

ASVIN FLUSH BOTTOM VALVES FOR PROCESS INDUSTRIES



ASIAN INDUSTRIAL VALVES AND INSTRUMENTS founded in 1982 with clear vision of excellent quality, reliability and customer satisfaction. **ASVIN** is a professionally managed organization having certified ISO 9001:2015. **ASVIN** valves are performing to the utmost satisfaction of our customers from various Industries such as Petro – Chemicals, Power, Fertilizer, Pharmaceuticals, Food Fiber and other Industries resulting in manufacturing of customized valves.

ASVIN has already been involved in manufacturing quality standard and customized valves and valve automation system as per customer's requirements and we assure to continue with same products with further improved quality and better delivery scheduled for customer's satisfaction.

ASVIN Tank Flushing is becoming really critical in pharmaceutical, biotechnological, micro-biotechnological process industry and sanitary application especially in batch processing reactors, tanking and API industry. For optimum flushing of Tank Bottom, **ASVIN** has designed a state-of-the-art application friendly Flush Bottom Segmented Ball Valve for 100 % flushing and convenient fitment to Tank Bottom, resolving all tank bottom issues and hurdles.



- The unique design of ASVIN flush bottom tank valve ensures Zero- Hold Up in the bottom pad of the tank. And facilitate the free flow and quick discharge of the liquid or slurry through the valve.
- Flush bottom valves are offered in Investment Casting as well as fabricated construction. Valves available in all metallurgy, like, Carbon Steel (CS ASTM A 216 WCB / WCC), S.S 304 (ASTM A 351 Gr CF8), S.S 316 (ASTM A 351 Gr CF8M), S.S 304L (ASTM A 351 Gr. CF3), S.S 316L (ASTM A 351 Gr CF3M) Alloy 20, ASTM A 351 Gr. CN7M) Hast alloy C-22 & c-276 (ASTM A 494 Gr. CW12MW / CX2MW) and also as per customer's specifications.
- The seat of valve- Conical Metal to Metal disc seating/ PTFE seating with option of fixed or Renewable seat. Further metal seating can be hard-faced by Stellited, where distortion of a seat by aggressive liquid or slurry is common.
- **ASVIN** Flush bottom valves available in size range of 15 NB to 300 NB in BS, ANSI & DIN standards.
- **ASVIN** Tank bottom valves are also available in the design of Jacketed, Actuated & Lined.
- **ASVIN** can provide a flush Bottom valve with temperature sensors to measure temperature in the vessel.
- Bolted Stuffing Box (Gland), easily adjustable & with Repack able service.
- Rising & Non-Rising stem with outside ACME thread.



DESIGN STANDARD:

- Design Standard: ASME B16.34 & SFS EN 12516
- Testing Standard: ANSI / FCI 70-2
- Face to Face: As per manufactures standards
- Flange Fitting: ANSI B16.5, 150#, 300# & 600#

DESIGN FLEXIBILITY:

• **ASVIN** valves are available in two types of constructions, one the plug opens into the vessels & second the plug opens into the valve body.

- ASVIN valves are available with actuators and manual operated.
- Special temperature sensing arrangement within the valve body itself also can be provided.

• Also, the body of the valves can be provided with steam / oil / hot water jacketing arrangement to avoid solidification where in some application fluid tend to solidify at low temperature and discharged in hot condition only.

• ASVIN valves are compact, lightweight design and ideal for inline maintenance under the tank.





ASVIN Y shape FLUSH BOTTOM VALVE- Due to the Y shape of the valve, it is known as Y Type flush bottom valve. As these valves are fitted at the bottom of tanks to drain the content, they are also known as flush bottom tank valve or bottom flush valve, or bottom valve. ASVIN offers you flush bottom valves customized in the material of construction, the configuration of the valve, and control of the valve to suit your exact requirements.

ASVIN Y type Flush Bottom valves are available in the design of disc opening into the tank known as Open Up type (vessel opening design) & disc lowering into the valve body, Open Down type (inside valve opening design). Open Up design of flush bottom valve in which disc opens into the tank or opens upwards is the most commonly used. It is used where enough space is available between the bottom pad and the starrier of the tank. The mass load inside the tank helps to close & tight shut off the flush bottom valve. The inlet and outlet flange are completely customisable to the customer's tank and it is available in a varying angle of 90°, 120° & 135°.

ASVIN JACKETTED FLUSH BOTTOM VALVES- The liquid or slurry which changes the state while passing through the bottom valve can be handled smoothly with the jacketed flush bottom valve. Steam, Oil, or Water can be circulated in the jacket for heating or cooling of the liquid or slurry passing through the flush bottom tank valve.

- ASVIN Jacketed Flush Bottom Valves available in C.S or S.S Jacket for uniform heating or cooling.
- Heating, Cooling, and drain nozzle can be screwed or flanged design.
- The jacket of the bottom valve can be made of Carbon steel or Stainless Steel with Screwed BSP (F) Nozzles for circulation of heating or cooling media in the valves.



