



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

PHONE :2577419
GRAMS : BHARATELEC
FAX NO: 2520719
E-mail: cmuthuvel@bheltry.co.in
Web:

429-002/A

	Enquiry No 2001500550 - 73	Enquiry Date 14.09.2015	Due Date for Quotation 07.10.2015
<p>Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order. Bid should be submitted in two parts. 1.Techno-commercial bid (Part-I) and 2.Price bid(Part-II) in a separate sealed cover and both covers must be placed in a third cover and sealed. Our Enquiry No., Enq. date & Enq. Due date must be written on all three covers.</p>			

Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	FLOW CUP STAND WITH BEVELLING BUBBLE FLOW CUP WITH CALIBRATION CERTIFICATE AS PER FIG. 1 ATTACHED IS101 CUP B4	NO	4.000	4.00	07.11.15

General Note:

1. Tender should not be addressed to any individual's name but only to the following address:

Your Quotations should be sent to:

Tender Opening Cell/MM
Room No.26,
24 Building (Ground Floor),
Bharat Heavy Electricals Limited,
Tiruchirappalli - 620 014.

2. Tender will be processed as per our enclosed Terms and conditions (Annexure).

3.The validity of the offer should be 90 days. If the supplier does not accept validity of the offer 90 days from the date of technical bid opening, such offer will be rejected.

4.The enquiry number and due date which is supercribe on the outer cover of the techno-commercial bid should be same as per our enquiry number and due date, otherwise we will not considered such offer.

5. IMPORTANT NOTE:-The commercial confirmation format (as per clause no.32) should be submitted along with the technical bid, without fail.

Terms and conditions to be confirmed /accepted/mentioned in your technical bid and the format (which we have mentioned in our enquiry annexure clause no.32) should be the same, without any variation/deviation. In case of variation/deviation between the technical bid and format, the details furnished in the format (clause no.32) only are considered for evaluation.


6. Any communication should be addressed to the following address:

The Manager,
Purchase Department/ PSS,
Materials Management/Raw Materials,
24 Building (4th Floor),
Bharat Heavy Electricals Limited,
Tiruchirappalli - 620 014.

The offers should reach us 30 minutes before the time of opening of tenders. The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening.Late and delayed offers are liable to be rejected.

N. SHANMUGASUNDARAM
Purchase Officer
MM / MFG / Purchase / PSS
BHEL, TRICHY - 620 014.

Yours faithfully,
For **BHARAT HEAVY ELECTRICALS LIMITED**


MANAGER / PURCHASE
(FOSSIL BOILERS)
Yours faithfully,



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

Page
2/2
PHONE :2577419
GRAMS : BHARATELEC
FAX NO: 2520719
E-mail: cmuthuvel@bheltry.co.in
Web:

2001500550 / 14.09.2015

23505

Email:cmuthuvel@bheltry.co.in
Phone no.0431-2577419

All the tenders may be addressed to the following address:

**The Tender Opening Cell / MM
Room No: 26, Building 24, Ground Floor
Bharat Heavy Electricals Limited
TIRUCHIRAPALLI 620014**

In case personal delivery of the offer, it shall be dropped into the respective box kept in Room No: 26, after duly entering the data in the system.

Offers will be accepted only up to 14.00 Hrs on the due date. Therefore, vendors shall ensure to submit the offers well before this time. All due date extension requirements should be addressed to the respective Purchase mail IDs. All the due date extension requests from vendors will be considered only up to 48 hours before the due date and time.

Vendors are requested to avoid submission of offers through e mail / fax. In case of any unavoidable situation, offers shall be sent through e mail to the following mail ID only
tender_cell@bheltry.co.in.

As tenders are being opened by Common Tender Opening Cell, offer covers should be sealed with tenderer's distinctive seal and super scribed with correct Tender No. item of supply and due date of opening.

The offers will be opened at 14.30 hrs on the due date of the tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

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.bhel.com> and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice.

Enclosures:

"LD clause has to be confirmed without fail."

The offers should reach us 30 minutes before the time of opening of tenders.
The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the opening. Late and delayed offers are liable to be rejected.

