

# STAINLESS STEEL THREADED PIPE FITTINGS, VALVES



NO.22

**HI-STEN CO.,LTD.**

# Contents

Company Introduction & Company History . . . . . 02

STAINLESS STEEL / THREADED PIPE FITTINGS, VALVES . . . . . 04

HI-SADDLE . . . . . 05

Pneumatic Actuator Ball Valve . . . . . 06

Sleevein-joint / N.S-joint . . . . . 07

One - Piece Ball Valve . . . . . 08

One - Piece Hex Ball Valve . . . . . 09

Two - Piece Ball Valve . . . . . 10

Three - Piece Ball Valve . . . . . 11

3-Way Ball Valve . . . . . 12

Flange Ball Valve . . . . . 13

Gate Valve . . . . . 14

Glove Valve . . . . . 15

Swing Check Valve . . . . . 16

One - Piece Flange Ball Valve . . . . . 17

Sanitary Ball Valve . . . . . 18

Strainer . . . . . 19

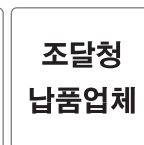
Threaded Fitting Type . . . . . 20

Hose Nipple . . . . . 25

표준포장단위 . . . . . 26



ISO 9001:2000인증 / 제QMS-1079호



# Company Introduction & Company History

## About HI-STEN

- 회사상호명 : (주)하이스텐
- 회사설립일 : 1993년 12월
- 본사및공장 : (우 621-841) 경남 김해시 주촌면 내삼리 1110-1
- 주요생산품 : 스텐레스 관이음쇠 및 밸브류
- 대 지 : 약 2,000㎡
- 공장및사무실 건평 : 약 1,200㎡

## History

- 1993년 12월 · 하이스텐 설립
- 1994년 2월 · 엘보 생산
- 1994년 4월 · 텡핑기 쏘대 증설, 기밀테스트기 개발설치
- 1994년 7월 · 티이 및 유니온 생산개시
- 1995년 2월 · 엘보전용기 자체개발, 제작
- 1995년 6월 · 투피스볼밸브개발, 생산
- 1996년 2월 · 원피스볼밸브개발, 생산
- 1996년 12월 · 관이음구용 조임링 의장등록 (슬립인 조인트용)
- 1997년 5월 · HI-STEN 상표등록(제 22710호)
- 1998년 2월 · 한국밸브공업 협동조합 등록
- 1998년 4월 · 온수보일러용 분배기 실용신안등록
- 1998년 6월 · 주식회사(HI-STEN) 하이스텐으로 법인전환
- 1998년 12월 · 아시아 판매대리점 개설
- 1999년 3월 · 쓰리피스볼밸브 개발 및 생산
- 1999년 4월 · ISO 9002 인증 획득
- 1999년 6월 · 대한주택공사 우수자재 신청접수
- 1999년 7월 · 일본 수출  
· 경남 지방조달청 등록  
(등록번호 38-11-0204)
- 2000년 1월 · 메탈실 유니온 개발, 생산
- 2000년 2월 · 압수 유니온 개발, 생산  
· 투피스볼밸브 65A, 80A 개발, 생산  
· 볼밸브 핸들 의장등록
- 2000년 3월 · 스트레너 개발, 생산  
· 위생 볼밸브 개발  
· 역추에이터 볼밸브 개발
- 2000년 7월 · 체크밸브 실용신안 등록  
· 앵글밸브 일본수출 및 의장등록
- 2001년 3월 · 글로브밸브 생산  
· 스윙체크밸브 생산  
· 경남 김해시 주촌면 내삼리로 확장이전
- 2001년 4월 · 미쯔비씨 업체등록
- 2001년 7월 · 전동 원피스볼밸브 의장등록  
· 볼밸브 연결플레이트 실용신안등록
- 2001년 8월 · 사나타리 투피스볼밸브 의장출원  
· 현대모비스 업체등록
- 2002년 2월 · 서울 지방조달청 슬립인조인트 납품  
(서울 상수도 본부 3차단가계약)
- 2002년 3월 · 한국상하수도협회 및 영업배상책임보험가입
- 2002년 4월 · 한국철강협회(스텐레스 스틸클럽)등록
- 2002년 6월 · 전기고주파로 200KW 1기 증설 (200KW x 2)
- 2002년 6월 · KS A 9001:2001/ISO 9001:2000 인증획득
- 2003년 1월 · 군수장비 관이음쇠 및 밸브 납품업체 등록
- 2003년 9월 · 슬립인조인트 GQ 우수제품 인증  
(국내 1인자 생산증명)
- 2003년 11월 · 특허류 관련 실용신안 의장등록 42건  
· 지역 특화 기술 개발사업 계약체결
- 2004년 6월 · 한국QSS 스텐레스 관이음쇠 제조부문  
우수기업선정
- 2004년 7월 · 볼밸브 내구성 검사기기 도입

- Company name : HI-STEN CO., LTD.
- Foundation : December, 1993
- Head Office & Factory : #1110-1 Naesam-Ri, Juchon-Myun, Kimhae-City, Kyungnam, Korea
- Products : Stainless Steel Threaded Pipe Fittings, Valves
- Site : 2,000㎡
- Area : 1,200㎡

- Dec. · Established HI-STEN CO.
- Feb. · Started producing Elbow type fittings
- Apr. · Installed 2sets more of Tapping M/Cs and Hydraulic Air Pressur Tester
- Jul. · Started producing Tee & Union type fittings
- Feb. · Developed and produced the Elbow Tapping M/C
- Jun. · Developed and started producing 2-Piece Ball Valve
- Feb. · Developed and started producing 1-Piece Ball Valve
- Dec. · Registered the design of the tightening ring for Sleeve-in Joints
- May · Registered the trademark "HI-STEN"(No.22710)
- Feb. · Registered in Korean Valve Industry Cooperative
- Apr. · Registered the utility model of the distributor for hot water boiler
- Jun. · Incorporated as "HI-STEN Co., Ltd."
- Dec. · Established a sales agency in Philippines
- Mar. · Developed and started producing 3-Piece Ball Valve
- Apr. · Obtained ISO 9002 Certificate
- Jun. · Applied for the superior materials registration of Korea National Housing Corporation
- Jul. · Started exporting to Japan  
· Registered as a supplier to the Office of Supply of Gyeongsangnam-do(No.38-11-0204)
- Jan. · Developed and started producing Metal Seal Union
- Feb. · Developed and started producing MF Union
- Feb. · Developed and started producing 65A and 80A 2-Piece Ball Valve  
· Registered the design of Ball Valve Handle
- Mar. · Developed and started producing Stainless Steel Strainer
- Mar. · Developed Sanitary Ball Valve
- Mar. · Developed Actuator Ball Valve
- Jul. · Registered the utility model of Check Valve  
· Exported Angle Valve to Japan and Registered the design of it
- Mar. · Started producing Glove Valve
- Mar. · Started producing Swing Check Valve
- Apr. · Moved the company to Naesam-ri Juchon-myeon Gimhae-si Gyeongsangnam-do
- Apr. · Registered as a supplier to Mitsubishi Heavy Industry
- Jul. · Registered the design of 1-Piece Electric Ball Valve
- Jul. · Registered the utility model of Ball Valve Connection Plate
- Aug. · Applied for the design registration for 2-Piece Sanitary Ball Valve  
· Registered as a supplier to HYUNDAI MOBIS
- Feb. · Supplied Sleeve-in Joint to the Office of Supply of Seoul City
- Mar. · Joined in the Korea Water and Wastewater works Association and subscribed for the Commercial General Liability Insurance
- Apr. · Joined in the Stainless Steel Club belonging to the Korea Iron Association
- Jun. · Installed one more 200KW electrical high frequency induction melting furnace  
· Obtained KS A 9001:2001/ISO 9001:2000 Certificates
- Sep. · Obtained GQ Certificate for Sleeve-in Joint
- Nov. · Registered 42 utility models and designs
- Jun. · Selected as the best company in the Stainless Fitting manufacturing field by Korea QSS
- Jul. · Adopted the Durability Test Device of Ball V/V

# STAINLESS STEEL THREADED PIPE FITTINGS, VALVES

## 나사관련규격 / Relevant Standard of Screw

No	Name of Product	Relevant Standard	Remarks
1	PT	KSB 0222(JISB 0203)	ISO. 7/1
2	NPT	ANSI/ASME B 1, 20, 1	
3	BSPT	BS 21, 2779 (ISO R.Rc)	

## 사용압력 / Working Pressure

No	Name of Product	Setting Pressure	Remarks
1	1피스볼밸브/1-Piece B/V	42 kg/cm <sup>2</sup> (600 PSI)	
2	2피스볼밸브/2-Piece B/V	42 kg/cm <sup>2</sup> (600 PSI)	
3	3피스볼밸브/3-Piece B/V	70 kg/cm <sup>2</sup> (1000 PSI)	
4	관이음쇠/Pipe Fitting	25 kg/cm <sup>2</sup> (400 PSI)	
5	스트레너/Strainer	25 kg/cm <sup>2</sup> (400 PSI)	

## 재질 관련 규격 / Relevant Standard of Materials

No	Name of Product	Relevant Standard	Symbol of material	Remarks
1	주물/Casting	KS-D 4103(JIS G 5121)	SCS 13, SCS14	CF8, CF8M
2	환봉/Round Bar	KS-D 3706(JIS G 4303)	SUS 304, SUS 316	
3	테프론/Teflon			PTFE, GRAPHITE
4	O-링/O-Ring	KS-M66 13	NBR	

## 치수 관련 규격 / Relevant Standard of Measures

No	Name of Product	Relevant Standard	Remarks
1	나사식 관이음쇠 Screw-type Pipe Fitting	KS B 1531 (JIS B 2301), Company Standard	
2	볼밸브/Ball Valve	KS B 2308 (JIS B 0203)	
3	나사/Screw	KS B 0222 (JIS B 0203)	
4	O-링/O-Ring	KS B 2805 (JIS B 2401), Company Standard	

## 검사 관련 규격 / Relevant Standard of Test

No	Name of Product	Relevant Standard	Remarks
1	나사식 관이음쇠 Screw-type Pipe Fitting	KS B 1531 (JIS B 2301), Company Standard	
2	볼밸브/Ball Valve	KS B 2308 (JIS B 0203)	

# HI-SADDLE

## 하이-새들 (새들 붙이 분수전) (Snap tap with saddle for water works)

FIG 1



FIG 2

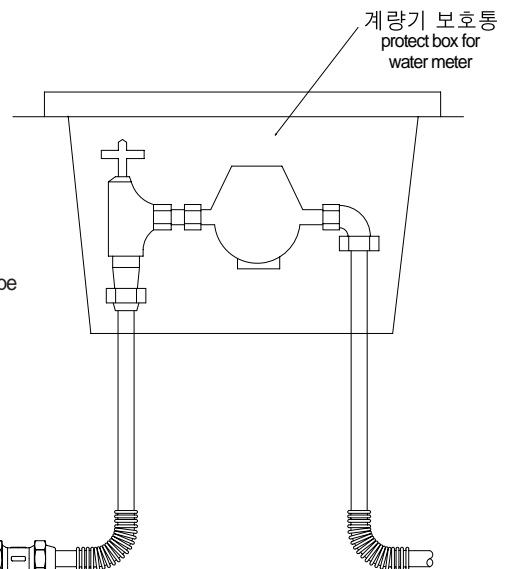
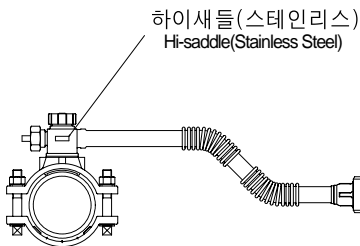


### 1. 하이새들 및 슬립인 조인트 배관(예) View of pipe work with hi-saddle and sleevein joint

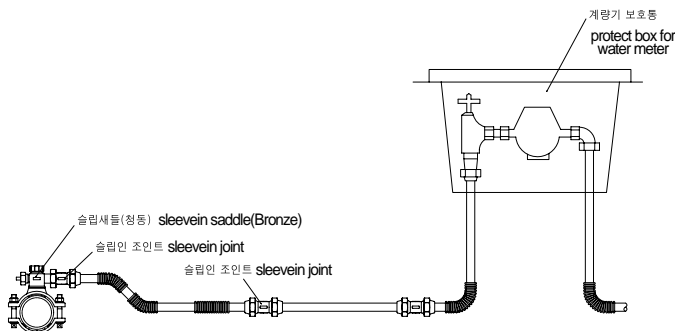
- It's made of stainless steel which doesn't cause water contamination by corrosion.
- The direction of the outlet can be flexibly adjusted to any direction.
- By reducing the number of junction, the cost of construction and related materials has been significantly slashed.
- It has excellent endurance due to the property of stainless steel having much lower risk of frozen/burst in winter and other superior mechanical properties to any other materials.
- Designed to be better protected from galvanic corrosion.

