

Stainless steel Ball Valve **SUS304**



Anti-Corrosion Ball Valve is offered for your specific environment



- Suitable for applications under chemical environments
- Stainless steel SUS304 is used for metal parts
- FKM is used for sealing material
- Option parts are provided for security, relief and safety

Model Designation (Example)



Ball Valve

④. Port 2 Size

- Tubing O.D. (øD, øD2) : Select the tubing O.D. from the following "③.Port 1 Size"
- Thread size

Code	National Pipe Thread Tapered				British Standard Pipe Thread Tapered			
	N1	N2	N3	N4	O1	O2	O3	O4
Size	NPT1/8	NPT1/4	NPT3/8	NPT1/2	R1/8	R1/4	R3/8	R1/2

③. Port 1 Size







- Tubing O.D. (øD, øD1)

Code	Inch size				Metric size			
	06	08	10	12	1/4	5/16	3/8	1/2
Tubing O.D.	ø6	ø8	ø10	ø12	ø6.35	ø7.94	ø9.53	ø12.7

②. Series

Code	20	60
Series	20 Series	60 Series
(Effective area)	(20mm ²)	(60mm ²)

①. Type

Code	C	LC	U	LU	G	LG
Type	Straight	Elbow	Union Straight	Union Elbow	Unequal Diameter Union Straight	Unequal Dia. Elbow
						

Model Designation for Option parts (Example)

Note) See the detailed information on the other page



Ball Valve

②. Applicable series

Code	20	60
Type	For 20 Series	For 60 Series

Note) No entry needed for BVLO

①. Type

Code	UH	LCP	LO
Type	Holder for In-line ball valves	Swiveling Stopper for Elbow type	Handle Lockout
			

[Installation]



Specification

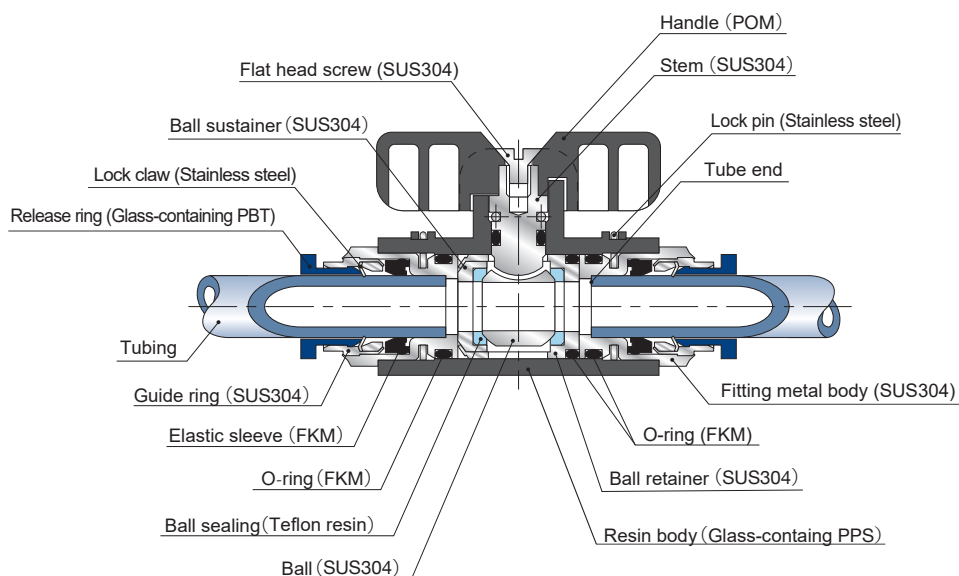
Fluid medium	Air, Water (Conditional *), Others such as chemicals (Conditional *)
Max. service pressure	130psi (0.9MPa)
Max. vacuum level	29.5 inHg (-100kPa)
Service temperature range	32~176°F (0~80°C) (No freezing) : Union type 32~140°F (0~60°C) (No freezing) : Thread type

⚠ Warning *) Adhere to the following conditions in case the fluid medium is water or any liquids

