



# MDI / MDIS Choke Valves

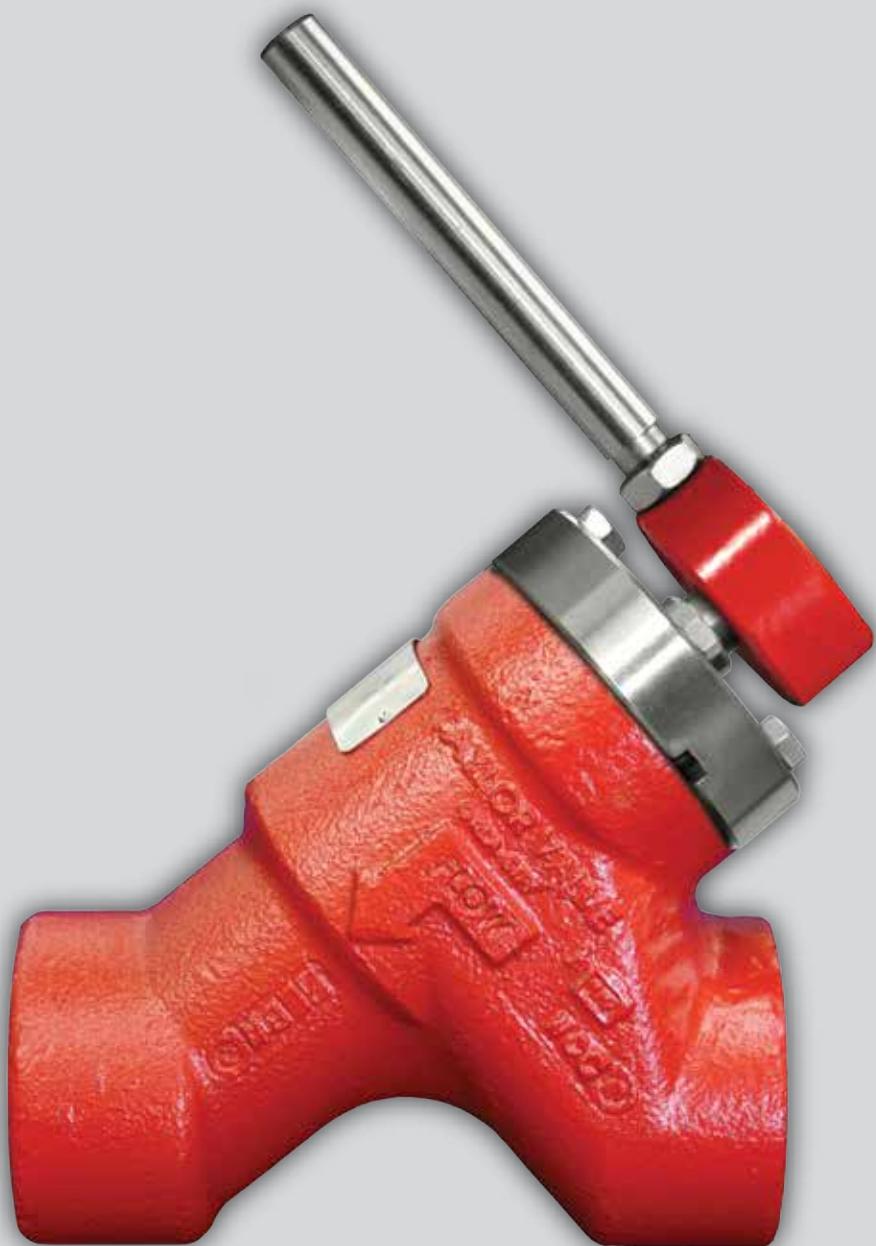
• TRUSTED •  
**SINCE 1958**  
• WORLDWIDE •



Precise.

Quality.

Reliable.

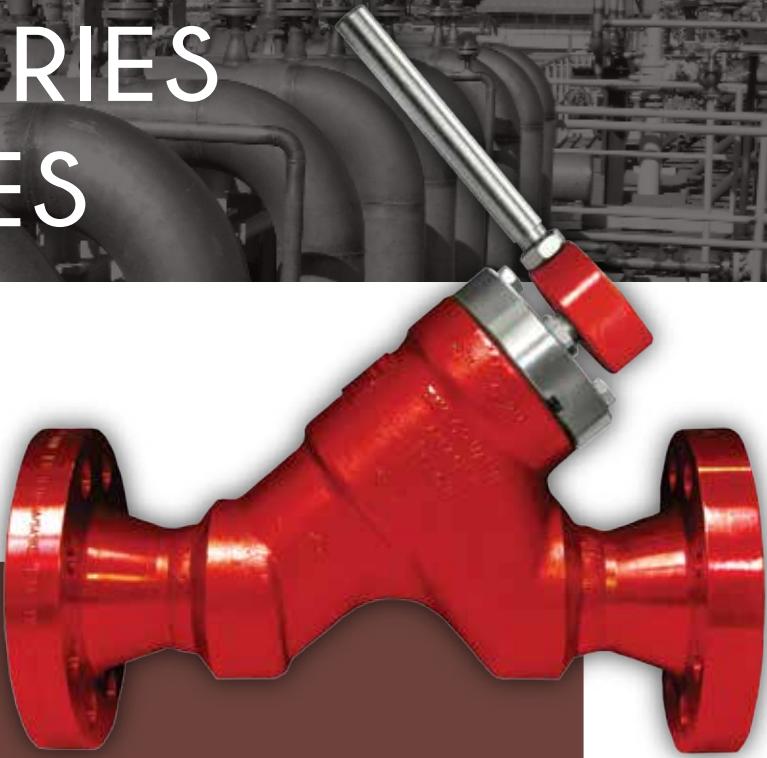


SINCE 1958 T

# MDI / MDIS SERIES CHOKE VALVES

## FEATURES & *Benefits*

Taylor Valve MDI / MDIS Series Chokes are made with wear resistant material to extend service life, with redundant O-Rings on the Bonnet Seals and Stem Seals that help prevent leakage. Fully Guided Stems reduce imbalance and vibration. Control Discs provide ANSI Class III/IV Shut off. Available sizes are the 1 Inch, 2 Inch, and the 3 Inch chokes.



