JDV CONTROL VALVES

QUALITY SWISS

JTE-M Type

Triple Offset Metal-Seated Butterfly Valve

TAIWAN EXCELLENCE 2015

We link all you need
and more than you expect.

JDV
CONTROL
VALVES

JTE-M

Triple Offset Metal Seat Butterfly Valve

Wafer/Lug/Flanged Ends ASME CLASS 150/300/600/900/1500/2500

Industrial Fields:

Oil & Gas
Refinery / Petrochemical
Chemical
Pulp & Paper
Power Plant
Steel Mill
Food
Mining

A revolutionary design of triple offset geometry, a progressive contact angle, an innovative double-inclined seat cone axis, a self-adaptive sealing system and a metal-to-metal sealing are a few examples of the unique features of our JTE-M triple offset butterfly valve. Especially designed for extreme working conditionssuch as high temperature, cryogenic temperature, high pressure drop and abrasive mediums, it offers unparalleled performances and zero leakage capability to meet the toughest requirements in the most challenging industries.

THE TRIPLE OFFSET GEOMETRY

1st Offset

The centerline of the stem is moved behind the seat axis, in order to offer an optimum sealing contact.

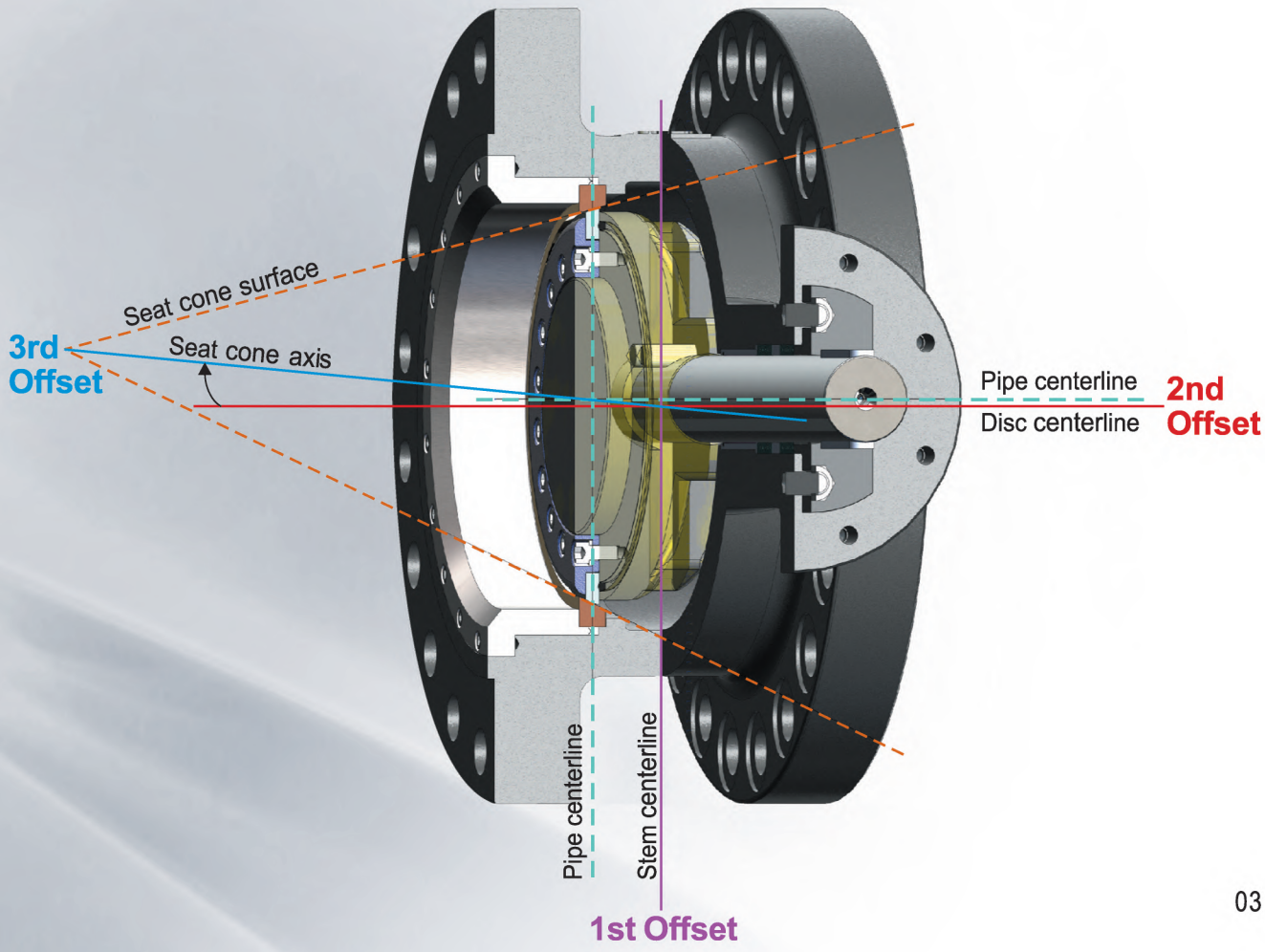
2nd Offset

The centerline of the disc is offset from the centerline of the valve body, allowing the disc seal to move away freely during the opening.

3rd Offset

In typical triple offset designs, the axis of the seat cone is inclined from the centerline of valve bore to minimize the friction of seat/seal contact surfaces during the operation and to preserve sealing integrity.

JDV's innovative double inclined triple offset design inherits the advantages of typical designs and optimizes them to provide the lightest torque, zero leakage, a longer life cycle and an easy maintenance process.

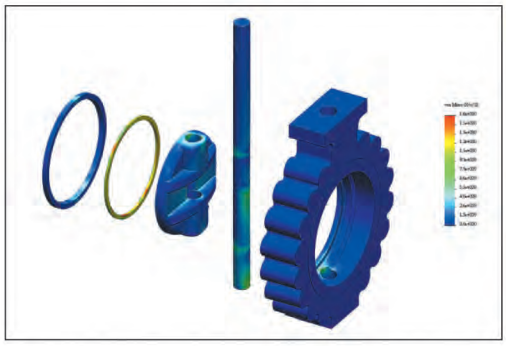


JDV
CONTROL
VALVES

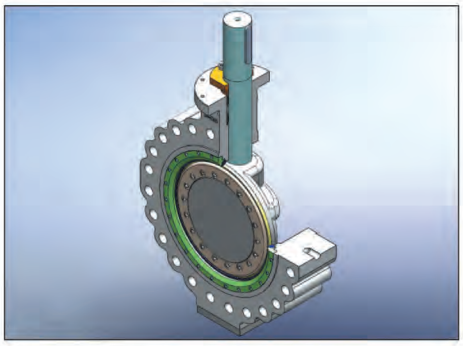
Applicable Standards

1.Body Material : Standard in WCB, CF8, CF8M. Other materials are available according to requirements.
2.Nominal Size : 3" to 24" (DN80 to DN600), 26" to 72" (DN650 to DN1800) are on request.
3.Pressure Rating : ASME CLASS 150/300/600, 900/1500/2500 are on request.
4.End Connections : Wafer / Lug / Flanged Short Pattern and Long Pattern.
5.Temperature Range : -320~932°F (-196~500°C), higher temperature on request.
6.Design Standard : API 609 / ASME B16.34 / BS EN 593 / EN 12516
7.Flanged Dimensions : ASME B16.5 (NPS 3 to 24) / MSS SP-44 (NPS 12 to 24)
ASME B16.47 (NPS 26 to 60) / ASME B16.47 (MSS SP-44)/
ASME B16.47 (API 605) / EN 1092-1 / DIN 2501 / ISO 7005
8.Face-to-face Dimensions : API 609 Category B for Lug/Wafer / ISO 5752 for Flanged Short Pattern
ASME B16.10 for Flanged Long Pattern / EN558 Series 16 for Lug
Wafer / Series 13/14 for Flanged Short Pattern
9.Anti-blowout Stem Design : Complied with API 609 Sec. 4.9
10.Casting : MSS-SP-55
11.Marking : MSS-SP-25 / EN 19
12.Mounting Pad : ISO 5211
13.Screw Thread : ASME B1.1 /BS 3643
14.Body Pressure Test : API 598 / ISO 5208 / EN 12266-1
15.Seat Leakage Test : ANSI/FCI70-2 Class VI in standard, Zero leakage is available on request.
16.Cryogenic Temperature Test : BS 6364
17.Fire Safe Design : Certificated according to ISO 10497
18.Low Emission Design : Certificated according to ISA 93.00.01 / ISO 15848-1 VDI 2440 (TA-Luft)
19.Functional Safety Certification : SIL3 (EC 61508 Parts 1-7:2010)

