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WAFER CHECK VALVES SERIES "LSDDDB"



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Manufacturer of Pumps, Tanks, Heat Exchangers & Accessories
for HVAC Market After-Sales Parts and Services

WAFER CHECK VALVES SERIES "LSDDDB"

FLO FAB INC
LAKE WORTH,
FLORIDA, USA



WAFER CHECK Valves Series "LSDDDB"

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Wafer Check Valves Series "LSDDB"

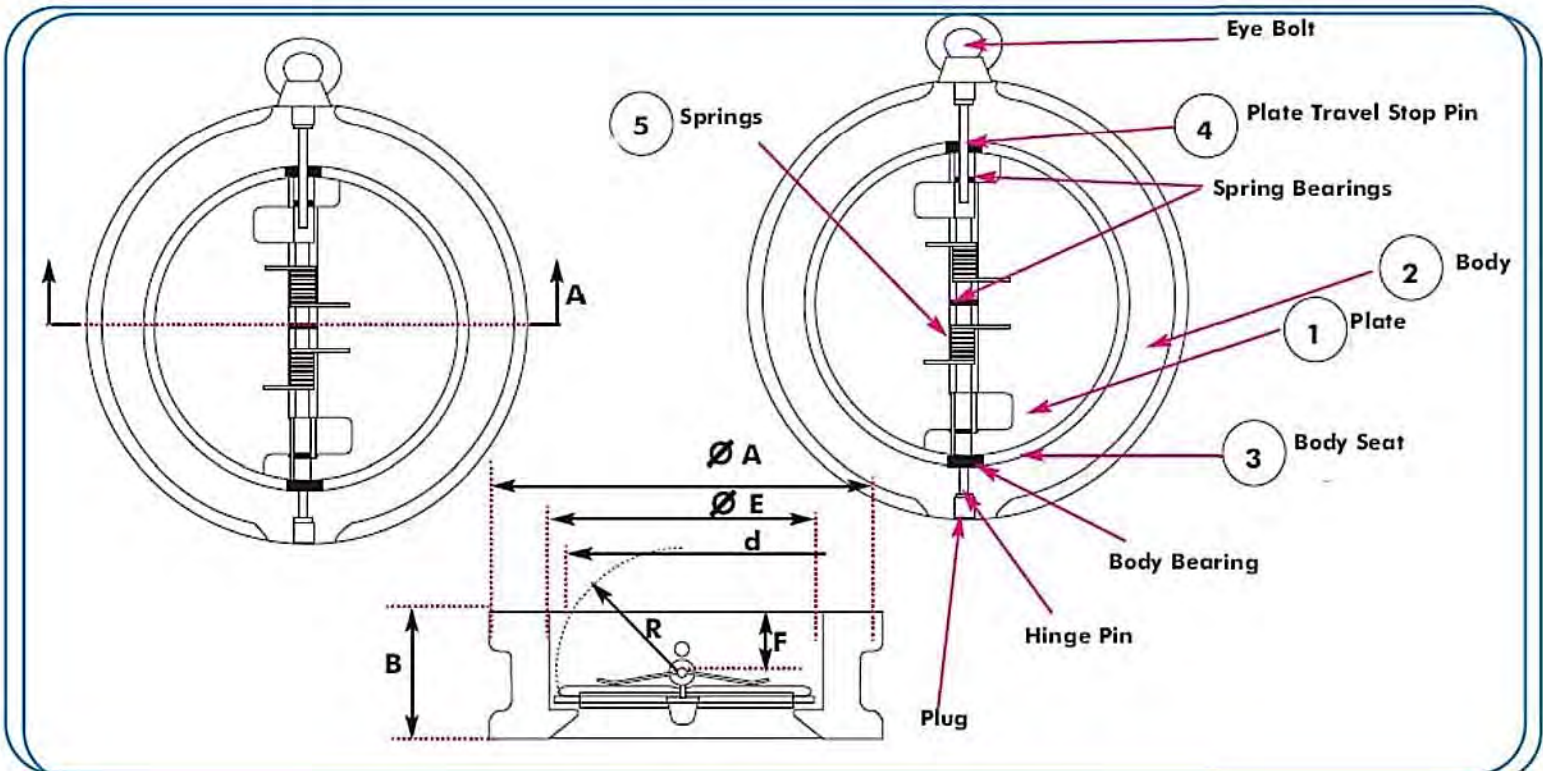
SUBMITTAL DATA SHEET
 ISSUE DATE: MAY 2008
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Features