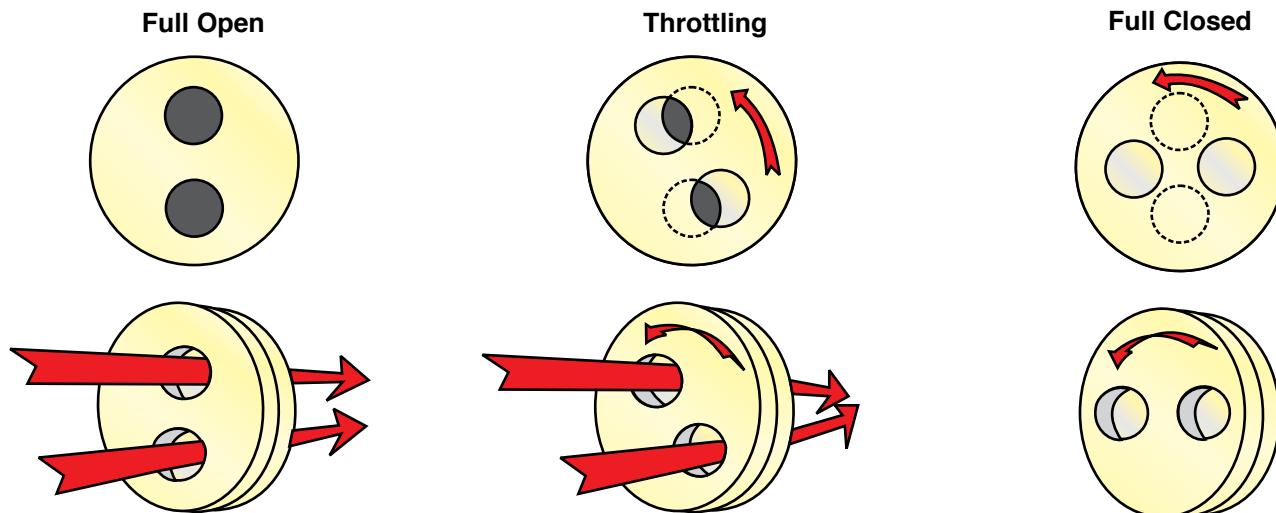
- **Accurate Control** - 90 degree rotation from Full Off to Full On.
- **Bolted Bonnet** - Safety Bonnet is bolted into the body, it avoids the well-known risks of corrosion, cross threading, galling of threaded type connection in production environments.
- **Extended Mean Time Between Service** - Robust design and liberal application of hardened materials, efficient flow-geometry means the valves offer maximum production potential and minimum service requirements.
- **Easy Maintenance** - Repair parts can be installed in the field without removing the valve from the line.
- **Optional Features** - Choke Valves can have trims and actuators custom designed for specific requirements. Such as special noise reduction trims, reduced port and maximum orifice trims, and for very high pressure or minimum pressure loss for a declining field.

### Applications:

- Well Site Automation
- Water Injection Control Valve
- CO<sub>2</sub> Injection Control Valve
- Pump Bypass
- Pump Startup
- Gas Lift Injection Control
- High Temperature Protection
- Blow Down and Dump Valve
- Remote Control for directional drilling
- Steam Injection
- Steam Tracer Control
- Manual and Automated Application

# MOV Valve Principle of Operation

Taylor Valve Technology Multi-Orifice Valve Design Principle Provides Precision Control.  
The two adjacent internal discs each contain two precision orifices.



When the holes on both discs are aligned the valve is in the Full Open Position.

When the front disc is rotated, changing the alignment and relationship to the fixed back disc, the flow area and orifice size are affected, the result is either increase or decrease in flow.

When the front disc is rotated a full 90° (one quarter turn), the valve is in the Full Closed Position.

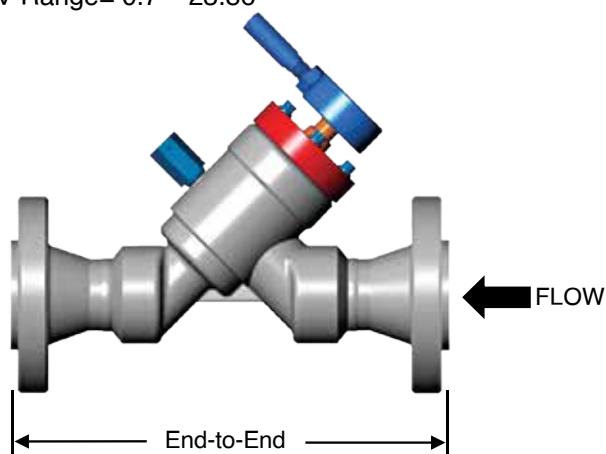
The discs are lapped to within two light bands of flatness (+/- .00002") to achieve positive shut off and maintain precise control. The fixed back disc is held perpendicular to the flow. The front disc floats against the back disc and seeks a mating surface promoting a positive seal. The differential pressure across the upstream disc and the downstream disc stabilizes the control surfaces. Vibration, noise or fatigues normally associated with loose or unsupported parts are eliminated. No control surfaces are introduced into the orifice, providing a clear center line for the flow. The valves are rated for shut-off at ANSI Class III or IV depending on the style of valve and trim used. The orifices of the standard disc expose a small control surface profile to the fluid stream reducing wear. The multi-orifice design produces near linear flow characteristics. The low torque and quarter-turn design of Taylor Valve Technology's Multi-orifice valves allows for a variety of actuation options: manual, pneumatic, hydraulic, or electric.

