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VALUE

Value Valves

VF-265A SERIES
Ship-Building Valve

VALUE VALVES

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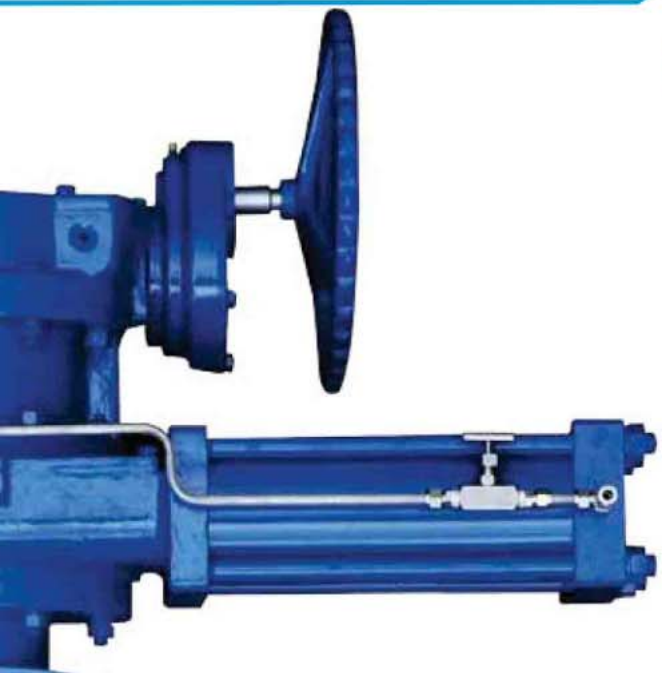
SHIP-BUILDING VALVES



FEATURE AND BENEFITS

- VALUE's Ship-Building valve is designed to suit updated demand of shipbuilding. As its high performance and long service life, the ship-side valve has already been using for more then 1,000 ships around the world since 1980.
- Pin-free design (below 24") for the connection between disc and shaft can decrease the probability of leakage by the corrosion of sea water and quickly maintain without special tools.
- Rubber Seat: In order to serve different requirements, several kinds of rubber material are available on customers' request.
- Stem: The output of stem could meet ISO 5211 requirement, could be direct mounted with different actuators.
- Flange requirement:Valve body are designed to suit JIS 10K. Either flat face or raised face.
- Face to face: Valve body are designed to meet JIS 7480 table 7 123B.
- Mounting Top: The valve designed to meet ISO5211 mounting, which could be direct mounted an actuator easily.

- Pressure rating: Bi-directional bubble-tight shut off to 16 bar(230psi)—DN50~DN600mm.
  and tested to 110% of full rating
  18 bar(260psi)—DN50~DN600mm.
- Shell testing:The body strength can stand 150% of full rating:
  24 bar(340psi)—DN50~DN600mm.
- Flange type sizes are available from 2" to 48".
- Various actuators such as hydraulic, pneumatic electric and manual actuator are available on customer requirement.

VALUE VALVES

APPLICATIONS

- Ship building

CERTIFICATE

- American Bureau of Shipping(ABS)
- Lloyd's Register Asia(LR)
- China Crop Register of Shipping(CR)
- Bureau Veritas (BV)
- Det Norske Veritas (DNV)
- China Classification Society (CCS)

GENERAL SPECIFICATIONS

- Size: 2"~24"(50mm~600mm)
- Temperature Range: -20˚C ~120˚C (-4 ˚F ~248 ˚F)
- Pressure Rating: 10 bar, 16bar

SPECIAL OFFER

- Alloy steel Body & Disc, such as aluminum, copper alloy, duplex SS, etc. on customer requirement.
- Size 26"~48" (650mm~1200mm) please consult Value Valves' VF-737 Manual.

APPLICABLE STANDARDS

- Body Style: Flange type
- Body Shell thickness: ASME B 16.34, API 594
- Mounting: ISO 5211
- Design & Pressure：ISO 5208, ASME B16.34,
- Face to Face：ISO 5752, JIS F 7480
- Inspection and Testing: ISO 5208
- Standard Marketing System: MSS-SP-25
- ABS Certificate: ABS Steel Vessel Rules 1-1-7/7,4-6-2/5.11

(Other flange connection please contacts with Value Valves Co., Ltd.)

*Technical information is only for reference. Value Valves Co., Ltd. reserves the right to change without previous notice.

