

# A World of Pressure Controls – solutions for industry



**TESCOM**  
CORPORATION

**INDUSTRIAL CONTROLS DIVISION  
ELECTRONIC CONTROLS DIVISION**



# CONTENTS

High Pressure – Pressure Reducing ..... 1  
 Low Pressure – Pressure Reducing, Absolute ... 2  
 High Flow – Pressure Reducing ..... 3  
 Back Pressure Regulators ..... 4  
 Hydraulic Regulators ..... 5  
 Corrosion Resistant Regulators ..... 6-8

Custom – Reducing & Back Pressure ..... 8  
 Valves, Gauges & Filters ..... 9  
 Electronic Pressure Controls ..... 10, 11  
 Tescom Facilities ..... 13

## WHAT TO CONSIDER WHEN CHOOSING A REGULATOR

Major considerations in the selection of a regulator are listed here. Within the requirements of your specific application, use this catalog to find the regulator that matches your parameters. Our standard products are only a starting point. We can modify or create a control that will solve any application problem. Detailed information is available through your local Tescom representative.

### HANDKNOB

Large handknob provides easy, low torque pressure setting. Wrench or screwdriver adjust options on some models.

### VENTING

*Self-venting* feature enables relieving of the outlet pressure when the handknob is turned in the “decrease” direction.

*Captured venting* configuration includes extra port to pipe away expelled fluids from a regulator’s vent valve.

*Non-venting* feature available for hydraulic or other applications where venting is not desirable.

### FLOW CAPACITY – $C_v$

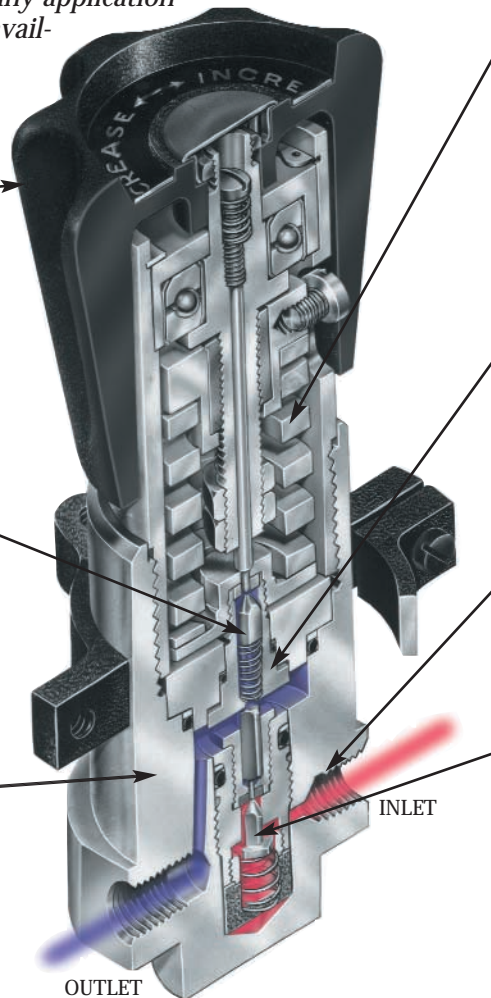
$C_v$  is a measure of regulator flow capacity. The flow coefficient refers to the flow of one GPM of water at one PSI drop across the main valve. The coefficient for gaseous service must be determined from the ratio of inlet to outlet pressure.

### BODY MATERIALS

Brass, aluminum or stainless steel (Type 300, 316) and others.

### OUTLET PRESSURE RANGES AVAILABLE

Starting at 28” Hg. Vac. to 15 PSIG, ranging up to 300-20,000 PSIG.



### LOADING – Spring, Dome, Air Actuated, Electronic

Loading refers to the method used to balance the outlet pressure. *Spring* loading is used with direct acting regulators with handknob adjustment. *Dome* loading is most often used in high flow, quick response type applications. *Air Actuator* provides outlet pressures up to 15,000 PSIG with a signal of only 100 PSIG. A Tescom electronic controller is another loading option (p.13).

### PANEL MOUNTING

Standard on some models. Extra option on others.

### SENSING – Diaphragm or Piston

*Diaphragms* provide sensitive and accurate regulation for outlet pressure ranges up to 500 PSIG.

*Piston* sensors provide high strength integrity for high outlet pressures up to 20,000 PSIG.

### INLET PRESSURE RANGES

Subatmospheric to 20,000 PSIG.

### PORTS

Sizes: 1/8" to 1"

Types: NPT (all models), SAE, Aminco, MS33649, Slimline, BSP, welded fittings.

### MAIN VALVES – Balanced and Unbalanced

*Balanced* design is used to reduce the effect of decaying inlet pressure and in certain models provides increased flow capacity. *Unbalanced* valve offers simplicity and economy.

### ADDITIONAL CONSIDERATIONS

- Gauge ports, 1/8" or 1/4" NPT
- Temperature range
- Corrosion resistance
- Welded connections
- Soft goods-Buna-N, PCTFE, Teflon®, Viton-A®, Vespel® and EPR.