# MDI 1" & 2" Specifications / Cutaway View

| MDI CHOKE STANDARD DIMENSIONS (IN. +/- .10) |       |       |       |
|---|-------|-------|-------|
| CONNECTION                                  | SIZE  |       |       |
|   | 1"    | 2"    | 3"    |
| FNPT  | 8.00  | 8.00  | 19.64 |
| BUTT-WELD                                   | 8.00  | 8.00  | 19.15 |
| 150 # RFF                                   | 12.56 | 13.18 | 18.61 |
| 150 # RTJ                                   | 12.93 | 13.55 | 18.63 |
| 300 # RFF                                   | 13.06 | 13.68 | 19.11 |
| 300 # RTJ                                   | 13.43 | 14.18 | 19.61 |
| 600 # RFF                                   | 13.56 | 14.43 | 20.39 |
| 600 # RTJ                                   | 13.56 | 14.56 | 20.52 |
| 900 # RFF                                   | 14.43 | 16.68 | 20.39 |
| 900 # RTJ                                   | 14.43 | 16.81 | 20.52 |
| 1500 # RFF                                  | 14.43 | 16.68 | 21.89 |
| 1500 # RTJ                                  | 14.43 | 16.81 | 22.02 |
| 2500 # RFF                                  | 15.68 | 18.68 | -     |
| 2500 # RTJ                                  | 15.68 | 18.81 | -     |

## MDI Inline Choke

1" & 2" Configurations  
316 SS or 1018/1020 CS  
1/4 Turn Actuated  
Body Rating = 5,000 PSI  
CV Range = 0.7 – 23.86

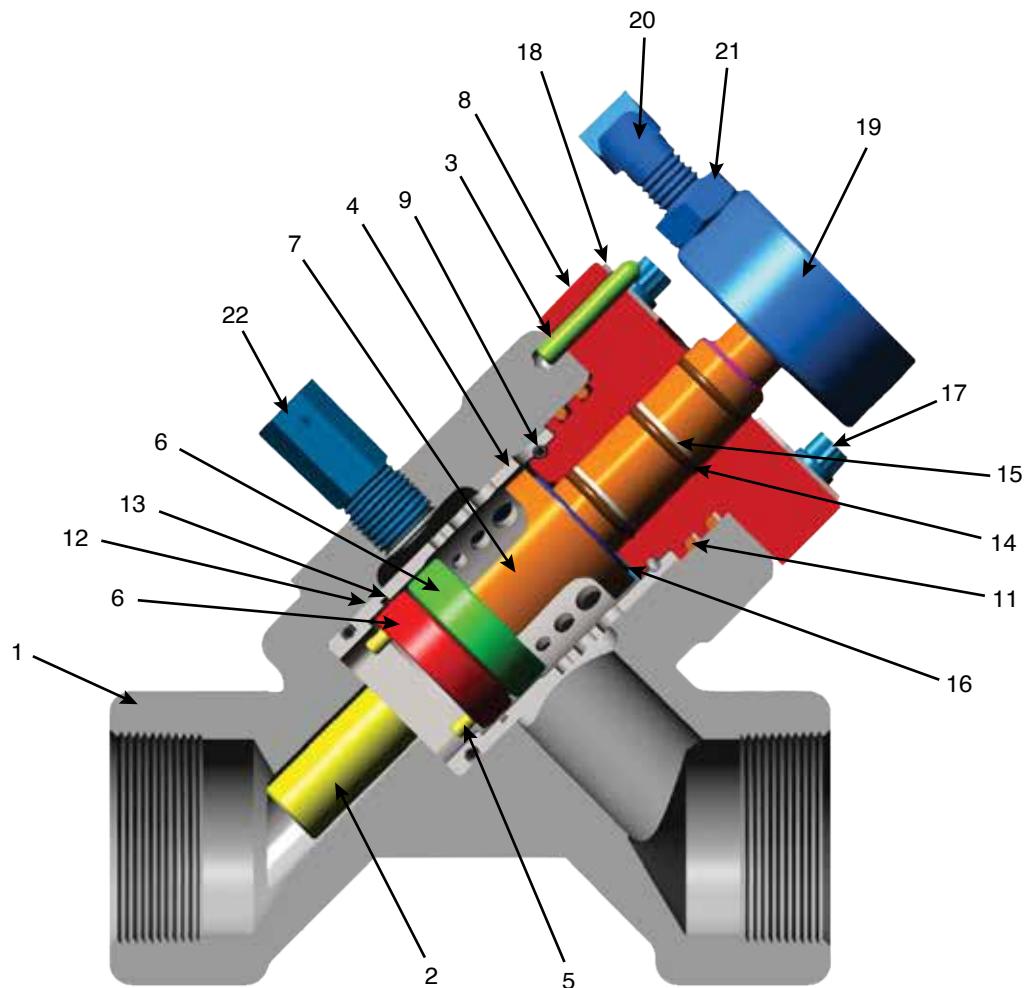


| No.   | Description    | Qty |
|-------|----------------|-----|
| 1     | Body           | 1   |
| 2     | Wear Sleeve    | 1   |
| 3     | Pointer        | 1   |
| 4     | Cage           | 1   |
| 5     | Dowel Pin      | 4   |
| 6     | Disc           | 2   |
| 7     | Fork           | 1   |
| 8     | Bonnet         | 1   |
| 9     | Retainer Wire  | 1   |
| 10**  | Dowel Pin      | 2   |
| 11    | O-Ring         | 2   |
| 12    | O-Ring         | 1   |
| 13    | O-Ring         | 1   |
| 14    | O-Ring         | 3   |
| 15    | Backup Ring    | 2   |
| 16    | Thrust Bearing | 1   |
| 17    | Cap Screw      | 6   |
| 18    | Index Plate    | 1   |
| 19*** | Turning Hub    | 1   |
| 20*** | Turning Handle | 1   |
| 21*** | Jam Nut        | 1   |
| 22*   | Fitting Vent   | 1   |
| 23**  | Screw          | 2   |
| 24**  | Data Label     | 1   |
| 25**  | Thumb Screw    | 1   |

