

Spring Loaded • Dome Loaded • Pilot Actuated

Burling Valves

- Largest Cv per valve size
 - Possible smaller, more cost effective valve selections
 - Savings of up to 25% possible
- More accurate performance due to balanced plug design
- In-line maintenance
- Soft seat
 - Tighter shutoff
 - Class VI
- High turndown ratio
- Greater rangeability
- Extremely fast response time
- Greater metallurgical selection
- Greater inventories
 - quicker delivery
- Flexibility
- Engineering for specific applications
- Each valve fully tested before shipment

MADE IN USA!



About Burling Valves

Burling Valves traces its background and pedigree to the 1890's with its First Direct Acting Spring-loaded Regulator for a New York utility.

The Burling Family has many years of regulator and control valve design and manufacturing expertise. Advanced technology and precision is seen in all Burling Valve products.

This fast changing marketplace requires understanding and mastering of current and future technology and designs. Both new product development and existing product enhancements ensure that tomorrow's Burling products will continue the Burling tradition of leadership.

Both experienced and new engineers have come to trust Burling's integrity, engineering and manufacturing expertise.

Ease of Maintenance • No need to remove valve from pipeline • Greater online productivity • Top entry • Quick change trim • No disturbing pipeline

Markets

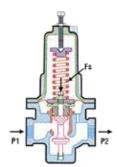
- Chemical
- Petrochemical
- Refineries
- Food
- Pharmaceutical
- Power Generation
- Energy

- HVAC
- Environmental
- SemiConductor
- Cryogenic
- Medical
- OEM
- Marine

- Automotive
- Architectural Fountains
- Atmospheric Bulk Gas
- Natural Gas
- Boilers
- Paper
- General Process

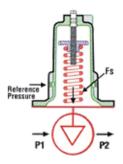


BS Series

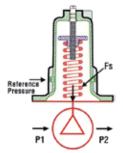


BS1 (Pressure Reducing)
Simplest regulator design

- Chemical and all simple process applications and industries
- Most fluids and medias



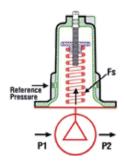
BS8 (Positive Differential Back Pressure)
By using a positive bias on spring in compression with back pressure trim produces a positive differential back pressure regulator.



BS2 (*Pressure Reducing, Differential*)

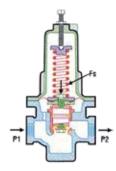
Using a sealed differential chamber instead of simple BS1 chamber produces a differential PRV

- Seal pressurization applications
- Spring atomization applications
- Spray tower applications



BS2–3 (*Negative Bias Differential*)

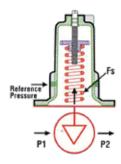
By placing spring in tension rather than compression produces a negative bias relative to the reference pressure or a negative differential regulator.



BS5 (Back Pressure)

Replacing trim with back pressure trim produces simplest back pressure regulator

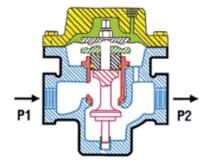
- Pump discharge applications
- Filter applications
- Relief valve



BS8-3 (Negative Differential Back Pressure)

Similarly, by utilizing the spring in a negative or tension mode along with back pressure trim creates a negative differential back pressure regulator.

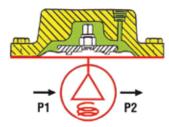
BD Series



BD3

Pressure Reducing

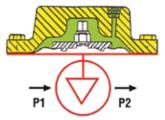
Simplest dome-loaded regulator or 1:1 "mimic" valve. Loading signal essentially equals P2.



BD4

Pressure Reducing with Return Spring

Same as BD3 except with a bottom return spring for proportional band control. Used when a "Closed Loop" or feedback to regulator is generated.

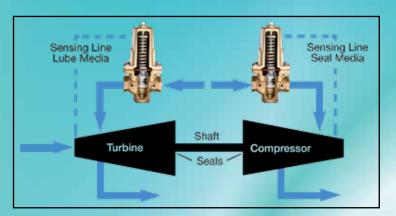


BD6

Back Pressure

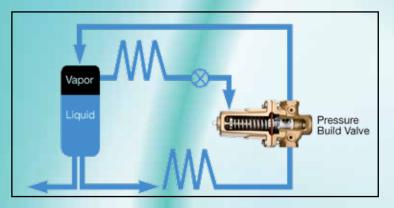
By using back pressure trim instead of standard trim, a dome loaded back pressure valve is created.

Typical Applications



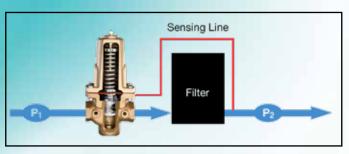
SERIES BS - SEAL PRESSURIZATION

Spring Loaded Differential Pressure Regulators are used to maintain lubrication or seal media on rotating or reciprocating equipment. The differential is maintained relative to internally sensed turbine or compressor pressures.