Yours faithfully,
For **BHARAT HEAVY ELECTRICALS LIMITED**
NISHANMUGASUNDARAM
Purchase Officer
MM / MFG / Purchase / PSS
BHEL, TRICHY - 620014
MANAGER / PURCHASE
(FOSSIL BOILERS)
Yours faithfully,

BHARAT HEAVEY ELECTRICALS LIMITED
(A GOVT.OF INDIA UNDERTAKING)
HIGH PRESSURE BOILER PLANT
TIRUCHIRAPPALLI - 620 01

Annexure

TERMS AND CONDITIONS OF THE ENQUIRY (TWO PART BID)

1. The tender will be operated on two part bid basis i.e. (I). **Techno-Commercial Bid** & (II). **Price Bid**.

2. **Techno-Commercial Bid**: Containing Technical details, specifications, commercial terms and conditions like percentage of P&F charges, Freight & Insurance, ED, Cess, Taxes (BHEL will not provide "C" form for Non-Production Items), delivery terms, delivery schedule, validity of offer, payment terms (except price details), acceptance for LD clause, etc. shall be put in a cover and superscribed as "Techno-Commercial Bid" for Enquiry No. XXXXXXXXXXXX Dt: XX.XX.XX Due Dt: XX.XX.XX.

3. **Price Bid**: Containing the price details shall be put in a separate cover and superscribed as "Price Bid" for Enquiry No: XXXXXXXXXXXX Dt: XX.XX.XX Due Dt: XX.XX.XX.

The enquiry number and due date which is superscribed on the outer cover of the techno-commercial bid and price bid should be same as our enquiry number and due date ,otherwise we will not considered such offers.

4. You are requested to put the above two envelopes (Techno-Commercial Bid & Price Bid) inside a separate larger sealed envelope and this envelope shall be superscribed as "Techno-Commercial Bid and Price Bid " for Enquiry No: XXXXXXXXXXXX Dt: XX.XX.XX Due Dt: XX.XX.XX.

Each tender should be sealed with tenderer's distinctive seal and super scribed with correct tender no., item of supply and due date of opening. Two or more quotation should not be sent in one cover but the quotation against each tender should be sent separately to avoid confusion. Tender should not be addressed to any individual's name but only to the following address:

Your Quotations should be sent to:

Tender Opening Cell/MM
Room No.26,
24 Building (Ground Floor),
Bharat Heavy Electricals Limited,
Tiruchirappalli - 620 014.

5. Please submit point wise compliance to our specifications, terms and conditions, as mentioned commercial Terms confirmation format (i.e taxes & duties, F.O.R, ED cess, P&F, Frieght & insurance, payment terms, LD clause etc.). Otherwise it will be presumed that you are accepting BHEL's terms and conditions.

6. Offer/s received after *due date* and time: 02:00 pm will not be considered under any circumstances.

7. **Validity of quoted rates shall be maintained at least for 90 days from the date of Tender opening for ordering, otherwise offer will not be considered against this enquiry. The quoted/Finalized rates shall be Firm till completion of the supplies.**

8. The rates are to be quoted on F.O.R. destination basis (Inclusive of Packing, Forwarding, and Freight and Transit Insurance charges to supplier account. The material should be delivered **at BHEL Complex, Trichy** by your carrier and at your own cost. *(Delivery condition like Ex-works / Ex-godown / Transportation of materials through transport carriers from your works upto the transport carrier's office at Tiruchy and taking delivery of goods by BHEL from such office of transport carriers, Transportation of materials on "TO PAY" basis etc is not acceptable to us), such type of offer will be rejected.*

9. Unloading at BHEL Site has to be done by the suppliers and BHEL will not be in a position to provide any handling / unloading facilities.

10. Payment Terms (Indigenous)

Stores:

Payment term is 100% direct payment after 45 days from the date of receipt and acceptance of materials.

Any deviation in the above payment term will attract loading as mentioned below. "Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.

Payment through Bank is not preferred. In case of Payment through Bank is opted by Supplier, BHEL prefers documents submission through bank with copy of LR and door delivery of Goods to Site/Stores with Consignee copy attached. In this case Loading will be 5% on the offered value. Any other option through bank, other than the above, is not acceptable to BHEL and the offer is liable for rejection.

