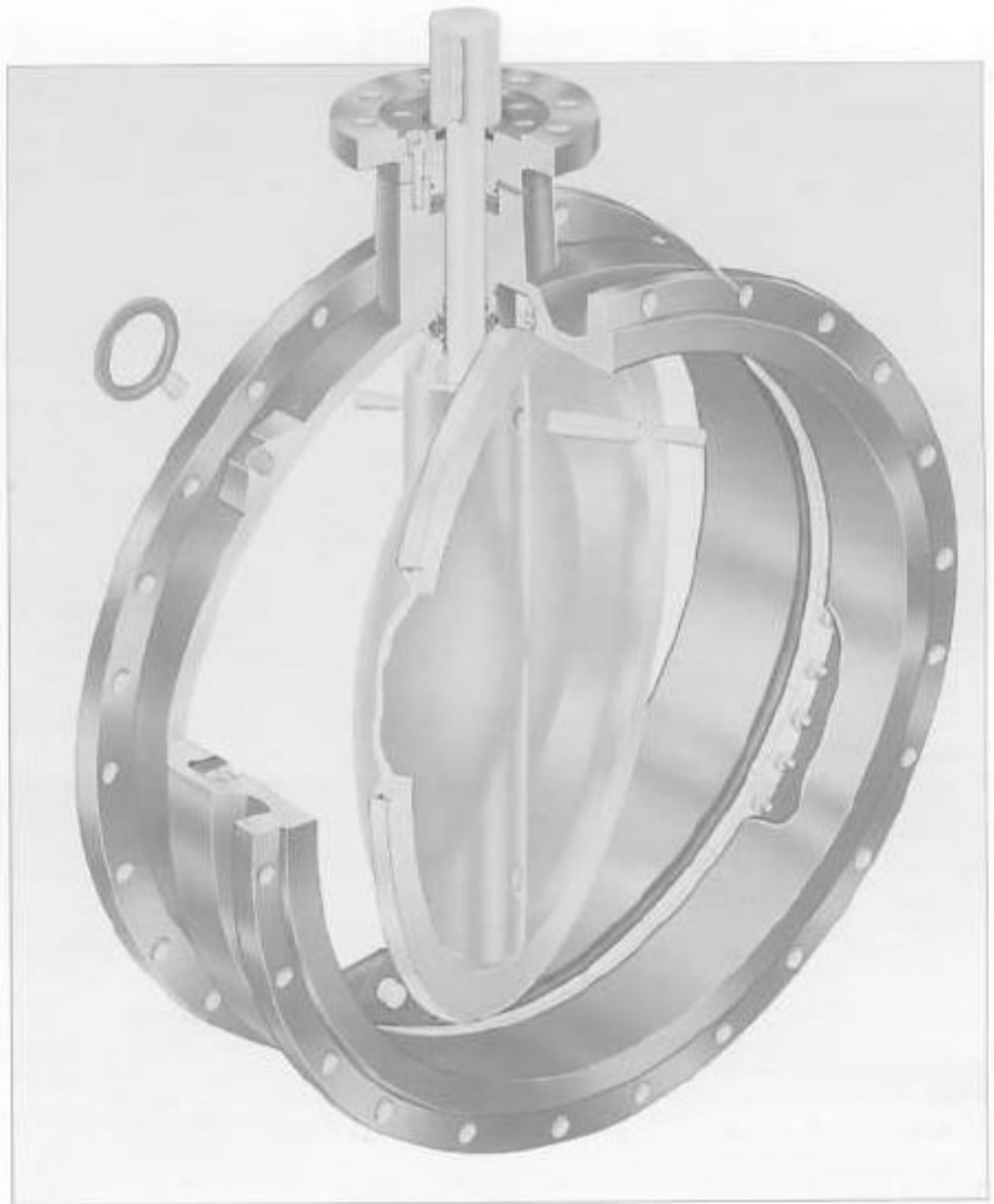




F 56 is a valve for use in power generation plants, municipal water treatment and industrial applications.