Elgiloy® is a registered trademark of Elgiloy Corp.  
 Monel® is a registered trademark of Huntington Alloys, Inc.  
 LabVIEW® is a registered trademark of National Instruments.  
 Hastelloy® is a registered trademark of Haynes International, Inc.  
 Teflon®, Viton-A® and Vespel® are registered trademarks of DuPont.  
 Windows® and Visual Basic® are registered trademarks of Microsoft Corp.

# High Pressure - Pressure Reducing Regulators



BB-1 Miniature



44-1100 High Pressure



26-1000 Versatile



26-2000 Versatile

| Product Series/Features   | Inlet Pressure (maximum)        | Outlet Pressure Ranges   | Flow Capacity                             | Body Material                 |
|---|---------------------------------|--|---|-------------------------------|
| <b>BB-1 Series: Miniature</b> <ul style="list-style-type: none"> <li>Lightweight, compact design</li> <li>Piston sensed for high cycle life</li> <li>Designed for liquid or gas media</li> <li>Non-venting</li> <li>Field adjustable or pre-set ranges</li> </ul>   | 6,000 PSIG                      | 0-80, 0-140,<br>0-220, 0-700,<br>0-1200, 0-1800<br>PSIG                    | $C_V = .06$                               | Aluminum,<br>316 SST          |
| <b>44-1100 Series: High Pressure</b> <ul style="list-style-type: none"> <li>Excellent sensitivity</li> <li>Piston sensed for high cycle life</li> <li>Inlet &amp; outlet gauge ports standard</li> <li>40 micron (nominal) inlet filter</li> <li>Removable valve module for easy field repair</li> <li>Self-venting standard</li> </ul>               | 10,000 &<br>6,000 PSIG          | 0-500, 0-800,<br>10-1500, 15-2500,<br>25-4000, 50-6000<br>PSIG             | $C_V = .02$<br>$C_V = .06$<br>$C_V = .12$ | Brass,<br>300 SST,<br>316 SST |
| <b>44-1800 Series: Economy</b> <ul style="list-style-type: none"> <li>General purpose use</li> <li>Compact design</li> <li>Adjustable stop limits maximum outlet pressure</li> <li>Inlet &amp; outlet gauge ports standard</li> <li>Non-venting standard</li> </ul>   | 6,000 PSIG                      | 15-2500<br>PSIG  | $C_V = .06$<br>$C_V = .24$                | Brass,<br>300 SST,<br>316 SST |
| <b>26-1000 Series: Versatile</b> <ul style="list-style-type: none"> <li>Outlet pressure ranges are field changeable</li> <li>Numerous porting options</li> <li>Optional inlet pressures to 20,000 PSIG</li> <li>Large handknob provides fast low-torque pressure settings</li> </ul>  | 6,000 and<br>10,000 PSIG        | 5-500, 0-800,<br>10-1500, 15-2500,<br>25-4000, 50-6000,<br>200-10,000 PSIG | $C_V = .02$<br>$C_V = .06$<br>$C_V = .12$ | Brass,<br>300 SST,<br>316 SST |
| <b>26-2000 Series: Versatile</b> <ul style="list-style-type: none"> <li>Designed for both hydraulic and pneumatic service</li> <li>Captured vent standard</li> <li>Designed for heavy duty shock and vibration service</li> <li>Choice of metal to metal or soft seat</li> <li>Compatible with Tescom Electronic Controllers (see page 10)</li> </ul> | 6,000, 10,000,<br>& 15,000 PSIG | 5-500, 0-800,<br>10-1500, 15-2500,<br>25-4000, 50-6000,<br>PSIG            | $C_V = .02$<br>$C_V = .06$<br>$C_V = .12$ | Brass,<br>316 SST             |

## Low Pressure - Pressure Reducing, Absolute



26-1600 Self-Venting



44-5200 Economical/Venting



DV Vacuum Control

| Product Series/Features   | Inlet Pressure (maximum) | Outlet Pressure Ranges   | Flow Capacity                                | Body Material       |
|---|--------------------------|--|--|---------------------|
| <b>26-1500 Series: Non-venting</b> <ul style="list-style-type: none"> <li>• Non-venting regulator</li> <li>• Compact design</li> <li>• Elastomeric diaphragm - highly sensitive</li> <li>• Dome loading available</li> <li>• For liquid or gas service</li> </ul>   | 6,000 PSIG<br>5,000 PSIG | 4-50, 4-150,<br>4-250 PSIG   | C <sub>V</sub> = .08<br>C <sub>V</sub> = .24 | Brass or<br>316 SST |
| <b>26-1600 Series: Self-venting</b> <ul style="list-style-type: none"> <li>• Elastomeric diaphragm - highly sensitive</li> <li>• Controls up to 500 PSIG</li> <li>• Dome loading available</li> <li>• For liquid or gas service</li> <li>• Works with Tescom motorized actuator for remote control</li> </ul> | 6,000 PSIG<br>5,000 PSIG | 2-50, 2-150,<br>3-250, 5-500,<br>PSIG                                    | C <sub>V</sub> = .08<br>C <sub>V</sub> = .24 | Brass or<br>316 SST |
| <b>44-5200 Series: Economical/Venting</b> <ul style="list-style-type: none"> <li>• Replaces 44-2200V</li> <li>• Large piston - good sensitivity</li> <li>• For liquid or gas service</li> </ul>   | 3,500 PSIG               | 0-25, 0-50, 0-100,<br>0-250, 0-500,<br>0-600 PSIG                        | C <sub>V</sub> = .06<br>C <sub>V</sub> = .15 | Brass or<br>316 SST |
| <b>DA Series: Absolute Pressure</b> <ul style="list-style-type: none"> <li>• Subatmospheric to 350 PSIG</li> <li>• Non-venting regulator</li> <li>• Elastomeric diaphragm sensor - highly sensitive</li> <li>• Economical</li> <li>• Low knob torque, quick response</li> <li>• Dome loaded option</li> </ul> | 4,000 PSIG               | Vac. to 15 PSIG<br>Vac. to 50 PSIG<br>Vac to 100 PSIG<br>Vac to 350 PSIG | C <sub>V</sub> = .06                         | Brass               |
| <b>DV Series: Vacuum control</b> <ul style="list-style-type: none"> <li>• Elastomeric diaphragm - highly sensitive</li> <li>• Highly accurate: ±1%</li> <li>• Dome loaded option</li> <li>• Choice of constant or no bleed</li> </ul>   |                          | 0 PSIG - 28" Hg (non-bleed)<br>0 PSIG - 25" Hg (constant bleed)          | C <sub>V</sub> = .25                         | Brass               |

