

**GOVT. OF ASSAM
OFFICE OF THE DIRECTOR,
FIRE & EMERGENCY SERVICES, ASSAM, GUWAHATI.**

NOTICE INVITING TENDER

Sealed Tenders in **TWO BID SYSTEM** affixing Court fee stamp of Rs. 8.25 (Rupees eight and paise twenty five) only are invited from well established & reputed fabricator/ manufacturer, **for fabrication of 24 (twenty four) Nos. Water Tender Pump (Type-B) on TATA LPT 1616/42 BS-II Cowl/Ashok Leyland 1616 IL/ Eicher 20.16 Cowl or other similar type of chassis** as per Technical Specification and Terms & Conditions described hereunder.

The Bids may be sent by Speed Post/ Registered Post/ Courier Services or in person in sealed cover addressed to **“Director, Fire & Emergency Services, Assam, Panbazar, Guwahati-1”**. Tenders received after the closing date & time shall not be entertained. The Director, Fire & Emergency Services, Assam shall not be responsible for any postal delay. N.I.T. will also be available in departmental website i.e. www.asfso.org

1) LAST DATE FOR RECEIPT OF TENDERS & OPENING OF TECH. BID:-

Sealed Tenders in 2(two) separate covers i.e. Technical Bid and Price Bid will be received till **17.06.2015 up to 15.00 Hrs.** by the Director, Fire & Emergency Services, Assam, Panbazar, Guwahati-1. **The Technical Bid will be opened on the next working day at 11.00 hrs.**

2) ELIGIBILITY CRITERIA:-

- a) Bidder shall be an Original Fabricator of Fire Tenders having at least 3(three) years experience in fabrication, supply and maintenance of Fire Tenders.
- b) Fabricator of the Fire Tenders must have ISO 9001:2008 certifications for design and fabrication of Fire Tenders.
- c) Annual turnover of the fabricator during the last 3(three) financial years shall not be less than Rs. 3,00,00,000/- (Rupees three crore) only.
- d) Bidder/ Fabricator should have experience in fabrication and supply of Fire Tenders {i.e. Water Tender Pump (Type – B), Mini Water Tender Pump having capacity of 3,000 Ltrs., Foam Tender, Advance Water Tender} **at least 100 Nos. in last 5 years** with copies of supply orders enclosed with the Bid documents.
- e) Any Fabricator which has been blacklisted either by the Tender Inviting Authority or by any State Government or Central Government Organization should not participate in the tender during the period of blacklisting.

3) TECHNICAL SPECIFICATION:-

The “Technical Specifications” are given at **Annexure-I**.

4) **TECHNICAL BID COVER “A”**

The bidder should furnish the following in a separate cover herein called “Cover A”. Court Fee Stamp of Rs. 8.25 must be affixed.

a) **Earnest Money:-**

Bids must be accompanied by Earnest Money Deposit (EMD) in the form of Demand Draft/ Bankers cheque in favour of Director, Fire & Emergency Services, Assam payable at Guwahati. EMD submitted in any other form or bids without EMD shall not be entertained. The amount of EMD shall be Rs. 15,00,000/- (Rupees fifteen lakh) only. The EMD of the successful bidder shall be retained till completion of the works and shall not carry any interest. If the successful bidder fails to execute the agreement and/or fails to submit the Bank Guarantee within the specified time or withdraws his bid within the validity period of the bid, the EMD shall be forfeited. The EMD of the unsuccessful bidders will be returned within 30 (thirty) days after the finalization of the tender. Those firms/fabricator’s registered with Central Purchase Organization/ NSIC are exempted from depositing the EMD.

b) **Manufacturing/ Trade License**

Attested/notarized copy of valid Fabrication License/ Trade License issued by the competent Licensing Authority.

c) **Power of Attorney to sign (of Bidder)**

Instruments such as Power of Attorney, Resolution of Board etc. authorizing an officer of the bidding firm to be enclosed with the bid and such authorized officer should sign the bid documents.

d) **Sales Tax/VAT and Service Tax Registration**

Attested/ notarized up to date copy of Sales Tax/ VAT Registration Certificate and Service Tax Registration Certificate along with up to date Sales Tax/ VAT Clearance Certificate.

e) **PAN Card**

- (i) Attested/ notarized copy of PAN Card.
- (ii) Income Tax return for last 2(two) years.

f) **Declaration**

Declaration in the form at **Annexure-II**.

g) **Details of Experience**

Information about fabrication of Water Tender Pump (Type-B) in last 3 (three) years in the format at **Annexure-III** along with copies of work orders, completion/ performance certificates from the users.

h) **Quality Assurance Certificate**

Attested/ notarized copy of valid ISO 9001:2008 certification for design and fabrication of Water Tender Pump (Type-B).

- i) **Annual Turnover**
Annual turnover statement for last 3(three) financial years i.e. 2012-13, 2013-14 & 2014-15 along with concurrent commitment for the current financial year in the format given in **Annexure-IV** and certified by Auditor/ Chartered Accountant.
- j) **Details of Fabrication Unit/ After Sales Service Facility**
Details of Fabrication Unit/ After Sales Service Facility in the specified format (Refer **Annexure – V**).
- k) **Undertaking on fraud & corruption**
Undertaking on fraud and corruption in the format **Annexure-VI**.
- l) **Agreed Terms & Conditions (Bidder)**
Agreed Terms & Conditions as per **Annexure-VII**.
- m) **Signature and Seal on Each Page**
The tender/bid document should be signed by the bidder in all pages with office seal and submitted with the bid.
- n) **Checklist of documents**
A checklist (**Annexure-VIII**) for the list of documents enclosed with their page number. The documents should be serially arranged as per this **Annexure-VIII** and should be securely tied or bound.

The bidder shall put above documents in a sealed cover superscribed as “TECHNICAL BID – COVER “A” TENDER FOR FABRICATION OF WATER TENDER PUMP (TYPE-B) FOR FIRE & EMERGENCY SERVICES, ASSAM DUE ON and addressed to the Director, Fire & Emergency Services, Assam, Panbazar, Guwahati-781001.

5) PRICE BID – COVER “B”

Cover “B” shall contain the Price Bid of the bidder.

- (i) **Signature and Seal on each page**
Each page of the Price Bid should be duly signed by the bidder affixing the office seal.
- (ii) **Signature on correction**
Bid should be typewritten neatly and every correction in the bid should be attested with full signature by the bidder, failing which the bid will be ineligible, corrections done with correction fluid should also be duly attested.
- (iii) **Rates quoted**
The bidder shall submit the dully signed Price Bid (Cover-B) in a sealed cover in the format at **Annexure – IX**. The rates quoted shall be inclusive of transit insurance and any other charges. The amount of Tax/CST/VAT should be indicated separately.

6) **COVER FOR TECHNICAL BID & PRICE BID**

The two separately sealed covers (Technical Bid (Cover “A”) and Price Bid (Cover “B”)) shall be placed together inside another cover which shall be sealed and superscribed as “TENDER FOR FABRICATION OF WATER TENDER PUMP (TYPE-B) FOR FIRE & EMERGENCY SERVICES, ASSAM DUE ON and delivered at the office of the Director, Fire & Emergency Services, Assam, Panbazar, Guwahati-781001.

7) **OPENING OF COVER “A” AND COVER “B” OF TENDER**

(a) Bidders or their authorized representatives are entitled to be present on the date and time of opening of Technical Bid – Cover “A”.

(b) Only those bidders whose Technical Bids are found acceptable after technical evaluation will be invited to be present at the date and time of opening of Price Bid – Cover “B”. The price bids of bidders not found technically qualified will not be opened.

8) **VALIDITY OF OFFER OF SUCCESSFUL BIDDER**

The validity of offer of the successful bidder shall be 1(one) year from the date of finalization of the order and the successful bidder will be bound to fabricate the Water Tender Pump (Type-B) at agreed rates and terms during this period. This validity period may be further extended by 1(one) year with mutual consent.