Type: Wafer
Face to Face: DIN 3202, ISO 5752
Flange: ANSI 150 lbs.
Application: HVAC, Water Supply and Sewage, Chemical and/or Petrochemical Processing, Power and Utilities, Paper and Pulp, Ship building

Maximum Working Pressure
 From 2" (50 mm) to 18" (450 mm)
 200 PSI PN16 (1376 kPa) @ 225°F (107°C)
 From 20" (500 mm) to 32" (800mm)
 150 PSI PN10 (1034 kPa) @ 225°F (107°C)

SIZES		B	E	F	R	d	A ANSI 150	WEIGHT (kg)
IN	DN							
2	50	1 11/16	3 9/16	3/4	1 1/18	1 11/16	4	3,2
2 1/2	65	1 13/16	3 1/8	13/16	1 7/16	2 3/8	4 3/4	2,5
3	80	2 1/8	3 11/16	1 1/8	1 11/16	2 5/8	5 1/4	3,6
4	100	2 1/8	4 5/8	1 1/16	2 1/16	3 5/16	6 3/4	5,7
5	125	2 3/4	5 11/16	1 3/16	2 9/16	4 5/8	7 5/8	7,3
6	150	3	6 11/16	1 1/4	3 1/8	5 11/16	8 5/8	9
8	200	3 1/2	8 13/16	1 5/16	4 1/8	7 13/16	10 7/8	17
10	250	4 1/2	10 7/16	2	5	9 3/16	13 1/4	26
12	300	4 1/2	12 3/16	1 11/16	5 13/16	11 3/16	16	42
14	350	5	14 3/16	1 3/4	6 13/16	13 1/8	17 5/8	55
16	400	5 1/2	16 1/8	2 1/16	7 3/4	15	20 1/8	75
18	450	6	17 3/4	2 5/16	8 9/16	16 9/16	21 1/2	107
20	500	6	19 7/8	2 5/16	9 1/2	18 7/16	23 3/4	111
24	600	7	24 9/16	2 7/8	11 5/8	22 9/16	28 1/8	172
28	700	9	28 3/8	3 7/8	13 15/16	26 3/4	32 5/8	219
32	800	9 1/2	32 1/2	3 15/16	15 11/16	30 5/16	36 7/8	316





Series "LSDDB" Construction

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Construction

- 1 Dual Plates:** Dual plates provide full seal for bubble-tight shut off
- 2 Body:** Wafer type with plain face, small and light design, easy to install between different standard pipe flanges.
- 3 Body Seat:** Body seat has choice for several different elastometer compounds lining on the body to meet different application demands.
- 4 Plate Travel Stop Pin:** Made of stainless steel.
- 5 Dual Corrosion resistant Springs:** Activate the check valve plates and distribute the load force evenly across each plate, ensuring quick sure response.