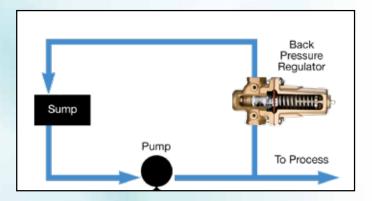
SERIES BS - CRYOGENIC PRESSURE BUILD

Pressure building regulators used to maintain pressure in vapor space above cryogenic liquid in Dewar vessels. By using a light spring with low "droop" assisted by gas pressure, a highly accurate pressure of 275 psig or more is attained. Set-point is capable of accuracies of \pm 2 psig.

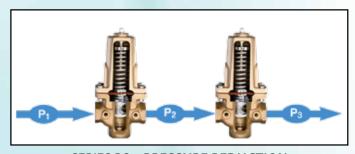


SERIES BS – CONSTANT FILTER DISCHARGE

By using a spring loaded regulator with remote sensing, constant discharge pressure after a filter can be achieved regardless of cake buildup.



SERIES BS - **CONSTANT PUMP DISCHARGE PRESSURE**By using a simple spring loaded back pressure regulator, constant pump discharge pressure can be generated regardless of demand.



SERIES BS – PRESSURE REDUCTION

Placing two or more Spring Loaded regulators in series for Pressure let-down will provide excellent accuracy, if flows are relatively constant. Valves are designed to fallopen position and minimization of "supply-line" effect.

General Specifications:

Sizes: 1/2 in. through 4 in.

Body Materials: Cast Iron, Carbon Steel, Bronze, Stainless Steel,

*Hastelloy, *Alloy 20. *Consult Factory

Trim Materials: 17-4 PH or 316L S.S., Monel, others

Diaphragm Materials: 6-ply special composition (PTFE, Viton) PTFE, Viton, Neoprene, Buna N, EPDM, Beryllium Copper, Stainless Steel, *Alloy 20 **Complete Composition (PTFE, Viton) PTFE, Viton) PTFE, Viton, Neoprene, Buna N, EPDM, Beryllium Copper, Stainless Steel, *Alloy 20 **Complete Composition (PTFE, Viton) PTFE, Viton) PTFE, Viton (PTFE, Viton) PTFE, Viton (PTF

20. *Consult Factory

Seats: Extensive selection includes: Polyurethane, PTFE, Viton, others

Cv Rating: Controllable Cv Range, 4 to 220

Set Points: To Inches of Water Column

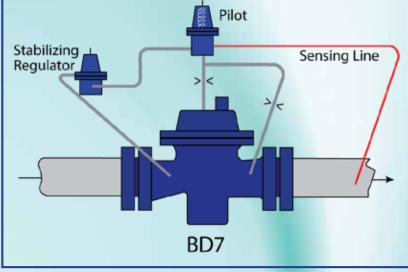
Max. Inlet Pressure: 3000 psig @100°F (material specific)
Max. Outlet Pressure: 1000 psig @100°F (material specific)
Actuators: Elastomeric Diaphragm, Metal Diaphragm or Piston

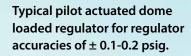
Actuator

Dome Loaded Regulators with Pilots

Accuracy of \pm 1-2 psig is achievable with dome loaded regulators.

If greater accuracy is required, pilot operated dome loaded regulators are utilized if possible. Since pilots are narrow band proportional controllers, accuracies of 2"-3" of W.C. are possible. Pilots can be dome loaded as well as spring loaded.





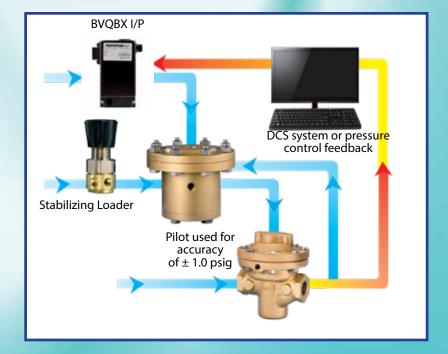


Dome Loaded Regulators as Control Valves

With the selection of the sensing element such as a transducer, pH meter, level control or other, coupled with a controller and I/P (extended range, if necessary) the functionality of a control valve is accomplished.

Advantages Over Control Valves

- Quicker dynamic response (10 cycles per second)
- More compact design (over 30% smaller)
- No fugitive emissions
- Higher turndown ratio 1000:1
- Generally less expensive than control valves in both cryogenics and industrial applications (approximately 30% less expensive)



Temperature Limits: -425° to 480°F

End Connections: Threaded, Flanged, Socket Weld,

Butt Weld, Tube, Tri-Clamp, BSP, Others

Turn-Down Ratio: 1000:1 Sensitivity: 1/8 in. W.C.

Dynamic Response: 10 cps (cycles per second) **Trim:** Top Entry, Balanced, Quick-Change, Single Seat

Inlet Sensitivity Effect: Minimal due to balanced design. Outlet pressure changes by 3 to 8 psig for every 100 psig variation in inlet pressure, either directly or inversely.

Sensing: Internal or external

Ratio-Loaded Configuration: Available for controlling set point when control signal is too low.

