

SNO	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
MAIN PUMP					
1	SITC of electrically driven Fire fighting Pump suitable for automatic operation necessary incoming and outgoing connections to pipes and accessories like flanges, gasket, nuts & bolts sockets, bends, reducer and necessary welding and control cable connection as required for connection between panel and pressure switch for automatic operation of the pump. The pump should have CI body, bronze impeller, stainless steel shaft coupled by means of flexible coupling with electric motor/engine, Antivibration pads, coupling guard, base plate etc. capable of delivering at Ground floor discharge min 2850 LPM so as to ensure min pressure of 3.5 kg/ sq.cm at the highest & farthest points and complete as required and as directed.	1	Each		
	Squirrel cage induction Motor totally enclosed fan cooled, 3 phase, 50 HZ, AC, Induction Motor suitable for above specified pump with drip proof enclosure and flexible coupling confirming to IS 325 or its latest version				
	Common bed plate of mild steel channel and vibration damping arrangement by providing & fixing approved make with cushioning footings along with necessary but and bolt etc.				
	Suitable concrete foundation for above motor pumping set, if required at site along with foundation bolts.				
DIESEL PUMP					
2	SITC of Diesel driven Fire fighting Pump suitable for operation when required necessary incoming and outgoing connections to pipes and accessories like flanges, gasket, nuts & bolts sockets, bends, reducer and necessary welding and control cable connection as required for connection between panel and pressure switch for automatic operation of the pump. The pump should have CI body, bronze impeller, stainless steel shaft coupled by means of flexible coupling with electric motor/engine, Antivibration pads, coupling guard, base plate etc. capable of delivering at Ground floor discharge min 2850 LPM so as to ensure min pressure of 3.5 kg/ sq.cm at the highest & farthest points and complete as required and as directed.	1	Each		
	The Diesel Engine driven prime mover of suitable capacity shall be coupled with above pump as per relevant IS amended up to date.				
	Common bed plate of mild steel channel and vibration damping arrangement by providing & fixing approved make with cushioning footings along with necessary but and bolt etc.				
	Suitable concrete foundation for above motor pumping set, if required at site along with foundation bolts.				

SNO	DESCRIPTION	QTY	UNIT	RATE	AMOUNT	
3	JOCKEY PUMP					
	SITC of electric driven Fire fighting Pump suitable for operation when required necessary incoming and outgoing connections to pipes and accessories like flanges, gasket, nuts & bolts sockets, bends, reducer and necessary welding and control cable connection as required for connection between panel and pressure switch for automatic operation of the pump. The motor pumping set shall consisting of the following :	1	Each			
	It shall be centrifugal type pump with CI body, bronze impeller, stainless steel shaft and capable of delivering min 180 LPM against a total head of 150 mtr so as to ensure min pressure of 3.5 kg/ sq.cm at the highest & farthest points complete with specified flow including pressure guage.					
	Squirrel cage induction Motor totally enclosed fan cooled, 3 phase, 50 HZ, AC, Induction Motor suitable for above specified pump with drip proof enclosure and flexible coupling confirming to IS 325 or its latest version					
	Common bed plate of mild steel channel and vibration damping arrangement by providing & fixing approved make with cushioning footings along with necessary but and bolt etc.					
	Suitable concrete foundation for above motor pumping set, if required at site along with foundation bolts.					
	Hose Cabinet					
4	SITC of MS hose cabinet with powder coating of postal red colour made of 16 guage MS sheet with 600 thick glazed door with locable arrangement to accommodate following : (the rate quoted should include cost of the following items also)	37	Set			
	(a) 1 No. of Supply and fixing of stainless steel single headed internal hydrant valve with instantaneous stainless steel couplings of 63mm dia with cast iron wheel ISI marked confirming to IS 5290 (Type - A) with blank stainless teel cap and chain, stainless steel oriface plate for reducing pressure up to 3.5 kg/cm2 at out let.					
	(b) 2 nos. of 63mm dia 15 mtr long fungus resistant reinforced rubber lined (RRL) hose pipe marked IS:636 Type A with stainless steel male & female instantaneous coupling complete and as directed.					
	(c) 1 No. of supply and fixing first aid hose reel full swinging type with 30 mtr. Length , 20mm dia rubber lined pipe with ABS plastic shut off nozzle of 6mm dia. The hose reel shall confirm to IS requirement. The rate quoted shall include 25mm dia pipe connection from riser to hose reel including flexible pipe, sockets, nipples, elbows and 25mm dia ball valve.					
	(d) 1no. 63mm dia standard stainless steel short branch pipe as per IS 903 with 20mm nozzle complete with fixing clamps.					

