



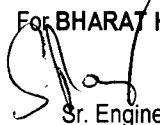
An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT / MATERIALS MANAGEMENT

Enquiry – Notice Inviting Tender		Phone: +91 431 257 7653	
		Email : skaruna@bheltry.co.in	
		Web : www.bhel.com	
TWO PART BID – Tender to be submitted in two parts	Enquiry No. 2601700026	Enquiry Date: 24.06.2017	Due date for submission of quotation: 18.07.2017
You are requested to quote the Enquiry number date and due date in all your correspondence. This is only a request for quotation and not an order. Please note that under any circumstances both delayed offer and late offers will not be considered. Hence vendors are requested to ensure that the offer is reaching physically our office before 14.00 hrs on the Date of tender opening.			
Item	Description		Quantity
10	Mobile Fume Extractor Unit as per the technical specification & commercial conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in)		4 nos.
Important points to be taken care during submission of offer: 1. Delivery terms shall be FOR BHEL Stores, Trichy for indigenous vendors and CFR Chennai Airport/ Seaport for foreign vendors. 2. Compliance Form No: TRY/ IMP/ 03 (foreign vendors) & TRY/ IND/ 03A (indigenous vendors) to be filled and enclosed along with the offer failing which, the offer will not be considered for evaluation. 3. Delivery required: 5 months from the date of Purchase Order (including pre despatch inspection). 4. Erection and commissioning (E&C) shall be done at BHEL, Trichy by the supplier. 5. Time period required for E&C shall be 2 weeks from the date of intimation by BHEL. 6. Applicable EMD for this tender is INR 40,000/- 7. All updates, amendments, corrigenda, etc., (if any), for each tender will be posted only on the above websites from time to time, as and when required, until each tender is opened. There will be no publication of such updates, amendments, corrigenda, etc., through newspapers or any other media. BHEL's General guidelines / instructions (refer MM/CE/GENL/001 - EMD), compliance form and technical specification can be downloaded from BHEL web site http://www.bhel.com or from the Government tender website http://tenders.gov.in (public sector units > Bharat Heavy Electricals Limited page) under Enquiry reference "2601700026".			
Tenders should reach us before 14:00 hours on the due date Tenders will be opened at 14:30 hours on the due date Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present		Yours faithfully, For BHARAT HEAVY ELECTRICALS LIMITED  S. PARTHASARATHY Sr. Engineer / Capital Equipment / MM	

TECHNICAL SPECIFICATIONS FOR MOBILE FUME EXTRACTOR UNIT**PART- A****QUALIFYING CRITERIA FOR THE DESIGN & SUPPLY OF MOBILE FUME EXTRACTION UNIT****SECTION – I**

The BIDDER/OEM (Original Equipment Manufacturer) is expected to give complete details against each clause in the table given below and wherever necessary an additional sheet may be attached (giving clear reference number) to cover the required details, asked for .

S.No.	PARTICULARS	BIDDER's RESPONSE
1	Number of Years of Experience, the BIDDER/OEM has in the field of design, manufacture and supply of 'MOBILE FUME EXTRACTION UNITS' for dedicated arc welding stations in large fabrication industries	
2	YEAR of LAUNCH of the MODEL quoted against this BHEL TENDER / ENQUIRY	
3	BIDDER to indicate the Country of Origin for the supply of the offered 'Mobile Fume Extraction Units' .	
4	Number of 'Fume Extraction Systems / Units' supplied to LARGE MANUFACTURING/HEAVY FABRICATION INDUSTRIES, till date and the technical details on such systems , to ascertain the competency.	
5	Details on International Standards followed in Design, Manufacture and Testing of the subject model of Fume Extraction Units – copies of the relevant standards (IEC/EN/ISO) are to be furnished with the TECHNICAL BID compulsorily.	
6	Comprehensive Details on Performance Testing of Fume Extraction Units carried out at the Factory / Reputed Laboratories, to be furnished with the TECHNICAL BID compulsorily, to ensure performance effectiveness and efficiency.	

SECTION – II

The BIDDER / OEM has to compulsorily meet the following requirements to get qualified for submitting an offer for the 'Mobile Fume Extraction Unit' :

S.No.	PARTICULARS	BIDDER's RESPONSE
7	The BIDDER / OEM shall have a minimum of FIVE Years of Continuous Experience in the Design, Manufacturing and Supplying of Fume Extraction Units / Systems for arc welding applications	
8	Number of 'MOBILE FUME EXTRACTION UNITS' supplied, till date in the QUOTED MODEL to Heavy and Large Fabrication Industries – To furnish the list of those customers with contact details for reference.	


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S.No.	PARTICULARS	BIDDER's RESPONSE
9	BIDDER / OEM has to provide Performance Certificate with full contact details of CONTACT PERSON, who are the End Users of the QUOTED MODEL of 'Mobile Fume Extraction System / Units' – (in the suggestive format as given in the ANNEXURE-A on Page No.3).	
10	Details on SERVICE-AFTER-SALES Set-Up in India including the Address of Agents / Service Centres, for providing technical assistance / spares supply.	
11	BHEL reserves the right to verify the information / data provided by the BIDDER / OEM. In case the information provided by BIDDER / OEM is found to be false / incorrect, the offer shall be summarily rejected.	

