



PENTAIR SÜDMO



HYGIENIC PROCESS VALVES

F250D / F251D HYGIENIC BUTTERFLY VALVES

DOUBLE BLOCK AND BLEED STYLE BUTTERFLY VALVES

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HYGIENIC BUTTERFLY VALVES

DOUBLE BLOCK AND BLEED

The F250D and F251D Double Block and Bleed valves are used for in-line safe separation of incompatible fluids.

GENERAL APPLICATIONS

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

Typical industries

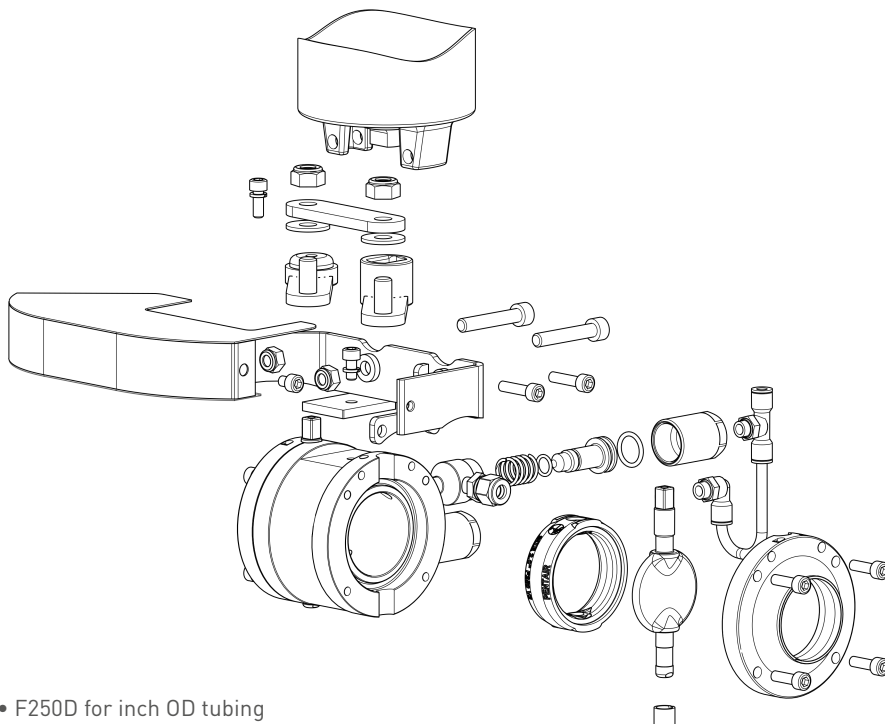
- Dairies
- Breweries
- Wineries
- Food processing
- Pharmaceutical
- Chemical

TECHNICAL DATA

Sizes:	DN 25 to DN 150 (Inch OD 1.0" to 6.0")
Max product pressure at 20°C:	1000kPa (10bar)
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

FEATURES

- PENTAIR 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



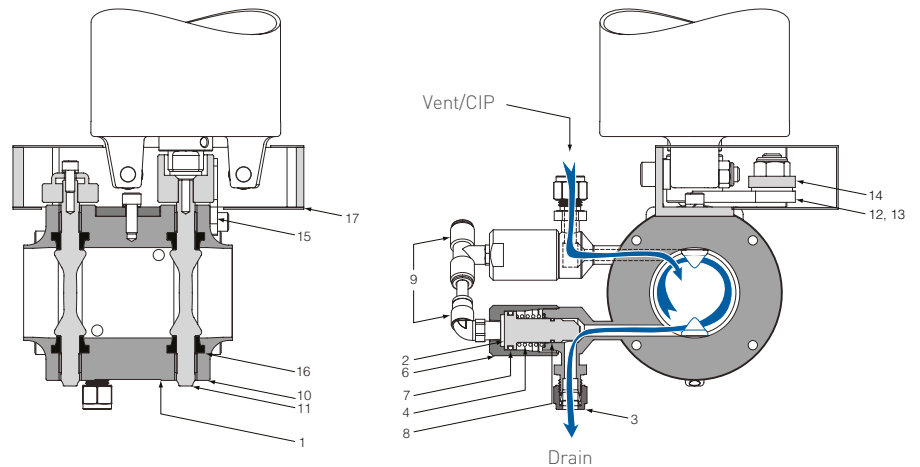
- F250D for inch OD tubing
- F251D for metric tubing

PENTAIR SÜDMO HYGIENIC BUTTERFLY VALVES F250D/251D DOUBLE BLOCK AND BLEED STYLE (DBB)

