



# HFC Series

High Flow Y-Type Bellows Valve



## HIGH FLOW Y-TYPE BELLOWS VALVE (15A~50A)

# HFC SERIES

### FEATURES

- High Cv and maximum flow capacity by minimizing flow loss
- A competitive price by sharing common parts for each size
- Available with various purge port and purge valve as option
- Excellent corrosion resistance by using 316L stainless steel body and bellows



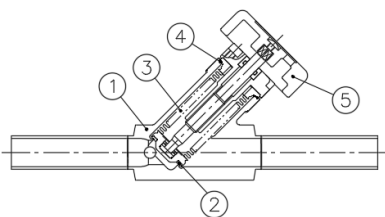
### MAJOR SPECIFICATIONS

Size	15A	20A	25A	32A	40A	50A
<b>Cv Value</b>	14.5	19	20	46	48	48
<b>Wetted Area Volume</b>	75cm <sup>3</sup>	113cm <sup>3</sup>	162cm <sup>3</sup>	405cm <sup>3</sup>	548cm <sup>3</sup>	754cm <sup>3</sup>
<b>Max. Working Pressure (G.)</b>	2.6MPa					
<b>Max. Working Temp.</b>	-30°C ~ 82°C					
<b>Across the Seat (He)</b>	1x10 <sup>-9</sup> atm · cc(He)/s					
<b>Test Pressure ≤ 1×10<sup>-2</sup> Torr</b>	1x10 <sup>-11</sup> Pa · m <sup>3</sup> /s (1x10 <sup>-10</sup> atm · cc(He)/s)					
<b>Inboard (He)</b>	1x10 <sup>-11</sup> Pa · m <sup>3</sup> /s (1x10 <sup>-10</sup> atm · cc(He)/s)					
<b>Test Pressure ≤ 1×10<sup>-2</sup> Torr</b>	1x10 <sup>-11</sup> Pa · m <sup>3</sup> /s (1x10 <sup>-10</sup> atm · cc(He)/s)					
<b>Particle Inspection (EP only)</b>	No count					
<b>Pressure : 60~80psi N<sub>2</sub> Gas</b>	No count					
<b>Sample Volume : 1CFM</b>	No count					
<b>0.1µm and Larger</b>	No count					

### PRODUCT GRADE

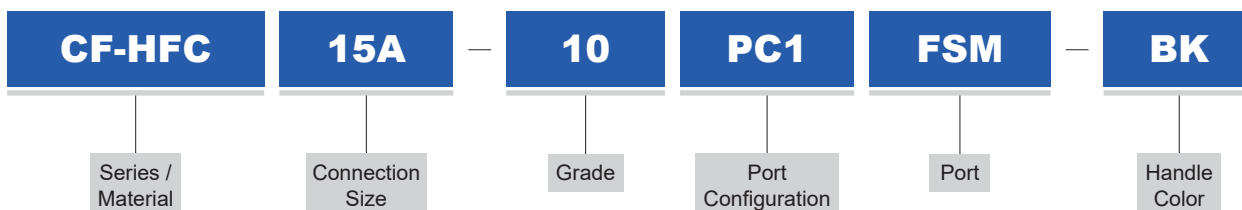
GRADE	BA	EP
Inner Surface Roughness	Ry ≤ 3.2µm 10 µinch Ra(Avg.) Cut off Length : 0.8mm Measuring Length : 4mm	Ry ≤ 3.2µm 10 µinch Ra(Avg.) Cut off Length : 0.8mm Measuring Length : 4mm
Polishing	Machining Finish	Electro Polishing Finish

## MATERIAL



NO.	NAME	MATERIAL
1	Body	316L Stainless Steel
2	Disk	PCTFE
3	Bellows	316L Stainless Steel
4	Gasket	NICKEL201
5	Handle	15A~25A : ABS 32A~50A : PHENOLIC PLASTIC