9) **OTHER CONDITIONS**

(i) **Item Details & Quantity**

The details of items with specifications shown in **Annexure-I**. The quantities mentioned are indicative and may increase or decrease as per requirement of Tender Inviting Authority as per CVC guidelines.

(ii) **No Revision/Correction of Quantities**

No bidder shall be allowed at any time on any ground, whatsoever, to claim revision or modification in the quantities quoted by him. Representation to make correction in the tender documents on the ground of clerical error, typographical error etc., shall not be entertained after submission of the bids.

(iii) **Firm Delivery Schedule**

Firm delivery schedule shall be mentioned in the bid. Cross conditions such as “SUBJECT TO AVAILABILITY” “SUPPLIES WILL BE MADE AS AND WHEN MATERIALS ARE RECEIVED” etc., will not be considered under any circumstances and the bids of those who have given such conditions shall be treated as incomplete and will be summarily rejected.

(iv) **Execution of order**

Work should be executed directly by the successful bidder and not through any other agency.

(v) **Inspection**

Tender Inviting Authority or his authorized representative has the right to inspect the factories of bidders, at any point of time and also has the right to reject the tender or terminate/ cancel the orders issued, based on adverse reports brought out during such inspections. The bidder shall extend all facilities to the team to inspect the fabrication process, quality control measures adopted etc., in the fabrication of the items quoted/ ordered.

(vi) **Road permit**

Fire & Emergency Services, Assam will not be responsible for arranging Road permits for sending the duly fabricated Water Tender Pump (Type-B). It will be the responsibility of the successful bidder to obtain Road Permits from the concerned authority.

10) **ACCEPTANCE OF TENDER**

(i) **Tender Evaluation**

Tenders will be evaluated with reference to various criteria of technical bid and thereafter on the basis of the total landed price for Fabrication, Testing and one Year Guarantee for determining the L1 (Lowest) price from amongst those qualifying the technical bid stage. Conditional discounts shall not be taken into account for price comparison.

(ii) **Right to Reject Tender**

Tender Inviting Authority reserves the right to accept the tender or to reject the tender without assigning any reason thereof.

(iii) **Tender Acceptance**

The acceptance of the tenders will be communicated to the successful bidder in writing.

11) **COMPLETION PERIOD**

(a) The Water Tender Pump (Type-B) (duly fabricated as per specification given) shall have to be delivered within 120 (one hundred twenty) days on receipt of chassis by the fabricator.

(b) In case the selected fabricator fails to execute the said work or related obligations within stipulated time, the Tender Inviting Authority will be at liberty to get the work executed through an alternative agency at the complete risk and cost of the fabricator. Any additional cost incurred by the Tender Inviting Authority during such execution of the work shall be recovered from the fabricator.

(c) If the cost of executing the work as aforesaid exceeds the balance payments due to the selected fabricator and the fabricator fails to make good the 'additional cost', the Tender Inviting Authority may recover it from the fabricator's pending claims against any work in Fire & Emergency Services, Assam or in any other lawful manner.

- (d) The calculation of aforesaid 'additional cost' will be finalized by the Tender Inviting Authority at its sole discretion. The selected fabricators shall have no right to challenge the mode or amount relating to calculation at any forum.

12) **AS EXECUTED REPORT**

On completion of the fabrication, the successful Bidder/Fabricator shall submit Executed Report of fabrication works to the Tender Inviting Authority which will include photographs.

13) **GUARANTEE**

The duly fabricated Water Tender Pump (Type-B) shall be guaranteed against any and all defects in design, material and workmanship for a period of 1(one) year from the date of acceptance. Guarantee certificate to this effect must be furnished.

Any defects develop during the guarantee period, it should be remedied promptly free of cost by the Fabricator and all expenses for transportation of goods necessitated for such repairs or replacement shall be borne by the Fabricator. The guarantee period for such repaired/replaced goods shall again be 12(twelve) months from the date of commissioning.

14) **PAYMENT TERMS**

- (a) No advance payments will be made to the successful bidder.
- (b) 100% payment after supply and acceptance of duly fabricated Water Tender Pump (Type-B).
- (c) On completion of the work, bills/ invoices should be submitted in triplicate in the name of Tender Inviting Authority.
- (d) If any time during the period of contract, the price of rendered items is reduced or brought down by any Law or Act of the Central or State Government or by the bidder himself, the bidder shall be bound to inform Tender Inviting Authority immediately about such reduction in the contracted prices. Tender Inviting Authority is empowered to unilaterally effect such reduction as in necessary in rates in case the bidder fails to notify or fails to agree to such reduction in rates.
- (e) In case of any enhancement in excise duty due to notification of the Government after the date of submission of bids and during the validity period of contract, the quantum of additional excise duty so levied will be allowed to be charged extra as a separate item without any change in price structure of the product approved under the tender. For claiming the additional cost on account of the increase in excise duty, the bidder should produce a letter from the concerned Excise Authority confirming payment of additional excise duty on the goods supplied to the Tender Inviting Authority and also must claim the same in the invoice separately.

15) **ANNULMENT OF AWARD, FORFEITURE OF BANK GUARANTEE & FRESH AWARD**

Failure of the successful bidder to comply with the requirements of signing of agreement and/ or submission of Bank Guarantee within the time schedule as stipulated above shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security/ EMD. Under such a situation, the proposal may be reviewed for award of the contract of the next lowest evaluated technically qualified bidder or go for a fresh bid depending on the circumstance. In case it is decided to go for the next lowest bidder, negotiation may be considered to bring down their price nearer to the originally evaluated lowest bid.

16) **PRICE BASIS**

Contract prices shall be on FOR destination at Guwahati basis and shall remain firm & fixed till complete execution of the contract.

17) **TRANSPORTATION**

Transportation of duly fabricated Water Tender Pump (Type-B) and its transit insurance up to the specified destination shall be in the Fabricator's scope.

18) **STANDARDS**

The fabrication works executed under the contract shall conform to the standards mentioned in the Technical Specifications and where no applicable standard is mentioned, the latest version of Indian Standard Institution of Bureau of Indian Standards shall be applicable.

19) **INSPECTION AND TESTS**

The Tender Inviting Authority or his authorized representatives shall have the right to inspect and/ or to test the fabrication works to conform that quality is in accordance to the contract stipulations and shall have access to Fabricator's works/ premises and the power to inspect and examine the fabrication works and workmanship of the Water Tender Pump (Type-B).

20) The successful Tenderers shall have to furnish/ produce Bank Guarantee/ Insurance coverage from any Nationalized Bank/ Insurance Co. covering 100% of the cost of the chassis delivered to them for fabrication before receipt of the chassis from the manufacturer.

21) The approved fabricators will have to execute the orders of supply within the time frame specified in the supply order.

22) The fabricator will have to produce and submit the purchase voucher of P.T.O. from the authorized P.T.O. manufacturer of the country and this document should be submitted at the time of stage inspection at their works.

23) All the legal proceedings arising out of any dispute between the parties shall be settled within the technical jurisdiction of the Courts in Assam.