CV FLOW COFFICIENT

Size		Disc Angle (Open Degree)								
mm	inch	10°	20°	30°	40°	50°	60°	70°	80°	90°
50	2	1	4	11	25	44	70	117	154	225
65	2.5	2	8	21	40	71	111	218	280	368
80	3	2	11	30	56	97	147	250	395	497
100	4	4	17	45	84	139	258	422	709	845
125	5	7	28	72	138	253	460	700	1214	1454
150	6	11	47	111	204	381	634	1021	1474	2175
200	8	22	74	193	358	670	1164	1833	2702	3655
250	10	32	118	286	527	978	1710	2636	3809	5565
300	12	39	150	365	719	1330	2486	3800	5839	8257
350	14	54	190	456	930	1752	3010	4656	6726	9733
400	16	72	270	594	1260	2308	3955	6300	9475	13405
450	18	87	299	726	1413	2708	4592	7407	11084	15926
500	20	120	404	1005	1979	3610	6257	9960	15337	21935
550	22	146	489	1215	2394	4368	7571	12051	18557	26541
600	24	162	577	1349	2795	5225	8846	13975	21162	29503

Note:
1.The pressure-drop corresponding to the spring action, is refered to the normal torque type.
2.Cv=The number of U.S. Gallons/minute that will result in 1 psi pressure lose across the valve at temp of 15.6˚C (60 ˚F)
3.Cv=1.17Kv
4.Where the Kv value denotes the rate in m^3/Hr for water at 25˚C (77 ˚F) flowing under pressure differential 1 Kg/cm^2

$$Q = C_V \sqrt{\frac{\triangle P}{G_L}}$$

Q=Flow in gpm
(U.S. gallons per minute)
△ p=pressure drop through the valve (psi)
G_L= specific gravity(for water at 15.6˚C (60 ˚F) =1)

TORQUE CHART (Nm)

Size		Differential pressure (kg/cm^2)						
		Lubricating(Non-corrosive)				Dry(Non-Lubricating)		
mm	inch	3	6	10	16	3	6	10
50	2	15	17	19	23	19	21	23
65	2.5	18	20	22	26	22	24	27
80	3	28	31	34	41	34	38	42
100	4	37	41	45	54	45	50	56
125	5	61	68	76	91	76	84	93
150	6	116	127	140	154	126	138	152
200	8	171	190	211	253	211	234	260
250	10	275	306	340	408	340	378	420
300	12	381	423	470	564	470	522	580
350	14	545	605	672		672	747	830
400	16	728	809	899		899	999	1110
450	18	912	1013	1126		1126	1251	1390
500	20	1135	1261	1401		1401	1557	1730
550	22	1373	1525	1695		1695	1884	2093
600	24	1325	1472	1636		1636	1818	2020

To Use The Torque Chart, Note The Following:

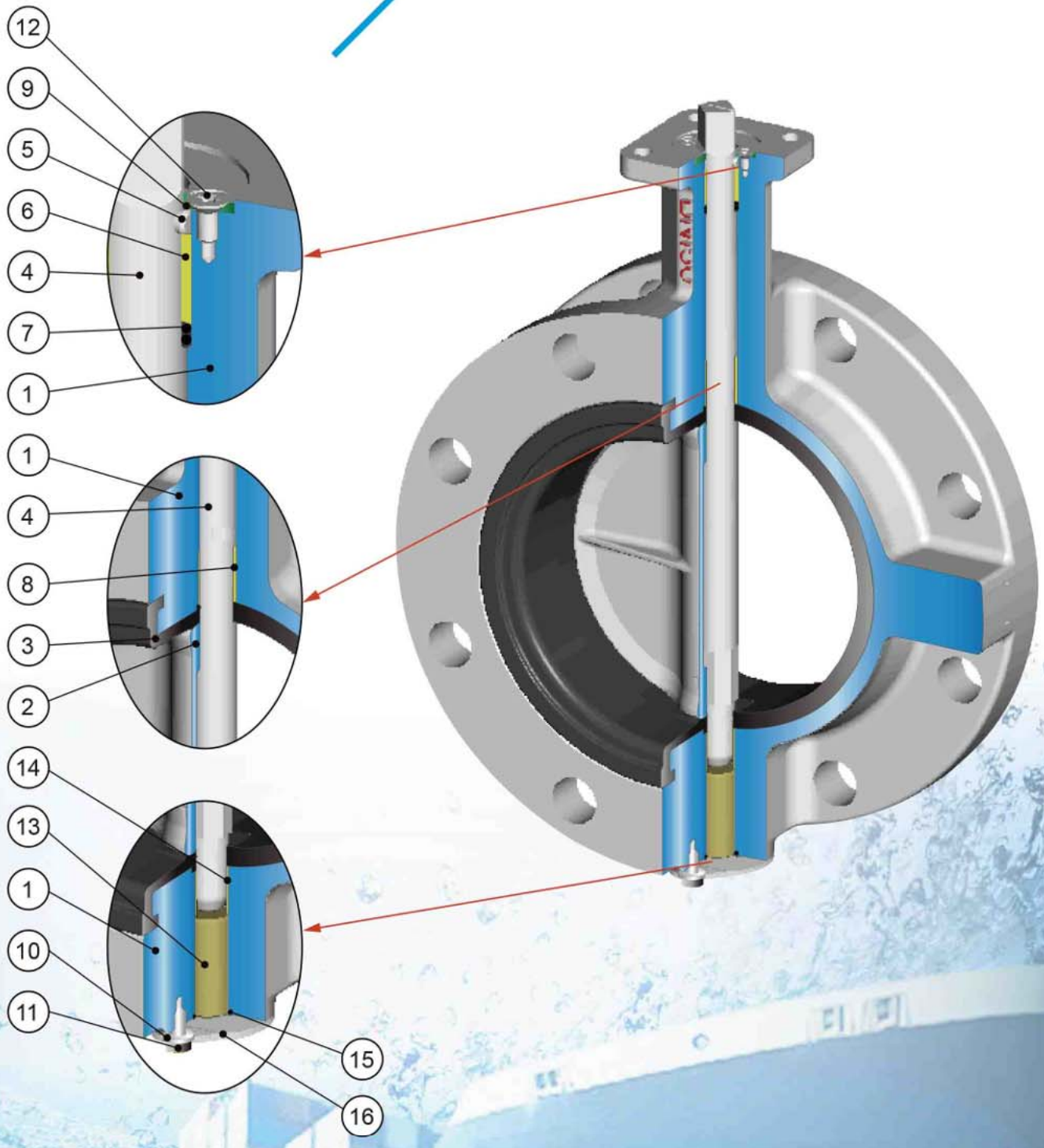
1. Seating/Unseating torque values above included friction bearing torque for statedΔP.
2. Do not apply a safety factor to above torque values when determining actuator output torque requirement.

