

ANNEXURE – 'D'

MAHARASHTRA STATE ELECTRICITY DISTRIBUTION COMPANY LTD.

SCHEDULE - ' A '

TECHNICAL SPECIFICATION FOR VARIOUS SIZES OF  
HOT ROLLED STEEL BEAMS ( JOISTS )

(11-07-06)

SPECIFICATION NO: DIST/MM/I/RSJSPEC-2006

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(FILE No. MM/I/EEDII/THAKUR/RSJSPEC-2006)

**MAHARASHTRA STATE ELECTRICITY DISTRIBUTION COMPANY LTD.**  
**SCHEDULE - ' A '**  
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**HOT ROLLED STEEL BEAMS ( JOISTS )**  
**SPECIFICATION NO:DIST/MM/I/RSJSPEC-2006**

**1. SCOPE :-**

Specification covers the manufacture, testing at works and supply of various sizes of Hot rolled steel beams.

**2. WEATHER CONDITIONS :**

The materials used in the construction of the steel shall be suitable for use under following weather conditions.

- i) Temp. variation : 0 Deg.C to 50 Deg.C
- ii) Relative Humidity : 20 % to 100 %
- iii) Altitude : 0 to 1000 meters.

**3. APPLICABLE STANDARDS:**

The Mild shall be conforming to IS:2062 – 1992 GRADE ‘ A ‘ modified upto date or its equivalent international standard for steel materials, document for which shall be made available at the time of inspection to the Company’s representative.

The dimensions of Hot Rolled Steel Beams shall be conforming to IS: 808 / 1989 amended upto date and tolerance as per IS : 1852 modified upto date.

**4. GENERAL REQUIREMENTS :**

- 4.1. Material shall be supplied as per the sizes and technical details AS PER Annexure I and Drawing No.: Dist./ MM /63.812 enclosed.

**5. INSPECTION :**

- 5.1 All inspections / tests will be carried out by the representative of MSEDCL.
- 5.2 All tests and inspections shall be made at the place of manufacturer unless otherwise specially agreed upon by the manufacturer and the purchaser. The manufacturer shall afford the inspector ( Representing purchaser ) all reasonable facilities without charge to satisfy him that the material is being supplied in accordance with this specification.

**6.: SCHEDULE :**

- 6.1: The tenderer shall fill in the following schedule which form part of the tender specification and offer. If the schedule is not submitted duly filled in with the offer, the offer shall be liable for rejection.

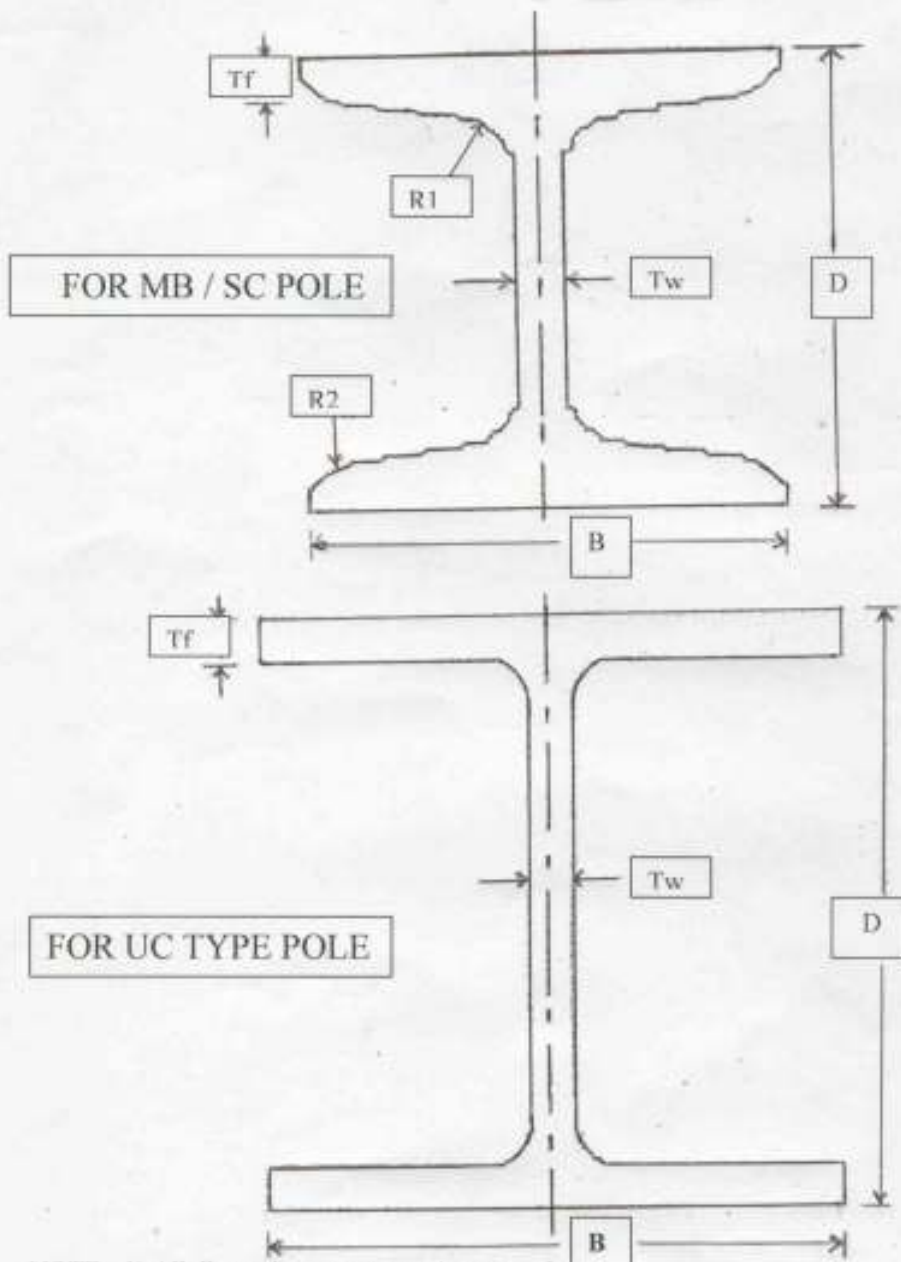
SCHEDULE - 'C' - Tender's Experience.