PRODUCT INFORMATION

OPERATING PRINCIPLE

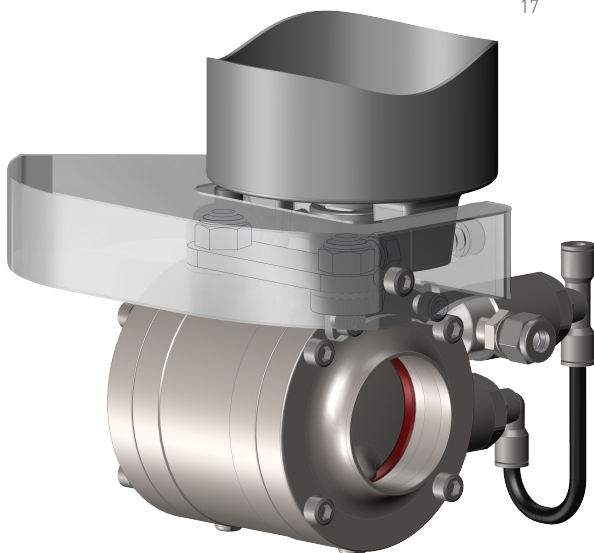
The PENTAIR F250D double block and bleed butterfly valve consists of two sets of standard F250 butterfly valve components arranged in series, within a single integral valve body, to provide an inline separation cavity when both valves are in the closed position. This inline separation of products is 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 valve's twin discs are connected by a linkage arrangement to the pneumatic actuator that simultaneously operates the pneumatic poppet valves.



NOTE
Sectional view

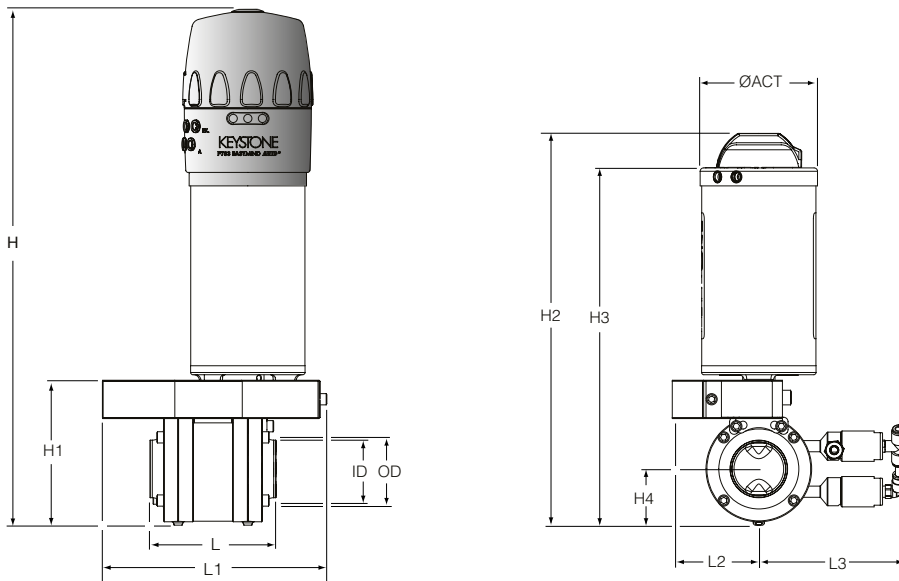
PARTS LIST

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



PENTAIR SÜDMO HYGIENIC BUTTERFLY VALVES F250D/251D DOUBLE BLOCK AND BLEED STYLE (DBB)

PRODUCT INFORMATION



NOTE

F250D with F257 actuator and control head

F250D WITH F257 ACTUATOR DIMENSIONS (mm)

