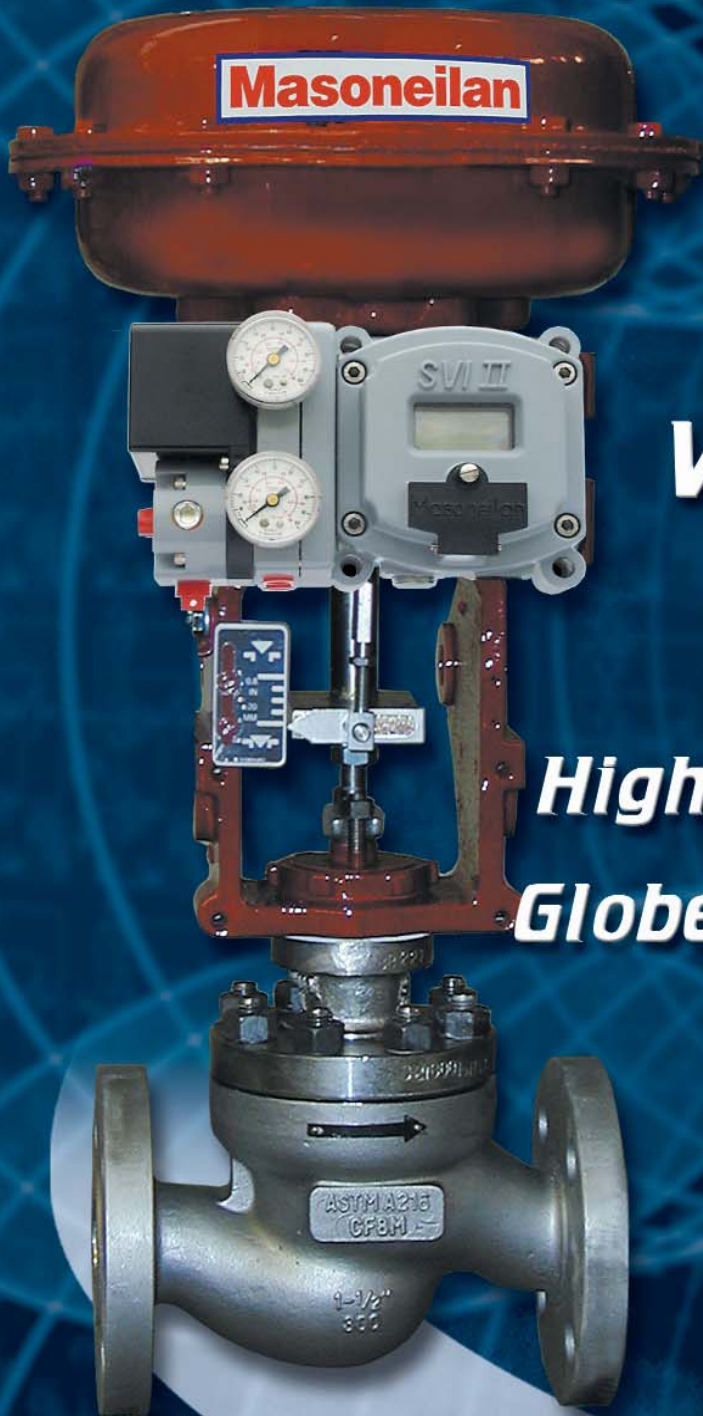


21000 Series Control Valves



*Versatile
Reliable*

*High Performance
Globe Style Valves*

Masoneilan®

DRESSER

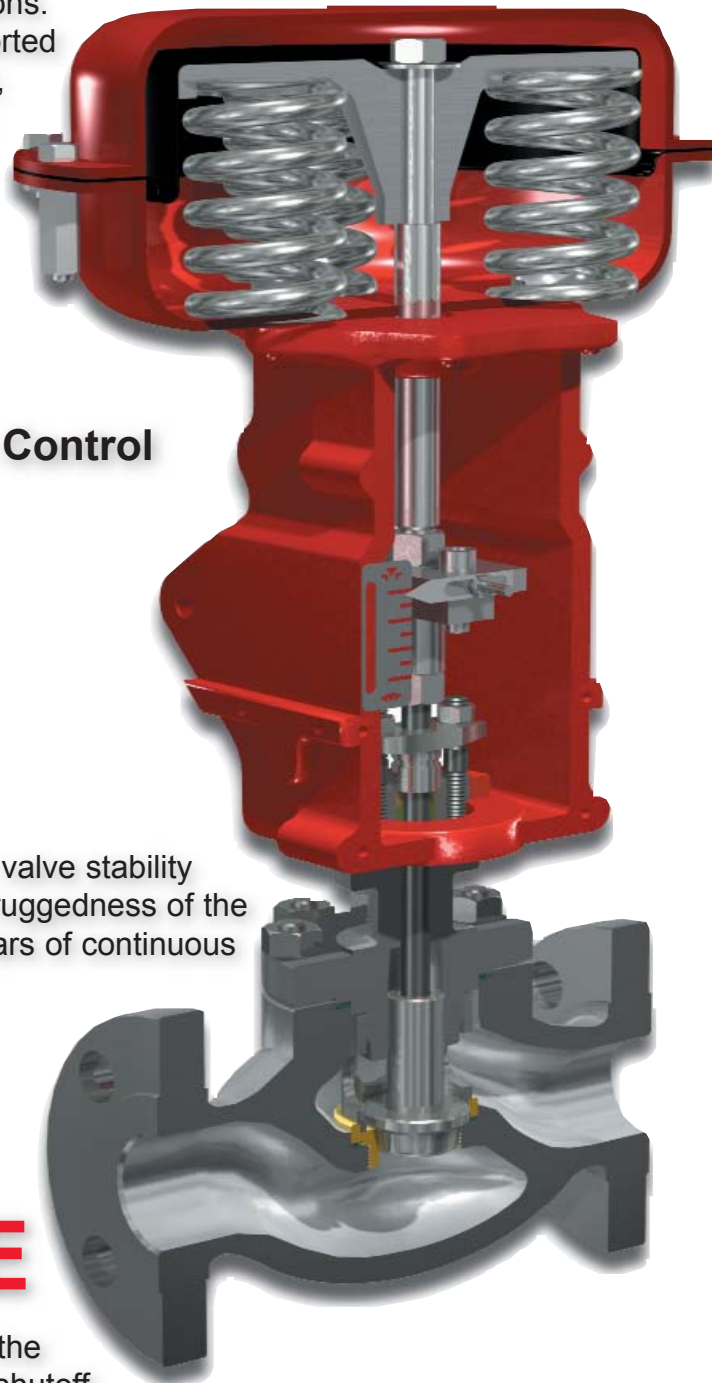
Flow Control

21000 Series

VERSATILE

Dresser Flow Control offers the Masoneilan® 21000 Series heavy top-guided globe valve to meet a wide range of automated process control applications. The 21000 Series product line features a single-ported design configuration, which permits numerous trim, actuation, and instrumentation solutions including:

- **Lo-dB® Noise Attenuation**
- **Anti-Cavitation**
- **Reduced Capacity**
- **Advanced Digital Positioning & Control**
