

**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING
OF FIRE FIGHTING SYSTEM AND GETTING NOC FROM
FIRE AND SAFETY AUTHORITIES FOR URBAN HEALTH
CENTRE,AT JIPMER PUDUCHERRY**

**Volume- IV
BILL OF QUANTITIES**

Tender No: HLL/IDD/CHN/19-20/030

Dated: 13th January 2020



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Bill of Quantities**Tender No: HLL/IDD/CHN/19-20/030 dt. 13.01.2020****Name of Work: Supply, Installation, Testing and Commissioning of Fire Fighting system and getting NOC from Fire and safety authorities for Urban Health Centre, at JIPMER Puducherry**

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
I	FIRE PUMP & ACCESSORIES					
1	Supplying, installation, testing and commissioning of electric driven terrace pump suitable for automatic operation and consisting of following, complete in all respects, as required: (Terrace Pump) a. Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical confirming to IS : 1520. b.Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase, 50 Hz, AC supply with IP55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325. c.M.S.fabricated common base plate, coupling, coupling guard, foundation bolts etc.as required. d.Suitable cement concrete foundation duly plastered and with anti vibration pads. (900 lpm at 35 m Head)					
a	Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical confirming to IS : 1520					
b.	Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase, 50 Hz, AC supply with IP55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.					
c.	M.S.fabricated common base plate, coupling, coupling guard, foundation bolts etc.as required.					
d.	Suitable cement concrete foundation duly plastered and with anti-vibration pads.					

	900 lpm at 35 m Head	SET	1			
2	Supply, Installation, Testing and Commissioning of Motor control centre with necessary MCCB's, contactors, etc., suitable for DOL starting mechanism. The panel shall also provided with indicating lamps,voltmeter,ammeters,Digital energy meters, selector switches, auto/manual switches, OLR, etc.	SET	1			
3	Supplying of following XLPE insulated and PVC sheathed armoured copper conductor power cable of 1.1KV grade with necessary accessories such as Glands, Lugs etc.					
a	3 C x 6 Sq.mm Copper Armoured Cable	RM	80			
b	2 C x 1.5 Sq.mm Copper armoured Cable	RM	50			
4	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required :					
a	150mm dia	NOS	7			
5	Providing, installation, testing and commissioning of non-return valve of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required :					
a	150 mm dia	NOS	3			
b	80 mm dia	NOS	1			
6	Providing, installation, testing and commissioning of stainless steel Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange.					
a	150mm dia	NOS	1			
7	Supply, Installation, Testing and Commissioning of Forged brass finished Ball valves PN16 with fittings of screwed end type and accessories etc.					
a	15 mm dia	NOS	4			
8	Supply, Installation, Testing and Commissioning of Pressure gauge glycerine filled (0-16 Kg./sqcm) of 150 mm dia Dial size with Ball valves, siphon, fittings like unions/colours/reducers etc.	NOS	2			

9	Supply, Installation, Testing and Commissioning of Pressure switch (0-10 Kg./sqcm) with ball valves fittings like unions/colours/ reducers etc.	NOS	1			
10	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required :					
	2 way-100 mm dia M.S. Pipe	SET	1			
II	DOWN COMER & HOSE REEL SYSTEM					
1	Supplying and fixing single headed internal hydrant valve with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type - A) with blank Gunmetal/Stainless Steel cap and chain as required :					
	Single headed Gunmetal	SET	4			
2	Supply, Installation, Testing and Commissioning of 18 SWG MS hose boxes with front glass and key to accommodate two hoses of 15m long and one branch pipes with nozzle, and cabinet shall be powder coated of approved colour both inside and outside.	NOS	8			
3	Supplying and fixing 63 mm dia, 15 m long RRL hose pipe with 63 mm dia male and female couplings duly bound with GI wire, rivets etc. conforming to IS 636 (type-A) as required :					
	Gun Metal	SET	16			
4	Supplying & fixing 63 mm dia gun metal short branch pipe with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for instantaneous connection to interconnect hose pipe coupling as required :					
	Gun metal	NOS	8			