State-of-the-art Engineering



Finate Factor Analysis



SolidWorks 3D

Product Features

1. Solid metal seat and seal ring providing a true metal-to-metal design that withstands abrasive mediums and the high pressure drop.
2. Separate seat design allowing an easy maintenance.
3. Revolutionary double inclined design providing:
   a. Bi-directional in tight sealing b. Light torque c. Longer valve life cycle.
4. Wide range of hard faces to seat and seal ring meeting the requirements of most using conditions.
5. Flexible metal seal ring precluding the jamming caused by thermal expansion to ensure a tight and safe sealing.
6. 1 piece stem design increasing the strength of the shaft and enhancing the valve life cycle.
7. Stem bearings ensuring the rigidity and stability of the shaft, and extending even more the valve life cycle.
8. Live-loading design increasing further an already long life cycle.
9. Low emission design with double stem packings preventing any packing leakage, even with the trickiest mediums.
10. Optional leakage control device allowing the detection and removal of any hypothetical leakage from the packing.
11. Emergency sealing injection device on request to restore the sealing integrity, should it be necessary.
12. Anti-shear pin design enhancing the resistance of the stem under high drop pressure.
13. ISO 5211 Mounting pad.
14. Anti-blowout stem design
15. Anti-static design complying with API 609
16. Fire safe design certificated according to ISO 10497.

Standard Design

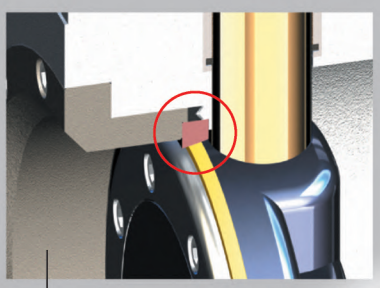
Seat

True Metal Design

Various optional hard faces.

Replaceable Design

The design includes a separate seat, not welded on the valve body, allowing an easy maintenance



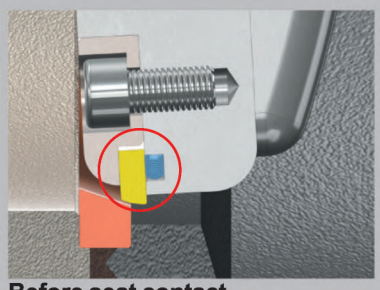
Seal Ring

Solid Metal Design

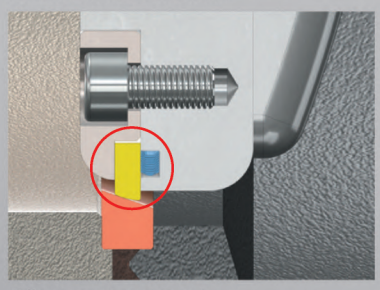
The solid metal design with hard face provides the most reliable performances in the toughest using conditions.

Flexible Design

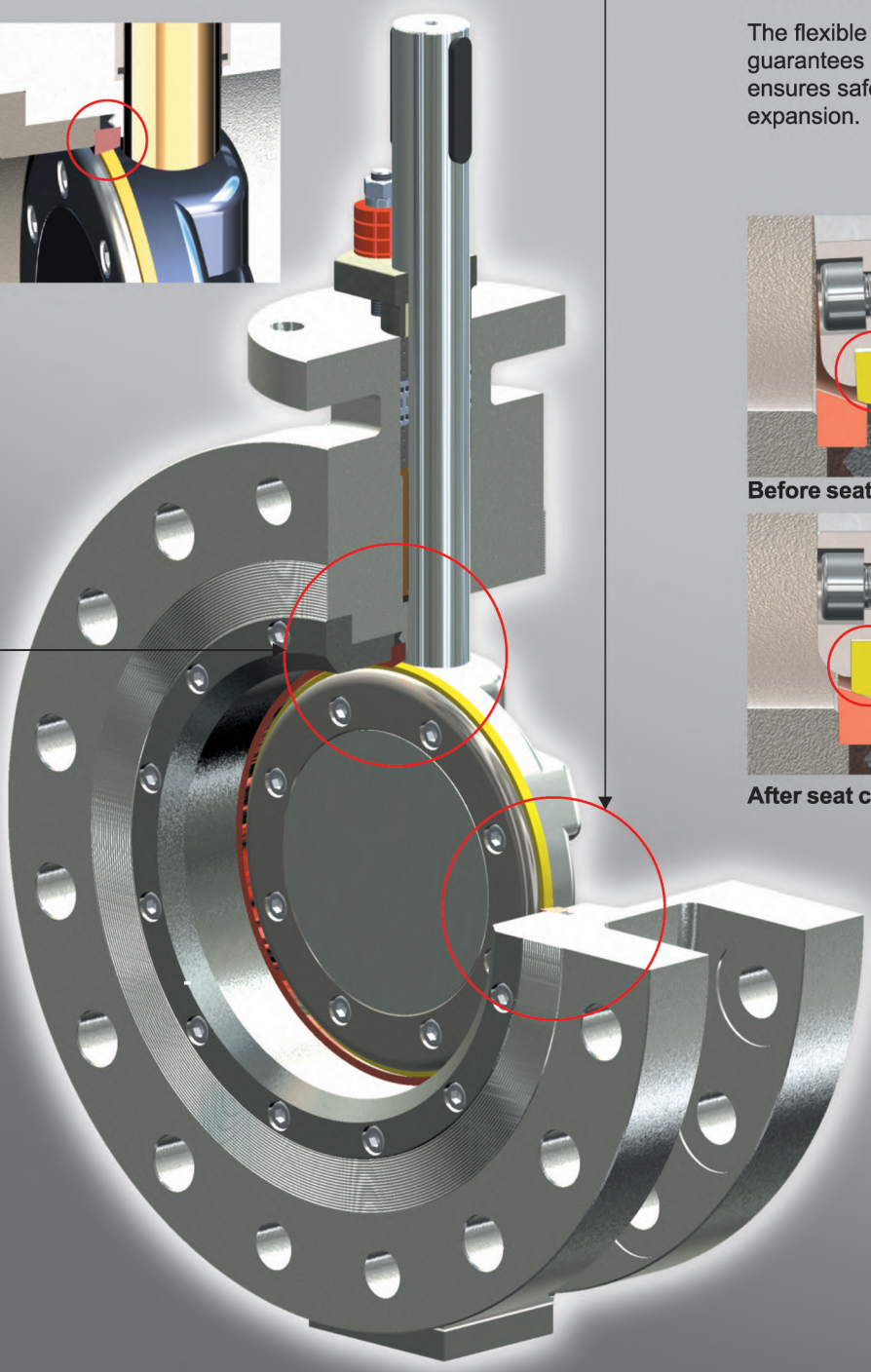
The flexible metal seal ring design guarantees the tightest shutoff and ensures safety in case of thermal expansion.



Before seat contact



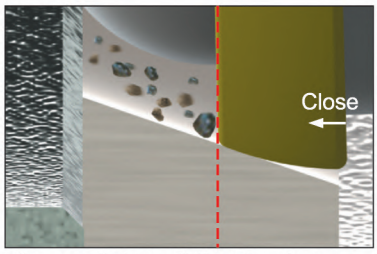
After seat contact



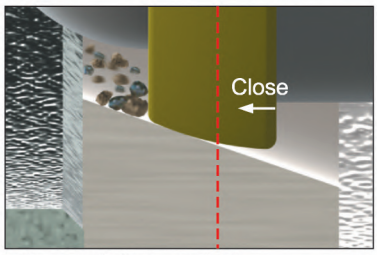
Standard Design

Slideseal® Design

This dynamic seating arrangement features a double inclined cone design. The disc seal ring slides into the seating area to close the valve; this slide touch provides for a better sealing than the typical point of contact touch. Plus the seal ring is solid metal enabling it to sweep away particles left on seat surface to double secure a tight sealing and allow the valve a longer life cycle.