BURLING VALVE HOW TO ORDER

| Г | | | To the | ve tial | £ 70 | roof | leel | a | no a | sure | ace- | de | no a | sure | rder | | | | | | | |
|---|--|---|--|--|---|--|---|---|----------------------------|---------------------|---|---------------------|------------------------|--|----------------------------------|------------------------------|-----------------|---|--|--|---|---|
| | Special | None | 1/4" NPT Body Taps | Negative Differential | Oxygen Cleaned | Tamper-proof Cap | Handwheel | Gauge | 6"Flange on 4" Body | Low Pressure | Special Face- to-Face | 1/2"NPT Dome Tap | 8"Flange on 4" Body | High Pressure | options in alphanumeric order | | | | Та | | | s Rating (psi) |
| | g | _ | | | | | | | | | | | | | otions i ohanur | | # | 0.5, .75 | &10 | Standa 1. | | g Ranges 2.0 |
| _ | | 0 | - | | 4 | 9 | 7 | ∞ | 6 | ⋖ | В | U | Ω | ш | <i>6 tb</i> | | 1 | 1 to | | 1 to | | 1 to 5 |
| | * | Normal | Reverse | | | | | | | | | | | | | | 2 | 2 to | - | 5 to | | 4 to 15 |
| | Flow | z | | | | | | | | | | | | | | | 3 | 10 to | 35 | 15 t | o 45 | 10 to 30 |
| _ | | | 2 | _ | | 1. | | | | | | | | | | | 4 | 20 to | 80 | 10 t | o 70 | 15 to 50 |
| | Sensing | *Non- Sensing | Internal | External | Ratio | *9 Type Only | | | | | | | | | | | 5 | 30 to | 150 | 40 to | 125 | 30 to 90 |
| | Sen | 0 | = | 2 E | 3 | *9 Typ | | | | | | | | | | | 6 | 70 to | 200 | 70 to | 200 | 50 to 150 |
| _ | | | _ | ., | "" | | | | | | | | | | | | 7 | 100 to | 300 | | | |
| | Trim Variation | See Table B | | | | | | | | | | | | | | | В | .5 to | 5 | | | |
| | . Var | # | | | | | | | | | | | | | | | | Heav | v Spring | Ranges | (Includes | Heavy Spring |
| | | e. | PSI | PSI | PSI | | | | | | | | | | | | # | 0.5, .75 | _ | 1. | | 2.0 |
| | Return Spring | None | 1-3 PSI | 2-7 PSI | 3-15 PSI | | | | | | | | | | | | 8 | 200 to | | 100 t | | 80 to 300 |
| | | 0 | - | 2 | æ | | | | | | | | | | | | _ | | | | | |
| | seal | Buna-N | Viton | Micone Silicone | EPDM | PTFE | | | | | | | | | | | | | | | | ing Ranges |
| | Static Seal | Bu | > | 2 | 15 | ۵ | | | | | | | | | | | # | 0.5, .75 | & 1.0 | 1. | .5 | 2.0 |
| _ | | 2 | n | 4 | 2 | 9 | _ | _ | 1 | | | | | | | | 9 | -1 to | - | -2 to | | -1 to 15 |
| | Seal | PTFE U-Cup | RTFE U-Cup | Polyurethane U-Cup | J-Cup | EP DM U-Cup | N-e dn: | TFM U-Cup | | | | | | | | | Α | -20 to | 50 | -20 t | 0 50 | -20 to 50 |
| | Dynamic Seal | PTEL | RTFEL | olyure U-C | Viton U-Cup | - MO di | Buna-N U-Cup | ∩ W± | | | | | | | | | | | | | | |
| | Δğ | | 2 | .6 | 4 | 10 | 9 | 7 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | Ι_ | T | | 9 | pa | | କ୍ଲି | | | 1 | |
| | ane | None | Neoprene | PTFE 6-Ply | Viton | EPDM | Metal (316 SS) | Mikene. | Buna-N | PTFE-Faced Viton | PTFE-Face Buna-N | PTFE-Faced EPDM | PTFE-Faced Neoprene | Metal (17-7) | Metal (BeCu) | Viton (reduced thickness) | MIYA | Metal (Monel) | PTFE 5-Ply | TFM 6-Ply | | |
| | Membrane | Ž | Neo | PTFE | į | <u> </u> | Metal | 2 | Bu | PTFE | PTFE | PTFE | PTFE | Meta | Meta | /iton (thic | Ž | Metal | PTF | HF. | | |
| | 2 | 0 | 1 | 2 | е | 4 | 2 | 9 | 7 | ⋖ | В | U | ۵ | ш | ш | 9 | I | _ | ſ | ¥ | i | |
| | | ų. | | | | p e | | | | | | | | | | | | | | | | |
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| | | retha | 崖 | 星 | 느 | romet | WQ | ton | na-N | Æ | | | | | | | | | | | | |
| | Seat | Polyurethane | PTFE | RTFE | Kel-F | 70 Duromet Polyurethan | EPDM | Viton | Buna-N | TFM | | | | | | | | | | | | |
| | Seat | 1 Polyuretha | 2 PTFE | 3 RTFE | 4 Kel-F | 70 Durometer Polyurethane | 6 EPDM | 7 Viton | 8 Buna-N | 9 TFM | | | | | | | | | Table | B: Trim | Variation | s & Cv Selectio |
| | | - | 2 | | | | | | | | | | | | | | Size | | mer Men | nbrane | Elastom | er Membrane |
