

BHARAT HEAVY PLATE & VESSELS LIMITED.,
(A Subsidiary Bharat Heavy Electricals Limited)
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NOTICE INVITING TENDER(NIT)

**Category of Tender: TWO BID
(PRICED + UN - PRICED)**

**SUB : Tube Roto Blast Station with
handling facility**

Our Ref: **MM/2/10/3220/CAP/W-186/5192**

DATE: 26.10.2012

Sealed quotations in duplicate are invited from suppliers on **or before 26.11.2012** **SUPERSCRIBING OUR REFERENCE AND CATEGORY OF TENDER** on the cover, for supply of the under mentioned stores within the above due date, otherwise send **REGRET LETTER**, strictly subject to the Terms & Conditions attached herewith.
LATE TENDERS ARE NOT ACCEPTABLE.

ITEM No.	DESCRIPTION / SPECN. / SIZE	QTY
1.	Tube Roto Blast Station	1 No 's
	Encl: 1. Qualifying Criteria PART A 4 pages 2. Technical Specifications PART B 14 pages 3. Annexure – 1 2 pages 4. General Terms/ commercial terms and conditions (INCLUDING CHECK LIST) 10 pages	

For BHARAT HEAVY PLATE & VESSELS LIMITED,

For Dy. GENERAL MANAGER (MM)

SECTION – I : QUALIFYING CRITERIA

The BIDDER has to compulsorily meet the following requirements to get qualified for considering the technical offer:

S. No.	REQUIREMENTS	VENDOR's RESPONSE
1	Only those vendors (OEMs), who have supplied and commissioned at least ONE CUSTOM BUILT AIRLESS SHOT BLASTING MACHINE IN THE PAST TEN YEARS (on the date of opening of Tender) and such machine is presently working satisfactorily for more than one year after commissioning (on the date of opening of Tender) should quote.	
The vendor should submit following information where similar machine has been supplied for qualification of their offer.		
1.1	Name and postal address of the customer or company where similar machine is installed.	
1.2	Name and designation of the contact person of the customer.	
1.3	Phone, FAX no and email address of the contact person of the customer.	
1.4	Month and Year of commissioning of the machine.	
1.5	Application for which the machine is supplied	
1.6	One Performance certificate from the customer regarding satisfactory performance of equipment supplied to them. For obtaining the performance certificate from the customer, a suggestive format is provided in SECTION - IV .	
1.7	BHPV reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected.	
2.0	DELIVERY - The bidder shall quote the best possible delivery. However the delivery shall not exceed 9 months with an additional grace period of 2 months, however additional grace period will have a loading for arriving at the PRICE COMPETITIVENESS of the Commercial Offer (if the offer is technically acceptable on all accounts). Details are given in the Commercial Terms of this Tender. Bidder to specify the time required for E&C. BHPV reserves the right to fix E&C period during Finalization of offer in consultation with the bidder	

SECTION – II

The BIDDER / VENDOR is requested to provide the following information:

S. No.	REQUIREMENTS	VENDOR's RESPONSE
3.0	The BIDDER / VENDOR to furnish Reference List of Customers, with full address, details of contact person, where such shot blasting equipments have been supplied in the past.	
4.0	Specify details of such shot blasting equipments supplied to other units of BHPV, if any. (Year of commissioning, application of shot blasting, No. of blast wheels, etc.)	
5.0	Details on SERVICE-AFTER-SALES Set-Up in India including the Address of Agents / Service Centers in South India.	
6.0	Any Additional Data to supplement the manufacturing capability of the BIDDER for the subject equipment.	

SECTION – III

The BIDDER to note:

S. No.	PARTICULARS	VENDOR'S RESPONSE
7.0	The BIDDER / VENDOR shall submit the offer in TWO PARTS. 1. Technical Offer [with PART A & PART B] & commercial offer 2. Price Bid.	
8.0	The Technical Offer shall contain a comparative statement of Technical Specifications demanded by BHPV and Offer Details submitted by the Bidder , against each clause. A just 'CONFIRMED' or 'COMPLIED' or 'YES' or 'NO-DEVIATION' or similar words in the technical comparative statement may lead to disqualification of the Technical Offer.	
9.0	The Technical Offer shall be supported by product Catalogues & Data Sheets and also technical details of Bought-Out-Items with copies of Product Catalogue to the extent possible.	
10.0	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.	

PERFORMANCE CERTIFICATE – [SAMPLE FORMAT]

(On Customer’s Letter Head with Additional Sheet – if necessary)

1. Supplier of the Equipment/Machine :
2. Make & Model of the Equipment :
3. Month & Year of Commissioning :
4. Application for which Machine is used :
5.
 - a. No. of Blast wheels :
 - b. Blast Chamber Size (L X W X H) :
 - c. Column & Boom Dimensions :
 - d. Sizes of Grinding Belts/Wheels Used :
 - e. Other Specifications [optional] :
6. Performance of the Machine : Satisfactory / Not Satisfactory
7. Feed- back on ‘After Sales Service’ by the Supplier :
8. Remarks / Reasons for Recommendations :
9. Contact Details :
Name of the Contact Person :
Phone No. :
Fax No. :
E-mail ID :

Date:

Signature & Seal of the Authority
Issuing the Performance Certificate

TECHNICAL SPECIFICATIONS FOR HEAVY DUTY ROTO-BLAST TYPE TUBE SURFACE CLEANING MACHINE

The tube rotoblast station is intended for surface cleaning of the seamless tubes of various diameters, (OD) ranging from 31.8 to 76.1.

The rotoblast station shall be suitable for blasting multiple tubes in one pass. With Tube dia 44.5, it shall be possible to blast 4 tubes in one pass. The number of tube shall be more with reduced tube diameters.

The equipment design should ensure near nil shot leakage from any part of the shot blasting system / sub-system.

S.No.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER'S OFFER WITH COMPLETE TECHNICAL DETAILS
1.0.0	APPLICATION	a. The proposed machine is intended for removing the rust & scales from the outside surfaces of seamless steel tubes used in High Pressure Boiler components Manufacture. b. The shot blasting operation shall be carried out automatically by blowing steel shots (S-230, S330, and S280) through centrifugal blast wheel(s) mounted inside the blasting chamber. c. The Machine shall have an integrated facility for tube in feed and out feed, Tubes rotation, shots loading, dust extraction and shots recovery and shots recycling. d. Surface finish required is equivalent to SA 2½ as per Swedish Standard SIS 0559 00-1967 e. The Basic Machine with all the Sub-Systems, Accessories & Attachments are to be designed for working in three shifts (8 hour shift) a day and all the 365 Days in a year.	
2.0.0	PRODUCTIVITY	The machine is expected to have a surface cleaning capacity of 6000 pass meters in total (for dia. 44.5 mm tubes, with in-feed of four tubes at a time), on an average - in a shift of eight hours.	
3.0.0	JOB / TUBE DETAILS		
3.1.0	Tube Outer Diameter Range	Tube Sizes : 31.8 to 76.1 mm	
3.2.0	Tube max. thickness	12.5 mm	
3.3.0	Tube Material	Carbon Steel and Alloy Steel	
3.4.0	Tube Length	Minimum : 5000 mm ; Maximum : 14000 mm	