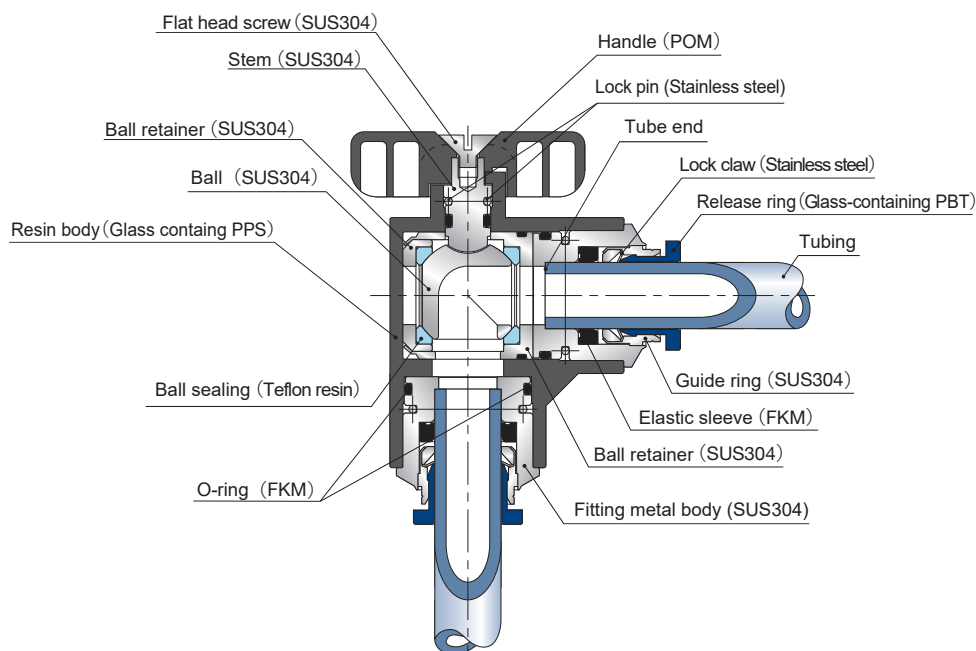
1. Surge pressure must be controlled lower than max. operating pressure when using water or any liquids as a fluid medium.
2. Tap water in Japan, which is soft water (low mineral content) can be used. Carry out an actual operating condition for using other kind of water.
3. Be sure to place Insert Ring (WR) into the tubing end when the product is used with water or any other liquids.
4. Please check the chemical compatibility before use.

Structure

■ Union straight



■ Union Elbow



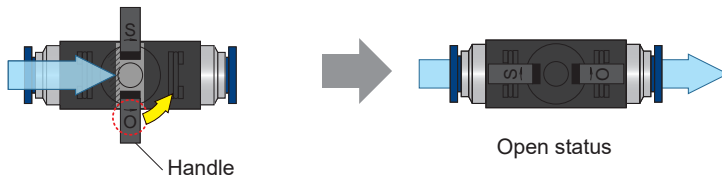
△ Safety instructions

- △Caution
1. Check chemical resistance before using the products, when the fluid medium is chemicals, solvent or mixed gases. Depending on the conditions, it may cause damage to the products, the tubing fall-off, and a fluid leakage.
 2. When the fluid medium is water or liquid, do not use the products unless the operating environment meets all the described specifications in the catalog. Otherwise, it may cause damage to the products, the tubing fall-off, and a fluid leakage.
- △Warning
1. Do not use lubricators/lubrication.
 2. Make sure to turn the handle 90 degree. Inadequate turning can cause a poor path connection or a lack of flow amount. Excessive turning can cause damage to the product.
 3. When the valve is used under negative pressure, install a vacuum filter on the intake port side. Dusts being sucked can cause malfunction of the product and the system.
 4. Do not pull out the lock pin. The valve will be dismantled without the pin.
 5. The level of anti-corrosion varies by operating conditions. evaluate the compatibility before use.
 6. When installing Holder for in-line type of ball valve
Refer to the following tightening torque table when tightening flat head screws for installation of the Holder. Tighten the mounting screws with appropriate torque. If not doing so could cause damages to screws or screws being loosen and the Holder could come off.
* Tightening torque for screws to install Holder
- | Model | Screw size | Tightening torque |
|--------|------------|-------------------|
| BVUH20 | M3x0.5 | 0.5 ~ 0.7 N·m |
| BVUH60 | M4x0.7 | 0.8 ~ 1.0 N·m |
7. When using Handle Lockout
The product is easy to break or tear by a knife or a nipper. Please take other security methods where strict reliability is required.
 8. When installing Swiveling stopper
Do not rotate the handle with excessive torque. Doing so may cause the stopper stripping.

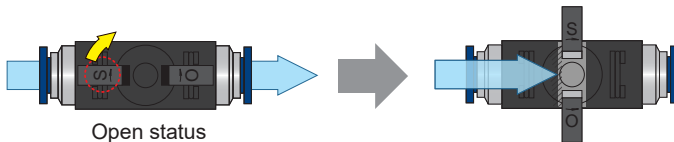
How it works

Either of the ports can be an air inlet port.

