



Cylinder Regulators

Cylinder Regulator



Athena manufacturers various kinds of Regulators. Athena Regulators have been designed to meet the demand of High Purity Corrosion Resistance Product Specially Suited for low level PPM Moisture

Two types of Cylinder Regulators available Brass Chrome Plated body with SS diaphragm and SS body with SS diaphragm.

Regulator consists of inlet & outlet pressure gauges. Inlet pressure gauge shows the total pressure of cylinder and outlet pressure gauge shows regulated pressure.

High pressure piston type Regulator & Regulators for corrosive gases like Ammonia, Chlorine, etc. are also available.

- Type: Single-stage / Double-stage/ Piston/
- Material of construction: SS 316 / Brass Chromplated
- Diaphragm: SS 316 with Teflon Seat
- Pressure Gauges: SS 316 / Brass
- Inlet Pressure: 0-210, 0-280, 0-450 kg/cm²
- Outlet Pressure: 0-2, 0-7, 0-10, 0-16, 0-40, 0-70, 0-100 & 0-280 kg/cm² as per requirement
- Flow (LPH): 300 (max)
- Gas Services: Air, N₂, H₂, HE, Acetylene, Argon, N₂O, Methane, Ammonia, HCL, Chlorine, SO₂, Isobutene & other gases
- Outlet Connection: 1/4, 1/8 Swage lock / Hose
- Inlet Connection: As per requirement of Gas



Nitrous Oxide Gas Two stage cylinder regulator

- SS316 / Brass Chromplated body with S S Diaphragm with Pre Heater
- Inlet pressure gauge 0-280 kg/cm²
- Outlet pressure gauge 0-14 kg/cm²

Ammonium/ Chlorine Gases



High pressure single stage regulator with SS 316 body with SS 316 diaphragm with purge valve for Ammonium/ Chlorine gases. Inlet pressure 0-42 kg/cm² & Outlet pressure gauge 0-7 kg/cm²

High pressure single stage regulator with SS 316 body with SS 316 diaphragm with purge valve for Ammonium gases. Inlet pressure 0-42 kg/cm² & Outlet pressure gauge 0-7 kg/cm²

Ammonia Gas Regulators. The offered regulators are widely used for regulating high pressure ammonia gas in pipeline or cylinder for required working pressure. These regulators are highly appreciated by our clients for their durability and easy installation feature

- Type: Single-stage
- Material of construction: SS 316
- Diaphragm: SS 316 with Teflon Seat
- Pressure Gauges: SS 316
- Inlet Pressure: 0-42 kg/cm²
- Outlet Pressure: 0-7 kg/cm²
- Flow (LPH): 300 (max)
- Gas Services Ammonia
- Outlet Connection: 1/4, 1/8 Swage lock / Hose
- Inlet Connection: As per requirement of Gas

CO, CO₂, Helium, Argon, Oxygen, Cl₂, H₂S, SO₂, NH₃, N₂, H₂, Air, Gases Regulators

HIGH PRESSURE PISTON TYPE REGULATOR



High pressure piston type cylinder regulator brass chromplated body.

- Inlet pressure gauge 0-280 kg/cm²
- Outlet pressure gauge 0-100 kg/cm² (as per requirement)
- For O₂, Ar, He, CO₂, N₂, H₂, Air, Gas

High pressure piston type cylinder regulator SS316 body.

- Inlet pressure gauge 0-280 kg/cm²
- Outlet pressure gauge 0-100 kg/cm² (as per requirement)
- For O₂, Ar, He, CO₂, N₂, H₂, Air, Gas

LINE REGULATOR HIGH PRESSURE



Line Pressure Regulator

- Single / Two Stage pressure regulator- Pressure regulator the pressure is 150 kg/cm², after pressure regulator the pressure is about 0-7 kg/cm², 1/2", 1/4", 1", 2" Pipe with NRV Safety Valve
- Inlet Pressure: 150 Bar / 210 Bar (kg/cm²)
- Outlet Pressure: 7 / 14 / 40 / 100 / 140 Bar (kg/cm²) (Pressure Settable)
- MOC: SS Diaphragm with Stainless Steel body

For any application involving processing gas in the furnace, to ensure the safe use of furnace flange, please always install the two stage gas regulator to the cylinder. Read the furnace instruction to understand the pressure rating of each part in the system. Determine and limit the input gas pressure before the operation to avoid overpressure which could cause damages to pressure gauge, needle valve or other fittings. Failure to install gas regulator could cause severe personal injury.

E.g. The max pressure for mechanical gauge in the flange is 0.15Mpa (22psi). It may cause pressure gauge broken when higher pressure is applied. Use the gas regulator to limit the input pressure to avoid overpressure.

Specifications

• Max. Rated Inlet Pressure	: 210 ~ 280 kg/cm ² (bar)
• Outlet Pressure Ranges	: 0-7, 0-10, 0-16 kg/cm ² (bar)
• Flow Capacity - Cv	: 500-600 Lpm
• Ambient Operating Temp.	: -40°F to +165°F (-40°C +74°C)
• Proof Pressure	: 1.5 times of max. rated pressure
• Leakage Rate	: 2*10 ⁻⁸ atm cc/sec He
• Designed Leak Rate	: Bubble-Tight (Helium)
• Weight	: 4.4 lbs
• Ports (4)	: 1/4" FNPT
• Inlet	: 1/4" FNPT
• Outlet	: 1/4" MNPT
• Decay Inlet Characteristic	: 0.26/100 psi
• Cylinder CGA	: 580
• Material	: Brass
• Inlet Gauge	: 0-4000
• Flow Capacity (SCFH)	: 900
• Max Inlet Pressure (PSIG)	: 3500
• Gas	: Argon, Helium, Nitrogen
• Max Outlet Pressure (PSIG)	: 100
• Body Thread	: 1/4" NPT (F)