\*Item Optional

\*\*Items not shown in section view

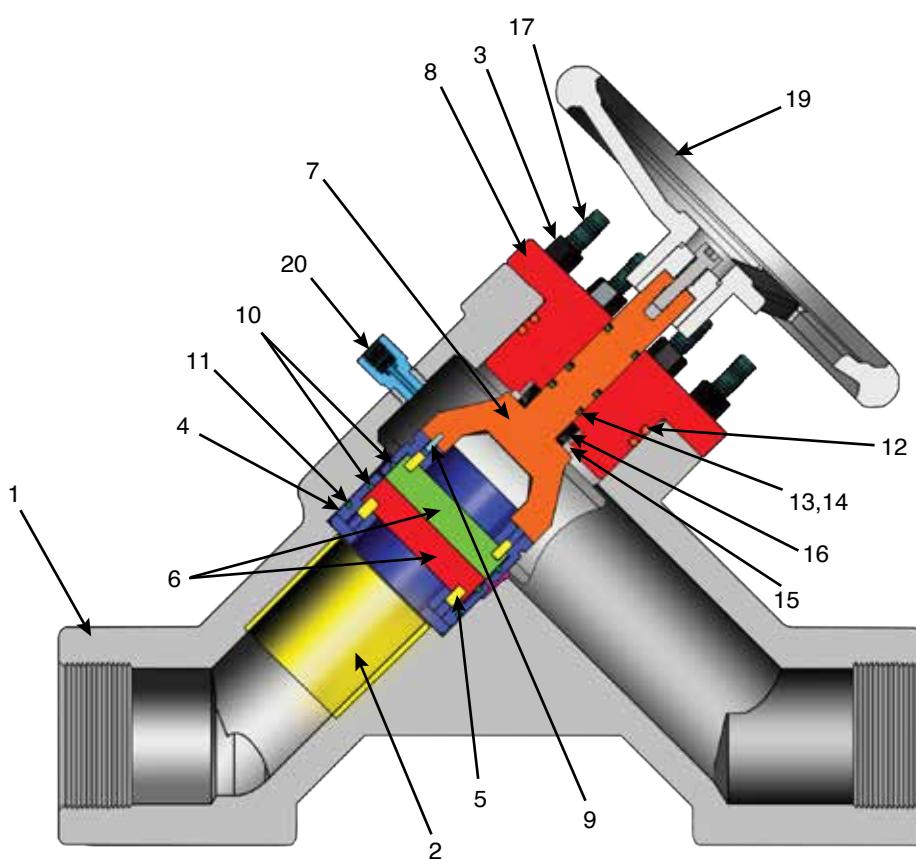
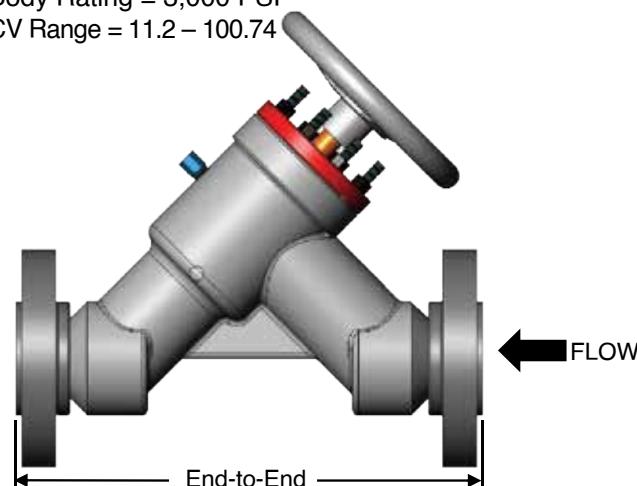
\*\*\*Items not included on actuated version



| MDI CHOKE STANDARD DIMENSIONS (IN. +/- .10) |       |       |       |
|---|-------|-------|-------|
| CONNECTION                                  | SIZE  |       |       |
|   | 1"    | 2"    | 3"    |
| FNPT  | 8.00  | 8.00  | 19.64 |
| BUTT-WELD                                   | 8.00  | 8.00  | 19.15 |
| 150 # RFF                                   | 12.56 | 13.18 | 18.61 |
| 150 # RTJ                                   | 12.93 | 13.55 | 18.63 |
| 300 # RFF                                   | 13.06 | 13.68 | 19.11 |
| 300 # RTJ                                   | 13.43 | 14.18 | 19.61 |
| 600 # RFF                                   | 13.56 | 14.43 | 20.39 |
| 600 # RTJ                                   | 13.56 | 14.56 | 20.52 |
| 900 # RFF                                   | 14.43 | 16.68 | 20.39 |
| 900 # RTJ                                   | 14.43 | 16.81 | 20.52 |
| 1500 # RFF                                  | 14.43 | 16.68 | 21.89 |
| 1500 # RTJ                                  | 14.43 | 16.81 | 22.02 |
| 2500 # RFF                                  | 15.68 | 18.68 | -     |
| 2500 # RTJ                                  | 15.68 | 18.81 | -     |

**MDI Inline Choke**

3" Configuration  
316 SS  
1/4 Turn Actuated  
Body Rating = 3,000 PSI  
CV Range = 11.2 – 100.74



| No.   | Description    | Qty |
|-------|----------------|-----|
| 1     | Body           | 1   |
| 2*    | Wear Sleeve    | 1   |
| 3     | Nut            | 8   |
| 4     | Disc Carrier   | 2   |
| 5     | Dowel Pin      | 4   |
| 6     | Disc           | 2   |
| 7     | Fork           | 1   |
| 8     | Bonnet         | 1   |
| 9     | Dowel Pin      | 1   |
| 10    | O-Ring         | 2   |
| 11    | O-Ring         | 1   |
| 12    | O-Ring         | 2   |
| 13    | O-Ring         | 3   |
| 14    | BackupRing     | 3   |
| 15    | Thrust Bearing | 1   |
| 16    | Wave Spring    | 1   |
| 17    | Stud           | 8   |
| 18**  | Index Plate    | 1   |
| 19*** | Hand Wheel     | 1   |
| 20    | Fitting Vent   | 1   |
| 21**  | Lock Bracket   | 1   |
| 22**  | Screw          | 2   |
| 23**  | Data Label     | 1   |

