




















A2H Rotating Disk Choke Type



Features

-  API 6A and ASME design
-  Pressure rating from ANSI 150 through API 15k Psi
-  Flanged from 2" through 8" ANSI (other ends connection available upon request)
-  Flanged from 2" 1/16 through 7 1/16" API (other ends connection available upon request)
-  Customized end to end dimensions
-  Bolted and screwed forged bonnet
-  PSL 1-4
-  PR1-2
-  API material classes from AA through HH
-  API temperature classes from P/L through U
-  Material for H₂S and CO₂ service in accordance with NACE MR01-75 latest edition
-  Extensive Range of Body/Trim Materials
-  Forged bodies for maximum safety and reliability
-  Tungsten Carbide wear resistant Discs
-  Equipercantage or modified characteristic
-  Leakage class V as per ANSI FCI 70-2 (IEC 60534-4), ASME B16.104
-  Actuation:
Manual, single & double acting Pneumatic and Hydraulic, Electric actuator

Overview

The **Hydropneumatic A2H rotating disk choke type** is a Multiple-Orifice Valve, recognized by the industry for its positive closure and absolute control of downhole pressure, this thanks to its disc design, featuring easy maintenance and unmatched reliability.

Two circular tungsten carbide discs operate independently of pressure drops across the plates; one disc is fixed in the choke body, while the other rotates through a control range from full open flow to 100% closure.

This design is able to guarantee reliable control for well killing and pressure control, especially in severe service involving H₂S, abrasive fluids, and high pressures.

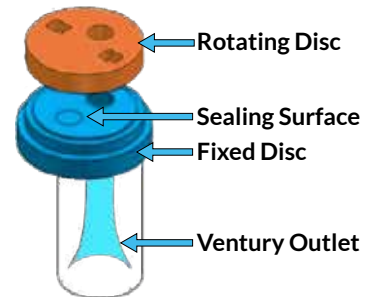
Each disc has a shaped orifice, designed especially for the required service.

The shape of the flow area provides a small wearing surface for a given area. Moreover there is no interfering shape in the centre of the Multi Orifice valve's flow area with the net result of reduced wear on the throttling and shutoff area, with the real benefit for a dependable, long-term service with simple and minimal maintenance.

Differential pressure across the discs holds one face against the other, with no loose or unsupported parts causing vibration, noise, and fatigue failure; the exposed portion of the disc's surface is whenever operated with a shearing rotation, wiped clean of foreign deposits, cutting most debris and assuring a tight shutoff.

HP Multi Orifice valve can incorporate an extended sleeve of tungsten carbide; the aim of this field-replaceable sleeve extending through the outlet flange, is to reduce wear on the outlet spool. The choke part design allows for an easy field replacement of only the damaged parts.

The Multi Orifice valve's actuator features a heavy-duty, twin rack design for a precise control, minimal maintenance and reliable operation. The rotary actuator is able to provide a very fast open and close, with accurate adjustments everywhere in between.



Typical Applications

They are specifically made to seal, control and monitor oil and gas wells, and control high pressure gas kicks and various fluid flows during drilling operations, but can be used in a variety of applications.

Benefits

- Versatile for onshore and offshore applications
- One single piece body with integral flanges for long service life – no welding
- Rugged construction and simple design to withstand service life
- Suitable for contaminated and corrosive fluids and high sand content
- Resistant against high pressure drops
- Flashing and cavitation resistance
- Good resistance to erosion and corrosion
- Stable control with accuracy of flow regulation
- High seat tightness with lapped discs
- Fire resistance
- Easy maintenance design
- Low life cycle costs
- Long life for service