ANNEXURE – I

TECHNICAL SPECIFICATION

Sl. No.	Description	Complied or not complied (Deviation if any furnish separately)
	Chassis will be supplied by the Department	
1	PUMP	
1.i	The pump shall be centrifugal type, multi pressure, having output capacity of 2000 LPM at 7 kg/cm ² and 300 LPM at 35 kg/cm ² at 3 meters suction lift at NTP condition. The low-pressure side will be of single stage and the high-pressure side also with single stage having regenerative type impeller. The pump shall comply to the following performance parameters-	
1.i.a	Normal Pressure output : about 2,000 LPM at 7 kg/cm ²	
1.i.b	High pressure output : about 300 LPM at 35 kg/cm ²	
1.i.c	Maximum pressure in : about 14 kg/cm ² (shut off Normal pressure mode. pressure)	
1.i.d	Maximum pressure in : 45 kg/cm ² High-pressure mode	
1.i.e	<p>Deep lifting capacity of Pump : 30 cm/sec max. up to 7 meters in 30 sec at NTP condition.</p> <ul style="list-style-type: none"> ➤ The overall pump shall be constructed from gunmetal. The normal (low) pressure impeller, volute, and impeller wearing shall be made from gunmetal conforming to Gr II of IS 318/1981 and the regenerative type high pressure impeller shall be of Aluminum, Bronze (AB-2). The pump shaft shall be made from stainless steel conforming to IS 6603/1972. The bearing housing will be made of C.I. and all the studs and bolts coming in contact with water shall be of stainless steel. The bearings used in the pump shall be of reputed make. ➤ The normal and high-pressure impeller shall be mounted on a single shaft and normal (low) pressure impeller shall be dynamically balanced. ➤ The pump shall be provided with self-adjusting mechanical carbon seal with interface plate. The mechanical seal assembly shall with stand dry running of pump up to 2 minutes without any damages. ➤ The pump shall be provided with an inbuilt filter of easily removable type, which shall filter the water before entering into the high-pressure stage impeller. ➤ Operation of low pressure to high pressure or vice-a-versa shall be possible by actuation of single lever. ➤ The pump shall have facility to operate low pressure and high-pressure mode simultaneously or individually. While high-pressure mode is in operation and delivering about 300 LPM at 35 kg/cm², the pressure in low-pressure side shall not exceed 8.5 kg/cm². 	

	<ul style="list-style-type: none"> ➤ The size of high-pressure outlet shall be of 25 mm connected to high-pressure hose reel. ➤ The pump shall be provided with one suction inlet of 100 mm diameter having round threads conforming to IS 902 of 1974 and 2 numbers of 63 mm delivery outlets having screw down type valves fitted with instantaneous couplings as per IS 903/1993. The delivery valve spindle sealing shall not be of gland type. The high-pressure outlet shall not be less than 25 mm and shall either be flange on screw type. ➤ The efficiency of the pump shall be such that the power and RPM required shall not be more than available with the engine. ➤ The pump housing shall have provision to connect to internal cooling system. ➤ The pump shall be mounted at the rear of the vehicle connected to P.T.O. by propeller shafts and universal and slip joints with sufficient number of bearing supports. ➤ Pump primer – The priming system shall be Reciprocating type or fully automatic watering type which shall not require any operation whatever from the pump operator other than throttling the engine to the required RPM. The primer shall get automatically disengaged once the pump is registered the pressure. The primer shall be capable of lifting the water in 30 seconds from the depth of 7 meters (up to pump inlet) at NTP condition. The reciprocating pistons shall be made up of stainless steel or Gun Metal. The cylinder and priming valve housing shall be made from gunmetal. ➤ In addition, exhaust ejector type primer capable of lifting water from 7 meters within 30 seconds shall also be provided. 	
2	PUMP TEST	
	The pump fitted on the vehicle shall be subjected to various tests as detailed below-	
2.i	The pump with its all fitments will be subjected to Hydrostatic testing on a pressure of 21 kg /cm ² .	
2.ii	The pump shall be run dry for a period of minimum two minutes at 2000 RPM to check the integrity of mechanical carbon seal. After this test there shall not be any leakage of water through carbon seal.	
2.iii	The pump performance test will be carried out by running the pump at constant RPM at 2600 and measuring the discharge at various pressures.	
2.iv	The pump will be subjected to Endurance test for a period of FOUR hours continuous running. The first Three hours the pump shall deliver rated output of 2000 LPM at 7 kg/cm ² and next one hour will be 300 LPM at 35 kg/cm ² .	
2.v	During the endurance test the water shall not be replenished in the cooling system and the temperature of the cooling water and engine oil should not exceed the manufacturers standards recommendations for the continuous operation and engine should not show any sign of temperature increase.	
3	POWER TAKE OFF (P.T.O.)	

3.i	The P.T.O shall be heavy-duty type of suitable ratio capable of transmitting the full torque of the engine in first gear.	
3.ii	The lever for engaging the P.T.O. shall be provided in the Driver's cabin with proper locking arrangement.	
3.iii	The P.T.O. shall be mounted on heavy duty cross members and support brackets between the longitudinal members of the chassis frame.	
3.iv	Means shall be provided to check the oil level in the P.T.O. and suitable drain plug shall be provided at the bottom.	
3.v	A cooling coil made of copper tubes shall be provided inside the PTO at the bottom to prevent the oil of the P.T.O. from heating.	
4	WATER TANK	
4.i	The capacity shall not be less than 4,500 liters. The tank body and baffles shall be of minimum 3.5 mm thick Stainless Steel (S.S) plates conforming to IS 304. The sides of the tank shall have Die Pressed reinforced webs for better strength and rigidity. The design of the tank should be such that the complete width of the vehicle is utilized and the height of the tank is to be kept as low as possible for better stability.	
4.ii	A tank of required capacity constructed out of mild steel treated for anti-corrosion shall be suitably mounted on the chassis in a manner keeping in view the proper load distribution on the axles.	
4.iii	A full length runner from behind the driver cabin till end of chassis frame shall be provided and made out of S.S. Channel of 100 x 50 x 3.15 mm suitably fixed to the chassis, frame with 3.15 mm thick S.S. plate and bolted to chassis frame wherever holes are available in the chassis frame and also with 5/8" 'U' bolts and nuts shall be nylock nuts only.	
4.iv	The tank shall be suitably baffled with minimum two nos. of baffles fitted longitudinally and 2 nos. baffles fitted transversely to prevent surge when the vehicle is breaking, cornering or accelerating.	
4.v	The baffles shall be arranged in a manner to facilitate the passage of a man throughout the tank for cleaning purpose.	
4.vi	The tank shall be mounted on minimum three cross members to counter act the stresses caused by chassis flexion and shall be so secured that it can be easily removed. The water tank shall be provided with six chairs, three on either side for mounting the tank on the runner and chassis frame.	
4.vii	The water tank shall be fixed to the chassis frame and runner with 'U' clamps, aluminum packing block, and self-locking nuts.	
4.viii	Suitable eyes shall be provided on the shell of the tank to enable it to be lifted from the vehicle for repairs / replacement as and when required.	
4.ix	The tank shall be fitted with a 50 mm bore overflow pipe. Two 63 mm instantaneous hydrant connection, incorporating a strainer with NRV, shall be provided close to the pump control panel for filling the tank through 75 mm bore pipe. Minimum 125 mm bore pipeline shall be taken from the tank to the suction inlet of the pump incorporating minimum 125 mm internal diameter butterfly type valve. Drain valve shall be provided at the bottom of the tank.	

4.x	The MS plates used for the tank shall be ZINC PLATED or galvanized and shall be given adequate anti-corrosive treatment of epoxy treatment consisting of one coat of primer with two coats of finish after preparing the surface by sand or shot blasting from inside and outside after fabrication if it is not galvanized. The open end of the overflow pipe should be taken down to a point well below the chassis without affecting the effective ground clearance when fully loaded and shall discharge away from the wheels.	
4.xi	Visual level gauge of the glass/acrylic tube shall be provided at the control panel calibrated 1/4, 1/2, 3/4 and full (preferably calibrated in liters).	
4.xii	The tank shall have a bolted manhole of 60 cm diameter minimum and should have a gunmetal threaded ring and gun metal cap of 30 cm diameter for filling the water tank from the top. The manhole cover shall be made from 3.15 mm thick S.S. plate and epoxy coated from inside and outside. A cleaning hole of at least 25 cm diameter shall also be provided at the bottom.	
4.xiii	The tank shall be connected with the pump and hose reel and valve(s) shall be provided in such a way that any of the following operations are possible: a) Hydrant - tank, b) Hydrant - reel, c) Tank – pump - high and low pressure hose reels, d) Hydrant – pump - low pressure hose reel, and e) Tank - Pump - Monitor (Foam/Water) f) Off.	
5	DELIVERY OUTLETS	
5.i	There will be 2 Nos. delivery outlets having standard GM inst. female coupling with screw down type delivery valves with blank caps. It will have twist type lugs made of gunmetal.	
6	HIGH PRESSURE HOSE REEL	
6.i	Two high-pressure hose reel to facilitate operation of the high-pressure section of the Fire Pump will be provided and mounted so as to be accessible for use from either side of the appliance. The hose should be prevented from kinking. The hose shall be lightweight PVC nylon braided hose and the working pressure of hose will not be less than 40 kg/cm ² .	
6.ii	The high-pressure Hose reels will hold not less than 30 M of hose in one length, terminating in High-pressure fog/jet trigger type gun connected by quick connect couplings. The fog gun shall be made of Aluminium alloy or stainless steel (SS 304).	
6.iii	The inlet connection shall have a leak proof rotating type hose connector. The gun shall be of constant flow type and shall have a discharge capacity of 150 LPM approximately. Provision shall be made in the gun controls to achieve combat mode (straight jet) or a fog shield in split second. The gun shall have the ability to work on pressure for 20 kg/cm ² to 40kg/cm ² without affecting discharge pattern. The weight of the gun assembly shall not be more than 3 kg.	
7	WATER/ FOAM MONITOR	
7.i	One water cum foam self-aspirating type monitor will be provided on the top at suitable location, with cap. of about 2000 LPM of water @ 7 kg/cm ² .	