\*Item Optional

\*\*Items not shown in section view

\*\*\*Items not included on actuated version

# MDIS 1" & 2" Specifications / Cutaway View

| MDIS CHOKE STANDARD DIMENSIONS (IN. +/- .10) |       |       |       |
|--|-------|-------|-------|
| CONNECTION                                   | SIZE  |       |       |
|  | 1"    | 2"    | 3"    |
| FNPT   | 8.00  | 8.00  | 19.64 |
| BUTT-WELD                                    | 8.00  | 8.00  | 19.15 |
| 150 # RFF                                    | 12.56 | 13.18 | 18.61 |
| 150 # RTJ                                    | 12.93 | 13.55 | 18.63 |
| 300 # RFF                                    | 13.06 | 13.68 | 19.11 |
| 300 # RTJ                                    | 13.43 | 14.18 | 19.61 |
| 600 # RFF                                    | 13.56 | 14.43 | 20.39 |
| 600 # RTJ                                    | 13.56 | 14.56 | 20.52 |
| 900 # RFF                                    | 14.43 | 16.68 | 20.39 |
| 900 # RTJ                                    | 14.43 | 16.81 | 20.52 |
| 1500 # RFF                                   | 14.43 | 16.68 | 21.89 |
| 1500 # RTJ                                   | 14.43 | 16.81 | 22.02 |
| 2500 # RFF                                   | 15.68 | 18.68 | -     |
| 2500 # RTJ                                   | 15.68 | 18.81 | -     |