TUBE ROTOBLAST STATION WITH HANDLING FACILITY (Part B) – TECHNICAL SPECIFICATION

S.No.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER'S OFFER WITH COMPLETE TECHNICAL DETAILS
4.0.0	MACHINE CONFIGURATION		
4.1.0	Basic Elements	The machine has to be configured with the following sub-systems, integrated in total to give the desired results : a. Tube Storage Rack & Kick-Off System at in-feed side. b. Tube In-feed Conveyor system. c. Inlet vestibule chamber. d. Blasting chamber with blasting wheels. e. Outlet vestibule chamber. f. Tube out-feed conveyor system. g. Finished tube collection rack with kick off facility at out feed side. h. Iron shots loading, feeding, recovery and recycling system. i. Dust extraction system with integrated chimney. j. Centralized control unit for controlling the above systems.	
4.2.0	Blasting Chamber		
4.2.1	Material	Mild Steel with structural reinforcement	
4.2.2	Chamber Wall Thickness	6 mm (minimum)	
4.2.3	Inside back plate Lining	11 to 14% Austenitic Manganese Steel	
4.2.4	Lining Thickness	8 mm (minimum)	
4.2.5	Replaceable Liners (for the entire chamber)	Shall be of Austenitic Manganese Steel (Minimum 10 mm thickness)	
4.2.6	Chamber Dimensions	Bidder to furnish, to meet the productivity level specified	
4.2.7	Service Doors for Inspection & Maintenance	To be provided with suitable safety interlock to stop machine when doors are open.	
4.2.8	Suitable air vents and exhaust boxes shall be provided.	Vendor to confirm & provide details	
4.3.0	Inlet & Outlet Vestibules		
4.3.1	Material	Mild Steel with Structural reinforcement	
4.3.2	Vestibule Wall Thickness	6 mm (minimum)	

TUBE ROTOBLAST STATION WITH HANDLING FACILITY (Part B) – TECHNICAL SPECIFICATION

S.No.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER'S OFFER WITH COMPLETE TECHNICAL DETAILS
4.3.3	Chamber lining	High wear resistant 3mm thick vulcanised rubber with 16 Gauge spring steel inserts.	
4.3.4	Vestibule Dimensions	Bidder to specify, subject to the approval of BHPV for accommodating the length and breadth	
4.3.5	End Seals	A High wear resistant Polyurethane flexible curtains of 6 mm thick with 40-45 shore hardness to prevent leakage of shots past the inlet and exit tube passage. Details of arrangement to be furnished with the offer.	
4.4.0	Blast Wheel Unit		
4.4.1	Number of Blast Wheel Unit	Min. Two. Bidder to specify	
4.4.2	Type	Centrifugal	
4.4.3	Shot Velocity	Bidder to furnish details [preferred in the level of 80 m/sec.]	
4.4.4	No of Blades	Bidder to furnish details [with a minimum of 8 per blast wheel]	
4.4.5	Shot Through-Put in kg./min	Bidder to furnish details	
4.4.6	Motor Power	Bidder to furnish details	
4.4.7	Wheel Speed	Bidder to furnish details	
4.4.8	Blasting Surface Area	Bidder to furnish details	
4.4.9	Constructional Features	a. Centre fed impeller [Bidder to furnish details] b. Angle adjustment with reference to surface finish of the control cage arrangement on outside the chamber c. Clock dial type control cage to control shot feed should be easy & should not involve removal / shifting of any other item to gain access d. Wear resistant & easily replaceable blades. Bidder to mention blade material e. Heavy steel plate wheel housing completely lined with wear plates assembled to overlap one another and prevent wear and abrasive leakage f. Impeller blade life. Bidder to specify the life of offered blades	

TUBE ROTOBLAST STATION WITH HANDLING FACILITY (Part B) – TECHNICAL SPECIFICATION

S.No.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER'S OFFER WITH COMPLETE TECHNICAL DETAILS
4.5.0	Abrasive Recovery & Recycling System		
4.6.0	HOPPER & SCREW CONVEYOR		
4.6.1	Construction	a) 6mm thick gravity fed hopper supported on base frame beneath blast chamber b) Helicoids' Conveyor with guard of suitable capacity. c) To convey spent steel shots and dusts from various chambers to the elevator boot section. d) Helicoid plate thickness should be 6 mm (min) with hard facing on the periphery. e) The conveyor support within the chamber shall be with sealed dust proof bearing system and easy approach from outside for easy maintenance. f) Chamber with a long rubber beaded door for inspection and opening	
4.6.2	Conveyor motor rating	Supplier to specify	
4.7.0	BELT TYPE BUCKET ELEVATOR		
4.7.1	Features	a. To convey spent abrasives from lower conveyor to the abrasive separator system. b. Provision to compensate for belt slackness outside the chamber c. Back-stop arrangement to prevent the belt from slipping down during sudden stoppage d. Bucket elevator to be housed in a ventilated dust-tight fabricated steel casing provided with inspection doors e. The boot section of the bucket elevator shall be at floor level	
4.7.2	Bucket material	Cast Iron – Vendor to confirm	
4.7.3	Belt material : cotton fabric 6 ply, 15mm thick	Vendor to confirm	
4.7.4	Elevator motor rating	Vendor to specify.	
4.7.5	Design Parameters	Bidder to specify a. Bucket material and thickness b. Elevator motor rating	

TUBE ROTOBLAST STATION WITH HANDLING FACILITY (Part B) – TECHNICAL SPECIFICATION

S.No.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER'S OFFER WITH COMPLETE TECHNICAL DETAILS
4.8.0	ABRASIVE SEPARATOR UNIT		
4.8.1	Minimum Constituents	a. The offered Abrasive Separator shall have : b. Counter flow air wash separator c. Removable screen for trapping coarse particles d. Refuse hopper for fines with non-return valves for discharge of fines e. Integral storage hopper for reclaimed abrasives [Bidder has to specify the hopper capacity] f. Abrasive level indicator	
4.8.2	Abrasive loading	Shall be designed at floor level for easy manual loading	
4.9.0	ABRASIVE FEEDING UNIT		
4.9.1	Basic Functional Features	a. By means of feed pipes connecting storage hopper and blast wheel unit b. Solenoid operated, pneumatic cylinder actuated control valve for feeding shots to the blast-wheel unit c. Manual shut-off valve for cutting-off shot feed to the blast-wheel unit during maintenance	
4.10.0	DUST COLLECTOR		
4.10.1	Basic Design Features	a. Type - Continuous automatic Pulse jet b. Filter media – by Cartridge filters c. Cleaning of Filters shall be by reverse air flow d. Cleaning cycles shall be Timer controlled / programmable e. Differential Pressure Sensing to initiate cleaning cycle f. Dust hopper with manual slide gate for dust removal g. Should include supporting structures for floor mounting h. Chamber shall be of water proof to avoid mixing with dust and for paste during rainy seasons. i. Particulate emission at outlet shall be not more than 100mg/Nm ³ for particle size greater than or equal to 5 micron j. Suction Duct work from shot blasting chamber to the dust collector - For a separation distance of maximum six (6) mtrs	

TUBE ROTOBLAST STATION WITH HANDLING FACILITY (Part B) – TECHNICAL SPECIFICATION

S.No.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER'S OFFER WITH COMPLETE TECHNICAL DETAILS
4.10.2	Basic Design Parameters	Bidder to specify a. Dust Collector Model & Make b. Capacity c. No of filter cartridges d. Filter area e. Capacity of Exhaust Fan suitable to purge the entire system f. Exhaust Fan motor rating & speed g. Ducting details from the Dust Collector to Exhaust Fan	
4.10.3	Chimney	Height of Chimney shall be 25 Mtrs. Traverse ports shall be provided at two elevations. One at 5 mtrs. Elevation and the other at 2/3 rd the height of chimney, from floor level. Suitable cowl at the top to be provided. At each elevation there shall be four ports provided 90 degrees apart. Each port hole shall be dia. 100 mm. At each port hole a standard pipe, 100mm long shall be welded. The other end of the pipe shall be provided with a bolted dummy flange. Platform shall be provided around the chimney, 1 mtr. below each traverse plane, with hand rails, toe guard and approach ladder A weather protection cowl should be provided at the top. The chimney drawings indicating the traverse ports shall be furnished to BHPV upon receipt of purchase order	

