



INTRODUCTION

The B3 SERIES is twin pilot operated regulator system used for highly accurate pressure control in very low pressure blanketing applications. This reduces a high pressure of inert gas, such as nitrogen to preserve a protecting environment above any liquid stored in tank or vessel, when the liquid is being pumped out or also when the vessel is rapidly cooled, causing vapors inside the tank vessel to contract. The Regulator System rushes in blanketing gas to replace the volume of contracting vapors to prevent the internal tank pressure from decreasing. A small positive pressure prevents outside air, moisture & other contaminants from entering the tank & the possible collapse of the tank. The B3 Series regulator system includes the main regulator (MPCV), pilot feed regulator (PER), response adjusting device (RAD) & sensing pilot (PSCV).

PRESSURE REGULATORS

SERIES B3



Expertise that delivers

KEY FEATURES

- **Accuracy** : B3/-Series Pilot Operated systems offer High Accuracy where extremely low set points and minimal proportional band are important, combined with greater capacity for large tanks and / or pump rates.
- **Low-set point Technology** : Set points as low as 1/4 inch w.c. (0.62mbar)
- **High Capacity Pressure Control** : For a very small downstream pressure change, PSCV causes large amplified pressure change on the diaphragm of MPCV resulting immediate correction in main valve position and greater capacity for large tanks and / or pump rates.
- **Normal position options** : Both normally close & normally open options for Main Regulator (MPCV) are available Extensive Material Selection & Wide Range of configurations. Different configurations are available depending on available nitrogen supply pressure, flow and controlled pressure requirements.
- **Economical Labour Saving installation** : The Main regulator (MPCV), Pilot feed regulator (PFR), Response adjusting device (RAD) & Sensing pilot (PSCV), are duly interconnected. Supply pressure to PFR can be factory piped directly from main regulator body.
- **Easy to Maintain** : Compact design with minimum number of moving parts. Actuator Internals, Valve Disc & Trim parts can be replaced, without removing the regulator from the pipe line.
- **Proven Technology** : Some of the Fluids Blanketed by NIRMAL : Acetic Acid, Orthoxylene, Ethylene, Xylene, Styrene, Naphtha, NGL, Benzene, Hexane, Cyclo - Hexane, Toluene, Methanol, Ethanol, Ethylene dichloride (EDC), Ethyl Acetate, Ethylene Oxide, Carbon Sulfide, Aniline, Phynol, Kerosene, VCM, Mercaptan, Iso Propyl Alcohol (IPA), Acetonitrile, Acetone etc.

KEY FEATURES

● BODY SIZE & CONNECTIONS

Flanged End:

1", 1½", 2", 3", 4" & 6" ANSI B16.5 Class 150 & 300 ratings. (Higher sizes & full port options available for very large tanks.)

- **Available Configuration** : As per the different pressures and flow requirements, different pilot and main regulator combinations are available.
- **Maximum Spring & Diaphragm Casing Pressure** : 2.25 Kg/cm²g to 4 Kg/cm²g

MATERIAL OF CONSTRUCTION

- **Body***: ASTM A216 Gr. WCB (Standard), Cf8, CF8M
- **Diaphragm Casing** : Steel(Std), AISI-SS304, AISI-SS316 or same as body material.
- **Internal Trim Parts***: Steel or Aluminium, SS316 (Std), Monel, Copper, Brass
* (NACE & other special material available on request)
- **Disc & Diaphragm** : Nitrile (Std), Neoprene, EPDM, Silicone, Fluoropolymer, PTFE
- **TEMPERATURE CAPABILITIES** :
 - 25°C to 80°C with nitrile elastomeric parts.
 - 15°C to 180°C with fluoropolymer elastomeric parts.
- **PRESSURE SETTING ADJUSTMENT** : May be adjusted throughout a spring range by turning the adjusting screw of the sensing pilot (PSCV)
- **PRESSURE REGISTRATION** : External downstream connection from tank to PSCV

• ENQUIRY SPECIFICATIONS •

- INLET PRESSURE
- OUTLET/BLANKETING PRESSURE
- LINE/NOZZLE SIZE
- MATERIAL OF CONSTRUCTION
- LIQUID STORED
- FLOW MIN./MAX
- MAX. TEMP.
- BLANKETING GAS

