


Masoneilan^{*}

Engineered Products

Valve Solutions and Services for
the World's Toughest Applications

- Experience
- Knowledge
- Technology





INTEGRATED SMART ENGINEERED BEST FIT SOLUTIONS

Smart Severe-Service Technology from GE

Smart Severe-Service Technology from GE

Severe-Service Control Valves



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

Trim:

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

Inherent Characteristics:

- 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
Multistep Angle Valve

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

Actuator:

- Model 37/38 spring-opposed diaphragm
- cylinder actuators

Trim:

- 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 are 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

Actuator:

- Model 37/38 spring-opposed diaphragm
- Model 87/88 multi-spring-opposed diaphragm
- cylinder actuators

Trim:

- axial flow technology
- multi-stage trim cage guided anti-cavitation
- Class VI available on request

Inherent Characteristic:

- linear

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

Specific applications:

- boiler feed water recirculation
- desuperheater spray water

Severe-Service Control Valves



49000 Series

Globe and Angle Style with Lo-dB* or V-LOG* Trim

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

Ratings and Connections:

- flanged: ANSI 150-2500
UNI-DIN 10 - 400
- welded: BW

Body Materials:

- carbon steel
- stainless steel
- chrome-moly

Actuator:

- Model 37/38 spring-opposed diaphragm
- Model 87/88 multi-spring-opposed diaphragm
- cylinder actuators

Trim:

- 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



79000 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

Actuator:

- Model 87/88 multi-spring diaphragm
- Model 37/38 spring diaphragm
- cylinder actuators

Trim:

- multi-stage VRT trim design and VRT partial stack design for control over a wide range of applications

Inherent Characteristic:

- linear

The **79000 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. Specific applications:

- feedwater control
- feedwater pump start-up valve



84000 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

Actuator:

- Model 87/88 multi-spring diaphragm
- Model 37/38 spring diaphragm
- cylinder actuators

Trim:

- single or double stage Lo-dB* with optional diffuser, and V-LOG* energy management trim
- available with thermally compensating 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 **84000 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

Angle Erosive Protection Control Valves



71000 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 multi-spring-opposed diaphragm
• cylinder actuators

Trim:
• 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 parts to withstand harsh operation. 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

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

Trim:
• high-capacity single stage
• reduced port Venturi outlet
• ceramic and tungsten carbide optional

Inherent Characteristic:
• linear

The **73000 Series** 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

Actuator:
• cylinder actuators

Trim:
• 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-, and 90-degree angle configurations. 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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