

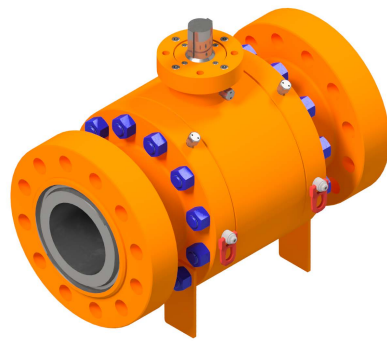


BALL VALVES

PRODUCT CATALOGUE

TABLE OF CONTENTS

- ▶ Product Overview
- ▶ Material List
- ▶ Design & Schematics
- ▶ Seat & Seal
- ▶ Size / Pressure Range / Dimension



PRODUCT OVERVIEW

AJ VALVE'S 3-PIECE BALL VALVES



AJ Valve's 3-piece forged Trunnion Ball Valves have complete cavity isolation from the media in both the open and closed position. The operator can perform a double block and bleed in the open and closed position to check the seat seal integrity. The body cavity vent and drain ports come standard with the unit to facilitate inspection. The seats are self-relieving to automatically prevent over-pressurization of the body cavity due to thermal expansion of the trapped fluid. When the body cavity pressure increases above the set spring load, the seat moves away from the ball venting the pressure downstream.

STANDARDS AND SPECIFICATIONS

The AJ Valve designs covered in this catalogue conform to the following industry standards and specifications.

American Petroleum Institute

- ▶ API 6D - Specifications for pipeline valves
- ▶ API 607 - Fire test for soft-seated ball valve (Div. of Refining)
- ▶ API Q1 - Specifications for quality programs
- ▶ API 608 - Metal valves

Manufacturers Standardization Society

- ▶ MSS SP-25 - Standard marking system for valves
- ▶ MSS SP-55 - Quality standard for steel casting

National Association of Corrosion Engineers

- ▶ NACE MR-01-75 - Sulfide stress cracking resistant metallic materials for Oilfield Equipment

American National Standard

- ▶ ASME / ANSI B 16.10 - Face-to-face and end-to-end dimensions on ferrous valves
- ▶ ASME / ANSI B 16.5 - Steel pipe flanges and flanged fittings
- ▶ ASME / ANSI B 16.34 - Steel valves-flanged and butt-welded end
- ▶ ASME / ANSI B 31.1 - Chemical plant and petroleum refinery piping
- ▶ ASME B 31.4 - Liquid petroleum transportation piping systems
- ▶ ASME B 31.8 - Gas transmission and distribution piping systems
- ▶ ASME B 16.34 - Valves flanged, threaded and welding end

Code of Federal Regulations

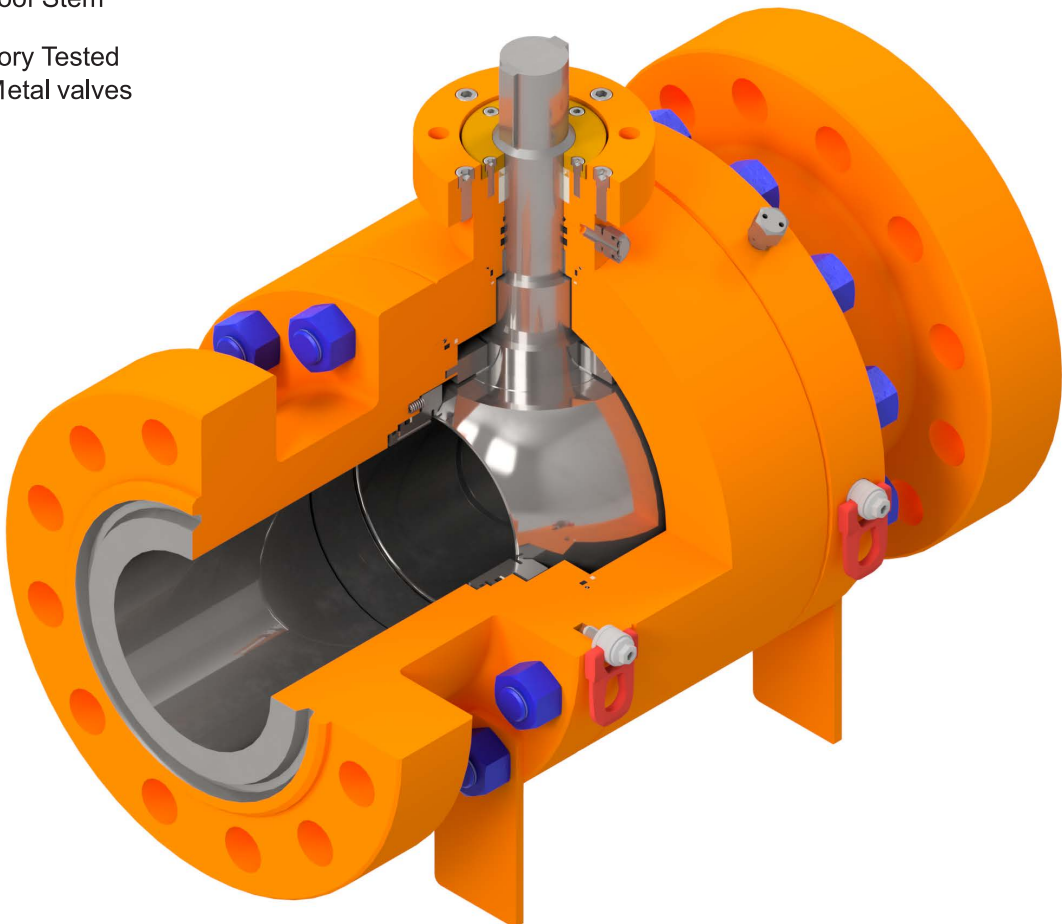
- ▶ Title 49-Part 192 - Transportation of natural and other gas by pipeline:
Minimum Federal Safety Standards.