LC/Advance Payment will not be operated for indigenous vendors. Offers of indigenous vendors with payment terms as LC/Advance Payment are liable for rejection. Exceptional deviation to the above after adequate loading will require approval of competent authority as per the Policy guidelines.

11. Liquidated Damages / Penalty:-

Liquidated damages shall be 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value. **Any deviation from the above LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value). BHEL will consider the ranking after the loading is applied as referred above (SL no.10 &11) wherever deviations are observed.**

12. Tenders should be free from CORRECTION AND ERASURES. Corrections if any must be attested; all amounts shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall only be considered.

13. No revision of prices will be entertained after tenders are opened.

14. If any sales tax is payable as extra to the quoted price it should be specifically stated in quotations along with CST & VAT Number failing which the purchaser will not be liable for payment of sales tax. Our TIN 33243560005 dt.01.01.2007 & CST no 239383 DT, 11.06.1991
15. On the due date of tender opening, only the technical bids will be opened. Technical bids will be evaluated by us and clarifications-required, if any, will be called for from the bidders on technical and commercial points. The price bids of techno-commercially suitable bidders will be opened on a later date with prior intimation to respective bidders.
16. Ranking L-1, L-2 etc. shall be done for individual items for the techno-commercially acceptable offers on landed cost to BHEL, Trichy basis and BHEL reserves the right to place order for individual items with different vendors.
17. BHEL reserves the right to increase or decrease the tendered quantity and split the tender quantity.
18. In the event of more than one vendor becoming L1 for any of the item / items, the enquiry quantity for those item / items will be shared equally among all the L1 vendors. For such item / items splitting will be done among L1 vendors.
19. BHEL reserves the right to increase or decrease the tender quantity and split up the tender quantity among more than one vendor at the lowest acceptable price to BHEL and place order accordingly in any proportion at our own discretion.
20. Lowest price received against BHEL tenders need not be the technically acceptable one and in that case BHEL reserves the right not to consider the same. The purchaser shall be under no obligation to accept the lowest or any other tender and shall be entitled to accept or reject any tender in part or full without assigning any reason whatsoever.
21. BHEL reserves the right to negotiate or refloat the tender opened if L1 price is not the lowest acceptable price to them inter-alia other reasons.
- 22. PACKING AND MARKING:** The supplier shall arrange for securely protecting and packing the stores to avoid loss or damages during transit.
- 23. RISK PURCHASE:** Alternatively the purchaser at his option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitutes therefore. The supplier shall be liable for any loss, which the purchaser may sustain by reason of such risk purchases in addition to penalty at the rate mentioned in our LD clause.
- 24. PREFERENTIAL DELIVERY:** It should be noted if a contract is placed on a higher tendered as a result of this invitation to tender in preference to the lowest acceptable offer in consideration of the earlier delivery, the seller will be liable to pay to the purchaser the difference between the contract rate and that of the lowest acceptable tender on the basis of final price F.O.R destination, including all elements of freights, Sales tax, duties and other incidents, incidental in case of failure to complete supplies in terms of such contract within the date of delivery specified in the tender and incorporated in the contract.
- 25. CENVAT CREDIT:** If any Excise Duty is payable, the Chapter Head / Sub-head reference and the rate of the duty should be quoted. If the Tenderer is availing CENVAT credit for this input material, the effect of Performa credit should be passed on to the purchaser. Tenderer under "CENVAT" shall be preferred.
26. Any other conditions which might have been quoted by the seller and are in contravention to the terms prescribed in the order and which have not been specifically accepted in by purchaser will not be applicable to the contract.
- 27."All corrigenda, addend a, amendments, time extensions clarifications, etc. to the tender will be hosted on BHEL website (www.bhel.com) only (apart from unit website-if any). Bidders should regularly visit website(s) to keep themselves updated.**

