



## INDIAN BANK SECURITY DEPARTMENT CORPORATE OFFICE, CHENNAI-600 014

## TENDER DOCUMENT FOR FIRE FIGHTING SYSTEM "SUPPLY,INSTALLTION, TESTING AND COMMISSIONING WORKS AT INDIAN BANK KILPAUK PREMISES BUILDING, DOOR NO -103, NEW AVADI ROAD, KILPAUK, CHENNAI-600 010

PART II – FINANCIAL BID

Issued to:

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Last	date	for	06/05/2023	upt	o 15:30	) HRS	at India	n Bank	, Corporate	Office,
submis	sion of Bid		Security	De	partme	ent,	254-26	0,Avvai	i Shan	mugam
			Salai,Roypett	ah,C	hennai	-600 0	14.			
Date o	of Opening	of	06/05/2023	at	16:00	HRS	atIndian	Bank,	Corporate	Office,
Techni	cal Bid		Security Dep	artm	ent, 25	4-260	, Avvai Sha	anmuga	ım Salai,Roy	vpettah,
			Chennai-600	014						
	of Opening	of	To be intim	ated	separa	tely to	o the Firm	s Quali	fying in Tec	hnical
Financi	al Bid		Bids							







## **Schedule of Quantities**

Sl.	Description	UoM		Rate(Rs.) (Exclusive of GST)	Amount(Rs.) (Exclusive of GST)
No.	Supply, Installation, Testing and Commissioning of CPVC sprinkler piping System as per NBC 2016, IS 15105 and IS 16088.	ommissioning of CPVC sprinkler piping ystem as per NBC 2016, IS 15105 and IS	Quantity		
1	Supply, Installation, Testing & Commissioning of CPVC Pipes SDR 13.5 pipe costing should include the support and certified technician should handle the fixing and jointing.				
а	25mm	Mtrs	285		
b	32mm	Mtrs	60		
с	40mm	Mtrs	42		
d	50mm	Mtrs	102		
e	65mm	Mtrs	42		
f	80mm	Mtrs	45		
g	100mm	Mtrs	40		
h	150mm	Mtrs	30		
2	Supply, Installation, Testing & Commissioning of Butterfly Valve with matching flanges.(Riser is MS pipe necessary fitting to be considered to fix the riser to tap off)				
а	100NB	Nos	5		
3	Supply & Installation of Pipes Fittings (L BOW, BEND, T , reducers, etc)	Lot	1		
4	Supply ,Installation, Testing & Commissioning of UL listed & FM approved standard response Glass bulb sprinkler pendent type rated 68 Deg. C. 5.6 K-Factor with rosset plate (sprinkler along with coupling to fix in the CPVC pipe)	Nos	115		
5	Supply, Installation, Testing & Commissioning of UL listed & FM approved 100dia Flow Switches with two NO and two NC contacts with necessary nipple & other fittings of System sensor company.	Nos	5		
6	Supply, Installation, Testing & Commissioning of Dial type pressure guage (100mm Industrial type) with necessary nipple & other fittings	Nos	5		
7	Supply, Installation, Testing & Commissioning of 25mm Ball valve with necessary nipple & other fittings(Screwed end)	Nos	10		





