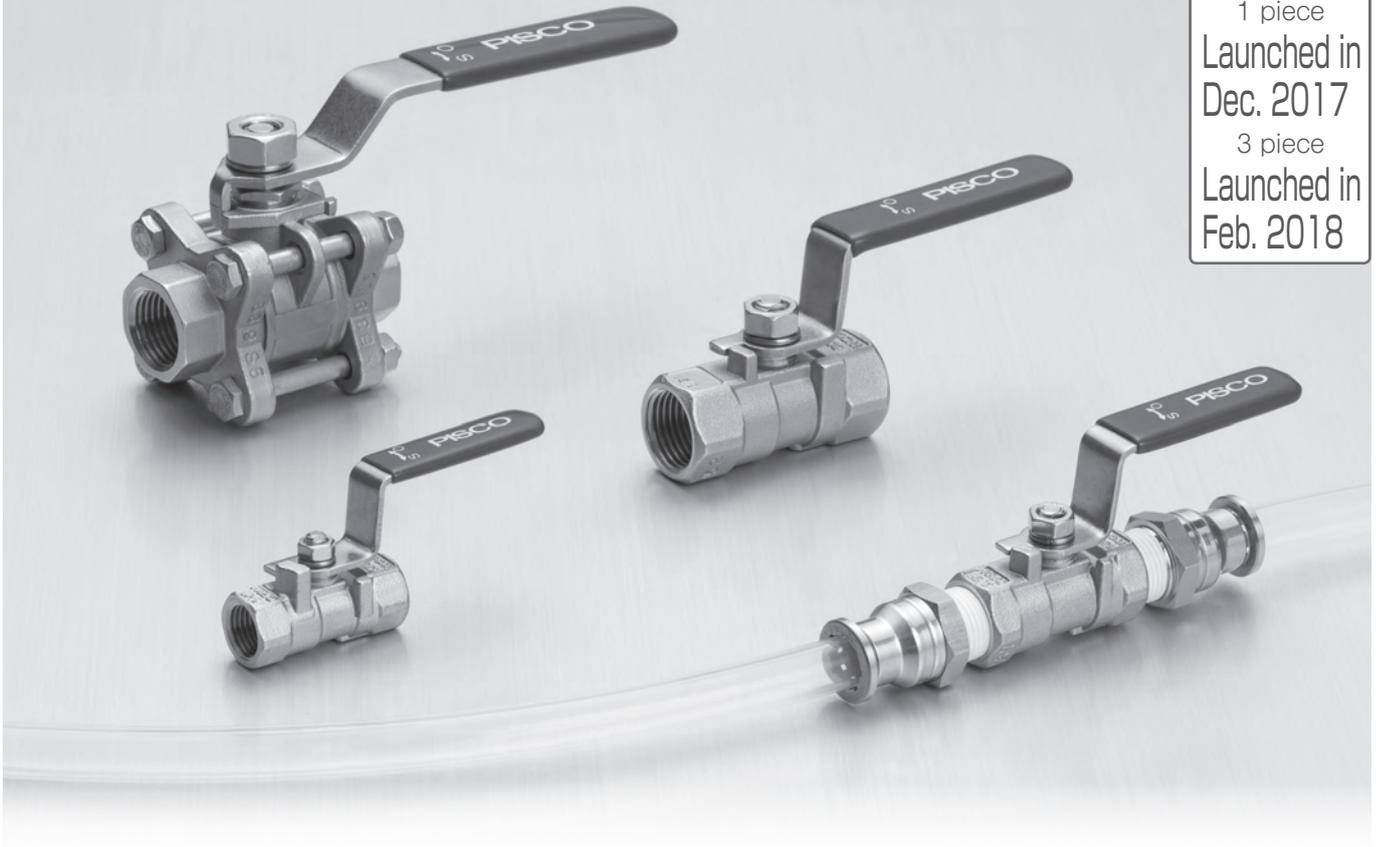


Valve made of Stainless steel suitable to use with chemical and mixed gases

**NEW
PRODUCT**

Stainless Steel ball valve

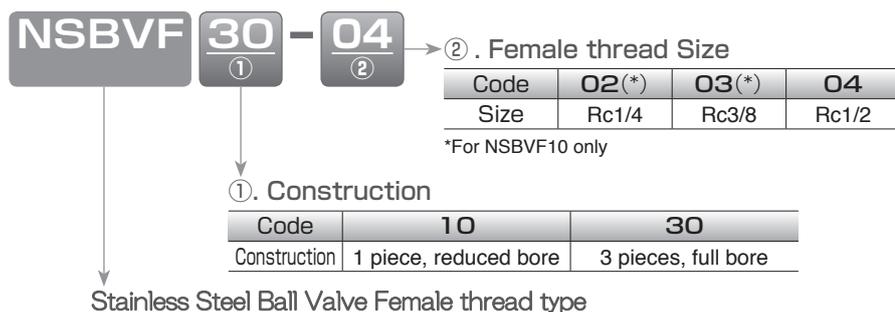
1 piece
Launched in
Dec. 2017
3 piece
Launched in
Feb. 2018



Characteristics

- Use **SUS316 equivalent** (SUS316 or CF8M) as material.
- **Stem** for fixing the handle will not come off the valve body.
 - ▶ Prevent stem come-off from valve body.
- **No restriction** for flow direction.
 - ▶ IN/OUT flow can be connected to both side of valve.
- **Cleaning Specification.**
 - ▶ Use Alkaline cleaner to clean (*Not completely oil-free)

Model Designation (Example)



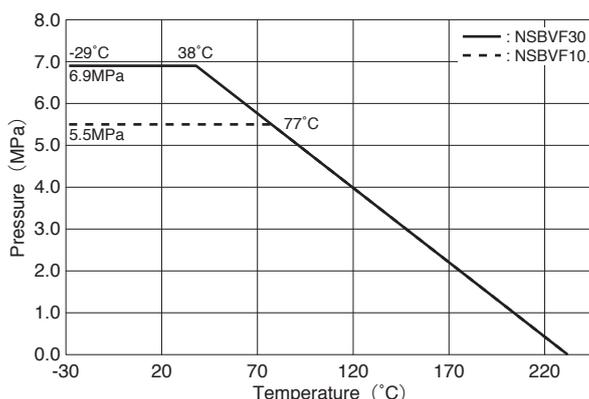
Specification

Fluid medium	Air, Inert gas such as Nitrogen/ Helium (no toxic), Water/ Liquid (*1) , Other (*1)