28. Special provision for MSE clause are not included in this tender.

29. BHEL reserves the right to negotiate with L1 bidder.
- 30. IMPORTANT NOTE:-Terms and conditions to be confirmed /accepted/mentioned in your techno-commercial bid and price bid should be the same without any variation/deviation. In case of variation/deviation between the techno-commercial bid and price bid, the details furnished in techno-commercial bid only are considered for evaluation.**
31. The new vendors for Trichy unit will be required to furnish the following documentary proof/information along with their offers:
- Certificate of Registration (copy of Certificate to be submitted).
 - Banker's Information (copy of Bank Pass Book first Page to be submitted).
 - MSME Vendor Certificate (if applicable).
 - Address of your organization (Complete Postal Address with PINC ode)
 - Contact Person/s, Phone No., Mobile No., FAX No., E-mail ID.
 - Statutory documents —VAT/TIN/EXCISE REGISTRATION/SERVICE TAX REGISTRATION/CST REGN etc (copy to be furnished)
 - NSIC/SSI Certificate (if applicable)
 - ISO Certificate (if applicable)
 - Experience certificate as proof of supply of similar item to any Govt.agencies/PSU/Organisations. (Copy of POs to be furnished).
 - Audit Report / IT Return (if applicable).
 - Agency Agreement with manufacturer (if applicable).
 - Partnership Deed (if applicable)

If the new vendors for Trichy unit fail to submit the above documentary proof/information, their offers will not be considered for this enquiry.

N. SHANMUGASUNDARAM
Purchase Officer
MM / MFG / Purchase / PSS
BHEL, TRICHY - 620 014.



32. COMMERCIAL TERMS CONFIRMATION REQUIRED FROM THE SUPPLIER (TO BE SUBMITTED IN COVER NO: 1). The techno-commercial terms both in the offer and our enclosed format (clause 32) should be same and if any deviation/s in between the offers and enclosed format (clause 32) is found, the commercial terms as per our enclosed format will only be considered.

SL. NO	Description	BHEL Requirements	Supplier Confirmation
1	VALIDITY	90 days from the date of tender opening	
2	PRICE QUOTED	FOR DESTINATION BHEL STORES TRICHY- 620014	
3	PACKING & FORWARDING (Whether inclusive or extra) Clearly mention the percentage or amount.	Supplier Option	INCLUDED / EXTRA (IN CASE OF EXTRA MENTION THE PERCENTAGE _____)
4	EXCISE DUTY WITH CESS (Whether inclusive or extra) Clearly mention the percentage or amount.	Supplier Option	INCLUDED / EXTRA (IN CASE OF EXTRA MENTION THE PERCENTAGE _____)
5	VAT / CST Clearly mention the percentage	Supplier Option	INCLUDED / EXTRA (IN CASE OF EXTRA CLEARLY MENTION THE PERCENTAGE _____)
6	FREIGHT (Whether inclusive or extra) Clearly mention the percentage or amount.	Supplier Option	INCLUDED / EXTRA (IN CASE OF EXTRA MENTION THE PERCENTAGE _____)
7	DELIVERY SCHEDULE	AS PER BHEL SCHEDULE	
8	PAYMENT TERMS	100% after 45 days from the date of receipt and acceptance of materials.	
9	LD CLAUSE	Liquidated damages shall be 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value	
10	CONTACT PERSON DETAILS	NAME: MOBILE NO.: EMAIL:	
11	FOR NEW VENDOR	Document mentioned in clause no.31 should be submitted along with the offer.	

BIDDERS SHALL SUBMIT THEIR PRICE IN THE FOLLOWING FORMAT ONLY. (TO SUBMITTED IN SEPARATE COVER NO: 2).

ENQUIRY SL NO.	BHEL SPECIFICATION	VENDOR'S SPECIFICATION	PRICE IN RS
10			
20			



N. SHANMUGASUNDARAM
Purchase Officer
MM / MFG / Purchase / PSS
BHEL, TRICHY - 620 014.

Indian Standard
METHODS OF
SAMPLING AND TEST FOR PAINTS,
VARNISHES AND RELATED PRODUCTS

PART 1 TESTS ON LIQUID PAINTS (GENERAL AND PHYSICAL)

Section 5 Consistency

(Third Revision)

1 SCOPE

1.1 This standard prescribes three methods for determining the dynamic viscosity of paints and related products at a rate of shear not less than $5\,000\text{ S}^{-1}$ and not more than $20\,000\text{ S}^{-1}$. The methods are:

- a) Flow cup method,
- b) Cone and plate or concentric cylinder viscometer method, and
- c) Stromer viscometer method.

