

मिश्र धातु निगम लिमिटेड

(भारत सरकार का उपक्रम)

(मिनी रत्ना कम्पनी)

सूपर आलॉय्स प्लांट

डाकघर : कंचनबाग, हैदराबाद - 500058. भारत

दूरभाषा : 040-24343861, 24340149, 24340136

फैक्स : 040-24340764



AN ISO 9001 : 2008 COMPANY

PURCHASE DEPARTMENT
CIN : U14292TG1973GOI001660

MISHRA DHATU NIGAM LIMITED

(Govt. of India Enterprise)

(MINI RATNA COMPANY)

SUPERALLOYS PLANT

P.O. Kanchanbagh, Hyderabad - 500 058. India

Phone : 040-24343861, 24340149, 24340136

Fax : 040-24340764

CORRIGENDUM

Date: 06/02/2017

Subject: Corrigendum for including Technical Specification

Tender Ref. No: MDN/PUR/0660100/CG/ADVT/SAG/286/16-17

Tender Title: Rail Bound Semi Automatic Grinder

This has reference to subject Tender. The Corrigendum to the subject Tender is hereby issued. All participating bidders are requested to note the changes in respect of the above subject tender.

S. No.	Existing Document Reference	Clarification / to be read as
1	Part – II Technical Specification - 01 Page (Annexure – IV)	Part – II Technical Specification - 07 Pages as attached herewith (alongwith Annexures I, II, III)

It is advised that the above may please be taken into consideration while submitting your offer and others tender stipulation remains unchanged. You are advised to submit your offer accordingly.

For MISHRA DHATU NIGAM LIMITED


ADDL. GENL. MANAGER
(PURCHASE)

PART II: TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATION FOR RAIL BOUND SEMI-AUTOMATIC GRINDER FOR GRINDING/CONDITIONING INGOTS, BILLETS, BLOOMS, SLABS, RINGS ETC.

1.0 This technical specification covers the details of one rail bound semi-automatic grinder for grinding and conditioning ingots, billets, blooms, slabs, rings etc. of various sizes which is to be designed, manufactured, supplied and assistance provided for installation and commissioning.

2.0 The scope includes all mechanical equipment, hydraulic and lubrication systems, electrical and automation systems including the grinding swarf/dust collection system. The grinding table shall be in the scope of the buyer.

3.0 Major equipment in package

3.1 The grinding machine shall be used to remove scales and surface cracks from forged billets, blooms, slabs etc. The table below indicates the sizes, materials etc. of the different work pieces which have to be ground on this machine.

S	Material	Type	Size, mm
1	Special steels	Rounds (dia.)	250, 300, 400, 500, 600, 750
		Squares	140, 160, 180, 200, 250, 300, 400, 550, 750
		Slabs	350 X 200, 350 X 180, 350 X 160, 250 X 100, 450 X 650, 1000 X 2400
2	Super alloys	Rounds (dia.)	140, 160, 180, 200, 250, 300, 350, 400
		Rings	400 Dia. To 900 Dia. Wall thickness- 125, Height-100 to 300
3	Steels	Rounds and squares	100, 180, 200, 250, 350, 450, 550
		Slabs	1100 X 100thk. X 2500 1350 X 275 thk. X 2500

3.2 In addition to these the machine will also be used for grinding of ingots of various sizes ranging up to 1200 mm diameter. Since there is a wide range of materials of different types and sizes from rounds to squares, slabs and rings to be ground on this machine no standard material handling facility is included in the scope of supply of the supplier.

- 3.3 Since no moving table is envisaged in the design, the grinding machine is expected to be moving on rails to cover the entire length of the work piece. The travel length of the grinding machine shall be 8 meters. The grinding wheel pendulum shall have sufficient forward and backward movement to cover the maximum width of the work piece.
- 3.4 The grinding machine shall be designed to work reliably in dirty environments. The structures shall be heavy and rigid for minimum vibrations and maximum grinding quality.
- 3.5 The grinding machine shall be used for skin grinding, corner grinding and spot grinding. In spot grinding operation the operator shall be able to move the grinder and the wheel to the area of defects on the work piece with joy sticks and grind the area to the desired depth and pattern.
- 3.6 The grinding machine shall also be provided with a swarf collection booth which travels along with the main machine parallelly in separate rails. This arrangement shall be capable of trapping and collecting maximum grinding swarf.
- 3.7 The scope of supply includes any special tools required for fast grinding wheel changing. The scope of supply also includes the initial supply of grinding wheels (both rough and smooth, 10 numbers each) for demonstrating the performance of the machine.

4.0 The main features of the machine

- 4.1 The machine shall be highly productive at the same time flexible enough to take care of grinding of all the work pieces as described above.
- 4.2 The grinder shall be capable of ensuring constant pressure while following the contour of material being ground.
- 4.3 All machine parameters like grinding wheel speed, speed of grinding, pressure of grinding etc. shall be easily controllable from the operator's cabinet in order to optimize the process of grinding.
- 4.4 The machine must have a wheel drop safety system which shall prevent the free fall of the wheel while grinding when the wheel moves out of the work piece material surface.
- 4.5 The operator's cabinet shall be dust proof and environmentally controlled with minimum vibration and noise levels. The design shall ensure maximum comfort for the operator by ergonomic placement of all controls and provide outstanding visibility of the work area from the operator's cabinet. The PLC and HMI shall also be accordingly.

