

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

**Schedule of Technical Requirement (STR)
for
Fuse Auto changeover system**

Signal Directorate

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

Fuse Auto changeover system

Scope

The Schedule of Technical Requirement No. SIQ 0206 covers machinery & plants, testing equipments and quality assurance plan required for manufacturing of Fuse Auto Changeover System for Railway Signaling as per RDSO specification no. RDSO/SPN/209/2012 Revision 0.

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

Note: This STR shall be applicable to all new vendors applying for registration.

Copy Holders:

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

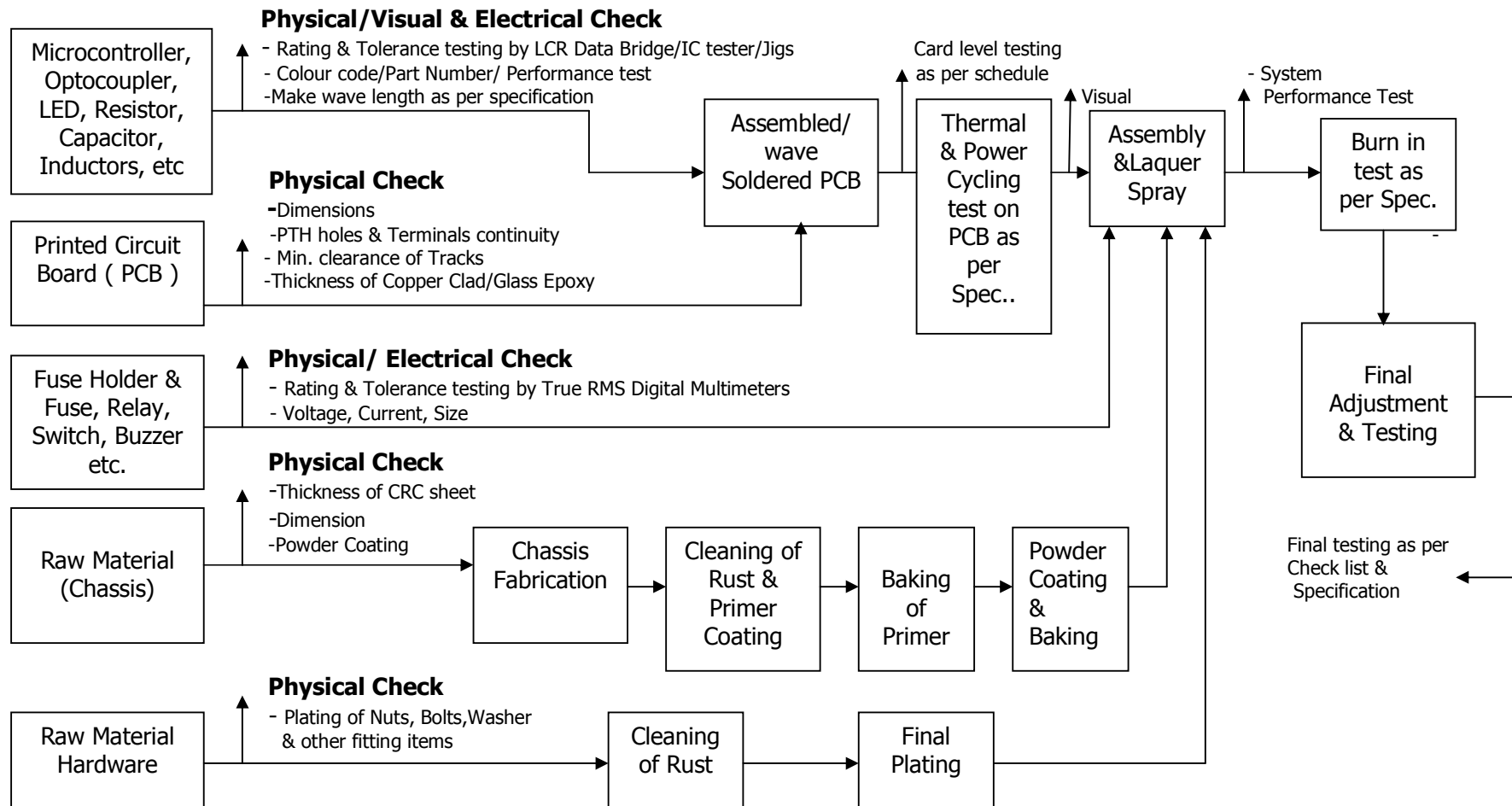
ESSENTIAL PLANT, MACHINERY AND TESTING EQUIPMENTS REQUIRED FOR PRODUCTION

1. Dry Heat Chamber and Cold Heat Chamber
2. Computer Aided Design system with Microcomputer based Work station
3. Wave Soldering Machine
4. Temperature controlled soldering/De-soldering station
5. Automatic Computerized test bench for individual Fuse Failure performance testing
6. Electro static discharge protected work bench
7. Computerized micro controller/ processor programming and testing system
8. PCB Inspection bench
9. Variac (25 Amp, 0-270V)
10. Variable DC power supply (0-150 V)
11. Portable AC & DC ammeter, voltmeter, AC wattmeter, Power factor meter
12. Digital IC testing & Diode/Transistor testers
13. Digital LCR meter
14. Digital Megger 500V DC
15. Milli Ohm meter
16. High Voltage tester 0-5KV/50Hz AC
17. Dual Trace Storage Oscilloscope 20 MHz
18. Hand held True RMS Digital Multimeter/Average Reading Multimeter
19. Electronic Time Interval meter
20. Hygrometer and Thermometers
21. Digital Contact Thermometer.
23. Clamp on meter.
24. Digital Micrometer
25. Digital Vernier Calipers
26. Dial type Vernier Caliper (150-300 mm)
27. Measuring Scales of types

Note:

1. Plant, machinery and testing equipments shall be of adequate capacity to manufacture the product as per RDSO specification .
- 2.. All calibrated testing instrument should be used & periodical calibration shall also be done
3. Laboratory area shall be air-conditioned and assembly area shall be dust free.

Quality Assurance Flow Chart For Fuse Auto Changeover System



Note: 1. Outsourcing, if any, of any sub-modules or PCB shall be indicated in the 'Quality Assurance Plan' and approval of RDSO, Lucknow shall be obtained. Any outsourcing of safety related sub-module or PCB shall be from ISO-9001 or ISO-9002 certified manufacturers only. Necessary tests and checks shall be done by the manufacturer of FACS to ensure quality, reliability and compliance of the specification.

2. Checks and tests shown in the Quality Assurance Flow Chart are only indicative. All necessary checks and tests as necessary to ensure quality shall be carried out at every stage of manufacturing and proper record of all checks and tests shall be maintained.

-----X-----X-----