M16x100	264 10.394	313 12.323	60 2.362

Mechanical Tee Grooved



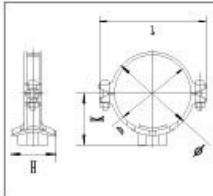
Nominal Size mm/in	Pipe O.D mm/in	Working Pressure PSI/MPa	Bolt Size	Dimensions mm/in				Hole cutting dimensions mm/in
				No. -Size mm	Ø	L	K	
50X32 2x1 ¼	60.3X42.4 2.375X1.669	300 2.07	2-M10x55	74	116	59	69	46
				2.913	4.566	2.322	2.716	1.811
50X40 2x1 ½	60.3X48.3 2.375X1.900	300 2.07	2-M10x55	78	116	59	69	46
				3.07	4.566	2.322	2.716	1.811
65X25 2½x1	73X33.7 2.87X1.327	300 2.07		93	144	70	77	38
				3.661	5.669	2.755	2.716	1.496
65X32 2½x1 ¼	73X42.4 2.87X1.669	300 2.07		93	144	70	84	46
				3.661	5.669	2.755	3.307	1.811
65X40 2½x1 ½	73X48.3 2.87X1.900	300 2.07		93	144	70	83	51
				3.661	2.669	2.755	3.267	2.007
65X25 2½x1	76.1X33.7 2.996X1.327	300 2.07		93	144	70	77	38
				3.661	5.669	2.755	2.716	1.496
65X32 2½x1 ¼	76.1X42.4 2.996X1.669	300 2.07		93	144	70	84	46
				3.661	5.669	2.755	3.307	1.811
65X40 2½x1 ½	76.1X48.3 2.996X1.900	300 2.07		93	144	70	83	51
				3.661	5.669	2.755	3.267	2.007
80X25 3X1	88.9X33.7 3.500X1.327	300 2.07		104	152	76	78	38
				4.094	5.984	2.755	3.070	1.496
80X32 3X1 ¼	88.9X42.4 3.500X1.669	300 2.07		104	152	76	82	46
				4.094	5.984	2.755	3.228	1.811
80X40 3X1 ½	88.9X48.3 3.500X1.900	300 2.07	2-M12x65	104	152	77	91	51
				4.094	5.984	2.755	3.582	2.007
80X50 3X2	88.9X60.3 3.500X2.375	300 2.07		114	152	82	97	61
				4.488	5.984	3.228	2.402	2.402
100X25 4X1	114.3X33.7 4.500X1.327	300 2.07		133	188	93	77	35
				5.236	7.401	3.661	3.031	1.496
100X32 4X1 ¼	114.3X42.4 4.500X1.669	300 2.07		133	186	93	83	46
				5.236	7.322	3.661	3.267	1.811
100X40 4X1 ½	114.3X48.3 4.500X1.900	300 2.07		133	186	93	92	51
				5.236	7.322	3.661	3.622	2.007
100X50 4X2	114.3X60.3 4.500X2.375	300 2.07		140	188	93	97	61
				5.512	7.402	3.661	3.819	2.402
100X65 4X2 ½	114.3X76.1 4.500X2.996	300 2.07		140	188	93	112	81
				5.512	7.402	3.661	4.409	3.189
100X80 4X3	114.3X88.9 4.500X3.500	300 2.07		140	188	93	122	86
				5.512	7.402	3.661	4.803	3.386
125X50 5X2	139.7X60.3 5.500X2.375	300 2.07		168	220	107	97	61
				6.614	8.661	4.213	3.819	2.402
125X65 5X2 ½	139.7X76.1 5.500X2.996	300 2.07	2-M16x75	168	220	107	112	81
				6.614	8.661	4.213	4.409	3.189
125X80 5X3	139.7X88.9 5.500X3.500	300 2.07		168	220	107	122	86
