

BHARAT HEAVY PLATE & VESSELS LIMITED.,
(A Subsidiary Bharat Heavy Electricals Limited)
A Government of India Enterprises
Visakhapatnam – 530 012 INDIA.
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NOTICE INVITING TENDER(NIT)

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

**SUB : Vertical Hydraulic Press For
Tube Offset Bending**

Our Ref: **MM/2/10/3239/CAP/W-188/5194**

DATE: 26.10.2012

Sealed quotations in duplicate are invited from suppliers on or before **24.11.2012** **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.	Vertical Hydraulic Press For Tube Offset Bending	1 No 's
	Encl: 1. Qualifying Criteria PART A 4 pages 2. Technical Specifications PART B 14 pages 3. Annexure – 1 2 pages 4. Annexure – 2 1 pages 5. General Terms/ commercial terms and conditions (INCLUDING CHECK LIST) 10 pages	

For BHARAT HEAVY PLATE & VESSELS LIMITED,

For Dy. GENERAL MANAGER (MM)

PART A

SECTION – I QUALIFYING CRITERIA

The BIDDER / VENDOR has to compulsorily meet the following requirements to get qualified for submitting an offer for the VERTICAL HYDRAULIC PRESS FOR TUBE OFFSET BENDING.

S.No	REQUIREMENTS	VENDOR's COMMENTS
1.0	The Bidder / Vendor (OEM) shall have a minimum of TEN Years of Continuous Experience in the field of Design, Manufacture and Supply of VERTICAL HYDRAULIC PRESSES. Vendor to provide details of the usage of Hydraulic presses supplied by them.	
2.0	Only those vendors (OEMs), who have supplied and commissioned at least ONE VERTICAL HYDRAULIC PRESS OF MINIMUM 100 TON CAPACITY in the past ten years (on the date of opening of Tender) and such press is presently working satisfactorily for more than one year after commissioning (on the date of opening of Tender), should quote. However, if such machine (s) has/ had been supplied to BHEL/ BHPV, then such machine should be presently working satisfactorily for more than six months after its commissioning and acceptance (on the date of opening of Tender) in BHEL/ BHPV. Performance certificate from the customers regarding satisfactory performance of VERTICAL HYDRAULIC PRESS supplied to them shall be submitted with the technical offer. (For obtaining the Performance certificate, a suggestive format is provided in SECTION – IV).	
3.0	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.	
4.0	DELIVERY - The bidder shall quote the best possible delivery. However the delivery period shall not exceed 6 months from the date of Purchase Order. A grace period of 2 months in addition is provided. 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. The delivery period is reckoned from the date of Purchase order to date of dispatch from the vendor works. 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 / Vendors are requested to provide the following details

S.No	PARTICULARS	VENDOR'S RESPONSE
5.0	Number of Years of Experience of the Bidder / Vendor in the field of design, manufacture, supply, erection & commissioning of HYDRAULIC PRESSES.	
6.0	Number of HYDRAULIC PRESSES supplied, installed and commissioned till date (with details on machine type / model, configuration, customer and quantity)	
7.0	Details on International Standards / Design Process Codes followed in Design and Manufacture of the Equipment.	
8.0	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]	
9.0	Any Additional Data to supplement the manufacturing capability of the BIDDER for the subject equipment.	

SECTION – III

Bidder / Vendor to note the following

S.No	REQUIREMENTS	VENDOR's COMPLIANCE
10.0	The BIDDER / VENDOR shall submit the offer in TWO PARTS - Technical [with PART A & PART B] & Commercial and Price Bid.	
11.0	The Offer shall contain a comparative statement of Technical Specifications given by BHPV and the Offer Details submitted by the Bidder, against each clause. A mere 'CONFIRMED' or 'COMPLIES' or 'YES' or 'NO-DEVIATION' or similar words in the technical comparative statement (without any supporting technical write-ups, photos and datasheets] may lead to disqualification of the Technical Offer.	
12.0	The Technical Offer shall be supported by Product Catalogue and Data Sheets in ORIGINAL and complete technical details of 'Bought-Out-Items' with copies of Product Catalogue and Selection Criteria	
13.0	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	
14.0	BIDDER has to indicate the Country of Origin for the supply of equipment.	

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 Equipment :
3. Month & Year of Commissioning :
4. Application for which machine is used :
5. Capacity of the press (in Tons) :
6. Sizes of Jobs Performed in the machine
Description of Jobs done :
7. Performance of the Machine : Satisfactory / Not Satisfactory
(Strike off whichever is not applicable)
8. After Sales Service : Satisfactory / Not Satisfactory
9. Any other remarks :
10. Contact Details
Name of the Contact Person :
Phone No. :
Fax No. :
E-mail ID :

Date:

