



ISO 9001 Company

**Heavy Engineering Corporation Limited**  
(A Govt. of India Enterprise)  
**Heavy Machine Building Plant**  
**MM DIVISION**

TENDER No. HMB/PUR/05/12/025/EL(Crane)-3541

DTD 24.11.12

To

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Dear Sir

We request you to submit your most competitive offer for the following items as per the given schedule & Technical specification.

SI no.	Description	Qty.
1.	Armoured, HRPVC, copper cables of different sizes, Unarmoured, EPR, Copper Cables of different Sizes and Encoder and thermistor cables.	As per technical specification

**Schedule of Tender receipt by**                      **10.12.2012**                      **up to 1 PM**

**Opening of Tender on**                                      **10.12.2012**                      **at 3 PM**

**This enquiry consists of 2 parts as under:**

- (1) **Schedule I** –                                      Terms and conditions
- (2) **Schedule II** –                                      Technical specification



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**Schedule – I**

**Terms & Conditions**

1. The rate quoted shall be Inclusive of all packing & forwarding. Freight charges to be mentioned separately.
2. The Price quoted by the tenderer should be exclusive of Sales Tax / VAT. The rate and nature of sales tax applicable should be shown separately. Tax will be paid to the seller at the rate at which it is liable to be assessed or has actually been assessed on the date of supply provided the transaction of sale is legally liable to sales tax and within the delivery period. Any change on the taxes & duty structure beyond the delivery period will not be considered by HEC.
3. The rates quoted must be firm and the offers made must remain open for acceptance for three months from the due date of opening of the tender.
4. Quotations erased or over written are likely to be rejected unless all corrections are authenticated with the tenderers signature.
5. Delivery date offered must be specified and guaranteed.
6. Payment-Full payment will be made after 60 days of the receipt of supplies at destination duly inspected.
7. Full particulars specifications, literature and / or drawing wherever applicable should be submitted along with the quotation. The brand and 'Make' name must be indicated.
8. The Corporation does not pledge itself to accept the lowest or any tender and reserves to itself the right of accepting the whole or any part of tender or portion of the quantity offered and you shall supply the same at the rate quoted.
9. Supplies will be subject to inspection by our Inspection wing/or Inspection agencies prescribed by us.
10. Order placed as a result of this tender will be subject to the Corporation's General Terms and Conditions of contract, which can be down loaded from our web site [www.hecltd.com](http://www.hecltd.com).
11. Corporation reserves the right to call for and examine at any time the books of accounts and other documents and papers of the firm for the purpose of ascertaining whether any excess payments has been made or the firm likely to be received/ received undue benefit out of execution of the particular contract.
12. Earnest Money- Earnest money to the extent of 2% of the total value to be deposited by demand draft on the State Bank of India, Ranchi Hatia Branch, in favour of Heavy Engineering Corporation Ltd. Ranchi-4 along with the offer. EMD will be converted to security deposit in case of successful bidder. **Offer without EMD/Documents for exemption if any will not be considered.**
13. Security Deposit- The firm has deposit a sum equal to a 5 percent of the total value of the contract as Security Deposit for the due fulfillment of the contract within 14 days after placement of order. Failing this the contract will be cancelled at the risk & expense of the supplier. This will be in addition to other remedies available to the purchaser for the successful completion of the contract. The validity of the security deposit shall be up to the receipt of the last consignment.  
**Note:-**Incase the EMD is converted into security deposit the firm will have to deposit 3% amount of the total value (5% of the total value – 2% of the converted value)
14. Delivery- The time for and the date of delivery of the Stores stipulated in the acceptance of tender shall be deemed to be the essence of the contract and delivery must be completed not later than the dates specified therein. Otherwise:
  - (a) The purchaser to recover from the contractor a sum of 0.5 % per week ( completed week) of the price any stores (up to maximum 10%) as liquidated damages, which the contractor has failed to deliver as aforesaid or



