

# A four stage pressure regulator designed to provide a stable outlet pressure, even through large swings in inlet pressure!

The Genie<sup>®</sup> Model JTR<sup>™</sup> is a revolutionary product containing four stages of pressure regulation in one stainless steel housing, specifically designed for gas analytical systems. Gone are the days of having to purchase multiple pressure regulators and manifold them together in series!

The pressure regulation stages of the JTR<sup>™</sup> employ a multi-piston design. The first three stages are ratio controlled and the fourth stage is user adjustable. The advantage of the ratio controlled piston design is that it ensures the first three stages are always functional, even when the inlet supply pressure fluctuates. No more headaches of having to constantly readjust the set pressure of each stage.

Having multiple stages of pressure regulation helps to prevent condensation of the sample gas by compensating for the large amount of Joule-Thomson cooling that is experienced with a single stage regulator. Preventing condensation of the sample gas has many benefits such as reducing regulator freeze-ups, preserving sample integrity, and minimizing analyzer down time and maintenance cost.

Unlike traditional single stage regulators, the JTR<sup>™</sup> has the ability to autocorrect the outlet pressure during inlet pressure swings up to 5700 PSI. Inlet pressure swings commonly occur at natural gas storage facilities and during the use of calibration gas cylinders, making the JTR<sup>™</sup> the regulator of choice for these applications.

It is important to note that some applications will require additional heat to be applied before pressure regulation. For assistance in determining heating and pressure regulation requirements, please contact A+ Corporation or your local A+ distributor.

Note: A retrofit heater upgrade kit is available for the JTR if it is determined that heat needs to applied to a standard JTR regulator after it has been installed in the field. If you know that your application needs heat when your order is placed, then you should order the Model JTR-H.

# **Technical Specifications**

Operating pressure range	300 psig (20.7 barg) to 6,000 psig (413.7 barg)
Temperature range	-40°F (-40°C) to 300°F (149°C) * Actual limit depends on sealing material chosen. Refer to Temperature Range Comparison Chart.
Port sizes	1/4" female NPT
Outlet pressure range	0-10 psig (0-0.7 barg), 0-25 psig (0-1.7 barg), 0-50 psig (0-3.4 barg), 0-100 psig (0-6.9 barg), 0-250 psig (0-17.2 barg), 0-500 psig (34.5 barg)
C <sub>v</sub> coefficient	0.009
Wetted materials	Machined parts: 316/316L stainless steel / ISO 15156-3 compliant All other metal parts: stainless steel / ISO 15156-3 compliant Regulator Seat material: PFA Seals: User defined



## **Product Brief**

#### **Applications**

- Multi-stage pressure regulation for gas analytical systems in any process industry
- High pressure sources
- Natural gas storage facilities
- Calibration gas cylinders

### **Benefits**

- Eliminates the need for multiple regulators in series reducing cost, space, and set up time
- No need to constantly adjust the set pressure of each stage
- Minimizes the chance of condensation thereby reducing regulator freeze-ups, preserving sample integrity, and minimizing analyzer down time and maintenance cost
- Auto-corrects outlet pressure during inlet pressure swings of up to 5700 PSI

#### **Features**

- Four stages of pressure regulation in one stainless steel housing
- First three pressure stages are ratio controlled
- User adjustable fourth stage
- Piston pressure sensing elements
- Heater upgrade retrofit kit available