PRODUCT OVERVIEW

STANDARD VALVE DESIGN & FEATURES

- ▶ API 6D / ISO 14313 Compliant
- ▶ API 607 5th FireSafe Design
- ▶ ISO 5211 Part - Turn Actuator
- ▶ API Q1 Specification for Quality Programs
- ▶ ASME B16.34 Steel Valves Flanged and Buttweld End
- ▶ ASME B16.10 Face-to-face and End-to-end Dimension on Ferrous Valve
- ▶ ASME 16.5 SteelPipe Flanges and Flanged Fitting
- ▶ NACE Compliant Materials and Bolting
- ▶ Full Material Traceability
- ▶ 3-Piece Trunnion Forged
- ▶ Easy Actuator Adaption
- ▶ Standard and Special Alloys
- ▶ Low Operating Torques
- ▶ Anti-Static Device
- ▶ Blowout-proof Stem
- ▶ 100% Factory Tested
- ▶ API 608 -Metal valves



 **TRUNNION BALL VALVE
MATERIAL LIST**



MATERIAL LIST

AVAILABLE MATERIAL

- ▶ A105
- ▶ A350 LF2
- ▶ A350 LF3
- ▶ AISI 4140
- ▶ A694 F60
- ▶ A 182 F6A
- ▶ A 182 F6 NM
- ▶ A 182 F316
- ▶ A 182 F316 LNM
- ▶ A 182 F44
- ▶ A 182 F51
- ▶ A 182 F53
- ▶ A 182 F55
- ▶ 17-4 PH
- ▶ B 150 (Ni+Al+Bronze)
- ▶ Inconel 825
- ▶ Inconel 625
- ▶ Hastelloy C 276
- ▶ Monel K-500
- ▶ XM 19
- ▶ Titanium

Below is a list of trims for our main ball valve components.

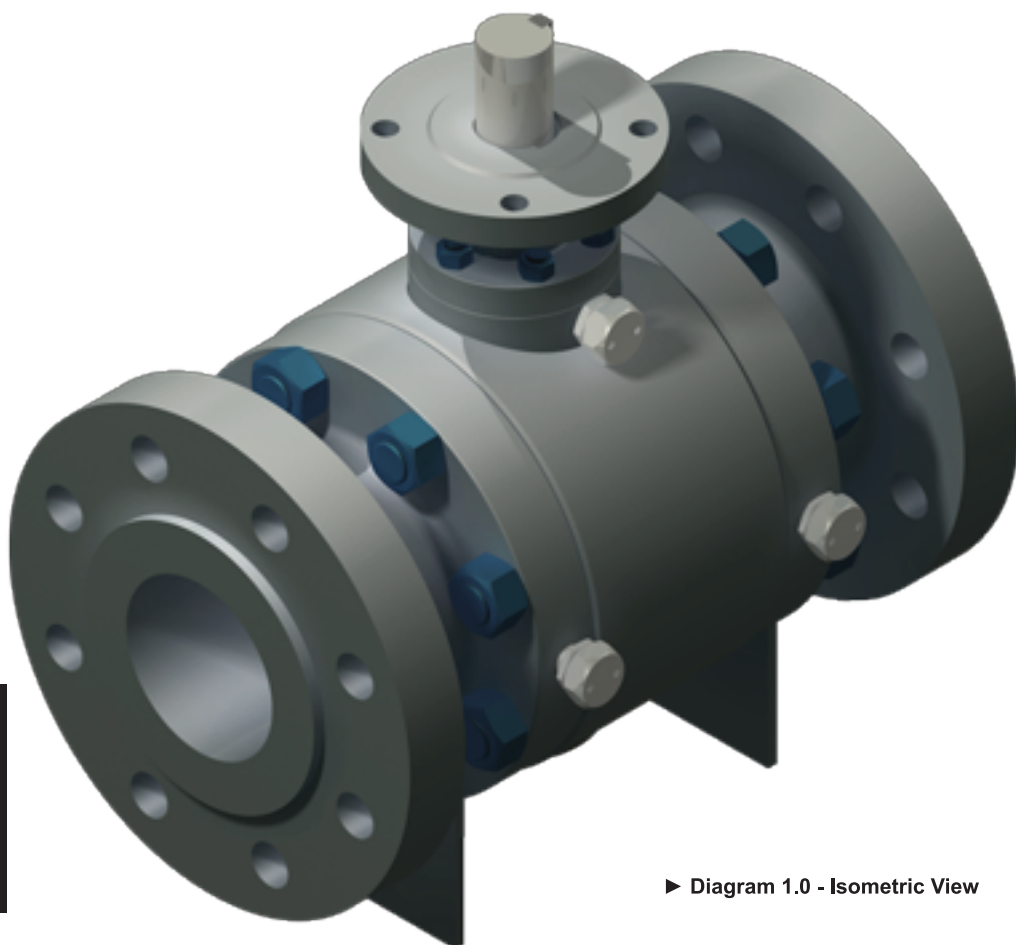
TRIM SELECTION	BODY & BONNET	STEM	BALL	SEAT
STD - Full Carbon Steel	A350 LF2	AISI 4140	A350 LF2	A350 LF2
Carbon Steel (Containing Parts) Stainless Steel (Containing Parts)	A350 LF2	A182 F316 (17-4PH)	A182 F316 (AISI 410)	A182 F316 (AISI 410)
Full Stainless Steel	A394 F52	A182 F316 (17-4PH)	A182 F316 (AISI 410)	A182 F316 (AISI 410)
Duplex	A890 4A	A182 F51	A182 F51	A182 F51
Ni +Al+Bronze	B 150	K-500	K-500	K-500



