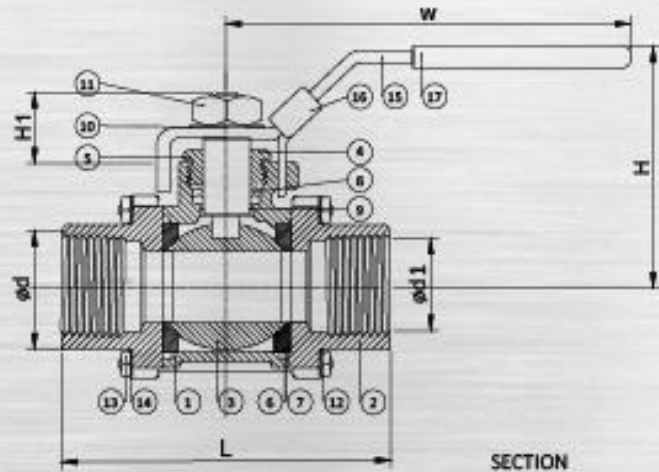


3 PC Socket Weld Ball Valve



1/4" TO 2-1/2"
4 BOLD

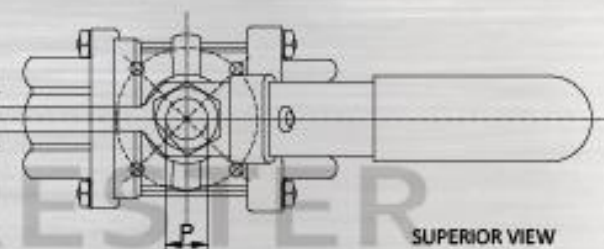


SECTION



S

3" & 4"
6 BOLD



SUPERIOR VIEW

FEATURES

- Full port, 1/4"~4" (DN8~DN100)
- W. P.: 1000 WOG(PN63)
- W. T.: -20°C -200°C (-4°F - 392°F)
- Investment casting
- Blow-out proof stem
- Locking device
- ISO 5211 Moulding pad
- TA-Lu approved
- Length conform to DIN 3202/4-M 3-2011NM-M3 (option)
- Socket weld ends conform to ANSI B16.11 & DIN 3239 part 2

ITEM	PARTS	MATERIALS
1	BODY	ASTM A351-CF8M
2	CAP	
3	BALL	
4	STEM	ASTM A276-316
5	GLAND NUT	AISI 304
6	SEAT	PTFE / RTFE
7	SEAL	
8	PACKING	PTFE
9	THRUST WASHER	
10	SPRING WASHER	AISI 304
11	STEAM NUT	
12	BOLT	
13	NUT	STAINLESS STEEL
14	SPRING WASHER	
15	HANDLE	PVC
16	HANDLE SLEEVE	
17	LOCKING DEVICE	STAINLESS STEEL

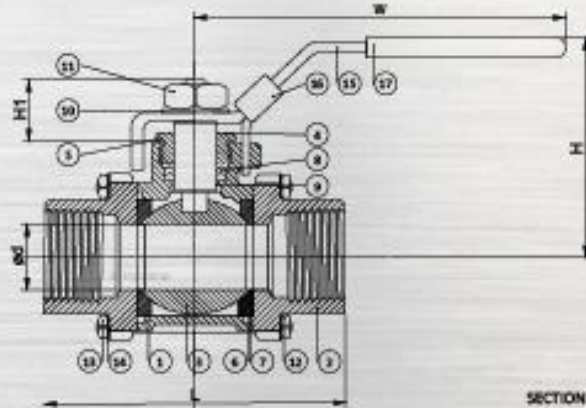
DN	d	d1	L	L1	H	H1	H2	W	S	D1	M	P	ISO 5211	Torque (N·m)	Weight (Kg)
8	11.6	14.5	65	100	58.5	19.3	13.5	103	5	36	M5	3/8"~24UNF	F03	7.5	0.4
10	12.5	18	65	10	58.5	19.3	13.5	103	5	36	M5	3/8"~24UNF	F03	7.5	0.4
15	15.0	22	65	10	62	19.4	13.5	103	5	36	M5	3/8"~24UNF	F03	7.5	0.5
20	20.0	27.5	75	13	62	23.4	16	121	6.5	36	M5	7/16"~20UNF	F03	7.5	0.7
25	25.0	34	85	13	77	25.6	16.2	147	7.9	42	M5	7/16"~20UNF	F04	12.5	1.1
32	32.0	43	101	13	82	25.6	16.2	147	7.9	42	M5	7/16"~20UNF	F04	15	1.7
40	38.0	49	112	13	100	29.7	20	188	10	50	M6	1/2"~20UNF	F05	20	2.4
50	50.0	61	130	16	108	29.7	20	188	10	50	M6	1/2"~20UNF	F05	25	3.6
65	63.0	74	162	16	137	39.4	27.5	250	12	70	M8	3/4"~10UNC	F07	64	6.7
80	76.0	90	188	16	145	39.4	27.5	250	12	70	M8	3/4"~10UNC	F07	85	9.8
100	96.0	115.5	224	20	179	53.7	39.8	318	16	102	M10	1"~8UNC	F10	95	19.2

