

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: CNC Pipe End Chamfering  
Machine – 220 mm**

Our Ref: **MM/2/10/3133/CAP/W-103/5107**

**DATE: 10.08.2012**

Sealed quotations in duplicate are invited from suppliers on **or before 19.09.2012** **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.	CNC Pipe End Chamfering Machine – 220 mm	1 Nos
	<div>Encl:<div><div>1. Qualifying Criteria PART A</div><div>2. Technical Specifications PART B</div><div>3. Annexure – 1</div><div>4. Annexure – 2</div><div>5. General Terms/ commercial terms and conditions (INCLUDING CHECK LIST)</div></div><div><div>..... 4 pages</div><div>..... 21 Pages</div><div>..... 3 Pages</div><div>..... 2 Page</div><div>..... 10 pages</div></div></div>	

**For BHARAT HEAVY PLATE & VESSELS LIMITED,**

**For Dy. GENERAL MANAGER (MM)**

**CNC PIPE END CHAMFERING M/C – 220 MM**

**SECTION – I: QUALIFYING CRITERIA**

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

<b>S. No.</b>	<b>REQUIREMENTS</b>	<b>VENDOR's RESPONSE</b>
1	Only those vendors ( <b>OEMs</b> ), who have supplied and commissioned at least <b>ONE CNC PIPE END CHAMFERING MACHINE FOR PIPE DIAMETERS 200 MM OR MORE</b> in the past ten years (from the date of opening of Tender) and such machine is presently working satisfactorily for more than one year after commissioning should quote.	
<b>The vendor should submit following information where similar machine has been supplied for qualification of their offer.</b>		
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	Performance certificate from the customer regarding satisfactory performance of machine supplied to them for more than one year after commissioning.	
1.7	BHPV reserves the right to verify the information provided by vendor (including visit by a team of BHPV Officials to the Customer Works of the Vendor). In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected.	
2.0	<b>DELIVERY</b> - The bidder shall quote the best possible delivery. However the delivery period (including the time for Pre-Dispatch Inspection clearance by BHPV) shall not exceed 12 months (which includes time for General Arrangement Drawing approval by BHPV also) from the date of issue of BHPV Purchase Order. In case the quoted delivery period extends beyond 12 Months, an additional grace period of two months is permitted, but with 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.	

**SECTION – II**

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

<b>S. No.</b>	<b>REQUIREMENTS</b>	<b>VENDOR'S RESPONSE</b>
3.0	The BIDDER/VENDOR to furnish Reference List of Customers, with full address, details of contact person, where CNC PIPE END CHAMFERING MACHINES have been supplied in the past.	
4.0	Details of CNC PIPE END CHAMFERING MACHINES supplied to other BHPV / BHEL units, if any. (Year of commissioning, Spindle size of machine, Spindle motor power)	
5.0	Details on SERVICE-AFTER-SALES Set-Up in India including the Addresses of Agents / Service Centers in India. [Details on the number of trained personnel with field of experience to handle the service needs of BHPV in time]	
6.0	Any Additional Data to supplement the manufacturing capability of the BIDDER for the subject equipment.	

**SECTION – III**

The BIDDER to note:

<b>S. No.</b>	<b>PARTICULARS</b>	<b>VENDOR'S RESPONSE</b>
7.0	The BIDDER / VENDOR shall submit the offer in TWO PARTS. 1. Technical Offer [with PART A & PART B] 2. Commercial and Price Bid.	
8.0	The Technical Offer shall contain a comparative statement of Technical <b>Specifications demanded by BHPV</b> and <b>Offer Details submitted by the Bidder</b> , against each clause. A just 'CONFIRMED' or 'COMPLIED' or 'YES' or 'NO-DEVIATION' or similar words in the technical offer (Part B) 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.	
11.0	For obtaining the performance certificate from the customer, a suggestive format is provided in <b>SECTION – IV</b>	

**SECTION – IV**

The performance certificate should be produced **on Customer's Letter Head.**

**PERFORMANCE CERTIFICATE**

1.	Supplier of the machine	
2.	Make & Model of the M/C	
3.	Month & Year of Commissioning	
4.	Application for which M/C is used	
5.	a) Face plate diameter b) Max. size of Pipe dia. c) Spindle Power d) d) CNC System	
6.	Performance of the Machine (Strike off whichever is not applicable)	Satisfactory / Not Satisfactory
7.	After sales service (Strike off whichever is not applicable)	Satisfactory / Not Satisfactory
8.	Any Other remarks	
9.	Contact Details Name of the Contact Person Phone No. Fax No. E-mail ID	
<div style="display: flex; justify-content: space-between; padding: 10px;"> <div>Date:</div> <div>Signature &amp; Seal of the Authority Issuing the Performance Certificate</div> </div>		

**TECHNICAL SPECIFICATION FOR HEAVY DUTY CNC PIPE EDGE PREPARATION MACHINE 220 MM**

<b>S.No</b>	<b>PARTICULARS AND BHPV SPECIFICATION</b>				<b>BIDDER'S OFFER</b> (With complete Technical Details)
<b>1.0</b>	<b>PURPOSE &amp; WORKPIECE MATERIAL:</b>				
1.1	The machine is meant for Facing and edge preparation of straight & bend pipes which form high pressure components for Power Boilers, and Industrial boilers of Process Industries. The machine shall be capable of generating various profiles of edge preparation on the above said components. The Edge preparation of the above jobs shall be done by tool mounted on a rotating chuck, keeping the work piece stationary by clamping it on self-centering Electric / Hydraulic pipe clamping vice. The edge preparation profile is obtained by vectorial combination of longitudinal movement of chuck and transverse movement of the tool slide under CNC control.				
<b>1.2</b>	<b>Material specification of Pipes for Edge Preparation:</b>				
	<b>A) CARBON STEEL:</b> SA 106 Gr.B /Gr C (ASTM), AP 15L Gr B (ASTM) <b>B) ALLOY STEEL:</b> SA 335 P11, P12 & P22, P91 SA 312 TP304H, SA 312 TP316 L				
<b>1.3</b>	<b>Sizes of Pipes for Edge Preparation:</b>				
1.3.1	The machine shall be suitable for pipe size OD from 60mm to 220mm and thickness from 4.0 mm to 30.0 mm. The standard sizes are furnished below. Max. Length of the pipe 8000mm.				
1.3.2		Sl. No.	Pipe Size (OD), mm	Wall Thickness Range, mm	
		1	63.5	4.0 to 12.5	
		2	70.0	4.0 to 12.5	
		3	88.9	4.0 to 22.2	
		4	108	4.0 to 20.0	
		5	114.3	3.95 to 30.0	
		6	127	4.0 to 25.0	
		7	133	6.0 to 16.0	
		8	141.3	6.35 to 30.0	
		9	159.0	4.0 to 30.0	
		10	168.3	7.11 to 30.0	
		11	219.1	6.32 to 24.0	
<b>1.4</b>	<b>Edge Preparation Styles</b>				
	Edge Preparation Profile Styles to be machined As per ANNEXURE I				