# High Flow - Pressure Reducing



26-1200  $C_V=12$



44-1300 Versatile



44-4000 Tracking



DH Low Pressure

| Product Series/Features  | Inlet Pressure (maximum)  | Outlet Pressure Ranges                    | Flow Capacity                              | Body Material       |
|--|---------------------------|---|--|---------------------|
| <b>26-1100 Series: Compact/High Flow</b> <ul style="list-style-type: none"> <li>Diaphragm sensed - highly sensitive</li> <li>Modular construction - easy service</li> <li>External sensing available for improved accuracy</li> <li>Balanced main valve increases seat life</li> </ul> | 6,000 PSIG<br>10,000 PSIG | 55-6000,<br>55-10,000 PSIG                | $C_V = .46$<br>$C_V = 1.3$                 | Brass or<br>300 SST |
| <b>26-1200 Series: High Flow</b> <ul style="list-style-type: none"> <li>Similar to 26-1100 above with higher flow capacity</li> </ul>  | 6,000 PSIG                | 100-6,000 PSIG                            | $C_V = 3.3$<br>$C_V = 6.0$<br>$C_V = 12.0$ | Brass or<br>300 SST |
| <b>44-1300 Series: Versatile</b> <ul style="list-style-type: none"> <li>Excellent sensitivity</li> <li>Self-venting</li> <li>Extremely reliable</li> <li>Spring, dome or air ratio loading available</li> </ul>  | 3,750 PSIG<br>4,500 PSIG  | 10-300, 15-600,<br>20-1000, 50-1500, PSIG | $C_V = .8$<br>$C_V = 2.0$                  | Brass or<br>300 SST |
| <b>44-4000 Series: Tracking</b> <ul style="list-style-type: none"> <li>Captured self-venting standard</li> <li>Adjustable bias pressures</li> <li>Compatible with Tescom electronic pressure controllers (p. 10-11)</li> <li>Piston sensed - highly reliable</li> </ul>                | 6,000 PSIG                | 50-1500 PSIG                              | $C_V = .7$<br>$C_V = 2.0$                  | Brass or<br>300 SST |
| <b>44-4200 Series: Economical</b> <ul style="list-style-type: none"> <li>Dome loaded</li> <li>Piston sensed - highly reliable</li> <li>Non-venting only</li> <li>Compatible with Tescom electronic pressure controllers (p.10-11)</li> </ul>   | 6,000 PSIG                | 50-1500 PSIG                              | $C_V = .8$<br>$C_V = 2.0$                  | Brass or<br>300 SST |
| <b>DH Series: Low Pressure</b> <ul style="list-style-type: none"> <li>Diaphragm sensed - highly sensitive</li> <li>Rapid response time</li> <li>Excellent repeatability</li> <li>Very high flows at low pressures</li> </ul>   | 300 PSIG                  | 0-20, 0-50, 0-100,<br>0-150, 2-250 PSIG   | $C_V = 5.0$                                | Brass or<br>316 SST |

