# Monoweld Valves

## Hex Monoweld Valves

Built Hex tough for a lifetime of use. See how inside . . .

**HEXVALVE**
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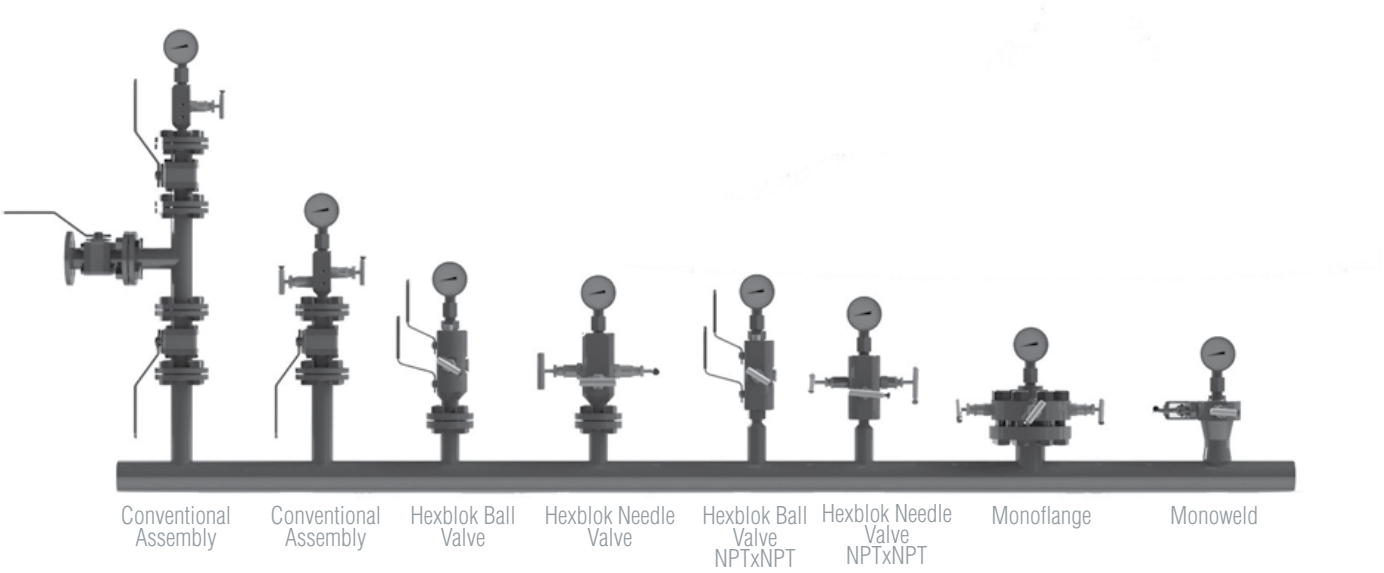
## Hexblok Block & Bleed Valves

The Hex Valve design of pressure instrument take-off points along with sampling, injection, and drainage applications simplifies these designs by making them more compact, rigid, lighter, safer, and lower cost than the conventional piping methods.




### *APPLICATIONS*

- Pressure instrument take off points
- Sampling Systems (Our valve has an integral pipe probe or sampling probe)
- Chemical Injection Systems (valve has pipe probe/quill along with integral check valve)
- Hydraulic power units
- High pressure fire safe valves
- Drains for tanks and pipes where space is limited

### *FEATURES & BENEFITS*

- Overall length reduced by ± 70%
- Overall weight reduced by ± 80%
- Reduced labor cost
- Reduced leak points
- Brings pressure point closer to pressure measurement

*Hex MonoWeld: Designed and manufactured by the company that produced the Oil and Gas industries first primary gauge and orifice valves. Hex is proud to manufacture the rugged and dependable MonoWeld. See for yourself, Hex builds tough valves.*

## Applications

Used on Upstream Offshore/Onshore Gas and Oil production and initial processing installations.

