MODEL BSV-2EN
BELLOWS SEALED GLOBE VALVE

Thank you very much for choosing the Yoshitake's product. To ensure the correct and safe use of the product, please read this manual before use. This manual shall be kept with care for future references.
The symbols used in this manual have the following meanings.

Warning	This symbol indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.
Caution	This symbol indicates a hazardous situation that, if not avoided, may result in minor or moderate injury or may result in only property damage.

Table of Contents

YOSHITAKE

■EPDT-271■

1. Usage of the Product

Bellows sealed globe valve is used as stop valve designed for shutoff and opening of the flow for applications such as:

- Steam plants
- Thermal oil plants
- Industrial technologies, power industry

2. Features

1. Non-rising handwheel: Free from foreign substance trouble because most threaded surface is covered.
2. No leakage by two-stage sealing of double bellows and gland packing.
3. Handwheel can be turned with small torque without interference from the spindle.
4. Maintenance-free: No need to replace or retighten gland packing.

3. Specifications

Model		BSV-2EN	
Application		Steam, Air, Cold and hot water, Oil, Other non-dangerous fluids	
Nominal size		15A-200A *1	
Max. pressure		1.6 MPa *2	2.5 MPa *2
Max. temperature		300°C *2	350°C *2
Material	Body	Cast Iron	Ductile Cast Iron
	Bonnet	Ductile Cast Iron	
	Valve	Stainless steel	
	Valve seat	Stainless steel	
	Bellows	Stainless steel (SUS316Ti)	
Connection		EN 1092-2 PN16	EN 1092-2 PN25

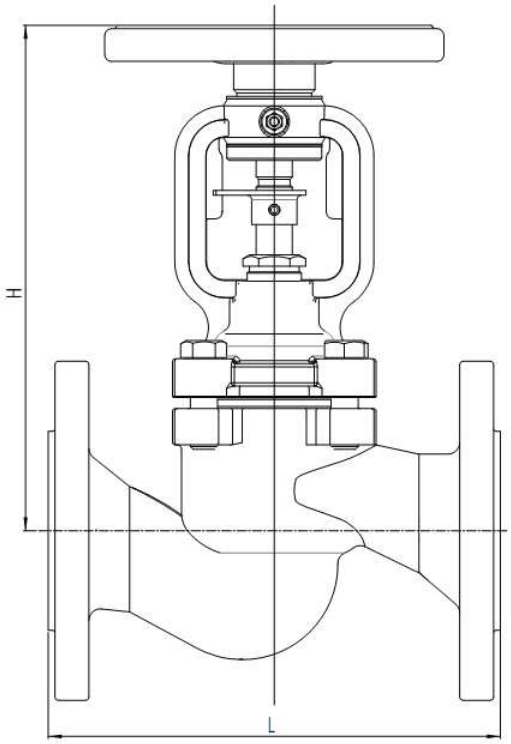
- Face-to-face dimension: EN 558-1 series 1.

*1 If 250A is needed, please contact us.
*2 According to PT rating in the table below.

Acc. to EN 1092-2	Temperature [C°]					
	-10 up to 120	150	200	250	300	350
PN16	1.6 MPa	1.44 MPa	1.28 MPa	1.12 MPa	0.96 Mpa	-----
PN25	2.5 MPa	2.43 MPa	2.30 MPa	2.18 MPa	2.00 Mpa	1.75 MPa

Caution	Please confirm that the tag indication of the product corresponds with the specifications of the ordered product model before use. * If they are different, please contact us without using the product.

