



KEYSTONE

Double block and bleed style stainless steel butterfly valve sizes 25 mm to 150 mm (1" to 6")

- F250D for imperial tubing
- F251D for metric tubing

Features

- Keystone proven valve and actuator technology.
- Failsafe pneumatic interlocks.
- Fully machined 316L or 304L stainless steel body.
- Linkage driven, with only one actuator required.
- Linkage safety guard fitted as standard.
- Overlapping discs to minimise leakage cavity volume on larger sizes.
- Travel limited actuator to stop disc contact on larger sizes.
- Full range of seats materials available.
- Optional end connections.
- Full range of optional accessories.



General applications

- CIP/process separation
- Non-compatible fluid separation
- Seat integrity monitoring

Typical industries

- Dairies
- Breweries
- Wineries
- Food processing
- Pharmaceutical
- Chemical

Technical data

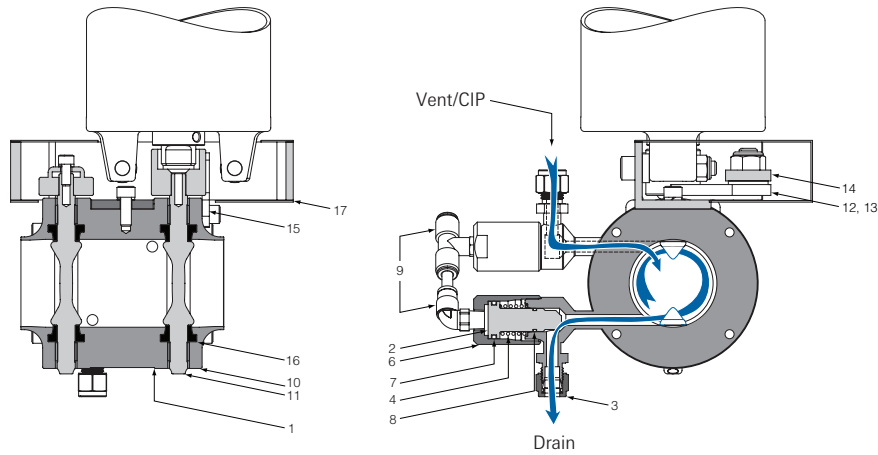
Sizes:	F250D 25 mm to 150 mm (1" to 6") F251D DN 25 to DN 150
Max product pressure at 20°C:	1000 kPa (10 bar)
Rec. working pressure at 20°C:	600 kPa (6 bar)
Min. product pressure at 20°C:	Full vacuum
Temperature range:	minus 10°C to 95°C
End connections:	BW, clamp, RJT, wafer flange, others on request

Hygienic Products - Figure 250D & 251D

Double block and bleed butterfly valves

Operating principle

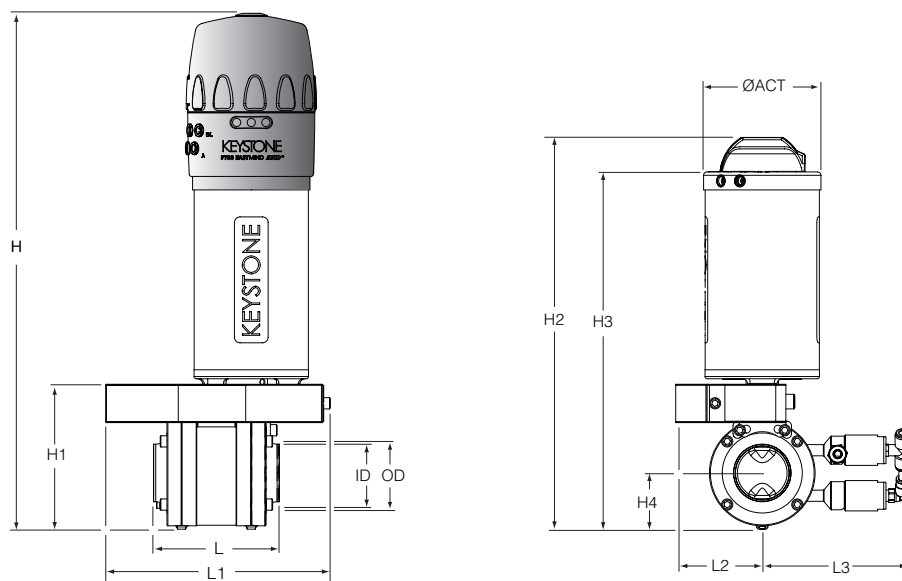
The Keystone F250D double block and bleed butterfly valve consists of two sets of standard F250 butterfly valve components arranged in series, within a single integral valve body, to provide an inline separation cavity when both valves are in the closed position. This inline separation of products is used to isolate non-compatible fluids (i.e. CIP/product.) The separation cavity has two pneumatically interlocked poppet valves, tangentially opposed to provide for the introduction and draining of CIP or flushing liquids. Their position provides for a turbulent circular washing action plus facilitates a drain to atmosphere should either of the separate valve seats fail. The valves twin discs are connected by a linkage arrangement to the pneumatic actuator that simultaneously operates the pneumatic poppet valves.



