

Masoneilan™ 80000 Series

Three-Way Control
Valves Combining and
Diverting Service



Table of Contents

| | |
|--------------------------------------|------------|
| Features | 3 |
| Numbering System | 4 |
| Ratings/Connections | 4 |
| General Data..... | 5 |
| Temperature Range/Seat Leakage | 6 |
| Flow Direction and Application..... | 7 |
| C_v and F_L versus Travel..... | 7 |
| C_v and Flow Direction | 8 |
| Materials of Construction..... | 9 |
| Valve Dimensions..... | 16 |
| Valve Weights..... | 20 |
| Actuator Dimensions and Weights..... | 21 |
| Accessories | 23 |
| Sales Offices..... | Back Cover |

Features

The 80000 Series is a heavy duty three-way control valve designed for either combining or diverting service. Standard features include:

Heavy Guiding

Construction of the Masoneilan 80000 Series includes top guiding in the plug, as well as guiding within the seat ring locations providing an extremely well supported and stable design.

High Capacity

Large flow galleries in the 80000 Series provide high capacity designs with low pressure recoveries. High critical flow factors are attained in both combining and diverting configurations.

Flow Stability

The 80000 Series is a dual seated design with flow tending to open the valve at both ports. This provides inherent dynamic stable resulting in excellent throttling control performance.

Wide Operating Range

Designs are available in various sizes and can be configured to operate within an extremely wide temperature range. This is accomplished through use of high performance materials and design configurations.

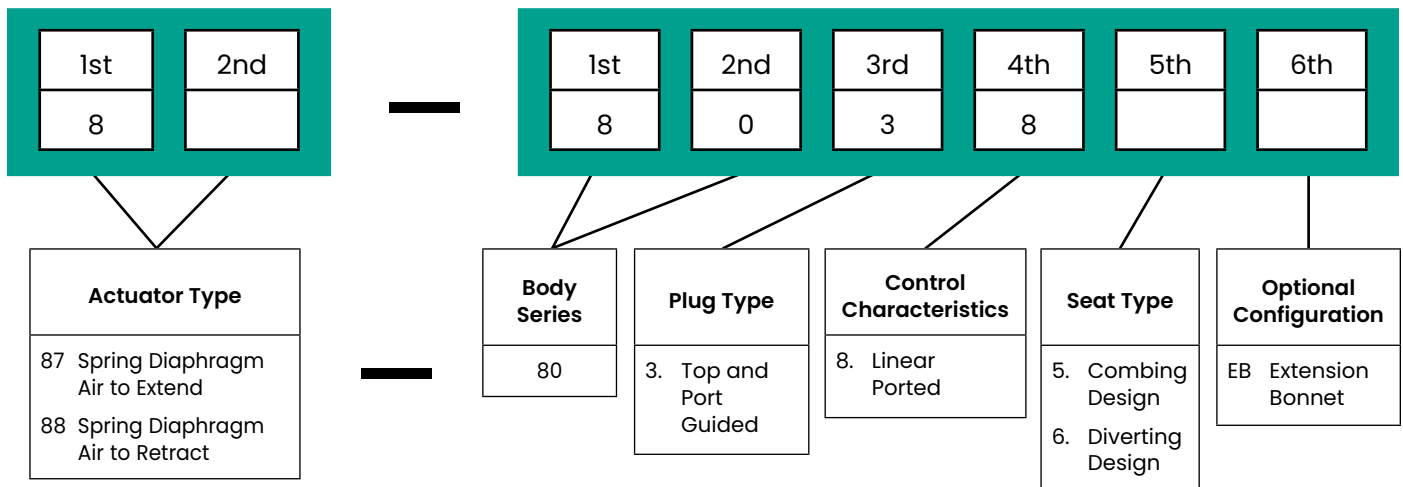
Reduced Emissions

The 80000 Series can be supplied with the Masoneilan *Low-E™* Packing design to provide low emissions performance meeting various environmental regulations worldwide.

NACE Compliance

Construction for Sour Service Applications in accordance with NACE standard MR 0103 is readily available. Applications requiring compliance to MR 0175, 2003 Rev or ISO 15156 can also be provided.

Numbering System



Ratings/Connections

□ Flanged ■ Butt Weld △ RT Joint ● Threaded ○ Socket Weld

| Valve Sizes | | ASME Class | | |
|----------------|----------------|------------|---------|---------|
| inches | mm | 150 | 300 | 600 |
| .75, 1, 1.5, 2 | 20, 25, 40, 50 | n △ m | n △ m | n △ m |
| 3 through 12 | 80 through 300 | n △ | n △ | n △ |

1. .75" & 1" (20mm & 25mm) sizes not available in 80386 version - Diverting Design Utilize combining design and consult factory for details.

2. Welded end connections, other flanged configurations, and ASME ratings above 600 Class are available upon request. Consult factory for details.

General Data

Body

Type: 3-way
Flow Direction: Flow to open (both ports)
C_v Ratio: 50:1
Materials: Carbon steel
Stainless steel
Chrome-molybdenum steel
Others

Bonnet

Type: Bolted
Packing Box: Bolted
Optional: Extension
Materials: Carbon steel
Stainless steel
Chrome-molybdenum steel
Others

Trim

Type: 385 - combining
386 - diverting

Flow Characteristics

Linear
Full capacity only
Actuator

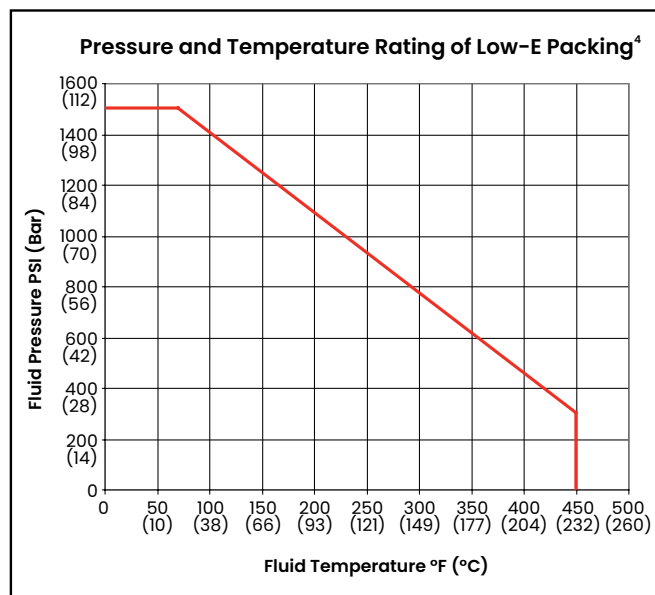
Actuator

Type: Spring diaphragm
Direct, air to extend
Reverse, air to retract

Temperature Range/Seat Leakage

| Valve Size ¹ | | Body Rating | Body & Bonnet Material | Temperature Ranges ² | | | | Seat Leakage IEC 60534-4 and ASME/FCI 70.2 Class ³ |
|-------------------------|-----------|--------------------------------------|------------------------|---------------------------------|------------------------------|------------------|-----------------|---|
| | | | | Standard Bonnet | | Extension Bonnet | | |
| inch | mm | | | Min. | Max. | Min. | Max. | |
| 0.75 to 12 | 20 to 300 | ASME Class 150 to 600 (PN 10 to 100) | Carbon Steel | -20°F (-29°C) | +450°F ² (+232°C) | -20°F (-29°C) | +800°F (+427°C) | II, III, or IV |
| | | | Stainless Steel | -20°F (-29°C) | +450°F ² (+232°C) | -20°F (-29°C) | +800°F (+427°C) | |
| | | | Chrome-Moly | +32°F (0°C) | +450°F ² (+232°C) | +32°F (0°C) | +800°F (+427°C) | |
| | | | NACE | -20°F (-29°C) | +450°F ² (+232°C) | | | |

- .75" & 1" (20 & 25mm) sizes are not available in the 80386 diverting configuration. Utilize combining version 80385 and consult factory for details.
- Maximum temperature shown is with PTFE and Low-E packing. Extended max. operating temperature of 800°F (427°C) allowable with Graphite packing.
- Class II shutoff is standard leakage rating. Class III and IV can be provided depending on application service conditions. Consult with factory on Class III and IV applications and requirements.
- Low-E Packing for low emissions applications is limited to maximum pressure and temperature as shown in chart below.



Flow Direction & Application

| Valve Model | Type of Service | Valve Size | | Flow Direction (Both Ports) |
|--------------------|-----------------|------------|-----------|-----------------------------|
| | | inches | mm | |
| 80385 | Combining | .75 to 12 | 20 to 300 | FTO |
| 80385 ¹ | Diverting | .75 & 1 | 20 & 25 | FTC |
| 80386 | Diverting | 1.5 to 12 | 40 to 300 | FTO |

1. .75" & 1" (20 & 25mm) sizes are not available in the 80386 diverting configuration. Utilize combining version 80385 and consult factory for details.