7.ii	The monitor will be capable of traversing through 360° in horizontal plane, +75° & -15° in vertical plane with discharge range of 70 M (water).	
7.iii	The detailed specification of the Monitor is as under: Size:- 75 mm Body:- Barrel of SS, GM swivel joint for horizontal & vertical motion manual operation Rotation:- 360° Elevation:- 90° (+75° -15°)	
8	CONSTRUCTION DETAILS	
8.i	Working pressure:- 7 kg/cm ² .	
8.ii	Painting:- As per IS: 5 (2 coats of red enamel paint)	
9	SELF INDUCTION NOZZLE	
9.i	Material of construction:- Aluminium alloy to IS:617 or GM LTB Gr.2 of IS:318.	
9.ii	Type of Foam used:- AFF Foam	
9.iii	Discharge capacity:- About 2000 LPM	
9.iv	Throw Water: min. 60 meters, Foam: min. 50 meters. horizontal meters.	
9.v	Foam Expansion Min. 1:6	
9.vi	Fog (curtain) 160°	
9.vii	K Factor 100	
9.viii	A suitable pick up tube of min 5 meters long with perforate piercing tube shall be provided along with the monitor.	
10	PIPELINES AND VALVES	
10.i	All pipelines and pipe fittings shall be of Stainless steel (SS, IS304) and all valves up to 50mm size shall be 3 piece design SS (IS 304) ball valves. All valves above 50mm size shall be standard butterfly valves.	
10.ii	All piping shall be sized so as to have minimum pressure drop and achieve the required pressure and flow at various locations.	
10.iii	All piping shall be designed for 10% over the maximum pressures encountered in the pipe.	
10.iv	The piping shall be flanged for ease of maintenance. However, flange joints shall be kept to minimum.	
10.v	All lines shall be hydraulically tested at 1.5 times of the design pressure and pressure shall be held for two hours. In no case the lines shall be tested below 25 kg/sq. cm. (g).	
10.vi	All lines shall be suitably supported so as to provide rigidity and avoid vibrations.	
10.vii	All lines less than 50 mm NB size can be socket welded to matching rating fittings.	
10.viii	All lines above 50mm NB size shall be butts welded with full penetration welds.	
10.ix	All bolts, nuts and washers used shall be of SS-IS304.	
11	COOLING SYSTEM	
11.i	An indirect cooling system of open circuit type heat exchanger shall be provided for cooling the radiator water & Engine.	
11.ii	The heat exchanger tank shall be made from minimum 1.22 mm thick brass sheets and the coil in the coolant tank shall be of copper for effective cooling.	

11.iii	The design of the heat exchanger shall be such that the temperature of the engine shall not exceed the operating temperature specified by the chassis manufacturer when the vehicle is being used in stationary conditions.	
12	CONTROL PANEL	
12.i	Adequately illuminated control panel shall be provided near the pump.	
12.ii	The control panel(s) shall include the following features: a) Throttle control for engine; b) Pressure gauge — 0 to 17.5 kg/cm ² ; for low pressure (glycerine filled) Pressure gauge — 0 to 50 kg/cm ² ; for high pressure (glycerine filled) c) Compound gauge (glycerine filled) calibrated as under: Vacuum — 0 to 75 cm Hg, preferably in black; Pressure — 0 to 15 kg/cm ² , preferably in black; d) Primer control for exhaust primer e) Temperature gauge and glow lamp for lubricating system f) Cooling water circuit control. g) Water tank valve h) Monitor valve i) Delivery valves j) Suction inlet k) Hose reel valves l) Water level indicator	
13	BODY WORK AND STOWAGE	
13.i	Enclosed accommodation for six persons shall be provided in the driver cab-cum-crew compartment including the driver and the in-charge of the crew. Both the seats should be independent. The driver's seat should be adjustable and comfortable. The rear compartment of driver's cabin should have one removable seat for full width of cab for 5 (five) crew members. The cab floor should be covered with 3 mm thick Aluminium chequered plate rigidly fixed to the under frame cross members by means of nuts and bolts or riveting except the mudguard arches which shall be covered with 1,60 mm Aluminium chequered plates. Trap doors for topping up oil etc wherever necessary shall be provided.	
13.ii	One roof light should be provided in the driver's cabin dwell vision and external rear view mirrors should be fitted to the cab. The driver cum crew cabin shall be provided with full four doors, one for driver, and one for officer and two at the crew compartment. The doors shall be generously sized for easy embarking / disembarking of crewmembers. All the doors shall be fitted on the super structural members, each hung upon three invisible coach type M.S. stout hinges and fitted with best quality handles.	
13.iii	The door handle on outside of driver seat shall have a locking arrangement. Other doors shall be lockable from inside. In addition to the doors locks, aluminum tower bolt shall be provided for all the doors from inside Adequate grab rails shall be provided for easily boarding and alighting from the appliance.	
13.iv	The windscreen glass shall be provided in the two halves and shall be semi-curved type. Each glass shall be fitted in E.P.D.M. rubber beading. The glasses shall be 5 mm thick toughened safety glass.	

13.v	The rubber beading used for fitting glasses and window frame shall be E.P.D.M. rubber.	
13.vi	The driver seat shall be adjustable type vertically, forward and backward. The officer seat shall be fixed type. Both the seats shall be rigidly fixed to the flooring by means of nuts and bolts.	
13.vii	The seat cushion shall be of latex foam rubber 75 mm thick upholstered in good quality foam leather cloth. The back seat shall be of latex foam rubber 50 mm thick upholstered in good quality foam leather cloth.	
13.viii	Below the crew seat, two lockers shall be provided one for battery box and another for keeping accessories. The extra length of battery cable if required shall be provided	
13.ix	The crew seat shall be rigidly fixed to floor by means of nuts and bolts, running full width of the vehicle suitable for sitting five firemen, covered with 75 mm x 50 mm cushion latex foam rubber upholstered in good quality foam leather of approved shade.	
13.x	The rear body shall be fabricated in continuation and in line. The under frame cross members shall be fabricated from the rolled M.S. channel of 100 x 50 x 5 mm size.	
13.xi	The M.S. runner of 100 x 50 x 5 mm size shall be provided over the full length of the chassis member for the uniform distribution of load over the chassis.	
13.xii	Each cross members shall be secured to the chassis frame by 16 mm diameter 'U' Bolts with aluminum packing block and self-locking unit.	
13.xiii	Balata packing of thickness 6 mm shall be provided in between the chassis frame and across members.	
13.xiv	The structure/frame work shall be of welded constructions and made from 2mm thick MS pressed sections and square tubes. The Angles and channels used shall be of min. 3mm thickness. Zinc plating shall treat for the complete structure material anti corrosion. The plating thickness shall not be less than 20 microns. Two coats of Epoxy paint shall be applied to the completely welded structure.	
13.xv	The structure shall be so designed so as to avoid any vibration / ratting / deformation in the intended usage of the vehicle.	
14	THE DETAILS OF SUPER STRUCTURE	
14.i	Under frame cross members : 100 x 50 x 5 mm (Min.)	
14.ii	Floor longitudinal members : 50 x 50x 6 mm (Min.)	
14.iii	The cab and lockers should be of composite construction with sufficient rigidity and reinforcement and shall be kept as light as possible.	
14.iv	The interior paneling shall be done from 1.22mm thick aluminium sheets & the exterior paneling shall be done from 1.60mm thick aluminium sheets.	
14.v	The roof on the cabin of the vehicle shall be covered with min 1.60mm thick aluminium chequered plates. All the lockers sides & complete rear of the vehicle shall be covered with min. 1.22mm thick aluminium chequered plates. The complete rear deck, all lockers floors, and the rear footboards shall be covered with minimum 3 mm thick aluminium chequered plate.	