- 하이새들 적용파이프  
KSD 3595 일반 배관용 스테인리스 강관  
KS B 1508 주름마다 스테인리스 강관  
KSD 3401 HI-3P 내충격 수도관  
KSD 3401 경질 염화 비닐관(PVC관)  
KSD 5301 동관(COPPER TUBE)  
KSD 3576 배관용 스테인리스 강관

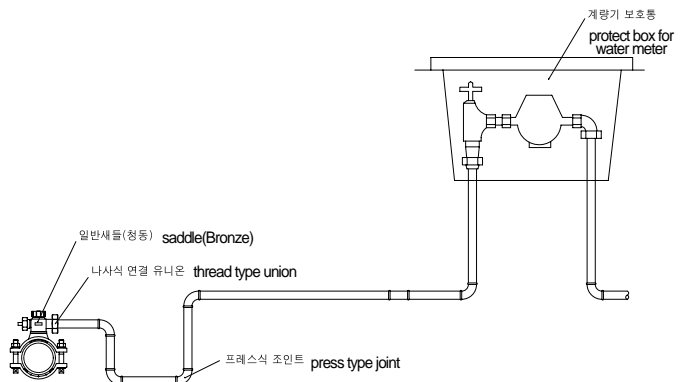
- Pipe using High Saddle  
KSD 3595 Stainless Pipe for normal Pipe  
KSB 1508 Stainless Steel Flexible Pipe  
KSD 3401 HI-3P Impact Resistant Water Pipe  
KSD 3401 Unplasticized PVC Pipe  
KSD 5301 Copper Pipe  
KSD 3576 Stainless Steel Pipe



### 2. 슬립새들 및 슬립인 조인트 배관(예) View of Pipe Work with Sleevein(bronze) saddle and Sleevein Joint



### 3. 청동새들 및 프레스식 조인트 배관(예) View of Pipe Work with Bronze saddle and press type fitting

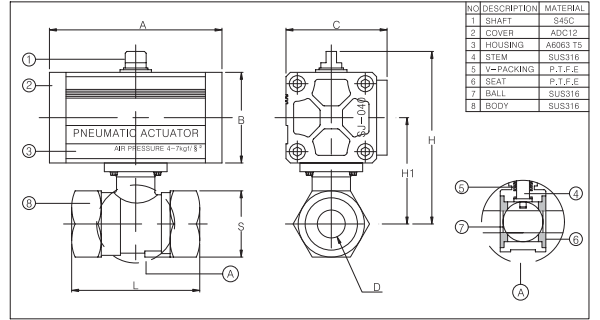


# Pneumatic Actuator Ball Valve 자동 볼밸브

**FIG 3 SCREW TYPE 1-PIECE BALL VALVE**



ACTUATOR : DOUBLE ACTING  
 BODY PRESS : MAX 10kgf/㎝<sup>2</sup>  
 TEMP : MAX 80℃ (P.T.F.E)  
 AIR PRESSURE : 4~7kgf/㎝<sup>2</sup>



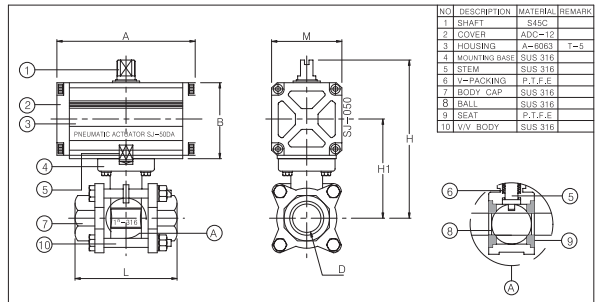
VALVE SIZE		ACTUATOR	A	B	C	D	L	S	H	H1
1/2"	15A	SJ-40DA	99	52	58	9.2	50	25	52.5	90.5
3/4"	20A	SJ-40DA	99	52	58	12.5	60	32	54.5	92.5
1"	25A	SJ-40DA	99	52	58	16	73.5	38	59	97
1 1/4"	32A	SJ-50DA	122	67	62	20	78	49	77.5	129.5
1 1/2"	40A	SJ-50DA	122	67	62	24.5	90	53	82.5	134.5
2"	50A	SJ-50DA	122	67	62	32	100	65	89	141

UNIT:mm

**FIG 4 SCREW TYPE 3-PIECE BALL VALVE**



ACTUATOR : DOUBLE ACTING  
 BODY PRESS : MAX 10kgf/㎝<sup>2</sup>  
 TEMP : MAX 100℃ (P.T.F.E)  
 MAX 180℃ (CARBON TEFLON)  
 AIR PRESSURE : 4~7kgf/㎝<sup>2</sup>



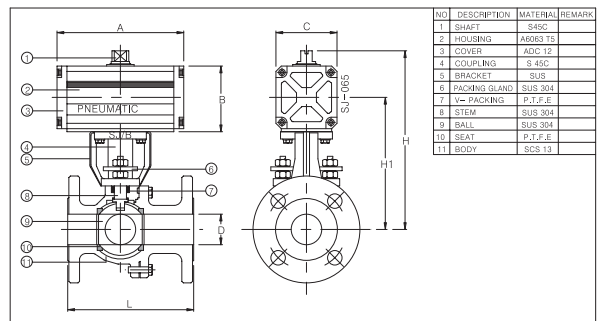
VALVE SIZE		ACTUATOR	A	B	M	D	L	H1	H
3/8"	10	SJ-50DA	122	67	62	10	60	71	123
1/2"	1	SJ-50DA	122	67	62	15	74	74.5	126.5
3/4"	20	SJ-50DA	122	67	62	20	80	76.5	128.5
1"	25	SJ-50DA	122	67	62	25	90	87.5	139.5
1 1/4"	32	SJ-65DA	166	86	80	32	110	106	167
1 1/2"	40	SJ-65DA	166	86	80	40	123	113.5	174.5
2"	50	SJ-65DA	166	86	80	50	139.5	123	180

UNIT:mm

**FIG 5 DOUBLE ACTING FLANGE BALL VALVE**



ACCESSORIES  
 SV : SOLENOID VALVE  
 FR : AIR SET  
 LS : LIMIT SWITCH BOX



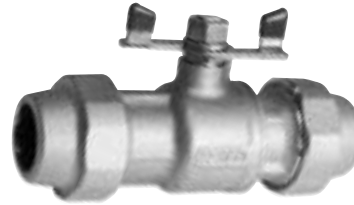
VALVE SIZE		ACTUATOR	A	B	C	D	L(10k)	L(20k)	H	H1
1/2"	15	SJ-50DA	122	67	62	15	108	140	138	190
3/4"	20	SJ-50DA	122	67	62	20	117	152	143	195
1"	25	SJ-50DA	122	67	62	25	127	165	149	201
1 1/4"	32	SJ-65DA	166	86	80	32	140	178	172	233
1 1/2"	40	SJ-65DA	166	86	80	40	165	190	184	245
2"	50	SJ-65DA	166	86	80	50	178	216	195	256
2 1/2"	65	SJ-80DA	230	108	100	65	190	241	218	290
3"	80	SJ-80DA	230	108	100	80	203	283	240	312
4"	100	SJ-100DA	290	129	120	100	229	305	265	346

UNIT:mm

# Sleevein-joint / N.S-joint

# 슬립인 / N.S 조인트

**FIG 6 Sleevein-joint & Ball Valve**



1. 지반침하, 중차량통과하중, 지진(진동), 옥 내외 배관의 수격압 및 관의 팽창과 응력 반복 등에 대응하도록 관의 축방향 신축과 횡방향 굽힘을 흡수하는 구조(신축가동성)
2. 시공이 간단 단순하며 사후 관리가 용이하고 재사용이 가능하여 아주 경제적
3. 여러가지 관종과 연결시 화기(불)나 압착용 유압공구 및 나사가공이 필요 없어 기존배관을 스테인리스 강관으로 리모델링시 아주 편리
4. 동결에 강하고 해빙이 쉬우며 도막이나 피복이 떨어져 녹발생이 없고 배관용 스테인리스 강관(KSD 3576)에도 사용이 가능하여 일반 산업 플랜트배관에 편리
5. 대형건물이나 유통점처럼 유동 인구가 많은 공공건물 및 시설의 사후관리시 재해예방을 위해 화기(불)나 용접기가 없이 관리가 편리
6. 상수도협회의 상수도시설기준 제1장 5.4 내진성자재 및 조인트의 선택 규정에 적합한 신축성 조인트
7. 일본의 수도시설설계지침에 일반 배관용 스테인리스 강관의 배관 이음쇠로 지정되어 있는 유일한 조인트

1. Having the structure absorbing expansion in the axis direction and bend in the crosswise to cope with subsidence of ground, weight of heavy vehicles passing by, earthquake (vibration), water hammer in indoor and outdoor pipes and the repeat of expansion and contraction of pipes, and etc. (Expansion Movability)
2. Simple to construct, easy to maintain, reusable and very economical.
3. There is no flame (fire) and no need to use pressure compression tools and screw processing when connecting different types of pipes. So it's good for remodeling existing pipes into stainless steel pipes.
4. Not easily frozen, easy to thaw and barely corroded, and so good for using in KSD 3576 Stainless Steel Pipes and general industrial plant pipelines.
5. Good for the pipe systems in multistory buildings or facilities having a huge floating population since it's easy to maintain and prevent disasters including fire.
6. Meeting the elastic joint requirements as defined in the provision of paragraph 5.4 of Article 1 of 'Water-supply Facilities Standards' provided by Korea Water and Wastewater works Association.
7. The only joint designated as the joint for use on stainless steel pipes for normal piping in the Design Guideline of Japan Water Supply Facilities.