### Features

- Designed basically for the waterworks industry, Fig. 56 is in full compliance with ISO 5752, with actuator flange acc. ISO 5211.
- It is a cast double flanged butterfly valve, which can be drilled acc. various flange standards (JIS, BS, DIN, ANSI) and also provide dead-end service capability with down stream piping removed.
- Body and disc protective coatings or rubber linings are available for sea water or corrosive services as well as for external protection.
- The special seat and disc edge contours reduce seating torque, provide better shut-off and longer service life.
- For sizes 700mm and up, the seat is adjustable in order to optimise the required shut-off tightness with the accompanying torque, both for uni-directional or bi-directional operation. This seat is replaceable without special tooling, dismantling or removing the valve from the line.
- For sizes 700 mm and up, a stainless steel disc edge resists against corrosion and avoids encrust build-up for consistent sealing.
- Full diameter stub shafts remain dry and provide a positive disc control with a minimum flow restriction.
- High strength stub shafts have full 1 1/2 diam. penetration into disc-hubs with close tolerance-fit.
- Mounting base plates for easy installation available.



Self lubricating sleeve bearings allow valve installation with the shaft horizontal or vertical. Non metallic bearing material has an extremely low friction coefficient to reduce operating torques and eliminate galvanic corrosion. Furthermore the Fig. 56 offers a dry shaft design, direct mounting of actuator integrally-cast adjustable travel stop and a wide range of material combinations. The actuator flange is not provided with bearings to take actuator side thrust and is not in contact with the medium due to the dry shaft design.

### Technical data

Pressure (bar) : 10/16\*  
Temperature (°C) : -30 to +120  
Sizes (mm) : 700-2400\*\*  
Flange acc. : PN 6/10/16\*\*\*

\* Sizes 1300-2000 require a reinforced disc for 16 bar; above 2000mm, 10 bar only