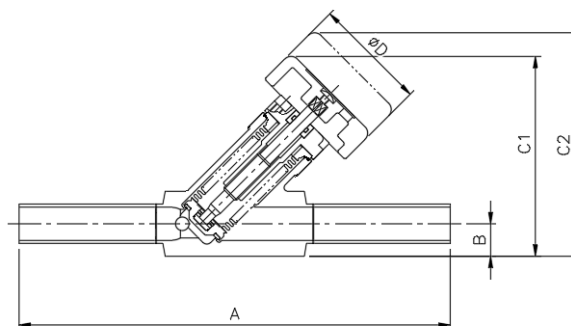
## ORDERING INFORMATION



	BODY MATERIAL	SIZE		CONNECTION TYPE		GRADE	
CF-HFC	316L Stainless Steel	15A	575(1/2")	BLANK	Butt Weld	10	EP / 10Ra $\mu\text{in}$ (0.25 $\mu\text{m}$ ) Max
		20A	750(3/4")				
		25A	1000(1")			BA-	BA / 20Ra $\mu\text{in}$ (0.50 $\mu\text{m}$ ) Max
		32A	1500(1.5")				
		40A	2000(2")				
		50A	2500(2.5")				

CODE	DESCRIPTION	CODE	Description	CODE	Description
PC1	1/4" Downstream Port	FSM	Face Seal Metal Male	BK	Black Color
PC2	1/4" UP & Downstream Port	FSM-F	Face Seal Metal Female		
PC3	1/4" Upstream Port				
PV1	1/4" Downstream Valve				
PV2	1/4" UP & Downstream Valve				
PV3	1/4" Upstream Valve				
PC1525	1/2" Downstream Port				
PC2525	1/2" UP & Downstream Port				
PC3525	1/2" Upstream Port				
PV1525	1/2" Downstream Valve				
PV2525	1/2" UP & Downstream Valve				
PV3525	1/2" Upstream Valve				
LV	No Purge Port				

## MODEL



CONNECTION	SIZE	A	B	C1	C2	D
Butt Weld	15A	239	18	110.7	123.8	63
	20A	239	18	110.7	123.8	63
	25A	239	18	110.7	123.8	63
	32A	284.7	28.6	182.3	207.9	100
	40A	335.5	28.6	182.3	207.9	100
	50A	335.5	28.6	182.3	207.9	100

## HIGH FLOW Y-TYPE BELLOWS VALVE (65A~200A)

# HFC SERIES

### FEATURES

- High Cv and maximum flow capacity by minimizing flow loss
- A competitive price by sharing common parts for each size
- Available with various purge port and purge valve as option
- Excellent corrosion resistance by using 316L stainless steel body and bellows

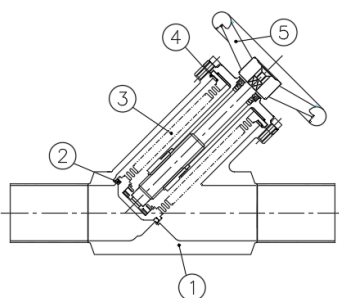


### MAJOR SPECIFICATIONS

Size	65A	80A	100A	125A	150A	200A
Cv Value	245	247	247	1000	1000	1117
Wetted Area Volume	2,152cm <sup>3</sup>	2,492cm <sup>3</sup>	3,339cm <sup>3</sup>	10,759cm <sup>3</sup>	12,075cm <sup>3</sup>	20,536cm <sup>3</sup>
Max. Working Pressure (G.)	2.6MPa					
Max. Working Temp.	-30°C ~ 82°C					
Across the Seat (He)	1x10 <sup>-9</sup> atm · cc(He)/s					
Test Pressure ≤ 1x10 <sup>-2</sup> Torr Inboard (He)	1x10 <sup>-11</sup> Pa · m <sup>3</sup> /s (1x10 <sup>-10</sup> atm · cc(He)/s)					
Particle Inspection (EP only) Pressure : 60~80psi N <sub>2</sub> Gas Sample Volume : 1CFM 0.1µm and Larger	No count					

