PRODUCT DATASHEET

Mobile 400-bar Gas Servicing Rig

Mobile 400-bar helium and nitrogen servicing rig





DETAIL – GAS CYLINDERS

OVERVIEW

The Tech Inc. Mobile 400-bar Gas Servicing Rig charges, pressure-tests and purges the high-pressure gas bottles on launch vehicles and propulsion systems from a single wheeled cabinet. The TI-PSR400 handles helium or nitrogen at up to 400 bar, with controlled filling, venting and leak testing from one operator panel. We design and build the rig around proven high-pressure equipment from leading makers.

MODELS AND CONFIGURATIONS

- **TI-PSR400** – mobile 400-bar helium or nitrogen servicing rig.
- **Helium configuration** – a dedicated helium circuit for pressurant bottle charging.
- **Nitrogen configuration** – a nitrogen circuit for purging, pressure testing and charging.
- **Dual-gas configuration** – separate helium and nitrogen circuits in one cabinet, to client specification.

TYPICAL DESIGN DATA

Working pressure	Up to 400 bar, or to client specification
Gases	Helium or nitrogen
Functions	Charging, pressure testing and purging
Flow and fill rate	To client specification
Cleanliness	Wetted parts cleaned for high-pressure gas service, to client specification
Controls	Manual or PLC-based with interlocks, to client specification
Mobility	Wheeled or trailer-mounted, to client specification

APPLICATIONS

Charging pressurant bottles on launch vehicles, leak and pressure testing of propulsion stages, purging propellant lines, and gas servicing at engine test stands.

KEY ADVANTAGES

- **One rig, three duties** – charging, pressure testing and purging from one operator panel
- **Mobile** – moves between the launch pad, assembly building and test stand
- **High-pressure rating** – helium and nitrogen service up to 400 bar
- **Safe operation** – relief protection, vent circuits and interlocks designed into the panel
- **Factory tested** – pressure and leak tested before dispatch

Designed and built by Tech Inc. · **Part of the Davey Group since 1990**

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