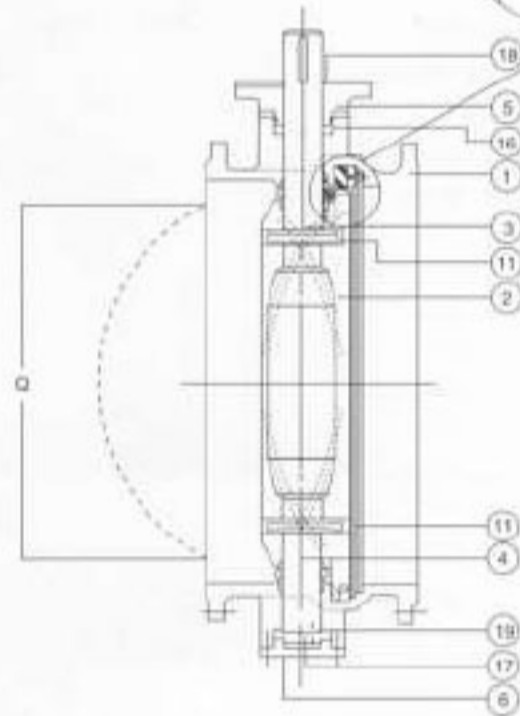
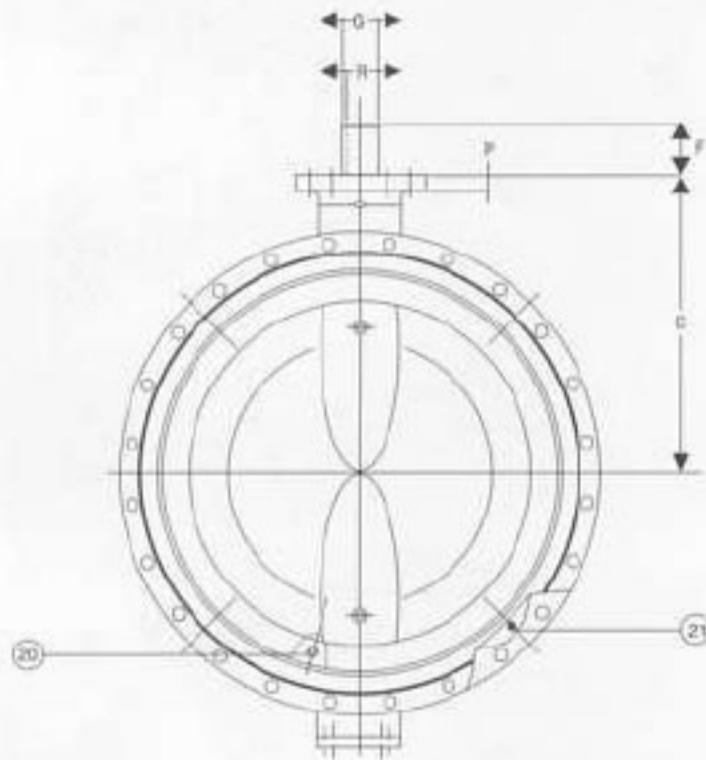
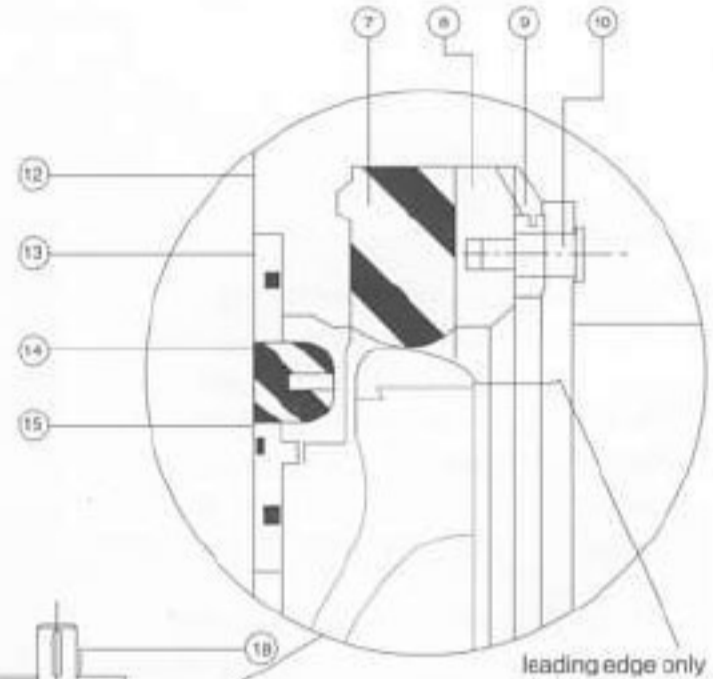
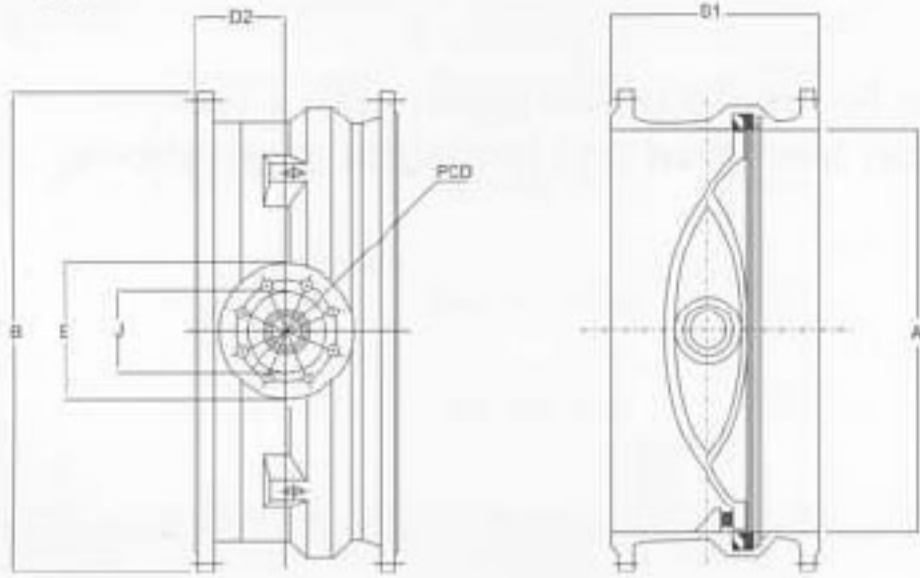
\*\* Size 2000 and up on request.

