



BHARAT HEAVY ELECTRICAL LIMITED

Indent No:	20155663	
Enquiry No. :		
Due Date :		
Supplier No.:		
Specification Rev. No :		
Rev. Date:		

UNIT'S ADDRESS: HEEP, BHEL, Haridwar

UNIT'S PHONE NO.:

SPECIFICATION CUM COMPLIANCE CERTIFICATION FOR

CAST IRON BED PLATES WITH T SLOT GROOVES ALONG WITH ANCHORING BOLTS AND JACKING SCREWS

NOTE:-

1. Vendor must submit complete information against clause no. 8.0 (Qualifying Conditions). The offer meeting this clause would only be processed.
2. The "Offered" Column and where applicable, the "Deviations" & "Remarks" Column of this format shall be filled in by the Vendor and submitted along with the offer. Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specifications/requirements shall be treated as non-compliance.
3. The offer and all documents enclosed with offer should be in English language only.
4. All dimensions are in mm unless otherwise stated.

SCOPE : SUPPLY, ERECTION & COMMISSIONING OF CAST IRON BED PLATES, SIZE 3000 MM X 1500 MM X 200 MM AS SPECIFIED BELOW

SCOPE: SUPPLY, ERECTION & COMMISSIONING OF CAST IRON BED PLATES


SNO	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / CONFIRMED BY	OFFERED	DEVIATIONS	REMARKS
1	PURPOSE: Bed plates are required for assembly & clamping of various components of fabricated assemblies.	Vendor to Confirm			

(Signature)
22/01/16

(Signature)

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SNO	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / CONFIRMED BY	OFFERED	DEVIATIONS	REMARKS
2	SPECIFICATION:				
2.1	Cast iron bed plates shall conform to IS:10602-1983/reaffirmed-2005, Grade-II. It shall be made from plain grey iron castings conforming to grade FG:200 of IS:210-1993. Min. tensile strength 200MPa & Brinell Hardness 160-220HBW. Material test certificates as required by the Indian Standard shall be submitted along with the supply.	Vendor to Confirm			
2.2	Individual Bed plate size (approx) 3000mm X 1500mm X 200mm (LXBXH) - 22H12 -II IS:10602. Levelling arrangement and joining of floor plates as per Type B of Appendix A of same IS.	Vendor to Confirm			
2.3	Total No. of bed plates: 06	Vendor to Confirm			
2.4	Total area of 6 nos of bed plates will be 6mX4.5m. Please ref layout of bed plates.	Vendor to Confirm			
2.5	Minimum load bearing capacity should be 5 TON/ square metre	Vendor to Specify			
2.6	Pitch distance of T-slots shall be 375±0.8 as per IS 2013: 1995/reaffirmed-2005. End T slots shall be at 187.5 mm from the edges. T-slots will be along the length of the bed plate.	Vendor to Confirm			
2.7	General Tolerance shall be as per as per IS:2102 (part 1):1993/reaffirmed-2003 "Medium"	Vendor to Confirm			
2.8	Unspecified as cast dimensional tolerances shall be as per IS:5519: 1979, reaffirmed 2005, class II	Vendor to Confirm			
2.9	Casting shall be sound and free from any defects, blow holes, cracks etc. NDT to be used to ensure surface and sub surface defect.	Vendor to Confirm			
2.10	No welding on any casting defect will be allowed at any stage of manufacturing.	Vendor to Confirm			
2.11	Cast surfaces shall be fetteled, shot blasted and dressed.	Vendor to Confirm			
2.12	The bed plates shall be marked at an appropriate place with designation and the manufacturer's name and trade-mark.	Vendor to Confirm			
2.13	To facilitate proper evaluation of the offer, Sketches / Drawings / Catalogues etc. showing all details (of the offered bed plate) shall be submitted by the vendor.	Vendor to Specify			
2.14	No defects shall reveal after finish machining of the bed plate.	Vendor to note			
3	Flatness Accuracy				



 22/01/16
 (JAN RAJAN)