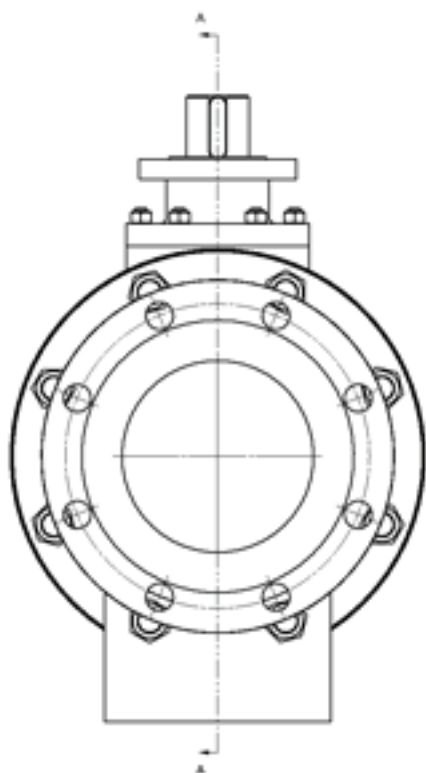


DESIGN SCHEMATICS

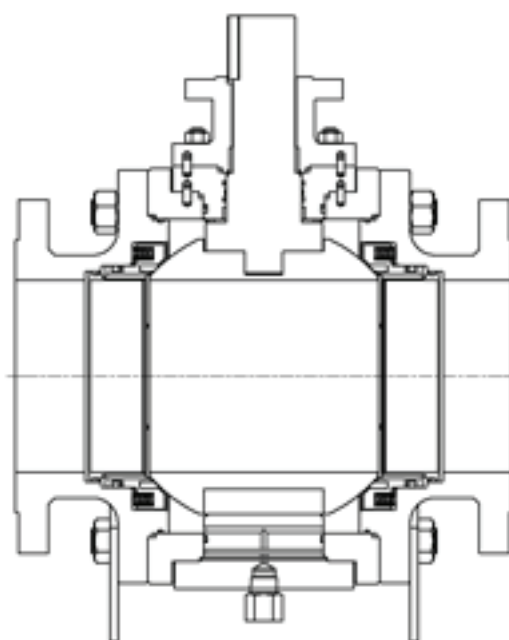
AJ-1 STANDARD TRUNNION BALL VALVE



► Diagram 1.0 - Isometric View



► Diagram 1.1 - Side Elevation



► Diagram 1.2 - Cross Section Front Elevation

SIZE / PRESSURE RANGE & DIMENSIONS

FACE-TO-FACE DIMENSION, FLANGE TYPE & WEIGHT ASME CLASS 150



FLANGES IN ACCORDANCE WITH ASME B16.5 - SIDE ENTRY AJ-1

No.	Size		For FF/RF & RTJ Flange only			End-to-End (mm)				Weight (kg) RF/ RTJ
	DN	NPS	Flange Size (mm)	Number of Bolt Holes	Bolt Size	WE	RF/FF	RTJ	GRAYLOK	
1	15	1/2"	90	4	1/2	140	108	119	N/A	3.5
2	20	3/4"	100	4	1/2	152	117	130	N/A	3.9
3	25	1"	110	4	1/2	165	127	140	N/A	7.5
4	32	1 1/4"	115	4	1/2	178	140	153	N/A	11
5	40	1 1/2"	125	4	1/2	190	165	178	N/A	19
6	50	2"	150	4	5/8	216	178	191	N/A	26
7	65	2 1/2"	180	4	5/8	241	190	203	N/A	38
8	80	3"	190	4	5/8	282	203	216	N/A	52
9	100	4"	230	8	5/8	305	229	242	N/A	88

FACE-TO-FACE DIMENSION, FLANGE TYPE & WEIGHT ASME CLASS 300

FLANGES IN ACCORDANCE WITH ASME B16.5 - SIDE ENTRY AJ-1

No.	Size		For FF/RF & RTJ Flange only			End-to-End (mm)				Weight (kg) RF/ RTJ
	DN	NPS	Flange Size (mm)	Number of Bolt Holes	Bolt Size	WE	RF/FF	RTJ	GRAYLOK	
1	15	1/2"	95	4	1/2	140	140	151	N/A	3.6
2	20	3/4"	115	4	5/8	152	152	165	N/A	4.1
3	25	1"	125	4	5/8	165	165	178	N/A	7.7
4	32	1 1/4"	135	4	5/8	178	178	191	N/A	12
5	40	1 1/2"	155	4	3/4	190	190	203	N/A	20
6	50	2"	165	8	5/8	216	216	232	N/A	27
7	65	2 1/2"	190	8	3/4	241	241	257	N/A	40
8	80	3"	210	8	3/4	282	282	298	N/A	54
9	100	4"	255	8	3/4	305	305	321	N/A	90



SIZE / PRESSURE RANGE & DIMENSIONS

FACE-TO-FACE DIMENSION, FLANGE TYPE & WEIGHT ASME CLASS 600

FLANGES IN ACCORDANCE WITH ASME B16.5 - SIDE ENTRY AJ-1										
No.	Size		For FF/RF & RTJ Flange only			End-to-End (mm)				Weight (kg) RF/ RTJ
	DN	NPS	Flange Size (mm)	Number of Bolt Holes	Bolt Size	WE	RF/FF	RTJ	GRAYLOK	
1	15	1/2"	95	4	1/2	165	165	163	*	4
2	20	3/4"	115	4	5/8	190	190	190	*	4.5
3	25	1"	125	4	5/8	216	216	216	*	9
4	32	1 1/4"	135	4	5/8	229	229	229	*	14
5	40	1 1/2"	155	4	3/4	241	241	241	*	23
6	50	2"	165	8	5/8	292	292	295	*	32
7	65	2 1/2"	190	8	3/4	330	330	333	*	49
8	80	3"	210	8	3/4	356	356	359	*	62
9	100	4"	275	8	7/8	432	432	435	*	111

* = Please consult the factory

FACE-TO-FACE DIMENSION, FLANGE TYPE & WEIGHT ASME CLASS 900

FLANGES IN ACCORDANCE WITH ASME B16.5 - SIDE ENTRY AJ-1										
No.	Size		For FF/RF & RTJ Flange only			End-to-End (mm)				Weight (kg) RF/ RTJ
	DN	NPS	Flange Size (mm)	Number of Bolt Holes	Bolt Size	WE	RF/FF	RTJ	GRAYLOK	
1	15	1/2"	120	4	3/4	216	216	216	*	6
2	20	3/4"	130	4	3/4	229	229	229	*	8
3	25	1"	150	4	7/8	254	254	254	*	11
4	32	1 1/4"	160	4	7/8	279	279	279	*	19
5	40	1 1/2"	180	4	1	305	305	305	*	28
6	50	2"	215	8	7/8	368	368	371	*	49
7	65	2 1/2"	245	8	1	419	419	422	*	65
8	80	3"	240	8	7/8	381	381	384	*	76
9	100	4"	290	8	1 1/8	457	457	460	*	142

* = Please consult the factory

SIZE / PRESSURE RANGE & DIMENSIONS

FACE-TO-FACE DIMENSION, FLANGE TYPE & WEIGHT ASME CLASS 1500



FLANGES IN ACCORDANCE WITH ASME B16.5 - SIDE ENTRY AJ-1										
No.	Size		For FF/RF & RTJ Flange only			End-to-End (mm)				Weight (kg) RF/ RTJ
	DN	NPS	Flange Size (mm)	Number of Bolt Holes	Bolt Size	WE	RF/FF	RTJ	GRAYLOK	
1	15	1/2"	120	4	3/4	216	216	216	*	6
2	20	3/4"	130	4	3/4	229	229	229	*	8
3	25	1"	150	4	7/8	254	254	254	*	11
4	32	1 1/4"	160	4	7/8	279	279	279	*	19
5	40	1 1/2"	180	4	1	305	305	305	*	28
6	50	2"	215	8	7/8	368	368	371	*	50
7	65	2 1/2"	245	8	1	419	419	422	*	72
8	80	3"	265	8	1 1/8	470	470	473	*	99
9	100	4"	310	8	1 1/8	546	546	549	*	192