unit: mm

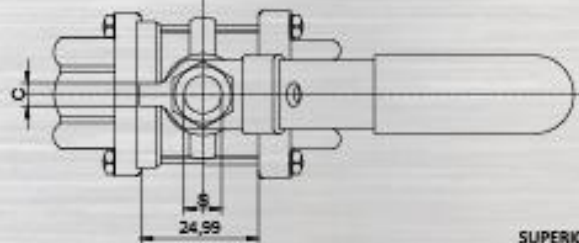
DN	d	d1	L	L1	H	H1	H2	W	S	D1	M	P	ISO 5211	Torque (N·m)	Weight (lb)
1/4"	0.46	0.57	2.56	0.39	2.26	0.76	0.53	4.07	0.2	1.42	M5	3/8"~24UNF	F03	66.4	0.8
3/8"	0.49	0.71	2.64	0.39	2.26	0.76	0.53	4.07	0.2	1.42	M5	3/8"~24UNF	F03	66.4	0.8
1/2"	0.59	0.87	2.56	0.39	2.42	0.76	0.53	4.07	0.2	1.42	M5	3/8"~24UNF	F03	66.4	1.2
3/4"	0.79	1.08	2.95	0.51	2.54	0.76	0.63	4.76	0.26	1.42	M5	7/16"~20UNF	F03	66.4	1.6
1"	0.98	1.34	3.35	0.51	3.15	0.92	0.64	5.79	0.31	1.65	M5	7/16"~20UNF	F04	110.6	2.3
1-1/4"	1.26	1.69	3.98	0.51	3.35	1.01	0.64	5.79	0.39	1.65	M5	7/16"~20UNF	F04	132.8	3.6
1-1/2"	1.50	1.93	4.41	0.51	4.08	1.01	0.79	7.4	0.39	1.97	M6	1/2"~20UNF	F05	177	5.3
2"	1.97	2.4	5.12	0.63	4.36	1.17	0.79	7.4	0.39	1.97	M6	1/2"~20UNF	F05	221.3	7.9
2-1/2"	2.48	2.91	6.38	0.63	5.4	1.55	1.08	9.84	0.47	2.76	M8	3/4"~10UNC	F07	566.4	14.8
3"	2.99	3.54	7.4	0.63	5.74	1.55	1.08	9.84	0.47	2.76	M8	3/4"~10UNC	F07	752.3	21.6
4"	3.78	4.55	8.82	0.79	7.15	2.11	1.57	12.52	0.63	4.02	M10	1"~8UNC	F10	840.8	42.3

unit: in

3 PC Screwed End Ball Valve



SECTION

FOR 1/4" TO 2-1/2"
4 BOLDFOR 3" & 4"
6 BOLD

SUPERIOR VIEW

FEATURES

- Full port, 1/4"~4" (DN8~DN100)
- W. P.: 1000 WOG(PN63)
- W. T.: -20°C -200°C (-4°F - 392°F)
- Investment casting
- Blow-out proof stem
- Locking device
- TA-LuB approved
- Length conform to DIN 3202/4-M3
- Thread type: ASME B1.20.1 (NPT)
DIN2999 & BS21 ISO228 / 1 & ISO7/1

ITEM	PARTS	MATERIALS
1	BODY	ASTM A351-CF8M
2	CAP	
3	BALL	
4	STEM	
5	GLAND NUT	PTFE / RTFE
6	SEAT	
7	SEAL	PTFE
8	PACKING	
9	THRUST WASHER	
10	SPRING WASHER	AISI 304
11	STEAM NUT	
12	BOLT	
13	NUT	
14	SPRING WASHER	PVC
15	HANDLE	
16	LOCKING DEVICE	
17	HANDLE SLEEVE	