Signature & Seal of the Authority
Issuing the Performance

PART B

TECHNICAL SPECIFICATIONS FOR VERTICAL HYDRAULIC PRESS FOR TUBE OFFSET BENDING

S. No.	PARTICULARS	BHPV SPECIFICATIONS	Bidder's OFFER [With Complete Technical Details]																											
1.0	APPLICATION	The machine is meant for making offset bends by cold pressing of seamless steel tubes in Single-plane. These are used in manufacturing Power boiler and Industrial boiler components. The tube offset bending shall be by Vertical Stroke with support rollers by Electro-Hydraulic means																												
2.0	TUBE SPECIFICATIONS and RADII OF BENDS:																													
2.1	TUBE OUTER DIAMETER AND THICKNESS: All are OD (Outer Diameter) Controlled tubes with thickness tolerance of Max. +18 %																													
2.2	<table border="1" data-bbox="510 756 1469 1141"> <thead> <tr> <th data-bbox="510 756 633 810">S.No</th> <th data-bbox="633 756 891 810">Tube OD, mm</th> <th data-bbox="891 756 1469 810">Tube wall Thickness, mm</th> </tr> </thead> <tbody> <tr> <td data-bbox="510 810 633 849">2</td> <td data-bbox="633 810 891 849">38.1</td> <td data-bbox="891 810 1469 849">3.2 to 5.3</td> </tr> <tr> <td data-bbox="510 849 633 887">3</td> <td data-bbox="633 849 891 887">44.5</td> <td data-bbox="891 849 1469 887">4.0 to 10</td> </tr> <tr> <td data-bbox="510 887 633 925">4</td> <td data-bbox="633 887 891 925">47.63</td> <td data-bbox="891 887 1469 925">5 to10</td> </tr> <tr> <td data-bbox="510 925 633 963">5</td> <td data-bbox="633 925 891 963">51.0</td> <td data-bbox="891 925 1469 963">3.6 to 12</td> </tr> <tr> <td data-bbox="510 963 633 1002">6</td> <td data-bbox="633 963 891 1002">54.0</td> <td data-bbox="891 963 1469 1002">3.6 to 12</td> </tr> <tr> <td data-bbox="510 1002 633 1040">7</td> <td data-bbox="633 1002 891 1040">57.0</td> <td data-bbox="891 1002 1469 1040">5 to 10</td> </tr> <tr> <td data-bbox="510 1040 633 1078">8</td> <td data-bbox="633 1040 891 1078">63.5</td> <td data-bbox="891 1040 1469 1078">4.8 to 13.5</td> </tr> <tr> <td data-bbox="510 1078 633 1141">9</td> <td data-bbox="633 1078 891 1141">76.1</td> <td data-bbox="891 1078 1469 1141">7.1 to 13.5</td> </tr> </tbody> </table>			S.No	Tube OD, mm	Tube wall Thickness, mm	2	38.1	3.2 to 5.3	3	44.5	4.0 to 10	4	47.63	5 to10	5	51.0	3.6 to 12	6	54.0	3.6 to 12	7	57.0	5 to 10	8	63.5	4.8 to 13.5	9	76.1	7.1 to 13.5
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7	57.0	5 to 10																												
8	63.5	4.8 to 13.5																												
9	76.1	7.1 to 13.5																												
2.3	MATERIALS:																													
2.3.1	a. Carbon Steel : SA192, SA210A1, SA210C b. Alloy Steel : SA209T1, SA213T11, SA213T22, SA213T91, T-23, T-93 c. Stainless Steel : SA 213 TP304H, SA 213 TP321H, SA 213 TP347H																													

S. No.	BHPV SPECIFICATIONS	Bidder's OFFER [With Complete Technical Details]																											
2.4	RADII OF BENDS:																												
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7	63.5	R 100, 160, 200,320																											
8	76.1	R 200, 225, 300																											
2.5	JOB DETAILS: Refer Annexure 1																												
3.0	MACHINE CONFIGURATION;																												
3.1	Machine Base - 1 Set																												
3.2	Main Offsetting Press with height adjustment and stroke adjustment – 1Set																												
3.3	Clamping Roller Press with height adjustment and coupled movement – 2 Sets																												
3.4	Alternative, if any, to the height adjustment such as direct hydraulic stroke without the need for height adjustment, if possible, may be suggested by the vendor for S.No. 3.2 & 3.3																												
3.5	Bottom Supporting Press with stroke adjustment – 1 set																												
3.6	Machine Base - 1 Set																												
3.7	Bending Roller mounting Carriage with sliding arrangement – 2 Sets																												
3.8	Hydraulic Power Pack – 1 Unit																												
3.9	All Tools, Dies, Adaptors, formers, Fixtures etc. - 1 Set																												
3.10	Electrical Controls with Remote Pendant - 1 Unit																												
3.11	Electric Control Panel - 1 No																												
3.12	Centralized Lubrication System - 1 No																												
4.0	QUALITY TOLERANCES FOR JOBS																												
4.1	VISUAL DEFECTS																												
4.1.1	It shall be free from harmful surface visual defects such as wrinkles, tool marks and depressions etc																												

Vertical Hydraulic Press for Tube Offset Bending – Technical Specification (Part B)

S. No.	BHPV SPECIFICATIONS	Bidder's OFFER [With Complete Technical Details]
4.2	PERCENTAGE OVALITY	
4.2.1	% Ovality = $\{(Max.OD - Min.OD) / Nominal OD\} \times 100$	Maximum allowed ovality is 10%
4.3	PERCENTAGE THINNING	
4.3.1	% Thinning = $\{(t1 - t2) / t1\} \times 100$ where, t1–actual wall thickness before bending t2–actual wall thickness after bending	Maximum allowed Thinning is 10%
5.0	TOOLINGS	
5.1	List of tooling (Clamping rollers, Bend Rollers, Tube pressing dies -Quadrant Die and Centre Dies, Dies mounting Adapters, Bottom Support Die, Bottom Support die mounting adapter etc) for the sizes mentioned in specification and any optional tooling should be listed and quoted out item wise separately.	
6.0	DIMENSIONAL DETAILS:	
6.1	Tube length handled	Minimum: 750mm Maximum: 12000mm
6.2	Maximum Degree of Bend	40°
6.3	Tube Offset Bending (pressing) Direction	Vertical Stroke
6.4	Maximum stroke of main offsetting cylinder for forming tube offset - Hydraulically operated	400 mm
6.5	Maximum stroke of bottom support cylinder for forming tube offset - Hydraulically operated	800 mm
6.6	Maximum stroke of Hydraulic operated Clamping Rollers	130mm
6.7	Centre line distance between Clamping Rollers - Motorized adjustment	Minimum: Vendor to specify Maximum: Vendor to specify
6.8	Height adjustment of main offsetting die - Motorized adjustment	Distance of 350mm
6.9	Height adjustment of Clamping Roller - Motorized adjustment	Distance of 350mm
6.10	Width between centre line of Bending Rollers - Motorized adjustment	Minimum: 120mm Maximum: 1500mm
6.11	Tube working height	1200mm from Floor level