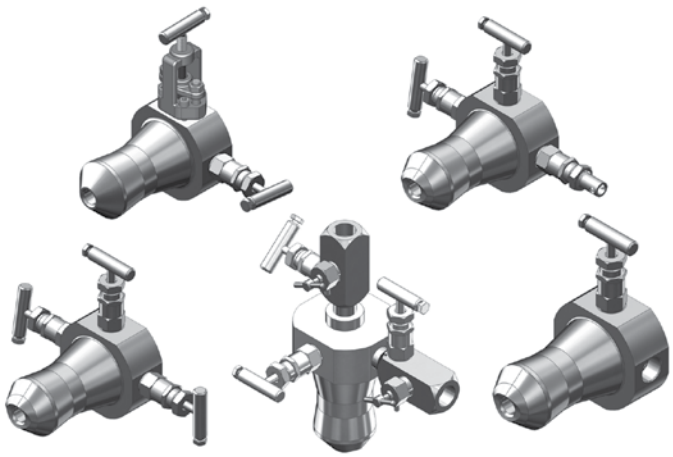
Typically used on single or dual gauge pressure or analyzer installations to minimize the size and weight of the pipe-valve assemblies used for primary and/or secondary isolation, vent and calibration.

Also used in downstream Oil and Gas Refining and Petrochemical production on welded, or flanged pipe processes, primarily on gas applications or light end liquids.

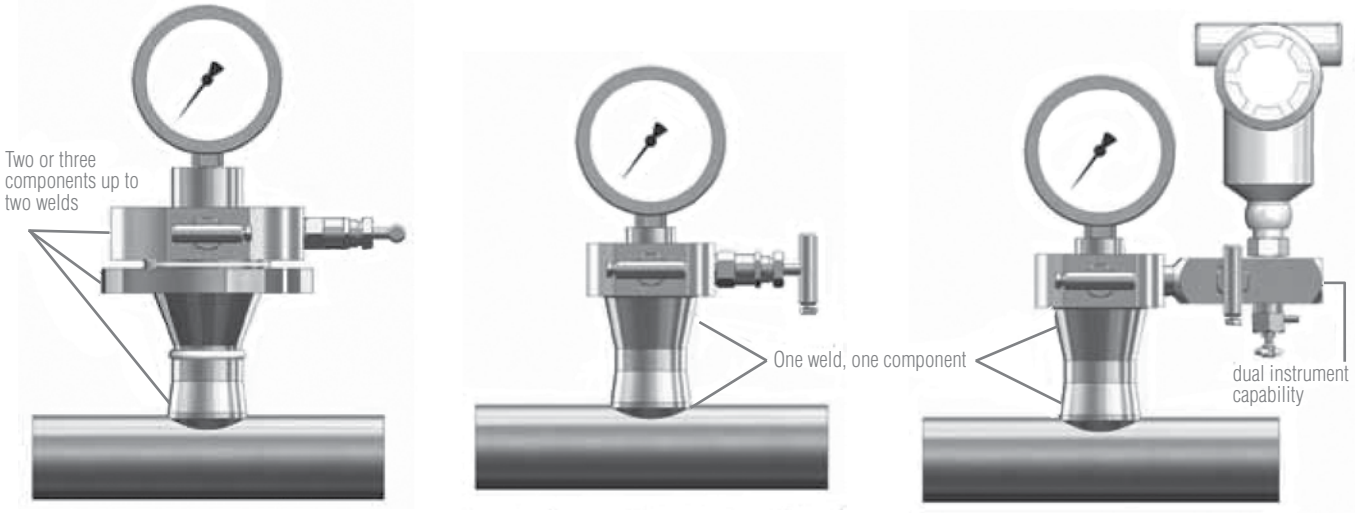
## Features and Benefits

- Integral Weldolet® means one weld instead of two, per gauge pressure or analyzer takeoff.
  - Significantly reduces total project installation time, reducing Capital costs
  - Reduces total installation height and weight
  - Reduces weld corrosion probability
  - Weldolet™ style saddle inlet machined to match installation pipe size and schedule per MSS SP-97
  - Reduces total potential leak paths, minimizing total probable emissions
- API 607 5th Edition (fire test)
- Large variety of standard and optional forged or bar materials and outlet options, means you can select the style and material you need immediately from catalog, instead of having to contact the factory
- Hex was the first in the industry to utilize Non-Rotating Stem Tip (NRT) technology. When the stem tip contacts the seat, it stops rotating, preventing the cross scoring and eventual leaks that can occur with ball type stems

| Quick Spec | |
|---|---|
| Product Scope | |
| Working Pressure | In accordance with ASME B16.5 for class 150 to 2500 |
| Working Temperatures | 450°F (232°C) for Teflon packing, 1000°F (528°C) for Graphite packing |
| Approvals | |
| API 607 5th Edition (fire test certified) | |
| ASME VIII (pressure boundaries) | |
| PED | |
| ASME B16.5 (flange dimensions) | |
| EN 10204.3.1 (material traceability) | |



