

a world of
PRESSURE CONTROLS
for industry

TESCOM
CORPORATION



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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.

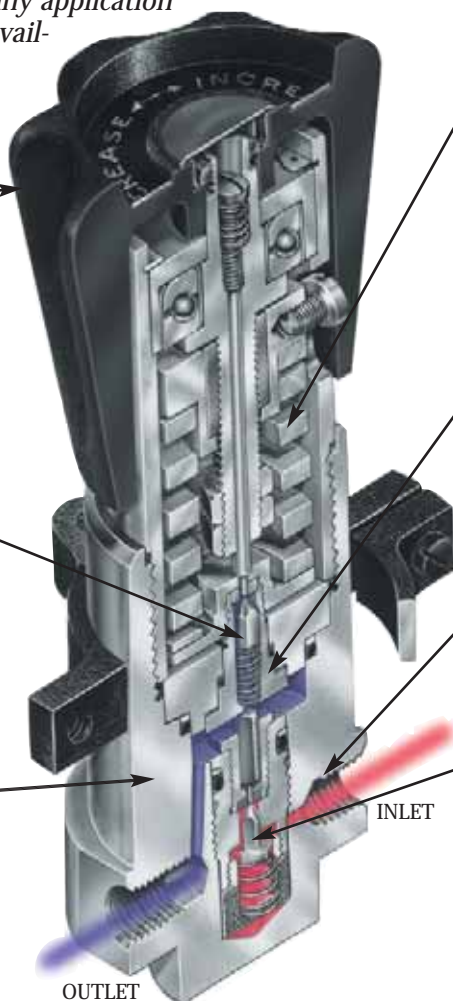
BODY MATERIALS

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.

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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.11).

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, MS3649, 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.

High Pressure - Pressure Reducing Regulators



BB-1 Miniature



44-1100 High Pressure



26-1000 Versatile



26-2000 Versatile

Product Series/Features (Pressure Reducing)	Inlet Pressure (maximum)	Outlet Pressure Ranges	Flow Capacity	Body Material
BB-1 Series: Miniature <ul style="list-style-type: none"> Lightweight, compact design Piston sensed for high cycle life Designed for liquid or gas media Non-venting Field adjustable or pre-set ranges 	6,000 PSIG	0-80, 0-140, 0-220, 0-700, 0-1200, 0-1800 PSIG	$C_v = .06$	Aluminum, 316 SST
BB-5 Series: Miniature, Two Stage <ul style="list-style-type: none"> Lightweight, compact design Interstage relief port Piston sensed for high cycle life Non-venting 	6,000 PSIG	0-80, 0-140, 0-220, 0-700, 0-1200 PSIG	$C_v = .06$	Aluminum, 316 SST
44-1100 Series: High Pressure <ul style="list-style-type: none"> Excellent sensitivity Piston sensed for high cycle life Inlet & outlet gauge ports standard 40 micron (nominal) inlet filter Removable valve module for easy field repair Self-venting standard 	10,000 & 6,000 PSIG	5-500, 5-800, 10-1500, 15-2500, 25-4000, 50-6000 PSIG	$C_v = .02$ $C_v = .06$ $C_v = .12$	Brass, 300 SST, 316 SST
44-1800 Series: Economy <ul style="list-style-type: none"> General purpose use Compact design Adjustable stop limits maximum outlet pressure Inlet & outlet gauge ports standard Non-venting standard 	6,000 PSIG	15-2500 PSIG	$C_v = .06$ $C_v = .24$	Brass, 300 SST, 316 SST
26-1000 Series: Versatile <ul style="list-style-type: none"> Outlet pressure ranges are field changeable Numerous porting options Optional inlet pressures to 20,000 PSIG Large handknob provides fast low-torque pressure settings 	6,000 & 10,000 PSIG	5-500, 5-800, 10-1500, 15-2500, 25-4000, 50-6000, 200-10,000 PSIG	$C_v = .02$ $C_v = .06$ $C_v = .12$	Brass, 300 SST, 316 SST
26-2000 Series: Versatile <ul style="list-style-type: none"> Designed for both hydraulic and pneumatic service Captured vent standard Designed for heavy duty shock and vibration service Choice of metal to metal or soft seat Compatible with Tescom Electronic Controllers (p. 11-12) 	6,000, 10,000, & 15,000 PSIG	5-500, 5-800, 10-1500, 15-2500, 25-4000, 50-6000, 200-10,000 PSIG	$C_v = .02$ $C_v = .06$ $C_v = .12$	Brass, 316 SST