Vertical Hydraulic Press for Tube Offset Bending – Technical Specification (Part B)

S. No.	BHPV SPECIFICATIONS	Bidder's OFFER [With Complete Technical Details]
7.0	TOOLING (MAX, MIN) DIMENSIONS	
7.1	Bottom support die Width	Minimum: 76 mm Maximum: 200 mm
7.2	Bottom support die Height	Minimum: 51 mm Maximum: 76 mm
7.3	Pressing / offsetting die - Quadrant die - Radius	Minimum: 65 mm Maximum: 340 mm
7.4	Pressing / offsetting die - Quadrant die - Height	Minimum: 65 mm Maximum: 195 mm
7.5	Pressing / offsetting die - Centre die - Width	Minimum: 76mm Maximum: 150mm
7.6	Pressing / offsetting die - Centre die - Height	Minimum: 65 mm Maximum: 195 mm
7.7	Clamping Rollers Diameter (with shallow groove for clamping all tube diameters)	190mm
7.8	Bending Rollers Diameter	Minimum: 130 mm Maximum: 680 mm
7.9	Suitable Pressing/Offsetting dies mounting adapter	Vendor to Specify.
7.10	Reference tube size for establishing the machine capacity	Diameter x thickness 63.5 x 5.2 R 160mm (40 deg bend in Alloy steel)
8.0	PRODUCTIVITY	
8.1	No. Of jobs per shift in OD 63.5 x 5.2 mm / Alloy Steel Tubes for batch production jobs with Radius 160mm - Angle 40 deg bends	200 bends in one 8 hour shift
9.0	MACHINE PARAMETERS	
9.1	Main Offsetting Press parameters	
9.1.1	Main Offsetting press capacity in Tons.	Vendor to specify
9.1.2	Main Cylinder vertical Load Stroke Speed in mm/min	Vendor to specify
9.1.3	Main Cylinder Vertical Return Stroke Speed in mm/min	Vendor to specify
9.1.4	Main Cylinder Operating Pressure	Vendor to specify

Vertical Hydraulic Press for Tube Offset Bending – Technical Specification (Part B)

S. No.	BHPV SPECIFICATIONS	Bidder's OFFER [With Complete Technical Details]
9.2	Bottom Support cylinder parameters	
9.2.1	Bottom Support Cylinder capacity in Tons	Vendor to specify
9.2.2	Bottom Support Cylinder Load stroke speed - Shall be synchronized with Main cylinder vertical load stroke speed.	Vendor to specify
9.2.3	Bottom Support Cylinder idle stroke speed	Vendor to specify
9.2.4	Bottom Support Cylinder Holding Pressure	Vendor to specify
9.3	Clamping cylinder parameters	
9.3.1	Clamping cylinder capacity in Tons	Vendor to specify
9.3.2	Clamping cylinder up / down speed in mm / min	Vendor to specify
9.3.3	Clamping Cylinders Holding Pressure	Vendor to specify
9.4	General parameters	
9.4.1	Maximum Bending Force	Vendor to specify
9.4.2	Maximum Operating Pressure	Vendor to specify
9.4.3	Main Pump Motor capacity in kW	Vendor to specify
9.4.4	Total Power Requirement in kVA	Vendor to specify
9.4.5	Hydraulic Tank Capacity	Vendor to specify
10.0	MACHINE CONFIGURATION DETAILS:	
10.1	Machine base - 1 Set	
10.1.1	Suitable length of fabricated machine base shall be provided, having sliding arrangement for the bending roller mounting fixture. The Bending roller-mounting fixture shall have motorized movement to adjust the distance between left and right rollers. A steel rule with 'mm' graduation shall be fixed throughout the length of the bed for conveniently setting the distance between the Bending rollers. The base shall be of rigid construction to withstand the forces during pressing. The Frame shall be fabricated with steel plates of suitable thickness of which vendor has to provide details with the offer . The base shall also support Offsetting press, Clamping roller press and Bottom Supporting press.	

Vertical Hydraulic Press for Tube Offset Bending – Technical Specification (Part B)