- Robust bonnet and stem design means higher probability of longer life, and less break risk than competitors
- 4 rings Teflon Chevron style packing, or multi-ring set of grafoil surrounded by braided graphite standard. Verified to exceed US EPA 40 CFR 60 emission standards by more than 5 times. Less probability of leaks means less risk
- Special built-to-order design inquiries welcome




**TRADITIONAL** **MONOWELD SINGLE INSTRUMENT** **MONOWELD DOUBLE INSTRUMENT**

Hex MonoWeld: Designed and manufactured by the company that produced the Oil and Gas industries first primary gauge and orifice valves. Hex is proud to manufacture the rugged and dependable MonoWeld. See for yourself, Hex builds tough valves.

Used on Upstream Offshore/Onshore Gas and Oil production and initial processing installations. Typically used on single or dual gauge pressure or analyzer installations to minimize the size and weight of the pipe-valve assemblies used for primary and/or secondary isolation, vent and calibration. Also used in downstream Oil and Gas Refining and Petrochemical production on welded, or flanged pipe processes, primarily on gas applications or light end liquids.

## Specifications

### *WORKING PRESSURE*

In accordance to ASME B16.5 for class 150 to 2500

### *CERTIFICATIONS*

API 607 5th Edition (fire test certified)
ASME VIII (pressure boundaries)
PED
EN 10204.3.1 (material traceability)
Norsok M650 Rev. 3 approved materials

### *WORKING TEMPERATURES*

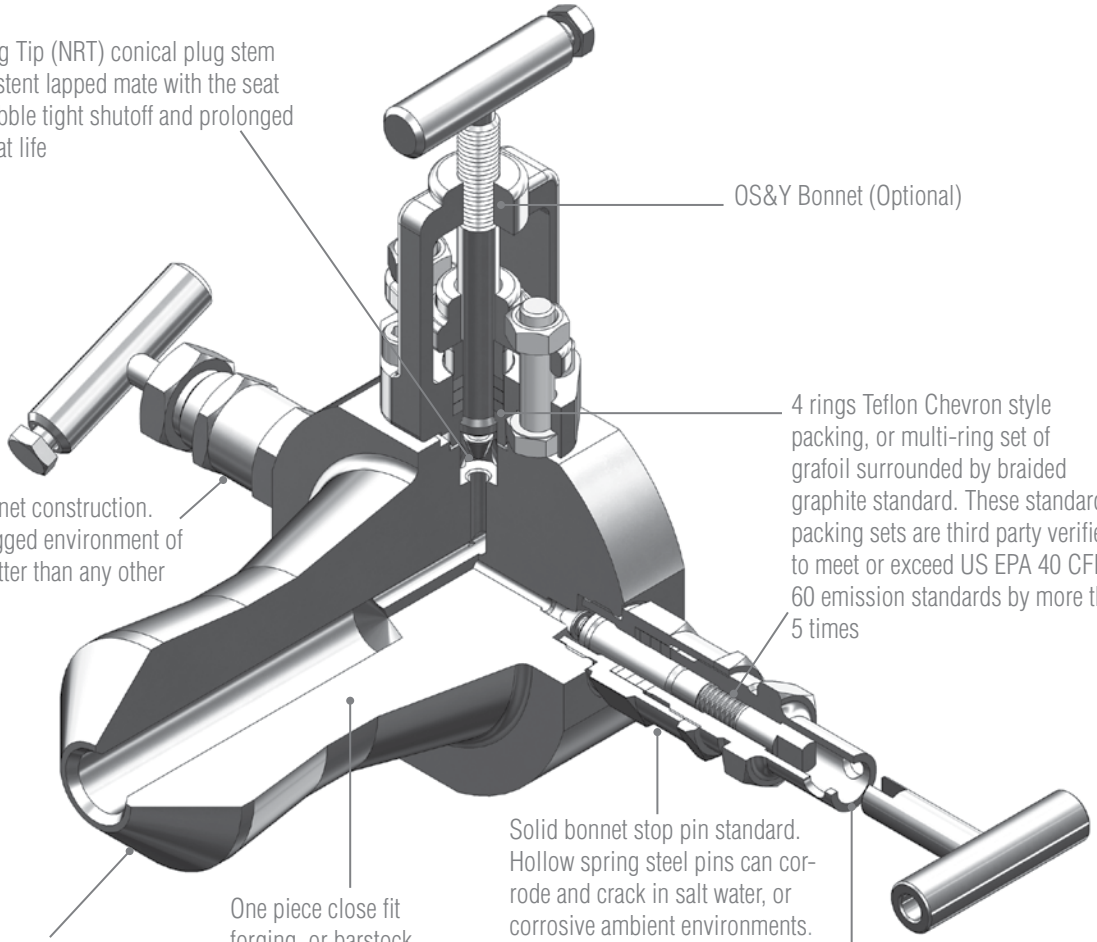
450°F (232°C) for Teflon Packing
1000°F (528°C) for Graphite packing
Standard Bonnet Materials

