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Golden Rules Co., Ltd

ON-OFF Automatic
General & High formance type

WAFER BUTTERFLY VALVE GR700-BF



The nation's development item, 100% domestic goods, Patent **NO.** 10-1660226

Design Features 디자인 특징



The butterfly plate of the wafer butterfly valve is installed in the diameter direction of the pipeline.

The wafer butterfly valve is simple in structure, small in size and light in weight, and consists of only a few parts. Moreover, it can be opened and closed quickly by rotating 90°, and the operation is simple. At the same time, the valve has good fluid control characteristics.

웨이퍼 버터플라이 밸브의 버터플라이 플레이트는 파이프라인의 직경 방향으로 설치됩니다.

웨이퍼 버터플라이 밸브는 구조가 간단하고 크기가 작고 무게가 가벼우며 몇 개의 부품으로 구성됩니다. 또한 90°회전으로 빠르게 개폐가 가능하며 조작이 간단합니다. 동시에 밸브는 우수한 유체 제어 특성을 가지고 있습니다.

Field of Application 적용분야

Operating Temperature

NBR : 0°C~+90°C

EPDM : - 20°C~+120°C

PTFE : -10°C~+150°C

Operate

DN25-DN600 AT Type Pneumatic Actuator

DN350-DN3200 AW Type Pneumatic Actuator

Optional operation: Lever, Worm gear, Pneumatic, Electric-Motorized

Application: Chemical processing, Desalination plants, Drinking water, Dry powder, Food and beverage, Gas plants, HAVC Mining industry, Paper industry, Sand handling, Seawater, Sugar industry, Thermo technical water treatment, Waste water, Cooling Water Circulation, Compressed Air

적용 분야: 화학 처리, 담수화 플랜트, 식수, 건조 분말, 식품 및 음료, 가스 플랜트, HAVC 광산 산업, 제지 산업, 모래 처리, 해수, 설탕 산업, 열 기술 수처리, 폐수, 냉각수 순환, 압축 공기

Technical Specification 기술사양

Design Standard

EN 593, MSS SP67, API 609, BS5155

Face to Face dimension

ISO 5752, EN 558, MSS SP67, API 609, DIN3202

End Standard

ANSI B16.1 Class125LB & B16.5 Class150LB
 AS 2129 Table D & E BS 10 Table D & E
 DIN 2501 PN6, PN10 & PN16
 EN 1092 PN6, PN10 & PN16
 ISO 2531 PN6, PN10 & PN16
 ISO 7005 PN6, PN10 & PN16
 KS B 1511 / JIS B 2210 5K & 10K
 MSS SP44 CL. 150LB AWWA C207
 SABS 1123 Table 1000/3 & Table 1600/3

Top Flange : ISO5211

Test standard : API 598, ISO 5208, EN 12266

Material Specification 재질 사양	
Part Name	Material 재질
Body	Cast Iron(주철), Ductile iron(연성철), WCB, SS304, SS316, Bronze, Aluminum Alloy
Seat	EPDM, NBR, PTFE, VITON, Rubber
Dsic	Ductile Iron, CF8, CF8M, WCB, Bronze, Aluminum Alloy
Stem	45#, 410, 420, 431, 304, 304L, 316, 316L, Bronze, Monel, Hard alloy

공통 사양 & 오더코드 Common Specifications & How to Order

■ Butterfly valve Double Acting / Single Acting



▶ 특징 / Feature / Application

- 공기, 물 기름 스팀(옵션)제어용
- 유체에 따라 다양한 재질변경
- 대구경 배관에 적합
- 반도체, 수처리, 자동화설비등
- 다양한 Acc'Y 부착가능(SOL V/V, LIMIT S/W, AIR SET)