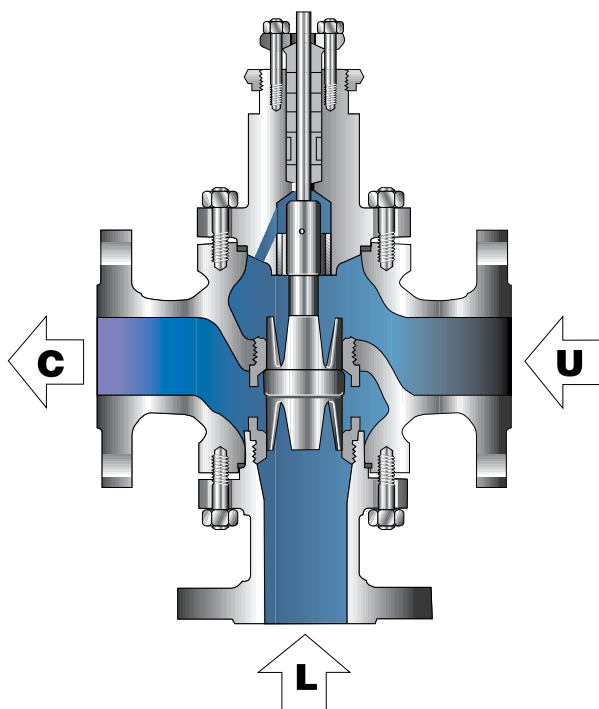
C_v and F_L versus Travel

Direction: FLOW-TO-OPEN (FTO)
Flow Characteristic: LINEAR

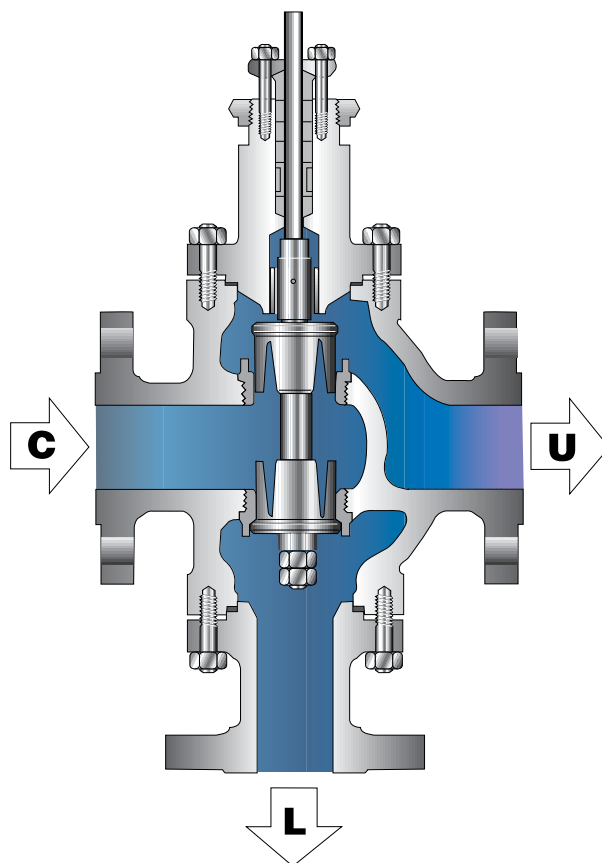
| Percent of Travel | | | | | | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------------------|-----|-------------|------------------|------|--------|------|-------------|------|------|------|------|------|------|------|------|------|
| F_L | | | | | | | 0.90 | 0.91 | 0.91 | 0.92 | 0.92 | 0.92 | 0.91 | 0.91 | 0.90 | 0.90 |
| Valve Size | | ASME Rating | Orifice Diameter | | Travel | | Rated C_v | | | | | | | | | |
| inch | mm | | inch | mm | inch | mm | | | | | | | | | | |
| 75 | 20 | 150 to 600 | .88 | 22.3 | .05 | 12.7 | 0.6 | 1.2 | 1.8 | 2.4 | 3 | 3.6 | 4.2 | 4.8 | 5.4 | 6 |
| 1 | 25 | | 1.06 | 26.9 | .05 | 12.7 | 0.9 | 1.8 | 2.7 | 3.6 | 4.5 | 5.4 | 6.3 | 7.2 | 8.1 | 9 |
| 1.5 | 40 | | 1.5 | 38.1 | .08 | 20.3 | 2.1 | 4.2 | 6.3 | 8.4 | 10.5 | 12.6 | 14.7 | 16.8 | 18.9 | 21 |
| 2 | 50 | | 2.00 | 50.8 | .08 | 20.3 | 3.6 | 7.2 | 10.8 | 14.4 | 18 | 21.6 | 25.2 | 28.8 | 32.4 | 36 |
| 3 | 80 | | 2.62 | 66.5 | 1.5 | 38.1 | 7.5 | 15 | 22.5 | 30 | 37.5 | 45 | 52.5 | 60 | 67.5 | 75 |
| 4 | 100 | | 3.50 | 88.9 | 1.5 | 38.1 | 12.4 | 24.8 | 37.2 | 49.6 | 62 | 74.4 | 86.8 | 99.2 | 112 | 124 |
| 6 | 150 | | 5.25 | 133 | 2.0 | 50.8 | 27 | 54 | 81 | 108 | 135 | 162 | 189 | 216 | 243 | 270 |
| 8 | 200 | | 7.00 | 178 | 2.5 | 63.5 | 48 | 96 | 144 | 192 | 240 | 288 | 336 | 384 | 432 | 480 |
| 10 | 250 | | 8.75 | 22 | 2.5 | 63.5 | 75 | 150 | 225 | 300 | 375 | 450 | 525 | 600 | 675 | 750 |
| 12 ¹ | 300 | | 10.5 | 267 | 3.5 | 88.9 | 108 | 216 | 324 | 432 | 540 | 648 | 756 | 864 | 972 | 1080 |

1. Use spring-diaphragm actuator Model 37/38 for 12" (300 mm) valve size.

C_v and Flow Direction



80385 Combining



80386 Diverting

C = Common L = Lower U = Upper

Body Ratings: ASME Class 150 through 600 (PN 10 to 100)

Sizes: .75" through 12" (20mm through 300mm)¹

Flow Direction: flow to open (both ports)

