

# FlowCon Wafer 100-1000mm

*Automatic Balancing Valve - Pre-Set Cartridge(s)*



## SPECIFICATIONS

Pressure rating:	3400 kPa / 493 psi
Temperature rating, media:	-20°C to +175°C / -4°F to +347°F
Material:	
- Cartridge:	AISI Type 304 stainless steel AISI Type 17-7 PH stainless steel spring
- Body:	Ductile iron ASTM A536, class 60-40-18/EN-GJS-400-18
Body tappings:	1/4" NPT
End connections:	Sizes: 100-250mm and 350-1000mm: EN1092-1, PN25+ 300mm: EN1092-1, PN40+ 4"-8" and 12"-18": ANSI B 16.5 150lb class flanges+ 10" and 20"-24": ANSI B 16.5 300lb class flanges+ 30": ANSI B 16.47 300lb class flanges+ 32"-40": ANSI B 16.47 150lb class flanges+ Flanges are not supplied by FlowCon Studs and nuts are available upon request
Flow rate range:	0.883-2286.9 l/sec

## DIMENSIONS AND WEIGHTS (NOMINAL) (measured in mm unless noted)

Model no.	D1 (mm)	D1 (")	D2 (±1%)	Cartridge size	Flanges <sup>1</sup>				L (±1%)	H	Weight <sup>2</sup> (kgs.)	Max no. of cartridges per wafer
					ANSI ASME B16.5		EN 1092-1					
					Class	D3 (")	PN	D3 (mm)				
F332x	100	4	172.00	80	150 and up	9	25 and up <sup>3</sup>	235	197.00	90	15	2 <sup>4</sup>
F334x	150	6	218.95		150 and up	11	10 and up	285	184.15	90	19	4
F337x	200	8	276.35		150 and up	13,5	25 and up	360	184.15	90	26	7
F368x	250	10	341.38		300 and up	17,5	25 and up	425	203.20	90	36	11
F369x	300	12	406.40		150 and up	19	40 and up	515	203.20	90	61	15
F339x	350	14	447.80		150 and up	21	25 and up	555	203.20	90	69	19
F384x	400	16	511.05		150 and up	23,5	25 and up	620	241.30	90	102	24
F385x	450 <sup>5</sup>	18	546.10		150 and up	25	16 and up	640	241.30	90	114	31
F338x	500 <sup>5</sup>	20	606.55		300 and up	30,5	16 and up	715	279.40	90	163	37
F386x	600 <sup>5</sup>	24	714.25		300 and up	36	16 and up	840	279.40	90	217	55
F330x	800 <sup>5</sup>	30	882.65		300 and up <sup>6</sup>	43	10 and up	1015	431.80	90	401	85
		32			150 and up <sup>6</sup>	41.75						
F370x	900 <sup>5</sup>	36	1030.00		150 and up <sup>6</sup>	46	25 and up	1185	431.80	90	705	97
F395x	1000 <sup>5</sup>	40	1140.00		150 <sup>6</sup>	53	25 and up	1320	437.80	90	840	121

Note 1: Smallest pressure class flange fitting.

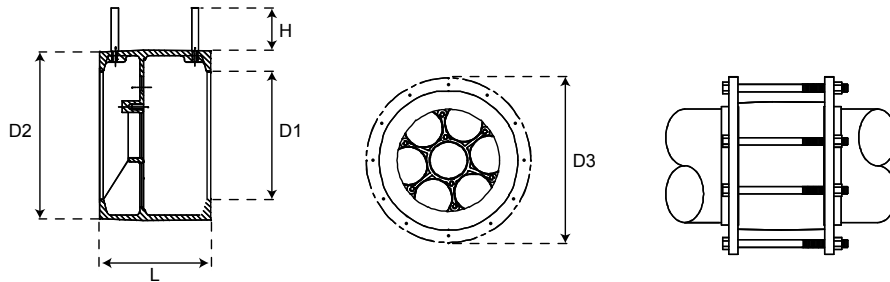
Note 2: Nominal weight, including cartridges and packing material, exact weight is dependent on cartridges.

Note 3: Fits PN25 and PN40 flanges with M18 studs or studs from ACC3320BD25.

Note 4: Hi-flow cartridges does not fit in this wafer size.

Note 5: 450mm and larger supplied with eyebolt for lifting.

Note 6: According to ASME B16.47 series A.



## MODEL NUMBER SELECTION<sup>7</sup>

Insert body size:

**32**=100mm, 4" **34**=150mm, 6" **37**=200mm, 8" **68**=250mm, 10" **69**=300mm, 12"

**39**=350mm, 14" **84**=400mm, 16" **85**=450mm, 18" **38**=500mm, 20"

**86**=600mm, 24" **30**=800mm, 30"/32" **70**=900mm, 36" **95**=1000mm, 40"

Insert a kPaD control range:

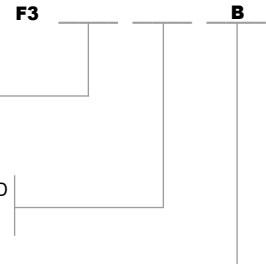
**0**=None

STANDARD/HI-CAP: **1**=10-135 kPaD and 28-135 kPaD **2**=22-210 kPaD and 55-210 kPaD **4**=40-390 kPaD **8**=90-880 kPaD

HI-FLOW<sup>8</sup>: **3**=20-125 kPaD **5**=35-220 kPaD **6**=55-220 kPaD

Insert p/t plug requirement:

**B**=Pressure/temperature plugs



Example: F3370B=Wafer for 200mm flanges with p/t plugs and no cartridges.