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Sl. No.	Description Supply, Installation, Testing and	UoM	Quantity	Rate(Rs.) (Exclusive of GST)	Amount (Rs.) (Exclusive
	Commissioning of hydrant system& Fire Pumps				of GST)
1	Supply, Erection, Testing and Commissioning of above ground piping carried out of MS class C Heavy duty pipe as per IS: 1239 for pipes up to 150mm NB and as per IS: 3589 with a wall thickness of 6.35mm for pipes 200mm NB and above together with fittings, valves and accessories as under: pipe grade shall be Fe330.Work will include all structural supports, painting for the above ground piping with one coat of primer and two coat of enamel paint of approved colour. Work will include cleaning of pipe,				
	degreasing, etc. 100mm nominal dia (Sprinkler riser &				
а	Internal hydrant riser)	Rmt	40		
b	80mm nominal dia	Rmt	12		
С	50mm nominal dia 9Sprinklerdrain)	Rmt	20		
С	25mm nominal dia	Rmt	20		
3	Supplying, Installing, testing and commissioning gear operated type butterfly valve with required flanges, nuts, bolts etc. complete.				
а	100mm nominal dia	No	5		
4	Supplying, installing, testing and commissioning of Internal Hydrant System comprising of ;				
а	Single headed GM hydrant valve as per IS: 5290 (Type A). The valves should be complete with hand wheels, quick coupling connections, springs and blank caps.	No	5		
b	2 lengths of 15 M long, 63mm dia RRL hose with couplings and Hoses shall be rolled & hug tosuitable M.S. structural support fixed inside the Fire duct wall.RRL Hose as per IS: 636.	No	5		
С	1 no. GM branch pipe with nozzle, As per IS: 903	No	5		
d	M.S. cabinet - 18 Gauge with powder coated finish of 750mm x 600mm x 250mm in size and mounted on structural support.	No	5		
е	Supply, installation, testing and commissioning of <b>Fire Hose Reel</b> (as per ISI) wall mounted, swinging type18 SWG MS sheet, fitted with 19 mm dia x 36 M long, high pressure hose with 5 mm outlet GM nozzle	No	5		
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	with shut off valve (IS: 884-1969)includes			
	Gate valve. and chrome plated nozzle with all			
	necessary fixing materials complete.			
5	Supplying, installing and commissioning of fire brigade inlet connection of 2 ways with 2 nos. 63 mm dia. built - in Gun Metal Non- return valves instantaneous coupling type arranged on 100 mm dia. Pipe manifold and connected to fire water sump for tank filling by external source. Quoted rate shall be included with Butterfly valve, check valve and M.S. cabinet of suitable size with mounting supports etc. complete.	No	1	
6	Supplying and fixing approved make 25mm dia. Automatic air release valve with ball valve, unions etc. complete.	No	2	
7	Supply, Installation, Testing & Commissioning of Diesel Engine driven horizontal Split casing pump capable to deliver 2280LPM @ 88 Mtrs head. Including controller, complete with Diesel Engine with following Accessories. Diesel Engine Controller, Exhaust Pipe with insulation, Diesel oil Tank with piping, Battery with terminals, Cooling water piping. The rate shall include pressure gauge, pressure switch, valves and all accessories. (NEGATIVE SUCTION)	No	1	
8	Supply, Installation, Testing & Commissioning of electrical motor driven sprinkler pump of horizontal centrifugal end suction back pull out type with gland packing and capable to deliver 2280LPM @ 88Mtrs head The pump shall be coupled to TEFC motor of suitable HP with speed of 2900 RPM and complete set shall mounted on common MS base frame. The rate includes pressure gauge, pressure switch, valves and all accessories. <b>(NEGATIVE SUCTION)</b>	No	1	
9	Supply, Installation, Testing & Commissioning of electrical motor driven vertical in line Jockey pump of 10.8 cum/hr @ 88 Mtrs head. The pump shall be coupled to TEFC motor of suitable speed of 2900 RPM and complete set shall mounted on common MS base frame. The rate includes pressure guage, pressure switch, valves and all accessories. <b>(NEGATIVE SUCTION)</b>	No	1	