**FIG 7 N.S-joint & Ball Valve**



1. 사용압력 15kgf/cm<sup>2</sup> (수압)이하의 배관에 사용
2. 파이프에 이탈방지 홈을 가공하지 않아도 된다.
3. 협소한 공간 및 고층이나 사전에 준비되지 않은 긴급누수복구 공사에 편리
4. 신설배관 시공시 기존파이프와의 연결을 여러 종류의 파이프와 간단히 연결가능
5. 건축 리모델링의 배관재로 최고의 기능과 효력을 발휘
6. 화재의 위험이 있는 대형상가 및 백화점, 공장배관에 화기없이 배관시공이 간단하고 사후관리에 아주 편리
7. 특수고무팩킹으로 냉 난방 배관에 편리
8. 파이프를 삽입하고 너트의 조임으로 체결이 완료되므로 시공성이 항상
9. 조임와셔에 돌기부를 형성하므로 기존 압축식 조인트보다 파이프 이탈 저지력이 강함

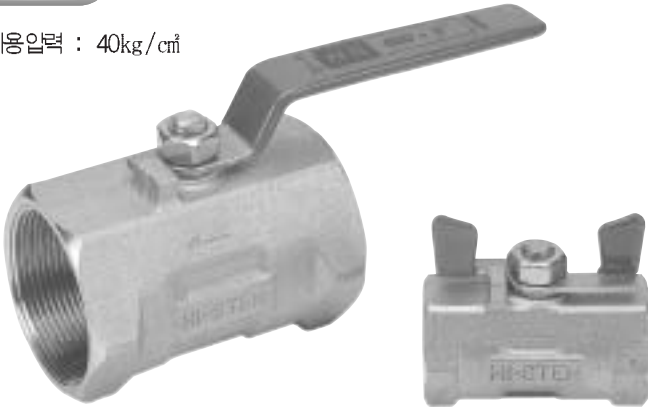
1. For use on pipes to be used with no more than 15kgf/cm<sup>2</sup> of Hydraulic Pressure.
2. No need to make grooves on pipe for preventing separation from the pipe.
3. Convenient for using in unexpected pipe-leakage repair works of narrow space or multistory buildings.
4. Simply connecting existing pipes with a variety of different types of pipes.
5. A 'key' component for pipe system remodeling.
6. Good for the pipe systems in multistory buildings or facilities having a huge floating population since it's easy to maintain and prevent disasters including fire.
7. Convenient for using in cooling/heating pipe system due to its specific rubber packing.
8. The connecting work is simply completed with the process of inserting pipe and tightening nut.
9. Grooves on tightening washer make the connection with pipes much tighter than any other prior compression joints.

# One - Piece Ball Valve

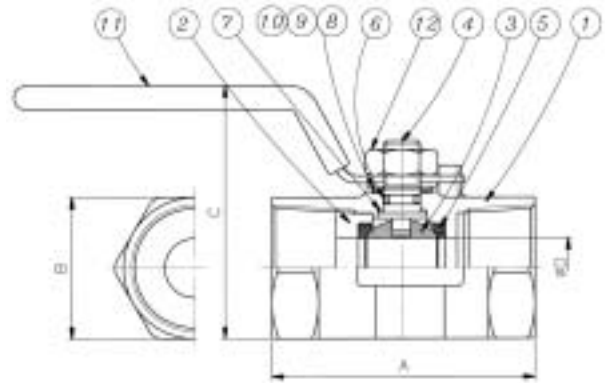
1-피스 볼밸브

FIG 8

• 사용압력 : 40kg/cm<sup>2</sup>



### Description



### 장점 및 특성 (An Advantage and a Distinction)

▶ 1-PIECE의 최대 단점인 스템 부위의 기밀유지가 O-RING 삽입으로 인하여 너트의 조임과는 관계없이 완벽하게 기밀유지  
No-leakage stem part by the insert of O-ring regardless of tightening nuts.

Usually a leakage from stem part is the largest defect in one-piece Ball valves.

▶ 나사부 길이를 충분히 길게함으로써 시공시 파이프 및 니플 끝 부위가 부딪힘이 없도록 제작.

A thread part have a perfect/sufficient length. So there is no touch on end between a nipple and a pipe.

▶ 스템 및 나사를 CNC가공함으로써 전면이バリ(BURR)가 없으며 배관시 진직도가 완벽하며 시공이 용이함.

There is no burr on end by CNC machining for steam and thread. Easily installed and perfect straight angle.

▶ BODY 재질이 중국산이 아닌 국산품.

▶ 100% 전수량 기밀 테스트 후 공장 출고.

Our products being delivered with 100% leakage test.

▶ 특수 개발한 코팅제를 사용하여 핸들 커버가 벗겨지지 않음.

Handle Cover won't move out, using a specially developed coating material

▶ 볼 내경(∅D)이 크게 설계되어 있다.

### Dimensions(mm)

SIZE		A	B	C	∅ D
8 <sup>A</sup>	1/4 <sup>B</sup>	39	17	42	5
10 <sup>A</sup>	3/8 <sup>B</sup>	44	21	47	7
15 <sup>A</sup>	1/2 <sup>B</sup>	57	25	52	9.2
20 <sup>A</sup>	3/4 <sup>B</sup>	59	32	58	12.5
25 <sup>A</sup>	1 <sup>B</sup>	71	38	66	16
32 <sup>A</sup>	1 1/4 <sup>B</sup>	78	49	76	20
40 <sup>A</sup>	1 1/2 <sup>B</sup>	83	53	81	24.5
50 <sup>A</sup>	2 <sup>B</sup>	100	65	93	32

NO	DESCRIPTION	MATERIAL	Q' TY
1	BODY	SCS13, CF8	1
2	CAP	SCS13, CF8	1
3	BALL	SCS13, CF8	1
4	STEM	SUS304	1
5	SEAT-RING	TEFLON	2
6	O-RING	N.B.R	1
7	STEM SEAL	GRAPHITE	1
8	GLAND PACKING	GRAPHITE	1
9	GLAND	SUS304	1
10	CON' WASHER	SUS304	1
11	HANDLE	SUS304	1
12	NUT	SUS304	1

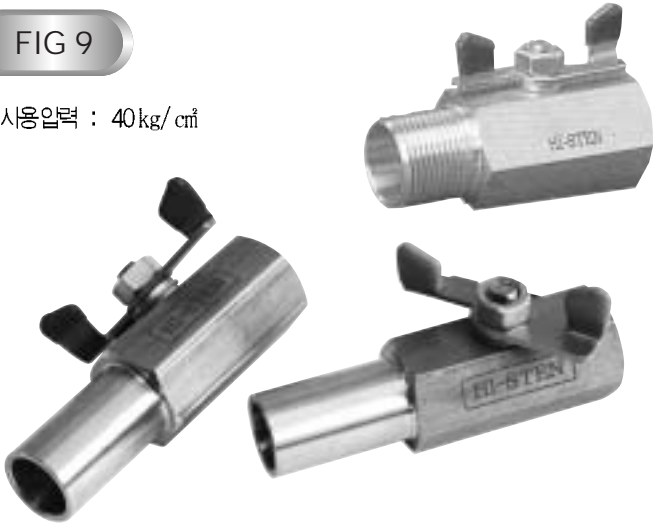


# One - Piece Hex Ball Valve

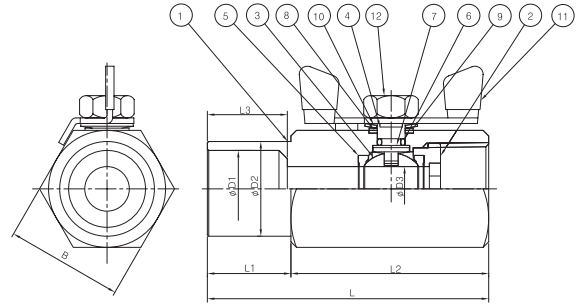
# 1-피스 헥스 볼밸브

FIG 9

• 사용압력 : 40kg/ cm<sup>2</sup>



Description



NO	DESCRIPTION	MATERIAL	QTY
1	BODY	SCS13, CF8	1
2	CAP	SCS13, CF8	1
3	BALL	SCS13, CF8	1
4	STEM	SUS304	1
5	SEAT-RING	TEFLON	2
6	O-RING	N.B.R	1
7	STEM SEAL	GRAPHITE	1
8	GLAND PACKING	GRAPHITE	1
9	GLAND	SUS304	1
10	CON' WASHER	SUS304	1
11	HANDLE	SUS304	1
12	NUT	SUS304	1

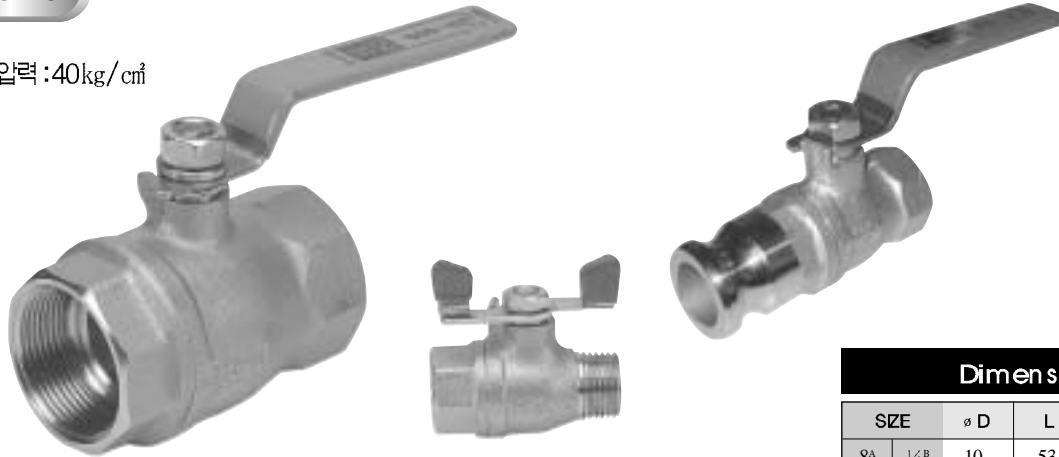
		Dimensions(mm)							(용접식 치수임)
SIZE	MARK	ø D1	ø D2	ø D3	L	L1	L2	L3	B
15 <sup>A</sup>		ø 17.1	ø 21.7	ø 9.2	93	36.5	56.5	24	27
20 <sup>A</sup>		ø 22.6	ø 27.2	ø 12.5	93	34	59	21	32
25 <sup>A</sup>		ø 29.6	ø 34	ø 16	108	37	71	25	38



# Two - Piece Ball Valve Type 2-피스 볼밸브

FIG 10

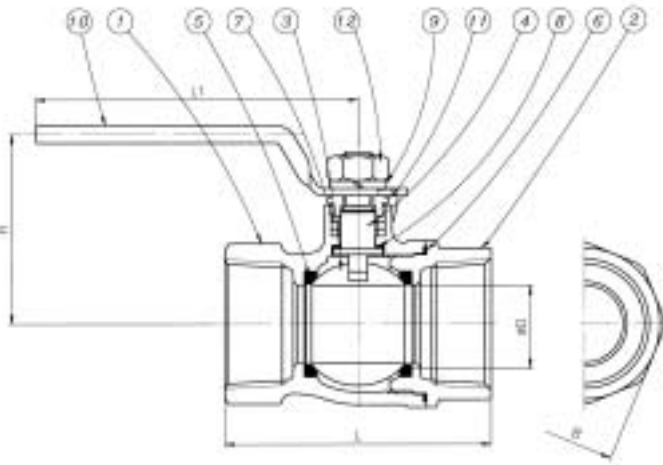
•사용압력 : 40kg/cm<sup>2</sup>



Dimensions(mm)