4. Dimensions and Weights



[mm] [kg]

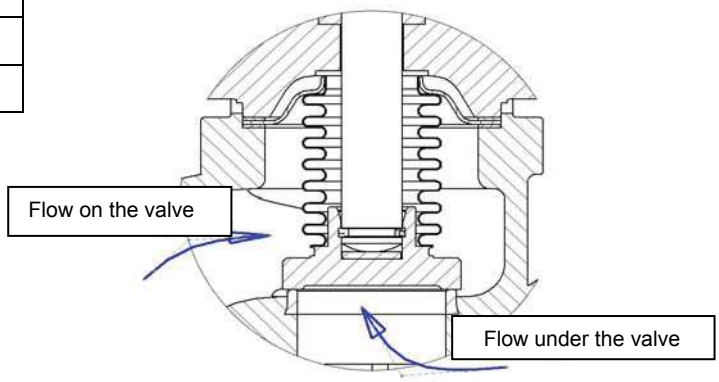
Nominal size	L	H	Weight
15A	130	178	3.2
20A	150	178	3.9
25A	160	193	4.6
32A	180	201	6.5
40A	200	224	9.0
50A	230	228	11.0
65A	290	270	15.8
80A	310	295	20.5
100A	350	321	35.0
125A	400	388	49.0
150A	480	448	76.0
200A	600	575	130.5

5. Installation

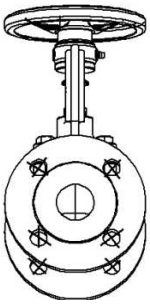
⚠ Caution

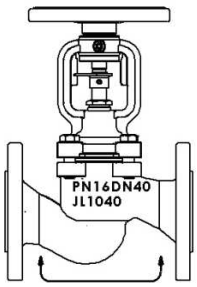
1. When installing, check the direction of the product so that the fluid flowing and the arrow marked on the product are in the same direction.
   * Installing the product in wrong directions prevents the product from functioning properly.
   *In order to use flow pressure for closing the valve in large nominal size of the product, flow direction is established as shown below:

	PN16 and PN25
Under the valve	15A – 150A
On the valve	200A (250A)



2. Do not apply excessive load, torque or vibration to the product.
   * Failure to follow this notice may result in leakage.
3. Before installing the product, remove foreign substances and scale inside the piping.
   * Failure to follow this notice may prevent the product from functioning properly.
4. Do not set a tool against the connecting holes or handwheel.
   * Failure to follow this notice may damage the product.





Place of handling the product during the transport.

5. Protect the spindle during painting of piping.
6. It is recommended to install the product with the handwheel upwards.

6. Maintenance

⚠ Warning

1. Completely discharge the internal pressure of the product and piping before maintenance. Maintenance must be conducted by an experienced professional.
   * Failure to follow this notice may result in scalds, injury or contamination on surroundings due to the residual pressure.
2. If fluid is hot, do not touch the product directly with bare hands.
   * Failure to follow this notice may result in scalds or injury.

⚠ Caution

1. Do not disassemble the product unnecessarily.
2. Do not use additional lever when turning the handwheel.
3. Conduct inspections in order to maintain the optimal performance of the product once or twice a month.
4. Avoid rapid change of temperature and pressure to the product at the startup and during the usual operations.
5. If necessary, tighten the gland packing and add packing rings in advance.
6. Make sure that the piping is out of operation before detaching the product from the piping.
7. Completely discharge the pressure inside of the product, line and equipment before maintenance and cool down the product till it can be touched with bare hands.

   * Failure to follow this notice may result in injury or burns due to residual pressure.

6.1 Troubleshooting

Trouble	Cause	Remedy
No flow	1. The product is closed.	1. Open the product.
	2. Flange dust caps are not removed.	2. Remove dust caps on the flanges.
Poor flow	1. The product is not open enough.	1. Fully open the product.
	2. Piping is clogged.	2. Clean the piping.
Difficulty in handle operation	1. The spindle is dry.	1. Grease the spindle.
	2. The gland packing is tightened too much.	2. Slightly loosen the gland with keeping gland tightness enough.
Spindle leakage	1. The bellows is damaged.	1. Tighten the gland until tightness is reached. Replace upper part of the product as soon as possible.
Seat leakage	1. Shutoff is not correct.	1. Tighten the handwheel by hand without using a tool.
	2. The valve seat or valve is damaged.	2. Replace the product with a new one.
	3. Foreign substances are stuck between the disc and seat ring.	3. Clean the product. Install a strainer at the inlet side of the product.