

SLANTING DISC CHECK VALVE

WITH
TOP MOUNTED OIL DASHPOT

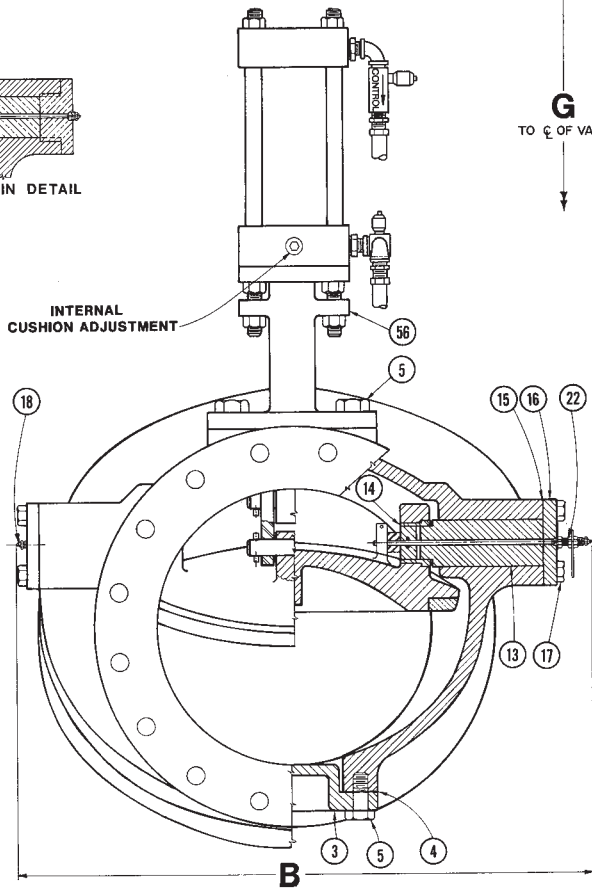
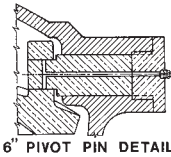
DET.	DESCRIPTION	MATERIAL
1	SEAT BODY HALF	CAST IRON ASTM A126 GR. B
2	PIVOT BODY HALF	CAST IRON ASTM A126 GR. B
3	INSPECTION HOLE COVER	CAST IRON ASTM A126 GR. B
4	INSPECTION HOLE GASKET	LEXIDE (NON-ASBESTOS)
5	INSPECTION HOLE BOLT	STEEL ASTM A307 GR. B
6	DIAGONAL FLANGE SEAL	BUNA-N
7	DIAGONAL FLANGE BOLT	STEEL ASTM A307 GR. B
8	SEAT RING	BRONZE ASTM B271 ALLOY C92200
10	DISC ¹	DUCTILE IRON ASTM A536
11	DISC RING	BRONZE ASTM B271 ALLOY C92200
12	DISC RING RETAINING SCREWS	STAINLESS STEEL ASTM A276 T316
13	PIVOT PIN ²	STAINLESS STEEL ASTM A582 T303
14	PIVOT PIN BUSHING ³	STAINLESS STEEL ASTM A269 T304
15	PIVOT PIN GASKET	LEXIDE (NON-ASBESTOS)
16	PIVOT PIN COVER ⁴	CAST IRON ASTM A126 GR. B
17	PIVOT PIN COVER BOLT	STEEL ASTM A307 GR. B
18	GREASE FITTING	STEEL ZINC PLATED
19	SEAT RING SEAL	BUNA-N
20	DISC RING GASKET	LEXIDE (NON-ASBESTOS)
22	INDICATOR ASSEMBLY	STAINLESS STEEL ASTM A269 T304
51	LINKAGE PIN	STAINLESS STEEL ASTM A582 T303
53	LINKAGE TENSION PIN	STAINLESS STEEL COMMERCIAL
54	PIVOT LINKAGE	STAINLESS STEEL ASTM A240 T304
55	CONNECTING ROD	STAINLESS STEEL 17-4PH
56	DASHPOT SPACER	CAST IRON ASTM A126 GR. B
57	BUSHING RETAINING RING	CAST IRON ASTM A126 GR. B
58	CONNECTING ROD BUSHING	BRONZE ASTM B584
59	DASHPOT CYLINDER	STEEL COMMERCIAL
60	BUSHING RETAINING SCREW	STAINLESS STEEL ASTM A276 T316
61	BUSHING SEAL	BUNA-N
62	CONNECTING ROD SEAL	BUNA-N
64	FLOW CONTROL VALVE	BRASS COMMERCIAL
73	HYDRO-PNEUMATIC TANK	STEEL COMMERCIAL
74	OIL RESERVOIR	STEEL COMMERCIAL

¹DISC MATERIAL IS BRONZE ASTM B584 ALLOY C90700 6", 8", 10"
DETAILS 11, 12 & 20 NOT REQUIRED.

