

Gate Valves

Part Number System

How to order Gate Valves

Our part number system is made up of alphanumeric / generic code system as explained below.

Example:

Full Bore Gate Valve, 3", RF Flanged, Class 150lbs Rated, Body A216 WCB Carbon Steel, Stainless Steel 316 Trim, Metal Seats, Handwheel Operated, Bolted Bonnet, Outside Screw and Yoke, To NACE MR-01-75

The part number shown below is made up using the system

Bore Size	Valve Type	Nominal Size	End Connection	Class Rating	Body Material	Trim Material	Seat Material	Operation	Bonnet Type	Top Design	Options	
F	GA	024	FR	12	C1	X1	M	-	H	BB	OS	NA
F = Full Bore	GA = Gate Type	016 = 2" 020 = 2 1/2" 024 = 3" 032 = 4" 048 = 6" 064 = 8" 080 = 10" 096 = 12" 112 = 14" 128 = 16" 144 = 18" 160 = 20" 176 = 22" 192 = 24" 208 = 26" 224 = 28" 240 = 30" 256 = 32" 272 = 34" 288 = 36"	FR = RF Flanged FJ = RTJ Flanged FF = FF Flanged BW = Butt Weld PE = Plain End	12 = Class 150 13 = Class 300 14 = Class 600 16 = Class 900 17 = Class 1500 18 = Class 2500 C1 = A216 WCB C5 = A216 WCC D1 = A352 LCB H2 = A352 LCC I1 = A351 CF8 J1 = A351 CF3 K1 = A351 CF8M L1 = A351 CF3M N4 = B148 C95800 O2 = B148 C95400 P3 = A890 4A P5 = A351 CD4NCU X2 = A217 C5	E1 = A182 F304 SS E3 = SS304 HFS E4 = SS316 HFS E7 = SS316 + STL K3 = LF2 + ENP L_ = 13Cr + STL L2 = A182 F51 SS O2 = SS316 + STL U1 = 13Cr (F6) V1 = 13Cr HFS X7 = SS316 + ENP X8 = SS316 + TC Y1 = A105 + ENP Y3 = WCB + ENP M = Metal	B = Bare stem G = Gear Op H = Handwheel BB = Bolted Bonnet EB = Extended Bonnet / Stem PS = Pressure Seal Bonnet OS = Outside Screw & Yoke (standard feature) EX = Extended Ends NA = NACE MR-01-75						

* NOTE. More body/trim materials and design options are available.

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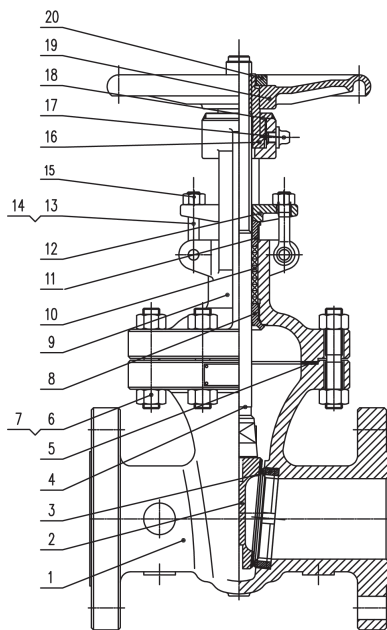
FLANGED CLASS 150lbs~1500lbs BOLTED BONNET

GA Series Cast Steel Body

(Also available in Butt Weld ends to ASME B16.25)

The "GA" range of Cast Steel Gate valves are manufactured with bolted bonnet assembly option. Constructed using a high integrity cast body. Flexible wedge design with full guide rail.

Flexible graphite, spiral wound or ring joint type gasket available depending on application. Two piece self aligning packing gland. Available in carbon steel or stainless steel as standard, with alloy steels and exotic metals by request.