Max. operating pressure (*2)	5.5MPa (NSBVF10), 6.9MPa (NSBVF30)
Max. Vacuum	-101kPa
Operating temp. range (*2)	-29~+232°C (No Freezing of liquid)

△ Warnings *1. Conditions when fluid medium is liquid or chemical.

1. Surge pressure must be controlled lower than maximum operating pressure.
2. The specification above may not be applied, depending on chemicals or mixed gases used as fluid medium. Make sure to use PISCO products after verifying their suitability on the user side.
3. Liquid and chemicals are limited to those with no effect to valve material.

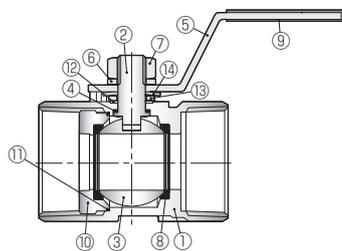
*2. Valve maximum operable pressure varies upon operating temperature. Please refer to the "Relation of Operating Temp. & Max. Operating Pressure" graph when use and operate in the condition.



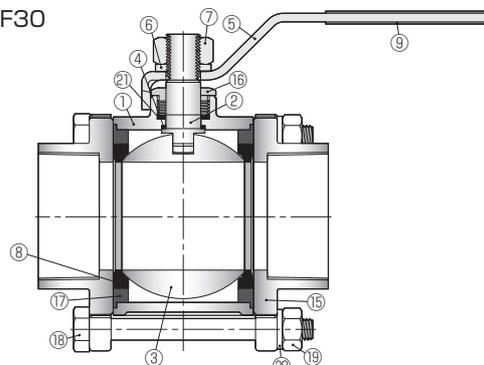
Relation of Operating Temp. & Max. Operating Pressure

