



THE STATE TRADING CORPORATION OF INDIA LTD.

(A GOVT. OF INDIA ENTERPRISE)

Mogul's Court, 5th Floor, Basheerbagh, Hyderabad 500 001, India

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TENDER NO.: STC/HYD/GID/2017-18/03 DATED 19.01.2018

The State Trading Corporation of India Limited, Hyderabad Branch invites offers for import/supply and fabrication of following item(s)

Sl.No.	Name of the Equipment	Qty.
1.	Fire Proximity Suits	10 Nos
2.	Light weight, hand control, Modular, Nozzles (Hard Anodized) / with Selectable flow.	08 Nos
3.	Exhaust Blower	01 Nos
4.	High Expansion Foam Generator (AFFF)	01 Nos
5.	Flow Meter for Testing	01 Nos
6.	Jumping Cushion (30 Mtrs jumping Height for rescue)	01 Nos
7.	Akron Nozzles	02 Nos
8.	Smoke generator	01 Nos
9.	A set of Cutting away gears Hydraulic/Battery operated – Battery operated Combi Tool, Hydraulic Ram, Power Unit for Hydraulic Tools, Hydraulic Combi Tool	01 set

For details, please visit websites www.stc.gov.in or www.eprocure.gov.in. Interested bidders must submit their bids online using e-Procurement portal of NIC (eprocure.gov.in) in the prescribed formats along with all necessary documents and information requested herein.

You are requested to submit your most competitive offer for the above product range. Bids against this tender shall be received only electronically through the e-procurement Portal of NIC (eprocure.gov.in/eprocure).

“No bids shall be accepted in hard copy or in any other form.”

Any further Corrigendum/Addendum to the tender documents will be uploaded by STC only on website i.e. www.stclimited.co.in or www.eprocure.gov.in and no press advertisement shall be published for the same

Please Note –

- ***Separate offers are to be uploaded for different items.***
- ***Name & Number of the Item to be clearly mentioned.***

Annexure A

TERMS AND CONDITIONS

- 1) **Price - You are required to provide FOB, CIF Indian Port & FOR Vattinagulapally (Ranga Reddy District, Telangana) price as per Price Bid Format Attached (Schedule C)**

(Break-up of insurance, sea freight, Custom Clearance charges, Inland Insurance and Transportation Charges from Port to (Ranga Reddy District, Telangana) are to be given.

In case of local supplies the tenderer should give the FOR Vattinagulapally (Ranga Reddy District, Telangana) Prices giving the break-up of local taxes & levies in the Price Bid format as per Schedule 'C'. In case of goods being offered in foreign currency, the tenderer should give the CIF/CIP Prices, Rate of Import Custom Duty on assessable value for the item quoted with ITC HS Codes and Proof of rate of Import Custom Duty, Custom Clearance charges, Inland Insurance & Transportation charges upto Vattinagulapally etc. in the Price Bid Format as per Schedule 'C'.

In case of Imported equipment the following will be provided by STC:-

- (i) Authorization in favour of nominated custom clearing handling agent of the supplier,
 - (ii) Payment of import custom duty (if and as applicable) (upon receipt of copy of Bill of Entry filed with customs).
- 2) **Country of Origin** (Certificate Duly certified by Chamber of Commerce of the exporting country to be submitted at the time of shipment of goods)
- 3) **Delivery Schedule** – Immediate delivery is required.
- 4) **Payment terms** –.

I. For Imported Item

LC to be established for 100% value and 90% Payment under LC to be released against submission of documents pertaining to dispatch of goods along with certificate of satisfactory pre-dispatch inspection report while the balance 10% shall be released upon receipt of Satisfactory installation and commissioning report from the End-user department. In case of LC, all bank charges (including LC confirmation charges) payable outside India would be to Seller's account.

Payment Against the letter of Credit/Wire Transfer for 90% of the value will be available against presentation of the following documents and also on proof of evidencing of shipment.

- a. Complete set of Original Clean Bill of Lading. The Bill of Lading shall be in the name of **THE STATE TRADING CORPORATION OF INDIA LTD., GENERAL IMPORTS DIVISION, MOGUL'S COURT, 5TH FLOOR, BASHEERBAGH, HYDERABAD 500 001, INDIA AND MARKED FREIGHT PREPAID.**

- b. Signed invoice in three copies giving letter of credit No., Order No. and date respectively. The invoice shall be in the name of : **THE STATE TRADING CORPORATION OF INDIA LTD., GENERAL IMPORTS DIVISION, MOGUL'S COURT, 5TH FLOOR, BASHEERBAGH, HYDERABAD 500 001, INDIA**
- c. Certificate of satisfactory Pre-dispatch inspection report
- d. Certificate showing goods of **ORIGIN** issued by Chamber of Commerce or Equivalent Body in Duplicate.
- e. Specification and Packing list – three copies.
- f. Manufacturer's guarantee certificate – three copies.
- g. Certificate from the manufacturer to the effect that the goods conform to the manufacturers standards and are new (Production Month in Year 2017/18) and free from any latent or patent defects and are strictly as per Specifications mentioned in STC's Order
- h. Insurance Policy/ Certificate showing STC as beneficiary - one original and two copies.
- i. Copy of FAX MESSAGE (Fax No.00-91-040-23236768) marked to General Imports Division, sent by the seller within 24 hours of issuance of Bill of Lading to buyer notifying the details of the BL No., Goods freighted, total invoice value, Name of the Shipping Line loading port and date of departure of the vessel and expected time of its arrival at the Indian Port.
- j. Certificate by the seller that the freightment consists complete requirement as per list of goods given in the Annexure-I enclosed with the order.
- k. Certificate from the seller that one set of non-negotiable documents mentioned under (a) to (l) above has been airmailed/couriered to the following within 10 Days of departure of the vessel in addition to one set of non-negotiable document sent with the vessel to:

THE STATE TRADING CORPORATION OF INDIA LTD., GENERAL IMPORTS DIVISION, MOGUL'S COURT, 5TH FLOOR, BASHEERBAGH, HYDERABAD 500 001, INDIA

Balance 10 (Ten) Percent payment under the LC shall be released/payable only after receipt of certificate of satisfactory installation, demonstration & training of the Equipment to be issued by the end-user department, after receipt and examination of equipment at their premises in India.

II. In case of local supplies.

Payment for domestic supply via RTGS for 100% value will be available against presentation of the following documents

- a. Signed and stamped invoice (Three original) giving details of order number and date. Invoice shall be as per Annexure – I enclosed with our order.
 - b. RECEIPT (FOR) GOODS RECEIVED & INSTALLATION CERTIFICATE as per Annexure “c” from the end-user department.
 - c. Satisfactory Pre-Dispatch Inspection Report.
 - d. Specification and Packing List – Two copies.
 - e. Authorised Dealers / suppliers guarantee certificate – Two Copies.
- 5) **Validity of Price** – Your offer to be valid for acceptance by us up to 120 days from the Tender closing date.
- 6) **Airport/Port of Shipment.** – For Imported equipment supplier to mention Airport/Port of shipment
- 7) **Supplier’s RTGS Bank Details** also to be mentioned in the offer.
- 8) **Guarantee Period** – The equipment(s) quoted for shall carry a guarantee for 24 calendar months and the manufacturer shall have to provide after sales service, as and when required at a short notice. The Guarantee period shall start only upon satisfactory Installation & Demonstration of the equipment at the end –user’s premises. Also see Point (F) of Other Terms and Conditions.
- 9) **Inspection**
Articles supplied shall be strictly as per the approved specifications. Or else, such Articles shall be rejected and returned to the Bidder at his own cost for replacement within 30 days.
- 10) The detailed list of consumables and spares with FOR, Vattinagulapally prices, required for smooth functioning of the equipment, shall also be submitted along with tender offer.
- 11) **Submission of Samples**

Bidders are required to submit a sample & demonstrate the working of the equipment (quoted under the tender) to the technical evaluation team when called upon by STC. A separate communication will be issued to the bidders for presentation of the samples on defined date, place and time.

If demonstration of the goods is deemed essential to ascertain conformity with the tendered specifications, then confirmation reflecting willingness to arrange demonstration of the equipment offered free of charge at Vattinagulapally or any other location on a mutually agreeable date, prior to opening of priced bid.

12). **Schedule to Tender :-**

a	Date of Publication of Tender	19.01.2018
b	Last date for uploading the bid documents and receipt of filled up & duly signed downloaded tender documents containing (scan copies). (EMD in the form of DD/BG to be submitted physically at STC, Hyderabad Office on or before last date) a) Cover # 1 Technical bid b) Cover # II Price Bid	12.02.2018 By 1500 HRS
c	Date & Time of Opening Technical bid.	12.02.2018 1530 HRS
d	Demonstration of Firefighting equipment	15.02.2018 to 19.02.2018
e	Date of opening of Price Bid	25.02.2017 1300 HRS

13) **Offers invited under Two Bid System :**

All Bidders are required to submit their item-wise offers in two cover/part i.e. Technical Bid Part and Price Bid Part.

Please Note –

- ***Separate offers are to be uploaded for different items.***
- ***Name & Number of the Item to be clearly mentioned.***

A. Following documents are required to be uploaded online as part of Technical Bid Part

1. No Deviation Certificate for the Item being offered is to be uploaded as per format enclosed. Schedule “E”. Name & Number of the Item to be clearly mentioned.

2. Scanned Copy of Pay Order / Demand Draft/Bid Bond equivalent to 2% of total cost of items towards Earnest Money Deposit or Copy of NSIC Certificate mentioning the name of the item quoted. Name & Number of the Item to be clearly mentioned
3. Detailed Technical offer & specifications of the equipment offered to be supplied.
4. An undertaking by the company stating that it has not been blacklisted by any central, union territory and state govt./organization or any Govt. procurement agency as well as convicted by any court of law and the period of blacklisting is not enforced till the date of validity of this offer being submitted.
5. Letter of Authority, in case the bid is being submitted by local agent of the foreign supplier, as per Schedule-A
6. Integrity Pact
7. Rate Uniformity Certificate.