PART AND MATERIALS VF-265A

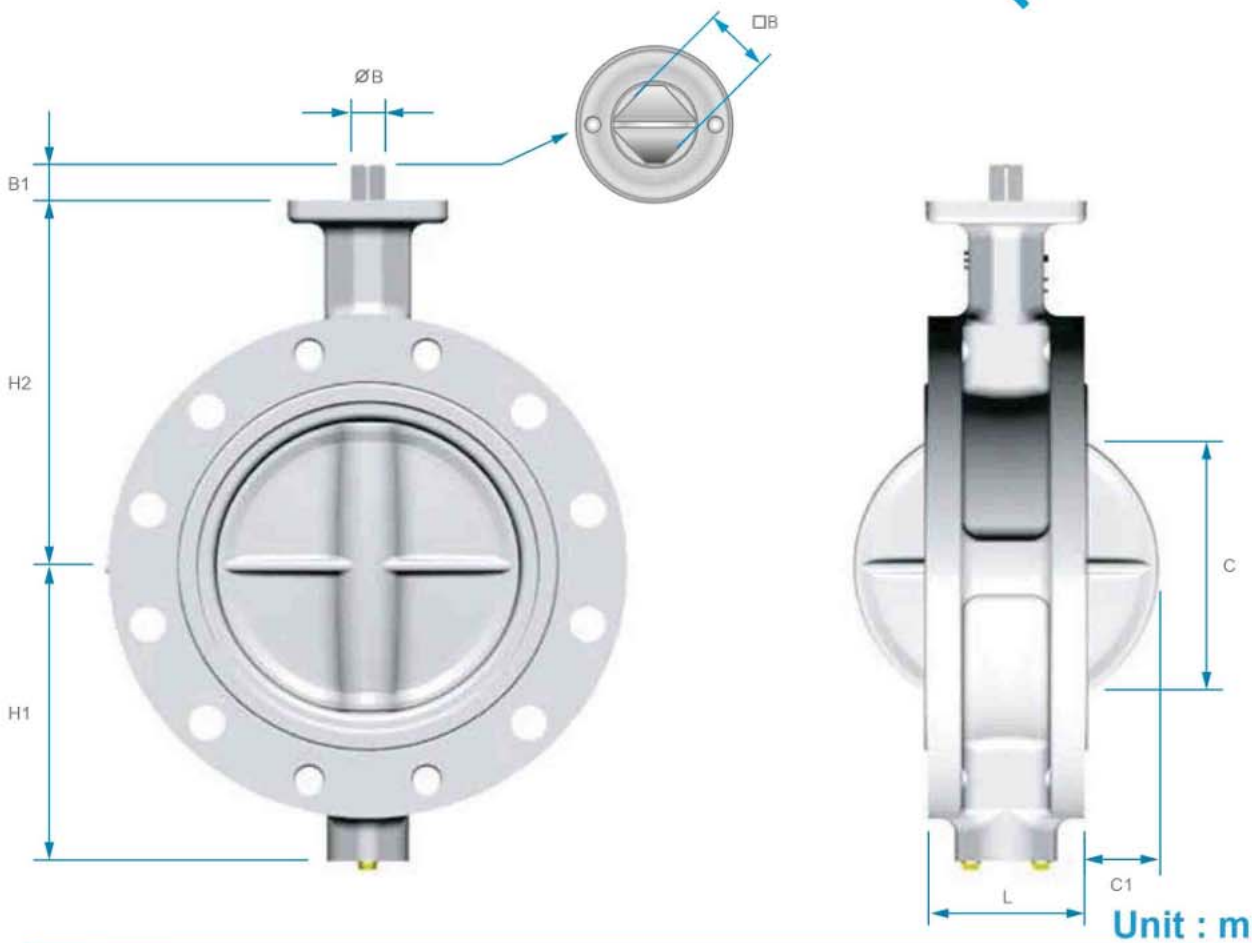
No.	Name	Materials	Specification		Remark
			JIS	ASTM	
1	BODY	WCB	SC480	A216 GRWCB	
		DUCTILE IRON	FCD 450	A-536-65-45-12	
2	DISC	DUCTILE IRON	FCD 450	A-536-65-45-12	Nylon 11 coated
		STAINLESS STEEL	SCS 13	A351 CF8	
			SCS 14	A351 CF8M	
		ALUMINUM BRONZE	ALBC2	B148-954	
3	SEAT	NBR (NITRILE)			-10°~ 80℃ (14°~176 ℉)
		EPDM			-20°~120℃ (-4°~248 ℉)
		NEOPRENE (CR)			0°~ 80℃ (32°~176 ℉)
		SILICON			-20°~180℃ (-4°~356 ℉)
		HYPALON (CSM)			-20°~135℃ (-4°~275 ℉)
		VITON			-18°~204℃ (-0.4°~176 ℉)
4	STEM	STAINLESS STEEL	SUS 410	A182 Gr. F6A	
			SUS 304	A182 Gr. F304	
			SUS 316	A182 Gr. F316	
5	PIN	STAINLESS STEEL	SUS 316	A182 Gr. F316	
6	BUSH	DELRIN			
7	O-RING	NBR (NITRILE)			
8	BUSH	RTFE+STAINLESS STEEL	RTFE+SUS316	RTFE+A240 Gr.316	
9	UPPER COVER	STAINLESS STEEL	SUS 304	A240 Gr. 304	
10	SPRING WASHER	STAINLESS STEEL	SUS 304	A193 Gr.B8	
11	BOLT	STAINLESS STEEL	SUS 304	A193 Gr.B8	
12	SCREW	STAINLESS STEEL	SUS 304	A193 Gr.B8	
13	SPACER	STEEL			
14	BUSH	RTFE+STAINLESS STEEL	RTFE+SUS316	RTFE+A240 Gr.316	
15	O-RING	NBR			
16	BOTTOM COVER	STAINLESS STEEL	SUS 304	A240 304	
		WCB	SC480	A216 GRWCB	

*Each materials can provide on different process of customer's requirements.