- **Tight Shutoff**
- **Environmental Packing**



RELIABLE

Rugged top-guiding of the plug ensures maximum valve stability under the most adverse conditions. The inherent ruggedness of the 21000 Series has been field-proven over many years of continuous operation in plants around the world.

HIGH PERFORMANCE

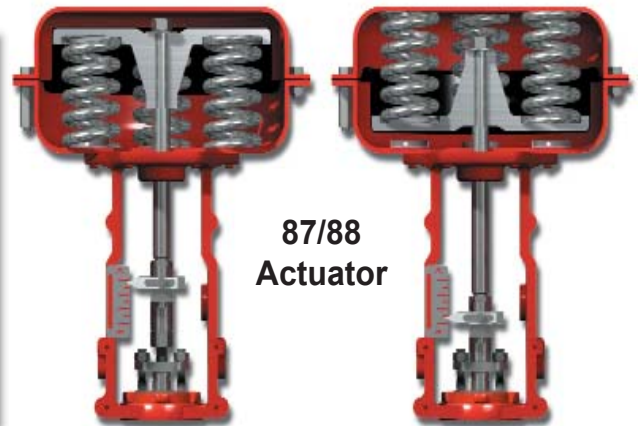
Optimum control performance is provided through the combination of trim designs, actuator stability and shutoff capabilities, and superior valve positioning. The 21000 Series is also available in various materials, pressure ratings, and end connections offering a complete high performance valve platform.