				6.614	8.661	4.213	4.803	3.386
150X65 6X2	159.0X76.1 6.260X2.996	300 2.07		168	220	107	112	81
				6.614	8.661	4.213	4.409	3.189
150X80 6X2 ½	159.0X88.9 6.260X3.500	300 2.07		187	242	117	122	86
				7.362	9.528	4.606	4.803	3.386
150X100 6X3	159.0X108.0 6.260X4.252	300 2.07		187	242	117	134	114
				7.362	9.528	4.606	5.276	4.488
150X100 6X3 ½	159.0X114.3 6.260X4.500	300 2.07		187	242	117	134	114
				7.362	9.528	4.606	5.276	4.488
150X50 6X4	165.1X60.3 6.500X2.375	300 2.07		194	247	125	97	61
				7.638	9.724	4.921	3.819	2.402
150X65 6X4 ½	165.1X76.1 6.500X2.996	300 2.07	2-M16x85	194	247	125	112	81
				7.638	9.724	4.921	4.409	3.189
150X80 6X5	165.1X88.9 6.500X3.500	300 2.07		194	247	125	122	86
				7.638	9.724	4.921	4.803	3.386
150X100 6X6	165.1X114.3 6.500X4.500	300 2.07		194	247	125	134	114
				7.638	9.724	4.921	5.276	4.488
150X32 6X1 ¼	168.3X42.4 6.625X1.669	300 2.07		198	247	128	82	46
				7.795	9.724	5.039	3.228	1.811
150X40 6X1 ½	168.3X48.3 6.625X1.900	300 2.07		198	247	128	92	51
				7.795	9.724	5.039	3.622	2.007
150X50 6X2	168.3X60.3 6.625X2.375	300 2.07		198	247	128	98	61
				7.795	9.724	5.039	3.858	2.401
150X65 6X2 ½	168.3X76.1 6.625X2.996	300 2.07		198	247	128	121	82
				7.795	9.724	5.039	4.763	3.228
150X80 6X3	168.3X88.9 6.625X3.500	300 2.07		198	247	128	134	86
				7.795	9.724	5.039	5.275	3.385
150X100 6X4	168.3X114.3 6.625X4.500	300 2.07		198	247	128	157	114
				7.795	9.724	5.039	6.181	4.488
200X50 8X2	219.1X60.3 8.625X2.375	300 2.07		250	310	146	97	61
				9.843	12.205	5.748	3.819	2.402
200X65 8X2 ½	219.1X76.1 8.625X2.996	300 2.07		250	310	146	112	81
				9.843	12.205	5.748	4.409	3.189
200X80 8X3	219.1X88.9 8.625X3.500	300 2.07	2-M16x100	250	310	146	122	86
				9.843	12.205	5.748	4.803	3.386
200X100 8X4	219.1X108.0 8.625X4.250	300 2.07		250	310	146	134	114
				9.843	12.205	5.748	5.276	4.488
200X100 8X4 ½	219.1X114.3 8.625X4.500	300 2.07		250	310	146	134	114
				9.843	12.205	5.748	5.276	4.488
200X150 8X6	219.1X165.1 8.625X6.500	300 2.07		309	376	174	214	160
				12.165	14.803	6.850	8.425	6.299
250X100 10X4	273.0X114.3 10.748X4.500	300 2.07	2-M22 x130	309	376	174	134	114
				12.165	14.803	6.850	5.276	4.488
250X125 8X6	273.0X139.7 10.748X5.500	300 2.07		309	376	174	186	135
				12.165	14.803	6.850	7.323	5.315