SIZE	ø D	L	L1	B	H	
8 <sup>A</sup>	1/4 <sup>B</sup>	10	53	86	21.5	44
10 <sup>A</sup>	3/8 <sup>B</sup>	10	53	86	21.5	44
15 <sup>A</sup>	1/2 <sup>B</sup>	10	58	86	26	46
20 <sup>A</sup>	3/4 <sup>B</sup>	15	64	101	31	52
25 <sup>A</sup>	1 <sup>B</sup>	20	79	101	40	58
32 <sup>A</sup>	1 1/4 <sup>B</sup>	25	86	101	49	63
40 <sup>A</sup>	1 1/2 <sup>B</sup>	32	97	147	55	68
50 <sup>A</sup>	2 <sup>B</sup>	40	113	147	69	78
65 <sup>A</sup>	2 1/2 <sup>B</sup>	50	153	189	86	99
80 <sup>A</sup>	3 <sup>B</sup>	65	170	189	100	109

Description



NO	DESCRIPTION	MATERIAL	Q'TY
1	BODY	SCS13, CF8	1
2	BONNET	SCS13, CF8	1
3	BALL	SCS13, CF8	1
4	STEM	SUS304	1
5	SEAT-RING	TEFLON	2
6	WASHER	TEFLON	1
7	GLAND PACKING	TEFLON	1SET
8	STEM SEAL	TEFLON	1
9	SPRING WASHER	SUS304	1
10	HANDLE	SUS304	1
11	LOCK NUT	SUS304	1
12	HEX NUT	SUS304	1



# Three - Piece Ball Valve Type

# 3-피스 볼밸브

FIG 11

•사용압력 : 70kg/cm<sup>2</sup>

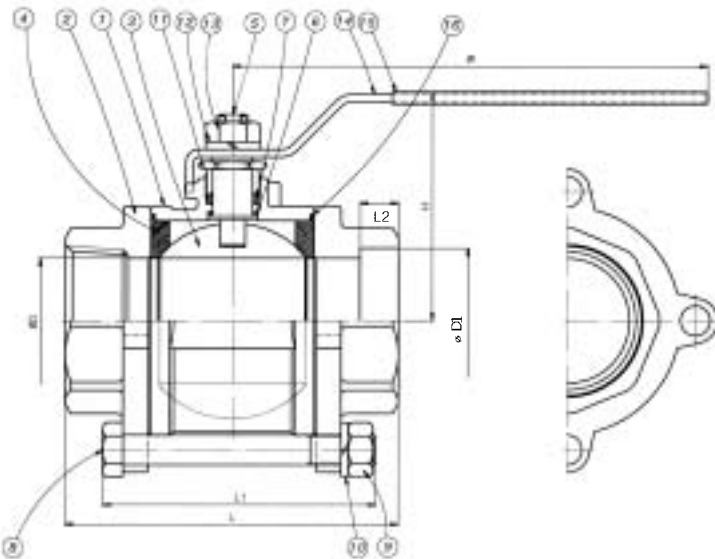


Dimensions (mm)

(용접식 치수임)

SIZE	ø D	L	L1	H	W	ø D1	L2	kg/SET	
15 <sup>A</sup>	1/2 <sup>B</sup>	16	66	59	50	130	21.8	10	0.62
20 <sup>A</sup>	3/4 <sup>B</sup>	19.7	78	67	58	130	27.4	13	0.76
25 <sup>A</sup>	1 <sup>B</sup>	24.5	86	73	73	153	34.1	13	1.22
32 <sup>A</sup>	1 1/4 <sup>B</sup>	32	103	88	78	153	42.7	13	1.68
40 <sup>A</sup>	1 1/2 <sup>B</sup>	40.5	120	100	82	182	49	13	2.56
50 <sup>A</sup>	2 <sup>B</sup>	50	135	117	91	182	61	16	3.62

## Description



NO	DESCRIPTION	MATERIAL	QTY
1	BODY	SCS13, CF8	1
2	BODY CAP	SCS13, CF8	2
3	BALL	SCS13, CF8	1
4	SEAT-RING	PTFE	2
5	STEM	SUS304	1
6	THRUST WASHER	PTFE	1
7	STEM PACKING	PTFE	1
8	HEX BOLT	SUS304	4
9	HEX NUT	SUS304	4
10	SPRING WASHER	SUS304	4
11	GLAND NUT	SUS304	1
12	SPRING WASHER	SUS304	1
13	HEX NUT	SUS304	1
14	HANDLE	SUS304	1
15	HANDLE COVER	PVC	1
16	JOINT GASKET	PTFE	2

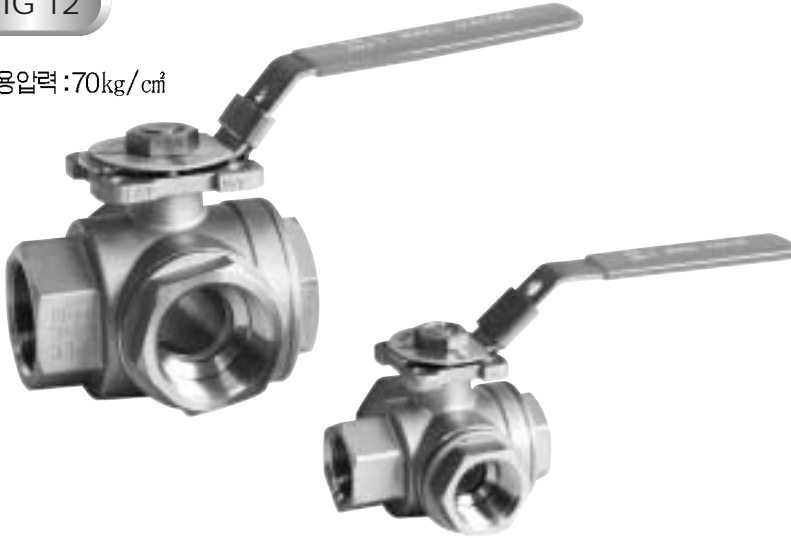


# 3-Way Ball Valve

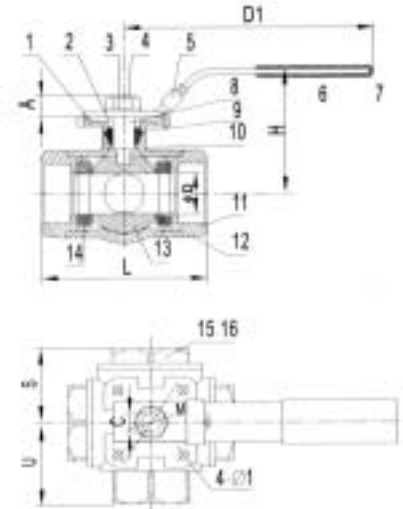
3-웨이 볼밸브 타입

FIG 12

•사용압력 : 70kg/cm<sup>2</sup>



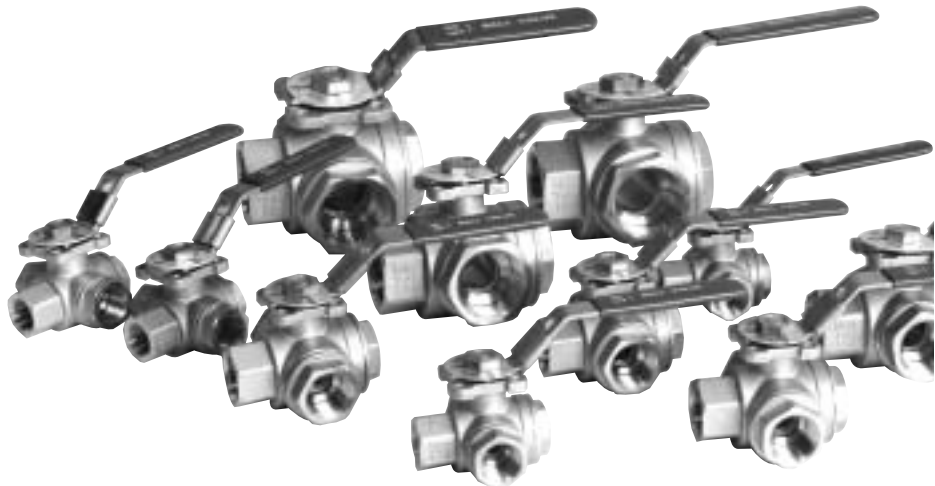
### Description



### Dimensions(mm)

ITEM SIZE	D	L	C	H	D1	ø	ø1	A	S	U	M
1/2A16	12.7	75	9	68	116	42	6	10	33	37.5	M12 × 1.5
3/4A	16	85	9	73	116	42	6	10	39.5	42.5	M12 × 1.5
1A	20	100	11	83	152	50	7	12	50	52	M14 × 1.5
11/4A	25	115	11	89	152	50	7	12	50.5	57.5	M14 × 1.5
11/2A	32	124	14	97	187	70	9	16	57	62	M18 × 1.5
2A	38	147	14	106	187	70	9	16	65	75	M18 × 1.5

ITEM	DESIGNATION	MATERIAL
1	BODY	CF8/CF8M
2	GLAND NUT	304
3	FLOW INDICATION PLATE	ALUMINUM
4	STEM NUT	304
5	LOCKING	304
6	HANDLE	304
7	PLASTIC COVER	PLASTIC
8	STEM	304
9	STEM PACKING	PTFE
10	STEM SEAL	PTFE
11	CAP	CF8/CF8M
12	BODY SEAL	PTFE
13	BALL	CF8M
14	BALL SEAL	RPTFE
15	BLIND CAP	CF8M
16	BLIND CAP SEAL	PTFE

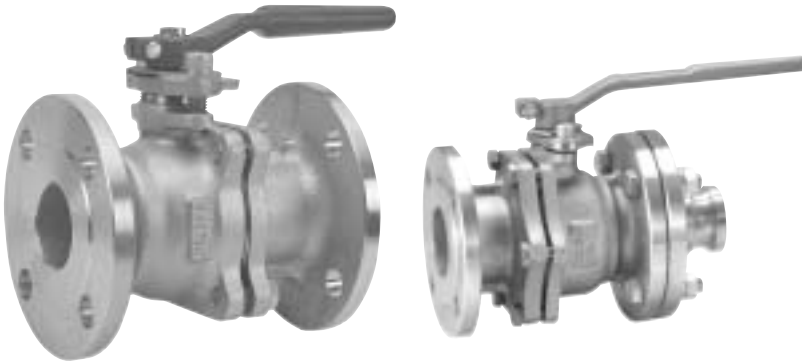


# Flange Ball Valve

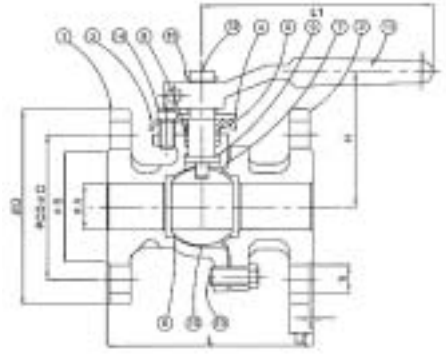
## 후렌지 볼밸브

FIG 13

•사용압력 : 10kg/cm<sup>2</sup>



### Description



NO	DESCRIPTION	MATERIAL	QTY
1	BODY	SCS13	1
2	BONNET	SCS13	1
3	GRAND	SUS304	1
4	STOPPER	SUS304	1
5	SPACE	SUS304	1
6	SEAT RING	TEFLON	2
7	GASKET	TEFLON	1
8	PACKING	TEFLON	1SET
9	STEM SEAL	TEFLON	1
10	BALL	SUS304	1
11	HANDLE	FCD45	1
12	STEM	SUS304	1
13	BONNET BOLT	SUS304	4(6)
14	GRAND BOLT	SUS304	2
15	SNAP RING	SUS304	2