TUBE ROTOBLAST STATION WITH HANDLING FACILITY (Part B) – TECHNICAL SPECIFICATION

S.No.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER'S OFFER WITH COMPLETE TECHNICAL DETAILS
4.11.0	TUBE FEEDING CONVEYOR UNIT		
4.11.1	Basic Configuration	<ol style="list-style-type: none"> 1. The tube should rotate on it's axis as it moves through the blast chamber for exposing the surface easily to the blast media. 2. The tube feeding rollers should be supported outside the blasting chamber (with suitably projecting out) by the sealed bearing such that stray shots will not affect or clog the rollers. 3. Tube Feeding Rollers should be supported on either side of the chamber. 4. Rollers within the blast cabinet shall be of 11% - 14% austenitic manganese steel 5. Number of rollers shall suit the length of tubes handled 6. Rollers are to be positioned at a span of 300 mm and the roller outer diameter shall not be less than 100 mm 7. Roller plate thickness shall not be less than 6 mm 8. Roller Drive belt shall be provided with tension adjuster, for the entire length of roller conveyor so as to maintain roller & tube contact always, to maintain the feed rate. 	
4.11.2	Conveyor Type	Skew – Roll Drive type Conveyor	
4.11.3	Line Speed (Tube Feed Rate)	Steplessly Variable up to 5 mtrs. / min. [approx.] - to match the expected productivity level	
4.11.4	Line Drive	Infinitely Variable Speed	
4.11.5	Design Parameters	<ol style="list-style-type: none"> 1. Bidder to furnish a schematic sketch of the Roller and Drive Arrangements 2. Bidder to specify the Speed and Rating of Electric Motors and details of the Drives selected. 3. Movement of loaded tubes in and out of the chambers should be uniform and not to roll over on each other. 	

TUBE ROTOBLAST STATION WITH HANDLING FACILITY (Part B) – TECHNICAL SPECIFICATION

S.No.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER'S OFFER WITH COMPLETE TECHNICAL DETAILS
4.12.0	TUBE FEED-IN & FEED-OUT RACKS (Pl. Refer to suggestive sketch in Annexure – I)		
4.12.1	Tube Handling System for the In-Feed Side Rack	<ol style="list-style-type: none"> 1. Tubes will be loaded to the storage rack in the form of bundles. 2. Each tube bundle size will be equivalent to that formed by 40 tubes of OD 63.5 mm. 3. At a time, maximum two bundles may be loaded in the storage rack. 4. Storage Rack shall have Bundle Stops to hold the tubes in bundle form. 5. Release of Bundle Stop shall spread the bundled tubes (single layer of tubes) on the stand, without causing damage to the tubes and the storage system. 6. Bundle stops to be operated by a motor and gear mechanism. 7. The infeed stand shall be lined with Teflon / nylon so that noise generated when tubes roll over is minimum 8. The tube kick-off facility integrated with the system shall be suitable for feeding multiple tubes in a single feed. 	
4.12.2	Tube Handling System for the Out-Feed Side	<ol style="list-style-type: none"> 1. The shot blasted tubes shall be smoothly kicked-out onto a outfeed stand. 2. The outfeed stand shall have a width of to hold 30 tubes of dia. 63.5. 3. The Outfeed stand shall be lined with Teflon / nylon so that noise generated when tubes roll over is minimum 4. The outfeed stand shall have a stopper arrangement to hold the tubes as they are spread out on the stand 5. The tubes from the outfeed stand shall roll over smoothly into the storage stand, when the stopper is released. The storage dump shall have capacity to hold 100 tubes of OD 63.5 mm 	

TUBE ROTOBLAST STATION WITH HANDLING FACILITY (Part B) – TECHNICAL SPECIFICATION

S.No.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER'S OFFER WITH COMPLETE TECHNICAL DETAILS
4.12.3	Constructional Details	<ol style="list-style-type: none"> 1. In-Feed side rack shall be made of stands & supports, including bundle stops with proper design so that no damage occurs with the style of impact loading and rough handling of tubes. 2. The transfer of tubes from the Tube Storage Rack to the Machine in-feed conveyor & from the machine out feed conveyor to the outfeed stand shall be by means of suitable kick-in & kick-out arrangement (spanned at maximum 500 mm intervals). 3. The minimum thickness of sections and plates used for the structure construction should be NOT less than 7.5 mm. 4. The infeed stand, outfeed stand, storage dump should be lined with heat resistant Teflon/nylon to reduce noise due to tube striking on the members of these stands. 5. A schematic diagram shall be furnished with the offer for the In-Feed and Out-Feed Tube Feeding System. 6. Bidder has to specify the power rating and speed of electric motors and drives used in the tube handling system. 	
4.13.0	SYSTEM INTERLOCKS	<ol style="list-style-type: none"> 1. All necessary interlocks to ensure safety of equipment, & personnel operating the equipment 2. Service doors to be interlocked with blast wheel unit to shut it off if service door is opened, during the blasting operation. 3. Service doors to be interlocked with blast wheel unit such that the blast wheel unit cannot be started unless service door is fully shut. 4. Inter Lock facility to be provided at the out feed such that Kick out will not operate until the tubes are completely outside the blasting chamber. Bidder to specify the system provided. 	

TUBE ROTOBLAST STATION WITH HANDLING FACILITY (Part B) – TECHNICAL SPECIFICATION

S.No.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER's OFFER WITH COMPLETE TECHNICAL DETAILS
5.0.0	MACHINE CONSTRUCTION		
5.1.0	Ambient Atmospheric Conditions	a. The ROTO-BLAST Machine with all Sub Systems shall be suitable for operation in an ambient temperature of 25 to 50°C and with a Relative Humidity of 93%. b. The entire equipment shall be tropicalised in Design and construction.	
5.2.0	Machine Operation	a. The entire cycle of tube shot blasting operation shall be controlled automatically through suitable control system. Manual operation of sub-systems, with safety interlocks, should be provided for trouble shooting. b. The control station shall be kept at a convenient location for setting the cycles and for operation.	
5.3.0	Machine Maintenance	The machine configuration and element arrangement should have easy accessibility, higher rigidity, self-aligning / fitting, locking & piloting arrangement of machine components and modules, to ensure a 'maintenance free' concept.	
5.4.0	Electrical Power Input	a. The electrical power input shall be 415 ± 10% V, 50 ± 2 % Hz, 3 Phase AC supply through a 3 Wire System (4 th Wire for Protective Earthing). No neutral conductor. b. BHPV will provide supply at one point only and the supplier has to take care of all other electrical distribution network required for the ROTO-BLAST Station.	
5.5.0	Gear boxes	Make shall be from Elecon, Shanthi gears, Crompton greaves, Bonfiglioli etc., or reputed make acceptable to BHPV.	
5.6.0	Pneumatic elements	Make shall be from among Festo, Norgren or any other reputed make acceptable to BHPV.	
5.7.0	Electric Motors	All Electric Motors shall be of any of the following makes : SIEMENS / ABB / KEC / BBL makes conforming to IEC Standards	
5.8.0	Electrical drives system	VFD shall be from ABB, Danfoss, Seimens, Eurotherm (SSD) or reputed make acceptable to BHPV..	