Mechanical Tee Threaded



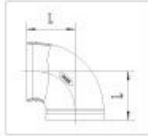
Nominal Size mm/in	Pipe O.D mm/in	Working Pressure PSI/MPa	Bolt Size No.-Size mm	Dimensions mm/in				Hole cutting dimensions mm/in
				Ø	L	K	H	
40X25 1½X1	48.3X33.7 1.900X1.327	300 2.07	2-M10X45	67 2.637	112 4.409	56 2.204	61 2.401	32 1.259
50X25 2X1	60.3X33.7 2.375X1.327	300 2.07		75 2.953	116 4.567	60 2.362	69 2.717	38 1.496
50X32 2X1½	60.3X42.4 2.375X1.669	300 2.07	2-M10X55	75 2.953	116 4.567	60 2.362	69 2.717	46 1.811
50X40 2X1½	60.3X48.3 2.375X1.900	300 2.07		75 2.953	116 4.567	60 2.362	69 2.717	46 1.811
65X32 2½X1½	73X42.4 2.87X1.669	300 2.07		93 3.661	144 5.669	70 2.755	84 3.307	46 1.811
65X40 2½X1½	73X48.3 2.87X1.900	300 2.07		93 3.661	144 5.669	70 2.755	83 3.267	51 2.007
65X25 2½X1	76.1X33.7 2.996X1.327	300 2.07		102 4.016	144 5.669	70 2.756	77 3.031	38 1.496
65X32 2½X1½	76.1X42.4 2.996X1.669	300 2.07		102 4.016	144 5.669	70 2.756	83 3.268	46 1.811
65X40 2½X1½	76.1X48.3 2.996X1.900	300 2.07		102 4.016	144 5.669	70 2.756	83 3.268	51 2.008
80X25 3X1	88.9X33.7 3.500X1.327	300 2.07		114 4.488	152 5.984	82 3.228	77 3.031	38 1.496
80X32 3X1½	88.9X42.4 3.500X1.669	300 2.07		114 4.488	152 5.984	82 3.228	83 3.268	46 1.811
80X40 3X1½	88.9X48.3 3.500X1.900	300 2.07		114 4.488	152 5.984	82 3.228	92 3.622	51 2.008
80X50 3X2	88.9X60.3 3.500X2.375	300 2.07		114 4.488	152 5.984	82 3.228	99 3.898	61 2.402
100X25 4X1	108.0X33.7 4.252X1.327	300 2.07		135 5.315	172 6.772	87 3.425	77 3.031	38 1.496
100X32 4X1½	108.0X42.4 4.252X1.669	300 2.07		135 5.315	172 6.772	87 3.425	83 3.268	46 1.811
100X40 4X1½	108.0X48.3 4.252X1.900	300 2.07	2-M12X65	135 5.315	172 6.772	87 3.425	92 3.622	51 2.008
100X50 4X2	108.0X60.3 4.252X2.375	300 2.07		135 5.315	172 6.772	87 3.425	97 3.819	61 2.402
100X65 4X2½	108.0X76.1 4.252X2.996	300 2.07		135 5.315	172 6.772	87 3.425	112 4.409	70 2.756
100X25 4X1	114.3X33.7 4.500X1.327	300 2.07		140 5.512	188 7.402	93 3.661	77 3.031	38 1.496
100X32 4X1½	114.3X42.4 4.500X1.669	300 2.07		140 5.512	188 7.402	93 3.661	83 3.268	46 1.811
100X40 4X1½	114.3X48.3 4.500X1.900	300 2.07		140 5.512	188 7.402	93 3.661	92 3.622	51 2.008
100X50 4X2	114.3X60.3 4.500X2.375	300 2.07		140 5.512	188 7.402	93 3.661	97 3.819	61 2.402
100X65 4X2½	114.3X76.1 4.500X2.996	300 2.07		140 5.512	188 7.402	93 3.661	112 4.409	81 3.189
100X80 4X3	114.3X88.9 4.500X3.500	300 2.07		140 5.512	188 7.402	93 3.661	122 4.803	86 3.386
125X25 5X1	133.0X33.7 5.236X1.327	300 2.07		160 6.299	210 8.268	100 3.937	77 3.031	38 1.496
125X32 5X1½	133.0X42.4 5.236X1.669	300 2.07		160 6.299	210 8.268	100 3.937	83 3.268	46 1.811
125X40 5X1½	133.0X48.3 5.236X1.900	300 2.07		160 6.299	210 8.268	100 3.937	92 3.622	51 2.008
125X50 5X2	133.0X60.3 5.236X2.375	300 2.07		160 6.299	210 8.268	100 3.937	97 3.819	61 2.402
125X65 5X2½	133.0X76.1 5.236X2.996	300 2.07	2-M16X75	160 6.299	210 8.268	100 3.937	112 4.409	81 3.189
125X80 5X3	133.0X88.9 5.236X3.500	300 2.07		160 6.299	210 8.268	100 3.937	122 4.803	86 3.386
125X25 5X1	139.7X33.7 5.500X1.327	300 2.07		168 6.614	220 8.661	107 4.213	77 3.031	38 1.496
125X32 5X1½	139.7X42.4 5.500X1.669	300 2.07		168 6.614	220 8.661	107 4.213	83 3.268	46 1.811
125X40 5X1½	139.7X48.3 5.500X1.900	300 2.07		168 6.614	220 8.661	107 4.213	92 3.622	51 2.008
125X50 5X2	139.7X60.3 5.500X2.375	300 2.07		168 6.614	220 8.661	107 4.213	97 3.819	61 2.402

