

## TECHNICAL SPECIFICATIONS AND OTHER ALLIED REQUIREMENTS

PUR/395/AMF/BB/E/2019-20/RET		
Sl. No.	Item Description	Quantity
1	<b>Supply, Installation, Commissioning &amp; Training of Hydraulic Press Brake</b> <b>(Detailed specification as per Annexure-1 )</b>	<b>01 No.</b>

### 1. QUALIFICATION CRITERIA:

1.1 As per ANNEXURE-I

### 2. INSTALLATION, COMMISSIONING AND TRAINING

2.1. Vendor should complete delivery the ordered goods within 30 days from the date of Purchase Order. The Installation, Commissioning and Training should be carried out within 15 days from the date of delivery **(Details are as per ANNEXURE-I)**

### 3. WARRANTY

3.1. As per ANNEXURE-I

### 4. Manufacturer Authorisation certificate (MAF)

4.1 Vendor should provide Manufacturer Authorisation Certificate from OEM.

### 5. PERFORMANCE SECURITY:

5.1 Vendor should provide Performance Security @3% of Contract Value/Invoice Value within 21(twenty-one) days after receipt of Purchase Order and it should remain valid for a period of 60 (sixty) days beyond the date of completion of warranty period.

# Annexure - 1

## Hydraulic Press Brake Machine

	Description	Specification of <u>Hydraulic Press Brake Machine</u> with NC System for Axis X & Y
1	Bending Capacity (plate of tensile strength of 45 Kg/mm <sup>2</sup> )	5 x 2500 mm 6 x 2000 mm (Mention Std. machine model , Make with catalogue or website reference)
2	Bending Force in KN	100 T or more
3	Hydraulic Pressure of the machine	Detail Calculation in support of Machine force calculation to be provided by OEM/Supplier
4	Bending Length:	2500mm or higher
5	Internal Radius of Bend	5 mm or less
6	Distance Between columns/ clear pass	2000mm or more
7	Stroke length	150mm or better
8	Day Light /Open Height	300mm or better
9	Throat (Minimum)	200mm or more
10	Table Width	To be mentioned by Supplier
11	Approach/Working/Return Speed mm/sec	25/5/30 or Suitable To be mentioned by Supplier
12	Accuracy	<b>As per DIN 55222 Class I / IMTMA Equivalent</b> <ul style="list-style-type: none"><li>Press Brake Line Laser for Marked Bending (Bending Line Helper) will be preferred.</li></ul>
13	Motor	All requisite ISI marked Electric motors of reputed makes Kirloskar / Siemens / ABB or Equivalent
14	X-Axis Back gauge Control	400mm or more
15	Y-Axis RAM Stroke Control	150 mm or more Adjustable Stroke Control
16	TYPE OF CONTROL	Reputed make of latest generation & Version Control system with following facility <b>MEMORY CAPACITY &amp; SCREEN SIZE TO BE MENTIONED BY OEM.</b> CONTROL system should equip to operate in Environmental temperature ~ 50°C and humidity 95%.
17	Machine Construction Materials	<ul style="list-style-type: none"><li>Hydraulic Seals: Simrit/Sambhen/Equivalent</li><li>Padings: Simrit/Sambhen/Equivalent</li><li>Hydraulic Pumps: Integral gear Pump (Bosch/Rexoroth/Atos/Voith/equivalent)</li><li>Hydraulic valves; Bosch/Rexoroth/Atos</li><li>PLC: Schinder/Siemens/Fuji</li><li>Electrical Elements: Siemens/L&amp;T/Schinder</li></ul>
18	Safety & others	<ul style="list-style-type: none"><li>Rear &amp; Side Safety Guards</li><li>Emergency Switch on Foot Pedal &amp; Machine</li><li>Technical Parameter/ Database.</li><li>Overload Limiter</li><li>Safety Package for Power Failure</li><li>Built in Alarm description</li><li>Laser Sensor for Safe Operation</li></ul>