14.vi	Sufficient number of Lockers with suitable shelves, partitions and roll in roll out type drawers / trays shall be provided on both sides of the vehicle for secure stowage of all equipment given in annexure. One through and through locker shall be provided immediately behind the drivers cab. All space available below the chassis frame level shall be utilized by providing lockers with proper doors. These doors shall be fitted with suitable chains and hooks on both sides so that the same can be used as footboard.	
14.vii	All lockers shall be provided with internal automatic lighting arrangement with the master switch in the cab.	
14.viii	All lockers above chassis floor shall be covered with Aluminium roller shutters. The roller shutters shall be made from extruded aluminium sections with suitable roller, spring, guide channels etc. All aluminium sections used shall be properly anodized.	
14.ix	The Roller shutters shall be rolled inwards underneath the roof giving unobstructed access to the equipment lockers and the fire fighting material.	
14.x	These roller shutters should open in every position of the vehicle even in rough terrain. Guide rails shall support the shutters over entire length on both sides to make them absolutely torsion free. The roller shutters should have a sturdy lock, preventing accidental opening during movement of vehicle.	
14.xi	Roller shutters shall be made of hollow rectangular shaped aluminium links which shall be inter connected with rubber /plastic/ PVC profiles sealing the roller shutter watertight when closed. These roller shutters should be durable, maintenance free, weather and corrosion resistant.	
14.xii	Suitable storage space shall be provided to store four 2.5-m lengths of suction hoses with couplings at convenient location	
15	SPECIAL PROVISION FOR STOWAGE EQUIPMENT	
15.i	For all hose, fittings like branch pipes etc., quick release type couplings are provided which enables the operator to locate the desired equipment instantly and thereby save valuable time at the time of fire. These couplings also ensure that none of the items damage the internal paneling & thereby increase the life of the vehicle. Suitable clamps, brackets, holders etc. are provided for all other items.	
16	MISCELLANEOUS	
16.i	A suitable bumper shall be provided at the rear rigidly fixed to the super structural members by means of nuts and bolts which is supplied along with the chassis	
16.ii	Two cat ladders made out of S.S. round or square pipe of 25mm diameter shall be provided.	
16.iii	2 nos. of 25mm diameter aluminum pipe railing with sufficient number of aluminum double socket brackets shall be provided to the rear body over the deck.	
16.iv	A heavy-duty Towing hook shall be provided and fitted the rear bumper by means of nuts and bolts.	
16.v	Quick removable type wire mesh guard made from 25x25mm size MS wire mesh of 1.60 mm covered in MS angle frame shall be provided to all the glasses of driver-cum-crew cabin.	

16.vi	<p>Cable Winch: An electrically operated cable winch of not less than 6.5 tons pulling capacity (single layer) shall be provided. The winch unit should be complete with minimum 5.5 hp, 12v or 24v DC series wound electric reversible motor for pulling operations. The motor and solenoids shall be grounded to the battery. It shall have an automatic load holding brake system for holding the load. For free spooling the clutch design shall be easy to use type with spring loaded pull and rotate system. The gear system should be 3 stage planetary type for faster line speed and the gear reduction ratio shall not be more than 300:1 for maximum duty cycle, the rope drum shall not be of more than 8 inches diameter and shall be supplied with minimum 90 ft heavy duty galvanized wire rope with replaceable self locking clevis hook and shall be mounted on the front bumper of the vehicle with suitable strong supports and a 4 way roller fairlead. Weather resistant clutch housing and solenoid assembly for maximum durability under any weather should be provided. Winch shall be provided with a wireless remote control mechanism for ease of operation.</p>	
16.vii	<p>Telescopic Light Masts: A Pneumatic telescopic mast should be mounted on the vehicle. It should be manufactured from Anodized aluminium 6063 T6 alloy tubes, have a max diameter of 115 mm diameter on its base, and complete with a footplate Ø 150 with up to six fixing holes for bolts. The temperature range shall be from -40 deg. C up to 60 deg. C, with anti-twist lock, with safety valve and drainage outlet valve.</p>	
16.viii	<p>The telescopic mast should be extremely strong and designed with a minimum of 6 sections and it will be equipped with a special plastic locking system placed on the ring between the first and the second section meant to eliminate any backlash between all the sections, once the mast is retracted. The mast will be equipped with an internal spiraled electrical cable with 9 wires with a section each of 1.5 mm² and 13 wires with a section each of 0.22 mm², the group of 13 wires will be screened. Each section of the mast should have a thickness of not less than 3.5 mm². For a better movement of the internal cable, the last three internal pistons will be threaded to the corresponding sections. The maximum height of the mast when deployed should be minimum 6000 mm (from the ground), the retracted height should be of maximum 1.900 mm: heights both are meant with the integrated tilt & turn unit. The working pressure cannot be less than 2.5 bar and more than 3.5 bar.</p>	
16.ix	<p>An electro-pneumatic group of valves must be supplied and mounted at the bottom of the mast with the possibility to regulate the extension speed and the retraction speed separately.</p>	
16.x	<p>The Light mast will have 4 x 1000 Watt Halogen flood light projectors in weatherproof casing. The floodlights on the top should have a minimum electrical rotation of 365° and a tilt of 310°, by means of a tilt and turn unit with an ABS cover for inspection. An electronic PCB (printed circuit board) will be placed inside the tilt & turn unit, controlling all the functions of the mast, like pneumatic up/down, lights on/off, turning, tilting, emergency stop and automatic restore; still inside the tilt & turn unit, but separated from the PCB will be placed the relays for the lighting and switching off of the lights. The lights will be switched on and off in groups of 2+2. Suitable connections for</p>	

	taking permanent Power Supply from generator set through an internal spiral wire mounted inside the mast should be provided.	
16.xi	All the functions of the mast, including extension and return to the original position, lights on/off, automatic restore should be capable of being done through a wired remote control. The same remote control must work without wire (wireless mode) through a male/female connector IP68 which keeps the battery under charge, whenever the remote is plugged and there is tension on the electrical circuit. Every single input given by the user, no matter which, will be confirmed by a visual led and an additional led will confirm the battery status; every single group of 2 lights when switched on will have a corresponding led light on the remote control that will go off only when the lights will be switched off. Every single input given by the user on the remote control will make the whole remote keyboard alight for not less than 15 seconds.	
16.xii	A 5 KVA portable Petrol engine operated GENSET shall be installed at a suitable location in the rear locker and necessary wiring /connections shall be given to the light mast.	
17	ELECTRICAL SYSTEM	
17.i	All the important electrical circuit shall have separated fuses suitably indicated and shall be grouped into a common fuse box located at an accessible position. The wiring shall be single pole with negative earth.	
17.ii	The suitable size wire shall be selected for different circuits considering the current consumption for that circuit.	
17.iii	Electrical siren of 1.6Kms range 12/24 volts D.C. shall be provided and fitted at suitable place with two controlling push buttons on one officer side and another at Driver side.	
17.iv	Two rotating beacon lights with Amber lens shall be provided over the top of driver's cabin.	
17.v	The other lights, pump cabin light, locker lights shall be of approved make.	
17.vi	All the controlling switches of lights on dashboard shall be approved make.	
17.vii	Two fog lamps of approved make shall be provided and fitted on front-bumper with controlling switch on dashboard.	
17.viii	New wiper motor assembly of 17 watts with new blades and arms shall be provided if not provided with the chassis. The location of wiper motor shall be such that it shall be easily accessible for repairs.	
17.ix	Adjustable search light assembly shall be provided at a convenient position on the top of rear body deck with 30 meters Cable drum with Rexene cover.	
17.x	Hooter cum P.A. system shall be provided with a speaker mounted on the top of Driver's cabin with Rexene cover. The output shall be 25 watts.	
17.xi	Adjustable spotlight, mounted in a convenient position to give flood or beam of light at the rear of driver cabin shall be provided.	
18	PAINTING	
18.i	Zinc Plating shall treat for the complete structure material anti corrosion. The plating thickness shall not be less than 20 microns. Two coats of Epoxy paint shall be applied to the completely welded structure.	

