

Multi-port, Block & Bleed, and Double-Block and Bleed Gauge Valves for Isolation, Vent and Calibration of Pressure Measurement Devices

- Bore Sizes:

3/16"	[4.8 mm]
5/16"	[8 mm]
3/8"	[9.5 mm]
- Straight-through (roddable) and globe-pattern models.
- Needle (rising plug) and ball stem models.
- Standard pressures up to 6000 psig [414 barg], optional pressures up to 10000 psig [689 barg] available.
- Various standard end-connections from 1/2" to 1".
- Temperatures up to 1000°F [538°C].
- Stem packing in all valves is below the stem thread to prevent galling due to lubricant washout or particle contamination from the process.



CM6 - Straight Through Soft Seat 3/16" [4.8 mm] bore, 6000 psig [414 barg] multi port gauge valve

The CM6 (6000 psig [414 barg]) barstock construction, straight-through, rising stem plug valve gauge valve is designed for a safe, in-line repairable, long service life. The CM6 is a soft seated valve, ensuring repetitive bubble-tight sealing in both standard and dirty process conditions and is available in a variety of inlet and outlet configurations and materials. The CM6 standard seat is Delrin® and is available with either Teflon® packing, GRAFOIL® packing or an O-ring seal.

Features

- Utilizes soft seat, which provides repetitive bubble-tight shutoff in a variety of process conditions.
- Either the Teflon® or GRAFOIL® packing is easily adjustable in field.
- All packing is below the threads, which ensures the process does not contaminate the valve's actuation threads. This feature ensures smooth valve operation and long service life.
- All CM6's feature safety back seating ensuring the prevention of both accidental stem blowout and removal under pressure.
- Soft seats are in-line replaceable, ensuring the CM6 provides economical, long service life. Standard seat material is Delrin®. Readily available seat options include PEEK.
- Standard dust covers ensure long service life.

CM6/CM6L* - Ordering Code:

CM6 - 1 M44T CN 16 T SC

Materials of Construction

- 1: SS - 316/316L (ASTM 479-316/316L)
- 2: A105 CS Body w/SS Trim
- 3: CS - A108 CS
- 5: Other construction materials available - consult factory

Inlet/Outlet Connections (Standard Threaded Connections)

- M44T: 1/2" MNPT x 3- 1/2" FNPT
- M64T: 3/4" MNPT x 3- 1/2" FNPT
- M44S: 1/2" MSW x 3- 1/2" FNPT
- M64S: 3/4" MSW x 3- 1/2" FNPT

Bonnet Assembly

- A: O-ring
- CN: Adjustable packing

Seat

- 16: Delrin®
- 15: PEEK

Packing

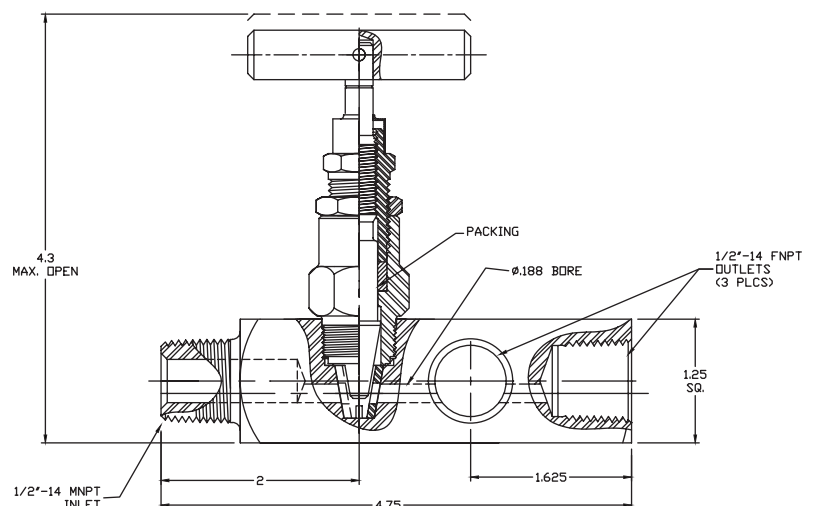
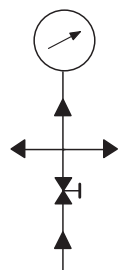
- A: Aflas® O-ring
- V: Viton® O-ring
- T: Teflon®, Adjustable packing
- G: Grafoil®, Adjustable packing

Special Construction Options

- HD: Hydrostatic testing as per MSS-SP-61, meets the requirements of MSS-SP-105.

Notes: All CM6 Valves in A105 and/or 316SS meet NACE MRO175 - latest revision.

*CM6L long neck body option



CM7 - Globe pattern, 3/16" [4.8 mm] bore, 6000 psig [414 barg] metal seated Multi Port Gauge Valve

The CM7 (6000 psig [414 barg]) barstock construction Multi Port needle gauge valve is designed for multiple applications wherever bubble-tight shutoff is required. The CM7 is available in a wide variety of inlet configurations and materials. Available with Teflon® or GRAFOIL® packing or an O-ring seal.

