



**Annexure-I to Enquiry No. 1516-078 Dated 19.08.2015, Due date 09.09.2015**

**Un-Price Bid Format**

Item Sl. No.	Material Code	Description	Enquiry quantity, Nos.	Drawing No.	TSB No. / TDC No.	Quoted (kindly tick)
1	417044002500	SPLIT PIN-4x25 -IS:549	900	--	IS-549	Yes / No
2	417110251200	SPR DWL SLEEVE-2.5x12 -IS5988-L	1500	--	IS-5988	Yes / No
3	417090302400	DRIVE PIN-3x24 -40C8-IS7368-FLGRV	1200	--	IS-7368	Yes / No
4	417110603200	SPR DWL SLEEVE-6x30 -IS5988-L	5000	--	IS-5988	Yes / No
5*	419020002400	EXT CIRCLIP-A24 -IS3075P1-N-d22.2	200	--	IS-3075(P-1)	Yes / No
6*	419020002000	EXT CIRCLIP-A20 -IS3075P1-N-d18.5	150	--	IS-3075(P-1)	Yes / No
7*	419020003800	EXT CIRCLIP-A38 -IS3075P1-N-d35.2	2000	--	IS-3075(P-1)	Yes / No
8*	419020001900	EXT CIRCLIP-A19 -IS3075P1-N-d17.5	2200	--	IS-3075(P-1)	Yes / No
9*	417508002000	SELF LOCK NUT-M20 -SPR-GALV	600	--	BPS 417508	Yes / No
10*	417508001600	SELF LOCK NUT-M16 -SPR-GALV	800	--	BPS 417508	Yes / No
11*	417508001200	SELF LOCK NUT-M12 -SPR-GALV	650	--	BPS 417508	Yes / No
12	170313020000	MALE & FEMALE ELBOW-A4-1/2"	1400	--	IS:1879-1987	Yes / No
13	170430110000	BEEDED PLUG T9 - 1/2"	600	--	BPS 718501	Yes / No
14	417090503200	DRIVE PIN-5x32 -IS7368-FLGRV	3000	--	IS-7368	Yes / No
15	417100602400	DRIVE PIN-6x24 -40C8-IS7385-HFGRV	2600	--	IS-7385	Yes / No
16	963533370000	SCREW PLUG M33X2	2200	--	TSB064/02	Yes / No
17	961331900000	BUTTON - CABLE STRAP	5000	--	TSB048/02	Yes / No
18	961330020000	RING TERMINAL 1.5 (M4) TCI-129	50000	--	TDC:5:196/00	Yes / No
19	550173970000	BALL D4-2253	1500	4V225304046/00	TSB047/02	Yes / No
20	417110253200	SPR DWL SLEEVE-2.5x32 -IS5988-L	1000	--	IS-5988	Yes / No
21	417042001600	SPLIT PIN-2x16 -IS549	3000	--	IS-549	Yes / No
22	961384690000	CABLE MARKER-2.5 Sq MM- "R"	10000	--	--	Yes / No
23	961330010000	RING TERMINAL 2.5(M4) TCI-129	9800	--	TDC:5:196/00	Yes / No
24	961330030000	RING TERMINAL 2.5(M5) TCI-129	11000	--	TDC:5:196/00	Yes / No
25	419020007000	EXT CIRCLIP-A70 -IS3075P1-N-d65.5	1000	--	IS-3075(P-1)	Yes / No



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Item Sl. No.	Material Code	Description	Enquiry quantity, Nos.	Drawing No.	TSB No. / TDC No.	Quoted (kindly tick)
26	220736460000	END COVER 69-BPS:6119-0120-41	1000	--	BPS DRG-6119-0120	Yes / No
27	170430240000	PLAIN PLUG-1/8 -T8-BPS718515	800	--	BPS 718515	
28	220744630000	TUBE END COVER INT DIA 27- BPS 6119-0120	1000	--	BPS DRG-6119-0120	Yes / No

*\* Please note that the item Sl. Nos. 05, 06, 07, 08, 09, 10 & 11 are reserved for MSE suppliers.*

Excise Duty rate (ED)	Whether Excise Duty is applicable? (kindly tick)	Applicable / Not applicable
	If ED is applicable, kindly tick whether it is Extra / Inclusive	Extra / Inclusive
	% age rate of ED (if applicable)	<i>Please mention clearly&gt;&gt;</i>
CST (%) / VAT (%) rate	Tick whichever is applicable	CST / VAT
	% age rate (if CST / VAT is applicable)	<i>Please mention clearly&gt;&gt;</i>
	If CST is applicable, please mention whether it is with 'C' form?	Yes / No
	Whether you are MSE firm?	Yes / No
<b>For availing MSE benefits</b> ( <i>if any of the row remains un-filled, then the corresponding benefits will not be provided to the bidder</i> )	In case of MSE, please mention whether you have attached hard copy of MSE Documents attested by Notary / Gazatted officer?	Yes / No
	Whether the owner of MSE firm belongs to SC /ST category?	Yes / No
	Delivery destination (FOR Goindwal Sahib basis)	<i>Please accept&gt;&gt;</i>
Validity of offers ( <b>As per BHEL terms 60 days validity is required</b> )	<i>Please accept&gt;&gt;</i>	

The above prices are **Firm, without any price eslation; are Rs. per piece; and are on FOR Goindwal Sahib basis.**

We accept all terms and conditions of the Tender Enquiry No. 1516-078 Dated 19.08.2015

Authorised signatory with seal



**Annexure-II to Enquiry No. 1516-078 Dated 19.08.2015, Due date 09.09.2015**

**Price Bid Format**

Enq Sl. No.	Material Code	Description	Enquiry quantity, Nos.	Drawing No.	TSB No. / TDC No. / Standard	Unit Basic Price, Rs. per piece <i>(to be filled by bidder)</i>	
						In Words	In Figures
1	417044002500	SPLIT PIN-4x25 -IS:549	900	--	IS-549		
2	417110251200	SPR DWL SLEEVE-2.5x12 - IS5988-L	1500	--	IS-5988		
3	417090302400	DRIVE PIN-3x24 -40C8-IS7368-FLGRV	1200	--	IS-7368		
4	417110603200	SPR DWL SLEEVE-6x30 -IS5988-L	5000	--	IS-5988		
5	419020002400	EXT CIRCLIP-A24 -IS3075P1-N-d22.2	200	--	IS-3075(P-1)		
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9	417508002000	SELF LOCK NUT-M20 -SPR-GALV	600	--	BPS 417508		
10	417508001600	SELF LOCK NUT-M16 -SPR-GALV	800	--	BPS 417508		
11	417508001200	SELF LOCK NUT-M12 -SPR-GALV	650	--	BPS 417508		
12	170313020000	MALE & FEMALE ELBOW-A4-1/2"	1400	--	IS:1879-1987		
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						In Words	In Figures
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19	550173970000	BALL D4-2253	1500	4V225304046/00	TSB047/02		
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21	417042001600	SPLIT PIN-2x16 -IS549	3000	--	IS-549		
22	961384690000	CABLE MARKER-2.5 Sq MM-"R"	10000	--	--		
23	961330010000	RING TERMINAL 2.5(M4) TCI-129	9800	--	TDC:5:196/00		
24	961330030000	RING TERMINAL 2.5(M5) TCI-129	11000	--	TDC:5:196/00		
25	419020007000	EXT CIRCLIP-A70 -IS3075P1-N-d65.5	1000	--	IS-3075(P-1)		
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28	220744630000	TUBE END COVER INT DIA 27-BPS 6119-0120	1000	--	BPS DRG-6119-0120		

Nothing except prices will be entertained in part-II of tender.