Mechanical Tee Threaded

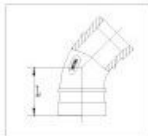


Nominal Size mm/in	Pipe O.D mm/in	Working Pressure PSI/MPa	Bolt Size No.-Size mm	Dimensions mm/in				Hole cutting dimensions mm/in
				Ø	L	K	H	
125x65	139.7x76.1	300	2-M16x75	168	220	107	112	81
	5.500x2.996	2.07		6.614	8.661	4.213	4.409	3.189
125x80	139.7x88.9	300	2-M16x75	168	220	107	122	86
	5.500x3.500	2.07		6.614	8.661	4.213	4.803	3.386
150x25	159.0x33.7	300		187	242	117	77	38
	6.260x1.327	2.07		7.362	9.528	4.606	3.031	1.496
150x32	159.0x42.4	300		187	242	117	83	46
	6.260x1.669	2.07		7.362	9.528	4.606	3.268	1.811
150x40	159.0x48.3	300		187	242	117	92	51
	6.260x1.900	2.07		7.362	9.528	4.606	3.622	2.008
150x50	159.0x60.3	300		187	242	117	97	61
	6.260x2.375	2.07		7.362	9.528	4.606	3.819	2.402
150x65	159.0x76.1	300		187	242	117	112	81
	6.260x2.996	2.07		7.362	9.528	4.606	4.409	3.189
150x80	159.0x88.9	300		187	242	117	122	86
	6.260x3.500	2.07		7.362	9.528	4.606	4.803	3.386
150x25	165.1x33.7	300		194	247	125	77	38
	6.500x1.327	2.07		7.638	9.724	4.921	3.031	1.496
150x32	165.1x42.4	300		194	247	125	83	46
	6.500x1.669	2.07		7.638	9.724	4.921	3.268	1.811
150x40	165.1x48.3	300		194	247	125	92	51
	6.500x1.900	2.07		7.638	9.724	4.921	3.622	2.008
150x50	165.1x60.3	300	2-M16x85	194	247	125	97	61
	6.500x2.375	2.07		7.638	9.724	4.921	3.819	2.402
150x65	165.1x76.1	300		194	247	125	112	81
	6.500x2.996	2.07		7.638	9.724	4.921	4.409	3.189
150x80	165.1x88.9	300		194	247	125	122	86
	6.500x3.500	2.07		7.638	9.724	4.921	4.803	3.386
150x100	165.1x114.3	300		194	247	125	134	114
	6.500x4.500	2.07		7.638	9.724	4.921	5.276	4.488
150x25 6x1	168.3x33.7	300		198	247	120	77	38
	6.625x1.327	2.07		7.795	9.724		3.031	1.496
150x32 6x1 1/4	168.3x42.4	300		198	247	120	82	46
	6.625x1.669	2.07		7.795	9.724	4.724	3.228	1.811
150x40 6x1 1/2	168.3x48.3	300		198	247	120	92	51
	6.625x1.900	2.07		7.795	9.724	4.724	3.622	2.007
150x50 6x2	168.3x60.3	300		198	247	120	98	61
	6.625x2.375	2.07		7.795	9.724	4.724	3.858	2.401
150x65 6x3	168.3x76.1	300		198	247	120	121	82
	6.625x2.996	2.07		7.795	9.724	4.724	4.763	3.228
150x80 6x3	168.3x88.9	300		198	247	120	134	86
	6.625x3.500	2.07		7.795	9.724	4.724	5.275	3.385
200x25 8x1	219.1x33.7	300		250	310	146	77	46
	8.625x1.327	2.07		9.843	12.205	5.748	3.031	1.811
200x32 8x1 1/4	219.1x42.4	300		250	310	146	83	46
	8.625x1.669	2.07		9.843	12.205	5.748	3.268	1.811
200x40 8x1 1/2	219.1x48.3	300		250	310	146	92	51
	8.625x1.900	2.07		9.843	12.205	5.748	3.622	2.008
200x50 8x2	219.1x60.3	300	2-M16x100	250	310	146	97	61
	8.625x2.375	2.07		9.843	12.205	5.748	3.819	2.402
200x65 8x3	219.1x76.1	300		250	310	146	112	81
	8.625x2.996	2.07		9.843	12.205	5.748	4.409	3.189
200x80 8x3	219.1x88.9	300		250	310	146	122	86
	8.625x3.500	2.07		9.843	12.205	5.748	4.803	3.386
200x100 8x4	219.1x114.3	300		250	310	146	134	114
	8.625x4.500	2.07		9.843	12.205	5.748	5.276	4.488
250x40 10x1 1/2	273.0x48.3	300		309	376	174	92	51
	10.748x1.900	2.07		9.843	12.205	5.748	3.622	2.008
250x50 10x2	273.0x60.3	300		309	376	174	97	61
	10.748x2.375	2.07		9.843	12.205	5.748	3.819	2.402
250x65 10x3	273.0x76.1	300	2-M22x130	309	376	174	112	81
	10.748x2.996	2.07		9.843	12.205	5.748	4.409	3.189
250x80 10x3	273.0x88.9	300		309	376	174	122	86
	10.748x3.500	2.07		9.843	12.205	5.748	4.803	3.386
250x100 10x4	273.0x114.3	300		309	376	174	134	114
	10.748x4.500	2.07		9.843	12.205	5.748	5.276	4.488
250x125 8x6	273.0x139.7	300		309	376	174	186	135
	10.748x5.500	2.07		12.165	14.803	6.850	7.323	5.315