Features

- Available with either ball or needle stem ends, providing bubble-tight shutoff and ensuring long valve life. The non-rotating ball tip eliminates seat galling.
- All valves are functionally tested prior to factory shipment.
- Body material traceability is standard on each CM7.
- Either the Teflon® or GRAFOIL® packing is easily adjustable in field.

- All packing is below the threads which ensures the valve's actuation threads are not contaminated by the process. This feature ensures smooth valve operation and long service life.
- All CM7's feature safety back seating ensuring the prevention of both accidental stem blowout and removal under pressure.
- Standard dust covers ensure long service life by preventing the elements (rain, snow, dirt, etc.) access to the bonnet assembly.

CM7/CM7L* - Ordering Code:

CM7 - 1 M44T DN G SG

Materials

- 1: SS - 316/316L (ASTM 479-316/316L)
 2: CS/SS - A105 CS Body w/ SS Trim
 3: CS - A108 CS
 5: Other construction materials available - consult factory

Inlet/Outlet Connections (Standard threaded connections)

- M44T: 1/2" MNPT x 3- 1/2" FNPT
 M44S: 1/2" MSW x 3- 1/2" FNPT
 M64T: 3/4" MNPT x 3- 1/2" FNPT
 M64S: 3/4" MSW x 3- 1/2" FNPT

Optional socket weld or butt weld connections available - consult factory

Bonnet Assembly

- B: O-ring, Needle tipped stem
 DN: Adjustable packing, Needle tipped stem

Packing

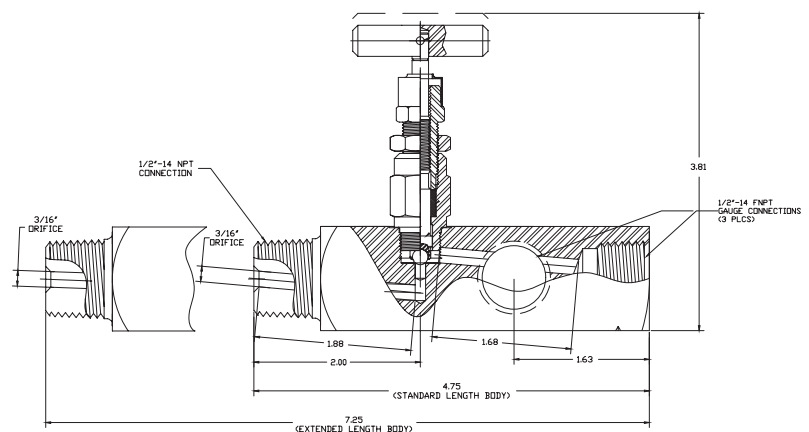
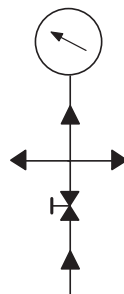
- A: Aflas® O-ring
 V: Viton® O-ring
 T: Teflon®, Adjustable packing
 G: Grafoil®, Adjustable packing

Special Construction Options

- SG: Sour Gas - Meets requirements of NACE MR0175/ISO latest revision rotating ball stem only
 HD: Hydrostatic testing as per MSS-SP-61, meets the requirements of MSS-SP-105.

Notes: Rotating Stem Valves in A105 and/or 316SS meet NACE MRO175 - latest revision.

*CM7L long neck body option



CM11 - Globe pattern, 3/16" [4.8 mm] bore, 10000 psig [689 barg] Multi Port Gauge Valve

The CM11 (10,000 psig [689 barg]) barstock construction multi port gauge needle valve is designed for multiple applications wherever bubble-tight shutoff is required. The CM11 is available in a wide variety of inlet configurations and materials. The CM11 is available with Teflon® (10,000 PSI max) or Graphite Packing (6,000 PSI max) or an O-ring seal.

Features

- Available with either ball or needle stem, providing bubble-tight shutoff and ensuring long valve life. The non-rotating ball tip eliminates seat galling.
- Body material traceability is standard on each CM11.
- Either the Teflon® or GRAFOIL® packing is easily adjustable in field.

- All packing is below the threads which ensures the valve's actuation threads are not contaminated by the process. This feature ensures smooth valve operation and long service life.
- All CM11 feature safety back seating ensuring the prevention of both accidental stem blowout and removal under pressure.
- Standard dust covers ensure long service life by preventing the elements (rain, snow, dirt, etc.) access to the bonnet assembly.

CM11/CM11L* - Ordering Code:

CM11 - 1 M44T CN G HD

Materials

- 1: SS - 316/316L (ASTM 479-316/316L)
- 2: CS/SS - A105 CS Body w/SS Trim
- 3: CS - A108 CS (NACE not Available)
- 5: Other construction materials available - consult factory

Inlet/Outlet Connections (Standard threaded connections)

- M44T: 1/2" MNPT x 3- 1/2" FNPT
- M64T: 3/4" MNPT x 3- 1/2" FNPT
- M44S: 1/2"MSW X 3-1/2"FNPT
- M64S: 3/4" MSW x 3- 1/2" FNPT

Optional socket weld or butt weld connections available - consult factory

Bonnet Assembly

- A: O-ring, Needle tipped stem
- C: Adjustable packing, Non-rotating ball tipped stem
- CN: Adjustable packing, Needle tipped stem
- L: Non-rotating needle stem/packing