Flow Characteristic: linear

0% - Plug in Up Position
100% - Plug in Down Position

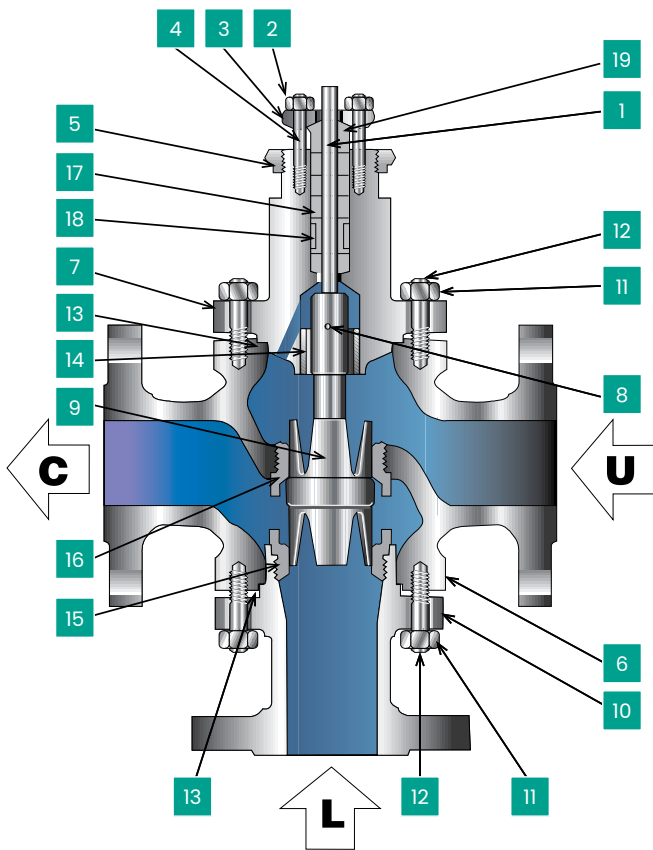
| Valve Size ¹ | | Percent of Plug Travel | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-----|------------------------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------------------|------|---|
| inches | mm | Plug Up 0% | 10% | | 20% | | 30% | | 40% | | 50% | | 60% | | 70% | | 80% | | 90% | | Plug Down 100% | | |
| .75 | 20 | 0 | 6 | 0.6 | 5.4 | 1.2 | 4.8 | 1.8 | 4.2 | 2.4 | 3.6 | 3 | 3 | 3.6 | 2.4 | 4.2 | 1.8 | 4.8 | 1.2 | 5.4 | 0.6 | 6 | 0 |
| 1 | 25 | 0 | 9 | 0.9 | 8.1 | 1.8 | 7.2 | 2.7 | 6.3 | 3.6 | 5.4 | 4.5 | 4.5 | 5.4 | 3.6 | 6.3 | 2.7 | 7.2 | 1.8 | 8.1 | 0.9 | 9 | 0 |
| 1.5 | 40 | 0 | 21 | 2.1 | 18.9 | 4.2 | 16.8 | 6.3 | 14.7 | 8.4 | 12.6 | 10.5 | 10.5 | 12.6 | 8.4 | 14.7 | 6.3 | 16.8 | 4.2 | 18.9 | 2.1 | 21 | 0 |
| 2 | 50 | 0 | 36 | 3.6 | 32.4 | 7.2 | 28.8 | 10.8 | 25.2 | 14.4 | 21.6 | 18.0 | 18.0 | 21.6 | 14.4 | 25.5 | 10.8 | 28.8 | 7.2 | 32.4 | 3.6 | 36 | 0 |
| 3 | 80 | 0 | 75 | 7.5 | 67.5 | 15 | 60 | 22.5 | 52.5 | 30 | 45 | 37.5 | 37.5 | 45 | 30 | 52.5 | 22.5 | 60 | 15 | 67.5 | 7.5 | 75 | 0 |
| 4 | 100 | 0 | 124 | 12.4 | 111.6 | 24.8 | 99.2 | 37.2 | 86.8 | 49.6 | 74.4 | 62 | 62 | 74.4 | 49.6 | 86.8 | 37.2 | 99.2 | 24.8 | 111.6 | 12.4 | 124 | 0 |
| 6 | 150 | 0 | 270 | 27 | 243 | 54 | 216 | 81 | 189 | 108 | 162 | 135 | 135 | 162 | 108 | 189 | 81 | 216 | 54 | 243 | 27 | 270 | 0 |
| 8 | 200 | 0 | 480 | 48 | 432 | 96 | 384 | 144 | 336 | 192 | 288 | 240 | 240 | 288 | 192 | 336 | 144 | 384 | 96 | 432 | 48 | 480 | 0 |
| 10 | 250 | 0 | 750 | 75 | 675 | 150 | 600 | 225 | 525 | 300 | 450 | 375 | 375 | 450 | 300 | 525 | 225 | 600 | 150 | 675 | 75 | 750 | 0 |
| 12 | 300 | 0 | 1080 | 108 | 972 | 216 | 864 | 324 | 756 | 432 | 648 | 540 | 540 | 648 | 432 | 756 | 324 | 864 | 216 | 972 | 108 | 1080 | 0 |

¹ 1.1" (25mm) size not available in 80386 version - Diverting Design. Utilize combining design and consult factory for details.

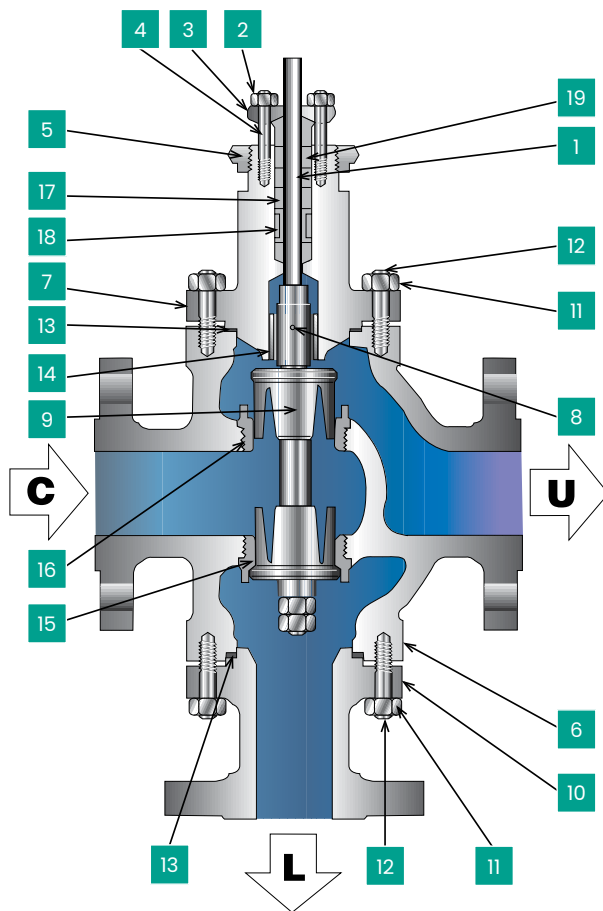
80385 U to C L to C

80386 U to C L to C

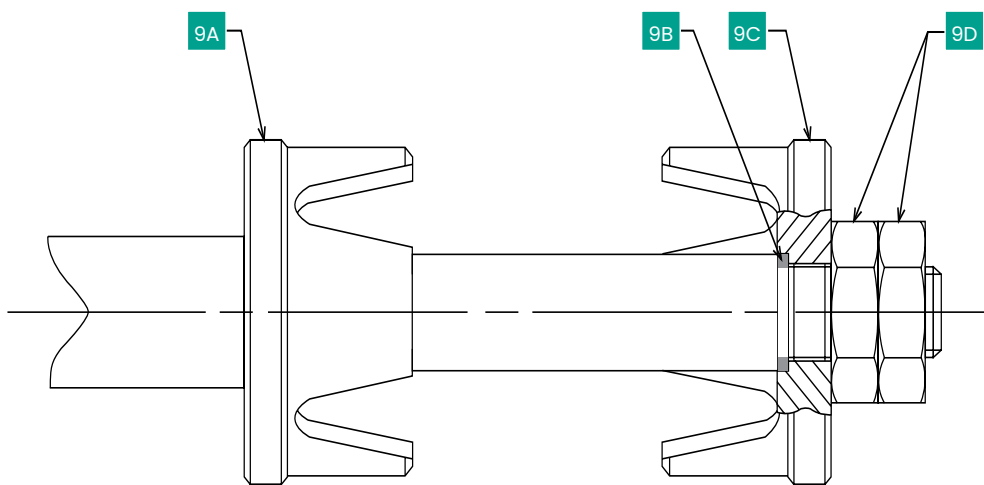
Materials of Construction



80385 Combining



80386 Diverting



Materials of Construction

Standard Carbon Steel Version

Valve Sizes: 0.75" to 12" (20mm to 300mm)
Body Ratings: ASME Class 150 to 600

| Ref. No. | Temperature Range | -20°F | | 650°F | | 800°F | |
|-------------------------------|-------------------------------|-------------------------------|---------------------------------|--|---|-------|--|
| | | Description | | Materials | | | |
| 1 | | Plug Stem | | 316 St. St. ASTM 479 TY 316 | | | |
| 2 | | Packing Flange Nut | | St. St. ASTM A194 GR 8 | | | |
| 3 | | Packing Flange | | Zinc Dichromate Carbon Steel ASTM A105 | | | |
| 4 | | Packing Flange Stud | | 304 St. St. ASTM A193 GR B8 | | | |
| 5 | | Drive Nut | | Carbon Steel SAE 1117 or ASTM A216 GR WCC | | | |
| 6 | | Valve Bonnet | | Carbon Steel ASTM A216 Grade WCC or ASTM A105 | | | |
| 7 | | Valve Body | | Carbon Steel ASTM A216 Grade WCC | | | |
| 8 | | Plug Pin | | 316 St. St. ASTM 479 TY 316 | | | |
| 9 | | Plug | 316 St. St. ASTM 479 TY 316 | 316 St. St. with Hardfaced Seat and Guide | | | |
| | | | 316 St.St.with Hardfaced Seat | | | | |
| | 9A - Upper Skirt ¹ | 316 St. St. ASTM 479 TY 316 | 316 St. St. with Hardfaced Seat | | | | |
| | | 316 St.St.with Hardfaced Seat | | | | | |
| | 9B - Plug Gasket ¹ | 316 St. St. ASTM 479 TY 316 | | | | | |
| | 9C - Lower Skirt ¹ | 316 St. St. ASTM 479 TY 316 | 316 St. St. with Hardfaced Seat | | | | |
| 316 St.St.with Hardfaced Seat | | | | | | | |
| 9D - Jam Nuts ¹ | ASTM A194 GR 8M | | | | | | |
| 10 | | Lower Flange | | Carbon Steel ASTM A216 Grade WCC or ASTM A105 | | | |
| 11 | | Body Stud Nut | | Carbon Steel ASTM A194 GR 2H | | | |
| 12 | | Body Stud | | Alloy Steel ASTM A193 GR B7 | | | |
| 13 | | Body Gasket | | 316L St. St. w/Flexible Graphite Filler (Spiral Wound) | | | |
| 14 | | Guide Bushing | | 440C St. St. ASTM A276 TY 440C | Stellite or Equivalent 6 UNS 30006 ² | | |
| 15 | | Lower Seat Ring | 316 St. St. ASTM 479 TY 316 | 316 St. St. with Hardfaced Seat | | | |
| | | | 316 St.St. with Hardfaced Seat | | | | |
| 16 | | Upper Seat Ring | 316 St. St. ASTM 479 TY 316 | 316 St. St. with Hardfaced Seat | | | |
| | | | 316 St.St. with Hardfaced Seat | | | | |
| 18 | | Lantern Ring (Optional) | | Austenitic 300 Series Stainless Steel | | | |
| 19 | | Packing Follower | | Austenitic 300 Series Stainless Steel | | | |
| Ref. No. | Temperature Range | -29°C | | 343°C | | 427°C | |