90° Elbow



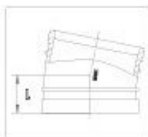
45° Elbow



22.5° Elbow



11.25° Elbow

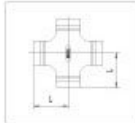


Size	Pipe O.D.	90° Elbow		45° Elbow	22.5° Elbow	11.25° Elbow
		Standard	Short		Standard	
		L	L	L	L	L
DN	mm	mm	mm	mm	mm	mm
in	in	in	in	in	in	in
25	33.7	57	57	38	41	35
1	1.315	2.24	2.244	1.496	1.61	1.377
32	42.4	70	60	44	44	35
1¼	1.660	2.755	2.362	1.732	1.732	1.377
40	48.3	70	60	44	44	35
1½	1.900	2.755	2.362	1.732	1.732	1.377
50	57.0	83	70	51	51	35
	2.244	3.267	2.755	2.007	2	1.377
50	60.3	83	70	51	51	35
2	2.375	3.267	2.755	2.007	2	1.377
65	73.0	95	76	57	51	38
2½	2.875	3.74	2.992	2.007	2	1.496
65	76.1	95	76	57	51	38
	3.000	3.74	2.992	2.007	2	1.496
80	88.9	108	86	64	57	38
3	3.500	4.251	3.386	2.519	2.244	1.496
100	108.0	127	101.5	76	73	44
	4.252	5	3.996	2.992	2.874	1.732
100	114.3	127	101.5	76	73	48
4	4.500	5	3.996	2.992	2.874	1.889
125	133.0	140	122	83	73	51
	5.250	5.511	4.803	3.267	2.874	2.007
125	139.7	140	122	83	73	51
	5.500	5.511	4.803	3.267	2.874	2.007
150	159.0	165	140	89	79	51
	6.260	6.496	5.511	3.503	3.11	2.007
150	165.1	165	140	89	79	51
	6.500	6.496	5.511	3.503	3.11	2.007
150	168.3	165	140	89	79	51
6	6.625	6.496	5.511	3.503	3.11	2.007
200	219.1	197	175	108	98	51
8	8.625	7.755	6.889	4.251	3.858	2.007
250	273.0	229	215	121	111	54
10	10.750	9.015	8.464	4.763	4.37	2.125
300	323.9	254	245	133	124	57
12	12.750	10	9.645	5.236	4.88	2.244
350	377.0	280	280	146	127	89
	14.843	11.024	11.024	5.748	5	3.503

