



# Transfer Pump GBS



★ **DISTRIBUTION**  
CRYOSTAR

## Technical Index

### ★ Pump ID Meaning

GBS      155      /      4.5  
(model)    (impeller Ø in mm)    (impeller tip width)

Applications	Stationary pump for liquid transfer
	Road tankers
Liquids pumped	LOX, LIN, LAr, LCO <sub>2</sub> , LN <sub>2</sub> O, LNG
Drive type	Gearbox
Design pressure	28 bar standard (406 psi)
	40 bar for CO <sub>2</sub> version (580 psi)



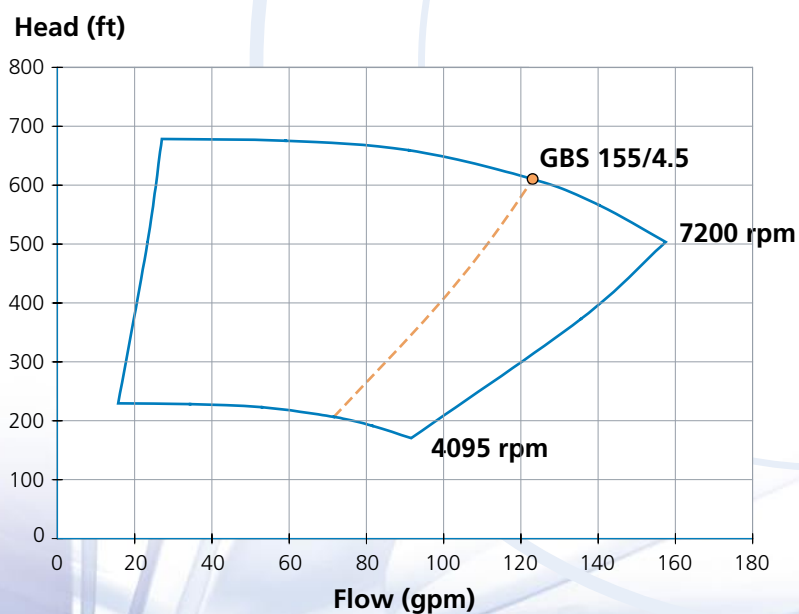
### ★ Test Procedure

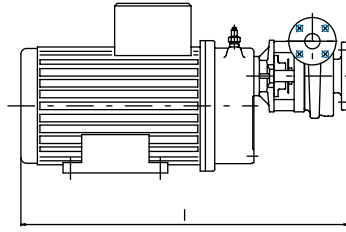
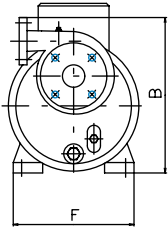
Each pump manufactured by CRYOSTAR is mechanically and cryogenically tested prior to shipment in our state-of-the-art testing facility to ensure that performance meets customer specification. The precision of measuring devices provides essential results : differential head, flow rate, seal gas consumption,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

### ★ Quality

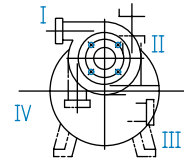
Designed in compliance with guidelines like IGC 11/82 norm

### ★ Performance





Possible arrangements



	KW		Motor frame	I	F	B
	50hZ	60hZ				
GBS 155/4.5	22	25	180	878.5	324	431.5

## ★ Features

- 1 Front opening of housing : easy and reliable replacement of mechanical seal without the need for readjustment of the run-out
- 2 CRYOSTAR composite mechanical seal (4 times longer life time than carbon seals)  
-> for CO2 application : special CRYOSTAR high pressure mechanical seal  
-> for a long life application : CRYOSTAR gas seal
- 3 High hydraulic efficiency closed impeller
- 4 Helical inducer allowing low required NPSH
- 5 Splash lubricated gearbox with oxygen compatible oil
- 6 Helicoidal gearwheels for low noise level

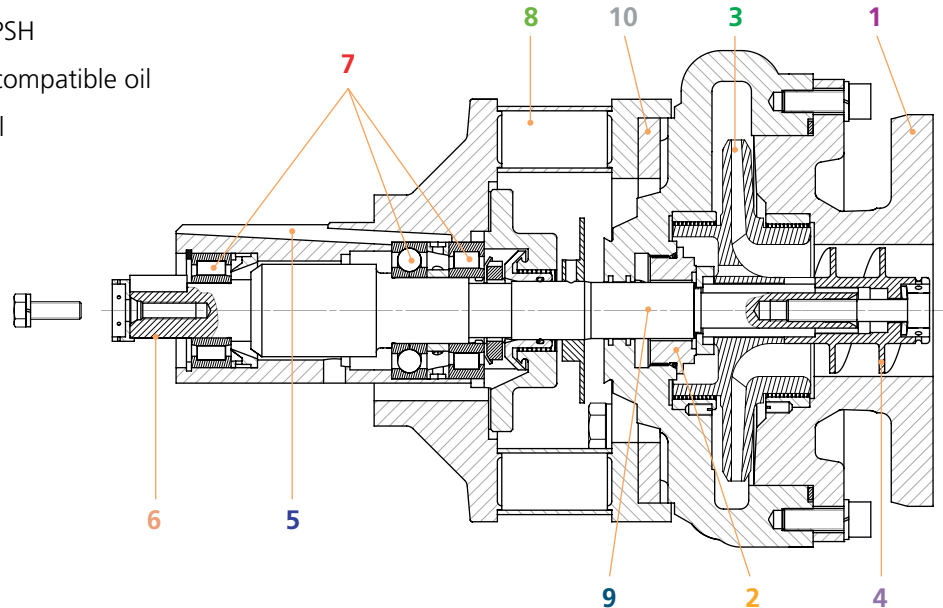
- 7 Pump support with 3 bearings :  
2 for radial thrust and 1 for radial and axial thrust

### Permacold barrier consisting of:

- 8 4 hollow arms open intermediate piece between the volute and the motor
- 9 Hollow shaft reducing thermal conductivity to a minimum
- 10 Thick insulation plate providing low thermal conductivity

## ★ Options

- ★ Differential pressure switch
- ★ Cool down temperature probe
- ★ Leak detection temperature probe
- ★ Purged seal
- ★ Purged gearbox
- ★ Complete skid mounted assembly



For more details please contact your local Cryostar representative



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