

Enquiry items along with quantities:

It. no.	Size & Item description	Technical requirement	Quantity in kg
1	100 mm dia X 2000 mm – 4000 mm LG.	Tool steel round as per BHEL Corp. Spec AA10821 (Rev02) Amd 01. Material inspection at source by BHEL / TPIA as per attached QAP No.: QA/HT/1040 Rev00.	8800
TOTAL			8800 kg

Quantity variation as per below:

For item 1 - Supplies quantity are to be restricted between 8800 kg & 7200 kg.

Pre-qualification criteria:

Sl. No.	Description of pre-qualification requirement	Vendor Response	
		Complied (YES / NO)	Supporting Documents required to accept compliance
1	Manufacturer of steel round bar/their authorized representative.		Relevant certificate of being Manufacturer / declaration of OEM/ declaration on company letter head else authorization letter with validity (for authorized representative). Firm name and address, email, contact no. etc. from whom bars intended to be supply to be furnished.
2	Vendors should have experience of Manufacturing, Material testing & supplying 1.5% manganese, chromium-tungsten, TOOL/DIE steel BAR- annealed (SPEC.AA10821), as per IS:3748, GR:T90MN6WCR2, annealed, SA105, AIAS1:01,ASTM A681-1990, GR T31501, BS465904-06-20221989, GR: 301 or comparable standard of tool/die steel, during last 7 years (ending last day of month previous to the one in which NIT is published)		Purchase order and Mill test certificate. In case of authorized dealer required documents of there OEM is also considered.
3	Company shall be certified with ISO 9001 or equivalent.		Valid certificate to be submitted. In case of authorized dealer, Valid ISO certificate of OEM is required.

Note:

1. BHEL has right to verify information / confirmation furnished by asking additional documents, proof etc.

ALL THE ABOVE POINT WISE PRE-QUALIFICATION REQUIREMENT ARE TO BE NECESSARILY ACCEPTED BY THE BIDDERS FOR THEIR OFFERS TO BE CONSIDERED FAILING WHICH OFFERS SHALL BE REJECTED.

MAKE IN INDIA format (to be filled by OeMs of the participating bidders)

BHARAT HEAVY ELECTRICALS LIMITED, BHOPAL
MATERIAL MANAGEMENT – STEEL DIVISION

For this Procurement, Government of India Public Procurement (Preference to Make in India), Order 2017 with its amendments and subsequent Orders issued by the respective nodal ministries shall be applicable even if issued after issue of this NIT but before finalization of contract/PO/WO against this NIT.

*As per the Provisions of this order, please submit **a self-certification complying with the conditions below on company letterhead duly signed by competent authority.***

I, hereby declare on behalf of M/s. that we are participating in the Enquiry No. floated by BHEL, Bhopal (MP), India and shall comply with following:

1. Public Procurement (Preference to Make in India), Order 2017 *with its amendments* and subsequent Orders issued by the respective nodal ministries shall be applicable even if issued after issue of this NIT but before finalization of contract/PO/WO against this NIT.

(a) A supplier will be treated as **Class-I Local Suppliers**, if the items quoted by bidder have local content equal to or more than 50%.

(b) '**Local Content**' means the amount of value added in India, which shall be total value of item quoted (excluding net domestic indirect taxes) minus the value of imported content in the item (including all custom duties) as a proportion of the total value, **in percent**.

2. I hereby declare that our firm qualifies as **Class-I Local Suppliers**.

a. The Local Content in the items quoted under this Enquiry is Percent

b. Details of location(s) in India where this value addition shall be done, is/are as follows:

- (a)
- (b)
- (c)

(.....)

For M/s.

(Seal & Sign)



CORPORATE PURCHASING SPECIFICATION

AA 108 21

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1.5% MANGANESE - CHROMIUM - TUNGSTEN TOOL AND DIE STEEL
BARS - ANNEALED

1. **GENERAL:**

This specification governs the quality of annealed 1.5% Manganese-Chromium-Tungsten Tool and Die Steel Bars for cold work.

2. **APPLICATION:**

For the manufacture of cold work tools capable of being hardened and tempered.

3. **CONDITION OF DELIVERY:**

Hot rolled/Forged and annealed.

The bars shall be supplied with ends square and true.

The bars shall be supplied in straight lengths without twists and bends.

4. **COMPLIANCE WITH NATIONAL STANDARDS:**

The material shall comply with the requirements of:

IS: 3748-1990		
Gr: T90Mn6W Cr2		Tool And Die Steels
Annealed		

5. **DIMENSIONS AND TOLERANCES:**5.1 **Sizes:**

Bars shall be supplied to the dimensions specified on the order.