2 SAMPLING

2.1 A representative sample to be tested shall be taken as prescribed in IS 101 (Part 1/Sec 1): 1986 'Methods of sampling and test for paints and related products: Part 1 Tests on liquid paints (general and physical), Section 1 Sampling (third revision)'. The sample shall be prepared as prescribed in IS 101 (Part 1/Sec 2): 1987 'Preliminary examination and preparation of samples for testing (third revision)'. The sample shall be strained through an IS-Sieve of $125\ \mu\text{m}$ into a clean container.

3 FLOW CUP METHOD

3.1 Apparatus

3.1.1 Flow Cup

3.1.1.1 Dimensions

The dimensions of the flow cup and the tolerances allowed in manufacture shall be as given in Fig. 1. The most critical tolerance is internal diameter of the jet of the cup since the flow time is inversely proportional to the fourth power of this dimension. The jet of the cup shall be made of stainless steel or sintered carbide, unless specified otherwise, and the body of the cup shall be made of a material which is corrosion resistant and not affected by the products to be tested.

3.1.1.2 Constructions

The dimensions not specified shall be such that no distortion of the cup can occur in use. The external shape shown in Fig. 1 is recommended, but may be modified for convenience of use or manufacture, provided that the protruding jet of the cup is protected from accidental damage as far as possible by an external protective sleeve. Such a protective sleeve shall not be immediately adjacent to the jet so as to cause a capillary action when the material under test flows out.

3.1.1.3 Finish

The interior surface of the cup, including the orifice, shall be smooth and free from turning marks, crevices, ledges and burrs which may cause random flow or trap some sample or cleaning material. The standard of finish required shall be equivalent to a maximum roughness of not more than $0.5\ \mu\text{m}$ defined as the arithmetic mean deviation R_a from the mean line of the profile (see IS 3073 : 1967).

3.1.1.4 Calibration

The cup shall be calibrated using a standard mineral oil of known kinematic viscosity. The procedure used shall be as given in Annex A.

3.1.2 Thermometer, accurate to 0.2°C and graduated at 0.1°C intervals.

3.1.3 Stand, suitable for holding the flow cup and provided with levelling screws.

3.1.4 Spirit Level, preferably of the circular type.

3.1.5 Flat Glass Plate or Straight Edge Scraper

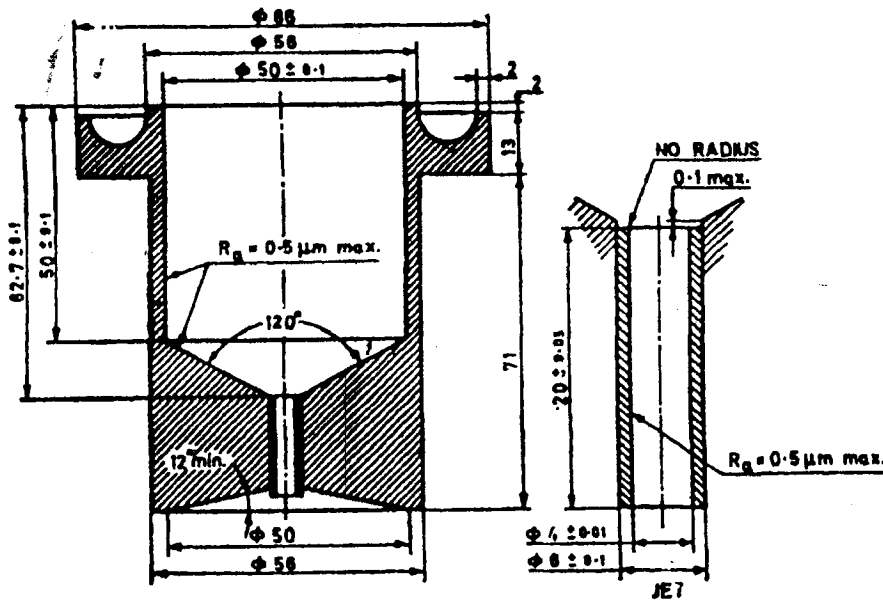
3.1.6 Stop Watch, or other suitable timing device with scale divisions of 0.2 second or finer and accurate to within 0.1 percent when tested over a 60-minute period.