<b>S.No</b>	<b>PARTICULARS AND BHPV SPECIFICATION</b>	<b>BIDDER'S OFFER</b> (With complete Technical Details)
<b>2.0</b>	<b>MACHINE DETAILS:</b>	
<b>2.1</b>	<b>HEADSTOCK:</b>	
2.1.1	Geared Head stock unit shall be of fully enclosed type with Integral facing unit mounted on the spindle nose	Vendor to Confirm
2.1.2	Minimum & Maximum Facing diameter	60mm to 220mm
2.1.3	Min. & Max. wall thickness	30mm
2.1.4	Maximum turning diameter	220 mm
2.1.5	Maximum weight of the job to be handled.	1,000 kgs.
2.1.6	Maximum boring length	100 mm
2.1.7	Maximum turning length	50 mm
2.1.8	Headstock longitudinal travel (Min 350mm)	Vendor to Specify
2.1.9	Feed rate of Headstock longitudinal travel (steplessly variable)	0.5mm /min – 1500mm/min
2.1.10	Torque of the AC servomotor for Headstock traverse.	Vendor to Specify
2.1.11	Spindle speed (Infinitely variable)	10 to 800 rpm
2.1.12	No. of speed ranges	Vendor to Specify
2.1.13	Spindle speed range selection system	Vendor to Specify
2.1.14	KW rating of AC spindle motor (S1duty) (Vendor to furnish complete technical details along with offer)	Minimum 15 kW Vendor to Specify
2.1.15	Torque-Power-Speed characteristics of the spindle system to be submitted by the vendor along with offer	Vendor to furnish
2.1.16	Forward and reverse rotation of spindle motor with suitable braking mechanism. (Complete details with drawings, explanations to be submitted along with the offer.)	Vendor to specify
2.1.17	Sliding type Chip guard on the headstock for the safety of the operator, operator's panel and to avoid spillage of chips on shop floor (Details should be furnished in offer)	Vendor to confirm
<b>2.2</b>	<b>FACING UNIT:</b>	
2.2.1	Heavy steel casting fitted on the nose of main spindle, incorporating the tool holder slide with tool holder for radial feed (Vendor to furnish details in the offer)	Vendor to Confirm
2.2.2	Diameter of the face plate	Vendor to specify

S.No	PARTICULARS AND BHPV SPECIFICATION	BIDDER'S OFFER (With complete Technical Details)
2.2.3	Tool holder slide traverse X-Axis	Vendor to Specify
2.2.4	Min. distance between the faceplate and the clamping vice	Vendor to specify
2.2.5	Torque of the A.C. servo motor for tool slide	Vendor to specify
2.2.6	Feed rate of Tool holder slide X-axis (Steplessly variable)	0.5mm/min – 500 mm/min
<b>2.3</b>	<b>MACHINE BED:</b>	
2.3.1	No. Of Guide ways	Vendor to specify
2.3.2	Bed width across ways	Vendor to specify
2.3.3	Type of guide ways: (Details should be furnished in the offer)	Vendor to specify
2.3.4	Hardness of guide ways	Vendor to specify
2.3.5	<b><u>Metallic Telescopic Covers</u></b> of stainless steel material shall be provided with wipers for guide ways. Joints of telescopic covers should be so sealed to avoid ingress of dust.	Vendor to confirm & provide details
2.3.6	<b>OPTIONAL</b> - Chip conveyor system suitable to transport the metallic chips to be incorporated in the machine. <b>To quote separately in Priced bid.</b>	Vendor to confirm & provide details
<b>2.4</b>	<b>FEED DRIVE SYSTEM:</b>	
2.4.1	Feed drives/ motors for X & Z axes [AC servo motors] shall be digital type of either Siemens, Fanuc or any other make acceptable to BHPV (Details of model, make, type etc. to be furnished in the offer)	Vendor to furnish details
2.4.2	Maximum feed force for all axes	Vendor to specify
2.4.3	Feed back system for X & Z axes: Siemens / Fanuc / Heidenhain Linear scale / Rotary encoders. (Details of type of encoder offered & model no. to be furnished in the offer)	Vendor to specify & furnish details
2.4.4	Feed back system for Spindle rpm: Seimens / Fanuc / Heidenhain Rotary Encoders (Details to be submitted by the vendor with offer)	Vendor to specify
2.4.5	<b>Type of power transmission:</b> Pre-loaded backlash-free re-circulating ball screw drive for X & Z axes. (Complete description of the aforesaid including diameter of Ball Screw for each axis, to be furnished in the offer)	Vendor to specify



S.No	PARTICULARS AND BHPV SPECIFICATION	BIDDER'S OFFER (With complete Technical Details)
<b>2.5</b>	<b>STRAIGHT PIPE AND PIPE BEND CLAMPING SYSTEM:</b>	
2.5.1	The clamping system shall be suitable for centering and clamping straight pipes as well as bends (Complete details should be furnished in the offer)	Vendor to Confirm
2.5.2	The clamping system shall be equipped with a horizontally moving electric / hydraulically operated self-centering vice. The Vice shall incorporate “V” type jaws for up & down movement. The clamping system shall be capable of self centering the job automatically.	Vendor to Confirm
2.5.3	Diameter range	60 mm to 220 mm
2.5.4	Bed width	Vendor to specify
2.5.5	Bed length	Vendor to specify
2.5.6	Clamping force /pressure	Vendor to specify
2.5.7	Min straight length of the job for clamping - As the machine is intended for end chamfering of bent pipes also, the minimum straight length for clamping shall preferably be around 150 mm.	Vendor to confirm and specify.
2.5.8	Clamping force/ pressure should be able to be selected automatically by the system “thro” CNC for different combination of pipes OD and thickness mentioned in our specification. <b>(Clause no 1.3)</b> The vendor should design and specify the clamping force/ pressure according to our material sizes to avoid pipes deformation due to clamping.	Vendor to confirm. Details to be provided after ordering.
2.5.9	Pipe clamping operation	Through CNC.
2.5.10	Pipe clamping jaws type	“V” type horizontal
2.5.11	Safety system to prevent the rotation of the cutting tool unless the horizontal vice is properly clamped. (Details should be furnished in the offer)	Vendor to confirm.
2.5.12	Motorized longitudinal and vertical movement of the clamping jaws for job centering. Motor to be provided with chip guard (Vendor to furnish details of the system, motor capacity etc in the offer)	Vendor to specify

<b>S.No</b>	<b>PARTICULARS AND BHPV SPECIFICATION</b>	<b>BIDDER'S OFFER</b> (With complete Technical Details)
<b>2.6</b>	<b>PIPE SUPPORTING STEADY:</b>	
2.6.1	3 Nos. Electrically operated Vertically adjustable “V” type supports for supporting the free end of pipes and bends. The supports shall have facility to be moved to accommodate different lengths of pipes & bends. (Vendor to submit complete details with drawings of the supports in the offer)	Vendor to confirm
<b>2.7</b>	<b>CONSTRUCTION:</b>	
2.7.1	Vendor to furnish details of material, hardness & constructional details including explanatory drawings of various components / assemblies like Headstock, Facing Unit, Tool Holder Slide, Machine Bed, Feed Transmission System, Pipe & Pipe Bend Clamping System, Feedback System etc. of the machine along with the offer	Vendor to furnish details
2.7.2	Video images on CD hard copy of literature with photographs, drawings explaining the technical features should be enclosed with the offer	Vendor to Confirm
<b>2.8</b>	<b>OPERATION AND CONTROL SYSTEM:</b>	
<b>2.8.1</b>	<b>OPERATOR'S PANEL:</b>	
2.8.1.1	Operator's panel having complete CNC and machine control system with monitor of required configuration shall be provided for convenient and efficient operation. All switches should be within reach of operator. All displays/indications should also be conveniently placed (Layout showing complete details should be submitted with the offer)	Vendor to Confirm & furnish details
<b>2.8.2</b>	<b>CNC SYSTEM &amp; FEATURES:</b>	
2.8.2.1	Make: Fanuc / Siemens or any other make acceptable to BHPV	Vendor to specify
2.8.2.2	CNC System	Vendor to specify
2.8.2.3	Model (Suitable and Latest version, as available at the time of ordering, should be supplied). Siemens “SINUMERIK 802D s” or equivalent	Vendor to specify
2.8.2.4	Details of Standard features	Vendor to specify
2.8.2.5	Details of optional features available in the offered CNC	Vendor to specify
2.8.2.6	Details of optional features recommended by vendor.	Vendor to specify