▶ 공통 사양 / Common Specifications

Valve Size	40A~1000A		
Actuator Type	공압식(Pneumatic) / 복동식(Double Acting)	공압식(Pneumatic) / 단동식(Single Acting)	
Actuator Model	GR700-65S ~ GR700-210D	GR700-65S ~ GR700-210S	
Operating Media	청정한 압축공기 (Compressed Dry Air)		
Operating Pressure	4 ~ 7 kg/cm ² (0.4 ~ 0.7MPa)	5 ~ 7 kg/cm ² (0.5 ~ 0.7MPa)	
Rotating Angle	90° ± 5°		
Operating Temperature	0 ~ 80°C (단 동결이 없을 것)		
Rating	JIS10K Wafer	ANSI150# Wafer	
Body Material	FC (SUS304) / Body	SUS304 (SUS316) / Disc	EPDM (NBR) (PTFE) / Seat
Accessory	Solenoid Valve , Air filter Regulator , Limit Switch box , E-P Positioner		

▶ 형번 표시 방법 / How to order

GR700	65	S	-	50	BF	-	SV	-	LS	-	AS	-	DH	-	EP
Ⓐ	Ⓑ	Ⓒ		Ⓓ	Ⓔ		Ⓕ		Ⓖ		Ⓗ		Ⓘ		⓷

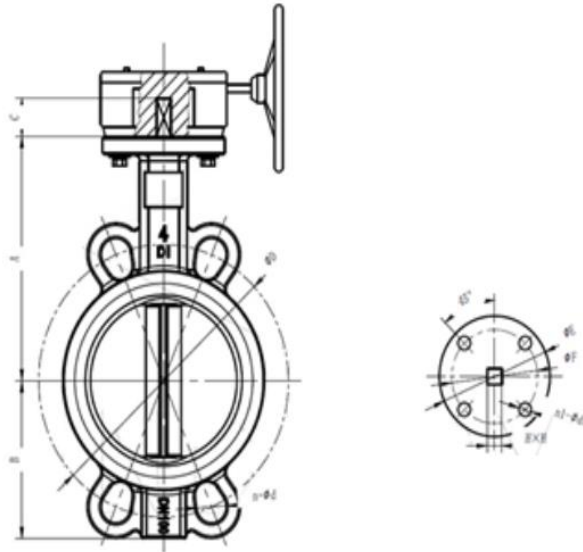
기 호	내 용			
Ⓐ 표시	ACTUATOR MODEL			
GR700	GOLDEN RULES ACTUATOR			
Ⓑ 표시	구동기 내경 사이즈(Actuator Bore Size)			
50	Bore 50 (mm)	100	Bore 100 (mm)	
65	Bore 65 (mm)	125	Bore 125 (mm)	
75	Bore 75 (mm)	140	Bore 140 (mm)	
80	Bore 80 (mm)	160	Bore 160 (mm)	
90	Bore 90 (mm)	190	Bore 190 (mm)	
Ⓒ 표시	구동 방법(Acting Method)			
D	복동식(Double Acting Actuator)			
S	단동식(Single Acting Actuator ; Spring return)			
Ⓓ 표시	접속 구경 (Connection Size)			
40	40A (1-1/2")	150	150A(6")	
50	50A (2")	200	200A(8")	
65	65A(2-1/2")	250	250A(10")	
80	80A(3")	300	300A(12")	
100	100A(4")	350	350A(14")	
125	125A(5")	400	400A(16")	
Ⓔ 표시	접속방식/밸브재질(Connection/Material)			
BFE	WAFER/FC200/EPDM/10K			
BFF	WAFER/SCS13/EPDM/10K			
BFE2	WAFER/FC200/EPDM/20K			
BFF2	WAFER/SCS13/EPDM/20K			