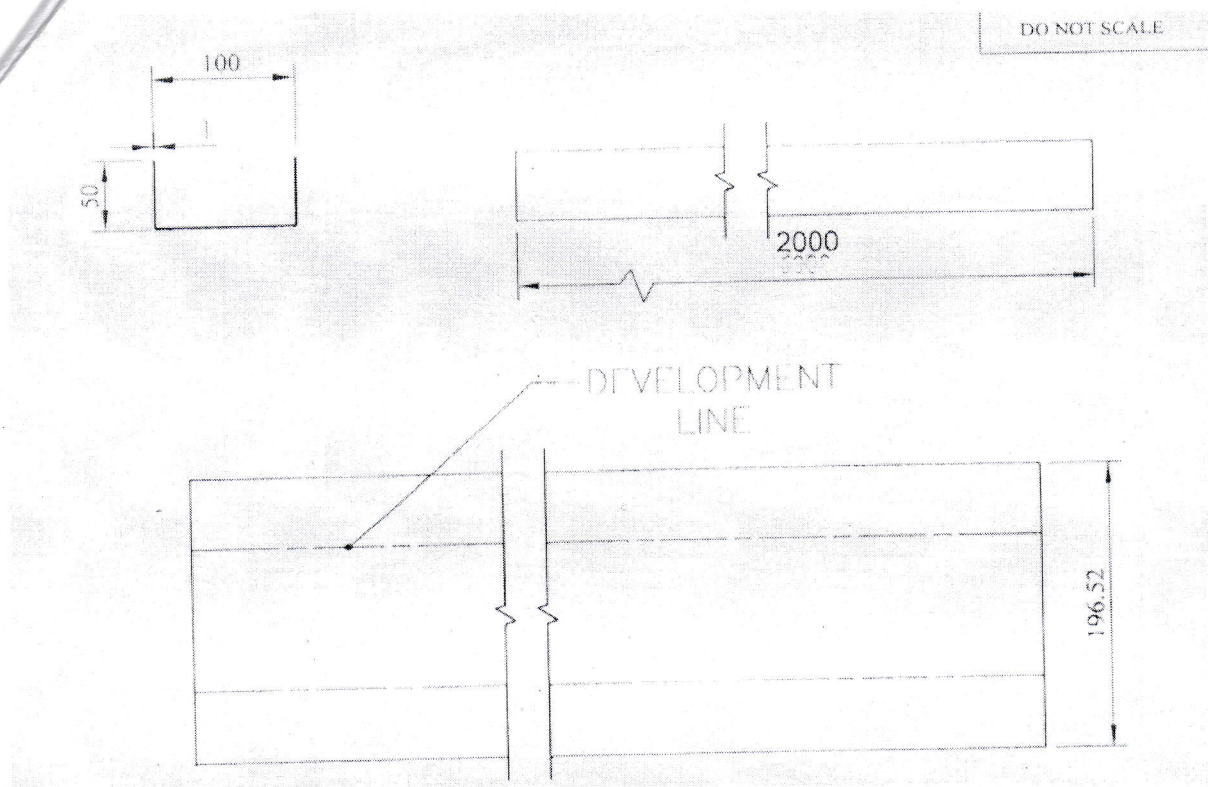
	ESSENTIAL ACCESSORIES	<p><b>One set of hardened and ground ( <math>\approx</math> 45 - 55 HRC ) Multi V die &amp; Acute Angle Punch</b> ( to suit from 1mm to 6 mm thick plate in appropriate steps.</p> <p>Punch and Die should be in segments of 835 mm and one segment should be together segmented in to 100 LH + 100RH+10+15+20+40+50+100+200+rest piece OR Suitably)</p> <ul style="list-style-type: none"> <li>• Hardness and materials to be specified by Bidder</li> <li>• Schematic Drawing of offered tools to be provided</li> <li>• Front &amp; Rear Sheet Support</li> <li>• Manual Crowning System</li> <li>• Press Brake Die &amp; Punch Cabinet ( Storage)</li> <li>• Maintenance Tool Kit</li> </ul> <p>The OEM to provide catalogue / drawings of the items offered.</p>
20	PRE-DESPATCH INSPECTION	<p>Before inspection of the machine at OEM's works, bending of the Standard Test piece (04 nos. Of different test pieces) will be carried out by the OEM. All the tooling, work holding devices &amp; Standard test piece will be supplied by the OEM at free of cost for bending of generic components.</p> <ul style="list-style-type: none"> <li>• Machine Accuracy: as per DIN 55222 Class I / IMTMA Equivalent</li> <li>• Parallelity (Press Beam/Table ) : 50-300 Microns/ 2000mm</li> <li>• Perpendicularity (Press Beam/Table Stroke ) : 60-150 micron per 150mm</li> <li>• Angular Accuracy +/- 45 Minutes</li> <li>• Bow/camber +/- 2mm per 2000mm</li> </ul> <p><b><i>These are acceptance criteria along with bending capacity and bending force.</i></b></p>
21	INSTALLATION & COMMISSIONING OF THE MACHINE	<p>Installation, commissioning &amp; proving of the machine to its desired capacity and complete at Customer sites at Durgapur (West Bengal) and will be done by the OEM's engineer. Commissioning work including acceptance test/component trial will be carried out by the OEM's Expert.</p> <p>During commissioning at least 04 nos. Of different test pieces will be produced on the machine and test pieces will be inspected for dimensional tolerance, for components of size 5 x 2500 mm and 6 x 2000 mm for materials having tensile strength of 45 Kg/mm<sup>2</sup>. ( As Per Drawing Attached)</p> <p>The commissioning will be treated as complete when we issue the certificate of acceptance. Installation, commissioning &amp; proving of the machine to its desired capacity and complete satisfaction</p>
22	TRAINING	<p>The OEM shall have to provide training exclusively for minimum five working days in the field of operation, maintenance (mechanical/hydraulic/electrical) etc.</p>
23	WARRANTY & SERVICE BACK UP	<p>The complete machine must have comprehensive onsite warranty 24 Months from the date of successful</p>