# Back Pressure Regulators



26-1700 Versatile



26-2300 High Accuracy



44-1700 Economical



BB-3 Miniature

| Product Series/Features  | Controlled Pressure Ranges   | Flow Capacity                             | Body Material       |
|--|--|---|---------------------|
| <b>26-1700 Series: Versatile</b> <ul style="list-style-type: none"> <li>Extremely sensitive</li> <li>Ideal for both gas &amp; liquid service</li> <li>High temperature versions available</li> <li>Accuracy : <math>\pm 1\%</math> of relief pressure range</li> </ul>     | 5-500, 5-800, 10-1500, 15-2-2500, 25-4,000, 50-6,000, 200-10,000, 200-15,000 PSIG              | $C_V = .10$<br>$C_V = .14$<br>$C_V = .60$ | 300 or 316<br>SST   |
| <b>26-2300 Series: High Accuracy</b> <ul style="list-style-type: none"> <li>Precise pressure control</li> <li>Diaphragm sensed - highly sensitive</li> <li>Crack to reseal: 2% of set pressure</li> <li>Bubble-tight shutoff at all reseating pressures</li> </ul>         | 5-50, 10-150, 10-250 PSIG  | $C_V = .60$<br>$C_V = 1.0$                | 300 or 316<br>SST   |
| <b>26-2900 Series: Tracking</b> <ul style="list-style-type: none"> <li>High Flow</li> <li>Negative spring bias</li> <li>Designed for BIBS application</li> <li>Diaphragm sensed - highly sensitive</li> </ul>  | 1,000 PSIG maximum   | $C_V = 2.0$                               | Brass or 300 SST    |
| <b>44-1700 Series: Economical</b> <ul style="list-style-type: none"> <li>Piston sensed - highly reliable</li> <li>Compact design</li> <li>Close pressure differential between crack and reseal</li> <li>Adjustable pressure stop standard</li> </ul>                       | 40-150, 100-700 or 100-800 PSIG  | $C_V = .10$                               | Brass or 316 SST    |
| <b>BB-3 Series: Miniature</b> <ul style="list-style-type: none"> <li>Economical &amp; extremely compact</li> <li>Grove Mighty Mite® replacement</li> <li>Durable piston sensor design</li> <li>High temperature (to 40°F) version</li> <li>High flow capacity</li> </ul>   | 0-80, 0-140, 0-220, 0-250* PSIG<br><i>* dome load only</i>                                     | $C_V = .20$                               | Aluminum or 316 SST |
| <b>44-2300 Series: Economical</b> <ul style="list-style-type: none"> <li>Hand adjustable</li> <li>Diaphragm-sensed</li> <li>Dome loaded</li> <li>Four relief pressure ranges</li> </ul>  | 0-25, 0-50, 0-100, 0-250 PSIG  | $C_V = .08$                               | Brass or 316 SST    |
| <b>44-4700 Series: Subatmospheric</b> <ul style="list-style-type: none"> <li>Metal to metal diaphragm assures minimum inboard/outboard leakage</li> <li>Controls subatmospheric to positive pressures</li> <li>High flow capacity</li> <li>Negative spring bias</li> </ul> | 28" Hg VAC - 15 PSIG<br>28" Hg VAC - 50 PSIG<br>28" Hg VAC - 100 PSIG<br>28" Hg VAC - 150 PSIG | $C_V = .04$<br>$C_V = .30$                | 316 SST             |



# Hydraulic Regulators



54-2000  
High Pressure



54-2200  
High Pressure



54-2700 High Flow/  
Back Pressure



54-2800 High Flow/  
High Pressure

| Product Series/Features  | Inlet Pressure (maximum)   | Outlet Pressure Ranges   | Flow Capacity | Body Material  |
|--|--|--|---------------|----------------|
| <b>54-2000 Series: High Pressure/Reducing</b> <ul style="list-style-type: none"> <li>Rugged design, high pressure service</li> <li>Hardened metal to metal seats for heavy duty service</li> <li>System pressures to 20,000 PSIG available</li> <li>Captured venting standard</li> </ul>                   | 10,000 PSIG  | 5-500, 5-800, 10-1500, 15-2500, 25-4000, 50-6000, 200-10,000 PSIG          | $C_V = .06$   | 300 or 316 SST |
| <b>54-2200 Series: High Pressure</b> <ul style="list-style-type: none"> <li>High flow capacity: <math>C_V = 2.0</math></li> <li>Hardened metal to metal seats for heavy duty service</li> <li>Self-venting is standard</li> </ul>  | 8,000 PSIG   | 5-500, 5-800, 10-1500, 15-2500, 25-400, 50-6000, 200-10,000, 300-1500 PSIG | $C_V = 2.0$   | 300 SST        |
| <b>54-2800 Series: High Flow Reducing</b> <ul style="list-style-type: none"> <li>Flow capacity: <math>C_V = 8.0</math></li> <li>Inlet &amp; outlet pressures up to 5,000 PSIG</li> <li>Choice of air ratio or dome loading</li> <li>Hardened metal to metal seats for heavy duty service</li> </ul>        | 5,000 PSIG   | 50-1500, 200-5000 PSIG   | $C_V = 8.0$   | 300 SST        |
| Product Series/Features  | Controlled Pressure Ranges   |  | Flow Capacity | Body Material  |
| <b>54-2700 Series: High Flow/Back Pressure</b> <ul style="list-style-type: none"> <li>Flow capacity: <math>C_V = 5.0</math></li> <li>Choice of dome loaded, spring loaded, or air ratio device</li> </ul>  | 50-1500, 200-5000 PSIG   |  | $C_V = 5.0$   | 300 SST        |
| <b>54-2100 Series: Back Pressure/Relief Valve</b> <ul style="list-style-type: none"> <li>Accuracy: <math>\pm 1\%</math> of pressure range</li> <li>Hardened metal to metal seats for heavy duty service</li> <li>Eight pressure ranges up to 15,000 PSIG</li> </ul>  | 0-500, 0-800, 10-1500, 15-2500, 25-4000, 50-6000, 20-10,000, 300-15,000 PSIG |  | $C_V = .08$   | 300 or 316 SST |
| <b>54-2300 Series: High Pressure/High Flow - BPR/Relief Valve</b> <ul style="list-style-type: none"> <li>Control pressures to 10,000 PSIG</li> <li>Flow capacity: <math>C_V = 1.6</math></li> <li>Excellent crack to reseat ratio</li> <li>Hardened metal to metal seats for heavy duty service</li> </ul> | 750, 1500, 3500 5000, 10,000 PSIG  |  | $C_V = 1.6$   | 300 SST        |