<b>S.No</b>	<b>PARTICULARS AND BHPV SPECIFICATION</b>	<b>BIDDER'S OFFER</b> (With complete Technical Details)
2.8.2.7	The system should have full alphanumeric keyboard, TFT colour display (10.4" or more), additional draw-out type Qwerty Key Board and mouse in suitable enclosure, RS232C serial interfaces, parallel interface for printer, electronic hand wheels for all axes (MPG), compact disc drive unit for data input/output, hard disk of sufficient capacity <b>(Largest size available at the time of order shall be supplied)</b> , graphic simulation and preinstalled system software & other required soft wares etc (Details should be furnished by the Vendor in the offer)	Vendor to Confirm
<b>2.8.3</b>	<b>HAND HELD UNIT:</b>	
2.8.3.1	Hand held unit for axis selection, and movement with pulse generator & display is to be offered. This is required for job setting. Make, model no. and literature of the offered hand held unit shall be furnished.	Vendor to furnish
<b>2.9</b>	<b>MACHINE LIGHTS:</b>	
2.9.1	Machine Lights for sufficient illumination of complete working area should be provided for clear visibility. (Details should be furnished in the offer)	Vendor to Confirm & furnish details
2.9.2	A 24 V hand lamp with about 5 mtrs. long cable should also be provided.	Vendor to Confirm
2.9.3	All light fittings, consumables, adapters/receptacles should have compatibility with Indian equivalents	Vendor to Confirm
2.9.4	Flashing / rotary type End of Cutting and Program Stop Light.	Vendor to Confirm
<b>2.10</b>	<b>AIR CONDITIONERS:</b>	
2.10.1	Air Conditioners with Dehumidifiers of suitable capacity to be provided for all Electrical / Electronic Panels / Cabinets including Operator's Panel considering specified ambient conditions. <b>Make:</b> Rittal / Warner & Finley or any other make acceptable to BHPV. Detailed specifications to be submitted.	Vendor to indicate the make & submit details

<b>S.No</b>	<b>PARTICULARS AND BHPV SPECIFICATION</b>	<b>BIDDER'S OFFER</b> (With complete Technical Details)
<b>2.11</b>	<b>HYDRAULICS</b>	
2.11.1	The System should be centralized, modular / stacked valve construction having minimum number of pipes / pipe joints and located on ground level with easy accessibility of components for maintenance.	Vendor to Furnish Details
2.11.2	Pumps, valves, accessories etc shall be of Rexroth / Vickers or equivalent reputed make acceptable to BHPV. (Details to be submitted). The seals used in cylinders shall be of Merkel / Parker / Bushak + Shamban / Hunger / Simrit make.	Vendor to confirm & furnish details
2.11.3	Each pump should have an independent motor. Tandem pumps shall be avoided.	Vendor to confirm
2.11.4	Suitable filtration system should be provided with Duplex / standby filter units. It is preferable to use re-usable type of filter elements in the system. The filter unit shall be of Hydac / Parker / Rexroth or any other reputed make acceptable to BHPV (Details to be submitted).	Vendor to confirm & furnish details
2.11.5	The flexible hoses used in the system shall be of Gates / Aeroquip / Parker	Vendor to specify
2.11.6	Failure indication for oil level, temperature, pressure, filter clogging should be provided	Vendor to confirm & furnish details
2.11.7	Refrigerated type cooling system of sufficient capacity to maintain complete Hydraulic System at a temperature not exceeding 50 deg C irrespective of the ambient conditions. BHPV prefers to have direct cooling of oil in the chiller rather than indirect water cooling type. Complete details should be submitted with the offer.	Vendor to confirm & furnish details
2.11.8	It should be possible to replace hydraulic elements like valves, manifolds etc without disturbing the associated pipelines. The positioning of hydraulic elements should allow easy maintenance	Vendor to furnish details
2.11.9	The maximum pressure of the system should preferably not to exceed 310 bar	Vendor to specify
2.11.10	Main Pump flow in lpm and Motor Power in kW	Vendor to specify
2.11.11	Reservoir capacity (in litres)	Vendor to specify

<b>S.No</b>	<b>PARTICULARS AND BHPV SPECIFICATION</b>	<b>BIDDER'S OFFER</b> (With complete Technical Details)
2.11.12	All oil pipelines shall be of seamless steel and should undergo pickling process.	Vendor to confirm
2.11.13	Pressure measuring minimess check points (preferably with ¼" BSP stud end) shall be provided for important pressure measurements from operation, trouble shooting and maintenance point of view. Two sets of hand held minimess pressure gauge of suitable range with minimess hose (1.0 to 1.5m length) also to be supplied along with the power pack.	Vendor to furnish details
2.11.14	All cylinders used in the machine should have standard bore and rod sizes. The piston rod shall be hard chrome plated.	Vendor to furnish details
2.11.15	Suitable stand-by pump unit, filter unit, etc shall be provided for critical areas	Vendor to furnish details
2.11.16	The Power pack should be designed taking into account the energy efficiency (Hi-low pump system, proper unloading during idling, etc.). The motor used for pumps shall be energy efficient ones.	Vendor to furnish details
2.11.17	All the pipe / hose end fittings shall be of standard weld nipple with O-ring seating type (DIN 3865 or equivalent) - female swivel nut and o-ring and no ferrule joints are to be used in the hydraulic system. All threaded connections shall be of metric sizes	Vendor to confirm
2.11.18	Suitable vibro-mounts, compensators (flexible bellows), flexible hose at the pump outlet, polypropylene clamps for pipes & hoses, etc are to be provided to minimize the vibration induced and transmitted to the hydraulic joints.	Vendor to confirm
2.11.19	The oil to be used shall be of standard ISO Viscosity Grades – 32 / 46 / 68	Vendor to specify
2.11.20	The control voltages for all the Solenoids of the valves shall be of 24-V DC and all solenoid operated DC valves should have manual over-ride provision and light indicating solenoids.	Vendor to specify
2.11.21	The pipelines to be painted with standard colours as per the colour coding accepted internationally for hydraulic systems.	Vendor to furnish details
2.11.22	All hydraulic pipelines, hoses and electrical control cables to be neatly laid out with proper clamps and flexible hose conveyors wherever required.	Vendor to confirm

