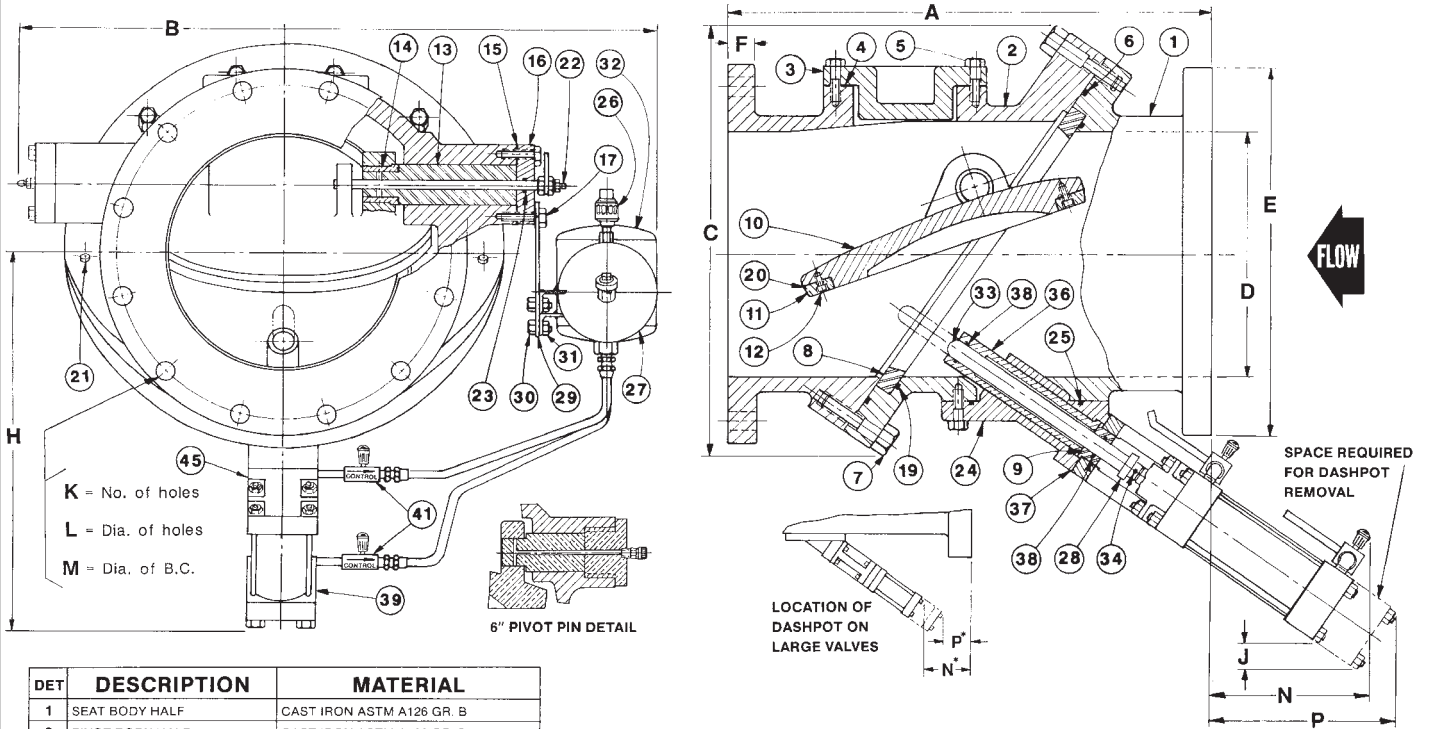


# SLANTING DISC CHECK VALVE WITH BOTTOM MOUNTED BUFFER



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 BOLTS	STEEL ASTM A307 Gr. B
6	DIAGONAL FLANGE SEAL	BUNA-N
7	DIAGONAL FLANGE BOLTS	STEEL ASTM A307 Gr. B
8	SEAT RING	BRONZE ASTM B271 C92200
9	BUFFER SPACER	BRONZE
10	DISC <sup>1</sup>	DUCTILE IRON ASTM A536
11	DISC RING	BRONZE ASTM B271 C92200
12	DISC RING SCREW	STAINLESS STEEL ASTM A276 T304
13	PIVOT PIN <sup>2</sup>	STAINLESS STEEL ASTM A582 T303
14	PIVOT PIN BUSHING	STAINLESS STEEL ASTM A269 T304
15	PIVOT PIN GASKET	LEXIDE (Non Asbestos)
16	PIVOT PIN COVER	CAST IRON ASTM A126 Gr. B
17	PIVOT PIN COVER BOLT	STEEL ASTM A307 Gr. B
19	SEAT RING SEAL	BUNA-N
20	DISC RING GASKET	LEXIDE (Non Asbestos)
21	LOCATING PINS	STEEL
22	INDICATOR ASSEMBLY	STAINLESS STEEL
23	INDICATOR SEAL	BUNA-N
24	BUFFER MOUNTING PLATE	CAST IRON ASTM A126 GR. B
25	BUFFER SEAL	BUNA-N
26	AIR BREATHER	METAL/PHENOLIC
27	OIL RESERVOIR	STEEL ASTM A285 GR. A
28	ADJUSTABLE ROD STOP	STAINLESS STEEL
29	TANK MOUNTING BRACKET	STEEL AISI 1018
30	TANK MOUNTING BOLT	STEEL ASTM A307 GR. B
31	TANK MOUNTING NUT	STEEL ASTM A307 GR. B
32	PNEUMATIC TANK	STEEL ASTM A285 GR. A
33	BUFFER ROD	STAINLESS STEEL ASTM A582 T303
34	BUFFER ROD RETAINING PIN	STAINLESS STEEL ASTM A581 T303
36	BUFFER ROD BUSHING	BRONZE B584 ALL
37	BUFFER GASKET	LEXIDE (Non Asbestos)
38	BUFFER ROD SEAL	BUNA-N
39	BUFFER CYLINDER	STEEL (PER N.F.P.A. STANDARDS)
41	FLOW CONTROL VALVE	BRASS COMMERCIAL
45	BUFFER SPACER	DUCTILE IRON ASTM A536

K = No. of holes  
L = Dia. of holes  
M = Dia. of B.C.

6" PIVOT PIN DETAIL

LOCATION OF DASHPOT ON LARGE VALVES

125 LB. FLANGE VALVES      250 LB. FLANGE VALVES  
 RATED WORKING PRESSURE:      RATED WORKING PRESSURE:  
 6" THRU 12" = 200 PSI      6" THRU 12" = 350 PSI  
 14" THRU 72" = 150 PSI      14" THRU 72" = 300 PSI