* = Please consult the factory

FACE-TO-FACE DIMENSION, FLANGE TYPE & WEIGHT ASME CLASS 2500

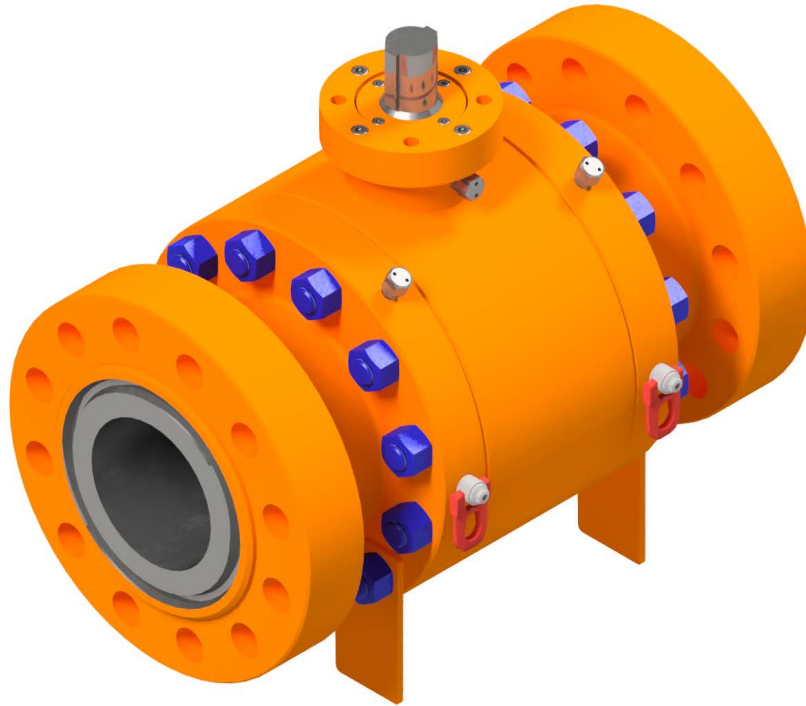
FLANGES IN ACCORDANCE WITH ASME B16.5 - SIDE ENTRY AJ-1										
No.	Size		For FF/RF & RTJ Flange only			End-to-End (mm)				Weight (kg) RF/ RTJ
	DN	NPS	Flange Size (mm)	Number of Bolt Holes	Bolt Size	WE	RF/FF	RTJ	GRAYLOK	
1	15	1/2"	135	4	3/4	264	264	264	*	10
2	20	3/4"	140	4	3/4	273	273	273	*	13
3	25	1"	160	4	7/8	308	308	308	*	15
4	32	1 1/4"	185	4	1	349	349	352	*	24
5	40	1 1/2"	205	4	1 1/8	384	384	387	*	33
6	50	2"	235	8	1	451	451	454	*	86
7	65	2 1/2"	265	8	1 1/8	508	508	514	*	142
8	80	3"	305	8	1 1/4	578	578	584	*	185
9	100	4"	355	8	1 1/2	673	673	683	*	375