<b>S.No</b>	<b>PARTICULARS AND BHPV SPECIFICATION</b>	<b>BIDDER'S OFFER</b> (With complete Technical Details)
2.11.23	Suitable leakage oil collection metallic tray to be provided wherever required.	Vendor to confirm
2.11.24	All the components in the hydraulic power pack shall be provided with identification numbers, as per the hydraulic circuit and should be pasted with metallic identification number plates.	Vendor to confirm
2.11.25	Hydraulic oil will be supplied by BHPV during commissioning at BHPV works. Vendor to provide the oil during pre-dispatch inspection.	Vendor to specify
2.11.26	First filling of Lubrication Oil to be supplied by the supplier. Indian equivalent shall be mentioned.	Vendor to specify
2.11.27	First filling of Grease should be supplied by vendor. Indian equivalent shall be mentioned.	Vendor to specify
<b>2.12</b>	Machine lubrication: Automatic centralized lubrication system with timer control and suitable metering cartridges to be supplied.	Vendor to confirm & provide details
<b>2.13</b>	<b>ELECTRICAL:</b>	
2.13.1	415V + 10% / -10%, 50HZ +/-3 Hz, 3 Phase AC (3 wire system without neutral) power supply will be provided by BHPV at a single point near the machine, as per layout recommended by Vendor. All types of cables, connections, circuit breakers etc. required for connecting BHPV's power supply shall be arranged by vendor before or during construction of foundation.	Vendor to confirm
2.13.2	Tropicalization: All electrical / electronic equipment shall be tropical zed.	Vendor to confirm
2.13.3	All electrical & electronic control cabinets & panels should be dust and vermin proof	Vendor to confirm
2.13.4	All electrical components in the cabinets should be mounted on DIN Rail	Vendor to confirm
2.13.5	All electrical and electronic panels including operator's panel should be provided with fluorescent lamps for sufficient illumination and power receptacles of 220Volts, 5/15 Amp AC. All adapters / receptacles should have compatibility with Indian equivalents.	Vendor to confirm
2.13.6	Motors & other electrical components shall conform to IEC or Indian Standards	Vendor to confirm

<b>S.No</b>	<b>PARTICULARS AND BHPV SPECIFICATION</b>	<b>BIDDER'S OFFER</b> (With complete Technical Details)
2.13.7	All cables moving with traversing axes should be installed in caterpillar / Drag chain. Additionally, all the cable trays required for laying of cables should be included in the offer.	Vendor to confirm
2.13.8	Vendor should ensure the proper earthing for the machine and its peripherals.	Vendor to confirm
2.13.9	In-cycle hour counter with reset facility should be provided.	Vendor to confirm
2.13.10	All Electric enclosures shall have IP 54 protection	Vendor to confirm
<b>2.14</b>	<b>SAFETY ARRANGEMENTS:</b>	
2.14.1	Following safety features in addition to other standard safety features should be provided on the machine:	Vendor to confirm
2.14.2	Machine should have adequate and reliable safety interlocks / devices to avoid damage to the machine, work piece and the operator due to the malfunctioning or mistakes. Machine functions should be continuously monitored and alarm / warning indications through lights/ alarm number with messages (on CNC display and panels) should be available.	Vendor to confirm & provide details
2.14.3	A detailed list of all alarms / indications provided on machine should be submitted by the Vendor.	Vendor to specify
2.14.4	All the pipes, cables etc. on the machine should be well supported and protected. These should not create any hindrance to machine operator's movement for effective use of machine.	Vendor to Confirm
2.14.5	All the rotating parts used on machine should be statically & dynamically balanced to avoid undue vibrations and suitably guarded.	Vendor to Confirm
2.14.6	Emergency Switches at suitable locations as per International Norms should be provided.	Vendor to Confirm
2.14.7	All lubricated parts like Bed, guide ways shall have provision for collecting the used Lubrication oil from machine guide ways and preventing them from spilling over on to the ground.	Vendor to Confirm
<b>2.15</b>	<b>ENVIRONMENTAL PERFORMANCE OF THE MACHINE:</b>	
2.15.1	The Machine should confirm to following factors related to environment:	Vendor to Confirm

<b>S.No</b>	<b>PARTICULARS AND BHPV SPECIFICATION</b>	<b>BIDDER'S OFFER</b> (With complete Technical Details)
2.15.2	Noise level shall not exceed 85 dB (A) at normal load condition, 1meter away from the machine with correction factor for back ground noise.	Vendor to demonstrate compliance to noise level,
2.15.3	There shall not be any emissions from the machine except fumes of cutting fluid during machining.	Vendor to confirm
2.15.4	If any safety / environmental protection enclosure is required it should be built in the machine by the vendor.	Vendor to confirm
2.15.5	Paint of the machine should be oil / coolant resistant and should not peel off and mix up with coolant.	Vendor to confirm
<b>3.0</b>	<b>SERVO VOLATGE STABILIZER (SVS) :</b>	
3.1	Indian make Oil / Air Cooled servo Controlled Voltage Stabilizer suitable for complete machine, CNC, drives, controls, PLC etc with no undesirable Harmonics in the stabilizer output.	Vendor to confirm
3.2	Make. : NEEL / AEI / SERVO MAX	Vendor to confirm
3.3	Model & Rating (Suitable for the machine load. Vendor to specify the noise level also)	Vendor to Specify
3.4	Spares Package for the Voltage Stabilizer for 2 years working should also be offered.	Vendor to submit
3.5	Catalogue of the Voltage Stabilizer shall be submitted with the offer.	Vendor to submit
3.6	First fill of oil, if the SVS is oil cooled shall be in the scope of vendor.	Vendor to confirm
<b>4.0</b>	<b>ULTRA ISOLATION TRANSFORMER</b>	
4.1	Indian make Ultra Isolation Transformer suitable for complete machine, CNC, drives, controls, PLC etc. shall be supplied	Vendor to confirm
4.2	Make. : NEEL / AEI / SERVO MAX	Vendor to confirm
4.3	Model and Rating	Vendor to specify and noise level also
4.4	Spares Package for the Ultra Isolation Transformer for 2 years working should also be offered.	Vendor to submit



<b>S.No</b>	<b>PARTICULARS AND BHPV SPECIFICATION</b>	<b>BIDDER'S OFFER</b> (With complete Technical Details)
4.5	Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.	Vendor to submit
<b>5.0</b>	<b>TOOLING:</b>	
5.1	Vendor has to supply following tooling : a. A base tool holder mounted on faceplate slide using Standard ISO Indexable carbide inserts capable of generating all edge preparation styles indicated in ANNEXURE-1 and the tooling arrangement should be rigid and easily replaceable. b. Cutting Parameters:- Cutting Speed : 100-150 metres /minute Depth of Cut : 5-15 mm Cutting Feed : 0.2-0.6 mm / revolution	Vendor to specify
5.2	Details of special cuttings tools to suit the actual profiles to be machined (ref Clause No 1.4), Tool size for different tool holders	Vendor to specify
5.3	Limitation regarding length & weight of tool / tool holder clamped in different tool holders for trouble free operation	Vendor to specify
5.4	2 sets of tool holders, sufficient quantity of adapters, 50 nos. of each type of insert etc. recommended by vendor for complete machining of prove out components should be offered.	Vendor to confirm
<b>6.0</b>	<b>DIAGNOSTIC SYSTEM</b>	
<b>6.1</b>	<b>FAULT DIAGNOSTIC SYSTEM:</b>	
6.1.1	Vendor's own diagnostic system with required hardware and software should be supplied and installed on the CNC system. This should include customized auto-diagnostic system with supporting hardware and software, which shows detailed cause, and remedy for the fault on the display for faults related to mechanical and electrical maintenance.	Vendor to confirm
6.1.2	Help guide should be provided to use both diagnostic systems	Vendor to confirm
<b>7.0</b>	<b>LEVELING &amp; ANCHORING SYSTEM</b>	
7.1	Complete anchoring system including foundation bolts, anchoring materials, fixators, leveling shoes etc should be supplied with the machine	Vendor to specify

