

Annexure - C to Tender BAP/CAP/2013-14/OT-22

SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF SWIMMING POOL EQUIPMENT

BILL OF QUANTITIES

S No	DESCRIPTION	QTY	UNIT	VENDOR TO SPECIFY
1	FILTRATION EQUIPMENT			
a	<u>SAND FILTER :</u>			
	Sand filter of dia 800mm(or above) made of anticorrosive fibre glass reinforced polyester resin with pressure gauge, manual air vent, manual water drain & emptying plug fitted with collector arms and diffuser made from unplasticized PVC and polypropelene. Filtering Velocity not greater than 30m ³ /hr/m ² , Maximum working pressure : 2.5 Bar,Flow rate = 19 m ³ /hr or above with required filter media filling complete & Multiport valve (2" dia & above, 6 position, side/top mounted).	2	Nos	
b	<u>RECIRCULATING PUMP:</u>			
	Centrifugal self priming pump and motor, with common base frame, antivibration pads, fasterns etc as per the following spec. 1)Capacity of pump & motor - minimum 2HP, single phase, IP 55 2)Flow rate - 21 m ³ /hr or above @1.3 bar 3)Body of the pump- Durable composite material 4)Motor starter with over load protection, 2 NO/ 2 NC contacs for remote operation 5)Suction strainer shall have transperant lid for easy maintenance 6)The pump should be of chemical resistant,shaft (SS 304 or above) & cast iron impeller.	3	Nos	
2	FILTRATION FLOW FITTINGS FOR MAIN POOL			
a	MAIN DRAIN: Pool main drain of size 300mmx300mm or above with ABS/SS material with connected pipes.	2	Nos	
b	VACCUM POINT: Vaccum point in white ABS with suitable size of outlet opening and connected conduit pipes.	3	Nos	
c	POOL INLETS: Pool inlet fitting in white ABS, adjustable type with suitable outlet opening, minimum flow rate- 12 m ³ /hr including puddle flanges/wall conduit with necessary accessories.	12	Nos	
d	OVERFLOW GUTTER DRAINS: Over flow gutter drain in ABS, 63 mm diameter, minimum flow rate-18 m ³ /hr including mounting accessories.	4	Nos	

e	OVERFLOW GRATING: Co-polymer deck over flow grating of 12" width, inter locking type & single spine.	60	Rmt	
3	FLOOR/WALL TILINGS			
	Glass mosaic tiles of size 1"x1" or 2"x2", 4mm minimum thickness for floor and walls of swimming pool, toddlers pool & drains over a plastered surface with required quantity of adhesive cement. Make: Italia / Olive/ Accura/ Austin or equivalent (Note: a) Colour of the tiles will be decided by BHEL at the time of supply b) Double colour will be selected for aesthetic look c) Laying of tiles is also in the scope of supplier).	300	Sqm	
4	LADDER :			
a	Supply of 40 mm dia SS316 Ladder (3 Steps) with antiskid finish.	2	Nos	
b	Supply of 40 mm dia SS316 Ladder (4 Steps) with antiskid finish.	2	Nos	
5	CLEANING & MAINTENANCE ACCESSORIES:			
a	Metallic Anodized Alumunium Vacuum Head	1	Nos	
b	Reinforced aluminium telescopic pole, extendable & to used along with Vaccum head	1	Nos	
c	Vacuum Hose - 12 Metre	1	Nos	
d	Curved brushes made in polypropelene for pool basins and scum liners	1	Nos	
e	Straight brushes made in polypropelene for pool basins and scum liners	1	Nos	
f	Algae Brushes with stainless steel bristles	1	Nos	
g	Surface net made in polypropelene and white polyester netting butterfly connection	1	Nos	
h	Deep bag net made in polypropelene and white polyester netting butterfly nut connection	1	Nos	
i	Test kit for free chlorine & pH	1	Nos	
6	OTHER ITEMS			
a	Floating Mats	10	Nos	
b	Swimming tubes	10	Nos	
c	Nylon rope - 10 meters with floating balls	1	Nos	
7	CHEMICAL EQUIPMENT:			
a	Chlorine Dosing plant including electronic dosing pumps, with fittings complete, 100Ltrs PVC/HDPE/FRP tank and stirrer. Electrical : 230V, 50Hz, AC supply Suction/Discharge Tubing : 4/6mm	1	Set	

b	Alum Dosing plant including electronic dosing pumps, with fittings complete, 100Ltrs PVC/HDPE/FRP tank and stirrer. Electrical : 230V,50Hz, AC supply Suction/Discharge Tubing : 4/6mm	1	Set	
c	Soda Ash Dosing plant including electronic dosing pumps, with fittings complete, 100Ltrs PVC/HDPE/FRP tank and stirrer. Electrical : 230V,50Hz, AC supply Suction/Discharge Tubing : 4/6mm	1	Set	
d	Ozonator of 0-10 gms/hr capacity for entire pool including SS (304 or above) Injector System and cabinet for housing ozone cells. Accessories for Ozonator including SS (304 or above) venturi with NRV, Interconnecting pipes and injection fitting, Oxygen Concentrator with air dryer. Make: Eltech engineers, Oz-air or equivalent	1	Set	
8	POOL PLUMBING			
	Supply of all interconnecting UPVC pipes with a minimum pressure rating of 10 kg/cm ² , conforming to IS 13592-1992 with necessary fittings, tail piece flange & supports for pool supply line, return line & overflow line complete set required as per the Pool diagram in the annexure.	1	Lot	
9	CONTROL AND REGULATION EQUIPMENT:			
	Supply of necessary isolation & control valves with the required accessories (refer pool diagram)	1	Lot	
10	ELECTRICAL ITEMS:			
a	UNDERWATER LIGHTS:			
	Niche type 300 W, 12V underwater lights, body and rim made of white ABS with necessary transformer, junction box, cable conduits required as complete.	8	Lot	
b	MCB DISTRIBUTION BOARD:			
	MCB distribution board with double door (metal), duly prewired with components as: a) 32A, TPN MCB type Isolator , (30ma) ELCB / or RCCB (1 Nos for incoming). b) 10A to 20A, Single Pole MCB (6 Nos for outgoing feeders).	1	Lot	
c	CABLES:			
	Supply of all necessary cables for the Pool electrical system.	1	Lot	
11	ERECTION TESTING AND COMMISSIONING:			
	Erection, Testing & Commissioning for the above mentioned Pool equipment as per manufacturer's standards and as instructed by BHEL Engineer-in-charge and trial operation of the pool equipment for a period of 15 days.	1	Lot	

**SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF SWIMMING POOL
EQUIPMENT IN PALAR CLUB**

SCOPE OF WORK:

- 1) The scope of work is broadly as per the BOQ and layout drawing enclosed with the tender documents.
- 2) Before quoting, the tenderer is expected to inspect the site of the proposed work and satisfy himself the site conditions.
- 3) The vendor has to submit equipment foundation drawings for major equipment like filters, pumps etc after receipt of the P.O.
- 4) The supplier has to submit electrical load details of swimming pool equipment.
- 5) Laying of Pool tiles & required adhesive materials are also in the scope of supplier.
- 6) The supplier has to co-ordinate with the civil contractor during concreting of Swimming pool for installing main drain, pool inlets, vacuum points, underwater lighting etc.
- 7) The supplier has to engage one operator for the swimming pool during the trial operation of 15 days.