### PRODUCT GRADE

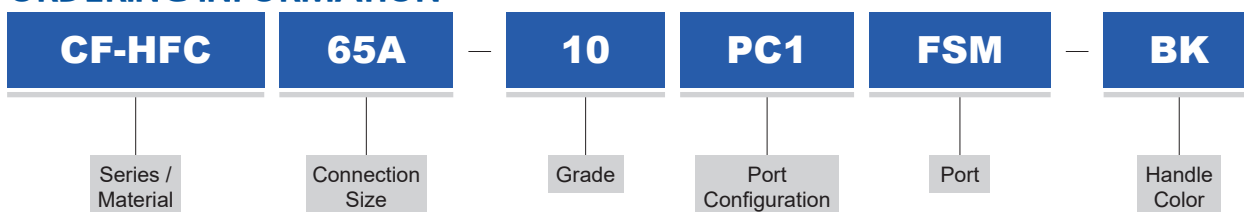
GRADE	BA	EP
Inner Surface Roughness	Ry ≤ 3.2µm 10 µinch Ra(Avg.) Cut off Length : 0.8mm Measuring Length : 4mm	Ry ≤ 3.2µm 10 µinch Ra(Avg.) Cut off Length : 0.8mm Measuring Length : 4mm
Polishing	Machining Finish	Electro Polishing Finish



### MATERIAL

NO.	NAME	MATERIAL
1	Body	316L Stainless Steel
2	Disk	PCTFE
3	Bellows	316L Stainless Steel
4	Gasket	NICKEL201
5	Handle	PHENOLIC PLASTIC

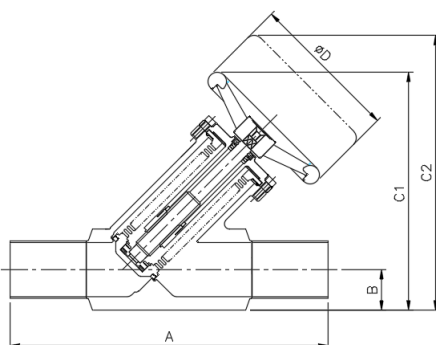
### ORDERING INFORMATION



BODY MATERIAL		SIZE		CONNECTION TYPE		GRADE	
CF-HFC	316L Stainless Steel	65A	3000(3")	BLANK	Butt Weld	10	EP / 10Ra $\mu\text{in}$ (0.25 $\mu\text{m}$ ) Max
		80A	4000(4")				
		100A		6000(6")			BA-
		125A					
		150A					
		200A					

CODE	DESCRIPTION	CODE	Description	CODE	Description
PC1	1/4" Downstream Port	FSM	Face Seal Metal Male	BK	Black Color
PC2	1/4" UP & Downstream Port	FSM-F	Face Seal Metal Female		
PC3	1/4" Upstream Port				
PV1	1/4" Downstream Valve				
PV2	1/4" UP & Downstream Valve				
PV3	1/4" Upstream Valve				
PC1525	1/2" Downstream Port				
PC2525	1/2" UP & Downstream Port				
PC3525	1/2" Upstream Port				
PV1525	1/2" Downstream Valve				
PV2525	1/2" UP & Downstream Valve				
PV3525	1/2" Upstream Valve				
LV	No Purge Port				

### MODEL



CONNECTION	SIZE	A	B	C1	C2	D
Butt Weld	65A	423.4	54	308	357.1	200
	80A	423.4	54	308	357.1	200
	100A	423.4	54	312.2	361.3	200
	125A	543.1	83.8	472.4	539.1	300
	150A	543.1	83.8	472.4	539.1	300
	200A	838.5	83.8	527	563.5	300

## HIGH FLOW Y-TYPE BELLOWS VALVE (250~300A)

# HFC SERIES

### FEATURES

- High Cv and maximum flow capacity by minimizing flow loss
- A competitive price by sharing common parts for each size
- Easy and smooth handling by applying bearing to operating part
- Available with various purge port and purge valve as option
- Excellent corrosion resistance by using 316L stainless steel body and bellows