# Corrosion Resistant, Specialty Gas & Petrochemical Regulators



44-2200 Compact/  
General Purpose



44-3400 two Stage/  
General Purpose



04 Miniature/  
Lecture Bottle

| Product Series/Features   | Inlet Pressure (maximum) | Outlet Pressure Ranges  | Flow Capacity  | Body Material                                   |
|---|--------------------------|---|--|---|
| <b>44-2200 Series: Compact/General Purpose</b> <ul style="list-style-type: none"> <li>1/4" inlet and outlet ports</li> <li>Diaphragm sensed - highly sensitive</li> <li>Various trim options available</li> </ul>   | 3,500 PSIG<br>400 PSIG   | 1-25, 1-50, 1-100,<br>2-250, 2-500 PSIG<br>maximum  | C <sub>v</sub> = .06<br>C <sub>v</sub> = .15<br>C <sub>v</sub> = .24 | Brass,<br>316 SST,<br>Hastelloy-C®<br>or Monel® |
| <b>44-2600 Series: General Purpose/Large Diaphragm</b> <ul style="list-style-type: none"> <li>Increased sensitivity, minimal droop</li> <li>Repeatability: ±1/2% of outlet pressure range</li> <li>Accuracy: ±1% of outlet pressure</li> </ul>                    | 3,500 PSIG<br>400 PSIG   | 1-25, 1-50,<br>1-100, 1-150,<br>PSIG  | C <sub>v</sub> = .02<br>C <sub>v</sub> = .06<br>C <sub>v</sub> = .15 | 316 SST   |
| <b>44-3400 Series: General Purpose/Two Stage</b> <ul style="list-style-type: none"> <li>Decaying inlet characteristic: .04 per 100 PSIG inlet pressure change</li> <li>Various trim options available</li> </ul>  | 3,500 PSIG               | 2-25, 2-50,<br>3-100, 3-150,<br>3-250 PSIG  | C <sub>v</sub> = .05   | Brass or<br>316 SST                             |
| <b>04 Series: Miniature/Lecture Bottle</b> <ul style="list-style-type: none"> <li>Choice of 1/8" or 1/4" in &amp; out ports</li> <li>Minimal internal volume</li> <li>Choice of 316 SST or brass</li> </ul>   | 3,500 PSIG               | 0-30, 0-60,<br>0-100 PSIG   | C <sub>v</sub> = .06   | Brass or<br>316 SST                             |
| <b>44-2800 Series: Positive Seal</b> <ul style="list-style-type: none"> <li>Mechanical link between diaphragm &amp; main valve prevents pressure creep</li> <li>Positionable captured vent bonnet</li> </ul>  | 3,000 PSIG               | 1-25, 1-50,<br>1-100, 1-150,<br>PSIG  | C <sub>v</sub> = .16   | 316 SST   |
| <b>44-4600 Series: Absolute Pressure</b> <ul style="list-style-type: none"> <li>Controlled Pressure Range: 28" Hg to 15 PSIG</li> <li>Large diaphragm - excellent sensitivity</li> </ul>  | 120 PSIG<br>3,500 PSIG   | 28" Hg Vac to<br>15 PSIG  | C <sub>v</sub> = .06<br>C <sub>v</sub> = .24                         | 316 SST   |
| <b>44-5000 Series: Absolute Pressure</b> <ul style="list-style-type: none"> <li>Control pressure range: vacuum to low positive pressures</li> </ul>   | 120, 400,<br>3,500 PSIG  | 28" Hg Vac to 15 PSIG<br>28" Hg Vac to 25 PSIG<br>28" Hg Vac to 50 PSIG<br>28" Hg Vac to 100 PSIG | C <sub>v</sub> = .06<br>C <sub>v</sub> = .15<br>C <sub>v</sub> = .24 | 316 SST   |
| <b>ACS3200 Series: High Flow Changeover</b> <ul style="list-style-type: none"> <li>High flow capacity: 50 scfm</li> <li>Based on Tescom field-proven 44-3200 Series Regulator</li> <li>Eliminates downtime caused by depleted gas supplies</li> </ul>             | 3,000 PSIG               | 160-200<br>PSIG   | C <sub>v</sub> = 1.2   | Brass or<br>316 SST                             |
| <b>CR441800 Series: High Pressure Changeover</b> <ul style="list-style-type: none"> <li>Inlet pressures up to 6,000 PSIG</li> <li>Based on Tescom's field proven 44-1800 Series Regulator</li> <li>Eliminates downtime caused by depleted gas supplies</li> </ul> | 3,500 PSIG<br>6,000 PSIG | 5-500, 5-600,<br>10-700, 10-800,<br>10-900, 10-1000<br>PSIG                                       | C <sub>v</sub> = .06   | Brass or<br>316 SST                             |