SNO	DESCRIPTION	QTY	UNIT	RATE	AMOUNT	
5	Hose Cabinet (External) : ----- DO ----- as above but with following:	5	Each			
	(a) 1 No. of Supply and fixing of stainless steel single headed external hydrant valve with instantaneous stainless steel couplings of 63mm dia with cast iron wheel ISI marked confirming to IS 5290 (Type - A)					
	(b) 1no. 63mm dia standard stainless steel short branch pipe as per IS 903 with 20mm nozzle complete with fixing clamps.					
6	External Hydrant					
	Supplying, erecting testing & commissioning external hydrants consisting of: a) 80 mm dia MS pipe of 2.2 Mtr. length (1 Mtr. below ground & 1.2 mtr above ground). b) 1 No. 63 mm dia oblique female instantaneous pattern gun metal landing valve with blank cap and chain. c) Brick pedestal of 550mm above ground and 230mm below ground including 100mm 1:2 PCC at the bottom.	6	each			
7	PIPING					
	Supplying, laying, fixing, testing and commissioning C - class GI pipe incl. all fittings i.e elbows, tees, flanges, reducers, clamps, supports, heavy duty rubber gasket, nuts and bolts, welding etc including painting the pipe with one coat of red oxide paint primer and two coats of approved red enamel paint and making good the walls, floors or any other surface complete as required and as directed.					
A	INTERNAL (ABOVE GROUND) PIPING					
i	150 mm dia	500	RM			
ii	100 mm dia	250	RM			
iii	80 mm dia	80	RM			
iv	65 mm dia	10	RM			
v	40mm dia	10	RM			
vi	32mm dia	10	RM			
vii	25 mm dia	10	RM			
B	EXTERNAL (BELOW GROUND)					
i	150 mm dia	20	RM			
ii	100 mm dia	20	RM			
iii	80 mm dia	10	RM			
8	Providing and fixing GI heavy duty puddle flange to sumps/RCC tanks, complete.					
(a)	100 mm dia	2	Nos			
(b)	80 mm dia	2	Nos			

SNO	DESCRIPTION	QTY	UNIT	RATE	AMOUNT	
9	Piping Specials					
	SITC of CI double flanged gate valves non return valves stainers of following sizes conforming to IS specifications					
a	150 mm dia butterfly valve	6	Each			
b	100 mm dia butterfly valve	5	Each			
c	80mm dia butter fly valve	4	Each			
d	100 mm ø Sluice Valve (flanged)	4	Each			
e	150 mm dia Non Return valve	5	Each			
f	100 mm ø CI Non Return valve	2	Each			
g	80 mm dia Non Return valve	2	Each			
h	80mm dia CI Gate valve	2	Each			
i	40mm dia CI Non Return valve	4	Each			
j	100mm dia strainer	2	Each			
k	25 mm dia Air release valve(at higher point)	2	Each			
10	Air Cushion Tank					
	SITC of Cylindrical type Air Vessel 300 mm dia, 1.50 mtr fabricated out of 6mm thick MS plate with dish end with necessary Air Release valve, 25mm dia Heavy duty Gun metal wheel valve necessary nipples, unions, elbows & heavy duty suitable pressure guage including pipes to be connected with the ring main with heavy duty rubber gasket welding, nuts , bolts, flanges MS support/ angle iron frame work as required at site complete and as directed	7	set			
11	AUTOMATIC CONTROL PANEL					
	SITC of cubical indoor front opeable dust & vermin proof fabricated out of 14 SWG MS sheet, totally enclosed , floor mounting & stove enameled finish powder coated control panel. The quoted rate shall include following switch gear, copper busbars, contactors, indicating lamps, necessary HRC fuses, toggle switches, automatic relays, over load & under voltage relay single phase preventor, isolator & auxiliary swithces, fully automatic starters for alll motors, ammeters with necessary CT's fuses,etc for all motors separately & one no. ammeter, common for entire panel for entire load, one no. DC Ammeter for battery charging circuit along with AC as well as DC volt meter necessary necessary incoming and outgoing connections/ loope wire/ loope cable/ control wiring with required thimbles, numbering along with necessary ferrules, cable end box, cable gland etc. including providing automatic operating arrangement of suitable capacity as specified under for main fire pump, Diesel Pump and Jockey Pump with necessary safety arrangement signal, push button and alarm for all the pumps separately.	1	Set			