기 호	내 용	
Ⓕ 표시	솔레노이드 밸브 부착여부(Solenoid Valve)	
무기호	미부착	
SV	단동 솔레노이드 밸브 (Single Solenoid Valve)	
SV(D)	복동 솔레노이드 밸브 (Double Solenoid Valve)	
SV(EX)	방폭형 솔레노이드 밸브 (Explosion Proof Solenoid Valve)	
Ⓖ 표시	리미트스위치 박스 부착여부(Limit Switch Box)	
무기호	미부착	
LS	일반형 리미트 스위치 박스 (Weather Proof Limit Switch Box)	
LS(EX)	방폭형 리미트 스위치 박스 (Explosion Proof Limit Switch Box)	
Ⓗ 표시	필터레귤레이터 부착여부(FR UNIT)	
무기호	미부착	
AS	필터 레귤레이터(여과도 5μm 표준)	
⓷ 표시	수동조작 기어 박스 부착여부(Declutch Gear Box)	
무기호	미부착	
DH	디크리치 기어 박스(Handle Wheel 조작 타입)	
⓷ 표시	리드 스위치/포지셔너 부착여부(Reed Switch/Positoner)	
무기호	미부착	
EP	전공포지셔너 부착 (비례제어 개도율 조정)	

공압식 자동 밸브 Pneumatic Automatic Valves

■ Butterfly valve Manual Hand Wheel type

▶ 외형 치수도 / Dimension



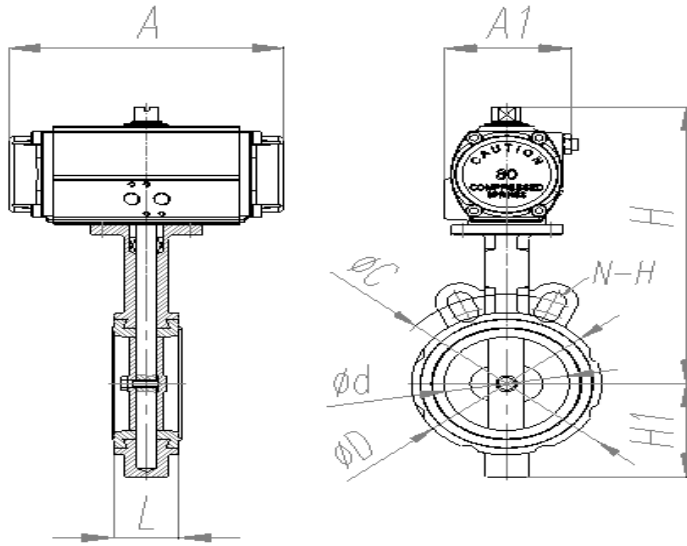
Dimensions (mm)

Size		L mm	C	ANSI CL150		DIN PN10		PN16		JIS 10K		Top flange
DN mm	Inch			PCD	n-φd	PCD	n-φd	PCD	n-φd	PCD	n-φd	
50	2"	43	32	120.5	4-19	125	4-18	125	4-18	120	4-19	F05
65	2 1/2"	46	32	139.5	4-19	145	4-18	145	4-18	140	4-19	F05
80	3"	46	32	152.5	4-19	160	8-18	160	8-18	150	8-19	F05
100	4"	52	32	190.5	8-19	180	8-18	180	8-18	175	8-19	F07
125	5"	56	32	215.9	8-22.4	210	8-18	210	8-18	210	8-23	F07
150	6"	56	32	241.5	8-22.4	240	8-22	240	8-22	240	8-23	F07
200	8"	60	45	298.4	8-22.4	295	8-22	295	12-22	290	12-23	F10
250	10"	68	45	361.9	12-25.4	350	12-22	355	12-26	355	12-25	F10
300	12"	78	45	431.8	12-25.4	400	12-22	410	12-26	400	16-25	F10
350	14"	78	45	476.2	12-28.4	460	16-22	470	16-26	445	16-25	F10
400	16"	88	51	539.7	16-28.4	515	16-26	525	16-30	510	16-27	F14
450	18"	105	51	577.8	16-31.8	565	20-26	585	20-30	565	20-27	F14
500	20"	130	64	635	20-31.8	620	20-26	650	20-33	620	20-27	F14
600	24"	154	70	749.5	20-35.1	725	20-30	770	20-36	730	24-33	F16
700	28"	165	85	863.6	28-35.1	840	24-30	840	24-36	840	24-33	F25
800	32"	190	85	977.9	28-41.1	950	24-33	950	24-39	950	28-33	F25
900	36"	203	130	1085.8	32-41.1	1050	28-33	1050	28-39	1050	28-33	F25