Low Pressure - Pressure Reducing



26-1600 Self-Venting



44-5200
Economical/Venting

Product Series/Features (Pressure Reducing)	Inlet Pressure (maximum)	Outlet Pressure Ranges	Flow Capacity	Body Material
26-1500 Series: Non-venting				
<ul style="list-style-type: none"> Non-venting regulator Compact design Elastomeric diaphragm - highly sensitive Dome loading available For liquid or gas service 	6,000 PSIG 5,000 PSIG	4-50, 4-150, 4-250 PSIG	C _V = .08 C _V = .24	Brass or 316 SST
26-1600 Series: Self-venting				
<ul style="list-style-type: none"> Elastomeric diaphragm - highly sensitive Controls up to 500 PSIG Dome loading available For liquid or gas service Works with Tescom motorized actuator for remote control 	6,000 PSIG 5,000 PSIG	2-50, 2-150, 3-250, 5-500, PSIG	C _V = .08 C _V = .24	Brass or 316 SST
44-5200 Series: Economical/Venting/Non-Venting				
<ul style="list-style-type: none"> Replaces 44-2200V Large piston - good sensitivity For liquid or gas service 	3,500 PSIG 400 PSIG	0-25, 0-50, 0-100, 0-250, 0-500, 0-600 PSIG	C _V = .06 C _V = .15	Brass or 316 SST

Low Pressure - Vacuum & Absolute



44-4700 Back Pressure



DV Vacuum Control

Product Series/Features (Absolute)	Inlet Pressure (maximum)	Outlet Pressure Ranges	Flow Capacity	Body Material
44-4600 Series: Absolute Pressure				
<ul style="list-style-type: none">Controlled Pressure Range: 28" Hg to 15 PSIGLarge diaphragm - excellent sensitivity	120 PSIG 3,500 PSIG	28" Hg Vac to 15 PSIG	C _V = .06 C _V = .24	316L SST
DA Series: Absolute Pressure				
<ul style="list-style-type: none">Subatmospheric to 350 PSIGNon-venting regulatorElastomeric diaphragm sensor - highly sensitiveEconomicalLow knob torque, quick responseDome loaded option	4,500 PSIG 500 PSIG	Vac. to 15 PSIG Vac. to 50 PSIG Vac. to 100 PSIG Vac. to 350 PSIG	C _V = .06	Brass

Product Series/Features (Vacuum)	Controlled Pressure Ranges	Flow Capacity	Body Material
44-4700 Series: Subatmospheric			
<ul style="list-style-type: none">High Flow capacityNegative spring biasControls subatmospheric to positive pressures	28" Hg vac - 15 PSIG 28" Hg vac - 50 PSIG 28" Hg vac - 100 PSIG 28" Hg vac - 150 PSIG	C _V = .04 C _V = .30	316L SST
DV Series: Vacuum control			
<ul style="list-style-type: none">Elastomeric diaphragm - highly sensitiveHighly accurate: ±1%Dome loaded optionChoice of constant or no bleed	0 PSIG - 28" Hg (non-bleed) 0 PSIG - 25" Hg (constant bleed)	C _V = .25	Brass