## MDIS Inline Choke

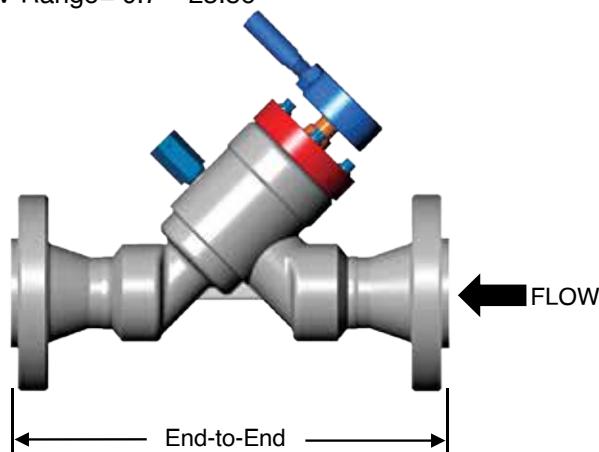
1" & 2" Configurations

316 SS or 1018/1020 CS

1/4 Turn Actuated

Body Rating = 5,000 PSI / MAWP 1333 PSI for steam

CV Range = 0.7 – 23.86

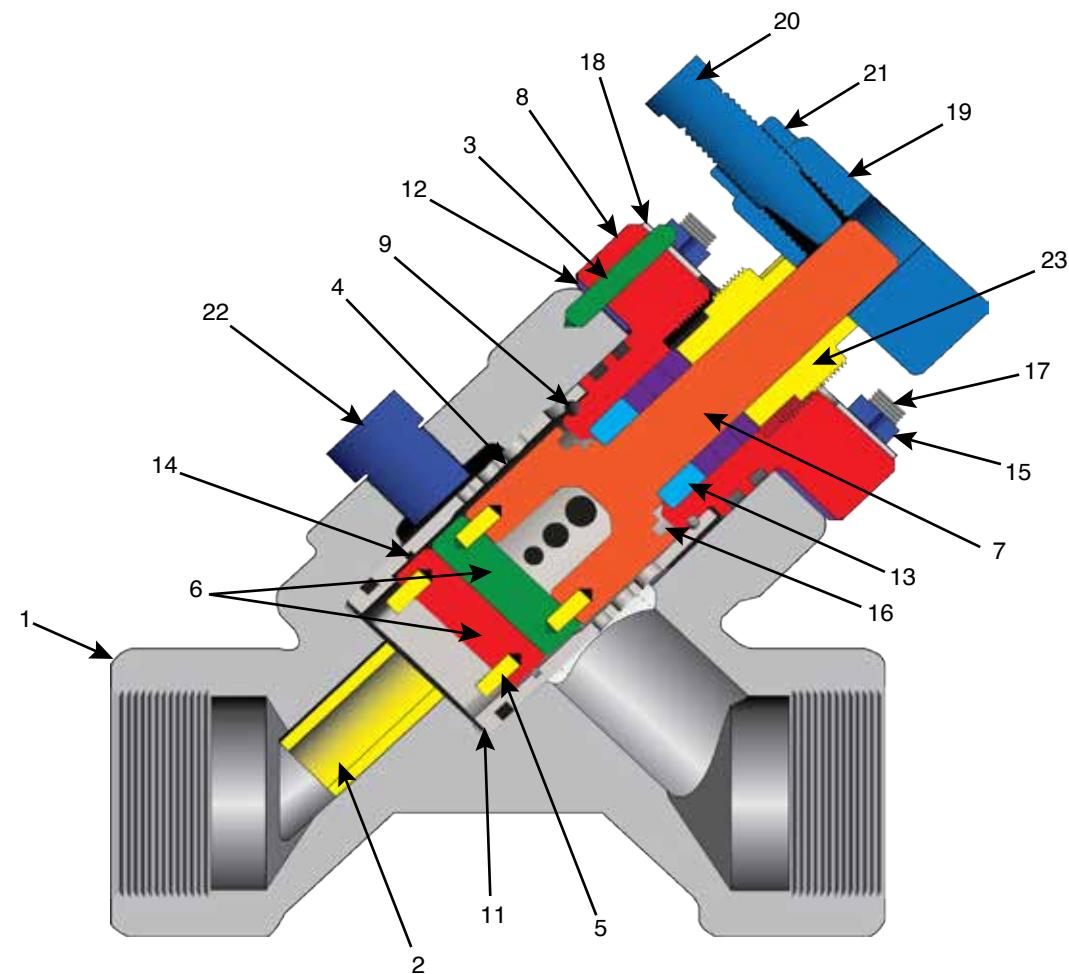


| No.   | Description     | Qty |
|-------|-----------------|-----|
| 1     | Body            | 1   |
| 2     | Wear Sleeve     | 1   |
| 3     | Pointer         | 1   |
| 4     | Cage            | 1   |
| 5     | Dowel Pin       | 4   |
| 6     | Disc            | 2   |
| 7     | Fork            | 1   |
| 8     | Bonnet          | 1   |
| 9     | Retainer Wire   | 1   |
| 10**  | Dowel Pin       | 2   |
| 11    | Crush Seal      | 1   |
| 12    | Gasket          | 1   |
| 13    | Hi-Temp Packing | 1   |
| 14    | O-Ring          | 1   |
| 15    | Nut             | 6   |
| 16    | Thrust Bearing  | 1   |
| 17    | Stud            | 6   |
| 18    | Index Plate     | 1   |
| 19*** | Turning Hub     | 1   |
| 20*** | Turning Handle  | 1   |
| 21*** | Jam Nut         | 1   |
| 22    | Pipe Plug       | 1   |
| 23    | Hex Gland Nut   | 1   |
| 24**  | Screw           | 2   |
| 25**  | Data Label      | 1   |
| 26**  | Thumb Screw     | 1   |

\*Item Optional

\*\*Items not shown in section view

\*\*\*Items not included on actuated version



# MDIS 3" Specifications / Cutaway View

| MDIS CHOKE STANDARD DIMENSIONS (IN. +/- .10) |       |       |       |
|--|-------|-------|-------|
| CONNECTION                                   | SIZE  |       |       |
|  | 1"    | 2"    | 3"    |
| FNPT   | 8.00  | 8.00  | 19.64 |
| BUTT-WELD                                    | 8.00  | 8.00  | 19.15 |
| 150 # RFF                                    | 12.56 | 13.18 | 18.61 |
| 150 # RTJ                                    | 12.93 | 13.55 | 18.63 |
| 300 # RFF                                    | 13.06 | 13.68 | 19.11 |
| 300 # RTJ                                    | 13.43 | 14.18 | 19.61 |
| 600 # RFF                                    | 13.56 | 14.43 | 20.39 |
| 600 # RTJ                                    | 13.56 | 14.56 | 20.52 |
| 900 # RFF                                    | 14.43 | 16.68 | 20.39 |
| 900 # RTJ                                    | 14.43 | 16.81 | 20.52 |
| 1500 # RFF                                   | 14.43 | 16.68 | 21.89 |
| 1500 # RTJ                                   | 14.43 | 16.81 | 22.02 |
| 2500 # RFF                                   | 15.68 | 18.68 | -     |
| 2500 # RTJ                                   | 15.68 | 18.81 | -     |