### General application

The Figure 56 design offers an excellent, low cost solution for municipal water treatment, desalination, power generation and industrial applications.



# UNITED Engineering Corporation



### Valve dimension in mm

Size	A	BF	C	D1	D2	Q	G13	Actuator flange acc. ISO 5211	Mass (kg)
700	700	895	623	292	86	658	70	F-16	470
750	750	965	598	318	105	703	70	F-25	530
800	800	1015	623	318	99	757	70	F-25	620
900	900	1115	673	330	97	859	80	F-25	750
1000	1000	1290	730	410	159	934	90	F-30	1030
1100	1100	1340	798	470	197	1012	100	F-30	1270
1200	1200	1455	848	470	185	1129	100	F-35	1520
1300	1300	1575	918	530	212	1216	120	F-35	1875
1400	1400	1675	968	530	219	1319	120	F-35	2240
1500	1500	1785	1038	600	250	1405	140	F-40	2630
1600	1600	1915	1088	600	243	1518	140	F-40	3160
1800	1800	2115	1210	670	286	1711	160	F-40	4100
2000	2000	2325	1333	760	350	1884	180	F-48	5490

### Part Name

1. Body
2. Disc
3. Upper shaft
4. Lower shaft
5. Actuator flange
6. Cover plate
7. Seat
8. Seat retaining segment
9. Seat adjusting nut
10. Seat retaining screw
11. Disc pin
12. Bearing
13. Sleeve Body/shaft
14. Shaft seal
15. Sleeve disc/shaft
16. Seal ring
17. Axial positioning ring
18. Dirtscraper
19. Axial bearing
20. Travel stop
21. Supporting lug (4x)

- \* ISO 5752 Basic series 13. Basic series 14 also available.
- \* PN10 flange / for other flanges contact factory.
- \* Other shaft diameters are also available.



K <sub>v</sub> values														
disc opening	size in mm	700	750	800	900	1000	1100	1200	1300	1400	1500	1600	1800	2000
5°		369	424	483	611	754	912	1086	1274	1478	1696	1930	2443	3016
10°		761	873	994	1258	1553	1879	2236	2624	3043	3494	3975	5031	6211
15°		1196	1373	1562	1977	2440	2953	3514	4124	4783	5491	6247	7906	9761
20°		1718	1972	2243	2839	3505	4241	5048	5924	6870	7887	8973	11357	14021
25°		2218	2546	2897	3666	4526	5477	6518	7649	8871	10184	11587	14665	18105
30°		2870	3295	3749	4745	5857	7088	8435	9899	11481	13179	14995	18978	23430
35°		3805	4368	4970	6290	7765	9396	11182	13123	15220	17472	19879	25159	31061
40°		4870	5591	6361	8051	9939	12026	14312	16797	19481	22363	25444	32203	39757
45°		6218	7138	8122	10279	12690	15355	18274	21447	24873	28554	32488	41117	50762
50°		7827	8985	10223	12939	15974	19329	23003	26996	31309	35942	40894	51756	63897
55°		9915	11382	12950	16390	20234	24483	29137	34196	39659	45527	51800	65559	80937
60°		12306	14127	16073	20343	25115	30389	36165	42444	49225	56508	64294	81372	100459
65°		15394	17671	20106	25447	31416	38013	45239	53093	61575	70686	80425	101788	125664
70°		18764	21540	24508	31018	38294	46335	55143	64716	75056	86161	98032	124071	153175
75°		23091	26507	30159	38170	47124	57020	67858	79639	92363	106029	120637	152681	188496
80°		26439	30351	34533	43706	53958	65289	77699	91188	105757	121405	138132	174823	215831
85°		28831	33096	37656	47659	58838	71194	84727	99436	115323	132386	150626	190635	235352
90°		30962	35543	40440	51181	63187	76456	90969	106786	123846	142170	161758	204725	252747

• Other series such as 1050 mm / 1650 mm are available on request. • Please contact works for details.

