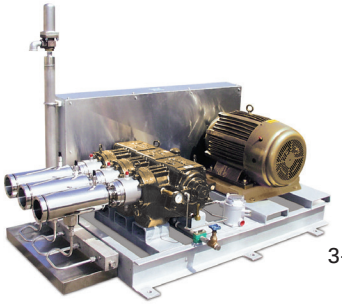
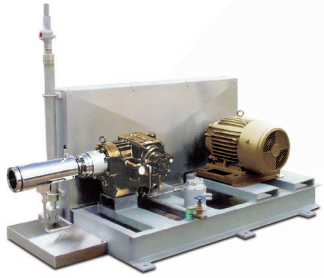
SGV Series

Storage Filling Pump



3-cylinder SGV



1-cylinder SGV

Specifications

Bore x Stroke	in	1.25 x 1.38	1.625 x 1.38	1.97 x 1.38
	mm	32 x 35	41 x 35	50 x 35
Flow Rate	gpm	0.94 – 15.3	1.6 – 25.9	2.35 – 38.1
	lpm	3.56 – 57.9	6.1 – 98.0	8.9 – 144.2
	LH_2 gpm	0.90 – 10.8	1.52 – 18.3	2.25 – 26.9
Pump Design Rating	hp	15 – 200	15 – 200	15 – 200
	kw	11 – 150	11 – 150	11 – 150
Maximum Discharge Pressure	psi	10,000	6,000	6,000
	bar	690	420	420
NPSPR	psi	10	5	5
	bar	0.70	0.35	0.35

60 HZ performance

Features & Benefits

- Modular, compact displacement pumps available in 1, 2, or 3 cylinder configurations provide a wide range of flows
- Vacuum jacketed cold end for minimal cooldown losses and economical operation, ideal for liquid hydrogen
- Pressurized oil lubricated drive with integral oil pump and reservoir, allows higher bearing loads/prevent oil leakage
- Belt driven by electric drive motors allows for extended pump duty
- Improved cold end assembly design extends seal life

Applications

- Specially designed for storage filling
- Special medium to heavy duty applications
- LNG, LN_2, LH_2 process

Liquids Pumped

- Nitrogen
- Oxygen
- Argon
- Hydrogen
- Methane (LNG)

Typical Scope of Supply

- Vacuum jacketed cold end with pressure oil lubricated drive end
- Positive locking coupling
- Standard suction adapter with Monel strainer
- Distance piece with purge ports
- Hot dipped galvanized steel skid
- TEFC motor
- High pressure relief valve with discharge line and surge chamber
- Drip pan kit for LH_2 only
- Suction/vapor return manifold for multiple cylinders

FOR PUMPS INTENDED TO BE USED IN NITROUS OXIDE SERVICE:

Liquid Nitrous Oxide is a potentially dangerous fluid and must be handled with extreme care. See Compressed Gas Association standard CGA G-8.3-2016 for further information. Under certain combinations of temperature and pressure Nitrous Oxide can explosively decompose with serious consequences. Nitrous Oxide is an oxidizer that actively supports combustion. Nitrous Oxide handling equipment must be cleaned for Oxygen service. Design and construction of storage and piping systems for pumping liquid Nitrous Oxide must assure material compatibility and be such as to prevent loss of prime or “dry running” of pumps. Nitrous Oxide is an active solvent for many materials and material compatibility with Nitrous Oxide must be confirmed before their use. For additional historical information relating to hazards associated with Nitrous Oxide decomposition refer to Chemical Safety Board report number 2016-04-I-FL Dated February 2017.

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