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**SPECIAL TERMS AND CONDITIONS FOR**  
**(Tender Enquiry No. 1516-078 Dated 19.08.2015 Due date 09.09.2015)**  
**ITEM: Supply of Miscellaneous items**

<b>Tender Enquiry No</b>	<b>1516-078</b>
<b>Enquiry date</b>	<b>19.08.2015</b>
<b>Last time and date of tender submission</b>	<b>1500 Hrs 09.09.2015</b>
<b>Tender opening time and date</b>	<b>1530 Hrs 09.09.2015</b>
<b>Quotation Parts</b>	<b><i>Two-part Bid</i></b>
<b>Item Description</b>	<b><i>Supply of Miscellaneous items</i></b>
<b>Item Specification</b>	<b><i>As per tender enquiry Annexure-I</i></b>
<b>Delivery schedule (In days)</b>	<b><i>50% within 02 months and balance within next two months of placing PO/LOI</i></b>
<b>Validity of offer (In days)</b>	<b><i>60 days</i></b>
<b>Quantity Variation</b>	<b><i>Not applicable</i></b>

<b>Documents required along with supply of material</b>	
<b>1. Test Certificate</b>	<b><i>Required</i></b>
<b>2. Compliance Certificate</b>	<b><i>Required</i></b>
<b>3. Third Party Inspection Report</b>	<b><i>Required</i></b>

## **Pre-qualification criteria**

### **P1. Technical**

Bidders should primarily be engaged in manufacturing or supply of same/similar type of product. Supplier need to submit Purchase Order(s) (Not older than Dt. 01.04.2012) copy/ies of same/similar type of product as per required IS, having cumulative value not less of Rs. 1 lakh.

  
19/8/15



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**SPECIAL TERMS AND CONDITIONS FOR**  
**(Tender Enquiry No. 1516-078 Dated 19.08.2015 Due date 09.09.2015)**  
**ITEM: Supply of Miscellaneous items**

**SPECIAL TERMS**

**S1. QUOTATION SUBMISSION**

Tenders in two part bids are invited from manufacturers / dealers for supply of Miscellaneous items. Following point need to be noted by manufacturers and dealers as follows-

**For manufacturers-**

**Procurement shall be preferred from manufacturers. In case manufacturer insist on engaging a dealer/ agent, such dealer/agent is not allowed to represent more than one manufacturer .**

**For dealers-**

**In case of dealers/agents, Authorized dealer certificate is required from original manufacturer for this tender. In case bids are received from dealer/agent and manufacturer both, bid submitted by dealer will be rejected. A dealer representing more than one manufacturer will be rejected.**

Sealed tenders in two parts; Part-I: Techno-commercial bid and Part-II: Price bid are hereby invited supply of 'Miscellaneous items' as per tender enquiry. The relevant documents are attached with the Enquiry.

The two bids should be submitted in **separate sealed inner envelopes** duly mentioning the detail as follows:

Bid	Bid description	Superscribing envelope	*** Should contain ***
Part I in First sealed envelope	Techno-Commercial Offer	Part-I (Techno-Commercial) bid against tender enquiry no:1516-078 dated 19.08.2015 Due date 09.09.2015.	1. Acceptance of all terms and conditions of tender enquiry. (Preferred is submitting signed copy of terms and conditions; if nothing is mentioned for any term, it shall be summarily concluded that the same is acceptable and no representation whatsoever shall be entertained later on). 2. <b>Un-priced</b> bid as per format attached. <b>All details, i.e. whether quoted for item, duties and taxes etc. should be filled.</b>
Part II in Second sealed envelope	Price Bid	Part-II (Price) bid against tender enquiry No: 1516-078 dated 19.08.2015.	<b>Price bid in the format attached.</b> <b>Anything other than prices mentioned in the price bid shall be considered invalid</b>

Both the sealed envelopes should be put in outer sealed envelope superscribing all details i.e. Enquiry Number, Date, Supplier's Name and Address and Item.

**S2. LOADING CRITERIA CUM COUNTER OFFER**

No counter-offer will be given in the tender.

**S3. Fraud Prevention Policy**

"The Bidder along with its associate/collaborators/sub-contractors/sub vendors/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhelcom> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice."



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**SPECIAL TERMS AND CONDITIONS FOR**  
**(Tender Enquiry No. 1516-078 Dated 19.08.2015 Due date 09.09.2015)**  
**ITEM: Supply of Miscellaneous items**

**Checklist and sequence of documents to be submitted in two parts bids**

S. No.	Documents	Status
1	<p>Part-I envelope should contain:</p> <p>(1) Techno-Commercial bid (2) Authorized dealer certificate if any (3) Purchase Order(s) (Not older than Dt. 01.04.2012) copy/ies of same/similar type of product as per required IS having cumulative value not less of Rs. 1 lakh</p> <p>These documents should be contained in a separate envelope superscribing tender enquiry detail, due date of opening, sender's address.</p>	<p>Sealed envelope marked as Part-I "Techno-Commercial Bids"</p> <p>Yes, Sealed</p>
2	<p>Part-II envelope should contain Price Bid sealed in separate envelope superscribing tender enquiry detail, due date of opening, sender address</p>	<p>Sealed envelope marked as Part-II "Price Bid"</p> <p>Yes, sealed</p>
3	<p><i>All two sealed envelopes put in an outer envelope mentioning all details like Enquiry no., description, due date</i></p>	<p><i>Yes</i></p>

*18/8/15*



**General Contract Conditions (GCC)**  
of  
**MM Tenders**

**G1. INSTRUCTION TO BIDDER**

Quotations shall be submitted before due date and time. Late offers are liable to be rejected, so please ensure to submit bid well within due date and time. Techno-commercial part will be opened on due date.

**Based on evaluation of techno-commercial offers, Price bids of bidders who qualify from techno-commercial evaluation shall be opened. BHEL may decide to open the Price bid same day at 1700 hrs. If not opened on the same day, all qualifying bidders shall be notified for date of opening of Price bids by email/fax/post/courier.**

Sealed Tenders can be dropped in the tender box labeled as 'Tender box for MM contracts'. This tender box is located at the entrance of Admin block BHEL Goindwal. Fax (01859-222061) / E-Mail (tendermm@bhelivp.in) offers received in time shall be considered only when such offers are complete in all respects.

In case of bulky tender please handover quotation to Sh Harpreet Rai/ DGM/Head-MM or Sh Tajinder Singh/AGM/HR,Civil,MM.

**G2. INSTRUCTION TO BIDDER (In case of E-Procurement)**

The bidder shall submit his response through bid submission to the tender on e-Procurement platform at <https://bheleps.buyjunction.in>

- The bidder would be required to register on the e-procurement market place <https://bheleps.buyjunction.in> and submit their bids online. **Sealed cover bids / e-Mails / FAX / Manual offer will NOT be accepted.**
- The bidder has to keep track of any changes by viewing the addendum / Corrigendum's issued by the Purchaser on time-to- time basis in the E-Procurement platform. The Company calling for tenders shall not be responsible for any claims/problems arising out of this.
- The user should complete all the processes and steps required for bid submission. The successful bid submission can be ascertained once acknowledgement is given by the system through bid submission number after completing all the processes and steps. BHEL and mjunction Services Ltd. will not be responsible for incomplete bid submission by users. Users may also note that the incomplete bids will not be saved by the system and are not available for the Purchaser for processing.

Before uploading scanned documents, the bidders should sign on all the statements, documents, certificates uploaded by him, owning responsibility for their correctness / authenticity. If nothing is mentioned it is assumed that all terms and conditions are acceptable. If supplier is mentioning his rates in units not asked by BHEL, BHEL has the right to reject/accept quotation.

Quotations shall be submitted before due date and time. Techno-commercial part will be opened on due date. BHEL may decide to open price bids of bidders who qualify from techno-commercial evaluation, on the same day at 1700 hrs. If not opened on the same day, all qualifying bidders shall be notified for date of opening of Price bids.

**G3. PRICE BASIS**

- a. CST, VAT & Excise duty + any cess on ED at the rates applicable shall be payable extra against FD Gate Pass valid for CENVAT benefit.
- b. Order of enquiry item sl. No. shall be maintained in the quotation.
- c. The rates quoted shall be firm and fixed. No price variation is proposed and allowed.
- d. Rates quoted should be F.O.R Goindwal basis. If bidder has quoted Ex Works, loading shall be done as per BHEL discretion for tender evaluation.

**Variation in excise duty, sale tax/ vat or any other statutory levies during contractual delivery period shall be to BHEL's account**

**G4. VALIDITY OF OFFERS:**

*[Handwritten Signature]*  
18/12/15



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The offers shall be kept open for acceptance 'for number of days mentioned in special terms and conditions' from the date of opening of the tender. In case of extension of tender opening date, the validity shall be suitably revised.