High Flow - Pressure Reducing



26-1200 $C_v=12$



44-1300 Versatile



44-1500 High Flow



44-4000 Tracking

Product Series/Features (Pressure Reducing)	Inlet Pressure (maximum)	Outlet Pressure Ranges	Flow Capacity	Body Material
26-1100 Series: Compact/High Flow				
• Diaphragm sensed - highly sensitive	6,000 PSIG	55-6,000,	$C_v = .46$	Brass or
• Modular construction - easy service	10,000 PSIG	55-10,000 PSIG	$C_v = 1.3$	300 SST
• External sensing available for improved accuracy				
• Balanced main valve increases seat life				
26-1200 Series: High Flow				
• Similar to 26-1100 above with higher flow capacity	6,000 PSIG	100-6,000 PSIG	$C_v = 3.3$	300 SST
			$C_v = 6.0$	
			$C_v = 12.0$	
44-1300 Series: Versatile				
• Excellent sensitivity	3,750 PSIG	10-300, 15-600,	$C_v = .8$	Brass or
• Self-venting	4,500 PSIG	20-1,000, 50-1,500,	$C_v = 2.0$	300 SST
• Extremely reliable	5,000 PSIG	50-2,500 PSIG		
• Spring, dome or air ratio loading	6,000 PSIG			
44-1500 Series: High Flow				
• Self-venting	6,000 PSIG	10-200, 10-400,	$C_v = .3$	Brass or
• 6,000 PSIG inlet		10-600 PSIG		316 SST
• Spring, dome or air ratio loading available				
44-4000 Series: Tracking				
• Captured self-venting standard	6,000 PSIG	50-1,500 PSIG	$C_v = .7$	Brass or
• Adjustable bias pressures		Plus Bias	$C_v = 2.0$	300 SST
• Compatible with Tescom electronic pressure controllers (p. 11-12)		Pressures to 350 PSIG		
44-4200 Series: Economical				
• Dome loaded	6,000 PSIG	0-5,000 PSIG	$C_v = .8$	Brass or
• Piston sensed - highly reliable			$C_v = 2.0$	300 SST
• Compatible with Tescom electronic pressure controllers (p.11-12)				
CP32 Series: Pilot Operated				
• High flow, low droop	3,000 PSIG	500 PSIG	$C_v = 1.0$	Brass
• Gauge port option				
• Excellent sensitivity and repeatability				
DH Series: Low Pressure				
• Diaphragm sensed - highly sensitive	500 PSIG	0-20, 0-50, 0-100,	$C_v = 5.0$	Brass or
• Excellent repeatability		0-150, 2-250 PSIG		316 SST
• Very high flows at low pressures				
DG Series: Low Pressure				
• Diaphragm sensed	300 PSIG	0-20, 0-50, 0-100	$C_v = 10$	316 SST
• High flow - up to 1400 scfm		0-250 PSIG		
• NPT & welded connections				



CP32
Pilot Operated



DH Low Pressure



DG Low Pressure

Back Pressure Regulators



26-1700 Versatile



26-2300 High Accuracy



26-2500 High Flow



44-1700 Economical



BB-3 Miniature

Product Series/Features (Back Pressure)	Controlled Pressure Ranges	Flow Capacity	Body Material
26-1700 Series: Versatile <ul style="list-style-type: none"> Extremely sensitive Ideal for both gas & liquid service High temperature versions available Accuracy : $\pm 1\%$ of relief pressure range 	5-500, 5-800, 10-1,500, 15-2,500, 25-4,000, 50-6,000, 200-10,000 200-15,000 PSIG	$C_V = .02$ $C_V = .10$ $C_V = .14$ $C_V = .60$	300 or 316 SST
26-2300 Series: High Accuracy <ul style="list-style-type: none"> Precise pressure control Diaphragm sensed - highly sensitive Crack to reseal: 2% of set pressure Bubble-tight shutoff at all reseating pressures 	5-50, 10-150, 10-250 PSIG	$C_V = .06$ $C_V = .60$ $C_V = 1.0$	300 or 316 SST
26-2500 Series: High Flow <ul style="list-style-type: none"> Large Gylon® diaphragm for excellent sensitivity Bubble-tight shutoff at all reseating pressures 1/2", 3/4" and 1" NPT inlet and outlet port sizes 	0-20, 0-50, 0-125, 0-200 PSIG	$C_V = 5.0$	Brass or 316 SST
26-2900 Series: Tracking <ul style="list-style-type: none"> High Flow Negative spring bias Designed for BIBS application Diaphragm sensed - highly sensitive 	1,000 PSIG	$C_V = 2.0$	Brass or 300 SST
44-1700 Series: Economical <ul style="list-style-type: none"> Piston sensed - highly reliable Compact design Close pressure differential between crack and reseal Adjustable pressure stop standard 	40-150, 100-700 or 100-800 PSIG	$C_V = .10$	Brass or 316 SST
BB-3 Series: Miniature <ul style="list-style-type: none"> Economical & extremely compact Grove Mighty Mite® replacement Durable piston sensor design High temperature (to 400°F) version High flow capacity 	0-80, 0-140, 0-220, 0-250*, 0-3000* PSIG	$C_V = .20$ $C_V = .50$	Aluminum or 316 SST <i>*dome load only</i>
44-2300 Series: Economical <ul style="list-style-type: none"> Hand adjustable Diaphragm-sensed Dome loaded Four relief pressure ranges 	0-25, 0-50, 0-100, 0-250 PSIG	$C_V = .08$	Brass or 316L SST
44-4700 Series: Subatmospheric <ul style="list-style-type: none"> Metal to metal diaphragm assures minimum inboard/outboard leakage Controls subatmospheric to positive pressures High flow capacity Negative spring bias 	28" Hg VAC - 15 PSIG 28" Hg VAC - 50 PSIG 28" Hg VAC - 100 PSIG 28" Hg VAC - 150 PSIG	$C_V = .04$ $C_V = .30$	316L SST