| | | _ | | | | | | | | | | | | | | | Size | Press # | mer Men sure Redi Cv | nbrane | Elastom Back | er Membrane kpressure Cv |
| | Top Spring Seat Range | - | 2 | | | | | | | | u. | | | | | | Size | Press | mer Men sure Redi | nbrane | Elastom Back | er Membrane kpressure |
| | | 0 None 1 | See Table A | e | 4 | S | 9 | | | | ller than | | | | | | | # 1 2 3 | mer Men Sure Redo 4.0 3.0 2.4 | nbrane | Elastom Back # | er Membrane kpressure Cv 4.0 3.0 2.0 |
| | Top Spring Range | 0 None 1 | See Table A | e | 4 | S | 9 | | | | e smaller than body) | | | | | | Size 0.5 | # 1 2 | mer Men Sure Redu Cv 4.0 3.0 | nbrane | Elastom Back # 1 | er Membrane kpressure Cv 4.0 3.0 |
| | | None 1 | See 2 | | 4 | | 9 | | | | one size smaller than se 1.5"body) | | | | | | | # 1 2 3 | mer Men Sure Red Cv 4.0 3.0 2.4 1.5 | nbrane | Elastom Back # 1 | er Membrane kpressure Cv 4.0 3.0 2.0 |
| | Top Spring Range | 0 None 1 | See Table A | e | 4 | S | 9 | | | | body one size smaller than will use 1,5" body) | | | | | | | # 1 2 3 4 5 5 1 1 1 | 2.4 1.5 0.60 | nbrane | # 1 2 3 4 1 | er Membrane kpressure Cv 4.0 3.0 2.0 |
| | Trim Top Spring Range | 1 17-4 PH SS 0 None 1 | 2 316LSS # See 2 | 3 Monel 3 | 4 Hypug (Ronel & 4 | 5 Stall 1 seel 5 | 6 Hastelloy 6 | 7 | σ | ō | uses a body one size smaller than BS2.0 will use 1.5"body) | | | | | | | # 1 2 3 4 5 5 1 1 2 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 1 2 1 | ### Men ### Red ### August | nbrane ucing | # 1 2 3 4 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 1 2 2 1 1 1 2 2 1 1 1 2 1 1 1 2 1 1 1 1 1 2 1 | er Membrane cyressure Cv 4.0 3.0 2.0 1.0 |
| | Trim Top Spring Range | 17-4 PH SS 0 None 1 | 316LSS # See 2 | Monel 3 | Hypug (Monel & 316.) | Alloy 20 Stall year teel | 6 Hastelloy 6 | 7 | | | lamp uses a body one size smaller than en (ex., BS2.0 will use 1.5" body) | | | | | | | # 1 2 3 4 5 5 1 1 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | ### Men ### ### ### ### ### ### ### ### ### # | nbrane ucing | # 1 2 3 4 4 4 6 | er Membrane (xpressure Cv 4.0 3.0 2.0 1.0 |
| | Top Spring Range | 1 17-4 PH SS 0 None 1 | 2 316LSS # See 2 | 3 Monel 3 | 4 Hypug (Ronel & 4 | 5 Stall 1 seel 5 | Hastelloy 6 | | σ | ō | "Tri-Clamp uses a body one size smaller than chosen (ex., B52.0 will use 1.5" body) | | | | | | 0.5 | Press # 1 | 8.0 7.01 5.66 4.25 3.0 | nbrane ucing | # 1 2 1 2 3 3 4 4 1 2 3 3 3 4 4 4 5 6 6 6 6 6 6 6 6 6 | er Membrane kpressure Cv 4.0 3.0 2.0 1.0 |
| | End Connection Trim Top Spring | 1 NPT 1 17-4 PH SS 0 None 1 | 2 Flange 2 316LSS # Table A 2 | 3 Tube End 3 Monel 3 | 4 ButtWeld 4 HVM Ganel 4 | 5 Socket Stanley 20 St | 6 Swagelok 6 Hastelloy 6 | 8 *Tri-Clamp 7 | 9 SAE | 6 BSbb | "Tri-Clamp uses a body one size smaller than chosen (ex., BS2,0 will use 1.5" body) | | | | | | 0.5 | # 1 2 3 4 5 5 1 1 2 1 3 4 4 5 5 1 1 5 1 1 5 1 1 5 1 1 1 1 1 1 1 | 8.0 7.01 5.66 4.25 3.0 | nbrane | # 1 2 3 4 4 4 6 | er Membrane (xpressure Cv 4.0 3.0 2.0 1.0 |
| | Trim Top Spring Range | 125 1 NPT 1 17-4.PH.SS 0 None 1 | 150 2 Flange 2 316L.SS # Table A 2 | 250 3 Tube End 3 Monel 3 | 300 4 ButtWeld 4 Hypergranel 4 | 600 S Socket S Stands S S S S S S S S S S S S S S S S S S S | 700 6 Swagelok 6 Hastelloy 6 | 1500 8 *Tri-Clamp 7 | 900 9 SAE | 6 BSbb | "Tri-Clamp uses a body one size smaller than chosen (ex., BS.2.0 will use 1.5" body) | | | | | | 0.5 | # 1 2 3 4 5 5 6 6 7 7 8 8 1 1 | 8.0 7.01 5.66 4.25 0.60 8.0 7.01 5.66 4.25 3.0 2.4 1.5 | nbrane | # 1 2 3 4 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | er Membrane (pressure |