B. The” Price Bid” Part must contain Price Bid of the Item (Format enclosed) which must be duly signed & stamped.

Please Note: Offers having conditions/deviations are liable to be rejected at the sole discretion of STC. Your Price Bids shall be opened only if your Technical Bid is found in order. Your technical and price bid shall be valid for at least 120 days.

SPECIAL INSTRUCTIONS TO THE TENDER NOTICE FOR COMPLIANCE OF THE TENDER PARTICIPANTS:-

- A. All Equipments to be offered with installation, supervision and complete training to operating staff.
- B. Standard Products should be offered, be of latest models and meet **international specifications and norms of safety, environment, pollution etc.** Models and specifications should be clearly spelt out.
- C. It is mandatory to enclose Product literature with the bids.
- D. In case equivalent make/model/brand is offered, a comparative statement with the make/model/brand desired by customer should be enclosed with bid.
- E. Options on all machines to be offered for three year comprehensive warranty (parts, travel and labour included).
- F. Warranty/Guarantee on the items should be spelt out clearly.
- G. Service arrangements in / for India/ site should be mentioned clearly in the bids. Similarly services included in the price offered for equipment/machines should be mentioned.
- H. Specifications are indicative, better specification may be offered as optional.

- I. Names where ever mentioned are for reference purpose, equivalent or better specification/ brand may be offered.
- J. List of essential spares and consumables should be mentioned and prices offered for the same as optional items.

OTHER TERMS AND CONDITIONS

(A) Having regard to STC's Corporate Policy, offers from Principal Manufacturer/Distributor or their Authorized agents with Tender Specific authorization by their principal Manufacturer/Distributor in their favour as per Schedule 'A' enclosed only shall be considered. Offers otherwise submitted, if any, are thus liable to be rejected summarily.

(B) In case of imported equipment, the Authorized agents may quote the prices for and on behalf of their principal manufacturers in the respective foreign currencies. Accordingly, upon award of order STC shall be entering into direct contract with the Principal Manufacturer.

(C) Earnest Money Deposit

- i. All offers shall be submitted along with an Earnest Money Deposit (EMD) of 2% of total offer value in the Form of Pay Order / Demand Draft/ Bid Bond in favour of "The STC of India Ltd., Hyderabad". However, for sake of convenience the foreign suppliers may submit the requisite EMD through their Indian Agents in equivalent Indian Currency, should they so desire. The EMD DD/Payorder/Bid Bond to be placed in a sealed envelope along with a covering letter duly superscribing the Tender No. Item & Name of Item addressed to The Deputy General Manager, STC of India Ltd., Mogul's Court, 5th Floor, Basheerbagh, Hyderabad 500 001 and dropped in the Tender Box placed conspicuously on the 5th floor, Mogul's Court, Basheerbagh, Hyderabad 500 001. Separate EMD's may be forwarded for different items.
- ii. The Bidders are also requested to provide the RTGS Bank details for future refunds/Payments. EMD's paid by Cheques are not acceptable. The format of Bid Bond is attached. (Schedule-D).
- iii. No interest will be applicable on the EMD payments
- iv. The units registered under Single Point Registration Scheme of NSIC are eligible for Exemption from payment of Earnest Money Deposit (EMD)

- v. The details of EMD entered during the bid submission, and those available in scanned copies, should tally with the EMD sent physically. Otherwise, the bid may be rejected.
- vi. Earnest Money Deposit (EMD) must reach STC before last date and time of bid submission
- vii. The EMD of the unsuccessful bidders would be returned within one month of signing of the Contract with the successful bidder.
- viii. EMD of the successful Bidder will be released only after the Bidder signs the Contract with STC and furnishes a Performance Bank Guarantee (PBG) in the format prescribed in the tender. Annexure
- ix. The EMD shall be forfeited by STC, in the following events: (a) Bidder withdraws its bid during the validity period specified in RFP or any extension thereof agreed by the bidder. (b) Bidder does not respond to requests for clarification of its bid. (c) Bidder fails to provide required information during the evaluation process. (d) In case of a successful Bidder, the said Bidder fails to sign the Contract; or furnish Performance Bank Guarantee in time.

(D) For the purpose of equitable comparison and evaluation of the offers, prices quoted in different currencies will be converted to a single currency viz., Indian Rupees as per the TT Selling Rate established by the State Bank of India as on the date of Price Bid Opening. The Comparison of prices & identification of L1 Bidder would be on FOR Destination Basis, duly delivered, commissioned etc. as the case may be on the date of opening of Price Bid.

(E) The Financial Bids of the Tenderers whose Technical Bids are approved shall be opened subsequently.

(F) Upon award of the Tender/Order to the successful bidder, a Performance Guarantee for due performance of the Contract, **valid up to the guarantee period** of the equipment, equivalent to 10% of the order value shall be submitted by the awardee in the prescribed format in favour of end-user department through a Nationalized Bank in India. As per Schedule B enclosed.

(G) For Imported Item, STC would be selling the goods on High Seas Sales basis to the end user Department. All the custom Clearance documents including High Seas Sales Agreement along with Invoice etc. shall be submitted to the supplier's nominated Custom Clearing Agent.

(H) The offers received (other than conditional offers) after opening of bid(s) shall be forwarded to the end-user department for their evaluation.

(I) You are also requested to kindly give the details of after sales service arrangements in Telangana and India. The name of your Service representatives in Telangana and India along with his complete

address and contact numbers may also be informed to us along with the offer so that the same could be notified to the end-user.

- (J) All the tools and facilities required for the inspection shall be arranged by the contractor free of cost.
- (K) No deviation, whatsoever, shall be acceptable. The tenderer has to certify that by duly signing and stamping the certificate as per Schedule
- (L) An undertaking/certificate stating that the rates quoted are uniform for all the Government Institutions in the country is to be provided. This certificate giving the reference of STC's Tender No. and Date along with your quoted item details may be submitted in original and the items if proprietary, a certificate to this effect may also be given.
- (M) In case of delay in supplies beyond the quoted delivery period, liquidated damages to the extent of 0.5% of the cost of the delayed supplies per week is applicable, subject to a maximum of 10%. Beyond this period, we reserve the right to either extend further or to cancel the contract.
- (N) INDEMNITY: Without any protests or demur, supplier indemnifies STC and its Branches and shall always keep STC fully indemnified and agrees to hold STC and its Branches harmless against any loss, claim, proceedings, damage, demurrage, costs, penalties, taxes, duties liabilities, legal cases, short shipment, quantity/quality/weight/purity, marking/specifications, etc of the material, costs or expenses of whatsoever nature, costs to STC on account of supplier/ handling agent/ omissions /negligence /mistake/misconduct breach or default and or non-fulfilment of terms and conditions of this agreement. The supplier shall keep STC indemnified at all times against any claims/liabilities/proceedings, etc from any third party or otherwise arising out/or in connection with this Tender.
- (O) Force Majeure
- i. "If at any time during the existence of this tender either party is unable to perform in whole or in part any obligation under this order because of war, hostility, civil commotion, sabotage, quarantines restrictions acts of God and acts of Government (including but not restricted to prohibition of exports or imports) fires, floods, explosions, epidemics, strikes, embargoes, then the date of fulfillment of engagement shall be postponed during the time when such circumstances are operative.
 - ii. Any waiver/ extension of time in respect of the delivery of any installment or part of the goods shall not deemed to be waiver / extension of time in respect of the remaining deliveries."
 - iii. If operation of such circumstances exceeds three months, each party shall have the right to refuse further performance of the contract in which case neither party shall have the right to claim eventual damages.
 - iv. The party which is unable to fulfill its engagements under the contract/ tender must within 15 (fifteen) days of occurrence of any of the causes mentioned in this clause, shall inform the other party of the existence of the circumstances preventing performance of the contract. Certificate

issued by the Chamber of Commerce in the country of seller or the Buyer shall be sufficient proof of existence of the above circumstances and their duration. Non availability of raw material will not be an excuse to the Seller for not performing their obligation under this contract.

(P) Fall clause

- i. The prices offered under the tender by the bidder shall in no event exceed the lowest price at which bidder sells the items of identical specification to any person/ organization.
- ii. If during the said period, the bidder reduces the offered price, sells or offers to sell such items to any person/ organization at a price lower than the price offered under the tender, it shall forthwith notify such reduction or offer of sale to the STC and the price payable under the contract for the items shall stand corresponding reduced

(Q) Arbitration: Any dispute or difference whatsoever arising between the parties out of or relating to the construction, meaning, scope, operation or effect of this contract or the validity of the breach thereof shall be settled by arbitration in accordance with the Rules of Arbitration of the Indian Council of Arbitration and the award made in pursuance thereof shall be binding on the parties. The supplier hereto agree that the courts and tribunals at Hyderabad, Telangana State shall have exclusive jurisdiction to settle any or all disputes which may arise out of or in connection with the Tender. All disputes arising out of this tender shall be decided in accordance with the Laws of India.

(R) STC may at its absolute discretion, reserve the right to shortlist, accept, disqualify, elect to abandon, reject any part or whole of the process without giving prior notice to the prospective party. STC reserve the right to cancel this tender in totality without assigning any reason at any point of time.