Packing

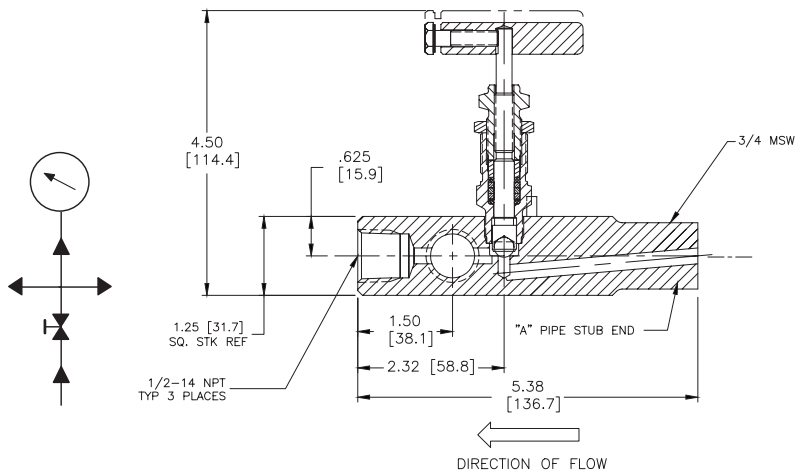
- A: Aflas® O-ring
- V: Viton® O-ring
- T: Teflon®, Adjustable packing
- G: Grafoil®, Adjustable packing

Special Construction Options

- SC-L: Bonnet Lock Upgrade (in accordance with ASME B31.1)
- SG: Sour Gas - Meets requirements of NACE MR0175/ISO latest revision Rotating Ball Stem Only
- HD: Hydrostatic testing as per MSS-SP-61, meets the requirements of MSS-SP-105.

Notes: Rotating Stem Valves in A105 and/or 316SS meet NACE MR0175 - latest revision.

*CM11L long neck body option



**CM40R - Hard or soft seat, straight-through (roddable),
3/8" [9.5 mm] bore, 6000 psig [414 barg] multi port gauge valve**

The CM40 is a (6000 psig [414 barg]) barstock construction valve features a rising stem plug with straight-through (roddable) 3/8" [9.5 mm] bore. This bidirectional valve orifice is ideally suited for severe process conditions (eg. high temperature steam) or in applications where valve plugging is a concern.

The CM40R is available with an optional metal seat API FIRESAFE 607/BS6755 Part 2 rating, making it the valve of choice for hazardous services. The CM40R is available in a wide variety of inlet and outlet configurations and materials. The CM40R is available with either Teflon® or GRAFOIL® packing.

Features

- Large bore (3/8" [9.5 mm]), high-pressure, high-temperature, severe service isolation valve.
- API 607 FIRESAFE Addition 4, BS6755 Part 2 upgrade available ('P' bonnet only with metal seat).
- Plug type stem end provides bubble-tight shutoff and ensures long valve life. Replaceable/repairable seat ensure long, safe and economical installed valve life.
- Replaceable seats eliminate the need for valve removal if the seat is damaged by process conditions.
- ASME B16.34 Construction for materials and wall thickness

- Large handle ensures ease of operation while actuating valve.
- Either the Teflon® or GRAFOIL® packing is easily adjustable in field.
- All packing is below the threads (rotating version), which ensures the process does not contaminate the valve's actuation threads. This feature ensures smooth valve operation and long service life.
- All CM40R in the severe service series feature optional bonnet lock plate with bonnets assembly to ensure accidental removal under pressure does not occur.
- Temperatures up to 1000°F with 316 SS.

CM40R/CM40LR* - Ordering Code:

CM40R - 1 M64T P 1 G SCL

Materials of Construction

- 1: SS - 316/316L (ASTM 479-316/316L)
- 2: CS/SS - A105 CS Body w/SS Trim
- 5: Other construction materials available - consult factory

Inlet/Outlet Connections (Standard threaded connections)

- M44T: 1/2" MNPT x 3- 1/2" FNPT
- M44S: 1/2" MSW x 3- 1/2" FNPT
- M64T: 3/4" MNPT x 3- 1/2" FNPT
- M64S: 3/4" MSW x 3- 1/2" FNPT
- M84T: 1" MNPT x 3- 1/2" FNPT
- M84S: 1" MSW x 3- 1/2" FNPT

Optional socket weld and butt weld connections available - consult factory.

Bonnet Assembly

- P: Adjustable packing, firesafe bonnet with non-rotating stem and plug

Seat

- 1: 316 SS (Requires 'P' Bonnet option)
- 15: PEEK
- 16: Delrin®

Packing

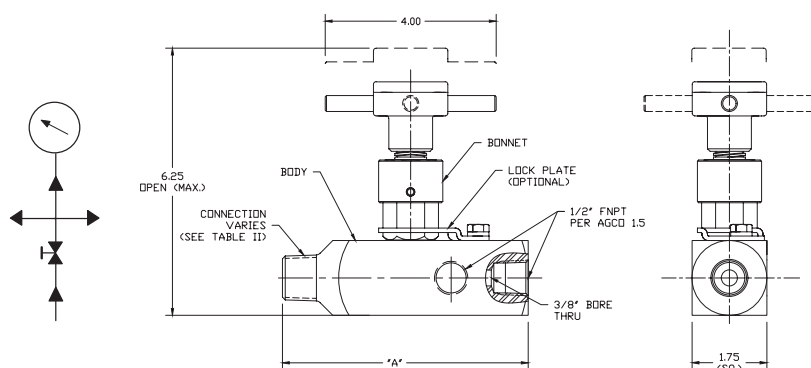
- T: Teflon®, Adjustable packing
- G: Grafoil®, Adjustable packing