| | End Connection Trim Top Spring | 1 125 1 NPT 1 17-4 PH 5S 0 None 1 | 2 150 2 Flange 2 316LSS # See 7able A 2 | 3 Tube End 3 Monel 3 | 4 ButtWeld 4 HVM Ganel 4 | 5 600 5 Socket 5 StaNiAsteel 5 | 6 700 6 Swagelok 6 Hastelloy 6 | 8 *Tri-Clamp 7 | 9 SAE | 6 BSbb | "Th-Clamp uses a body one size smaller than chosen (ex., 852.0 will use 1.5" body) | | | | | | 0.5 | # 1 2 3 4 5 5 6 6 7 8 8 1 1 2 3 3 1 1 2 3 3 1 1 1 2 3 3 1 1 1 1 | 8.0 7.01 5.66 4.25 0.600 11.82 7.01 | nbrane | # 1 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 5 5 1 1 2 2 3 3 4 5 5 1 1 2 2 3 3 4 5 5 1 1 2 2 3 3 4 5 5 1 1 2 2 3 3 4 5 5 1 1 2 2 3 3 4 5 5 1 1 2 2 3 3 4 5 5 1 1 1 2 2 3 3 5 5 1 1 1 2 2 3 3 5 5 1 1 1 2 2 3 3 5 5 1 1 1 1 2 2 3 3 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | er Membrane (pressure CV 4.0 3.0 2.0 1.0 8.0 4.0 3.0 2.0 1.0 |
| | Rating End Connection Trim Top Spring (ANS) | 1 125 1 NPT 1 17-4 PH 5S 0 None 1 | 2 150 2 Flange 2 316LSS # See 7able A 2 | 3 250 3 Tube End 3 Monel 3 | 4 300 4 ButtWeld 4 Hypuginel 4 | 5 600 5 Socket 5 StaNiAsteel 5 | 6 700 6 Swagelok 6 Hastelloy 6 | 7 1500 8 "Tri-Clamp 7 | 8 900 9 SAE | 6 BSbb | *Tri-Clamp uses a body one size smaller than chosen (ex., 852.0 will use 1.5" body) | | | | | | 0.5 | # 1 2 3 4 5 5 6 6 7 7 8 8 1 1 2 3 3 4 4 5 5 6 6 1 7 8 8 1 1 2 1 3 3 6 4 4 5 5 6 6 6 6 7 7 8 8 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 | mer Mener Me | nbrane ucing | # 1 2 3 4 4 5 5 1 1 2 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 | er Membrane (pressure Cv 4.0 3.0 2.0 1.0 8.0 4.0 3.0 2.0 1.0 |
| | Rating End Connection Trim Top Spring (ANS) | 125 1 NPT 1 17-4.PH.SS 0 None 1 | 150 2 Flange 2 316L.SS # Table A 2 | 250 3 Tube End 3 Monel 3 | 300 4 ButtWeld 4 Hypergranel 4 | 600 S Socket S Stands S S S S S S S S S S S S S S S S S S S | 700 6 Swagelok 6 Hastelloy 6 | 1500 8 *Tri-Clamp 7 | 8 900 9 SAE | 6 BSbb | *Trt-Clamp uses a body one size smaller than chosen (ex, BS2.0 will use 1.5° body) | | | | | | 0.5 | # 1 2 3 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 | 8.0 0.60 11.82 7.01 1.82 7 | nbrane ucing | # 1 1 2 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | er Membrane (pressure |
| | End Connection Trim Top Spring | 1 125 1 NPT 1 17-4 PH 5S 0 None 1 | 2 150 2 Flange 2 316LSS # See 7able A 2 | 3 250 3 Tube End 3 Monel 3 | 4 300 4 ButtWeld 4 Hypuginel 4 | 5 600 5 Socket 5 StaNiAsteel 5 | 6 700 6 Swagelok 6 Hastelloy 6 | 7 1500 8 "Tri-Clamp 7 | 900 9 SAE | 6 BSbb | *Tri-Camp uses a body one size smaller than chosen (ex, BS2.0 will use 1.5° body) | | | | | | 0.5 | Press # | ### Men | ucing | # 1 1 2 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | er Membrane (pressure |
| | Top Material Rating End Connection Trim Top Spring Range | A Aluminum 1 125 1 NPT 1 17-4 PH.SS 0 None 1 | i *Castiron 2 150 2 Flange 2 316LSS # Table A 2 | B *Bronze 3 250 3 Tube End 3 Monel 3 | C Carbon 4 300 4 ButtWeld 4 Hyput Conel 4 Stell, | S Stainless 5 600 5 Socket 5 Stallog 20 | H HNJ6AV 6 700 6 Swagelok 6 Hastelloy 6 | L NA/AR 7 1500 8 "Trt-Clamp 7 | 8 900 9 SAE | 6 BSbb | *Tri-Clamp uses a body one size smaller than chosen (ex., BS2,0 will use 1,5*body) | | | | | | 0.5 | Press # 1 2 3 4 5 5 6 6 7 8 8 1 2 3 4 5 6 6 7 8 8 9 9 1 1 | mer Menure Redu Cv 4.0 4.0 3.0 2.4 1.5 0.600 8.0 7.010 1.5 5.666 4.25 3.0 1.5 0.600 1. | e de la companya de l | # 1 1 2 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | er Membrane (pressure |
| | Top Material Rating End Connection Trim Top Spring Range | A Aluminum 1 125 1 NPT 1 17-4 PH.SS 0 None 1 | i *Castiron 2 150 2 Flange 2 316LSS # Table A 2 | *Bronze 3 250 3 Tube End 3 Monel 3 | Carbon 4 300 4 ButtWeld 4 Hypyty Conel 4 | S Stainless 5 600 5 Socket 5 Stallog 20 | H HNJ6AV 6 700 6 Swagelok 6 Hastelloy 6 | L NA/AR 7 1500 8 "Trt-Clamp 7 | 8 900 9 SAE | 6 BSbb | "Tht-Clamp uses a body one size smaller than chosen (ex., 852.0 will use 1.5" body) | | | | | | 0.5 | Press # 1 1 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9 1 2 2 3 9 1 2 2 3 9 1 2 3 9 1 2 3 9 1 2 3 9 1 2 3 9 1 2 3 9 1 2 3 9 1 2 3 9 1 2 3 9 1 2 3 9 1 2 3 9 1 2 3 9 1 2 3 9 1 3 9 1 | 8.0 (2.4 (4.0) (4. | e de la companya de l | # 1 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 5 5 1 1 1 2 2 3 3 4 4 5 5 1 1 1 2 2 3 3 4 4 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | er Membrane (pressure |
