



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 76 53

Email : skaruna@bheltry.co.in

spsy@bheltry.co.in

Web : www.bhel.com

TWO PART BID

Tender to be submitted in two Parts

Enquiry
Number:

2601700050

Enquiry
Date:

17.08.2017

Due date for submission
of quotation:

08.09.2017

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 should reach physically on or before 14.00 Hrs(IST) on the Date of tender opening. Tenders received after 14.00Hrs (IST) will not be considered for evaluation.

Item	Description	Quantity	(Indigenous Vendors) Matl. Will be Delivered to
10	Auto Darkening Welding Helmet with Air Purifying Respirator as per the technical specification & commercial conditions applicable(To be downloaded from web site www.bhel.com or http://tenders.gov.in)	4.00 Nos.	FOR, BHEL,Stores, High Pressure Boiler Plant, Tiruchirappalli - 620014

Important points to be taken care during submission of offer

- 1) Material shall be delivered to (By Indigenous vendors): As stated above.
- 2) By Foreign Vendors: CFR Chennai Seaport / Airport
- 3) Delivery required 10 Weeks from the date of purchase order.
- 4) Erection & Commissioning period required 1 Week from the date of intimation by BHEL to vendor for deputation of their Engineers for E&C.
- 5) EMD for this Tender will be (INR): 40,000.00
- 6) Compliance Forms. TRY/IMP/03 & TRY/IND/03A to be filled and enclosed along with the offer failing which, the offer will not be considered for evaluation.
- 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 / GENL / 001 - EMD) including bank guarantee formats and list of consortium banks, commercial terms check-list 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 .

Tenders should be submitted before 14.00Hrs (IST) on the due date
Tenders will be opened online 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 **BARAT HEAVY ELECTRICALS LIMITED**

DGM/ Capital Equipment / MM

S.PARTHASARATHY
MANAGER
CAPITAL EQUIPMENT / MM
BHEL, TRICHY-620014

TECHNICAL SPECIFICATIONS FOR AUTO-DARKENING WELDING HELMET WITH AIR PURIFYING RESPIRATOR

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	This helmet is for use by welders engaged in welding of exotic materials like very high nickel and chromium alloys, zinc coated steels, etc. The welding processes envisaged are SMAW, GTAW , GMAW and LASER welding .	[Bidder to give details, how these requirements are met with and to substantiate the claim.]
2.0	TECHNICAL FEATURES		
2.1	Configuration	Auto Darkening Welding Helmet unit should consist of Headpiece (Helmet), Auto-darkening Welding Filter(Lens), Breathing Tube, Turbo/Fan/Blower Unit, Battery, Airflow Indicator , Air-Filters, Waist Fastening Belt, Shoulder Straps, etc.	
2.2	Codes for Construction	Shall meet the following Standards/Codes - Assigned Protection Factor (APF) 25 - Certifications as per - NIOSH 42 CFR 84 (PAPR unit) - ANSI Z89.1 2009, Type 1 - Class C or G (hard hat) - ANSI Z87.1 2010 (helmet) Or equivalent European Standards viz., EN 166 , EN 175 , EN 379 , and EN 12941 (all with latest edition)	Bidder to list the various clauses in the listed standards and codes and match with the features of the offered Helmet powered with air purifying respirator .

S. No.	SPECIFICATIONS / DESCRIPTION	VENDOR'S OFFER [with Complete Technical Details]
3.0	SPECIFICATIONS FOR HEADPIECE (HELMET)	
3.1	The headpiece should be of modular construction based on durable cradle.	
3.2	The headpiece should be made up of Polyamide/ Polycarbonate and its outer protection plate should be made up of scratch resistant polycarbonate and can be replaced easily if required	
3.3	Arc Sensors : The number of arc sensors (that detect the weld sparks to start the darkening process) provided shall be not less than THREE (FOUR is preferred)	
3.4	The headpiece should have a combined unit for protection of face and powered air purifying respiratory systems.	
3.5	The Auto-Darkening Welding helmet should be provided with provision for including respiratory systems.	
3.6	The Auto darkening welding helmet should have six selectable dark shades from #8 to #13 and further user selectable levels of sensitivity to ensure reliable arc detection.	
3.7	The viewing area of the welding filter should be as per relevant standard and weight of the headpiece including the welding filter shall not be more than 600 gms	
3.8	The switching time between the light-dark shades should not be more than 0.1 millisecond	
3.9	The operating system should have one touch soft button/push button type / rotatory type knob and unit should have auto switch-off facility which switches off the system if system is not operational.	
3.10	The auto-darkening filter lens unit should have Power Supply through a 3 V replaceable battery.	
3.11	The unit should ensure reliable arc detection and having excellent visibility in light state, for easy welding preparation and after-treatment.	