18.ii	The complete external and internal aluminum paneling of driver cum crew cabin and rear body shall be painted with two coats of Zinc Chromate paint. The complete exterior of the vehicle shall be painted with two finish coats of —Post Office Red polyurethane paint manufactured by ICI Dulux / Nerolac / Dupont or any other brand.	
18.iii	The internal painting of cabin lockers etc. shall be done with two coats of Grey Synthetic enamel paint made by ICI Dulux / Nerolac / Dupont or any other brand. The name of the fire service/organization shall be painted on both sides of vehicle in letter of suitable size in golden yellow paint with black color shading.	
18.iv	The —Emblem of the department shall be painted on both sides of vehicle in natural colors at suitable place.	
19	LADDER WITH GALLOWS	
19.i	An aluminium extension ladder of trussed type 10.5 meters height shall be provided with the vehicle and mounted on suitable ladder gallows. The design of the gallows shall be such that the ladder can be released without difficulty from a reasonably accessible position. Means shall be provided for locking the ladder when stowed.	
20	B.A. SET BRACKETS	
20.i	The following accessories shall be provided.	
20.i.a	Fire Bell: (Bell Carillon) : One Gun metal fire bells of 250 mm size conforming to IS 1928 of 1984 shall be mounted externally on the top of crew compartment and shall be operated within the crew compartment by firemen in seating position.	
20.i.b	Six aluminum hooks for keeping the uniform clothing shall be provided in crew compartment.	
20.i.c	Wireless Set Box: Box made from 2 mm gauge aluminum sheet with lid shall be provided just behind the officer seat with 13mm wooden plank for fitting the wireless set bracket. The design and mounting will be shown at the time of fabrication work.	
20.i.d	Workmanship and Finish: The GVW of appliance will not cross the GVW of chassis manufacturer's specification with all equipments & Crew. The weight distribution diagram should be submitted for approval. The entire appliance will be painted fire red on the outside. The user name will be written on both-side with yellow color. Before final painting of Fire Tender, two coats of anti corrosion and primer coat will be applied.	
20.ii	The appliance will clearly have the following markings at suitable locations. <ul style="list-style-type: none"> ➤ Manufacturers name and Trade mark. ➤ Engine and Chassis No. ➤ Pump No. and capacity of the pump. ➤ Capacity of Water tank, Foam tank. ➤ All instruments control will be identified with nameplates 	
21	ACCEPTANCE TESTS	
21.i	The following acceptance test will be given to the complete satisfaction of the user. The design of vehicle will be such that it will not affect the Chassis Characteristic as specified by the chassis manufacturer such as speed, turning circle, acceleration, braking distance etc.	

21.ii	The stability of the appliance will be such that when under fully equipped & laden condition, if the surface on which the appliance stands is tilted to either side, the point at which over turning occurs is not passed at an angle of 27° from horizontal. This test should be carried out at the vendor factory in front of all the inspecting officers.																																														
21.iii	The pump with its all fitments will be subjected to Hydrostatic testing on a pressure of 21 kg/cm ²																																														
21.iv	The pump shall be run dry for a period of minimum two minutes at 2000 RPM to check the integrity of mechanical carbon seal. After this test, there shall not be any leakage of water through carbon seal.																																														
21.v	The pump will be subjected to Endurance test for a period of 4 hours continuous running. The first Three hours the pump shall deliver rated output of 2000 LPM at 8 kg/cm ² and next one hour will be 300 LPM at 35 kg/cm ²																																														
21.vi	During the endurance test the water shall not be replenished in the cooling system and the temperature of the cooling water and engine oil should not exceed the manufacturers' standards recommendations for the continuous operation and engine should not show any sign of stresses.																																														
21.vii	The other tests shall be as per detailed performance parameters given for chassis, superstructure, and fire fighting system, which include monitor output & throw, foam induction & expansion, load etc. Accessories shall also be subjected to relevant tests as per the specification indicated above.																																														
21.viii	List of mandatory accessories are recommended in Table 2-1. Table 2-1: List of Mandatory Accessories recommended for Water Tender																																														
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15.	Rope polyamide 12mm diameter for guy line of 30 meter long with sealed ends	1 no
16.	Rope polyamide 24mm diameter for long line of 30 meter long with sealed ends	1 no
17.	Rope polyamide 22mm diameter for short line of 20 meter long with sealed ends	1 no
18.	Hose bandages as per IS: 5612: 1977 part 2	4 nos
19.	Hose slings as per IS	2 nos
20.	Rubber gloves as per IS 4770-1991 for 5000Volts	4 pairs
21.	Leather gloves IS 6994 – 1977 PART 1	2 pairs
22.	Canvas gloves with anti skid palm	2 pairs
23.	Axe large as per IS: 963: 1963	2 nos
24.	Pick axe as per IS: 703: 1968	1 no
25.	Firemen Axe as per IS: 926	1 no
26.	Spade with wooden handle	1 no
27.	Crow bar of 6 ft long 25mm diameter as per IS: 704: 1968	2 nos
28.	Spanner adjustable, 30cm long	1 no
29.	Jack Hydraulic for 20 ton capacity with handle	1 no
30.	Oil feeder standard capacity	1 no
31.	Funnel 300mm diameter made from GI 18SWG sheet	1 no
32.	Hammer sledge with wooden handle – 10 kg	1 no
33.	Hammer sledge with wooden handle – 5 kg	1 no
34.	Suction adaptor GM 100mm female x 63mm male with lugs	1 no
35.	Adaptor 63mm male to 38mm female GM	2 nos
36.	Adaptor 63mm female to 63mm female GM	1 no
37.	Tool kit - PARATECH PRT Kit (Hand held forcible entry tool kit)	1 no
38.	Belt hook	1 no
39.	Selectable flow nozzle, made of aluminium alloy (hard anodized), light weight and easy handling having 63 mm size male instantaneous inlet. Nozzle shall have rubber-molded bumper and pistol grip handle, ball valve with shut off handle. Selectable flow capacity, nozzle flow rate settings of approx. 200-250-350-475-600 lpm at 7 kg/cm ² , with good range hollow jet, and dense fog in spray position and having a arrangement of low and medium expansion foam attachment.	3 no
40.	Branch pipe GM 63mm male inlet as per IS: 903: 1993	1 no
41.	Sand bag canvas, round shape, 300 mm diameter, 450mm length with cotton rope for closing mouth	2 nos
42.	Cap hydrant spindle	1 no
43.	Cap hydrant spindle new pattern	1 no
44.	Chisel cold	2 nos
45.	Hose clamp as per IS standard	4 nos
46.	Bolt cutter – 600mm long –	1 no
47.	Hammer ball pein – 500 gms	1 no
48.	Hook ceiling (preventer) with 3mtr.long wooden handle	1 no