**G5. SCOPE OF SUPPLY**

Material shall be supplied as per the applicable latest Technical Delivery Conditions (TDC)/ Material Standard requirements/BPS/Drawing and other requirement as given in the Tender Enquiry. National & International material Standards shall have to be arranged by vendors themselves.

**G6. REPLACEMENT OF REJECTION:**

If the material is rejected due to defective workmanship during inspection or at the time of actual use, within the guarantee period (i.e. as per clause 12); the rejected material shall be replaced by the supplier. Corresponding quantity shall be treated as unsupplied against respective purchase order till replacement is received at BHEL. If the material is found defective and rejected during use for which payment has already been released the rejected quantity shall be supplied free of cost by the vendor within a month of intimation of the rejection by BHEL.

Lifting of rejected material is under Supplier's scope. BHEL will inform related invoice, qty etc to supplier. Supplier is expected to give the plan to lift and advance intimation when visiting to lift the material. Material should be lifted within one month from date of intimation. After one month BHEL will not be responsible for rejected material. BHEL may decide to send the rejected material on To Pay basis to supplier. Any leniency/ unresponsiveness/delay on part of supplier may lead to appropriate action by BHEL. Any request to postpone in written may be considered but replacement should not be linked with lifting of material.

**G7. SUPPLIED MATERIAL ADJUSTMENT:**

Item/s pending in previous PO has to be billed in previous PO only. Otherwise BHEL will be free to adjust the supplies in previous PO. Any implication of Excise, VAT etc will be on supplier's account. For this it is desirable to reconcile the pending PO statement every month/frequently. BHEL will give pending PO statement every month. This can also be viewed at Portal (<http://vis.bheltry.co.in/mm/index.jsp>).

**G8. DELIVERY SCHEDULE:**

Supplies shall be affected and completed as per schedule mentioned in special terms and conditions. **Further, BHEL may release delivery schedule from time to time based upon our requirement with mutual understanding.** Vendor shall be required to complete the order as per the BHEL schedule requested.

**G9. ACCESS TO MANUFACTURING PREMISES:**

While Purchase Orders placed on the vendor are under execution, authorized representatives of BHEL shall be allowed free access to the manufacturing facilities for the purpose of inspection or monitoring the progress of purchase orders. This access will also be extended to representatives of BHEL's customers accompanying the authorized representative/s of BHEL (which shall be intimated in advance), if our contractual requirements with our customers call for the same.

**G10. TERMS OF PAYMENT:**

- a. Due payment against supplies received shall be due after 30 days of receipt and acceptance of material and shall be paid within next 15 days period. In case of any deviation from standard payment term mentioned, BHEL at it's discretion may load on the item price at "Base rate of SBI (as applicable on the date of bid opening; Techno-commercial bid opening) + 6% shall be considered for loading for the period of relaxation sought by bidders.
- b. Documents to be submitted (if applicable)
  - i. Commercial invoice (in duplicate)
  - ii. Excise invoice (in duplicate) valid for claiming CENVAT credit

*[Handwritten Signature]*  
19/10/2012



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- iii. Original VAT invoice valid for claiming input tax credit,
  - iv. Transporter copy along with material/consignment.
  - v. Material Test Certificates (MTC) and
  - vi. Compliance Certificate.
- c. Above documents should include your Registration numbers such as ECC no, PAN no, CST no, TIN/ VAT nos. etc.
- d. If excise claim document is not received <sup>within</sup> ~~in~~ time for claiming excise benefit as per restriction in availment of CENVAT Credit within ~~six~~ <sup>24</sup> months of date of Invoice (Amendments in Union Budget 2014, the implication of this will be paid by supplier.
- e. It is mandatory to mention proper material codes in the invoices and separate invoices to be raised for different POs.
- f. **BHEL releases payment through EFT mode ONLY. Necessary details may please be submitted by filling required format before release of payment.**

**G11. INSPECTION:**

- a. All required tests as called in referred material standard/BHEL/TDC/drawing etc shall be carried out by vendor at no extra cost. **BHEL may decide to inspect itself/arrange third party at vendors' works itself as and when necessary with prior intimation to the vendor.** No additional charges shall be claimed for such inspections.
- b. Third party inspection charges will be borne by BHEL. Moreover all required infrastructure (testing, tools etc) have to be arranged by supplier.
- c. **Vendor will give inspection call sufficiently in advance considering the delivery period stipulated in the purchase order.**
- d. Material Test Certificates (MTC), Inspection reports and Compliance/Guarantee Certificate are to be provided along with the supplies.
- e. Latest applicable revisions of standards/procedures to be referred. International/National standards are to be arranged by vendor.
- f. Any inspection carried out before supply by vendor/incoming stage at BHEL notwithstanding, if any defect/non-conformity is noted during processing, the same shall be attended/replaced by vendor at no extra cost.
- g. Necessary tooling including thread gauges etc have to be arranged by vendor. Only in exceptional cases, based on BHEL discretions item/nature, BHEL may consider request to provide gauges if available with BHEL. But in no case this shall be linked with delivery of material.

**G12. PREFERENCES FOR MSE's:**

Preferences as mentioned in "Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012" shall be given to Micro and Small enterprises.

Main points which are mentioned in the above order are as follows:

- 20% Procurement of the tender value shall be made from MSE (Micro, Small Enterprises) firms.
- 4% from the above mentioned 20% procurement quantity shall be procured from MSE's owned by SC /ST's. Failure to participate by any MSE owned by SC/ST's this 4% quantity shall be procured from other MSEs.
- EMD shall be exempted for MSE's. All these benefits are subject to production of all statutory documents
- In tender, participating Micro and Small Enterprises quoting price within price band of L1+15 per cent shall also be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than a Micro and Small Enterprise and such Micro and Small Enterprise shall be allowed to supply up to 20 per cent of total tendered value. In case of more

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10/12/12



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than one such Micro and Small Enterprise, the supply shall be shared proportionately (to tendered quantity).

**“MSE suppliers can avail the intended benefits only if they submit along with the offer, attested copies of either EM II certificate having deemed validity (five years from the date of issue of acknowledgement in EM II) or valid NSIC certificate or EM II certificate along with attested copy of a CA certificate (Format enclosed at Annexure -A where deemed validity of EM II certificate of five years has expired) applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the date of bid opening (Part 1 in case of two part bid). Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry if any deficiency in the above required documents is not submitted before price bid opening. If the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted officer.”**

**G13. GUARANTEE/WARRANTEE:**

Vendor shall give a guarantee of 18 months from the date of dispatch or 12 months from date of receipt, against manufacturing defects, whichever is earlier. In case of non-acceptance of this term bid will be rejected.

**G14. PENALTY FOR LATE DELIVERY:**

‘Time is the essence of the contract’. As such, delivery of goods specified in the Purchase Orders released under the scope of this contract shall be made within the time limit prescribed therein. Penalty for late delivery will be applicable @ 0.5% per week or part thereof subject to a maximum of 10.0 %.

If any vendor does not accept LD ½% of the supply for each week of delay subject to a maximum of 5%, their offer is likely to be rejected by BHEL and the price bid shall not be opened. Bidders accepting for 10% LD shall not be loaded on account of LD. However bidders who offer any other % LD [between 5% to 10%] shall be loaded @ % deviation from 10% and their accepted %.e.g. If a bidder accepts for a max of 7% LD only, their offer would be loaded @ 3% (10 – 7 = 3).

BHEL reserves the right to receive or not receive the material after the due date of PO.

**G15. RISK PURCHASE:**

BHEL shall be entitled to terminate the contract/pending POs at any stage and to purchase elsewhere at the risk and cost of the vendor, either the whole of the goods or any part thereof which the supplier has failed to deliver or dispatch within the time stipulated as aforesaid. Vendor shall be liable for the losses, which BHEL may sustain by way of such risk purchase.

**G16. SUB-CONTRACT:**

The purchase order or any part thereof shall not be sub-contracted, assigned or otherwise transferred without previously obtaining the BHEL's consent in writing.