TUBE ROTOBLAST STATION WITH HANDLING FACILITY (Part B) – TECHNICAL SPECIFICATION

S.No.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER's OFFER WITH COMPLETE TECHNICAL DETAILS
5.9.0	Control system type	PLC of Fanuc / Siemens or reputed make acceptable to BHPV.	
5.10.0	Fault diagnosis system	To display with alarm and detailed cause and remedy for the fault related to mechanical and electrical , pneumatic systems	
5.11.0	Control Voltage	The Control Circuit Voltage shall be 24 V DC	
5.12.0	Electrical Wiring	a. All electrical motors, limit switches etc, on the machine shall be wired using PVC sheathed copper cable running in conduits and converging to common terminal block b. External wiring from / to control panel, control desk, external motors etc shall be by means of screened multi-core cables	
5.13.0	Power Requirement	Bidder has to indicate the total tentative power requirement (including that for all the accessories and attachments) in kVA with the offer.	
5.14.0	Pneumatic Circuits	a. Pneumatics forming part of the machine and associated equipment shall be connected by nylon reinforced synthetic rubber and / or steel tubes. b. Pneumatic Circuit to originate from a common point on the Machine and provided with a suitable Filter / Regulator / Lubricator Unit and in addition a hand wheel valve. c. Bidder to give details on the Air Compressor / air booster (if required), Refrigerant Air Dryer and Elements forming part of the pneumatic circuitry. d. BHPV will supply compressed air at a single point near the machine. The compressed air will be at a pressure of 4.5 to 5 Kg/cm ² . All pneumatic systems on the machine, dust collector etc shall be designed to operate efficiently at this air pressure	
5.15.0	Noise Level	The noise generated out of the machine and subsystems, during its running, shall not exceed the level of 85 dB at a distance of 1 meter from machine.	
5.16.0	Safety Guards	The Roto-Blasting Machine to have Safety Guards / Sliding Doors for protection against the splash/stray flying shots for the Machine Operators. Bidder to submit details on this arrangement.	

TUBE ROTOBLAST STATION WITH HANDLING FACILITY (Part B) – TECHNICAL SPECIFICATION

S.No.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER's OFFER WITH COMPLETE TECHNICAL DETAILS
5.17.0	Painting	a. The heavier machine parts are to be heat-treated after fabrication and shot blasted for surface preparation prior to painting. b. One coat of Primer c. Two coats of Paint (Colour – Apple Green – RAL 6011)	
6.0.0 MACHINE SPARES			
6.1.0	OPERATING SPARE PARTS	The Supplier shall LIST DOWN with the OFFER, the complete set of replaceable parts / items / components coming in the Machine and other Sub-Systems / Accessories / Attachments and shall QUOTE the Unit Price for each item.	
6.2.0	COMMISSIONING SPARES	Bidder has to COMPULSORILY quote for the spares of the following items with the OFFER : 1. Blasting Blades – 4 Sets 2. Buckets – 8 Nos.	
6.3.0	The vendor shall supply the first fill of shots	Vendor to confirm	
6.4.0	Vendor shall supply the first fill of oil for gear boxes.	Vendor to confirm	
7.0.0 MACHINE INSPECTION & ACCEPTANCE			
7.1.0	Machine Inspection and Acceptance at Supplier's works.	In case the Shot Blasting Station cannot be inspected in the assembled condition at supplier's works, the supplier has to offer the complete quantum of materials, semi-finished/finished machine components, sub-assemblies, bought-out items, spares, consumables, etc. required to build the shot blasting station in total, along with one set of O&M documentation for inspection, at the supplier's works, by BHPV Engineers prior to despatch from the supplier's works.	
8.0.0 ERECTION & COMMISSIONING			
8.1.0	Mechanical Erection	Supervision of Erection of the Equipment is in the scope of Vendor. However special tool & tackles required for Erection is in the scope of vendor.	

TUBE ROTOBLAST STATION WITH HANDLING FACILITY (Part B) – TECHNICAL SPECIFICATION

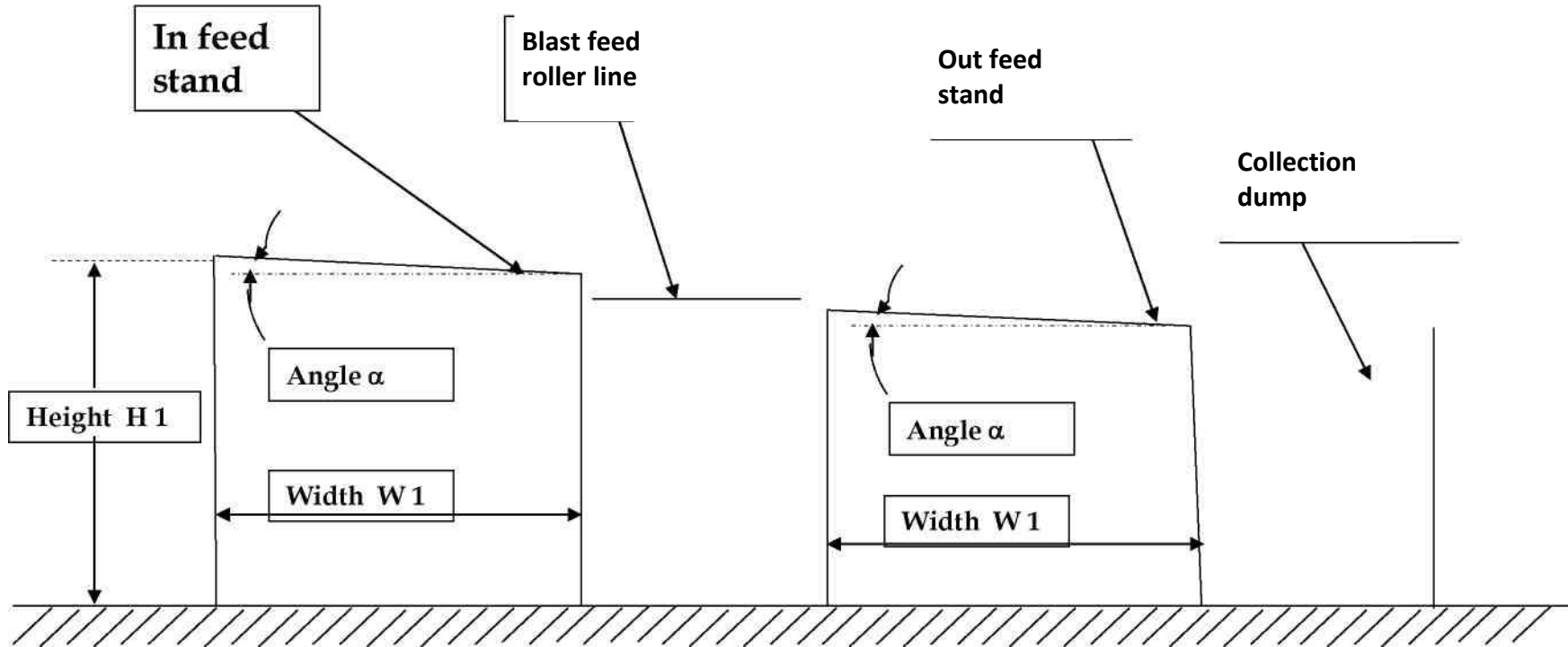
S.No.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER'S OFFER WITH COMPLETE TECHNICAL DETAILS
8.2.0	Commissioning	Commissioning of the Equipment and Smooth Functioning of all the Sub-Systems (at BHPV Works) shall be ensured and will be the SOLE RESPONSIBILITY of the Supplier.	
8.3.0	Performance Prove-Out at BHPV	After the successful commissioning of the machine and sub-systems, the COMMISSIONING ENGINEER of the Supplier have to establish the Performance Prove-Out for the Machine's Capability and the Production Rate from the Machine, as given under the Specification Clause Sl.No. 2.0.0	
9.0.0	MACHINE DOCUMENTATION		
9.1.0	O & M Manuals	<ul style="list-style-type: none"> a. Three Copies of the Operation & Maintenance Manual with preventive maintenance checklist to be given in Hard Bound Paper Copies with one copy in CD form (SOFT COPY) b. One Hard Copy of O & M Manual shall be submitted at the time of INSPECTION of the Blasting Machine by BHPV Officials, at the Supplier's Works. c. The following documents and details [given under the Clause Sl. No. 9.2.0] shall form part of the Operation & Maintenance Manual 	
9.2.0	Documents and Technical Details	<ul style="list-style-type: none"> a. GA Drawing of the Roto Blasting Station. b. GA Drawing of Individual Mechanisms. c. Sub-Assembly Drawings (without dimensions) for sub-systems for maintenance purpose.. d. Electrical Wiring Drawings–Power & Control Circuits e. Complete Printed Circuit Board Schematics indicating check points (Test Points) for Electronic Controls f. Pneumatic Circuit Diagram (if any) g. Specifications/Ratings of All Bought-Out-Items h. Warranty / Guarantee Card for all Bought-Out-Items i. Technical specification of the total equipment. j. Safety instructions k. Test certificates for all bought out items as applicable. l. Trouble Shooting Chart for Main and all SubSystems m. Steel Shots – Quantity, Mix, selection & specification 	