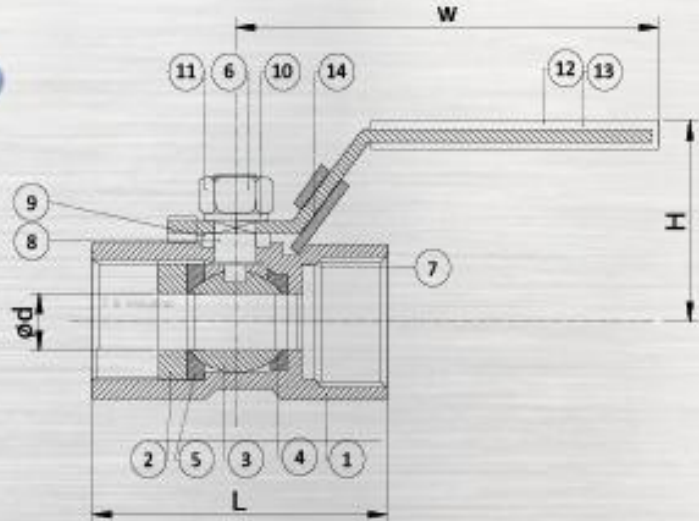
DN	d	L	H	H1	W	T	C	S	Torque (in-lb)	Weight (lb)
8	11.6	65	58.5	18	100	21.6	5	3/8"~24UNF	3.5	0.35
10	12.5	65	58.5	18	100	21.6	5	3/8"~24UNF	4.0	0.35
15	15.0	65	62	18.5	100	24	5	3/8"~24UNF	5.5	0.5
20	20.0	75	62	22.5	125	29.7	6.5	7/16"~20UNF	7.5	0.7
25	25.0	85	77	25	149	34.4	7.9	7/16"~20UNF	11.0	1
32	32.0	101	82	26	149	42.8	7.9	7/16"~20UNF	15.0	1.6
40	38.0	112	100	30	190	51.5	10	1/2"~20UNF	20.0	2.5
50	50.0	130	108	30	190	63.4	10	1/2"~20UNF	40.0	3.5
65	63.0	162	137	40	250	81.2	12	3/4"~10UNC	60.0	6.7
80	76.0	188	145	40	250	95.6	12	3/4"~10UNC	85.0	9.5
100	96.0	224	179	54	323	127.1	16	1"~8UNC	150	19.1

unit: mm

DN	d	L	H	H1	W	T	C	S	Torque (in-lb)	Weight (lb)
1/4"	0.46	2.56	2.3	0.71	3.94	0.85	0.2	3/8"~24UNF	30.98	0.53
3/8"	0.49	2.56	2.3	0.71	3.94	0.85	0.2	3/8"~24UNF	35.4	0.53
1/2"	0.59	2.56	2.44	0.73	3.94	0.94	0.2	3/8"~24UNF	48.68	0.66
3/4"	0.79	2.95	2.44	0.89	4.92	1.17	0.26	7/16"~20UNF	66.38	1.04
1"	0.98	3.35	3.03	0.98	5.87	1.35	0.31	7/16"~20UNF	97.36	1.68
1-1/4"	1.26	3.98	3.23	1.02	5.87	1.69	0.31	7/16"~20UNF	132.76	2.49
1-1/2"	1.50	4.41	3.94	1.18	7.48	2.01	0.39	1/2"~20UNF	177.01	3.86
2"	1.97	5.12	4.25	1.18	7.48	2.5	0.39	1/2"~20UNF	354.03	5.93
2-1/2"	2.48	6.38	5.39	1.57	9.84	3.2	0.47	3/4"~10UNC	351.04	12.39
3"	2.99	7.4	5.71	1.57	9.84	3.76	0.47	3/4"~10UNC	752.31	20.94
4"	3.78	8.82	7.05	2.13	12.72	5	0.63	1"~8UNC	1327.61	42.11

unit: in

1 PC Screwed End Ball Valve



Features

- Reduced port, 1/4"~3" (DN8~DN80)
- W. P.:1000WOG (PN63)
- W. T.: -20°C ~200°C (-4°F ~ 392°F)
- Investment casting
- Blow-out proof stem
- Anti-static device (option)
- Locking device
- Thread type: ASTM B1.20.1 (NPT)
DIN2999 & BS21
ISO7/1 & ISO226

