

180K Nitrogen Converter NP-180

The product is a 180K LN2 nitrogen pumping system capable of pumping and vaporizing 180,000 SCFH at 70°F and pressures up to 10,000 PSI when supplied with LN2 from a suitable tank. The prime mover is a Detroit 60 Series diesel engine complete with a pyroban offshore system. The engine drives a gearbox which in turn drives a series of hydraulic pumps used to power a triplex pump fitted with 3 cold ends. Heat is extracted from both the hydraulic and coolant circuits and used to convert liquid to gaseous nitrogen via a nitrogen vaporiser.

Conformity of the systems is through the ATEX certification of the relevant components and extension ignition Hazard risk assessment of the non ATEX certified components and through risk assessment of the completed assembly.



The system has been designed and manufactured for use in Zone II – 3G (NEC 500 Class 1 Division 2)



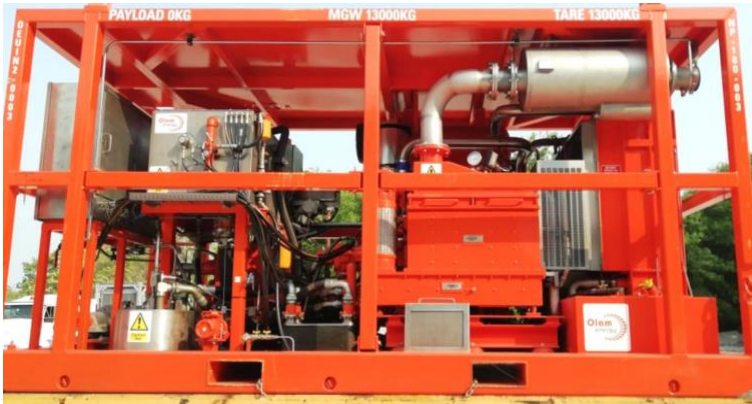
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Design Criteria

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|--------------------------------|-----------------|
| Engine horse power | 500 BHP@2100RPM |
| Maximum working pressure | 10,000 PSI |
| Ambient Operating temperatures | -20°C to +35°C |

Dimensions

| | |
|--------------|------------|
| Length | 5080 mm |
| Width | 2438 mm |
| Height | 2670 mm |
| Max load | 13,000 Kgs |
| Shackle size | 9.5 t |



The unit has been designed to meet the requirements of ATEX, PED and the Machinery Safety Directive and the structural design reviewed by DNV to 2.7-1 and EN12079.



The skid has a four point lift incorporating fork lift pockets and has been approved by DNV.
The skid has been load and drop tested.



Capacities

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|------------------|--------------|
| Fuel | 1,000 litres |
| Hydraulic Oil | 800 litres |
| Triplex Lube Oil | 115 litres |