

# AXIAL ISOLATION VALVE

**GOODWIN**<sup>®</sup>  
INTERNATIONAL LTD

**AB SERIES**



LEARN MORE

## PRODUCT SUMMARY SHEET

### VALVE TYPE

Axial Isolation Valve, On-Off and ESD

### GOODWIN MODEL

AB Series

### SIZE AND PRESSURE RANGE

- 2" – 72"
- ASME 150-2500
- API 3000-15000

### MATERIALS

Carbon, Low Temp Carbon Steels,  
Stainless, Duplex, Super Duplex Steels,  
Low-High Alloys, Nickel Alloys and  
Titanium Alloys.

### AS AN ALTERNATIVE TO

- Ball Valves
- Plug Valves
- Gate Valves
- Butterfly Valves

### APPLICATIONS

- Emergency Shut Down (ESD)
- Safety Shut Off
- Over Pressure Protection (HIPPS)



**GOODWIN**  
INTERNATIONAL LTD

Plantation Road, Trentham, Stoke-on-Trent, ST4 8HU, England  
Tel +44 (0)1782 654000 Fax +44 (0)1782 208060  
Email: [flowcontrol@goodwingroup.com](mailto:flowcontrol@goodwingroup.com)

[www.goodwinflowcontrol.com](http://www.goodwinflowcontrol.com)



## **GOODWIN AXIAL ISOLATION VALVES COME EQUIPPED WITH INNOVATIVE FEATURES THAT SET GOODWIN APART FROM ITS COMPETITION.**

### **STREAMLINED AXIAL FLOW PATH**

The streamlined flow path through an Axial Isolation Valve has minimal pressure drop. The flow is directed through the valve to avoid critical sealing areas promoting longevity of the sealing arrangement.

### **FAST OPENING / CLOSING**

Axial Isolation Valves can be operated fully open to fully closed or vice-versa in less than 2 seconds. This compared to a ball valve which usually requires 1 second per inch of bore to do the same operation.

### **PRESSURE-BALANCED DESIGN**

Pressure balancing is equally effective in both forward and reverse pressure conditions. The Isolation valve can be opened against full differential pressure.

### **TIGHT SHUT-OFF**

With pressure energised seals encapsulating the piston body and pressure energised seating seals in the piston head, tight shut-off to FCI 70-2 Class VI, i.e. bubble tight, is achieved.

### **FLEXIBLE BODY DESIGN**

Goodwin offers 2 body styles.

#### **3 Piece Split Body (2" to 12")**

- Offers higher flow capacity
- Improvement in NDE accessibility
- Simplified casting and machining methods
- Body construction can be forged, Cast or a combination.
- Inlet / Outlet pipeline size transitioning within the valve removing the need for transition / expansion pieces.

#### **Single Piece Body**

- In larger sizes (14" and above) single piece body design is employed for manufacturing and cost purposes.

### **BI-DIRECTIONAL FLOW AND SEALING**

Axial Isolation Valves can be flowed in either direction and because of the pressure energised seals, bubble tight shut-off is achieved in both directions.

### **LOW FUGITIVE EMISSIONS**

Through FET testing witnessed by Lloyds Axial Isolation Valves have been certified to Rate A Class (HS) of ISO 15848-2 which is the tightest rate achievable.

### **RACK-PINION-RACK GEAR TRAIN**

Goodwin Axial Isolation Valves utilise Goodwin's patented Rack-Pinion-Rack gear train mechanism to transpose the linear motion of actuation through 90° into axial motion of the piston providing:

- High durability, rapid and precise movement.
- Closure in less than 2 seconds.
- High rangeability.
- Zero risk of gear teeth seizure with minimal or no lubrication.
- Low friction and high efficiency compared to sliding gear mechanisms.
- Low backlash maintained over lifetime of the product.

### **ACTUATION OPTIONS**

- Manual Operation
- Pneumatic
- Hydraulic
- Electric
- Electro-hydraulic

Goodwin does not currently manufacture actuation. However, its valves will be supplied with full integrated actuation and instrumentation packages according to customer requirements and specifications.

For more information go to:  
[www.goodwinflowcontrol.com](http://www.goodwinflowcontrol.com)

---

**GOODWIN**  
INTERNATIONAL LTD

Plantation Road, Trentham, Stoke-on-Trent, ST4 8HU, England  
Tel +44 (0)1782 654000 Fax +44 (0)1782 208060  
Email: [flowcontrol@goodwingroup.com](mailto:flowcontrol@goodwingroup.com)