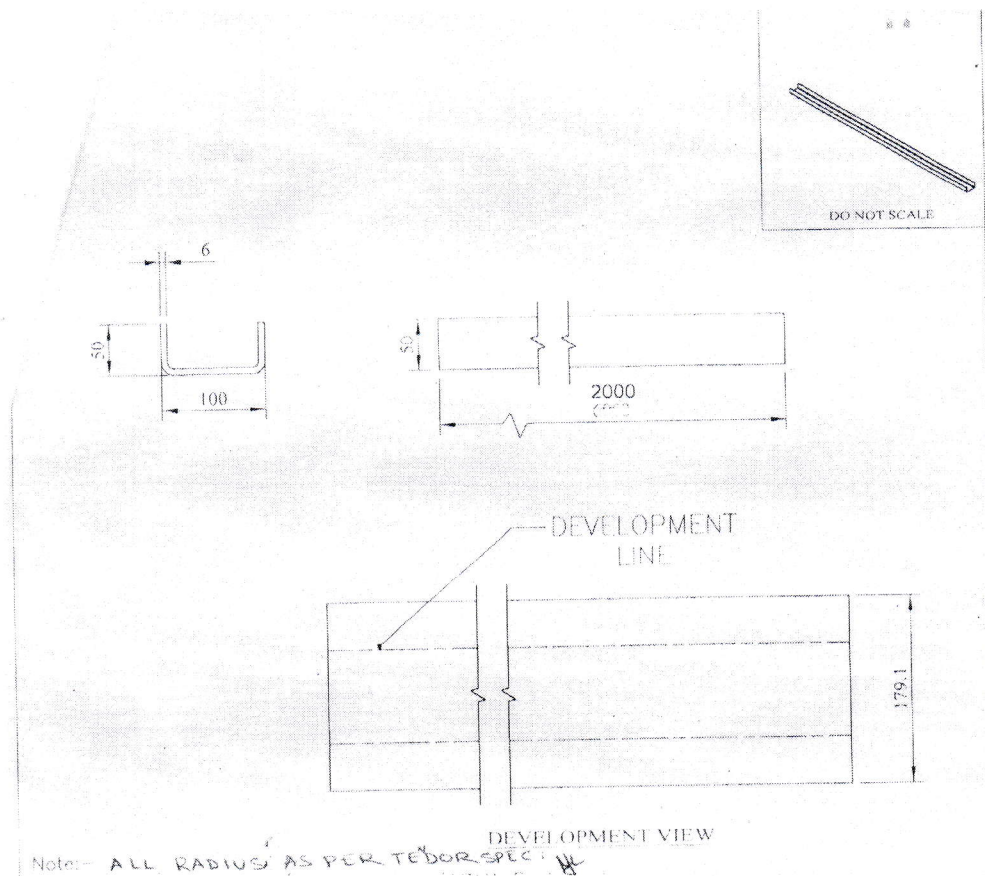
		commissioning.  <b>Service Backup Undertaking from OEM in original to be Submitted by Supplier for Machine, Drives Motors and Power source to provide service for Minimum Five Years.</b>
24	DOCUMENTATION	Three sets of Hardcopies in English language and one set of soft copy in English language Programming, Operating and Maintenance manual. a) Mechanical b) Electrical c) Hydraulic
25	QUALIFICATION CRITERIA	<p><b>The OEM Must have manufactured, supplied and commissioned at <u>least 02 (Two) numbers of similar offered Machines with Capacity 100T and above</u> to any of the Govt. Agencies OR Private Limited Organisations (Including R&amp;D Institutes/ Educational Institutes of national repute) <u>in last five years</u> ending on 10/12/2020 and out of which at least <u>One number of the Hydraulic press brake should be in successful operation for last two years</u> as on date of Bid Opening.</b></p> <p>(Documentary evidence must be submitted). Documentary Evidence Includes the Installation Certificate, Contact Persons name, address and Contact Details.</p> <p>a) Comments like yes, agreed, will be given at the time of supply, confirmed and will be completed ARE NOT ACCEPTABLE where numerical values are required to be quoted.</p> <p>b) OEM or Their Representative should have more than 05 Years of Existence in Press Brake Manufacturing &amp; Support Service field in India. <b>Documentary Evidence</b> to be attached.</p>