| Valve Body Material | Bonnet Material |
|---|---|
| All grades of Carbon Steel and 316L SS | 316/316L NACE SS bonnets |
| Monel 400 | Monel 400 |
| Hastelloy C | Hastelloy C |
| Inconel 600 & Inconel 625 | Inconel 625 |
| Incology 800 | Incoloy 800 |
| Duplex & Super Duplex | Super Duplex |

### *HEX MONOWELD ADVANTAGES & CUSTOMER BENEFITS*

- Valve with integral branch fittings means less capital cost for gauge pressure or analyzer installation
  - Reduces required components & welds: one instead of two or three
  - Reduces total installation height and weight
  - Reduces weld corrosion probability
  - Integral salle inlet machined to match installation pipe size & schedule per MSS SP-97,
    - Lower probability of process pipe weld distortion
    - Reduces total potential leak paths, minimizing total probable emissions
- API 607 5th Edition (fire test)
- Large variety of standard and optional forged or bar materials and outlet options, means you can select the style and material you need immediately from catalog, instead of having to contact the factory
- Hex was the first in the industry to utilize Non-Rotating Stem Tip (NRT) technology. When the step tip contacts the seat, it stops rotating, preventing the cross scoring and eventual leaks that can occur with ball type stems
- Robust bonnet and stem design means higher probability of longer life, and less break risk than competitors
- 4 rings Teflon Chevron style packing, or multi-ring set of grafoil surrounded by braided graphite standard
- Special built-to-order design inquiries welcome