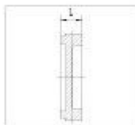
Tee



Cross



Cap



Reducer (grooved)

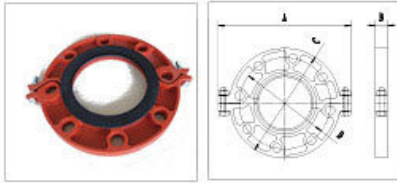


Reducer (threaded)



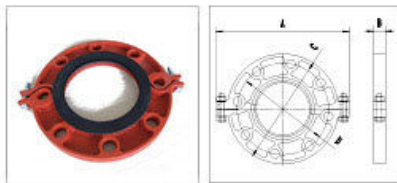
Size	Pipe O.D.	Tee		Cross	Eccentric Cap	Cap	Reducer grooved	Reducer threaded	Eccentric Reducer
		Standard	Short	Standard					
		L	L	L	L	L	L	L	L
DN	mm	mm	mm	mm	mm	mm	mm	mm	mm
in	in	in	in	in	in	in	in	in	in
25	33.7	57	57	57	25	25	64	64	64
1	1.315	2.244	2.244	2.244	0.99	0.99	2.519	2.519	2.519
32	42.4	70	60	60	25	25	64	64	64
1¼	1.660	2.755	2.362	2.362	0.99	0.99	2.519	2.519	2.519
40	48.3	70	60	60	25	25	64	64	64
1½	1.900	2.755	2.362	2.362	0.99	0.99	2.519	2.519	2.519
50	57.0	83	70	70	25	25	64	64	64
	2.244	3.267	2.755	2.775	0.99	0.99	2.519	2.519	2.519
50	60.3	83	70	70	25	25	64	64	64
2	2.375	3.267	2.755	2.755	0.99	0.99	2.519	2.519	2.519
65	73.0	95	76	76	25	25	64	64	64
2½	2.875	3.74	2.992	2.992	0.99	0.99	2.519	2.519	2.519
65	76.1	95	76	76	25	25	64	64	64
	3.000	3.74	2.992	2.992	0.99	0.99	2.519	2.519	2.519
80	88.9	108	86	86	25	25	64	64	64
3	3.500	4.251	3.386	3.326	0.99	0.99	2.519	2.519	2.519
100	108.0	127	101.5	101.5	25	25	76	76	76
	4.252	5	3.996	3.996	0.99	0.99	2.99	2.99	2.99
100	114.3	127	101.5	101.5	25	25	76	76	76
4	4.500	5	3.996	3.996	0.99	0.99	2.99	2.99	2.99
125	133.0	140	122	122	25	25	89	89	89
	5.250	5.511	4.803	4.803	0.99	0.99	3.504	3.504	3.504
125	139.7	140	122	122	25	25	89	89	89
5	5.500	5.511	4.803	4.803	0.99	0.99	3.504	3.504	3.504
150	159.0	165	140	140	25	25	102	102	102
	6.260	6.496	5.511	5.511	0.99	0.99	4.015	4.015	4.015
150	165.1	165	140	140	25	25	102	102	102
	6.500	6.496	5.511	5.511	0.99	0.99	4.015	4.015	4.015
150	168.3	165	140	140	25	25	102	102	102
6	6.625	6.496	5.511	5.511	0.99	0.99	4.015	4.015	4.015
200	219.1	197	175	175	30	30	127	127	127
8	8.625	7.755	6.889	6.889	1.181	1.181	5	5	5
250	273.0	229	215	215	32	32	152		
10	10.750	9.015	8.464	8.464	1.259	1.259	5.98		
300	323.9	254	245	245	32	32	178		
12	12.750	10	9.645	9.645	1.259	1.259	7		
350	377.0	280	280	280	40	40	160		
	14.843	11.024	11.024	11.024	1.575	1.575	6.299		