SNO	DESCRIPTION	QTY	UNIT	RATE	AMOUNT	
	The panel should be consisting of following					
	Incomer : 400 A 4 P MCCB of breaking capacity 36 kA - 1 nos					
	Outgoing : 200 A 4 P MCCB of breaking capacity 25 kA - 1 nos					
	Busbar : 400 A, 4 nos tinned copper bus bars with required PVC sleeves of suitable section of required length - 1 set					
	63 Amps 415 volt, 3 pole MCB of breaking capacity 10 KA - 01 nos					
	32 Amps DP MCB of breaking capacity 10 KA - 03 nos					
	0 - 500 volts volt meter with selector switch along with necessary HRC fuses protection & toggle switch in the circuit. - 01 nos.					
	0 - 200 amps Ammeter along with 3 nos. CT & selector switch - 01 nos.					
	0 - 200 amps Ammeter along with 3 nos. CT & selector switch - 01 nos.					
	2 nos. indicating lamps wired through fuses & toggle switches for 3 phase supply - 1 set					
	Fully automatic Star Delta starter with overload and no volt release coils on all 3 phases with push button for start & stop , indicating lamps for Fire Pump. - 1 nos					
	Fully automatic Star Delta starter with overload and no volt release coils on all 3 phases with push button for start & stop , indicating lamps for Jockey Pump. - 1 nos					
	Automatic Diesel Engine starting arrangement with required relays etc such that in case of main power failure,, Diesel Engine Driven Pump should start automatically					
	Set of control system to make the system automatic as per functional requirements.					
	3 Nos. pressure switch 0-15Kg / Sq cm duly calibration with all accessories etc.					
	1 Set RYB phase indication lamps with toggle suitable and protection fuses.					
12	Pressure switch					
	SITC of pressure switch for cut out and cut in pressure with cock for above fire fighting pumps incl. providing necessary size PVC insulated Armoured cable from control panel to pressure switch including necessary cable gland and cable end box including connections at either end and earthing.	7	set			
	Exhaust Piping					
13	Supplying, erecting and commissioning additional exhaust piping (if required) with heat resistance asbestos rope insulation wrapped all along the pipe including a cowl at the top with necessary MS clamps on walls/ceiling.	10	RM			

SNO	DESCRIPTION	QTY	UNIT	RATE	AMOUNT	
14	Supplying the necessary materials and constructing 1.2 Mtr x 1.2 Mtr x 1.2 Mtr brick masonry valve chamber with 230 mm thick brick wall in 1:3 cement sand mortar, 12 mm thick plastering and providing 600 x 600 mm CI cover.	4	Each			
15	Supply and fixing of Exit Sign as directed	37	Each			
16	Supply, Erection, testing and commissioning of the following					
(a)	Four way fire brigade inlet with 100mm dia sluice valve & non-return valve complete in all respect.	4	Set			
15	Supplying, erecting, testing & commissioning of suction coupling for fire brigade draw off connection with 200mm dia GI pipe & foot valve (pipe 6 mtr. Long max.)	1	Set			
16	Supply , Installation, Testing, of booster pump capacity of delivering 450LPM / 30Mtrs, complete with all accessories.	2	Each			
17	Siamese connection for supplying pressurised water into hydrant system	2	Each			
TOTAL =		"A"				