TUBE ROTOBLAST STATION WITH HANDLING FACILITY (Part B) – TECHNICAL SPECIFICATION

S.No.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER's OFFER WITH COMPLETE TECHNICAL DETAILS
9.2.0	(Contd..)	n. Name and address of suppliers for rollers, liner plates, rubber items. o. Total weight of the Machine & Sub-Systems p. PLC software CD q. PLC programme both soft and hard copy. r. Programming manual in PDF format	
10.0.0	TRAINING	a. The Supplier shall train three BHPV Engineers in the Operation, Trouble Shooting and Maintenance of the ROTO-BLAST Machine at the Supplier's Works for a minimum period of 5 Working Days, after the INSPECTION of the Equipment. b. The Supplier's Service/Application Engineer shall train of BHPV Engineers in the Operation, Trouble Shooting and Maintenance of the ROTO-BLAST Machine at BHPV Works for a minimum period of 10 Working Days, after the SUCCESSFUL COMMISSIONING of the Equipment, at BHPV Works.	
11.0.0	TECHNCIAL OFFER	The Technical Offer shall contain the following : a. Complete Scope of Supply, including Main Equipment, Job Handling Unit, All Accessories and Attachments, etc. b. List of Operating Spares, Commissioning Spares, Foundation / Anchoring Materials c. Erection, Commissioning and Performance Prove-Out Details. d. Complete description of all systems & sub systems forming part of the Roto-Blast Station e. A schematic diagram showing the layout of the machine & associated systems with salient dimensions f. The operating sequence of the machine with broad outline of various operations involved	
12.0.0	PERFORMANCE GUARANTEE	The Performance of the Total Equipment and/or the Components / Sub-Assemblies / Bought-Out-Items shall be guaranteed for a minimum period of 12 months from the date of performance acceptance at BHPV Works OR 18 Months from dispatch.	

ANNEXURE - I

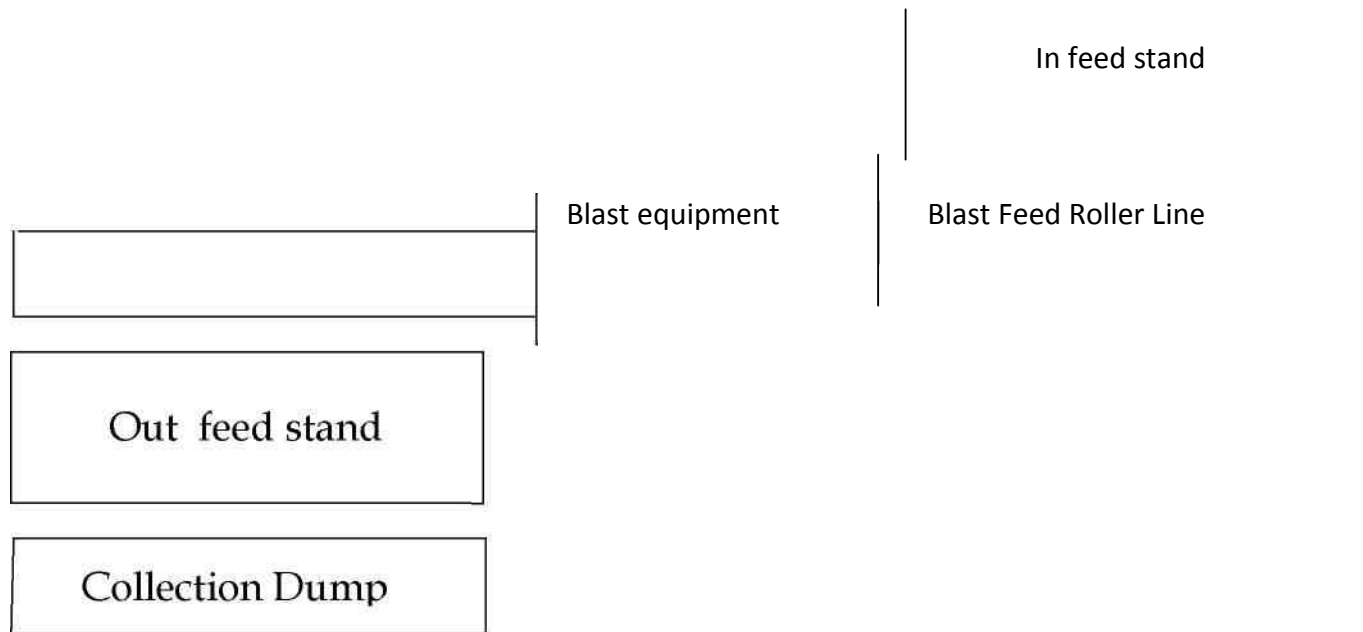
TUBE HANDLING STAND ARRANGEMENT – SUGGESTIVE SKETCH



- I) The **Height H 1** shall be around 1500 mm
- II) The **Angle α** shall be such that when tube bundles are opened out the tubes shall not roll one over the other. Suggested angle is around 2 to 3 degrees. Vendor to decide suitably.
- III) **Width W 1** shall be sufficient to accommodate two bundles of dia. 63.5 tubes. Each bundle will consist of about 35 to 50 tubes.

ANNEXURE - I

TUBE HANDLING STAND ARRANGEMENT – SUGGESTIVE SKETCH



COMMERCIAL TERMS AND CONDITIONS FOR SUBMISSION OF OFFER**1.0 QUOTATIONS**

Bidders shall submit the offer in TWO INNER ENVELOPES as indicated below which shall be sealed in one outer envelope.

Envelope I: This sealed envelope should contain all the copies of technical bid together with un-priced commercial bid. This envelope should be clearly marked “**Part I – Technical and Un-priced commercial bid**” Indicating Tender No., Due Date and Address & Reference of the Bidder.

Envelope II: This sealed envelope should contain price details this envelope should be clearly marked “**Part II - Price bid**” indicating Tender No., Due Date and Address & Reference of the Bidder.

Both the envelopes (Part I & II) shall be put in one cover, duly sealed, super scribing as Part I and Part II of Tender No., due date of opening and the address and reference of the Bidder

The above offer should reach this office on or before the due date by 14.00 Hrs (IST)
Tender should not be addressed to any Individuals name but only designation to

Dy. General Manager (MM)
BHARAT HEAVY PLATE & VESSELS LIMITED
VISAKHAPATNAM - 530 012 (A P), INDIA.

Tenders should be free from CORRECTION AND ERASURES. Corrections if any must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.

Offers should be in ENGLISH and accompanied by technical literature catalogue and detailed dimensional drawings in ENGLISH or otherwise the offers will not be considered.

2.0 PART I (TECHNICAL & UN-PRICED COMMERCIAL BID)**2.1 Technical**

This part shall include / indicate the following:

- 2.1.1. Offer should contain complete scope of supply with all technical details, specifications, delivery and other commercial terms and conditions.
- 2.1.2. Point by point confirmation for the Technical Specification enclosed is to be provided. If there are any deviations the same should be clearly specified. Offers received without conformation to our specification will be rejected.
- 2.1.3. List of customers to whom same or similar equipment have been supplied along with performance certificates to be enclosed.
- 2.1.4. Relevant catalogue to be attached.
- 2.1.5. List of spares parts (with part numbers) for two years operation and maintenance should be attached.
- 2.1.6. Information on shipping weight and cubage (length, width & height) to be provided
- 2.1.7. In case of foreign bidder offer, the Principal's technical offer only should be enclosed.

