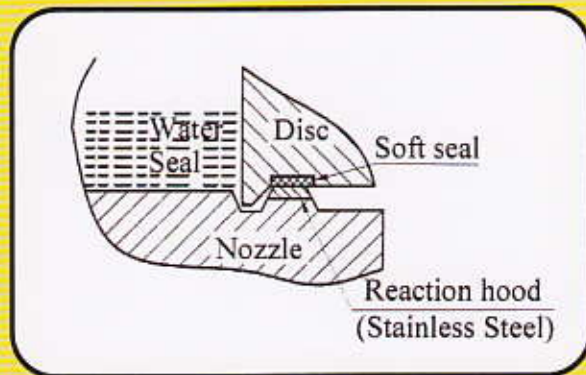


Asvin ATMOSPHERIC RELIEF VALVE

For Condenser & Turbine Application

We, *Asian Industrial Valves and Instruments* are an ISO 9001 company manufacturing various types of special Valves for Process, Chemical, Petroleum, Refineries, Fertilizers, Nuclear, Atomic, Paper, Sugar, Pharma, Steel, Cement and other allied industries from 1983. We have over 500 customers which include giant organizations like BHEL, Department of Atomic Energy, Nuclear Power Corporation, Department of Space, Bharat Heavy Plates and Vessels Ltd., Hindustan Petroleum Corporation Ltd., Indian Oil Corporation Ltd, Bharat Petroleum Corporation Ltd, Oil and Natural Gas Corporation Ltd, Hindustan Shipyard Ltd., The Fertilizers & Chemicals Travancore Ltd, Neyveli Lignite Corporation Ltd., etc. The products manufactured conform to the relevant standards with wide ranging material & connections to suit various critical applications in process industries.

A soft sealed Atmospheric Safety Valve with large flow capacity and soft seat tightness for steam condenser and turbine applications.



Details Of Soft Seal & Water Seal

ASVIN water sealed soft seated Atmospheric Relief Valves are primarily designed to provide emergency service automatic protection for turbine and condenser equipment. This rugged valve for large flow and low pressure relief has been especially designed for trouble free operation, low maintenance and premium tightness performance. Although the *ASVIN* soft seated Atmospheric Relief Valves are intended for steam condenser and turbine applications, it is found suitable for various applications on air, gas and vapours, where its soft seat tightness performance and large flow capacity matched the service requirements.

Selection and sizing

The valve is selected according to the required flow. HEI stipulates directly the valve size as a function of the steam capacity of the condenser. Sizing can also be conducted using the valve steam output capacity

Pressure Range and Settings

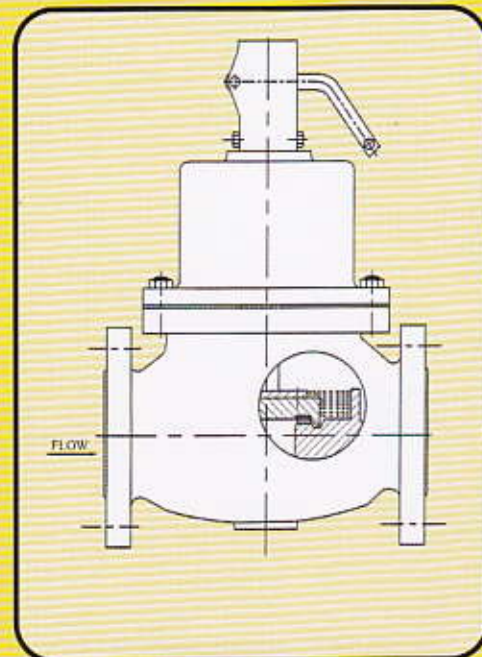
ASVIN water sealed soft seated Atmospheric Relief Valves are dead weight loaded up to 50 mbar and spring loaded up to 1 bar (g). Set pressure tolerance is $\pm 5\%$ of set pressure in all cases. Again the selection of spring or dead weight depends upon the load.

SIZES :-

4" to 36". Larger sizes and special designs on applications.