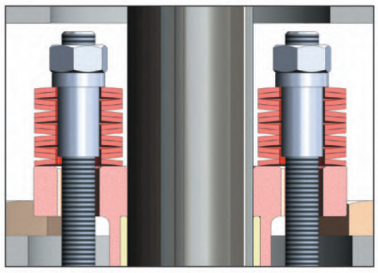


Disc seal ring sliding to close

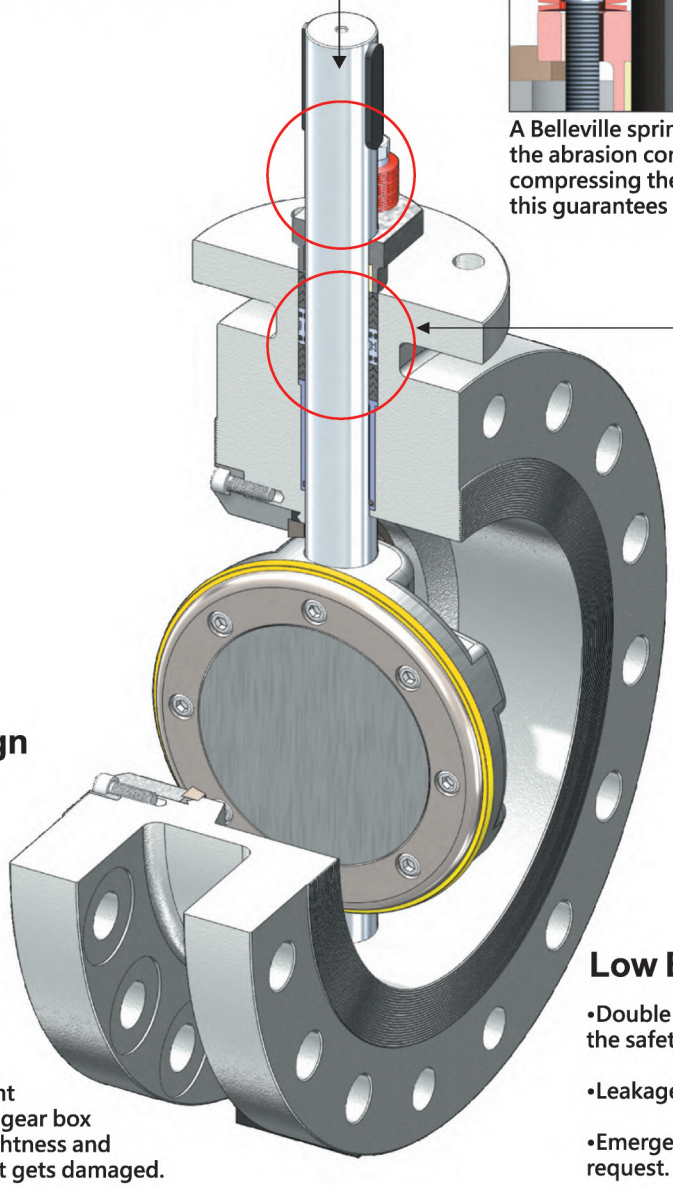


Disc seal ring seated

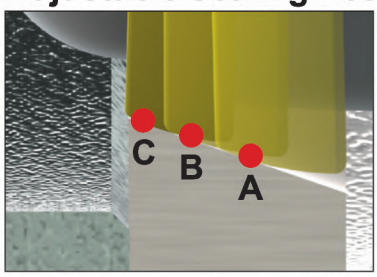
Live-loading Design



A Belleville spring provides the abrasion compensation by compressing the packing constantly; this guarantees the longest life cycle.



Adjustable Sealing Design

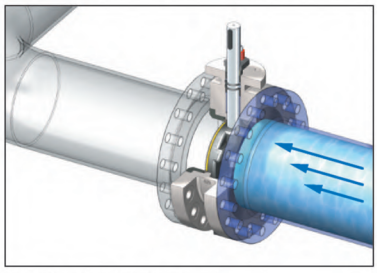


The double inclined cone design gives the possibility to adjust the contact point between seal ring and seat through the gear box or actuator. This ensures the shutoff tightness and extends the valve life cycle even the seat gets damaged.

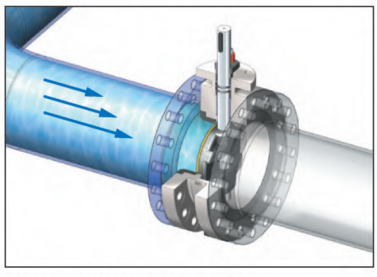
Low Emission Design

- Double packing design guarantees the safety.
- Leakage detection on request.
- Emergency sealing injection on request.

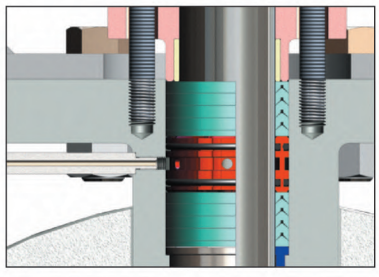
Bi-directional Tight Sealing Design



Preferred Direction

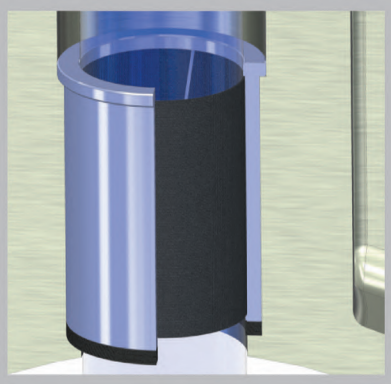


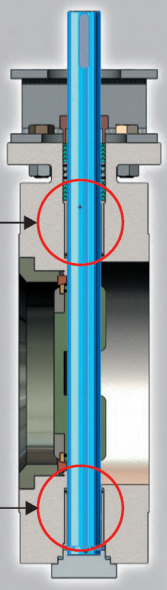
Non-preferred Direction



Standard Design

High Cycle Stem Bushing



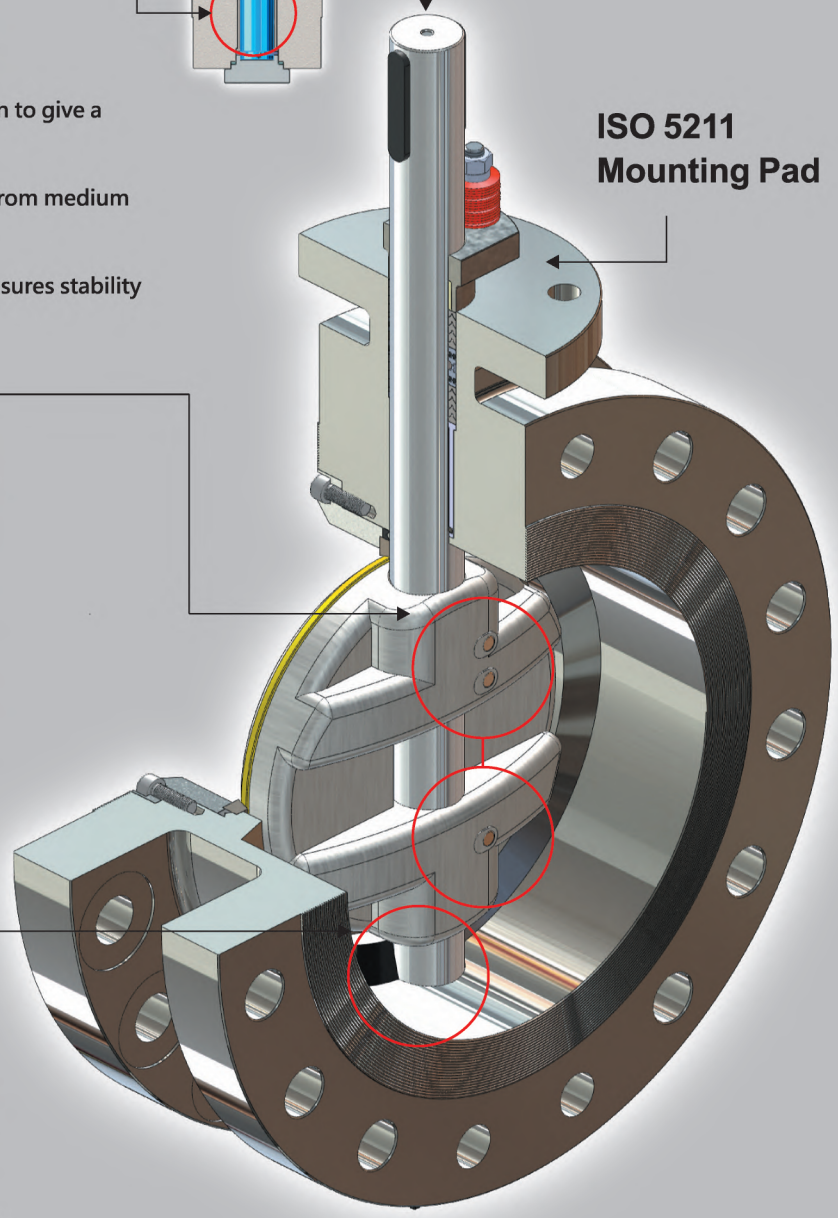


Single Piece Stem

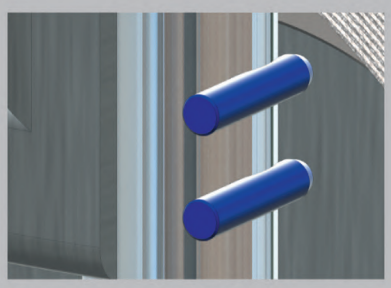
It gives the best strength to the stem against any kind of severe conditions.

