

AXIAL FLOW VALVE



**Axial Flow Control Valve**

Precise control, compact design

Size	1" ~ 72"
Bore	Full or reduced (not piggable)
Pressure	150# ~ 2500#
Temperature	-196°C ~ 538°C
Connections	Wide choice on request
Materials	Wide choice on request

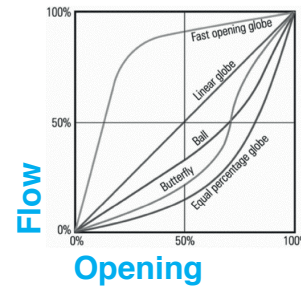


GENERAL INFORMATION

Precise control of:

- Pressure
- Flow
- Temperature

Unlimited choice of opening - flow characteristics:



**Characteristics:**

- Small, compact design
- Opening and closing at full differential pressure
- Pressure balanced piston requiring a small actuator
- Bubble tight sealing
- Bi-directional
- Lower noise level than conventional valve types
- Vertical or horizontal orientation

APPLICATIONS

Used as:

- Control valve
- Choke (Joule Thompson) valve
- Surge relief valve
- Non-slam operation

Applied in:

- Oil and gas production
- Process industries
- Transmission, distribution and storage of fluids

Used for wide range of fluids:

- Crude oil to refined products
- High gas-oil multiphase fluids
- Natural gas (with contaminants - sand)

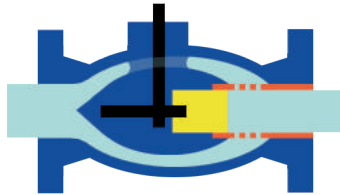
**Examples of application:**

- NAM Sappemeer
- Petrobras Mexilhao
- Petrobras Aracaju

## HOW AFV WORKS

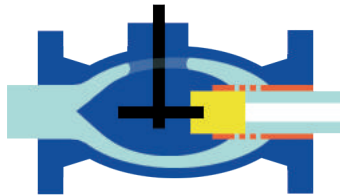
### Open position

The valve piston (yellow) is out of cage (red) holes area and full flow is reached.



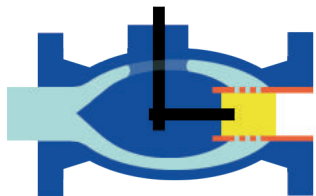
### Controlling the flow

By moving the piston some of the cage holes are closed and flow is controlled.



### Closed position

After quarter turn of the stem, the piston blocks all the cage holes, the valve is closed and sealing.



Pressure left and right of piston are the same (balanced), hence a smaller actuator is needed.

## CONTROL SEAL BENEFITS



### Rotating stem

Less friction, smaller / standard actuator - quarter turn  
Avoids fugitive emissions

### Advanced body design with bonnet

Faster fabrication, top entry, In-line maintenance

### Bubble tight sealing

Up to ANSI FCI Class V or VI  
Metal-to-metal or soft sealing  
Fireproof execution possible

### Competative price and delivery terms

## SWIRLSEP



Control Seal is experienced to deliver Axial Flow Valve for special application as SwirlValve for SwirlSep separator.

### SwirlValve

is a low shear valve that can be utilized as a choke valve and/or (level) control valve.

The design of the valve trim enables swirling the flow (a vortex) created downstream of the valve.

### SwirlSep separator (product of FRAMES)

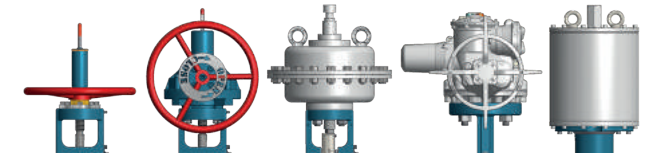
The inline separator facilitates separation of the phases, like gas liquid, and solids.

## PROJECT PRODUCTION

Materials on request.

Valves also available in DN/PN sizing.

Wide range of actuators and valve accessories such as positioners, limit switches, and solenoid valves on request.



## DESIGN STANDARDS

Design	API 6D, ASME B16.34
Face to Face dimensions	API 6D, ASME B16.10, B16.47
Flanges	ASME B16.5, B16.25
Fire Safe	ISO 10497, API 6FA, BS 6755
Fugitive Emission	ISO 15848, TÜV,
Testing	API 598
Marking	CE, MSS-SP-25
Topworks	ISO 5210



## CONTACT US

info@controlseal.nl  
sales@controlseal.nl  
service@controlseal.nl  
Farmsumerweg 43  
P.O. box 330  
9900AH Appingedam  
the Netherlands  
+31 596 652 222