VALVE SIZE	125 LB. & 250 LB. CLASS												125 LB. CLASS												250 LB. CLASS																							
	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"	54"	60"	72"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"	54"	60"	72"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"	54"	60"	72"
MODEL No.	806B	808B	810B	812B	814B	816B	818B	820B	824B	830B	836B	842B	848B	854B	860B	872B	806B	808B	810B	812B	814B	816B	818B	820B	824B	830B	836B	842B	848B	854B	860B	872B	806B	808B	810B	812B	814B	816B	818B	820B	824B	830B	836B	842B	848B	854B	860B	872B
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	15	19 1/2	24 1/2	24	30	30	33	32	38	52	59 1/2	62 1/2	65	78	87	106	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	24 1/2	29	33	34	40 1/2	43	44 1/2	51	59	69	74 1/2	75	84	91	103	133	24 1/2	29	33	34	40 1/2	43	44 1/2	51	59	69	74 1/2	75	84	91	103	133	24 1/2	29	33	34	40 1/2	43	44 1/2	51	59	69	74 1/2	75	84	91	103	133
C	13 1/4	15 1/2	18	21	25	28	30	31 1/2	36 1/2	46 1/2	51	58	67 1/2	71	81	114	13 1/4	15 1/2	18	21	25	28	30	31 1/2	36 1/2	46 1/2	51	58	67 1/2	71	81	114	13 1/4	15 1/2	18	21	25	28	30	31 1/2	36 1/2	46 1/2	51	58	67 1/2	71	81	114
D	6	8	10	12	14	16	18	20	24	30	36	42	48	54	60	72	6	8	10	12	14	16	18	20	24	30	36	42	48	54	60	72	6	8	10	12	14	16	18	20	24	30	36	42	48	54	60	72
H	13 3/8	14 3/4	16 1/2	17 7/8	19 3/4	21 1/2	23 1/2	26 1/4	28 3/8	34 1/2	39 1/4	46 1/2	50	60	62 1/2	73	13 3/8	14 3/4	16 1/2	17 7/8	19 3/4	21 1/2	23 1/2	26 1/4	28 3/8	34 1/2	39 1/4	46 1/2	50	60	62 1/2	73	13 3/8	14 3/4	16 1/2	17 7/8	19 3/4	21 1/2	23 1/2	26 1/4	28 3/8	34 1/2	39 1/4	46 1/2	50	60	62 1/2	73
J	2 3/4	3 5/8	4 1/8	5 1/8	5 3/8	5 1/4	5 1/2	7 1/8	6	8 1/4	7 3/4	3 1/2	2 1/2	7	8	3 1/2	2 3/4	3 5/8	4 1/8	5 1/8	5 3/8	5 1/4	5 1/2	7 1/8	6	8 1/4	7 3/4	3 1/2	2 1/2	7	8	3 1/2	2 3/4	3 5/8	4 1/8	5 1/8	5 3/8	5 1/4	5 1/2	7 1/8	6	8 1/4	7 3/4	3 1/2	2 1/2	7	8	3 1/2
N	8 3/8	7 3/4	5	7 1/8	4 3/4	4 5/8	2 7/8	5 1/4	11 1/16	2 1/16	8 3/4	9 3/4	1 1/2	3 1/4	11 3/8	8*	8 3/8	7 3/4	5	7 1/8	4 3/4	4 5/8	2 7/8	5 1/4	11 1/16	2 1/16	8 3/4	9 3/4	1 1/2	3 1/4	11 3/8	8*	8 3/8	7 3/4	5	7 1/8	4 3/4	4 5/8	2 7/8	5 1/4	11 1/16	2 1/16	8 3/4	9 3/4	1 1/2	3 1/4	11 3/8	8*
P	11 1/2	11	9	11	9	9	7	12	3	5	2*	2*	2*	3 3/4	4*	3	11 1/2	11	9	11	9	9	7	12	3	5	2*	2*	2*	3 3/4	4*	3	11 1/2	11	9	11	9	9	7	12	3	5	2*	2*	2*	3 3/4	4*	3
E	11	13 1/2	16	19	21	23 1/2	25	27 1/2	32	38 3/4	46	53	59 1/2	66 1/4	73	86 1/2	11	13 1/2	16	19	21	23 1/2	25	27 1/2	32	38 3/4	46	53	59 1/2	66 1/4	73	86 1/2	11	13 1/2	16	19	21	23 1/2	25	27 1/2	32	38 3/4	46	53	59 1/2	66 1/4	73	86 1/2