S. No.	BHPV SPECIFICATIONS	Bidder's OFFER
		[With Complete Technical Details]
10.2	Main Offsetting Press with sliding arrangement – 1 Set	
10.2.1	The Main Offsetting press is positioned vertically to support the offsetting cylinder with sliding guide plate. The cylinder positioning before pressing shall be motorized (Any alternative arrangement, such as direct hydraulic stroke without height adjustment may be suggested by the vendor). The stroke of piston shall be able to be set for the required depth. The piston shall have the provision to mount the 'quadrant die and centre die' mounting adapter. The frame housing the hydraulic cylinder shall be of rigid construction.	
10.3	Clamping Press with sliding arrangement – 2 Sets	
10.3.1	Clamping rollers support during offset bending. They are positioned on either side to support and guide the tube withstanding the reactionary forces that are developed as a result of bending. The hydraulic cylinder vertical positioning shall be motorized (Any alternative arrangement, such as direct hydraulic stroke without height adjustment may be suggested by the vendor). The Clamping cylinder housing on either side shall be movable to adjust the distance between the clamping rollers. The movement shall be coupled w.r.t the centre of the offsetting cylinder (i.e. the clamping cylinders have to move away from or move towards each other in a coupled manner). This movement shall be motorized. The Clamping press shall have the provision for mounting the Clamping roller mounting adapter.	
10.4	Bottom supporting post with Sliding arrangement – 1 Set	
10.4.1	A bottom supporting cylinder has to be provided to support the tube at the centre during bending. The tube can buckle without this support. The Supporting cylinder shall have the provision for mounting the Support die mounting adapter.	
10.5	Bending rollers mounting fixtures – 2 Sets	
10.5.1	The Bending rollers mounting fixtures shall have provision for mounting various sizes of bending rollers maintaining the tube working height. The Bending rollers shall be mounted by means of centre pin. Several pin locations may be provided to change the centre point of the bending rollers to maintain tube working height. The fixtures shall be movable and sliding on the machine base. The movement shall be motorized. The fixture shall be easily detachable.	
11.0	Hydraulics	
11.1	All Hydraulic valves to be of modular construction. All hydraulic operating components to be mounted on the manifold in a centralized place in convenient location for easy approach for Maintenance. Preferably away from the frame and on the side of the machine.	
11.2	Hydraulic power pack and Oil tank shall be separate from the Machine and positioned behind the machine conveniently to attend to any maintenance problems	

Vertical Hydraulic Press for Tube Offset Bending – Technical Specification (Part B)

S. No.	BHPV SPECIFICATIONS	Bidder's OFFER <small>[With Complete Technical Details]</small>
11.3	Vendor to specify the size of Hydraulic oil tank, capacity in litres	
11.4	First fill of Hydraulic oil shall be supplied by Vendor.	
11.5	First fill of Lubrication Oil & Grease shall be vendor's scope	
11.6	Hydraulic hose end fittings shall be welded nipple joints of suitable material	
11.7	Hydraulic circuits shall be designed with minimum number of control valves and to suit oil of ISO VG 46 or 68 only. Also minimum number of check-points to be provided wherever pressure is required to be read for setting and trouble shooting. Minimess Pressure Gauge - 1 No with Connecting Hose to be provided.	
11.8	Vendor to provide hydraulic Oil chiller unit - Refrigeration type for required tank capacity to maintain oil temperature not exceeding 40 deg C. – Vendor to provide details of Oil Chiller.	
11.9	All hydraulic tube lines to be neatly laid out.	
11.10	Lubricator, Regulator, Filter fitted with hand wheel valve shall be fitted at the centralized location for any pneumatic circuits	
12.0	Lubrication	
12.1	Centralized Automatic Lubrication system with a provision for adjusting the timer shall be provided for the machine.	
13.0	Infeed & Out Feed Stands: (Please refer to sketches enclosed in Annexure-2)	
13.1	<p>Infeed Stand: The press shall be provided with infeed stand before the machine in order to facilitate feeding the tubes into press and also to provide support for the infeed pipe. It shall be typically a series of structural stands placed side by side to form the length equivalent to pipe length. Vendor is free to offer the suitable scheme. The infeed stand cross section is similar to the out feed stand configuration given in Annexure 2. The tube will be <u>manually pushed</u> into the press to the required position, where bend is required. The vendor has to suitably design the stand to accommodate the tubes.</p>	Vendor to Confirm

Vertical Hydraulic Press for Tube Offset Bending – Technical Specification (Part B)

S. No.	BHPV SPECIFICATIONS	Bidder's OFFER [With Complete Technical Details]
13.2	<p>Outfeed Stand: After the pressing of the bend, the tube shall be rotated manually by 90° so that the tube bend comes on to horizontal plane and then pushed onto Outfeed stand. The Outfeed stand contains a typical cross section as shown in annexure-2. Only the typical cross section is given and vendor has to suitably design the Outfeed stand to accommodate the tubes. The tubes are unloaded manually from the stands. Rollers will be provided to ease the movement of the pipe, where pipe is pushed on to Outfeed stands after pressing.</p>	Vendor to Confirm
13.3	The typical infeed/Outfeed descriptions were given in clause no. 13.1 and 13.2. Bidder to offer their detailed scheme of infeed and Outfeed stands. (Bidder to note that, the infeed/Outfeed arrangements shall be manual only.)	Vendor to Provide Details
13.4	Dimensions of infeed stand. (L x W x H)	Vendor to specify
13.5	Dimensions of outfeed stand. (L x W x H)	Vendor to specify
13.6	Weight of Infeed Stand (in kg)	Vendor to specify
13.7	Weight of Outfeed Stand (in kg)	Vendor to specify
13.8	No. of Infeed stand frames to meet the length of tube specified	Vendor to specify
13.9	No. of Outfeed stand frames to meet the length of tube specified	Vendor to specify
14.0	Foundation:	
14.1	Foundation of the machine shall be designed suitably by BHPV. Vendor to furnish details of the type of foundation required with force diagram.	Vendor to specify
15.0	Controls:	
15.1	Type of controls provided	Vendor to specify
15.2	Machine shall be operated in three modes viz., Manual, Semi-Automatic and Automatic Under Automatic option the complete Clamping and Offsetting cycle shall be automatic from tube setting.	Vendor to specify
15.3	Offset Cylinder Stroke Control to be provided - The operator should be able to set the stroke length.	Vendor to specify
15.4	The machine should have the feature of setting 5 different stroke lengths at operator's option of required depth.	Vendor to confirm

Vertical Hydraulic Press for Tube Offset Bending – Technical Specification (Part B)