- Turn the handle in O (open) arrow-direction  90° then, air flows

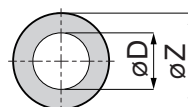


- Turn the handle in S (shut) arrow-direction  upto the end stop to close the valve



Release ring O.D.

■ Metric size				Unit : mm
Tubing O.D. (øD)	6	8	10	12
Release ring O.D. (øZ)	11.8	13.8	16.8	19.8

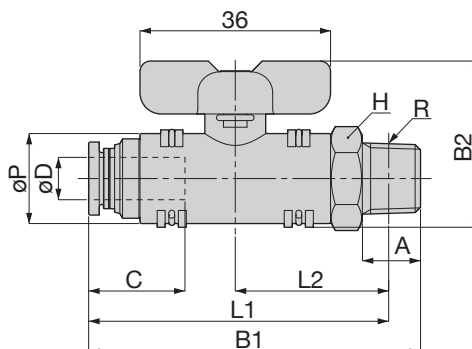


Release ring

■ Inch size				Unit : mm
Tubing O.D. (øD)	1/4	5/16	3/8	1/2
Release ring O.D. (øZ)	11.8	13.8	16.8	19.8

Dimensions

BVC Straight

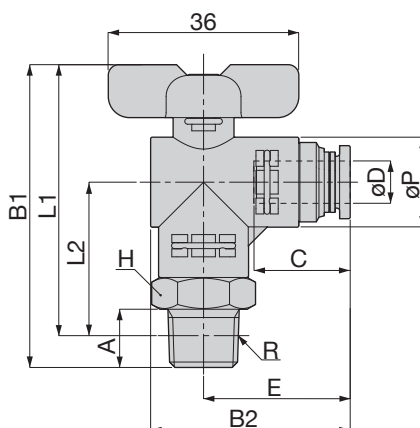


Unit : mm

Model	Tubing O.D. øD	R	A	B1	B2	L1	L2	øP	Tube End C	Hex. H	Weight (g)	Orifice dia. (ømm)
BVC20-0601SUS	6	R1/8	8	59.1	31.4	55.1	28	17	17.1	17	53	5
BVC20-0602SUS		R1/4	11	62.1		56.1	29				56	
BVC20-0603SUS		R3/8	12	63.1		56.8	29.7				64	
BVC20-0801SUS	8	R1/8	8	59.7	31.4	55.7	28	17	18.2	17	51	6
BVC20-0802SUS		R1/4	11	62.7		56.7	29				54	
BVC20-0803SUS		R3/8	12	63.7		57.4	29.7				62	
BVC60-1002SUS	10	R1/4	11	73.9	37.8	67.9	35	24	20.9	24	124	9
BVC60-1003SUS		R3/8	12	74.9		68.6	35.7				126	
BVC60-1004SUS		R1/2	15	77.9		69.7	36.8				142	
BVC60-1202SUS	12	R1/4	11	75.5	37.8	69.5	35	24	23.5	24	122	9
BVC60-1203SUS		R3/8	12	76.5		70.2	35.7				124	
BVC60-1204SUS		R1/2	15	79.5		71.3	36.8				140	

※) L1 and L2 dimensions are the ones after installation and are just for reference.

BVLC Elbow

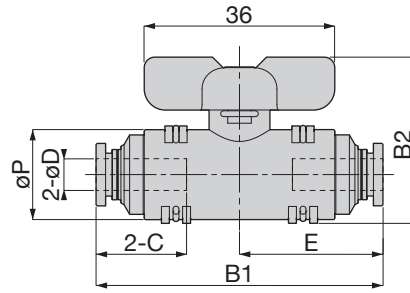


Unit : mm

Model	Tubing O.D. øD	R	A	B1	B2	L1	L2	øP	Tube End C	E	Hex. H	Weight (g)	Orifice dia. (ømm)
BVLC20-0601SUS	6	R1/8	8	54.2	37.1	50.2	28	17	17.1	27.1	17	53	5
BVLC20-0602SUS		R1/4	11	57.2		51.2	29					57	
BVLC20-0603SUS		R3/8	12	58.2		51.9	29.7					65	
BVLC20-0801SUS	8	R1/8	8	54.2	37.7	50.2	28	17	18.2	27.7	17	51	6
BVLC20-0802SUS		R1/4	11	57.2		51.2	29					55	
BVLC20-0803SUS		R3/8	12	58.2		51.9	29.7					62	
BVLC60-1002SUS	10	R1/4	11	68.7	44.9	62.7	37.5	24	20.9	32.9	24	126	7
BVLC60-1003SUS		R3/8	12	69.7		63.4	38.2					128	
BVLC60-1004SUS		R1/2	15	72.7		64.5	39.3					144	
BVLC60-1202SUS	12	R1/4	11	68.7	46.5	62.7	37.5	24	23.5	34.5	24	124	7
BVLC60-1203SUS		R3/8	12	69.7		63.4	38.2					126	
BVLC60-1204SUS		R1/2	15	72.7		64.5	39.3					142	

※) L1 and L2 dimensions are the ones after installation and are just for reference.