(S) Submission of Bids

- i. Bids against this Tender shall be received only electronically through the eProcurement Portal of NIC (eprocure.gov.in). No bids shall be accepted in hard copy or in any other form.
- ii. For submission of bids, bidders are required to get themselves registered with eprocure.gov.in website using Class II / Class III Digital Signature Certificate.
- iii. Earnest Money Deposit (EMD) must reach STC before last date and time of bid submission.
- iv. The bidders are required to upload softcopies of the two parts of the bid viz. Technical & Financial.
- v. A bidder may modify, substitute or withdraw its e-bid after submission before the last date and time of bid submission. No bids shall be modified, substituted or withdrawn by the bidder on or after the last date and time of bid submission.
- vi. STC may ask the bidders to submit any or all the documents in original submitted as part of their online bid anytime during the bid process.
- vii. For modification of e-bids, bidder has to detach its old proposal from e-tendering portal and upload/resubmit digitally signed modified bid.

- viii. For any queries relating to the process of online bid submission or queries relating to Procurement Portal (eprocure.gov.in), the bidders may contact CPP Portal Helpdesk on Tel No's.: 1800-3070-2232, 91-7878007972 and 91- 7878007973.

(T) **EMD Exemption to MSEs** – In case of the bidder being a Micro or Small Enterprise (MSE), relevant registration certificate to that effect should be mandatorily submitted. It should also be clearly indicated whether the MSE is owned by SC or ST entrepreneur, wherever applicable. MSEs producing valid certificate of registration will be exempted from payment of EMD. If the price quoted by an MSE is within L1+15%, it will be allowed to supply a portion (at least 20 percent of total tendered quantity) of requirement provided the enterprise is able to match the L1 price and the L1 price is from a bidder other than an MSE. In case of two or more MSEs quoting price within L1+15%, order may be divided as deemed fit by STC.”

Micro or Small Enterprises (MSEs) producing valid certificate of registration are given exemption from payment of Earnest Money Deposit (EMD) only if the items being tendered for are being manufactured by them.

(U) INTEGRITY PACT:

- i. Signing of Integrity Pact (IP) is mandatory for every bidder participating in this tender. A copy of the IP is enclosed (Schedule-), which may be deemed to have been signed by STC. A downloadable format of IP is available on the STC website under the link <http://www.stclimited.co.in/corporatecommitments/Integrity-pact.aspx>. The Bidder(s) and STC shall be bound by the provisions of IP in case any complaint relating to the tender is found substantiated.
- ii. The IP shall be executed on a plain paper and duly signed on each page by the same signatory who signs the bid document.
- iii. Any bid not accompanied by duly signed IP by the bidder shall be summarily rejected.
- iv. All sub-contractors/associates whose contribution in the tender is above 5 crore shall sign IP with STC after the tender is awarded to the successful bidder. All bidders shall inform their sub-contractors/associates accordingly.
- v. The Independent External Monitors (IEMs) for this tender shall be Mr. K.K. Sinha. All correspondence to them regarding implementation of IP should be addressed to : Mr (Name of IEM), IEM, C/o Chairman & Managing Director, State Trading Corporation of India Ltd., Jawahar Vyapar Bhawan, Tolstoy Marg, New Delhi – 110 001.

HYDERABAD.
19.01.2017

BRANCH MANAGER
Tele No. – 040-23237389/23296460

UNDERTAKING TO BE SUBMITTED BY PRINCIPAL MANUFACTURER / DISTRIBUTOR

It is to certify that M/s _____
(Name & Address of Tenderer) is our Authorised Distributor / Dealer. They are Authorised to submit tender for _____ (Name of Item) to the State Trading Corporation of India Ltd., Hyderabad against their Tender Notice No _____
Dated _____.

The Equipment / Item is Guaranteed for minimum 2 year Comprehensive free onsite Guarantee with Spare Parts from the date of completion of satisfactory testing, commissioning installation and Authorised Distributor / Dealer shall during the Guarantee period replace the parts if any, or rectify any manufacturing defect found during the above period so as to make the machinery operative and in perfect condition.

They are also Authorised to provide Annual Maintenance Contract and repairs contract for the period as desired by the purchase officer after the expiry of 2 year comprehensive Guarantee They will be responsible to ensure adequate regular supplies of spare parts, consumables, non- consumables needed for the same whether AMC or otherwise.

In case of change of Authorised Distributor / Dealer, we will inform the purchase officer accordingly within 15 days of change of authorized distributor/ Dealer. The new Dealer / Distributor will be responsible for after sales & service and annual maintenance and repairs contract as above. In case of failure of Authorised Dealer / Distributor we will be responsible for providing after sales service of the equipment as per terms and conditions of tender and contract.

If there is any defect M/s _____ shall replace or upgrade the defective part/faulty which shall also be subject to same guarantee as the original equipment. M/s _____ shall bear all costs, travel, labour, material cost which are required on rectification of defects onsite during the guarantee period.

**SIGNATURE OF THE PRINCIPAL MANUFACTURER/ DISRIBUTOR
WITH RUBBER STAMP**

Note: This Undertaking should be Typed & Signed by Principal Manufacturer/ Distributor on his Original Letter Pad

Schedule 'B'

PERFORMANCE BANK GUARANTEE FORMAT

(To be executed by any Nationalised Bank in India having their Branch in the State of End-user Department on stamp paper of Rs.100/-)

Name & Address of the Buyers(End-user Department)

1. Against Tender No. _____ dated _____ and Contract No. _____
Dated - _____(hereinafter called the Contract entered into between the STC of India Ltd., Hyderabad which expression shall, unless repugnant to the context or meaning, thereof include its successors, representatives & assigns for and on behalf of _____ (hereinafter called the Buyers/End user Department) and M/s. _____(Name and Complete Address) (hereinafter called the Sellers) which expression shall, unless repugnant to the context or meaning, thereof include its successors, representatives & assigns this is to certify that at the request of the Sellers, we _____ Bank unconditionally and irrevocably guarantee to pay to the Buyers immediately on first demand, the amount of US \$/Rupees _____ (@ 10% of contract value) without any protest or demur or reference to the Sellers if the Sellers fail to perform all or any of their obligations under the said contract. The decision of the Buyer/End user _____ or The STC of India Ltd., Hyderabad duly communicated in writing to the bank that the sellers have failed to perform all or any of the obligations under the contract shall not be questioned and be final and conclusive. The said amount of US \$/Rupee _____ will accordingly forthwith be paid without any conditions or requirement of our proof whatsoever failing which interest @ 15% p.a. on monthly rest basis shall be payable by the Bank to Buyer.
2. It is fully understood that this guarantee is effective for a period upto _____ (24 Months + Delivery Period) and that we _____ Bank undertake not to revoke this guarantee during its currency (upto claim period) without the consent in writing of the Buyers.
3. We _____ Bank, further agree that the buyer shall have the fullest liberty, without affecting in any manner or obligations hereunder to vary/extend any of the terms and conditions of the said contract or/extend time of performance by the Sellers from time to time or to postpone for any time or from time to time any of the powers exercisable by the Buyers against the said sellers and/or forebear to enforce any of the terms & conditions relating to the said contract and we, _____ Bank shall not be released from its liabilities under this guarantee by reasons of any such exercise, variations

or extension being granted to the said sellers or for any forbearance and/or commission on the part of the buyers, or any indulgence by the Buyers, to the said Sellers or by any other matter or thing whatsoever which under the law relating to the sureties would, but for this provision have the effect of so releasing us from our liability under

this performance guarantee. We further agree that the validity period of this Performance Bank Guarantee will be extended by us upon receipt of any such request in writing from the Buyer and any charges on account thereof shall be to the account of seller

4. We _____ Bank further agree that the guarantee herein contained shall not be affected / discharged by any change in the constitution of the said Sellers/Buyers/Bank.
5. The Guarantee will be governed by Indian Laws and will be subject to the jurisdiction of competent courts in the State of Buyer / End – user India alone.
6. No claim shall be admissible against the Buyer in respect of interest on Performance Guarantee regardless of the time of release.
7. The Bank further agrees that decision of the Buyer as to the failure on the part of _____ to fulfill their obligations as aforesaid /or as to the amount payable by the bank to the Buyer shall be final, conclusive & binding on the Bank.
8. This Guarantee will remain in force up to _____ (24 Months + Delivery Period) and any demand in respect thereof should reach Bank not later than 10 (Ten) working days (claim period) from the expiry of above validity date.
9. Notwithstanding anything entered hereto Banks liability under this Performance Bank Guarantee shall not exceed _____ (in words. Bank is liable to pay the guaranteed amount if Buyer same upon in written claim/demand on of before the expiry date.

FOR _____ BANK

ACCEPTED

Witness:-

Price Bid
ON THE LETTER HEAD OF THE COMPANY

Tender No. & Date :

Name of the Item Quoted :

S.No. of Item in Tender Document :

HS Code of the equipment :

Price Format for Imported Equipment

Details	Unit Price	Total Price
FOB Price (.....currency)		
Insurance Charges up to Port/ Airport (.....currency)		
Freight Charges up to Port/ Airport (.....currency)		
Total CIP Price (.....currency)		
Custom Clearing & Handling Charges (INR)		
Ex Works price (for items/ accessories supplied locally) (if any) (INR)		
Applicable GST for equipments supplied locally (if any) (INR)		
Inland Transport & Transit Insurance Charges up to end-user premises (INR)		
Total FOR Chhattisgarh Price		

Price Format for Local Supplies

Details	Unit Price (INR)	Total Price
Ex Works price		
GST		
Inland Transportation & Transit Insurance Charges up to end-user premises		
Total FOR Chhattisgarh Price		

We have carefully gone through the Terms and Conditions of the Tender Documents and hereby agree to abide by the same for the fulfillment of the contract. This is to also confirm that I am fully authorized by company for signing and submitting this price bid.

Place:

Date:

SIGNATURE OF THE TENDERER
NAME & DESIGNATION OF TENDERER
COMPANY SEAL

BID BOND PROFORMA

Schedule " D "

(To be executed by any first class international Bank through its branch office in Hyderabad (India) on stamp paper of Rs.100/-).