Control Valves

Key Features

Spring Diaphragm Actuator

- Compact Multi-Spring Design Minimizes Stem Side Loading
- Field Reversible Without Additional Parts
- Rolling Diaphragm Minimizes Wear
- Constant Effective Area for Smooth Linear Control
- 5 Sizes Available to Suit Your Application Requirements
- 4 Standard Spring Ranges for Wider Application Envelope
- Side Mounted Handwheel Option



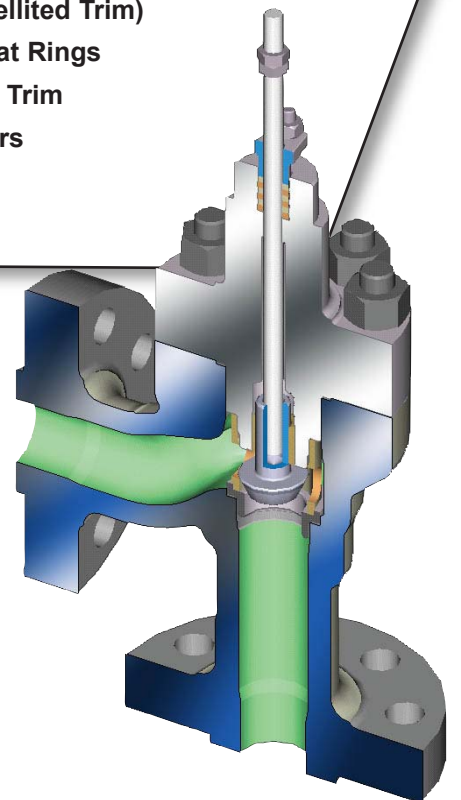
Heavy Top Guiding

- Larger Post Guide Area vs. Other Globe Valve Designs
- Located Away from Flowstream
- Provides Better Stability and Control



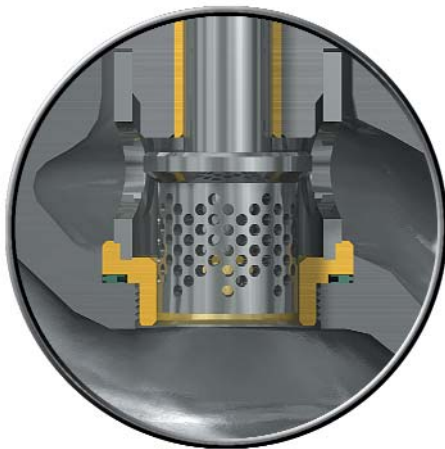
Various Trim Options

- Single & Double-Stage Low Noise and Anti-Cavitation Trim
- Hardened Trim Standard (Stellited Trim)
- Quick Change or Threaded Seat Rings
- Reduced Capacities & Microflow Trim
- Equal Percentage & Linear Contours
- UOP Lockhopper Trim
- Soft Seat Design



Design Flexibility

- Multiple End Connections
- Various Materials
- Angle Body Configuration
- Bellows Seal Design
- Piston Actuation Option
- Extension Bonnet
- Cryogenic Configuration
- Low Emission Packing
- DIN Version Available



21000 Series

Customer Benefits

Trouble Free Operation

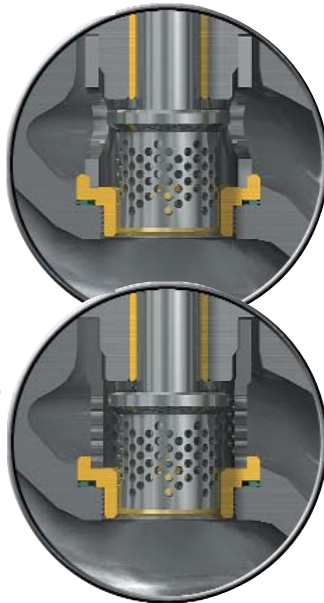


Heavy top-guiding ensures stable and optimized operation of the 21000 Series throughout the entire stroking range. The effects of unexpected system upsets or heavy vibration are minimized with this construction.

Reduced Noise Levels

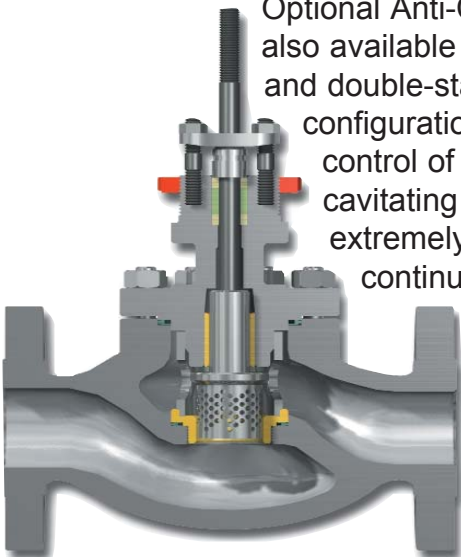
The optional Lo-dB® trim designs provide single-stage and double-stage noise attenuation benefits.