### Dimensions(mm)

SIZE		ø A	ø B	PCD ø C	ø D	L	L1	L2	T	H	h
15 <sup>A</sup>	1/2 <sup>B</sup>	15	51	70	95	108	140	12	1	74	4×15
20 <sup>A</sup>	3/4 <sup>B</sup>	20	56	75	100	117	140	14	1	78	4×15
25 <sup>A</sup>	1 <sup>B</sup>	25	67	90	125	127	158	14	1	88	4×19
32 <sup>A</sup>	1 1/4 <sup>B</sup>	32	76	100	135	140	158	16	2	94	4×19
40 <sup>A</sup>	1 1/2 <sup>B</sup>	40	81	105	140	165	240	18	2	112	4×19
50 <sup>A</sup>	2 <sup>B</sup>	50	96	120	155	178	240	18	2	120	4×19
65 <sup>A</sup>	2 1/2 <sup>B</sup>	65	116	140	175	190	240	18	2	130	4×19
80 <sup>A</sup>	3 <sup>B</sup>	80	126	150	185	203	330	20	2	150	8×19
100 <sup>A</sup>	4 <sup>B</sup>	100	151	175	210	229	330	20	2	168	8×19

# Gate Valve

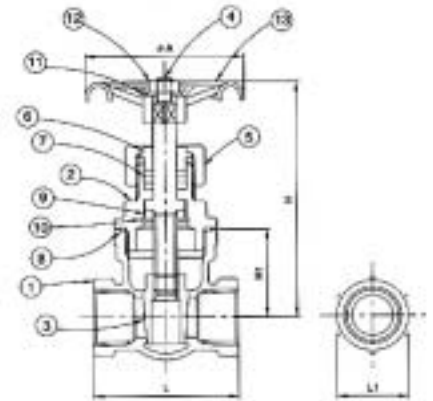
# 게이트 밸브

FIG 14

•사용압력 : 15kg/cm<sup>2</sup>



Description



NO	DESCRIPTION	MATERIAL	Q' TY
1	BODY	SCS13	1
2	CAP	SCS13	1
3	DISC	SCS13	1
4	STEM	SUS304	1
5	GRAN NUT	SUS304	1
6	GRAND	SUS304	1
7	GRAND PACKING	TEFLON	1
8	GASKET	TEFLON	1
9	COLLER	SUS304	1
10	SNAP RING	SUS304	1
11	WASHER	SUS304	1
12	HEX NUT	SUS304	1
13	HANDLE	SS41	

Dimensions(mm)						
SIZE		ø A	L	L1	H1	H
15 <sup>A</sup>	1/2 <sup>B</sup>	62	55	27	34	92
20 <sup>A</sup>	3/4 <sup>B</sup>	62	60	33	39	97
25 <sup>A</sup>	1 <sup>B</sup>	78	70	41	44.5	108
32 <sup>A</sup>	1 1/4 <sup>B</sup>	78	76	51	55	124
40 <sup>A</sup>	1 1/2 <sup>B</sup>	100	81	56	69.5	136
50 <sup>A</sup>	2 <sup>B</sup>	100	95	69	84	162



# Glove Valve

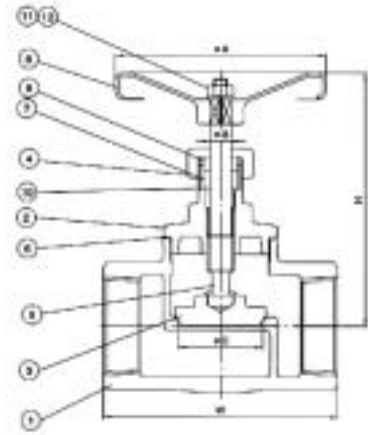
글로브 밸브

FIG 15

•사용압력 : 15kg/cm<sup>2</sup>



Description



NO	DESCRIPTION	MATERIAL	Q' TY
1	BODY	SCS13	1
2	CAP	SCS13	1
3	DISC	SUS304	1
4	GRAN NUT	SUS304	1
5	STEM	SUS304	1
6	GASKET	TEFLON	1
7	GRAND PACKING	TEFLON	1
8	HANDLE	FC20	1
9	GRAND	SUS304	1
10	WASHER	SUS304	1
11	HEX NUT	SUS304	1
12	WASHER	SUS304	1

Dimensions(mm)

SIZE		ø A	ø B	ø C	W	H
15 <sup>A</sup>	1/2 <sup>B</sup>	62	9	15	68	96
20 <sup>A</sup>	3/4 <sup>B</sup>	78	9	20	81	100
25 <sup>A</sup>	1 <sup>B</sup>	78	9	25	90	110
32 <sup>A</sup>	1 1/4 <sup>B</sup>	100	12.5	32	103	134
40 <sup>A</sup>	1 1/2 <sup>B</sup>	100	12.5	40	120	138
50 <sup>A</sup>	2 <sup>B</sup>	100	12.5	50	140	153



# Swing Check Valve

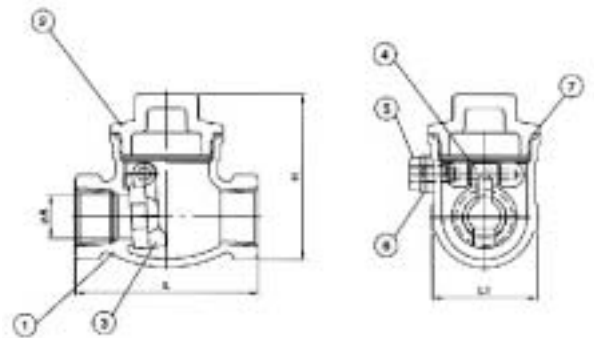
스윙체크밸브

FIG 16

•사용압력 : 15kg/cm<sup>2</sup>



## Description



NO	DESCRIPTION	MATERIAL	Q' TY
1	BODY	SCS13	1
2	CAP	SCS13	1
3	DISC	SCS13	1
4	PIN	SUS304	1
5	HEX BOLT	SUS304	1
6	PACKING	TEFLON	1
7	GASKET	TEFLON	1

## Dimensions(mm)

SIZE		ø A	L	L1	H
15 <sup>A</sup>	1/2 <sup>B</sup>	15	65	37	59
20 <sup>A</sup>	3/4 <sup>B</sup>	20	80	43	72
25 <sup>A</sup>	1 <sup>B</sup>	25	90	50	81.5
32 <sup>A</sup>	1 1/4 <sup>B</sup>	32	105	60	93
40 <sup>A</sup>	1 1/2 <sup>B</sup>	40	120	69	106
50 <sup>A</sup>	2 <sup>B</sup>	50	140	81	118



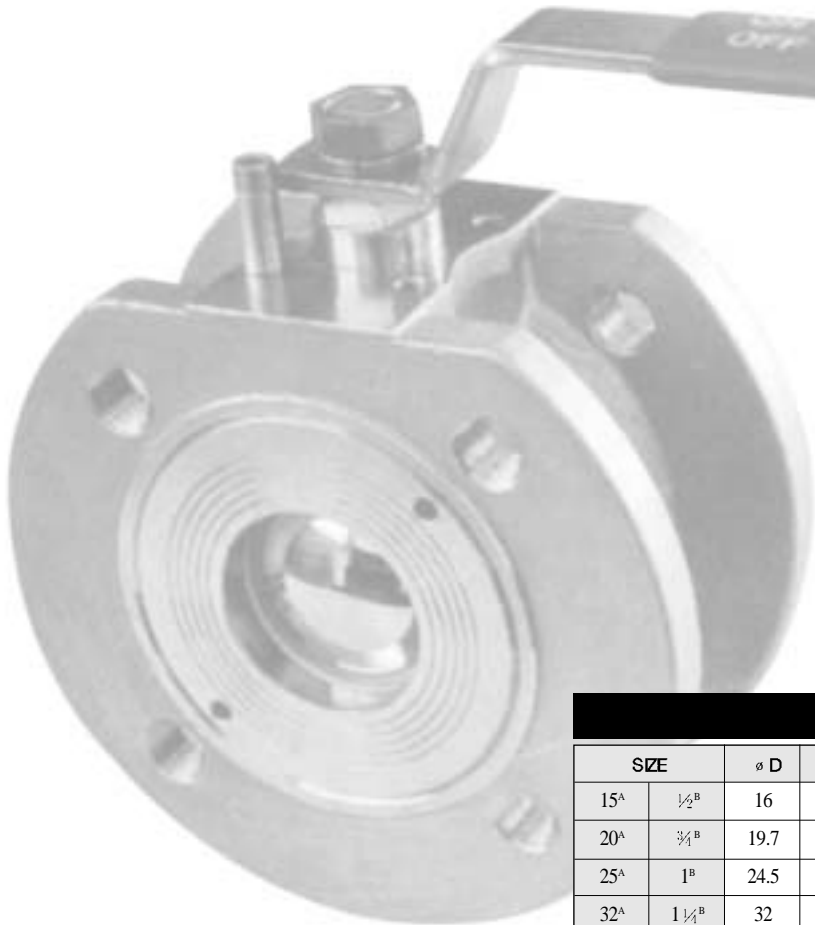


# One - Piece Flange Ball Valve

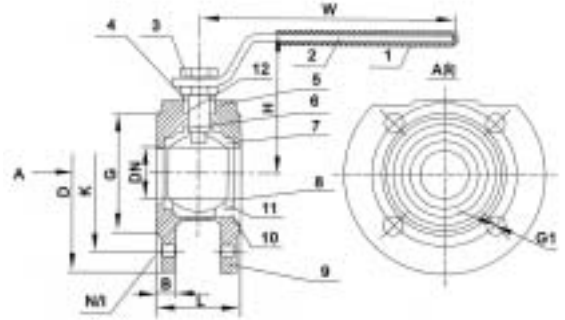
## 1-피스 후렌지 볼밸브

FIG 17

•사용압력 : 15kg/cm<sup>2</sup>



### Description



NO	DESCRIPTION	MATERIAL	Q' TY
1	BODY	SCS13, CF8	1
2	BODY CAP	SCS13, CF8	2
3	BALL	SCS13, CF8	1
4	SEAT-RING	PTFE	2
5	STEM	SUS304	1
6	THRUST WASHER	PTFE	1
7	STEM PACKING	PTFE	1
8	HEX BOLT	SUS304	4
9	HEX NUT	SUS304	4
10	SPRING WASHER	SUS304	4
11	GLAND NUT	SUS304	1
12	SPRING WASHER	SUS304	1
13	HEX NUT	SUS304	1
14	HANDLE	SUS304	1
15	HANDLE COVER	PVC	1
16	JOINT GASKET	PTFE	2

### Dimensions(mm)

(용접식 치수임)