M/s. State Trading Corporation of India Limited,
5th Floor, Mogul's Court,
Basheerbagh,
Hyderabad-500 001.

Dear Sirs,

1. WHEREAS M/s _____ (BIDDER) has offered to supply _____ to STC, and the bidder is required to submit a Bid Bond at the rate of US\$ _____ along with the offer as a guarantee for fulfillment of all the terms and conditions of subsequent sale. We (Bank with full address) hereby unconditionally and irrevocably guarantee and undertake to pay the amount demanded by STC not exceeding the sum of US Dollars _____ only, in case the bidder fails to perform any or all the obligations, undertaken by him as per STC's acceptance, without any demur, protest and without any reference or recourse to the Bidder notwithstanding any dispute raised by the Bidder in any suit proceedings relating there to pending before any court or tribunal our liability under these presents being absolute and unequivocal. The payment shall be made to STC across the Counter of the Bank on the same day of receipt of invocation of this Bid Bond. Any such demand in writing made by STC, shall be final, conclusive and binding on us irrespective of any dispute or difference raised by the bidder.
2. Notwithstanding anything mentioned herein before, our liability under this guarantee is restricted to US\$ _____ (US\$ _____ only) and it will remain in full force up to (one month from the last date of validity of offer). Unless a claim under the guarantee is filed against us on or before _____ all your rights under the said Guarantee shall be forfeited and we shall be relieved and discharged from all the liabilities there under. We, _____ (Bank) further agree that the Guarantee hereunder contained shall not be affected by any change in the terms of purchase originally offered by the bidder and any change in the Constitution of said Bidder/ STC/ Bank.
3. This bond will be governed by Indian Laws and will be subject to the jurisdiction of courts at New Delhi in India alone.

DATE

FOR

PLACE

BANK

N.B. Bid Bond to be furnished in US Dollars only. Bid Bond in Indian Rupees will not be accepted.

CERTIFICATE

Certified that the enclosed offer against Tender No. STC/GID/HYD/2015-16/03 dated 08.02.2016 is in total conformity with tender terms & conditions including special instructions and specifications without any deviation, whatsoever.

Place:

SIGNATURE OF THE TENDERER

Date:

NAME & DESIGNATION OF TENDERER

COMPANY SEAL

INTEGRITY PACT

Between

The State Trading Corporation of India Limited, a company incorporated under the Companies Act 1956 and having its registered office at Jawahar Vyapar Bhawan, Tolstoy Marg, New Delhi - 110001 hereinafter referred to as "STC",

And

....., a company registered under and having its registered office at, hereinafter referred to as "The Bidder".

Preamble

STC is an international trading company dealing in purchase, sale, export and import of various commodities.

STC has invited tenders for purchase of and intends to award contract/s for purchase of the same under laid down organizational procedures, STC values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relations with its bidders.

In order to achieve these goals, STC has appointed Independent External Monitors (IEMs), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of STC

(1) STC commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

- (a) No employee of STC, personally or through family members, will in connection with the tender for or the execution of the contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which he/she is not legally entitled to.
- (b) STC will, during the tender process treat all bidder(s) with equity and reason. STC will in particular, before and during the tender process, provide to all bidders/contractors the same information and will not provide to any bidder(s) confidential/additional information through which the bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
- (c) STC will exclude from the process all known prejudiced persons.

(2) If STC obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal Code (IPC) or Prevention of Corruption (PC) Act, or if there is a substantive suspicion in this regard, STC will inform its Chief Vigilance Officer and initiate disciplinary actions as per laid down procedures. 22

Section 2 – Commitments of the Bidder

(1) The Bidder commits to take all measures necessary to prevent corruption and to observe the following principles during participation in the tender process and during the contract execution.

a. The Bidder will not, directly or through any other person or firm, offer, promise or give to any of STC's employees involved in the tender process or in the execution of the contract or to any third person any

material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

b. The Bidder will not enter with other bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

c. The Bidder will not commit any offence under the relevant IPC/PC Act. Further the Bidder will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by STC as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

d. The Bidder of foreign origin shall disclose the name and address of its Agents/representatives in India, if any. Similarly the Bidder of Indian nationality shall furnish the name and address of its foreign principals, if any. All the payments made to the Indian agent/representative will be in Indian Rupees only.

e. The Bidder will, when presenting the bid, disclose any and all payments made or committed or intended to be made to agents, brokers or any other intermediaries in connection with the award of the contract.

(2) The Bidder will not instigate third persons/firms to commit offences outlined above or be an accessory to such offences.

Section 3- Disqualification from tender process and exclusion from future tenders/contracts

If the Bidder/Contractor, before award of the contract or during execution thereof commits a transgression through a violation of Section 2 above or in any other form such as to put its reliability or credibility in question, STC shall be entitled to disqualify the Bidder/Contractor from the tender process or to terminate the contract, if already signed, on that ground.

If the Bidder/Contractor commits a serious violation of Section 2 above or in any other form such as to put its reliability or credibility as Bidder/Contractor into question, STC shall also be entitled to exclude the Bidder/Contractor from participating in the future tender processes for duration as may be considered appropriate by it.

Section 4 - Compensation for Damages and Forfeiture of EMD

i. If STC disqualifies the Bidder/Contractor from the tender process prior to the award of the contract according to Section 3, STC shall be entitled to demand and recover the damages equivalent to Earnest Money Deposit/Bid Security, by forfeiting the same as stipulated in the tender.

ii. If STC terminates the contract according to Section 3, or if STC is entitled to terminate the contract according to Section 3, STC shall be entitled to demand and recover from the Bidder/Contractor liquidated damages as per contract or the amount equivalent to Performance Bank Guarantee stipulated in the tender.

Section 5 – Previous transgression

1. The Bidder/Contractor declares that it did not commit any transgressions in the last 3 years with any Company in any country with regard to any anti-corruption law or practice or with any other Public Sector Enterprise in India that could justify its exclusion from the tender process.

2. If the Bidder/Contractor makes incorrect statement on this subject, it may lead to disqualification from the tender process or termination of the contract if already awarded.

Section 6 – Equal treatment of all Bidders/Contractors/Subcontractors

1. The Bidder/Contractor undertakes to demand from all Subcontractor(s) a commitment in conformity with this Integrity Pact, and to submit it to STC before signing of the contract, if awarded in its favour.
2. STC will enter into agreements with identical conditions as this one with all bidders, contractors and subcontractors.
3. STC will disqualify from the tender process any bidder/contractor who does not sign this Pact with STC or violates its provisions.

Section 7 – Criminal charges against Bidder(s)/Contractor(s) /Subcontractor(s)

If STC obtains knowledge of conduct of a bidder, contractor or subcontractor or of an employee or a representative or an associate of the bidder, contractor or subcontractor which constitutes corruption, or if STC has substantive suspicion in this regard, STC will inform the same to its Chief Vigilance Officer.

Section 8 – Independent External Monitor /Monitors

1. STC has appointed competent and credible Independent External Monitor(s) (IEMs) for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, STC.
3. Bidders/Contractors accept that the Monitor has the right to access, without restriction, all project documentation of STC including that provided by the Bidder/Contractor. The Bidder/Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to its project documentation. The same will also be applicable to Subcontractor. The Monitor shall treat the information and documents of STC and the Bidder/Contractor/Subcontractor with confidentiality.
4. STC will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between STC and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of STC and request the Management to discontinue or take correction action or to take other relevant action. The Monitor may in this regard submit non binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in specific manner, refrain from action or tolerate action.
6. The Monitor will submit a written report to the CMD, STC within 8 to 10 weeks from the date of reference or intimation to him by STC and should the occasion arise, submit proposals for correcting problematic situations.
7. If the Monitor has reported to the CMD STC a substantiated suspicion of an offence under relevant IPC/PC Act, and the CMD STC has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commission.
8. The word Monitor would include both singular and plural.

Section 9 – Pact Duration

This pact begins when both parties have legally signed it. It expires for the Bidder/Contractor twelve months after the last payment under the contract, and for all other bidders six months after the contract has been awarded.

If any claim is made/lodged during this time by either party, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by CMD, STC.

Section 10 – Other provisions

0 This Integrity Pact is an independent agreement between the parties and is subject to Indian Law. The arbitration clause if any in the tender / contract shall not apply to this agreement. Place of performance and jurisdiction is the Registered Office of STC. i.e. New Delhi.

1 Changes and supplements to this Pact as well as termination notices to be issued, if any, shall be made in writing. Side agreements have not been made.

2 If the Bidder/Contractor is a partnership firm or a consortium, this agreement shall be signed by all partners or consortium members.

3 Should one or several provisions of this agreement turn out to be void, the remainder of this agreement shall remain valid. In such a case, the parties will strive to come to an agreement to their original intentions.