Grooved Flange



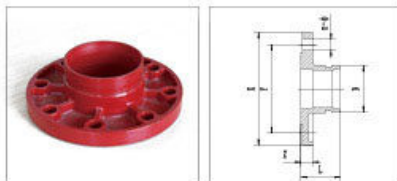
Nominal Size mm/in	Pipe O.D mm/in	Working Pressure PSI/MPa	Dimensions mm/in				Bolt Size No.-Size mm
			A mm/in	B mm/in	C mm/in	D mm/in	
50	60.3	230	222	23	165	125	4-M16
2	2.375	1.6	8.740	0.906	6.496	4.921	
65	76.1	230	240	23	185	145	4-M16
2 1/2	3.000	1.6	9.448	0.906	7.283	5.708	
80	88.9	230	252	23	192	160	8-M16
3	3.500	1.6	9.921	0.906	7.559	6.299	
100	114.3	230	248	23	220	180	8-M16
4	4.500	1.6	9.783	0.906	8.661	7.086	
125	139.7	230	316	24	250	210	8-M16
5	5.500	1.6	12.44	0.944	9.842	8.267	
150	168.3	230	346	24	285	240	8-M20
6	6.625	1.6	13.622	0.944	11.22	9.448	
200	219.1	230	418	28	340	295	12-M20
8	8.625	1.6	16.456	1.102	13.38	11.614	

Grooved Flange ANSI150



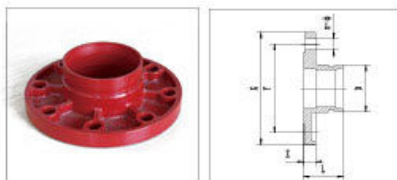
Nominal Size mm/in	Pipe O.D mm/in	Working Pressure PSI/MPa	Dimensions mm/in				Bolt Size No.-Size mm
			A mm/in	B mm/in	C mm/in	D mm/in	
50	60.3	300	206	22	152	121	4-M16
2	2.375	2.07	8.110	0.866	5.984	4.763	
65	73.0	300	230	22	178	140	4-M16
2 1/2	2.875	2.07	9.065	0.866	7.007	5.511	
80	88.9	300	242	24	191	152	4-M16
3	3.500	2.07	9.527	0.944	7.519	5.994	
100	114.3	300	280	24	229	191	4-M16
4	4.500	2.07	11.023	0.944	9.015	7.519	
125	141.3	300	325	24.5	254	216	4-M16
5	5.563	2.07	12.785	0.964	10	8.503	
200	219.1	300	414.3	28	341.4	288.5	4-M16
8	8.625	2.07	16.311	1.102	13.44	11.751	

