

KEYSTONE FIGURE 250D AND 251D HYGIENIC PRODUCTS

Double block and bleed style stainless steel butterfly valves

- 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 minimize 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 APPLICATION

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

Typical industries

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

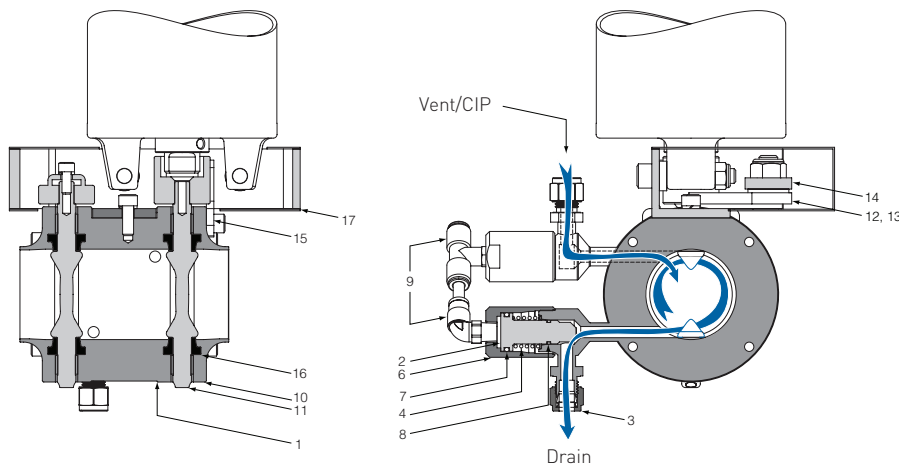
TECHNICAL DATA

Sizes:	DN 25 to DN 150 (NPS 1 to NPS 6)
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:	-10°C to 95°C
End connections:	BW, clamp, RJT, wafer flange, others on request

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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.

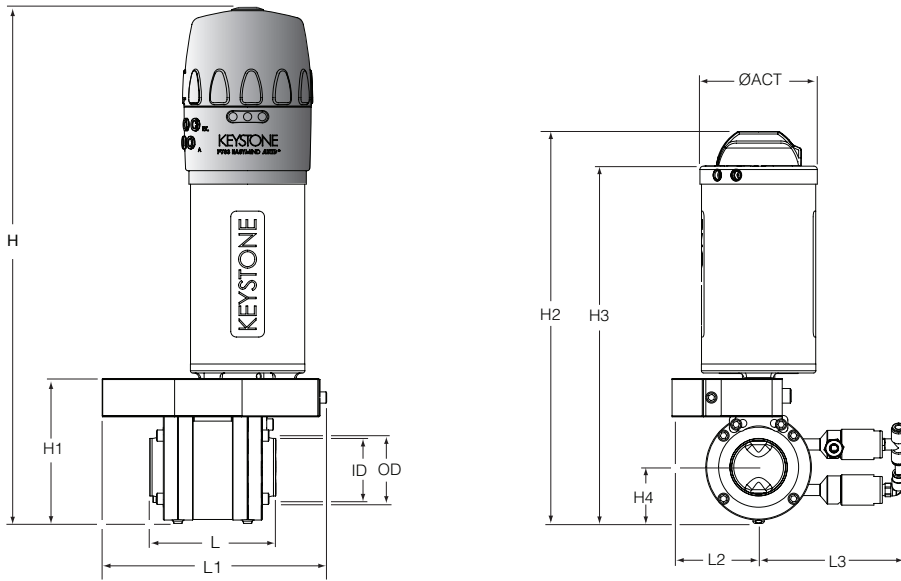


NOTE
Sectional view

PARTS LIST

No.	Description	Material	Standard
1	Body spacer	316L SS, 304L SS	ASTM A276
2	CIP piston	PTFE	Commercial
3	Nut and 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

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NOTE
F250D with F257 actuator and control head

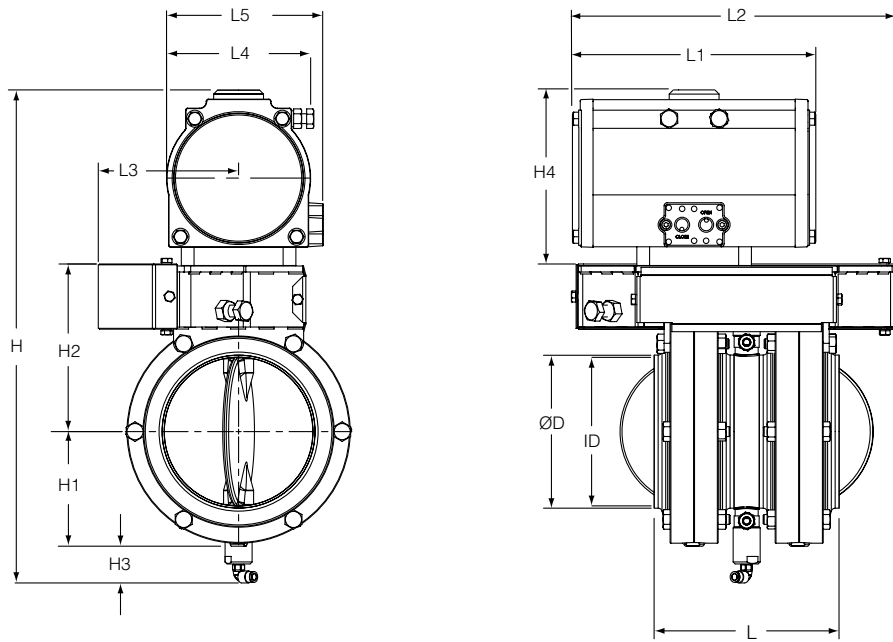
F250D WITH F257 ACTUATOR DIMENSIONS (mm)

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

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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
DN	(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
DN	(BW)	(Clamp)	(BSM)	(Wafer)												
125*	179	205	173	153	242	325	140	144	155	469	99	155	35	282	129.4	125
125**	179	205	173	153	242	325	140	144	155	469	99	155	35	282	129.4	125
150*	185	215	181	235	242	325	140	144	155	493	115	167	37	282	154.4	150
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

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SELECTION GUIDE

Example:			050	F250D	255	CLP/RJT	398
Valve size	DN	NPS					
025	25 mm	1"					
032	32 mm	1.25"					
040	40 mm	1.5"					
050	50 mm	2"					
065	65 mm	2.5"					
080	80 mm	3"					
100	100 mm	4"					
125	125 mm	5"					
150	150 mm	6"					
Figure							
F250D	Double block and bleed for imperial tubing						
F251D	Double block and bleed for metric tubing						
Trim	Seat	Body	Disc	Bearing			
255	EPDM	304	316	PVDF			
256	Silicon	304	316	PVDF			
252	NBR	304	316	PVDF			
258	FPM	304	316	PVDF			
259	FPM	316	316	PVDF			
262	EPDM	316	316	PVDF			
263	Silicon	316	316	PVDF			
253	NBR	316	316	PVDF			
End connections							
Weld ends				Thread ends			
BW	Butt weld (Std.)			DIN	DIN thread (fabricated)		
BWD	Butt weld DIN tube			RJT	RJT male part		
				SMS	SMS male part, external thread 6 TPI		
Clamp ends							
CLP	Clamp (machined)						
Extended definer							
NB	Double block and bleed with no bleed						
F257	Supplied c/w F257, drive stem and mount brackets for valve rated actuator						
F79U	Supplied c/w F79U drive stem and mount brackets for valve rated actuator (no actuator supplied)						
MRP	Supplied c/w MRP drive stem and mount brackets for valve rated actuator (no actuator supplied)						



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