S.No	PARTICULARS AND BHPV SPECIFICATION	BIDDER'S OFFER (With complete Technical Details)
<b>8.0</b>	<b>SPARES:</b>	
8.1	Itemized breakup of mechanical, hydraulic, electrical and electronic spares used on the machine in sufficient quantity as per recommendation of Vendor for 2 years of trouble free operation on three shifts continuous running basis should be offered by vendor. The list to include following, in addition to other recommended spares: <b>(Unit Price of each item of spare should be offered)</b>	Vendor to confirm
8.2	<b>Mechanical &amp; Hydraulic Spares:</b> All types of Pumps, Valves, Pressure Switches, Transducers, Flow Switches, Filters, Seals, O-rings, Hydraulic Hoses etc.	Vendor to confirm
8.3	<b>Electrical /Electronic / CNC Spares:</b> All types of Relays, Contactors, Proximity Switches, Push Buttons, Indicating Lamps, Semiconductor Fuses, Special Fuses, Circuit Breakers, Main Power Switch, Encoders, , spares for CNC, Servo Motors for Feed Drives, Power Module & Control Cards for Main Drive as well as Feed Drives etc.	Vendor to confirm
8.4	All types of spares for total machine and accessories should be available for at least ten years after supply of the machine. If machine or control is likely to become obsolete in this period, the vendor should inform BHPV sufficiently in advance and provide drawings of parts / details of spares & suppliers to enable BHPV to procure these in advance, if required	Vendor to confirm
8.5	Recommended set of spares for all attachments are to be offered with details.	Vendor to confirm
8.6	Spares listed in Annexure – II shall be offered.	Vendor to confirm
<b>9.0</b>	<b>DOCUMENTATION:</b>	
9.1	Set of Documents to be submitted along with the Offer for technical evaluation:	Vendor to confirm
9.1.1	General Lay-out of the machine with major and critical dimensions in line with the specification	Vendor to furnish
9.1.2	General Assembly drawing of the machine with bill of materials and critical dimensions	Vendor to furnish

<b>S.No</b>	<b>PARTICULARS AND BHPV SPECIFICATION</b>	<b>BIDDER'S OFFER</b> (With complete Technical Details)
9.1.3	Sub-assembly drawings with bill of materials and critical dimensions for all the major sub-assemblies in the machine.	Vendor to furnish
9.1.4	List of bought out items with make and specification along with catalogues: Motors, Gear boxes, Controllers, Drives, Cylinders, Seals, CNC system, PLC, etc.	Vendor to furnish
9.1.5	Hydraulic / Pneumatic Circuit with Bill of Materials giving specification and make of components used.	Vendor to furnish
9.1.6	Lubrication / Coolant Circuit with Bill of Materials giving specification and make of components used.	Vendor to furnish
9.1.7	Electrical Circuit with Bill of Materials giving specification and make of components used.	Vendor to furnish
9.1.8	Hard copy of literature with photographs & drawings explaining the technical features to be provided.	Vendor to furnish
<b>9.2</b>	Set of Documents <b>to be submitted after placement of order</b> for approval / verification before manufacturing:	Vendor to confirm
9.2.1	General Lay-out of the machine with major and critical dimensions in line with the specification and Preliminary Foundation drawing.	Vendor to confirm
9.2.2	General Assembly drawing of the machine with bill of materials and critical dimensions	Vendor to confirm
9.2.3	Sub-assembly / Arrangement drawings with bill of materials and critical dimensions for all the sub- assemblies in the machine.	Vendor to confirm
9.2.4	Hydraulic / Pneumatic Circuit with Bill of Materials giving specification and make of components used.	Vendor to confirm
9.2.5	Lubrication / Coolant Circuit with Bill of Materials giving specification and make of components used.	Vendor to confirm
9.2.6	Electrical Circuit with Bill of Materials giving specification and make of components used.	Vendor to confirm
9.2.7	Quality plan	Vendor to confirm

S.No	PARTICULARS AND BHPV SPECIFICATION	BIDDER'S OFFER (With complete Technical Details)
<b>9.3</b>	Set of Documents <b>to be submitted along with machine:</b>	Vendor to confirm
9.3.1	<b>Three sets</b> of following documents as Hard copies and 1 set of all documents including bought out item catalogues – soft copy in CD in English Language should be supplied along with the machine.	Vendor to confirm
9.3.2	<b>One set</b> of complete documents as Hard copy and complete documents in CD / Pen drive to be submitted during inspection at supplier's works for verification. This forms part of acceptance criteria at supplier's works.	Vendor to confirm
9.3.3	Operating Manuals of Machine & CNC system	Vendor to confirm
9.3.4	Programming Manuals for the machine & CNC system.	Vendor to confirm
9.3.5	Detailed Maintenance manual of machine with all drawings of machine assemblies/sub-assemblies/parts including Electrical /PCB circuit diagrams/ Pneumatic/ Hydraulic Circuit Diagrams. All Assembly/ Sub Assembly Drawings shall be supplied with the part list / Bill of Materials giving complete specification and make of components.	Vendor to confirm
9.3.6	Hydraulic / Pneumatic Circuit with Bill of Materials giving specification and make of components used. Function diagram of the Hydraulic / Pneumatic system to be provided with the circuit.	Vendor to confirm
9.3.7	Lubrication / Coolant Circuit with Bill of Materials giving specification and make of components used.	Vendor to confirm
9.3.8	Electrical Circuit with Bill of Materials giving specification and make of components used.	Vendor to confirm
9.3.9	Maintenance, Interface & Commissioning Manuals for CNC system, spindle & feed drives.	Vendor to confirm
9.3.10	Manufacturing drawings for all wearing components like bushes, pulleys, gears, clutch plates, etc.	Vendor to confirm
9.3.11	Manufacturing drawings for all supplied tool holders, cutting tools, adapters, sleeves, fixtures etc.	Vendor to confirm
9.3.12	Catalogues, O&M Manuals of all bought out items including drawings, wherever applicable highlighting the specific model used in the supplied machine.	Vendor to confirm
9.3.13	Detailed specification of all rubber items, hoses, fittings, etc. List of bearings, belts used to be provided.	Vendor to confirm

S.No	PARTICULARS AND BHPV SPECIFICATION	BIDDER'S OFFER (With complete Technical Details)
9.3.14	Operating Manuals, Maintenance Manuals & Catalogues for all supplied Accessories including Voltage stabilizer, Isolation transformer, etc.	Vendor to confirm
9.3.15	Complete Master List of parts used in the equipment.	Vendor to confirm
9.3.16	Complete list of spares for equipments and accessories, along with item part no / specification / type / model, and name & address of the spare supplier shall be furnished.	Vendor to confirm
9.3.17	PLC program printouts with comments in English.	Vendor to confirm
9.3.18	PLC program on CD, NC data & PLC data on CD	Vendor to confirm
9.3.19	Complete back up of hard disk on CD and clear written Instructions (3 copies) to take back up and reloading of a new hard disk.	Vendor to confirm
<b>10.0</b>	<b>TRAINING:</b>	
10.1	The Vendor shall train Three BHPV's Engineers in Operation and Maintenance (Mechanical, Electrical/ Electronics and CNC System) of the Machine at Vendor's works for a period of 5 working days. Airfare, boarding & lodging for the trainees shall be borne by BHPV.	Vendor to confirm
10.2	The Vendor shall impart training to BHPV's Machine Operators and Maintenance crew in Operation and Maintenance after the commissioning of the Machine at BHPV works for 6 working days	Vendor to confirm
10.3	Competent, English speaking experts shall be arranged by the vendor during training for satisfactory & effective training of BHPV personnel at vendor scope (all costs shall be born by vendor for vendors personnel)	Vendor to Confirm
<b>11.0</b>	<b>FOUNDATION:</b>	
11.1	Vendor shall submit the preliminary layout drawing for getting BHPV's approval within one month from the date of P.O. Complete Foundation / dynamic load shall be submitted by the Vendor within three months after getting BHPV's approval. The layout should consist of all requirements pertaining to complete machine including space requirement for Voltage Stabilizer, Isolation Transformer, & any other accessories. BHPV shall construct complete foundation for the machine as per the Vendor's recommendation and drawing.	Vendor to submit