49.	Hook anchor	1 no																											
50.	Knife salvage	1 no																											
51.	Tyre lever	1 no																											
52.	Pliers cutting	1 no																											
53.	Pliers insulated	1 no																											
54.	Petrol Chain saw machine, 600 mm guide bar length, with spare chain.	1 no																											
55.	Rake three prong	1 no																											
56.	Hose ramp (rubber) as per IS standard 20 ton capacity suitable for 2 lines	4 nos																											
57.	Saw carpenter – 300mm	1 no																											
58.	Combi-tool with integrated Hand operated pump The Minimum spreading force at the tips in closed position shall not be less than 2.5 tons. Maximum spreading force shall not be less than 20 tons. The handle and not the head shall be able to be rotated to 180 degree. Spreading distance at the tips shall not be less than 260 mm. It should be capable of Cutting 24 mm steel bars (average hardness of steel 500 to 550 mpa) The maximum cutting force shall not be less than 250 KN and the Weight of ready to use unit should not be more than 11 kg	1 no																											
59.	Shovel with handle	1 no																											
60.	Nozzle spanner as per IS standard	1 no																											
61.	Strainer wicker with canvas hood	1 no																											
62.	Canvas Bucket	2 nos.																											
63.	Crow Bar 4 feet	1 no.																											
64.	Crow Bar 6 feet	1 no.																											
65.	Delivery hose 63 mm diameter conforming to IS 636-1988 Type A in 30 meters length with SS male and female couplings. The hose and the couplings should be ISI marked.	10 nos.																											
66.	B A Set as per BIS standards.	2 nos.																											
67.	<p>Portable Pump:-</p> <table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="3">Flow</th> <th colspan="3">Pressure</th> </tr> <tr> <th>l/min</th> <th>l/sec</th> <th>PSI</th> <th>Bar</th> <th>Kpa</th> <th>Mpa</th> </tr> </thead> <tbody> <tr> <td>Max Flow</td> <td>1500</td> <td>25</td> <td>15</td> <td>1</td> <td>100</td> <td>0.1</td> </tr> <tr> <td>Max pressure</td> <td>400</td> <td>6.5</td> <td>110</td> <td>7.6</td> <td>760</td> <td>0.76</td> </tr> </tbody> </table> <p>Suction inlet:- 101.6 mm(4") dia (without adaptor) round thread type (BSS) with Blank Cap.</p> <p>Delivery Outlet:- 63.5 mm(2½) dia (without adaptor) coupling quick release type (BSS).</p> <p>Console:- Operator's panel should includes discharge pressure gauge, compound intake pressure gauge, low oil pressure warning light, and stop control, speed control, panel light and 12 volt outlet.</p> <p>Volute Body and Head:- High-strength aluminium alloy, anodized for superior corrosion resistance.</p> <p>Impeller:- High-strength, corrosion-resistant bronze, fully-enclosed, double-hubbed to balance hydraulic thrust, mechanically balanced to eliminate vibration.</p> <p>Wear Ring:- Long wearing bronze. Easy to replace when required to restore original pump efficiency.</p>		Flow			Pressure			l/min	l/sec	PSI	Bar	Kpa	Mpa	Max Flow	1500	25	15	1	100	0.1	Max pressure	400	6.5	110	7.6	760	0.76	1 No.
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	<p><u>Shaft Sleeve</u>:- High-strength stainless steel.</p> <p><u>Shaft Seal</u>:- Spring-loaded mechanical type.</p> <p><u>Priming</u>:- Combination spark arresting muffler and exhaust and exhaust primer, fast and easy to use. Quarter turn bronze priming valve, operates with push/ pull knob. Standard on wrap-around bases. Optional on no base and rail base.</p> <p><u>Engine</u>:- Twin air cooled, overhead valve (OHV) design delivers a maximum output of 18 HP (13.4 KW) @ 3600 RPM, 34.75 cu.in (570cc) displacement, 4-cycle, gasoline fuelled, horizontal shaft.</p> <p><u>Lubrication</u>:- Full pressure lubrication system with an automotive style oil filter. Oil fill tube with dipstick.</p> <p><u>Starter</u>:- 12-volt electric and manual recoil.</p> <p><u>Alternator</u>:- 16A</p> <p><u>Fuel Tank</u>:- Min. 10 Ltrs.</p> <p><u>Approximate Dimensions and weights:-</u></p> <p>Length :- 50 cm</p> <p>Width :- 51 cm</p> <p>Height :- 53 cm</p> <p>Weight :- 52 kg.</p>		
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ANNEXURE – II

TENDER NO:

Date:

DECLARATION BY THE BIDDER

We, hereby declare that we have made ourselves thoroughly conversant with local conditions regarding all materials of which based our rates for this work. The specifications of this work have been carefully studied and understood by us.

We hereby agree that the fabrication work will be executed within the cost mentioned in our financial bid and there will be no escalation in cost for any reason whatsoever. We also agree that if we fail to complete the work and drop in between **Fire & Emergency Services, Assam** shall have right to recover the full amount from us. We shall accept any amendments made by **Fire & Emergency Services, Assam** from time to time during total fabrication completion period including 1 (one) year Guarantee Period.

We are also committed to complete the work within the stipulated time period specified in the work order and will not ask for any further time extension.

We are bound to work as per Tender and work order issued by **Fire & Emergency Services, Assam** for this work with 1 (one) year guarantee period. In case of failure in providing adequate service, we shall be responsible for any loss and for the action taken by competent authority of **Fire & Emergency Services, Assam** leading to black-listing.

We shall comply with the provision of Contract labour (Registration and Abolition) Act 1970, Minimum Wages Act 1948, Payment of Wages Act 1963, Workman's Compensation Act 1961, the Contract Labour(Registration and Abolition) Act, 1979 and all other related Acts and any modification thereof or any law relating thereto and rules made there under from time to time. **Fire & Emergency Services, Assam** shall not be responsible in this regard.

We shall be wholly responsible for any accident or any unusual/ unexpected circumstances occurring during the execution of fabrication work and also during the guarantee period of 1 year.

We hereby declare that there is no vigilance/ CBI or court case pending/ contemplated against us at the moment.

(Signature of the Tenderer)

Name: _____

Designation: _____

Seal:

Date:

Place:

ANNEXURE – IV

TENDER NO:

Date:

ANNUAL TURNOVER STATEMENT

The Annual Turnover of M/S _____ for the past two years and concurrent commitment for the current financial year are given below and certified that the statement are true and correct.

Sl. No.	Year	Turnover in lakh
1.	2012-13	
2.	2013-14	
3.	2014-15	
Total		= Rs. Lakh
Average of 3 years		= Rs. Lakh

Concurrent Commitment

Sl. No.	Contract Ref	Purchaser	Total Contract Value	Outstanding Value	Estimated Delay in Completion date

Date:

Signature of Auditor/ Chartered Accountant
(name in Capital Letters)

Seal:

ANNEXURE – V

TENDER NO:

Date:

DETAILS OF FABRICATION UNIT/ AFTER SALES SERVICE

For supply of _____

- 1) Name of the fabricator :
- 2) Full postal Address :
- 3) Telephone No./ Fax No. :
- 4) Email address :
- 5) Date of inception of business :
- 6) Registration No. & Date :
- 7) Issued by :
- 8) Valid till :
- 9) Details of manufacturing activity & item wise capacity :
- 12) Name of Govt. Department/ Pvt. Institutions : As per enclosure
to which the bidder already supplied the
duly fabricated Water Tender Pump (Type-B)
with quantity value and supply period.
- 18) Has the bidder ever been blacklisted by :
any govt. agency? If yes, give details.
- 14) Are any cases pending in the court relate to :
Any supplies? If yes, give details.
- 15) Does the firm have the adequate facilities :
for Inspection and quality control
Please give details.
- 24) Does the firm have the adequate facilities :
for “After sales Service” in Assam or in the
NE Region .
Please give details of set-up.

I, _____ Prop./ Partner/ Director of
M/S _____

hereby declare that the information given in this form is true and correct to the best of my knowledge & belief.