F	1	1 1/8	1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 11/16	1 7/8	2 1/4	2 3/8	2 3/4	2 3/4	3	3 3/8	3 1/2	1	1 1/8	1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 11/16	1 7/8	2 1/4	2 3/8	2 3/4	2 3/4	3	3 3/8	3 1/2	1	1 1/8	1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 11/16	1 7/8	2 1/4	2 3/8	2 3/4	2 3/4	3	3 3/8	3 1/2
K	8	8	12	12	12	16	16	20	20	28	32	36	44	44	52	60	8	8	12	12	12	16	16	20	20	28	32	36	44	44	52	60	8	8	12	12	12	16	16	20	20	28	32	36	44	44	52	60
L	7/8	7/8	1	1	1 1/8	1 1/9	1 1/4	1 1/4	1 3/8	1 5/8	1 3/8	1 5/8	1 5/8	2	2	2	7/8	7/8	1	1	1 1/8	1 1/9	1 1/4	1 1/4	1 3/8	1 5/8	1 3/8	1 5/8	1 5/8	2	2	2	7/8	7/8	1	1	1 1/8	1 1/9	1 1/4	1 1/4	1 3/8	1 5/8	1 3/8	1 5/8	1 5/8	2	2	2
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 1/2	56	62 3/4	69 1/4	82 1/2	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 1/2	56	62 3/4	69 1/4	82 1/2	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 1/2	56	62 3/4	69 1/4	82 1/2
APPROX. WEIGHT	250	310	565	650	1125	1250	1550	1950	3000	7700	8200	9500	16000	19500	32400	55000	250	310	565	650	1125	1250	1550	1950	3000	7700	8200	9500	16000	19500	32400	55000	250	310	565	650	1125	1250	1550	1950	3000	7700	8200	9500	16000	19500	32400	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	12 1/2	15	17 1/2	20 1/2	23	25 1/2	28	30 1/2	36	43	50	57	65			TO	12 1/2	15	17 1/2	20 1/2	23	25 1/2	28	30 1/2	36	43	50	57	65			TO
F	1 7/16	1 5/8	1 1/2	2	2 1/8	2 1/4	2 3/8	2 1/2	2 3/4	3	3 3/8	3 1/4	4			BE	1 7/16	1 5/8	1 1/2	2	2 1/8	2 1/4	2 3/8	2 1/2	2 3/4	3	3 3/8	3 1/4	4			BE	1 7/16	1 5/8	1 1/2	2	2 1/8	2 1/4	2 3/8	2 1/2	2 3/4	3	3 3/8	3 1/4	4			BE
K	12	12	16	16	20	20	24	24	24	28	32	36	40			SPECIFIED	12	12	16	16	20	20	24	24	24	28	32	36	40			SPECIFIED	12	12	16	16	20	20	24	24	24	28	32	36	40			SPECIFIED
L	7/8	1	1 1/8	1 1/4	1 1/4	1 3/8	1 3/8	1 3/8	1 5/8	2	2 1/4	2 1/4	2 1/4			BY	7/8	1	1 1/8	1 1/4	1 1/4	1 3/8	1 3/8	1 3/8	1 5/8	2	2 1/4	2 1/4	2 1/4			BY	7/8	1	1 1/8	1 1/4	1 1/4	1 3/8	1 3/8	1 3/8	1 5/8	2	2 1/4	2 1/4	2 1/4			BY
M	10 5/8	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			CUSTOMER	10 5/8	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			CUSTOMER	10 5/8	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			CUSTOMER
APPROX. WEIGHT	285	410	630	700	1260	1800	1910	2365	3650	8650	8900	11000	20000	24500	38400	64000	285	410	630	700	1260	1800	1910	2365	3650	8650	8900	11000	20000	24500	38400	64000	285	410	630	700	1260	1800	1910	2365	3650	8650	8900	11000	20000	24500	38400	64000

