

MGM INSTITUTE OF HEALTH SCIENCES CENTRAL PURCHASE DEPARTMENT (CPD)

Plot 1 & 2, Sector -1 Kamothe, Navi Mumbai - 410209

eTender of Fire Protection System (Updating Existing System)

Tenders invited from reputed Manufactures of Fire Protection Systems for the supply and installation at MGM Medical College Hospital, Chh. Sambhaji Nagar in the format given below:

Name of Vendor:

Sr. No.	Descriptions	Qty.	Unit	Rate per Unit (Excluding GST)	Amount (Excluding GST)
Α	PUMPS				
1	Main Fire Pumps (Single Stage Centrifugal) (FF-MEP/SSC)				
	Supplying, installation, testing and commissioning of Pump (MEP/EP) suitable for water discharge up to 4800 LPM at 105 to 70 m head driven by the electric motor 415 volts, 3 phase 50 Hz, AC supply of 90kw or of suitable kw a) Horizontal type, single stage, centrifugal/split casing pump of cast iron body & bronze impeller with stainless steel shaft b) M. S. fabricated common base plate, coupling, coupling guard, foundation boults, as required. c) Ericated on provided suitable size cement, concrete, foundation duly plastered with anti-vibration pads with perfect aligning, proper levelling complete pump with accessories painted with 2 coats or synthetic enamel paint of fire red colour over a coat of primer (ISC Code-3536, as per IS-2932 of 2003) complet, as per specification no. FF-MEP/SSC/EP (SS410 grade), mechanical seal confirming to IS 1520.	2	Nos.		
2	Jockey Pump (centrifugal) (FF-MEP-JP)				
	Supplying, installation, testing and commisioning of Jockey Fire Pump (JP) suitable for water discharge of 180 to 240 LPM at 90 to 70 m head driven by the elctric motor 415 voltes, 3 phase 50 Hz, AC supply of10 kw or of suitable kw capacityfor manual/automatic operation of consisting of following: a) Horizontal/vertical type, Multi stage, centrifugal casing pump of cast iron body and bronz impeller with stainless steel shaft (SS410 grade), mechanical seal confirming to IS-1520. b) Squirrel Cage induction motor, TEFC, synchronous speed 3000 rpm, suitable for operation with IP 55 protection for enclosure, horizontal foot mounted with Class-F insulation, confirming to IS-325 c) M. S. fabricated common base plate, coupling, coupling guard, foundation bolts etc. as required. d) Erected on provided suitable size cement concrete foundation duly plastered with anti vibration pads perfect aligning, proper levelling complete pump set with accessories duly painted with two coats of synthetic enamel paint of fire red colour over a coat of primer (ISC code 536 as per IS 2932)	1	No.		

Sr. No.	Descriptions	Qty.	Unit	Rate per Unit (Excluding GST)	Amount (Excluding GST)
3	Fire Pump Control Panel (FF-FCP)				
	Suplying , erecting, testing & commissioning of fire pump control panel (FCP) of cubical construction, floor mounted type , fabricated from minimum 2 mm thick CRCA sheet, compartmentalised with hinged lockable doors, with rnclosure protection class IP54, duly powder coated or painted with accessories duly painted with two coats of synthetic enamel paint of fire red colour over a coat of primer (ASC Code 536 as per IS 2932 of 2003), cable alley, interconnections with suitable size solid copper busbar strips of adequate size for all power connections having switchgears and accessories, mountings and internal wiring with adequate size copper conductor cable, earth terminals, numbering etc. complete in all respect, suitable for satisfactory operation of main fire pump and jockey pumps with necessary accessories, wiring & cabling along with allied accessories with following incoming and outgoings, suitable for automatic & manual operations on 415V, 3 phase, 50 Hz ac supply as per specifications the capacity of electric motor driven pump are as follows: a. Main fire pump (IP) capacity of suitable capacity 2 nos (1 working) b. Jockey Pump (IP) capacity of suitable capacity 2 nos (1 working) + 1 standby, alternate run per start in auto mode) comprises of following features & switchgears: 1. Main incomer FP SFU having rotary handlewith HRC fuses of suitable rating 2. Electrolytic grade copper strips for busbar of suitable sizes for main incomer and branches to motor SFU's, starters & outgoing terminals with neccessary accessories like stainless steel nut bolts with spring washers for connections, mounted on required no of epoxy or porcelain support insulators ratings, etc. 3. Individual pump TPN SFU having rotary handle with HRC fuses of suitable rating. 4. Digital Voltmetert & ammeter & RYB indicating, lamps & push buttons & SPP, O/L & Phase reversal protection with emergency stopn switch 5. TPN SPD 100 kA Type 1 + 2 tested. 6. Required pressure transducer with pressure indication on panel wit	1	No.		