S.No	PARTICULARS AND BHPV SPECIFICATION	BIDDER'S OFFER (With complete Technical Details)
11.2	Vendor shall also indicate detailed specifications of grouting compound and Grouting procedure etc. for foundation bolts of the machine and shall bring equipment required for testing of foundation if required by vendor.	Vendor to confirm
<b>12.0</b>	<b>ERECTION &amp; COMMISSIONING</b>	
12.1	Vendor to take full responsibility for supervision of the erection, vendor shall start up, test the machine, it's control & all types of other supplied equipment, carrying out machining of test pieces etc. Service requirement like power, air & water shall be provided by BHPV at only one point to be indicated by Vendor in their foundation/layout drawings. Other requirements like crane and helping personnel shall also be provided by BHPV.	Details of these requirements should be informed by Vendor in advance
12.2	Erection & Commissioning of Voltage stabilizer, Isolation Transformer & Air Compressor shall also be responsibility of the Vendor.	Vendor to confirm
12.3	Successful proving of BHPV components by the Vendor shall be considered as part of commissioning. All tests, as mentioned in (clause 17.0) shall form part of the commissioning activity.	Vendor to confirm
12.4	Tools, Tackles, Test Mandrels, instruments and other necessary equipment including Laser equipment required to carry out all above activities should be brought by the Vendor.	Vendor to confirm
12.5	Necessary tools like Torque Wrench, Spanners, Keys, grease guns etc. for operation and maintenance of the machine should be supplied. List of such tools should be submitted with offer	
12.6	Special equipments, like test mandrel, straight edge, dial indicators etc., should be supplied along with the machine.	
12.7	Commissioning spares, required for commissioning of the machine within stipulated time, shall be brought by the Vendor.	Vendor to confirm
12.8	Portion, if any, of the machine, accessories and other supplied items where paint has rubbed off or peeled during transit or erection should be repainted and merged with the original surrounding paint by the vendor. For this purpose, the Vendor should supply sufficient quantity of touch-up paint of various colours of paint used.	Vendor to confirm

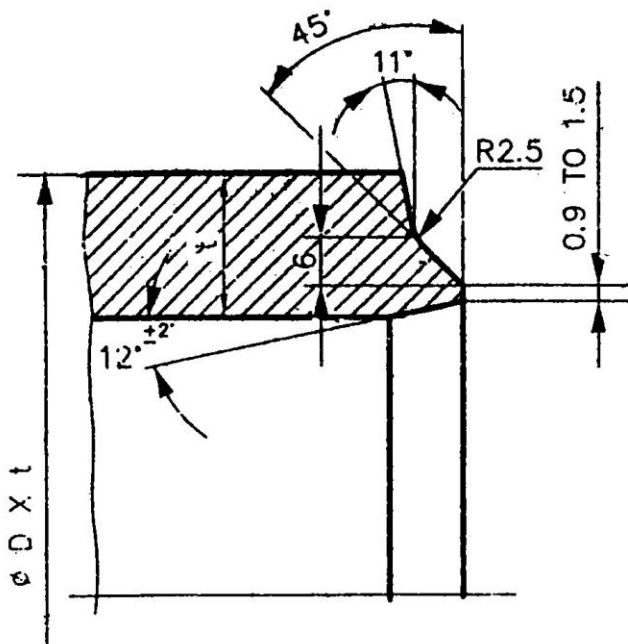
<b>S.No</b>	<b>PARTICULARS AND BHPV SPECIFICATION</b>	<b>BIDDER'S OFFER</b> (With complete Technical Details)
12.9	Schedule of Erection and Commissioning shall be submitted with the offer.	Vendor to confirm
12.10	Charges, duration, terms & conditions for E&C should be furnished in detail separately by Vendor along with offer.	Vendor to confirm
<b>13.0</b>	<b>ACCURACY TESTS:</b>	
<b>13.1</b>	<b>GEOMETRICAL ACCURACY</b>	
13.1.1	Geometrical Accuracy Tests shall be in accordance with applicable standard recommended by the Vendor. Detailed Test Charts for the same, clearly showing the accuracies to be achieved on the machine, shall be submitted with the offer.	Vendor to confirm
13.1.2	All other accuracies shall confirm to Vendors Test chart.	Vendor to confirm
13.1.3	All the above accuracies should be demonstrated to BHPV engineers during pre-acceptance at Vendors works and during Erection & Commissioning at BHPV Works.	Vendor to confirm
<b>13.2</b>	<b>MACHINE POSITIONING ACCURACIES &amp; REPEATABILITY:</b>	<b>Vendor to confirm</b>
13.2.1	Positioning accuracy in X axis (Pa) per 1000 mm	+/-0.2mm vendor to specify
13.2.2	Positioning accuracy in Z axis (Pa) per 1000 mm	+/- 0.2mm vendor to specify
13.2.3	Repeatability in X axis (Ps)	+/- 0.15mm Vendor to specify
13.2.4	Repeatability in Z axis (Ps)	+/- 0.15mm Vendor to specify
13.2.5	All the above accuracies should be demonstrated to BHPV engineers during pre-acceptance at Vendors works and during Erection & Commissioning at BHPV Works	Vendor to confirm

S.No	PARTICULARS AND BHPV SPECIFICATION	BIDDER'S OFFER (With complete Technical Details)
<b>14.0</b>	<b>AMBIENT CONDITIONS &amp; THERMAL STABILITY:</b>	
14.1	Total machine including CNC system and all supplied items should work trouble free and efficiently under following operating conditions and should give specified accuracies. Power Supply: Voltage: 415 V $\pm$ 10% Frequency: 50 Hz $\pm$ 3%, 3 Phase The machine shall be suitable for an ambient temperature of +50 ° C and relative humidity of 85 % respectively, but both do not occur simultaneously	Vendor to confirm that machine is suitable for above and details of provisions on the machine for the same are to be furnished by Vendor
14.2	Weather conditions are tropical, Atmosphere may be dust laden during some part of the year. Machine shall be kept in the normal shop floor condition	Vendor to confirm that machine is suitable for above and details of provisions on the machine for the same are to be furnished by Vendor
14.3	Thermal Stability of the complete machine keeping in view specified Ambient Conditions and accuracy requirements of BHPV components and vendor should ensure trouble free operation of the machine.	Vendor to confirm that machine is suitable for above and details of provisions on the machine for the same should be furnished by Vendor
14.4	The machine, including attachments and accessories, should be suitable for 24 hrs. Continuous operation to its full capacity for 24 hour a day and 7 days a week throughout.	Vendor to Confirm
<b>15.0</b>	<b>PROVEOUT OF BHPV COMPONENTS:</b>	
15.1	The prove-out trials of the edge preparation shall be for the straight and bend pipes for sizes given by BHPV during the technical discussions / at the time of releasing the Purchase Order. The pipe ends subjected to facing and edge preparation will be either <b>flame cut or saw cut. 3 jobs in the size range &amp; edge preparation style specification</b>	Vendor to confirm