SNO	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	CAMC				
	The tenderers shall quote their charges for comprehensive maintenance service (inclusive of all spares, consumables like gland ropes to pumps / wet riser piping mains/sprinkler system etc. routine, preventive and breakdown maintenance) of wet riser fire fighting system including pumps and electrical gadgets which will be applicable after the expiry of the guarantee period of one year after commissioning of the installations, Apart from break down maintenance, the annual maintenance contract includes deputing a foreman/mechanic/service Engineer/once in a month to check all the equipments under the supervision of LIC employee & issuing a certificate for satisfactory working. Annual Maintenance should be as per the schedule prescribed in the tender of Part -I. After one year of guarantee period, the rate for the remaining years shall be quoted.				
(a)	1st year	1	Job		
(b)	2nd year	1	Job		
(c)	3rd year	1	Job		
(d)	4th year	1	Job		
(e)	5th year	1	Job		
(f)	6th year	1	Job		
	AMC TOTAL =	"B"			
	SUMMARY				
	Page -1	=			
	Page - 2	=			
	Page - 3	=			
	Page - 4	=			
	Page - 5	=			
	Page - 6	=			
	Page - 7	=			
	TOTAL =	"A"			
	AMC TOTAL =	"B"			
	GRAND TOTAL (A+B)	=			
	(Rupees -----				
	----- only)				
	NOTE (1)The cost for cutting (CORE cutting) of staircase/slab wherever for taking wet riser and also making good the same shall be included in the rate quoted				

(2) Tender will be evaluated based on the rate quoted for SITC of wet riser and CAMC charges. i.e based on A+B