Hydraulic Regulators - Pressure Reducing & Back Pressure



54-2000
High Pressure



54-2200
High Pressure



54-2700 High Flow/
Back Pressure



54-2800 High Flow/
High Pressure

Product Series/Features (Pressure Reducing)	Inlet Pressure (maximum)	Outlet Pressure Ranges	Flow Capacity	Body Material
54-2000 Series: High Pressure/Reducing				
<ul style="list-style-type: none">• Rugged design, high pressure service• Hardened metal to metal seats for heavy duty service• System pressures to 20,000 PSIG available• Captured venting standard	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
54-2200 Series: High Pressure				
<ul style="list-style-type: none">• High flow capacity: C_V=2.0• Hardened metal to metal seats for heavy duty service• Self-venting is standard	8,000 PSIG 10,000 PSIG	5-500, 5-800, 10-1500, 15-2500, 25-400, 50-6000, 200-10,000 PSIG	C _V =2.0	300 SST
54-2800 Series: High Flow/Reducing				
<ul style="list-style-type: none">• Flow capacity: C_V=8.0• Inlet & outlet pressures up to 5,000 PSIG• Choice of air ratio or dome loading• Hardened metal to metal seats for heavy duty service	5,000 PSIG	50-1500, 200-5000 PSIG	C _V =8.0	300 SST
Product Series/Features (Back Pressure)	Controlled Pressure Ranges		Flow Capacity	Body Material
54-2700 Series: High Flow/Back Pressure				
<ul style="list-style-type: none">• Flow capacity: C_V=5.0• Choice of dome loaded, spring loaded, or air ratio device	5-500, 50-5500 PSIG		C _V =2.0 C _V =5.0	300 or 316 SST
54-2100 Series: Back Pressure/Relief Valve				
<ul style="list-style-type: none">• Accuracy: ±1% of pressure range• Hardened metal to metal seats for heavy duty service• Eight pressure ranges up to 15,000 PSIG	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
54-2300 Series: High Pressure/High Flow - BPR/Relief Valve				
<ul style="list-style-type: none">• Control pressures to 10,000 PSIG• Flow capacity: C_V=1.6• Excellent crack to reseal ratio• Hardened metal to metal seats for heavy duty service	750, 1500, 3500 5000, 10,000 PSIG		C _V =1.6	300 SST