PART AND MATERIALS VF-265A



FLANGE TYPE DIMENSION VF-265A



Unit : mm

Size		Face to Face	Dimensions				Mounting flange (ISO 5211)	Shaft end			Weight
mm	Inch	L	H1	H2	C	C1		φB	B1	□B	kg
50	2	43	95	143	39	8	F07	14	19	11	3.2
65	2.5	46	105	155	55	13	F07	14	19	11	4
80	3	46	110	162	69	19	F07	14	19	11	4.2
100	4	52	116	181	91	27	F07	14	19	11	5.6
125	5	100	137.5	197	76	14	F07	18	19	14	18.3
150	6	100	152.5	210	110	25	F07	19	19	14	21.5
200	8	100	197.5	240	165	47	F10	22	24	17	29.2
250	10	110	232.5	286	220	69	F10	25	24	19	44
300	12	110	255	309	276	94	F10	28	24	22	53
350	14	120	303	329	309	106	F12/F14*	35	29	27	67
400	16	130	335	361	370	132	F12/F14*	35	29	27	90
450	18	150	363	393	408	143	F14/F16*	48	38	36	125
500	20	160	397	427	459	164	F14/F16*	48	38	36	149
550	22	170	426	475	501	181	F14/F16*	50	38	36	190
600	24	170	459	492	551	204	F16	60	48	46	225

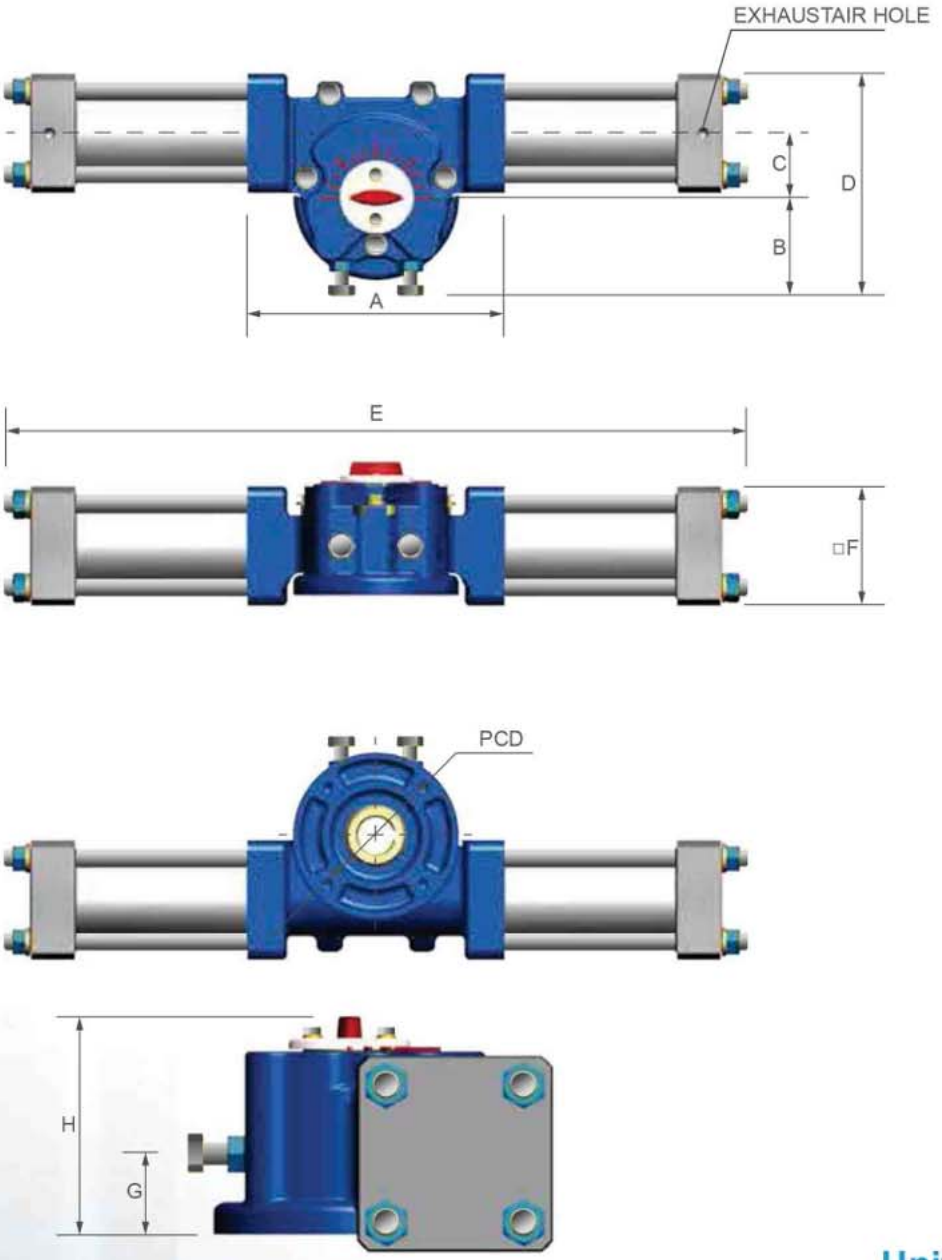
*Other dimensions please consult with Value Valves.
* For any other special offers, please contact Value Valves.