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- (b) The purchaser may procure the un deliver stores/ similar items from elsewhere, without notice to the contractor at the risk of the contractor without canceling the contract in respect of the consignment not yet due for delivery or,
- (c) To cancel the contract or a portion thereof.
15. Income Tax Clearance Certificate- All tenderers shall submit along with their tender an Income Tax Clearance Certificate duly countersigned by the Income Tax Officer of the Circle concerned under the seal of the office. Copy of permanent A/c no. (PAN) (of income tax) to be enclosed with the bid.
16. There is no obligation on our part to accept delayed / late tenders received after the due date of opening and there are liable to be summarily rejected.
17. The rates quoted shall also be inclusive of embossing on the material. The Ownership namely "HMBP" at a predominant place of the material to a size/thickness depending upon the volumes of the material.
18. Guarantee-The stores supplied shall be guaranteed for a period of 12 months from the date of commissioning or 18 months from the date of supply which ever is earlier against defective materials or bad workmanship.
19. Performance Bank guarantee- Performance Bank guarantee amounting to 10% of the contract price is to be submitted in HEC's Format issued by any Nationalized Bank (Preferably State Bank of India) valid till guarantee period.

**20. SPECIAL INSTRUCTIONS**

The tender is to be submitted in single bid considering Techno commercial, Price Bid and EMD (Earnest Money Deposit) as per clause 12 of the enquiry.

The complete and sealed tender is to be submitted by 1:00 PM of 26.03.12 in the tender box at the office of the Sr. DGM / Purchase & Outsourcing / CED/HMBP, Room no. 72, HMBP ADM Building, HEC Ltd, Ranchi 4.

If the tender is bulky & voluminous the tenders are to be handed over to the following persons against receipt date & time:

1. Sri Upendra Nath  
Sr. DGM/Pur/EL/HMBP
2. Sri K.K. Das  
Jr. Manager/Pur/EL/HMBP

If the offer is not submitted as per the above instructions the same can be rejected.

Regards

(Upendra Nath)  
SDGM/PUR/EL/HMBP



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## Schedule - II

### Technical specification

W.O. Nos.	CAPACITY OF CRANE
9077.001.150	25/5 T X 17.35M E.O.T. CRANE FOR RSP
9076.001.150	25/5 T X 16M E.O.T. CRANE FOR BSP

### 1.0 SPECIFICATION OF CABLES :-

#### 1.1 ARMOURED, HRPVC, COPPER CABLES FOR FIXED WIRING:-

1.1.1 1100V Grade, multi-core, **armoured, HRPVC** insulated copper cable, core laid up together provided with extruded HRPVC innersheath, galvanized round steel wire armouring and HRPVC outersheath. The conductor shall be annealed high conductivity stranded sector shaped(sm) or with compact circular stranded (rm/V) or circular stranded, non- compacted (rm) copper conductor conforming to IS: 8130-84, **flexibility class - 2**. The insulation shall be HRPVC type C and the sheath shall be heat resistant ST-2; PVC as per IS: 5831-84. The cable shall conform to the latest revision of IS: 1554/part-1/1988. The cores shall be colored / numbered for core identification and interstices of the core shall be suitably filled up with non-hygroscopic material compatible with the type of insulation.

#### 1.2 UNARMOURED, EPR, COPPER CABLES FOR FESTOON WIRING:-

1.2.1 1100V Grade, round multi-core, **unarmoured, EPR** insulated flexible copper cable, annealed high conductivity tinned stranded copper conductor conforming to IS: 8130-84, **flexibility class - 5**. The insulation shall be heat resistant type IE2 and sheath shall be PCP/CSP, HD HOFR type conforming to SE4 of Table 1 of IS: 6380-84. The cores shall be colored / numbered for core identification and interstices of the core shall be suitably filled up with non-hygroscopic material compatible with the type of insulation. The cables shall conform to IS: 9968/part-1/1988.

#### 1.3 ENCODER AND THERMISTOR CABLES

1.3.1 500V grade EPR insulated flexible (flexibility Class 5) copper cable, 2 cores twisted together to make a pair shielded with flexible tinned copper wire braid along with tinned copper drain wire , 4 number of such shielded pairs laid up and shielded with flexible tinned copper wire braid along with tinned copper drain wire and overall outer sheathed with PCP/CSP elastomeric compound ; cable size 4(2x1) sq. mm. generally conforming to IS: 9968(I)