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10	Common Pump Control Centre	No	1		
	compartmentalized common control panel				
	for Electrical motor driven Main Pump and				
	jockey pumps with all accessories.				
	INCOMING				
	1 no. 250 A TPN MCCB (25 KA).				
	1 Set of 250 Amps. TPN Al. Bus bars with				
	colour coded heat shrinkable PVC sleeves.				
	1 Set of RYB indicating lamps with MCB.				
	1 No. 96 Sq.mm 0-250 Amps. Ammeter with				
	selector selector switch and suitable rated current transformers.				
	1 No. 0-500 96 Sq.mm Voltmeter with				
	selector switch.				
	OUTGOING				
	Feeder for main pumps - 1 No.				
	- 1 Nos. 125 A TPN MCCB with back up fuses				
	Star Delta starter with over load relay, single				
	phase preventor and indicating lamps with				
	ON / OFF push buttons.				
	Feeder for Jockey pump - 1 No.				
	-1 No 63 A TPN MCCB with back up fuses				
	Star Delta starter with over load relay, single				
	phase preventor and indicating lamps with				
	ON / OFF push buttons.				
	-1 No. Auto manual selector switch				
	DIESEL ENGINE MAIN PUMP - 1 No.				
	a) 20Amps DPMCB - 2 Nos.				
	b) Battery charger with transformer with				
	rectifier resistance DC ammeter, DC				
	voltmeter, Trickle / booster / off selector				
	switch - 2 Nos.				
	c) Indicating lamps for the following :				
	1. phase indication				
	2. battery charger on				
	3. over load relay				
	4. DC supply on				
	5. control switch on				
	6. fault communication				
	7. Engine fails to start				
	8. Pump on				
	9. Low oil pressure				
	10. High water temperature				
	11. Auto manual selector switch				
Sout P	d) Push button stations for the following :				
	1. Jockey pump start				
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2. Jockey pump stop
4. Engine Stop
5. Engine - hooter ACK         6. Engine - fault reset         e) Selector switches (Engine control, mode selector)-1 No.         f) Auxilary relays / contactors / timer for sequence operating for starting and stopping of the engine - 1 set.         g) Hooter for audio alarm (Industrial type) -          1 No.         All the components mentioned in above point 10 shall be housed in a common cubical made of 64 swg. MS. sheet with 11 required stiffners (if required). The panel will be powder coated of approved colour both inside & outside. The panel shall have both bottom & top cable entry provisions         12       CABLES         Supplying, laying, testing & commissioning of PVC insulated PVC sheathed, XLPF steel armoured, aluminium / copper conductor, 100v grade power cables. The cables shall be laid in tray / Hume pipe / in trenches/on walls/floor etc. as required.         a       3.5Cx 120 sq.mm Aluminium       Rmt       15         c       12 Cx 1.5 Sqmm. Copper       Rmt       15         13       CABLETRAY       30       2         Supplying and fixing of perforated G.I.sheet cable tray with neccessory angle iron suspension supports, anchor fasteners etc. complete. Maximum height of suspension shall not exceed 500 mm.Size of the tray is       8       20         d. CaBLETRAY       20       3       20       2         supplying and fixing of perforated G.I.sheet cable tray with neccessory angle iron suspension supports, anchor fasteners etc. complete. Maximum height of suspens
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of the engine - 1 set.       g) Hooter for audio alarm (Industrial type) - <ul> <li>1 No.</li> <li>All the components mentioned in above point 10 shall be housed in a common cubical made of 16 swg. M.S. sheet with</li> <li>required stiffners (if required). The panel will be powder coated of approved colour both inside &amp; outside. The panel shall have both bottom &amp; top cable entry provisions</li> </ul> <li>100 V GRADE POWER / CONTROL CABLES</li> <li>Supplying, laying, testing &amp; commissioning of PVC insulated PVC sheathed, XLPE steel armoured, aluminium / copper conductor, 100v grade power cables.The cables shall be laid in tray / Hume pipe / in trenches/on walls/floor etc. as required.</li> <li>a 3.5C x 120 sq.mm Aluminium</li> <li>Rmt 15</li> <li>C t 2C x 1.5 Sqmm. Copper</li> <li>Rmt 15</li> <li>C ABLE TRAY</li> <li>GABLE TRAY</li> <li>Supplying and fixing of perforated G.I.sheet cable tray with neccessory angle iron suspension supports, anchor fasteners etc. complete. Maximum height of suspension supports, anchor fasteners etc. complete. Maximum height of suspension shall not exceed 500 mm.Size of the tray is 40mm x 40mm and 2mm thick.</li> <li>G.I. Earthing strips of, strip shall be run on floor / ceiling / walls, from the equipment to</li>
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12       CABLES       Supplying, laying, testing & commissioning of PVC insulated PVC sheathed, XLPE steel armoured, aluminium / copper conductor, 100v grade power cables.The cables shall be laid in tray / Hume pipe / in trenches/on walls/floor etc. as required.       a         a       3.5C x 120 sq.mm Aluminium.       Rmt       30         b       4 C x 16 Sqmm. Aluminium       Rmt       15         c       12 C x 1.5 Sqmm. Copper       Rmt       30         e       3 C x 1.5 Sqmm. Copper       Rmt       15         13       CABLE TRAY       Image: Supplying and fixing of perforated G.I.sheet cable tray with neccessory angle iron suspension supports, anchor fasteners etc. complete. Maximum height of suspension shall not exceed 500 mm.Size of the tray is 40mm x 40mm and 2mm thick.       Rmt.       20         G.I. Earthing strips of, strip shall be run on floor / ceiling / walls, from the equipment to       Image: Supplement to       Image: Supplement to
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floor / ceiling / walls, from the equipment to
14 the nearest Farth nit with necessary
14 the nearest Earth pit with neccessory
accessories as required. ( Earth pit shall be
executed by other agencies).
a 25mm x 3mm thick Rmt. 30
Supplying, installing, testing and
15 commissioning of G.I Pipes confirming to IS
1239, with specials such as Tees, elbows,



