

MS Word Export To Multiple PDF Files Software - Please purchase license.



**Government of India
Ministry of Railways**

**QMS-32:2009
(Revision 0)**

**Schedule of Infrastructure Requirements for Manufacturing & Testing
facilities and Quality Control requirements**

For

**Angle Cock, Dirt Collector, Guard Emergency
Brake Valve, Pressure Emergency Brake Valve,
Isolating Cock, Check Valve, Pressure Emergency
Alarm Apparatus & PEA Signal Device
(Specn. 02-ABR-02)**

Inspection & Liaison Directorate
Research Designs & Standards Organisation
Manak Nagar Lucknow – 226011

March'2009

(Price Rs. 300/-)

1.0 SCOPE

The Schedule for technical requirements covers General & manufacturing facilities, Quality control requirements and testing facilities for cut off Angle cock to RDSO Drawing No. WD-88123-S-01 used on Air Brake systems.

2.0 GENERAL AND MANUFACTURING FACILITIES

2.1 Manufacturers should have adequate covered space for storing raw material, finished items awaiting despatch and arranging inspection. Manufacturer shall have adequate facilities for manufacture and testing of angle cocks conforming to RDSO drawing.

2.2 There should be a foundry of adequate capacity for casting of cap and body or the castings may be procured from RDSO approved sources.

3.0 MACHINERY & PLANT

Following machinery & plant of suitable capacity should be available:

- | | | |
|-----|--|------------------|
| 3.1 | At least two lathe machines of suitable capacity for facing, boring, threading of 1-1/4" BSP and lip formation for body and cap. | Vital |
| 3.2 | At least one drilling machine for drilling upto 10mm mounting holes on body & cap. | Vital |
| 3.3 | At least two tapping machines for tapping of M6 on Cap of Angle cock. | Vital |
| 3.4 | At least two pneumatic spanners for assembly of Angle cock are required. | Essential |
| 3.5 | Facility for hot phosphating and waxing. | Essential |

4.0 QUALITY CONTROL REQUIREMENTS

4.1 The firm should have acquired ISO:9000 series certification. The product for which the approval is sought should be broadly covered in the scope of this certification for manufacture and supply.

- 4.2 Quality manual of the firm pertaining to ISO:9000 certification should clearly indicate at any stage the control over manufacturing and testing of the said railway product.
- 4.3 Traceability of product/parts thereof should be ensured from raw material to finished stage.
- 4.4 Quality assurance plan for the product should be available detailing various aspects like :
- Organisational chart
 - Flow process chart
 - Stage inspection details
 - Various parameters to be maintained to ensure control.
 - Policy of disposal of rejected material
- 4.5 The head of the inspection/quality control section must be a diploma holder with 5 years experience in the relevant field.
- 4.6 Ensure that there exists a quality manual of the firm indicating control over production and testing.
- 4.7 Ensure that there exists a system of documentation of rejections at customers and a mechanism for warranty replacement.
- 4.8 System should exist for documentation of the following :
- 4.8.1 Incoming raw material with Test Certificate reference of supplier as well as internal test/audit checking from outside agency.
- 4.8.2 The details regarding stage inspection and test result.
- 4.8.3 System for calibration of Test & measuring equipment.

5.0 TESTING FACILITIES

- | | | |
|-----|---|------------------|
| 5.1 | Test bench for mounting and subjecting the angle cock to pneumatic pressure of 10 kg/cm ² should be there for operational tests. | Vital |
| 5.2 | Leakage testing facility at 10 kg/cm ² should be there. | Vital |
| 5.3 | Vernier calliper and gauges for checking dimensional accuracy should be there. | Essential |
| 5.4 | Surface plate at least one | Essential |