2.2 Un-Priced Commercial

This part shall include / indicate the following

- 2.2.1. Port of shipment / Station of dispatch
- 2.2.2. Terms of payment

- 2.2.3. FOB/FCA price along with freight charges up to Chennai port (for foreign bidders) Ex-works/FOR Dispatch Station price along with freight charges up to BHPV Visakhapatnam (for Indian bidders)
- 2.2.4. Taxes, Service tax & duties including Cess applicable.
- 2.2.5. Delivery Schedule
- 2.2.6. Filled-in check list to be enclosed
- 2.2.7. Offer validity
- 2.2.8. Country of origin
- 2.2.9. Percentage of agency commission if any along with a copy of Agency agreement The FOB/FCA/CFR Prices quoted shall include the agency commission.
- 2.2.10. A copy of "Un-Priced Part II 'i.e., a copy of the Price Bid without the price details to be enclosed.
- 2.2.11. BHPV is eligible for availing CENVAT / VAT credit on both inputs and capital inputs. The suppliers invoice should separately indicate the amount of duty / taxes and should invariably mention the following details:
 1. The Central excise registration number, range division and commission rate of the supplier's jurisdiction.
 2. The rate of duty and 8 digit central excise tariff heading of the item supplied.
 3. The TIN, VAT, CST registration number of the supplier.

The duplicate copy of the invoice is required for availing CENVAT credit and original copy for availing VAT credit, if purchased within the state.

In case of foreign bidders the duplicate copy of the electronic Bill of Entry along with TR6 challan should be made available for availing CENVAT credit on CVD, Cess (S) and SAD.

3.0 **PART II (PRICE – BID)**

This part should contain the schedule of price particulars and to be co-related to the technical details provided in Part-I

4.0 **OPENING OF TENDERS**

The Part I – Technical & un-priced commercial bid alone would be opened on the Tender opening date.

The Part II – Price bid of technically suitable Bidders alone would be opened. The Technically suitable Bidders would be informed about the Price Bid opening date. Clarifications if any required by BHPV FOR Technical evaluation / commercial evaluation would be sought from Bidders before opening of Part II – price bid.

GENERAL

- 5.1 Incomplete offers will not be considered.
- 5.2 **Fixed priced:** Prices quoted by the bidder shall be fixed and not subject to any escalation whatsoever during the period of bid validity and execution of the Purchase Order A bid submitted with an adjustable price will be treated as non- responsive and rejected Prices shall be written in words and figures. In the event of difference, the price in words shall be valid and binding. Unit prices shall be considered correct in the event of any discrepancy with regards to total price.
- 5.3 **Bid currency:** Indian bidders should submit the prices only in Indian Rupees. Foreign bidders may submit their bid in their home currency, which should be clearly indicated in the un-priced commercial bid as well as in the price bid. Price bid opening date/ RA date will be considered as effective date for considering exchange rate to evaluate the offers.
- 5.4 **Terms of Delivery:** Bidders are required to quote their best delivery period. Foreign Bidders should submit their offer for net FOB/ FCA – Nearest Sea Port / Air Port as well as CFR / Chennai Seaport/ Airport. Freight charges up to Chennai port to be indicated separately. Indian Bidders should submit their offer for Dispatching station as well as FOR BHPV Visakhapatnam basis. Freight charges from works to BHPV Visakhapatnam to be indicated separately. Delivery from the date of Letter of Intent to be mentioned in the offer.

5.5 **Taxes and Duties:** All Taxes and Duties payable as extra to the quoted price should be specifically stated in offers along with CST & TIN No/ Tariff No. etc, failing which the purchaser will not be liable for payment of such Taxes and Duties (Our TIN No.28280189432, APGST No. VSP/04/1/1023 dated 24.08.1968. CST No.VSP/04/1/1012 dated 24.08.1968 & BHPV ECC No AAA CB 7076 N-XM001. Assessment circle Visakhapatnam.)

5.6 **Validity:** The offers for main equipment and spares shall be kept open for acceptance for a period of 120 days (one hundred and twenty days) from the dates of opening of the tender (part I)

5.7 Terms of Payment:

5.7.1 Indian Bidders:

5.7.1.1 BHEL, Trichy on behalf of BHPV (Subsidiary of BHEL) will arrange for an irrevocable, usance Letter of Credit (60 days from date of dispatch) after receipt of Inspection release note and against presentation of documents for 80% of payment (80% of basic price + 100% Taxes). And balance 20% of payment will be made after acceptance of material/commissioning of the equipment at BHPV, Visakhapatnam and on submission of Performance Bank Guarantee.

5.7.1.2 Documents to be submitted by Indian Bidders for negotiating LC:

1. Original Invoice in triplicate in the name of BHPV.
2. Original LR in the name of the LC issuing Bank
3. Original packing list in triplicate in the name of BHPV.
4. Original Test certificate in triplicate in the name of BHPV.
5. Inspection release Note.
6. One original Bank guarantee, if applicable in favour of BHPV.
7. Certificate issued by the beneficiary certifying that the materials dispatched and shown in the packing list are not less than that invoiced.
8. Insurance for 100% of the commercial invoice value made out in the name of LC issuing bank, covering all risks.
9. Any other conditions/documents as mentioned in the Purchase Order.

5.7.1.3 Additional conditions for Indian Bidders:

1. **Liquidated damages:** Delivery of the goods specified in the purchase order should be made within the time prescribed. Failure to dispatch the materials in the time as per the delivery quoted in our Purchase Order would make the supplier liable to an un-conditional penalty at the rate of ½% of the value of goods for each week of delay subject to a maximum of 10% of the Purchase Order value.
2. In the event of delayed presentation of documents beyond the validity for negotiation(Subject to acceptance of documents by Applicant), 5% of invoice value will be retained towards demurrage and other charges and the difference if any between actual charges and recovery will be settled between BHPV and beneficiary outside the purview of LC terms.

5.7.2 Foreign Bidders

An Irrevocable letter of Credit shall be established by BHEL, Trichy on behalf of BHPV (Subsidiary of BHEL) for 80% of FOB/FCA/CFR/ (excluding Indian Agent's commission) 2 months prior to shipment with a validity of 3 months and negotiation after shipment against shipping documents. Letter of Credit shall be opened through an authorized bank of BHEL in India. Balance 20% of FOB/FCA/CFR value shall be paid through sight draft on Commissioning & acceptance of the equipment at BHPV Visakhapatnam, against submission of 10% performance bank guarantee. All Bank charges outside India are to supplier's account. Lump sum erection and commissioning charges if any shall be payable after satisfactory erection & commissioning of the equipment by sight draft against certificate issued by the competent authority.

5.7.2.1 Documents to be submitted by Foreign Bidders for negotiating LC:

1. Original Invoice in triplicate in the name of BHPV.
2. Original bill of lading in triplicate in the name of the LC issuing bank.
3. Original packing list in triplicate in the name of BHPV.
4. One original certificate of origin.
5. Original Test certificate in triplicate in the name of BHPV.
6. Inspection release Note.
7. One original Bank guarantee, if applicable in favour of BHPV.
8. Certificate issued by the beneficiary certifying that one copy of non-negotiable documents comprising Bill of Lading, Invoice, Packing List, Certificate of country of origin and Test certificate sent to Port consignee.
9. Certificate issued by the beneficiary certifying that the materials shipped and shown in the packing list are not less than that invoiced.
10. Insurance for 110% of the commercial invoice value made out in the name of LC opening bank, covering all risks, clearly mentioning the name of claim settling agent in India. The claims will be settled in the same currency as that of LC.
11. Any other conditions/documents as mentioned in the Purchase Order.