Special Construction Options

- SC-L: Includes Bonnet Lock and Hydro-Test as per MSS-SP-61, and meets the requirements of ASME B16.34, and ASME B31.1 & B31.3
- HD: Hydrostatic testing as per MSS-SP-61, meets the requirements of MSS-SP-105.

Notes: All CM40R Valves Inherently meet NACE MRO175 - latest revision.

*CM40RL is a long neck body option



**CM40RDB - Hard or soft seat straight-through (roddable),
3/8" [9.5 mm] bore, 6000 psig [414 barg] multi port gauge valve**

The CM40RDB is a (6000 psig [414 barg]) barstock construction valve features a rising stem plug with straight-through (roddable) 3/8" [9.5 mm] bore. This bidirectional valve orifice is ideally suited for severe process conditions (eg. high temperature steam) or in applications where valve plugging is a concern.

The CM40RDB is available with an optional metal seat API FIRESAFE 607/BS6755 Part 2 rating, making it the valve of choice for hazardous services. The CM40RDB is available in a wide variety of inlet and outlet configurations and materials. The CM40RDB is available with either Teflon® or GRAFOIL® packing.

Features

- Large bore (3/8" [9.5 mm]), high-pressure, high-temperature, severe service isolation valve.
- API 607 FIRESAFE Addition 4, BS6755 Part 2 upgrade available ('P' bonnet only with metal seat).
- Plug type stem end provides bubble-tight shutoff and ensures long valve life. Replaceable/repairable seat ensure long, safe and economical installed valve life.
- Replaceable seats eliminate the need for valve removal if the seat is damaged by process conditions.
- ASME B16.34 Construction for materials and wall thickness

- Large handle ensures ease of operation while actuating valve.
- Either the Teflon® or GRAFOIL® packing is easily adjustable in field.
- All packing is below the threads (rotating version), which ensures the process does not contaminate the valve's actuation threads. This feature ensures smooth valve operation and long service life.
- All CM40RDB in the severe service series feature optional bonnet lock plate with bonnets assembly to ensure accidental removal under pressure does not occur.
- Temperatures up to 1000°F with 316 SS.

CM40RDB/CM40RDBL* - Ordering Code:

CM40RDB - 1 M64T P 1 G SCL

Materials of Construction

- 1: SS - 316/316L (ASTM 479-316/316L)
- 2: CS/SS - A105 CS Body w/SS Trim
- 5: Other construction materials available - consult factory

Inlet/Outlet Connections (Standard threaded connections)

- M44T: 1/2" MNPT x 3- 1/2" FNPT
- M44S: 1/2" MSW x 3- 1/2" FNPT
- M64T: 3/4" MNPT x 3- 1/2" FNPT
- M64S: 3/4" MSW x 3- 1/2" FNPT
- M84T: 1" MNPT x 3- 1/2" FNPT
- M84S: 1" MSW x 3- 1/2" FNPT

Optional socket weld and butt weld connections available - consult factory.

Bonnet Assembly

- P: Adjustable packing, firesafe bonnet with non-rotating stem and plug

Seat

- 1: 316 SS (Requires 'P' Bonnet option)
- 15: PEEK
- 16: Delrin®

Packing

- T: Teflon®, Adjustable packing
- G: Grafoil®, Adjustable packing

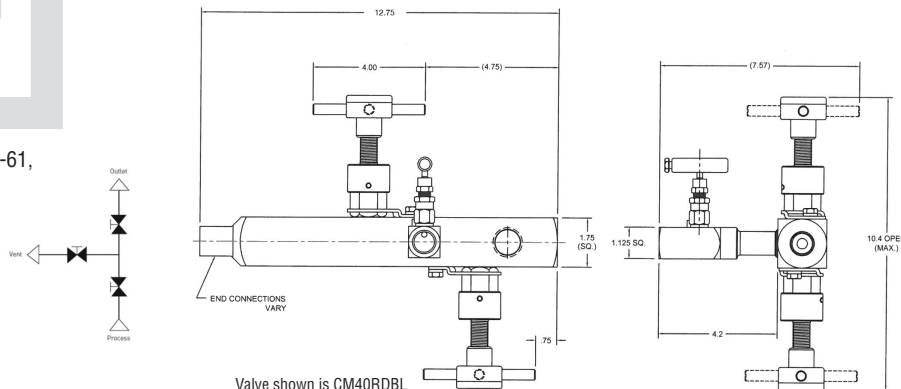
Special Construction Options

SC-L: Includes Bonnet Lock and Hydro-Test as per MSS-SP-61, and meets the requirements of ASME B16.34, and ASME B31.1 & B31.3

HD: Hydrostatic testing as per MSS-SP-61, meets the requirements of MSS-SP-105.

