

NIQ FOR WATER SOFTENER PLANT

PREAMBLE

I.I.T. Delhi is in the process of procuring “Water Softener Plant” at project site at village Malunga, district Jodhpur, situated 37 km NW of Jodhpur city, Rajasthan.

1. Sealed quotations are invited from prospective bidder containing the “Technical Bid” and the “Financial Bid”, described in para 2 and 3 below. The following should be superscribed prominently on this outer cover, ‘QUOTATION for “WATER SOFTENER PLANT”, RP02260’.
2. A separate sealed envelop containing the ‘Technical Bid’, giving the detailed technical specifications of items offered by you with ‘Technical Bid for “Water Softener Plant” RP02260’ superscribed on the envelop.
3. A separate sealed envelop containing the ‘Financial Bid’ giving detailed financial bid corresponding to the items specified in the technical bid, again superscribing the envelop with ‘Water Softener Plant,” RP02260’.
4. Authority of I.I.T. Delhi reserves the right to reject any or all quotations without assigning any reasons.

ELIGIBILITY

You should have been in area of WATER SOFTENER plants at least for the past 5 years. Printed brochure/Order numbers with date/Order copies/Other proof for 3 such plants should be enclosed (Without which the bid will be summarily rejected).

SCOPE OF WORK

The scope of work includes, design, fabrication, testing, transport to site, erecting, testing and commissioning of the plant described under “Technical Details” attached. Also power will be available at one location. All internal piping and cabling are included in the scope of this work. The electric points for all the machinery are included in the scope of work.

All necessary, statutory approvals, as applicable, is the responsibility of the supplier.

DETAILS TO BE INCLUDED IN ‘TECHNICAL BID’

1. Please note that the ‘Technical Bid’ and ‘Financial Bid’ should be separate.
2. Do not include price in ‘Technical Bid’.
3. General credentials of your firm with all commercial and all governmental registration details must be provided.
4. List of organizations, with addresses and phone numbers (if available), where you have supplied Water Softener.

FINANCIAL BID

1. Please give ‘Financial Bid’ **separately** as detailed in para(3) under “PREAMBLE”.

SUBMISSION AND OTHER DETAILS

- 1) Send in your quotation, along with other documents asked for, under sealed cover, to reach by 14 days of publication of the web advertisement as above, or, last date as mentioned, to the following address, and with the words "Water Softener Plant, RP02260", prominently written on the outer cover. **Do not send any document by email.**
- 2) The technical details and specifications of the equipment required by us are enclosed herewith.
- 3) Delivery F.O.R., Installation and Commissioning to be done at Project Micro-Industry site at village Malunga, District Jodhpur, situated 37 km NW of Jodhpur city, Rajasthan.
- 4) Please indicate terms for Maintenance/Replacement/Servicing etc. Warranty should be for Minimum one year.
- 5) Please indicate any educational discounts offered to IIT, Delhi, clearly in your 'Financial Bid'.
- 6) Kindly send in your quotation to:

PRINCIPAL INVESTIGATOR (RP02260)
Head's Office, Room No. IV-236
Department of Applied Mechanics
Indian Institute of Technology, Delhi
New Delhi-110016

WATER SOFTENER PLANT
TECHNICAL DETAILS FOR WATER SOFTENER (WS)
(INCLUDE IN TECHNICAL BID AS ASKED BELOW)

1) Input Raw Water Quality (ppm: parts per million)

pH	around 6.7
TDS	within 1500 ppm
Total hardness	within 440 mg/l
Calcium	within 125 mg/l
Magnesium	within 32 mg/l
Alkalinity	within 300 mg/l
Chloride	within 190 mg/l

2) Output Treated Water Quality plus capacities

Total hardness (Ca + Mg)	within 10 mg/l
Regeneration time	12 hrs
Capacity	12,000 LPH
Size of pressure vessel with material used and type of coating	Mention
Max. Working Pressure (kgs/cm ²)	Mention
Feed pump with type, capacity and power rating	Mention
Max. Flow	14000 LPH
Average Flow	12000 LPH
One batch output (for 12 hrs)	144000 Ltrs.

LPH: Litres per hour; mg/l: milligrams/litre

3) Salient Features for Softener unit

Please furnish the details of the following sub-systems/units, as asked. This is mandatory. These details will be used to check the supplied items in the plant, in case your bid is successful.

- 3.1 Polystyrene Based Ion Exchange Media capacity 12,000 LPH having high exchange capacity.
- 3.2 Mild steel Pressure Vessels coated with epoxy internally to prevent corrosion and for saving resin from contamination. External coating Red oxide. Mention working pressure. Or Suggest alternative.
- 3.3 Strainers fitted at both ends to prevent Dust particles from entering the vessel.
- 3.4 Cast Iron Rubber Lined Diaphragm Valves to be provided in Main pipeline. Or Suggest alternative.
- 3.5 Pressure Vessel (specify material) fitted with distributors cum strainer plates at ends and supporting legs/ brackets and necessary nozzles, Internal surface suitably coated (mention type) and external surface suitably coated (mention type). See para (3.2) above.
- 3.6 Feed pump for input feed water (mention type), capacity and power rating of feed pump.
- 3.7 Complete set of piping network with bends & fittings.
- 3.8 Diaphragm Valves (mention type and type of lining).

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