

HLV 304M

Double offset RPTFE or metal seated high-performance butterfly valves with economical design for medium/light duty service

Characteristics

Suitable for high-temperature, medium-to low-pressure service, such as in hot air, exhaust gas, steam, chemical fluids, and solvents.

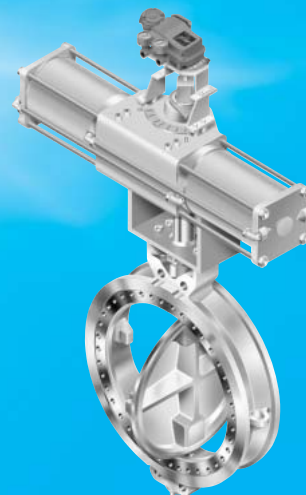
Compact Design

Short pattern face to face dimensions. The body and disc design contributed to a valve that is lower in weight and more compact than other valves of this type.

Double Offset Geometry

The axis of disc rotation is double offset to the seat. When the disc rotates, it unseats at a small turning angle by its cam effect. This prevents seat wear and provides reliable sealing performance over a long period.

Custom-made design available!

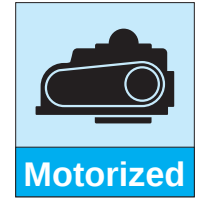
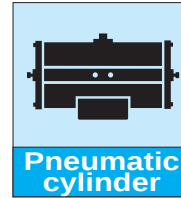
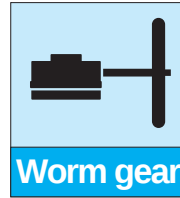


Simple Sealing Design/Reliable Performance

The simple sealing design with a minimal number of parts allows easy maintenance without special tools. Tight shut off with an RPTFE seat is available. See PT rating chart.

Custom-Made Design

Custom made designs, including the use of special materials, a double flanged body or special face to face dimensions are available upon request. A metal seat type is also available.

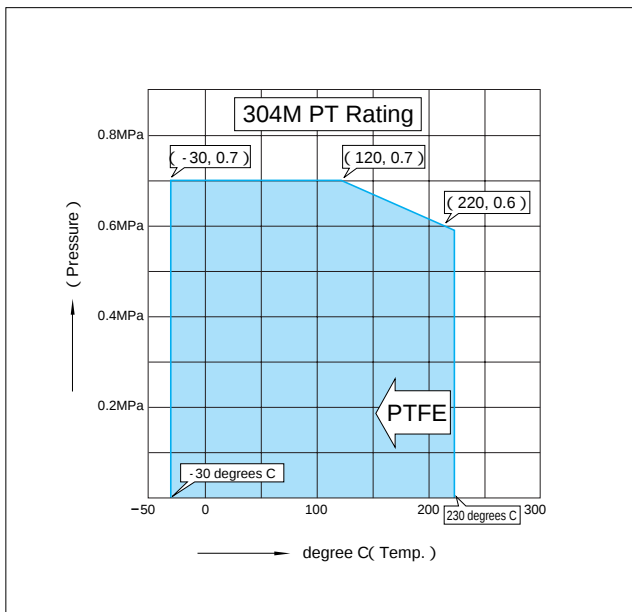


304M Standard specifications

Valve model		304M
Valve size		650, 700, 750, 800, 850, 900, 1000mm
Face to face dimensions		ISO5752 wafer short (expect 750mm, 850mm)
Applicable flange standard		JIS 5K, 10K, ASME B16.47 Class 150 Series A or B, DIN/BS NP/PN10
Standard materials	Body	Carbon steel casting (SCPH2/WCB) with Mn3 (PO4) 2 treatment, Stainless steel casting (SCS13A/CF8, SCS14A/CF8M)
	Disc	Stainless steel casting (SCS13A/CF8 with Cr.plating, SCS14A/CF8M with Cr. plating)
	Stem	Stainless steel type 431, 630, 316
	Seat	RPTFE
	Gland packing	Carbon graphite
Max.working pressure*		0.7MPa (0.2MPa on non-prefered direction)
Working temperature range*		—30 to 230 degrees C
Seat leakage		ISO 5208 rate A (with RPTFE Seat)
Flow direction		Flow to shaft side is recommended.
Marking		API609/MSS-SP25
Piping flange gasket		Standard spiral gaskets with inner and outer loop can be used as per JIS5/10K or ASME B16.20/16.21.