Parts	Standard Material	Other Optional Material
Body	Cast Iron	Ductil Iron
Body Seat	EPDM	NBR, Viton, Neoprene
Dual Plates	Bronze	CF 8, CF 8M
Plate Travel Stop Pin	Stainless Steel	-----
Springs	Stainless Steel	-----
Body Bearing	PTFE	-----
Spring Bearing	PTFE	-----
Eye Bolt	Carbon steel	-----
Plug	Carbon Steel	-----
Hinge Pin	Stainless Steel	-----

Silent Check Valve Engineering Data

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Wafer Silent Check Valve Pressure Drop – Liquids (Sizes 2" - 16")

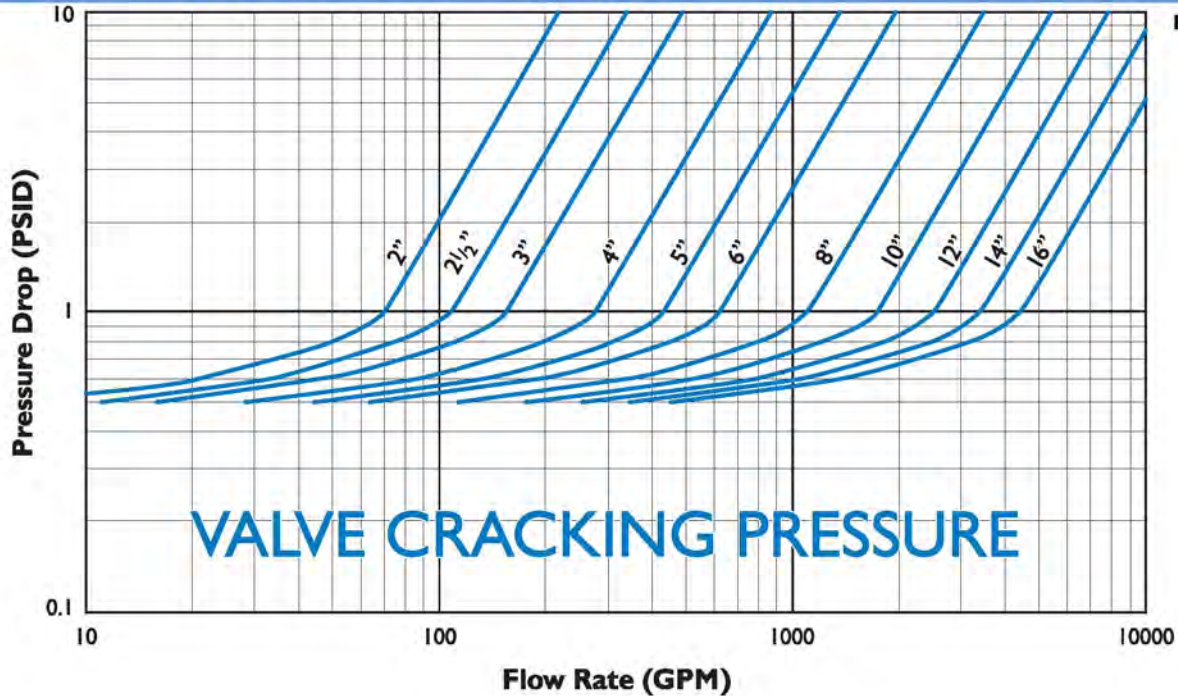


FIGURE 13

- Notes:**
1. Pressure drop curves are based on water flow.
 2. Valve cracking pressure is equal to or less than 0.5 psid.
 3. Valve cracking pressure increases to between 0.75 and 1.25 psid when installed vertically with flow upwards.

Method of Calculating Flow

Liquid Flow

$$C_v = Q \sqrt{\frac{G}{\Delta P}} \quad Q = C_v \sqrt{\frac{\Delta P}{G}} \quad \Delta P = G \left(\frac{Q}{C_v} \right)^2$$

Gas Flow

$$C_v = \frac{Q}{963} \sqrt{\frac{GT}{\Delta P (P_1 + P_2)}} \quad Q = 963 C_v \sqrt{\frac{\Delta P (P_1 + P_2)}{GT}}$$

Saturated Vapour

$$C_v = \frac{W}{K} \sqrt{\frac{1}{\Delta P (P_1 + P_2)}} \quad W = C_v K \sqrt{\Delta P (P_1 + P_2)}$$

