

Sr No	Description	Qty	Unit	Rate	Total
A	PUMP HOUSE EQUIPMENTS				
1.1	Supply, installation, testing & commissioning of Multi-stage Multi-outlet electric driven Hydrant Pump suitable for automatic operation consisting of the following:(Make :Kirloskar/Best and Crompton/ Mather & Platt)				
a)	Horizontal end suction centrifugal pump complete with mechanical seal and including necessary arrangement for testing of pump				
b)	Squirrel cage induction motor suitable for 415 V, 50 Hz, AC supply of suitable rating for the above pump with synchronous speed T.E.F.C. motor conforming to IP:55 and flexible coupling and coupling guard with the pump.				
c)	Common bed plate of fabricated mild steel channel or cast iron type.				
d)	Suitable reinforced cement concrete pump foundation including cushy foot mounting, foundation bolts, washers as required.				
	The pump shall be of the following specifications:				
	Discharge - 2850 lpm				
	Head - 111 m/155 m				
	No. of stage preferred - Single / Double				
	Material of construction				
	a) Impeller - Bronze				
	b) Casing - C.I.				
	c) Shaft & Shaft Sleeve - SS-410				
	d) Bearing - Grease Lubricated				
	e) Seal & Make - Mechanical				
	Type of pump - End suction	1	Nos		
1.2	Supply, installation, testing & commissioning of Multi-stage Multi-outlet electric driven Sprinkler Pump suitable for automatic operation consisting of the following: (Make :Kirloskar/Best and Crompton/Mather & Platt)				
	Horizontal end suction centrifugal pump complete with mechanical seal and including necessary arrangement for testing of pump				
	Squirrel cage induction motor suitable for 415 V, 50 Hz, AC supply of suitable rating for the above pump with synchronous speed				
	Common bed plate of fabricated mild steel channel or cast iron type.				
	Suitable reinforced cement concrete pump foundation including cushy foot mounting, foundation bolts, washers as required.				
	The pump shall be of the following specifications:				
	Discharge - 2850 lpm				
	Head - 111m/155 m				
	No. of stage preferred - Single / Double				
	Material of construction				
	a) Impeller - Bronze				
	b) Casing - C.I.				
	c) Shaft & Shaft Sleeve - SS-410				
	d) Bearing - Grease Lubricated				
	e) Seal & Make - Mechanical				
	Type of pump - End suction	1	Nos		
1.3	Supply, installation, testing & commissioning of Multi-stage Multi-outlet electric driven Jockey Pump suitable for automatic operation consisting of the following: (Make :Kirloskar/Best and Crompton/ Mather & Platt) (sprinkler & hydrant)				
a)	Horizontal end suction centrifugal pump complete with mechanical seal and including necessary arrangement for testing of pump.				
b)	Induction motor suitable for 415 V, 50 Hz, AC supply of suitable rating for the above pump with synchronous speed T.E.F.C. motor conforming to IP:55 and flexible coupling and coupling guard with the pump.				
c)	Common bed plate of fabricated mild steel channel or cast iron type.				
d)	Suitable reinforced cement concrete pump foundation including cushy foot mounting, foundation bolts, washers as required.				
	The pump shall be of the following specifications:				
	Discharge - 240 lpm				
	Head - 111m/155 m				
	No. of stage preferred - Single / Double				
	Mover - Electric Motor Driven				
	Material of construction				
	a) Impeller - Bronze				
	b) Casing - C.I.				
	c) Shaft & Shaft Sleeve - SS-410				
	d) Bearing - Grease Lubricated				
	e) Seal & Make - Mechanical				
	Type of pump - End suction	2	Nos		
1.4	Supplying, installing, testing & commissioning of Multi-stage Multi-outlet Diesel Engine driven Stand-by pump suitable for automatic/manual operations consisting of the following :				
a)	Horizontal end suction centrifugal fire pump complete with proper connection to suction and delivery line, and including bypass arrangement for testing of pumps. mechanical seal shall be included for stuffing box.				