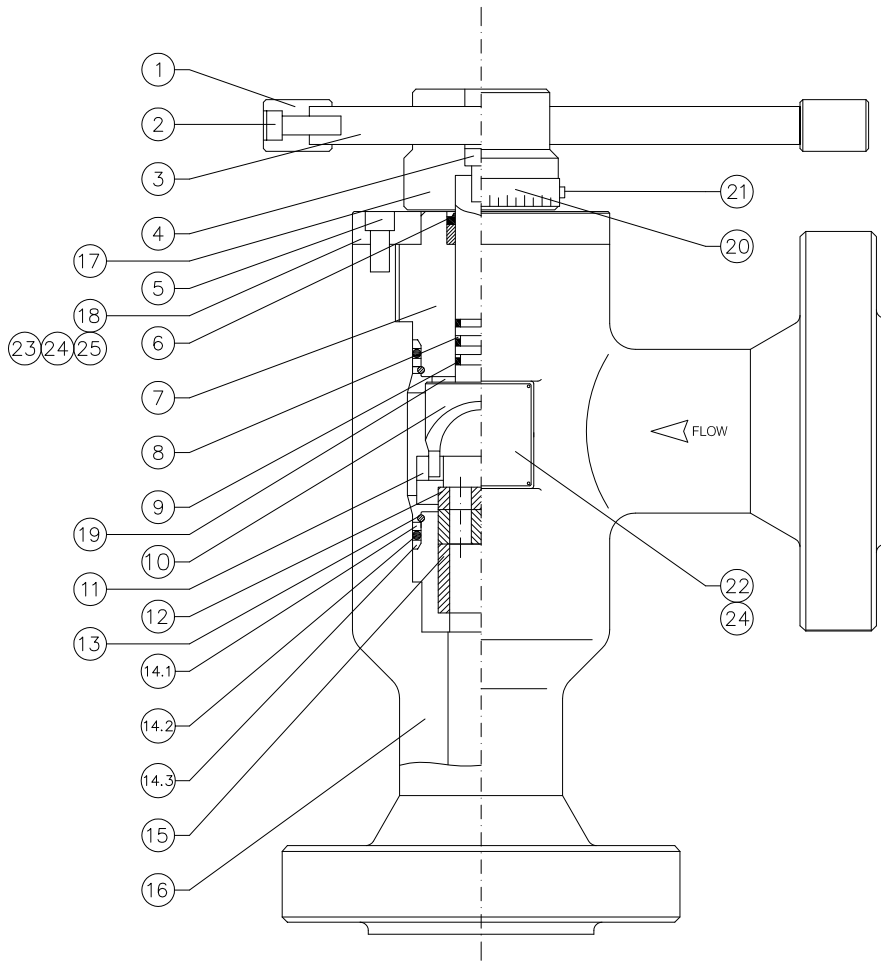
Option

- Low noise trim design with multiple orifice disc
- Large capacity trim
- Special flow characteristic
- Filter cage for polluted fluids
- Tungsten-carbide wear sleeve
- Hammer union bonnet
- Steam service design with Belleville springs to absorb thermal expansion
- Fugitive emission design
- Grafoil packing for high temperature
- Packing gland for packing adjustment





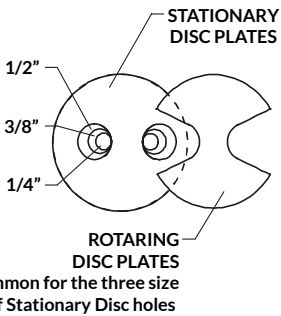
Part List



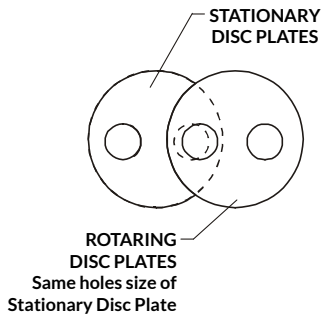
Items

Item	Description	Quantity
1	Knob	2
2	Socket Screw	2
3	Operating Lever	1
4	Socket Screw	1
5	Socket Screw	6
6	Wiper Ring	1
7	Head Nut	1
8	"BK" Ring	2
9	"O" Ring-Viton	3
10	Rotating Fork	1
11	Guide Ring	1
12	Rotating Disc Assembly	1
13	Snap Ring	2
14	Seal Ring (complete set)	
14.1	Adapter Ring	2
14.2	O" Ring	2
14.3	Back-Up Ring	2
15	Stationary Disc Assembly	1
16	Valve Body	1
17	Indicator Head	1
18	Safety Flange	1
19	Thrust Bearing	1
20	Position Indicator	1
21	Socket Screw - Inox	2
22	NamePlate	1
23	Pin	1
24	Rivet	8
25	Index NamePlate	1

DISC CONFIGURATION
UP TO 1/2" HOLES



DISC CONFIGURATION
5/8" - 3/4" and 1" HOLES



OTHER SIZES AND
DIFFERENT HOLE SHAPES
AVAILABLE UPON REQUEST

Valve Disc Selection Table - Disc with std circular holes

Diameter of Disc Hole (Two holes)	1/4"	3/8"	1/2"	5/8"	3/4"	1"
CV	3	6.8	12.3	16.8	25.7	44.5
Orifice Area Sq. cm.	0.63	1.42	2.53	3.9	5.66	10.13
Valve Size						
2"	•	•	•	•	•	
2-1/2"	•	•	•	•	•	
3"		•	•	•	•	•
4"					•	•