* = Please consult the factory

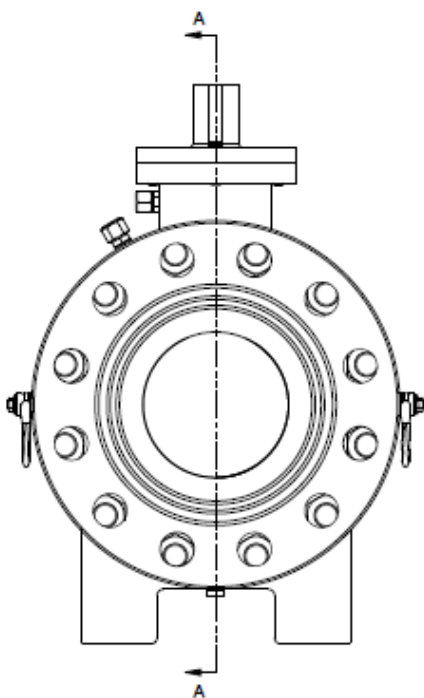


DESIGN & SCHEMATICS

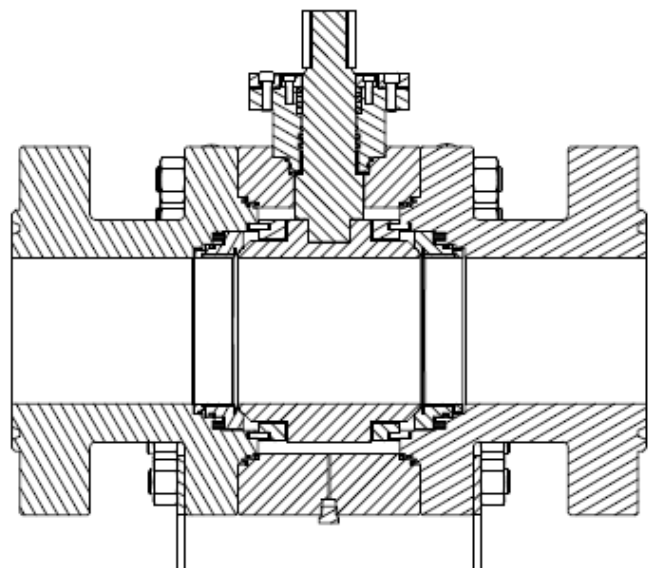
AJ-2 STANDARD TRUNNION BALL VALVE



► Diagram 2.0 - Isometric View



► Diagram 2.1 - Side Elevation



► Diagram 2.2 - Cross Section Front Elevation

SIZE / PRESSURE RANGE & DIMENSIONS

FACE-TO-FACE DIMENSION, FLANGE TYPE & WEIGHT ASME CLASS 150



FLANGES IN ACCORDANCE WITH ASME B16.5 & B16.47 - SIDE ENTRY AJ-2										
No.	Size		For FF/RF & RTJ Flange only			End-to-End (mm)				Weight (kg) RF/ RTJ
	DN	NPS	Flange Size (mm)	Number of Bolt Holes	Bolt Size	WE	RF/FF	RTJ	GRAYLOK	
1	150	6	280	8	3/4	394	394	407	N/A	160
2	200	8	345	8	3/4	457	457	470	N/A	253
3	250	10	405	12	7/8	533	533	546	N/A	387
4	300	12	485	12	7/8	610	610	623	N/A	559
5	350	14	535	12	1	686	686	699	N/A	760
6	400	16	595	16	1	762	762	775	N/A	1020
7	450	18	635	16	1 1/8	864	864	877	N/A	1215
8	500	20	700	20	1 1/8	914	914	927	N/A	1793
9	550	22	*	*	*	1092	1092	1095	N/A	2359
10	600	24	815	20	1 1/4	1067	1067	1080	N/A	3099
11	650	26	870	24	1 1/4	1245	1245	1143	N/A	3685
12	700	28	925	28	1 1/4	1347	1347	1244	N/A	4490
13	750	30	985	28	1 1/4	1397	1397	1295	N/A	5215
14	800	32	1060	28	1 1/2	1371	1371	1371	N/A	6800
15	850	34	1110	32	1 1/2	1626	1626	1473	N/A	7800
16	900	36	1170	32	1 1/2	1728	1728	1524	N/A	8800
17	950	38	1240	32	1 1/2	*	*	*	N/A	*
18	1000	40	1290	32	1 1/2	1956	1753	1753	N/A	12560
19	1050	42	1345	36	1 1/2	2083	1790	1790	N/A	14280
20	1200	48	1510	44	1 1/2	2388	1995	1995	N/A	21900
21	1350	54	1685	44	1 3/4	*	*	*	N/A	*
22	1400	56	1745	48	1 3/4	2489	2489	2489	N/A	34100
23	1500	60	1855	52	1 3/4	*	*	*	N/A	*

* = Please consult the factory



SIZE / PRESSURE RANGE & DIMENSIONS

FACE-TO-FACE DIMENSION, FLANGE TYPE & WEIGHT ASME CLASS 300

FLANGES IN ACCORDANCE WITH ASME B16.5 & B16.47 - SIDE ENTRY AJ-2										
No.	Size		For FF/RF & RTJ Flange only			End-to-End (mm)				Weight (kg) RF/ RTJ
	DN	NPS	Flange Size (mm)	Number of Bolt Holes	Bolt Size	WE	RF/FF	RTJ	GRAYLOK	
1	150	6	320	12	3/4	403	403	419	N/A	182
2	200	8	380	12	7/8	502	502	518	N/A	278
3	250	10	445	16	1	568	568	584	N/A	500
4	300	12	520	16	1 1/8	648	648	664	N/A	733
5	350	14	585	20	1 1/8	762	762	778	N/A	1029
6	400	16	650	20	1 1/4	838	838	854	N/A	1418
7	450	18	710	24	1 1/4	914	914	930	N/A	1592
8	500	20	775	24	1 1/4	991	991	1010	N/A	2195
9	550	22	*	*	*	1092	1092	1114	N/A	2788
10	600	24	915	24	1 1/2	1143	1143	1165	N/A	3460
11	650	26	970	32	1 5/8	1245	1245	1270	N/A	4660
12	700	28	1035	32	1 5/8	1346	1346	1371	N/A	5770
13	750	30	1090	32	1 3/4	1397	1397	1422	N/A	6590
14	800	32	1150	32	1 7/8	1524	1524	1552	N/A	7932
15	850	34	1205	32	1 7/8	1626	1626	1654	N/A	9040
16	900	36	1270	32	2	1727	1727	1755	N/A	10093
17	950	38	1170	32	1 1/2	*	*	N/A	N/A	*
18	1000	40	1240	32	1 5/8	1956	1956	N/A	N/A	13775
19	1050	42	1290	32	1 5/8	2083	2083	N/A	N/A	16105
20	1200	48	1465	32	1 7/8	2170	2170	N/A	N/A	24060
21	1350	54	1660	28	2 1/4	*	*	N/A	N/A	*
22	1400	56	1710	28	2 1/4	2743	2743	N/A	N/A	38155
23	1500	60	1810	32	2 1/4	*	*	N/A	N/A	*

* = Please consult the factory

SIZE / PRESSURE RANGE & DIMENSIONS

FACE-TO-FACE DIMENSION, FLANGE TYPE & WEIGHT ASME CLASS 600



FLANGES IN ACCORDANCE WITH ASME B16.5 & B16.47 - SIDE ENTRY AJ-2										
No.	Size		For FF/RF & RTJ Flange only			End-to-End (mm)				Weight (kg) RF/ RTJ
	DN	NPS	Flange Size (mm)	Number of Bolt Holes	Bolt Size	WE	RF/FF	RTJ	GRAYLOK	
1	150	6	355	12	1	559	559	562	562	253
2	200	8	420	12	1 $\frac{1}{8}$	660	660	663	663	485
3	250	10	510	16	1 $\frac{1}{4}$	787	787	790	790	758
4	300	12	560	20	1 $\frac{1}{4}$	838	838	841	841	1067
5	350	14	605	20	1.375	889	889	892	892	1083
6	400	16	685	20	1 $\frac{1}{2}$	991	991	994	994	1525
7	450	18	745	20	1 $\frac{5}{8}$	1092	1092	1095	1095	2095
8	500	20	815	24	1 $\frac{5}{8}$	1194	1194	1200	1200	2638
9	550	22	*	*	*	1296	1296	1306	1306	3787
10	600	24	940	24	1 $\frac{7}{8}$	1397	1397	1407	1407	4736
11	650	26	1015	28	1 $\frac{7}{8}$	1448	1448	1461	N/A	5647
12	700	28	1075	28	2	1549	1549	1562	N/A	6758
13	750	30	1130	28	2	1684	1684	1697	N/A	8377
14	800	32	1195	28	2 $\frac{1}{4}$	1778	1778	1794	N/A	9738
15	850	34	1245	28	2 $\frac{1}{4}$	1930	1930	1946	N/A	11336
16	900	36	1315	28	2 $\frac{1}{2}$	2083	2083	2099	N/A	13298
17	950	38	1270	28	2 $\frac{1}{4}$	*	*	*	N/A	*
18	1000	40	1320	32	2 $\frac{1}{4}$	2080	2080	2170	N/A	18335
19	1050	42	1405	28	2 $\frac{1}{2}$	2175	2175	2175	N/A	21356
20	1200	48	1595	32	2 $\frac{3}{4}$	2435	2435	2435	N/A	31195
21	1350	54	1780	32	3	*	*	*	N/A	*
22	1400	56	1855	32	3 $\frac{1}{4}$	2710	2710	2710	N/A	47483
23	1500	60	1995	28	3 $\frac{1}{2}$	*	*	*	N/A	*

