

## CONSTRUCTION OF MCH BLOCK AT TALUK HOSPITAL, KODUNGALLUR

### PART IV - FIRE FIGHTING WORKS

Item No	Description of Item	Quantity	Unit	Rate Rs (In Figures & words)	Amount Rs
	<b>FIRE HYDRANT/DOWN COMER SYSTEM</b>				
1	<p><b>Fire pump at terrace</b> Supply, erection, testing and commissioning of electric driven monobloc pump with cast iron body and bronze impeller capable of discharging minimum pressure of 2.0 kg/cm square 900 lpm fitted to MS fabricated base plate with anti vibration pads and fixed firmly on concrete foundation with bolts including cabling upto the isolator using 3 core 6Sq.mm cable complete.</p>	1	Each		
2	<p><b>Underground piping</b> Supply, laying and testing of electric resistance welded steel pipes, heavy grade conforming to IS 1239 (part I) and IS 1978 laid at depth not less than 1m below ground level with piping capable of withstanding for two hours of pressure equivalent to 150% the maximum working pressure, the specials used of heavy grade mild steel conforming to IS 1239 (part II)m capable of withstanding a pressure equivalent to 150% the maximum working pressure, the pipes shall be jointed as per the laid down welding procedures, protected with standard wrapping procedures using bitumen based anticorrosive material including excavation of soil and making good the ground after testing of pipes. 100mm</p>	54	Rm		

3	<p><b>Above ground piping</b>  Supplying, laying and testing of electric resistance welded steel pipes, heavy grade conforming to IS 1239 (part I) with horizontal run of pipes fastened to the hard ceiling using saddle bracket and and clevis hanger, vertical run of pipes in ducts fastened to the wall using saddle bracket and riser clamps. (Reference to IS 15105:2002 shall be made for pipe hanging equipment.) mild steel specials heavy grade conforming to IS 1239 (part II) the pipes and specials capable of withstanding for 2 hours a pressure equivalent to 150% of the maximum working pressure including painting the pipes with two coats of synthetic enamel paint of colour FIRE RED over two coats of zinc chromate primer. 100 mm</p>	12	Rm		
4	<p><b>Underground piping</b>  Supply, laying and testing of electric resistance welded steel pipes, heavy grade conforming to IS 1239 (part I) and IS 1978 laid at depth not less than 1m below ground level with piping capable of withstanding for two hours of pressure equivalent to 150% the maximum working pressure, the specials used of heavy grade mild steel conforming to IS 1239 (part II)m capable of withstanding a pressure equivalent to 150% the maximum working pressure, the pipes shall be jointed as per the laid down welding procedures, protected with standard wrapping procedures using bitumen based anticorrosive material including excavation of soil and making good the ground after testing of pipes. 80mm</p>	6	Rm		
5	<p><b>Landing valve single head outlet</b>  Supply and erection of Gun Metal landing valve, single head outlet to the wet riser using flanges as per requirements in technical specifications.  The landing valve shall conform to IS 5290:1993. The assembly shall consist of valves, instantaneous female outlets and blank caps all conforming to the above standard.</p>	2	Each		

6	<p><b>First aid hose reel</b></p> <p>Supplying and fixing First-Aid Hose Reel with MS construction spray painted in Red drum and brackets, Conforming to IS 884 with upto date amendments, complete with the following as required. (a) 30 m. long 20 mm (nominal internal) dia water hose Thermoplastic Type-2 as per IS: 12585 © Drum and brackets for fixing the equipments on wall. (d) Connections from riser with 25 mm dia stop valve</p>	2	Each		
7	<p><b>Fire hose with delivery coupling</b></p> <p>Supplying and fixing of fire hose of 63mm diameter made of rubberized fabric reinforced rubber lined (RRL) conforming to Type A IS 636 and bearing ISI mark – total length of 30m of hose provided in two lengths of 15m. The delivery hose coupling shall consist of Gun Metal male half coupling, female coupling, one branch pipe with nozzle and nozzle spanner conforming to IS 903-1993.</p>	2	Set		
8	<p><b>Hose cabinet</b></p> <p>Supplying and erection of hose cabinets wall mounting type or on RCC pedestals made out of 16 gauge mild steel of size 750mm(L)x250mm(B)x600mm(H) to accommodate two numbers of 15m long delivery hose branch pipe, nozzle and other accessories. The cabinet shall have glass funted double door with lock, two keys and break glass recess for keys. The hose cabinet shall be painted with 2 coats of metal primer followed by two coats of paint of fire red shade.</p>	2	EACH		
9	<p><b>Fire brigade inlet for connecting to down comer</b></p> <p>Supply and erection fire brigade inlet comprising of 4 WAY BREECHING inlets with blank caps, 750mm long, 100mm dia., mild steel pipe including painting with enamel of fire red shade.</p>	1	Each		

10	<b>Butterfly valves</b> Supplying and fixing cast iron Wafer Type butterfly valves, lever operated of pressure rating not less than 10kg/cm2 conforming to IS 13095-1991 including cost of gasket, flanges for mechanical joint, bolts, grease, shellac etc. complete. 100mm	4	Each		
11	<b>Non return valve</b> Supply and fixing cast iron wafer type non return valve of pressure rating not less than 10kg/cm2 including cost of gasket, flanges for mechanical joint, bolts, grease, shellac etc. complete. 100mm	2	Each		
12	Supplying and fixing of <b>air release valve</b> of 25mm size as per G & K catalogue and IS 1485.	1	Each		
13	<b>Pressure gauge</b> Supplying and fixing of Bourdon type pressure gauge, 150mm dia. And range of 0 – 15 kg/cm2.	1	Each		
<b>FIRE ALARM SYSTEM</b>					
14	Supply, fixing and testing of <b>fire alarm sounders</b> with sound level of at least 75 dB.	4	Each		
15	Supply, fixing and testing of <b>manual call points</b> .	2	Each		
16	Supply, installation, testing and commissioning of Control Panel of 6 Zone complete with charger, rectifier, alarm display with all other necessary attachments with Battery	1	Each		

17	Supply, installation, testing and commissioning of Conventional type Smoke Detector (photoelectric type) complete with all accessories like base. base box, etc. to be installed under/above false ceiling, roof and concealed space, etc. interconnecting to loop cable complete as required.	64	Each		
18	Supply, installation, testing and commissioning of Conventional type type Heat Detector (photoelectric type, Fixed cumulative rate of rise type) with range upto 60 deg C complete with all fixing accessories like base, base box, etc. to be installed under/above false ceiling, roof and concealed space, etc. interconnecting to loop cable complete as required.	12	Each		
19	Supply, installation, testing, and commissioning of Response Indicators	10	Each		
20	Supply and wiring with 2 core x 1.5mm PVC sheathed, PVC insulated armoured conductor.	560	Each		
	<b>FIRE SIGNAGES</b>				
21	Supplying and fixing of <b>escape lighting luminaries</b> conforming to IS 1239:1988. <b>Fire Exit</b>	4	Each		
	<b>FIRE EXTINGUISHER</b>				
22	Supply and installation, testing and commissioning of CO2 type fire extinguisher with 4.5 kg. Capacity complete with installation brackets conforming to IS15683 with ISI mark	4	Each		
23	Supply and installation of ABC type fire extinguisher of 4 kg. Capacity complete with initial charges and installation brackets conforming to IS15683 with ISI mark .	6	Each		

24	Supplying and placing of <b>sand filled buckets</b> conforming to IS 2546, 1974 painted fire red shade with letters in white reading 'FIRE'.	2	Each		
	<b>PART IV - TOTAL</b>				-