| | Rating End Connection Trim Top Spring (ANS) | Aluminum A Aluminum 1 125 1 NPT 1 17-4 PH SS 0 None 1 | Cast Iron 1 *Cast Iron 2 150 2 Flange 2 316LSS # See 2 | Bronze B "Bronze 3 250 3 Tube End 3 Monel 3 | Carbon C Carbon 4 300 4 ButtWeld 4 Hypytymonel 4 | Stainless S Stainless S 600 S Socket S Stally Steel S | MANAPAY H HATELAY 6 700 6 Swagelok 6 Hastelloy 6 | Note L Note 7 1500 8 Tri-Clamp | 8 900 9 SAE | 6 BSbb | "Tri-Camp uses a body one size smaller than chosen (ex., BS.2.0 will use 1.5" body) | | | 6. | | | 75 | Press # 1 2 3 4 5 5 6 7 8 8 1 2 2 3 4 4 5 6 6 7 8 8 1 2 2 3 3 4 4 5 6 6 7 7 8 8 1 2 2 3 3 4 4 5 6 6 7 7 8 8 1 8 1 | 8.0 0.60 8.0 15.0 0.60 3.0 0.0 15.0 0.60 3.0 0.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9 | e de la companya de l | # 1 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 5 5 1 1 1 2 2 3 3 4 4 5 5 1 1 1 2 2 3 3 4 4 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | er Membrane (pressure |
| | Top Material Rating End Connection Trim Top Spring Range | A Aluminum A Aluminum 1 125 1 NPT 1 17-4 PH 55 0 None 1 | Cast Iron *Cast Iron 2 150 2 Flange 2 316LSS # Table 2 | B *Bronze 3 250 3 Tube End 3 Monel 3 | C Carbon 4 300 4 ButtWeld 4 Hyput Conel 4 Stell, | S Stainless S Stainless S 600 S Socket S Stally Freel S | H NATION O 700 6 Swagelok 6 Hastelloy 6 | L MAAD L NAME 7 1500 8 "Tri-Clamp 7 | "BD only 8 900 9 SAE | 6 BSPP | "Trt-Clamp uses a body one size smal chosen (ex, BS2.0 will use 1.5" body) | | Fee | Pricing fty | prsuit | | 75 | Press # 1 2 3 3 4 5 5 6 6 7 7 8 8 9 1 1 2 1 3 4 5 5 6 6 7 7 8 8 9 1 1 2 1 3 3 4 5 5 6 6 7 7 8 8 9 1 1 2 1 3 3 4 5 5 6 6 7 7 8 8 9 1 1 1 1 1 1 1 1 1 | 8.0 (A) | e de la companya de l | # 1 2 3 4 4 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | er Membrane (pressure |
| | Body Material Top Material (ANS) End Connection Trim Top Spring | A Aluminum A Aluminum 1 125 1 NPT 1 17-4 PH 55 0 None 1 | Cast Iron *Cast Iron 2 150 2 Flange 2 316LSS # Table 2 | B Bronze B "Bronze 3 250 3 Tube End 3 Monel 3 | C Carbon C Carbon 4 300 4 ButtWeld 4 Hypergraph onel 4 | S Stainless S Stainless S 600 S Socket S Stally Freel S | H NATION O 700 6 Swagelok 6 Hastelloy 6 | L MAAD L NAME 7 1500 8 "Tri-Clamp 7 | "BD only 8 900 9 SAE | 6 BSPP | "Trt-Clamp uses a body one size smal chosen (ex, BS2.0 will use 1.5" body) | EX | AdderFee | oy for Pricing ailability | ure: Consult tory | | 75 | Press # 1 | mer Menure Redu Cv 4.0 3.0 3.0 2.4 1.5 0.660 8.0 7.010 1.182 2.4 1.5 0.600 15.0 1.182 2.4 1.5 0.600 15.0 6.0 6.0 6.0 6.0 | e de la companya de l | # 1 2 3 3 4 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | er Membrane (pressure CV 4.0 3.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1 |
| | Top Material Rating End Connection Trim Top Spring Range | Aluminum A Aluminum 1 125 1 NPT 1 17-4 PH SS 0 None 1 | Cast Iron 1 *Cast Iron 2 150 2 Flange 2 316LSS # See 2 | Bronze B "Bronze 3 250 3 Tube End 3 Monel 3 | Carbon C Carbon 4 300 4 ButtWeld 4 Hypytymonel 4 | S Stainless S Stainless S 600 S Socket S Stally Freel S | H NATION O 700 6 Swagelok 6 Hastelloy 6 | Note L Note 7 1500 8 Tri-Clamp | "BD only 8 900 9 SAE | 6 BSPP | "Trt-Clamp uses a body one size smal chosen (ex, BS2.0 will use 1.5" body) | KEY | turres Adder Fee | It Factory for Pricing nd Availability | Pressure. Corsult Factory | | .75 | Press # 1 2 3 3 4 5 5 6 6 7 7 8 8 9 9 1 1 2 2 3 3 4 5 5 6 6 7 7 8 8 9 9 1 1 2 2 3 3 4 5 5 6 6 7 7 8 8 9 9 1 1 2 3 3 4 5 5 6 6 7 7 8 8 9 9 1 1 2 3 3 4 5 5 6 6 7 7 7 8 7 7 8 7 7 8 7 7 | 8.0 0.600 115.0 0.600 120.0 12 | e de la companya de l | Elastom Back # 1 2 3 3 4 4 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | er Membrane (pressure |