ACTUATION- ASVIN "Y" type flush bottom valves are also available with pneumatic actuation. ASVIN use pneumatic cylinders or diaphragm actuators for a linear actuation of flush bottom valves. As a standard industry practice, for open into the tank, i.e., disc rising type flush bottom valves, diaphragm type actuators are preferred, while for open into valves, i.e., disc lowering type flush bottom valves, cylinder type actuators are preferred as higher stroke length is required for these types of valves. With these actuators, **ASVIN** Y type flush bottom valve is automated thus allowing the liquid & slurry to be drained off remotely and with minimum labour. ASVIN offers pneumatic actuators with single-acting (fail-safe) design and double-acting (stay-put) design of reputed brands.

ASVIN FLUSH BOTTOM BALL VALVES- When the space below the vessel, tanks, or reactor is not sufficient to install a standard flush bottom valve, a flush bottom ball Valve is used. It is most suited to flush out the free-flowing liquid from the bottom of the vessel, tank, or reactor. ASVIN Flush bottom ball valves are used for discharging of processed materials from the bottom portion or at the outlet of vessels, tanks, reactors, containers etc. In these Flush Bottom Valves, the valve size is designated by two values. First value stands for the inlet flange connection size, which is fixed to the tank or vessel bottom pad. Second value stands for the size of the port and the outlet flange size which is connected to the pipe. In all the sizes the inlet is always larger in size than the outlet.

SR. NO	NOMENCLATURE	QTY.	MATERIAL
01	BODY	1	ASTM A216 WCB, ASTM A351 CF8/CF8M/CF3/CF3M/CN7M
02	DISC		ASTM A216 WCB, ASTM A351 CF8/CF8M/CF3/CF3M/CN7M
03	SEAT	1	ASTM A216 WCB, ASTM A351 CF8/CF8M/CF3/CF3M/CN7M
04	STEM	1	AISI 304/316/304L/316L/A20
05	GLAND	1	AISI 304
06	YOKE BUSH HOUSING	1	AISI 304
07	YOKE BUSH	1	GUN METAL
08	GLAND PACKING	1	PTFE/GF/CF PTFE
09	HAND WHEEL	1	SS 304 / CI

01.400	HYDRAULIC TEST PRESSURE					
CLASS	BODY	SEAT				
150	425	300				
300	1100	750				
AIR		80				

AIR	80
TECHNIC	CAL DATA
DESIGN & MANUFACTURING STD.	MANUFACTURERS STD
TESTING & INSPECTION STD.	BS 5146 / API 598 / BS 6755 PART-1
END CONNECTIONS	FLANGED ENDS TO B-16.5 RF 150# / 300# / BS-10 TABLE E, F.

FLUSH TANK BOTTOM VALVE FLANGE ENDDISC OPENING INTO THE TANK																	
SIZE	SIZE (mm) APPROX APPROX INLET FLANGE ASA 150#							OUTEL FLANGE ASA 150#									
IN	OUT	L	н	D	W	I-O/D	I-PCD	I-RF	I-N	I-Ø D	I-T	0-0/D	O-PCD	ORF	O-N	O-Ø D	O-T
20	20	200			105	98.4	69.8	42.9	4	16	11.0	98.4	69.8	42.9	4	16	11.0
25	20	205	1 1		105	107.9	79.4	50.8	4	16	11.0	98.4	69.8	42.9	4	16	11.0
25	25	250				125	107.9	79.4	50.8	4	16	11.0	107.9	79.4	50.8	4	16
40	25	255	LN I	NT	125	127.0	98.4	73.0	4	16	16.0	107.9	79.4	50.8	4	16	16.0
40	40	280	CLIENT	CLIENT	156	127.0	98.4	73.0	4	16	16.0	127.0	98.4	73.0	4	16	16.0
50	40	285	ΒY C	BYG	156	152.4	120.6	92.1	4	19	17.5	127.0	98.4	73.0	4	16	16.0
50	50	305			176	152.4	120.6	92.1	4	19	17.5	152.4	120.6	92.1	4	19	17.5
80	50	310	CIFIED		176	190.5	152.4	127	4	19	19.0	152.4	120.6	92.1	4	19	17.5
80	80	365	U U U	SPECIFIED	219	190.5	152.4	127	4	19	19.0	190.5	152.4	127	4	19	19.0
100	80	370	SPE(219	228.6	190.5	157.2	8	19	24.0	190.5	152.4	127	4	19	19.0
100	100	450	BE	BE	252	228.6	190.5	157.2	8	19	24.0	228.6	190.5	157.2	8	19	24.0
150	100	460	10	10	252	279.4	241.3	215.9	8	19	25.4	228.6	190.5	157.2	8	19	24.0
150	150	550			305	279.4	241.3	215.9	8	19	25.4	279.4	241.3	215.9	8	19	25.4
200	150	560			305	342.9	298.4	269.9	8	22	28.6	279.4	241.3	215.9	8	19	25.4
200	200	680	1	<u> </u>	400	342.9	298.4	269.9	8	22	28.6	342.9	298.4	269.9	8	22	28.6



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