Potential noise reduction levels of up to 25 dBA are possible, depending on the specific operating conditions.



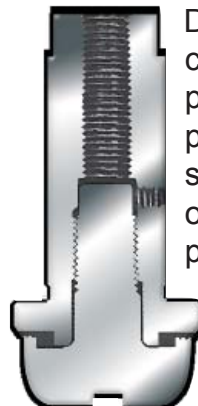
Long Life-Cycle

Optional Anti-Cavitation trim is also available in single-stage and double-stage configurations. Proper control of dynamic cavitating conditions is extremely important for continuous high performance and operation of control valves.



Lower Costs

Dependable tight shutoff of a control valve minimizes loss of process fluids, and can potentially eliminate the need for separate isolation valves. The optional soft-seat design, provides bubble-tight shutoff capabilities in accordance with ANSI/FCI and IEC requirements.



Control Valves

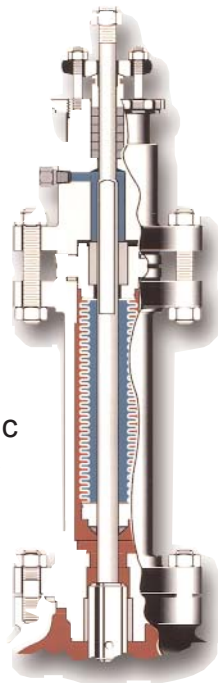
Clean Air Compliance



The optional LE® Packing system significantly minimizes atmospheric emissions from the stem seal area. This unique feature helps to ensure compliance with any environmental safety and emissions control requirement.

Hazardous Emissions Control

The optional Bellows Seal configuration can ensure zero leakage to atmosphere for any application involving highly toxic and dangerous fluids. Positive sealing and high life-cycle operation are combined for reliable and safe operation.

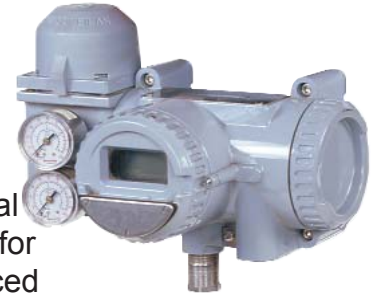


Low Temperature Operation

The 21000 Series is also available in a cryogenic configuration for effective and proven process control performance at extremely low temperature conditions. This is accomplished by using a combination of extended bonnets and appropriate materials.

High Process Yields

The 21000 Series can be equipped with various Masoneilan advanced digital positioners and controllers for enhanced



performance and control. This results in higher process yields and real-time diagnostics capabilities to support predictive plant maintenance programs.

Masoneilan offers the Smart Valve Interface (SVI®) with HART® communications and the Masoneilan FVP™ for Foundation Fieldbus applications.

Both instruments offer advanced control technology, providing higher precision for pneumatically actuated control valves.

Masoneilan also offers the ValVue® software program for PC-based communications with these advanced devices.

Reduced Operating Costs

The simple construction and flexible design features of the 21000 Series, result in lower maintenance costs and longer product life-cycles. This versatile product line allows customers to solve a multitude of control valve applications using a common platform.