* = Please consult the factory



SIZE / PRESSURE RANGE & DIMENSIONS

FACE-TO-FACE DIMENSION, FLANGE TYPE & WEIGHT ASME CLASS 900

FLANGES IN ACCORDANCE WITH ASME B16.5 & B16.47 - SIDE ENTRY AJ-2										
No.	Size		For FF/RF & RTJ Flange only			End-to-End (mm)				Weight (kg) RF/ RTJ
	DN	NPS	Flange Size (mm)	Number of Bolt Holes	Bolt Size	WE	RF/FF	RTJ	GRAYLOK	
1	150	6	380	12	1 $\frac{1}{8}$	610	610	613	613	360
2	200	8	470	12	1 $\frac{3}{8}$	737	737	740	740	580
3	250	10	545	16	1 $\frac{3}{8}$	838	838	841	841	1010
4	300	12	610	20	1 $\frac{3}{8}$	956	956	968	968	1510
5	350	14	640	20	1 $\frac{1}{2}$	1029	1029	1039	1039	1450
6	400	16	705	20	1 $\frac{5}{8}$	1130	1130	1140	1140	2150
7	450	18	785	20	1 $\frac{7}{8}$	1219	1219	1232	1232	2820
8	500	20	855	20	2	1321	1321	1334	1334	4200
9	550	22	*	*	*	*	*	*	*	*
10	600	24	1040	20	2 $\frac{1}{2}$	1549	1549	1568	1568	6800
11	650	26	1085	20	2 $\frac{3}{4}$	*	*	*	N/A	*
12	700	28	1170	20	3	1753	1753	1775	N/A	9900
13	750	30	1230	20	3	1880	1880	1902	N/A	12180
14	800	32	1315	20	3 $\frac{1}{4}$	2032	2032	2054	N/A	11820
15	850	34	1395	20	3 $\frac{1}{2}$	2159	2159	2188	N/A	17200
16	900	36	1460	20	3 $\frac{1}{2}$	2286	2286	2315	N/A	18900
17	950	38	1460	20	3 $\frac{1}{2}$	*	*	*	N/A	*
18	1000	40	1510	24	3 $\frac{1}{2}$	2100	2180	*	N/A	*
19	1050	42	1560	24	3 $\frac{1}{2}$	*	*	*	N/A	*
20	1200	48	1785	24	4	2780	2450	*	N/A	*
21	1350	54	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
22	1400	56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
23	1500	60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* = Please consult the factory

SIZE / PRESSURE RANGE & DIMENSIONS

FACE-TO-FACE DIMENSION, FLANGE TYPE & WEIGHT ASME CLASS 1500



FLANGES IN ACCORDANCE WITH ASME B16.5 & B16.47 - SIDE ENTRY AJ-2										
No.	Size		For FF/RF & RTJ Flange only			End-to-End (mm)				Weight (kg) RF/ RTJ
	DN	NPS	Flange Size (mm)	Number of Bolt Holes	Bolt Size	WE	RF/FF	RTJ	GRAYLOK	
1	150	6	395	12	1 ³ / ₈	705	705	711	711	480
2	200	8	485	12	1 ⁵ / ₈	832	832	842	842	820
3	250	10	585	12	1 ⁷ / ₈	991	991	1001	1001	1500
4	300	12	675	16	2	1130	1130	1146	1146	2250
5	350	14	750	16	2 ¹ / ₄	1257	1257	1276	1276	2850
6	400	16	825	16	2 ¹ / ₂	1384	1384	1406	1406	4070
7	450	18	915	16	2 ³ / ₄	1477	1477	1499	1499	6195
8	500	20	985	16	3	1664	1664	1686	1686	9075
9	550	22	*	*	*	*	*	*	*	*
10	600	24	1170	16	3 ¹ / ₂	1782	1782	1810	1810	14280
11	650	26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12	700	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13	750	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	800	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15	850	34	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16	900	36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17	950	38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18	1000	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	1050	42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	1200	48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21	1350	54	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
22	1400	56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
23	1500	60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* = Please consult the factory



SIZE / PRESSURE RANGE & DIMENSIONS

FACE-TO-FACE DIMENSION, FLANGE TYPE & WEIGHT ASME CLASS 2500

FLANGES IN ACCORDANCE WITH ASME B16.5 & B16.47 - SIDE ENTRY AJ-2										
No.	Size		For FF/RF & RTJ Flange only			End-to-End (mm)				Weight (kg) RF/ RTJ
	DN	NPS	Flange Size (mm)	Number of Bolt Holes	Bolt Size	WE	RF/FF	RTJ	GRAYLOK	
1	150	6	485	8	2	914	914	927	927	770
2	200	8	550	12	2	1022	1022	1038	1038	1357
3	250	10	675	12	2½	1270	1270	1292	1292	2100
4	300	12	760	12	2¾	1422	1422	1444	1444	3210
5	350	14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	400	16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	450	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	500	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9	550	22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	600	24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	650	26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12	700	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13	750	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	800	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15	850	34	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16	900	36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17	950	38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18	1000	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	1050	42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	1200	48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21	1350	54	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
22	1400	56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
23	1500	60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