Construction

■ NSBVF10



■ NSBVF30



No.	Parts	Material	NSBVF10	NSBVF30
①	Body	SUS316 equivalent	○	○
②	Stem	SUS316 equivalent	○	○
③	Ball	SUS316 equivalent	○	○
④	Thrust washer	PTFE	○	○
⑤	Handle	SUS304 equivalent	○	○
⑥	Handle washer	Stainless steel	○	○
⑦	Handle nut	Stainless steel	○	○
⑧	Ball seat	PTFE	○	○
⑨	Handle cover	PVC	○	○
⑩	Seat retainer	SUS316 equivalent	○	—
⑪	Gasket	PTFE	○	—

No.	Parts	Material	NSBVF10	NSBVF30
⑫	Packing	PTFE	○	—
⑬	Washer	SUS304 equivalent	○	—
⑭	Dish spring washer	SUS301 equivalent	○	—
⑮	End cap	SUS316 equivalent	—	○
⑯	Grand nut	Stainless steel	—	○
⑰	Retainer seal	PTFE	—	○
⑱	Bolt	Stainless steel	—	○
⑲	Nut	Stainless steel	—	○
⑳	Spring washer	Stainless steel	—	○
㉑	Grand washer	PTFE	—	○

Safety instruction manual

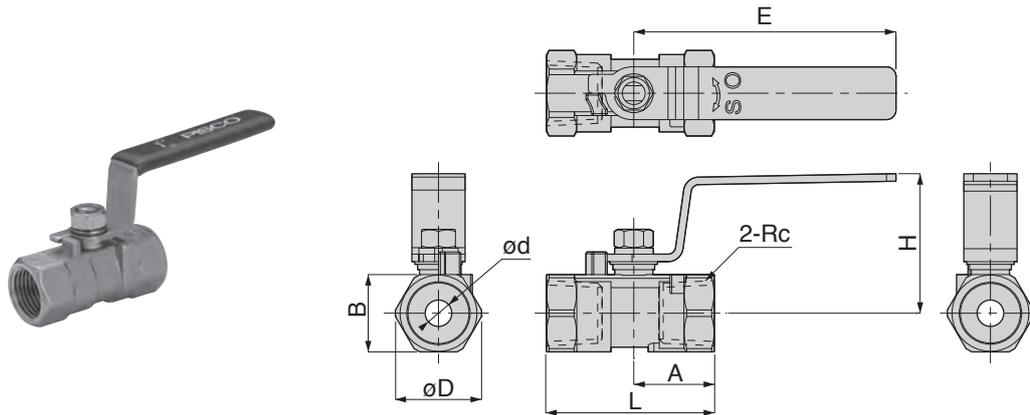
⚠ Warnings

1. Check chemical resistance before using the products, when the fluid medium is chemicals, solvent or mixed gases. Damage or leakage may occur to the valve upon the usage conditions.
2. Do not use the valve for applications which cause shake or shock as may lead to valve damage or leakage.
3. Use soapy water or other method to ensure there is no leakage before use.
4. After the installation, carry out leakage check and maintenance periodically, considering environment including use frequency, temperature, fluid flowrate, pressure, fluid medium, etc. There is a danger to human life from oxygen deficiency etc.
5. Do not retorque the product while pressure is supplied. Valve deformation or breakage may occur and lead to fluid spouting. Make sure to set pressure to "0" and lower the temperature to normal before retorquing.
6. Max. operating pressure of this product varies depending on the operating temperature. Make sure to check the "Relation of Operating Temp. & Max. Operating Pressure" in the specifications before the usage and follow it.
7. Do not use the valve outside the specification. Otherwise accidents like a fluid leakage or a piping coming-off may be caused.
8. Fluid and pressure may remain inside the valve if turning it to on/off while pressure is supplied. The remaining fluid pressure may increase due to temperature rise, causing valve breakage or fluid leakage, if the pressure exceeds maximum operating pressure.
9. Ball seat may deform, wear and cause leakage in case that fluid medium has high temperature and flowrate or is two-phase fluid, mixed with small particles.
10. When open/close the valve, turn the handle to fully open/closed position. Midway position usage may cause scratch on ball seat, fluid leakage and decrease in valve lifespan.
11. Surge pressure must be controlled lower than maximum operating pressure.
12. When the fluid medium is liquid, do not use the product unless the operating environment meets all the described specifications in the catalog. Otherwise, it may cause damage to the valve and a fluid leakage.