Corrosion Resistant, Specialty Gas & Petrochemical Regulators



04 Miniature/
Lecture Bottle



44-2200 Compact



44-3200 High
Flow/Purge



44-3400 Two Stage



44-4800 Steam Heated
Vaporizing

Product Series/Features (Pressure Reducing)	Inlet Pressure (maximum)	Outlet Pressure Ranges	Flow Capacity	Body Material
04 Series: Miniature/Lecture Bottle				
<ul style="list-style-type: none">Choice of 1/8" or 1/4" in & out portsMinimal internal volumeChoice of 316 SST or brass	3,500 PSIG	0-30, 0-60, 0-100 PSIG	C _V =.06	Brass or 316L SST
44-2200 Series: Compact/General Purpose				
<ul style="list-style-type: none">1/4" inlet and outlet portsDiaphragm sensed - highly sensitiveVarious trim options available	3,500 PSIG 400 PSIG	1-25, 1-50, 1-100, 2-250, 2-500 PSIG maximum	C _V =.02 C _V =.06 C _V =.15 C _V =.24	Brass, 316L SST, Hastelloy-C® or Monel®
44-2600 Series: General Purpose/Large Diaphragm				
<ul style="list-style-type: none">Increased sensitivity, minimal droopRepeatability: ±1/2% of outlet pressure rangeAccuracy: ±1% of outlet pressure	3,500 PSIG 400 PSIG	1-25, 1-50, 1-100, 1-150 PSIG	C _V =.02 C _V =.06 C _V =.15 C _V =.24	316L SST
44-2800 Series: Positive Seal				
<ul style="list-style-type: none">Mechanical link between diaphragm & main valve prevents pressure creepPositionable captured vent bonnet	3,000 PSIG	1-25, 1-50, 1-100, 1-150 PSIG	C _V =.16	316L SST
44-3200 Series: High Flow/Purge				
<ul style="list-style-type: none">Ideal purge regulatorHigh pressure inlet version incorporates a balanced main valve to minimize inlet pressure fluctuation	500 or 3,000 PSIG	5-25, 5-50, 5-100, 5-150, 5-200 PSIG	C _V =1.0 C _V =1.8	Brass or 316L SST
44-3400 Series: General Purpose/Two Stage				
<ul style="list-style-type: none">Decaying inlet characteristic: .04 per 100 PSIG inlet pressure changeVarious trim options available	3,500 PSIG	2-25, 2-50, 3-100, 3-150, 3-250 PSIG	C _V =.05	Brass or 316L SST
44-5000 Series: Absolute Pressure				
<ul style="list-style-type: none">Control pressure range: vacuum to low positive pressures	120, 400, 3,500 PSIG	28" Hg Vac to 15 PSIG 28" Hg Vac to 25 PSIG 28" Hg Vac to 50 PSIG 28" Hg Vac to 100 PSIG	C _V =.06 C _V =.15 C _V =.24	316L SST
FR 2000 Series: Facilities Regulator				
<ul style="list-style-type: none">Ideal purge regulator for low pressure systemsNegative bias spring enhances performance at low pressuresBalanced main valve minimizes inlet pressure fluctuations	500 PSIG	0-15, 0-30, 0-75, 0-150 PSIG	C _V =1.8	316L SST
Product Series/Features (Back Pressure)	Controlled Pressure Ranges		Flow Capacity	Body Material
44-2300 Series: Back Pressure				
<ul style="list-style-type: none">Economical, general purpose	0-25, 0-50, 0-100, 0-250 PSIG		C _V =.08	Brass or 316L SST

Corrosion Resistant, Specialty Gas & Petrochemical Regulators



44-4800 Electric Heated Vaporizing



TM Top Mount Regulator

Product Series/Features (Pressure Reducing)	Inlet Pressure (maximum)	Outlet Pressure Ranges	Flow Capacity	Body Material
44-4800 Series: Vaporizing Regulator				
<ul style="list-style-type: none"> Available in steam heated & electrically heated versions Field replaceable heat exchanger tubes Electric unit available in 120 volt/150 watt or 250 volt/150 watt version. Meets National Electric Code requirements for Class 1, DIV 1 - Groups B, C & D CSA approved 50 watt version and CENELEC approved 100 watt (230 VAC) version available. (Class 1, DIV 1 - Groups C & D) Media heated before and after pressure reduction. Temperature changes accomplished quickly, accurately 	3,500 PSIG	Up to 500 PSIG	$C_v = .06$	316L SST
TM Series: Top Mount Regulator				
<ul style="list-style-type: none"> Reduces plumbing time and increases leak integrity Compact size, small footprint Complies to SP76 Standard 	1,000 PSIG	0-30, 0-60, 0-100 PSIG	$C_v = .02$ $C_v = .06$	316L SST