SIZE	ø D	L	L1	H	W	ø D1	L2	kg/SET	
15 <sup>A</sup>	1/2 <sup>B</sup>	16	66	59	50	130	21.8	10	0.62
20 <sup>A</sup>	3/4 <sup>B</sup>	19.7	78	67	58	130	27.4	13	0.76
25 <sup>A</sup>	1 <sup>B</sup>	24.5	86	73	73	153	34.1	13	1.22
32 <sup>A</sup>	1 1/4 <sup>B</sup>	32	103	88	78	153	42.7	13	1.68
40 <sup>A</sup>	1 1/2 <sup>B</sup>	40.5	120	100	82	182	49	13	2.56
50 <sup>A</sup>	2 <sup>B</sup>	50	135	117	91	182	61	16	3.62

# Sanitary Ball Valve

## 사니타리 볼밸브

FIG 18 사니타리 밸브(3PCS 위생용 밸브)  
Sanitary Ball Valve 3PCS

•사용압력: 25kg/cm<sup>2</sup>



FIG 19 사니타리 밸브(2PCS 위생용 밸브)  
Sanitary Ball Valve 2PCS

•사용압력: 25kg/cm<sup>2</sup>



- 용도 : 제약, 식품, 사우나, 목욕탕, 샤워실, 고급빌라 및 주택 등 급수시설 및 화려하고 고급스러운 외관이 필요한 곳
- 특징 : 외관이 화려하며 고급스럽고 아름답다
- 종류 : 엘보, 티, 유니온, 밸브 등 약 300종류

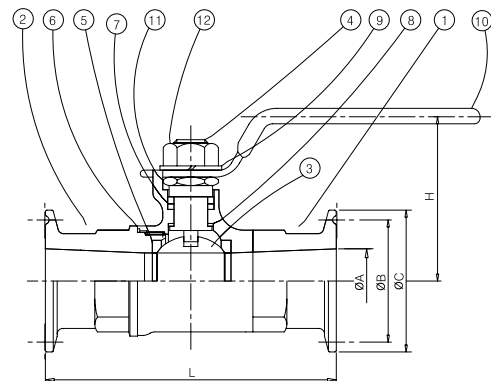
- Used for food and drinking facility
- Item Elbow, Tee, Union, Valve and others over 300 items.

### Dimensions(mm)

NO	DESCRIPTION	MATERIAL	Q' TY
1	BODY	SCS13, CF8	1
2	BONNET	SCS13, CF8	1
3	BALL	SCS13, CF8	1
4	STEM	SUS304	1
5	SEAT-RING	TEFLON	2
6	WASHER	TEFLON	1
7	GLAND PACKING	TEFLON	1SET
8	STEM SEAL	TEFLON	1
9	SPRING WASHER	SUS304	1
10	HANDLE	SUS304	1
11	LOCK NUT	SUS304	1
12	HEX NUT	SUS304	1

ITEM SIZE	ø A	ø B	ø C	H	L
1S	23	43.5	50.5	59	105
1.5S	35.7	43.5	50.5	68	134
2S	47.8	56.5	64	80	156

### Description



# Strainer

## 스트레너

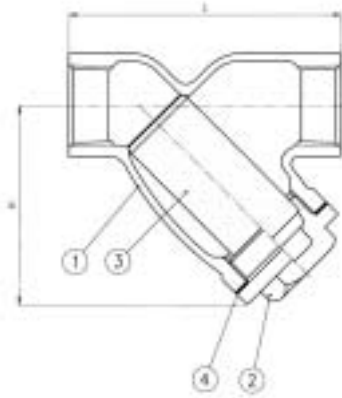
FIG 20

### 스트레너 밸브

•사용압력 : 25kg/cm<sup>2</sup>



### Description



### Dimensions(mm)

SIZE		L	H
15 <sup>A</sup>	1/2 <sup>B</sup>	80	55
20 <sup>A</sup>	3/4 <sup>B</sup>	95	70
25 <sup>A</sup>	1 <sup>B</sup>	110	81
32 <sup>A</sup>	1 1/4 <sup>B</sup>	135	101
40 <sup>A</sup>	1 1/2 <sup>B</sup>	160	117
50 <sup>A</sup>	2 <sup>B</sup>	185	140

NO	DESCRIPTION	MATERIAL	Q' TY
1	BODY	SCS13	1
2	CAP	SCS13	1
3	MESH	SUS304	1
4	SEAL	TEFLON	1

# Threaded Fitting Type

나사식 관이음쇠

• 사용압력 : 25kg/cm<sup>2</sup>

FIG 21



90° ELBOW		SIZE		A	SIZE		A
	8 <sup>A</sup>	1/4 <sup>B</sup>	23	32 <sup>A</sup>	1 1/4 <sup>B</sup>	43	
	10 <sup>A</sup>	3/8 <sup>B</sup>	23	40 <sup>A</sup>	1 1/2 <sup>B</sup>	47.5	
	15 <sup>A</sup>	1/2 <sup>B</sup>	27	50 <sup>A</sup>	2 <sup>H</sup>	55.5	
	20 <sup>A</sup>	3/4 <sup>B</sup>	32	65 <sup>A</sup>	2 1/2 <sup>B</sup>	69	
	25 <sup>A</sup>	1 <sup>H</sup>	36.5	80 <sup>A</sup>	3 <sup>B</sup>	78	

FIG 22



TEE		SIZE		A	SIZE		A
	8 <sup>A</sup>	1/4 <sup>B</sup>	23	32 <sup>A</sup>	1 1/4 <sup>B</sup>	43	
	10 <sup>A</sup>	3/8 <sup>B</sup>	23	40 <sup>A</sup>	1 1/2 <sup>B</sup>	47.5	
	15 <sup>A</sup>	1/2 <sup>B</sup>	27	50 <sup>A</sup>	2 <sup>B</sup>	55.5	
	20 <sup>A</sup>	3/4 <sup>B</sup>	32	65 <sup>A</sup>	2 1/2 <sup>B</sup>	69	
	25 <sup>A</sup>	1 <sup>B</sup>	36.5	80 <sup>A</sup>	3 <sup>B</sup>	78	

FIG 23



UNION		SIZE		A	SIZE		A
	8 <sup>A</sup>	1/4 <sup>B</sup>	37	32 <sup>A</sup>	1 1/4 <sup>B</sup>	59.5	
	10 <sup>A</sup>	3/8 <sup>B</sup>	37	40 <sup>A</sup>	1 1/2 <sup>B</sup>	65.5	
	15 <sup>A</sup>	1/2 <sup>B</sup>	40.5	50 <sup>A</sup>	2 <sup>B</sup>	73	
	20 <sup>A</sup>	3/4 <sup>B</sup>	48	65 <sup>A</sup>	2 1/2 <sup>B</sup>	79.5	
	25 <sup>A</sup>	1 <sup>B</sup>	53.5	80 <sup>A</sup>	3 <sup>B</sup>	88.5	

FIG 24

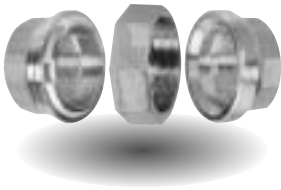


MF UNION		SIZE		A	B	∅C
	15 <sup>A</sup>	1/2 <sup>B</sup>	56.5	16	14	
	20 <sup>A</sup>	3/4 <sup>B</sup>	66	18	19	
	25 <sup>A</sup>	1 <sup>B</sup>	73.5	20	24	
	32 <sup>A</sup>	1 1/4 <sup>B</sup>	81.5	22	32	
	40 <sup>A</sup>	1 1/2 <sup>B</sup>	88.5	23	38	
	50 <sup>A</sup>	2 <sup>B</sup>	98	25	48	

# Threaded Fitting Type

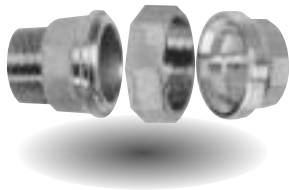
나사식 관이음쇠

FIG 25



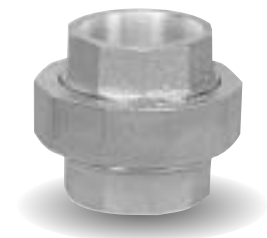
STEAM UNION			SIZE		A	SIZE		A
	15 <sup>A</sup>	1/2 <sup>B</sup>			40.5	32 <sup>A</sup>	1 1/4 <sup>B</sup>	59.5
	20 <sup>A</sup>	3/4 <sup>B</sup>			48	40 <sup>A</sup>	1 1/2 <sup>B</sup>	65.5
	25 <sup>A</sup>	1 <sup>B</sup>			53.5	50 <sup>A</sup>	2 <sup>B</sup>	73

FIG 26



STEAM MF UNION			SIZE		A	B	∅C
	15 <sup>A</sup>	1/2 <sup>B</sup>			56.5	16	14
	20 <sup>A</sup>	3/4 <sup>B</sup>			66	18	19
	25 <sup>A</sup>	1 <sup>B</sup>			73.5	20	24
	32 <sup>A</sup>	1 1/4 <sup>B</sup>			81.5	22	32
	40 <sup>A</sup>	1 1/2 <sup>B</sup>			88.5	23	38
	50 <sup>A</sup>	2 <sup>B</sup>			98	25	48

FIG 27



WELDING UNION					SIZE		A	∅B	C	
	8 <sup>A</sup>	1/4 <sup>B</sup>	37	14.3	6.5	32 <sup>A</sup>	1 1/4 <sup>B</sup>	59.5	43.2	13.5
	10 <sup>A</sup>	3/8 <sup>B</sup>	37	17.8	6.5	40 <sup>A</sup>	1 1/2 <sup>B</sup>	65.5	49.1	14
	15 <sup>A</sup>	1/2 <sup>B</sup>	40.5	22.2	8	50 <sup>A</sup>	2 <sup>B</sup>	73	61.1	15.5
	20 <sup>A</sup>	3/4 <sup>B</sup>	48	27.7	9	65 <sup>A</sup>	2 1/2 <sup>B</sup>	79.5	77.1	21
	25 <sup>A</sup>	1 <sup>B</sup>	53.5	34.2	11	80 <sup>A</sup>	3 <sup>B</sup>	88.5	90.0	22

FIG 28



45° ELBOW			SIZE		A	SIZE		A
	8 <sup>A</sup>	1/4 <sup>B</sup>			17	25 <sup>A</sup>	1 <sup>B</sup>	29
	10 <sup>A</sup>	3/8 <sup>B</sup>			19	32 <sup>A</sup>	1 1/4 <sup>B</sup>	34
	15 <sup>A</sup>	1/2 <sup>B</sup>			21	40 <sup>A</sup>	1 1/2 <sup>B</sup>	37
	20 <sup>A</sup>	3/4 <sup>B</sup>			25	50 <sup>A</sup>	2 <sup>B</sup>	42

# Threaded Fitting Type

나사식 관이음쇠

FIG 29



REDUCING ELBOW		SIZE		A	B	SIZE		A	B
	$\frac{1}{2}^B \times \frac{3}{8}^B$	25	25	$1\frac{1}{2}^B \times \frac{1}{2}^B$	35	42			
	$\frac{3}{4}^B \times \frac{3}{8}^B$	28	28	$1\frac{1}{2}^B \times \frac{3}{4}^B$	38	43			
	$\frac{3}{4}^B \times \frac{1}{2}^B$	29	30	$1\frac{1}{2}^B \times 1^B$	41	45			
	$1^B \times \frac{1}{2}^B$	32	33	$1\frac{1}{2}^B \times 1\frac{1}{4}^B$	45	48			
	$1^B \times \frac{3}{4}^B$	34	35	$2^B \times \frac{3}{4}^B$	41	49			
	$1\frac{1}{4}^B \times \frac{1}{2}^B$	34	38	$2^B \times 1^B$	44	51			
	$1\frac{1}{4}^B \times \frac{3}{4}^B$	38	40	$2^B \times 1\frac{1}{4}^B$	48	54			
	$1\frac{1}{4}^B \times 1^B$	40	42	$2^B \times 1\frac{1}{2}^B$	52	55			