- Bearings provide excellent lubrication to give a longer lifecycle and a lower torque.
- Double layers design protects stem from medium intrusion and jamming.
- Disc sustained on top and bottom ensures stability and tight sealing.

ISO 5211 Mounting Pad

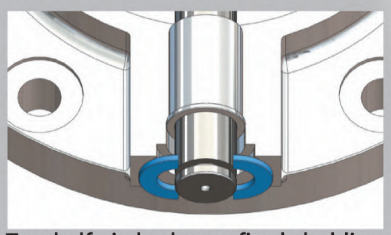


Anti-shear Pin Design



Pins fixed in the stem side prevent the stem from being sheared under high pressure drop.

Anti-blowout Design



Two half-circle clamps firmly holding the bottom of the stem prevent it from blowing out or dropping.

Highly Sophisticated Technology

Our high-quality equipment and latest technology guarantee the optimal performance of the products, even under the toughest conditions.

Strict Quality Control

Meticulous Quality Control procedures have been implemented in every production process and approved by the most important certifications such as ISO 9001, CE/PED, API 6D, SIL3, ISO 15848/TA-Luft, ISO 10497, etc., to assure your safety.

API 6D

ISO 9001

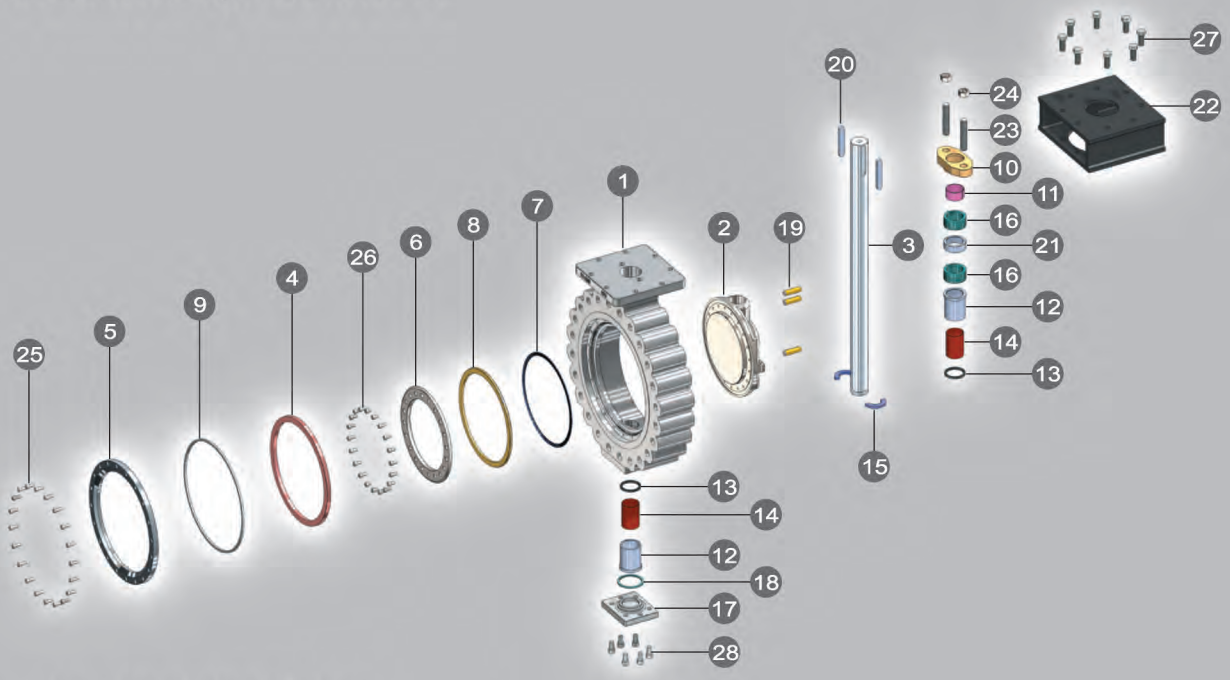
CE

SIL3

ISO 15848

ISO 10497

Technical Specifications

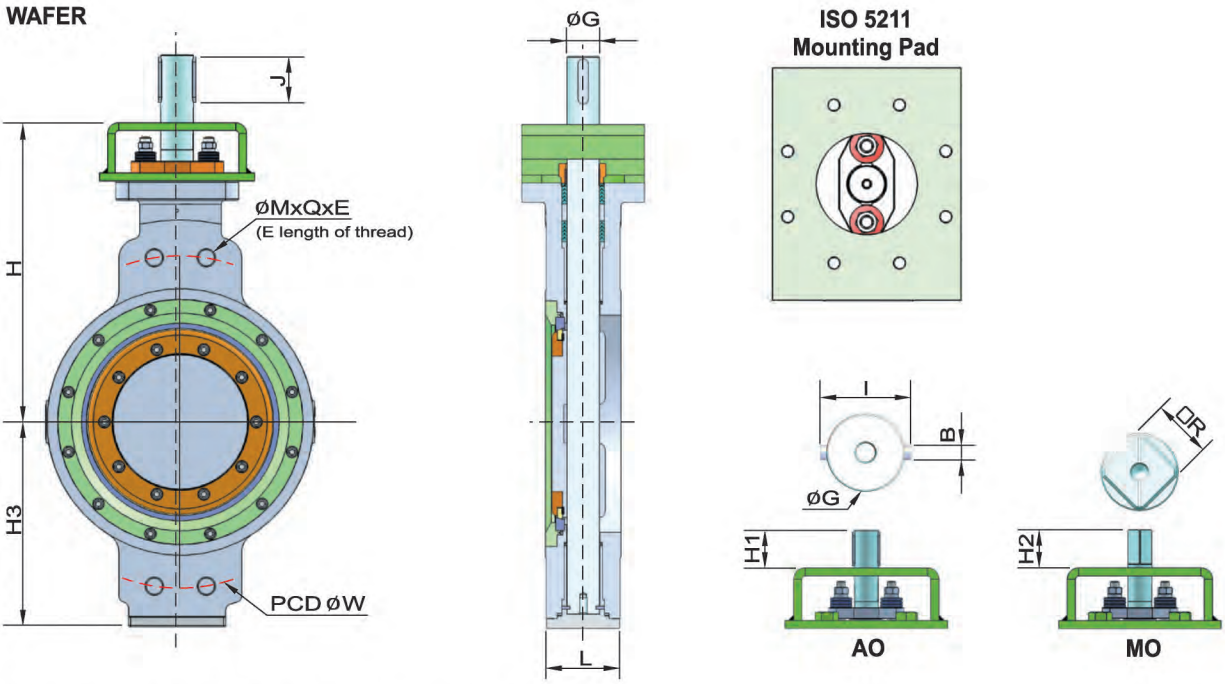


STANDARD MATERIALS

NO	PART NAME	SM		SH1	
		-20~572 °F (-29~300 °C)		-20~797 °F (-29~425 °C)	-20~932 °F (-29~500 °C)
1	BODY	A216-WCB	A351-CF8M	A216-WCB	A351-CF8M
2	DISC	A216-WCB	A351-CF8M	A351-CF8/CF8M	A351-CF8M
3	STEM	A564-630(HH1150)	A276-XM-19	A276-XM-19	A276-XM-19/S66286
4	SEAT	A182-F304	A182-F316+HARD FACE	F316+HARD FACE	A182-F316+HARD FACE
5	BODY RETAINER	A216-WCB	A351-CF8M	A216-WCB	A351-CF8M
6	DISC RETAINER	A216-WCB	A351-CF8M	A216-WCB	A351-CF8M
7	DISC GASKET	GRAPHITE+316SS	GRAPHITE+316SS	GRAPHITE+316SS	GRAPHITE+316SS
8	SEAL RING	A182-F51+HARD FACE		S66286+HARD FACE	
9	BODY GASKET	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
10	GLAND	A351-CF8	A351-CF8	A351-CF8	A351-CF8
11	GLAND BEARING	A240-316+PTFE		A240-316+HARD FACE	
12	STEM BUSHING	A276-316	A276-316	A276-316+HARD FACE	A276-316+HARD FACE
13	STEM RING SEAL	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
14	THRUST BEARING	TFE/COMPOSITE	TFE/COMPOSITE	N.A.	N.A.
15	THRUST WASHER	A240-316+HARD FACE	A240-316+HARD FACE	A240-316+HARD FACE	A240-316+HARD FACE
16	GLAND PACKING	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
17	END COVER	A216-WCB	A351-CF8M	A351-CF8/CF8M	A351-CF8M
18	COVER GASKET	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
19	PIN	A564-630 (HH1150)	A276-XM-19	A276-XM-19	A276-XM-19/S66286
20	KEY	AISI-1045	AISI-1045	AISI-1045	AISI-1045
21	STEM RING	A276-316+HARD FACE	A276-316+HARD FACE	A276-316+HARD FACE	A276-316+HARD FACE
22	BRACKET	A240-304	A240-304	A240-304	A240-304
23	GLAND BOLT	A193-B8	A193-B8	A193-B8	A193-B8
24	GLAND NUT	A194-8	A194-8	A194-8	A194-8
25	BODY RETAINER SCREW	A193-B8	A193-B8	A193-B8M	A193-B8M
26	DISC RETAINER SCREW	A193-B8	A193-B8	A193-B8M	A193-B8M
27	BRACKET SCREW	A193-B8	A193-B8	A193-B8	A193-B8
28	END COVER SCREW	A193-B8	A193-B8	A193-B8	A193-B8
※	MO (1)	HANDLE/GEAR BOX			

Notes:
(1) Options: AO: Automation / MO: Manual

The above materials may be changed with different using conditions.