SECTION – III

The BIDDER / OEM has to comply with the following, for accepting the Technical Offer for scrutiny by the Purchaser:

S.No.	PARTICULARS	VENDOR's COMPLIANCE
12	The BIDDER / OEM shall submit the offer in TWO PARTS - Technical [with PART A & PART B] & Commercial Terms and Price Bid.	
13	The Offer shall contain a comparative statement of Technical Specifications given by BHEL and the Offer Details submitted by the BIDDER / OEM, against each clause. A just 'CONFIRMED' or 'COMPLIES' or 'YES' or 'NO-DEVIATION' or similar words in the technical offer may lead to disqualification of the Technical Offer	
14	The BIDDER / OEM shall assure a continuous support for SPARES and SERVICE for TEN Years, from the date of commissioning of the equipment at BHEL Works. This will be an undertaking by the OEM at the time of release of Purchase Order on the successful bidder.	
15	The Technical Offer shall be supported by Product Catalogue and Data Sheets in ORIGINAL and complete technical details / literature on the QUOTED MODEL of 'Mobile Fume Extraction System / Units'	
16	The Commercial Offer (given with the Technical Offer) shall contain the Scope of Supply and the Un-Priced Part of the Price-Bid, for confirmation for the scope of supply – with UNIT RATE.	
17	The expected delivery period (including the time for Pre-Dispatch Inspection clearance by BHEL) for the 'Mobile Fume Extraction System / Units' is not more than 20 weeks from the date of issue of BHEL Purchase Order.	

Enclosure : **ANNEXURE – A (Performance Certificate)**


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ANNEXURE-A**PERFORMANCE CERTIFICATE**

The Performance of the subject model 'Mobile Fume Extraction System / Units' should be certified by the customer of the OEM/BIDDER on Customer's Letter Head, in the following pattern/format and submitted along with the TECHNICAL OFFER positively.

- 1.0 Name of the Machine Supplier (OEM) :
- 2.0 MODEL/MAKE, Serial No. Fume Extraction Units :
- 3.0 Month & Year of Commissioning of the Equipment :
- 4.0 Details on the Application/Use of the Fume Extractor :
- 5.0 Performance of the Fume Extractor stated above : Very Good /
Satisfactory /
Not Good
- 6.0 Availability of the Fume Extractor stated above : Good / Poor
- 7.0 Service After Sales support given by the OEM /
Indian Representative, including spares supply : Satisfactory /
Not Satisfactory
- 8.0 Special Remarks / Recommendations :

Date:

Signature & Seal of the Authority
Issuing the Performance Certificate


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PART-B**TECHNICAL SPECIFICATIONS FOR MOBILE FUME EXTRACTOR UNIT FOR ARC WELDING STATIONS****IMPORTANT NOTE :-**

The Column "VENDOR's Offer with Technical Details & Remarks" in the format given in the following pages shall be filled in by the Vendor and submitted along with the TECHNICAL BID. Inadequate / incomplete, ambiguous or unsustainable information against any of the clauses of the specifications / requirements shall be treated as non-compliance.

S. No.	PARTICULARS	SPECIFICATIONS/DESCRIPTION	VENDOR'S OFFER [with Complete Technical Details]
1.0	PURPOSE / APPLICATION	The proposed Mobile Fume Extraction Unit is intended for extracting fumes generated at dedicated manual / mechanized welding stations, during different types of electric arc welding operations involved with exotic materials, where there is a higher percentage of Chromium, Nickel, Cobalt, etc.. The filtered air is let off into the workshop buildings and hence the quality of free air shall be of human friendly as per International standards / codes, as BHEL Workshops are fully certified to HSEMS Standards ISO 14001 and ISO 18001.	[Bidder to give details, how these requirements are met with and to substantiate the claim.]
2.0	PORTABILITY	The equipment shall be mobile with ease on industrial grade floors, self balanced by design, mounted on a trolley fitted with swiveling type castor wheels (lined with hard rubber) and dragging handles for positioning at various locations.	
3.0	FAN/BLOWER and MOTOR		
3.1	Fume extraction capacity at the fume sucking hood with a flexible arm of length 3 metres.	Not less than 1000 m ³ /hr	
3.2	Un-restricted air flow	Not less than 2000 m ³ /hr	
3.3	Fan Type	Radial / Centrifugal Type	
3.4	Fan Blades and Casing	To be sturdy and resistant to withstand heat upto 200 Deg C	
3.5	Fan Motor Rating	Bidder to specify – Minimum (1.0 kW)	

