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### **Technical Index**

#### ★ Pump ID Meaning

	CSH 260 or (model) (impeller Ø	185 / 5 or 4 (impeller tip width in mm)
	Applications	Road tankers
	Liquids pumped	LO <sub>2</sub> , LN <sub>2</sub> , LAr, LCH <sub>4</sub>
	Drive type	Hydraulic (Hytran system)
	Hydraulic motor power	Up to 70 kW
	Design pressure	Up to 50 bar

#### ★ Test Procedure

Each pump manufactured by CRYO-STAR is mechanically and cryogenically tested prior to shipment in our state-of-the-art testing facility to ensure that performance meets customer specification. The precision of measuring devices provides essential results : differential head, flow rate, seal gas consumption, pump efficiency, NPSH, noise and vibration levels – all documented and submitted to the customer.

#### ★ Quality

Designed in compliance with guidelines like IGC 11/82 norm

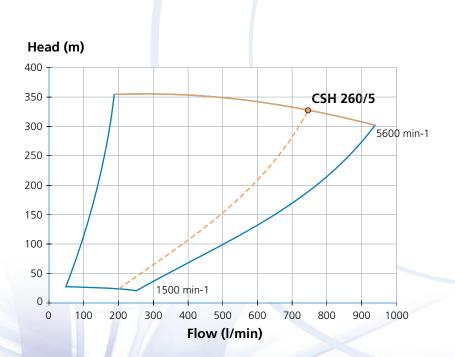
# **Transfer Pump CSH**



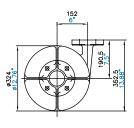
**Transfer Pump** 

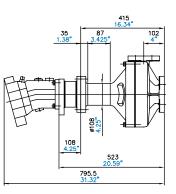


#### **\*** Performance









Possible arrangements



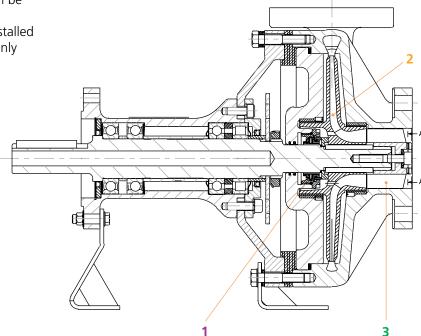
Dimensions in mm Dimensions in inch

Weight without hydraulic motor m: 165 pound / 75Kg

#### **Features**

- \* The hydraulic pump is driven by the truck's power take-off via the truck gearbox which includes an electric piloted flow control valve to allow adjustment of the cryogenic pump speed
- ★ Hydraulic couplings are supplied with fast couplers in order to easily disconnect the vehicle tractor
- ★ The hydraulic circuit is protected by a safety valve installed on the hydraulic pump in order to prevent overloading of the Hytran system
- ★ Control system: a manometer is installed on the high pressure hydraulic circuit to monitor the pressure of the complete hydraulic system.
- ★ At constant speed, the cryogenic pump flow can be adjusted via the discharge line valve The pump is protected by a non return valve, installed on a parallel circuit in order to prevent an suddenly flow shutdown

- The pump shaft is mechanically sealed with a 1 Cryostar composite faced seal, capable of providing up to 4 times the wearing life of conventional carbon faced mechanical seal.
- 2 Closed impeller with axial suction and radial discharge. Impeller balance is achieved hydraulically to minimize the axial load on the bearings
- 3 Bronze helical inducer results in low NPSH requirements with hydraulic optimal conception.



#### **Options**

- ★ Differential pressure switch (protection against dry running)
- ★ Cool down temperature probe
- ★ Leak detection temperature probe
- Purged seal \*
- ★ Complete skid mounted assembly

#### For more details please contact your local Cryostar representative



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