I/we agree to the Tender Inviting Authority forfeiting the Earnest Money Deposit and/or Performance Security Deposit and blacklisting us for a period of 5 years, if any information furnished by us is proved to be false at the time of inspection and non-compliance with terms and conditions of the contract.

I/we offer to supply the items mentioned in the schedule (enclosed in price bid) at the rates quoted therein. I/we agree to hold this offer for two years after finalization of contract.

SIGNATURE :
NAME & DESIGNATION :
DATE :
SEAL :

- ❖ The details of fabrication unit shall be for the premises where items quoted are actually fabricated.

ANNEXURE – VI

TENDER NO:

Date:

UNDERTAKING ON FRAUD & CORRUPTION

We do hereby undertake that, in competing for (and, if the award is made to us, in executing) the contract for fabrication of Water Tender Pump (Type-B) against the above referred tender we shall strictly observe the terms and conditions against fraud and corruption in force in the country.

SIGNATURE :
NAME & DESIGNATION :
DATE :
SEAL :

ANNEXURE – VII

TENDER NO:

Date:

AGREED TERMS & CONDITIONS

A. Details of Bidder

Bidder Name

Offer Ref:

Telephone No.:

Fax No.:

Contact person:

Signature:

E-mail:

B. Definitions

Sl. No.	Description	Vendor's Confirmation (mentioning the Sl. No. of the relevant papers) (Deviation if any furnish separately)
	C. Technical	
1	Confirm that you meet the eligibility criteria as per bid document and have furnished relevant papers.	
2	Confirm acceptance of Technical Specification as per Tender Document	

3	In case of deviations, confirm that the same have been highlighted separately.	
4	Confirm that literature and technical data, wherever applicable, have been enclosed.	
5	Confirm that all certificates/ documents furnished	
6	Confirm that Earnest Money Deposit (EMD) as per bid document has been furnished in Cover-A	
	D. Commercial	
1	It is noted that any deviations to the commercial terms and conditions shall lead to loading of prices or rejection of offer.	
2	Confirm that the quoted price is inclusive of cost of fabrication of Water Tender Pump (Type-B) and other charges including freight, insurance and all duties and taxes viz. Excise Duty, sales tax/ VAT.	
3	Confirm furnishing of price break-up of fabrication showing basic price and Tax/VAT on %age of basic price to arrive at landed price in D2 above.	
4	It is noted that the statutory variations in taxes and duties within the contractual delivery period shall be borne by the purchaser.	
5	If there is any variation or fresh imposition of Excise Duty at the time of supply due to various reasons, including turn-over, confirm that the same shall be borne by supplier.	
6	If clause 5 above is not acceptable, advice maximum possible rate of additional ED chargeable; this shall be loaded to your price.	
7	Confirm that in case any new or additional duties and taxes are imposed after the contractual delivery date due to delays attributable to the supplier the same shall be borne by the supplier. This will be in addition to Price Reduction for Delay in Delivery.	
8	Confirm acceptance of Delivery/ Completion Period as indicated in the bid document.	
9	Confirm that acceptance of relevant payment terms specified in the bid document.	
10	It is noted that delivery period, price reduction, termination etc. are subject to Force Majeure Condition as stipulated in the bid document.	
11	Confirm that the quoted price shall remain firm & fixed till complete execution of the order.	
12	Confirm that the prices quoted are not higher in any respect than prices offered to other Govt. Departments/ Organizations.	
13	Packing/ forwarding, transportation, loading/ unloading and insurance are supplier's responsibility. However, to protect the items from physical damages and/or deterioration due to weather during transit, supplier to ensure proper packing & handling arrangement. Please confirm compliance.	
14	Confirm that Bank Guarantee of chassis from a nationalized Bank shall be furnished, which will be valid till expiry of the Guarantee period.	

15	Confirm acceptance of Repeat order within 24 months from the date of initial order at same price and terms & conditions.	
16	It is noted that the purchaser would disown any responsibility/ liability towards irregularity, contravention or infringement of any statutory regulations including those of patent, on manufacture or supply of goods covered by the order.	
17	Terms and conditions indicated in this format shall not be repeated in the bid. Terms and conditions indicated elsewhere and contradicting those in this format shall be ignored. Confirm compliance.	
18	Confirm that you shall observe the highest standard of ethics during bidding and in case favoured with an order, the execution of the order will be completed, without resorting to any fraud, corruption and/or coercion.	
19	Confirm that validity of offer shall be 1(one) year from the date of finalization of the order.	
20	Confirm that the Road Permit as per the bid document.	
21	Confirm that Guarantee of duly fabricated Water Tender Pump (Type-B) as per bid document.	
22	Confirm that F.O.R. destination at Guwahati as per bid document.	
23	Confirm that transportation of Fire Tender as per bid document.	
24	Confirm that inspection and test as per as per bid document.	
25	Confirm that submission of purchase voucher of P.T.O. from the authorized P.T.O. manufacturer of the country as per bid document.	
26	Confirm that legal proceeding of any dispute to be settled as per bid document.	

SIGNATURE OF THE TENDERER :
NAME & DESIGNATION :
DATE :
SEAL :

ANNEXURE –VIII

TENDER NO:

Date:

CHECK LIST

Sl. No.	Cover – A	Yes	No
1	Court Fee/ IPO affixed		
2	EMD in the form of DD furnished		
3	Documentary evidence of constitution of the Company/ Firm		
4	Copy of Fabricating/ Trade License issued by the competent Licensing Authority for the quoted products		
5	The instruments such as Power of Attorney, Resolution of Board etc.		
6	Sales Tax/VAT & Service Tax Registration Certificate		
7	PAN Card		
8	Declaration as per Annexure – II		
9	Details of experience as per Annexure-III		
10	ISO 9001:2008 certificate		
11	Annual Turnover Statement for 3 years as per Annexure-IV		
12	Details of Fabrication Unit as per Annexure-V		
13	Undertaking of Fraud & Corruption as per Annexure-VI		
14	Agreed Terms and conditions as per Annexure-VII		
15	Fabricator’s authorization (if applicable)		
16	Signature & Seal on each page of Bid Document		
Sl. No.	Cover – B	Yes	No
1	Price Bid as per Annexure - IX		

SIGNATURE OF THE TENDERER :
NAME & DESIGNATION :
DATE :
SEAL :

ANNEXURE – IX

TENDER NO:

Date:

PRICE BID

Fabrication of Water Tender Pump type ‘B’ incorporating a Multipurpose High Low pressure Fire Pump of capacity of 2280 LPM at 7 Kg. (Low pressure) and 300 LPM at 35 bar (High pressure) with a fully automatic self priming system.

Sl. No.	Name of Work	Rate	Total amount (Rs.) (in figures)	Total amount (Rs.) (in words)
1	Fabrication of 24 Nos. Water Tender Pump (Type-B) for Fire & Emergency Services, Assam.			
2	Tax/ CST/ VAT @			
3	TOTAL COST (1+2)			

(Signature of the Tenderer)

Name: _____

Date:

Designation: _____

Seal:

Place:

NIT No. F&ES/PS/ 252/Pt/ 1841-49

Dated Guwahati the 27th May/2015.

Copy to:

1. The Commissioner & Secretary, Govt. of Assam, Home & Political Department, Dispur for kind information.
2. The Director of Industries, Udyog Bhawan, Bamunimaidam, Guwahati – 21 for kind information.
3. The Senior Financial Adviser to the Govt.of Assam, Home (B) Department, Dispur for information.
4. The Deputy Secretary to the Govt. of Assam, Home (B) Department, Dispur for information.
5. The Finance and Accounts Officer, Fire & Emergency Services, Assam, Guwahati for information.
6. The Fire Prevention Officer, Fire & Emergency Services, Assam, Guwahati for information.
7. Office Notice Board.
8. Office Website www.asfso.org
9. M/S

Sd/-
Director,
Fire & Emergency Services, Assam,
Panbazar, Guwahati.