



ITC Engineering Company

In The Business of Process Control

Manufacturer & Supplier of Industrial Valve & Process Instrumentation



→ Cast Steel Piston Valve

Technical Specification

Design Standard	B16.34/EN12516.2
Testing Standard	API 598
Face to Face Standard	ASME B 16.10
Flange End Standard	ASME B 16.5

Material of Construction

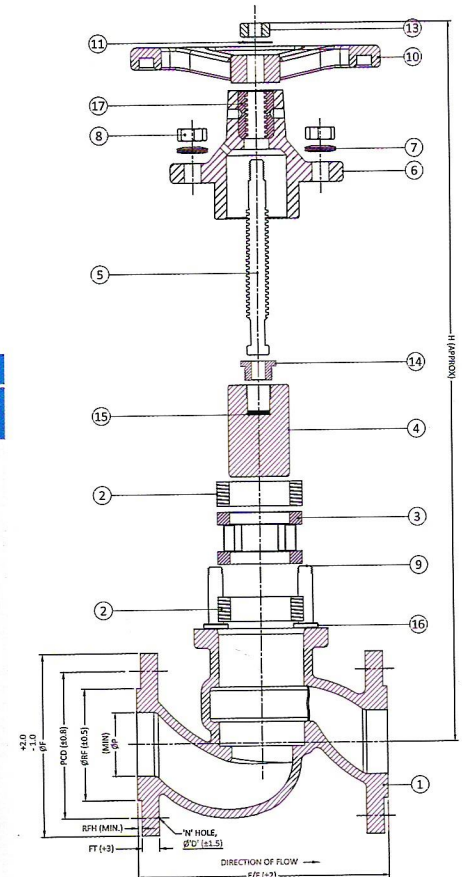
DESCRIPTION	MATERIAL	15-20 mm	25 mm	40 mm	50 mm	
17	THREADED BUSH	BRASS IS319 GR.1	NA	NA	NA	1
16	GAP RING	ASTM A 276 TYPE SS 410	NA	NA	NA	4
15	SPLIT NUT WASHER	BRASS	NA	NA	1	1
14	SPLIT NUT	BRASS IS319 GR.1	NA	NA	1	1
13	HANDWHEEL NUT	ASTM A 194 GR. 2H	1	1	1	1
12	HANDWHEEL WASHER	MS	1	1	1	1
11	NAME PLATE	STAINLESS STEEL	1	1	1	1
10	HAND WHEEL	MI / SGIRON	1	1	1	1
9	STUD	ASTM A 193 GR. B7	2	4	4	4
8	NUT	ASTM A 194 GR. 2H	2	4	4	4
7	BELLEVILLE WASHER	50CR V4/ASTM240 Gr.302	4	8	8	8
6	BONNET	ASTM A 105	1	1	1	1
5	SPINDLE	ASTM A 276 TYPE SS 410	1	1	1	1
4	PISTON	ASTM A 276 TYPE SS 410	1	1	1	1
3	LANTERN BUSH	ASTM A 276 TYPE SS 410	1	1	1	1
2	SEALING RING	GRAPHITE WITH SS304 REINFORCED	2	2	2	2
1	BODY	ASTM A 216 GR. WCB	1	1	1	1

*Note : Alloy Steel, Stainless Steel, Duplex, Super Duplex is also available on request.

Maximum Operating Testing Pressure

Pressure Rating	150#	300#
Hydro Test Pressure (Body) kg/cm ²	32	78
Hydro Test Pressure (Seat) kg/cm ²	22	56
Pneumatic Test Pressure kg/cm ²	7	7