S. No.	PARTICULARS	SPECIFICATIONS/DESCRIPTION	VENDOR'S OFFER [with Complete Technical Details]
3.6	Input Electric Power supply	415 ±10% V / Three Phase AC/ 50±2 Hz (4 wire system) OR 230 ±10% V / Single Phase AC / 50±2 Hz (3 wire system)	
3.7	Fan Motor Speed	Bidder to specify	
3.8	Noise Level	Not to exceed 75 dB (A) measured at a distance of 1.0 metre,	
3.9	Maximum Level of Vacuum	Bidder to specify	
4.0	FILTER:		
4.1	Filter Material	Bidder to specify (like Cellulose fibres + Polyurethane + Metal).	
	Filters	Two or more	
	Pre/ Primary Filter	Aluminium (as per DIN EN 779 Standard)	
4.2	Filter Type	Self-cleaning type	
	Treatment	Bidder to specify	
	Pre/Primary Filter efficiency	Around 65-80 %	
	Main/Secondary Filter Efficiency	Minimum 99.995%	
4.3	Filter Surface Area	Not less than 30 square metres	
4.4	Insulation Class	F	
	Protection Class	IP 55	
4.5	Spark Arrestor	To be provided	
4.6	Clog Indication	Visual indication to be provided to show filter clogging / saturation for servicing / replacement	
4.7	Ambient Conditions	To be suitable for an ambient temperature upto 50 Deg C and a relative humidity of 85% (both do not occur simultaneously)	
5.0	EXTRACTION ARM		
5.1	Flame-retardant and flexible extraction arm [with provision for 360 degree rotation]	Desired Flexible Arm Length is minimum 3 meters. Bidder to specify the effective length with foldability.	
5.2	Diameter of the Extractor Arm	150 to 210 mm (nominal). Bidder to specify the diameter.	
5.3	Nozzle or Extraction / Suction Hood Types	Different variants suitable for inserting into a bore diameter of 150mm and sucking fumes generated near a welding work centre. To be easily detachable from the Extraction Arm.	[Bidder to give different varieties of Nozzles and Suction Hoods to choose from - with unit rate].



Signature of the Bidder

S. No.	PARTICULARS	SPECIFICATIONS/DESCRIPTION	VENDOR'S OFFER [with Complete Technical Details] [Bidder to specify the details]
5.4	Suction Hood / Arm Material	Suction Hood / Nozzle - to be suitable for withstanding temperatures of 300 to 400°C Arm – to be suitable for withstanding high temperatures of welding fumes and gases	
5.5	Pulling / Pushing Handle	Suitable handle should be provided on suction hood/ nozzle	
5.6	Supports for Arm Locating	Reliable and Long-lasting Supports for the arm to be internal (i.e. to be provided inside the arm)	
5.7	Arm Positioning	Cantilever type – supported on the Main Extraction Unit and should stay positioned in the desired position	
5.8	Flexibility	Extraction/suction hood to have 360 Degree positioning flexibility on its own axis The extraction arm supported on the unit should also have the positioning flexibility – up/down and swivel	
6.0	DESIGN, CONSTRUCTION & TETSING CODES / STANDARDS		
6.1	Design Standard	IFA Class W3	Bidder to list the various clauses in the listed standards and codes and match with the features of the offered Fume Extraction Unit.
6.2	Construction Code	ATEX 95 and DUST Class H	
6.3	Testing & Certification	DIN EN ISO 15012-1 (2005) : Test Certificate to be produced.	
7.0	OPTIONAL ACCESSORIES		
7.1	Bidder to list Optional Accessories such as throttle valve, spot light, automatic start / stop switch, Motor Protection Switch, Thermal Cut-out, etc., along with the offer. Each of these accessories shall be individually priced separately and accompanied by technical details .		
8,0	GENERAL POINTS		
8.1	Weight of the Complete Assembly	Bidder to specify	
8.2	Size of the Unit with Accessories	Bidder to specify	
8.3	Enclosure / Casing Quality	Enclosures of the Main Unit (including Fan, Motor and Filters) are to be compact and resistant to corrosion / rusting./ cracking in the ambient working conditions with suitable protecting coating, to work for a minimum period of FIVE Years	[Bidder to specify the details on materials of construction, surface preparation, coating means, etc.,]

S. No.	PARTICULARS	SPECIFICATIONS/DESCRIPTION	VENDOR'S OFFER [with Complete Technical Details]
8.4	Electric Motors	To comply with IEC Standards	
8.5	Input power supply cable	To be provided with 10 metre long cable with protective sheathing for shopfloor use.	
8.6	Consumables	Filter cartridges and list of any other consumables to be specified and listed by the BIDDER with unit prices.	
8.7	List of Spares	Spares shall be listed with Part Numbers and rates be given with unit price for individual items, for two years of trouble free operation and maintenance..	
8.8	Operation and Maintenance [O&M] Manuals for Each Unit	Three copies of the detailed O&M Manuals in English shall be given along with the original catalogues of bought out items.	
8.9	Pre-Dispatch Inspection	The equipment shall be offered for inspection by BHEL Staff for performance prove-out at Supplier's Works, prior to dispatch..	
8.10	Commissioning	The equipment shall be commissioned by the Supplier's Representative at BHEL Works, including Performance prove-out in the actual working stations.	
8.11	Performance Guarantee	The equipment performance shall be guaranteed for a minimum period of twelve months from the date of commissioning at BHEL Works ..	
8.12	Filed Demonstration	If Technical Suitability as per BHEL Specifications is not ascertained by the technical offer, a FIELD DEMONSTRATION would be asked for at BHEL Works, for qualification.	


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