Design Features / Design Codes

- Design and Manufacture to API 600 / API 6D
- Face to face dimensions to ANSI B16.10
- Flanged End dimensions to ASME B16.5 (24" and below), and to ASME B16.47 (over 24")
- Butt Weld Ends dimensions to ASME B16.25
- Pressure-temperature rating to ANSI B16.34
- Test and inspection to API 598 / API 6D
- Body marking to MSS-SP-25

Materials of Construction

No	Part Name	Carbon Steel		Stainless Steel	
		ASTM A216 WCB	ASTM A352 LCB	ASTM A351 CF8	ASTM A351 CF8M
1	Body	ASTM A216 WCB	ASTM A352 LCB	ASTM A351 CF8	ASTM A351 CF8M
2	Wedge	ASTM A216 WCB + 13Cr	ASTM A352 LCB + 13Cr	ASTM A351 CF8	ASTM A351 CF8M
3	Seat	ASTM A105 + 13Cr	ASTM A350 LF2 + 13Cr	ASTM A351 CF8	ASTM A351 CF8M
4	Stem	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316
5	Gasket	304 + Graphite		304 + Graphite	316 + Graphite
6	Nut	ASTM A194 2H	ASTM A194 4	ASTM A194 8	ASTM A194 8
7	Bolt	ASTM A193 B7	ASTM A320 L7	ASTM A193 B8	ASTM A193 B8
8	Back Seat	ASTM A182 F6a		ASTM A351 CF8	ASTM A351 CF8M
9	Bonnet	ASTM A216 WCB	ASTM A352 LCB	ASTM A351 CF8	ASTM A351 CF8M
10	Packing	Graphite		Graphite	Graphite
11	Gland	ASTM A182 F6a		ASTM A182 F304	ASTM A182 F316
12	Gland Flange	ASTM A216 WCB	ASTM A352 LCB	ASTM A351 CF8	ASTM A351 CF8M
13	Eye Bolt	ASTM A193 B7	ASTM A320 L7	ASTM A193 B8	ASTM A193 B8
14	Pin	A276 410		A276 304	A276 316
15	Nut	ASTM A194 2H	ASTM A194 4	ASTM A194 8	ASTM A194 8
16	Stem Nut	Copper Alloy		Copper Alloy	Copper Alloy
17	Oil Filler	Copper Alloy		Copper Alloy	Copper Alloy
18	Gland Nut	Carbon Steel		Carbon Steel	Carbon Steel
19	Handwheel	Ductile Iron / Malleable Iron			
20	Lock Nut	Carbon Steel		Carbon Steel	Carbon Steel

NOTE 1. All materials listed above are in compliance with international criterion.
2. Above combinations are factory standard. Other arrangements are available upon request.

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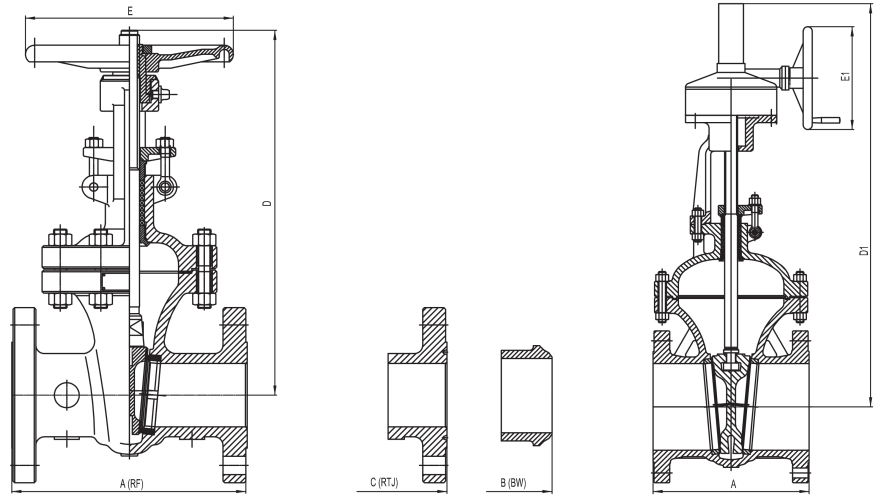
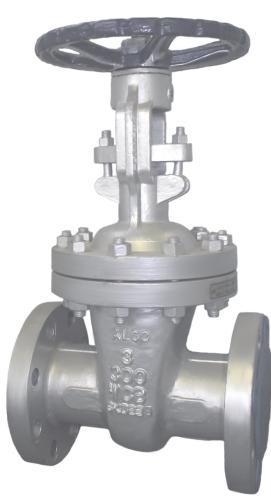
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**FLANGED CLASS 150lbs~600lbs
BOLTED BONNET**



