

# 01

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## Golden Rules Co., Ltd

Liquid  
water quality meter

**VALVE**  
**FLANGE BALL**



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



## Design Features

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

The Ball 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.

볼 밸브의 볼 플레이트는 파이프라인의 직경 방향으로 설치됩니다.

볼 밸브는 구조가 간단하고 크기가 작고 무게가 가벼우며 몇 개의 부품으로만 구성됩니다. 또한 90° 회전으로 빠르게 열고 닫을 수 있으며 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

DN15-DN200 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

## 공압식 자동 밸브 Pneumatic Automatic Valves

### Flange ball valve Double Acting / Single Acting



#### 특징 / Feature / Application

- 공기, 물 기름 스팀(옵션) 제어용
- 내식성이 강한 SCS13 BODY
- 다양한 Acc'Y 부착가능(SOL V/V, LIMIT S/W, AIR SET)
- 경량 및 콤팩트한 디자인
- 반도체, 수처리, 자동화설비 등

#### 공통 사양 / Common Specifications

Valve Size	15A ~ 350A					
Actuator Type	공압식(Pneumatic) / 복동식(Double Acting)			공압식(Pneumatic) / 단동식(Single Acting)		
Actuator Model	GR600-50D ~ GR600-210D			GR600-50D ~ GR600-210S		
Operating Media	청정한 압축공기 (Compressed Dry Air)					
Operating Pressure	4 ~ 7 kg/cm <sup>2</sup> (0.4 ~ 0.7MPa)			5 ~ 7 kg/cm <sup>2</sup> (0.5 ~ 0.7MPa)		
Rotating Angle	90° ± 5°					
Operating Temperature	0 ~ 80°C (단 동결이 없을 것)					
Rating	JIS 10K	JIS 20k	JIS 40K	ANSI 150#	ANSI 300#	ANSI 600#
Body Material	SUS304 (SUS316) / Body		SUS304 (SUS316) / Ball		PTFE (CARBON) / Seat	
Accessory	Solenoid Valve , Air filter Regulator , Limit Switch box , E-P Positioner					

#### 형번 표시 방법 / How to order

GR600	65	D	-	25	F	-	SVD	-	LS	-	AS	-	DH	-	EP
Ⓐ	Ⓑ	Ⓒ		Ⓓ	Ⓔ		Ⓕ		Ⓖ		Ⓗ		Ⓘ		⓷

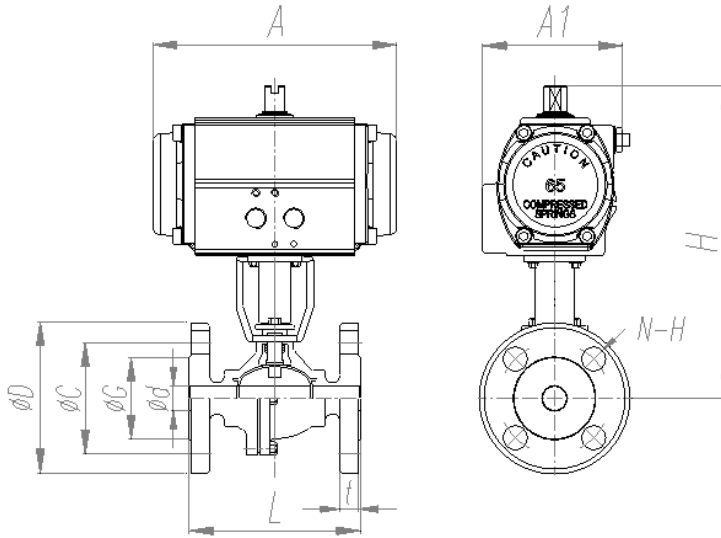
기 호	내 용			
Ⓐ 표시	ACTUATOR MODEL			
GR	GOLDEN RULES ACTUATOR			
Ⓑ 표시	구동기 내경 사이즈(Actuator Bore Size)			
50	Bore 50 (mm)	100	Bore 100 (mm)	
65	Bore 60 (mm)	125	Bore 125 (mm)	
75	Bore 75 (mm)	140	Bore 140 (mm)	
80	Bore 80 (mm)	160	Bore 160 (mm)	
90	Bore 90 (mm)	190	Bore 190 (mm)	
Ⓒ 표시	구동 방법(Acting Method)			
D	복동식(Double Acting Actuator)			
S	단동식(Single Acting Actuator ; Spring return)			
Ⓓ 표시	접속 구경 (Connection Size)			
15	15A (1/2")	65	65A(2-1/2")	
20	20A (3/4")	80	80A(3")	
25	25A (1")	100	100A(4")	
32	32A (1-1/4)	125	125A(5")	
40	40A (1-1/2")	150	150A(6")	
50	50A (2")	200	200A(8")	
Ⓔ 표시	접속방식/밸브재질(Connection/Material)			
FA	2-WAY FLANGE/SUS304/PTFE			
FB	2-WAY FLANGE/SUS316/PTFE			
FC	2-WAY FLANGE/SUS304/CARBON			
FD	2-WAY FLANGE/SUS316L/PTFE			

기 호	내 용	
Ⓕ 표시	솔레노이드밸브 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)	
Ⓘ 표시	수동조작 기어 박스 부착여부(Declutch Gear Box)	
무기호	미부착	
DH	디크러치 기어 박스(Handle Wheel 조작 타입)	
⓷ 표시	리드 스위치/포지셔너 부착여부(Reed Switch/Positoner)	
무기호	미부착	
EP	전공포지셔너 부착 (비례제어 개도를 조정)	