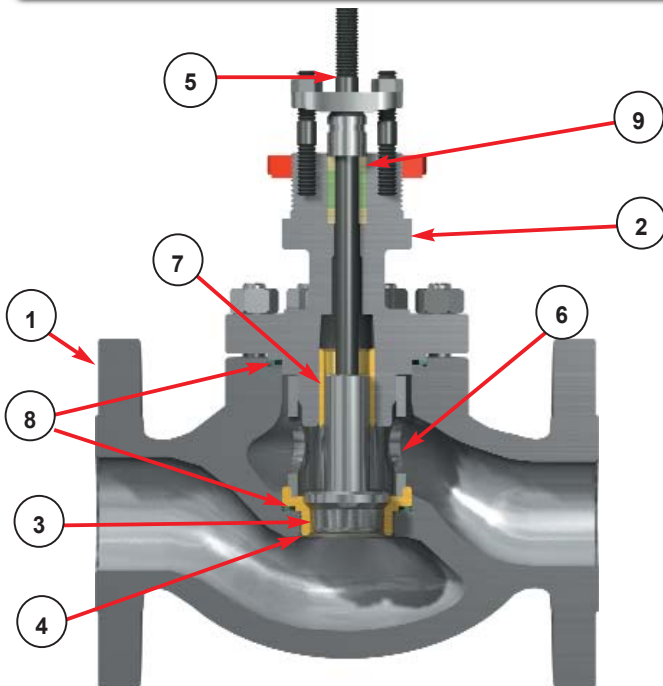


21000 Series

Product Specifications



| Operating Range | |
|----------------------------|--|
| Sizes | 3/4" to 6" (20mm to 150mm) |
| Body Ratings | ANSI Class 150 to Class 2500 (PN 10 to PN 420) |
| Leakage | ANSI/FCI & IEC Class IV, V, and VI |
| C_v Range | 0.11 to 400 |
| Temperature Range | -320°F to +1050°F (-196°C to +566°C) |



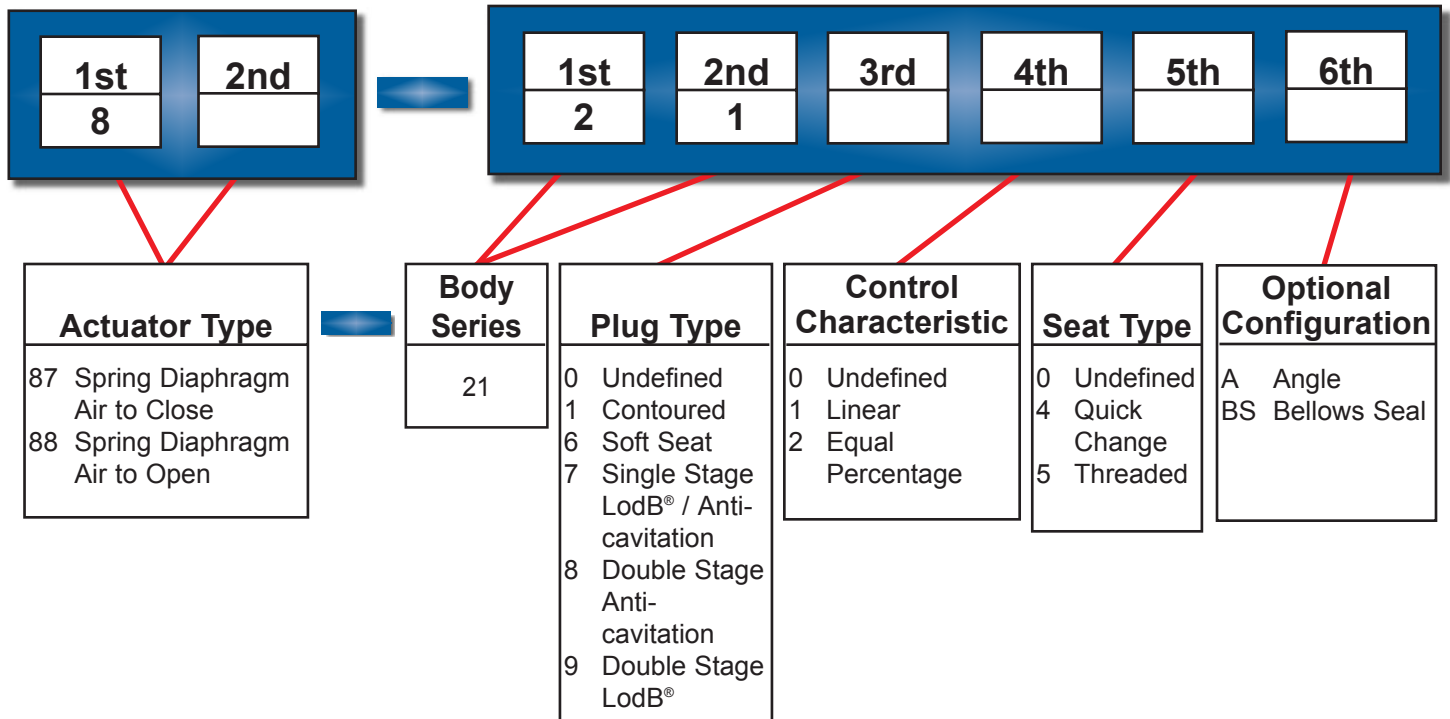
| Materials of Construction | | |
|---------------------------|----------------------|---|
| 1 | Body | Carbon Steel, Stainless Steel, Chrome-Moly, Other Alloys |
| 2 | Bonnet | Carbon Steel, Stainless Steel, Chrome-Moly, Other Alloys |
| 3 | Plug | Stainless Steel, SS with Hardfacing, Stellite, Teflon Soft Seat |
| 4 | Seat Ring | Stainless Steel, Stainless Steel with Hardfacing |
| 5 | Stem | Stainless Steel |
| 6 | Cage | Stainless Steel |
| 7 | Guide Bushing | Stainless Steel, Nitronic 60 |
| 8 | Gaskets | Stainless Steel with Flexible Graphite Filler |
| 9 | Packing | PTFE, Flexible Graphite, LE Packing |