Dimensional information

Size		ANSI Class 150																		
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	26	28	30	32	34	36
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	650	700	750	800	850	900
A (RF)	mm	178	190	203	229	267	292	330	356	381	406	432	457	508	559	610	660	711	762	813
B (BW)	mm	216	241	282	305	403	419	457	502	572	610	660	711	813	864	914	914	965	1016	1016
C (RTJ)	mm	191	203	216	242	280	305	343	369	394	419	445	470	521	559	610	660	711	762	813
D	mm	345	374	418	490	605	746	935	1065	1224	1345	1487	1627	1931	-	-	-	-	-	-
E	mm	200	200	250	280	300	350	400	450	600	600	600	680	920	-	-	-	-	-	-
D1	mm	-	-	-	-	-	-	1280	1510	1670	1885	2045	2210	2675	-	3050	3426	3515	-	4000
E1	mm	-	-	-	-	-	-	310	460	460	460	460	460	460	-	600	600	600	-	600
Wt (RF)	Kg	20	30	33	49	75	120	205	290	400	511	650	789	1200	-	1800	2560	3060	-	3500

Size		ANSI Class 300																		
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	26	28	30	32	34	36
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	650	700	750	800	850	900
A (RF)	mm	216	241	282	605	403	419	547	502	762	383	914	991	1143	1245	1346	1397	1524	1626	1727
B (BW)	mm	216	241	282	605	403	419	547	502	762	383	914	991	1143	1245	1346	1397	1524	1626	1727
C (RTJ)	mm	232	257	298	621	419	435	563	518	778	399	930	1010	1165	1270	1371	1422	1552	1654	1755
D	mm	345	374	418	490	620	768	995	1090	1265	1385	1510	1630	-	-	-	-	-	-	-
E	mm	200	200	250	280	350	400	500	600	650	750	750	920	-	-	-	-	-	-	-
D1	mm	-	-	-	-	-	-	1375	1527	1718	1860	2077	2310	2809	-	3078	3396	3700	-	4115
E1	mm	-	-	-	-	-	-	460	460	460	460	460	460	600	-	600	600	600	-	600
Wt (RF)	Kg	24	36	47	69	123	196	333	440	710	950	1405	1720	2700	-	3312	4100	5200	-	6700

Size		ANSI Class 600																		
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	26	28	30	32	34	36
DN	mm	50	65	80	100	150	200	250	300	350	400	450	500	600	650	700	750	800	850	900
A (RF)	mm	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1448	1549	1651	1778	1930	2083
B (BW)	mm	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1448	1549	1651	1778	1930	2083
C (RTJ)	mm	295	333	359	435	562	663	790	841	892	994	1095	1200	1407	1461	1562	1664	1794	1946	2099
D	mm	375	410	463	550	713	874	995	1140	1366	-	-	-	-	-	-	-	-	-	-
E	mm	250	250	300	350	500	600	600	650	700	-	-	-	-	-	-	-	-	-	-
D1	mm	-	-	-	-	958	1148	1350	1580	1630	2008	2140	2360	2710	-	-	-	-	-	-
E1	mm	-	-	-	-	460	460	460	460	460	600	600	600	600	-	-	-	-	-	-
Wt (BW)	Kg	39	52	88	114	285	413	650	800	1140	1700	2268	2850	3500	-	-	-	-	-	-

NOTE: We reserve the right to change dimensions and designs without prior notice.