- Notes**
1. Rated Kv= the volume of water in m<sup>3</sup>/hr that will pass through a given valve opening at a pressure drop of 1 bar.
  2. Q is the disc chordal dimension at face of valve for disc clearance into pipe fitting or equipment.
  3. Specify size, figure number, part name, material and flange accomodations when ordering spare parts.
  4. Closing clockwise
  5. Standard inner body coatings : Zinc chromate, Polyurethane, epoxy coal tar. For other coatings and rubber linings contact factory.
  6. For burried service applications contact factory.

**Actuator flange dimensions in mm**

Type	Actuator flange dimension acc. ISO 5211							Shaft dimension	
	E	J	L	P	PCD	Hole Ø	No of holes	F	G
F14	175	100	5	20	140	17.5	4	60	50/60/70
F16	210	130	6	25	165	22	4	75	50/60/70/80/90
F25	300	200	6	30	254	17.5	8	105	60/70/80/90/100/120
F30	350	230	6	35	298	22	8	125	70/80/90/100/120/140
F35	415	260	6	40	356	33	8	175	80/90/100/120/140/160/180
F40	475	300	9	45	406	39	8	195	100/120/140/160/180/200
F48	560	370	9	50	483	39	12	245	140/160/180/200

**Keyway dimensions in mm**

G <sub>hd</sub>	50	60	70	80	90	100	120	140	160	180	200
Keysize N9	14x9	18x11	20x12	22x14	25x14	28x16	32x18	36x20	40x22	45x25	45x25
R	44.5	53	62.5	71	81	90	109	128	147	165	185





Body	Disc	Shaft	Seat	Trim no.	Size (mm)
Cast Iron	Stainless Steel	Stainless Steel	EPDM	102	700-2000
	NIAIBz	Stainless Steel	EPDM	131	700-2000
	WCB + L. Edge	Stainless Steel	EPDM	148	700-2000
Cast Steel	Stainless Steel	Stainless Steel	EPDM	212	700-2000
	NIAIBz	Stainless Steel	EPDM	235	700-2000
	WCB + L. Edge	Stainless Steel	EPDM	264	700-2000

*Buna-N seat is also available*

**F56 END CONNECTIONS**

CODE	STANDARD / VALVE SIZE	700	750	800	900	1000	1100	1200	1300	1400	1500	1600	1800	2000
500	ANSI B16.1, 125#	P	P	NA	P	NA	NA	P	NA	NA	P	NA	P	NA
502	ANSI B16.47, #150 Sr. A	P	P	P	P	P	P	P	P	P	P	NA	NA	NA
503	ANSI B16.47, #150 Sr. B	NP	NP	NP	P	P	P	P	P	P	P	NA	NA	NA
504	AWWA C 207, #B & D	P	P	P	P	P	P	P	P	NA	P	NA	P	P
507	BS 4504 PN6	P	P	P	NP	NP	NA	NP	NA	P	NA	NP	NP	NP
508	ISO 7005 PN6	P	P	P	NP	NP	NA	NP	NA	P	NA	NP	NP	NP
509	BS 4504 PN10	P	P	P	P	P	NA	P	NA	P	NA	P	P	P
510	ISO 7005 PN10	P	P	P	P	P	NA	P	NA	P	NA	P	P	P
511	BS 4504 PN16	P	P	P	P	P	NA	P	NA	P	NA	P	P	P
512	ISO 7005 PN16	P	P	P	P	P	NA	P	NA	P	NA	NA	P	P
516	API 605, 150#	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	P	NA	NA
518	IS 1538 TABLE 6	P		P	P	P	P	P	NA	NA	NA	NA	NA	NA

**ORDERING SEQUENCE**

Example: 1100      F56      16      235      504  
 Valve Size    Figure No.    Pressure Rating    Trim Code    End Connections