S. No.	SPECIFICATIONS / DESCRIPTION	VENDOR'S OFFER [with Complete Technical Details]
4.0	SPECIFICATIONS FOR POWERED AIR PURIFYING RESPIRATOR	
4.1	The Powered Air Purifying Respirator unit must be a waist mounted battery operated system which should provide a continuous supply of filtered air to a headpiece as a part of a respiratory system.	
4.2	The unit must be designed for improved access to tight spaces with smooth contoured surface The unit should have a spatter proof belt.	
4.3	The device's pre-filter should ensure that the main particulate filter lasts longer and maintains a constantly high extraction rate.	
4.4	A spark arrester of stainless steel mesh shall be built in front of the pre-filter to minimise the risk of filter fires.	
4.5	The integrated main filter should ensure the welder has clean, contaminant-free air in the breathing zone.	
4.6	The filter efficiency shall be of the order of 99.97 %	
4.7	The unit should have a continuous filter life indicator/mechanism to check the life of filter.	
4.8	The Powered Air Purifying Respirator unit should incorporate an electronic control unit (ECU) that ensures that the blower unit supplies a constant flow of air at normal speed and should have a provision to increase the speed, if required. An airflow indicator should be provided along with the system to ensure that required flow rate is maintained.	
4.9	The Powered air purifying system should have audio and visual alarms which alerts the user of low battery or motor malfunctioning.	
4.10	The Powered Air Purifying Respirator should be powered by a rechargeable battery pack fitted to the unit.	
4.11	Battery Pack should be a NiMH type and be available in 8 hours and more period options	
5.0	BREATHING AIR PUMP TO THE PURIFYING RESPIRATOR	
5.1	The blower/pump unit shall be designed to fasten to a waist belt used by the welder	Bidder to give details of belt
5.2	Purified air flow range : around 150 litres/min. to 200 litres/min. with a facility for variable rate fixing facility	Bidder to specify the flow rate
5.3	The pump / blower motor shall be of Brushless DC Motor type	DC motor ratings to be given

S. No.	SPECIFICATIONS / DESCRIPTION		VENDOR'S OFFER [with Complete Technical Details]
6.0	OPTIONAL ACCESSORIES		
6.1	Bidder to list necessary Optional Accessories along with the offer. Each of these accessories shall be individually priced separately and accompanied by technical details.		
7.0	GENERAL POINTS		
7.1	Test Certificates	The supplier shall furnish two sets of ink signed, original test certificates of the equipment as per requirements of relevant Indian standard/EN/CE. One set of test certificates will be required along with dispatch documents and the other along with supply of the equipment.	
7.2	List of Spares	Spares shall be listed with Part Numbers and rates be given with unit price for individual items. The list shall contain the following items compulsorily : spare filters cartridges, spark protection mesh, activated charcoal filter, pre-filter mats, rechargeable battery, battery charger, waist belt, visors, carrying case, head assembly, auto darkening lens, breathing tube assembly, flow-meter	
7.3	User Manuals	Three copies of the detailed User Manuals in English shall be given, along with the original catalogues of bought out items.	
7.4	Pre-Dispatch Inspection	The equipment shall be offered for inspection by BHEL Staff for performance prove-out at Supplier's Works, prior to dispatch..	

S. No.	SPECIFICATIONS / DESCRIPTION		VENDOR'S OFFER [with Complete Technical Details]
7.5	Installation, Commissioning & Training	The supplier shall demonstrate the equipment at our site and provide necessary guidelines on correct way of using and maintaining the equipment, to our staff at our site, free of cost.	
7.6	Performance Guarantee	The supplier shall furnish guarantee against any design /manufacturing defect and performance guarantee of the auto darkening welding helmet as per quoted performance parameters for a period of 12 months from the date of acceptance of the equipment at our end.	
7.7	Field 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.	
7.8	Quantity Required	FOUR Numbers with all the accessories and spares & consumables	