Designed to keep cool

Industry, medicine, supply engineering or research: the consumption and fields of application of industrial gases vary immensely. Consequently, the most important factor for a successful gas supplier is the location of the production site, either as on-site gas generation or a central plant with a pipeline network. This flexibility and the strict technical regulations require constructions that exceed the limits of standard products. As a result, the SAMSON product range includes cryogenic valves, pressure regulators and level meters developed specifically for these areas of application.

For example, temperatures as low as –196 °C are typical in cold boxes used for cryogenic air separation. Huge demands are placed on valve materials, sealing ability and preventing the valves from icing up.

Cryogenic plants: air separation

Areas of application: research in a cryogenic wind tunnel

Oxygen for steel production

Cryogenic plants:

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Cryogenic plants: air separation

Any mounting position possible
Globe-style or angle-style valve bodies
Overall height and end connections according to customer specifications
DIN or ANSI versions
Bellows seal to prevent heat conduction in the valve space and the valve stem from freezing up
Backup packing
Valve body made of cold-resisting stainless steel or aluminum
Seat-plug trim can be replaced without disassembling the valve
Easy-to-use seat tool
Transport caps to protect the cover flange when disassembled

Type 3246 and Type 3248 Cryogenic Valves

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Transport: taking no risks

Safety and quality are paramount for industrial gas suppliers. They rely on state-of-the-art technology when transporting liquefied industrial gases by road and storing them at their customers’. The difficult operating conditions at pressures up to 40 bar and temperatures as low as –196 °C make the use of special control valves necessary.

The self-operated Type 2357 Pressure Regulators easily meet the requirements in the distribution of cryogenic gases.

The reliable functioning of the regulators at all times – whether they are operated at full or part capacity – is decisive in the competitiveness of a plant. Surfaces can be electropolished to meet highest purity requirements.

Gas at the right time and place

Type 2357-2
Excess Pressure Valve
- Used as economizer
- Additional non-return unit
- PN 50 version type tested by TÜV
- Integrated strainer

Type 2357-1
Pressure Build-up Regulator
- Fail-safe function
- Can also be used as pressure reducing valve
- Version for high-purity gas service (Type 2357-6 with wetted parts made of stainless steel)
- Integrated strainer

Type 2357-3
Pressure Build-up Regulator
- Fail-safe function
- Unites the functions of excess pressure valve and pressure build-up regulator
- Additional non-return unit
- Kvs 3.2
- Integrated strainer
The first step to minimizing transport costs is to make distribution more efficient. A tank management system helps save time and money. Tank levels and pressures are monitored remotely from a central control station. This ensures supply-oriented and on-time delivery as well as continuous safety monitoring.

The Media 6 meter with its associated telemetry system sends data collected at regular intervals to the supply scheduling system. Besides the tank level, limit values and faults are indicated.

The modular design of the Media series allows the attachment of valve blocks, operating pressure gauges and limit switches as required.