• Material List	
- Body	: 316L, Brass
- Roof	: 316L, Brass
- Diaphragm	: 316L
- Filter mesh	: 316L (10µm)
- Valve seat	: PCTFE, PTFE, Vaspel
- Spring loaded	: 316L
- Valve disc regulation pole	: 316L



- Cylinder connection
- Material: SS316



- Two stage regulators reduce the pressure in two steps and give a more constant outlet pressure



- 316L stainless steel diaphragm for no inboard diffusion
- Equipped to pressure gauge
- Dia: 50mm (material: SS304)
- Inlet pressure gauge range: 400PSI (Options: 1000PSI, 2000PSI, 3000PSI)
- Outlet pressure gauge range: 600PSI (Options: 30PSI, 60PSI, 100PSI, 150PSI, 200PSI, 300PSI, 600PSI)

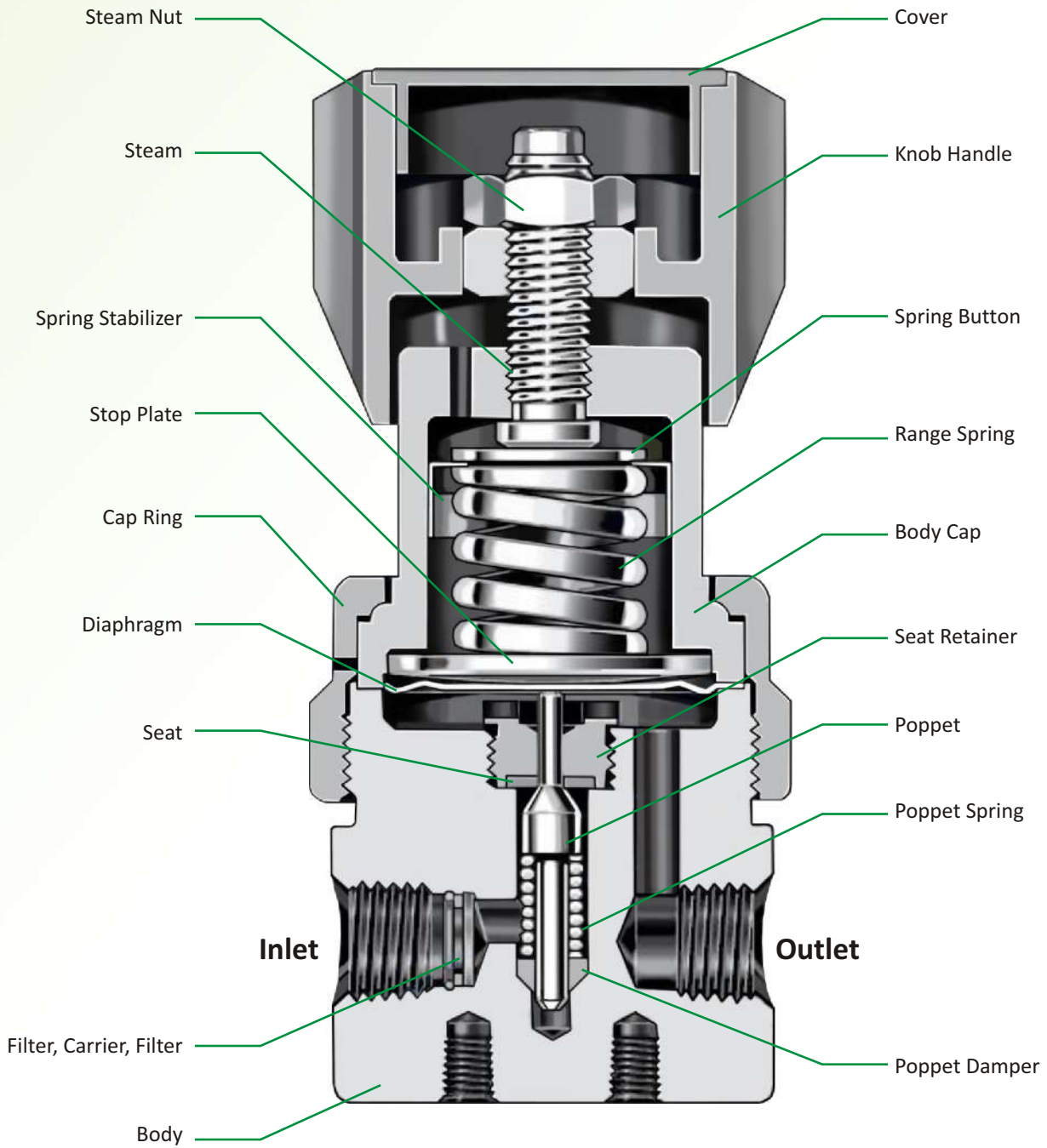


- Outlet connection: 14NPT male (Options: 1/4NPTF, 1/8 O.D., 1/4O.D., 3/8O.D., 6mm O.D.)
- Material of fittings: SS316L



- One high pressure vent port
- One low pressure vent port
- Can be equipped safety relief valve
- Self resetting safety relief valve vented to atmosphere to protect downstream equipment from over-pressurization

Material of Construction & Internal Drawing



Athena[™]
Technology

ATHENA TECHNOLOGY

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