

TEHCNICAL SPECIFICATIONS

1. Scope of Work

Supply, Erection and commissioning of covered GRP sectional water tank. Each water tank shall consist of carrying capacity of 200 KL and shall be completely covered with provision of access manhole as mentioned in the drawings below. Level indicators and inlet/outlet valves and pipes shall be provided by the vendor. Other items including the steel frame (required for seating the water tank) required fasteners, ladders (height of 1.5m higher that height of tank for both external and internal), screened vent, and all other items required for operation and maintenance of the water tank shall be provided by the vendor.

Dimension of the tank Shall be: 12m(Length) x 6m(width) x 3m(Height)

Vendor shall make suitable modifications to the sizing as required by BHEL Engineer in Charge due to changes in site conditions.

The Inlet of the tank shall be up to a maximum of 5m distance from the tank location. The outlet of the tank shall be up to a maximum of 2m distance from the tank. The inlet/outlet pipes shall be 4-inch GI pipe confirming to IS specifications and shall be provided with required valves for isolation in each tank. Drain provision with required valves shall be provided in each tank.

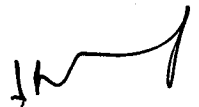
The testing shall be done by the contractor, however water for the same shall be provided by BHEL. Availability of the total quantum of water may take time, thus vendor may demobilize and mobilize again for testing after erection and commission of the tank when intimated by Engineer in Charge.

Standard :

IS 14399 shall be followed for material supply and erection.

2. Foundation

BHEL shall provide foundations for the tanks. The vendor shall provide the details for foundation design and Spacing of foundations within 15 days from placement of the purchase order. Any materials such as packers, grouting, foundation bolts (if required) etc. required for making the surface even and fixing the structure in position for placing the steel frame shall be under the scope of the vendor.



3. Materials :

The vendors shall supply materials as per details mentioned below:

Resin- Isophthalic unsaturated polyester resin conforming to IS 6746 specification

Fiber Glass- Low alkali fibre glass reinforcement conforming to IS 11273, IS 11320 and IS 11551

Manufacturing Process :

SMC hot pressed compression moulding

Tank Structural Support :

External: Hot Dipped Galvanised Steel

Internal: - Standard Type : SS 304 Tie-Rod or Cleat Angle Stay

Roof Support - PVC Vertical Poles and GRP roof panel stiffener

Sealant :

Nontoxic PVC foam

Bolt, Nuts, Washers :

External:

- Standard : Hot Dipped Galvanised Steel

Internal:

- Standard : SS 304/A2 (In-contact with water)

Roof - Hot Dipped Galvanised Steel or unless otherwise specified

Ladder :

External - Standard : Hot Dipped Galvanised Steel.

Internal - Standard : PVC

Water Level Indicator :

Standard Reversed Reading Mechanical Ball Float Type with Mouse

Nozzle Panel :

Flat panels will be provided for any type of piping materials.

Valves: shall correspond to IS specifications



4. Tools and Plants

All tools and plants required for execution of the works shall be under the scope of the bidder.

5. Drawings & Documents

Vendor shall submit detailed drawing of the tank before supply of materials for BHEL records.

Vendor shall submit Quality assurance plan within 1 week from award of contract.

6. General

In case of any delay, BHEL reserved the right to complete the balance scope of works at the risk and cost of the vendor by deploying the required resources.

All materials received at site shall be under the care of the contractor until handing of the same to BHEL.