- 4.6 The equipment shall be provided with centralized lubrication system.
- 4.7 The electrical panels and hydraulic system components shall be arranged for easy functional checks with all components readily accessible for maintenance personnel.
- 4.8 All hydraulic valves shall be preferably of Rexroth make wherever possible.
- 4.9 The main grinding wheel drive motor shall be energy efficient type.
- 4.10 Grinding wheels used in the machine shall be of industry standards. The tenderer shall specify the details of grinding wheels for both rough grinding and finish grinding.

5.0 Utilities and services provided by the buyer

5.1 Electric power will be available in the shop as follows

- a. 11,000 volts, 3 phase, 50HZ
- b. 415/240 volts, 3 phase, 4 wire 50 HZ

5.2 Systems with transformer will be solidly grounded. Variation in supply voltage and frequency will be limited to $\pm 5\%$ and $\pm 3\%$ respectively. If any equipment is designed for a supply different from the above, the tenderer shall provide necessary transformers, conversion equipment etc.

5.3 Industrial quality water will be available at a temperature of 35°C and a pressure of 3 Kg/cm^2 at shop floor level. If any equipment is designed for a supply different from the above, necessary transformation equipment shall be provided by the supplier.

5.4 Compressed air for general shop use will be available at a pressure of 5 Kg/cm^2 . Clean instrument grade compressed air is not available in the shop. If instrument grade air is required, the offer shall include necessary equipment to obtain the same.

6.0 Scope exclusions: -All civil works required for foundation and building structures as per the supplier's drawings and specifications shall be in the scope of the purchaser. All material handling facilities like crane etc. shall also be in the scope of the purchaser.

7.0 Drawings and documents: - Three sets of operation instruction manual, programming manual and complete detailed maintenance manual and catalogues for all mechanical, electrical and hydraulic accessories shall be supplied. Detailed electrical manual containing details of electrical elements, control instruments and complete circuit diagrams. Hydraulic

Circuit Diagram along with all component drawings shall also be supplied in hard as well as soft copies.

- 8.0 Delivery- The delivery of all items in the scope of supply of the supplier shall be completed in 6 months from the date of contract.
- 9.0 Inspection- Purchaser shall conduct pre-dispatch inspection at supplier's works before the items are cleared for dispatch.
- 10.0 Erection and commissioning- The supplier shall provide supervision assistance for erection, start-up and putting into commissioning including performance tests.
- 11.0 Performance Tests- Performance tests shall be conducted on the supplied grinding machine to demonstrate its conformance to the standards and contract specifications. In addition to the demonstration of the obvious basic parameters like speeds, smoothness of operation, capability to grind in depth, surface finish, lengths, heights etc. the tenderer shall indicate any further tests that he envisages for demonstrating the performance of the equipment supplied by him. Purchaser shall issue Provisional Acceptance Certificate (PAC) after successful completion of these tests.
- 12.0 Guarantee- All equipment shall be guaranteed for workmanship and materials and satisfactory performance in accordance with the relevant clauses of the 'General Conditions of Contract'. The guarantee for performance shall cover individual items and systems including electrics for their ratings/outputs (as specified in the contract) as well as the integration of the equipment and the plant.

QUESTIONNAIRE TO BE FILLED IN AND SUBMITTED WITH OFFER

1. Supplier's name and address.
2. Quotation number and date.
3. The following information related to the equipment offered shall be specified
 - a. Grinder head stroke
 - i. Horizontal
 - ii. Vertical
 - b. Grinding wheel force (vertical)
 - c. Grinding wheel speed (for rough and smooth grinding etc. separately)
 - d. Grinding wheel drive motor HP:
 - e. Grinding wheels detailed specification (for rough grinding and finish grinding)
 - f. Grinding wheel availability in India
4. The special features of the machine offered. Detailed description is expected.
5. Total space required for installation including shed height and crane hook height (attach GA diagram for the facility)
6. Following Supporting documents substantiating eligibility to be submitted along with the offer:-
 - a. PO copies of similar or higher capacity supplies with similar scope done in the past five years.
 - b. Completion certificate of above orders from respective Clients.
 - c. Previous experience. List of similar plant/equipment supplied.
7. Supplier's representative in India, if any.

FORMAT FOR PRICE BID

Sl. No.	Description	Amount
1	Price for the equipment supply	
2	Price for supervision of erection and commissioning	

PRE QUALIFICATION CRITERIA:

Sl No	Pre-qualification Criteria	Documents for confirmation
1.	Eligible Party: a) Should have been established and operating in this field since 5 years before the date of this tender. b) Should not be a trading Company.	a) Certificate of incorporation issued by the Registrar of Companies with proof of address. b) Self-certification.
2.	Solvency Certificate: For Rs. 6 Cr. issued not earlier than six months from the date of this tender.	a) In case of Indian party to be issued by Nationalised or Scheduled Bank from India. b) In case of foreign party to be issued by Nationalised or Scheduled Bank from India or bank of repute from their own country.
3.	Annual Turnover: Rs. 30 Cr. for each of the last three financial years.	Audited Annual Accounts
4.	Net Worth: Should have positive net worth in each of the last three financial year.	Audited Annual Accounts
5.	Should have PAN/TIN/TAN/EXCISE Registration No	a) Copy of the registration certificates for Indian parties. b) In case of foreign parties, relevant tax and duties registration certificate from the countries where the company is registered.
6.	Technical experience: The tenderer should have supplied at least one semi-automatic billet grinder similar in specification in any of the last 5 years and the equipment shall be in running condition.	Relevant Contract document /Purchase order.
7.	Unconditional acceptance of all Commercial Terms and Conditions	Self-certified document to be submitted.