Operation

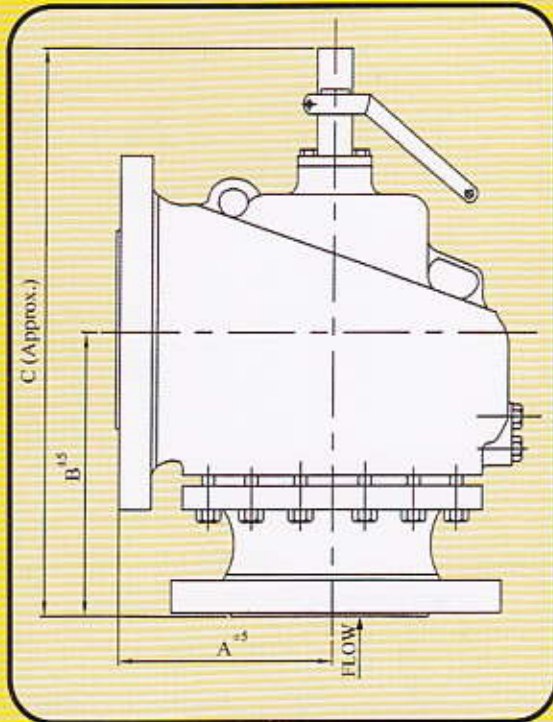
ASVIN soft seated Atmospheric Relief Valves are bubble tight at full vacuum (- 80 mbar). All valves are tested before shipping. At set pressure, valves will start to lift gradually as the over pressure increases and the opening will be sudden due to the specially designed shape of the disc. Valve will reseat tightly below set pressure and remain tight in service. The valve disc should be lifted regularly (once every six months) using the lifting lever to check valve operation.



ATMOSPHERIC RELIEF VALVE
(Special type for Horizontal line)

Seat Tightness and Water seal

Tightness is provided using an elastomer rubber seal for the disc in contact with a stainless steel nozzle. The soft material is bonded with a specific groove machined onto the disc by high temperature with high pressure moulding process. Therefore the soft material is totally adherent to the disc metal. Furthermore, a water ring is provided onto the disc to prevent any leak from atmosphere to the vessel when it is under vacuum. This waterseal is designed to prevent any hydrostatic head build-up on the valve disc. The waterseal is provided with threaded / flanged connections for water supply, overflow and draining water during maintenance. It is recommended to supply the waterseal with a constant stream of water to compensate for evaporation.



Codes and Standard :

- ★ ASME Sec. VIII - Pressure vessel code.
- ★ HEI - Standard for steam surface condensers.
- ★ API-526 - Flanged steel pressure relief valves.
- ★ API-527 - Seat tightness of pressure relief valves.

Standard Materials

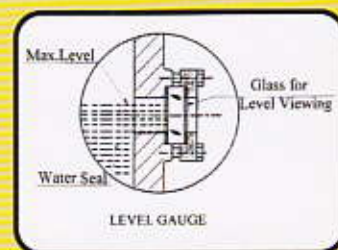
- ✱ Body in SA-216 Gr. WCB/WCC Carbon steel
- ✱ Alloy steel spring with corrosion resistant coating
- ✱ Carbon steel disc with EPDM soft seat
- ✱ Nozzle in SA-216 Gr. WCB/WCC Carbon steel, stainless steel overlay on seat
- ✱ On request, various materials are available as stainless steel for body and trim.
- ✱ Various elastomer types are available as well, according to specific service conditions.

Standard supply

- ✱ Epoxy zinc rich recoverable coating
- ✱ EN-10204 3.1.B material certificate for body
- ✱ Test report for set pressure, satisfactory tightness tests at 90% of set pressure and under vacuum.

Maintenance

- ✱ It is recommended to check the disc operability using the lifting lever on a regular basis.
- ✱ **Caution!** The disc cannot be lifted when the vessel is under vacuum. The lifting lever shall be used only if the pressure is at least 75% of set pressure.
- ✱ Check water level during regular maintenance
- ✱ Water in the valve must be supplemented periodically, as certain amount will evaporate.



As optional, Level indicator can be provided to see the critical water level in water seal area. Inlet plug (To let water in water seal area), level plug (keeps water in level) and Drain plug (can be opened in case of cleaning the water seal area) are provided as standard.