MANUAL HYDRAULIC PUMP

FEATURES AND BENEFITS

- As the manual pump supplies stable output pressure and less operating torque as well, it could be operated easier than traditional worm gear box.
- It could be installed individually and separated from the valve, the worker could operator the hand pump far away from the valve.
- No maintenance required.
- No electric power required.
- In order to recognize the valve's open degree during remote operating, an valve indicator equipped on the hand pump.
- Oil Capacity: 30 c.c./ 50 c.c.
  Gear Ratio: 1:50 / 1:90
- Max. designed pressure 100 kg/cm^2

HYDRAULIC ACTUATOR DIMENSION

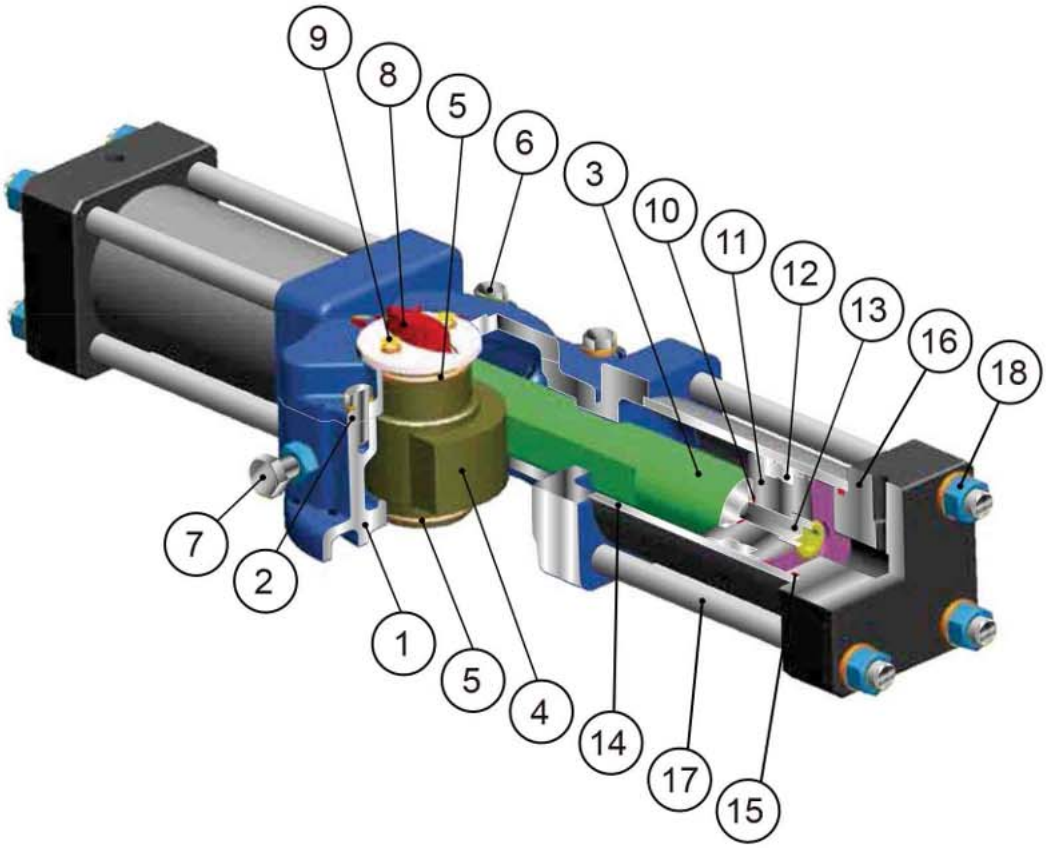


Unit : mm

Series No.	Capac-ity	Alloeable Valve Stem Diameter			Oil hole	Dimensions								Mounting flange (ISO5211)		Weight
	ml	Depth	Min	Max	Port	A	B	C	D	E	F	G	H	Type	PCD	
H07	101	85	13	19	PT 1/2"	100	74	48.5	159.5	506	65	37	100	F07	70	12
H10	249	85	16	28	PT 1/2"	125	74	48.5	167.5	560	90	37	100	F10	102	18
H12	503	115	25	35	PT 1/2"	150	88	63.5	206.5	650	110	49.5	132	F12	125	35
H14	754	115	32	50	PT 1/2"	175	103	84.5	242.5	775	110	47.5	141	F14	140	41
H16	1728	120	45	70	PT 1/2"	250.5	123	120	310.5	1014.5	135	55.5	149	F16	165	71
H25	3682	140	70	95	PT 1/2"	345	148	161	391.5	1320	165	60	183	F25	254	135

*Other dimensions please consult with Value Valves.

HYDRAULIC ACTUATOR



PART AND MATERIALS

No.	Name	Materials
1	CASE	DUCTILE IRON
2	COVER	DUCTILE IRON
3	RACK	ALLOY STEEL
4	SUPR GEAR	DUCTILE IRON
5	O-RING	NBR(NITRILE)
6	HEXAGON HEADED BOLT	STEEL
7	HEXAGON HEADED BOLT	STEEL
8	INDICATE	CAST IRON
9	HEXAGON HEADED BOLT	STEEL
10	O-RING	NBR(NITRILE)
11	PISTON	STEEL
12	PISTON SEAL	STEEL
13	SOCKET HEAD CAP SCREW	STEEL
14	TUBE	CARBON STEEL
15	O-RING	NBR(NITRILE)