# Corrosion Resistant, Specialty Gas & Petrochemical Regulators



44-4800 Steam Heated Vaporizing



44-4800 Electric Heated Vaporizing

| Product Series/Features   | Inlet Pressure (maximum) | Outlet Pressure Ranges               | Flow Capacity              | Body Material    |
|---|--------------------------|--------------------------------------|----------------------------|------------------|
| <b>ACS012 Series: Automatic Changeover</b> <ul style="list-style-type: none"> <li>Eliminates downtime caused by depleted gas supplies</li> <li>Incorporates 44-2200 regulators</li> </ul>   | 400 or 3,500 PSIG        | 100, 150, 200, 250 PSIG              | $C_v = .04$                | Brass or 316 SST |
| <b>CS-2200 Series: Changeover System</b> <ul style="list-style-type: none"> <li>Eliminates downtime caused by depleted gas supplies</li> <li>Single body changeover regulator plus a point-of-use regulator</li> <li>Incorporates 44-2200 regulators</li> </ul>   | 3,500 PSIG               | 0-25, 0-50, 0-100, 0-150 PSIG        | $C_v = .06$                | Brass or 316 SST |
| <b>44-4800 Series: Vaporizing Regulator</b> <ul style="list-style-type: none"> <li>Available in steam heated &amp; electrically heated versions</li> <li>Field replaceable heat exchanger tubes</li> <li>Electric unit available in 120 volt/150 watt or 250 volt/150 watt version. Meets National Electric Code requirements for Class 1 - Group D. CSA approved 50 watt version and CENELEC approved 100 watt (230 VAC) version available.</li> <li>Media heated before and after pressure reduction. Temperature changes accomplished quickly, accurately</li> </ul> | 3,500 PSIG maximum       | Up to 500 PSIG                       | $C_v = .02$                | 316 SST          |
| <b>44-3200 Series: High Flow/Purge</b> <ul style="list-style-type: none"> <li>Ideal purge regulator</li> <li>High pressure inlet version incorporates a balanced main valve to minimize inlet pressure fluctuation</li> </ul>   | 500 or 3,000 PSIG        | 5-25, 5-50, 5-100, 5-150, 5-200 PSIG | $C_v = 1.0$<br>$C_v = 1.8$ | Brass or 316 SST |
| <b>FR 2000 Series: Facilities Regulator</b> <ul style="list-style-type: none"> <li>Ideal purge regulator for low pressure systems</li> <li>Negative bias spring enhances performance at low pressures</li> <li>Balanced main valve minimizes inlet pressure fluctuations</li> </ul>   | 3,500 PSIG               | 0-15, 0-30, 0-75, 0-150 PSIG         | $C_v = 1.8$                | 316 SST          |



ACS012 Automatic Changeover



ACS3200 High Flow Changeover

# Corrosion Resistant Specialty Gas & Petrochemical Regulators



44-4700 Back Pressure

| Product Series/Features   | Controlled Pressure Ranges   | Flow Capacity              | Body Material    |
|---|--|----------------------------|------------------|
| <b>44-2300 Series: Back Pressure</b> <ul style="list-style-type: none"> <li>Economical, general purpose</li> </ul>  | 0-25, 0-50, 0-100, 0-250 PSIG  | $C_v = .08$                | Brass or 316 SST |
| <b>44-4700 Series: Subatmospheric</b> <ul style="list-style-type: none"> <li>High Flow capacity</li> <li>Negative spring bias</li> <li>Controls subatmospheric to positive pressures</li> </ul> | 28" Hg vac - 15 PSIG<br>28" Hg vac - 50 PSIG<br>28" Hg vac - 100 PSIG<br>28" Hg vac - 150 PSIG | $C_v = .04$<br>$C_v = .30$ | 316 SST          |

## Custom Pressure Reducing & Back Pressure Regulators



Cartridge Regulator  
BB Series

### Cartridge Regulators

- Cartridge style externally threaded regulators are designed to be easily installed in a manifold block
- Obvious benefits include: reduced piping, elimination of connections, reduced space requirement, ease of service
- Can be furnished in a wide variety of pressure reducing or back pressure styles
- Contact factory for application assistance

### Differential/Tracking Regulators

- Designed to provide a controlled pressure which is the sum of a signal (reference) pressure and a bias pressure (bias can be positive or negative)
- Applications include: automatic pressure compensation for mechanical (pump) seals, control of fugitive emissions, reduction of breathing gases in commercial or military diving

### Instrument Isolator

- Isolates and protects the regulator from corrosive process media
- Intended for use with our wide range of tracking regulators
- Assists in the control of pressure in fugitive emission and/or mechanical seals applications

### Air Actuators

- Available for a wide range of pressure reducing and back pressure regulators
- Allows regulator to be remote actuated by an air signal from an external air source or by one of Tescom's electronic controllers
- Control pressures may vary from 20 to 15,000 PSIG
- Ratios between actuator pressure and control pressure are available from 3:1 to 150:1
- Compared to conventional spring loading, air actuation offers improved regulator performance









Cartridge Regulator  
54-2000 series



Instrument Isolator  
(shown with optional regulator)