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**2.0 SCOPE OF SUPPLY:-**

**2.1 Armoured, HRPVC insulated, class - 2, Copper cables of following sizes:-**

Sl. No.	Item code	Cable size in sq. mm.	Estimated Approx Cable Length		
			25/5TX 17.35 M Crane RSP	25/5T X 16M Crane BSP	Total Qty.
2.1.1.	553310046 2	3 x 185	25M	25M	50M
2.1.2.	553310046 3	3 x 95	50M	50M	100M
2.1.3.	553310046 4	3 x 16	50M	50M	100M
2.1.4.	553310046 5	3 x 4	250M	250M	500M
2.1.5.	553310046 6	3 x 2.5	1000M	1000M	2000M
2.1.6.	553310046 7	2 x 2.5	550M	550M	1100M
2.1.7.	553310046 8	1 x 95	45M	45M	90M
2.1.8.	553310046 9	1 x 16	45M	45M	90M
2.1.9.	553310047 0	1 x 4	80M	80M	160M
2.1.10.	553310047 1	12 x 2.5	180M	180M	360M
2.1.11.	553310047 2	7 x 2.5	250M	250M	500M

**2.2 Unarmoured, EPR insulated, class - 5, Copper cables of following sizes:-**

Sl. No.	Item code	Cable size in sq. mm.	Estimated Approx Cable Length		
			25/5TX 17.35 M Crane RSP	25/5T X 16M Crane BSP	Total Qty.
2.2.1	5533100473	18 x 2.5	30M	30M	60M
2.2.2	5533100474	3 x 35	30M	30M	60M
2.2.3	5533100475	3 x 4	120M	120M	240M
2.2.4	5533100476	3 x 95	30M	30M	60M
2.2.5	5533100477	1 x 35	30M	30M	60M



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2.2.6	5533100478	1 x 4	30M	30M	60M
2.2.7	5533100479	1 x 95	30M	30M	60M

### 2.3 Encoder and Thermistor Cables of following sizes :-

Sl. No.	Item code	Cable size in sq. mm.	Estimated Approx Cable Length		
			25/5TX 17.35 M Crane RSP	25/5T X 16M Crane BSP	Total Qty.
2.2.1	5533100480	4P for Encoder & Thermistor 4(2 x 1)	500M	500M	1000M

### 3.0 INFORMATION ALONGWITH THE OFFER :-

3.1.0 The tenderer must furnish data sheet for the cables, containing the following information along with the offer.

3.1.1 Applicable Standards.

3.1.2 Basic continuous current rating at 40°C with close excess current protection in air.

3.1.3 Derated current rating at 40°C. when 6 nos. of fixed wiring cables are laid in single way ducts / pipes in horizontal formation touching each other.

3.1.4 Derated current rating at 40°C. when a large no. of flexible trailing cables (Sl. no. 2.2) are grouped together, clamped at intervals on cable carriers of festooning arrangement and hung in the air.

3.1.5 Derating factor for ambient temperature variation at 45°C, 50°C, 55°C & 60°C.

3.1.6 Group rating factors for all the types of cables.

3.1.7 Maximum permissible conductor temperature.

3.1.8 Uprating factors for 25%, 40%, 60% and 100% CDF.

3.1.9 Stranding data of the conductor.

3.1.10 Resistance of conductor at 20°C and shape of conductor.

3.1.11 Number of strands with wire diameter & conductor O.D..

3.1.12 Thickness of inner sheath, outer sheath and insulation.

3.1.13 Voltage drop per metre per ampere.

3.1.14 Minimum bending radius.

3.1.15 Dia of individual core.

3.1.16 Dia of over laid up core.

3.1.17 Nos. and Dia. of armour wire.

3.1.18 Conductivity of armouring expressed as percentage of conductivity of largest conductor.

3.1.19 Dia. of finished cable with tolerance.

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3.1.20 Weight of the cable per meter.

3.1.21 Cable inductance, capacitance and impedance for cable.

3.2 Make of cables shall be from the preferred make lists of M/s BSP/RSP only.

3.3 Total quantity of cable length are tentative and size may change. Price per meter may also be furnished by the tenderer.

**4.0 Inspection and Tests :-**

4.1 Inspection and tests shall be as per **mutually agreed "QAP"** between successful tenderer and purchaser.

**5.0 Documents :-**

5.1 After award of order, within two weeks, the firm shall have to submit cable data sheets by the firm in 12 sets for approval from M/s MECON / RSP/ BSP.

5.2 After approval of the cable data sheets, the firm shall have to submit further 12 sets of prints to M/s MECON/RSP/BSP as a distribution copies.