FIG 30



MF ELBOW		SIZE		A	B	SIZE		A	B
	8 <sup>A</sup>	$\frac{1}{4}^B$	19	30	25 <sup>A</sup>	1 <sup>B</sup>	38	54	
	10 <sup>A</sup>	$\frac{3}{8}^B$	23	35	32 <sup>A</sup>	1 $\frac{1}{4}$ <sup>B</sup>	46	62	
	15 <sup>A</sup>	$\frac{1}{2}^B$	27	40	40 <sup>A</sup>	1 $\frac{1}{2}$ <sup>B</sup>	48	68	
	20 <sup>A</sup>	$\frac{3}{4}^B$	32	47	50 <sup>A</sup>	2 <sup>B</sup>	57	79	

FIG 31



CROSS TEE		SIZE		A	SIZE		A
	8 <sup>A</sup>	$\frac{1}{4}^B$	23	25 <sup>A</sup>	1 <sup>B</sup>	42	
	10 <sup>A</sup>	$\frac{3}{8}^B$	23	32 <sup>A</sup>	1 $\frac{1}{4}$ <sup>B</sup>	5	
	15 <sup>A</sup>	$\frac{1}{2}^B$	27	40 <sup>A</sup>	1 $\frac{1}{2}$ <sup>B</sup>	57	
	20 <sup>A</sup>	$\frac{3}{4}^B$	32	50 <sup>A</sup>	2 <sup>B</sup>	7	

FIG 32



REDUCING SOCKET		SIZE		A	SIZE		A
	$\frac{3}{8}^B \times \frac{1}{4}^B$	28	$1\frac{1}{4}^B \times 1^B$	48			
	$\frac{1}{2}^B \times \frac{1}{4}^B$	34	$1\frac{1}{2}^B \times \frac{1}{2}^B$	52			
	$\frac{1}{2}^B \times \frac{3}{8}^B$	34	$1\frac{1}{2}^B \times \frac{3}{4}^B$	52			
	$\frac{3}{4}^B \times \frac{1}{4}^B$	38	$1\frac{1}{2}^B \times 1^B$	52			
	$\frac{3}{4}^B \times \frac{3}{8}^B$	38	$1\frac{1}{2}^B \times 1\frac{1}{4}^B$	52			
	$\frac{3}{4}^B \times \frac{1}{2}^B$	38	$2^B \times \frac{1}{2}^B$	58			
	$1^B \times \frac{3}{8}^B$	42	$2^B \times \frac{3}{4}^B$	58			
	$1^B \times \frac{1}{2}^B$	42	$2^B \times 1^B$	58			
	$1^B \times \frac{3}{4}^B$	42	$2^B \times 1\frac{1}{4}^B$	58			
	$1\frac{1}{4}^B \times \frac{1}{2}^B$	48	$2^B \times 1\frac{1}{2}^B$	58			
	$1\frac{1}{4}^B \times \frac{3}{4}^B$	48					

# Threaded Fitting Type

나사식 관이음쇠

FIG 33



NIPPLE	SIZE	B	L	E
	6 <sup>A</sup>	1/8 <sup>B</sup>	32	11
	8 <sup>A</sup>	1/4 <sup>B</sup>	34	12
	10 <sup>A</sup>	3/8 <sup>B</sup>	36	13
	15 <sup>A</sup>	1/2 <sup>B</sup>	42	16
	20 <sup>A</sup>	3/4 <sup>B</sup>	47	18
	25 <sup>A</sup>	1 <sup>B</sup>	52	20
	32 <sup>A</sup>	1 1/4 <sup>B</sup>	58	23
	40 <sup>A</sup>	1 1/2 <sup>B</sup>	60	23
	50 <sup>A</sup>	2 <sup>B</sup>	70	27

FIG 34



REDUCING NIPPLE	SIZE	A	B	L	SIZE	A	B	L
	1/2 <sup>B</sup> × 3/8 <sup>B</sup>	16	13	39	1 1/2 <sup>B</sup> × 3/4 <sup>B</sup>	23	18	55
	3/4 <sup>B</sup> × 1/2 <sup>B</sup>	18	16	45	1 1/2 <sup>B</sup> × 1 <sup>B</sup>	23	20	57
	1 <sup>B</sup> × 1/2 <sup>B</sup>	20	16	48	1 1/2 <sup>B</sup> × 1 1/4 <sup>B</sup>	23	23	60
	1 <sup>B</sup> × 3/4 <sup>B</sup>	20	18	50	2 <sup>B</sup> × 1/2 <sup>B</sup>	27	16	59
	1 1/4 <sup>B</sup> × 1/2 <sup>B</sup>	23	16	51	2 <sup>B</sup> × 3/4 <sup>B</sup>	27	18	61
	1 1/4 <sup>B</sup> × 3/4 <sup>B</sup>	23	18	53	2 <sup>B</sup> × 1 <sup>B</sup>	27	20	63
	1 1/4 <sup>B</sup> × 1 <sup>B</sup>	23	20	55	2 <sup>B</sup> × 1 1/4 <sup>B</sup>	27	23	66
	1 1/2 <sup>B</sup> × 1/2 <sup>B</sup>	23	16	53	2 <sup>B</sup> × 1 1/2 <sup>B</sup>	27	23	66

FIG 35



WELDING NIPPLE	SIZE	PT	ø A	L1	L2	L
	10A	3/8	17.3	13	10	36
	15A	1/2	21.7	16	10	42
	20A	3/4	27.2	18	11	47
	25A	1	34	20	12	52
	32A	1 1/4	42.7	23	12	58
	40A	1 1/2	48.6	23	14	60
	50A	2	60.5	27	16	70

# Threaded Fitting Type

나사식 관이음쇠

FIG 36



SOCKET	SIZE		E	L	ø D
	8 <sup>A</sup>	1/4 <sup>B</sup>	9.5	25	21
	10 <sup>A</sup>	3/8 <sup>B</sup>	9.5	30	24
	15 <sup>A</sup>	1/2 <sup>B</sup>	11	35	28.5
	20 <sup>A</sup>	3/4 <sup>B</sup>	12	40	33.45
	25 <sup>A</sup>	1 <sup>B</sup>	14	45	41
	32 <sup>A</sup>	1 1/4 <sup>B</sup>	15.5	50	50.7
	40 <sup>A</sup>	1 1/2 <sup>B</sup>	17	55	57
	50 <sup>A</sup>	2 <sup>B</sup>	18.5	60	70.6
	65 <sup>A</sup>	2 1/2 <sup>B</sup>	21.5	70	88
	80 <sup>A</sup>	3 <sup>B</sup>	23.5	75	101.2

FIG 37



PLUG	SIZE		A	SIZE	A	
	8 <sup>A</sup>	1/4 <sup>B</sup>	9	25 <sup>A</sup>	1 <sup>B</sup>	19
	10 <sup>A</sup>	3/8 <sup>B</sup>	12	32 <sup>A</sup>	1 1/4 <sup>B</sup>	23
	15 <sup>A</sup>	1/2 <sup>B</sup>	14	40 <sup>A</sup>	1 1/2 <sup>B</sup>	26
	20 <sup>A</sup>	3/4 <sup>B</sup>	17	50 <sup>A</sup>	2 <sup>B</sup>	32

FIG 38



C A P	SIZE		A	SIZE	A	
	8 <sup>A</sup>	1/4 <sup>B</sup>	15	25 <sup>A</sup>	1 <sup>B</sup>	28
	10 <sup>A</sup>	3/8 <sup>B</sup>	17	32 <sup>A</sup>	1 1/4 <sup>B</sup>	30
	15 <sup>A</sup>	1/2 <sup>B</sup>	20	40 <sup>A</sup>	1 1/2 <sup>B</sup>	32
	20 <sup>A</sup>	3/4 <sup>B</sup>	24	50 <sup>A</sup>	2 <sup>B</sup>	36

FIG 39



BUSHING	SIZE	A	B	SIZE	A	B
	3/8 <sup>B</sup> × 1/4 <sup>B</sup>	14	17	1 1/4 <sup>B</sup> × 3/4 <sup>B</sup>	46	30
	3/8 <sup>B</sup> × 1/4 <sup>B</sup>	21	18	1 1/4 <sup>B</sup> × 1 <sup>B</sup>	46	30
	1/2 <sup>B</sup> × 1/4 <sup>B</sup>	27	21	1 1/2 <sup>B</sup> × 1/2 <sup>B</sup>	54	32
	1/2 <sup>B</sup> × 3/8 <sup>B</sup>	27	21	1 1/2 <sup>B</sup> × 3/4 <sup>B</sup>	54	32
	3/4 <sup>B</sup> × 1/4 <sup>B</sup>	32	24	1 1/2 <sup>B</sup> × 1 <sup>B</sup>	54	32
	3/4 <sup>B</sup> × 3/8 <sup>B</sup>	32	24	1 1/2 <sup>B</sup> × 1 1/4 <sup>B</sup>	54	32
	3/4 <sup>B</sup> × 1/2 <sup>B</sup>	32	24	2 <sup>B</sup> × 1/2 <sup>B</sup>	63	36
	1 <sup>B</sup> × 3/8 <sup>B</sup>	38	27	2 <sup>B</sup> × 3/4 <sup>B</sup>	63	36
	1 <sup>B</sup> × 1/2	38	27	2 <sup>B</sup> × 1 <sup>B</sup>	63	36
	1 <sup>B</sup> × 3/4 <sup>B</sup>	38	27	2 <sup>B</sup> × 1 1/4 <sup>B</sup>	63	36
	1 1/4 <sup>B</sup> × 1/2 <sup>B</sup>	46	30	2 <sup>B</sup> × 1 1/2 <sup>B</sup>	63	36



# Hose Nipple

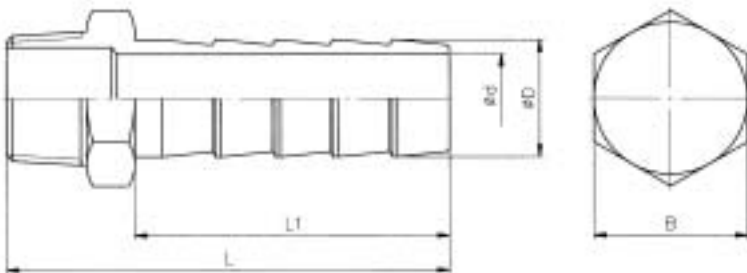
호스닛블

FIG 40

•사용압력 : 30kg / cm<sup>2</sup>



## Description



호스 조인트  
HOSE JOINT



암호스 닷블  
FEMALE HOSE NIPPLE



아답터  
ADAPTOR

• 주문 사양입니다.(Option)

