

LNG PUMP

A. CRYOGENIC SUBMERGED CENTRIFUGAL PUMP (SUBTRAN)

2 stages submerged centrifugal pump, therefore **no mechanical shaft seal** is necessary.

The **cooling of the electrical motor** as well as the **lubrication of the bearings** is done **by the liquid pumped**.

This **increases considerably the lifetime** of the pump (5'000 to 8'000 hours according to the operation conditions) and guarantees a **high purity rate**.

The pump can be easily installed in an existing piping system for semi-trailer or stationary use.

Highlights about SUBTRAN pump:

- ✓ Able to feed **up to two dispenser at the same time**
- ✓ Robust design with low vibration for an **extended bearing lifetime**
- ✓ Standard Cryostar pump to **fit into existing similar installation**
- ✓ Hermetically encapsulated pump **eliminating the need for a shaft seal**
- ✓ Motor bearings lubricated by the process fluid resulting in a “**zero-maintenance**” design
- ✓ Possibility of **immediate start and stop** of the pump without cool down time
- ✓ Balanced and machined inducer, allowing **lowest possible NPSH requirement**, all along the performance curve.
- ✓ **High efficiency closed impeller** made by “lost wax” casting
- ✓ Optimal shaped pump casing with machined axial diffusor, rotating parts balanced individually
- ✓ **Low noise level** due to the submerged design

Service conditions:

Medium	LNG
Max suction pressure	12 bar
Max flow	360 l/min
Max differential head	320 m
Maximum speed	6'000 rpm
Design pressure	30 bar (<i>sump design pressure</i>)
Number of stages	2

Connections

Suction	2" 150 lbs
Vent	½" 150 lbs
Degasing	1" 150 lbs
Discharge	1" 300 lbs

Motor data:

Pump motor connected to a Variable Frequency Drive (VFD) to adjust the speed of the pump.

Electrical motor	15 or 22 Kw (@ 95 Hz)
Network	400/460V, 50/60 Hz, 3ph