Consult factory for other materials, ratings, and connections available

| End Connections | | |
|---------------------------------------|-----------------------------|----------------------------|
| ANSI Class 150 to 2500 (PN 10 to 420) | | |
| Connections | Valve Size | |
| | 3/4" to 2" (20 to 50 mm) | 3" to 6" (80 to 150 mm) |
| RF Flanged | • | • |
| Socket Weld | • | |
| Threaded | • | |
| RT Joint | • | • |
| Butt Weld | • | • |

Control Valves

Numbering System



General Information

| | |
|---|---|
| <ul style="list-style-type: none"> Flow Direction contoured: flow-to-open Lo-dB®: flow-to-open anti-cavitation: flow-to-close Body¹ type: high capacity globe or angle Bonnet type: bolted: standard extension Body and Bonnet materials: carbon steel 316 stainless steel chrome-molybdenum steel others | <ul style="list-style-type: none"> Trim plug type: contoured soft-seat Lo-dB® (1 or 2 stages) Anti-Cavitation (1 or 2 stages) seat ring: threaded quick change guide: heavy top guided capacity: full area reduced capacity in all sizes C_v ratio: 50:1 flow characteristic: linear equal percentage Actuator type: spring diaphragm handwheel: optional |
|---|---|

¹ External shape of body will vary as depicted based on different type of casting processes used. Form, fit and function are identical.

SALES OFFICE LOCATIONS

AUSTRIA

Dresser Valves Europe GmbH
Kaiserallee 14
A-2100 Korneuburg (near Wien), Austria
Phone: 43-2262-63689
Fax: 43-2263-6368915

BELGIUM

Dresser Europe S.p.r.L.
281-283 Chaussee de Bruxelles
281-283 Brusselsesteenweg
1190 Brussels, Belgium
Phone: 32-2-344-0970
Fax: 32-2-344-1123

BRAZIL

Dresser Industria E Comercio Ltda
Divisao Masoneilan
Rua Senador Vergueiro, 433
09521-320 Sao Caetano Do Sul
Sao Paulo, Brazil
Phone: 55-11-453-5511
Fax: 55-11-453-5565

CANADA

Alberta
Dresser Flow Control
DI Canada, Inc.
Suite 1300, 311-6th Ave., S.W.
Calgary, Alberta T2P 3H2
Canada
Phone: 403-290-0001
Fax: 403-290-1526

Ontario
Dresser Flow Control
DI Canada, Inc.
5010 North Service Road
Burlington, Ontario L7L 5R5
Canada
Phone: 905-335-3529
Fax: 905-336-7628

CHINA

Dresser
Suite 2403, Capital Mansion
6 Xinyuannan Road
Chao Yang district
Beijing 100040
Phone: 86-10-6466-1164
Fax: 86-10-6466-0195

FRANCE

Dresser Produits Industriels S.A.S.
Division Masoneilan
4, place de Saverne
92400 Courbevoie
France
Phone: 33-1-49-04-90-00
Fax: 33-1-49-04-90-10

GERMANY

Dresser Valves Europe GmbH
Klein-Kollenburg-Strasse 78-80
47877 Willich, Germany
Mailing Address:
P.O. Box 1208
47860 Willich, Germany
Phone: 49-2156-9189-0
Fax: 49-2156-9189-99

INDIA

Dresser Valve India Pvt. Ltd.
305/306 "Midas" - Sahar Plaza
Mathurdas VasANJI Road
J.B. Nagar - Andheri East
Mumbai, India 400 059
Phone: 91-22-835-4790
Fax: 91-22-835-4791