(For & On behalf of STC)

(For & on behalf of The Bidder/Contractor)

(Office Seal)

(Office Seal)

Place:

Date:

Witness 1 : Name & Address

Witness 2 : Name & Address

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS

FIRE PROXIMITY SUITS

MULTI LAYER FIRE FIGHTER TUNIC & TROUSER AS PER STANDARD EN 469:2005 LEVEL-2 WITH FIREMAN HELMET AS PER STANDARD EN 443 AND BOOTS AS PER EN-345-PART 2

1. Three layer Fire Suit/Proximity Suits Nomex Fire Proximity suit (Navi Blue Colour) consisting of coat and pant, hood, gloves, fireman helmet and fire fighting boot. The suit shall be of three layer, in two pieces Pant and Jacket. The suit material shall be NOMEX or of equivalent quality. The fabric used in the stitching of the suit should be of manufacturer of fiber (NOMEX) i.e., DUPONT or of equivalent quality. Copy of the certificate of the fabric must be sent along with the offer.
2. STITCHING: The stitching of the suit shall be of high quality and the thread used for stitching shall be of high strength made of flame resistant fiber like meta-aramid /Nomex or of equivalent quality. Heavy duty molded Open – end zippers with a single sider with Fire Resistant zipper tape, hook and loop Velcro fasteners of flame resistant type shall be used.
3. The retro-reflective tape of 50 mm wide shall be provided on specific portion of Jacket & Trouser.
 - (i) Design of the coat:
 - The three layer coat should have front fastening zip arrangement with a overlapping flap with Nomex Velcro or of equivalent quality.
 - The cuff has to be provided with additional Nomex or equivalent tight fit for better protection against flame
 - The coat has to be provided with a 2 internal and external pockets
 - The colour of coat will be (Navy Blue Colour).
 - Reflective tapes have to be provided around the body and sleeves must have high protective collar with throat guard.
 - (ii) Design of the pant:
 - The three layer pant will have to be provided with heavy duty suspender with quick release snaps to the front
 - The knee area will have to be reinforced with Kelvar feltor or equivalent quality
 - The design on the pant is of standard type with 1 internal pocket
 - Reflective tapes will be provided around the bottom of the let
 - The colour of the pant will be (Navy Blue Colour)
 - Pant should have concealed fly zip and top button closure.

(iii) Construction of coat and pant:

a) Description

- The suit should provide complete protection from conductive temperature of 1000⁰ c or more for at least one minute without spray of fog and radiant temperature of 1000⁰ c or more for longer duration
- The suit should be deigned to be worn with self contained Breathing Apparatus which should be easy to fix and should have scope for adjustment of width.
- The suit when worn should give adequate freedom of movement and manoeuvrability with free movement of arms and legs.
- Outer layer shall be made of NOMEX Delta c fabric of 200gsm or of equivalent quality.
- Middle layer (moisture barrier) shall be made out of SONTARA E89 with NOMEX or equivalent with an aerotex fire retardant breathable PU membrane or of equivalent quality
- Inner layer (Thermal Barrier) shall be made from SONTARA E89 with NOMEX or equivalent as the thermal lining of 490 gsm or of equivalent quality
- Nomex or of equivalent quality threads will be used for stitching the suit the reflexives tape used will be flame resistance of scoth lite make in lime green/silver tri-colour on 50 mm wide

b) sizes –	Small	-Nos.
	Extra Large	-Nos.
	Large	- 10 Nos.
	Medium	- Nos.
	Total:	Nos.

The overall shall be made in four sizes. The measurements which take into account the desirability of a loose fit for this type of clothing.

Measurement is in Millimeters

S.N	Size	Overall length (Tolerance)	Length waist to Ankles (Tolerance)	Leg length (tolerance)	Chest Girth Tolerance	Shoulder (Tolerance)	Hops. (Girth) tolerance	Sleeve length (Tolerance)	Coller Width (Tolerance)
		+20	+20	+10	+50	+20	+50	+20	+10
1	2	3	4	5	6	7	8	9	10
1.	Small	1480	920	660	1220	510	1220	610	120
2.	Medium	1520	970	710	1220	510	1220	610	120
3.	Large	1560	1020	760	1220	610	1320	660	150
4.	Extra Large	1650	1070	810	1420	660	1420	710	150

(iv) Knitted sock hood:

- Nomex or of equivalent quality knitted sock hood of superior resistance to high temperature and direct flame contact. the hood should be washable or dry cleaned and can be worn over a breathing face mask or under the fireman helmet

(v) Flash Hood / Turnout Fire Hood / Balaclava

- It should comply to EN 13911 : 2004 + Annex A & B or equivalent
- 230 gsm Aramid/Viscose FR/anti-static fibre.
- Excellent moisture management by rapid evaporation.
- Flat lock seam construction provides greater comfort & longevity.
- Low heat conductivity.
- All seams sewn with 100% aramid thread.
- Elasticated face opening reinforced with a bottom cover stitch
- Soft aramid inner lining to increase skin comfort
- Anti-static outer fibre
- Full shoulder cape.
- One size fits all.

(vi) Knitted gloves:

- Fire fighter gloves should comply EN 659 : 2004, EN 420, EN 407 and EN 388 or of equivalent quality.
- Certificate of the same must be submitted along with the offer. The gloves shall provide excellent protection against heat, cut, penetration of liquid.

4. Fireman Helmet:

- Fireman's helmet with neck curtain made of aluminized material with woolen padding and integrated internal visor complying to International Approvals- EN
- 2008 type B or of equivalent quality.
- Face shield according to EN 14458 : 2004 or equivalent.
- High Resistance to impacts, radiant heat, flame and Chemical products.
- Having Shock absorption padding: Poly urethane with wool /aramide layer.

5. Boots:

- Rubber Fire Fighter Boots manufactured from flame retardant rubber with steel toe cap and inner lining of Nomex and Kevlar fabric or of equivalent quality for better insulation, should be of anti-skid sole of size : 14" (approval of ANSA/NFPA 1971-2000 Standard for fireman boots or of equivalent quality / EN 345-Part 2/ or of equivalent quality.

6. Approvals :

- The suit must comply to EN 469 : 2005 level 2 or other international approvals. certificate of approval of EN 469 : 2005 level 2 or other international approvals must be sent along with the offer.
- The offer should be supported with valid test certificate from reputed institute for testing and certification (from the country of manufacture) confirming to the composition of fabric.
- The test certificate should clearly indicate the offered model quoted in the bid.
- The offer should be supported with valid certification from M/s Dupont or other manufacturer confirming that the manufacturer of the suit has fulfilled the strongest criteria of Dupont quality program for Nomex Trade mark fiber or of equivalent quality and has acquired the license to use quality labels for their protective garments.

7. Party has to give guarantee / warrantee against any manufacturing defect of the suit.

8. The suit must be provided with the following accessories:

- Underwear hood which protects head and neck.
- It should be of universal size.
- It must be knitted, elasticized, balaclava type and made from flame resistant fiber such as meta aramid or having similar properties.

9. It must be permanently antistatic, having minimum sweat absorption, breath ability, ideal for next to skin wear. The anti flash hood shall meet the functional requirement and stand as given in EN 340 standard or equivalent. Certificate of the same shall be submitted along with the offer.

NOTE:

- All the above equipment should be supplied with Operating, Technical/ Service manuals.
- All the above equipment should be supplied with essential/standard accessories.
- Comprehensive AMC charges for the fire proximity suit with accessories should be quoted separately.
- Cost of equipment should be quoted inclusive taxes in rupee payment and also Dollar payment with Custom duty exemption.
- List of essential spares with their cost may be furnished separately.
- The specifications are general in nature and the department reserve the right to go for better specifications among the tenderers.
- The tenderer clearly specify the Make and Model including technical specifications enclosing detailed brochure for the equipment offered along with technical bid.

(K.V. Satish kumar)
Asst. District Fire Officer,
Kukatpally.

(A.Jaya Prakash)
District Fire Officer,
Khammam

(C.Lakshmi Prasad)
Addl. Director,
Telangana State Disaster Response
and Fire Services, Hyderabad.

**SPECIFICATION FOR LIGHT WEIGHT, HAND CONTROL, MODULAR,
NOZZLES (HARD ANODIZED) / WITH SELECTABLE FLOW.**

(For Sl.No. 2 and 7 of Chief office Memo Rc.No 5668/TSFS & CDTI/2015 dt: 17-12-2016)

Light Weight, Hand Control, Modular, Nozzle made of hard coat anodized alloys , having 63mm size male instantaneous inlet. Nozzle shall have Rubber moulded bumper and pistol grip handle, stainless steel/ Teflon ball valve with shut off handle, Selectable flow with, nozzle flow rate settings of approx.200-250-350-475-600 lpm at 8.5 Kg/cm² with good range hollow jet and dense fog and spray position. The nozzle shall be of reputed make like Akron / Rosenbauer / Proteck/TFT or equalent and shall comply with EN 15182:2007 / NFPA 1964:2013.

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SPECIFICATION FOR BLOWER AND EXHAUSTER FOR FIRE FIGHTING
(To confirm to IS 941:1985 (reaffirmed in 1995 and 2010))

1. **DESCRIPTION** The blower and exhauster shall consist of the following parts and shall confirm to IS 941:1985 (reaffirmed in 1995 and 2010)_

- a. Impeller,
- b. Casing,
- c. Suction mouth with wire fabric,
- d. Exhaust pipe,
- e. Engine, and
- f. Frame with lifting handles.

2. Aluminium castings shall have a minimum thickness of 4 mm and aluminium sheet wherever used shall have a minimum thickness of 2.5 mm.

3. MATERIAL

3.1 The material used for the various parts shall be as given in Table 1.

TABLE 1 REQUIREMENTS OF THE MATERIALS OF COMPONENTS

Sl No.	Name of Parts	Name of Material	Conforming to
(1)	(2)	(3)	(4)
i)	Impeller	Aluminium	Grade 4423 of IS : 617-1975*
ii)	Casing	Aluminium	Grade 4423 of IS : 617-1975*
iii)	Suction mouth	Aluminium	Grade 4423 of IS : 617-1975*

iv)	Exhaust pipe	Canvas	IS : 1424-1977†
v)	a) Petrol engine of capacity 2.5 kW with 3 litre	—	IS : 7347-1974‡
	petrol tank; or		
	b) Lightweight diesel engine of capacity 3.23 kW	—	IS 10001 : 1981
vi)	Frame with lifting handles	MS pipe	IS : 1239 (Part 1)-1979§
vii)	Wire fabric steel	Steel	IS : 4948-1974

Specification for aluminium and aluminium alloy ingots and castings for general engineering purposes (*second revision*).

Specification for cotton canvas (*second revision*).