1. Separate plug components only required for Model 80386.

2. Hardfaced bushings and plug guiding surfaces are required for temperatures above 650°F (343°C).

Materials of Construction

Valve Sizes: 0.75" to 12" (20mm to 300mm)
Body Ratings: ASME Class 150 to 600

Stainless Steel Version

| Ref. No. | Temperature Range | -148°F -20°F | | 650°F | | 800°F | |
|----------|----------------------------|-------------------------------|-------------------------------|---|---|-------|--|
| | | Description | | Materials | | | |
| 1 | | Plug Stem | | | | | 316 St. St. ASTM 479 TY 316 |
| 2 | | Packing Flange Nut | | | | | St. St. ASTM A194 GR 8 |
| 3 | | Packing Flange | | | | | Zinc Dichromate Carbon Steel ASTM A105 |
| 4 | | Packing Flange Stud | | | | | 304 St. St. ASTM A193 GR B8 |
| 5 | | Drive Nut | | | | | Carbon Steel SAE 1117 or ASTM A216 GR WCC |
| 6 | | Valve Bonnet Plain Version | | | | | 316 Stainless Steel ASTM A351 Grade CF8M or ASTM A182 Grade F316 |
| | | Valve Bonnet Extended Version | | | | | 316 Stainless Steel ASTM A351 Grade CF8M or ASTM A182 Grade F316 |
| 7 | | Valve Body | | | | | 316 Stainless Steel ASTM A351 Grade CF8M |
| 8 | | Plug Pin | | | | | 316 St. St. ASTM 479 TY 316 |
| 9 | | Plug | | 316 St. St. ASTM 479 TY 316 | 316 St. St. with Hardfaced Seat and Guide | | |
| | | | | 316 St.St.with Hardfaced Seat | | | |
| | | 9A - Upper Skirt ¹ | | 316 St. St. ASTM 479 TY 316 | 316 St. St. with Hardfaced Seat | | |
| | | | | 316 St.St.with Hardfaced Seat | | | |
| | | 9B - Plug Gasket ¹ | | 316 St. St. ASTM 479 TY 316 | | | |
| | | 9C - Lower Skirt ¹ | | 316 St. St. ASTM 479 TY 316 | 316 St. St. with Hardfaced Seat | | |
| | | | 316 St.St.with Hardfaced Seat | | | | |
| | 9D - Jam Nuts ¹ | | ASTM A194 GR 8M | | | | |
| 10 | | Lower Flange | | | | | 316 Stainless Steel ASTM A351 Grade CF8M or ASTM A182 Grade F316 |
| 11 | | Body Stud Nut | | Carbon Steel ASTM A194 GR 2H Zinc Dichromate Plating | C. S. ASTM A194 GR 2H (No Zinc) | | |
| | | ASTM A194 Gr. 8 | | | | | |
| 12 | | Body Stud | | Alloy Steel ASTM A193 GR B7 Zinc Dichromate Plating | Alloy Steel ASTM A193 GR B7 | | |
| | | ASTM A193 Gr. B8 ² | | | | | |
| 13 | | Body Gasket | | | | | 316L St. St. w/Flexible Graphite Filler (Spiral Wound) |
| 14 | | Guide Bushing | | | | | Stellite or Equivalent 6 ³ |
| 15 | | Lower Seat Ring | | 316 St. St. ASTM 479 TY 316 | 316 St. St. with Hardfaced Seat | | |
| | | | | 316 St.St. with Hardfaced Seat | | | |
| 16 | | Upper Seat Ring | | 316 St. St. ASTM 479 TY 316 | 316 St. St. with Hardfaced Seat | | |
| | | | | 316 St.St. with Hardfaced Seat | | | |
| 18 | | Lantern Ring (Optional) | | | | | Austenitic 300 Series Stainless Steel |
| 19 | | Packing Follower | | | | | Austenitic 300 Series Stainless Steel |
| Ref. No. | Temperature Range | -100°C -29°C | | 343°C | | 427°C | |

1. Separate plug components only required for Model 80386.

2. ASTM A453 Gr. 660 Body Studs may be required for low temperature applications or for corrosion resistance requirements.

3. Solid Stellite or Equivalent bushings are tack welded in bonnet and lower flange for applications above 650°F (343°C) to account for thermal expansion.

Materials of Construction

Standard Chrome Moly Version

Valve Sizes: 0.75" to 12" (20mm to 300mm)
Body Ratings: ASME Class 150 to 600

| Ref. No. | Temperature Range | 32°F | | 650°F | | 800°F | | |
|----------------------------|-------------------------------|---------------------------------|--|---|--|-------|--|--|
| | | Description | | Materials | | | | |
| 1 | | Plug Stem | | | | | | 316 St. St. ASTM 479 TY 316 |
| 2 | | Packing Flange Nut | | | | | | St. St. ASTM A194 GR 8 |
| 3 | | Packing Flange | | | | | | Zinc Dichromate Carbon Steel ASTM A105 |
| 4 | | Packing Flange Stud | | | | | | 304 St. St. ASTM A193 GR B8 |
| 5 | | Drive Nut | | | | | | Carbon Steel SAE 1117 or ASTM A216 GR WCC |
| 6 | | Valve Bonnet | | | | | | Chrome-Molybdenum Steel ASTM A217 Grade WC9 |
| 7 | | Valve Body | | | | | | Chrome-Molybdenum Steel ASTM A217 Grade WC9 |
| 8 | | Plug Pin | | | | | | 316 St. St. ASTM 479 TY 316 |
| 9 | Plug | 316 St. St. ASTM 479 TY 316 | | 316 St. St. with Hardfaced Seat and Guide | | | | |
| | | 316 St.St.with Hardfaced Seat | | | | | | |
| | 9A - Upper Skirt ¹ | 316 St. St. ASTM 479 TY 316 | | 316 St. St. with Hardfaced Seat | | | | |
| | | 316 St. St. with Hardfaced Seat | | | | | | |
| | 9B - Plug Gasket ¹ | 316 St. St. ASTM 479 TY 316 | | | | | | |
| | 9C - Lower Skirt ¹ | 316 St. St. ASTM 479 TY 316 | | 316 St. St. with Hardfaced Seat | | | | |
| | | 316 St.St.with Hardfaced Seat | | | | | | |
| 9D - Jam Nuts ¹ | ASTM A194 GR 8M | | | | | | | |
| 10 | | Lower Flange | | | | | | Chrome-Molybdenum Steel ASTM A217 Grade WC9 |
| 11 | | Body Stud Nut | | | | | | Carbon Steel ASTM A194 GR 2H |
| 12 | | Body Stud | | | | | | Alloy Steel ASTM A193 GR B7 |
| 13 | | Body Gasket | | | | | | 316L St. St. w/Flexible Graphite Filler (Spiral Wound) |
| 14 | | 440C St. St. ASTM A276 TY 440C | | Stellite or Equivalent 6 UNS 30006 ² | | | | |
| 15 | Lower Seat Ring | 316 St. St. ASTM 479 TY 316 | | 316 St. St. with Hardfaced Seat | | | | |
| | | 316 St.St. with Hardfaced Seat | | | | | | |
| 16 | Upper Seat Ring | 316 St. St. ASTM 479 TY 316 | | 316 St. St. with Hardfaced Seat | | | | |
| | | 316 St. St. with Hardfaced Seat | | | | | | |
| 18 | | Lantern Ring (Optional) | | | | | | Austenitic 300 Series Stainless Steel |
| 19 | | Packing Follower | | | | | | Austenitic 300 Series Stainless Steel |
| Ref. No. | Temperature Range | 0°C | | 343°C | | 427°C | | |