DIMENSIONS (ASME CLASS 150 WAFER) (mm)

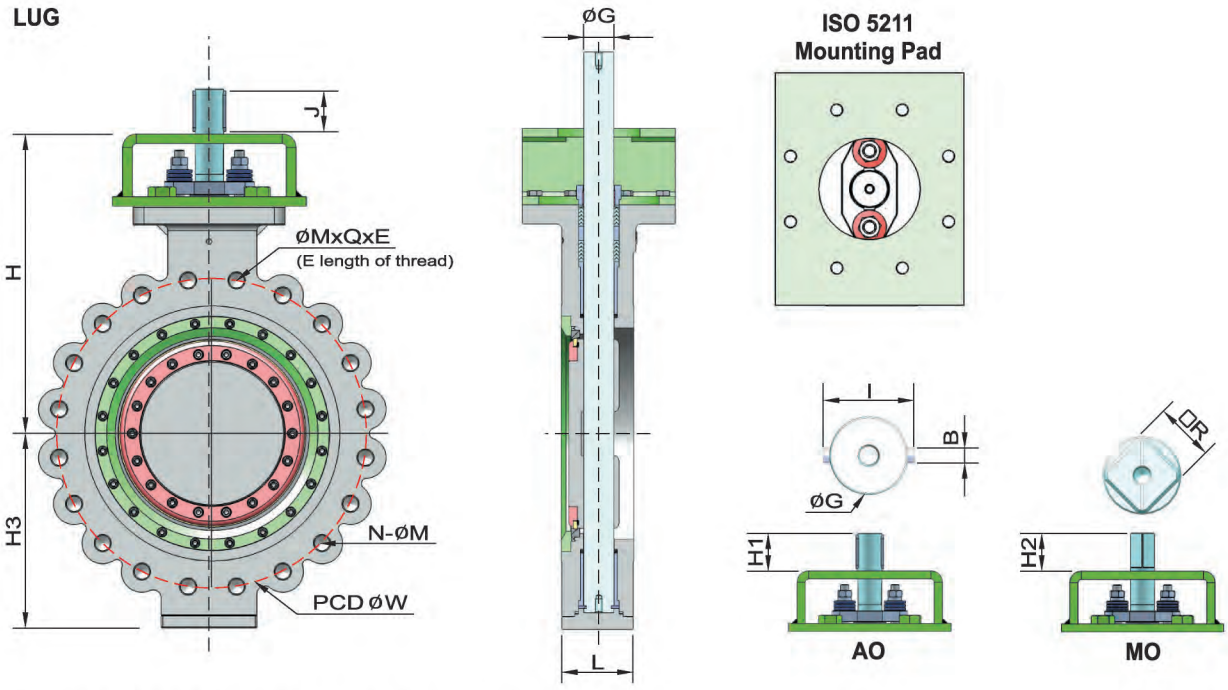
SIZE		W	M	Q	E	L	H	H1	H2	H3	□R	ØG	BxIxJ	ISO 5211	Wt (Kg)
80	3"	152.4	-	4	-	48	212	30	30	111	11	15	5x19x25	F10	8.5
100	4"	190.5	-	4	-	54	242	36	36	131	14	18	6x23x30	F10	12
150	6"	241.3	-	4	-	57	262	36	36	159	14	19	6x24x30	F10	18.2
200	8"	298.5	-	4	-	64	290	40	-	194	-	25	8x31x35	F10	32.8
250	10"	362	-	4	-	71	350	40	-	226	-	28	8x34x35	F14	46
300	12"	431.8	-	4	-	81	407	56	-	260	-	35	10x41x50	F16	71.2
350	14"	476.3	-	4	-	92	437	56	-	291	-	37	10x43x50	F16	95.5
400	16"	539.8	1"-8 UNC	4	17	102	505	80	-	324	-	42	12x48x70	F16	130.5
450	18"	577.9	1-1/8"-8 UN	4	19	114	532	80	-	351	-	45	14x52x70	F16	160.7
500	20"	635	1-1/8"-8 UN	4	19	127	559	80	-	384	-	50	16x58x70	F16	220.2
600	24"	749.3	1-1/4"-8 UN	4	21	154	678	140	-	449	-	55	16x63x130	F25	379.7

DIMENSIONS (ASME CLASS 300 WAFER) (mm)

SIZE		W	M	Q	E	L	H	H1	H2	H3	□R	ØG	BxIxJ	ISO 5211	Wt (Kg)
80	3"	168.2	-	4	-	48	222	30	20	121	11	15	5x19x25	F10	9
100	4"	200.2	-	4	-	54	252	36	30	141	14	18	6x23x30	F10	14
150	6"	269.8	-	4	-	59	280	40	-	184	-	25	8x31x35	F10	21
200	8"	330.2	-	4	-	73	335	56	-	209	-	33	10x39x50	F14	38.2
250	10"	387.4	1"-8 UNC	4	17	83	382	56	-	244	-	35	10x41x50	F16	56.7
300	12"	450.9	1-1/8"-8 UN	4	19	92	443	80	-	277	-	45	14x52x70	F16	90.2
350	14"	514.4	1-1/8"-8 UN	4	19	117	488	80	-	317	-	50	16x58x70	F16	126.7
400	16"	571.5	1-1/4"-8 UN	4	21	133	559	140	-	358	-	55	16x63x130	F25	185
450	18"	628.7	1-1/4"-8 UN	4	21	149	586	140	-	389	-	65	20x74x130	F30	232.2
500	20"	685.8	1-1/4"-8 UN	4	21	159	630	140	-	432	-	65	20x74x130	F30	298
600	24"	812.8	1-1/2"-8 UN	4	26	181	731	160	-	494	-	75	22x85x150	F30	467

DIMENSIONS (ASME CLASS 600 WAFER) (mm)

SIZE		W	M	Q	E	L	H	H1	H2	H3	□R	ØG	BxIxJ	ISO 5211	Wt (Kg)
80	3"	168.2	-	4	-	54	229	40	-	125	-	20	6x25x35	F10	17.5
100	4"	215.9	-	4	-	64	281	40	-	155	-	30	10x40x35	F14	27
150	6"	292.1	1"-8 UNC	4	17	78	375	65	-	204	-	40	10x46x60	F16	43
200	8"	349.3	1-1/8"-8 UN	4	19	102	393	80	-	229	-	45	14x52x70	F16	91
250	10"	431.8	1-1/4"-8 UN	4	21	117	489	140	-	288	-	55	16x63x130	F25	131
300	12"	489	1-1/4"-8 UN	4	21	140	510	140	-	322	-	60	16x68x130	F30	173
350	14"	527.1	1-3/8"-8 UN	4	24	155	565	140	-	339	-	65	20x74x130	F30	207
400	16"	603.3	1-1/2"-8 UN	4	26	178	630	160	-	375	-	75	22x85x150	F30	398
450	18"	654.1	1-5/8"-8 UN	4	28	200	675	160	-	411	-	90	25x100x150	F35	443
500	20"	723.9	1-5/8"-8 UN	4	28	216	720	200	-	449	-	100	18x112x190	F40	557
600	24"	838.2	1-7/8"-8 UN	4	32	323	800	220	-	531	-	120	32x134x210	F40	766



DIMENSIONS (ASME CLASS 150 LUG) (mm)