FIRE FIGHTIN GSYSTEM AT GUWAHATI - RATE ANALYSIS

S.NO	Description of item	Price	Cost of Misc Consumables	Value-1	Add Tr & VAT @	Value-2	Add Labour on Value - 1	Value-3	Value -4 (Value-2 + value-3)	Add W&E	Value - 5	Add OH &P @	Value-4	Rate
6-B(i)	do but 150 mm dia	1250.00	350.00	1600.00	6.00%	96.00	10.00%	1760.00	1856.00	0.50%	1865.28	15.00%	2145.07	2145
(ii)	do but 100 mm dia	850.00	320.00	1170.00	6.00%	70.20	10.00%	1287.00	1357.20	0.50%	1363.99	15.00%	1568.58	1569
(iii)	do but 80 mm dia	675.00	165.00	840.00	6.00%	50.40	10.00%	924.00	974.40	0.50%	979.27	15.00%	1126.16	1126
6-A(i)	150 mm dia GI pipe in surface	1500.00	200.00	1700.00	6.00%	102.00	10.00%	1870.00	1972.00	0.50%	1981.86	15.00%	2279.14	2279
(ii)	do but 100 mm dia	1000.00	150.00	1150.00	6.00%	69.00	10.00%	1265.00	1334.00	0.50%	1340.67	15.00%	1541.77	1542
(iii)	do but 80 mm dia	800.00	90.00	890.00	6.00%	53.40	10.00%	979.00	1032.40	0.50%	1037.56	15.00%	1193.20	1193
(iv)	do but 65 mm dia	700.00	90.00	790.00	6.00%	47.40	10.00%	869.00	916.40	0.50%	920.98	15.00%	1059.13	1059
(v)	do but 40 mm dia	500.00	90.00	590.00	6.00%	35.40	10.00%	649.00	684.40	0.50%	687.82	15.00%	791.00	791
(vi)	do but 32 mm dia	350.00	80.00	430.00	6.00%	25.80	10.00%	473.00	498.80	0.50%	501.29	15.00%	576.49	576
(vii)	do but 25 mm dia	300.00	50.00	350.00	6.00%	21.00	10.00%	385.00	406.00	0.50%	408.03	15.00%	469.23	469
5.00	External hydrant	5700.00	400.00	6100.00	6.00%	366.00	10.00%	6710.00	7076.00	0.50%	7111.38	15.00%	8178.09	8178
15-b	fire brigade inlet	13000.00	1950.00	14950.00	6.00%	897.00	10.00%	16445.00	17342.00	0.50%	17428.71	15.00%	20043.02	20043
9.00	Air cushion tank	12000.00	115.00	12115.00	6.00%	726.90	10.00%	13326.50	14053.40	0.50%	14123.67	15.00%	16242.22	16242
8(a)	CI 150 mm dia butterfly valve	6500.00	200.00	6700.00	6.00%	402.00	10.00%	7370.00	7772.00	0.50%	7810.86	15.00%	8982.49	8982
8(b)	but 100 mm dia	6000.00	150.00	6150.00	6.00%	369.00	10.00%	6765.00	7134.00	0.50%	7169.67	15.00%	8245.12	8245
8(C)	but 80 mm dia	5000.00	100.00	5100.00	6.00%	306.00	10.00%	5610.00	5916.00	0.50%	5945.58	15.00%	6837.42	6837
8(d)	CI 150mm dia NRV	9100.00	80.00	9180.00	6.00%	550.80	10.00%	10098.00	10648.80	0.50%	10702.04	15.00%	12307.35	12307
8(e)	100 mm dia NRV	7000.00	80.00	7080.00	6.00%	424.80	10.00%	7788.00	8212.80	0.50%	8253.86	15.00%	9491.94	9492
8(f)	do but 80mm dia	5900.00	80.00	5980.00	6.00%	358.80	10.00%	6578.00	6936.80	0.50%	6971.48	15.00%	8017.21	8017
8(i)	do but 40mm dia	3600.00	80.00	3680.00	6.00%	220.80	10.00%	4048.00	4268.80	0.50%	4290.14	15.00%	4933.67	4934
3.00	Fire hose cabinet box	25000.00	700.00	25700.00	6.00%	1542.00	10.00%	28270.00	29812.00	0.50%	29961.06	15.00%	34455.22	34455
1.0	Main fire pump	350000.00	15000.00	365000.00	6.00%	21900.00	10.00%	401500.00	423400.00	0.50%	425517.00	15.00%	489344.55	489345
2.00	Diesel pump	450000	18000.00	468000.00	6.00%	28080.00	10.00%	514800.00	542880.00	0.50%	545594.40	15.00%	627433.56	627434
10.0	Automatic fire pannel	250000	5000.00	255000.00	6.00%	15300.00	10.00%	280500.00	295800.00	0.50%	297279.00	15.00%	341870.85	341871
11.00	Pressure switch	3200	600.00	3800.00	6.00%	228.00	10.00%	4180.00	4408.00	0.50%	4430.04	15.00%	5094.55	5095
4.00	Fire hose cabinet box(external)	16000	400.00	16400.00	6.00%	984.00	10.00%	18040.00	19024.00	0.50%	19119.12	15.00%	21986.99	21987
3.00	Jockey pump	85000	5500.00	90500.00	6.00%	5430.00	10.00%	99550.00	104980.00	0.50%	105504.90	15.00%	121330.64	121331
18	Sprinkler pendent	300	50.00	350.00	6.00%	21.00	10.00%	385.00	406.00	0.50%	408.03	15.00%	469.23	469

22	3C x 95 sq.mm Al armoured cable			
	Materials			
	3C X 95 sqmm cable	1	416.00	rmt
	Necessary hardware with for end termination	1	110.00	LS
	Total			
	Labour			
	Wireman @ Rs.350/- per day	0.25	350.00	LS
	Helper @ Rs.200/- per day	0.15	200.00	LS
	Total			
	Total			
	Add Hire Charges of T & P @ 2%			
	Total			
	Total			
	Add for Contractors' profit and Over-heads@15%			
	Total			
	WCT @ 3%			
	Total			
	INR 775.00			

23	3C x 25 sq.mm Al armoured cable			
	Materials			
	3C X 25 sqmm cable	1	156.00	rmt
	Necessary hardware with for end termination	1	75.00	LS
	Total			
	Labour			
	Wireman @ Rs.350/- per day	0.25	350.00	LS
	Helper @ Rs.200/- per day	0.15	200.00	LS
	Total			
	Total			

