

MATERIAL CODE
ER8461800028



1800-01
Rev. 00

PURCHASE SPECIFICATION FOR SURFACE GRINDING MACHINE

ISSUE NO : 06

DOC.NO: SCR-UT-002

REV : 02a SEP 2019

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TECHNICAL SPECIFICATION FOR SURFACE GRINDING MACHINE

Purpose:

The machine will be used for grinding of various tools, punches used in the production process of expanded metal manufacturing. Finishing grade required

Scope:

Scope involves supply and installation of Surface grinding machine

PARAMETER	DESCRIPTION		UNIT	BHEL REQUIREMENT
TABLE	WORKING CAPACITY Minimum (LENGTH X WIDTH)		mm	800x400
	Max. Distance from Spindle center to table		mm	700
	Minimum Magnetic Chuck Size (L x W)		mm	800x400
	Table Load Capacity (incl. Chuck) Minimum		kg	600
	T-Slots (Width X No)		mm	Bidder to indicate
LENGTH FEED (AUTO)	Travel (minimum)		mm	800
	Longitudinal feed rate		m/min	5~25
CROSS FEED	Travel Minimum		mm	400
	Hand Movement	per Hand-wheel Turn (maximum)	mm	6
		per Hand-wheel Division	mm	0.02
DOWN FEED	Automatic Down feed		mm	0.001 - 0.04
	Hand Movement	per Hand-wheel Division	mm	0.001
		Sparkouts No		Time
	Rapid Positioning (minimum)		mm/min	500
GRINDING WHEEL	Diameter x W x Bore		mm	Bidder to Indicate
	Wheel Speed		R.P.M	Bidder to indicate
	Type/ Grade			Bidder to indicate
MOTORS	Wheel Spindle		kW	Bidder to indicate
	Hydraulic Pump		kW	Bidder to indicate
	Down feed		kW	Bidder to indicate
POWER	Power Requirement		kVA	Bidder to indicate
DIMENSIONS	Length x Width x Height		mm	Bidder to indicate
WEIGHT	Net Weight		kg	Bidder to indicate

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DELIVERY PERIOD

1 Bidder to indicate

SUITABILITY FOR OPERATING CONDITIONS

1

System should work satisfactorily and within the defined parameters under the following operating and environmental conditions with specified accuracies:

1. Power supply: Voltage 415 V ± 10 %

2. Frequency: 50 Hz ± 2 %

Ambient conditions:

1. Temperature: 20 to 45 degree Centigrade

2. Relative humidity : Max 80%

Elevation of Bangalore: 920 m from mean sea level

Vendor to confirm that the machine is suitable for the above and details of provisions on the machine for the same are to be furnished by the vendor

INSTALLATION AND COMMISSIONING AND TRAINING

1

The Surface grinding machine will assembled and installed by the supplier. A chief erector including the necessary specialists shall be provided by supplier for the assembly and installation of complete work including electrical connections as required at BHEL.

2

All material handling equipments will be arranged by BHEL for transport and positioning within BHEL.

3

All costs of personnels of the supplier during assembly and commissioning including travel costs, hotel and allowance will be borne by the supplier. Costs of local transport of personnels of the supplier will be borne by the BHEL.

4

After successful installation and commissioning, training shall be provided to operators of BHEL

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TESTING AND ACCEPTANCE

1	BHEL, at its discretion, may depute officials for Pre dispatch inspection (PDI), or may waive PDI.
2	Demonstration of all the features of the Surface grinding machine control system and accessories. Operation and safety features shall be demonstrated
3	Tests/ activities to be carried out at BHEL works while commissioning of the Surface grinding machine
4	Training of BHEL operator/ maintenance personnel in operation and maintenance of complete machine and accessories by the supplier's engineers during commissioning period
5	Final Acceptance: Final acceptance shall be after installation and commissioning of the complete Surface grinding machine at BHEL by the vendor subjected to full compliance to set specifications and parameters. The criteria shall be satisfying all the clause of Technical specifications given above. The supplier shall perform a full scale trial run of the integrated line at BHEL premises. BHEL will arrange for requisite input materials and utilities like power, compressed air etc.

DOCUMENTATION TO BE PROVIDED ALONG WITH EQUIPMENT

Machine Manual	- Operation manual - Maintenance manuals - Recommended foundation details, floor area and working clearance for operation and maintenance - Programs and softwares
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Wiring
diagrams
and
Drawings

- Layout drawing
- Civil foundation drawing
- Drive diagrams
- Pneumatic diagrams if applicable
- Hydraulic diagrams
- Electrical diagram
- Recommended cable size and specification for providing electrical power supply
- Inlet size details for compressed air line

WARRANTY

1	12 months from the date of commissioning or 18 months from the date of supply whichever is earlier
2	Supplier to indicate replacement parts and consumables for 2 years continuous operation (24 hours/ day basis). During the period of warranty, these spares and consumables are the scope of supplier
3	List of spares and consumables to be provided along with techno-commercial offer

PRE QUALIFICATION CRITERIA

1	Bidder to submit company credentials to prove as OEM registration certificate as a manufacturer or any other document to establish that the Bidder is an OEM or authorized representative
2	Offer shall be for new equipment and not for any refurbished or used equipment
3	The vendor shall have local representative or office for providing after sales and services
4	BHEL reserves the right for independent verification of the compliance to PQR(Pre Qualification Requirement)

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SPECIFICATION REVIEWED AND APPROVED

NAME	SIGNATURE
AMARJYOTI SAIKIA	
RAVI Y	
S. ARUNACHALAM	
K. S. RAVISHANKAR	
PRATAP MUKHERJEE	
Purushothom CN	

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