## MDIS Inline Choke

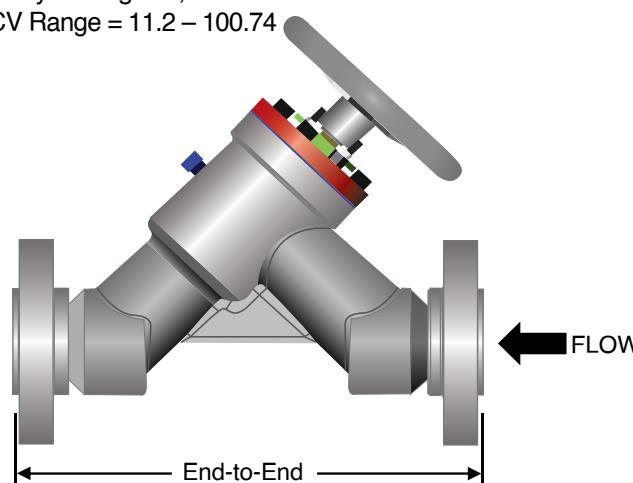
3" Configuration

316 SS

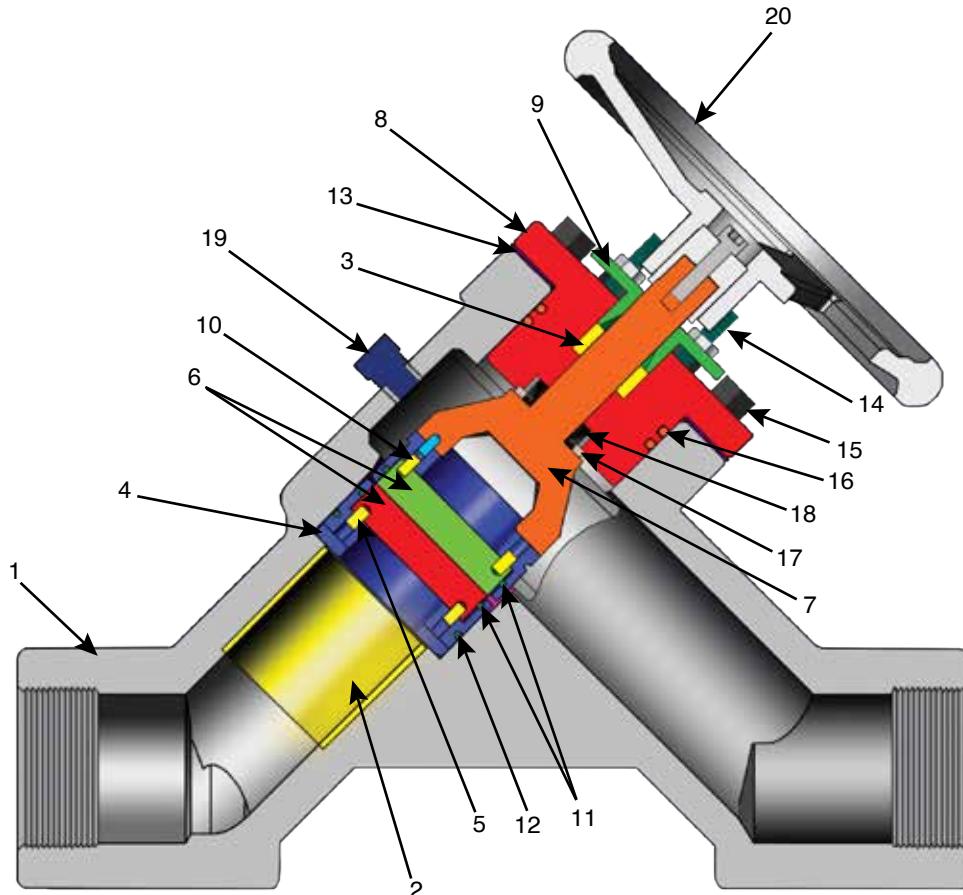
1/4 Turn Actuated

Body Rating = 3,000 PSI / MAWP 1333 PSI for steam

CV Range = 11.2 – 100.74



The MDIS Steam valve is designed for high pressure throttling of steam. The multiple orifice system is designed for long life in difficult applications. The standard valve has 1", 2", or 3" female NPT ends, with flanged or special ends readily available. Standard trim is Tungsten Carbide and designed for linear flow characteristics. Manual or electric actuation is standard.



| No.     | Description       | Qty |
|---------|-------------------|-----|
| 1       | Body              | 1   |
| 2*      | Wear Sleeve       | 1   |
| 3       | Hi-Temp Packing   | 1   |
| 4       | Disc Carrier      | 2   |
| 5       | Dowel Pin         | 4   |
| 6       | Disc              | 2   |
| 7       | Fork              | 1   |
| 8       | Bonnet            | 1   |
| 9       | Compression Plate | 1   |
| 10      | Dowel Pin         | 1   |
| 11      | O-Ring            | 2   |
| 12      | O-Ring            | 1   |
| 13      | Gasket            | 1   |
| 14      | Stud              | 8   |
| 15      | Nut               | 8   |
| 16      | O-Ring            | 2   |
| 17      | Thrust Bearing    | 1   |
| 18      | Wave Spring       | 1   |
| 19      | Pipe Plug         | 1   |
| 20***   | Hand Wheel        | 1   |
| 21**    | Screw             | 2   |
| 22**    | Data Label        | 1   |
| **23*** | Calibration Label | 1   |
| 24**    | Lock Bracket      | 1   |

\*Item Optional

\*\*Items not shown in section view

\*\*\*Items not included on actuated version

# Choke Nomenclature

| Choke Series           |
|------------------------|
| CA                     |
| CI                     |
| MC                     |
| MCX                    |
| MDA                    |
| MDAS                   |
| MDI                    |
| MDIS                   |
| RB                     |
| RBHU<br>(Hammer Union) |

| Size |
|------|
| 1 1" |
| 2 2" |
| 3 3" |
| 4 4" |
| 6 6" |

| Service Type       |
|--------------------|
| 0 Standard         |
| 1 NACE             |
| 2 Steam/High Temp. |

| Style         |
|---------------|
| 0 Non-flanged |
| 1 RFF         |
| 2 RTJ         |
| 3 RFF X RTJ   |
| 4 RTJ X RFF   |
| 5 NPT X API   |

| Schedule      |
|---------------|
| 0 Non-flanged |
| 1 40          |
| 2 80          |
| 3 160         |
| 4 XS          |
| 5 XXS         |
| 6 SLIP-ON     |
| 7 API         |
| 8 120         |
| 9 XXH X S80   |
| A S80 X S40   |
| B NPT X API   |
| C S120 X S80  |

| Trim Material                     |
|-----------------------------------|
| 03 CARBIDE DISC - STELLITE WR SLV |
| 04 CERAMIC DISC - STELLITE WR SLV |
| 05 CARBIDE DISC - CARBIDE WR SLV  |
| 15 CERAMIC DISC - NO WR SLV       |
| 16 CARBIDE DISC - NO WR SLV       |
| 32 CERAMIC DISC/CARBIDE FLOW TUBE |
| 44 R/RB-SERIES                    |
| 47 BEAN 17-4 SS                   |
| 17 CARBIDE DISCS & DIFFUSER       |
| 18 CERAMIC DISCS & DIFFUSER       |

| Body Material            |
|--------------------------|
| 00 DUPLEX SS             |
| 03 CARBON STEEL          |
| 04 LOW ALLOY (4130 LACS) |
| 05 316 SS (CF8M)         |
| 06 316 SS "L" (CF3M)     |
| 07 ALUMINUM BRONZE       |
| 08 A350 LF2              |
| 09 LCC                   |
| 10 INCONEL               |
| 11 SUPER DUPLEX SS       |
| 12 440 SS                |
| 13 410 SS                |

MDI - 2 0 0 17 17 1 2 0 4 05 03 04 = MDI-20017171204050304  
MDIS - 2 2 0 17 17 1 2 0 4 05 03 07 = MDIS-22017171204050307  
EXAMPLE ONLY\* Choke part number has to be 17 digits.