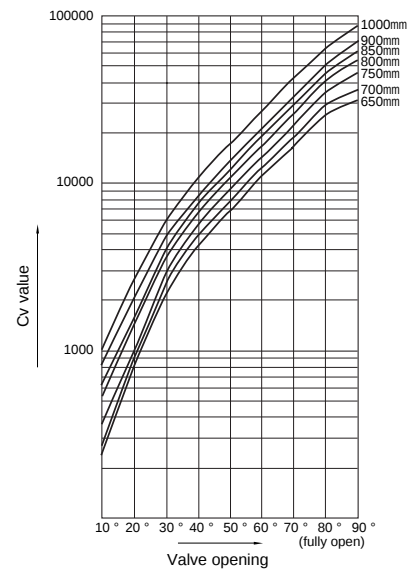
*It may change for custom-made designs.

304M PT rating (RTFE SEAT)

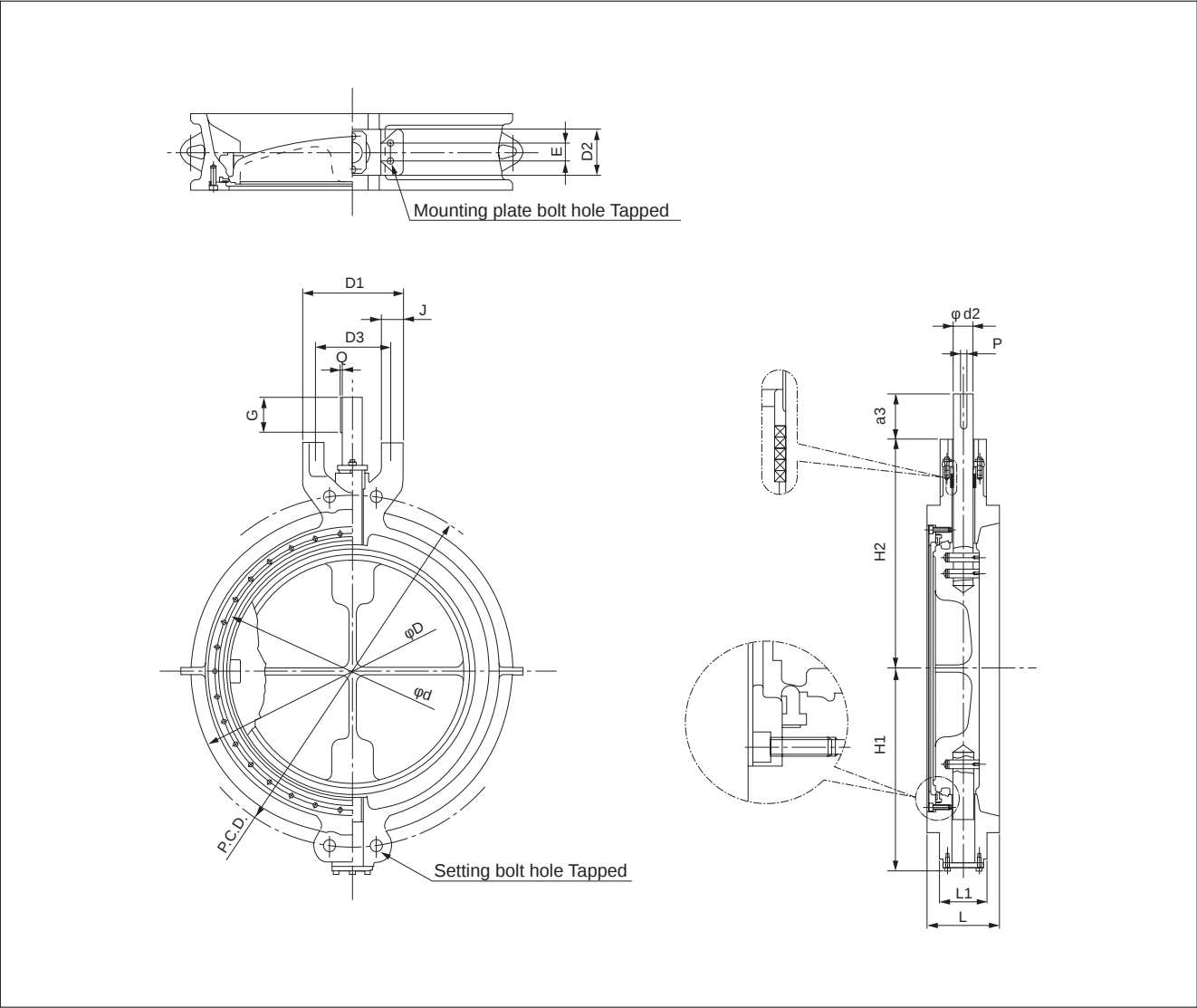


No actuator extension bonnet is required.

