



Cleanness by Purpose

# B

# ellows Valve

*Pipe-Welded Y-Type  
Bellows Seal Valve*

***PYB series***



***IHARA SCIENCE CORPORATION***

# PYB Pipe-Welded Y-Type Bellows Seal Valve (1MPa)

## 【Features】

**Pipe-Welded Y-Type Bellows Seal Valve(PYB Series)** have being developed to reduce troubles (※1) due to the surface defects of conventional cast steel body.

At the same time, delivery lead times becomes much shorter.

- Valve body consists of steel pipes, achieves significant weight reduction and high cleanliness.
- Equipped with metal bellows seal achieves high airtightness and high durability.
- Achieves high performance of Cv value through Y-type structure and high lift design.
- Wet contact parts are oil-free treated by precision cleaning.
- Carry out assembly, inspection and packaging. in the clean room (class 1000).
- Compared with conventional cast steel valve, achieve short lead time as the body is made of steel pipes.

(※1) Poor appearance due to pin holes, cavities, residual oil, particles generation, etc.

## Specification

Nominal size	40A	50A	65A	80A	100A	125A
	150A	200A	250A	300A	-	-
Working pressure	Vac.~1MPa					
Working temperature	-10~+80°C					
Leak amount	Internal *2	$\leq 1 \times 10^{-6} \text{Pa} \cdot \text{m}^3 / \text{sec.}$				
	External	$\leq 5 \times 10^{-10} \text{Pa} \cdot \text{m}^3 / \text{sec.}$				

(※2) Case of PTFE seat. Depends on the material.

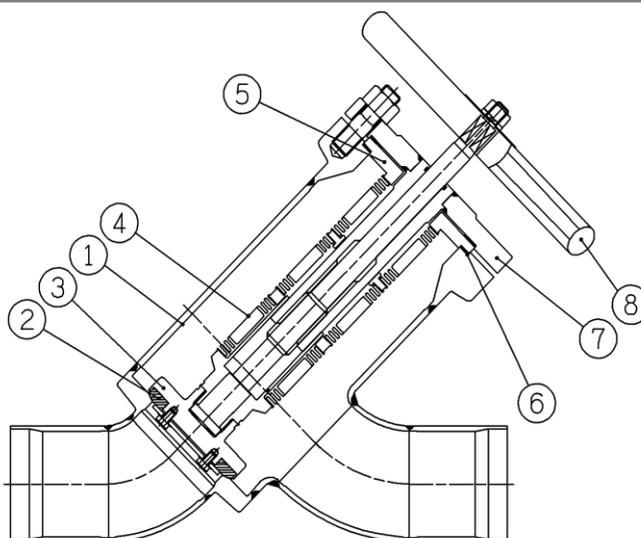
(※3) Case of butt welding of Sch.5S. Depends on connection.

Cv value	40A	55	125A	510
	50A	85	150A	730
	65A	160	200A	1200
	80A	220	250A	1800
	100A	345	300A	2600

Weight <sup>(※3)</sup>	40A	5kg	125A	48kg
	50A	7kg	150A	70kg
	65A	12kg	200A	112kg
	80A	23kg	250A	260kg
	100A	29kg	300A	322kg

## Main Materials

	Parts Name	Material
①	Body	316L SS
②	Disk	PTFE
③	Disk Holder	316L SS
④	Bellows	316L SS
⑤	Bellows Flange	316L SS
⑥	Gasket	PCTFE
⑦	Bonnet	304 SS
⑧	Handle	Ductile Iron