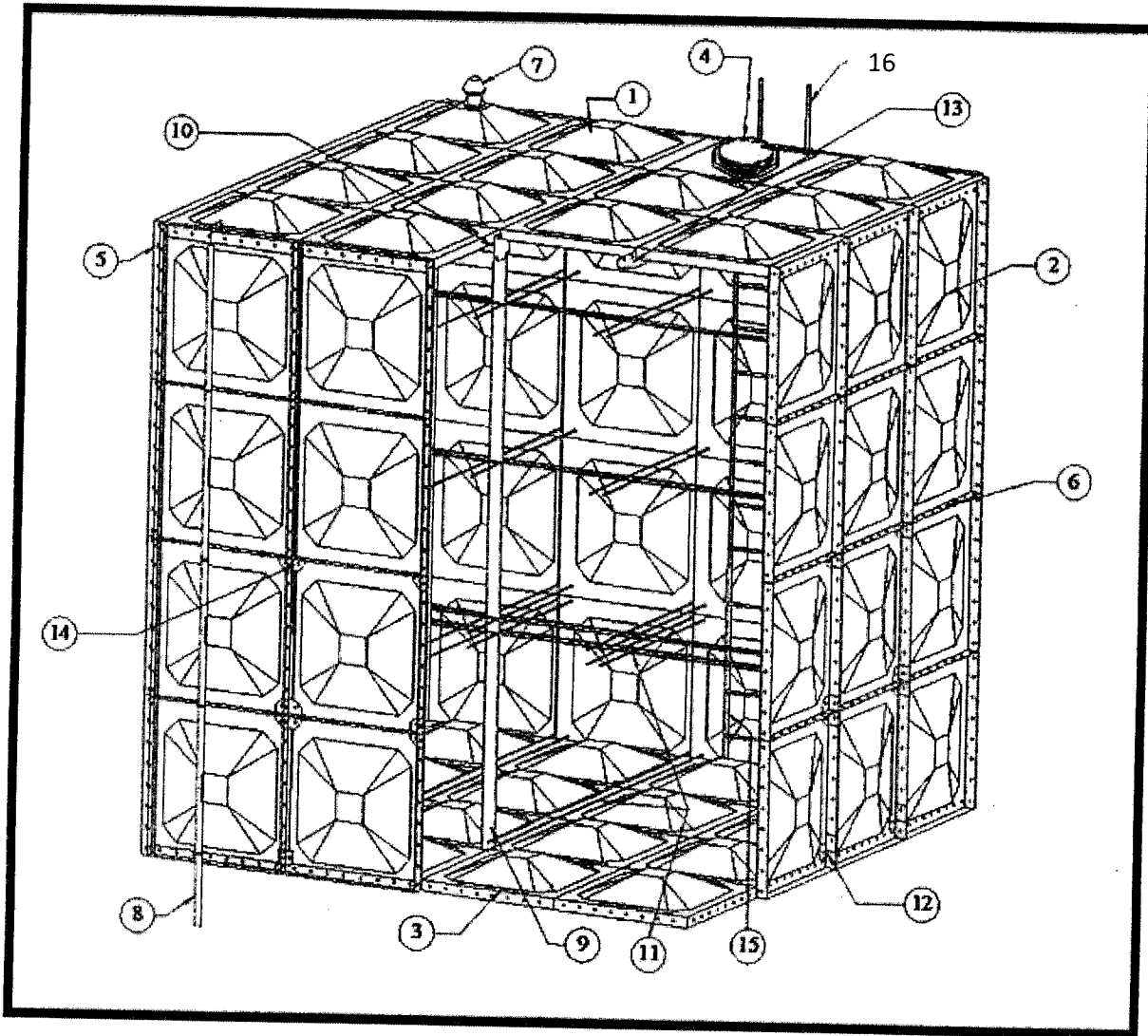
All statutory formality shall be taken care of by the vendor.

7. Time Schedule

The materials need to be received at site within 8 weeks from approval of the Quality assurance plan. The tank shall be erected within 2 weeks from supply of materials.

The total contract period shall be 10 weeks from award of purchase order.





Main Component	External Structural Support	Internal Structural Support	Tank Accessories
Top panel (1)	Body angle (6)	Pole (9)	Access manhole (4)
Side panel (2)	Corner angle (5)	Pole support (10)	Air vent (7)
Bottom panel (3)	Tie-rod bracket (12)	Tie-rod (11)	Water level indicator (8)
	Side panel support (14)	Roof support (13)	Internal ladder (15)
			External ladder (16)

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Terms of Payment

1. 80% on supply of materials on pro rata (vendor shall provide supply BOQ on receipt of purchase order from BHEL)
2. 15% on Erection and commissioning of the materials
3. 5% on completion of water leak test of the tank