<b>S.No</b>	<b>PARTICULARS AND BHPV SPECIFICATION</b>	<b>BIDDER'S OFFER</b> (With complete Technical Details)
<b>16.0</b>	<b>MACHINE ACCEPTANCE: (Tests/Activities to be Performed by Vendor)</b>	
<b>16.1</b>	<b>Tests/Activities to be carried out at Vendor's works on the machine before dispatch:</b>	
16.1.1	Geometrical accuracies as per applicable standard test chart recommended by the Vendor	Vendor to confirm
16.1.2	Positioning accuracies as per Applicable standard method recommended by the Vendor.	Vendor to confirm
16.1.3	Full load test to demonstrate the maximum power & cutting capacity of the machine. Required pipes for the same shall be in the scope of vendor.	Vendor to confirm
16.1.4	Demonstration of all features of the machine, control system & accessories	Vendor to confirm
16.1.5	Machining of test pieces to perform the edge preparation profiles ( <b>as per S.No 1.4</b> ). Test pieces & toolings to be arranged by vendor.	Vendor to confirm
<b>16.2</b>	<b>Tests / Activities to be carried out at BHPV works while commissioning the machine:</b>	Vendor to confirm
16.2.1	Geometrical accuracies as per. Applicable standard test chart recommended by the Vendor	Vendor to confirm
16.2.2	Positioning accuracies as per Applicable standard method recommended by the Vendor.	Vendor to confirm
16.2.3	Full load test to demonstrate the maximum power & cutting capacity of the machine.	Vendor to confirm
16.2.4	Demonstration of all features of the machine, control system & accessories to the satisfaction of BHPV for efficient and effective use of the machine	Vendor to confirm
16.2.5	Demonstration by actual use of all supplied attachments and accessories to their full capacity.	Vendor to confirm
16.2.6	Machining of test pieces to perform the edge preparation profiles ( <b>as per S. No 1.4</b> ). Test pieces will be provided by BHPV. Tooling shall be provided by vendor.	Vendor to confirm

<b>S.No</b>	<b>PARTICULARS AND BHPV SPECIFICATION</b>	<b>BIDDER'S OFFER</b> (With complete Technical Details)
16.2.7	The prove-out trials <b>as per Clause 15.0</b>	Vendor to confirm
16.2.8	Supervision by vendors of independent operation of machine by BHPV after job prove out during the training period of 6 working days	Vendor to confirm
<b>17.0</b>	<b>PACKING:</b>	
17.1	Sea worthy & rigid packing for all items of complete machine, CNC System, all accessories and other supplied items to avoid any damage/loss in transit. When machine is dispatched in containers, all small loose items shall be suitably packed in boxes	Vendor to confirm
<b>18.0</b>	<b>GUARANTEE:</b>	
18.1	12 months from the date of acceptance of the machine or 18 months from dispatch, whichever is earlier.	Vendor to confirm
<b>19.0</b>	<b>GENERAL:</b>	
19.1	Machine Model No.	Vendor to specify
19.2	Total connected load (KVA):	Vendor to specify
19.3	Floor area required (Length, Width, Height) for complete machine & accessories	Vendor to specify
19.4	Painting of machine / electrical panel	Apple Green (Polyurethane paint)
19.5	All gears are to be hardened and ground	Vendor to specify
19.6	Total weight of the machine	Vendor to specify
19.7	Weight of heaviest part of machine	Vendor to specify
19.8	Weight of the heaviest assembly / sub-assembly of the Machine	Vendor to specify
19.9	Dimensions of largest part/ sub-assembly/ assembly of the machine	Vendor to specify
19.10	Hydraulic, Pneumatic & oil piping should be preferably metallic except places where flexible piping is essential. All the pipes required for the same shall be included in the standard scope of the machine.	Vendor to confirm

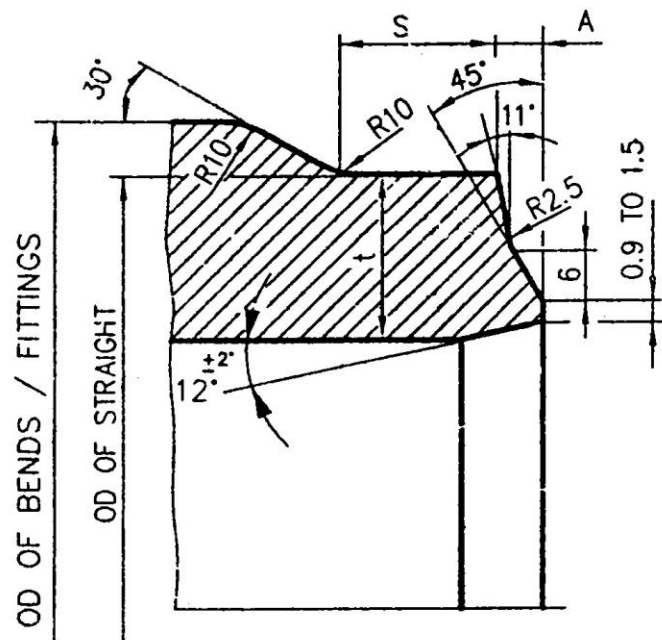


USE WHEN  $t \geq 14.2$  mm.

STYLE - P

**ANNEXURE - 1**  
**Drg No. CABS-1-16 - 01**  
**BHPV, VISAKHAPATNAM**

02. WHEN  $t < 65$   $S+A = 65$  Min. &  $t > 65$ ,  $S=65$  Min.  
 WHERE  $t$ =THK OF CONN.PIPES(STRAIGHT).



STYLE - Pa



# ANNEXURE - 1

Drg No. CABS-1-16-02

BHPV, VISAKHAPATNAM

## NOTES: -

01. APPLICABLE FOR P91 MATERIAL
02. FOR OD MISMATCHING REF. FIGURE-Xa.
03.  $\alpha = 6^\circ$  FOR WALL THICKNESS  $\leq 30$  mm
04.  $\alpha = 10^\circ$  FOR WALL THICKNESS  $> 30$  mm

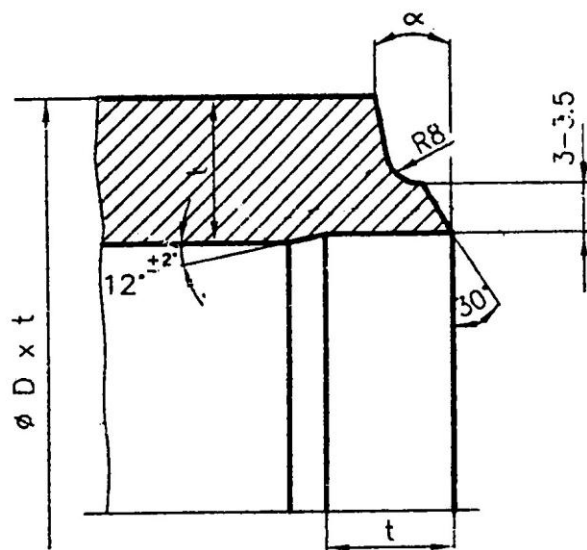


FIGURE - X

## NOTES: -

01. OD OF STRAIGHT TO BE PHYSICALLY MEASURED/VERIFIED
02.  $\alpha = 6^\circ$  FOR WALL THICKNESS  $\leq 30$  mm
03.  $\alpha = 10^\circ$  FOR WALL THICKNESS  $> 30$  mm