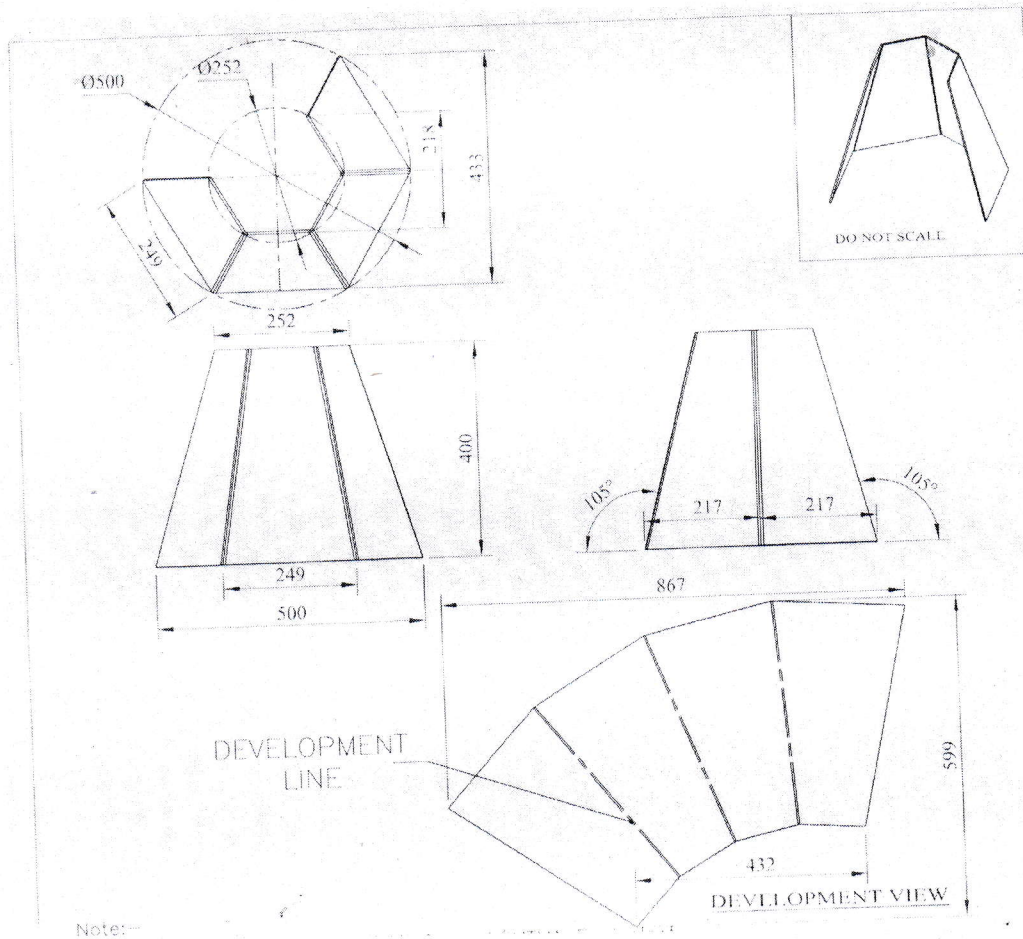


Test Sample No.- 1 ( Thickness -01 mm)

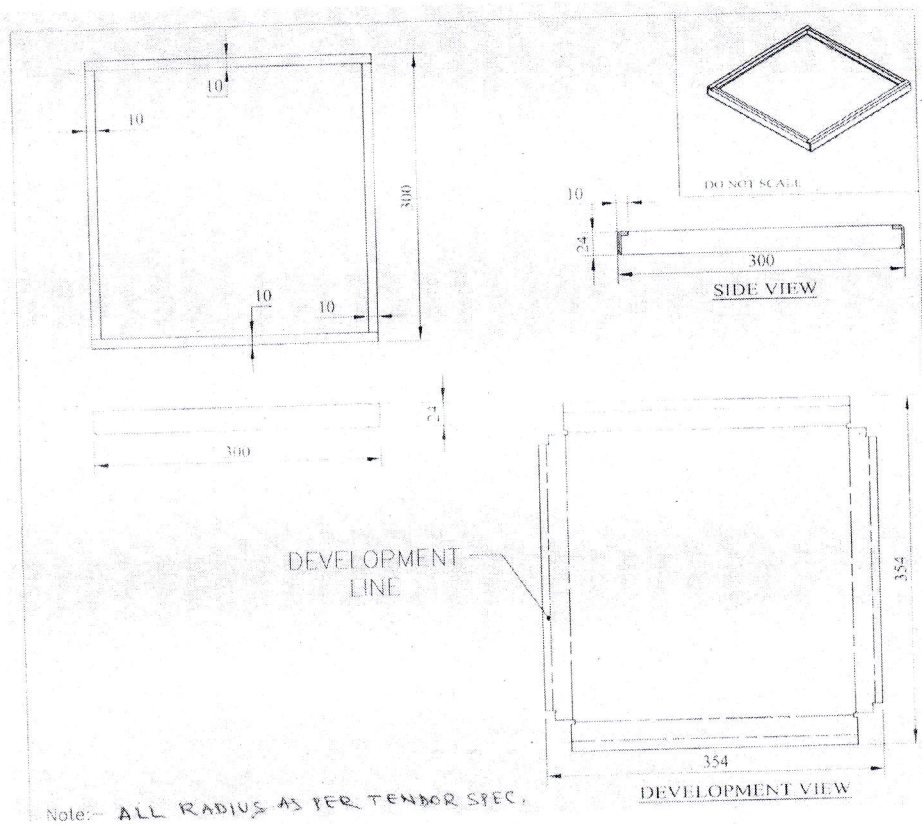


Test Sample No.-2 (Thickness-06 mm)

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Test Sample No.03 (Thickness- 05 mm)



Test Sample No.04 (Thickness- 02 mm)

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