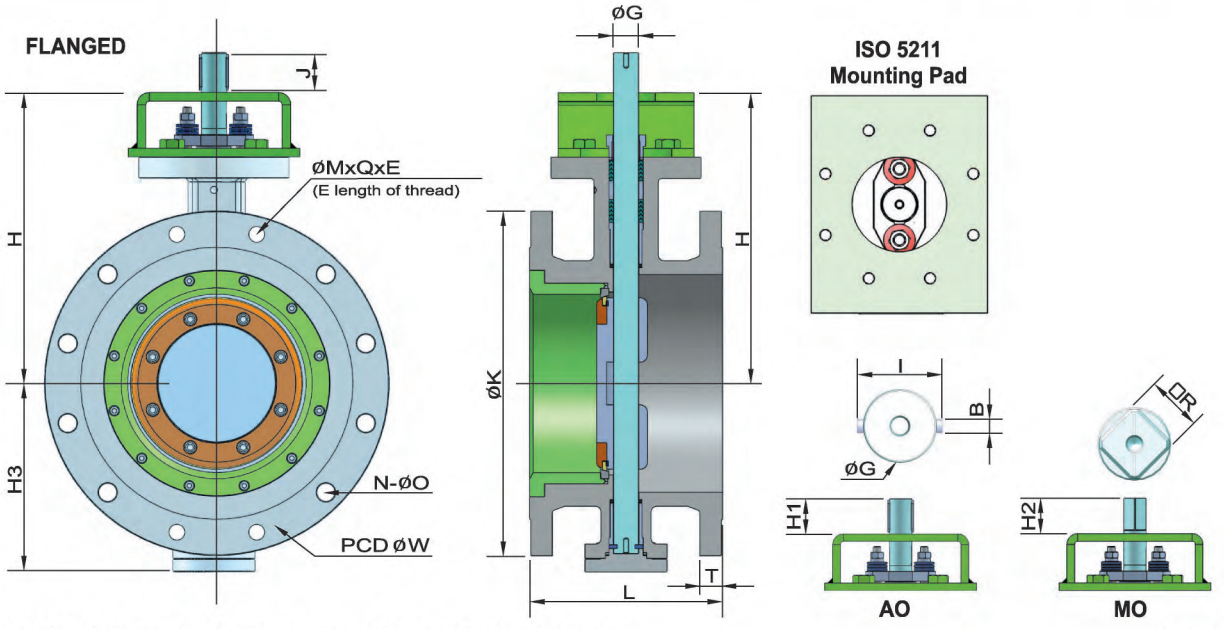
SIZE		W	M	Q	E	N	L	H	H1	H2	H3	□R	ØG	BxIxJ	ISO 5211	Wt (Kg)
80	3"	152.4	5/8"-11 UNC	-	-	4	48	212	30	30	111	11	15	5x19x25	F10	10
100	4"	190.5	5/8"-11 UNC	-	-	8	54	242	36	36	131	14	18	6x23x30	F10	15
150	6"	241.3	3/4"-10 UNC	-	-	8	57	262	36	36	159	14	19	6x24x30	F10	21.4
200	8"	298.5	3/4"-10 UNC	-	-	8	64	290	40	-	194	-	25	8x31x35	F10	34.5
250	10"	362	7/8"-9 UNC	-	-	12	71	350	40	-	226	-	28	8x34x35	F14	56.2
300	12"	431.8	7/8"-9 UNC	-	-	12	81	407	56	-	260	-	35	10x41x50	F16	95
350	14"	476.3	1"-8 UNC	-	-	12	92	437	56	-	291	-	37	10x43x50	F16	120.7
400	16"	539.8	1"-8 UNC	4	17	16	102	505	80	-	324	-	42	12x48x70	F16	183.8
450	18"	577.9	1-1/8"-8 UN	4	19	16	114	532	80	-	351	-	45	14x52x70	F16	216.9
500	20"	635	1-1/8"-8 UN	4	19	20	127	559	80	-	384	-	50	16x58x70	F16	302
600	24"	749.3	1-1/4"-8 UN	4	21	20	154	678	140	-	449	-	55	16x63x130	F25	466.1

DIMENSIONS (ASME CLASS 300 LUG) (mm)

SIZE		W	M	Q	E	N	L	H	H1	H2	H3	□R	ØG	BxIxJ	ISO 5211	Wt (Kg)
80	3"	168.2	3/4"-10 UNC	-	-	8	48	222	30	20	121	11	15	5x19x25	F10	11.5
100	4"	200.2	3/4"-10 UNC	-	-	8	54	252	36	30	141	14	18	6x23x30	F10	17.8
150	6"	269.8	3/4"-10 UNC	-	-	12	59	280	40	-	184	-	25	8x31x35	F10	32.4
200	8"	330.2	7/8"-9 UNC	-	-	12	73	335	56	-	209	-	33	10x39x50	F14	52
250	10"	387.4	1"-8 UNC	4	17	16	83	382	56	-	244	-	35	10x41x50	F16	81
300	12"	450.9	1-1/8"-8 UN	4	19	16	92	443	80	-	277	-	45	14x52x70	F16	125
350	14"	514.4	1-1/8"-8 UN	4	19	20	117	488	80	-	317	-	50	16x58x70	F16	216.6
400	16"	571.5	1-1/4"-8 UN	4	21	20	133	559	140	-	358	-	55	16x63x130	F25	316.1
450	18"	628.7	1-1/4"-8 UN	4	21	24	149	586	140	-	389	-	65	20x74x130	F30	370.2
500	20"	685.8	1-1/4"-8 UN	4	21	24	159	630	140	-	432	-	65	20x74x130	F30	468
600	24"	812.8	1-1/2"-8 UN	4	26	24	181	731	160	-	494	-	75	22x85x150	F30	726

DIMENSIONS (ASME CLASS 600 LUG) (mm)

SIZE		W	M	Q	E	N	L	H	H1	H2	H3	□R	ØG	BxIxJ	ISO 5211	Wt (Kg)
80	3"	168.2	3/4"-10 UNC	-	-	8	54	229	40	-	125	-	20	6x25x35	F10	23
100	4"	215.9	7/8"-9 UNC	-	-	8	64	281	40	-	155	-	30	10x40x35	F14	33
150	6"	292.1	1"-8 UNC	4	17	12	78	375	65	-	204	-	40	10x46x60	F16	59
200	8"	349.3	1-1/8"-8 UN	4	19	12	102	393	80	-	229	-	45	14x52x70	F16	122
250	10"	431.8	1-1/4"-8 UN	4	21	16	117	489	140	-	288	-	55	16x63x130	F25	192
300	12"	489	1-1/4"-8 UN	4	21	20	140	510	140	-	322	-	60	16x68x130	F30	288
350	14"	527.1	1-3/8"-8 UN	4	24	20	155	565	140	-	339	-	65	20x74x130	F30	325
400	16"	603.3	1-1/2"-8 UN	4	26	20	178	630	160	-	375	-	75	22x85x150	F30	587
450	18"	654.1	1-5/8"-8 UN	4	28	20	200	675	160	-	411	-	90	25x100x150	F35	694
500	20"	723.9	1-5/8"-8 UN	4	28	24	216	720	200	-	449	-	100	18x112x190	F40	795
600	24"	838.2	1-7/8"-8 UN	4	32	24	232	800	220	-	531	-	120	32x134x210	F40	1120



DIMENSIONS (ASME CLASS 150 FLANGED) (mm)