## Model Numbering

**PYB - ① ② - 6LCT - ③**

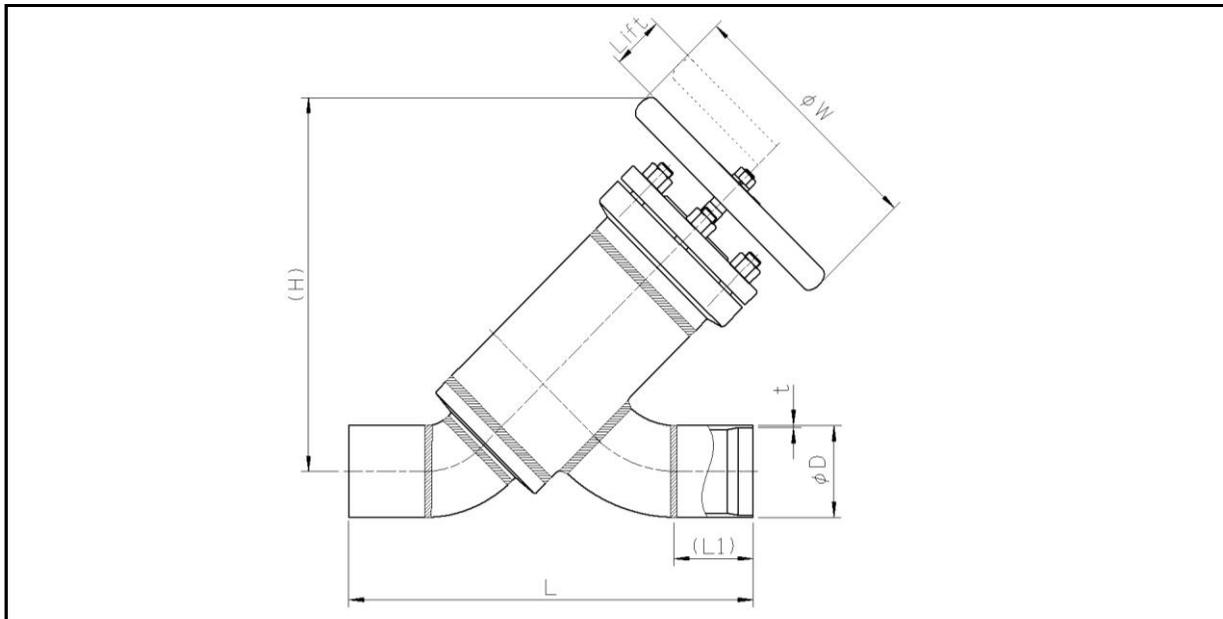
Ex.) PYB-50PW5-6LCT-EP [50A Sch.5S Pipe BW, PTFE Disk, PCTFE Gasket, Electropolishing]

①			
Mark	Size <sup>*</sup>	Mark	Size <sup>*</sup>
40	40A	125	125A
50	50A	150	150A
65	65A	200	200A
80	80A	250	250A
100	100A	300	300A

②		
Mark	Connection <sup>(※4)</sup>	
PW5	Pipe (BW)	Sch.5S
PW10		Sch.10S

③	
Mark	Internal Finish
EP	EP Grade ( $\leq \text{Ra}0.18 \mu\text{m}$ )
BA	BA Grade ( $\leq \text{Ra}0.8 \mu\text{m}$ )

(※4) Other connections are available. Contact us.



Size	H	L	L1	D	t		W	Lift
					Sch.5S	Sch.10S		
40A	214	235	50	48.6	1.65	2.8	125	26
50A	249	260	49	60.5	1.65	2.8	160	34
65A	289	310	53.5	76.3	2.1	3.0	180	44
80A	365	400	77	89.1	2.1	3.0	250	52.5
100A	406	470	77.5	114.3	2.1	3.0	280	64
125A	466	550	73	139.8	2.8	3.4	300	85.5
150A	533	640	73.5	165.2	2.8	3.4	355	88.5
200A	625	800	84	216.3	2.8	4.0	400	100.5
250A	1005	980	112.5	267.4	3.4	4.0	600	150
300A	1082	1100	107.5	318.5	4.0	4.5	600	170

(※) Sizes of 250A~300A are different structure from above drawing.  
 High Flow Types, Pneumatic Operation, Purge Ports are available upon requests.



ISO9001, ISO14001 Certified Office  
 Certified office for high-pressure gas facility testing and manufacturing,  
 certified office for N valves and N-II fittings

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**WARNING**

If you don't select and handle fittings, valves and related accessories in an adequate manner, it may damage human beings and applicable systems.  
 Within the responsibility and authorization of users and piping designers, fittings, valves and related accessories shall be adequately selected, used and maintained based on the applicable conditions and product conformity to the system to be applied. Please read carefully the operation manual and feel free to contact with Ihara if

**WARRANTY CLAUSE**

1. Warranty Period  
 The warranty period of the products is one (1) year from putting into service or one and half (1.5) years after delivery whichever comes earlier.  
 However, the products specially specified and/or the cases used under deviating from the specification shall be exempted.
2. Scope of Warranty  
 Any failure and damage under maker's responsibility will be found during the warranty period, the substitutes and/or replacement parts shall be provided free of charge. The warranty shall not be applied to a claim for the

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