ITEM	PARTS	MATERIALS
1	BODY	ASTM A351-CF8M
2	RETAINER	
3	BALL	ASTM A351-CF8M
4	SEAT A	PTFE / RTFE
5	SEAT B	
6	STEM	AISI 316 AISI 304
7	THRUST WASHER	PTFE
8	PACKING	
9	GLAND RING	AISI 304
10	SPRING WASHER	
11	STEM NUT	
12	HANDLE	STAINLESS STEEL
13	HANDLE SLEEVE	PVC
14	LOCKING DEVICE	STAINLESS STEEL

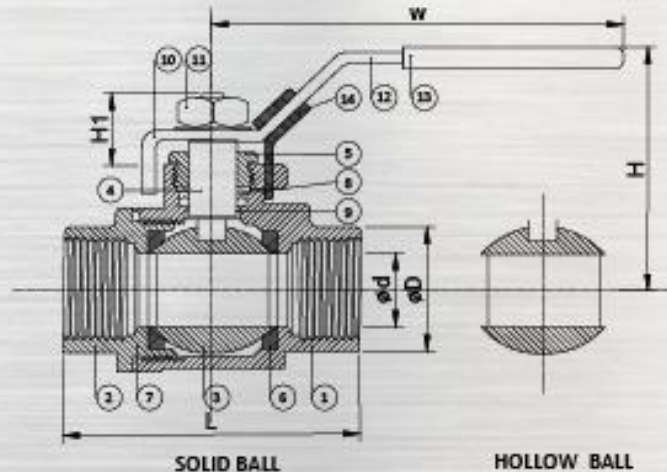
DN	d	L	W	H	Torque (N-M)	Weight (kg)
8	5	39	71	33	3.9	0.1
10	7	44	91	35	3.9	0.1
15	9.20	55	95	40	5.2	0.2
20	12.50	59	95	44	5.2	0.2
25	15	69	113	50	7.8	0.4
32	20	77	113	57	13	0.7
40	25	81	141	64	16.9	0.9
50	32	97	190	68	24.7	1.4
65	38	127	190	85	32.5	-
80	50	153	190	90	52	-

unit: mm

DN	d	L	W	H	Torque (N-M)	Weight (lb)
1/4"	0.2	1.54	2.8	1.3	34.5	0.2
3/8"	0.28	1.73	3.58	1.38	34.5	0.2
1/2"	0.36	2.17	3.74	1.57	46	0.4
3/4"	0.49	2.32	3.74	1.73	46	0.7
1"	0.59	2.72	4.45	1.97	69	0.9
1-1/4"	0.79	3.03	4.45	2.24	115.1	1.5
1-1/2"	0.98	3.19	5.55	2.68	149.6	2
2"	1.26	3.82	5.55	2.68	218.6	3.1
2-1/2"	1.5	5	7.48	3.35	287.6	-
3"	1.97	6.02	7.48	3.54	460.2	-

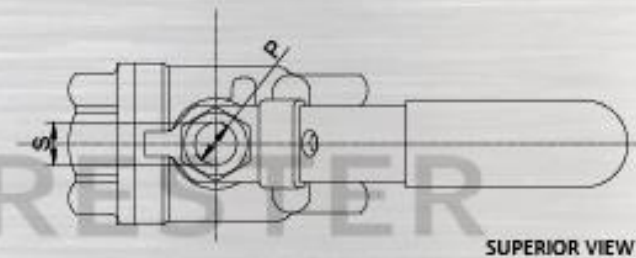
unit: in

2 PC Screwed End Ball Valve



FEATURES

- Full port, 1/4"~3" (DN8~DN80)
- W. P.: 1000 WOG(PN63)
- W. T.: -20°C -200°C (-4°F - 392°F)
- Investment casting
- Blow-out proof stem
- Tapped & drilled mounting pad (option)
- TA-Lu approved (option)
- Locking device
- Length conform to DIN 3202/4-M3-2006sm3 (option)
- Thread type: ASTM B1.20.1(NPT) / DIN2999 & BS21 ISO7/1 & ISO226