| | Body Material Top Material (ANS) End Connection Trim Top Spring | A Aluminum A Aluminum 1 125 1 NPT 1 17-4 PH 55 0 None 1 | Cast Iron *Cast Iron 2 150 2 Flange 2 316LSS # Table 2 | B Bronze B "Bronze 3 250 3 Tube End 3 Monel 3 | C Carbon C Carbon 4 300 4 ButtWeld 4 Hypergraph onel 4 | Stainless S Stainless S 600 S Socket S Stally Steel S | MANAPAY H HATELAY 6 700 6 Swagelok 6 Hastelloy 6 | L MAAD L NAME 7 1500 8 "Tri-Clamp 7 | 8 900 9 SAE | 6 BSbb | "Must choose "Thi-Clamp uses a body one size smaller than special option 1 chosen (ex., BS2.0 will use 1.5" body) | KEY | Requires Adder Fee | onsult Factory for Pricing and Availability | Low Pressure Consult Factory | | .75 | Press # 1 | mer Menure Redu | e de la companya de l | # 1 2 3 3 4 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | er Membrane (pressure CV 4.0 3.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1 |
| | Type Body Material Top Material (ANS) End Connection Trim Top Spring Range | 1 Direct Acting A Aluminum A Aluminum 1 125 1 NPT 1 17-4 PH SS 0 None 1 | 2 Differential 1 Cast fron 1 *Cast fron 2 150 2 Flange 2 316LSS # Table A 2 | 3 Dome B Bronze B "Bronze 3 250 3 Tube End 3 Monel 3 | Dome/ Carbon C Carbon 4 300 4 ButtWeld 4 HyMof Conel 4 Spring Spring Spring C Carbon 4 300 4 ButtWeld 4 HyMof Conel 4 | 5 Back Pressure s Stainless s Stainless 5 600 5 Socket 5 Stally 20 5 Stally 20 5 | 6 Back Pressure H NAFAN H HAMA 6 700 6 Swagelok 6 Hastelloy 6 | 7 Actuated L NASAB T 1500 8 "Tri-Clamp 7 | Back Pressure Differential | *Dome/Small Piston | "Trt-Clamp uses a body one size smal chosen (ex, BS2.0 will use 1.5" body) | KEY | Requires Adder Fee | Consult Factory for Pricing and Availability | Low Pressure: Consult Ractory | | .75 | Press # 1 1 2 3 3 4 5 5 6 6 7 7 8 8 9 1 1 2 1 3 3 4 5 5 1 1 2 1 3 3 4 5 5 1 1 2 1 3 3 4 5 5 1 1 2 1 3 3 4 5 5 1 1 2 1 3 3 4 5 5 1 1 2 1 3 3 4 5 5 1 1 2 1 3 3 4 5 5 1 1 2 1 3 3 4 5 5 1 1 2 1 3 3 4 5 5 1 1 2 1 3 3 4 5 5 1 1 2 1 3 3 4 5 5 1 1 2 1 3 3 4 5 5 1 1 2 1 3 3 4 5 5 1 1 2 1 3 5 5 1 1 2 2 3 3 5 5 5 5 5 5 5 5 | 8.0 4.25 3.0 0.60 115.0 0.60 12.0 0. | e de la companya de l | # 1 2 3 3 4 4 5 5 1 1 1 2 2 3 3 4 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 | er Membrane (pressure CV 4.0 3.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1 |
| | Body Material Top Material (ANS) End Connection Trim Top Spring | Direct Acting A Aluminum A Aluminum 1 125 1 NPT 1 17-4 PH SS 0 None 1 | Differential Cast Iron *Cast Iron *Cast Iron *Cast Iron *Cast Iron Table 1 Table 2 | Dome B Bronze B "Bronze 3 250 3 Tube End 3 Monel 3 | Dome/ Return C and C Carbon Steel C Steel Spring C Carbon C Carbon C Steel C Steel C Steel C Steel C Spring C Carbon C C C C C C C C C C C C C C C C C C C | Back Pressure S Steel S Stainless S 600 S Socket S Steel S Steel S | Back Pressure H NAFAN H HALFAN 6 700 6 Swagelok 6 Hastelloy 6 | Pilot L NASAD L NASAB 7 1500 8 "Tri-Clamp 7 | Back Pressure Differential | *Dome/Small Piston | "Trt-Clamp uses a body one size smal chosen (ex, BS2.0 will use 1.5" body) | KEY | Requires Adder Fee | Consult Factory for Pricing and Availability | Low Pressure: Consult Factory | | 0.5 .75 | Press # 1 | mer Menure Redu Cv 3.0 3.0 2.4 1.5 0.660 8.0 7.010 1.5 0.600 | e de la companya de l | # 1 2 3 3 4 4 5 5 1 1 1 2 2 3 3 4 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 | er Membrane (pressure CV 4.0 3.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1 |