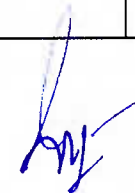


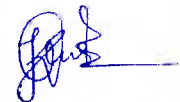


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SNO	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / CONFIRMED BY	OFFERED	DEVIATIONS	REMARKS
3.1	The flatness accuracy of each bed plate shall be within value as per grade-II, IS:10602. Accuracy shall be checked using precision calibrated straight edge and feeler gauges linearly anywhere on the working surface during manufacture and during pre-dispatch inspection by BHEL at their works. Inspection certificates with traceability shall be furnished by the vendor along with the bed plates.	Vendor to Confirm			
3.2	A border zone of 20 mm width from the edges of plate, T-slots, holes or cored opening on the top working surface shall be excluded from the requirement of surface flatness accuracy provided no points within any of the border zone shall project higher than the remainder of the working surface of the floor plate.	Vendor to Confirm			
4 CONSTRUCTION:					
4.1	Details of wall thickness, ribbing pattern, levelling pockets and method to join the plates shall be informed by the vendor. Drawing of finished floor plate shall be prepared and submitted by vendor alongwith the offer.	Vendor to Specify			
4.2	12 nos. top accessed holes (Ref Table-1 of IS:10602) for anchoring and levelling shall be provided. The access holes for levelling shall be closed using heavy covers with rubber O rings to avoid entry of coolants, dust, chips etc. into the pockets.	Vendor to Confirm			
4.3	The bed plates shall be finish machined on their top working surface as well as four sides at their periphery. Top surface may be hand scrapped to achieve the specified flatness accuracy. The cast iron bed plates shall be free from cracks, burrs, pits and other defects.	Vendor to Confirm			
4.5	All non machined surfaces shall be enamel painted. All machined surfaces shall be covered with good quality solvent dissolvable anti rust compound.	Vendor to specify and confirm			
4.6	There should a suitable provision of pouring concrete at the time of grouting of foundation bolts of bed plates. Same should be mentioned in the drawing & submitted alongwith the offer.				
5 LEVELING & ANCHORING SYSTEM					
5.1	Levelling arrangement and joining of floor plates as per Type A of Appendix A of same IS:10602 1983/2005. All jacks, supports, fasteners, clamping elements etc. required for grouting, levelling and joining of each plate on all the four sides, shall be specified and included in the offer but quoted separately.	Vendor to Confirm			


 22/01/16
 (SUNU RAJESH)





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6.0	Foundation details along with dimensioned drawing shall be submitted by the vendor within one month after placement of purchase order. Civil work as per the details given by the vendor shall be done by BHEL under supervision of vendor. Soil condition at BHEL, Haridwar is mentioned below :	Vendor to confirm & note			
a)	Soil strata : Silty sand up to 2.5 meter depth				
b)	Average density of soil = 1.8 T/cubic m				
c)	Angle of internal friction = 35° (up to 3.0 m depth)				
d)	Coefficient of elastic uniform compression "Cu" = 3.0 Kg/cubic cm (at 7m depth for 10sq.m base area and 1.0 Kg/sq.cm confining pressure)				
e)	Bearing capacity at 1.5 meter depth = 10T/sq.m				
f)	Water table = 25 meter below ground level				
7	INSPECTION				
7.1	Pre-Dispatch Inspection: Provisional acceptance of the Bed plates shall be made by BHEL at vendor's work prior to dispatch. Test certificates, Specification compliance and flatness accuracies of the individual bed plates shall be checked and verified.	Vendor to confirm			
8	PACKING: Bed plate (s) shall be supplied in suitable packing (s) to avoid damage during handling, transportation and storage.	Vendor to confirm			
6	ERECTION & COMMISSIONING				
6.2	Supplier to take full responsibility for carrying out the erection. Service requirement like crane/ helping personnel/ power shall be provided by BHEL but should be informed by supplier in advance.	Vendor to Confirm			
6.3	The complete levelling and clamping of all bed plates shall be done by vendor. Flatness accuracy after assembly shall be 0.05mm/m.	Vendor to Confirm			
6.4	Tools, instruments and other necessary equipment required to carry out all above activities should be brought by the supplier.	Vendor to Confirm			
7.0	WARRANTEE :				
	Vendor shall provide full and complete warrantee for two years trouble free performance after successful commissioning.	Vendor to confirm			

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SNO	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / CONFIRMED BY	OFFERED	DEVIATIONS	REMARKS
8.0	QUALIFYING CONDITIONS :				
8.1	The vendor should have experience of manufacturing same /nearly similar size Bed plates and should provide reference list of customers to whom bed plates of same / nearly similar sizes have been supplied in the past five years, mentioning contact person of the customer, broad specification, flatness accuracies achieved & year of supply. BHEL reserves the right to verify the references of the customer submitted by the vendor alongwith the offer. Note: Items like surface plate/sole plate/box support plate will not be consider as bed plate.	Vendor to confirm & submit			
9.0	POINT WISE CONFIRMATION :				
	Vendor should confirm /clarify point wise (All the points) as per specification at the first instance in the offer.	Vendor to note			
10	GENERAL : The vendor should submit the following information:				
10.1	Weight of the bed plate.	Vendor to specify			