304M Cv value



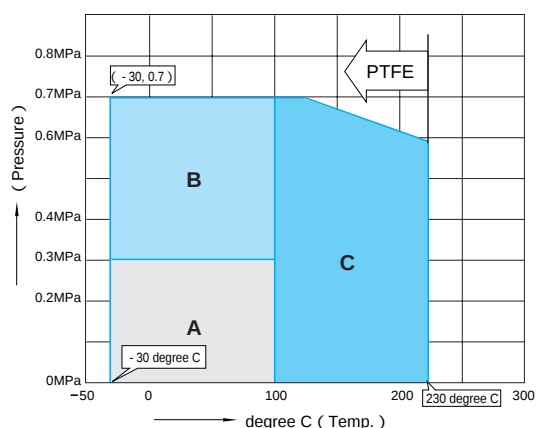
HLV 304M Princiipl dimensions



Nominal size		Dimension (mm)																Approx. Mass (kg)
mm	inch	d	D ¹	L	L ₁	H ₁	H ₂	a ₃	d ₂	D ₁	D ₂	D ₃	E	J	G	P	Q	
650	26	653	739	165	105	459	520	117	45	230	105	175	40	50	79	14	3.5	218
700	28	702	789	165	132	510	560	145	55	430	132	380	90	55	121	16	4	285
750	30	754	843	180	132	546	690	145	60	430	132	380	90	55	121	18	4	365
800	32	801	893	190	132	579	705	145	60	430	132	380	90	55	121	18	4	407
850	34	853	943	203	143	591	720	175	65	430	143	380	90	55	151	20	4.5	460
900	36	903	993	203	137	621	750	175	65	430	137	380	90	55	151	20	4.5	505
1000	40	1000	1093	216	148	676	800	175	70	430	148	380	90	55	151	20	4.5	730

* Indicates JIS 5K value.

HLV 304M Typical actuator selection chart



Category	Temp.	Pressure
A	-30 to 100 degree C	0.0MPa to 0.3MPa
B	-30 to 100 degree C	0.3MPa to 0.7MPa
C	100 to 230 degree C	0.0MPa to 0.7MPa

Size (mm)	650	700	750	800	850	900	1000
Category							

Worm gear 2S	A	MGH-4					MGH-4.5
	B	MGH-4.5		MGH-5		MGH-7	
	C	MGH-4.5	MGH-5	MGH-6	MGH-7	On application	

DA cylinder 3A	A	TGA-160				TGA-180	
	B	TGA-180	TGA-200		TGA-220	TGA-250	
	C	TGA-200	TGA-220	TGA-250		TGA-280	

SA cylinder 3U, K	A	TG-20S	
	B	On application	
	C		

Electric motor actuator is also available upon request.

HLV 304M Applicable flange standards

Nominal size		Flange Standard									
mm	inch	JIS5K	JIS10K	ASME A	ASME B	DIN 10	BS	TAYLOR	LADISH	G5524	BS 10
650	26	○	○	○	○	-	-			×	×
700	28	○	○	○	○	○	○				×
750	30	○	○	○	○	-	○			×	
800	32	○	○	○	○	○	○				×
850	34	○	○	○	○	-	-			×	×
900	36	○	○	○	○	○	○				
950	38	-	-	○	○	-	-			×	×
1000	40	○	○	○	○	○	○				×

JIS5: JIS B2238(1996)

JIS10: JIS B2238(1996)

ASME A: ASME B16.47-1990 table5 dimensions of class 150 series A flanges

ASME B: ASME B16.47-1990 table11 dimensions of class 150 series A flanges

DIN 10: DIN3532 PN10

BS: BS4504 NP10

TAYLOR: TAYLOR FORGE 125, 150Lb

LADISH: LADISH150

G5524: JIS G 5524

BS 10: BS10 TABLE E

○ : Applicable
 ○ : Applicable subject to conditions
 - : Not standard
 × : Not applicable

HLV 304M Minimum internal diameters of piping

Nominal size		Minimum internal diameters of piping A(mm)
mm	inch	
650	26	612
700	28	653
750	30	705
800	32	754
850	34	803
900	36	834
1000	40	950