DN	d	D	L	H	H1	H2	H1	S	P	W	Torque (N-m)	Weight(Kg)	
												SOLID BALL	HOLLOW BALL
8	11.6	19.0	50.8	58.5	24.0	13.8	18.0	5	3/8"~24UNF	100	3.5	0.24	-
10	12.5	22.5	50.8	58.5	25.1	14.7	18.0	5	3/8"~24UNF	100	4.0	0.24	-
15	15.0	26.0	58.0	58.5	25.1	14.5	18.5	5	3/8"~24UNF	100	5.5	0.3	-
20	20.0	32.0	65.6	63.5	31.8	16.2	22.5	6.5	7/16"~20UNF	125	7.5	0.47	-
25	25.0	38.0	78.7	78.0	39.4	17.9	25.0	8	7/16"~20UNF	149	11.0	0.76	-
32	32.0	48.8	90.0	83.0	37.9	16.4	26.0	8	7/16"~20UNF	149	15.0	1.13	-
40	38.0	54.8	105	102.0	43.4	21.4	30.0	10	1/2"~20UNF	190	20.0	1.75	-
50	50.0	64.0	124	108.0	42.0	21.1	30.0	10	1/2"~20UNF	190	40.0	2.69	2.3
65	63.0	85.0	146	138.0	54.8	31.1	40.0	12	3/4"~10UNF	250	60.0	5.62	4.5
80	76.0	100	164	146.0	55.8	31.6	40.0	12	3/4"~10UNF	250	85.0	7.5	6.2

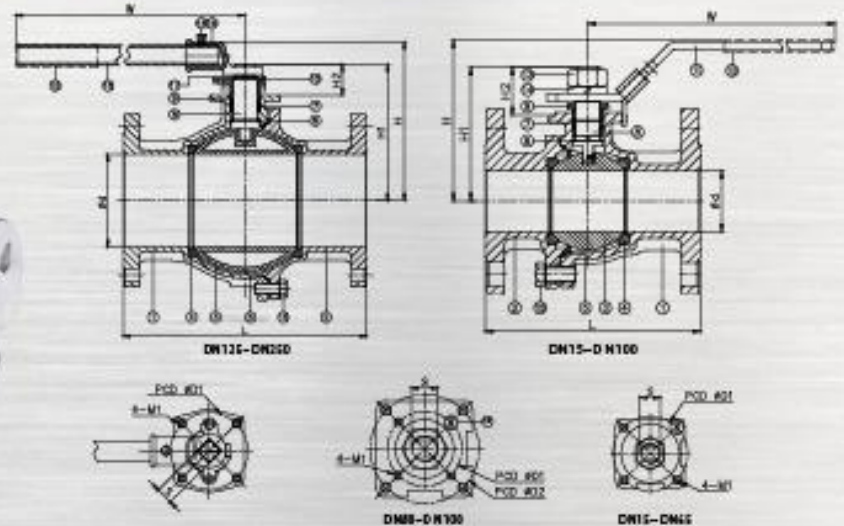
unit: mm

DN	d	D	L	H	H1	H2	H1	S	P	W	Torque (N-m)	Weight(lb)	
												SOLID BALL	HOLLOW BALL
1/4"	0.46	0.75	2.00	2.30	0.94	0.54	0.71	0.2	3/8"~24UNF	3.94	30.98	0.53	-
3/8"	0.49	0.89	2.00	2.30	0.99	0.58	0.71	0.2	3/8"~24UNF	3.94	35.4	0.53	-
1/2"	0.59	1.02	2.28	2.30	0.99	0.57	0.73	0.2	3/8"~24UNF	3.94	48.68	0.66	-
3/4"	0.79	1.26	2.58	2.50	1.25	0.64	0.89	0.26	7/16"~20UNF	4.92	66.38	1.04	-
1"	0.98	1.50	3.10	3.07	1.55	0.70	0.98	0.31	7/16"~20UNF	5.87	97.36	1.68	-
1-1/4"	1.26	1.89	3.54	3.27	1.49	0.65	1.02	0.31	7/16"~20UNF	5.87	132.76	2.49	-
1-1/2"	1.50	2.16	4.13	4.02	1.71	0.84	1.18	0.39	1/2"~20UNF	7.48	177.01	3.86	-
2"	1.97	2.64	4.88	4.25	1.65	0.83	1.18	0.39	1/2"~20UNF	7.48	354.03	5.93	5.1
2-1/2"	2.48	3.35	5.75	5.43	2.16	1.23	1.57	0.47	3/4"~10UNF	9.84	351.04	12.39	9.9
3"	2.99	3.94	6.46	5.47	2.20	1.24	1.57	0.47	3/4"~10UNF	9.84	752.31	16.53	13.7

unit: in

ITEM	PARTS	MATERIALS
1	BODY	ASTM A351-CF8M
2	CAP	
3	SOLID BALL	ASTM A276-316
3	HOLLOW BALL	
4	STEM	AISI 304
5	GLAND	AISI 304
6	SEAT	PTFE / RTFE
7	SEAL	PTFE
8	PACKING	PTFE
9	THRUST WASHER	
10	SPRING WASHER	AISI 304
11	NUT	
12	HANDLE	STAINLESS STEEL
13	HANDLE SLEEVE	PVC
14	LOCKING DEVICE	STAINLESS STEEL