22/01/16
 (Sd/-) PRAKASH
 SE (W&A REC/EN)

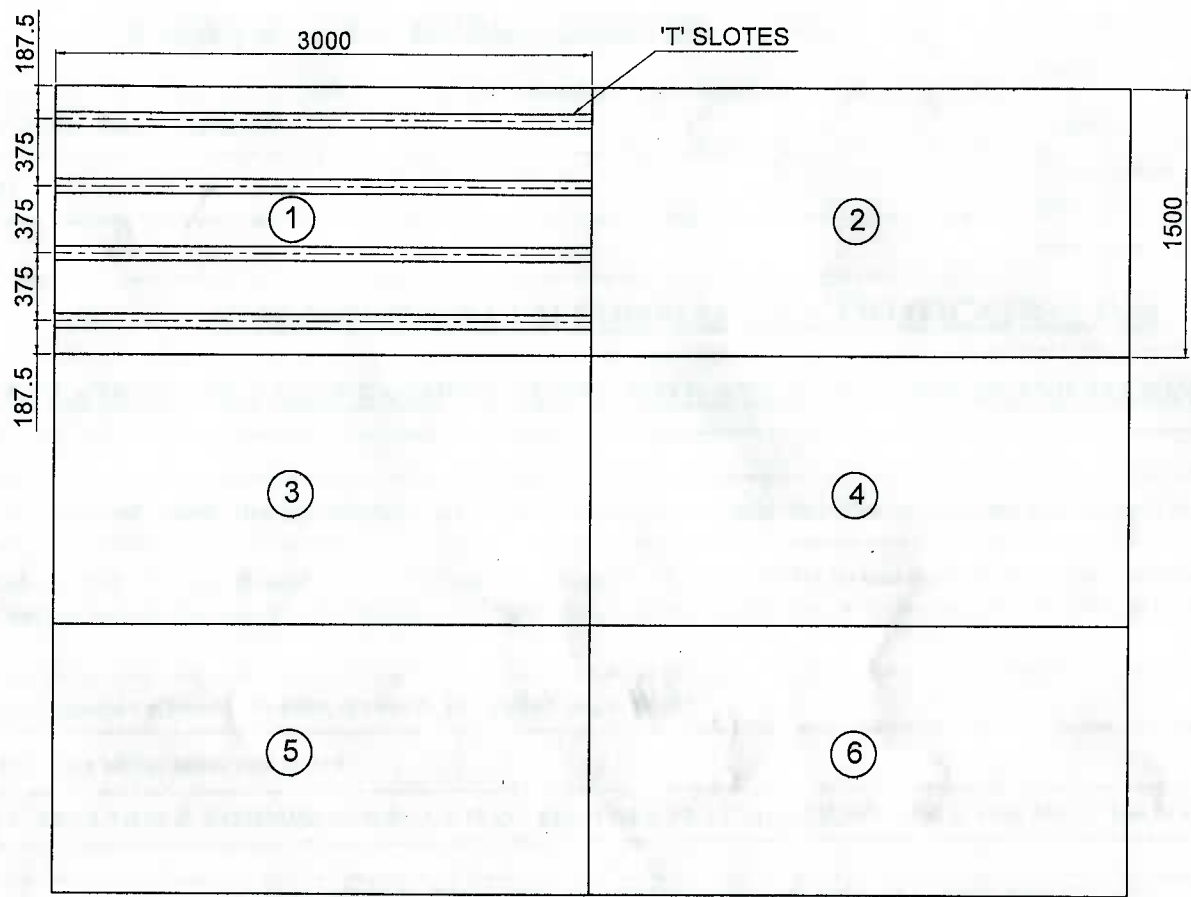
21.01.2016
 Parmanand Pandit
 (JE/BF-2)

21/01/16
 Jitendra Kumar
 (SE/PWT)

BSM
 23.1.16
 (BS Army)
 AGA-WT

Head, Agm(WT)  23/1/16

LAYOUT OF BED PLATES



(Signature)
22.01/16
(Shu RANSEN)

(Signature)
21.01.2016
Pammanand hand
(SE/MA-2)

(Signature)
21/01/16
Jitendra Kumar
(SE/PWT)

- TR:-
1. ALL DIMENSIONS ARE IN MM.
 2. SIZE OF EACH BED PLATE-3000x1500x200