S. No.	BHPV SPECIFICATIONS	Bidder's OFFER [With Complete Technical Details]
15.5	A digital display of the offset Stroke length to be provided	Vendor to confirm
15.6	Pendant control of all the machine operation by Manual / Auto / Semi-Auto mode to be provided	Vendor to confirm
15.7	Pendant control shall be provided with joy stick controls for hydraulic up / down movements.	Vendor to confirm
15.8	The Offset bending process field sensors, such as encoders, limit switch, feed back devices shall be suitably placed for easier accessibility and rigidly mounted.	Vendor to confirm
16.0	Electrical Points:	
16.1	Wiring: All electrical motors, limit switches etc, on the machine shall be Wired using PVC sheathed cable running in conduits to cable ducts to common terminal block. External wiring from / to control panel, control desk, external motors etc shall be by means of screened multi-core cables.	
16.2	Encoders, limit switch, feed back devices shall be suitably placed for easier accessibility rigidly.	
16.3	All alarm tripping logics and control logics incorporated in the machine to be listed out by the vendor.	
16.4	Control circuit voltage should be 24 V DC.	
16.5	Control panel shall have built in 230V, 5 amps, 3 pin plug.	
16.6	Electrical control panel shall be adequately illuminated for maintenance purpose.	
16.7	Type of drives used for motors to be indicated.	
16.8	The machine shall be suitable for 415V with voltage fluctuation of +/-10%, 50Hz with frequency fluctuation of +/- 3%, 3 Phase, 3 wire system	
16.9	Electrics shall have IP 54 protection.	
17.0	Components used:	
17.1	All motors shall be from reputed makers like SIEMENS, ABB, Allen Bradley conforming to IEC Standards or any other reputed make acceptable to BHPV.	
17.2	All hydraulic elements shall be of VICKERS / REXROTH, or any other reputed make acceptable to BHPV.	
17.3	All oil seals shall be BUSHAK + SHAMBAN / HUNGER / MERKEL / PARKER / SIMRIT make or any other reputed make acceptable to BHPV	
17.4	All hydraulic hoses shall be of AEROQUIP / GATES / PARKER or any other reputed make acceptable to BHPV	
17.5	All electrical items shall be of reputed make like SEW / ROCKWELL Allen Bradley/ Telemecanique or any other reputed make acceptable to BHPV.	

S. No.	BHPV SPECIFICATIONS	Bidder's OFFER [With Complete Technical Details]
17.6	Encoders and digital display units shall be of HEIDENHAIN / FAGER or any other reputed make acceptable to BHPV.	
17.7	All components/devices/terminals are to be incorporated with ferrules.	
18.0	GENERAL POINTS	
18.1	Make and Model of the machine to be mentioned. Detailed catalogs of the machine to be submitted with the offer.	
18.2	Complete description of all systems & sub-systems shall form part of the technical bid.	
18.3	A schematic diagram showing the layout of the machine & associated systems with salient dimensions shall be submitted along with the offer.	
18.4	The operating sequence of the machine with broad outline of various operations involved should be furnished with the offer.	
18.5	Standards for Design, Manufacture and testing of the machine shall be in accordance with internationally accepted standards.	
18.6	The factor of safety considered for designing the machine, for certain load bearing components shall be furnished with the offer.	
19.0	TOOLINGS:	
19.1	List of tooling as follows: <ul style="list-style-type: none"> i. Bending Rollers with holding pins ii. Clamping Rollers with holding pins iii. Quadrant Dies iv. Centre Die between Quadrant dies v. Supporting Die vi. Supporting Die adapter vii. Quadrant Dies and Centre Die mounting adapter etc For the tube sizes 44.5, 51, 63.5, 76.1 mm and any optional tooling should be listed and quoted out item wise separately.	
20.0	AMBIENT CONDITIONS	
20.1	The Vertical Offset Press with all Sub-Systems shall be suitable for operation in an ambient temperature of 45°C and with a relative humidity of 93% respectively, but both do not occur simultaneously	
20.2	The entire equipment shall be Tropicalized in Design and Construction	

Vertical Hydraulic Press for Tube Offset Bending – Technical Specification (Part B)

S. No.	BHPV SPECIFICATIONS	Bidder's OFFER [With Complete Technical Details]
20.3	The offered equipment, Hydraulic system has to work in a normal fabrication shop environment in ambient conditions.	
21.0	SAFETY	
21.1	All safety features and safety interlocks provided in the machine shall be listed out by the vendor.	
21.2	Vendor to specify the safety features incorporated in the machine during pressing	
22.0	PAINTING:	
22.1	Painting of Machine / Electrical Panels: RAL 6011 Apple Green (Polyurethane Paint)	
23.0	SPARES (to be recommended by the vendor)	
23.1	Item wise breakup of mechanical, hydraulic, electrical and electronic spares used in the machine in sufficient quantity as per recommendation of Vendor for 2 years of trouble free operation on three shifts continuous running basis shall be furnished by vendor along with offer. The list to include following, in addition to other recommended spares: (Unit Price of each item of spare should be offered)	
23.2	a) Mechanical & Hydraulic Spares: All types of Pumps, Valves, Pressure Switches, Transducers, Flow Switches, Filters, Seals, O-rings, Hydraulic Hoses etc.	
23.3	b) Electrical /Electronic: All types of Relays, Contactors, Proximity Switches, Push Buttons, Indicating Lamps, Semiconductor Fuses, Special Fuses, Circuit Breakers, Main Power Switch, Encoders, Spares for PLC System (if Used), Power Module & Control cards etc.	
23.4	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	
24.0	DOCUMENTATION:	
24.1	Three sets (hard copies) of following documents, in English language should be supplied along with the machine:	
24.2	Operating manuals of Machine	
24.3	Detailed Maintenance manual of machine with all drawings of machine assemblies/sub-assemblies/parts including Electrical / Pneumatic/ Hydraulic circuit diagrams. All Assembly/ Sub Assembly Drawings shall be supplied with the part list.	