Specification for performance of small size spark ignition engines.

Specification for mild steel tubes, tubulars, and other wrought steel fittings : Part 1 Mild steel tubes (*fourth revision*).

Specification for Welded steel wire fabric for general use (*first revision*).

4. CONSTRUCTION

4.1 Impeller and engine shall be mounted together and the total weight of the unit with fuel shall not exceed 60 kg. Runner shall be of the overhung type to mount correctly and securely on the extension of the engine shaft. The details shall be as given in Fig. 1.

5. PERFORMANCE REQUIREMENT

5.1 The blower shall be tested accordingly to method given in 5.1.1 to 5.1.3, after removing the guard. The blower shall be capable of discharging safely and continuously 30 m³/minute of free air.

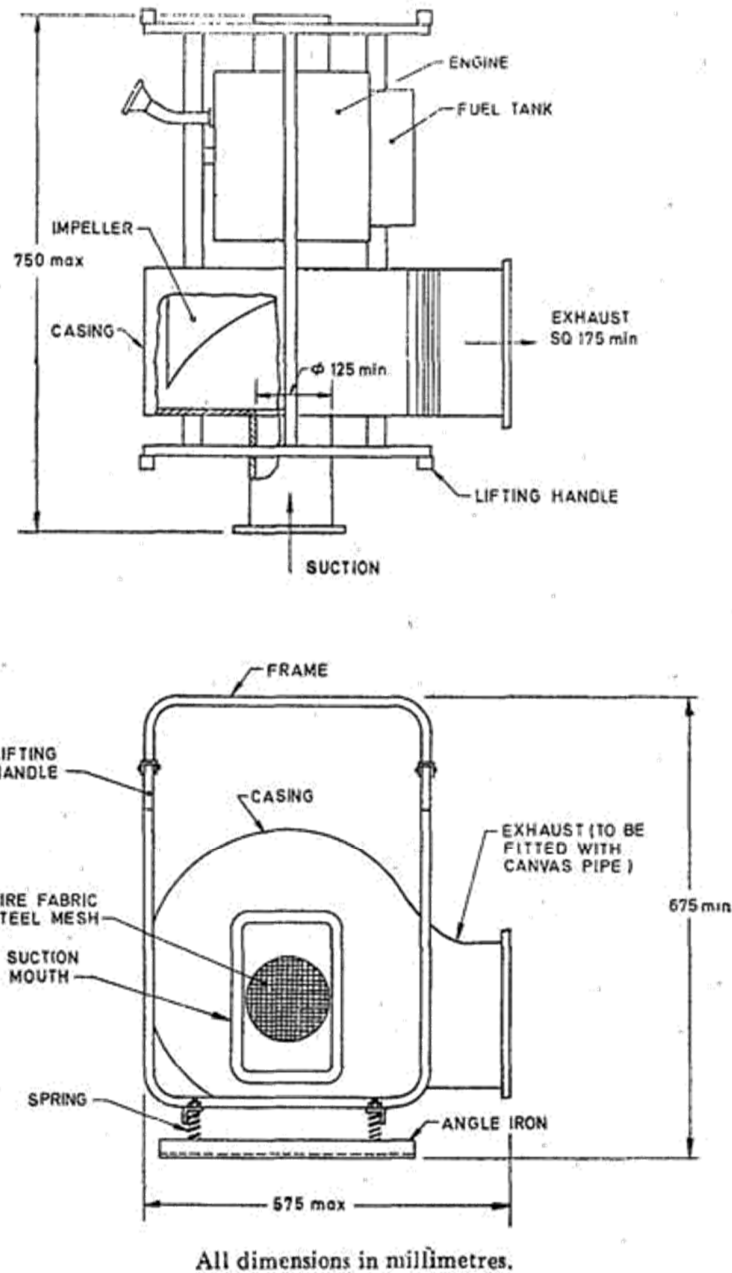


Fig. 1 Details of Blower and Exhauster

5.1.1 To the inlet side of the blower attach a cylindrical airway of diameter D not less than $1.5d$ where d is the diameter of orifice in which the impeller rotates (*see* Fig. 2A). To the inlet side of the airway shall be fitted a conical mouthpiece of length $D/4$ having an included angle of 60 degrees converging towards the blower, and a radial flange at its inlet end of width $D/25$. The total length of the test duct including the conical mouthpiece shall not be less than $2D$.

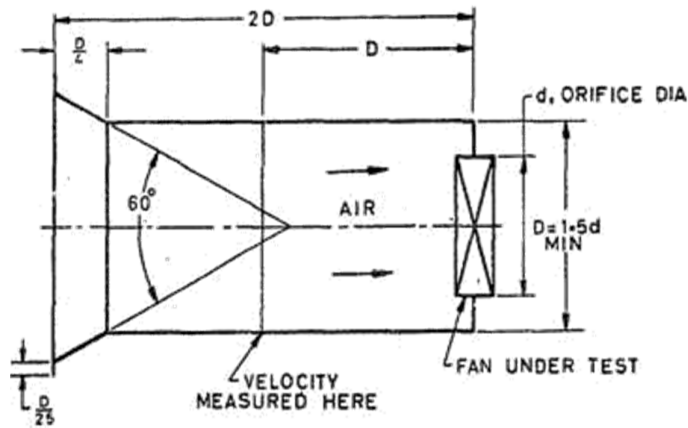


Fig. 2A Round Testing Duct for Propeller Fans

5.1.2 The average air velocity shall be determined by readings of a vane anemometer from measurements across a section D from the fan end of the cylindrical airway.

5.1.3 For the air delivery test, the cylindrical airway shall be considered to be divided into a number of equal square areas by lines parallel to the diameter D as shown in Fig. 2B. Measurements shall be taken with the centre of the anemometer vane wheel at the centre of each area, as shown in the Fig. 2B. The number of areas shall be determined by the ratio of D to the diameter of the ring surrounding the anemometer vanes, the relationship being shown in the table under Fig. 2B.

6. OPERATIONAL TEST

6.1 Blower and exhauster shall be run continuously for 2 hours It shall remain stable and shall not move from its place by more than 30 cm. All the components shall be checked and there shall not be any looseness.

7. FINISH

7.1 All parts shall be of good finish, clear of burrs and sharp edges. All casting shall be clean and sound and shall be free from plugging, welding or repair of any defects.

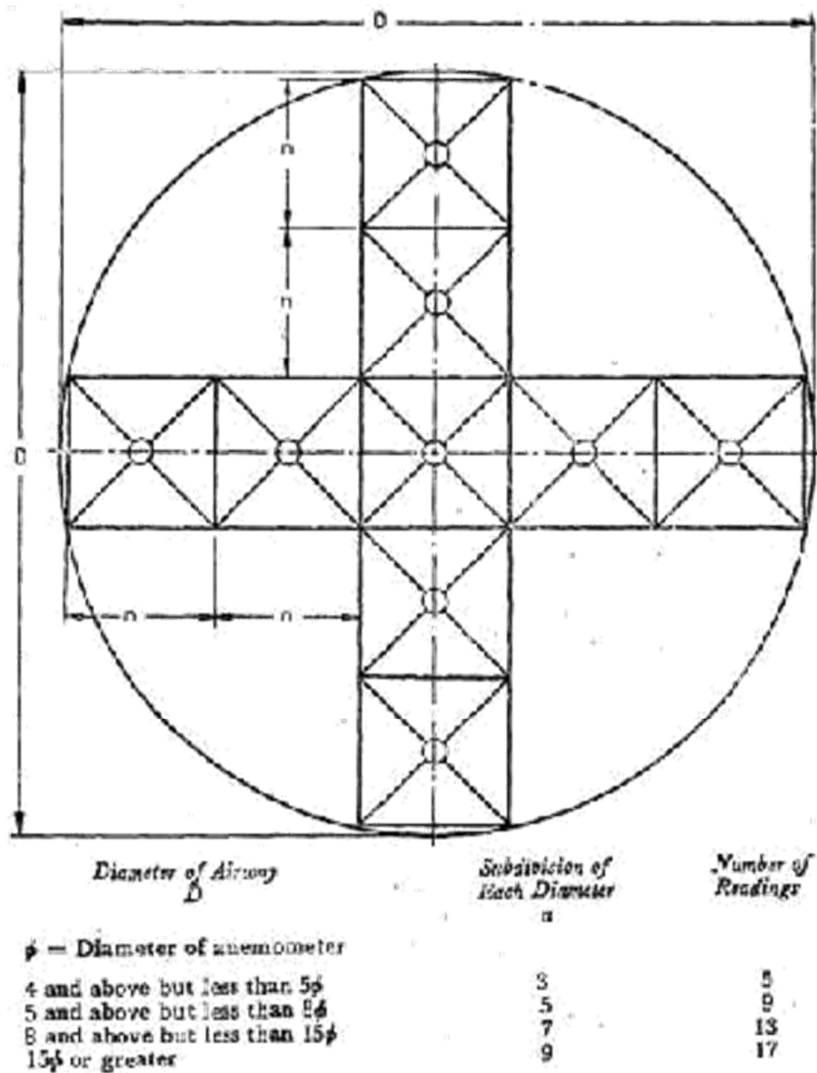


Fig. 2B Methods of Dividing the Area of Airway

8. PAINTING

8.1 Blower and exhauster except engine shall have two coats of paint after one coat of red oxide primer. The shade of paint for stand shall be black for body, fire red conforming to Shade No. 536 of IS : 5 - 1978*. Paint used shall be in accordance with IS : 2932 - 1974†.

*Specification for colours for ready mixed paints and enamels (*third revision*).

†Specification for enamel, synthetic exterior (a) under coating, (b) finishing (*first revision*).

9. MARKING

9.1 Each blower and exhauster shall be clearly and permanently marked with the following information:

- a. Manufacturer's name or trade-mark, and
- b. Year of manufacture.