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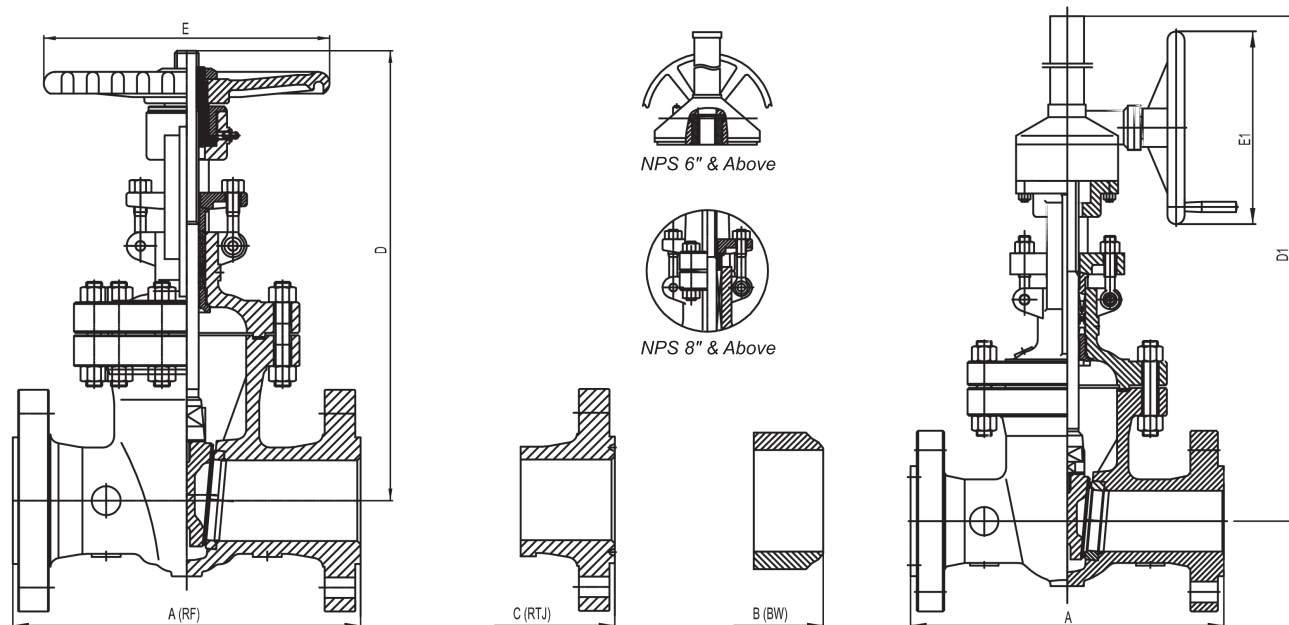
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Gate Valves

**FLANGED CLASS 900lbs~1500lbs
BOLTED BONNET**



Dimensional information

Size		ANSI Class 900									
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16
DN	mm	50	65	80	100	150	200	250	300	350	400
A (RF)	mm	368	419	381	457	610	737	838	965	1029	1130
B (BW)	mm	368	419	381	457	610	737	838	965	1029	1130
C (RTJ)	mm	371	422	384	460	613	740	841	968	1039	1140
D	mm	445	480	513	316	834	875	1040	1150	-	-
E	mm	300	300	350	400	600	600	650	700	-	-
D1	mm	-	-	-	-	1000	1130	1560	1720	1795	1908
E1	mm	-	-	-	-	310	460	460	460	600	600
Wt (BW)	Kg	72	101	130	197	404	650	850	1177	1500	1920

Size		ANSI Class 1500									
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16
DN	mm	50	65	80	100	150	200	250	300	350	400
A (RF)	mm	368	419	470	546	705	832	991	1130	1257	1384
B (BW)	mm	368	419	470	546	705	832	991	1130	1257	1384
C (RTJ)	mm	371	422	473	549	711	842	1001	1146	1276	1406
D	mm	462	512	550	752	-	-	-	-	-	-
E	mm	300	350	400	550	-	-	-	-	-	-
D1	mm	-	-	-	860	1123	1360	1585	1800	2200	2550
E1	mm	-	-	-	310	460	460	460	600	600	600
Wt (BW)	Kg	85	130	170	304	646	1100	1600	2106	2700	3500

