

High-pressure Delivery System.

For nitrogen and argon supply.



The Messer high pressure liquid pump is a modern, cost and energy-efficient unit that delivers nitrogen at high pressure. It doesn't degrade the gas purity when liquid nitrogen is gasified.

Area of application

Messer's liquid pump pressure-boosting system is the ideal choice when high-pressure nitrogen or argon is needed. The pump pressurizes liquid nitrogen or argon by a hydraulically-operated, slow-moving piston before evaporation. Therefore, the Messer high pressure liquid pump is a cutting-edge technology for industrial processes such as gas assist injection molding, laser-beam cutting, or other processes for which high-pressure gases are necessary.

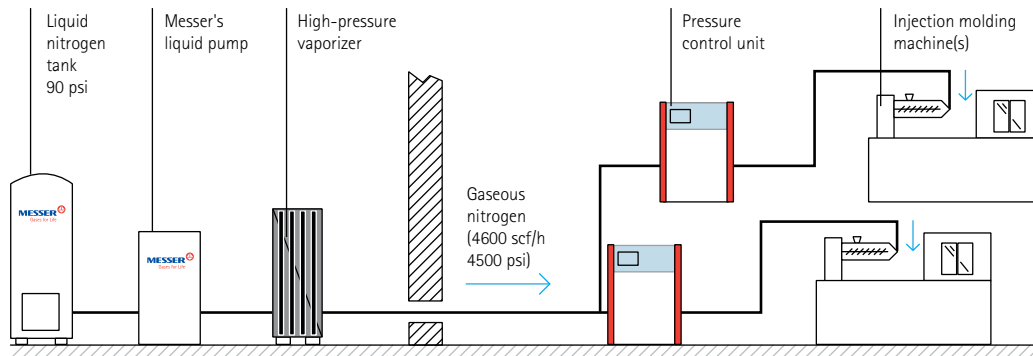
Operation benefits

- Low energy consumption, up to 90% less than state-of-the-art gas compression units
- Flow rate at least five times greater than state-of-the-art gas compressors
- Allows for non-continuous operation without heating up liquid nitrogen
- Oil-free operation eliminates risk of nitrogen contamination
- Ease of operation due to automatic PLC control system

Installation benefits

- Small footprint compared to state-of-the-art compression units for the same capacity and pressure
- Only a small gas buffer required to boost high pressure
- Outdoor installation option saves valuable production plant space

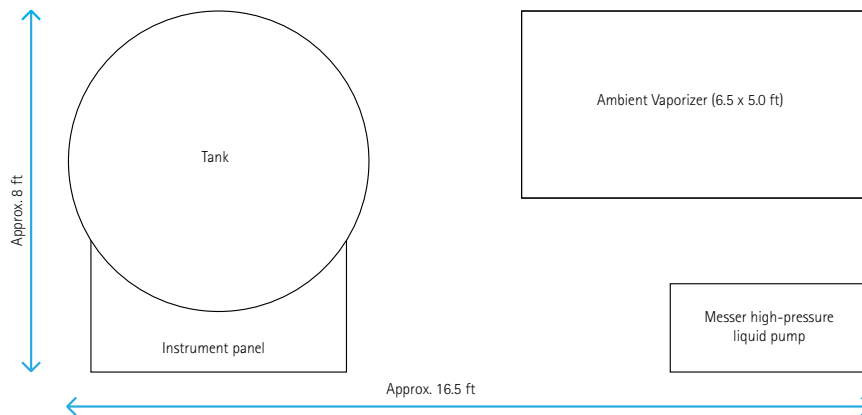
Schematic of complete set-up for gas assist injection molding



Technical specifications

Medium	Liquid nitrogen or liquid argon
Maximum final pressure	4500 psi
Flow rate	175 - 4600 scf/h (N ₂)
Liquid nitrogen supply pressure	60 - 220 psi, recommended
Power supply	480V AC, 3 phase, 60Hz, 21A, Control panel 24V AC
Required energy	Depends on final pressure and consumption (average consumption: 0.0007 kWh/scf)
Dimensions (H x W x D)	77 x 47 x 26 in.
Weight	Approx. 1450 lbs
Noise level	73 dB(A)

Layout example



Maintenance and service

- Express and weekend delivery service
- Tele-tank telemetry system available
- 24 hour monitoring available



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