5	Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required. 20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585 20 mm nominal internal dia gun metal globe valve & nozzle. Drum and brackets for fixing the equipments on wall. Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket.					
	40 m	SET	4			
6	Supply, Installation, Testing and Commissioning of forged brass finished 25mm dia Ball valves PN16 with fittings of screwed end type and accessories etc.	NOS	6			
7	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required :					
a	150 mm dia	RM	80			
b	80 mm dia	RM	10			
c	25 mm dia	RM	10			
8	Supply, Installation, Testing and Commissioning of Gun metal Air release valve - 25mm dia, This rate shall include all necessary accessories etc.	NOS.	1			
9	Providing laying, testing & commissioning of 'C' class heavy duty MS Pipe conforming to IS 1239/3589 i/c fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. in ground including welding, excavation & providing cement concrete blocks as supports, anticorrosive treatment with coaltar/asphalt tape as per IS 10221, refilling the trench etc. of following sizes complete as required. 150 mm dia	RM	90			

10	Supply, Installation of 10000 Ltrs PVC water tank with necessary pipe connection, etc all complete	NOS	1			
11	Supplying and fixing Single headed external yard hydrant valve with 1 No. 63 mm dia instantaneous FM Gunmetal/Stainless Steel coupling and cast iron wheel, ISI marked, conforming to IS 5290 (type A) with blank Gunmetal/Stainless Steel cap and chain as required :					
	Single headed Gunmetal	SET	4			
12	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of following size on wall surface as required.					
	Upto 35 sq. mm (clamped with 1mm thick saddle)	RM				
III	SIGNAGE (FIRE AND SAFETY)					
1	Providing and installing in position the following type of sign boards made out of 3mm thick rigid PVC board with computer cut with texts written to recommended height in photolumiscent material complete vide technical specifications with mirror fasteners. Sizes and mounting height of the board shall be as per technical specification.					
	Signage with printed "IN CASE OF FIRE, USE STAIRS UNLESS INSTRUCTED OTHERWISE" of 1.5cm height letters in red with white back ground. The size of the board shall be 25cm x 30 cm and shall be fixed at the height of 2 mts. from finished floor near Manual call points. Auto Glow paint	NOS	4			
2	Supply and Installation of Life safety related signage's (EXIT, DIRECTION ARROWs i.e., left, right, straight, down up, Both way)as per site condition. The size of the board shall be 10cm x 30 cm	NOS	20			
3	Providing and fixing in position the signage's " FIRE ORDER" it should contain the following matter on 3mm thick "Opaque" PVC foam board of computerized cut, PVC non-reflective self-adhesive vinyl	NOS	6			

	<p>Painted foam board of 33" x 46".</p> <p>Alert the security at security room by actuating manual call point located at strategic locations. auto glo</p> <p>Evacuate the occupants by using fire exits and emergency exits only and assemble at assembly point. auto glo</p> <p>Be calm and do not give any room from panic, walk, do not run.</p> <p>Action by security/reception upon receipt of information through fire alarm or fire detectors or by using public address system.</p> <p>Alert the security / occupants / staff by using public address system.</p> <p>Inform fire control through any one of the following phone numbers:</p> <p>Refer evacuation plan from evacuating standard people.</p> <p>Main master board site identification size</p>					
4	Supply & Installation of Assembly point 12"x12" with MS frame stand including civil works	NOS	1			
5	Design, Supply & Installation of A1 size Escape Route plan with auto glow paint and acrylic covering, 4mm thick along with necessary fixing accessories, etc all complete	NOS	3			
IV	Fire Department Approval					
1	Towards Preparation of Design Calculations, Working Drawings, Asbuilt Drawings, Arranging inspection, Getting fire department approval, Coordination with local fire department to get in principle and principle approval for Fire services (NOC). All complete and Handing over to JIPMER	JOB	1			
Total Amount						
Add GST						
Grand Total Amount incl. of GST in Figures						
Grand total amount in words: Rupees						

END OF VOLUME - IV