**G17. FORCE MAJEURE:**

If at any time during the continuance of the contract, the performance in which or in any part by either party of any obligations under the contract are prevented or delayed by reason of any war, hostilities, acts of public enemy, civil commotion, sabotage, fires, explosions, epidemics, quarantine restrictions, or acts of God (hereinafter referred to “an events” then provided the notice of happening of any such event is given by either party to the other within 21 days of the occurrence thereof, neither party shall by reason of such

*[Handwritten Signature]*  
12/01/2015



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**of**  
**MM Tenders**

event be entitled to terminate the contract nor shall either party have any claim for damages against the other in respect of such non-performance and delay in performance and delivery under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist. If the performance in whole or part of any obligation under the contract is prevented or delayed by reason of any such event, claims of extension of time shall be granted for periods considered reasonable by BHEL subject to prior notification by the vendor to BHEL of the particulars of the event and supply to BHEL, if required, of any supporting evidence. Any waiver of time in respect of partial installment shall not be deemed a waiver of time in respect of remaining deliveries.

**G18. DISPUTES:**

In the event of any dispute and/or difference arising between the Vendor and BHEL as to interpretation and/or execution of the contract and/or the respective rights and liabilities of the parties, such disputes and/or differences shall be referred to the sole arbitrator nominated by BHEL. The provisions of the Indian Arbitration Act and the rules there under shall apply to such arbitration. The award passed by the arbitrator shall be final and conclusively binding on all the parties.

**G19. JURISDICTION:**

The court of the place from where the purchase order is issued during the contractual period shall alone have jurisdiction to decide any dispute arising out of or in connection with the purchase order.

**G20. CLARIFICATIONS**

The correspondence exchanged against the tender from both tenderer and BHEL through email/e-procurement are considered as valid document legally though it is not signed. It is treated as valid confirmations made on behalf of the respective company and very much comes under the legal ambit of the business transaction and hence it is binding on both the parties to the business. Any transaction pertaining to the tender from both the parties of business done round the clock irrespective of the office or business hours of the companies, are valid legally and binding on both the parties. This applies to the extent only in such cases where deadline time for transaction is not specifically declared by either or both the parties to the business.

**G21. LOI(Letter of Intent)**

BHEL may issue LOI prior to the PO for any reason whatsoever. The LOI in such cases is to be treated as PO for all practical purposes and all the Terms & Conditions of the tender shall be applicable from the date of issue of LOI.

**G22. WORDS AND FIGURES**

- a. If, in the price structure quoted for the required goods/ services/ works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless in the opinion of the purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price corrected accordingly.
- b. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- c. If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject of (a) and (b) above.
- d. If there is such discrepancy in an offer, the same shall be conveyed to the bidder with target date upto which the bidder has to send his acceptance on the above lines and if the bidder does not agree to the decision of the purchaser, the bid is liable to be ignored.

**G23. GENERAL:**



**General Contract Conditions (GCC)**  
of  
**MM Tenders**

- a) BHEL will not be bound by any power of attorney granted by the vendors or by changes in the composition of the firm made subsequent to the execution of the contract. They may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the vendor concerned.
- b) BHEL reserves the right to extend the due date of opening, which shall be informed. Validity of offer shall be deemed to be revised accordingly.
- c) BHEL reserves the right to accept or reject any part or whole of the tender of a bidder by assigning a valid reason thereof. BHEL reserves the right to cancel the tender without assigning any reason thereof and without any obligation before any commitment.
- d) If possible, please submit soft copy of price quotation [copied on a blank CD of standard make] put in the sealed offer.
- e) Acceptance of all terms and conditions, in the form of signed copy of T&C or confirmation separately written, shall be submitted along with quotation. If nothing is mentioned, it shall be concluded that terms and conditions are acceptable.
- f) BHEL may increase/decrease item/s based on BHEL requirement before price bid opening. Suitable price implication may be asked from suppliers.
- g) BHEL may drop item/items from tender at any stage of tender before placing PO. BHEL may also delete PO with consent with supplier within delivery date of PO.
- h) After releasing PO, it is assumed that supplier has accepted PO if we do not receive acknowledgement from supplier within 5 days of date of PO.
- i) Any term is special tender terms and conditions will supersede the GCC.
- j) If advance tax is applicable at Punjab border. Supplier has to deposit this advance tax by himself which will be reimbursed on submission of documentary proofs (Copy of entry tax receipt/online transfer details duly verified).
- k) BHEL reserves the right to negotiate with L1 bidder/s.

**G24. BANNED FIRMS:**

The offers of the bidders who are on the banned list as also the offer of the bidders, who engage in the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL website [www.bhel.com](http://www.bhel.com).

**G25. DISCLAIMER CLAUSE: (Only for E procurement)**

Neither the Organization (Bharat Heavy Electricals Ltd.) nor the service provider (mjunction Services Ltd.) is responsible for any failure of submission of bids due to failure of internet or other connectivity problems or reasons thereof.

**G26. REVERSE AUCTION:**

"BHEL reserves the right to go for Reverse Auction (RA) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. All bidders to give their acceptance for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.

In case BHEL decides to go for Reverse Auction, only those bidders who have given their acceptance to participate in RA will be allowed to participate in the Reverse Auction. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit "online sealed bid" in the Reverse Auction. Non- submission of „online sealed bid" by the bidder will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue."

*[Handwritten signature]*  
19/11/15



**General Contract Conditions (GCC)**  
of  
**MM Tenders**

**Terms & Conditions of Reverse Auction**

Against this enquiry for the subject item/ system with detailed scope of supply as per enquiry specifications, BHEL may resort to "REVERSE AUCTION PROCEDURE" i.e., ON LINE BIDDING (THROUGH A SERVICE PROVIDER). The philosophy followed for reverse auction shall be English Reverse (No ties).

- a. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
- b. Those bidders who have given their acceptance for Reverse Auction (quoted against this tender enquiry) will have to necessarily submit "online sealed bid" in the Reverse Auction. Non-submission of „online sealed bid" by the bidder for any of the eligible items for which techno-commercially qualified, will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.
- c. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
- d. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.
- e. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
- f. Bidders have to fax the Compliance form (annexure IV) before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.
- g. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.
- h. Reverse auction will be conducted on scheduled date & time.
- i. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.
- j. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, if required, (Annexure VII) as provided on case-to-case basis to Service provider within two working days of Auction without fail.
- k. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL's standard practice.
- l. Bidders shall be required to read the "Terms and Conditions" section of the auctions site of Service provider, using the Login IDs and passwords given to them by the service provider before reverse auction event. Bidders should acquaint themselves of the "Business Rules of Reverse Auction", which will be communicated before the Reverse Auction.
- m. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action *as per extant BHEL guidelines*, shall be initiated by BHEL and the results of the RA scrapped/ aborted.
- n. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
- o. **In case BHEL decides to go for reverse auction, the H1 bidder (whose quote is highest in online sealed bid) may not be allowed to participate in further RA process.**

*[Handwritten Signature]*  
19/12/15

**Certificate by Chartered Accountant on letter head**

This is to Cert'fy that M/S .....,  
(hereinafter referred to as 'company') having its registered office at  
..... is registered under MSMED Act 2006, (Entrepreneur  
Memorandum No (Part-11) ..... dtd:.....,  
Category:..... (Micro/Small)). (Copy enclosed).

Further verified from the Books of Accounts that the investment of the company as per the  
latest audited financial year ..... as per MSMED Act 2006 is as follows:

1. **For Manufacturing Enterprises:** Investment in plant and machinery (i.e. original cost  
excluding land and building and the items specified by the Ministry of Small Scale Industries vide its  
notification No.S.O.1722(E) dated October 5, 2006 :  
Rs.....Lacs
2. **For Service Enterprises:** Investment in equipment (original cost excluding land and building and  
furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED  
Act, 2006:  
Rs.....Lacs

**(Strike off whichever is not applicable)**

The above investment of Rs.....Lacs is within permissible limit of  
Rs.....Lacs for .....Micro / Small (Strike off which is not applicable)  
Category under MSMED Act 2006.

Or

The company has been graduated from its original category {Micro/ Small} (Strike off which is not  
applicable) and the date of graduation of such enterprise from its original category is .....  
(dd/mm/yyyy) which is within the period of 3 years from the date of graduation of such  
enterprise from its original category as notified vide S.O. No. 3322(E) dated 01.11.2013 published  
in the gazette notification dated 04.11.2013 by Ministry of MSME.