Changeovers



ACS012 Automatic Changeover



CS2200 Changeover System



NA-3 Changeover System

Product Series/Features	Inlet Pressure (maximum)	Outlet Pressure Ranges	Flow Capacity	Body Material
ACS012 Series: Automatic Changeover				
<ul style="list-style-type: none"> Eliminates downtime caused by depleted gas supplies Incorporates 44-2200 regulators 	400 or 3,500 PSIG	100, 150, 200, 250 PSIG	$C_v = .06$	Brass or 316L SST
ACS3200 Series: High Flow Changeover				
<ul style="list-style-type: none"> High flow capacity: 50 scfm Based on Tescom field-proven 44-3200 Series Regulator Eliminates downtime caused by depleted gas supplies 	3,000 PSIG	160-200 PSIG	$C_v = 1.2$	Brass or 316L SST
CR441800 Series: High Pressure Changeover				
<ul style="list-style-type: none"> Inlet pressures up to 6,000 PSIG Based on Tescom's field proven 44-1800 Series Regulator Eliminates downtime caused by depleted gas supplies 	3,500 PSIG 6,000 PSIG	5-500, 5-600, 10-700, 10-800, 10-900, 10-1,000 PSIG	$C_v = .06$	Brass or 316L SST
CS-2200 Series: Changeover System				
<ul style="list-style-type: none"> Eliminates downtime caused by depleted gas supplies Single body changeover regulator plus a point-of-use regulator Incorporates 44-2200 regulators 	3,500 PSIG	0-25, 0-50, 0-100, 0-150 PSIG	$C_v = .06$	Brass or 316L SST
NA-3 Series: Changeover System				
<ul style="list-style-type: none"> Includes changeover and line regulator Cylinder, vent and outlet shutoff valves standard 	3,000 PSIG	0-100, 0-200 PSIG	$C_v = .06$	Brass or 316L SST
NA-9 Series: Changeover System				
<ul style="list-style-type: none"> Identical to NA-3 but offers multiple bottle hook-ups 	3,000 PSIG	0-100, 0-200 PSIG	$C_v = .06$	Brass or 316L SST

Custom Pressure Reducing & Back Pressure Regulators



Cartridge Regulator
(BB Series)



42 MW Welded Diaphragm
Instrument Isolator
(shown with the
SJS Series regulator)



Air Actuator
(26-2000 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

SJS Series Regulator

- Maintains accurate differential pressure when incorporated into a double seal system
- Tracks upsets in system pressure and decreases downtime by increasing seal life

42 MW Welded Diaphragm 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 20,000 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

Alternative Fuels



20-1200 High
Pressure Hydrogen



20-1400 High Flow/
Low Pressure



44-6000 In-Line

Product Series/Features	Inlet Pressure (maximum)	Outlet Pressure Ranges	Flow Capacity	Body Material
20-1000 Series: Compressed Natural Gas <ul style="list-style-type: none"> • Balanced main valve minimizes inlet pressure fluctuations • Piston sensed - highly reliable • Water heat jacket standard 	3,600 PSIG	0-500 PSIG	C _v = .5	Aluminum
20-1200 Series: High Pressure Hydrogen <ul style="list-style-type: none"> • Nickel-plated aluminum • Large piston sensor • All regulators tamper-proof 	5,000 PSIG 10,000 PSIG	0-500 PSIG	C _v = .5	Aluminum 316 SST
20-1400 Series: High Flow/Low Pressure <ul style="list-style-type: none"> • Diaphragm sensed - highly sensitive • Dome load spring bias ± 2 PSIG • Captured bonnet design for safety 	250 PSIG	0-190 PSIG	C _v = 1.6	Aluminum
44-6000 Series: In-Line High Pressure <ul style="list-style-type: none"> • Balanced main valve design • Positive shutoff seal • Captured bonnet available • Patent pending 	10,000 PSIG	120, 150, 300 PSIG (all pre-set)	C _v = .3	316 SST

