

**SCHEDULE OF TECHNICAL REQUIREMENTS FOR MANUFACTURING**  
**CREW FAN (67WATTS/1400 RPM)**

**(A) M&P Requirements: -**

1.	Lathe machine (3 Nos.)	3 feet, 6feet, & 10 feet	For machining
2.	Electrical welding M/C.	(Max. cont. welding current at 100% duty cycle - 300A) approx.	For distortion free & high strength welding of fan impeller of MS/SS and aluminum impeller fan casing.
3.	Dynamic balancing M/C with vibration analyzer	Suitable for max. rotor wt.100 kgs & min. rotor wt. 500 gms.	For balancing the impeller
4.	Coil winding machine	-	For winding the coil of motor
5.	V.P. I plant	-	For providing insulation
6.	Stamping machine	-	For manufacturing rotor and stator
7.	Press machine	30 ton	For straightening sheets
8.	Grinding machine	-	For finishing the surface
9.	Drill machine	-	For drilling mounting holes etc
10.	Chain Pulley	2 ton	Chain Pulley for traveling trolley
11.	Puller for impeller	-	To remove the impeller from assembly
12.	Sharpening machine	Upto 3 - 4 mm	For cutting sheet

**(B) Essential test equipment with minimum range having class 0.5 (5% accuracy)**

1. Anemometer (Manometer) - 02 Nos.
2. Multimeter - 01 No.
3. Wattmeter - 0-10 KW - 02 Nos.
4. Testing Panel Board for Testing Motors - 01 No.
5. Energy meter - 01 No.
6. Clamp-meter /Digital (0 to 100 Amps with variable range selection) - 01 No.
7. Meager - 500V - 01 No.
8. Frequency meter - 45 - 55 Hz - 01 No.
9. Pulse meter (Vibration indicator) - 40 microns
10. Hand tachometer (SPM meter) - 0-6000 RPM
11. Temp. Indicator - 0-200 deg. C
12. Stop watch - 01 No.
13. Vernier Calipers - 01 No.
14. Micrometer - 03 Nos. (upto -2", upto-6" & upto 8")
15. Variac - to create unbalance supply
16. Oscilloscope for measuring starting time and current (60 MHz, Dual Channel) - 01 No.
17. Sound Level Meter - For measuring noise level.(0 to 1000 db) - 01 No.

**(C) Quality Requirements: -**

1. Input Raw Material - Metallurgical Test is to be done. Sources of raw material to be specified.
2. Stage-wise Inspections are to be done & Check List for the same is to be made.
3. Final Inspection is to be done & Check List for the same is to be made.
4. Valid ISO accredited certificate is required.
5. Valid NSIC/SSIC registration certificate to be obtained.
6. Jig & fixtures and Sufficient Working Area are required.

*M. Chandra*  
22/08/07  
AEE/D-III

~~Dy CEE / D-I~~

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23/8

~~CEE / LOCO~~

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21/8

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*attnd*  
*Zg*  
21/9/07

**Chittaranjan Locomotive Works**  
GOVERNMENT OF INDIA - MINISTRY OF RAILWAYS  
PO: CHITTARANJAN, WEST BENGAL. PIN: 713331  
FAX: (0341) 2525644



No. ELDD/1720/SG

Dated : 22.08.2007

**Sub:** Approval of Schedule of Technical Requirements (STR)  
for manufacturing of **CREW FAN** .

Schedule of Technical Requirements (STR) for manufacturing of **Crew Fan** has been prepared and is enclosed in SN side.

May kindly approve.

DA: STR as above (At SN – Side)

*W. Ghosh*  
22/08/07  
AEE/D-III

Dy. CEE/D-I

*23.8.07*

CEE/Loco

*29/8/07*

CEE/CLW

*28*  
*29/8*

*CECL*