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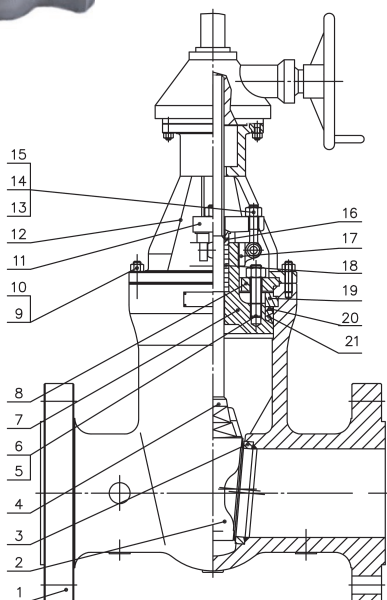
Gate Valves

FLANGED CLASS 900lbs~2500lbs PRESSURE SEAL BONNET

GA Series Cast Steel Body

(Also available in Butt Weld ends to ASME B16.25)

The "GA" range of Cast Steel Gate valves are manufactured with pressure seal bonnet assembly. Constructed using high integrity cast body. Flexible wedge design with full guide rail. Unique angular pressure seal gasket design. Two piece self aligning packing gland. Available in carbon steel or stainless steel as standard, with alloy steels and exotic metals by request.



Design Features / Design Codes

- Design and Manufacture to ANSI B16.34 / API 6D
- Face to face dimensions to ANSI B16.10
- Flanged End dimensions to ASME B16.5
- Butt Weld Ends dimensions to ASME B16.25
- Pressure-temperature rating to ANSI B16.34
- Test and inspection to API 598 / API 6D
- Body marking to MSS-SP-25

Materials of Construction

No	Part Name	Carbon Steel		Stainless Steel	
		ASTM A216 WCB	ASTM A352 LCB	ASTM A351 CF8	ASTM A351 CF8M
1	Body	ASTM A216 WCB	ASTM A352 LCB	ASTM A351 CF8	ASTM A351 CF8M
2	Wedge	ASTM A216 WCB + 13Cr	ASTM A352 LCB + 13Cr	ASTM A351 CF8	ASTM A351 CF8M
3	Seat	ASTM A105	ASTM A350 LF2	ASTM A182 F304	ASTM A182 F316
4	Stem	ASTM A182 F6a		ASTM A182 F304	ASTM A182 F316
5	Bolt	ASTM A193 B7	ASTM A320 L7	ASTM A193 B8	ASTM A193 B8
6	Nut	ASTM A194 2H	ASTM A194 7	ASTM A194 8	ASTM A194 8
7	Bonnet	ASTM A216 WCB	ASTM A352 LCB	ASTM A351 CF8	ASTM A351 CF8M
8	Brace Ring	1045		1045	1045
9	Bolt	ASTM A193 B7	ASTM A320 L7	ASTM A193 B8	ASTM A193 B8
10	Nut	ASTM A194 2H	ASTM A194 7	ASTM A194 8	ASTM A194 8
11	Gland Flange	ASTM A105	ASTM A350 LF2	ASTM A182 F304	ASTM A182 F316
12	Yoke	ASTM A216 WCB	ASTM A352 LCB	ASTM A351 CF8	ASTM A351 CF8M
13	Bolt	ASTM A193 B7	ASTM A320 L7	ASTM A193 B8	ASTM A193 B8
14	Nut	ASTM A194 2H	ASTM A194 7	ASTM A194 8	ASTM A194 8
15	Pin	1035	1035	1035	1035
16	Gland	ASTM A276 410	ASTM A276 410	ASTM A276 304	ASTM A276 316
17	Yoke	ASTM A216 WCB	ASTM A352 LCB	ASTM A351 CF8	ASTM A351 CF8M
18	Packing	Flexible Graphite		Flexible Graphite	
19	4 Jaws Ring	ASTM A182 F6a		ASTM A182 F304	ASTM A182 F316
20	Gasket	SS 304	SS 304	SS 304	SS 304
21	Seal Ring	SS304 + Graphite		SS 304 + Graphite	SS 316 + Graphite

NOTE 1. All materials listed above are in compliance with international criterion.
2. Above combinations are factory standard. Other arrangements are available upon request.