TECHNICAL DETAILS OF 'ASVIN' ATMOSPHERIC RELIEF VALVE

MAX. STEAM FLOW (lbs/hr)	'ASVIN' MODEL	DIMENSION (mm) (Approx) (based on 150# ratings)				WEIGHT KGS.	REACTION FORCE daN	NOISE LEVEL dbA
		SIZES	A	B	C			
0 - 3100	ARV-00	4" x 4"	156	165	485	75	40	100
3101 - 6800	ARV-01	6" x 6"	225	210	495	90	100	110
6801 - 10700	ARV-02	8" x 8"	270	228	595	150	175	115
10701 - 15420	ARV-02A	8" x 8"	270	228	595	150	175	115
15421 - 18140	ARV-02B	8" x 8"	270	228	595	150	175	115
18141 - 20950	ARV-03	10" x 10"	310	270	665	175	270	115
20951 - 27400	ARV-03A	10" x 10"	310	270	665	175	270	115
27401 - 34650	ARV-04	12" x 12"	340	325	825	235	370	116
34651 - 40820	ARV-04A	12" x 12"	340	325	825	235	370	116
40821 - 42820	ARV-05	14" x 14"	380	350	875	340	460	117
42821 - 56420	ARV-05A	14" x 14"	380	350	875	340	460	117
56421 - 61690	ARV-06	16" x 16"	400	395	945	450	598	120
61691 - 74390	ARV-06A	16" x 16"	400	395	945	450	598	120
74391 - 96160	ARV-07	18" x 18"	455	426	1005	560	865	121
96161 - 108860	ARV-07A	18" x 18"	455	426	1005	560	865	121
108861 - 154220	ARV-08	20" x 20"	520	427	1045	660	1100	122
154221 - 226800	ARV-09	24" x 24"	625	565	1250	975	1595	124
226801 - 344730	ARV-10	30" x 30"	760	665	1525	1375	1700	125
344731 - 550000	ARV-11	36" x 36"	875	770	1775	1620	1800	126

* Selection based on valve flow and pressure of Max.0.5 bar (g)

* The details given above are approx values. *Contact factory for specific requirement.

ASVIN - Range of Products

VALVES

- * SAFETY / PRESSURE RELIEF VALVES
- * THERMAL RELIEF VALVE
- * ATMOSPHERIC RELIEF VALVE
- * PRESSURE REDUCING VALVE / STATION
- * PRESSURE CUM VACUUM RELIEF VALVES
- * BREATHER VALVES
- * EXCESS FLOW CHECK VALVES / SHUT OFF VALVES
- * UNDERGROUND SAFETY VALVES FOR WATER TANK/ WATER FLOW CANAL AS PER BS - 4558 : 1983
- * NON - RETURN VALVES / BALL VALVES
- * NEEDLE VALVES / MANIFOLDS / THROTTLING VALVES
- * FLUSH BOTTOM VALVES

TANK EQUIPMENTS

- * TANK BLANKETING VALVES
- * EMERGENCY PRESSURE RELIEF VALVES (Air Vent)
- * GAUGE HATCHES (Lock Down / Spring Loaded)
- * VACUUM BREAKERS

INSTRUMENTS

- * LEVEL GAUGES (Tubular / Reflex / Transparent)
- * LEVEL INDICATORS (Magnetic / Float & Chord)
- * FLOW - ELEMENTS (Orifice / Flow Nozzles / Venturies)
- * ROTOMETER (BY-PASS / ONLINE)
- * MANOMETERS
- * LEVEL SWITCHES
- * THERMOWELLS
- * CONDENSING POT
- * CONSTANT HEAD CHAMBER
- * AIR / MOISTURE SEPARATOR

PIPELINE EQUIPMENTS

- * STEAM TRAPS / AIR TRAPS
- * STRAINERS ('T' / 'Y' / Basket / Simplex / Duplex type)
- * FLAME / DETONATION ARRESTERS
- * SIGHT GLASSES (Full view / Double window / Flapper / Rotating Wheel)
- * RUPTURE DISC

Available with all reputed Third party Inspection Agencies, Viz,
ABS, BHEL, Bax Council, Bureau Veritas, Controller of Explosives, DNV, EIL, IBR, IRS, Lloyds,
MECON, NPC, RITES, SGS, TPL, CE Marking etc.,

ASIAN INDUSTRIAL VALVES AND INSTRUMENTS



A18/1, Industrial Area,
Mogappair East,
Chennai - 600 037, India.
www.asianindustrialvalves.com
www.asianvalves.net
www.asianvalves.co.in
www.asianvalves.in

Phone : 044 - 2656 5370, 5371, 5372
Mktg. : 044 - 6517 2940
Fax : +91 - 44 - 2656 5930, 5910
E-mail : asianvalves@asianvalves.net
sales@asianvalves.net
rajanms@asianvalves.net
info@asianvalves.net