1. Separate plug components only required for Model 80386.

2. Hardfaced bushings and plug guiding surfaces are required for temperatures above 650°F (343°C).

Materials of Construction

Valve Sizes: 0.75" to 12" (20mm to 300mm)
Body Ratings: ASME Class 150 to 600

Standard Packing Options

| Ref. No. | Temperature Range | | -20°F | 450°F | 800°F |
|----------|-------------------|-----------------|---------------------------|-------|-------|
| | Description | | Materials | | |
| 17 | Packing | Standard Bonnet | PTFE Packing | | |
| | | | Low-E Packing | | |
| | | | Flexible Graphite Packing | | |
| | Packing | Extended Bonnet | PTFE Packing | | |
| | | | Low-E Packing | | |
| | | | Flexible Graphite Packing | | |
| Ref. No. | Temperature Range | | -29°C | 232°C | 427°C |

Materials of Construction

Valve Sizes: 0.75" to 12" (20mm to 300mm)
Body Ratings: ASME Class 150 to 600

Standard NACE Version

| Ref. No. | Temperature Range | -20°F | 450°F |
|--|-------------------------------|--|-------|
| | Description | Standard Operating Materials ¹ | |
| 1 | Plug Stem | 316 St. St. ASTM A479 TY 316 (HRC 22 Max.) | |
| | | ASTM A638 Gr 660 ² | |
| 2 | Packing Flange Nut | 304 St. St. ASTM A194 Gr 8 ³ (non exposed) | |
| | | Alloy Steel ASTM A194 Gr 8A ⁴ (exposed) | |
| 3 | Packing Flange | Zinc Dichromate Carbon Steel ASTM A105 | |
| 4 | Packing Flange Stud | 304 St. St. ASTM A193 GR B8 (exposed and non exposed) | |
| 5 | Drive Nut | Carbon Steel SAE 1117 ³ | |
| | | Carbon Steel ASTM A105 or SAE 1010-1025 ⁴ | |
| 6 | Valve Bonnet | Carbon Steel ASTM A216 Grade WCC (HRC 22 Max.) | |
| | | Carbon Steel ASTM A105 (HRC 22 Max.) | |
| | | 316 St. St. ASTM A351 Gr CF8M (HRC 22 Max.) | |
| 7 | Valve Body | Carbon Steel ASTM A216 Grade WCC (HRC 22 Max.) | |
| | | 316 St. St. ASTM A351 Gr CF8M (HRC 22 Max.) | |
| 8 | Plug Pin | 316 St. St. ASTM A479 TY 316 (HRC 22 Max.) | |
| 9 | Plug | 316 St. St. ASTM A479 TY 316 (HRC 22 Max.) | |
| | | 316 St. St. ASTM A479 TY 316 with Hardfaced Seat (HRC 22 Max.) | |
| | 9A - Upper Skirt ⁶ | 316 St. St. ASTM A479 TY 316 (HRC 22 Max.) | |
| | | 316 St. St. ASTM A479 TY 316 with Hardfaced Seat (HRC 22 Max.) | |
| | 9B - Plug Gasket ⁶ | 316 St. St. ASTM A479 TY 316 (HRC 22 Max.) | |
| | 9C - Lower Skirt ⁶ | 316 St. St. ASTM A479 TY 316 (HRC 22 Max.) | |
| 316 St. St. ASTM A479 TY 316 with Hardfaced Seat (HRC 22 Max.) | | | |
| 9D - Jam Nuts ⁶ | ASTM A194 Gr. 8M | | |
| | | | |
| 10 | Lower Flange | Carbon Steel ASTM A216 Grade WCC (HRC 22 Max.) | |
| | | Carbon Steel ASTM A105 (HRC 22 Max.) | |
| | | 316 St. St. ASTM A351 Gr CF8M (HRC 22 Max.) | |
| | | ASTM A194 GR 2H Zinc Plating ^{3&5} (non exposed) | |
| | | ASTM A194 Gr 2HM Zinc Plating ^{4&5} (exposed) | |
| 11 | Body Stud Nut | ASTM A194 GR 2H ³ (non exposed) | |
| | | ASTM A194 Gr 2HM ⁴ (exposed) | |
| 12 | Body Stud | ASTM A193 GR B7 ³ (non exposed) | |
| | | ASTM A193 Gr B7M ⁴ (exposed) | |
| | | ASTM A193 GR B7 Zinc Plating ^{3&5} (non exposed) | |
| | | ASTM A193 Gr B7M Zinc Plating ^{4&5} (exposed) | |
| 13 | Body Gasket | 316L St. St. w/Flexible Graphite Filler (Spiral Wound) | |
| 14 | Guide Bushing | Stellite or Equivalent 6 UNS 30006 | |
| 15 | Lower Seat Ring | 316 St. St. ASTM A479 TY 316 (HRC 22 Max.) | |
| | | 316 St. St. ASTM A479 TY 316 with Hardfaced Seat (HRC 22 Max.) | |
| Ref. No. | Temperature Range | -29°C | 232°C |

Materials of Construction

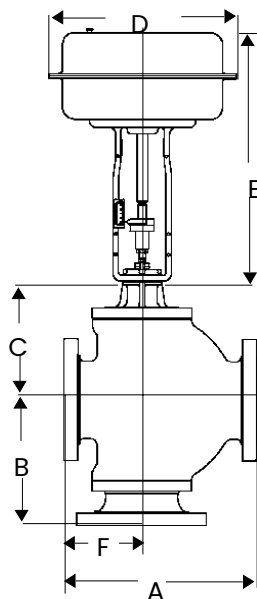
Valve Sizes: 0.75" to 12" (20mm to 300mm)
Body Ratings: ASME Class 150 to 600

Standard NACE Version

| Ref. No. | Temperature Range | -20°F | 450°F |
|----------|-------------------------|--|-------|
| | Description | Standard Operating Materials ¹ | |
| 16 | Upper Seat Ring | 316 St. St. ASTM A479 TY 316 (HRC 22 Max.) | |
| | | 316 St. St. ASTM A479 TY 316 with Hardfaced Seat (HRC 22 Max.) | |
| 17 | Packing | PTFE (Teflon) | |
| 18 | Lantern Ring (Optional) | 304 St. St. ASTM A479 TY 304 | |
| 19 | Packing Follower | 304 St. St. ASTM A479 TY 304 | |
| Ref. No. | Temperature Range | -29°C | 232°C |

1. Materials and processes in accordance with the requirements of NACE specification MR0103, 2003. Applications requiring compliance to MR0175, 2003 Rev. or ISO 15156 requires factory review.
2. ASTM A638 Gr. 660 Stem option will be substituted in applications as required based on operating pressure conditions.
3. Materials designated for these parts conform to NACE Class III (unexposed) bolting requirements.
4. Materials designated for these parts conform to NACE Class I or Class II (exposed) bolting requirements.
5. Zinc plating is mandatory for St. Steel construction only.
6. Separate plug components only required for Model 80386.

Valve Dimensions



80385 Series Dimensions (inches)

| Valve Size | | ASME Class 150 and equivalent PN | | | | ASME Class 300 and equivalent PN | | | | ASME Class 600 and equivalent PN | | | | ASME Class 150-600 and equivalent PN | |
|------------|-----|-------------------------------------|-------|-------|-------|-------------------------------------|-------|-------|-------|-------------------------------------|-------|-------|-------|--|------|
| inches | mm | RF | | RTJ | | RF | | RTJ | | RF | | RTJ | | Threaded & Socket Weld | |
| | | A | B | A | B | A | B | A | B | A | B | A | B | A | B |
| .75 | 20 | 7.24 | 5.51 | 7.76 | 5.51 | 7.64 | 5.51 | 8.11 | 5.51 | 8.11 | 5.51 | 8.11 | 5.51 | 5.98 | 5.55 |
| 1 | 25 | 7.24 | 5.51 | 7.76 | 5.51 | 7.76 | 5.51 | 8.27 | 5.51 | 8.27 | 5.51 | 8.27 | 5.51 | 5.98 | 5.55 |
| 1.5 | 40 | 8.74 | 6.26 | 9.25 | 6.26 | 9.25 | 6.26 | 9.76 | 6.26 | 9.88 | 6.26 | 9.88 | 6.26 | 7.99 | 6.26 |
| 2 | 50 | 10.00 | 6.61 | 10.51 | 6.61 | 10.51 | 6.61 | 11.10 | 6.61 | 11.26 | 6.61 | 11.38 | 6.61 | 9.25 | 6.61 |
| 3 | 80 | 11.73 | 7.99 | 12.24 | 8.62 | 12.52 | 7.99 | 13.11 | 8.62 | 13.27 | 8.62 | 13.39 | 8.62 | | |
| 4 | 100 | 13.90 | 9.02 | 14.37 | 10.12 | 14.49 | 9.02 | 15.12 | 10.12 | 15.51 | 10.12 | 15.63 | 10.12 | | |
| 6 | 150 | 17.76 | 11.38 | 18.11 | 11.69 | 18.62 | 11.38 | 19.25 | 11.69 | 20.00 | 12.36 | 20.12 | 12.36 | | |
| 8 | 200 | 21.38 | 13.27 | 21.89 | 13.54 | 22.36 | 13.27 | 22.99 | 13.54 | 24.02 | 14.25 | 24.13 | 4.25 | | |
| 10 | 250 | 24.61 | 15.39 | 24.33 | 15.71 | 26.02 | 15.39 | 26.65 | 16.97 | 27.76 | 17.60 | 27.87 | 17.60 | | |
| 12 | 300 | 28.78 | 17.91 | 29.25 | 17.91 | 30.28 | 17.91 | 30.87 | 17.91 | 32.01 | 21.06 | 32.13 | 21.06 | | |