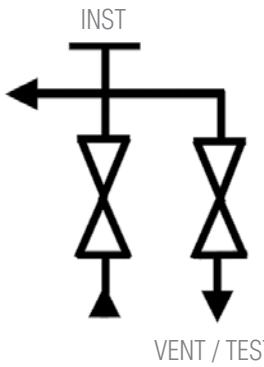
## Monoweld Valve Features & Benefits



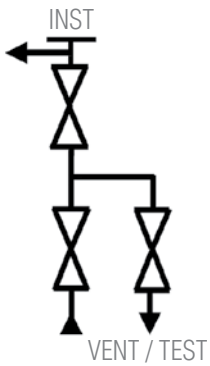

1/2" - 14 NPT, FNPT vent port standard

## Flow Schematics

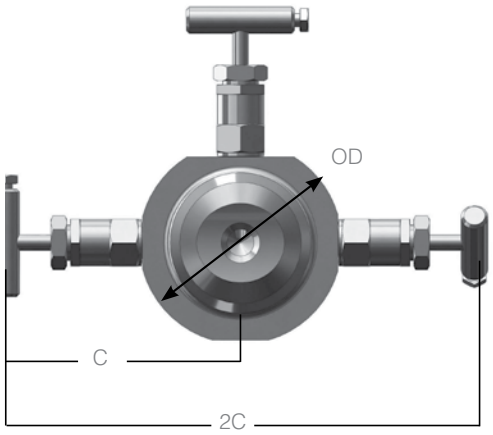

For Models MW10 & MW11

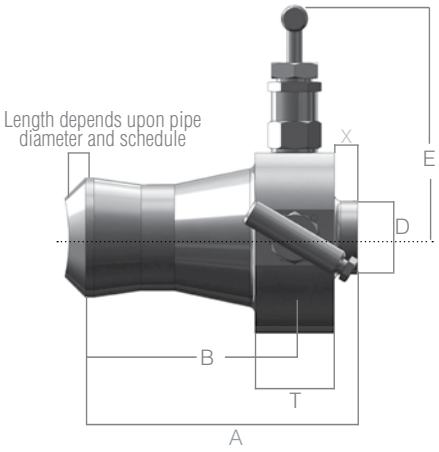



For Models MW20 & MW21



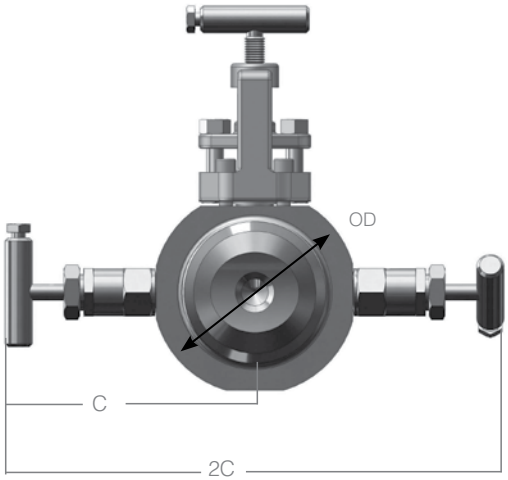

For Models MW30 & MW31

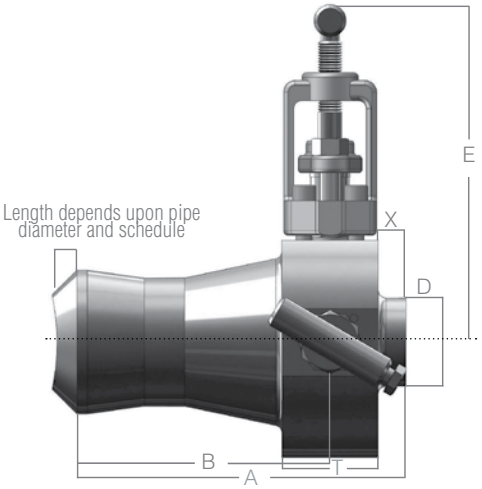



Standard Screwed Bonnet
MW 10, MW 20, & MW 30

| Dimensions (inches) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Model | Type | A | B | E | 2C | D | T | OD | X |
| MW10 | Single Block Screwed Bonnet | 5.2 (132.0) | 4.0 (102.0) | 4.3 (109) | - | 1.4 (35,6) | 1.5 (38,1) | 3.8 (96,5) | 0.44 (11,2) |
| MW20 | Single Block & Bleed Screwed Bonnet | 5.2 (132.0) | 4.0 (102.0) | 4.3 (109) | 4.5 (114) | 1.4 (35,6) | 1.5 (38,1) | 3.8 (96,5) | 0.44 (11,2) |
| MW30 | Double Block & Bleed Screwed Bonnet | 5.2 (132.0) | 4.0 (102.0) | 4.3 (109) | 4.5 (114) | 1.4 (35,6) | 1.5 (38,1) | 3.8 (96,5) | 0.44 (11,2) |




OS&Y Bonnet
MW 11, MW 21, & MW 31

| Dimensions (inches) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Model | Type | A | B | E | 2C | D | T | OD | X |
| MW11 | Single OS&Y Bonnet | 5.2 (132.0) | 4.0 (102.0) | 5.3 (135) | - | 1.4 (35,6) | 1.5 (38,1) | 3.8 (96,5) | 0.44 (11,2) |
| MW21 | Single Block & Bleed OS&Y Bonnet | 5.2 (132.0) | 4.0 (102.0) | 5.3 (135) | 4.5 (114) | 1.4 (35,6) | 1.5 (38,1) | 3.8 (96,5) | 0.44 (11,2) |
| MW31 | Double Block & Bleed OS&Y Bonnet | 5.2 (132.0) | 4.0 (102.0) | 5.3 (135) | 4.5 (114) | 1.4 (35,6) | 1.5 (38,1) | 3.8 (96,5) | 0.44 (11,2) |