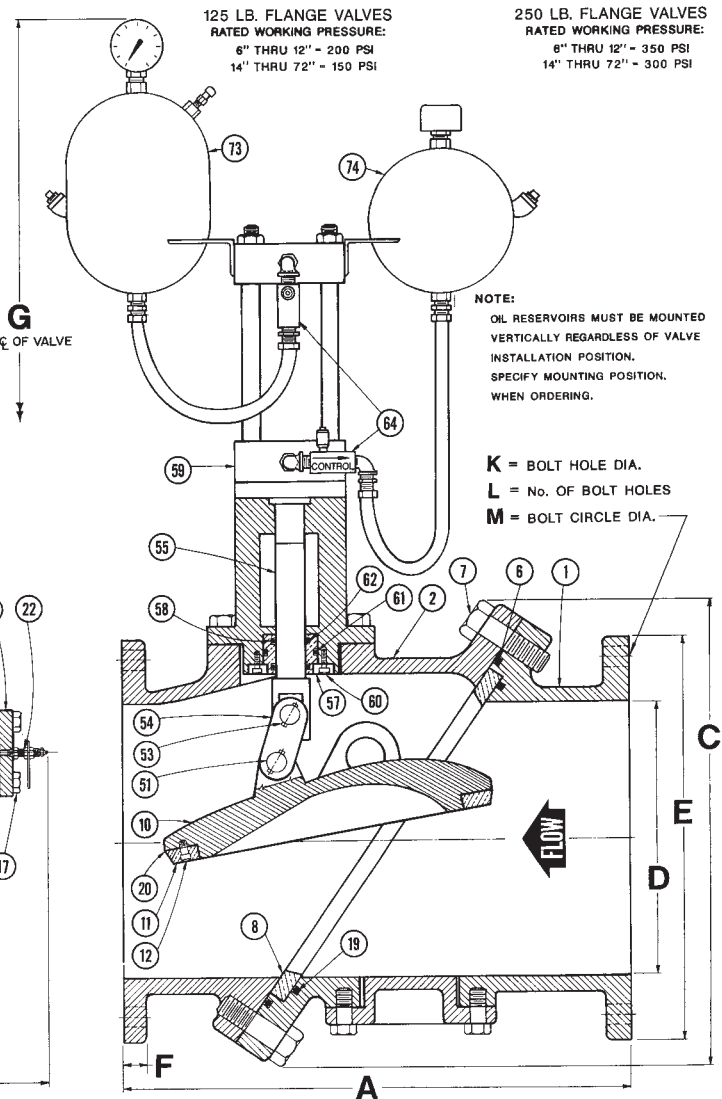
²PIVOT PIN MATERIAL IS ALUMINUM BRONZE ASTM B150 FOR SIZES 6", 8" & 10".

³PIVOT PIN BUSHING NOT REQUIRED FOR SIZES 6", 8" & 10".

⁴PIVOT PIN COVER MATERIAL IS BRASS ASTM B16 FOR SIZE 6".
DETAILS 15 & 17 NOT REQUIRED.