Sr. No.	Descriptions	Qty.	Unit	Rate per Unit (Excluding GST)	Amount (Excluding GST)
	For addition of capacity of main electric motor driven fire pump MEP (1 working) for hydrant system is more than 75 kW, add as follows in the basic cost of item no. 13-5-1 towards incresed capacity switchgears and motor starters for main & jockey pumps along with necessory accessories for main & jockey fire pumps MFP= (1 working+ 1 standby, alternate run per start in auto mode) 1. For main electric motor driven fire hydrant system pump of 37kW capacity & relevant capacity jockey pump	1	No.		
	For standby main electric motor driven fire hydrant/ sprinkler system pump (MEP- 1 Standby) i) For standby main electric driven fire hydtrant/ sprinkler system pump of 37 kW capacity	1	No.		
	For addition of standby main diesel engine driven fire pump (1 Standby) The control for diesel engine comprises of automatic/ manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode indicating lamp for high// low lub oil pressure, high water temp and engine on indication battery charger suitable for 12V/ 24 V DC with boost and trickle selector switch, 0-30 V DC voltmeter and 0-20 A DC ammeter with all standard relays and accessories required for automatic operation of diesel engine with interlocking for operation of main fire pumps.	1	No.		
4	Supply, installation, testing and commissioning of above ground G.I. Pipe "C" class ERW with necessary fittings as per specification no. FF-PP				
	80 mm dia	24	Mtr.		
	100 mm dia	12	Mtr.		
	150 mm dia	24	Mtr.		
	250 mm dia	18	Mtr.		
5	Supplying and erecting cast iron double flanged NRV complete with PN16 pressure rating as per specification no. FF-VL/ NRV				
	80 mm dia, NRV	2	Nos.		
	150 mm dia, NRV	3	Nos.		
	250 mm dia, NRV	1	No.		
6	Supplying and erecting cast iron double flanged sluice valve complete with PN16 pressure rating as per specification no. FF-VL/SV		1.0.		
	80 mm dia, Sluice valve	2	Nos.		
	150 mm dia, Sluice valve	3	Nos.		
	200 mm dia, Sluice valve	3	Nos.		

Sr. No.	Descriptions	Qty.	Unit	Rate per Unit (Excluding GST)	Amount (Excluding GST)
7	Supplying and erecting cast iron end line strainer of Y-type flanged end pattern. PN16 pressure rating, SS screen, end connnection with Flanged/ Screwed/ Socker Weld/ Butt Weld End etc with standard OAR (open area Ratio) for positive suction complete as per specification no. FF-VL/ ELS (OR FOOT VALVES)				
	80 mm dia, End line strainer	2	Nos.		
	150 mm dia, End line strainer	3	Nos.		
8	RUBBER BELLOWS				
	Supplying and erecting double flanged Rubber Expansion bellows complete with PN16 pressure rating,				
	80 mm dia, End line strainer	2	Nos.		
	150 mm dia, End line strainer	3	Nos.		
9	Pressure Gauge (PG)				
	Supplying and crecting 100 mm dia, pressure gauge, 0-300 PSI or 0-14 kg per cm square fitted with 12/15 mm dia. pad cock valve, erected with provided G.1. pipe, elbow etc. complete as per specification no. FF-FFA/PG	25	Nos.		
10	Pressure Switch (PS)				
	Supplying and erecting 12/15 mm dia pressure switch with provided isolation valve, G.I. nipple, elbow, ete complete as per specification no. FF-FFA/PS	5	Nos.		
11	ARMOURED CABLE FOR PUMP & PANEL				
	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 10 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	RO	Mtr.		
	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3.5 core 70 sq. mm, aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no CB-LT/AL	RO	Mtr.		
	Included in Pumps Rates				
	Total				
В	INTERNAL HYDRANT SYSYTEM				
1	Supply, installation, testing and commissioning of above ground G.I. pipe "C" class ERW with necessary fittings as per specification no. FF-PP				

