The Trifecta® Pro 30K Gas Supply System is the preferred solution for reliable and continuous laser assist gases for delivery pressures up to 550 psig and flow rates up to 30,000 scfh. Drawing liquid from a standard bulk tank, the Trifecta system boosts the liquid pressure by alternately feeding two liquid cylinders equipped with innovative multi-function pressure building vaporizers. The Trifecta solution has no down-time and minimal losses when compared with other laser assist gas solutions. This convenient solution eliminates high-pressure pumps, compressors, cylinder cradles, and surge tanks.

TRIFECTA PRO MODEL HIGHLIGHTS

- Bottom withdrawal improves overall performance and reduces pressure building vaporizer icing
- Rosemount™ brand transmitters provide greater reliability
- Dual Liquid Level Analog DP gauges with equalization valve provides additional tank level monitoring
- Additional isolation valves for component servicing during use
- Maguatrol automatic valves provide simpler installation and better reliability

OPTIONS

- PLC controller with HMI screen provides better graphic display (shown above)
- Remote Monitoring (IoT) provides powerful remote alarm monitoring with control
- SCADA capable to integrate into production control systems
- External electric or ambient pressure building kit for high flow/cold weather installations to allow for flow rates up to 30,000 scfh
- Optional stand adds 12” extension from the ground

PRODUCT HIGHLIGHTS

- System utilizes standard MP (175 or 250 psig) bulk tank to reduce investment and use existing assets
- No downtime – system maintains pressure and flow when bulk tank is filled, thus minimizing product losses associated with filling high pressure bulk tanks
- Cylinders switch by pressure instead of level to further reduce product loss and protect against pressure decay
- Robust design features streamlined all stainless steel piping with only five control valves and one integrated electronic control system (PLC) for increased durability and reliability
- Computer-controlled design simplifies installation, start-up and continuous operation
- Frame assembly features a protective top cover in a compact footprint with an elevated base for improved ventilation
- Plumbing configuration allows for an easy addition of stand alone pressure build vaporizers in the field
- Available for Nitrogen and Argon service
System Requirements

- 15 amp, 110 VAC power, dedicated circuit
- Bulk storage tank with 125 psig minimum operating pressure
- External vaporizer, minimum 650 psig working pressure, sized for maximum flow rate
- One piping connection to bulk storage tank
- One piping connection to downstream process vaporizer
- Optional: vent-to-bulk connection
- High-flow pressure regulation

TRIFECTA® PRO 30K LASER ASSIST GAS SUPPLY SYSTEM

Chart Inc.
U.S.: 1-800-400-4683
Worldwide: 1-952-243-8800

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www.chartindustries.com

Flow Rate
scfh (Nm³/h)

Pressure
psig (bar)

0 10,000 20,000 30,000
(0) (282) (567) (708)

400 300 200 100
(27.6) (20.7) (13.8) (5.5)

550
(37.9)

Pro30          LIN/LAR      30,000       850           600       41.4          550      37.9        72 x 84 x 96    183 x 213 x 244     4500 2041

* Height dimensions will change to elevate system. Optional stand adds 12” to the overall height of the system.