SIZE		W	K	M	Q	E	O	N	L		T	H	H1	H2	H3	□R	ØG	BxIxJ	ISO 5211	Wt (Kg)	
				Short					Short	Long										Short	Long
80	3"	152.4	190.5	–	–	–	19	4	114	203	24	212	30	30	111	11	15	5X19X25	F10	13	15
100	4"	190.5	228.6	–	–	–	19	8	127	229	24	242	36	36	131	14	18	6X23X30	F10	21	24
150	6"	241.3	279.4	–	–	–	22	8	140	267	25.5	262	36	36	159	14	19	6X24X30	F10	34	41
200	8"	298.5	342.9	–	–	–	22	8	152	292	28.5	290	40	–	194	–	25	8X31X35	F10	57	66
250	10"	362	406.4	–	–	–	25	12	165	330	30.1	350	40	–	226	–	28	8X34X35	F14	87	118
300	12"	431.8	482.6	–	–	–	25	12	178	356	31.8	407	56	–	260	–	35	10X41X50	F16	141	164
350	14"	476.3	533.4	–	–	–	29	12	190	381	34.9	437	56	–	291	–	37	10X43X50	F16	178	205
400	16"	539.8	596.9	–	–	–	29	16	216	406	36.7	505	80	–	324	–	42	12X48X70	F16	232	264
450	18"	577.9	635	1-1/8"-8 UN	4	29	32	16	222	432	39.7	532	80	–	351	–	45	14X52X70	F16	250	296
500	20"	635	698.5	1-1/8"-8 UN	4	29	32	20	229	457	42.8	559	80	–	384	–	50	16X58X70	F16	338	397
600	24"	749.3	812.8	1-1/4"-8 UN	4	32	35	20	267	508	47.6	678	140	–	449	–	55	16X63X130	F25	607	686
650	26"	806.4	870	1-1/4"-8 UN	4	32	35	24	292	559	68.7	697	150	–	463	–	70	20X80X140	F30	653	760
700	28"	863.6	925	1-1/4"-8 UN	4	32	35	28	292	610	71.9	718	160	–	494	–	75	22x85x150	F30	690	818
750	30"	914.4	985	1-1/4"-8 UN	4	32	35	28	318	610	75.1	758	160	–	532	–	80	22X91X150	F35	953	1086
800	32"	977.9	1060	1-1/2"-8 UN	4	38	41	28	318	660	81.4	796	160	–	568	–	85	25x95x150	F35	976	1109
900	36"	1086	1170	1-1/2"-8 UN	4	38	41	32	330	711	90.9	878	210	–	651	–	100	28X112X200	F35	1470	1882
1000	40"	1200	1290	1-1/2"-8 UN	4	38	41	36	410	–	90.9	983	210	–	708	–	100	28x112x200	F35	1580	–
1050	42"	1257	1345	1-1/2"-8 UN	4	38	41	36	410	–	97.3	1021	220	–	709	–	110	32X125X210	F40	2232	–
1200	48"	1422	1510	1-1/2"-8 UN	4	38	41	44	470	–	108.4	1058	230	–	806	–	120	32x134X220	F40	2414	–

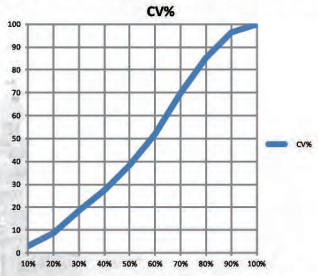
DIMENSIONS (ASME CLASS 300 FLANGED) (mm)

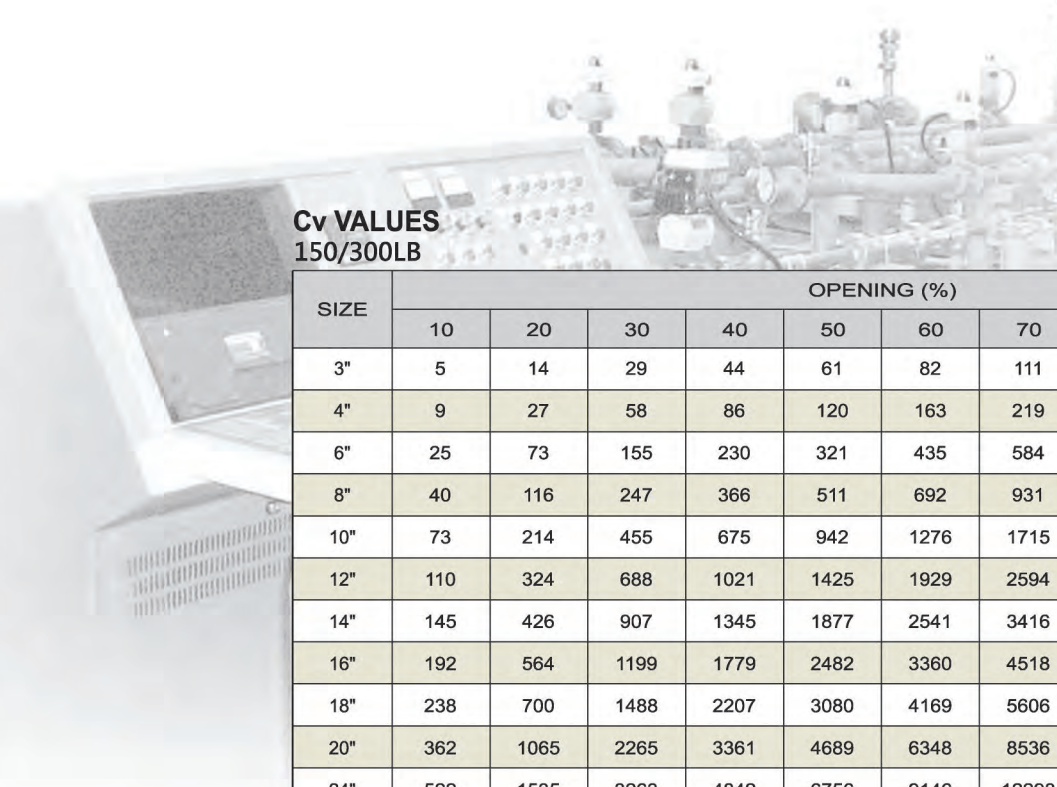
SIZE		W	K	M	Q	E	O	N	L		T	H	H1	H2	H3	□R	ØG	BxIxJ	ISO 5211	Wt (Kg)	
				Short					Short	Long										Short	Long
80	3"	168.2	209.6	-	-	-	22	8	114	282	28.5	222	30	30	121	11	15	5X19X25	F10	17.7	22.7
100	4"	200.2	254	3/4"-10 UNC	4	19	22	8	127	305	31.8	252	36	36	141	14	18	6X23X30	F10	33.3	40.3
150	6"	269.8	317.5	3/4"-10 UNC	4	19	22	12	140	403	36.7	280	40	-	184	-	25	8X31X35	F10	56.4	74.4
200	8"	330.2	381	7/8"-9 UNC	4	22	25	12	152	419	41.2	335	56	-	209	-	33	10X39X50	F14	89.7	116.7
250	10"	387.4	444.5	1"-8 UNC	4	26	29	16	165	457	47.6	382	56	-	244	-	35	10X41X50	F16	134	179
300	12"	450.9	520.7	1-1/8"-8 UN	4	29	32	16	178	502	50.9	443	80	-	277	-	45	14X52X70	F16	180.4	239.4
350	14"	514.4	584.2	1-1/8"-8 UN	4	29	32	20	190	762	53.9	488	80	-	317	-	50	16X58X70	F16	257.6	379.6
400	16"	571.5	647.7	1-1/4"-8 UN	4	32	35	20	216	838	57.2	559	140	-	358	-	55	16X63X130	F25	361.1	520.1
450	18"	628.7	711.2	1-1/4"-8 UN	4	32	35	24	222	914	60.3	586	140	-	389	-	65	20X74X130	F30	428.9	635.9
500	20"	685.8	774.7	1-1/4"-8 UN	4	32	35	24	229	991	63.6	630	140	-	432	-	65	20X74X130	F30	538	815
600	24"	812.8	914.4	1-1/2"-8 UN	4	38	41	24	267	1143	69.9	731	160	-	494	-	75	22X85X150	F30	836.2	1253
650	26"	876.3	970	1-5/8"-8 UN	4	42	44.5	28	292	1245	79.8	810	160	-	528	-	90	25x110x150	F35	980	1412
700	28"	939.8	1035	1-5/8"-8 UN	4	42	44.5	28	292	1346	86.2	830	210	-	558	-	100	28X112X200	F35	1057	1640
750	30"	997	1090	1-3/4"-8 UN	4	45	47.6	28	318	1397	92.5	845	210	-	593	-	110	32X124X200	F35	1650	1923
800	32"	1054	1150	1-7/8"-8 UN	4	48	50.8	28	318	1524	98.9	870	210	-	680	-	120	32X134X200	F40	1780	2215
900	36"	1168	1270	2"-8 UN	4	51	54	32	330	1727	105.2	932	230	-	691	-	130	36X147X220	F40	2365	2428
1000	40"	1156	1240	1-5/8"-8 UN	4	42	45	32	410	-	114.8	945	230	-	704	-	140	36X157X220	F40	2180	-
1050	42"	1207	1290	1-5/8"-8 UN	4	42	45	32	410	-	119.5	1012	230	-	728	-	150	40X169X220	F48	2853	-
1200	48"	1372	1465	1-7/8"-8 UN	4	48	51	32	470	-	133.8	1180	230	-	833	-	165	42X191X220	F48	3748	-

DIMENSIONS (ASME CLASS 600 FLANGED) (mm)