Sr. No.	Descriptions	Qty.	Unit	Rate per Unit (Excluding GST)	Amount (Excluding GST)
	80 mm dia	24	Mtr.		
	100 mm dia	RO	Mtr.		
	150 mm dia	258	Mtr.		
2	HYDRANT VALVE				
	Supplying and erecting gun metal single outlet hydrant valve fitted with necessary accessories complete as per specification no. FF-VL/ HV	37	Nos.		
3	DOUBLE HOSE BOX				
	Supplying and erecting M.S./CRCA cabinet for housing hose pipe box of size (600 x 600 x 200)mm made from min. 1.5 mm thick CRCA sheet with angle iron work of min. of size (25 x 25 x 4) mm having front doors with viewing glass of size (200x150) mm and locking arrangement with necessary fixing material such as rubber bidding etc. duly painted in post box red colour(Code 538 of IS 5)	88	Nos.		
4	HOSE REEL WITH DRUM (HR)				
	Supplying and installing wall mounting swinging hose reel drum fitted with 19 mm dia. 30 m long high pressure prolypropylene (polyhouse) along with necessary accessories complete as per specification no. FF-FFA/HV	68	Nos.		
5	HOSE PIPES				
	Supplying and erecting 63 mm dia, reinforced rubber lined (R. R. L) hose pipe , 15 m in length, fitted with necessary accessories complete as per specification no FF-FFA/ RRL	32	Nos.		
	Short Branch Pipe	46	Nos.		
6	Supplying and erecting cast iron double flanged NRV complete with PN16 pressure rating. as per specification no. FF-VL/ NRV				
	80 mm dia, NRV	4	Nos.		
7	Supplying and erecting cast iron double flanged Butterfly Valve complete with PN16 pressure rating, as per specification no. FF-VL/ BFV				
	80 mm dia, Butterfly Valve	10	Nos.		
8	Air Release Valve (ARV)				
	Supplying and erecting 20/25mm dia gun metal air release cock, with necessary G.I. coupling to be fitted on top of air vessel or on wet riser complete as per specification no. FF-FFA/ARV	13	Nos.		
	Total				

Sr. No.	Descriptions	Qty.	Unit	Rate per Unit (Excluding GST)	Amount (Excluding GST)
С	COURTYARD HYDRANT SYSTEM				
1	Supply, installation, testing and commissioning of above ground G.I. Pipe "C" class ERW with necessary fittings as per specification no. FF-PP				
	150 mm dia	246	Mtr.		
	200 mm dia	605	Mtr.		
2	HYDRANT VALVE				
	Supplying and erecting gun metal single outlet hydrant valve fitted with necessary accessories complete as per specification no. FF-VL/ HV	5	Nos.		
3	DOUBLE HOSE BOX				
	Supplying and erecting M.S./CRCA cabinet for housing hose pipe box of size $(600 \times 600 \times 200)$ mm made from min. 1.5 mm thick CRCA sheet with angle iron work of min. of size $(25 \times 25 \times 4)$ mm having front doors with viewing glass of size (200×150) mm and locking arrangement with necessary fixing material such as rubber bidding etc. duly painted in post box red colour(Code 538 of IS 5)	5	Nos.		
4	HOSE PIPES				
	Supplying and erecting 63 mm dia, reinforced rubber lined (R. R. L) hose pipe , 15 m in length, fitted with necessary accessories complete as per specification no FF-FFA/ RRL	36	Nos.		
5	Orifice Plate (OP)				
	Supplying and erecting brass orifice plate having 6 mm . thickness, 140 mm outer dia with required diameter of inner hole at every single outlet hydrant valve as per specification no. FF-FFA/OP	24	Nos.		
6	Supplying and erecting cast iron double flanged Butterfly Valve complete with PN16 pressure rating, as per specification no. FF-VL/ BFV				
	150 mm dia	RO	No.		
	200 mm dia	15	No.		
	Total				
D	SPRINKLER SYSTEM				
1	Supply, installation, testing and commissioning of above ground G.I. Pipe "C" class ERW with necessary fittings as per specification no. FF-PP				
	25 mm dia	7145	Mtr.		
	32 mm dia	984	Mtr.		
	40 mm dia	1070	Mtr.		