Date:

(Signature)

Name-

Membership number-

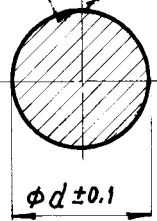
Seal of Chartered Accountant

0.4/

ZONE 1. DRG. REDRAWN.  
 2. IN SL. NO. 3. REQUIREMENT FOR  
 2 1/2" & 4" - 5000 PSI ADDED

REV. 2 DATE 11.6.75  
 ALTRD: S.S. Sankar  
 APPD: Babu

0.4/  
 SURFACE FINISH IS ADDED.



SV - STOP VALVE  
 RV - REGULATING VALVE  
 FBV - FULL BORE VALVE

SL. NO.	DRAWING NOS.	MATL. CODE	phi d +/- 0.1	WT. PER 1000 NOS (KG)	NO. OFF/VALVE	APPLICABLE VALVES
1	4-V-2253-04046	55017397	4	0,26	1	2WAY & 3WAY PR. GAUGE VALVE
					10	15/100/III SV & RV
					12	25/100/III SV & RV
					16	40/100/III SV & RV
2	4-V-2242-04046	55017555	5.5	0,70	11	32, 40, 50/40/III SV & RV.
					12	65, 80/40/III SV & RV
					14	100/40/III SV & RV
3	4-V-2410-04046	55017700	7	1,40	13	125, 150/40/III SV & RV
					16	200/40/III SV & RV
					1	2 1/2", 4" - 5000 PSI FBV, 2" FBV

**NOTE:**

1. COMMON FOR ALL BASIC & ALLIED TYPE NOS. OF RESPECTIVE SIZES OF VALVES.
2. BALLS SHALL BE SUITABLY RUST-PROOFED
3. HARDNESS TO BE 60-66 HRC

00527 393

		HARDENED & TEMPERED.		EN 31 BS 970					
NO. OF PIECES	DESCRIPTION	SEM. PRO. / SEQ. NO.	INT. MAT. / SEQ. NO.	FINAL MATERIAL	SCRAP SORT	NET WT. (KG)	GROSS WT. (KG)	DRAWING NO.	ITEM NO.
FIRST ANGLE	SCALE NTS	DRAWN D.V. Kumar		TOTAL WT. (KG)					
		CHECKED D.K. Pujar		TYPE					
		APPROVED C.G.							
ALL DIMENSIONS IN MILLIMETRES		DATE 23/9/75		NEW/OLD DRG. No.					

**CAUTION**

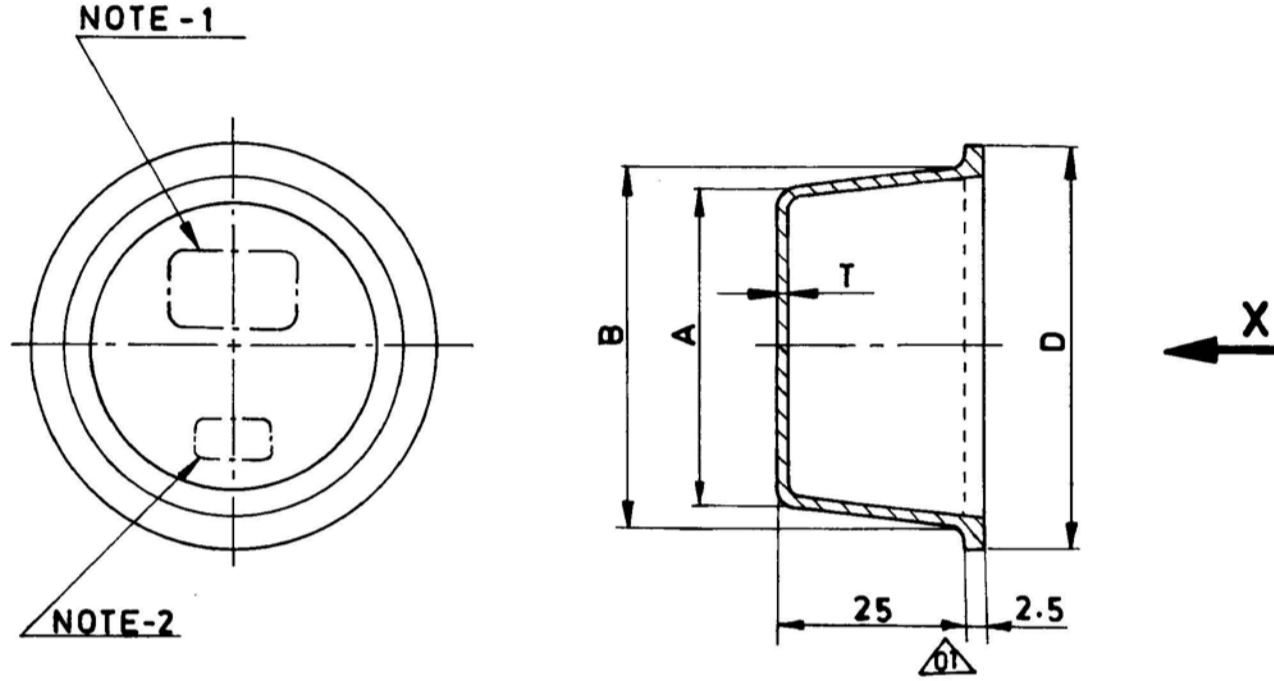


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TITLE  
**STEEL BALL**

DRAWING No.	REVISION
4-V-0000-04046	2
CARD CODE	
UOI	

0210-6119



**NOTE**

1. STAMP THE EMBLEM ACCORDING TO AA 040 1121 IN THE DIRECTION 'X'.
2. STAMP THE APPROPRIATE NOM SIZE IN THE DIRECTION 'X'.
3. MATERIAL: UREA FORMALDEHYDE CONFORMING TO IS:3389 OR POLYVINYL CHLORIDE (PVC) OR OTHER EQUIVALENT.
4. THE TUBE END COVERS SHALL BE FLEXIBLE TO FIT SNUGLY IN TO THE TUBE AND WITHSTAND SHOCK DURING TRANSIT OF THE TUBES.
5. THE TUBE END COVERS SHALL PREFERABLY BE OF DARK BLUE OR WHITE IN COLOUR OF VIRGIN QUALITY MATERIAL.
6. THE CORNERS SHALL BE SUITABLY RADIUSED

EMBLEM SIZE	A	B	D	T	VARIANT NO	ITEM NO.	DESCRIPTION	STD	BPS CODE	ITEM NO.	MATL CODE	UNIT	UNIT WT	QTY	ZONE
25	66	72	78	1.5	21		TUBE END COVER INT DIA 69		6119 0120 41		22 073 646		0.015		
25	63	69	75	1.5	20		TUBE END COVER INT DIA 66		6119 0120 40		22 074 476		0.014		
15	60	66	72	1.5	19		TUBE END COVER INT DIA 63		6119 0120 39		22 074 475		0.014		
15	57	63	69	1.5	18		TUBE END COVER INT DIA 60		6119 0120 38		22 074 474		0.013		
15	54	60	66	1.5	17		TUBE END COVER INT DIA 57		6119 0120 37		22 074 473		0.012		
15	51	57	63	1.5	16		TUBE END COVER INT DIA 54		6119 0120 36		22 074 472		0.012		
15	48	54	60	1.5	15		TUBE END COVER INT DIA 51		6119 0120 35		22 074 471		0.009		
15	45	51	57	1.5	14		TUBE END COVER INT DIA 48		6119 0120 34		22 074 470		0.008		
15	42	48	54	1.5	13		TUBE END COVER INT DIA 45		6119 0120 33		22 074 469		0.008		
-	39	45	51	1.5	12		TUBE END COVER INT DIA 42		6119 0120 32		22 074 468		0.007		
-	36	42	48	1.5	11		TUBE END COVER INT DIA 39		6119 0120 31		22 074 467		0.006		
-	33	39	45	1.5	10		TUBE END COVER INT DIA 36		6119 0120 30		22 074 466		0.006		
-	30	36	42	1.5	09		TUBE END COVER INT DIA 33		6119 0120 29		22 074 465		0.005		
-	27	33	39	1	08		TUBE END COVER INT DIA 30		6119 0120 28		22 074 464		0.004		
-	24	30	36	1	07		TUBE END COVER INT DIA 27		6119 0120 27		22 074 463		0.004		
-	21	27	33	1	06		TUBE END COVER INT DIA 24		6119 0120 26		22 074 462		0.004		
-	18	24	30	1	05		TUBE END COVER INT DIA 21		6119 0120 25		22 074 461		0.003		
-	15	21	27	1	04		TUBE END COVER INT DIA 18		6119 0120 24		22 074 460		0.002		
-	12	18	24	1	03		TUBE END COVER INT DIA 15		6119 0120 23		22 074 459		0.001		
-	9	15	21	1	02		TUBE END COVER INT DIA 12		6119 0120 22		22 074 458		0.001		
-	6	12	18	1	01		TUBE END COVER INT DIA 9		6119 0120 21		22 074 457		0.001		