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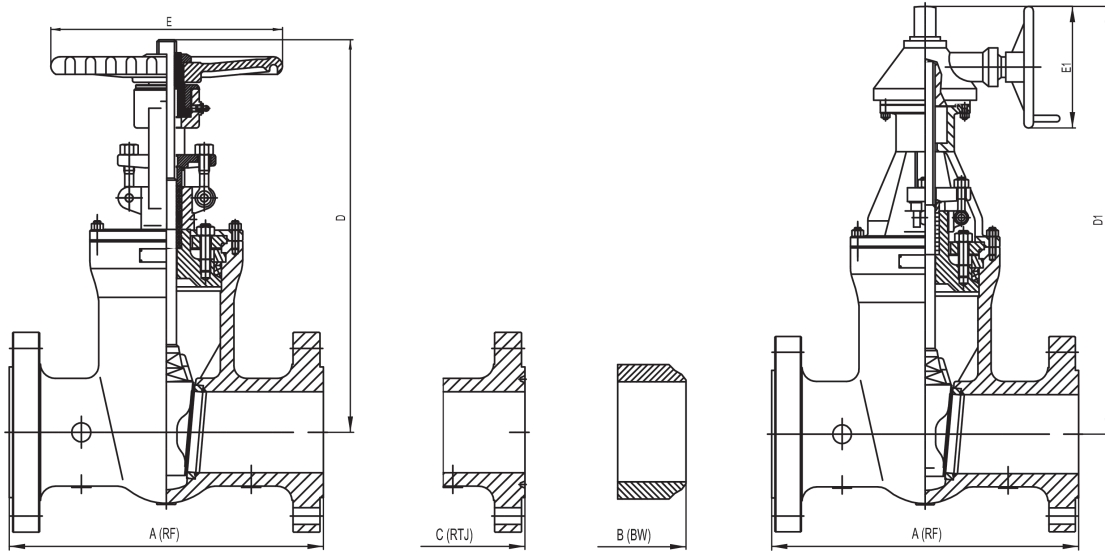
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Gate Valves

FLANGED CLASS 900lbs~2500lbs PRESSURE SEAL BONNET



Dimensional information

Size		ANSI Class 900									
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16
DN	mm	50	65	80	100	150	200	250	300	350	400
A (RF)	mm	368	419	381	457	610	737	838	965	1029	1130
B (BW)	mm	368	419	381	457	610	737	838	965	1029	1130
C (RTJ)	mm	371	422	384	460	613	740	841	968	1032	1133
D	mm	445	525	660	666	928	-	-	-	-	-
E	mm	300	300	350	400	600	-	-	-	-	-
D1	mm	-	-	-	-	-	1261	1530	1730	1842	2010
E1	mm	-	-	-	-	-	460	460	460	600	600
Wt (BW)	Kg	50	74	90	110	195	505	745	1060	1410	1960

Size		ANSI Class 1500									
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16
DN	mm	50	65	80	100	150	200	250	300	350	400
A (RF)	mm	368	419	470	546	705	832	1067	1130	1257	1384
B (BW)	mm	368	419	470	546	705	832	1067	1130	1257	1384
C (RTJ)	mm	371	422	473	549	711	842	1077	1146	1276	1406
D	mm	485	554	672	768	-	-	-	-	-	-
E	mm	300	350	400	560	-	-	-	-	-	-
D1	mm	-	-	-	-	1123	1360	1550	1800	2060	2320
E1	mm	-	-	-	-	460	460	600	600	600	600
Wt (BW)	Kg	85	130	170	304	646	1100	1600	2106	2700	3500

Size		ANSI Class 2500									
NPS	in	2	2 1/2	3	4	6	8	10	12	14	16
DN	mm	50	65	80	100	150	200	250	300	350	400
A (RF)	mm	451	508	578	673	914	1022	1270	1422	-	-
B (BW)	mm	451	508	578	673	914	1022	1270	1422	-	-
C (RTJ)	mm	454	514	584	683	927	1038	1292	1444	-	-
D	mm	594	753	840	880	-	-	-	-	-	-
E	mm	350	400	560	600	-	-	-	-	-	-
D1	mm	-	-	-	-	1205	1454	1610	2096	-	-
E1	mm	-	-	-	-	600	760	760	760	-	-
Wt (BW)	Kg	60	100	110	200	530	750	1610	3010	-	-

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SECTION 1

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