	Add Hire Charges of T & P @ 2%			
	Total			
	Total			
	Add for Contractors' profit and Over-heads@15%			
	Total			
	WCT @ 3%			
	Total			
	INR 419.00			

24	3C x 10 sq.mm Al armoured cable			
	Materials			
	3C X 10 sqmm cable	1	108.00	rmt
	Necessary hardware with for end termination	1	60.00	LS
	Total			
	Labour			
	Wireman @ Rs.350/- per day	0.25	350.00	LS
	Helper @ Rs.200/- per day	0.15	200.00	LS
	Total			
	Total			
	Add Hire Charges of T & P @ 2%			
	Total			
	Total			
	Add for Contractors' profit and Over-heads@15%			
	Total			
	WCT @ 3%			
	Total			
	INR 344.00			

25	2C X 2.5sqmm Cu armoured cable			
	Materials			
	2C x 2.5 Sq.mm cable	1	105.00	rmt
	Necessary hardware with for end termination	1	15.00	LS

	Total			
	Labour			
	Wireman @ Rs.350/- per day	0.06	350.00	day
	Helper @ Rs.200/- per day	0.02	200.00	day
	Total			
	Total			
	Add Hire Charges of T & P @ 2%			
	Total			
	Total			
	Add for Contractors' profit and Over-heads@15%			
	Total			
	WCT @ 3%			
	Total			
	INR 175.00			

26	Supply and providing GI Plate earthing			
	Materials:			
	GI-- Plate earth	1	2,500.00	R.M.
	Clamps etc	1	209.00	LS
	char coal	48	8.00	kg
	Salt	50	8.00	kg
	Iron screws and washers,bolts	4	10.00	set
	Brick chamber	1	200.00	LS
	Funnel	1	45.00	Nos.
	CI cover	1	100.00	LS
	Total			
	Lump Sum Items			
	Exavatin, refiling e,Plugs,paint,cement etc.	1	325.00	LS
	Total			
	Total			
	Labour :			
	Wireman @ Rs.350/- per day	1	350.00	day
	Mason @ 350/- per day	1	350.00	day
	Helper @ Rs.200/- per day	1	200.00	day
	Total			
	Total			
	Add Hire Charges of T & P @ 2%			
	Total			

	Total			
	Add for Contractors' profit and Over-heads@15%			
	Total			
	WCT @ 3%			
	Total			
	INR 6,142.00			

27	Supply and fixing of Earth strip			
	cost of 0.3 mt GI strip	1	80.00	no
	Insulators and hard ware	1	42.50	set
	Total			
	Labour			
	Wireman @ Rs.350/- per day	0.01	350.00	day
	Helper @ Rs.200/- per day	0.01	200.00	day
	Total			
	Total			
	Add Hire Charges of T & P @ 2%			
	Total			
	Total			
	Add for Contractors' profit and Over-heads@15%			
	Total			
	WCT @ 3%			
	Total			
	INR 154.00			

416.00
110.00
526.00
87.50
30.00
117.50
643.50
12.87
656.37
0.00
656.37
98.46
754.83
19.69
774.52
<i>Per mtr.</i>

156.00
75.00
231.00
87.50
30.00
117.50
348.50

6.97
355.47
0.00
355.47
53.32
408.79
10.66
419.45
Per mtr.

108.00
60.00
168.00
87.50
30.00
117.50
285.50
5.71
291.21
0.00
291.21
43.68
334.89
8.74
343.63
Per mtr.

105.00
15.00

120.00
21.00
4.00
25.00
145.00
2.90
147.90
0.00
147.90
22.19
170.09
4.44
174.52
Per mtr.

2500.00
209.00
384.00
400.00
40.00
200.00
45.00
100.00
3878.00
325.00
325.00
4203.00
350.00
350.00
200.00
900.00
5103.00
102.06
5205.06
0.00

5205.06
780.76
5985.82
156.15
6141.97
<i>Per set.</i>

80.00
42.50
122.50
3.50
2.00
5.50
128.00
2.56
130.56
130.56
19.58
150.14
3.92
154.06
<i>Per unit.</i>