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT

**Bharat Heavy Electricals Ltd.,**  
BOILER PLANT UNIT  
TIRUCHIRAPALLI-620 014

DRN: G.D.N, NAME: T.K, SIGN: [Signature], DATE: 1.9.82, NO. OF VAR: [Blank]

APPD: S.K

DEPT: SS, GRADE OF UNTOL. DFN: [Blank], SCALE: N T S, WEIGHT (kg): [Blank], REFER UNIT WT: [Blank], REF TO WORK/OLD DRG: BPS 517501, ITEM NO.: [Blank]

CODE: 850

TITLE: **TUBE END COVER (INTERNAL TYPE)**

DRAWING NO.: **6119-0120**

REV: 02

REV	DATE	ALTERED	CHECKED	DATE	ALTERED	CHECKED
Q2	01-07-93	[Signature]	[Signature]	31.3.83	[Signature]	[Signature]

C.8 NOTE 5 ALTERED. LETTER REF. NO. MM: MPL:BPS:0764 DATED 18.06.93

D.5 EMBLEM SIZE 15 WAS 25 WIDTH SIZES REINTRODUCED.

C/812-90

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# PLANT STANDARD

HPBP TIRUCHIRAPPALLI

BPS 417508

Rev. No. 03

PAGE 1 OF 2

## SELF LOCKING HEXAGONAL NUT WITH SPRING STEEL STRIP INSERT

### 1.0 SCOPE

This standard covers the requirements of self locking hexagonal nut with spring steel strip insert in the size range M8 to M20.

### 2.0 SPECIFICATION AND REFERENCE STANDARDS

Dimensions and preferred sizes	Fig 1 and Table 1 of this standard	
Tolerance	Product Grade	A
	Indian Standard	IS 1367 Part-2
Thread	Pitch	Coarse
	Tolerance	6H
	Indian Standard	IS 4218(Part 3,5 & 6)
Material of Nut	Steel	
	Property class	6
	Indian Standard	IS 1367 (Part 6)
Insert Material	Suitable spring steel	
Surface protection	Cadmium plating (Thickness 10-15 microns)	
Sampling and acceptability	According to IS 1367 (Part 17)	
Fitting of spring insert	Vendor shall design and supply the nut with spring insert in such a way that the spring insert shall prevent unscrewing under screwed and tightened condition.	
General requirements	Nuts shall comply with relevant parts of <b>IS 1367</b> in respect of requirements not covered in this standard.	

### 2.1 Referred Standards (Only current versions are applicable)

IS 1367 (Part 2, 6 & 17)	Technical supply conditions for threaded steel fasteners.
IS 4218 (Part 3, 5 & 6)	ISO metric screw threads.

### 3.0 DESIGNATION

A Grade A self locking hexagonal nut with spring insert of thread size M10 shall be designated as :

Revisions 03

Brought upto date

Approved

STANDARDS SECTION  
CONTRACT ENGINEERING AND CO-ORDINATION  
HPBP, TIRUCHIRAPPALLI

Rev. No. 03

Amd. No.

Reaffirmed

Prepared

Issued

Dt of 1st Issue

Dt. JUNE 1997

Dt.

Year

STANDARDS

STANDARDS

JUNE 1976

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### 3.1 On drawings

- |                            |                               |
|----------------------------|-------------------------------|
| i) Material spec column    | -----                         |
| ii) Description column     | <b>SELF LOCKG HEX NUT M10</b> |
| iii) Drawing number column | <b>BPS 417508</b>             |
| iv) Material code column   | <b>417508 0010</b>            |

### 4.0 ORDERING DESCRIPTION

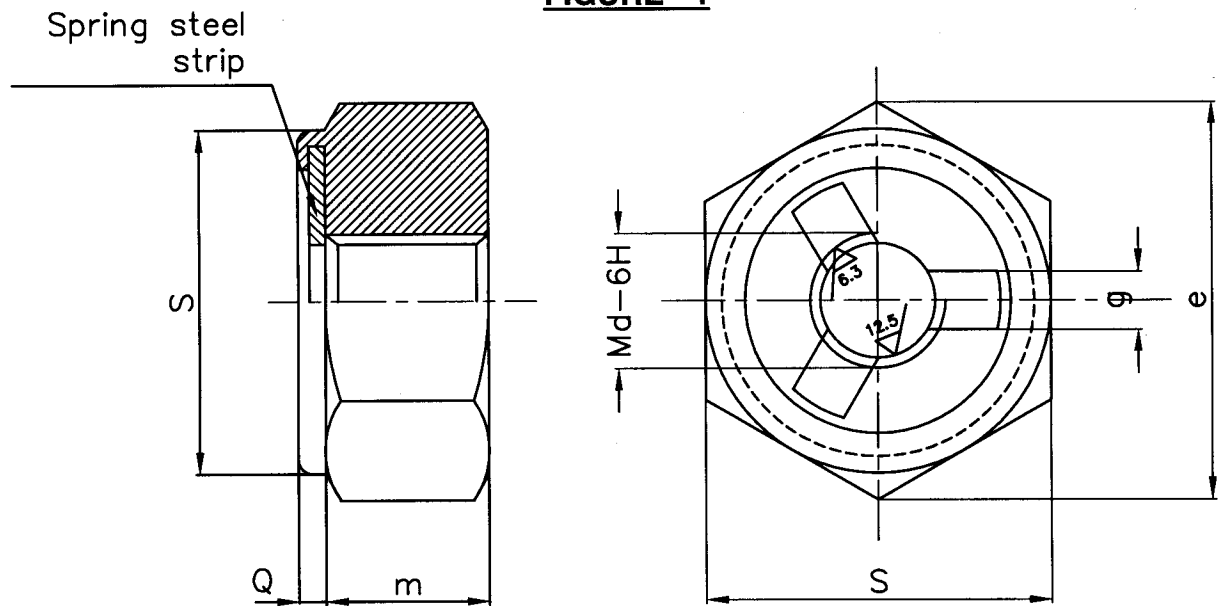
4.1 For placing indents, issuing enquiries and on purchase order, the ordering description given below shall be followed.

**SELF LOCKING HEX. NUT WITH SPRING INSERT M10 to BPS 417508**

### 5.0 ADDITIONAL INFORMATION

5.1 Copies of this standard shall be sent along with the purchase order.

**FIGURE - 1**



**TABLE - 1**

(All dimensions are in millimetres)

Md	M8	M10	M12	M16	M20	
S	13.00	17.00	19.00	24.00	30.00	
e	Min	14.38	18.90	21.10	26.75	33.53
	Max	--	--	--	--	--
m	6.50	8.00	10.00	13.00	16.00	
Q	2.00	2.00	2.00	3.00	3.00	
g	3.00	3.00	4.00	5.00	6.00	
Weight (Kg)	5.71	13.09	20.00	40.00	75.76	

**NOTE :**

1. Weights given in Kg per 1000 numbers.



# PLANT STANDARD

HPBP TIRUCHIRAPALLI

BPS 718501

PAGE 1 of 3

## PLUG, BEADED T-9 -CAST IRON

### 1 SCOPE

1.1 This standard gives information as to the correct designation, material, sizes, dimensions and information required for ordering purposes for beaded plugs T9.