공압식 자동 밸브 Pneumatic Automatic Valves

Butterfly valve Standard type

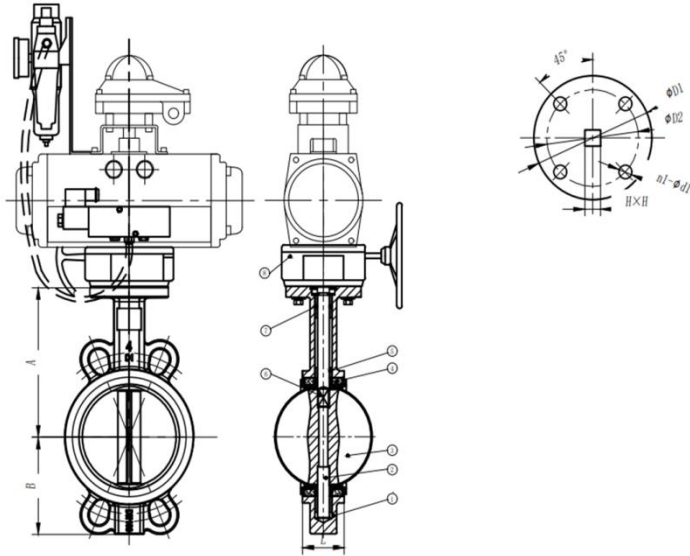
외형 치수도 / Dimension



unit/단위: mm

MODEL		SIZE		A		A1		H		H1	L	FLANGE			
Double (복동)	Single (단동)	MM	INCH	Double (복동)	Single (단동)	Double (복동)	Single (단동)	Double (복동)	Single (단동)			øC	ød	øD	N-H
GR700-65D-40BF	GR700-65S-40BF	40A	1-½"	131	154	89	89	234	234	54	40	105	40	86	4-19
GR700-65D-50BF	GR700-65S-50BF	50A	2"	131	154	89	89	236	236	59	43	120	52	105	4-19
GR700-65D-65BF	GR700-80S-65BF	65A	2-½"	131	154	89	101	246	257	69	46	140	65	114	4-19
GR700-80D-80BF	GR700-80S-80BF	80A	3"	189	220	101	101	269	279	80	46	150	80	129	8-19
GR700-80D-100BF	GR70090S-100BF	100A	4"	189	223	101	104	293	300	102	52	175	100	155	8-19
GR700-90D-125BF	GR700-90S-125BF	125A	5"	188	223	104	104	311	311	113	56	210	125	180	8-23
GR700-90D-150BF	GR700-105S-150BF	150A	6"	188	256	104	132	325	343	129	56	240	150	207	8-23
GR700-100D-200BF	GR700-125S-200BF	200A	8"	229	330	132	151	397	429	161	60	290	198	260	12-23
GR700-125D-250BF	GR700-140S-250BF	250A	10"	299	389	151	164	467	484	217	68	355	248	331	12-25
GR700-140D-300BF	GR700-160S-300BF	300A	12"	332	416	164	188	512	536	246	78	400	298	377	16-25
GR700-160D-350BF	GR700190S-350BF	350A	14"	364	465	188	217	546	580	270	78	445	327	416	16-25
GR700-210D-400BF	GR700210S-400BF	400A	16"	444	527	231	231	631	656	325	102	510	387	475	16-27

Manual Hand wheel type 외형 치수도(Full Dimension) : 일반용 General type



Inspection specification	
Working Pressure	1.6MPa
Seal Test	2.4 MPa
Shell Test	1.76 MPa
Suitable Medium	Water, Oil, Gas
Suitable Temp.	-15°C to +100°C