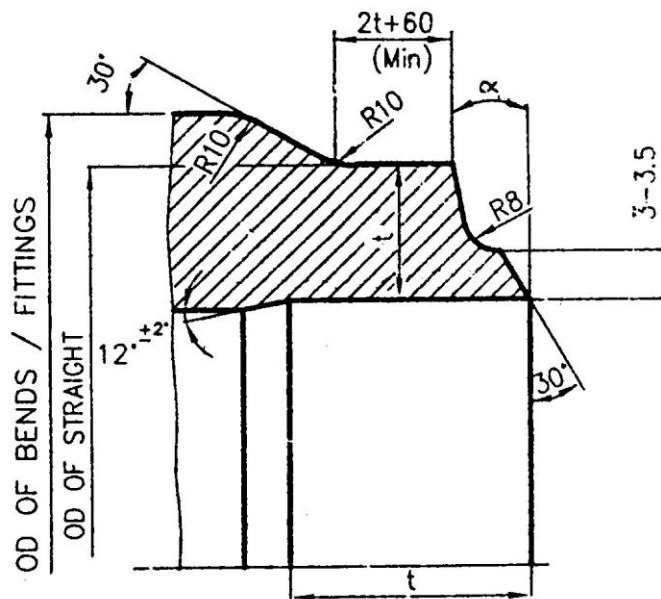


FIGURE - Xa

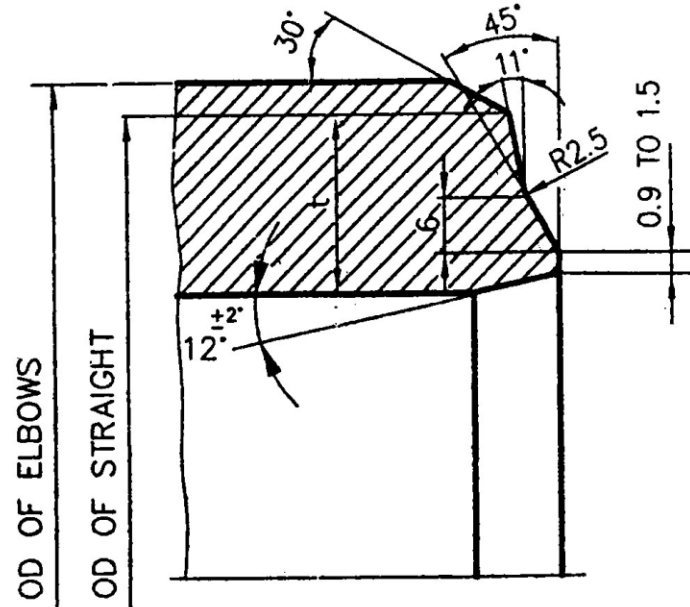
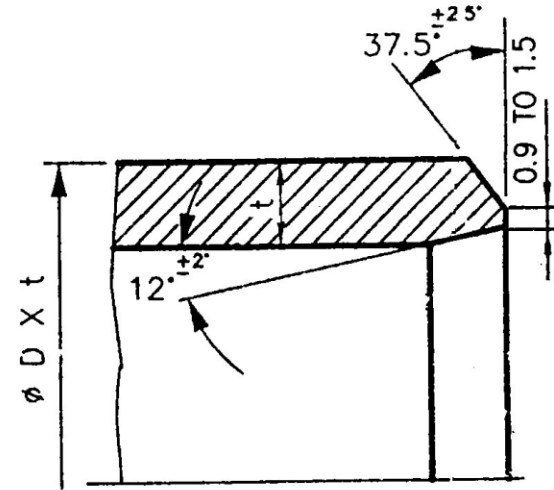


FIGURE - Z



STYLE - D

NOTES: -

01. USE WHEN  $t < 14.2$  mm.

**ANNEXURE - 1**

**Drg No CABS-1-16 - 03**

**BHPV, VISAKHAPATNAM**

**Annexure- II****(SPARES LIST)**

<b>I</b>	<b>MECHANICAL &amp; HYDRAULIC SPARES</b>	
1	Set of gaskets and O rings (for the entire machine) – list to be provided with part nos. at the time of drawing approval stage.	1 Set
2	Ball screw for Z axis	1 No.
3	Toothed belts (for the entire machine)	1 Set
4	Hydraulic pump – Main pump	1 No.
5	Set of contactors, relays and limit switches (for the entire machine) – 1 No. of each type	1 Set
6	Transducer for head-stock	1 No.
7	Hydraulic Valves – 1 No. of each type	1Set
8	Pressure switches - 1 No. of each type	1 Set
9	Hydraulic Transducers - 1 No. of each type	1 Set
10	Flow switches - 1 No. of each type	1 Set
11	Filter elements - 3 Nos. of each type	1 Set
12	Hydraulic cylinder Seal kits - 1 No. of each type of cylinder	1 Set
13	Hydraulic hoses - 1 No. of each type	1 Set
14	Lubrication pump	1 No.
15	Lubrication – metering cartridges – 2 Nos. of each type	1 Set
16	Spindle bearings - complete set	1 Set

**Annexure- II**

<b>II</b>	<b>ELECTRICAL, ELECTRONIC AND CNC SYSTEM SPARES</b>	
1	Proximity switches (for the entire machine)	1 Set
2	Push buttons (for the entire machine)	1 Set
3	Indicating lamps (for the entire machine)	1 Set
4	Semiconductor fuses (for the entire machine)	1 Set
5	Special fuses (for the entire machine)	1 Set
6	Circuit breakers (for the entire machine)	1 Set
7	Main power switch	1 No.
8	Encoder for Z axis	1 No.
9	Encoder for X axis	1 No.
10	CNC System spares (list to be provided by vendor)	1 Set

**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.
- 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)

<b>BHPV Tender No: &amp; Date:</b>	<b>Bidders Confirmation / response</b>
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 ( <b>Please confirm whether included or not</b> )	
Validity of offer (we require a minimum period of 120 days from the date of Tender Opening – <b>please Specify</b> )	
Sales Tax ( <b>please Specify</b> )	
Excise Duty ( <b>please Specify</b> )	
Delivery period from the date of Purchase Order ( <b>please Specify</b> ). 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 ( <b>Offers from vendors not accepting the Risk Purchase terms will be rejected</b> )	Yes / No
Payment terms (As per Clause No. 5.7.1)	
Contract Execution Bank Guarantee (CEBG) as per Clause 5.10 ( <b>Offers from vendors not accepting to submit CEBG will be rejected</b> )	Yes / No
Performance Bank Guarantee (PBG) as per Clause 5.11 ( <b>Offers from vendors not accepting to submit PBG will be rejected</b> )	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). ( <b>Offers from vendors not accepting to the guarantee period will be rejected</b> )	Yes / No
Inspection ( <b>please Specify</b> )	
Erection & Commissioning/ Installation/ Training ( <b>Please confirm whether charges are included in the total cost or not</b> )	
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)

<b>BHPV Tender No: &amp; Date:</b>	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 ( <b>Please confirm whether included or not</b> )	
Validity of offer (we require a minimum period of 120 days from the date of Tender Opening – <b>please Specify</b> )	
Currency in which quoted ( <b>please Specify</b> )	
Port of loading ( <b>please Specify</b> )	
Country of Origin ( <b>please Specify</b> )	
Sales Tax ( <b>please Specify</b> )	
Excise Tax ( <b>please Specify</b> )	
Delivery period from the date of Letter of Intent ( <b>please Specify</b> )	
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 ( <b>Offers from vendors not accepting the Risk Purchase terms will be rejected</b> )	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 ( <b>Offers from vendors not accepting to submit CEBG will be rejected</b> )	Yes / No
Performance Bank Guarantee (PBG) as per Clause 5.11 ( <b>Offers from vendors not accepting to submit PBG will be rejected</b> )	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). ( <b>Offers from vendors not accepting to the requested guarantee period will be rejected</b> )	Yes / No
Inspection ( <b>please Specify</b> )	
Erection & Commissioning/ Installation/ Training ( <b>Please confirm whether charges are included in the total cost or not</b> )	
Approximate Net Weight of the total Consignment	
Approximate Gross Weight of the total Consignment	

**Signature & Office Seal of the bidder**