ITALY

Dresser Italia S.r.L.
Masoneilan Operation
Via Cassano, 77
80020 Casavatore (Naples), Italy
Phone: 39-81-7892-111
Fax: 39-81-7892-208

JAPAN

Niigata Masoneilan Company, Ltd.
20th Floor, Marive East Tower
WBG 2-6 Nakase, Mihama-Ku
Chiba-shi, Chiba 261-7120, Japan
Phone: 81-43-297-9222
Fax: 81-43-299-1115

KOREA

Dresser Korea, Inc.
#2107 Kuk Dong Building
60-1, 3-Ka, Choongmu-ro
Chung-Ku, Seoul, 100705
Phone: 82-2-274-0792
Fax: 82-2-274-0794

KUWAIT

Dresser
P.O. Box 242
Safat 13003, Kuwait
Courier:
Flat No. 36, Floor 8
Gaswa Complex, Mahboula
Kuwait
Phone: 965-9061157

MALAYSIA

Dresser Flow Control - Far East
Business Suite 19A-9-1
Level 9, UOA Centre
No. 19 Jalan Pinang
50450 Kuala Lumpur, Malaysia
Phone: 60-3-2163-2322
Fax: 60-3-2163-6312

MEXICO

Dresser Valve de Mexico, S.A. de
C.V.
Henry Ford No. 114, Esq. Fulton
Fraccionamiento Industrial San
Nicolas
54030 Tlalnepantla Estado de Mexico
Phone: 52-5-310-9863
Fax: 52-5-310-5584

THE NETHERLANDS

Dresser Valves Europe
Steenhouwerstraat 11
3194 AG Hoogvliet
The Netherlands
Mailing Address:
P.O. Box 640
NL3190 AN Hoogvliet RT
The Netherlands
Phone: 31-10-438-4122
Fax: 31-10-438-4443

SINGAPORE

Dresser Singapore, Pte. Ltd.
16, Tuas Avenue 8
Singapore 639231
Phone: 65-861-6100
Fax: 65-861-7172

SOUTH AFRICA

Dresser Ltd., South Africa Branch
P.O. Box 2234, 16 Edendale Road
Eastleigh, Edenvale 1610
Republic of South Africa
Phone: 27-11-452-1550
Fax: 27-11-452-6542

SPAIN

Masoneilan S.A.
C/ Murcia 39 C
08830 Sant Boi de Llobregat
Barcelona, Spain
Phone: 34-93-652-6430
Fax: 34-93-652-6444

SWITZERLAND

Dresser Valves Europe SA
Frauntalweg 76
CH-8045 Zurich, Switzerland
Mailing Address:
P.O. Box 3568
CH-8021 Zurich, Switzerland
Phone: 41-1-450 28 91
Fax: 41-1-450 28 95

UNITED ARAB EMIRATES

Dresser
Middle East Operations
Post Box 61302
R/A 8, Units JAO1/JAO2
Jebel Ali Free Zone
United Arab Emirates
Courier:
Units Nos. JAO1 + JAO2
Roundabout 8
Jebel Ali Free Zone
United Arab Emirates
Phone: 971-4-8838-752
Fax: 971-4-8838-038

UNITED KINGDOM

DI U.K. Limited
Trevithick Works
Gillibrands Estate, Skelmersdale
Lancashire WN8 9TU, England
United Kingdom
Phone: 44-1695-52600
Fax: 44-1695-52662

DI U.K.

Unit 4, Suite 1.1, Nobel House
Grand Union Office Park
Packet Boat Lane, Uxbridge
Middlesex UB8 2GH, England
United Kingdom
Phone: 44-1895-454900
Fax: 44-1895-454919

UNITED STATES

Northern Region
Dresser Flow Control
85 Bodwell Street
Avon, MA 02322-1190
Phone: 508-586-4600
Fax: 508-427-8971

Southern Region
Dresser Flow Control
11100 West Airport Blvd.
Stafford, TX 77477-3014
Phone: 281-568-2211
Toll Free: 800-847-1099
Fax: 281-568-1414

South Texas Operations
Dresser Flow Control
4841 Leopard Street
Corpus Christi, TX 78408-2621
Phone: 361-877-2414
Fax: 361-584-1196



Flow Control

www.masoneilan.com

BH1080 (10-03-01)