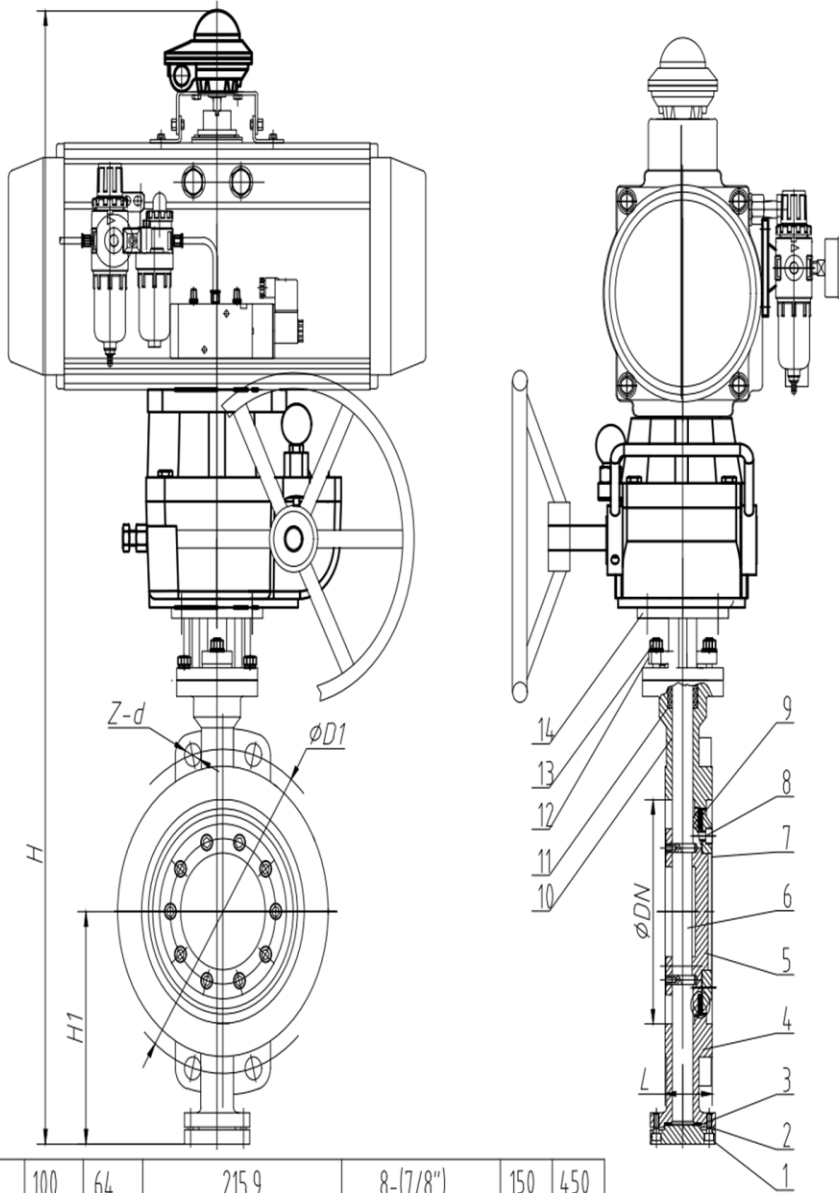
Size		L	A	B	H	IS05211		PN10		PN16		150LB		JIS 5K		JIS 10K			
mm	in					Top flange	φE	φC1	n1-φd1	PCD	n-M	PCD	n-M	PCD	n-M	PCD	n-M	PCD	n-M
40	1 1/2"	33	103	57	9	F05	65	50	4-8	110	4-19	110	4-19	98.5	4-16			105	4-19
50	2	42	131.5	71.6	9	F05	65	50	4-8	125	4-19	125	4-19	120.5	4-18	105	4-M15	120	4-19
65	2.5	44.7	138	82	9	F05	65	50	4-8	145	4-19	145	4-19	139.5	4-18	130	4-15	140	4-19
80	3	45.2	152.8	94.5	9	F05	65	50	4-8	160	8-19	160	8-19	152.5	4-18	145	4-19	150	8-19
100	4	52.1	167.5	107	11	F07	90	70	4-10	180	8-19	180	8-19	190.5	8-18	165	8-19	175	8-19
125	5	54.4	182.5	124.5	14	F07	90	70	4-10	210	8-19	210	8-19	216	8-22	200	8-19	210	8-23
150	6	55.8	195	136.5	14	F07	90	70	4-10	240	8-23	240	8-23	241.5	8-22	230	8-19	240	8-23
200	8	60.6	235	169	17	F10	125	102	4-12	295	8-23	295	12-23	298.5	8-22	280	8-23	290	12-23
250	10	65.6	267	207	22	F10	125	102	4-12	350	12-23	355	12-28	362	12-26	345	12-23	355	12-25
300	12	76.5	305	236	22	F10	125	102	4-12	400	12-23	410	12-28	432	12-26	390	12-23	400	16-25