Vertical Hydraulic Press for Tube Offset Bending – Technical Specification (Part B)

S. No.	BHPV SPECIFICATIONS	Bidder's OFFER [With Complete Technical Details]
24.4	Machine data/ Commissioning data to be provided.	
24.5	Complete list of spares for machine and accessories, along with item part no / specification / type / model and name & address of the bought out item supplier shall be furnished along with documentation to be supplied with the machine	
24.6	Manufacturing drawings for all supplied tooling's as mentioned under Clause 18.1	
24.7	Catalogues, O&M Manuals of all bought out items including drawings, wherever applicable.	
24.8	Detailed specification of all rubber items and hydraulic/lube fittings	
24.9	PLC program print-outs with comments in English, if PLC is used.	
24.10	PLC program and data on CD, if PLC is used	
24.11	Complete Master List of parts used in the machine shall be submitted by the vendor.	
24.12	Complete list of Alarms and Remedies to be provided by the vendor.	
24.13	One additional set of all the above documentation on CD.	
25.0	INSPECTION	
25.1	The Machine shall be offered for inspection and performance trails to test the design capabilities of the machine, by BHPV Engineers at Supplier's works before Dispatch.	
26.0	ACCEPTANCE CRITERIA	
26.1	All the features of the machines shall be operated and shown and to work as given in the specification, at supplier's works during inspection and during commissioning at BHPV works.	
26.2	The prove-out trials shall be for the Tube sizes given by BHPV during the technical discussions or at the time of releasing the Purchase Order. The tubes shall be supplied by BHPV for performing trials. The finished jobs have to pass all the quality tests as mentioned in the specification under Clause: 4.0	
26.3	The production output of the machine shall be proved out by the commissioning Engineer at BHPV works for the Production rate mentioned in the specification under Clause: 8.0	
26.4	Tube Offset pressing shall be proved out during commissioning at BHPV works for all the tube sizes for which Tooling's have been ordered.	
27.0	ERECTION AND COMMISSIONING	
27.1	Supplier to take full responsibility for Supervision of the erection and for start up, testing and commissioning of machine, its controls and accessories. Supplier shall send suitable qualified Engineers for supervision of Erection and Commissioning of the machine at BHPV works.	Vendor to Confirm

Vertical Hydraulic Press for Tube Offset Bending – Technical Specification (Part B)

S. No.	BHPV SPECIFICATIONS	Bidder's OFFER <small>[With Complete Technical Details]</small>	
27.2	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.	Vendor to Confirm	
27.3	Successful proving of BHPV components by the Vendor shall be considered as part of commissioning. All tests, as mentioned (Machine Acceptance) shall form part of the commissioning activity.	Vendor to Confirm	
27.4	Commissioning spares, required for commissioning of the machine shall be supplied free of cost	Vendor to Confirm	
27.5	Test Mandrels, Instruments and other necessary equipment including Laser equipment, if required, to carry out all above activities should be brought by the Vendor.	Vendor to Confirm	
27.6	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 colors of paint used.	Vendor to Confirm	
27.7	General schedule of Erection and Commissioning shall be submitted with the offer.	Vendor to Confirm	
27.8	Charges, duration, terms & conditions for supervision of Erection, commissioning should be furnished in detail separately by Vendor along with offer.	Vendor to Confirm	
27.9	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 shall supply sufficient quantity of touch-up paint of various colors of paint used.	Vendor to Confirm	
27.10	The Vendor shall bring special tools and equipment required for erection of the machine. 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	Vendor to Confirm	
28.0	TRAINING		
28.1	The supplier shall train Two BHPV Engineers in Operation and Maintenance (Mechanical, Electrical/ Electronics and Programming (if any)) of the Machine for FIVE working days at supplier's works after the pre-dispatch inspection.	Vendor to Confirm	

Vertical Hydraulic Press for Tube Offset Bending – Technical Specification (Part B)

S. No.	BHPV SPECIFICATIONS	Bidder's OFFER [With Complete Technical Details]
28.2	Vendor to provide training free of cost	Vendor to Specify
28.3	Airfare, board & lodging for the BHPV engineers who will be visiting supplier's works for pre-dispatch inspection and training, shall be born by BHPV	Vendor to Note
28.4	The Supplier shall impart training to BHPV's Machine Operators and Maintenance crew in Operation and Maintenance (Mechanical, Electrical / Electronics) of the Machine during commissioning of the Machine at BHPV works for a period not less than 10 working days. Vendor to quote on Manday basis.	Vendor to Confirm
28.5	Competent, English speaking experts shall be arranged by the vendor during training for satisfactory & effective training of BHPV personnel.	Vendor to Confirm
28.6	The training shall include the following: a. Safety b. Operation of the machine c. Trouble-Shooting, d. All special features of the machine e. Electrical / Mechanical / Electronics systems	Vendor to Confirm
29.0	GUARANTEE	
29.1	The equipment shall be guaranteed for a minimum of 12 months from the date of commissioning or 18 months from the date of supply at BHPV, whichever is earlier.	Vendor to Confirm