	Pump shall be capable of furnishing not less than 150% of rated capacity at a head not less than 65% of the rated head. The shut off head shall not exceed 120% of rated head.				
b)	Radiator cooled diesel engine of required BHP or as per manufacturer complete with standard accessories & suitable cooling system as described in specifications.				
c)	Common base plate for mounting pump & engine of required strength manufactured out of M.S. channels as per manufacture's recommendation with heavy duty Anti Vibration pads as per requirement. Vendors should also provide 25 mm rubber pads below mounting				

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d)	Flexible Coupling & coupling guard for direct coupling of engine & pump.				
e)	Suitable reinforced cement concrete pump foundations as per manufacturer design including foundation bolts, washer as required.				
f)	1 No. 3 hours capacity day oil storage tank (Approx. 300 litre) welded steel construction conforming to IS : 2522 fabricated from 3 mm thick M.S. plates. Tank shall be provided with inlet, outlet, overflow, air vent, drain connections, filling connection & magnetic level indicator showing the level of fuel in the tank. Tank shall be mounted on a suitable steel structure (Painted with 2 coats of red oxide paint). Tank shall be				
g)	24 volts 180 AH lead acid battery (12 volts - 4 Nos) with boost/Trickle charger for starting the engine automatically complete as required.				
	Technical Parameter of Diesel Engine driven pump:				
	Discharge - 2850 lpm				
	Head - 111 m/ 155 m				
	Material of construction				
	a) Impeller - Bronze				
	b) Casing - C.I.				
	c) Shaft & Shaft Sleeve - SS-410				
	d) Bearing - Grease Lubicated				
	e) Seal & Make - Mechanical				
	Type of pump - End suction	1	Nos		
1.5	Providing and fixing air vessel for fire pumps as per following specifications:				
	Diameter - 200mm	2	Nos		
1.9	Providing, installation, testing, & commissioning of pressure switches for Hydrant, Sprinkler, Standby and Jockey pump & Booster Pump including necessary wiring upto control panel & other materials.	11	Nos		
	TOTAL OF FIRE FIGHTING PUMPS CARRIED OVER TO SUMMARY				
2.0	SUCTION AND DELIVERY PIPES AND VALVES FOR FIRE FIGHTING PUMPS				
2.1	Supplying, installation testing and commissioning of the following ' C' class GI pipe as per IS1239 with welded / flanged joints and with heavy clamps,hangers, brackets or pipe supports (all with screwed/welded joints) as required including GI pipe of shorter lengths, tapering connecting pieces, short or long bends, GI specials like sockets, union nuts, elbows, reducers,plugs, Tees etc.Complete to make the system operative as required by LFA / TAC authorities. The pipes will have to be laid and fixed on walls, ceilings, into brick walls or RCC with lead anchor fastners.The work includes making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition				
a)	25 mm Dia	10	MTR		
b)	50 mm Dia	10	MTR		
c)	80 mm Dia	15	MTR		
d)	100 mm Dia	25	MTR		
e)	150 mm Dia	15	MTR		
g)	200 mm Dia	20	MTR		
2.2	Providing and fixing cast iron Wafer type Butterfly valve of the following size complete with bolts, nuts, washers and neoprene gaskets as per specifications. (Make:Sant /Leader /Zoloto)				
a)	80 mm Dia	6	Nos		
b)	100 mm Dia	2	Nos		
c)	150 mm Dia	13	Nos		
d)	200 mm Dia (Gear Operated)	4	Nos		
2.3	Providing and fixing cast iron dual plate wafer type Non return valves . (Make:Sant /Leader /Zoloto)				
a)	80 mm Dia	4	Nos		
b)	150 mm Dia	6	Nos		
c)	200 mm Dia	2	Nos		
2.4	Providing and fixing Y strainer . (Make:Sant /Leader /Zoloto)				
a)	200 mm Dia	2	Nos		
2.5	Providing and fixing Glycerin filled dial type pressure gauges with isolation cock and copper pipe on main header Dial diameter 100 mm celebration 0-15 / sq. cm. (At pumps delivery pipe).(H Guru / Fiebig)	15	Nos		
2.6	Providing & fixing gun metal foot valve AS.				
a)	150 mm Dia	R.O	Nos		
b)	80 mm Dia	R.O	Nos		