# Valves, Gauges & Filters

| Product Series/Features  | Operating Pressure            | Flow Capacity   | Body Material                          |
|--|-------------------------------|---|--|
|  <p><b>CC Series - Metering Valve</b></p> <ul style="list-style-type: none"> <li>Precise control at very low flows</li> <li>For liquid or gas applications</li> <li>20+ turns from shutoff to full open</li> <li>Non-rotating stem reduces seat wear</li> </ul>   | Full vacuum to 10,000 PSIG    | $C_V = .00005$<br>$C_V = .00125$  | 316 SST                                |
|  <p><b>30 Series - Shutoff Valves</b></p> <ul style="list-style-type: none"> <li>Globe or angle pattern</li> <li>Built-in metallic stop prevents over-torquing - reduces seat wear</li> <li>30-1100 Series: available with metering capability (long stem optional)</li> <li>Bi-directional flow (all models)</li> </ul>  | 10,000 PSIG maximum           | 30-1100 globe: $C_V = .28$<br>30-1100 angle: $C_V = .49$<br>30-1300 globe: $C_V = 1.57$<br>30-1300 angle: $C_V = 2.30$<br>30-1200 globe: $C_V = 8.0$<br>30-1200 angle: $C_V = 10.0$ | 300 SST                                |
|  <p><b>VA &amp; VG Series - Air Operated ON/OFF Valves</b></p> <ul style="list-style-type: none"> <li>Normally open or normally closed</li> <li>Balanced main valve - reduces required actuation pressure</li> <li>Compact package</li> </ul>  | 6,000 or 10,000 PSIG maximum  | $C_V = .75$<br>$C_V = 2.0$  | Brass or 316 SST                       |
|  <p><b>Pressure Gauges</b></p> <ul style="list-style-type: none"> <li>Brass or Stainless Steel construction</li> <li>Pressure ranges from subatmospheric to 10,000 PSIG</li> <li>Two inch diameter</li> <li>1/4" NPT connections</li> </ul>  | subatmospheric to 10,000 PSIG |   | Brass or 316 SST                       |
|  <p><b>Filters - High Pressure (10 micron)</b></p> <ul style="list-style-type: none"> <li>98-1010 Series Mini In-Line filter: <ul style="list-style-type: none"> <li>For systems with size limitations</li> </ul> </li> <li>98-1110 Series T-Type Filter: <ul style="list-style-type: none"> <li>Designed for high flow applications</li> <li>Features cleanable element</li> <li>Available options: electrical, visual, bypass valve, visual pressure differential indicator, bypass relief valve, electrical bypass</li> </ul> </li> <li>98-1210 Series In-Line Filter: <ul style="list-style-type: none"> <li>For systems with size limitations</li> <li>Cleanable element</li> </ul> </li> </ul> | 6,000 PSIG maximum            | 6,000, 10,000 PSIG maximum  | 304 SST<br>300 SST<br>300 and 17-4 SST |
|  <p><b>FL7000 Series - Flow Limit Valve</b></p> <ul style="list-style-type: none"> <li>Designed to stop flow automatically when flow exceeds a pre-set limit</li> <li>Flow range: 0-6 SCFM (N<sub>2</sub>@1000 PSIG)</li> <li>Protects downstream personnel &amp; equipment from exposure to hazardous media</li> </ul>   | 100-1,000 PSIG                |   | 316 SST                                |

CC Metering Valve

30-1100 Shutoff Valve

VA &amp; VG Air-Operated ON/OFF Valves

Gauges

Mini In-Line Filters

FL7000 Flow Limit Valve



# Electronic Pressure Controls



ER3000 Digital Pressure Controller



UI3000 User Interface for ER3000U



Pressure Transducers



70-2000 Motorized Actuator

## ER3000 Series Digital Pressure Controller

- Precise accuracy:  $\pm .1\%$  FSO!
- Features controlled outlet pressure from 0-100 PSIG as a stand alone unit
- Compatible pressure regulators available offering vacuum to 15,000 PSIG control
- Selectable setpoint signal source:
  - External analog: 4-20 mA or 1-5 VDC (0-10 VDC optional)
  - Digital RS485
  - Downloaded profile
- Selectable feedback signal source:
  - Internal 0-100 PSIG sensor
  - External analog: 4-20 mA or 1-5 VDC (0-10 VDC optional)
- Selectable failsafe features
- Non-interacting zero and span
- NEMA 4X enclosure
- As many as 32 ER3000 Controllers can be networked at a distance up to 4,000 feet away via a 2-wire RS485 link
- CE and CSA approved
- Two enhanced (extra cost) versions, ER3000 FI and FV, offer additional analog/digital inputs allowing the user even more sophisticated control. These models also include analog sensor output.
- Free Windows™ tuning and interface software provided
- RS485 convertors, power supplies and pre-wired models also available

## ER3000E Series Explosion-Proof Control

- FM approved enclosure for Class 1, Division 1, Group B, C and D.
- Designed for use in hazardous environments
- Same features and benefits as ER3000 (above)

## UI3000 Series User Interface for ER3000U

- Pre-programmed software displays process variables
- UI3000 allows user to download profiles and recipes
- Digital inputs to start/stop or pause profiles with a PLC or external switch
- Digital outputs provide inputs to a PLC or trigger relays on field control devices
- Remote mounting of UI3000 up to 4,000 feet from the ER3000U
- Security code and weatherproof enclosure protect your system
- Infrared remote can scroll through menu, change screens or program values into memory