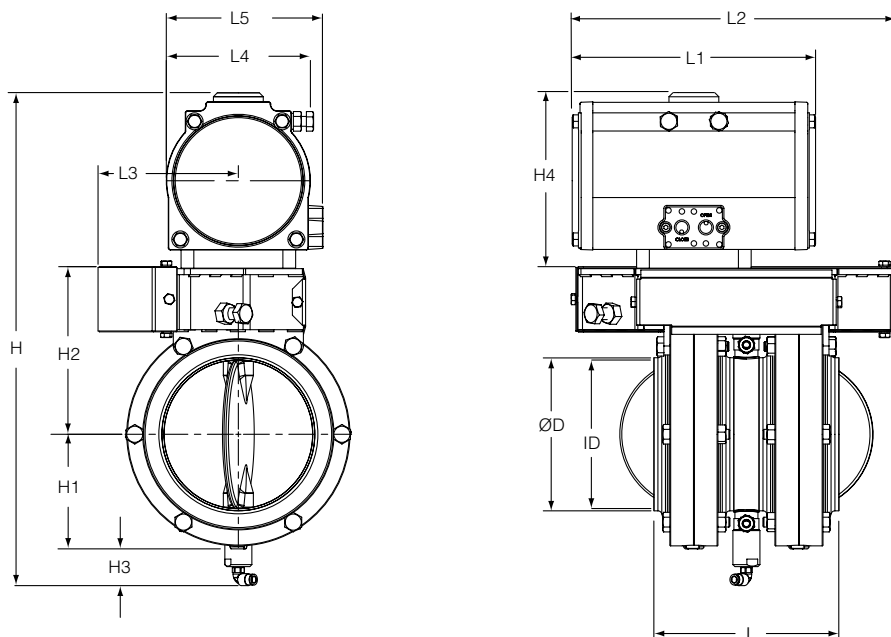
Valve size		L			L1	L2	L3	H	H1	H2	H3	H4	OD	ID	ØACT
DN	Inch OD	(B/W)	(Clamp)	(BSM)											
25	1.0"	112	142	142	200	77	124	434	104	324	293	34.5	25.8	22.3	104
40	1.5"	112	142	142	200	77	126	444	114	334	303	39.5	38.5	35.0	104
50	2.0"	112	142	142	200	77	131	459	129	349	318	47.0	51.2	47.7	104
65	2.5"	112	142	162	200	77	134	468	138	358	327	52.0	63.9	60.4	104
80	3.0"	125	145	157	232	98	143	591	178	493	462	62.0	76.6	73.1	141
100	4.0"	135	157	169	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	Metric	(B/W)	(Clamp)											
25	25	112	130	200	77	124	434	104	324	293	34.5	25.8	26.0	104
32	32	112	130	200	77	126	444	124	334	303	34.5	35.2	32.0	104
40	40	112	130	200	77	126	444	114	334	303	39.5	35.2	32.0	104
50	50	112	130	200	77	131	459	129	349	318	47.0	54.5	50.0	104
65	65	115	139	200	77	134	468	138	358	327	52.0	70.4	66.0	104
80	80	119	147	232	98	143	591	178	493	462	62.0	85.4	81.0	141
100	100	119	147	232	98	149	618	205	520	489	75.5	104.4	100.0	141

PENTAIR SÜDMO HYGIENIC BUTTERFLY VALVES F250D/251D DOUBLE BLOCK AND BLEED STYLE (DBB)

PRODUCT INFORMATION



NOTES

F250D with MRP/Premiair actuator

F79U/E option also available

F250D WITH MRP/F79U ACTUATOR DIMENSIONS (mm)

Valve size		L														
DN	Inch OD	(BW)	(Clamp)	(BSM)	L1	L2	L3	L4	L5	H	H1	H2	H3	H4	OD	ID
125*	5.0"	179	205	-	242	325	140	144	155	469	99	155	35	282	132.4	125
125**	5.0"	179	205	-	242	325	140	144	155	469	99	155	35	282	132.4	125
150*	6.0"	185	215	236	242	325	140	144	155	493	115	167	37	282	153	148.4
150**	6.0"	185	215	236	242	325	140	144	155	493	115	167	37	282	153	148.4

F251D WITH MRP/F79U ACTUATOR DIMENSIONS (mm)

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

NOTES

* Dims with MRP/Premiair actuators

** Dims with F79U/E actuators

PENTAIR SÜDMO HYGIENIC BUTTERFLY VALVES F250D/251D DOUBLE BLOCK AND BLEED STYLE

PRODUCT INFORMATION

SELECTION GUIDE

Example:	2.0"	F250D	EPDM_316	BW	398
Valve size	Metric	Inch OD			
025	25mm	1.0"			
032	32mm	-			
040	40mm	1.5"			
050	50mm	2.0"			
065	65mm	2.5"			
080	80mm	3.0"			
100	100mm	4.0"			
125	125mm	5.0"			
150	150mm	6.0"			

Figure

F250D Double block and bleed for inch OD tubing

F251D Double block and bleed for metric tubing

Seat Body

EPDM	304
VMQ	304
NBR	304
FKM	304
FKM	316
EPDM	316
VMQ	316
NBR	316

End connections

Weld ends

BW	Butt weld (Std.)
BWD	Butt weld DIN tube

Thread ends

DIN	DIN thread (fabricated)
RJF	RJT male part (fabricated)
RJT	RJT male part (machined)
SMS	SMS male part, external thread 6 TPI

Clamp ends

CLP	Clamp (machined)
CLF	ISO clamp ends (fabricated)

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)



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