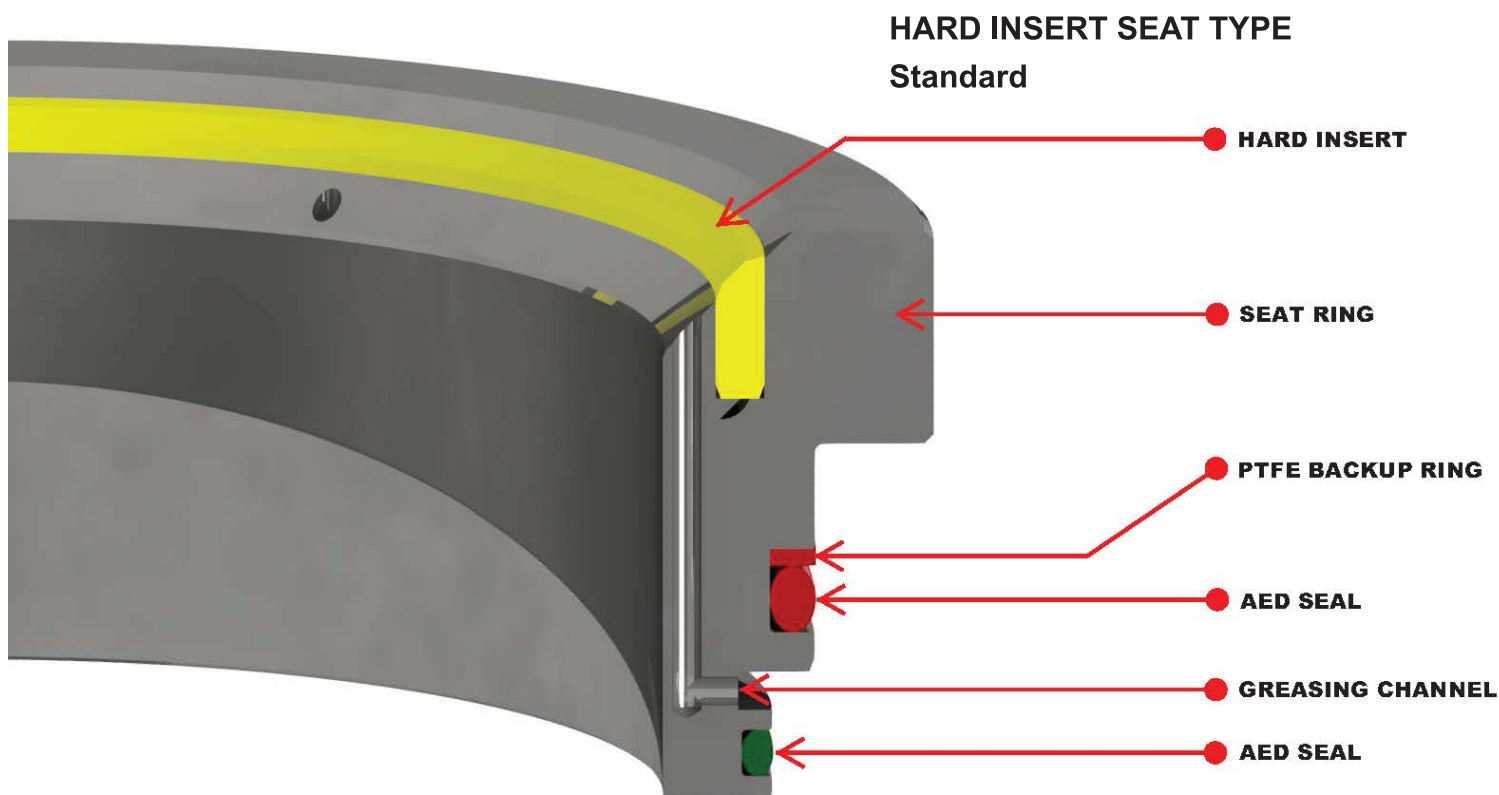
* = Please consult the factory





SEAT & SEAL SPECIFICATIONS

HARD INSERT SEAT FEATURES & OPTIONS



DESCRIPTION

AJ Valve's Hard Insert Seat are designed for high-critical service. A non-elastomeric (thermoplastic) seal ensures the Seat's integrity from high temperature, high pressure and high corrosive medium. It is suitable for high temperature, high sour and high pressure class.

HARD INSERT SEATS

To meet the growing requirements in the valve field, we have developed a solution for sealing by using thermoplastic ring inserted into the seal. This choice depends on the application (pressure; temperature; type of fluid; etc.)

Example:

- ▶ P.T.F.E. filled P85 (for valves class 150/600 lbs)
- ▶ DEVLON® P15 (for valves class 150/2500 lbs)
- ▶ P.C. T.F.E. P99 (for valves class 150/1500 lbs)
- ▶ PEEK (Polieteterketone) P55 (for valves class 150/2500 lbs)
- ▶ VESPEL® (Polyimide) P50 (for valves class 150/2500 lbs)

FUNCTION

Designed for High Critical Service:

- ▶ High Temperature
- ▶ High Pressure
- ▶ High Sour

SPECIAL NOTE

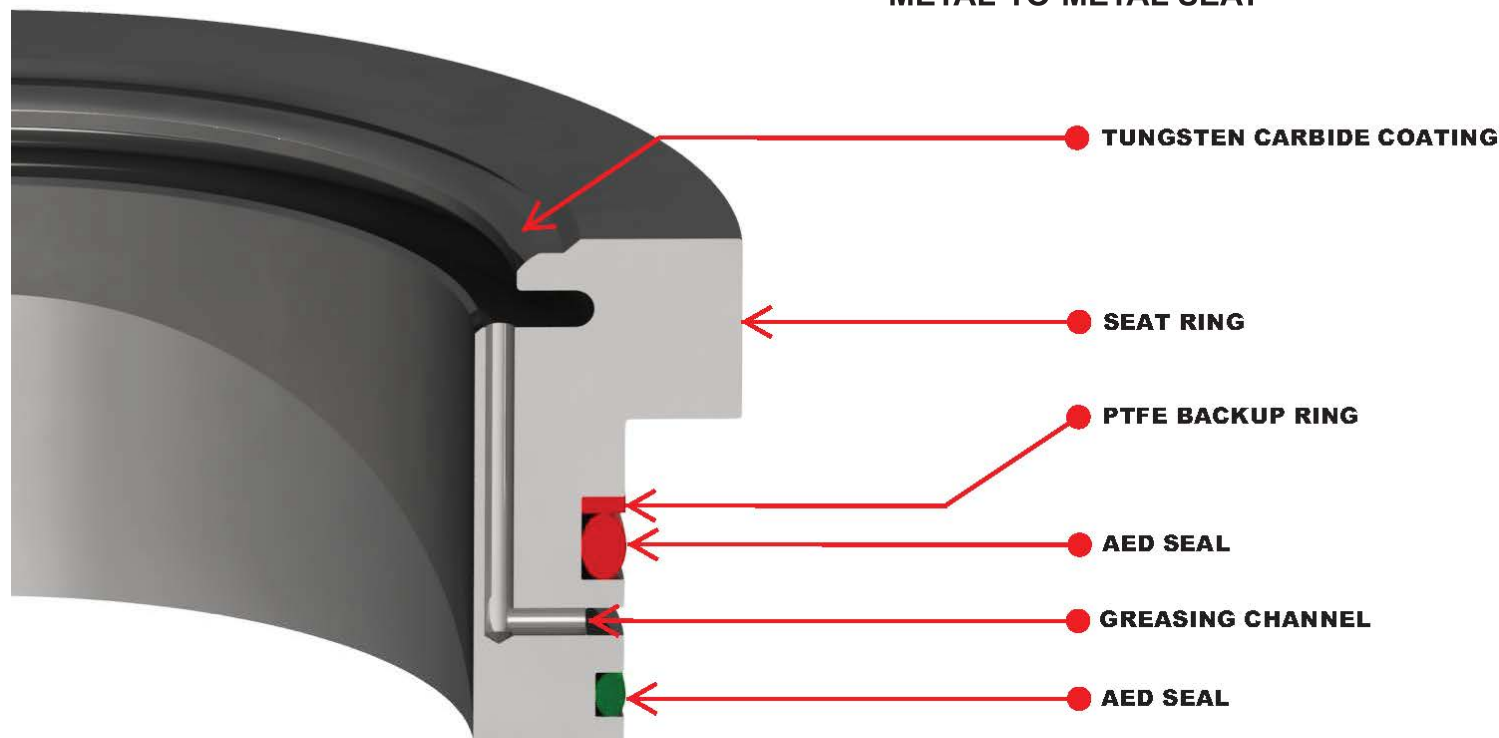
- ▶ Suitable for high pressure class
- ▶ Very reliable
- ▶ Highly durable