| Valve Size | | ASME Class 150 – 600 and equivalent PN | | |
|------------|-----|--|---------------|------------|
| inches | mm | C (Std. Bonnet) | C (EB Bonnet) | F |
| .75 | 20 | 5.12 | 9.17 | See Note 1 |
| 1 | 25 | 5.12 | 9.17 | |
| 1.5 | 40 | 5.24 | 9.88 | |
| 2 | 50 | 6.26 | 10.47 | |
| 3 | 80 | 7.99 | 11.81 | |
| 4 | 100 | 8.39 | 12.64 | |
| 6 | 150 | 10.98 | 16.42 | |
| 8 | 200 | 12.64 | 17.95 | |
| 10 | 250 | 13.11 | 19.29 | |
| 12 | 300 | 16.73 | 22.91 | |

1. For Model 80385 – Dimension F is equal to one-half dimension A.

80385 Series Dimensions (mm)

| Valve Size | | ASME Class 150 and equivalent PN | | | | ASME Class 300 and equivalent PN | | | | ASME Class 600 and equivalent PN | | | | ASME Class 150-600 and equivalent PN | |
|------------|--------|----------------------------------|-----|-----|-----|----------------------------------|-----|-----|-----|----------------------------------|-----|-----|-----|--------------------------------------|-----|
| mm | inches | RF | | RTJ | | RF | | RTJ | | RF | | RTJ | | Threaded & Socket Weld | |
| | | A | B | A | B | A | B | A | B | A | B | A | B | A | B |
| 20 | .75 | 184 | 140 | 197 | 140 | 194 | 140 | 206 | 140 | 206 | 140 | 206 | 140 | 152 | 141 |
| 25 | 1 | 184 | 140 | 197 | 140 | 197 | 140 | 210 | 140 | 210 | 140 | 210 | 140 | 152 | 141 |
| 40 | 1.5 | 222 | 159 | 235 | 159 | 235 | 159 | 248 | 159 | 251 | 159 | 251 | 159 | 203 | 159 |
| 50 | 2 | 254 | 168 | 267 | 168 | 267 | 168 | 282 | 168 | 286 | 168 | 289 | 168 | 235 | 168 |
| 80 | 3 | 298 | 203 | 311 | 219 | 318 | 203 | 333 | 219 | 337 | 219 | 340 | 219 | | |
| 100 | 4 | 353 | 229 | 365 | 257 | 368 | 229 | 384 | 257 | 394 | 257 | 397 | 257 | | |
| 150 | 6 | 451 | 289 | 460 | 297 | 473 | 289 | 489 | 297 | 508 | 314 | 511 | 314 | | |
| 200 | 8 | 543 | 337 | 556 | 344 | 568 | 337 | 584 | 344 | 610 | 362 | 613 | 362 | | |
| 250 | 10 | 625 | 391 | 618 | 399 | 661 | 391 | 677 | 431 | 705 | 447 | 708 | 447 | | |
| 300 | 12 | 731 | 455 | 743 | 455 | 769 | 455 | 784 | 455 | 813 | 535 | 816 | 535 | | |

| Valve Size | | ASME Class 150 – 600 and equivalent PN | | | | |
|------------|--------|--|--|---------------|--|------------|
| mm | inches | C (Std. Bonnet) | | C (EB Bonnet) | | F |
| 20 | .75 | 130 | | 233 | | See Note 1 |
| 25 | 1 | 130 | | 233 | | |
| 40 | 1.5 | 133 | | 251 | | |
| 50 | 2 | 159 | | 266 | | |
| 80 | 3 | 203 | | 300 | | |
| 100 | 4 | 213 | | 312 | | |
| 150 | 6 | 279 | | 417 | | |
| 200 | 8 | 321 | | 456 | | |
| 250 | 10 | 333 | | 490 | | |
| 300 | 12 | 425 | | 582 | | |

1. For Model 80385 - Dimension F is equal to one-half dimension A.

Valve Dimensions

80386 Series Dimensions (inches)

| Valve Size | | ASME Class 150 and equivalent PN | | | | ASME Class 300 and equivalent PN | | | | ASME Class 600 and equivalent PN | | | | ASME Class 150-600 and equivalent PN | |
|------------|-----|----------------------------------|-------|-------|-------|----------------------------------|-------|-------|-------|----------------------------------|-------|-------|-------|--------------------------------------|------|
| inches | mm | RF | | RTJ | | RF | | RTJ | | RF | | RTJ | | Threaded & Socket Weld | |
| | | A | B | A | B | A | B | A | B | A | B | A | B | A | B |
| .75 | 20 | 7.24 | 5.51 | 7.76 | 5.51 | 7.64 | 5.51 | 8.11 | 5.51 | 8.11 | 5.51 | 8.11 | 5.51 | 5.98 | 5.55 |
| 1 | 25 | 7.24 | 5.51 | 7.76 | 5.51 | 7.76 | 5.51 | 8.27 | 5.51 | 8.27 | 5.51 | 8.27 | 5.51 | 5.98 | 5.55 |
| 1.5 | 40 | 8.74 | 7.01 | 9.25 | 7.01 | 9.25 | 7.01 | 9.76 | 7.01 | 9.88 | 7.01 | 9.88 | 7.01 | 7.99 | 6.26 |
| 2 | 50 | 10.00 | 7.76 | 10.51 | 7.76 | 10.51 | 7.76 | 11.10 | 7.76 | 11.26 | 7.76 | 11.38 | 7.76 | 9.25 | 6.61 |
| 3 | 80 | 11.73 | 9.37 | 12.24 | 9.88 | 12.52 | 9.37 | 13.19 | 20.51 | 13.27 | 9.88 | 13.39 | 9.88 | | |
| 4 | 100 | 13.90 | 10.63 | 14.41 | 11.50 | 14.49 | 10.63 | 15.16 | 11.50 | 15.51 | 11.10 | 15.67 | 11.50 | | |
| 6 | 150 | 17.76 | 12.99 | 18.31 | 13.31 | 18.62 | 12.99 | 19.29 | 13.31 | 20.00 | 14.02 | 20.16 | 13.98 | | |
| 8 | 200 | 21.38 | 15.39 | 21.93 | 15.67 | 22.36 | 15.39 | 23.03 | 15.67 | 24.02 | 16.38 | 24.17 | 16.38 | | |
| 10 | 250 | 24.65 | 17.99 | 25.12 | 18.31 | 26.02 | 17.99 | 26.65 | 18.31 | 27.76 | 20.79 | 27.87 | 20.79 | | |
| 12 | 300 | 28.78 | 22.05 | 29.25 | 22.05 | 30.28 | 22.05 | 30.87 | 12.05 | 32.01 | 25.20 | 32.13 | 25.20 | | |