VALVE SIZE MODEL No.	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"	54"	60"	72"
	806T	808T	810T	812T	814T	816T	818T	820T	824T	830T	836T	842T	848T	854T	860T	872T
A	15	19 1/2	24 1/2	24	30	30	33	32	38	52	59 1/2	62 1/2	65	78	87	106
B	17 1/2	22	25 1/2	26	33	36	38	41	48	57	62 1/2	63	72	77	89	118
C	13 1/2	15 1/2	18	21	25	28	30	31 1/2	36 1/2	46 1/2	51	58	67 1/2	71	84	102
D	6	8	10	12	14	16	18	20	24	30	36	42	48	54	60	72
G	2 1/8	2 5/8	3 0/8	3 1/8	3 5/8	4 3/8	4 4/8	4 7/8	4 8/8	6 0/8	6 9/8	7 9/8	9 1/8	10 1/8	12 1/8	14 1/8
E	11	13 1/2	16	19	21	23 1/2	25	27 1/2	32	38 1/2	46	53	59 1/2	66 1/2	73	86 1/2
F	1	1 1/8	1 3/8	1 1/4	1 5/8	1 7/8	1 9/8	1 11/8	1 7/8	2 1/8	2 3/8	2 5/8	2 3/4	3	3 1/2	3 1/2
K	7/8	7/8	1	1	1 1/8	1 1/8	1 1/4	1 1/8	1 3/8	1 3/8	1 5/8	1 5/8	1 5/8	2	2	2
L	8	8	12	12	12	16	16	20	20	28	32	36	44	44	52	60
M	9 1/2	11 3/4	14 1/4	17	18 3/4	21 1/4	22 3/4	25	29 1/2	36	42 3/4	49 1/4	56	62 3/4	69 1/4	82 1/2
APPROX. WEIGHT	275	350	650	850	1200	1370	1625	1975	2800	7800	8600	9800	17000	22000	38000	55000
E	12 1/2	15	17 1/2	20 1/2	23	25 1/2	28	30 1/2	36	43	50	57	65	TO BE SPECIFIED BY CUSTOMER		
F	7 1/8	1 5/8	1 7/8	2	2 1/8	2 1/4	2 3/8	2 1/2	2 3/4	3	3 3/8	3 11/8	4			
K	7/8	1	1 1/8	1 1/4	1 1/4	1 5/8	1 3/8	1 3/8	1 5/8	2	2 1/4	2 1/4	2 1/4			
L	12	12	16	16	20	20	24	24	28	32	36	40				
M	10 3/8	13	15 1/4	17 3/4	20 1/4	22 1/2	24 3/4	27	32	39 1/4	46	52 3/4	60 3/4			
APPROX. WEIGHT	310	450	720	900	1335	1920	1980	2390	3450	8750	9300	11300	21000	27000	44000	67000



DATE
09-01-03



DRWG. NO.
S-800T

SPECIFICATIONS OTHER SIDE



SPECIFICATIONS

SERIES 800T

SLANTING DISC CHECK VALVE WITH TOP MOUNTED OIL DASHPOT

The **body** shall be heavy two piece cast iron, not fabricated steel. The two (2) body halves and body seat shall be O-RING sealed and bolted together in a manner to sandwich the body seat on a 55° angle. Each body half must have an ACCESS COVERED HOLE for internal inspection and each BODY HALF and DISC must be fully machined to accept future attachment of a Bottom Buffer or Top Mounted Oil Dashpot. The SEAT RING and DISC RING must be of the design that permits replaceability in the field without need for special tools or machining. The pivot pins in the body and the BUSHINGS in the disc lugs must be stainless steel* of different hardnesses to prevent galling. The BUSHINGS shall be PRESSFIT to prevent wear. An INDICATOR shall be provided to show position of the disc. The area throughout the valve body must be equal to full pipe area. The area thru the seat section shall be 40% larger than the inlet and outlet of the valve to achieve lowest head loss.

The valve must have a **top mounted oil dashpot** for control open and non-slam control closing to minimize surge and water hammer. The dashpot must have two (2) control flow rates: (1) 90% rapid rate and (1) 10% slow rate during shutdown and startup. Each rate shall be independently adjustable. The dashpot must have a self-contained oil system, separate and independent from the media in the pipeline. The oil reservoir for closing cycle shall be open to atmosphere and provided with an air breather cap to prevent dust and other media from contaminating the oil. The oil reservoir for opening cycle must be hermetically sealed to hold pressure if necessary (air over oil) and be equipped with a pressure gauge and pneumatic air valve.

The manufacturer shall have been regularly engaged in the design and manufacture of Slanting Disc Check Valves for at least five (5) years and submit at least five (5) similar installations in service for a minimum of five (5) years, for engineer approval prior to release to manufacturer.

OPERATING AND MAINTENANCE INSTRUCTION Manuals shall be furnished with submittal Drawings.

All materials of construction to be certified in writing to conform to A.S.T.M. specifications as follows:

Bodies	Cast Iron	ASTM A126 Gr. B
Disc (6-8-10")	Bronze	ASTM B584
Disc (12" & Larger)	Ductile Iron	ASTM A536
Seat Ring & Disc Ring	Bronze	ASTM B271
*Pivot Pins (6-8-10")	Aluminum Bronze	ASTM B150 Alloy 2
Pivot Pins (12" & Larger)	Stainless Steel	ASTM A582 T303
Pivot Pin Bushings	Stainless Steel	ASTM A269 T304
Connecting Rod	Stainless Steel	17-4PH
Dashpot Cylinder	Steel	Commercial
Exterior Paint	Universal Primer	FDA Approved for Potable Water Contact

Note: Other materials available.

Valve to be APCO Series 800T Slanting Disc Check Valve with Top Mounted Oil Dashpot, as manufactured by Valve & Primer Corporation, Schaumburg, Illinois, U.S.A.