2 PC Flanged End Ball Valve



FEATURES

- Full port, 1/2"~10" (DN15~DN250)
- W. P.: CLASS 150/300
- W. T.: -20°C -200°C (-4°F - 392°F)
- Investment casting
- Blow-out proof stem
- Locking device
- TA-LuB approved
- ISO 5211 Mounting pad
- Anti-static device (option)
- Flange dimension: ASME B16.5
- Face to face: ASME B16.10

ITEM	PARTS	MATERIALS
1	BODY	ASTM A351-CF8M
2	CAP	ASTM A351-CF8M
3	SOLID BALL	ASTM A351-CF8M
	HOLLOW BALL	ASTM A276-316
4	SEAT	PTFE
5	SEAL	PTFE / RTFE
6	THRUST WASHER	
7	PACKING	ASTM A276-316
8	STEM	
9	GLAND	AISI 304
10	STOP PIN	
11	HANDLE	STAINLESS STEEL
12	HANDLE SLEEVE	PVC
13	STEM NUT	AISI 304
14	SPRING WASHER	
15	BOLT	
16	BOLT	
17	CIRCLIPS FOR SHAFT	
18	STEEL TUBE	
19	WRENCH BLOCK	

DN	d	L		H	H1	H2	W	S	D1	D2	M	Torque (N-M)	
		CLASS 150	CLASS 300									CLASS 150	CLASS 300
15	15.0	108	140	85.7	57.2	23.7	169	8	42	-	M5	3.8	7.5
20	20.0	117	152	88.5	60	23.5	169	8	42	-	M5	5.5	7.6
25	25.0	127	165	103.3	73.8	29	205	10	50	-	M6	6.5	17.5
32	32.0	140	178	108	78.5	29	205	10	50	-	M6	9	20
40	38.0	165	190	128.4	102.9	39.4	266	12	70	-	M8	25	22.9
50	50.0	178	216	135.9	110.4	39.4	266	12	70	-	M8	38	32.2
65	63.0	190	241	147.6	122.1	38.6	298	12	70	-	M8	45	42.3
80	76.0	203	286	167.5	142	43	390	15	70	102	10	61	87.2
100	96.0	228.5	305	182.5	157	43	390	15	70	102	M10	80	98.2
125	125	356	-	239.6	199	52	743	27	125	-	M12	160	-
150	150	394	403	256.5	220	50	743	27	125	-	M12	190	185
200	200	457	502	334	300.5	85.5	8840	36	140	-	M16	470	470
250	250	533	-	378	334.5	74.5	1040	36	140	-	M16	750	-

unit: mm

DN	d	L		H	H1	H2	W	S	D1	D2	M	Torque (N-M)	
		CLASS 150	CLASS 300									CLASS 150	CLASS 300
1/2"	0.59	4.25	5.51	3.37	2.25	0.93	6.65	0.31	1.65	-	M5	33.6	66.4
3/4"	0.79	4.61	5.98	3.48	2.36	0.93	6.65	0.31	1.65	-	M5	48.7	67.3
1"	0.98	5	6.5	4.07	2.91	1.14	8.07	0.39	1.97	-	M6	57.5	154.9
1-1/4"	1.26	5.51	7.01	4.25	3.09	1.14	8.07	0.39	1.97	-	M6	79.7	177
1-1/2"	1.50	6.5	7.48	5.06	4.05	1.55	10.47	0.47	2.76	-	M8	221.3	202.7
2"	1.97	7.01	8.5	5.36	4.35	1.55	10.47	0.47	2.76	-	M8	336.3	285
2-1/2"	2.56	7.48	9.49	5.81	4.81	1.52	11.73	0.47	2.76	-	M8	398.3	374.4
3"	3.15	7.99	11.1	6.59	5.59	1.69	15.35	0.59	2.76	4.02	10	539.9	771.8
4"	3.94	9	12.0	7.19	6.18	1.69	15.35	0.59	2.76	4.02	M10	708.1	869.1
5"	4.92	14	-	9.43	7	2	29	1.06	4	-	M12	1416	-
6"	5.91	15	15	10.1	8	1	29	1.06	4	-	M12	1681	1637
8"	7.87	17	19	13	11.83	3.37	33	1.42	5	-	M16	4159	4159
10"	9.84	20	-	14	13.17	2.93	40	1.42	5	-	M16	6638	-

unit: in