| Valve Size | | ASME Class 150 and equivalent PN | | ASME Class 150-600 and equivalent PN | ASME Class 150 and equivalent PN | | ASME Class 300 and equivalent PN | | ASME Class 600 and equivalent PN | |
|------------|-----|----------------------------------|-----------|--------------------------------------|----------------------------------|-------|----------------------------------|-------|----------------------------------|-------|
| inches | mm | Std. Bonnet | EB Bonnet | Threaded & Socket Weld | RF | RTJ | RF | RTJ | RF | RTJ |
| | | C | C | F | F | F | F | F | F | F |
| .75 | 20 | 5.12 | 9.17 | | | | | | | |
| 1 | 25 | 5.12 | 9.17 | | | | See Note 1 | | | |
| 1.5 | 40 | 6.10 | 10.75 | 3.70 | 4.06 | 4.66 | 4.29 | 4.57 | 4.65 | 4.65 |
| 2 | 50 | 7.24 | 11.46 | 4.13 | 4.65 | 4.92 | 4.88 | 5.20 | 2.24 | 5.35 |
| 3 | 80 | 9.25 | 13.07 | | 5.51 | 5.79 | 5.90 | 6.22 | 6.25 | 6.34 |
| 4 | 100 | 9.37 | 13.62 | | 6.57 | 6.85 | 6.89 | 7.20 | 7.36 | 7.48 |
| 6 | 150 | 12.64 | 18.07 | | 7.64 | 7.91 | 8.07 | 8.39 | 8.74 | 8.82 |
| 8 | 200 | 14.76 | 20.08 | | 8.54 | 8.82 | 9.06 | 9.41 | 9.88 | 9.96 |
| 10 | 250 | 16.38 | 22.56 | | 10.00 | 10.24 | 10.67 | 10.98 | 11.54 | 11.61 |
| 12 | 300 | 20.87 | 27.05 | | 11.34 | 11.57 | 12.09 | 12.36 | 12.95 | 12.99 |

1. .75" & 1" (20 & 25mm) sizes are not available in the 80386 diverting configuration. Utilize combining version 80385 and consult factory for details.

Valve Dimensions

80386 Series Dimensions (mm)

| Valve Size | | ASME Class 150 and equivalent PN | | | | ASME Class 300 and equivalent PN | | | | ASME Class 600 and equivalent PN | | | | ASME Class 150-600 and equivalent PN | |
|------------|--------|----------------------------------|-----|-----|-----|----------------------------------|-----|-----|-----|----------------------------------|-----|-----|-----|--------------------------------------|-----|
| mm | inches | RF | | RTJ | | RF | | RTJ | | RF | | RTJ | | Threaded & Socket Weld | |
| | | A | B | A | B | A | B | A | B | A | B | A | B | A | B |
| 20 | 0.75 | 184 | 140 | 197 | 140 | 194 | 140 | 206 | 140 | 206 | 140 | 206 | 140 | 152 | 141 |
| 25 | 1 | 184 | 140 | 197 | 140 | 197 | 140 | 210 | 140 | 210 | 140 | 210 | 140 | 152 | 141 |
| 40 | 1.5 | 222 | 178 | 235 | 178 | 235 | 178 | 248 | 178 | 251 | 178 | 251 | 178 | 203 | 159 |
| 50 | 2 | 254 | 197 | 267 | 197 | 267 | 197 | 282 | 197 | 286 | 197 | 289 | 197 | 235 | 168 |
| 80 | 3 | 298 | 238 | 311 | 251 | 318 | 238 | 335 | 251 | 337 | 251 | 340 | 251 | | |
| 100 | 4 | 353 | 270 | 366 | 292 | 368 | 270 | 385 | 292 | 394 | 282 | 398 | 292 | | |
| 150 | 6 | 451 | 330 | 465 | 338 | 473 | 330 | 490 | 338 | 508 | 356 | 512 | 355 | | |
| 200 | 8 | 543 | 391 | 557 | 398 | 568 | 391 | 585 | 398 | 610 | 416 | 614 | 416 | | |
| 250 | 10 | 626 | 457 | 638 | 465 | 661 | 457 | 677 | 465 | 705 | 528 | 708 | 528 | | |
| 300 | 12 | 731 | 560 | 743 | 560 | 769 | 560 | 784 | 560 | 813 | 640 | 816 | 640 | | |

| Valve Size | | ASME Class 150 and equivalent PN | | ASME Class 150-600 and equivalent PN | ASME Class 150 and equivalent PN | | ASME Class 300 and equivalent PN | | ASME Class 600 and equivalent PN | |
|------------|--------|----------------------------------|-----------|--------------------------------------|----------------------------------|-----|----------------------------------|-----|----------------------------------|-----|
| mm | inches | Std. Bonnet | EB Bonnet | Threaded & Socket Weld | RF | RTJ | RF | RTJ | RF | RTJ |
| | | C | C | F | F | F | F | F | F | F |
| 20 | 0.75 | 130 | 233 | | | | | | | |
| 25 | 1 | 130 | 233 | | | | | | | |
| 40 | 1.5 | 155 | 273 | 94 | 103 | 110 | 109 | 116 | 118 | 118 |
| 50 | 2 | 184 | 291 | 105 | 118 | 125 | 124 | 132 | 133 | 136 |
| 80 | 3 | 235 | 332 | | 140 | 147 | 150 | 158 | 159 | 161 |
| 100 | 4 | 238 | 346 | | 167 | 174 | 175 | 183 | 187 | 190 |
| 150 | 6 | 321 | 459 | | 194 | 201 | 205 | 213 | 222 | 224 |
| 200 | 8 | 375 | 510 | | 217 | 224 | 230 | 239 | 251 | 253 |
| 250 | 10 | 416 | 573 | | 254 | 260 | 271 | 279 | 293 | 295 |
| 300 | 12 | 530 | 687 | | 288 | 294 | 307 | 314 | 329 | 330 |

1. .75" & 1" (20 & 25mm) sizes are not available in the 80386 diverting configuration. Utilize combining version 80385 and consult factory for details.

Valve Weights

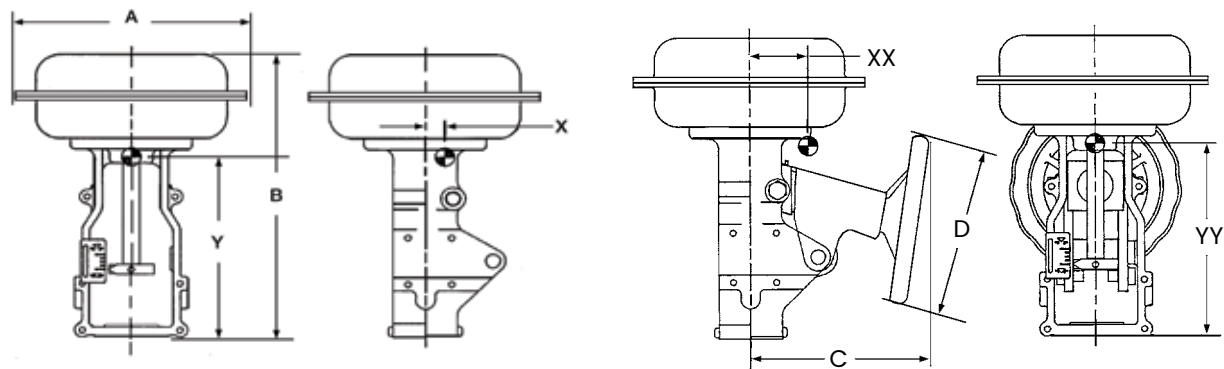
Body Sub-Assembly with Standard Bonnet (lbs)

| Valve Size | | ASME Class 150-600 and equivalent PN | ASME Class 150 and equivalent PN | ASME Class 300 and equivalent PN | ASME Class 600 and equivalent PN |
|------------|-----|--------------------------------------|----------------------------------|----------------------------------|----------------------------------|
| inches | mm | Threaded & Socket Weld | Flanged | | |
| 0.75 | 20 | 33 | 44 | 44 | 70 |
| 1 | 25 | 33 | 44 | 44 | 70 |
| 1.5 | 40 | 88 | 90 | 90 | 99 |
| 2 | 50 | 123 | 125 | 125 | 139 |
| 3 | 80 | 207 | 220 | 220 | 233 |
| 4 | 100 | 273 | 299 | 299 | 328 |
| 6 | 150 | 504 | 524 | 524 | 614 |
| 8 | 200 | 693 | 772 | 772 | 933 |
| 10 | 250 | 1351 | 1714 | 1714 | 2083 |
| 12 | 300 | 1683 | 2875 | 2875 | 3522 |

Body Sub-Assembly with Standard Bonnet (kg)

| Valve Size | | ASME Class 150-600 and equivalent PN | ASME Class 150 and equivalent PN | ASME Class 300 and equivalent PN | ASME Class 600 and equivalent PN |
|------------|--------|--------------------------------------|----------------------------------|----------------------------------|----------------------------------|
| mm | inches | Threaded & Socket Weld | Flanged | | |
| 20 | 0.75 | 15 | 20 | 20 | 32 |
| 25 | 1 | 15 | 20 | 20 | 32 |
| 40 | 1.5 | 40 | 41 | 41 | 45 |
| 50 | 2 | 56 | 57 | 57 | 63 |
| 80 | 3 | 94 | 100 | 100 | 106 |
| 100 | 4 | 124 | 136 | 136 | 149 |
| 150 | 6 | 229 | 238 | 238 | 279 |
| 200 | 8 | 315 | 351 | 351 | 424 |
| 250 | 10 | 614 | 779 | 779 | 947 |
| 300 | 12 | 765 | 1307 | 1307 | 1601 |