| Inlet Connection  |    | Outlet Connection       |  |
|-------------------|----|-------------------------|--|
| 01 1" FNPT        | 41 | 6" 600                  |  |
| 02 1" BUTT WELD   | 42 | 6" 900                  |  |
| 03 1" SOCKET WELD | 43 | 6" 1500                 |  |
| 04 1" VICTAULIC   | 44 | 6" 2500                 |  |
| 05 1" 150         | 45 | 8" 150                  |  |
| 06 1" 300         | 46 | 8" 300                  |  |
| 07 1" 600         | 47 | 8" 600                  |  |
| 08 1" 900/1500    | 48 | 8" 900                  |  |
| 09 1" 2500        | 49 | 8" 1500                 |  |
| 10 2" FNPT        | 50 | 8" 2500                 |  |
| 12 2" BUTT WELD   | 51 | 2-1/16" 3000            |  |
| 13 2" SOCKET WELD | 52 | 2-1/16" 5000            |  |
| 14 2" VICTAULIC   | 53 | 2-1/16" 10000           |  |
| 15 2" 150         | 54 | 2-9/16" 3000            |  |
| 16 2" 300         | 55 | 2-9/16" 5000            |  |
| 17 2" 600         | 56 | 2-9/16" 10000           |  |
| 18 2" 900/1500    | 57 | 3-1/8" 3000             |  |
| 19 2" 2500        | 58 | 3-1/8" 5000             |  |
| 20 3" FNPT        | 59 | 3-1/8" 10000            |  |
| 21 3" BUTT WELD   | 60 | 4-1/16" 3000            |  |
| 22 3" SOCKET WELD | 61 | 4-1/16" 5000            |  |
| 23 3" 150         | 62 | 1-13/16" 10000          |  |
| 24 3" 300         | 63 | 3-1/16" 5000            |  |
| 25 3" 600         | 64 | 3/4" 600#               |  |
| 26 3" 900         | 65 | 1.5" 900/1500           |  |
| 27 3" 1500        | 66 | 3-1/16" 10000           |  |
| 28 3" 2500        | 67 | 7-1/16" 5000            |  |
| 29 4" FNPT        | 68 | 1-13/16" 15000          |  |
| 30 4" BUTT WELD   | 69 | 2-1/16" 15000           |  |
| 31 4" SOCKET WELD | 75 | 1" UNION                |  |
| 32 4" VICTAULIC   | 76 | 3" 602M x 3" 602F Union |  |
| 33 4" 150         | 78 | 3-1/16" 15000           |  |
| 34 4" 300         | 80 | 10" 600                 |  |
| 35 4" 600         | 81 | 10" 900                 |  |
| 36 4" 900         | 82 | 10" 1500                |  |
| 37 4" 1500        | 83 | 10" 2500                |  |
| 38 4" 2500        | 84 | 2-9/16" 15000           |  |
| 39 6" 150         | 85 | 6" Butt Weld            |  |
| 40 6" 300         | 87 | 1.5" 1500               |  |

| Orifice Size             |    |               |
|--------------------------|----|---------------|
| 01 (2) 1/8" RND PORTS    | 29 | 48/64 BEAN    |
| 02 (2) 3/16" RND PORTS   | 34 | 32/64 BEAN    |
| 03 (2) 1/4" RND PORTS    | 43 | 40/64 BEAN    |
| 04 (2) 3/8" RND PORTS    | 44 | 34/64 BEAN    |
| 05 (2) 1/2" RND PORTS    | 45 | 28/64 BEAN    |
| 06 (2) 5/8" PIE PORTS    | 46 | 30/64 BEAN    |
| 07 (2) 3/4" RND PORTS    | 53 | 10/64 BEAN    |
| 08 (2) 7/8" RND PORTS    | 63 | 11/64 BEAN    |
| 10 (2) 1-3/16" RND PORTS | 64 | 14/64 BEAN    |
| 11 (2) 1-1/4" RND PORTS  | 65 | 15/64 BEAN    |
| 14 (2) 1-1/2" RND PORTS  | 66 | 16/64 BEAN    |
| 30 (2) 3/4" PIE PORTS    | 67 | 19/64 BEAN    |
| 32 (2) 1-3/4" RND PORTS  | 68 | 20/64 BEAN    |
| 35 (2) 1" ROUND PORTS    | 69 | 24/64 BEAN    |
| 38 (2) 2" PIE PORTS      | 70 | 21/64 BEAN    |
| 40 (2) 1-1/4" PIE PORTS  | 71 | 22/64 BEAN    |
| 41 (2) 1-3/8" PIE PORTS  | 72 | 23/64 BEAN    |
| 42 (2) 1-1/8" RND PORTS  | 73 | 27/64 BEAN    |
| 47 (2) 1-1/2 PIE PORTS   | 74 | 29/64 BEAN    |
| 49 (2) 5/8" RND PORTS    | 75 | 25/64 BEAN    |
| 54 (2) 2.92 PIE HOLES    | 76 | 17/ RND PORTS |
| 55 3 CV                  | 77 | 7/64 BEAN     |
| 56 12 CV                 | 78 | 54/64 BEAN    |
| 57 164 CV                | 79 | 44/64 BEAN    |
| 58 420 CV                | 80 | 45/64 BEAN    |
| 59 64 CV                 | 81 | 47/64 BEAN    |
| 60 35 CV                 | 82 | 51/64 BEAN    |
| 22 17/64 BEAN            | 83 | 35/64 BEAN    |
| 23 18/64 BEAN            | 84 | 37/64 BEAN    |
| 24 8/64 BEAN             | 85 | 6 CV          |
| 25 13/64 BEAN            | 86 | 85 CV         |
| 26 4/64 BEAN             | 87 | 12/64 BEAN    |
| 27 38/64 BEAN            | 88 | 78 CV         |
| 28 36/64 BEAN            | 89 | 42/64 BEAN    |
|                          | 90 | 43/64 BEAN    |
|                          | 91 | 41/64 BEAN    |

| Seal Material           |
|-------------------------|
| 00 HNBR/HSN             |
| 01 NBR                  |
| 03 EPDM                 |
| 04 FKM (VITON)          |
| 05 NEOPRENE             |
| 06 NBR (PEROXIDE CURED) |
| 07 STEAM SEALS          |
| 09 AFLAS                |
| 11 V8588                |
| 12 KALREZ 7075          |

**PINS**  
1 INCONEL (Optional)

Butt weld connections MUST specify a schedule.  
All API connections are "RTJ" style by default.  
API flange bore (SCHEDULE) is specified by API.

**Taylor Valve Technology**  
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REVISED: 06-10-21

02/02/2026

\*See back page of actual choke product brochure for a more detailed order number example.

\*For more options, contact Taylor Valve.