Note: All CM40RDB Valves Inherently meet NACE MRO175 - latest revision.

*CM40RDBL is long neck body option



CM26R - Globe pattern, 3/16" [4.8 mm] bore, 6000 psig [414 barg] metal seated Block and Integral Bleed gauge valve

The CM26R 6000 psig [414 barg] barstock construction Block and Integral Bleed needle valve is designed for multiple applications wherever bubble-tight shutoff is required with safe instrument depressurization. The CM26R is available in a wide variety of inlet configurations and materials. Available with Teflon® or GRAFOIL® packing or an O-ring seal.

Features

- Rising stem metal integral seat needle valve provides bubble-tight shutoff and ensures long valve life.
- Large handle ensures ease of operation while actuating valve.
- Either the Teflon® or GRAFOIL® packing is easily adjustable in field.
- All packing is below the threads, which ensures the process does not contaminate the valve's actuation threads. This feature ensures smooth valve operation and long service life.
- All CM26R's feature safety back seating ensuring the prevention of both accidental stem blowout and removal under pressure.
- All CM26R's feature an optional bonnet lock plate to ensure accidental removal under pressure does not occur.
- Standard dust covers ensure long service life by preventing the elements (rain, snow, dirt, etc.) access to the bonnet assembly.

CM26R- Ordering Code

CM26R - 1 M44T CN 1 G SC

Materials of Construction

- 1: SS - 316/316L (ASTM 479-316/316L)
- 2: CS/SS - A105 CS Body w/SS Trim
- 3: A108 CS
- 5: Other construction materials available - consult factory

Inlet/Outlet Connections (Standard threaded connections)

- M44T: 1/2" MFNPT x 1/2" FNPT
- M64T: 3/4" MNPT x 1/2" FNPT

Optional socket weld or butt weld connections available - consult factory

Bonnet Assembly

- A: Rotating Needle Stem/O: Ring
- C: Rotating Ball Stem/Packing
- CN: Rotating Needle Stem/Packing

Seat

Integral Seat Same as Body Material

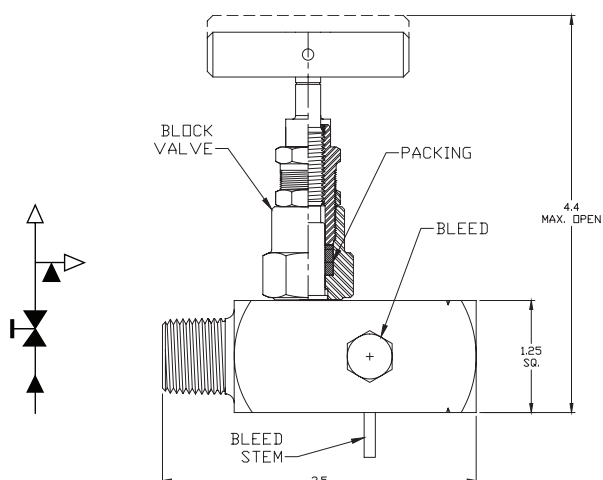
Packing

- V Viton ORing Seal
- T Teflon®, Adjustable packing
- G Grafoil®, Adjustable packing

Special Construction Options

- SG1: Sour Gas - Meets requirements of NACE MR0175/ISO latest revision rotating ball stem only
- HD: Hydrostatic testing as per MSS-SP-61, meets the requirements of MSS-SP-105.

Note: Rotating Stem Valves in A105 and/or 316SS meet NACE MR0175 - latest revision.



CM29 - Globe pattern, 3/16" [4.8 mm] bore, 6000 psig [414 barg] metal seated Block and Bleed gauge valve

The CM29 6000 psig [414 barg] barstock construction Block and I Bleed needle valve is designed for multiple applications wherever bubble-tight shutoff is required with safe instrument depressurization with a 1/4" threaded vent port. The CM29 is available in a wide variety of inlet configurations and materials. Available with Teflon® or GRAFOIL® packing or an O-ring seal.

Features

- Utilizes needle and ball stem ends, which provide repetitive bubble-tight shutoff.
- Either the Teflon® or GRAFOIL® packing is easily adjustable in field.
- All packing is below the threads, which ensures the process does not contaminate the valve's actuation threads. This feature ensures smooth valve operation and long service life.
- All CM29 valves feature safety back seating ensuring the prevention of both accidental stem blowout and removal under pressure.
- Standard dust covers ensure long service life by preventing the elements (rain, snow, dirt, etc.) access to the bonnet assembly.

