

**GOVERNMENT OF INDIA
(Ministry of Railways)**

Schedule of Technical Requirement (STR)

for

Modular Terminal Blocks

Signal Directorate

**Research Designs & Standards Organization
Manak Nagar Lucknow –226011**

Modular Terminal Blocks

Scope

The Schedule of Technical Requirement No. SIQ 0208 covers machinery & plants, testing equipments and quality assurance plan required for manufacturing of Modular Terminal Blocks for Railway Signaling as per RDSO specification no. RDSO/SPN/189/2004 ~~Revision 2.0~~ Ver. 3.0

Vendor shall also comply norms issued by RDSO time to time in this connection and also other relevant laws of the country.

Note:

- i) This STR shall be applicable to all new vendors applying for registration .
- ii) All existing approved manufacturers shall be advised for implementation of new STR. A reasonable period for compliance shall be given.

Copy Holders:

- i) ED / QA
- ii) DSIG-II
- iii) ADE/DDS-II

ESSENTIAL PLANT AND MACHINERY REQUIRED FOR PRODUCTION

1. Microprocessor controlled Thermoplastic Injection Moulding Machine 80MT Capacity with microcontroller based current controller (0 to 1000 Amp)
2. Ageing Oven
3. Salt Spray test chamber
4. One set of Mould of each item
5. Dehumidifier for pre-heating of raw materials
- ~~6. Vertical Slider/Forming Machine~~
7. Power Press 10 MT of Punching pressure
8. One set of Press Tool
9. CNC wire cut Machine
10. CNC Drilling Machine
11. CNC Milling Machine
12. Conventional EDM Machine
13. Compression Moulding Machine
- ~~14. Automatic tapping Machine~~
15. Multislide forming Machine
16. Furnace (Heat treatment)
17. Electroplating Machine

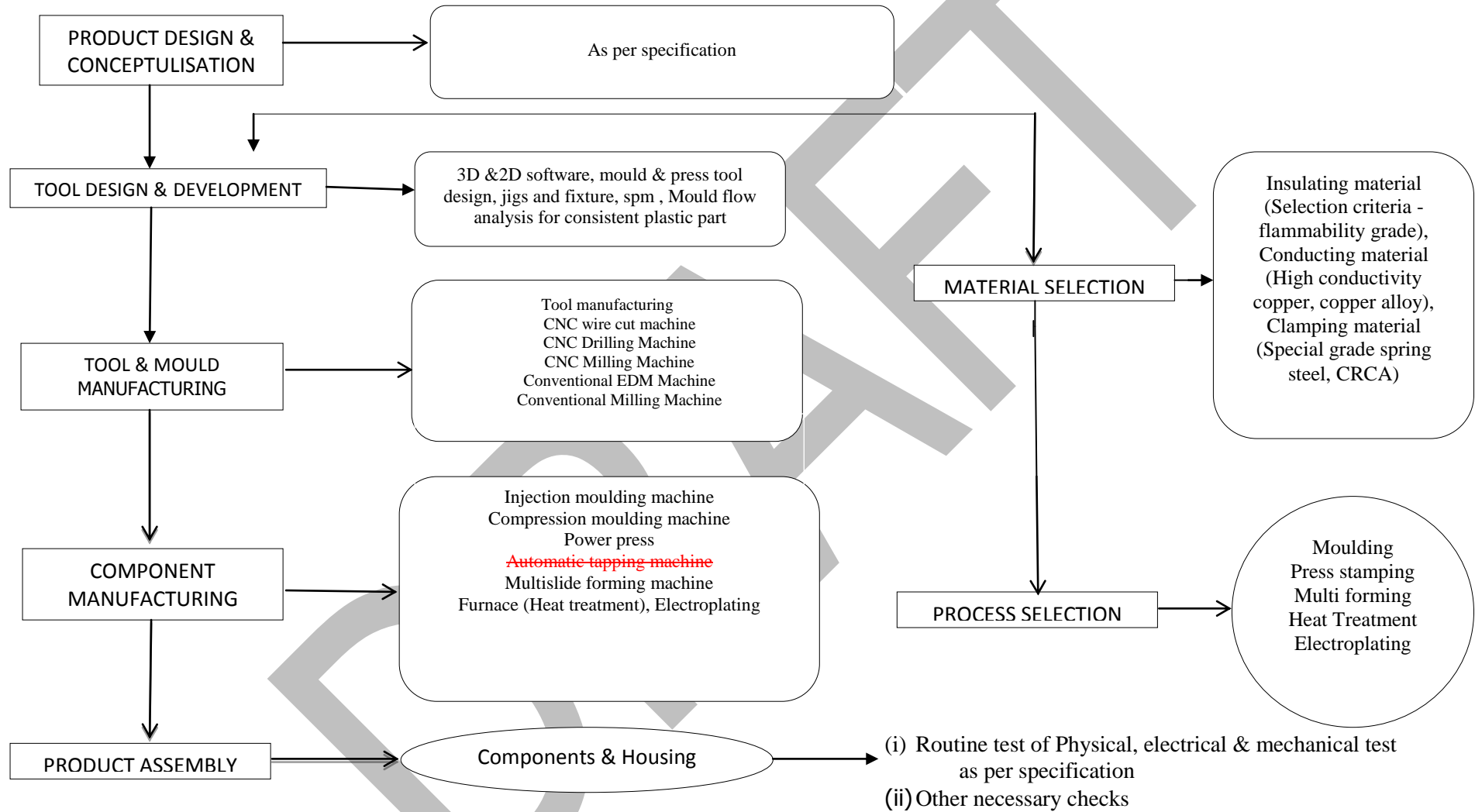
- Note:** (i) Plant and machinery shall be of adequate capacity to manufacture the product as per RDSO specification .
- (ii) Any process/activity being outsourced shall be from ISO approved firms.
- (iii) QAP of ISO approved firm shall be verify by Inspecting agency.

ESSENTIAL TESTING EQUIPMENTS REQUIRED FOR QUALITY ASSURANCE

1. Needle Flame test Equipment/Glow wire test equipment
2. Hardness tester
3. Plating Thickness tester
4. Electronics weighing scale
5. Digimatic Spherical Face Micrometer
6. Short Time withstand current test equipment
7. Clamp meter
8. Magnifying Glass
9. Humidity & Temperature Meter
- ~~10. Torque Tester~~
11. Flexion tester
12. Pullout Tester
13. Gauge Insertion Tester
14. Endurance test setup for Disconnect terminal Block
15. Milli Volt drop Tester
16. Temperature rise Tester
17. HV Tester 5KVAC
18. Contact resistance tester
19. Micro Ohm Meter
20. Digital Vernier Caliper
21. Micrometer
22. True rms digital multimeter 4^{1/2} digit (2 nos.)
23. Insulation Tester
24. Digital thermometer
25. Stop watch
- ~~26. Torque wrench~~

Note: All calibrated testing instrument should be used & periodical calibration shall also be done

Quality Assurance Flow Chart For Modular Terminal Blocks



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