Note: sectional view

Parts list

No.	Description	Material	Standard
1	Body spacer	316L SS, 304L SS	ASTM A276
2	CIP piston	PTFE	Commercial
3	Nut & ferrule	316L SS, 304L SS	ASTM A276
4	Spring	302 SS	ASTM A313
5	CIP valve body	316L SS, 304L SS	ASTM A276
6	CIP valve cylinder	316L SS, 304L SS	ASTM A276
7	O-ring	Nitrile	-
8	O-ring	FPM	-
9	Air fittings	NP bronze	-
10	Valve body	316L SS, 304L SS	ASTM A276
11	Disc	316L SS	ASTM A276
12	Arm driven	304 SS	ASTM A276
13	Arm driving	304 SS	ASTM A276
14	Arm linkage	304 SS	ASTM A276
15	Mounting bracket	304 SS	ASTM A276
16	Seat	Silicon (white) EPDM (black) Nitrile (black) FPM (red)	FDA FDA FDA FDA
17	Guard assembly	304 SS	ASTM A276



Note: F250D with F257 actuator & control head

F250D with F257 actuator dimensions (mm)

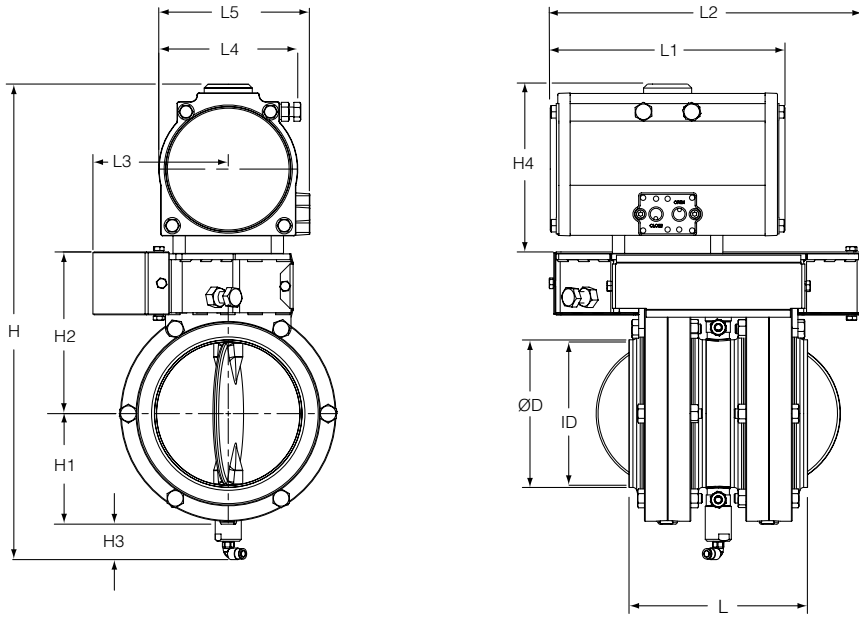
Valve size	L				L1	L2	L3	H	H1	H2	H3	H4	OD	ID	ØACT
	(B/W)	(Clamp)	(BSM)	(Wafer)											
25	112	142	142	150	200	77	124	434	104	324	293	34.5	25.8	22.3	104
40	112	142	142	150	200	77	126	444	114	334	303	39.5	38.5	35.0	104
50	112	142	142	150	200	77	131	459	129	349	318	47.0	51.2	47.7	104
65	112	142	162	150	200	77	134	468	138	358	327	52.0	63.9	60.4	104
80	125	145	157	165	232	98	143	591	178	493	462	62.0	76.6	73.1	141
100	135	157	169	175	232	98	149	618	205	520	489	75.5	102.0	98.5	141