Superheated Vapour

$$C_v = \frac{W(1+0.0007T_{SH})}{K} \sqrt{\frac{1}{\Delta P (P_1 + P_2)}} \quad C_v = \frac{C_v K}{(1+0.0007T_{SH})} \sqrt{\Delta P (P_1 + P_2)}$$

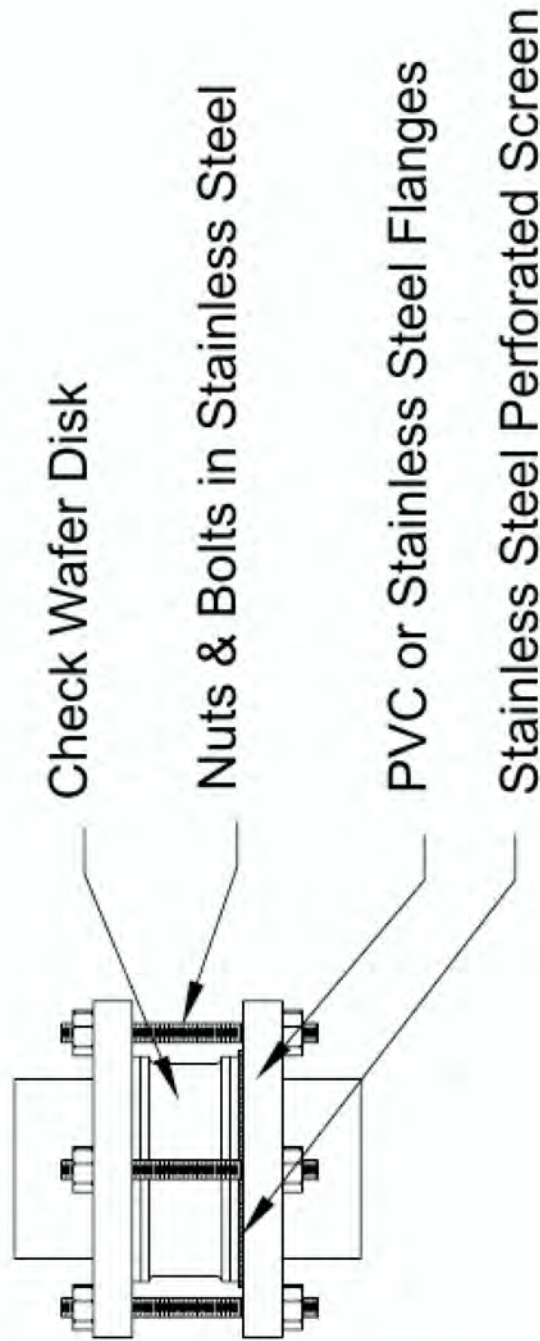
Variables

C_v = Valve Coefficient
 ΔP = $(P_1 - P_2)$ Pressure Drop
 P_1 = Inlet Pressure (PSIA)
 P_2 = Outlet Pressure (PSIA)
 G = Specific Gravity
 Water = 1.0 at 60°F and 1 ATM
 Air = 1.0 at 60°F and 1 ATM

Q = Flow
 Liquid = USGPM
 Gas = SCFH
 T = Absolute Temperature (°F + 460)
 T_{SH} = Superheat (°F)
 Total Temperature Minus Saturation Temperature
 W = lbs. Per Hour (LB/H)
 K = Constant For Vapours



FOOT VALVE ARRANGEMENT



TYPICAL DRAWING, FINALE DIMENSIONS AND DESIGN MAY VARY			
TITLE FLO FAB FOOT VALVE			
DRAWN BY M.LYMBURNER		SCALE N / A	DRAWING N° FOOT VALVE
FLO FAB AQUA PROFAB		DATE 2007/11/20	REV 0
800 BOULEVARD INDUSTRIEL ROSELIE, FLOR. CC 35C 437, 14501 01-2005		PART LIST N°	



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