9.1.1 The product may also be marked with Standard mark.

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SPECIFICATION OF HIGH EXPANSION FOAM GENERATOR (AFFF)

Water Turbine Foam Generator should consist of a fan, driven directly by the shaft of a foam water solution from spray nozzles which are supplied from the discharge of the water turbine, the foam concentrate being drawn into the water stream by means of a built-in-induction system. Its special feature is "by-pass" system, which allows the Generator to operate against a high back pressure due ducting or when forcing the foam to a height.

With the by-pass shut, all the water passing through the Generator is used for driving the turbine and for foam production thereby producing reduced expansion foam. In order to overcome high back pressure, which occurs when high expansion foam is inducted through long lengths of tubing, the by- pass is opened and some water is diverted to pass through the turbine to waste, leaving foam production. This results in a higher expansion foam and also increases the water flow to the turbine, speeding up the fan and consequently the airflow.

The Generator can also be used as a smoke extractor, in which case the valve controlling the foam solution supply to the spray nozzles is closed.

Performance Data

	Inlet Pressure	Total Water Flow	By-Pass Flow	Water Used For	Expanded Foam	
				Making Foam	Produced	Expansion
	Kg/cm ²	LPM	LPM	LPM	M3/min	
By-Pass Fully Open	4	170	60	110	90	800 to 1100
	6	210	75	135	125	
	7	230	85	145	145	
	8	245	90	155	165	
	10	265	95	175	195	
By-Pass Closed	4	160	NIL	160	80	500 to 750
	6	200		200	112	
	7	220		220	132	
	8	235		235	150	
	10	250		250	187.5	

Note:- Average foam pick-up rate -4-5 litres per min

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SPECIFICATION OF FLOW METER FOR TESTING

Description: A WW A Class 11 Turbine Meter.

AWWA Standard: Should Meet or exceed the performance required by AWWA Standard C701, most recent revision, for Class 11 Turbine Meters.

Introduction: Hydrant Meters should be designed to measure a wide variety of cold potable water flows from fire hydrants where flows are in one direction. These Meters should be light weight portable units designed for temporary installations.

Operation: Water flows through the turbine section causing the rotor to turn proportionately to the quantity of water flowing through the meter. A drive magnet transmits the motion of the rotor to a driven magnet located within the hermetically sealed register. The magnet is connected to a gear train which translates the rotations into volume totalization displayed on the register dial face. The only moving parts in the meter should be the rotor assembly and vertical shaft.

Construction: Hydrant Meters should consist of several basic components: light weight aluminium main case, turbine type measuring element assembly, sealed register, aluminium cover plate, stainless steel hardware, brass lid assembly, aluminium or brass swivel and nipple, aluminium or stainless steel handles, etc. The measuring element assembly should include the rotor assembly, vertical shaft and a calibration vane which eliminates the need for calibration change gears.

Restrictor plate: The standard Hydrant Meter should have a permanent flow restrictor machined into the main case. This limits the maximum flow of water through the meter and provides protection for the measuring element from being overrun when the meter discharges.

Strainers: Hydrant Meters should come standard with a large built-in 54 square inch strainer.

Connections: Hydrant Meters should be typically configured with bronze connections.

Main Case: Should be 3" constructed of lightweight aluminum, with lockable handle and stainless steel internal inlet strainer. Should be Equipped with 2.5" male NST swivel inlet coupling and 2.5" male NST outlet coupling. Bronze register retaining ring and lid are standard.

Measuring Chamber: Meter chamber assembly and turbine should be constructed of durable, engineering plastics for extended service life.

Magnetic Drive: A reliable, direct magnetic drive should provide linkage between measurement element and register. No intermediate gearing is required and no gearing should be exposed to water.

Register: Should be Standard direct read. A six-wheel odometer is standard. Registration is available in gallons or cubic feet.

Register Sealing: Direct read and DIALOG® System registers should be permanently sealed, with a tempered glass lens, stainless steel base and wrap-around gasket to prevent intrusion of dirt or moisture.

Test Circle: Large center sweep hand minimum registration unit, with each tenth marked.

Low Flow Detector: Center-mounted indicator with high sensitivity resulting from direct one to one linkage to the measuring element.

- Apparatus flow test kits should include Eight (8) Tips range from 3/4" to 2 1/2" in 1/8" increments. (3/4", 1", 1 1/8", 1 1/4", 1 1/2", 1 3/4", 2", 2 1/4", 2 1/2")
- 3 1/2" liquid filled 0-160 psi (0-1100 kpa) gauge
- Large, heavy duty carrying case (FK-230), 18 3/8" W x 14 1/4" D x 8" H
- 2 1/2" female swivel- Standard
- Certified calibrated gauges
- Large diameter flow test tips available
- Flow range: 25-1900 GPM (95-7100 LPM)

Maintenance: Hydrant Meters should be engineered and manufactured to provide long-term service and operate virtually maintenance free. If maintenance is necessary, provision should be made for the measuring element to be removed from the main

Conformance: Hydrant Meters should be tested and comply with AWWA C701 Class 11 performance standards.

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TECHNICAL SPECIFICATIONS OF JUMPING CUSHIONS

The jumping rescue cushions should have high reliability and shall be easy to handle and shall be capable of being fully erected by 4 to 6 persons. The possible jumping height shall be min. 30 mtrs or more. The technical specifications are as under:-

Shape	Square / rectangle or 8 (octagonal) corner shape
Outer Dimensions	Apporx 5.50 X 5.50 mtrs
Usable jumping area	Apporx 4.50 X 4.50 mtrs
Material of frame	Natural rubber reinforced with polyester fabric 940 dtex, black or equivalent
Material of outer cover	Fire retardant special PVC-coated polyester fabric, orange
Material of jumping area	Fire retardant special PVC-coated polyester fabric, white with black markings
Compressed air cylinders	Not less than 2 x 6l/300bar or equivalent steel cylinders

The jumping cushions shall be of reputed make conforming to relevant National /International stands

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SPECIFICATIONS OF SMOKE GENERATOR

Design: The CO₂ gas under pressure when applied on the smoke fluid into mist form and the same is fed into a heat exchanger where the mist is transformed into vapour.

The vapour condenses into visible smoke when exposed to the atmosphere

Application:

- Breathing Apparatus Training and all areas of Survival Training.
- Evaluation Training and Fire Simulation.
- Leakage Testing of buildings, ductwork, enclosures etc.
- Air Flow Visualisation Tests.
- Visual Effects for television, theatre, film studios and discotheques

Technical Specification	
Smoke out-put	20m ³ /min.
Colour of smoke	White
Gas used	CO ₂ (Carbon Dioxide) to IS:307
Gas capacity	2kgs.
Running time	30 min.
Fluid	Non toxic.
Fluid capacity	One litre
Warm-up time	15 min.
Operating temperature	180°C.
Dimensions:	
□ Length	500mm
□ Height	400mm
□ Width	150mm.
Voltage	230 Volt
Power consumption	750 watt, Operating Switch
Controls	Gas Control Valve
Protective Devices	Smoke Release Valve, Fuse - 3 amp
Finish	Safety disc for cylinder
Weigh	Thermostat operating at 300 ⁰ C

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SPECIFICATIONS ALL TYPE OF CUTTING AWAY GEARS. HYDRAULIC / BATTERY OPERATED

GENERAL REQUIREMENT:

The Hydraulic Rescue tools shall be portable and light-weight, and shall be suitable to use by one man.

The Hydraulic Rescue tools shall be supplied in set form, consist of main equipment like spreader, cutter, telescopic ram and hoses, power pack or hand pump along with all the accessories.

The Hydraulic Rescue tools and its accessories shall comply with all the requirements stipulated under EN 13204 or equivalent national / international standards.

For the safety of the operators, victims and bystanders, the tools shall be powered by non-toxic, mineral based hydraulic oil. Any toxic fluid shall not be used.

All pressure hoses shall have a safety factor of not less than 4 times the maximum working pressure. All hoses shall be provided with anti kink springs with exception of the non kinking one hose system.

All tools, hoses and pumps shall be equipped with compact, non-drip quick-connect couplings fast and easy connection. All female couplers shall be equipped with automatic self-locking to prevent accidental disconnecting. Preferably the couplers would have 360 degrees free movement for the easy of uncoiling.

The hydraulic rescue tools shall be designed to withstand a test pressure of two times their maximum working pressure. Each tool has to be equipped with two internal safety valves for protection against any type of mechanical or hydraulic overload for each cylinder and each tool shall have a separate safety valve for protection against overpressure in case one of the return couplers is disconnected. Moreover, all tools shall be tested for safety according to the American UL requirements (e.g. full load cycle tests) and comply with the European CE safety standards and European Norm. EN 13204

All hydraulic rescue tools shall be equipped with automatic double pressure check valves to hold any load in any position when the control valve is in neutral position, or in cases of disconnected couplers or sudden pressure drops.

The cutters, and spreaders shall be provided with a non-slip, U-shaped carrying handle preferably with integrated LED lights which allows the operator to reposition the tool from one side to the other (left to right and back) without the need to reposition the hand or to release the handle in order to do so. The carrying handle would be mounted in such a way that the tool is fully balanced, even when the tool is picked up with one hand. The position of the carrying handle and the control handle shall allow easy operation for right handed as well as left handed operators.

Hydraulic rescue tools shall be provided with, double acting hydraulic cylinder with a dead man's type control and shall be able to operate easily with one hand by the operator in any position.

The tools shall be provided either with two hoses, one for pressure line and another for return line or one hose having pressure line and return line within one hose. The hoses shall be fitted in the center of the handle to avoid personal harm in case of leakage. The hoses shall preferably allow full 360° rotation and shall be in case of dual hose system equipped with anti-kink springs over the entire length.