Actuator Dimensions and Weights (in./lbs)



Shown with optional Handwheel

Dimensions and Weights

| Actuator Size | Actuator Dimensions (inches) | | | | Weights (lbs.) | |
|---------------|------------------------------|---------------|-------|-------|----------------|--------------|
| | A | B (Model 88) | C | D | Standard | w/ Handwheel |
| 6 | 11.50 | 15.54 (17.52) | 10.00 | 9.00 | 45 | 60 |
| 10 | 14.50 | 19.58 (21.54) | 10.90 | 10.90 | 85 | 105 |
| 16 | 18.75 | 28.22 (30.79) | 14.00 | 14.00 | 210 | 245 |
| 23 | 21.63 | 30.71 (33.27) | 16.00 | 16.00 | 265 | 320 |

Actuator Removal Clearance = 6 inches

Center of Gravity (inches)

Without Handwheel

| Size | X | Y |
|------|-----|-------|
| 6 | .19 | 9.75 |
| 10 | .0 | 12.88 |
| 16 | .13 | 18.50 |
| 23 | .06 | 21.13 |

With Handwheel

| Size | XX | YY |
|------|------|-------|
| 6 | 1.25 | 9.13 |
| 10 | 0.88 | 12.00 |
| 16 | 1.38 | 16.75 |
| 23 | 1.38 | 19.00 |

Limit Stops (inches)

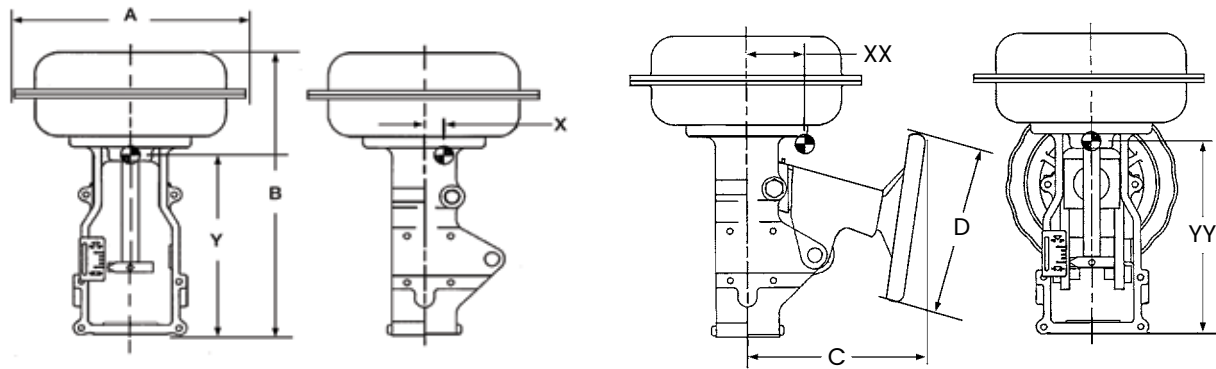
Up Stop

| Size | Model | Overall Height B |
|------|-------|------------------|
| 6 | 87 | 19.45 |
| 10 | | 25.43 |
| 16 | | 36.42 |
| 23 | | 38.84 |
| 6 | 88 | 19.16 |
| 10 | | 25.06 |
| 16 | | 35.48 |
| 23 | | 38.65 |

Down Stop

| Size | Model | Overall Height B |
|------|-------|------------------|
| 6 | 87 | 19.80 |
| 10 | | 25.98 |
| 16 | | 37.20 |
| 23 | | 39.90 |
| 6 | 88 | 19.74 |
| 10 | | 25.85 |
| 16 | | 37.46 |
| 23 | | 40.33 |

Actuator Dimensions and Weights (mm/kg)



Shown with optional Handwheel

Dimensions and Weights

| Actuator Size | Actuator Dimensions (mm) | | | | Weights (kg) | |
|---------------|--------------------------|--------------|-----|-----|--------------|--------------|
| | A | B (Model 88) | C | D | Standard | w/ Handwheel |
| 6 | 292 | 395 (445) | 254 | 229 | 20 | 27 |
| 10 | 368 | 497 (547) | 277 | 305 | 39 | 48 |
| 16 | 476 | 717 (782) | 356 | 457 | 95 | 111 |
| 23 | 549 | 780 (845) | 406 | 457 | 120 | 145 |

Actuator Removal Clearance = 152 mm

Center of Gravity (mm)

Without Handwheel

| Size | X | Y |
|------|---|-----|
| 6 | 5 | 248 |
| 10 | 0 | 327 |
| 16 | 3 | 470 |
| 23 | 2 | 537 |

With Handwheel

| Size | XX | YY |
|------|----|-----|
| 6 | 32 | 232 |
| 10 | 22 | 305 |
| 16 | 35 | 425 |
| 23 | 35 | 483 |

Limit Stops (mm)

Up Stop

| Size | Model | Overall Height B |
|------|-------|------------------|
| 6 | 87 | 494 |
| 10 | | 646 |
| 16 | | 925 |
| 23 | | 987 |
| 6 | 88 | 487 |
| 10 | | 636 |
| 16 | | 901 |
| 23 | | 982 |

Down Stop

| Size | Model | Overall Height B |
|------|-------|------------------|
| 6 | 87 | 503 |
| 10 | | 660 |
| 16 | | 945 |
| 23 | | 1014 |
| 6 | 88 | 501 |
| 10 | | 657 |
| 16 | | 952 |
| 23 | | 1024 |

Accessories

Options:

- Extension Bonnets
- Environmental Capabilities (Low-E Packing)
- Lubricator & Isolation Valve
- Other Flange Facings
- Limit Stops
- Body Drain Plug
- Reducer and Nipple Connections
- NACE Compliance
- Custom Trim Materials
- U.O.P. Trim Materials
- Other Materials
- Non-Destructive Examination
- Oxygen Cleaning
- Electric Actuators

For Accessories, consult Baker Hughes.

Direct Sales Office Locations

Australia

Brisbane
Phone: +61-7-3001-4319

Perth
Phone: +61-8-6595-7018

Melbourne
Phone: +61-3-8807-6002

Brazil

Phone: +55-19-2104-6900

China

Phone: +86-10-5738-8888

France

Courbevoie
Phone: +33-1-4904-9000

India

Mumbai
Phone: +91-22-8354790

New Delhi

Phone: +91-11-2-6164175

Italy

Phone: +39-081-7892-111

Japan

Tokyo
Phone: +81-03-6871-9008

Korea

Phone: +82-2-2274-0748

Malaysia

Phone: +60-3-2161-03228

Mexico

Phone: +52-55-3640-5060

Russia

Veliky Novgorod
Phone: +7-8162-55-7898

Moscow

Phone: +7-495-585-1276

Saudi Arabia

Phone: +966-3-341-0278

Singapore

Phone: +65-6861-6100

South Africa

Phone: +27-11-452-1550

South & Central America and the Caribbean

Phone: +55-12-2134-1201

Spain

Phone: +34-935-877-605

United Arab Emirates

Phone: +971-4-8991-777

United Kingdom

Phone: +44-7919-382-156

United States

Houston, Texas

Phone: +1-713-966-3600

Find the nearest local Channel Partner in your area:
valves.bakerhughes.com/contact-us

Tech Field Support & Warranty:

Phone: +1-866-827-5378
valvesupport@bakerhughes.com

valves.bakerhughes.com

Copyright 2020 Baker Hughes Company. All rights reserved. Baker Hughes provides this information on an "as is" basis for general information purposes. Baker Hughes does not make any representation as to the accuracy or completeness of the information and makes no warranties of any kind, specific, implied or oral, to the fullest extent permissible by law, including those of merchantability and fitness for a particular purpose or use. Baker Hughes hereby disclaims any and all liability for any direct, indirect, consequential or special damages, claims for lost profits, or third party claims arising from the use of the information, whether a claim is asserted in contract, tort, or otherwise. Baker Hughes reserves the right to make changes in specifications and features shown herein, or discontinue the product described at any time without notice or obligation. Contact your Baker Hughes representative for the most current information. The Baker Hughes logo, Low-E and Masoneilan are trademarks of Baker Hughes Company. Other company names and product names used in this document are the registered trademarks or trademarks of their respective owners.

Baker Hughes 