5.7.2.2 Additional conditions for Foreign Bidders:

1. **Liquidated damages:** Delivery of the goods specified in the purchase order should be made within the time prescribed. Failure to dispatch the materials in the time as per the delivery quoted in our Purchase Order would make the supplier liable to an un-conditional penalty at the rate of ½% of the value of goods for each week of delay subject to a maximum of 10% of the Purchase Order value.
2. In the event of delayed presentation of documents beyond the validity for negotiation (Subject to acceptance of documents by Applicant), 5% of invoice value will be retained towards demurrage and other charges and the difference if any between actual charges and recovery will be settled between BHPV and beneficiary outside the purview of LC terms.

5.7.3 Common to both India & Foreign Bidders.

Erection & Commissioning (E&C) charges will be released after deduction of Income Taxes as per the Govt. of India rules. The TDS certificate will be issued by BHPV. Applicable service tax on E&C charges will be payable extra. The liability of depositing the same to the Govt. will be of the supplier.

- 5.7.4 Loading criteria common to both Indian and foreign bidders:** Vendor should accept the payment terms specified above. However for any deviation to the payment terms offered with reference to the above criterion will be loaded with prime lending rate of SBI prevailing on date of opening of price bid + %, which shall be computed for the differential period between BHPV terms of payment and the offered payment terms by vendor.

- 5.8 DUNS number (allotted by M/s. DUN & Bradstreet) shall be mentioned in your offer.
- 5.9 **Guarantee:** The equipment shall be guaranteed for a period of 18 months from the date of supply or 12 months from the date of commissioning and acceptance whichever is earlier.
Offers from vendors not accepting to the requested guarantee period will be rejected.
- 5.10 **Contract Execution Bank Guarantee (CEBG):** The successful tenderer shall furnish a Bank Guarantee from any Nationalized Bank for 5% of Purchase Order value (FOR Dispatching station value – Excluding taxes, duties, freight & insurance – for Indian bidders) & (FOB/FCA value – excluding freight & insurance – for foreign bidders) confirming that the order will be executed as per the terms and conditions and this should be valid till final dispatch date (LR/GR/BL/AWB) with additional 2 months claim period. Letter of Credit will be processed only after receipt of CEBG. The CEBG is to be furnished within 3 weeks from the date of Purchase order.
Offers from vendors not accepting to submit CEBG will be rejected.
- 5.11 **Performance Bank Guarantee (PBG):** The supplier shall furnish a Bank guarantee from any Indian Nationalized Bank approved by BHPV in the format, given by BHPV along with purchase order for 10% of the Purchase Order value (FOR Dispatching station value – Excluding taxes, duties, freight & insurance – for Indian bidders) & (FOB/FCA value – excluding freight & insurance – for foreign bidders) valid for period of guarantee with additional claim period of 2 months.
Offers from vendors not accepting to submit PBG will be rejected.
The CEBG & PBG shall be obtained from any Indian Nationalized Bank
- 5.12 **Liquidated damages:** Delivery of the goods specified in the purchase order should be made within the time prescribed. Failure to dispatch the materials in the time as per the delivery quoted in our Purchase Order would make the supplier liable to an un-conditional penalty at the rate of ½% of the value of goods for each week of delay subject to a maximum of 10% of the Purchase Order value.
- 5.12.1 **Loading Criteria for Liquidated Damages:** Any deviation from above LD Clause to the extent for which LD is not agreed by the vendor i.e., differential % value will be loaded on basic price, e.g. If some vendor agrees for say maximum of 6% LD then his price will be loaded by 4% (10 – 6) of his quoted basic price.
- 5.13 **Risk purchase:** If the supplier fails to deliver the goods within the delivery specified in the Purchase Order, BHPV will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the delivery period mentioned in the Purchase Order.
Offers from vendors not accepting the above Risk Purchase terms will be rejected.
- 5.14 **Indian Agent & Agency commission:** An Indian Agent can represent only one Foreign Manufacturer against a particular Tender. The FOB/FCA/CFR price quoted by the Foreign bidder shall include the agency commission. However, the agency commission component payable to their Indian Agents shall be shown separately in the offer. This will be paid by BHPV in India Rupees, on satisfactory commissioning & acceptance of the equipment. Copies of current Agency Agreement / Authorization Letter in respect of Agency Commission shall be furnished along with offer. For calculation of Rupee equivalent of Agency Commission exchange rate as prevailing on the date of Purchase Order will be taken.
- 5.15 **Short shipment / Warranty replacement:** In case of any short shipment in the main equipment / spares, customs duty levied on such supplies, shall be borne by the supplier. Any warranty replacement during the warrantee period shall be on FOR, BHPV - Visakhapatnam, basis.

- 5.16 **Inspection & Testing:** All goods shall be subject to inspection by BHPV or its authorized representatives at supplier's works or at BHPV stores. The supplier will not charge for the facilities provided for inspection of goods. In case of machine tools the machine would be inspected and proved at supplier's works prior to dispatch however, final inspection and acceptance of the machine will be carried after installation of the machine at BHPV, Visakhapatnam.
- 5.17 **Operating and Maintenance manuals:** The Bidders shall clearly mention in their offer that Operating Maintenance Manuals as called for in the Technical Specification in the required number of copies will be provided.
- 5.18 **Cenvat & VAT credit. (for Indian Bidders only):** The quotation must indicate Tariff item number and rate of Excise Duty applicable. The original Excise Duty Gate Pass will be required to be furnished in case charges to us. If the bidder is availing Cenvat credit for his input materials, the effect of proforma credit should be passed on to the purchaser.
- 5.19 **Packing:** The Supplier shall arrange for packing suitably in all respects considering the peculiarity of the material involves for normal transport by sea / air / rail road and suitably protected against effect of tropical salt laden atmosphere in the event of shipment being delayed at ports.
- 5.20 **Salient Points of HSE** (Health, Safety & Environment) that are to be considered while submissions of offer are:
- 5.20.1 Consumption benchmarks related to output shall be provided wherever applicable for key input resources (energy/fuels/chemicals)
- 5.20.2 Competency requirements for operation, maintenance and calibration, if any, shall be communicated
- 5.20.3 If any Hazardous chemicals as per MSIHC (Manufacturing, Storage and import of Hazardous Chemicals) Rules 1989/94/2000 are used, the MSDS shall be provided, along with on site & OFF site emergency plan (as applicable).
- 5.20.4 The noise level at operator level shall be within 90 Dba
- 5.20.5 OH&S (Occupational Health and Safety) control measures for safe working of machine as applicable shall be specified
- 5.20.6 The machine/equipment shall be fitted with guard for rolling and moving parts and shall comply with applicable OH&S legislations and Factories Act 1948
- 5.20.7 The supplier shall submit the layout drawing of operating controls, displays etc and operating instructions to enable ergonomics evaluation and approval
- 5.20.8 The recommended PPE (Personal Protective Equipment) for the equipment shall be furnished
- 5.20.9 Alarm System (both visual and audible) and Automatic switch off of the equipment shall be provided for any intrusion, overloading, short circuiting or any malfunctioning of the equipment.
- 5.20.10 Details of all hazardous / harmful substances discharges as by-products / wastes during operations of the machine / equipment, such as fumes, gases, dust particles, aerosols UV./IR (Ultra violet / Infra red) radiations, etc shall be furnished, along with their concentrations and their TLV, (Threshold Limit Value)

