# Pressure Controls for Alternative Fuels

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TESC



# Innovative controls for alternative fuels since 1974!

Tescom has designed and manufactured custom pressure regulators, valves and manifolds for the alternative fuels industry for thirty years. We want to be your partner in advancing alternative fuels technology.

We can solve your specific application requirements with a unique design or a standard product from our comprehensive line.

Founded in 1916, we have built our reputation on



providing intelligent solutions for a wide range of industrial and ultra-clean applications. Tescom is an experienced global supplier of high quality regulators, valves, manifolds, custom assemblies and systems for the control of pressure and flow.

Our design and manufacturing facilities are located in the U.S.A. and Germany. We provide technical and product support to our customers worldwide.

### Perfection never takes a back seat

As a long-time supplier to the U.S. government and key contractors, we design and build components conforming to stringent military and international standards. Our customers are leaders in their industry.

We take pride in our unique in-house machining capabilities and latest automatic welding equipment. Our CNC mills and lathes assure the highest accuracy.

### **Our Quality System**

Tescom actively employs a comprehensive quality system program certified to ISO 9001:2000. We have also been granted METI product certification by the Japanese government as a "self-inspecting manufacturer of high pressure equipment."

> In addition, Tescom supplies individual product certifications as requested by customers (e.g. TÜV Batch approval for H<sub>2</sub> applications and NGV 3.1).

# Our new breed of regulators & valves

Model	Description	Inlet Pressure	Outlet Pressure Ranges	Flow Capacity	Body Material
20-1000 Series	<ul> <li>Compressed Natural Gas</li> <li>Balanced main valve minimizes inlet pressure fluctuations</li> <li>Piston sensed - highly relial</li> <li>Water heat jacket standard</li> </ul>	3,600 PSIG (245 bar) ble	0-500 PSIG (0-34 bar)	C <sub>v</sub> =.5	Nickel-Plated Aluminum
20-1200 Series	<ul> <li>High Pressure Hydrogen</li> <li>Nickel-plated aluminum</li> <li>Large piston sensor for long life</li> <li>All regulators tamper- proof</li> </ul>	5,000, 10,000 PSIG (300, 700 bar)	0-500 PSIG (0-34 bar)	C <sub>V</sub> =.5	Nickel-Plated Aluminum or 316 SST
20-1400 Series	<ul> <li>High flow/low pressure</li> <li>Diaphragm sensed - highly sensitive</li> <li>Dome loaded, spring bias ± 2 PSIG</li> <li>Captured bonnet design for safety</li> </ul>	250 PSIG (17 bar)	0-190 PSIG (0-13 bar)	C <sub>v</sub> =1.6	Anodized Aluminum
44-6000 Series	<ul> <li>High Pressure</li> <li>Positive shut-off</li> <li>Balanced valve, low decaying inlet</li> <li>In-line porting available</li> <li>Pending)</li> </ul>	10,000 PSIG (700 bar)	0-450 PSIG (0-31 bar)	C <sub>v</sub> =.3	316 SST
Model	Description	Controll Ra	ed Pressure anges	Flow Capacity	Body Material
VA & VG Series	<ul> <li>Air operated ON/OFF valves</li> <li>Normally open or normally closed</li> <li>Balanced main valve - reduces required actuation pressure (30-60 PSIG)</li> <li>Compact package</li> </ul>	6,000 15,00 (408, 700	6,000, 10,000, 15,000 PSIG (408, 700, 1020 bar)		Brass or 316 SST
			For our compl	ete product l	ine, please visit

# Challenge us with a unique application

Our professional design team is prepared to assist you in every way possible. Our design engineers are experts in alternative fuels pressure control. Applications include on board vehicle regulation, fuel station pressure control and special equipment for test applications.

Tescom has a large selection of existing pressure and flow components: controlling pressure ranges from vacuum to 20,000 PSIG and flows up to  $C_V = 12$ .

The Engineered Solutions COMpany

### Custom manifolds and systems

Tescom has a large selection of existing pressure and flow components. Besides having a wide array of dome and air-loaded products, we can combine them with our electronic controllers or integrate them into your existing system for pressure control automation.

Tescom has the know-how to integrate components made by Tescom and others. We can provide the ideas or work with yours.

#### a. Hydrogen Manifold Block

The primary function of this manifold is to reduce supply pressure that feeds high pressure hydrogen directly into an automotive fuel cell. This manifold also includes pressure relief and a check valve.

### b. NA Series Automatic Changeover System (Standard Product)

This system is designed to provide continuous gas pressure management to eliminate operator downtime. Design includes regulators, cylinder vent and outlet shut-off valves available in both brass and stainless steel construction.

### c. Hydrogen Cylinder Valve Control Manifold

This manifold actuates Tescom's VA Valve used in a hydrogen fuel cell filling station.

### d. Pressure and Temperature Cycle Test Manifold

This manifold tests master brake cylinders and pressure sensors.

#### Global technical support & distribution Design & manufacturing facilities in the U.S.A. & Germany

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