Sr. No.	Descriptions	Qty.	Unit	Rate per Unit (Excluding GST)	Amount (Excluding GST)
	50 mm dia	1675	Mtr.		
	65 mm dia	1989	Mtr.		
	80 mm dia	512	Mtr.		
	100 mm dia	411	Mtr.		
	150 mm dia	585	Mtr.		
	200 mm dia	3	Mtr.		
2	SPRINKLERS (FF-SPR)				
2.1	Conventional Pendent type sprinkler Supplying ,Installing, testing and commissioning of 15mm inlet, following type sprinkler heads including required reducer and 15mm dia. quartzoid bulb type G.M pendent sprinkler head set to operate at 68 Deg.C,as per IS: 9972.	5129	Nos.		
2.2	Conventional Sidewall type sprinkle r Supplying ,Installing, testing and commissioning of 15mm inlet, following type sprinkler heads including required reducer and 15mm dia. quartzoid bulb type G.M Sidewall sprinkler head set to operate at 68 Deg.C,as per IS: 9972.	RO	No.		
2.3	Supplying, erecting, testing and commissioning and type water flow detector 100/150 mm dia. with 1) Visual switch activation 2) Rugged switch assembly 3) Heavy duty aluminium pipe saddles 4) Durable metal enclosure 5) Steel U bolts for secure mounting 6) Two SPDT (Single pole double track) synchronised switches 7) serviceable without draining pipes	90	Nos.		
3	SPRINKLER ALARM VALVE 150MM DIA.	2	Nos.		
4	Supplying and erecting cast iron double flanged Butterfly Valve complete with PN16 pressure rating, as per specification no. FF-VL/ BFV				
	65 mm dia, Butterfly Valve	62	Nos.		
	80 mm dia, Butterfly Valve	61	Nos.		
	100 mm dia, Butterfly Valve	22	Nos.		
	150 mm dia, Butterfly Valve	45	Nos.		
	200 mm dia, Butterfly Valve	RO	No.		
5	Supplying and erecting cast iron foot valve ball type/ flap type with strainer for negative suction complete as per sepcification no. FF-VL/ FV				
	80 mm dia, foot valve ball type/ flap type	2	Nos.		
	150 mm dia, foot valve ball type/ flap type	3	Nos.		
	Total				

Sr. No.	Descriptions	Qty.	Unit	Rate per Unit (Excluding GST)	Amount (Excluding GST)
E	ADDRESSABLE FIRE ALARM SYSTEM (FF-FAS)				
1	Supplying, installing, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the 8 loop capacity and capable of supporting upto 250 devices and detectors per loop, with on-board LCD display with min 16 lines of text, operating at 230 V 50 HZ-AC with inbuilt Battery Backup of a minimum 24 hours in normal condition and 30 min in alarm condition, suitable provision for network connectivity, interfacing with third party equipment via a MODBUS/OPC/L-ON interface etc. conforming to IS 15908:2021, IS 2189: 2008, EN 54 & VDS/FM/ UL 864 (10th edition) with 3 years replacement warranty FF-AFAS/CP	1	No.		
2	Supplying, installing, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the 4 loop capacity and capable of supporting upto 250 devices and detectors per loop, with on-board LCD display with min 16 lines of text, operating at 230 V 50 HZ-AC with inbuilt Battery Backup of a minimum 24 hours in normal condition and 30 min in alarm condition, suitable provision for network connectivity, interfacing with third party equipment via a MODBUS/OPC/L-ON interface etc. conforming to IS 15908:2021, IS 2189: 2008, EN 54 & VDS/FM/ UL 864 (10th edition) with 3 years replacement warranty FF-AFAS/CP	1	No.		
3	Supplying, installing, testing and commissioning of repeater panel with suitable battery backup of a minimum of 24 hours in normal condition and 30 min in alarm condition, 80 backlit alphanumeric LCD display with inbuilt buzzer to indicate fault/fire alarm, manual control keys for silence/mute and to reset the FACP from the repeater station. Panel size shall not more than 175 x 275 x 65 mm conforming to EN 54 or UL. approved with 3 years equipment replacement warranty FF-AFAS/RP	2	Nos.		
4	Supplying, installing, testing and commissioning of addressable optical smoke detector , single/twin LED's with 360 degree view, suitable for low voltage 15 to 32 V DC two wires supply, inbuilt locking mechanism to check the removal and pilferage of the detector, in built isolation mode, start up current 300µA and alarm condition current shall be maximum 6.5 mA, operating temperature 0°C to 50°C, humidity 0-95% RH, IP 41, conforming to IS 2189: 2008, 11360_1985_Reff2020 EN 54 or UL. Approved with 3 years equipment replacement warranty FF-AFAS/SD	2155	Nos.		