- 5.20.11 Appropriate pollution control measures shall be proposed to keep the emissions from the machinery / processes within the prescribed limit as stated in Environment Protection Rules 1986.
- 5.20.12 All furnaces, process units, DG sets, paint booths, shot blasting chambers, etc shall be provided with stack(s) of sufficient height as per guidelines laid down in the Environment Protection Rules 1986.
- 5.20.13 wherever industry specific standards are not available for control of pollutants, general emission standards shall be used
- 5.20.14 Chemicals banned due to their negative impact on the environment shall not be used on the process
- 5.20.15 Fuels with sulphur content less than 0.05% shall be proposed.
- 5.20.16 Details regarding nature of waste generated and appropriate disposal practices available shall be provided, along with the operation procedure of the plant / process.
- 5.20.17 Hazardous chemicals and flammable substances shall be transported only through authorized transporters and all safety practices as laid down in applicable legislative requirements such as Central Motor Vehicle Rules, Manufacture, Storage and Import of Hazardous Chemical 1989, etc. shall be followed.
- 5.20.18 Primary materials used in the equipment shall be specified and they shall be eco - friendly.
- 5.21 Evaluation of offers shall be on the basis of delivered cost (Net cash outflow to BHPV).
- 5.22 BHPV also reserves its right to allow to the Public Sector Enterprises ordering and price preference facilities as admissible under the existing policy.
- 5.23 BHPV reserves its right to reject a tender due to unsatisfactory past performance in the execution of a contract at another project / unit.
- 5.24 BHPV shall be at liberty to reject or accept any tender, part or in full, at their own discretion and any such action is not liable for any question or claim against BHPV.
- 5.25 BHPV reserves the right to go for a Reverse Auction (RA) instead of opening the submitted sealed bid, which will be decided after technical evaluation. Information and general terms and conditions governing RA are given below.

GENERAL TERMS AND CONDITIONS OF RA (REVERSE AUCTION)

Against this enquiry for the subject item/system with detailed scope of supply as per enquiry specifications. BHPV may resort to "REVERSE AUCTION PROCEDURE" i.e., ON LINE BIDDING ON INTERNET.

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. BHPV will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
3. BHPV will inform the vendor in writing in case of reverse auction, the details of service provider to enable them to contact & get trained.

4. Business rules like event date, time, start price, bid decrement, extensions etc. also will be communicated through service provider for compliance.
 5. Vendors have to fax the Compliance form in the prescribed format (provided by Service provider) before start of Reverse auction. Without this, the vendor will not be eligible to participate in the event.
 6. BHPV will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at “Total Cost to BHPV like Packing & Forwarding charges, taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHPV standard Commercial terms & conditions) for each of the vendor to enable them to fill-in the price and keep it ready for keying in during the Auction.
 7. Reverse auction will be conducted on scheduled date & time.
 8. At the end of Reverse Auction event, the lowest bidder value will be known on the network.
 9. The lowest bidder has to Fax the duly signed Filled-in prescribed format as provided on case-to-case basis to BHPV through Service provider within 24 hours of Auction without fail.
 10. Any variation between the on-line bid value and the signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHPV as per prevailing procedure.
 11. In case BHPV decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHPV shall be opened as per BHPV’s standard practice.
- 5.26 **Force Majeure clause:** If at the time during the continuance of this contract the performance in whole or in part by either party of any obligations under this contract shall be prevented or delayed by reason, of any war, hostilities, acts of the public enemy, civil commotion, sabotage, fires, explosions epidemics, quarantine, restrictions or acts of GOD (hereinafter referred to as events) then provided notice of happening of any such events is given by either party to other within twenty one days from the date of occurrence thereof neither party shall reason of such events be entitled to terminate this contract nor shall either party have any such non performance and delay is resumed as soon as practicable after such events has come to an end or ceased to exist, if the performance in whole or part of any obligation under this contract is prevented or delayed by reason or any such event claims for extension of time shall be granted for period considered reasonable by the purchaser subject to prompt notification by the seller to the purchaser of the particulars of the events and supply to the purchaser if required of any supporting evidence. Any waiver of time in respect of partial installment shall not be deemed to be a waiver of time in respect of remaining deliveries.

CHECK LIST

Bidder's acceptance to BHPV's Standard Commercial Terms & Conditions.

Applicable for Indian bidders

(To be submitted along with the offer – please do not change the format)

BHPV Tender No: & Date:	Bidders Confirmation / response
Prices have been quoted on "FIRM PRICE" basis only.	Yes / No
Prices have been quoted on "F.O.R BHPV" basis only.	Yes / No
P & F and Freight (To be Included in Vendor's Scope)	
Insurance (Please confirm whether included or not)	
Validity of offer (we require a minimum period of 120 days from the date of Tender Opening – please Specify)	
Sales Tax (please Specify)	
Excise Duty (please Specify)	
Delivery period from the date of Purchase Order (please Specify). A loading @ ½ % of the Purchase Order value per week will be done for the grace period requested. For evaluation 4 weeks will be considered as one month. Vendors quoting a delivery period beyond the 'the requested delivery plus the allowed grace period' is liable for rejection.	
Liquidated damages as per clause 5.12 (we require acceptance to @ ½% per week subject to a maximum of 10%).	
Risk Purchase as per clause 5.13 (Offers from vendors not accepting the Risk Purchase terms will be rejected)	Yes / No
Payment terms (As per Clause No. 5.7.1)	
Contract Execution Bank Guarantee (CEBG) as per Clause 5.10 (Offers from vendors not accepting to submit CEBG will be rejected)	Yes / No
Performance Bank Guarantee (PBG) as per Clause 5.11 (Offers from vendors not accepting to submit PBG will be rejected)	Yes / No
Guarantee as per clause 5.9 (The equipment shall be guaranteed for a period of 18 months from the date of supply or 12 months from the date of commissioning and acceptance whichever is earlier). (Offers from vendors not accepting to the guarantee period will be rejected)	Yes / No
Inspection (please Specify)	
Erection & Commissioning/ Installation/ Training (Please confirm whether charges are included in the total cost or not)	
Approximate Net Weight of the total Consignment	
Approximate Gross Weight of the total Consignment	

Signature & Office Seal of the bidder

CHECK LIST

Bidder's acceptance to BHPV's Standard Commercial Terms & Conditions.

Applicable for foreign bidders (To be submitted along with the offer – please do not change the format)

BHPV Tender No: & Date:	Bidders Confirmation / response
Prices have been quoted on "FIRM PRICE" basis only.	Yes / No
Prices have been quoted on "F.O.R BHPV" basis only.	Yes / No
P & F and Freight	
Insurance (Please confirm whether included or not)	
Validity of offer (we require a minimum period of 120 days from the date of Tender Opening – please Specify)	
Currency in which quoted (please Specify)	
Port of loading (please Specify)	
Country of Origin (please Specify)	
Sales Tax (please Specify)	
Excise Tax (please Specify)	
Delivery period from the date of Letter of Intent (please Specify)	
Liquidated damages as per clause 5.12 (we require acceptance to @ ½% per week subject to a maximum of 10%)	
Risk Purchase as per clause 5.13 (Offers from vendors not accepting the Risk Purchase terms will be rejected)	Yes / No
Payment terms (As per Clause No. 5.7.2)	
Agency commission (refer clause 5.14)	Acceptable / Not acceptable
Contract Execution Bank Guarantee (CEPG) as per Clause 5.10 (Offers from vendors not accepting to submit CEBG will be rejected)	Yes / No
Performance Bank Guarantee (PBG) as per Clause 5.11 (Offers from vendors not accepting to submit PBG will be rejected)	Yes / No
Guarantee as per clause 5.9 (The equipment shall be guaranteed for a period of 18 months from the date of supply or 12 months from the date of commissioning and acceptance whichever is earlier). (Offers from vendors not accepting to the requested guarantee period will be rejected)	Yes / No
Inspection (please Specify)	
Erection & Commissioning/ Installation/ Training (Please confirm whether charges are included in the total cost or not)	
Approximate Net Weight of the total Consignment	
Approximate Gross Weight of the total Consignment	

Signature & Office Seal of the bidder