

Sr. No.	Parameters	FFL requirement	Vendor reply
1	Pump type (QTY=2)	VENDOR TO ADVISE	
2	Material	As per vendor	
3	Service	Liquefied CO2	
4	Flow (Ton/hr)	Min=8 TPH, Normal=15 TPH, Max=16.5 TPH	
5	Pumping temp	Min= minus 21.7C Max=minus 21.7C	
6	Suction pressure	Min= 17.0kg/cm2G Max=17.0 Kg/cm2G	
7	Discharge pressure	Min= 19.0kg/cm2G Norm= 21.0 Kg/cm2G Max=22.9 Kg/cm2G	
8	Diff pressure	Min= 2.0kg/cm2G Norm= 4.0 Kg/cm2G Max=5.9 Kg/cm2G	
9	Motor rated at 50C	50C ambient. And outdoor Installation	
10	Motor specs	400V, 3P, 50 Hz, IP65, Non hazardous	
11	Inlet and outlet pipe sizes	Inlet = 1.5 inch, outlet 1.5 inch (Reducers can be installed)	
12	Pump Factory performance test	Yes	
13	Anchor bolts	Yes	
14	Removable cold insulation	Yes	
15	Max limit of flow due to inlet pipe size	Not more than 16.5 Ton per hour	
16	Suitable for intermittent operation (5-10 times/day)	Yes	
17	ANSI flanges	Yes	
18	Mating flanges	Yes	
19	PRV (Pressure regulating valve) at discharge	Required.	
20	Pump standard	API/ ANSI / ISO with ANSI flanges	
21	Pump and Gearbox lubrication type	Oil lubricated only	
22	Spares for motors	Bearings and Oil seal set (01)	
23	Spares for Pump	<ul style="list-style-type: none"> <li>· Shaft</li> <li>· Gears (1 set)</li> </ul>	

		<ul style="list-style-type: none"> <li>· Elastomers (3 set)</li> <li>· Bearings (2 set)</li> <li>· Mechanical seal, if installed (2 set)</li> <li>· Coupling (1 set)</li> <li>· Coupling kit (2 set)</li> <li>· Bushes/sleeve (1 set)</li> <li>· Pressure relief valve (1 complete)</li> </ul>	
24	Documents	Pump drawings, part list with material and dimensions, IOM manual. PRV datasheet, Couplings data sheet. Motor data sheet, Performance test reports, GA drawing, Foundation loading data	
25	Accessories required	Drain valves, Pressure relief valve, Insulation, Anchor bolts, baseplate, Skid, Oil level glass, pressure gauges.  <b>All above accessories should be part of Quote and Mounted on Pump Skid.</b>	
26	References list	Required	
27	Preferred sub-suppliers	SIEMENS/ABB for motor, Johncrane for couplings and Mechanical seals.	
28	Performance Guarantee	24 Months after commissioning, 30 Months after shipment whichever occurs first	
29	Mechanical Guarantee	24 Months after commissioning, 30 Months after shipment whichever occurs first	

Please refer to the important information given below:

**Terms & Conditions:**

- Please quote Ex-Works/FCA/FOB prices at this stage. Additional charges for CFR/CPT Karachi delivery, if required, can be provided at a later stage.
- Insurance will be done by the client.
- Payment will be made through an Irrevocable Letter of Credit at Sight (LC) or a Bank Contract (Cash against Documents), with charges inside Pakistan on applicant's account and outside Pakistan on beneficiary's account. If LC confirmation is required by the beneficiary, confirmation charges will be