Note: Please specify flow requirements as per selection chart when ordering with cartridges.

Note 7: Model no. and flow rate are indicated on label affixed to body.

Note 8: Not possible for DN100.

## FLOW RATE TABLE PER TYPE OF CARTRIDGE

80mm · 3" · stainless steel cartridge, standard flow							
			Pressure range, ΔP:				
			10-135 kPaD 1-20 psid	22-210 kPaD 2-32 psid	40-390 kPaD 4-57 psid	90-880 kPaD 8-128 psid	
Size (mm)	Size (")	Max no. of cartridges	min. available l/sec	Type 1	Type 2	Type 4	Type 8
			l/sec increments	0.883	1.10	1.47	2.21
100	4	2		7.58	9.46	12.62	18.92
150	6	4		15.16	18.92	25.24	37.84
200	8	7		26.53	33.11	44.17	66.22
250	10	11		41.69	52.03	69.41	104.06
300	12	15		56.85	70.95	94.65	141.90
350	14	19		72.01	89.87	119.89	179.74
400	16	24		90.96	113.52	151.44	227.04
450	18	31		117.49	146.63	195.61	293.26
500	20	37		140.23	175.01	233.47	350.02
600	24	55		208.45	260.15	347.05	520.30
800	30	85	max. available l/sec	322.15	402.05	536.35	804.10
	32						
900	36	97		367.63	458.81	612.07	917.62
1000	40	121		458.59	572.33	763.51	1144.66

Accuracy: ±5% of controlled flow rate.

80mm · 3" · stainless steel cartridge, high capacity							
			Pressure range, ΔP:				
			28-135 kPaD 4-20 psid		55-210 kPaD 8-32 psid		
Size (mm)	Size (")	Max no. of cartridges	min. available l/sec	Type 1	Type 2		
			l/sec increments	5.68	6.94		
100	4	2		1.26	1.58		
150	6	4		16.4	20.2		
200	8	7		32.8	40.4		
250	10	11		57.4	70.7		
300	12	15		90.2	111.1		
350	14	19		123.0	151.5		
400	16	24		155.8	191.9		
450	18	31		196.8	242.4		
500	20	37		254.2	313.1		
600	24	55		303.4	373.7		
800	30	85	max. available l/sec	451.0	555.5		
	32						
900	36	97		697.0	858.5		
1000	40	121		795.4	979.7		
					992.2	1222.1	

Accuracy: ±5% of controlled flow rate.

80mm · 3" · stainless steel cartridge, high flow						
			Pressure range, ΔP:			
			20-125 kPaD 3-18 psid	35-220 kPaD 5-32 psid	55-220 kPaD 8-32 psid	
Size (mm)	Size (")	Max no. of cartridges	min. available l/sec	Type 3	Type 5	Type 6
			l/sec increments	6.31	8.52	18.9
100	4	N/A		N/A	N/A <sup>9</sup>	N/A
150	6	4		N/A	N/A	N/A
200	8	7		25.24	50.4	75.6
250	10	11		44.17	88.2	132.3
300	12	15		69.41	138.6	207.9
350	14	19		94.65	189.0	283.5
400	16	24		119.89	239.4	359.1
450	18	31		151.44	302.4	453.6
500	20	37		195.61	390.6	585.9
600	24	55		233.47	466.2	699.3
800	30	85	max. available l/sec	347.05	693.0	1039.5
	32					
900	36	97		536.35	1071.0	1606.5
1000	40	121		612.07	1222.2	1833.3
				763.51	1524.6	2286.9

Accuracy: ±5% of controlled flow rate.

Note 9: For flow rates in between min. and max. please contact FlowCon.

## GENERAL SPECIFICATIONS

### 1. AUTOMATIC BALANCING VALVES - FLOWCON WAFER

- 1.1. Contractor shall install automatic balancing valves where indicated in drawings.
- 1.2. Valve shall consist of a dynamic, flow limiting device.

### 2. VALVE HOUSING

- 2.1. Valve housing shall consist of ductile iron ASTM A536-65T, class 60-45-18, rated at no less than 3400 kPa static pressure and +175°C.
- 2.2. Valve shall be permanently marked to show direction of flow.
- 2.3. Dual pressure/temperature test plugs for verifying accuracy of flow performance shall be provided for all valve sizes.
- 2.4. Valve housing shall be compatible with ANSI B 16.5/16.47 150lb/300lb steel flanges (depending on size) and be compatible to DIN PN25+/PN40+ flanges (depending on size) according to EN1092-1.
- 2.5. Sizes 450mm and larger supplied with eyelet bolt for lifting.

### 3. FLOW REGULATOR / AUTOMATIC BALANCING UNIT

- 3.1. Flow regulation unit assembly shall be manufactured of AISI type 304 stainless steel and stainless steel 17-7 spring.
- 3.2. Flow regulation unit shall be available in 4 different kPaD operational range; minimum range shall be capable of being activated by minimum 10 kPaD. Further, the flow regulation unit shall be capable of controlling flow within  $\pm 5\%$  of rated flow.
- 3.3. Identification tags shall be available for all valves; tags shall be indelibly marked with part number and flow rate.

## UPDATES

**For latest updates please see [www.flowcon.com](http://www.flowcon.com)**

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