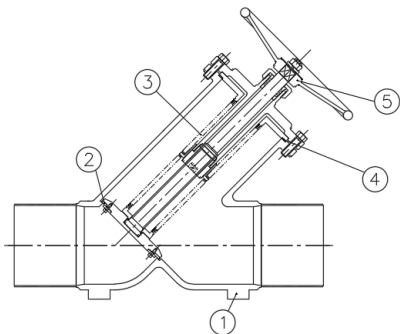


### MAJOR SPECIFICATIONS

Size	250A	300A
Cv Value	1700	2000
Wetted Area Volume	43,035cm <sup>3</sup>	121,696cm <sup>3</sup>
Max. Working Pressure (G.)	2.6MPa	
Max. Working Temp.	-30°C ~ 82°C	
Across the Seat (He)	1x10 <sup>-9</sup> atm · cc(He)/s	
Test Pressure ≤ 1x10 <sup>-2</sup> Torr Inboard (He)	1x10 <sup>-11</sup> Pa · m <sup>3</sup> /s (1x10 <sup>-10</sup> atm · cc(He)/s)	
Particle Inspection (EP only) Pressure : 60~80psi N <sub>2</sub> Gas Sample Volume : 1CFM 0.1µm and Larger	No count	

### PRODUCT GRADE

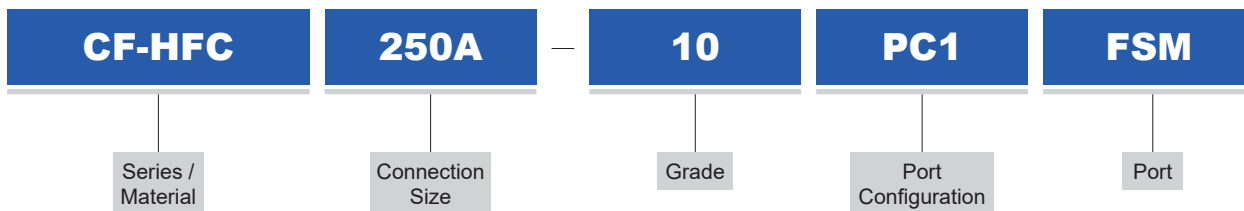
GRADE	BA	EP
Inner Surface Roughness	Ry ≤ 3.2µm 10 µinch Ra(Avg.) Cut off Length : 0.8mm Measuring Length : 4mm	Ry ≤ 3.2µm 10 µinch Ra(Avg.) Cut off Length : 0.8mm Measuring Length : 4mm
Polishing	Machining Finish	Electro Polishing Finish



### MATERIAL

NO.	NAME	MATERIAL
1	Body	316L Stainless Steel
2	Disk	PTFE
3	Bellows	316L Stainless Steel
4	Gasket	PTFE
5	Handle	SCS13

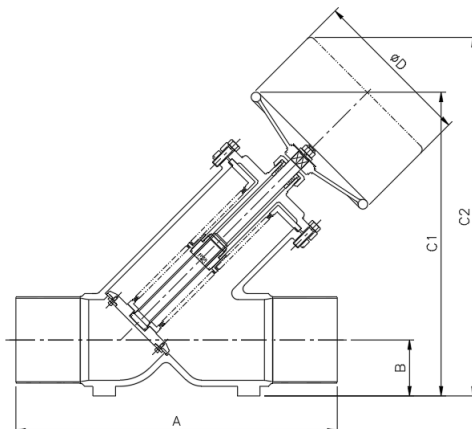
### ORDERING INFORMATION



	BODY MATERIAL	SIZE	CONNECTION TYPE		GRADE	
CF-HFC	316L Stainless Steel	250A	BLANK	Butt Weld	10	EP / 10Ra $\mu\text{in}$ (0.25 $\mu\text{m}$ ) Max
		300A				BA-

CODE	DESCRIPTION	CODE	Description	CODE	Description
PC1	1/4" Downstream Port	FSM	Face Seal Metal Male	BK	Black Color
PC2	1/4" UP & Downstream Port	FSM-F	Face Seal Metal Female		
PC3	1/4" Upstream Port				
PV1	1/4" Downstream Valve				
PV2	1/4" UP & Downstream Valve				
PV3	1/4" Upstream Valve				
PC1525	1/2" Downstream Port				
PC2525	1/2" UP & Downstream Port				
PC3525	1/2" Upstream Port				
PV1525	1/2" Downstream Valve				
PV2525	1/2" UP & Downstream Valve				
PV3525	1/2" Upstream Valve				
LV	No Purge Port				

### MODEL



CONNECTION	Size	A	B	C1	C2	D
Butt Weld	250A	1000	174	942.3	1112	500
	300A	1110	199	1058.5	1267.8	500