Flange Adaptor



Nominal Size mm/in	Pipe O.D mm/in D	Working Pressure PSI/MPa	Dimensions mm/in				Bolt Size No.-Size mm
			L mm/in	X mm/in	Y mm/in	Z mm/in	
50	60.3	230	60.3	165	125	16	4-M16
2	2.375	1.6	2.37	6.496	4.92	0.629	
65	73.0	230	60.3	185	145	16	4-M16
2 1/2	2.875	1.6	2.37	7.283	5.70	0.629	
80	88.9	230	60.3	200	160	16	4-M16
3	3.500	1.6	2.37	7.874	6.29	0.629	
100	108.0	230	70	220	180	16	8-M16
4	4.250	1.6	2.755	8.661	7.08	0.629	
100	114.3	230	70	220	180	16	8-M16
4	4.500	1.6	2.755	8.661	7.08	0.629	
125	133.0	230	60.3	250	210	18	8-M16
5	5.250	1.6	2.37	9.842	8.26	0.708	
125	139.7	230	60.3	250	210	18	8-M16
5	5.500	1.6	2.37	9.842	8.26	0.708	
150	159.0	230	70	285	240	18	8-M20
6	6.250	1.6	2.755	11.22	9.448	0.708	
150	165.1	230	70	285	240	18	8-M20
6	6.500	1.6	2.755	11.22	9.448	0.708	
150	168.3	230	70	285	240	18	8-M20
6	6.625	1.6	2.755	11.22	9.448	0.708	
200	219.1	230	76.1	340	295	19	12-M20
8	8.625	1.6	2.99	13.38	11.61	0.748	
250	273.0	230	85	406	365	21	12-M24
10	10.750	1.6	3.346	15.944	13.97	0.826	
300	323.9	230	90	460	410	24	12-M24
12	12.750	1.6	3.543	18.11	16.14	0.944	
350	377.0	230	100	520	470	26	16-M24
14	14.843	1.6	3.937	20.47	18.50	1.02	

Flange Adaptor ANSI150



Nominal Size mm/in	Pipe O.D mm/in D	Working Pressure PSI/MPa	Dimensions mm/in				Bolt Size No.-Size mm
			L mm/in	X mm/in	Y mm/in	Z mm/in	
50	60.3	300	60.3	152	120.5	19	4-M16
2	2.375	2.07	2.37	5.98	4.744	0.748	
65	73.0	300	60.3	178	139.5	24	4-M16
2 1/2	2.875	2.07	2.37	7.00	5.883	0.944	
80	88.9	300	60.3	190	152.5	24	4-M16
3	3.500	2.07	2.37	7.48	6.00	0.944	
100	114.3	300	70	229	190.5	24	4-M16
4	4.500	2.07	2.755	9.015	7.5	0.944	
125	141.3	300	60.3	254	216	24	8-M20
5	5.562	2.07	2.37	10	8.503	0.944	
150	168.3	300	70	279	241.5	25	8-M20
6	6.625	2.07	2.755	10.98	9.507	0.984	
200	219.1	300	76.1	343	298.5	29	8-M20
8	8.625	2.07	2.99	13.50	11.751	1.141	
250	273.0	300	85	406	362	30	12-M22
10	10.750	2.07	3.346	15.98	14.251	1.181	
300	323.9	300	90	483	432	32	12-M22
12	12.750	2.07	3.543	19.01	17.00	1.269	

Gasket Ring



Material Composition	Applicable Temperature	Application Scope
EPDM	-34°C—+150	Cold and hot water, non-oil gas, diluted acid, alkaline salt, and multi-chemicals (free of hydrocarbon). Oil-like mediums are forbidden.
Silicon rubber	-40°C—+177	Drinking water, hot water, high-temperature air and some high-temperature chemicals. Oil-like mediums are forbidden.
Nitrile rubber	-29°C—+82°C	Oil, mineral oil, plant oil, hot water, temperature over 65°C is not allowed.

Notes: 1. Gasket rings of different materials will be used for different liquid mediums.
2. Products can be supplied as per Customers requirements.

Bolts and Nuts



Raw material of bolts and nuts are taken as 40 cr, and its mechanical properties should reach Gr.8.8 after hot-treatment. Only one wrench will be used during the installation, safely and firmly.

Hole Cutting Tool



- Stable feeding mechanism with the support of dovetail guide
- Three-phase motor, contributes to high efficiency

Grooving Machine



This machine is applicable for channeling of zinc-plated pipes, seamless pipes, stainless steel pipes and plastic-lined pipes of various sizes ranging from ϕ 33mm to ϕ 630mm.

Castings



Valve