16	REAR COVER	STEEL
17	TIE ROD	CARBON STEEL
18	HEXAGON NUT	STEEL

* For any other special offers, please contact Value Valves.

TORQUE OUTPUT(Nm)

Orerating pressure (kgf/cm^2) / Series No. (kgf/cm2)	40	50	60	70	80
H07	127	167	196	225	265
H10	323	402	490	568	647
H12	657	813	980	1147	1313
H14	1009	1264	1519	1774	2029
H16	2381	2979	3577	4175	4773
H25	4969	6213	7458	8702	9937

Remark:
1. stroke:90° with standard adjustable +5°~ -5°
2. Hydraulic oil temperature allowable : -10℃ ~80℃ (14 ℉ ~176 ℉)
3. Maximum hydraulic pressure:90kgf/cm2
4. Hydraulic oil: Petroleum base, 28~75Cst.
5. Please release air from hydraulic actuator and piping before start using. Lose the exhaust air hole and move the piston several cycles by low hydraulic pressure. After tighten the normal condition.

General Ordering Information

VF	-	TYPE: 265A	-	SIZE: X	-	MATERIALS — BODY: X	DISC: X	STEM: X	-	SEAT: X	-	FLANGE DRILLING: X	-	OPERATOR: X

PRESSURE RATING
10 BAR
END CONNECTION
FLANGE

OPERATOR	
N	BARE SHAFT
G	GEAR BOX
P	PNEUMATIC
E	ELECTRIC
H	HYDRAULIC
L	LEVER

FLANGE DRILLING		
A	150 LB	ASME B16.5 150LB
B		ISO 7005-1 PN10
F		JIS 10K

SIZE	mm
02	50
025	65
03	80
04	100
05	125
06	150
08	200
10	250
12	300
14	350
16	400
18	450
20	500
22	550
24	600

BODY		DISC		STEM	
WB	WCB	D5	65-45-12	10	F6A
D5	65-45-12	13	CF8	34	F304
0	OTHER	14	CF8M	316	F316
		AB	B148-954	0	OTHER
		0	OTHER		

SEAT	
NB	NBR (NITRILE)
EP	EPDM
CR	NEOPRENE
SI	SILICON
CSM	HYPALON
VT	VITON
0	OTHER

Note: Example
VF-265A-08-WB1334-EP-A-H

Shall be a: SHIP SIDE VALVES (265A) • DN200(08)
WCB Body(WB) • CF8 Disc(13) • F304 STEM(34)
EPDM Seat(EP) • ASME B16.5 150LB(A) • HYDRAULIC(H)

* For any other special offers, please contact Value Valves.

MEMO

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