- 6.2: The tenderer shall submit the list of orders for similar type of equipment, executed or under execution during the last three years, with full details in the schedule of Tenderer's experience (Schedule 'C') to enable the purchaser to evaluate the tender.



**ANNEXURE – I**

Sr. No.	Particulars	Requirement as per Company's Specification				
			MB	MB	SC	UC
1.	Designation (DxB) ( mm x mm )	116x100	125x70	175x85	152x152	152 x 152
2.	Length of joist-Meter with +100 mm tolerance	10m/11m/ 13m	8 m / 9 m	9 m	11m / 13m	11m /13m
3.	Weight ( kg/M)	23.0	13.3	19.6	37.1	37.0
4.	Sectional area (A) (Sq.cm. )	29.3	17.0	25.0	47.4	47.11
5.	Depth of section ( D ) (mm)	116	125	175	152	161.8
6.	Width of flange ( B ) (mm)	100	70	85	152	154.4
7.	Thickness of flange (Tf) (mm)	10	8	9	11.9	11.5
8.	Thickness of Web (Tw) (mm)	8.5	5	5.8	7.9	8.0
9.	Radius of fillet or root (R1)(mm)	15	9	10	11.7	7.6
10.	Radius of tow (R2) (mm)	3	4.5	5	3	--
11.	Moment of Inertia (i) I xx (cm <sup>4</sup> ) (ii) I yy (cm <sup>4</sup> )	643.8 143.5	445 38.5	1260 76.7	1970 700	2210 706.2
12.	Radius of Gyration GR xx (cm)	4.69	5.16	7.13	6.45	6.85
13.	Modulus of Section (i)Z xx (cm <sup>3</sup> ) (ii)Z yy (cm <sup>3</sup> )	111 28.7	71.2 11	144 18	259 91.9	273.2 91.48
14.	Tolerance in dimensions plus/minus	-----As per IS: 1852-----				



NOTE:- 1) All dimensions are as per Annexure-I.  
 2) Drawing is not to the scale. *SP No: DIST/MM/T/R&T SPEC-2006*

R.S.J. POLE				M.S.E.D.C.L.
<i>prad</i> 28.7.06	<i>[Signature]</i> 28.7.06	<i>[Signature]</i> 28.7.06	<i>[Signature]</i> 28/7/06	DISTRIBUTION SECTION.
DRN. BY J.E. (MM-1)	CHK. BY E.E. (MM-1)	SUB. BY S.E. (MM)	APR. BY C.E.(DIST.)	DRG. NO.: DIST./MM/63.812