

TECHNICAL SPECIFICATIONS OF FLOOR MOUNTED PORTABLE BEVELLING MACHINE

NOTE :-

1. The vendor should fill the "Offered" Column in compliance to specified requirements and also "Deviations" Column
2. The offer and all documents enclosed with offer should be in English language only.

ADDRESS OF THE SUPPLIER :

ADDRESS OF THE INDIAN AGENTS :

TELEPHONE NOS.:

TELEPHONE NOS.:

FAX NOS.:

FAX NOS.:

E-MAIL ADDRESS :

E-MAIL ADDRESS :

SCOPE: SUPPLY & COMMISSIONING OF FLOOR MOUNTED PORTABLE BEVELLING MACHINE, Qty- 1 nos

SL. NO.	DESCRIPTION OF BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATION	REMARKS
1.0	APPLICATION				
1.1	The Floor Mounted Portable Beveling machine (3-phase) is required for beveling purpose on Titanium clad mild steel plates of different thickness using carbide/HSS tools. The machine will be used for- Under-Beveling of Titanium Clad Plates of different thickness (keeping Titanium cladding on top side) without turning the plate upside down	Vendor to offer			
2	Job Description				
2.1	Type of job- Titanium clad mild steel plate	Vendor to note			
2.2	Thickness of Plate- 14mm(12mm+2mm cladding) , 10mm(8mm+2mm cladding). Thickness of Titanium cladding- 2.0 mm on each thickness of plate.	Vendor to note			
2.3	Size of plates- 2.5M x 7.0M (May vary according to requirement).	Vendor to note			
2.4	Details of Titanium Cladding - 1. Grade - ASTM, B265 , Gr2 2. UTS - 345 Mpa 3. Shear strength- 175-200 MPa. Details of Carbon Steel- 1. Grade - ASTM, A516, Gr 70 2. UTS- 485-620 MPa 3. Shear Strength - 250 MPa -310 MPa	Vendor to note			

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2.5	Details of edge Beveling- Under Beveling is required on all the four edges of plates along the periphery on mild steel portion. Please refer sketch (Annexure-1) for details.	Vendor to note			
2.6	Details of Beveling: Under Beveling of titanium clad plate is required without turning the plate upside down along the periphery of plate. Please refer sketch (Annexure-1) for details.	Vendor to note			
3.0	TECHNICAL SPECIFICATION				
3.1	Description: Floor Mounted Portable Beveling Machine	Vendor to offer			
3.2	Input Supply- 400V $\pm$ 10% variation, 3-phase	Vendor to note			
3.3	Power	Vendor to specify			
3.4	Spindle speed at no load	Vendor to specify			
3.5	The machine should have provision of beveling as mentioned at clause 2.6	Vendor to offer			
3.6	Bevel angle: 15 deg to 60 deg with facility of upside down version so that under beveling can be done at aforesaid angles without turning the plate upside down.	Vendor to Confirm			
3.7	Minimum plate thickness which can be accommodated by machine for de-cladding should be 10 mm	Vendor to Confirm			
3.8	Maximum plate thickness to be accommodated by machine	Vendor to specify			
3.9	The machine should be floor mounted with the provision of free movement along the periphery of the plate size mentioned at clause 2.3	Vendor to offer			
3.10	Feed Speed	Vendor to specify			
3.11	Input Power Cable- 20 M.	Vendor to Confirm			
3.12	Weight of the machine	Vendor to specify			
3.13	The machine should be complete in ready-to-use condition with all necessary accessories	Vendor to Confirm			

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3.14	Machine should have provision of using carbide/HSS tools four edge type for under bevel without turning plate upside down.	Vendor to Confirm			
3.15	Floor level/finish requirement for operation of machine	Vendor to specify			
3.16	Range of working height of machine	Vendor to specify			
3.17	Machine should have provision of plate gripping rollers of such material so that no indent marks of chips/rollers are formed on Ti clad plate	Vendor to confirm and specify the material of rollers used for construction			
4.0	TECHNICAL FEATURES				
4.1	Construction- Portable, light weight, handy and sturdy to work at shop floor working condition	Vendor to confirm			
4.2	It should have following in-built features:				
4.2.1	Continuously adjustable bevel angle between 15 deg and 60 degree with facility of upside down version so that under bevelling can be done at aforesaid angles without turning the plate upside down.(refer Annexure-1)	Vendor to confirm			
4.2.2	Should have provision of motor overload protection	Vendor to confirm			
4.2.3	Should have suitable provision for quick set-up	Vendor to confirm			
4.2.4	Should have provision of automatic feeding system	Vendor to confirm			
4.2.5	Should have provision of transitional under bevelling within angle range mentioned at clause 4.2.1 without turning of plate upside down(refer Annexure-1)	Vendor to confirm			
5.0	SPARES (For 1 nos of Floor Mounted Portable Bevelling Machine)				
5.1	Vendor to quote recommended spares for 1 year trouble free operation	Vendor to offer			
6.0	DOCUMENTATION:				

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S. NO.	DESCRIPTION OF BHEL REQUIREMENT	REQUIRED	OFFERED	DEVIATION	REMARKS
6.1	Three sets of operation & maintenance manuals consisting following along with the supply-	Vendor to confirm			
6.2	Operating & maintenance instructions with Do's & Don'ts	Vendor to confirm			
6.3	Mechanical assembly diagrams	Vendor to confirm			
6.4	Electrical & Electronic circuit diagrams	Vendor to confirm			
6.5	Split diagrams with part identification	Vendor to confirm			
6.6	Trouble shooting chart and diagnostic system	Vendor to confirm			
6.7	List of complete spares with identification nos.	Vendor to confirm			
7.0	COMMISSIONING				
7.1	Commissioning & trials of all the features of the machine will be done by the vendor at BHEL works.	Vendor to confirm			
7.2	During commissioning vendor has to carry out following operation on 2 no of Titanium clad plate with machine- (Refer details in the sketch mentioned at Clause 2.5 & 2.6) i.e. Under Bevelling of Titanium clad plate without turning the plate upside down.	Vendor to confirm			
7.3	Vendor will impart training to BHEL personnel during commissioning.	Vendor to confirm			
8.0	FINAL ACCEPTANCE				
8.1	Final acceptance shall be given after commissioning of the Floor Mounted Portable Bevelling Machine at BHEL by the vendor to the full satisfaction of BHEL as per specification. Final commissioning will be given after 10 days of successful trial of the machine mentioned at clause 7.2.	Vendor to confirm			
9.0	WARANTTEE				
9.1	Warrantee for 1 years for smooth & trouble free working from date of commissioning	Vendor to confirm			