BVU Union straight



■ Inch size

Unit : mm

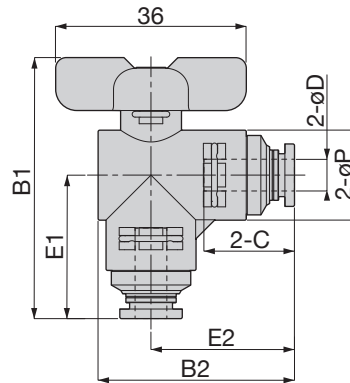
Model	Tubing O.D. øD	B1	B2	øP	Tube End C	E	Weight (g)	Orifice dia. (ømm)
BVU20-1/4-1/4SUS	1/4	54.2	31.4	17	17.1	27.1	43	5
BVU20-5/16-5/16SUS	5/16	55.4	31.4	17	18.2	27.7	39	6
BVU60-3/8-3/8SUS	3/8	65.8	37.8	24	20.9	32.9	99	9
BVU60-1/2-1/2SUS	1/2	68.6	37.8	24	23.3	34.3	92	9

■ Metric size

Unit : mm

Model	Tubing O.D. øD	B1	B2	øP	Tube End C	E	Weight (g)	Orifice dia. (ømm)
BVU20-0606SUS	6	54.2	31.4	17	17.1	27.1	43	5
BVU20-0808SUS	8	55.4	31.4	17	18.2	27.7	39	6
BVU60-1010SUS	10	65.8	37.8	24	20.9	32.9	98	9
BVU60-1212SUS	12	69	37.8	24	23.5	34.5	94	9

BVLU Union elbow



■ Inch size

Unit : mm

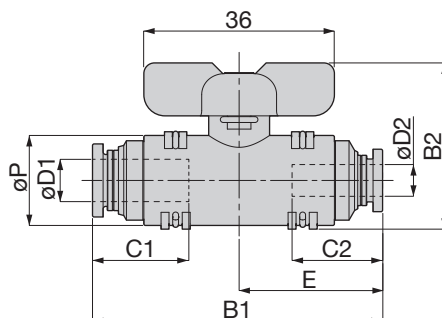
Model	Tubing O.D. øD	B1	B2	øP	Tube End C	E1	E2	Weight (g)	Orifice dia. (ømm)
BVLU20-1/4-1/4SUS	1/4	49.3	37.1	17	17.1	27.1	27.1	43	5
BVLU20-5/16-5/16SUS	5/16	49.9	37.7	17	18.2	27.7	27.7	40	6
BVLU60-3/8-3/8SUS	3/8	60.6	44.9	24	20.9	35.4	32.9	102	7
BVLU60-1/2-1/2SUS	1/2	62	46.3	24	23.3	36.8	34.3	94	7

■ Metric size

Unit : mm

Model	Tubing O.D. øD	B1	B2	øP	Tube End C	E1	E2	Weight (g)	Orifice dia. (ømm)
BVLU20-0606SUS	6	49.3	37.1	17	17.1	27.1	27.1	44	5
BVLU20-0808SUS	8	49.9	37.7	17	18.2	27.7	27.7	40	6
BVLU60-1010SUS	10	60.6	44.9	24	20.9	35.4	32.9	101	7
BVLU60-1212SUS	12	62.2	46.5	24	23.5	37	34.5	97	7

BVG Unequal dia. union straight



■ Inch size

Unit : mm

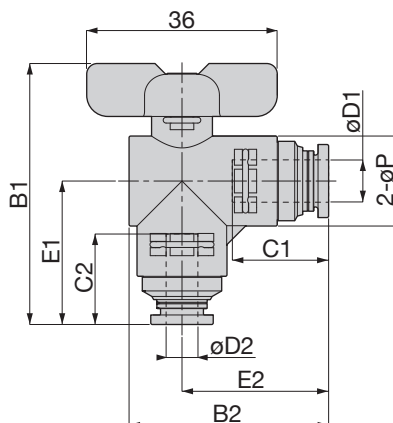
Model	Tubing O.D. øD1	Tubing O.D. øD2	B1	B2	øP	Tube End C1	Tube End C2	E	Weight (g)	Orifice dia. (ømm)
BVG20-5/16-1/4SUS	5/16	1/4	54.8	31.4	17	18.2	17.1	27.1	41	5
BVG60-1/2-3/8SUS	1/2	3/8	67.2	37.8	24	23.3	20.9	32.9	96	9