CM29/CM29L* - Ordering Code:

CM29 - 1 M44T I DN T BV2

Materials of Construction

- 1: SS - 316/316L (ASTM 479-316/316L)
 - 2: CS/SS - A105 CS Body w/SS Trim
 - 3: A108CS
- Other construction materials available - consult factory

Inlet/Outlet Connections (Standard Threaded Connections)

- M44T: 1/2" MNPT x 1/2" FNPT
- M64T: 3/4" FNPT x 1/2" FNPT
- M44M: 1/2" MNPT x 1/2" MNPT
- M64M: 3/4" MNPT x 1/2" MNPT
- M66M: 3/4" MNPT x 3/4" MNPT
- M66T: 3/4" MNPT x 3/4" FNPT

Seat

- I: Hard Seat

Packing

- B: Rotating Needle Stem/O-ring
- DN: Rotating Needle Stem/Packing

Packing Material

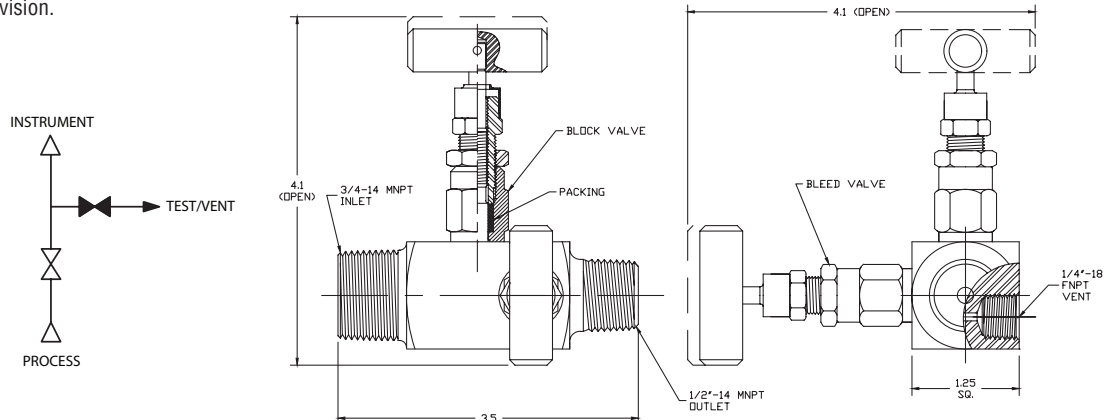
- V: Viton®
- T: Teflon®
- G: Grafoil®

Special Construction Options

- BV2: 1/4" FNPT vent option - standard
- HD: Hydrostatic testing as per MSS-SP-61, meets the requirements of MSS-SP-105.

Notes: Rotating Stem Valves in A105 and/or 316SS meet NACE MRO175 - latest revision.

*CM29L long body option



CM29D - Globe pattern, 3/16" [4.8 mm] bore, 6000 psig [414 barg] metal seated Block and Bleed gauge valve

The CM29 6000 psig [414 barg] barstock construction Double Block and Bleed needle valve is designed for multiple applications wherever bubble-tight shutoff is required with safe instrument depressurization with a 1/4" threaded vent port. The CM29D is available in a wide variety of inlet configurations and materials. Available with Teflon® or GRAFOIL® packing or an O-ring seal.

Features

- Utilizes needle and ball stem ends, which provide repetitive bubble-tight shutoff.
- Either the Teflon® or GRAFOIL® packing is easily adjustable in field.
- All packing is below the threads, which ensures the process does not contaminate the valve's actuation threads. This feature ensures smooth valve operation and long service life.
- Enhanced Operator Safety with Double Block and Bleed Valve Configuration
- All CM29 valves feature safety back seating ensuring the prevention of both accidental stem blowout and removal under pressure.
- Standard dust covers ensure long service life by preventing the elements (rain, snow, dirt, etc.) access to the bonnet assembly.

CM29D - Ordering Code:

CM29D - 1 M44T DN G BV2

Materials of Construction

- 1: SS - 316/316L (ASTM 479-316/316L)
- 2: CS/SS - A105 CS Body w/SS Trim
- 3: A108 CS

Other construction materials available - consult factory

Inlet/Outlet Connections (Standard threaded connections)

- M44T: 1/2" MNPT x 1/2" FNPT
- M44S: 1/2" MSW x 1/2" FNPT
- M64T: 3/4" FNPT x 1/2" FNPT
- M64S: 3/4" MSW x 1/2" FNPT
- M44M: 1/2" MNPT x 1/2" MNPT
- M64M: 3/4" MNPT x 1/2" MNPT
- M66M: 3/4" MNPT x 3/4" MNPT
- M66T: 3/4" MNPT x 3/4" FNPT