⚠ Cautions

1. Do not disassemble or modify valve. It can damage the valve function.
2. Do not touch valve while using in high temperature environment.
3. Make sure to understand valve material properties, considering the fluid medium and usage environment before use. Most parts are made of SUS316 equivalent but some parts where fluid does not touch are made from SUS304 equivalent.
4. Consider the load from the piping when installing valve as it may cause deformation and leakage.
5. Do not tighten pipe too firmly. Excessive tightening can deform valve body and ball seat. Follow the tightening torque for tube fitting.
6. Make sure to put wrench to the proper position when tightening the valve otherwise it may cause loosened parts.
7. The valve is not completely oil-free as oil may remain from assembly process.
8. The level of corrosion and dust emission from valve varies by operating conditions. In case there is a possibility of negative effects on machines or facilities due to these conditions, evaluate the suitability of the products in advance.

Appearance drawing

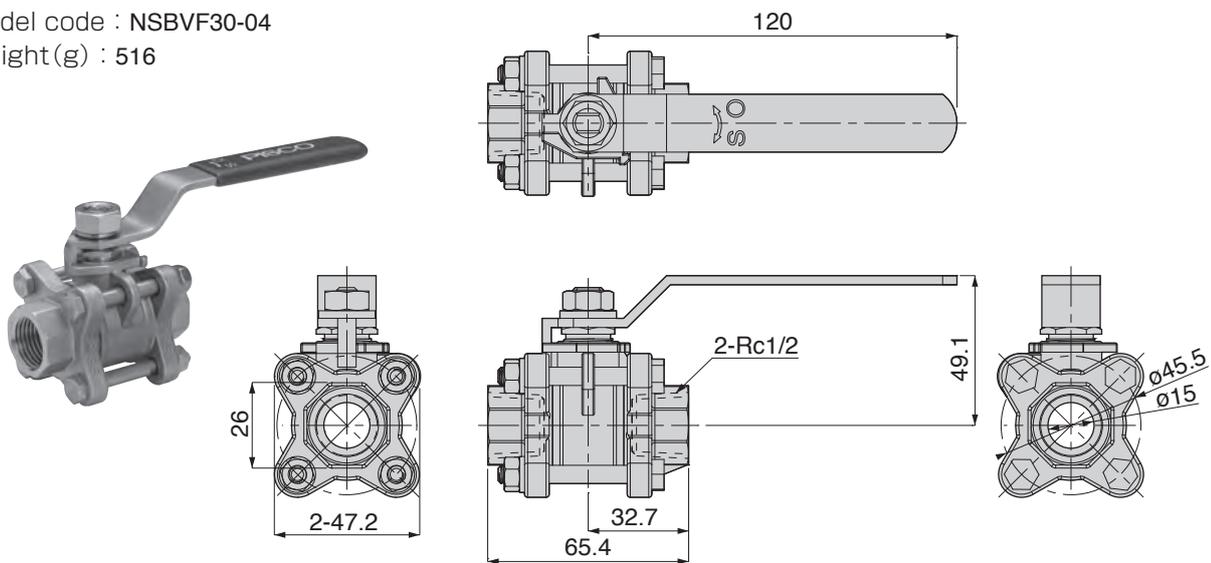


Unit : mm

Model code	Rc	A	B	L	E	øD	ød	H	Weight (g)
NSBVF10-02	1/4	19.3	16.5	39.4	57.8	17.9	5	31	62
NSBVF10-03	3/8	21.2	20.5	44.2	69	22.7	7	37	93.9
NSBVF10-04	1/2	27.5	24.5	56.6	89	27.3	9.2	43	170.5

Model code : NSBVF30-04

Weight (g) : 516



Transportation • Storage

- Turn the valve handle to the fully open position when transport or store otherwise it may lead to ball seat deformation.
- Store the valve indoor, avoiding dust and foreign matter.
- To prevent from dust and foreign mater, do not unwrap packaging before installation.