**NOTE:**  
 ALWAYS MOUNT RESERVOIR & PNEUMATIC TANK VERTICALLY REGARDLESS OF VALVE FLOW DIRECTION.  
 PLEASE CHECK VALVE FLOW DIRECTION: HORIZONTAL   
 VERTICAL   
 (FLOW-UP)

CERTIFIED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_

DATE  
 09-01-03



DRWG. NO.  
 S-800B

SPECIFICATIONS OTHER SIDE

# APCO<sup>®</sup> SPECIFICATIONS

## SERIES 800B

### SLANTING DISC CHECK VALVE WITH BOTTOM MOUNTED BUFFER

The **body** shall be heavy two piece cast iron, not fabricated steel. The two (2) body halves and body seat shall be 0-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 **bottom mounted buffer** for free open and positive non-slam closing. The buffer shall be designed to contact the disc during the last 10% of closure and thereafter control the disc closure until the valve is shut in a manner to minimize or prevent water hammer. The rate of hydraulic control and the initial point of buffer contact to the disc closure must be externally adjustable and variable to suit the water column reversal time. The bottom buffer hydraulic system must be self contained and independent from pipeline media to prevent contamination of the media and protect the cylinder against corrosion.

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 & MAINTENANCE INSTRUCTION Manual 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 584
Disc (12" & larger)	Ductile iron	ASTM A536
Seat ring & Disc ring	Bronze	ASTM B271 C92200
* 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
Buffer rod	Stainless steel	ASTM A582 T303
Buffer cylinder	Steel	Commercial
Oil reservoir	Stainless steel	ASTM A285 Gr. A
Buffer pneumatic tank	Stainless steel	ASTM A285 Gr. A
Exterior Paint	Universal Primer	FDA Approved for Potable Water

Note: Other materials available.

Valve to be APCO Series 800B Slanting Disc Check Valve with Bottom Mounted Buffer, as manufactured by Valve & Primer Corporation, Schaumburg, Illinois, U.S.A.