Optional socket weld or butt weld connections available - consult factory

Bonnet Assembly

- B: Rotating Needle Stem/O-ring
- DN: Rotating Needle Stem/Packing

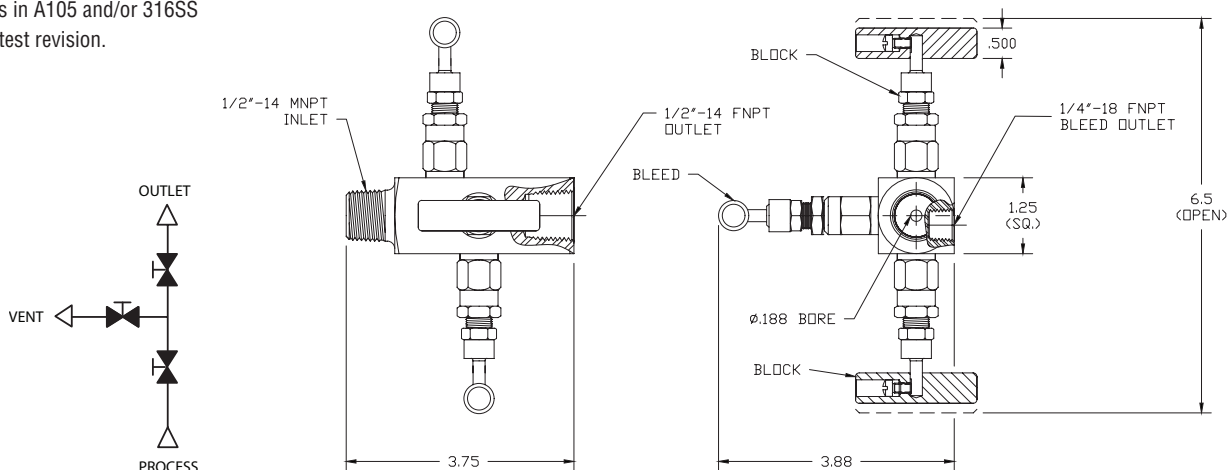
Packing

- T: Teflon®, Adjustable packing
- G: Grafoil®, Adjustable packing
- V: Viton®

Special Construction Options

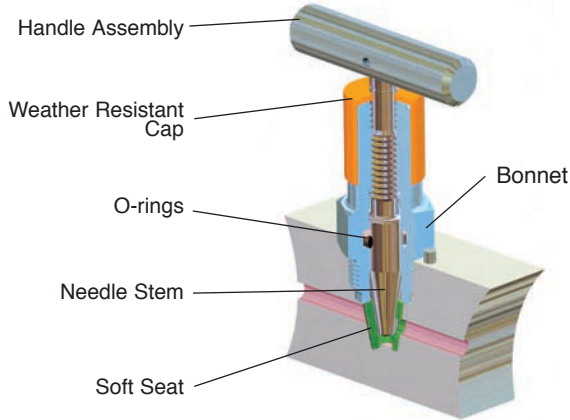
- SC-L: Bonnet lock upgrade
- HD: Hydrostatic testing as per MSS-SP-61, meets the requirements of MSS-SP-105.
- BV2: 1/4" FNPT Vent Option - Standard

Note: Rotating Stem Valves in A105 and/or 316SS meet NACE MRO175 - latest revision.

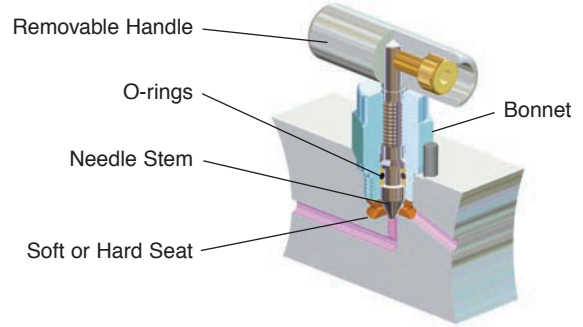


Bonnet Assemblies

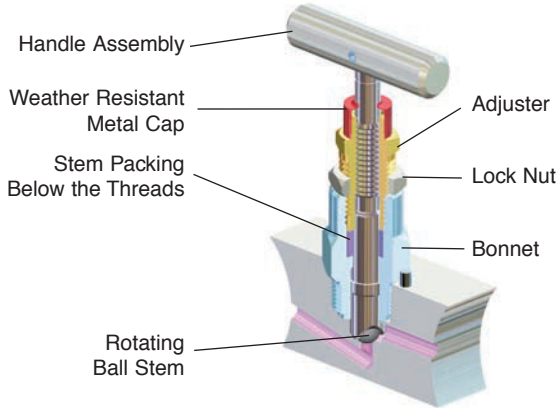
O-ring, Needle tipped stem



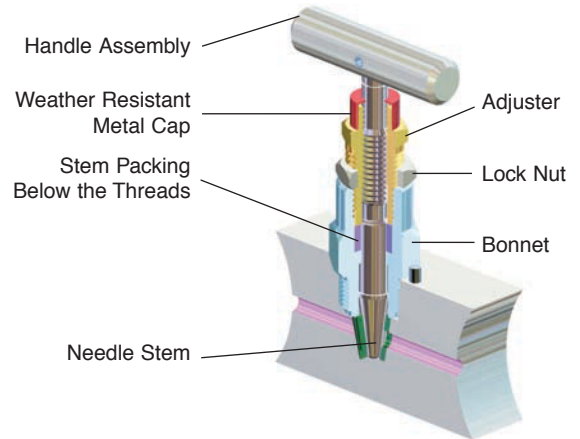
O-ring Needle tipped stem



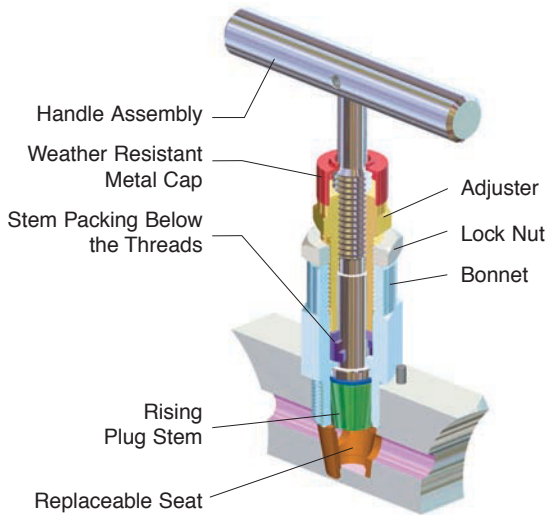
Adjustable packing, Non-rotating ball tipped stem