No.	Operation	Materials
8	Operation	Single pneumatic actuator
7	O ring	EPDM
6	Upper shaft	SS316
5	Bushing	Polymer
4	Seat	EPDM
3	Disc	SS316
2	Bottom shaft	SS316
1	Body	GG040
No.	Parts	Materials

Golden Rules Co., Ltd.
Wafer Butterfly Valve / Model: GR700

Manual Hand wheel type

전체 외형 치수도(Full Dimension) : 고압용 High pressure



Design pressure	11.0MPa		
Strength test pressure	16.5MPa		
Water seal test	Gas seal test	12.1MPa	0.6MPa
Temperature	-29℃ ~ 350℃		
Medium	W.O.G		

Design and manufacture	API 609&ANSI B16.34
Face to face	API 609
Flange connection	ANSI B16.5
Pressure test standard	API 598

Item	Name	Material
1	Bottom	A105
2	Inner hexagon	B7
3	Gasket	Metal gasket
4	Body	WCB+316
5	Disc	CF8M
6	Stem	A182 2C(r13)
7	Seat bonnet	316
8	Inner hexagon	B8M
9	Seal	316+NBR
10	Up and bottom bearing	Self-lubricating bearings
11	Packing	Flexible graphite
12	Packing bonnet	WCB
13	Bolt and nut	B7/2H
14	Yoke	WCB
15	Operation	Single pneumatic actuator

4"	100	64	215.9	8-(7/8")	150	450
NPS	DN	L	D1	Z-d	H1	H

		Golden Rules Co., Ltd.
		Wafer Butterfly Valve
		Model : G700H / 600LB



Golden Rules Co., Ltd.

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INCHEON, KOREA

Tel : 032-817-1240 Fax : 032-817-1250

Torque Valve Sheet(Concentric Butterfly Valve)

Size: Inch Unit:	PN6		PN10		PN16	
	$\Delta P=100$		$\Delta P=150$		$\Delta P=200$	
	WET	DRY	WET	DRY	WET	DRY
2"	13	20.8	13.9	22.1	15.1	24.2
2.5"	13.8	26.1	15.4	29.2	17.2	32.7
3"	21	39.9	21.7	41.1	23.1	43.7
4"	34.9	63.8	37.1	67.8	39.8	72.8
5"	53.8	93.8	57.9	101	61.9	108
6"	84.5	149	93.9	165	102	174
8"	154	264	173	297	192	330
10"	249	423	286	486	323	549
12"	371	605	429	699	490	799
14"	466	699	550	825	625	969
16"	632	947	755	1133	846	1307
18"	831	1246	1012	1518	1131	1787
20"	1093	1639	1350	2025	1431	2288
24"	1679	2519	2111	3166	2301	3711
28"	3010	4515	3272	4908	4253	6380
30"	3487	5231	3767	5650	4897	7345
32"	3963	6103	4308	6462	5600	8400
36"	4913	7369	5257	7886	6834	10251
40"	8367	12550	8926	13389	11603	17405
42"	8433	12649	9024	13536	11731	17596
48"	11733	17600	12555	18833	16321	24482

PTFE seat torque*1.15

With safety factor : pneumatic *1.3(PTFE seat);pneumatic *1.3(EPDM seat) ;
electric *1.2



Golden Rules

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유량계 & 계측기 & 밸브 & 수질TMS

전문 제조

전국 대리점

Certified in accordance with

KC Q ISO 9001 : 2015

KC Q ISO 14001 : 2015

 (주)골든룰