Masoneilan™ Engineered Control Valves

Valve Solutions and Services for the World’s Toughest Applications
Integrated Smart Engineered Solutions
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**Smart Severe-Service Technology**

### 72000 Series

**Angle Valve with Lo-dB™ and V-LOG™ Trim**

**Sizes:** 6” x 8” through 36” x 48” (150 x 200 through 900 x 1200 mm)

**Ratings and Connections:**
- Flanged: ANSI 150 - 600
- UNI-DIN 10 - 100 up to 600 mm
- Welded: BW

**Body Materials:**
- Carbon steel
- Stainless steel
- Chrome-moly

**Actuator:**
- Cylinder actuators

**Trims:**
- Balanced cage guided trim (single or double cage)
- Lo-dB and V-LOG trims available

**Inherent Characteristic:**
- Linear or equal percentage

**72000 Series valves** are designed for precise capacity control, while efficiently minimizing noise and outlet velocities using single or multiple cages or V-LOG trim.

**Specific applications:**
- Compressor antisurge
- Flare to atmosphere

### 77000 Series

**Multi-Stage Valves**

**Sizes:** 2” x 3” through 8” x 10” (50 x 80 through 200 x 250 mm)

**Ratings and Connections:**
- Flanged: inlet ANSI 2500
- outlet ANSI 150 - 2500
- UNI-DIN 10 - 400
- Welded: BW or SW

**Body Materials:**
- Carbon steel
- Stainless steel
- Chrome-moly

**Actuators:**
- Model 37/38 spring-opposed diaphragm
- Cylinder actuators

**Trims:**
- Axial flow technology
- Multi-stage trim (expanding area type)
- Anti-cavitation, flashing, de-gassing, and low noise

**Inherent Characteristic:**
- Linear

**77000 Series valves** are multi-stage, expanding area control valves designed primarily for high-pressure compressible fluid or two phase flow applications. They effectively control erosion, de-gassing, and high noise levels.

**Specific applications:**
- Hot separator letdown
- Well-head choke

### 18400 & 78400 Series

**LincolnLog™**

**Sizes:** 1” through 12” (25 through 300 mm)

**Ratings and Connections:**
- Flanged: ANSI 600 - 2500
- UNI-DIN 100 - 400
- Welded: BW or SW

**Body Materials:**
- Carbon steel
- Stainless steel
- Chrome-moly

**Actuators:**
- Model 37/38 spring-opposed diaphragm
- Model 87/88 multi-spring opposed diaphragm
- Cylinder actuators

**Trims:**
- Axial flow technology
- Multi-stage, cage-guided, anti-cavitation trim
- Class VI available on request

**Inherent Characteristic:**
- Linear

**The 18400 and 78400 Series valves** used on liquid services eliminate cavitation.

**Specific applications:**
- Boiler feedwater recirculation
- Desuperheater spray water
49000 Series
Globe and Angle Style
with Lo-dB or V-LOG Trim

Sizes: 4” through 36”
(100 through 900 mm)

Ratings and Connections:
• Flanged: ANSI 150–2500
  UNI-DIN 10 – 400
• Welded: BW

Body Materials:
• Carbon steel
• Stainless steel
• Chrome-moly

Actuators:
• Model 37/38 spring-opposed diaphragm
• Model 87/88 multi-spring opposed diaphragm
• Cylinder actuators

Trims:
• Single or double stage Lo-dB and V-LOG energy management trim
• Available in low noise flow-to-open designs or anti-cavitation flow-to-close
• Variety of balanced trim options for Class IV and V shutoff

Inherent Characteristic:
• Linear or equal percentage

The 49000 Series valves are designed with enlarged body galleries to accommodate large stroke lengths and up to 36 stages of pressure reduction. Specific applications: boiler feed water start up and control, steam letdown, pump discharge, water reinjection, gas recycle and vent applications.

