



HIPREX

Skid-Mounted High-Pressure Gas Supply Units



Multiple industrial production processes require an intermittent or continuous gas supply at an elevated pressure level from a local cryogenic liquid storage vessel. For such applications KRYTEM developed the HIPREX plant design covering a demand up to several hundred cubic metres an hour at medium to high interface pressure from a single skid-mounted unit that facilitates easy and economic installation, operation and maintenance.

The standard HIPREX unit includes:

- a VSAH type cryogenic reciprocating pumps for thermosyphon tank installation
- a matching CONVEX ambient air heated vaporiser
- a control panel, valves and instruments for semi-automatic operation, standard design: relay logic with ON/OFF control for buffer charging including gas temperature monitoring and cold embrittlement trip
- a solid dip-galvanised structural steel frame designed for transport and easy local set-up.



Each HIPREX size is designed not to exceed 20 ft ISO container dimensions in order to facilitate an economic transport. HIPREX units for more than 200 Nm³/h feature a pivot at the ground support of the ambient vaporiser that allows to fold the fin-tube unit down for transport purposes.

Options

- an additional pump for redundancy
- monel design for oxygen plants, featuring TLCM type pumps instead of VSAH and CONVEX HDM type ambient vaporisers
- an integrated small size buffer up to design pressure
- a CENTREX AL type electric trim heater for gas temperature increase
- a discharge valve manifold or a pressure regulation unit
- steady flow control with a variable speed drive
- valves and instrumentation for fully automated operation, including automatic switch-over of redundant pumps
- PLC control with a remote support module
- control options for cylinder filling (e.g. limitation of the pressure increase velocity)

Technical Data

media	HIPREX ...N: N ₂ , Ar HIPREX ...O: O ₂ HIPREX ...X: LNG / Methane / Natural Gas
standard design pressure	250 / 420 bar (others on demand)
process fluid inlet temperature	>-196°C
outlet temperature	0 to 30°C below ambient temperature (higher temp. optional)

capacity	up to 10 l/min pump capacity (370 Nm ³ /h N ₂ / 460 Nm ³ /h O ₂)
connections	metal-to-metal threaded connections (others available upon request)
materials	Pressurised parts: I.454I, I.457I / 2.4360 Frame: S235JR hot-dip galvanised / I.430I

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