



PRODUCT MANUAL FOR BRANCH PIPE, UNIVERSAL FOR FIRE FIGHTING PURPOSE ACCORDING TO IS 2871: 2012

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification licence/certificate.

| | | | |
|---|---|--|--|
| 1 | Product | : | IS 2871 : 2012 |
| | Title | : | Branch Pipe, Universal for Fire Fighting Purpose. |
| | No. of Amendments | : | Nil |
| | | | |
| 2 | Sampling Guidelines: | | |
| a | Raw material | : | As per Clause 3 of IS 2871:2012 |
| b | Grouping guidelines | : | Branch pipes of each material shall be tested separately to cover pipes of that particular material in the scope of licence. |
| c | Sample Size | : | Branch Pipes- 2 nos |
| | | | |
| 3 | List of Test Equipment | : | Please refer ANNEX –A |
| | | | |
| 4 | Scheme of Inspection and Testing | : | Please refer ANNEX –B |
| | | | |
| 5 | Possible tests in a day: | | |
| | All tests | | |
| 6 | Scope of the Licence: | | |
| | Licence is granted to use Standard Mark as per IS 2871 : 2012 with the following scope: | | |
| | Name of the Product | Branch Pipe, Universal for Fire Fighting Purpose | |
| | Material | Copper Alloys/ Aluminium Alloy/Stainless Steel. | |

ANNEX A
List of Test Equipment

Major test equipment required to test as per the Indian Standard

| Sl. No. | Tests used in with Clause Reference | Test Equipment |
|---------|--|--|
| 1 | Shape and dimensions (Clause 4) | <ul style="list-style-type: none"> - Vernier Caliper - M12 left hand thread gauge (Plug gauge and Ring gauge) - M48x3 TPI sq. thread gauge (Plug gauge and Ring gauge) - Radius Gauges of various sizes - Plug gauges - Depth gauges - Templates for dimensional verification |
| 2 | Hydraulic Test (Clause 6.1) Operational Test (Clause 6.2) | <ul style="list-style-type: none"> - Hydraulic pressure testing arrangement with pressure gauge, end plugs etc. - High Pressure Hydraulic Pump with pressure gauge for operational test - Arrangement for holding branch pipes at specified spray angle - Bevel Protractor - Digital Stop watch |

The above list is indicative only and may not be treated as exhaustive.

ANNEX B

Scheme of Inspection and Testing

1. LABORATORY - A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

1.1 The manufacturer shall prepare a calibration plan for the test equipment.

2. TEST RECORDS – The manufacturer shall maintain test records for the tests carried out to establish conformity.

3. LABELLING AND MARKING – As per the requirement of IS 2871: 2012.

4. CONTROL UNIT – All Pipes manufactured from similar material in a month shall constitute a control unit.

5. LEVELS OF CONTROL - The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

5.1 All the production which conforms to the Indian Standards and covered by the licence should be marked with Standard Mark.

6. REJECTIONS – Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016.

TABLE 1

| (1) | | | | (2) | (3) | | |
|--------------|-----------------------------|---------------------------|--------------------|--|---------------------|---------------------------|---|
| Test Details | | | | Test equipment requirement R: required (or) S: Sub-contracting permitted | Levels of Control | | |
| CI | Requirements | Test Method | | | No. of Samples | Frequency | Remarks |
| | | Clause | Reference | | | | |
| 3.1 | Casting and forgings | | | | | | No further testing is required if received with test certificate or ISI marked. |
| 3.1.1 | Copper alloys | 3.1.1 | IS 2871 | S | One | Each cast/ Consignment | |
| | Sand castings | | IS 318 | | | | |
| | High tensile casting | | IS 304 | | | | |
| | Die castings | | IS 292 | | | | |
| | Hot forgings | | IS 291 | | | | |
| 3.1.2 | Aluminium alloy | 3.1.2 | IS 2871 IS 617 | S | One | Each cast/ Consignment | |
| 3.1.3 | Stainless steel | 3.1.3 | IS 2871 IS 3444 | S | One | Each cast/ Consignment | |
| 4 | Shape and Dimensions | 4.1 to 4.3, Fig 1 to 4 | IS 2871 | R | Each Branch Pipe | - | May be checked with gauges/ templates. |
| 5 | Workmanship and Finish | 5 | IS 2871 | R | Each Branch Pipe | - | - |
| 6 | Performance tests | 6 | IS 2871 | R | One | Each control Unit | - |
| | a) Hydraulic test | 6.1 | | | | | |
| | b) Operational test | 6.2 | | | | | |

Note-1: Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled by the Bureau

Note-2: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval by BO Head.