SEAT & SEAL SPECIFICATIONS

METAL-TO-METAL SEAT FEATURES & OPTIONS



METAL-TO-METAL SEAT



DESCRIPTION

AJ Valve's Metal-to-Metal Seat is also designed for abrasive service. It comes with a single or the double piston effect. The hard seat is coated with Tungsten Carbide. The ball can be coated with Tungsten Carbide as an option. The seal assembly uses **Aed Seal** as a primary sealing supported by P.T.F.E. back up ring as a Firesafe Seal.

METAL-TO-METAL SEATS

These seats are manufactured in case of applications with abrasive fluids (i.e. sand), corrosive fluids (i.e. acids) together with high temperature and pressures.

The ball and seat rings are hard-faced using different coating mediums such as Electro-less Nickel, Chrome Carbide, Tungsten Carbide and Stellite depending on the fluid to be handled, properly applied to the surface of the ball, whose final hardness of with and mirroring end treatment (0,02 Rac), enables the perfect sealing.

A groove is specifically designed to avoid inclusion of sand or other impurities.

FUNCTION

Designed for Dirty Service:

- ▶ Sand
- ▶ Slurry
- ▶ Abrasive

SPECIAL NOTE

- ▶ Suitable for high pressure class
- ▶ Very reliable
- ▶ Highly durable

 TRUNNION BALL VALVE
SIZE / PRESSURE / DIMENSION



SIZE / PRESSURE RANGE & DIMENSIONS

STANDARD VALVE RANGE - FULL BORE

MINIMUM BORE BY CLASS (mm)						
No.	DN	NPS	150 - 300 psig	900 psig	1500 psig	2500 psig
			PN 20 - 100	PN 150	PN 250	PN 420
1	15	½"	13	13	13	13
2	20	¾"	19	19	19	19
3	25	1"	25	25	25	25
4	32	1 ¼"	32	32	32	32
5	40	1 ½"	38	38	38	38
6	50	2"	49	49	49	49
7	65	2 ½"	62	62	62	52
8	80	3"	74	74	74	62
9	100	4"	100	100	100	87
10	150	6"	150	150	144	131
11	200	8"	201	201	192	179
12	250	10"	252	252	239	223
13	300	12"	303	303	287	265
14	350	14"	334	322	315	292
15	400	16"	385	373	360	333
16	450	18"	436	423	406	374
17	500	20"	487	471	454	419
18	550	22"	538	522	500	-
19	600	24"	589	570	546	-
20	650	26"	633	617	594	-
21	700	28"	684	665	641	-
22	750	30"	735	712	686	-
23	800	32"	779	760	730	-
24	850	34"	830	808	775	-
25	900	36"	874	855	819	-
26	950	38"	925	904	-	-
27	1000	40"	976	956	-	-
28	1050	42"	1020	1006	-	-
29	1200	48"	1166	1149	-	-
30	1350	54"	1312	-	-	-
31	1400	56"	1360	-	-	-
32	1500	60"	1458	-	-	-

SIZE / PRESSURE RANGE & DIMENSIONS

STANDARD VALVE RANGE - REDUCE BORE



MINIMUM BORE BY CLASS (mm)						
No.	DN	NPS	150 - 300 psig	900 psig	1500 psig	2500 psig
			PN 20 - 100	PN 150	PN 250	PN 420
1	25	1" x ½" x 1"	13	13	13	13
2	50	2" x 1" x 2"	25	25	25	25
3	80	3" x 2" x 3"	49	49	49	49
4	100	4" x 3" x 4"	74	74	74	62
5	150	6" x 4" x 6"	100	100	100	87
6	200	8" x 6" x 8"	150	150	144	131
7	250	10" x 8" x 10"	201	201	192	179
8	300	12" x 10" x 12"	252	252	239	223
9	350	14" x 12" x 14"	303	303	287	265
10	400	16" x 14" x 16"	334	322	315	292
11	450	18" x 16" x 18"	385	373	360	333
12	500	20" x 18" x 20"	436	423	406	374
13	550	22" x 20" x 22"	487	471	454	419
14	600	24" x 22" x 24"	538	522	500	-
15	650	26" x 24" x 26"	589	570	546	-
16	700	28" x 26" x 28"	633	617	594	-
17	750	30" x 28" x 30"	684	665	641	-
18	800	32" x 30" x 32"	735	712	686	-
19	850	34" x 32" x 34"	779	760	730	-
20	900	36" x 34" x 36"	830	808	775	-
21	950	38" x 36" x 38"	874	855	819	-
22	1000	40" x 38" x 40"	925	904	-	-
23	1050	42" x 40" x 42"	976	956	-	-

AJ PETROLEUM SDN. BHD.

**2-C PUSAT TEKNOLOGI SUNSURIA,
JALAN TEKNOLOGI, KOTA DAMANSARA PJU 5,
47810 PETALING JAYA,
SELANGOR,**

**TEL NO: 03-6151 9112
FAX NO: 03-6151 9114**

E-MAIL : ajpsales@essemgroup.net