Valves



30-1100 Shutoff Valve



CC Metering Valve



FL7000 Flow Limit Valve



VA & VG Air-Operated ON/OFF Valves



VA Valve - toggle actuated

Product Series/Features	Operating Pressure (maximum)	Flow Capacity	Body Material
30 Series: Shutoff Valves <ul style="list-style-type: none"> Globe or angle pattern Built-in metallic stop prevents over-torquing - reduces seat wear 30-1100 Series: available with metering capability (long stem optional) Bi-directional flow (all models) 	10,000 PSIG	30-1100 globe: $C_v = .28$ 30-1100 angle: $C_v = .49$ 30-1300 globe: $C_v = 1.57$ 30-1300 angle: $C_v = 2.30$ 30-1200 globe: $C_v = 8.0$ 30-1200 angle: $C_v = 10.0$ 30-1400 globe: $C_v = 20.0$	300 SST
CC Series: Metering Valve <ul style="list-style-type: none"> Precise control at very low flows For liquid or gas applications 20+ turns from shutoff to full open Non-rotating stem reduces seat wear 	Full vacuum to 10,000 PSIG	$C_v = .00005$ $C_v = .00125$	316 SST
FL7000 Series: Flow Limit Valve <ul style="list-style-type: none"> Designed to stop flow automatically when flow exceeds a pre-set limit Flow range: 0-6 SCFM (N_2 @ 1000 PSIG) Protects downstream personnel & equipment from exposure to hazardous media 	100-1,000 PSIG 300-2,500 PSIG 600-5,000 PSIG		316 SST
VA & VG Series: Air Operated ON/OFF Valves <ul style="list-style-type: none"> Normally open or normally closed Balanced main valve - reduces required actuation pressure (30-60 PSIG) Compact package Toggle actuator optional 	6,000, 10,000 15,000, 20,000 PSIG	VA: $C_v = .75$ VG: $C_v = 2.0$	Brass or 316 SST
VJ Series: Cartridge Valves <ul style="list-style-type: none"> Bi-directional flow Built-in metallic stop Globe or angle pattern O₂ compatible design 	6,000 or 10,000 PSIG	angle: $C_v = .49$ globe: $C_v = .28$	Brass or 316 SST
VL Series: $C_v = 10$ <ul style="list-style-type: none"> Balanced main valve - reduces required actuation pressure Normally closed In-line flow configuration U.S. patent pending 	6,000 PSIG	$C_v = 10$	316 SST



VJ Bi-Directional Shut-off Valve



VL Series $C_v = 10$ In-line Valve

Clean Pharmpure™ Regulators for Biotech & Pharmaceutical



PH-2200 - Low Flow



PH-3200 - Medium Flow



DH-16 - High Flow

Regulator Series/Features	Inlet Pressure (maximum)	Outlet Pressure Ranges	Flow Capacity	Body & Finishes
PH-2200: Compact, Low Pressure, Low Flow				
<ul style="list-style-type: none"> Flows to 10 SCFM for specialty gas & clean air applications 1/4" in & out ports - NPT, tube ends, sanitary 	400, 3500 PSIG	1-25, 1-50, 1-100, 2-250, 2-500 PSIG	$C_V = .02$ $C_V = .06$ $C_V = .15$ $C_V = .24$	Brass or 316L SST 15 or 32 R_a available (SST version only)
PH-3200: Compact, Low Pressure, Medium Flow				
<ul style="list-style-type: none"> Gas and clean steam versions Tracking version for agitator seals Gas flows to 50 SCFM N_2 Ports to 3/4" NPT, tube ends, sanitary 	500, 3000 PSIG	5-25, 5-50, 5-100, 5-150, 5-200 PSIG	$C_V = 1.0$ $C_V = 1.8$	Brass or 316L SST 15 or 32 R_a available (SST version only)
DH-16 Series: Low Pressure, High Flow				
<ul style="list-style-type: none"> Gas flows to 250 SCFM N_2 Gas and clean steam versions Ports to 1" NPT, tube ends, sanitary 	300 PSIG	0-20, 0-50, 0-100, 0-150, 0-250, 0-300* PSIG	$C_V = 5.0$	Brass or 316L SST 25 R_a standard
DG Series: Low Pressure, Very High Flow				
<ul style="list-style-type: none"> Gas flows to 500 SCFM N_2 Gas and clean steam versions Ports to 2" NPT, tube ends, sanitary 	300 PSIG	0-20, 0-50, 0-100, 0-150, 0-250 PSIG	$C_V = 10$	Brass or 316L SST 25 R_a available