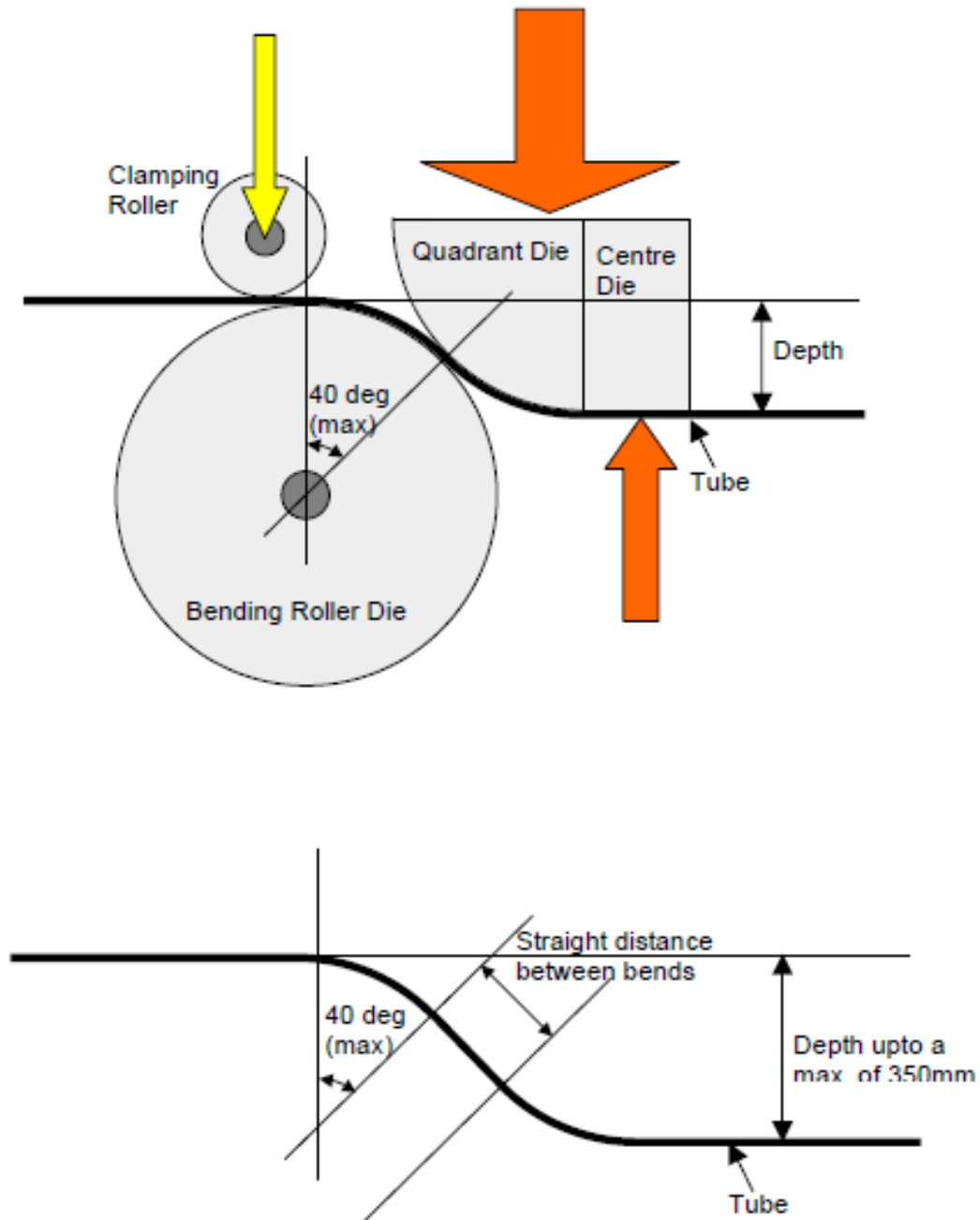
Enclosures:

Annexure – 1 - Offset Configurations.

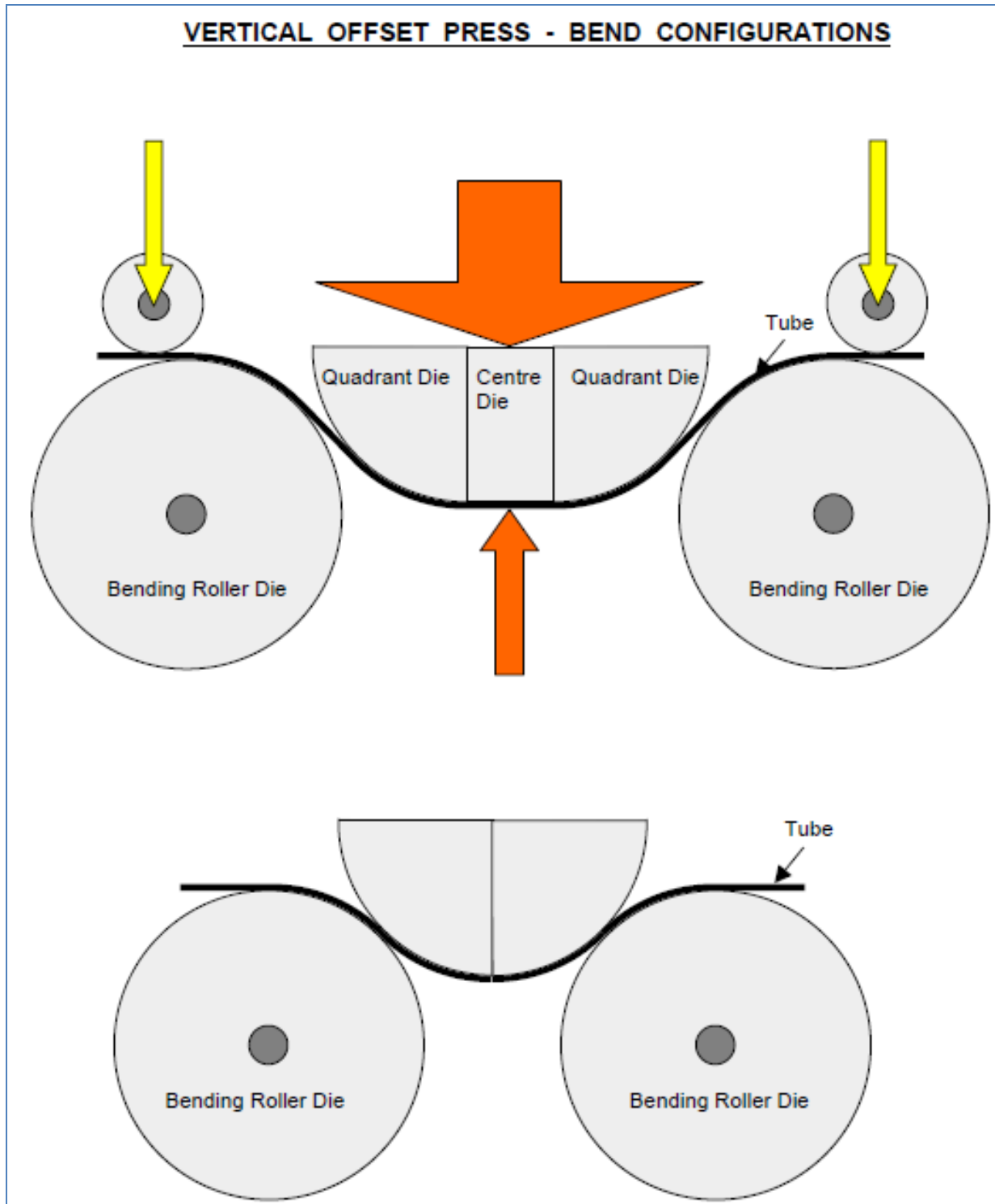
Annexure – 2 – Infeed / Out feed stand.

