



# Transfer Pump CSH



★ **DISTRIBUTION**  
CRYOSTAR

## Technical Index

### ★ Pump ID Meaning

CSH 260 or 185 / 5 or 4  
(model) (impeller Ø in mm) (impeller tip width in mm)

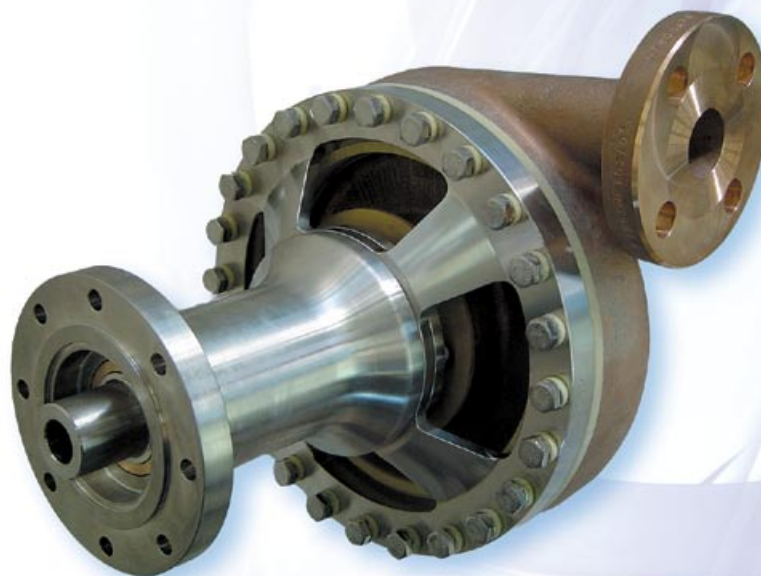
Applications	Road tankers
Liquids pumped	LO <sub>2</sub> , LN <sub>2</sub> , LAr, LCH <sub>4</sub>
Drive type	Hydraulic (Hytran system)
Hydraulic motor power	Up to 70 kW
Design pressure	Up to 50 bar

### ★ Test Procedure

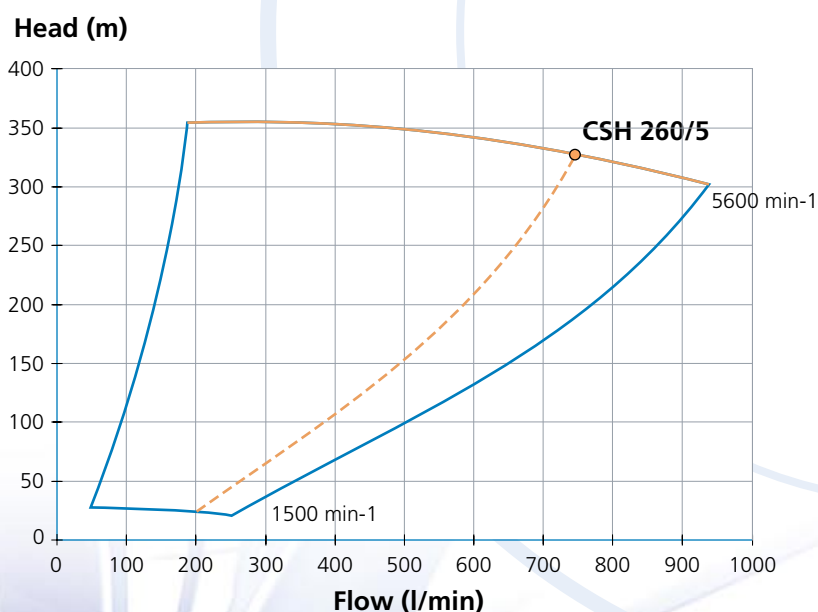
Each pump manufactured by CRYOSTAR is mechanically and cryogenically tested prior to shipment in our state-of-the-art testing facility to ensure that performance meets customer specification. The precision of measuring devices provides essential results : differential head, flow rate, seal gas consumption,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

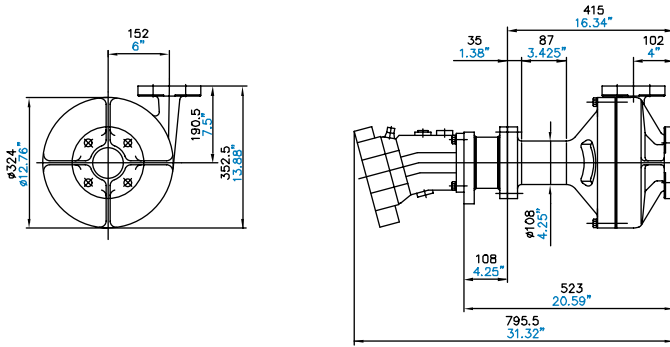
### ★ Quality

Designed in compliance with guidelines like IGC 11/82 norm

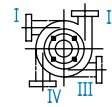


### ★ Performance





Possible arrangements



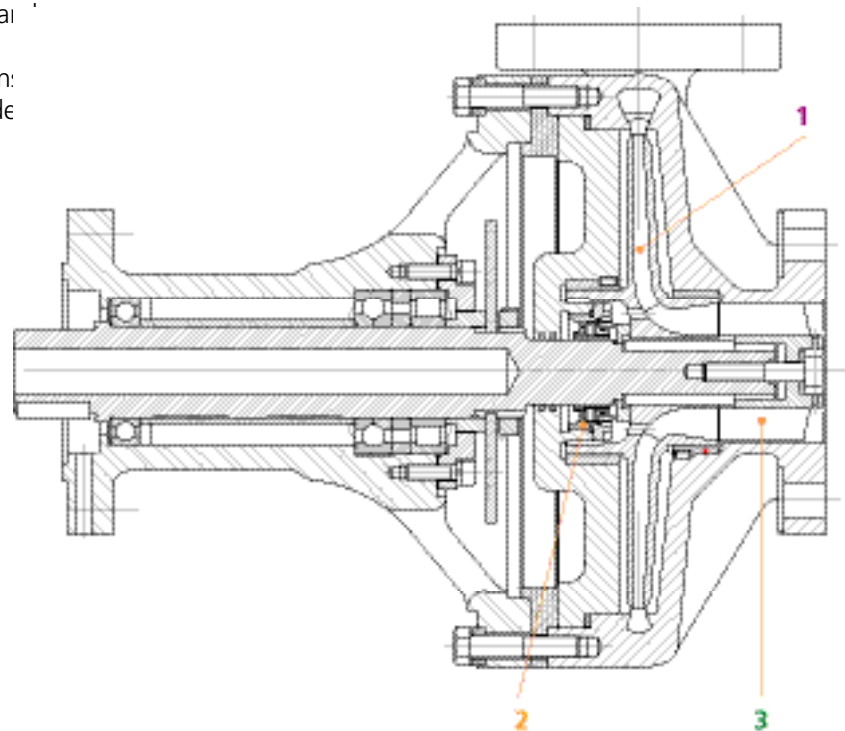
Dimensions in mm  
Dimensions in inch

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, in parallel circuit in order to prevent an sudden flow shutdown

- 1 The pump shaft is mechanically sealed with a 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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