Sr. No.	Descriptions	Qty.	Unit	Rate per Unit (Excluding GST)	Amount (Excluding GST)
5	Supplying, installing, testing and commissioning of intelligent addressable thermal/heat detector with rate of rise cum fixed temperature thermistor complete with base as required, suitable for temperature variations from -20°C to 38°C for fixed-heat and rate-of-rise type detectors and 0°C to 66°C for high heat type detectors, in built isolation mode, suitable for offices/ceiling cable trenches/less ventilation area's etc. with 3 years equipment replacement warranty IS: 2175-1988 reaffirmed 2000, IS 15908:2021 standards FF-AFAS/SD	RO	No.		
	Supplying, installing, testing and commissioning of Remote Responce Indicator suitable to operate on 5-20 V DC supply having FR Polymer ABS Housing, complete as per specification no. FF-FAAS/RRI	RO	No.		
6	Supplying, installing, testing and commissioning of addressable manual call points (break glass type/pull station type), made of addressable break glass plastic square in shape surface/flush mounted with "Break Glass" massage embedded on the glass, complete erected with mounting base and required accessories conforming to EN 54 or U listed with 3 years equipment	70	Nos.		
7	Supplying, installing, testing and commissioning of addressable fire control/relay module complete as required, with 3 years equipment replacement warranty conforming to IS 5051Part 2 (Sec 1 to 3): 1982 reed relays, EN 54 or UL Listed FF-AFAS/CRM	70	Nos.		
8	Supplying, installing, testing and commissioning of addressable fire monitor module complete as required. EN 54 or UI. Listed with 3 years equipment replacement warranty conforming to IS 5051Part 2 (Sec 1 to 3): 1982 Reed relays FF-AFAS/MM	58	Nos.		
9	Supplying, installing, testing and commissioning of addressable fire isolator module complete as required. EN 54 /FM or UL Listed with 3 years equipment replacement warranty conforming to IS 5051Part 2 (Sec 1 to 3): 1982 Reed relays FF-AFAS/ISM	58	Nos.		
10	Supplying, installing, testing and commissioning of addressable horn cum strobe sound/ hooter, output frequency 500 to 1000 Hz with dB as per Chart given in IS 15908:2021, with flashing at 1 Hz over the strobe's entire operating voltage range EN 54, conforming to IS 2189: 2008, IS 15908-2021 standards with 3 years equipment replacement warranty FF-AFAS/SSH	70	Nos.		
11	Supplying, installing, testing and commissioning FR, XLPE armoured cable 2 core 1.5 sq.mm. copper conductor complete erected on wall/ ceiling complete as per specification no. CB-LT/CU	16000	Mtr.		
12	P A SYSTEM				
13	Supplying, erecting, teating and commissioning 120 W amplifier suitable to operate on 230 Volts AC/12 Volks D.C. supply complete as per specification no. FF-PA/AFR 13-11-2 Supplying, erecting, testing and	RO			
14	Supplying, erecting, testing and commissioning 15 to 30 Watts sound column or ceiling mounted complete as per specification no. FF-PA/SOC	RO			

Sr. No.	Descriptions	Qty.	Unit	Rate per Unit (Excluding GST)	Amount (Excluding GST)	
15	Supplying, crecting, testing and commissioning stand mounted/handheld tope wired microphone having 2 mV/Pa sensitivity, impedance level limit 300 ohms and 50-16000 Hz suitable to operate in -10 deg C to +55 deg C with min. 7 metre shielded cable and 3 Pin Professional XLR Connector, stereo jack complete as per specification no. FF-PA/MIC	RO		•		
16	Supplying, erecting, testing and commissioning rust free microphone table stand of chrome plating/powder coating or S.S. material, up to 500 mm height and suitable base for sturdy mechanism ensuring trouble free movement complete	RO				
17	Supplying, erecting, testing and commissioning of 2 core shielded cable complete as per specification no. FF-PA/MCC	RO				
18	Supplying, erecting, testing and commissioning of 0.5 sq. mm speaker wire complete.	RO				
19	FIRE EXTINGUISHERS					
	Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg capacity cartridge type conform to IS $2878/15683$ complete erected with necessary clamp made from 50×6 mm. M. S. flat with nut & bolts routed in wall complete.	132	Nos.			
	Total					
	Sub Total (A+B+C+D+E)					
	Installation Charges					
	GST @ 18%					
	Grand Total					
	email your lowest quotations for above item with your terms and conditions as well as	s applicabl	e Brochure	e / Catlog, Client lis	t with installation	
Year ar	nd their Contact numbers to etenders@mgmuhs.com only.					
NOTE :	ALL THE INSTALLED MATERIAL SHALL BE REMOVED WHICH WILL COST ADDITIONLY A	T ACTUAL	RATE AT T	HE TIME OF REMO	VAL.	
Date:		Signature of Tenderer:				
		Name:				
		Designation:				
	E					
Seal		Mobile N	o.:			
		Full Addre	ess:			