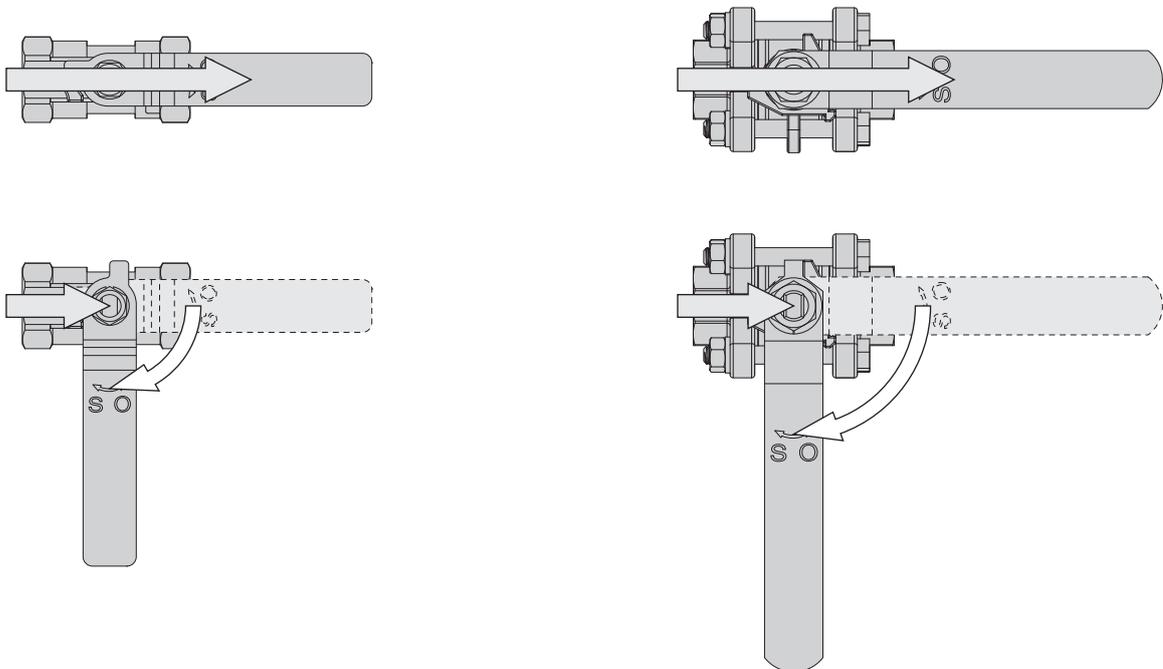
Installation

- Before installation, use air blow or water to clean valve internal.
- IN/OUT flow can be connected to both side of valve. Choose side which is easy to install and operate.
- Consider the load from the piping when installing valve.
- Follow the tightening torque for tube fitting.
- Consider operating temperature and fluid medium before selecting pipe seal material (sealing tape or sealant).
- When tighten pipe to the valve, make sure to hold the valve body with wrench etc.
- After installation, open the valve and flush to remove dust and foreign matter.

How to Use

- Turn the handle 90° counterclockwise (Open) to open the valve and turn 90° clockwise (Stop) to close the valve.

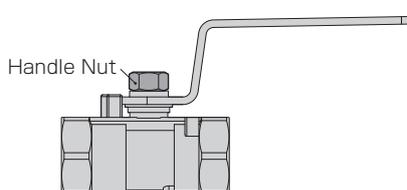
■ NSBVF10



Maintenance

1. After the installation, carry out regular inspection and maintenance periodically, considering environment including use frequency, temperature, fluid flowrate, pressure, fluid medium, etc
2. Periodically use soapy water or leakage checker to ensure there is no leakage.
3. If leakage occurred or packing worn out, retighten handle nut (for NSBVF10), grand nut and flange bolt/nut (for NSBVF30).
4. Retorque the nut by 1/4 turns, according to the leakage. Retorque 4 flange bolts evenly.

■ NSBVF10



■ NSBVF30

