

TRIFECTA® XPRO

LASER ASSIST GAS SUPPLY SYSTEM

The Trifecta® XPro 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 15,000 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 downtime when refilling the bulk tank and minimal losses when compared with other laser assist gas solutions. This convenient solution eliminates high-pressure pumps, compressors, cylinder cradles, and surge tanks.



XPro Controller



Trifecta® XPro Gas Supply System

TRIFECTA XPRO 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
- Trifecta XPro 600 now with standard Magnatrol automatic valves provide a more simple installation and better reliability
- Larger frame provides easier access to service components and provides for better air flow
- Added 4-way valves and improved electrical wiring allow swapping out transmitters without having to blow unit down

OPTION

- External electric pressure building kit for cold weather installations with flow rates up to 15,000 scfh

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
- Inconel and copper used where required in oxygen service model (meets CGA guidelines)
- Available for Nitrogen, Argon, and Oxygen service



Innovation. Experience. Performance.™

TRIFECTA[®] XPRO

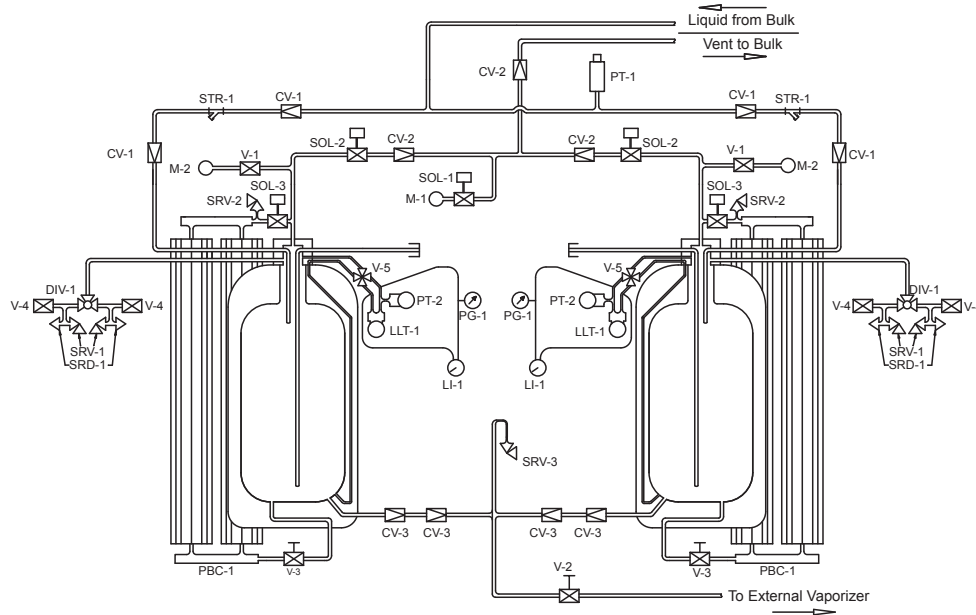
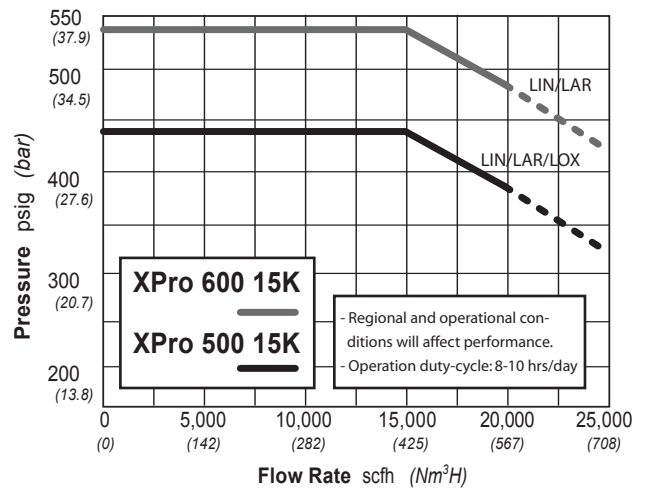
LASER ASSIST GAS SUPPLY SYSTEM

TRIFECTA XPRO SPECIFICATIONS

Model	Flow		MAWP		MAOP		Dimensions (W x D x H)		Weight	
	(SCFH)	(Nm ³ /h)	(psig)	(barg)	(psig)	(barg)	(in)	(cm)	(lb)	(kg)
XPRO LIN/LAR-500 15K	15,000	425	500	34.5	450	31	65 x 59 x 95.25	165 x 150 x 242	1800	816.5
XPRO LOX-500 15K	15,000	425	500	34.5	450 <td>31</td> <td>65 x 59 x 95.25</td> <td>165 x 150 x 242</td> <td>1800</td> <td>816.5</td>	31	65 x 59 x 95.25	165 x 150 x 242	1800	816.5
XPRO LIN/LAR-600 15K	15,000	425	600	41.4	550	38	65 x 59 x 95.25	165 x 150 x 242	1900	861.8

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



NOMENCLATURE

CV-1	FILL CHECK VALVE	PG-1	TANK PRESSURE GAUGE	SRV-1	TANK SAFETY RELIEF VALVE
CV-2	VENT CHECK VALVE	PT-1	BULK PRESSURE TRANSMITTER	SRV-2	P.B. SAFETY RELIEF VALVE
CV-3	LIQUID USE CHECK VALVE	PT-2	PRESSURE TRANSMITTER TRIFECTA	SRV-3	LINE RELIEF VALVE
DIV-1	TANK SAFETY DIVERTER VALVE	STR-1	LIQUID USE STRAINER	V-1	MANUAL VENT VALVE
LI-1	LIQUID LEVEL GAUGE	SOL-1	VENT TO ATMOSPHERE SOLENOID VALVE	V-2	LIQUID USE VALVE
LLT-1	LIQUID LEVEL TRANSMITTER	SOL-2	VENT TO BULK SOLENOID VALVE	V-3	P.B. ISOLATION VALVE
M-1	VENT TO ATMOSPHERE MUFFLER	SOL-3	PRESSURE BUILD SOLENOID VALVE	V-4	MANUAL RELIEF VALVE
M-2	MANUAL VENT MUFFLER	SRD-1	TANK SAFETY RUPTURE DISC	V-5	TRANSMITTER ISOLATION VALVE
PBC-1	PRESSURE BUILD COIL				