The tool body, yokes, and spreader arms shall be made out of high quality aluminium alloy for solid construction with low weight. All aluminium alloy parts shall be ANODISED as a protection against corrosion and scratching. All hinge pins, levers and cutter blades shall be made out of high tensile (heat treated) tool steel, blackened as protection against corrosion.

The tools construction shall allow under water use for long periods without the risk of any material damage to any part of the tool.

All hydraulic tools, pumps, hoses and accessories would be fully operational for longer periods at temperatures of -20 up to + 55° C.

The tools shall be supplied with proper operation / safety instruction manuals, according to the CE standards. Operation and safety instructions shall be on the tools and shall be in pictogram style so that they shall be understood by all operators easily.

COMBINATION TOOL

The combitool shall be double acting hydraulically operated of light weight construction made of anti corrosive high strength material.

The combitool shall be capable of cutting of various sections such as solid round bar, hollow round bar, flat section, square tube, rectangular tube etc. It would also cut the door pillars of new generation cars. In the tool with two hose system the tool shall be supplied with connection hoses of 0.5 meter long complete with coupling, dust cap and protection springs over total length. The female coupler should be of automatic self-locking system type. In the case of one hose system, a male connector shall be fitted to the tool to connect the hose

The blades shall be of shock resistant non corroding alloy steel, hardened and ground and shall be exchangeable and regrind able.

The combitool shall have following specifications:

Spreading Distance		Not less than 350 mm
Spreading force measured at 25 mm from the tips as per EN 13204		Not less than 3.6 T
Spreading force		Not less than 21 T
Cutting force		Not less than 38 T
Squeezing force		Not less than 7.5 T
Pulling distance		Not less than 375 mm
Pulling force		Not less than 4.5 ton
Weight		Not more than 19 kgs
Capable of cutting round steel bar		Not less than 32 mm
The material of the steel profiles shall conform to EN 10025-1-2000 table 5, type S 235		

TELESCOPIC RAM

The ram cylinder shall be double acting hydraulically operated device of light weight construction suitable for manual application with ease. The details and design features of the ram and

its controls and material used for construction of its major components such as pistons, cylinders and other components shall be given in the offer.

The telescopic ram shall be capable of lifting and spreading operation.

In the tool with two hose system the tool shall be supplied with connection hoses of 0.5 meter long complete with coupling, dust cap and protection springs over total length. The female coupler should be of automatic self-locking system type. In the case of one hose system, a male connector shall be fitted to the tool to connect the hose

The telescopic ram shall have following specifications:

Max. Spreading force 1st plug.		Not less than 215 kn
Max. Spreading force 2nd plug.		Not less than 80 kn
Length retracted		Not less than 525 mm
Stroke 1st plunger.		Not less than 365 mm
Stroke 2nd plunger.		Not less than 340 mm
Total stroke		Not less than 700 mm
Max. Length		More than 1255 mm
Weight		Not more than 22 kgs

HYDRAULIC POWER PACK PETROL ENGINE OPERATED:

The petrol driven hydraulic power pack shall be capable of powering tools, independently and have connection possibility for additional tools. For this purpose the pump shall be provided with separate connecting valves, incorporating a manually operated pressure release valve. The valve shall have two positions, operation or neutral. Even when under full pressure the release valve would be easy to operate and release the pressure. This arrangement is not applicable for one hose system.

The hydraulic pump shall be driven by a 4-cycle, single cylinder, air cooled petrol engine. The power of the engine shall be sufficient to drive the hydraulic pump to give output sufficient to operate the two tools simultaneously without reduction in the speed.

The petrol tank capacity shall be such that, it allows the engine to run for minimum one hour when the tools are continuous operation.

The starting system of the engine shall be hand recoil type and the starting rope shall wound automatically in when released.

The engine and the pump shall be mounted on suitable tubular carrying frame with integrated carrying handle.

The noise level of the power pack when the engine is running shall not be more than 85 dB at 1 mtr.

Suitable gauges shall be provided to find out the quantity of fuel and hydraulic oil in the power pack, and same shall be easily accessible visible means have preference. The provision shall also be made to refill the petrol and hydraulic oil through wide filling opening which shall be covered with threaded cap.

All the hot parts of the power pack shall be properly shielded to avoid possibility of injury to the operator.

Preferably there shall be provision of light near the valve block for ease in operation during the night time.

All the controls on the power pack shall be easily accessible and properly labelled in English language.

The weight of the power pack including hydraulic oil and fuel shall not be more than 37 kgs.

The power pack shall be provided with 2 or 3 stage radial or axial pump with a minimum output of 2800 – 3000 cc/min per valve in the first stage and at least 1100 -1250 cc/min per valve in the second stage and at least 500cc in the third stage . Each pump shall be provided with an automatic change-over valve that switches the first stage output to no load to assure the high output in first stage and second stage. Each pump shall be protected with two internal safety valves, factory set at a suitable maximum pressure.

The capacity of hydraulic oil tank shall be not less than 4000 cc to supply the sufficient quantity of oil to two tools simultaneously with ample reserve capacity for the re-circulation of oil to avoid the overheating in prolonged operation. The specifications are given below:-

Engine		Petrol engine not more than 2.5 kw
Capacity oil tank (effective)		Not less than 4000 cc
Pump type		2 or 3 stage radial or axial pump
Weight		Not more than 37 kgs
No. of tools connected		Two
No. of tools to be operated simultaneously		Two

High quality ‘Thermo Plastic’ hose of 10 mtrs. in length for pressure and return line with quick connect couplings suitable to connect power pack and tools shall be supplied with the pump. Total 2 nos of hoses of 10 mtrs each shall be supplied with the pump

The two hoses shall be in two different colors to identify easily. Non-interchangeable hydraulic coupling designed for quick connection / disconnecting shall be provided with dust caps, complete with automatic self-locking system.

The hoses shall have the working pressure suitable for tools and the busting pressure of the hoses shall be 4 times the working pressure

MANUAL HAND PUMP:

A lightweight hydraulic hand pump shall be offered as a standby unit for power pack to operate the tools.

It shall be of 2 stage design with min. oil capacity of not less than 1750 cc and shall be capable of developing adequate pressure for operating all the tools including the telescopic ram upto their full capacity. It shall be possible to operate the pump even when placed in an inclined/vertical position. The weight shall not be more than 10 kgs.

SPECIFICATION OF COMBITOOL (BATTERY OPERATED)

I. GENERAL

- (i) This specification defines the technical and functional requirements for battery operated hydraulic Combitool to be used for rescue operation by fire brigades and special rescue teams in case of traffic accidents, building collapse and natural disasters confined space rescue, high rise building rescue etc.
- (ii) The specification comprises the technical basis for procurement, acceptance and testing of the battery operator hydraulic Combitool. The equipment shall be able to work without failure in heavy dust high humidity, heavy tropical rain conditions " and temperatures from -20°C to +55°C.
- (iii) The equipment shall be completely independent from any external hydraulic power unit or hoses and shall be operated independently from each other by rechargeable high capacity Li-on Battery or an electric power connector.

II PURPOSE

- a. The rescue set is intended for use in life saving operations of persons entrapped in demolished structures, aircrafts and train wrecks and damaged vehicles by accomplishing the following:
 - b. Widening openings between movable ruins
 - c. Cutting of building constructions steel rods, metal members, sewage pipes, water pipes, etc.
 - d. Creating cut outs in sheet metal panels by tearing the sheet metal or removal of the panel's hinges from their place.

III RESCUE SET'S COMPOSITION

- i. The Battery operated rescue set shall include the following components:
 - a) Combi-tool
 - b) Accessories
- ii. All tools / equipment shall be tested for safety according to EN13204 (European standard) and for performance to NFPA 1936 (US standard). All tools shall be of a reputed make like Lukas, Holmatro, Weber or equivalent.
- iii. Both EN 13204 and NFPA 1936 compliance certificate for all the tools must be submitted with the offer

IV) DESCRIPTION

- (i) The battery operated hydraulic combitools shall meet the following requirements:
- (ii) The Combitool shall operate on a working pressure of at least 700 bar. The Battery will be

4 to 5 Ah 28 A Lithium ion rechargeable battery. The battery will be click ON / click OFF type for quick changing of battery. The battery shall be capable of being recharged fully in max. 60 minutes. A LED power indicator showing the battery status shall be integrated in the battery.

(iii) Spare parts shall be available with the local dealer for at least 10 years.

VI) TECHNICAL SPECIFICATIONS OF BATTERY OPERATED HYDRAULIC COMBI- TOOL:

- (i) The combitool shall be capable of cutting of various sections such as solid round bar, hollow round bar, flat section, square tube, rectangular tube etc. It would also cut the door pillars of new generation cars and also be able to perform the spreading and pulling functions.
- (ii) The blades shall be of shock resistant non corroding alloy steel, hardened and ground and shall be exchangeable and regrind able.
- (iii) The combi tool shall have following specifications:

Spreading Distance	Not less than 350 mm
Spreading force measured at 25 mm from the as per EN 13204	Not less than 3.5 T
Spreading force	Not less than 21 T
Cutting force	Not less than 38 T
Squeezing force	Not less than 7.5 T
Pulling distance	Not less than 375 mm
Pulling force	Not less than 5 ton
Weight including battery	Not more than 20 kgs
Capable of cutting round steel bar	Not less than 30 mm
The material of the steel profiles shall conform EN 10025-1-2000 table 5, type S	
VII. Accessories	
Pulling Chains Set 10 mm - 1.5m + 3.0m	1 Set
Pulling Attachment Set	1 Set
Mains Power connector to connect the tool to 220 V source	1 No
Battery charger	1 No
Battery Pouch	1 No
Carrying strap	1 No
Spare Battery	1 No

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