5.2 **Tolerances:**5.2.1 **Hot Rolled Bars:**

The tolerances on hot rolled bars shall comply with those of Grade 2 of IS: 3739, reproduced below:

5.2.1.1 **Round And Square Bars:**

The permissible deviation in size for hot rolled round and square bars shall be as follows:

Revisions: Ref. Cl. 16.2.59 of MOM of MOM (S&GPS)			Approved: INTERPLANT MATERIAL RATIONALISATION COMMITTEE - MRC (S&GPS)		
Rev. No. 02	Rev. Date Aug. '92	Revised: BHOPAL	Prepared TIRUCHY	Issued CORP. R&D	Date DEC. '77

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Nominal Size, mm		Tolerance, mm	
Over	Upto & incld.	Permissible deviation	Out of round or out of square
--	25	± 0.50	0.50
25	50	± 0.75	0.75
50	80	± 1.00	1.00
80	100	± 1.25	1.25
100	125	± 1.50	1.50
125	160	± 2.00	2.00
160	200	± 2.50	2.50

5.2.1.2 Flat Bars:

The permissible deviation in size for hot rolled flat bars shall be as follows:

Nominal width, mm			Tolerance, mm		
Over	Upto & incld.	on width	On thickness		
			6 to 13 incld.	Over 13 to 25 incld.	Over 25 to 50 incld.
--	50	± 1.0	± 0.5	± 0.8	± 1.0
50	100	± 2.0	± 0.5	± 1.0	± 1.5
100	150	± 3.0	—	—	± 2.0

5.2.1.3 Straightness For Hot Rolled Bars:

The permissible deviation shall not exceed 5 mm in any 1000 mm length of the bar.

5.2.2 Forged Bars:

Tolerance on size for forged bars shall be +8 percent of the size.

5.3 Length:

Bars shall be supplied in 2 to 4 metres length or in multiples with maximum of 10 percent shorts down to 1 metre.

6. MANUFACTURE:

Material shall be manufactured from fully killed steel.

Sufficient reduction and discard shall be made from each ingot to ensure freedom from piping, segregation and other defects.

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The material shall be rough machined, chipped or ground to remove all surface imperfections which are likely to produce defects in the finished product.

If the material is conditioned by grinding or chipping, depth of conditioning shall not exceed half the machining allowance per side and width of conditioning shall be atleast four times its greatest depth.

7. FREEDOM FROM DEFECTS:

The material shall be free from defects such as seams, flakes, laps, cracks, pipes, bursts, excessive non-metallic inclusions and injurious metallic segregates.

Total decarburization shall be kept at the minimum level and in no case shall exceed 80 percent of the machining allowance.

8. CHEMICAL COMPOSITION:

The melt analysis of steel and the permissible variation in the composition of the finished product from the melt analysis shall be as follows:


Element	Percent		Permissible variation percent, max.
	Min.	Max.	
Carbon	0.85	0.95	± 0.03
Silicon	0.10	0.35	± 0.03
Manganese	1.25	1.75	± 0.06
Chromium	0.30	0.60	± 0.05
Tungsten	0.40	0.60	± 0.04
Vanadium *	-	0.25	+ 0.02
Sulphur	-	0.035	+ 0.005
Phosphorus	-	0.035	+ 0.005

* Optional

Note:

Elements not quoted above shall not be added to the steel, other than for the purpose of finishing the melt and shall not exceed the following limits:

Element	Percent, Max.
Nickel	0.25
Molybdenum	0.25
Copper	0.35
Cobalt	0.10
Tin	0.05

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9. TEST SAMPLES:

One sample product shall be taken from each melt for chemical analysis.

For hardness test 5 percent of the number of pieces in the charge upto a maximum of 10 and minimum of 2 covering all sizes shall be taken.

10. MECHANICAL PROPERTIES:

Hardness (Brinell): As Received Condition:

When tested in accordance with IS: 1500, the test pieces shall show a Brinell hardness of 230 HB maximum.

11. RESPONSE TO HEAT TREATMENT:

Bars shall be capable of repsonding to the heat treatment specified below and the material must achieve a minimum Rockwell hardness of 61 HRC without showing any sign of overheating.

Harden in oil at temperature of 800 - 830°C.

Temper at a suitable temperature between 170 - 300°C.

12. TEST CERTIFICATES:

Three copies of test certificates shall be supplied unless otherwise stated on the order.

The test certificate shall bear the following information:

BHEL References:

AA 108 21 : Rev. No. 02

BHEL Order No.

Supplier's References:

Name.

Identification No.

Melt No.

Details of heat treatment.

Results of Tests:

Results of dimensional inspection.

Results of chemical analysis and hardness tests in annealed and hardened and tempered conditions.

13. PACKING AND MARKING:

The bars shall be suitably packed in bundles to prevent corrosion and damage during transit.

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Bars of sizes upto and incl. 45 mm shall be bundled together.

Bars above 45 mm in diameter or of equivalent cross-sectional area shall be stamped 'AA 108 21' and Melt No. on the side near the end or on the end face.

A metal label shall be securely attached to each bundle and shall bear the following information.

AA 108 21 : 1.5% Mn-Cr-W Tool & Die Steel Bars - Annealed

BHEL Order No.

Consignment or Identification No.

Melt No.

Size & Weight.

Supplier's Name.

[illegible]

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Annexure-1

DECLARATION (To be given by Bidder)

GeM Bid No.....

Item Description:

With reference to above reference bid, we M/s..... (Bidder's Name)
confirm/declare the following.

1. Quoted Make-.....
2. We are OEM or Reseller -
3. Valid OEM Authorization certificate with OEM's Contact Details attached (In case of reseller)
- Yes / NA
4. We confirm Nil deviation from GeM bid document (NIT).

Note:

1. OEM details such as name, designation, address, e-mail Id and Phone number required to be furnished along with the technical bid. (also refer ATC clause).
2. Commercial Deviation/deviation in delivery shown separately or found hidden in the offer, will not be taken cognizance of.

(Vendor's Seal & Sign)