*dome load only

Custom Manifolds & Systems



Hydrogen Cylinder Valve Control Manifold



Aircraft Charging Manifold



Custom Designed Test Stand

Tescom provides the experience to integrate pressure & flow controls made by Tescom and other suppliers. We also offer:

- Direct engineering support. We'll provide the ideas or work with yours.
- A very large selection of existing pressure & flow components: ranges from vacuum to 30,000 PSIG.
- A wide array of dome & air-loaded regulators combined with electronic pressure controllers to automate pressure routines.
- The ability to integrate electronics with your system. Custom software too.
- Materials including 316 stainless steel, brass, Monel & Hastelloy®.



Automated Multiple Pressure Delivery System



Stackable Pressure Components

Electronic Pressure Controls



ER3000 Digital Pressure Controller



ER3040 Series



UI4000 User Interface



Pressure Transducers



70-2000 Motorized Actuator

ER300X Series Digital Pressure Controller

- Precise accuracy: $\pm .1\%$ FSO! (ER3001 in Internal Feedback Mode)
- Features controlled outlet pressure from 0-100 PSIG as a stand alone unit
- Compatible pressure regulators available offering vacuum to 20,000 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)

ER3040 Series

- Features of the ER3000 with OEM base, no cover
- Not available in Explosion-Proof

UI4000 Series User Interface for ER3000

- Pre-programmed software displays process variables
- UI4000 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 UI4000 up to 4,000 feet from the ER3000
- 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
- .1%, 0.25% and 0.5% accuracy available
- Choice of 4-20 mA, 0-10 VDC versions
- Wide choice of pressure ranges (including subatmospheric)

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



ER3020 for Integrated Systems



269-529 Low Pressure/High Flow Regulator



ER3110 Compact Integrated Unit

ER3020 Series - High Pressure, Low Flow 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, some models up to 300 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

ER3000/26-2000 Series - High Accuracy, High Pressure Control

- Designed for applications where high accuracy and reliability are critical
- Choice of outlet pressure ranges to 20,000 PSIG
- Excellent for calibration systems

ER3110 Series - Compact Integrated Unit

- Features identical to the ER3000 (shown on page 11)
- Choice of outlet pressure ranges to 500 PSIG
- Reference pressure: 100 PSIG
- Flow capacity: $C_V=0.06$ or 0.15
- Venting or non-venting
- Integrates with 44-5200 regulator, standard options available

ER3100 Series - High Flow Control

- Integrates with 44-4000 venting regulator
- Choice of 500 or 900 PSIG outlet ranges
- Flow capacity: $C_V=0.7$ or 2.0
- Available in brass or stainless steel

Gauges & Filters



Gauges



Mini In-Line Filters

Product Series/Features	Operating Pressure (maximum)	Body Material
Pressure Gauges (2" & 2.5" dia.) <ul style="list-style-type: none"> Brass or Stainless Steel construction Pressure ranges from subatmospheric to 10,000 PSIG 1/4" NPT connections 	subatmospheric to 10,000 PSIG	Brass or 316 SST
Filters - High Pressure (10 micron) <ul style="list-style-type: none"> 98-1010 Series Mini In-Line filter: <ul style="list-style-type: none"> For systems with size limitations 98-1110 Series T-Type Filter: <ul style="list-style-type: none"> Designed for high flow applications Features cleanable element Available options: electrical, visual, bypass valve, visual pressure differential indicator, bypass relief valve, electrical bypass 98-1210 Series In-Line Filter: <ul style="list-style-type: none"> For systems with size limitations Cleanable element 	6,000 PSIG 6,000, 10,000 PSIG 3,000, 6,000, 10,000 PSIG	304 SST 300 SST 300 and 17-4 SST

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



Industrial Controls Division & Systems Group

Industrial Controls Division Systems Group

Elk River, Minnesota USA

Tescom's Industrial Controls Division provides standard and custom pressure control solutions. They design, manufacture and sell a wide range of regulators and valves to a diverse global market. The Systems Group designs and manufactures leading technology pressure systems, assemblies and manifolds.



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, fiber optic, biotechnology and pharmaceutical industries.

Tescom Europe

Selmsdorf, Germany

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