## Pressure Transducers

- Ideal for use in ER3000 applications where an external feedback is required
- Provides extremely stable and repeatable hydraulic and pneumatic pressure measurements
- .025% or .1% accuracy available
- Choice of 4-20 mA, 0-10 VDC versions
- Wide choice of pressure ranges

## 70-2000 Series Motorized Actuator

- 24 VDC motorized actuator provides remote adjustment of regulator setpoint
- Adaptable to 26-1000, 26-1600, 26-1700, 26-2300, 54-2000 and 54-2100 Series Regulators
- Variable speed control with adjustable limit stops to prevent over-travel

# Electronic Pressure Controls



ER1200 Analog Pressure Controller

## ER1200 Series - Analog Pressure Controller

- Economical electropneumatic PID controller
- Command, feedback inputs & monitor output are field selectable for 4-20 mA, 1-5 or 0-10 VDC
- TTL output indicates pressure within 1%
- Compact, lightweight package
- Field configurable for internal (0-100 PSIG) or external feedback mode
- Insensitive to orientation
- Provides precise control for low pressure, high flow applications using onboard pressure sensor & optional flow booster



269-529 Low Pressure/High Flow Regulator\*

## ER3026 Series - For Integrated Systems

- Integrates with 26-1000 Dual Piston Regulator to achieve 10-9000 PSIG in 395 milliseconds
- Choice of outlet pressure ranges to 10,000 PSIG
- Gas or liquid applications
- Segregated venting
- Flow capacity:  $C_v=0.06$
- Other integrated regulators available

## 269-529 Series - Low Pressure/High Flow Pressure Regulator

- Maximum inlet pressure: 300 PSIG
- Controlled outlet pressure to 100 PSIG
- NPT ports from 1/4" to 2-1/2"
- Flow capacity:  $C_v$  values up to 45
- Exceptional low pressure control throughout flow range
- Ratio devices available for some models (outlet pressures to 300 PSIG)

## ER 3000/26-2000 Series - High Accuracy, High Pressure Control

- Designed for applications where high accuracy and reliability are critical
- Choice of outlet pressure ranges to 10,000 PSIG
- Excellent for calibration systems



ER3026 for Integrated Systems

\* Shown with optional ER3000 Digital Pressure Controller





## Tescom Manufacturing & Distributor Network ... a global presence!



*Industrial Controls & Electronic Controls Divisions*

### **Industrial Controls Division** **Electronic Controls Division**

Elk River, Minnesota USA

Tescom's Industrial Controls Division grew by providing custom solutions to its customers. They design, manufacture and sell a wide range of regulators and valves to a diverse global market. The Electronic Controls Division designs and manufactures leading technology electronic pressure controls.



*High Purity Controls Division*

### **High Purity Controls Division**

Elk River, Minnesota USA

The High Purity Controls Division designs and manufactures ultraclean pressure regulators, valves and integrated gas system components for the semiconductor manufacturing, fibre optic, biotechnology and pharmaceutical industries.

### **Tescom Europe**

Selmsdorf, Germany

Located to directly meet the needs of the European customer, Tescom Europe is a complete design, manufacture and service facility offering a full range of pressure control solutions.



*Tescom Europe*

### **Hankuk Tescom**

Seoul, Korea

Hankuk Tescom provides Asian semiconductor manufacturing buyers the benefits of a local manufacturing and technical support center for high purity pressure controls.

### **Global Support and Distribution**

Tescom distributor support centers are located in most major cities worldwide. More than 100 locations provide application assistance and quality Tescom product.

For a distributor location near you, visit our web site:  
[www.tescom.com](http://www.tescom.com) and click on DISTRIBUTORS.





For a FREE CATALOG and/or CD featuring our full range of industrial and electronic pressure controls, call (763) 241-3238 or visit our web site: [www.tescom.com](http://www.tescom.com)



HIGH PURITY PRESSURE CONTROLS including ultra-high purity pressure regulators, diaphragm valves and custom manifolds are available from the High Purity Controls Division of Tescom.

# TESCOM

C O R P O R A T I O N

INDUSTRIAL CONTROLS DIVISION  
ELECTRONIC CONTROLS DIVISION  
12616 Industrial Boulevard  
Elk River, Minnesota 55330-2491

1-800-447-1250 (ICD) 1-800-447-1204 (ECD)  
(763) 241-3238  
Fax: (763) 241-3224

e-mail: [icd@tescom.com](mailto:icd@tescom.com), [ecd@tescom.com](mailto:ecd@tescom.com)  
[www.tescom.com](http://www.tescom.com)

*Global technical support & distribution • Design & manufacturing facilities in the U.S., Germany & Asia*

Represented by:

An ISO 9001 Quality System Certified Company



NOTE: Product availability and specifications contained herein are subject to change without notice. Consult local distributor or factory for potential revisions.

Form No. 1753 Rev. 2/00 Printed 3/00 30M Printed in U.S.A.

通商産業大臣認定試験者  
MITI Certified Self-Inspecting Manufacturer  
MAB 491-N