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Email: daniel@bheltry.co.in

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 Purchase Officer
 MM / MFG / Purchase / PSS,
 BHEL, TRICHY - 620 014

1/12



All dimensions in millimetres.

FIG. 1 Flow Cup

3.1.7 Temperature controlled room or enclosure for maintaining the cup and sample at a constant temperature

3.2 Procedure

3.2.1 Place the flow cup on the stand in a place free from draughts, at ambient temperature. Level by the use of a spirit level placed on the rim.

3.2.2 Strain the sample into a clean container and adjust the temperature to meet the requirements specified in 4.2.4. A 150 micron IS-Sieve (see IS 460 : 1962) or finer, is suitable. This and the following operations shall be carried out with minimum delay to avoid loss of solvent.

3.2.3 With the orifice closed by the finger, fill the cup with the bubble-free sample until it just begins to overflow into the gallery, pouring slowly to minimize the formation of air bubbles. If bubbles are present, allow them to rise and then remove them from the surface.

3.2.4 Check that the temperature of the material in the cup is within 0.5°C of the test temperature. The cup may be at a temperature different from that of the sample and it is recommended that a minute or so be allowed to elapse before checking the temperature.

3.2.5 Place the scraper on the rim of the cup and draw it firmly across until the excess of the sample has flowed into the gallery. Place the receiver under the cup. Remove the finger and simultaneously start the stop-watch. Watch the stream of liquid flowing from the orifice. At the

first evidence of a break of the stream into droplets, stop the stop-watch. The time taken is recorded in seconds as time of flow in flow cup.

4 CONE AND PLATE, CONCENTRIC CYLINDER OR IMMERSION VISCOMETER METHOD

4.1 Apparatus

Viscometer of cone and plate or concentric cylinder type, working at a rate of shear of 5 000 to 20 000 S⁻¹. The details of the apparatus used shall be given in the test report.

4.1.1 Checking of Apparatus

Check the apparatus daily when in regular use, by carrying out the test as given in 4.2 using standard refined mineral oils having Newtonian characteristics and known viscosities (see Note). If the readings obtained differ from the known viscosities of the standard oils by more than 5 percent, the apparatus should be checked by a competent authority or returned to the manufacturer for adjustment.

NOTE — It is convenient to use three mineral oils with viscosities certified by an approved laboratory and lying between 0.05 and 0.5 N S/m² (50 and 500 Cp).

4.1.2 Checking of Temperature Control

The temperature should not change during the determination. In order to check the temperature control, carry out the test as given in 4.2 with a standard refined mineral oil of highest viscosity. Allow the viscometer to run with this oil for 5 minutes after which the reading shall

www.danieliv.com
 Email: danieliv@bnetty.co.in

M. SHANMUGASUNDARAM
 Purchase Officer
 MM / MFG / Purchase / PSS
 BHBL, TRICHY - 620 014.

Handwritten signature/initials.

AMENDMENT NO. 1 APRIL 1998
TO
IS 101 (PART 1/SEC 5) : 1989 METHODS OF
SAMPLING AND TEST FOR PAINTS, VARNISHES
AND RELATED PRODUCTS
PART 1 TESTS ON LIQUID PAINTS (GENERAL AND PHYSICAL)
Section 5 Consistency
(Third Revision)

(Page 1, clause 3.1.1.4) — Substitute the following for the existing matter:
'Calibration of Master flow cup shall be carried out at NPL/NTH atleast once in a period of five years for the requirements mentioned under:

- i) All dimensions as per Fig. 1; and
- ii) Flow rate with the standard newtonian liquid of known viscosity, at $30 \pm 0.5^{\circ}\text{C}$.

(Page 2, Fig. 1) — Substitute the figure on page 2 for the existing figure.

(Page 2, clause 3.2.2, line 3) — Substitute '3.2.4' for '4.2.4'.

(Page 2, clause 3.2.4, line 2) — Substitute 'at $30 \pm 1^{\circ}\text{C}$ for the words 'is within 0.5°C of the test temperature'.