**공압식 자동 밸브** Pneumatic Automatic Valves

■ Flange ball valve Double Acting / Single Acting

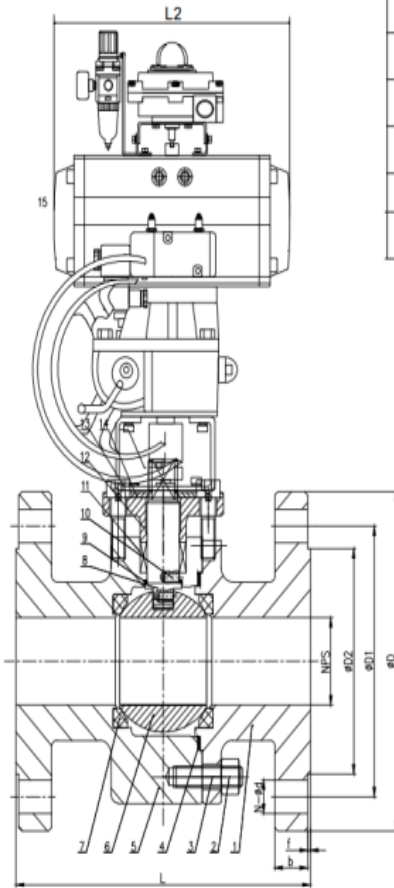
▶ 외형 치수도 / Dimension



unit/단위: mm

MODEL		SIZE		A		A1		H		L	FLANGE					
Double (복동)	Single (단동)	MM	INCH	Double (복동)	Single (단동)	Double (복동)	Single (단동)	Double (복동)	Single (단동)		t	Ød	ØG	ØC	ØD	N- H
GR50D-15F	GR50S-15F	15A	½"	119	133	75	75	180	180	108	12	15	52	70	95	4-15
GR50D-20F	GR65S-20F	20A	¾"	119	154	75	89	188	205	117	14	20	58	75	100	4-15
GR65D-25F	GR65S-25F	25A	1"	131	154	89	89	215	215	127	14	25	70	90	125	4-19
GR65D-32F	GR80S-32F	32A	1-¼"	131	220	89	101	215	235	140	16	32	80	100	135	4-19
GR80D-40F	GR80S-40F	40A	1-½"	189	220	101	101	254	254	165	16	40	85	105	140	4-19
GR80D-50F	GR90S-50F	50A	2"	189	223	101	104	262	272	178	16	50	100	120	155	4-19
GR90D-65F	GR100S-65F	65A	2-½"	188	256	104	132	289	301	190	18	65	120	140	145	4-19
GR100D-80F	GR125S-80F	80A	3"	229	330	132	151	338	364	203	18	80	130	150	185	8-19
GR125D-100F	GR140S-100F	100A	4"	299	389	151	164	378	396	229	18	100	155	175	210	8-19
GR140D-125F	GR160S-125F	125A	5"	332	416	164	188	461	485	356	20	125	185	210	250	8-23
GR160D-150F	GR210S-150F	150A	6"	364	527	188	231	510	580	394	22	150	215	240	280	8-23
GR210D-200F		200A	8"	444		231		670		457	22	200	265	290	330	12-23

**전체 외형 치수도 Full Dimension**



DN	L	D	D1	D2	f	b	L2
40	190	156	114.5	73	1.6	17.5	272
65	241	190	149	105	1.6	22.4	395
80	283	210	168.5	127	1.6	24	462
50 (150lb)	178	152	120.5	92	1.6	19	272
25 (150lb)	127	108	79.2	51	1.6	14.2	210
65 (150lb)	190	178	139.5	105	1.6	22.4	395

**Technical data**

1. Design standard API6D API608
2. Face to face: ASME B16.10
3. Flange connection ASME B16.5
4. Test and inspection: API598
5. Pressure - temperature according to ASTM B16.34
6. After installation, shall open and close smoothly.

Specification		
Design pressure	150LB	300LB
Strength test Mpa	3	7.5
Pressure test	Top seal test Mpa	
	Seal test Mpa	2.2 5.5
	Gas test Mpa	0.6 0.6
Temp	-29~+150°C	
Medium	Water, oil, gas	

8	Stem	316			
7	Seat	PTFE	15	Operation	Single pneumatic actuator
6	Body	316	14	Position plate	F316
5	Body	316	13	Hexagon socket head bolt	A193 B8M
4	Middle gasket	PTFE	12	Packing bonnet	316
3	Hexagon bolt	A194 8M	11	Packing	PTFE
2	Stud bolt	A193 B8M	10	Spring	316
1	Bonnet	316	9	Thrust pad	PTFE
Item	Name	Material	Item	Name	Material

Golden Rules Co., Ltd.

Float Ball Valve

Model : GR600

**Share with you our ball valve torque for reference.**

참조용으로 볼 밸브 토크를 공유하십시오.

A-1805, 30 SONGDOMIRAERO, YEONSUGU, INCHEON, KOREA

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

1		Model : GR600			
2		CL			
3	DN/mm	150	300	400	600
4		N.M			
5	15	5	8	15	19
6	20	7	12	30	35
7	25	13	20	50	68
8	40	22	38	90	130
9	50	30	60	140	190
10	65	60	110	240	360
11	80	80	140	350	460
12	100	130	260	540	770
13	125	250	600	980	—
14	150	470	930	1870	—
15	200	780	1550	2480	—
16	250	1897	3500	—	—
17	300	3122	—	—	—



**Golden Rules**

• 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