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	flanges. Including cutting, Welding, fixing in /				
	on walls, ceiling by using suitable supports				
	etc, as per drawings.				
а			36		
	200mm nominal dia	Rmt	50		
	Supplying, installing, testing and				
	commissioning of Heavy grade G.I. Pipes				
	confirming to IS: 1239 part - I with butt				
10	welded specials confirming to IS:1239 part -				
16	II, such as Tees, elbows, check nuts, unions, flanges, nipplesetc. Including cutting,				
	Welding, fixing in / on walls, ceiling by using				
	suitable supports, including pipes travelling				
	underground etc, as per drawings.				
а	150mm nominal dia	Rmt	18		
b	100mm nominal dia	Rmt	12		
с	80mm nominal dia	Rmt	12		
d	50mm nominal dia	Rmt	18		
e	25mm nominal dia	Rmt	24		
	Exhuast pipe for Diesel engine of with	Tunt	21		
17	mineral wool insulation with aluminum				
	sheet M.S. 'B' class pipe				
а	100 mm dia	Rmt.	12		
	Supplying, installing, testing and				
18	commissioning of C.I. Non-return Valve type				
10	with required flanges, nuts, bolts and gaskets				
	etc. complete.				
а	150 mm nominal dia	No	3		
b	80 mm nominal dia	No	2		
	Supplying, fabricating, structural steel				
10	supports such as MS channels, angles, flats,	IZ .	100		
19	rods as required at site with anchor fasteners, clamps, threaded rods, nuts, bolts,	Kg	100		
	washers etc. complete with painting.				
	Supplying, Installing, testing and				
20	commissioning CI Gate valves (PN 16)				
20	steam rising operated type with required				
	flanges, nuts, bolts etc. complete.				
а	200mm nominal dia	No	4		
b	150mm nominal dia	No	2		
С	100mm nominal dia	No	1		
d	80mm nominal dia	No	2		
e	50mm nominal dia	No	3		
21	Supply, Installation, Testing &	No	3		
<u> </u>	Commissioning of pressure switch	INU	Э		
	Supply, Installation, Testing &				
22	Commissioning of Flow meter (80mm) size	No	1		
Stat R	with required flanges, nuts, bolts etc.	-			
-	complete.				
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23	Supply, Installation, Testing & Commissioning of Dial type pressure gauge (100mm Industrial type) with necessary nipple & other fittings	No	4	
24	Supplying, installing, testing and commissioning of Gun metal chrome finished Ball valves with fittings of screwed end type.			
а	25mm dia.	No	3	
b	15mm dia	No	3	
25	Supply, fixing, Priming tank 'Sintex' 1000 Lts. Capacity complete with25nb float valve, level indicator, Drain valve, etc.	No	1	
26	Supply, Installation, Testing & Commissioning of FOOTVALVE with suitable flanges, nuts, bolts, gaskets etc. complete.			
а	200 NB	No	2	
b	100NB	No	1	
27	Supply, fixing, testing and commissioning of M.S. material Air Vessel Tank of size 300 mm dia x 1000 mm long x 6 mm thickness with necessary inlet & outlet flange, 20 NB brass air release valve, 25 NB drain valve with supporting leg and etc., complete as per detailed specification.	No	1	
	Total Amount			
	GST@			
	Gross Total			
	Gross Total ( in Words)			

Place:

Date:



Signature & Seal of the Tenderer