

WAP/M/SPECN-1/072/1998

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GOVERNMENT OF INDIA
(Ministry of Railways)

SPECIFICATION FOR
MINIATURE TYPE DISPOSABLE
THERMOCOUPLE TIPS

Issued by

MECHANICAL DRAWING OFFICE
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VELAHANKA, BANGALORE-560 064
INDIA

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SPECIFICATION FOR MINIATURE TYPE DISPOSABLE THERMOCOUPLE TIPS**1.0 SCOPE:**

The specification covers the supply of type "S" Miniature Disposable Thermocouple Tips which will be supplied at Wheel & Axle Plant, Yelahanka, Bangalore, Karnataka State, India as per instructions and conditions of contract and tender papers enclosed.

2.0 GENERAL DESCRIPTION:

Miniature type disposable Thermocouple tips of Platinum, Platinum Rhodium 10% along with 1200 mm. cardboard tube spirally wound or of superior construction. The thermocouple should conform to IPTS-68.

3.0 JOB REQUIREMENT:

The Disposable Thermocouple Tip is required to measure the temperature of molten steel upto 1740°C in EAFs and Ladles.

4.0 TECHNICAL DATA:

Wire shall conform to BS 4937 or alternatively the firm must indicate the specification to which the wire offered confirms. Calibration of the wire shall be as per IPTS-68.

4.1 New firms who participate in the Tender shall demonstrate satisfactory performance of the tips at WAP with minimum of 50 Nos. of free samples.

4.2 Each tip shall have a 30 mm wide RED colour band at a distance of 500 mm. from non-tip end of the cardboard tube.

5.0 The firm shall guarantee that:

- i) the tips will work satisfactorily in actual service and will give accurate temperatures within a variation of 6°C.

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ii) The response time of the T.C. Tips shall be 3 Sec. or better.

6.0 The firm shall furnish the manufacturer's test certificate for the TC Tips at the time of supply.


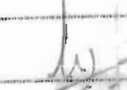
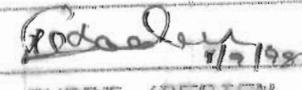
7.0 INSPECTION NORM:

- i) The TC Tips shall be tested for consistency of accuracy by using 3 Tips one after the other, under normal working conditions prevailing at WAP and variation in the temperature indicated shall be within 6°C with a response time of 3 seconds or better.
- ii) The cardboard tube shall not get burnt fully within 10 seconds of immersion at a temperature of 1700°C.

8.0 SAMPLING AND ACCEPTANCE NORMS:

As per IS-2500 (Pt.I) latest. GIL (II).

- i) Single sampling for reduced inspection Table II C to E 1.0 AGE 1.0
- ii) Consistency Test: From the selected TC Tips (samples selected as per IS 2500 Part-I latest GIL-II).
5 sets of readings using 3 tips at a time shall be taken at pouring station. The variation in temperatures indicated in each sample of 3 TC tips shall be within 6°C.

		
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