

REGD
From

Supply Order

The Director General, Supplies & Disposals,
Haryana, S.C.O No. 9, 1st & 2nd Floor, Sector -16, Panchkula.

M/s Rochem Separation Systems (India) Pvt. Ltd.
101, HDIL Towers, Anant Kanekar Marg, Bandra (E),
Mumbai-400051, E-mail:- rochem@rochemindia.com, sales@rochem.in

Memo No. 91/HR/E-2/2023-24/

Dated Panchkula the :-

Subject:- Supply & Installation of Reverse osmosis Desalination unit of capacity 10 m3/hour with 90% efficiency required by the Horticulture Department, Haryana.

With reference to your offer No. NIL opened on 05.06.2023 and letter dated 30.10.2023, this office acceptance letter no.19231 dated 19.12.2023 and your letter no. RSS/LTR/0258/2023 dated 17.02.2024, on the subject noted above.

2. Please supply the material within the delivery period in any case from the date of issue of order, the following material under the terms and conditions already accepted by you in the tender to the consignees to be intimated by the Engineer in Chief, Irrigation and WR Department, Haryana.

3. The material may please be sent directly to the -do- -do-
for the payment and bill of the cost in triplicate to the -do- -do-
under advice to this office.

a. Store Details & Rates :-

Sr. No.	Description	Quantity (in Nos.)	Rates in Rs. per unit inclusive of Operation and Maintenance for one year inclusive of GST @ 18%, FOR consignee stores etc.
1.	Supply & Installation of Desalination Unit with reverse osmosis technology 10cum/hour	01 Nos.	1,00,00,000/-

Technical Specifications of Desalination Unit :-

Sr.	Name of the Systems / Equipments	Major Specification with tentative dimensions (indicative)	Quantity (nos.)
1.	Feed Pump	Specifications of Pump Make: ISI & BIS approved Type: Multi stage centrifugal Pump	1

		<p>Material: SS 316 internal parts Designed capacity max: 10000 (lph) Pump pressure: 3.0 - 3.5 (bar) Rotation: 2900 (RPM) Motor: ISI & BIS approved</p> <p>Specification Drive Type: Three Phase A.C. motor Voltage / Frequency: (V/Hz)415 / 50 Output: (kW) 2.2 Speed: (RPM) 2900 Insulation: class F Class of protection: IP 55</p>	
2.	Filter pump	<p>The filter pump is designed to supply the filter system and high pressure pump with sufficient pre-pressure and consists of a multi-stage centrifugal pump. Min 3.0 bar suction pressure is required for the pump.</p> <p>Specification Pump Make: ISI & BIS approved Type: Multi stage centrifugal Pump Material: SS 316 internal parts Designed capacity max: (lph) 10000 Pump pressure: (bar) 4.0 - 5.0 Rotation: (RPM) 2900 Motor: ISI & BIS approved</p> <p>Specification Drive Type: Three Phase A.C. motor Voltage / Frequency: (V/Hz)415 / 50 Output: (kW) 3 Speed: (RPM) 2900 Insulation: class F Class of protection: IP 55</p>	1
3.	Sand filter	<p>The sand filter pump is designed to supply the filter system and high pressure pump with sufficient pre-pressure and consists of a multi-stage centrifugal pump. Min 3.0 bar suction pressure is required for the pump.</p> <p>Specifications:- Make: ISI & BIS approved Material Vessel: FRP Designed flow rate:(lph) 10000 Operating pressure designed: (bar) 4.0 - 6.0 Operating pressure max.: (bar) 8</p>	1
4.	Cartridge filter	<p>The cartridge filter is designed to remove any suspended matter to reduce organic or inorganic fouling on the membranes. The cartridge filter is supplied with sufficient pre-pressure from the filter pump.</p> <p>Specifications: Make: ISI & BIS approved</p>	1

		Material Filter Element: PP Material Housing: PFRP Type of Element: Wound Type 10 micron Size of Housing: 30" suitable	
5.	Anti-scalant Dosing System	The RO membrane is susceptible to fouling due to precipitation of sparingly soluble salts present in the feed water. Anti-scalant is dosed upstream of the RO membrane to control scale formation. Specifications: Tank Capacity: 100 Lit HDPE Dosing by: Pumping Pump Make : Prominent Pump Capacity: 0-5 LPH at 6 bar Power Supply: 230 V /50 HZ /1 phase	1
6.	Acid Dosing	This system should ensure the fine tuning of the pH of the feed to 6.0-6.5 pH. Acid (HCl) required shall be provided by the firm/contractor. Specifications: Make: ISI & BIS approved Dosing by: Injector system Tank Capacity: 200 Lit Tank MOC: HDPE	1
7.	High pressure pump system	The high pressure pump system should consist of a multistage centrifugal pump supplied with a T.E.F.C. Motor. The pump system should be designed for reliable 24 hours operation with corrosion resistant material of latest standard for use on high TDS water applications. Specifications of Pump: Make: ISI & BIS approved Type: pump Material: SS 316 wetted parted Designed capacity max:(lph) 10000 Pump pressure max:(bar) 60 Specifications of Drive: Type: Three Phase A.C. motor Voltage / Frequency:(V/Hz) 415 / 50 Power: (kW) 22 Speed: (RPM)2900 Insulation: class F Class of protection: IP 55	1
8.	Servo motor valve	This valve should control recovery of system by operating pressure of Module. It should be placed on the reject discharge line. Bushing connection Female: 1" NPT Nominal Pressure: (Bar) 70 Bar Material Housing: SS316	1