1.2 These plugs shall be suitable for working pressure up to 1.380 N/mm<sup>2</sup> in the case of water and upto 1.035 N/mm<sup>2</sup> in the case of steam, air gas and oil.

### 2 DESIGNATION

2.1 A beaded plug T9 of nominal size 1" shall be designated as:

2.1.1 On drawings:

- a) Material code column: ~~17-017-023~~ 17043011
- b) Description column: BEADED PLUG T9-~~02~~-1/2
- c) Drawing Number column: 718501-00 ~~02~~ 15

2.1.2 For placing indents on purchase: Beaded plug 1" - BPS: 718501

2.1.3 For issuing enquiries and purchase orders: While issuing enquiries and purchase orders delete the plant standard number from the clause 2.1.2 and add the information given under clause 3.

### 3 COMPLIANCE WITH STANDARDS

3.1 Dimensions, tolerances and general requirements : To IS: 1879 (Part IX)-75 Table 1

3.2 Material: The material used shall be white-heart malleable cast iron conforming to tensile and bend tests specified for Grade B of IS: 2107.

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REVISIONS

Some drawings  
for BHEL  
17043011

DATE

17043011/116522

APPROVED

STANDARDS SECTION  
ENGINEERING AND DEVELOPMENT CENTRE  
HPBP TIRUCHIRAPALLI

PREPARED

ISSUED

DATE

HPBP-TIRUCHY.

STANDARDS

JAN 1983



# PLANT STANDARD

HPBP TIRUCHIRAPALLI

BPS 718501

PAGE 2

3.3 Threads: Taper in accordance with IS: 554 and shall be clean and well cut.

3.4 Finish: Galvanised. The minimum weight of zinc coating on the fitting shall be  $610 \text{ g/m}^2$  as per IS: 4759.

#### 4 NOTE

4.1 Weights given in this standard are for general reference only and are not meant for commercial transactions.

4.2 For dimensions of screwed ends of fittings refer corporate standard AA 023 18 13.

4.3 For dimensions of pipe threads of fittings refer corporate standard AA 023 18 15.

4.4 For sampling and acceptance refer Appendix A of IS:1879 (Part I)-1975.

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116523

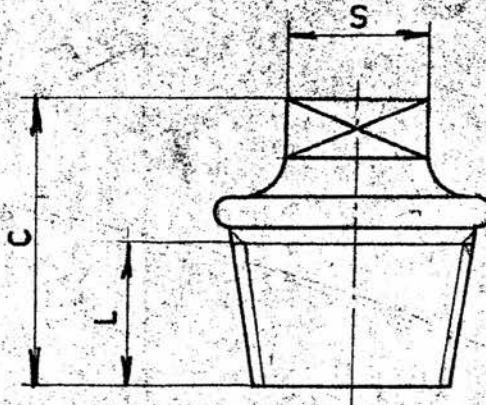


# PLANT STANDARD

HBBP TIRUCHIRAPALLI

BPS 718501

PAGE 3



(All dimensions are in millimetres)

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 It must not be used directly or indirectly in any way detrimental to the interest of the company.

Sl. No.	Nom size		C		S h14	L	Weight in kg	BPS Code Bin code
	mm	inch	Basic	Tol				
01	6	1/4	22	± 1.5	11	13	0.020	718501 0006 17017 037
02	10	3/8	24	± 1.5	11	13	0.026	718501 0010 17 017 021
03	15	1/2	26	± 1.5	14	16	0.038	718501 0015 17 043 011
04	20	3/4	32	± 1.5	17	19	0.072	718501 0020 17 017 027
05	25	1	36	± 2.0	19	22	0.106	718501 0025 17 017 023
06	32	1 1/4	39	± 2.0	22	25	0.170	718501 0032 17 017 024
07	40	1 1/2	41	± 2.0	24	25	0.212	718501 0040 17 017 028
08	50	2	48	± 2.0	27	28	0.343	718501 0050 17 017 025
09	70	2 1/2	54	± 2.5	32	32	0.576	
10	80	3	60	± 2.5	36	35	0.776	718501 0075 17 017 026

1146523

CS 1829-1



# PLANT STANDARD

HPBP TIRUCHIRAPALLI

BPS 718515

PAGE 1 OF 3

## PLUG PLAIN - T 8

(17-017-019)

### 1 SCOPE

- 1.1 This standard gives information as to the correct designation, material, sizes, dimensions and information required for ordering purposes for plugs.
- 1.2 These plugs are capable of withstanding the application of (a) an internal hydraulic test pressure of  $4.905 \text{ N/mm}^2$  ( $50 \text{ kgf/cm}^2$ ) and (b) an internal air test pressure of  $0.6867 \text{ N/mm}^2$  ( $7 \text{ kgf/cm}^2$ ) whilst the fitting is completely immersed in water or light oil.

### 2 DESIGNATION

- 2.1 A plug of nominal size 8 mm shall be designated as
  - 2.1.1 On drawings:
    - a) Material code column: 17 017 019
    - b) Description column : ~~PLAIN~~ PLUG T8 - 8 mm
    - c) Drawing number column: 718515-4402
  - 2.1.2 For placing indents on purchase: Plug 8, BPS: 718515
  - 2.1.3 While issuing enquiries and purchase orders: While issuing enquiries and purchase orders, delete the plant standard number from the clause 2.1.2 and add the information given under clause 3.

### 3 COMPLIANCE WITH STANDARDS

- 3.1 Dimensions, tolerances and general requirements : To IS: 1239 (Part II)-69 Table 20
- 3.2 Material: Steel having minimum tensile strength of  $533 \text{ N/mm}^2$  ( $34 \text{ kgf/mm}^2$ ).

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REVISIONS

DATE

APPROVED

STANDARDS SECTION  
ENGINEERING AND DEVELOPMENT CENTRE  
HPBP TIRUCHIRAPALLI

PREPARED  
HPBP TIRUCHY

ISSUED  
STANDARDS

DATE  
JAN 1983



# PLANT STANDARD

HPBP TIRUCHIRAPALLI

BPS 718515

PAGE 2

3.3 Threads: Taper in accordance with IS: 554 and shall be clean and well cut.

3.4 Finish: Galvanised. The zinc coating shall be in accordance with IS: 4736.

## 4 NOTE

4.1 For dimensions of screwed ends of fittings refer corporate standard AA 023 18 13.

4.2 For dimensions of pipe threads of fittings refer corporate standard AA 023 18 15.

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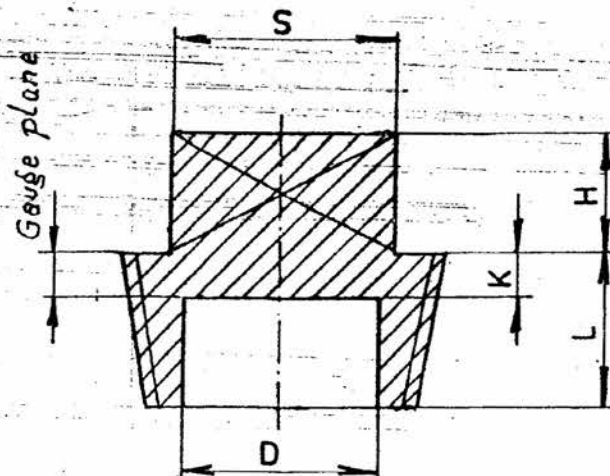


# PLANT STANDARD

HPBP TIRUCHIRAPALLI

BPS 718515

PAGE 3



Nom size	L	S	H	D	K	Fitting allowance to IS 2044 tors	Wt/ piece in kg	BPS Code Bin code
6	6.5	6	6			2 3/4		
8	9.7	9	6			2 3/4	0.015	718515 4402 1701701900
10	10.1	11	10			2 3/4		
15	13.2	13	10			2 3/4		
20	14.5	14	12			2 3/4		
25	16.8	17	12	22	4	2 3/4		
32	19.1	22	16	31	5	2 3/4		
40	19.1	27	16	33	5	2 3/4		
50	23.4	32	19	48	5	3 1/4		
65	26.7	37	19	62	6	4		
80	29.8	37	22	73	8	4		
100	35.8	46	25	97	10	4 1/2		
125	40.1	51	29	120	12	5		
150	40.1	60	32	145	12	5		

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**1.0 SCOPE**

1.1 This technical delivery condition specifies the inspection and testing requirements for retainer rings used in Safety Relief Valves.