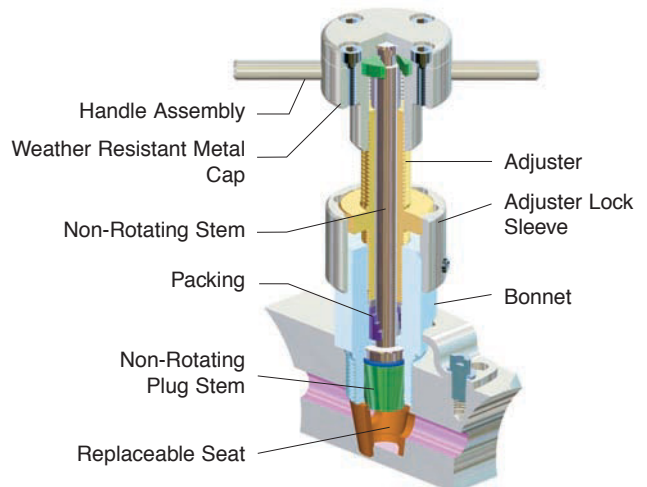
Adjustable packing, Needle tipped stem



Adjustable packing, Non-rotating plug

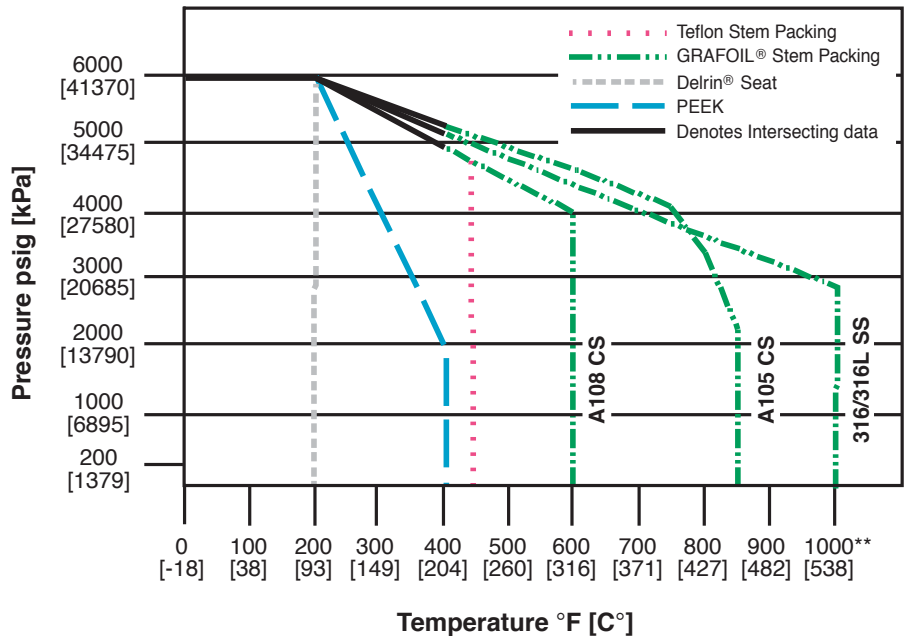


Adjustable packing, Non-rotating plug stem, Non-rotating plug - meets API 607 / BS6755 Part 2 requirements



Pressure/Temperature Chart

Standard 6000 psi Valve, 316/316L SS, A108CS, A105 CS*



* In accordance with ASME 16.34, ASME B31.1 ASME B31.1

** For applications above 1000°F, please consult factory.

Temperature Ratings

Body Materials		
	Minimum °F [°C]	Maximum °F [°C]
316/316L SS*	-70°F [-57°C]	1000°F [538°C]
A105 CS	-20°F [-29°C]	850°F [454°C]
A108 CS	-20°F [-29°C]	600°F [315°C]

Seat Materials	
	Maximum °F [°C]
316/316L	1000°F [538°C]
Delrin®	200°F [93°C]
PEEK	400°F [204°C]

* 316 SS with 0.04% minimum carbon option, for temperatures up to 1200°F.

Stem Seal Materials	
	Maximum °F [°C]
Viton®	400°F [204°C]
Aflas®	400°F [204°C]
Teflon®	450°F [232°C]
GRAFOIL®	1000°F [538°C]

Note: GRAFOIL® suitable for services in excess of 1000°F in a non-oxidizing environment.

- | Notes |
|--|
| 1 Teflon® and Delrin® are registered trademarks of the E.I. duPont de Nemours Company. |
| 2. GRAFOIL® is a registered trademark of UCAR Carbon. |
| 3. Viton® is a registered trademark of DuPont Dow Elastomers. |
| 4. Aflas® is a registered trademark of Asahi Glass Company, Ltd. |