SIZE	Ø D	Ø d	L	L1	B	
6 <sup>A</sup>	1/8 <sup>B</sup>	5	3	32	18	10
		8	5	34	20	10
		9.5	6	34	20	10
		11	6	34	20	12
		13	8	35	21	14
8 <sup>A</sup>	2 <sup>B</sup>	8	5	36	20	13
		9.5	6	36	20	13
		11	7	36	20	13
		13	8	37	21	14
10 <sup>A</sup>	3/8 <sup>B</sup>	8	5	39	21	17
		9.5	6	39	21	17
		11	7	39	21	17
		13	9	40	22	17
		16	11	43	25	17

SIZE	Ø D	Ø d	L	L1	B	
15 <sup>A</sup>	1/2 <sup>B</sup>	8	5	42	22	21
		9.5	6	42	55	21
		11	9	42	22	21
		13	9	42	22	21
		16	11	45	25	21
		20	14	45	25	21
20 <sup>A</sup>	1/4 <sup>B</sup>	16	11	50	27	27
		20	14	50	27	27
		25	19	50	27	27
		20	14	55	29	34
25 <sup>A</sup>	1 <sup>B</sup>	25	19	55	29	34
		33	26	58	32	34
		32 <sup>A</sup>	1 1/4 <sup>B</sup>	33	26	71
40 <sup>A</sup>	1 1/2 <sup>B</sup>	40.5	32	83	50	50
50 <sup>A</sup>	2 <sup>B</sup>	52.5	41	97	60	62

표준 포장단위  
Standard Package (PCS/BOX)

FIG NO.		3		4		5		2		8		9		10		11		12	
규격 Size		볼 밸브 / Ball Valve						스트레너 strainer	유니온 / Union										용접유니온 Socket Welding Union
		1-(PCS)		2-(PCS)		3-(PCS)			표준 F/F Union	암수 M/F Union	스팀(메탈)		스팀(메탈)암수						
		표준 핸들 lever handle	나비 핸들 butterfly handle	표준 핸들 lever handle	나비 핸들 butterfly handle	표준 핸들 lever handle	나비 핸들 butterfly handle				F/F Metal Union	M/F Metal Union							
6 <sup>A</sup>	1/8 <sup>B</sup>																		
8 <sup>A</sup>	1/4 <sup>B</sup>	120(60)		120(60)						200(50)									200(50)
10 <sup>A</sup>	3/8 <sup>B</sup>	120(60)		120(60)						200(50)									200(50)
15 <sup>A</sup>	1/2 <sup>B</sup>	120(60)		120(60)		60(30)		80(40)		200(50)		200(50)		200(50)		200(50)			200(50)
20 <sup>A</sup>	3/4 <sup>B</sup>	80(40)		80(40)		50(25)		60(30)		140(70)		140(70)		140(70)		140(70)			140(70)
25 <sup>A</sup>	1 <sup>B</sup>	60(30)		60(30)		42(21)		50(25)		80(40)		80(40)		80(40)		80(40)			80(40)
32 <sup>A</sup>	1 1/4 <sup>B</sup>	30(15)		30(15)		24(12)		30(15)		60(30)		60(30)		60(30)		60(30)			60(30)
40 <sup>A</sup>	1 1/2 <sup>B</sup>	20(10)		20(10)		12(6)		20(10)		40(20)		40(20)		40(20)		40(20)			40(20)
50 <sup>A</sup>	2 <sup>B</sup>	16(8)		16(8)		8(4)		16(8)		30(15)		30(15)		30(15)		30(15)			30(15)
65 <sup>A</sup>	2 1/2 <sup>B</sup>			8(4)						20(10)									20(10)
80 <sup>A</sup>	3 <sup>B</sup>			6(3)						14(7)									14(7)

FIG NO.		27		13		15		17		20		21		22		25		26	
규격 Size		호스넛블 Hose-nipple		45° 엘보 45° Elbow		암수 엘보 M/F Elbow		주물 Casting		플러그 Plug	캡 Cap	엘보 Elbow	티 Tee						
		육각넛블 Hex-nipple	소켓 Socket																
6 <sup>A</sup>	1/8 <sup>B</sup>									600(150)									
8 <sup>A</sup>	1/4 <sup>B</sup>	800(200)		600(150)						600(150)		600(150)	320(80)						
10 <sup>A</sup>	3/8 <sup>B</sup>	800(200)		600(150)		600(150)	600(150)			600(150)	600(150)	600(150)	400(100)						
15 <sup>A</sup>	1/2 <sup>B</sup>	600(150)		400(100)	400(100)	400(100)	400(100)	400(300)		600(150)	600(150)	400(100)	280(70)						
20 <sup>A</sup>	3/4 <sup>B</sup>	600(150)		240(120)	240(120)	240(120)	300(150)	300(150)		480(120)	480(120)	240(120)	160(80)						
25 <sup>A</sup>	1 <sup>B</sup>	200(100)		160(80)	160(80)	240(120)	240(120)	400(200)		400(200)	400(200)	160(80)	120(60)						
32 <sup>A</sup>	1 1/4 <sup>B</sup>	100(50)		100(50)	80(40)	180(90)	140(70)	200(100)		200(100)	200(100)	100(50)	70(35)						
40 <sup>A</sup>	1 1/2 <sup>B</sup>	80(40)		60(30)	60(30)	140(70)	100(50)	180(90)		180(90)	180(90)	60(30)	50(25)						
50 <sup>A</sup>	2 <sup>B</sup>	50(25)		40(20)	40(20)	70(35)	70(35)	120(60)		120(60)	120(60)	40(20)	30(15)						
65 <sup>A</sup>	2 1/2 <sup>B</sup>											20(10)	16(8)						
80 <sup>A</sup>	3 <sup>B</sup>											12(6)							

FIG NO.		14		16		23		24		18	
규격 Size		리듀싱엘보 Red. Elbow		리듀싱소켓 Red. Socket		붓싱 Bushing		리듀싱티 Red. Tee		이경넛블 Red. Nipple	
		1/8 <sup>B</sup> × 1/8 <sup>B</sup>	8 × 6					1000(250)			
3/8 <sup>B</sup> × 1/4 <sup>B</sup>	10 × 8			600(150)		1000(250)	400(100)				
1/2 <sup>B</sup> × 1/4 <sup>B</sup>	15 × 8			400(100)		1000(250)	280(70)			600(150)	
× 3/8 <sup>B</sup>	× 10	400(100)		400(100)		1000(250)	280(70)			600(150)	
3/4 <sup>B</sup> × 3/8 <sup>B</sup>	20 × 10			600(150)		600(150)	280(70)			400(100)	
× 1/2 <sup>B</sup>	× 15	240(120)		300(150)		600(150)	140(70)			400(100)	
1 <sup>B</sup> × 1/2 <sup>B</sup>	25 × 15	160(80)		240(120)		320(80)	130(65)			320(80)	
× 3/4 <sup>B</sup>	× 20	160(80)		240(120)		400(100)	130(65)			320(80)	
1 1/4 <sup>B</sup> × 1/2 <sup>B</sup>	32 × 15			180(90)		160(80)	80(40)			200(100)	
× 3/4 <sup>B</sup>	× 20	100(50)		180(90)		160(80)	80(40)			200(100)	
× 1 <sup>B</sup>	× 25	100(50)		180(90)		200(100)	80(40)			180(90)	
1 1/2 <sup>B</sup> × 1/2 <sup>B</sup>	40 × 15			140(70)		100(50)	80(40)			140(70)	
× 3/4 <sup>B</sup>	× 20	60(30)		140(70)		120(60)	70(35)			140(70)	
× 1 <sup>B</sup>	× 25			120(60)		140(70)	70(35)			120(60)	
× 1 1/4 <sup>B</sup>	× 32			120(60)		200(100)	60(30)			120(60)	
2 <sup>B</sup> × 1/2 <sup>B</sup>	50 × 15			100(50)		100(50)	40(20)			100(50)	
× 3/4 <sup>B</sup>	× 20			100(50)		100(50)	40(20)			100(50)	
× 1 <sup>B</sup>	× 25			100(50)		100(50)	40(20)			100(50)	
× 1 1/4 <sup>B</sup>	× 32			80(40)		120(60)	30(15)			100(50)	
× 1 1/2 <sup>B</sup>	× 40			80(40)		120(60)	30(15)			100(50)	
2 1/2 <sup>B</sup> × 50 <sup>B</sup>	65 × 50					40(20)					

NAME	SIZE	QTY PER BOX
소켓 Socket	13	50
	20	40
	25	30
	32	20
	40	18
	50	15
이경소켓 Red. Socket	60	8
	20 × 13	50
	25 × 13	40
	25 × 20	35
	32 × 20	30
	32 × 25	30
	40 × 25	20
	40 × 32	18
	50 × 32	18
	50 × 40	15
티 Tee	13	30
	20	25
	25	18
	32	12
	40	9
	50	8
이경티 Red. Tee	60	5
	20 × 13	25
	25 × 13	20
	25 × 20	20
	32 × 20	15
	32 × 25	14
	40 × 25	10
	40 × 32	10
50 × 32	8	
50 × 40	8	

### 슬림인 조인트 포장 수량 Sleevein Joint

NAME	SIZE	QTY PER BOX
밸브소켓 Male Socket	13	70
	20	60
	25	50
	32	40
캡 Cap	40	27
	50	22
	13	70
	20	60
분수전용 소켓 Female Socket (Bronze)	25	50
	32	40
	40	35
	50	27
	50	18
이종관 소켓 Socket for different pipes (Bronze)	13	50
	20	35
	25	30
	32	18
	40	15
수전소켓 Female Socket	13	50
	20	40
	25	30

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- 위생용 관이음쇠(SANTARY FITTING)
- 후렉시블 콘넥터(FLEXIBLE-CONNECTOR)
- 슬리브 조인트(SLEEVE-JONT)
- N.S 조인트(NS-JONT)

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- 액츄에이터 원피스 볼 밸브(ACTUATOR TYPE ONE-PIECE BALL VALVE)  
-에어용, 전동용
- 투-피스 볼 밸브(TWO-PIECE BALL VALVE)
- 액츄에이터 투-피스 볼 밸브(ACTUATOR TYPE TWO-PIECE BALL VALVE)
- 쓰리-피스 볼 밸브(THREE-PIECE BALL VALVE)
- 액츄에이터 트리-피스 볼 밸브(ACTUATOR TYPE THREE-PIECE BALL VALVE)
- 후렌지 볼 밸브(FLANGE BALL VALVE)
- 액츄에이터 후렌지 볼 밸브(ACTUATOR TYPE FLANGE BALL VALVE)
- 쓰리-웨이 볼 밸브(THREE-WAY BALL VALVE)
- 원-피스 후렌지 볼 밸브(ONE-PIECE FLANGE BALL VALVE)

## ③ 사나타리 볼 밸브류(SANITARY BALL VALVE)

- 투-피스 사나타리 볼 밸브(TWO-PIECE SANITARY BALL VALVE)
- 투-피스 사나타리 자동 볼 밸브  
(ACTUATOR TYPE TWO-PIECE SANITARY BALL VALVE)
- 쓰리-피스 사나타리 자동 밸브  
(ACTUATOR TYPE THREE-PIECE SANITARY BALL VALVE)

## ④ 밸브류(VALVES)

- 나사식 스윙 체크 밸브(THREAD TYPE SWING CHECK VALVE)
- 나사식 글로브 밸브(THREAD TYPE GLOBE VALVE)
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