3.0 & 4.0 1 to 10

5 to 20

10 to 40

10 to 70

40 to 125

100 to 500

3.0 & 4.0

3.0 & 4.0

-20 to 40

4.0 3.27 2.64 1.98

1.12 0.70 0.28 5.0

2.64 1.98 1.4 1.12

0.70 0.28 7.0 5.52 3.27

2.64 1.98 1.4 1.12 0.70

0.28 9.0 4.5

3.6 2.7 1.8 15 11.75

7.5 5.0 3.75 60 25 20

10 80 18.18

14.5 10.9 7.3

50 40 30

Dome

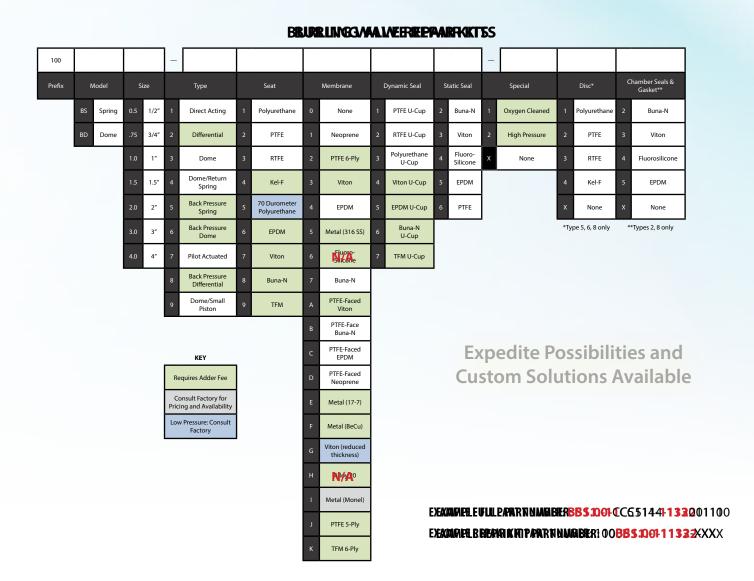
Sizing a Regulator Correctly

The following data is required for proper regulator sizing

| | | | _ | • | | _ | | |
|-------------------------|-------------|------------|---------|-------------------|------------------|------------------------|------------------------|------|
| C | | | | | Name | | | |
| | Email | | | | Phone | Number | | |
| Fluid | d (media) | | | | Specifi | c Gravity ¹ | | |
| Temperature (n | nin-max) | | | | , | Viscosity ¹ | | |
| Fund | ction (Pres | sure Reduc | ing, Ba | ck Pressure, Diff | se specify) | | | |
| Flow (min) ² | | | | Flow (norm) | | F | low (max) ² | |
| P1 (min) ² | | | | P1 (norm) | | | P1 (max) ² | |
| P2 (min) ² | | | | P2 (norm) | | | P2 (max) ² | |
| | | | Ad | ditional (help | ful) Information | | | |
| Application Descrip | otion | | | | | | | |
| Regulation Accu | racy | | | | In/Out Pipe Size | e Schd | | Schd |
| Auxiliary Air Available | | | | | Pipe N | /laterial | | |
| Body Material | I Cv | | Cv | | Trim Material | | | |
| Soft Goods Mate | erials | | | | End Conr | nection | | |

¹This information is only required if we do not have information available on the fluid specified (please contact factory)

²If regulator will always be operating at normal conditions, min and max values can be omitted.



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PRESSURE REDUCING • DIFFERENTIAL • BACK PRESSURE









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