F251D with F257 actuator dimensions (mm)

Valve size	L			L1	L2	L3	H	H1	H2	H3	H4	OD	ID	ØACT
	(B/W)	(Clamp)	(Wafer)											
DN 25	112	130	108	200	77	124	434	104	324	293	34.5	25.8	26.0	104
DN 32	112	130	108	200	77	126	444	124	334	303	34.5	35.2	32.0	104
DN 40	112	130	113	200	77	126	444	114	334	303	39.5	35.2	32.0	104
DN 50	112	130	113	200	77	131	459	129	349	318	47.0	54.5	50.0	104
DN 65	115	139	113	200	77	134	468	138	358	327	52.0	70.4	66.0	104
DN 80	119	147	113	232	98	143	591	178	493	462	62.0	85.4	81.0	141
DN 100	119	147	113	232	98	149	618	205	520	489	75.5	104.4	100.0	141

Hygienic Products - Figure 250D & 251D

Double block and bleed butterfly valves



Notes:

F250D with MRP/Premiair actuator

F79U/E option also available

F250D with F257 actuator dimensions (mm)

Valve size	L				L1	L2	L3	L4	L5	H	H1	H2	H3	H4	OD	ID
	(BW)	(Clamp)	(BSM)	(Wafer)												
* 125	179	205	-	153	242	325	140	144	155	469	99	155	35	282	132.4	125
**125	179	205	-	153	242	325	140	144	155	469	99	155	35	282	132.4	125
* 150	185	215	236	235	242	325	140	144	155	493	115	167	37	282	148.4	153
**150	185	215	236	235	242	325	140	144	155	493	115	167	37	282	148.4	153

F251D with MRP/F79U actuator dimensions (mm)

Valve size	L				L1	L2	L3	L4	L5	H	H1	H2	H3	H4	OD	ID
	(BW)	(Clamp)	(BSM)	(Wafer)												
* DN 125	179	205	173	153	242	325	140	144	155	469	99	155	35	282	129.4	125
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* DN 150	185	215	181	235	242	325	140	144	155	493	115	167	37	282	154.4	150
**DN 150	185	215	181	235	242	325	140	144	155	493	115	167	37	282	154.4	150

Notes:

* Dims with MRP/Premiair actuators

** Dims with F79U/E actuators

Typical specifying sequence

Example	050	F250D	255	CLP/RJT	398																																													
<p>Valve size</p> <table border="1"> <tr><td>1"</td><td>(025)</td><td>DN 25</td></tr> <tr><td>1.25"</td><td>(032)</td><td>DN 32</td></tr> <tr><td>1.5"</td><td>(040)</td><td>DN 40</td></tr> <tr><td>2"</td><td>(050)</td><td>DN 50</td></tr> <tr><td>2.5"</td><td>(065)</td><td>DN 65</td></tr> <tr><td>3"</td><td>(080)</td><td>DN 80</td></tr> <tr><td>4"</td><td>(100)</td><td>DN 100</td></tr> <tr><td>5"</td><td>(125)</td><td>DN 125</td></tr> <tr><td>6"</td><td>(150)</td><td>DN 150</td></tr> </table>						1"	(025)	DN 25	1.25"	(032)	DN 32	1.5"	(040)	DN 40	2"	(050)	DN 50	2.5"	(065)	DN 65	3"	(080)	DN 80	4"	(100)	DN 100	5"	(125)	DN 125	6"	(150)	DN 150																		
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<p>Extended definer NB - double block and bleed with no bleed F257 - supplied c/w F257, drive stem & mount brackets for valve rated actuator F79U - supplied c/w F79U drive stem & mount brackets for valve rated actuator (no actuator supplied) MRP - supplied c/w MRP drive stem & mount brackets for valve rated actuator (no actuator supplied)</p>																																																		