79003 Series
Angle Style with VRT™ Trim

Sizes: 1” through 6”
(25 through 150 mm)

Ratings and Connections:
• Flanged: ANSI 600 – 2500
  UNI-DIN 100 – 400
• Welded: BW

Body Materials:
• Carbon steel
• Stainless steel
• Chrome-moly

Actuators:
• Model 37/38 spring-opposed diaphragm
• Model 87/88 multi-spring diaphragm
• Cylinder actuators

Trims:
• Multi-stage VRT trim design and VRT partial stack design for control over a wide range of applications

Inherent Characteristic:
• Linear

The 79003 Series valves are designed for anti-cavitation service with control over a wide range of operating conditions, such as the ramp-up transition of a normal feedwater pump.

84003 Series
SteamForm™ Valve

Trim Sizes: 3” through 24”
(80 through 600 mm)
Pipe Sizes: 3” through 48”
(80 through 1200 mm)

Ratings and Connections:
• Flanged: ANSI 150 – 2500
  UNI-DIN 10 – 400
• Welded: BW

Body Materials:
• Carbon steel
• Chrome-moly

Actuators:
• Model 37/38 spring diaphragm
• Model 87/88 multi-spring diaphragm
• Cylinder actuators

Trims:
• Single or double stage Lo-dB with optional diffuser, and V-LOG energy management trim
• Available with thermally compensated high temperature trim options for long life in high-cycling environments
• Variety of balanced trim options for Class IV and V shutoff

Inherent Characteristic:
• Linear or equal percentage

The 84003 Series SteamForm valve is designed with a wide range of features, including a patented water injection system for best performance in steam conditioning applications.

Specific applications:
• Turbine bypass
• Process steam conditioning
72000 Series
Streamlined Angle Valve

Sizes: 2” x 3” through 10” x 12”
(50 x 80 mm through 250 x 300 mm)

Ratings and Connections:
• Flanged: ANSI 150 – 2500

Body Materials:
• Carbon steel
• Stainless steel
• Chrome-moly

Actuator:
• Model 87/88 spring-opposed diaphragm
• Cylinder actuators

Trims:
• Heavy top plug guiding coupled with a threaded seat ring design to form an outlet Venturi flow path for outlet area protection

Inherent Characteristic:
• Linear

The 71000 Series valve is a modified sweep angle valve designed to minimize fluid impingement through the body. This design includes very heavy guiding and durable trim

Specific applications:
• visbreaker, hot hydrocarbon fluid and coking applications

73000 Series
Sweep Angle Valve

Sizes: 1” x 1” through 10” x 12”
(25 x 25 mm through 250 x 300 mm)

Ratings and Connections:
• Flanged: ANSI 150 – 2500

Body Materials:
• Carbon steel
• Stainless steel
• Titanium
• Hastelloy
• Others

Actuators:
• Model 87/88 spring-opposed diaphragm
• Cylinder actuators

Trims:
• High-capacity single stage
• Reduced port Venturi outlet
• Ceramic and tungsten carbide optional

Inherent Characteristic:
• Linear

The 73000 Series valves control valve is especially suited to throttle highly erosive, flashing, and two phase flows.

Specific applications:
• mining
• coal slurry
• ash handling
• hydrocarbon bottoms

75000 Series
Tank-Drain Valve

Sizes: 1” x 1” through 10” x 12”
(25 x 25 mm through 250 x 300 mm)

Ratings and Connections:
• Flanged: ANSI 150 – 1500

Body Materials:
• Stainless steel
• Titanium
• Hastelloy
• Others

Actuators:
• Cylinder actuators

Trims:
• Single-piece stem and plug design with both top and bottom guiding to eliminate trim vibration at high pressure drops

Inherent Characteristic:
• Linear or contoured

The 75000 Series tank-drain valves includes a full sweep-angle design and heavy-duty plug design to minimize erosion impact from solids or debris found in tank bottoms. Valves are available in 45-, 60-,

Specific applications:
• tank level control and pressure letdown applications commonly found in reactor or crystallizer tanks
Valve Solutions and Services for the World’s Toughest Applications
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