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FOREWORD

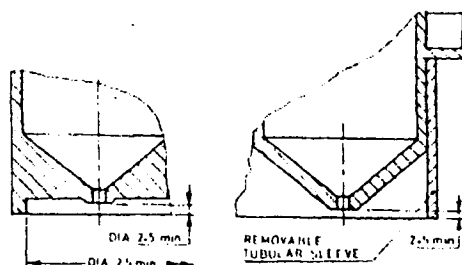
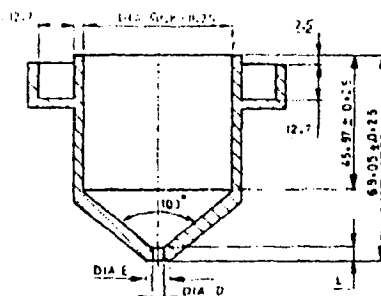
This Indian Standard (Third Revision) was adopted on 30 June 1989, after the draft had been approved by the Chemical

Consistency is an important property of the material when shearing. Qualitatively and traditionally, the use of a metal rod or palette knife into the material should not cake inside. The test produces a smooth uniform pair

This standard supersedes 7.4 of (second revision). In the present form, it is derived from ISO 2884-1974 'Paints and Varnishes - Test method for Consistency - Test method for Consistency - Philadelphia, USA.

Brookfield viscometer method is

Amend No. 1 to IS 101 (Part 1/Sec 5) : 1989



FLOW CUP DESIGNATION	D. DIA ± .015	L ± 0.05	E ± 0.5
No. 2	2.380	4.62	8
No. 3	3.170	4.95	8
No. 4	3.970	5.26	8
No. 5	4.760	5.59	8
No. 6	7.120	6.60	10

All dimensions in millimetres.

FIG. 1 FLOW CUP

(CHD 020)

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Email: danielv@bheltry.co.in

N. Shanmugasundaram
N. SHANMUGASUNDARAM
Purchase Officer
MM / MFG / Purchase / PSS
BHEL, TRICHY - 620 014.

AMENDMENT NO. 2 AUGUST 2000
TO
IS 101 (Part 1/Sec 5) : 1989 METHODS OF SAMPLING
AND TEST FOR PAINTS, VARNISHES
AND RELATED PRODUCTS

PART 1 TESTS ON LIQUID PAINTS (GENERAL AND PHYSICAL)

Section 5 Consistency

(Third Revision)

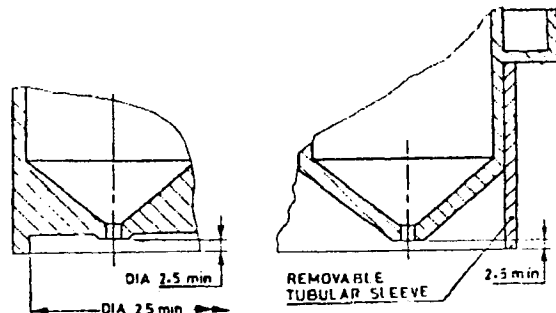
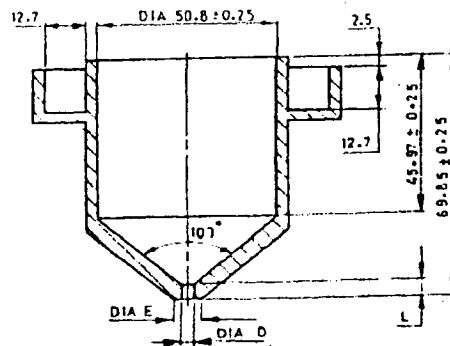
(Page 2, clause 3.1.1.4, Amendment No. 1, Fig. 1) — Substitute the following figure for the existing:

Licensed To: V.PAUL DANIEL

Email: danielv@bheltry.co.in

N. SHANMUGASUNDARAM
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MM / MFG / Purchase / PSS
BHEL, TRICHY - 620 014.

Amend No. 2 to IS 101 (Part 1/Sec 5) : 1989



FLOW CUP DESIGNATION	D, DIA ± 0.015	L ± 0.05	E ± 0.5
No. 2	2.380	4.62	8
No. 3	3.170	4.95	8
No. 4	3.970	5.26	8
No. 5	4.760	5.59	8
No. 6	7.120	6.60	10

All dimensions in millimetres.
FIG. 1 FLOW CUP

(CHD 20)