

TENDER NOTICE No: NITR/CT-05/2015-16
TECHNICAL SPECIFICATION
DESIGN, FABRICATION, TESTING & SUPPLY OF PLATE TYPE HEAT EXCHANGER
FOR WARMING UP SWIMMING POOL WATER

- 1.0 : **Type** : Gasketed Plate & Frame Type Heat Exchanger
- 2.0 : **Medium** : Water to Water
- 3.0 : **End Use** : For Heating Up Swimming Pool Water
- 4.0 : **Installation** : Out-door, Self-supporting
- 5.0 : **Primary Side** :-
 - 5.1 : Medium : Hot Water from Client's Condenser Cooling AC Plant
 - 5.2 : Rate of Flow : 310 CuM/Hr
 - 5.3 : Inlet Pressure : 3.5 kg/sq.cm (35 MWC)
 - 5.4 : Allowable Pressure Drop : 0.4 kg/sq.cm (<4 MWC)
 - 5.5 : Inlet Hot Water Design Temp. : 35 deg.C (Max.)
 - 5.6 : Size of Inlet & Outlet Flanges : @ 250mm Dia., IS:6392-1971
- 6.0 : **Secondary Side** :-
 - 6.1 : Medium : Cold Water from Swimming Pool
 - 6.2 : Rate of Flow : 310 CuM/Hr
 - 6.3 : Inlet Cold Water Design Temp. : 27 Deg.C
 - 6.4 : Rise in Temp. at Outlet : Minimum 5 (Five) Deg.C
 - 6.5 : Inlet Pressure : Manufacturer to Design & Specify
 - 6.6 : Outlet Pressure Required : > 0.5 kg/sq.cm (> 5 MWC)
 - 6.7 : Allowable Pressure Drop : Not more than 0.4 kg/sq.cm (< 4 MWC)
 - 6.8 : Size of Inlet & Outlet Flanges : @ 250mm Dia., IS:6392-1971
- 7.0 : **Painting of Frame** : Two Coats Synthetic Enamel Paint
over Epoxy Based Red Oxide Coat.
- 8.0 : **Accessories** :-
 - 8.1 : Dial \geq 40mm Type Pressure Gauges (4 nos.) with 2 way Cock at Inlets & Outlets
 - 8.2 : Thermo-meters (4 nos.) with Holder at Inlets & Outlets of Heat Exchanger
 - 8.4 : Spare Gaskets : Ten (10) nos.
- 9.0 : **Material of Construction** :-
 - 9.1 : Plates : SS-316 and Thickness : 0.5mm (minimum)
 - 9.2 : Gaskets : NBR
 - 9.3 : Frame : MS, IS:2062, Gr:B
 - 9.4 : Tie Rods, Studs & Fasteners : Carbon Steel, IS:1367
 - 9.5 : Flanges : MS, IS:2062
- 10.0 : **Tenderer to Submit** : General Arrangement & Cross-sectional Drawings

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TECHNICAL DATA SHEET
(To be filled-in & submitted by the Tenderer)
GASKETTED PLATE & FRAME TYPE HEAT EXCHANGER

- 1.0 : Type :
- 2.0 : Design Code :
- 3.0 : Type of Installation :
- 4.0 : Heat Transfer Area :
- 5.0 : Heat Load :
- 6.0 : No. of Plates Provided :
- 7.0 : Overall Dimensions each of Plate :
- 8.0 : Thickness of Plate :
- 9.0 : Type of Plate Design / Corrugation :
- 10.0 : Material of Construction :-
 - 10.1 : Plates :
 - 10.2 : Frame :
 - 10.3 : Gaskets :
 - 10.4 : End Plates :
 - 10.5 : Studs & Bolts :
- 11.0 : Primary Side :-
 - 11.1 : Designed Pressure Rating :
 - 11.2 : Designed Rate of Water Flow :
 - 11.3 : Designed Pressure Drop :
 - 11.4 : Designed Hydraulic Test Pressure :
 - 11.5 : Designed Inlet / Outlet Temp. & ΔT . :
 - 11.6 : Size of Inlet / Outlet Flanges :
 - 11.7 : Inlet / Outlet Nozzle Length :
- 12.0 : Secondary Side :-
 - 12.1 : Designed Pressure Rating :
 - 12.2 : Designed Rate of Water Flow :
 - 12.3 : Designed Pressure Drop :
 - 12.4 : Designed Hydraulic Test Pressure :
 - 12.5 : Designed Inlet / Outlet Temp.& ΔT . :
 - 12.5 : Size of Inlet / Outlet Flanges :
 - 12.6 : Inlet / Outlet Nozzle Length :
- 13.0 : LMTD :
- 14.0 : Fouling Factor :
- 15.0 : Pre-Dispatch Testing Procedure at Works :
- 16.0 : Supporting Legs / Pedestal :
- 17.0 : List of Accessories & Spares Offered :
- 18.0 : Overall Dimension of Heat Exchanger :
- 19.0 : Shipping Weight of Heat Exchanger :
- 20.0 : List of Drawings & Leaflets Enclosed :
- 21.0 : Any other, information :