| MODEL | SEAT | BODY MAT'L | PROCESS PIPE SIZE | PROCESS PIPE SCHEDULE | OUTLET SIZE | OUTLET TYPE | STEM/ TIP | SEAT MAT'L | PACKING | OPTION | OPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MW10 | 1 | P | A | 5 | 3 | 1 | 4 | 1 | 3 | 9 | 9 |

| MODEL | TYPE |
|---|---|
| MW10 | Single Block Screwed Bonnet |
| MW11 | Single Block OS&Y Bonnet |
| MW20 | Single Block & Bleed Screwed Bonnet |
| MW21 | Single Block & Bleed OS&Y Bonnet |
| MW22 | Single Block & Bleed 2 OS&Y Bonnets |
| MW30 | Double Block & Bleed Screwed Bonnet |
| MW31 | Double Block & Bleed OS&Y Bonnet |
| MW32 | DBB 2 OS&Y Bonnets, one std Bonnet |
| MW33 | Double Block & Bleed 3 OS&Y Bonnets |

| SEAT | |
|---|---|
| 1 | Hard Seat |
| 0 | 10,000 Psig Rated (Screwed Bonnet TFE only, Material dependent) |

| MATERIAL | |
|---|---|
| U | SST, A479 316 |
| D | SST A479 316 NACE |
| Y | A182 316L |
| 3 | A182 316L Nace |
| P | Carbon Steel A105 |
| N | Carbon Steel, A105 NACE |
| K | Low Temp CS A350 LF2 |
| H | Hastelloy C |
| I | Incoloy 825 |
| 7 | Inconel 625 |
| M | Monel |
| 6 | Duplex A182 F51 |
| 4 | Super Duplex A182F55 |
| X | Alloy 20 |

| PROCESS PIPE SIZE | | | |
|---|---|---|---|
| A | 1-1/2" | M | 14" |
| B | 2" | N | 16" |
| C | 2-1/2" | P | 18" |
| D | 3" | R | 20" |
| E | 3-1/2" | S | 22" |
| F | 4" | T | 24" |
| G | 5" | U | 32" |
| H | 6" | V | 34" |
| J | 8" | W | 36" |
| K | 10" | X | 42" |
| L | 12" | | |

| PROCESS PIPE SCHEDULE | |
|---|---|
| 1 | SCH10 |
| 2 | SCH20 |
| 3 | SCH30 |
| 4 | SCH40 |
| 6 | SCH60 |
| 8 | SCH80 |
| A | SCH100 |
| B | SCH120 |
| C | SCH140 |
| D | SCH160 |

| OUTLET SIZE | |
|---|---|
| 1 | 1/4" (DN8) |
| 2 | 3/8" (DN10) |
| 3 | 1/2" (DN15) |
| 4 | 3/4" (DN20) |
| 5 | 1" (DN25) |

| OUTLET TYPE | |
|---|---|
| 1 | FNPT Outlet |
| 2 | FSW Connection |
| 7 | MNPT Connection |
| W | Tube Socket Connection |
| N | HB521 with two plug* |
| K | HB50 |

*Three outlet "T" adaptor to allow for upright gauge mount on horizontal pipe, or multiple instrument take-offs

| STEM TIP | |
|---|---|
| 0 | 316L/316L NACE |
| 3 | 316/316 NACE NRT Stem |
| 4 | 316/316 NRT Stem |
| 5 | 316/Stellite NRT Stem |
| 6 | I-625/I-625 |
| B | Monel/Monel NRT Stem |
| D | Hast C/Hast C NRT Stem |
| Q | I-825/I-825 |
| H | AL20/AL20 |

| SEAT MATERIAL | |
|---|---|
| 1 | Integral Seat |

| PACKING | |
|---|---|
| 2 | Teflon Packing |
| 3 | Graphite Packing |

| OPTION* | |
|---|---|
| **6** | **100% 316 non-wet parts** |
| **9** | 1/2" FNPT Side Inst. Outlet |
| X | 1/2" FNPT Side Inst. Outlet w/HB50 |
| C | Pipe plug or vent** |
| S | Swivel Adapter*** |

*Note: You can combine up to two options in alpha-numeric order. Contact factory for more.

**Bonnet and plug (optional) material same as body material except for CS bodies which have 316SS bodies.

***Consult factory for swivel adapter ordering options

Contact factory for more options.