**2.0 REFERENCE DOCUMENTS**

2.1 IS 3075 Part 2 (latest)

**3.0 GENERAL REQUIREMENTS**

3.1 The retainer rings shall be procured from approved vendors only.

3.2 The actual size, quantity and other commercial details shall be as per purchase order and drawing.

3.3 The construction, material details, dimensions and tolerances shall strictly conform to the requirements of drawing.

3.4 Material substitution is not allowed without the written approval of BHEL.

**4.0 MATERIALS**

4.1 Materials used shall be as per drawing and shall meet all requirements of respective specification indicated in the drawing. Following are, however, provided for information purpose only.

SAE 1060 TO SAE 1090

OR

AISI 1060 TO AISI 1090

**5.0 HEAT TREATMENT**

5.1 The retainer rings shall be supplied in finally heat-treated condition (austempering).

**5.2 HARDNESS REQUIREMENTS**

5.3 All the retainer rings shall meet the final surface hardness requirements as per latest IS 3075 table 4.2.

**6.0 FINAL COATING**

6.1 All retainer rings shall be finished with Cadmium plating dichromate dip by mechanical plating method. The plating shall have uniform thickness and there shall not be undulations on the plated surface.

6.2 After plating, bake the rings at 180 to 200deg. C for a minimum period of 3 hours. The elapsed time between plating and baking shall not exceed 8 hours.

6.3 Apply a chromate conversion coating after plating and baking.

6.4 When specifically called for either in the drawing or in the indent the electrolytic nickel plating shall be done on the retainer rings.

**7.0 INSPECTION AND TESTING:**

7.1 All retainer rings shall be visually inspected for crack or any other surface defects.

7.2 The edges shall be free from burrs.

7.3 Following tests shall be carried out on the retainer rings to measure freedom from embrittlement. These tests shall be carried out either at supplier's works or at BHEL depending upon the facilities available and the agreement between BHEL and the supplier. Each retainer ring shall be capable of passing the following tests.

7.3.1 The tests shall be conducted as per IS 3075(latest).

7.3.2 Assembly simulation and endurance test.

7.3.2.1 The retainer rings shall be held for 24 hours in a test rig as indicator in IS 3075 (latest) and there shall be NO change in dimensions of the retainer rings after the endurance test. This also aids for checking assembly and disassembly of the retainer rings.

#### 8.0 FIRST SAMPLE APPROVAL

8.1 Before proceeding for bulk production the supplier shall get one ring assembled on the fixture, which will simulate the condition as that of valve, and shall get it approved by BHEL. After getting approval from BHEL, bulk production and supply shall be carried out. The first sample approval is only to establish supplier's Product Quality and shall be done only as one time test For regular or bulk supplies, only type tests specified in the clause 7.0 of this TDC shall be carried out.

#### 9.0 PACKING

9.1 The retainer rings shall be supplied in packages containing a standard number of pieces. The packaging must be sturdy to support the product and protect against permanent distortion or damage during storage and also during transit. The package shall contain only one size.

#### 10.0 CERTIFICATION

10.1 Each consignment shall be backed up with the test certificate containing the following details legibly written in English.

1. Purchase Order Number.
2. Specification and grade of the material
3. Drawing Number
4. Size and Quantity
5. Hardness
6. Breaking load, if applicable
7. Endurance test results, if applicable.

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Qual. Assurance  
**Prepared**

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Qual Assurance  
**Approved**



**PRODUCT ENGINEERING / V & SB  
TECHNICAL DELIVERY CONDITIONS FOR  
SUBDELIVERY COMPONENTS OF SOOT BLOWERS**

TSB : 047

Rev. 02

SHEET No. 01 of 01

**STEEL BALL**

1. Component : Steel Ball 5/32" ( 4 mm )
2. Material Code : 55017 397.
3. Application : Used in Wall Deslagger and Rotary Blower
4. Specification :
  - i) As per Drg. No. 4-V-0000-04046/2 (sl.No.1)
  - ii) Material : BS 970 EN31. Hardened and tempered
  - iii) Finished balls shall be protected against rust by a suitable grease or oil.
5. Inspection : Inspection to be carried out by BHEL Inspectors at BHEL works for dimensions, finish, hardness and material used.
6. Quantity : 2 Nos per Wall Deslagger and Rotary Blower
7. Spares : 10% extra to be added as manufacturing reserve and destructive testing
8. Packing : To be packed and despatched neatly to protect from moisture in a closed container
9. Approximate weight : 0.26 kg/1000 Nos.

(Note: A large no. of balls are being procured for valves. Hence procurement can be done from the above source).

Rev:02 Dt.20/07/2004.

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Prepared (K.SRIDHARAN)

Date:  
20/07/2004.

Approved (S.NATARAJAN)





**PRODUCT ENGINEERING / V & SB  
TECHNICAL DELIVERY CONDITIONS FOR  
SUBDELIVERY COMPONENTS OF SOOT BLOWERS**

TSB : 048

Rev. 02

SHEET No. 01 of 01

**CABLE STRAPS AND BUTTONS**

1. Component : Cable straps and buttons
2. Material Code : (i) 96 133 188 For cable strap of 8 mm width  
(ii) 96 133 190 For plastic buttons for strap.
3. Application : Used in wall deslagger and rotary blower for tying the cable wires.
4. Specification : (i) Cable strap of 8 mm width  
(ii) Plastic buttons for cable strap.
5. Inspection : Inspection to be carried out by BHEL inspector at BHEL works for specification as above.
6. Quantity : (i) Cable strap-200 mm length per wall deslagger and rotary blower.  
(ii) Button for cable strap-5 Nos. per wall deslagger and rotary blower.
7. Spares : 5% extra to be added for manufacturing reserve.
8. Packing : To be packed and despatched in cardboard boxes.
9. Approximate weight : (i) 0.001 kg per 200 mm of strap  
(ii) 0.001 kg per 5 Nos.

(Note: Cable straps & buttons are being procured for C & I and Electrical maintenance dept. Hence procurement can be done from the same source).

Rev:02 Dt. 20/07/2004.

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Prepared (K.SRIDHARAN)

DATE:  
20/07/2004.

Approved (S.NATARAJAN)



**PRODUCT ENGINEERING / V & SB  
TECHNICAL DELIVERY CONDITIONS FOR  
SUBDELIVERY COMPONENTS OF SOOT BLOWERS**

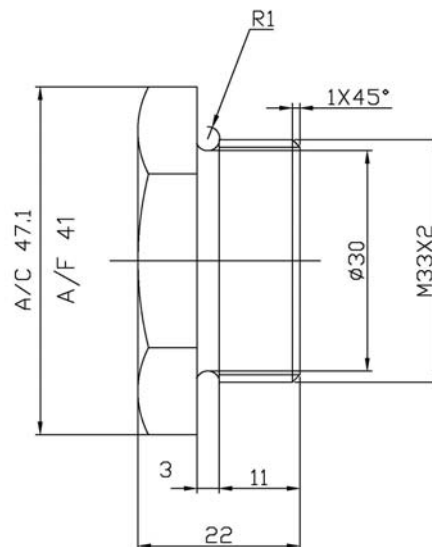
TSB : 064

Rev. 02

SHEET No. 01 of 01

**PLASTIC SCREW PLUG**

- 1.0 Component : Plastic Screw Plug.  
1.1 Material Code : 96 353 337 0000  
1.2 Application : It is used in Terminal Box of wall Deslagger for plugging the cable entry.  
2.0 Specification : Hex head Plastic Screw Plug. M33 x 2.  
2.1 Material : STYRON  
2.2 Dimensions : As per sketch shown below.  
3.0 Quantity : 4 Nos. per wall deslagger.  
4.0 Inspection : Inspection to be carried out by BHEL Inspectors at BHEL works, for dimensions, material etc.,  
5.0 Packing : To be packed and dispatched in card board boxes.  
6.0 Weight : No.01 kg/piece.



Rev:02 Dt:01/10/2011

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Prepared (J SANKAR)

Checked & Approved (K.SRIDHARAN)