ANNEXURE – I

VERTICAL OFFSET PRESS - BEND CONFIGURATIONS

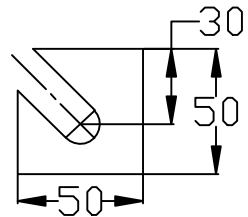
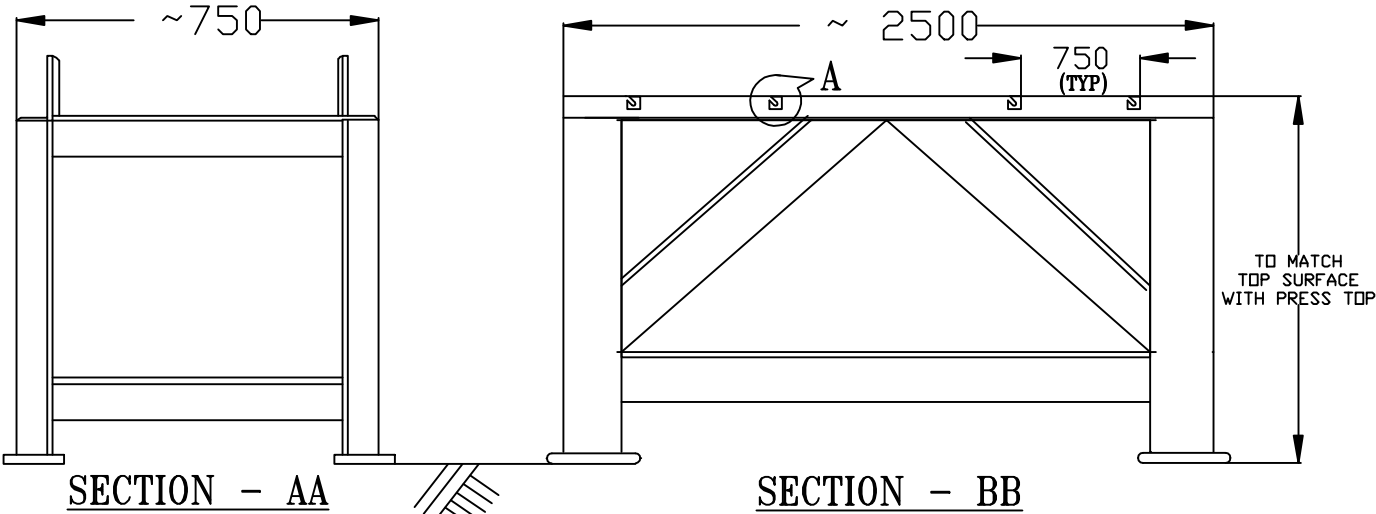


**VOP – Bend Configuration
CABS - 2 - 14N – 01
BHPV, VISAKHAPATNAM**

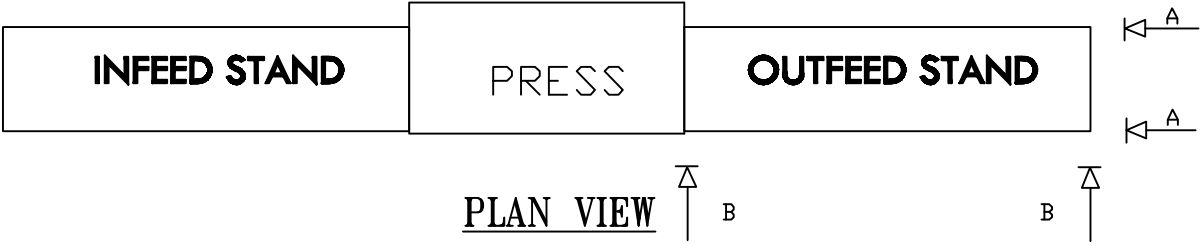


**VOP – Bend Configuration
CABS - 2 - 14N – 01
BHPV, VISAKHAPATNAM**

ANNEXURE - 2



DETAIL - A



**INFEEED & OUTFEED STANDS FOR
VERTICAL OFFSET PRESS**

SKETCH No: VOP-SK-01

REV. | 0

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