■ Metric size

Unit : mm

Model	Tubing O.D. øD1	Tubing O.D. øD2	B1	B2	øP	Tube End C1	Tube End C2	E	Weight (g)	Orifice dia. (ømm)
BVG20-0806SUS	8	6	54.8	31.4	17	18.2	17.1	27.1	41	5
BVG60-1210SUS	12	10	67.4	37.8	24	23.5	20.9	32.9	96	9

BVLG Unequal dia. union elbow



■ Inch size

Unit : mm

Model	Tubing O.D. øD1	Tubing O.D. øD2	B1	B2	øP	Tube End C1	Tube End C2	E1	E2	Weight (g)	Orifice dia. (ømm)
BVLG20-1/4-5/16SUS	1/4	5/16	49.9	37.1	17	17.1	18.2	27.7	27.1	42	5
BVLG20-5/16-1/4SUS	5/16	1/4	49.3	37.7	17	18.2	17.1	27.1	27.7	42	5
BVLG60-3/8-1/2SUS	3/8	1/2	62	44.9	24	20.9	23.3	36.8	32.9	98	7
BVLG60-1/2-3/8SUS	1/2	3/8	60.6	46.3	24	23.3	20.9	35.4	34.3	98	7

■ Metric size

Unit : mm

Model	Tubing O.D. øD1	Tubing O.D. øD2	B1	B2	øP	Tube End C1	Tube End C2	E1	E2	Weight (g)	Orifice dia. (ømm)
BVLG20-0608SUS	6	8	49.9	37.1	17	17.1	18.2	27.7	27.1	42	5
BVLG20-0806SUS	8	6	49.3	37.7	17	18.2	17.1	27.1	27.7	42	5
BVLG60-1012SUS	10	12	62.2	44.9	24	20.9	23.5	37	32.9	99	7
BVLG60-1210SUS	12	10	60.6	46.5	24	23.5	20.9	35.4	34.5	99	7

Related

Ball Valve 20・60 Series Option



- ▶ For stable installation
- ▶ Made of recycled materials

Holder and Locking Device for Shut-off Ball valve

For easy

Handling



Holder for In-line ball valve

Prevent

Swiveling



Swiveling stopper for Elbow type

Prevent handles from

Turning accidentally



Handle Lockout

Fluoropolymer (PFA) tubing / SFT



Fluid medium	Air, Water (Conditional), Chemical (Conditional)
Operating pressure range (MPa)	0.8 ~2.4(at 20°C 65%RH) ※
Max. vacuum (kPa)	-100
Operating temperature range (°C)	-65 ~260(No freezing)
Tubing color option	Black, Transparent, Clear red, Clear blue, Clear yellow

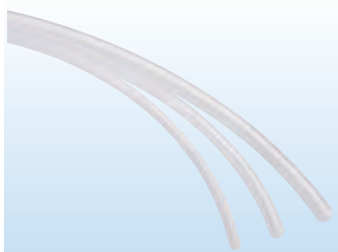
Fluoropolymer (FEP) tubing / SET



Fluid medium	Air, Water (Conditional), Chemical (Conditional)
Operating pressure range (MPa)	0.7 ~2.7(at 20°C 65%RH) ※
Max. vacuum (kPa)	-100
Operating temperature range (°C)	-65 ~200(No freezing)
Tubing color option	Black, Transparent, Clear red, Clear blue, Clear yellow

※) The operating pressure range varies depending on tubing size. Visit PISCO website. ※) The operating pressure range varies depending on tubing size. Visit PISCO website.

High purity fluoropolymer (New PFA)tubing / SFTN



Fluie medium	Air, Water (Conditional), Chemical (Conditional)
Operating pressure range (MPa)	0.8 ~1.4(at 20°C 65%RH) ※
Max. vacuum (kPa)	-100
Operating temperature range (°C)	-65 ~260(No freezing)
Tubing color option	Transparent

※) The operating pressure range varies depending on tubing size. Visit PISCO website.

Clean room packaging



Piping for clean environment

After cleaning by clean air, it is packaged in clean room (ISO class 6 equivalent)(Option)