CLASS	150#					300#				
	15mm (1/2")	20mm (3/4")	25mm (1")	40mm (1-1/2")	50mm (2")	15mm (1/2")	20mm (3/4")	25mm (1")	40mm (1-1/2")	50mm (2")
F/F (mm)	108	117	127	165	203	152	178	203	229	267
ØP (mm)	15.7	20.9	25.0	40.0	50.0	15.7	20.9	25.0	40.0	50.0
H OPEN (mm)	127	127	176	240	270	127	127	176	240	270
H CLOSE (mm)	104	104	142	193	223	104	104	142	193	223
ØF (mm)	90	100	110	120	150	95	115	125	155	165
ØRF (mm)	34.9	42.9	50.8	73.0	92.1	34.9	42.9	50.8	73.0	92.1
FT (mm)	9.6	11.2	12.7	12.7	14.3	12.7	14.3	15.9	19.1	20.7
RFH (mm)	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
PCD (mm)	60.3	69.9	79.4	98.4	120.7	66.7	82.6	88.9	114.3	127.0
N	4	4	4	4	4	4	4	4	4	8
ØWH (mm)	86	86	116	150	200	86	86	116	150	200
ØD (mm)	15.9	15.9	15.9	15.9	19.0	15.9	19.0	19.0	22.2	19.0
WEIGHT APPROX (Kg)	1.6	1.9	3.1	6.7	10.5	1.9	2.6	4.7	8.7	12.2



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Flange End Standard	ASME B 16.5

Material of Construction

DESCRIPTION	MATERIAL	80mm	100mm	150mm	200mm
23	THRUST PLATE	ASTM A 276 TYPE SS 410	1	1	1
22	NAME PLATE	STAINLESS STEEL	1	1	1
21	HANDWHEEL NUT	ASTM A 194 GR. 2H	1	1	1
20	HANDWHEEL WASHER	MS	1	1	1
19	HANDWHEEL	MI / SGIRON	1	1	1
18	YOKE	BRONZE	1	1	1
17	SPINDLE NUT	ASTM A 194 GR. 2H	1	1	1
16	FLAT WASHER	ASTM A 276 TYPE SS 410	1	1	1
15	GAP RING	ASTM A 276 TYPE SS 410	3	4	4
14	BELLEVILLE WASHER	50CR V4/ASTM240 Gr.302	12	16	16
13	NUT	ASTM A 194 GR. 2H	6	8	8
12	STUD	ASTM A 193 GR. B7	6	8	8
11	STEM SEAL RING	GRAPHITE WITH SS304 REINFORCED	1	1	1
10	STEM	ASTM A 276 TYPE SS 410	1	1	1
9	GLAND NUT	ASTM A 276 TYPE SS 410	1	1	1
8	SPLIT NUT	BRASS IS319 GR.1	1	1	1
7	BONNET	ASTM A 105/ASTM A 216 GR. WCB	1	1	1
6	SPINDLE	ASTM A 276 TYPE SS 410	1	1	1
5	BONNET SEALING RING	GRAPHITE	1	1	1
4	PISTON	ASTM A 216 GR. WCB	1	1	1
3	LANTERN BUSH	ASTM A 276 TYPE SS 410	1	1	1
2	SEALING RING	GRAPHITE WITH SS304 REINFORCED	2	2	2
1	BODY	ASTM A 216 GR. WCB	1	1	1

*Note : Alloy Steel, Stainless Steel, Duplex, Super Duplex is also available on request.



Maximum Operating Testing Pressure

Pressure Rating	150#	300#
Hydro Test Pressure (Body) kg/cm ²	32	78
Hydro Test Pressure (Seat) kg/cm ²	22	56
Pneumatic Test Pressure kg/cm ²	7	7

CLASS	150#				300#		
	80mm (3")	100mm (4")	150mm (6")	200mm (8")	80mm (3")	100mm (4")	150mm (6")
F/F (mm)	241	292	406	495	318	356	444
ØP (mm)	80	100	152	200	80	100	152
H OPEN (mm)	400	510	615	720	400	510	615
H CLOSE (mm)	330	420	495	575	330	420	495
ØF (mm)	190	230	280	245	210	255	320
ØRF (mm)	127.0	157.2	215.9	269.9	127.0	157.2	215.9
FT (mm)	17.5	22.3	23.9	27.0	27.0	30.2	35.0
RFH (mm)	1.7	1.7	1.7	1.7	1.7	1.7	1.7
PCD (mm)	152.4	190.5	241.3	298.5	168.3	200.0	269.9
N	4	8	8	8	8	8	12
ØWH (mm)	300	300	350	400	300	300	350
ØD (mm)	19.0	19.0	22.2	22.3	19.0	19.0	22.2
WEIGHT APPROX (Kg)	21.0	35.5	56.7	110.4	25.2	40.7	68.7