SIZE		W	K	M	Q	E	O	N	L		T	H	H1	H2	H3	□R	ØG	BxIxJ	ISO 5211	Wt (Kg)	
				Short					Short	Long										Short	Long
80	3"	168.3	209.6	-	-	-	22	8	180	356	38.2	229	40	40	125	-	20	6X25X35	F10	43	55.3
100	4"	215.9	273.1	-	-	-	25	8	190	432	44.5	281	40	40	155	-	30	10X40X35	F14	60	73
150	6"	292.1	355.6	1"-8 UNC	4	26	29	12	210	559	54.2	375	65	65	204	-	40	10X46X60	F16	103	137
200	8"	349.2	419.1	1-1/8"-8 UN	4	29	32	12	230	660	62	393	80	80	229	-	45	14X52X70	F16	175	251
250	10"	431.8	508	1-1/4"-8 UN	4	32	35	16	250	787	69.9	489	140	-	288	-	55	16X63X130	F25	270	414
300	12"	489	558.8	1-1/4"-8 UN	4	32	35	20	270	838	73	510	140	-	322	-	60	16X68X130	F30	359	540
350	14"	527.1	603.3	1-3/8"-8 UN	4	35	38	20	290	889	76.3	565	140	-	339	-	70	20X74X130	F30	411	631
400	16"	603.3	685.8	1-1/2"-8 UN	4	38	41	20	310	991	82.6	630	160	-	375	-	75	22X85X150	F30	632	1006
450	18"	654.1	743	1-5/8"-8 UN	4	42	45	20	330	1092	89	675	160	-	411	-	90	25X100X150	F35	751	1216
500	20"	723.9	812.8	1-5/8"-8 UN	4	42	45	24	350	1194	95.3	720	200	-	449	-	100	18X112X190	F40	863	1396
600	24"	838.2	939.8	1-7/8"-8 UN	4	48	51	24	390	1397	108	800	220	-	531	-	120	32X134X210	F40	1279	2039
650	26"	914.4	1015	1-7/8"-8 UN	4	48	50.8	28	390	-	115	878	230	-	580	-	130	36X147X220	F40	1530	-
700	28"	965.2	1075	2"-8UN	4	51	54	28	430	-	118.2	945	230	-	615	-	140	36X157X220	F40	1950	-
750	30"	1022	1130	2"-8UN	4	51	54	28	430	-	121.3	1000	230	-	660	-	150	40x168x220	F48	2380	-

INHERENT FLOW CHARACTERISTICS





Cv VALUES
150/300LB

SIZE	OPENING (%)									
	10	20	30	40	50	60	70	80	90	100
3"	5	14	29	44	61	82	111	135	153	159
4"	9	27	58	86	120	163	219	267	303	314
6"	25	73	155	230	321	435	584	714	809	838
8"	40	116	247	366	511	692	931	1137	1288	1335
10"	73	214	455	675	942	1276	1715	2095	2374	2460
12"	110	324	688	1021	1425	1929	2594	3168	3590	3720
14"	145	426	907	1345	1877	2541	3416	4172	4729	4900
16"	192	564	1199	1779	2482	3360	4518	5517	6253	6480
18"	238	700	1488	2207	3080	4169	5606	6847	7760	8041
20"	362	1065	2265	3361	4689	6348	8536	10425	11814	12243
24"	522	1535	3263	4842	6756	9146	12298	15020	17022	17639
26"	560	1623	3451	5121	7145	9673	13007	15886	18003	18656
28"	645	1871	3979	5904	8238	11152	14995	18314	20755	21508
30"	748	2170	4615	6847	9554	12934	17392	21241	24072	24945
32"	803	2328	4950	7345	10248	13874	18656	22784	25821	26758
36"	1084	3143	6683	9916	13836	18731	25186	30760	34861	36125
40"	1294	3753	7980	11840	16520	22365	30073	36729	41624	43134
42"	1360	3945	8389	12448	17368	23512	31616	38613	43760	45347
48"	2109	6115	13004	19295	26922	36447	49008	59854	67833	70293

600LB

SIZE	OPENING(%)									
	10	20	30	40	50	60	70	80	90	100
4"	8	22	46	69	96	130	174	213	241	250
6"	17	49	104	154	214	290	390	477	540	560
8"	28	81	171	254	355	481	646	789	895	927
10"	46	134	286	424	591	801	1076	1315	1490	1544
12"	56	162	345	512	714	966	1300	1587	1799	1864
14"	104	301	640	949	1324	1792	2410	2944	3336	3457
16"	137	398	846	1255	1751	2371	3188	3894	4413	4573
18"	187	542	1153	1711	2387	3232	4346	5307	6015	6233
20"	250	726	1544	2291	3197	4328	5820	7107	8055	8347
24"	381	1105	2350	3486	4864	6585	8854	10814	12256	12700
30"	608	1764	3750	5565	7764	10511	14134	17262	19562	20272

TEMPERATURE & PRESSURE TABLE (ASME B 16.34)

TEMPERATURE (°F)			-20~100	200	300	400	500	600	650	700	750	800	850	900	950
TEMPERATURE (°C)			-29~38	93	149	204	260	316	343	371	399	427	454	482	510
ASME CLASS 150	WCB	PRESSURE (PSIG)	285	260	230	200	170	140	125	110	95	80	-	-	-
		PRESSURE (BAR)	19.65	17.93	15.86	13.79	11.72	9.65	8.62	7.58	6.55	5.52	-	-	-
	CF8M	PRESSURE (PSIG)	275	235	215	195	170	140	125	110	95	80	65	50	35
		PRESSURE (BAR)	18.96	16.2	14.82	13.45	11.72	9.65	8.62	7.58	6.55	5.52	4.48	3.45	2.41
ASME CLASS 300	WCB	PRESSURE (PSIG)	740	680	655	635	605	570	550	530	505	410	-	-	-
		PRESSURE (BAR)	51.02	46.89	45.16	43.78	41.71	39.3	37.92	36.54	34.82	28.27	-	-	-
	CF8M	PRESSURE (PSIG)	720	620	560	515	480	450	440	435	425	420	420	415	385
		PRESSURE (BAR)	49.64	42.75	38.61	35.51	33.1	31.03	30.34	29.99	29.3	28.96	28.97	28.62	26.55
ASME CLASS 600	WCB	PRESSURE (PSIG)	1480	1360	1310	1265	1205	1135	1100	1060	1015	825	-	-	-
		PRESSURE (BAR)	102.04	93.72	90.32	87.22	83.08	78.26	75.85	73.09	69.98	56.88	-	-	-
	CF8M	PRESSURE (PSIG)	1440	1240	1120	1025	955	900	885	870	855	845	835	830	775
		PRESSURE (BAR)	99.29	85.5	77.22	70.67	65.85	62.06	61.02	59.99	58.95	58.26	57.59	57.24	53.45

HOW TO ORDER

A. SPECIFICATION

C1	ASME CLASS 150
C2	ASME CLASS 300
C3	ASME CLASS 600
C4	ASME CLASS 900
C5	ASME CLASS 1500
C6	ASME CLASS 2500
D1	DIN PN10
D2	DIN PN16
D3	DIN PN25
D4	DIN PN40

B. BODY MAT'L

02	WCB (1.0619)
03	CF8 (1.4308)
04	CF8M (1.4408)
05	CF3 (1.4306)
06	CF3M (1.4404)
07	CG8M (1.4412)
11	LCB (1.1138)
12	LCC (1.7219)
15	CD3MN (1.4470)

C. DISC MAT'L

S	WCB (1.0619)
A	CF8 (1.4308)
C	CF8M (1.4408)
D	CF3 (1.4306)
E	CF3M (1.4404)
F	CG8M (1.4412)

D. STEM MAT'L

22	630 (1.4542)
10	S31803 (1.4462)
25	XM-19
26	S66286 (1.4980)
29	INCONEL®

E. SEAT MAT'L

A	CF8 (1.4308)
C	CF8M (1.4408)
D	CF3 (1.4306)
E	CF3M (1.4404)
F	CG8M (1.4412)

F. SIZE

80	3"
100	4"
150	6"
200	8"
250	10"
300	12"
350	14"
400	16"
450	18"
500	20"
600	24"

G. OPTION

F	FIRE SAFE
L	EXTENDED STEM
I	LIVE LOADING
H	LEVER
G	GEAR
A	BARE SHAFT
N	NACE
CY	CRYOGENIC DESIGN -40~-320°F (-40~-196°C)

H. END CONNECTION

W	WAFER
L	LUG
SRF	RF FLANGED (SHORT PATTERN)
SRT	RTJ FLANGED (SHORT PATTERN)
LRF	RF FLANGED (LONG PATTERN)
LRT	RTJ FLANGED (LONG PATTERN)

I. TEMPERATURE

SM	-20~572°F (-29~300°C) SEAT W/STELLITE ® SEAL RING W/HCR
SH1	-20~932°F (-29~500°C) SEAT W/STELLITE ® SEAL RING W/STELLITE ®

HOW TO ORDER

※ Alternative materials are available on request.

JDV
GROUP

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