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IS 908 (1975): Specification for Fire Hydrant, Stand Post Type [CED 22: Fire Fighting]



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REAFFIRMED
2010

Indian Standard
SPECIFICATION FOR
FIRE HYDRANT, STAND POST TYPE
(*Second Revision*)

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR FIRE HYDRANT, STAND POST TYPE

(Second Revision)

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Indian Standard
SPECIFICATION FOR
FIRE HYDRANT, STAND POST TYPE
(*Second Revision*)

0. FOREWORD

0.1 This Indian Standard (Second Revision) was adopted by the Indian Standards Institution on 16 June 1975, after the draft finalized by the Fire Fighting Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 Hydrants are invariably used for fire fighting purposes to derive water from the water line. The hydrants could be stand post type or underground that is sluice-valve type. This standard covering fire hydrants, stand post type was first published in 1958 and revised in 1965. The second revision has been prepared to incorporate complete details of duck-foot bend, flange riser and also to make provision for the two outlets instead of one.

0.3 In the formulation of this standard due weightage has been given to international co-ordination among the standards and practices prevailing in different countries in addition to relating it to the practices in the field in this country.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard lays down the requirements regarding materials, shape and dimensions, construction and test for fire hydrant, stand post type, used for taking water from underground pipe line for fire fighting purposes.

*Rules for rounding off numerical values (revised).

2. GENERAL REQUIREMENTS

2.1 The hydrant shall consist of one or two sluice valves with road surface box(es), a duck foot bend, flange riser and a stand post column fitted with 63-mm male coupling(s). For the use in industries where required instead of coupling, the outlet be flanged so as to receive landing valve conforming to IS : 5290-1969* (see Fig. 1 and 2).

3. MATERIAL

3.1 Sluice valves shall be of Class I type with cap conforming to IS : 780-1969†. It shall be provided with false spindle.

3.2 The road surface box shall conform to IS : 3950-1966‡.

3.3 Duck foot bend, shall conform to IS : 1538-1969§ heavy duty type.

3.4 The flange riser shall conform to IS : 7181-1974||. The length of the pipe shall be as required.

3.5 Stand post column shall be of cast iron, cast in one piece conforming to Grade 20 of IS : 210-1970¶ and shape according to details given in Fig. 2.

3.6 Male half coupling shall conform to IS : 903-1975** (63 mm) except the tail which shall have parallel threads conforming to G-2½ of IS : 2643 (Part I)-1975†† instead of serration .

4. WORKMANSHIP AND FINISH

4.1 All parts shall have good finish, clear from burrs, blow holes and sharp edges; castings shall be clean and sound excluding plugging, welding or repairs of any defects.

5. HYDROSTATIC TEST REQUIREMENT

5.1 Each hydrant shall be subject to hydrostatic test and shall prove perfectly water tight under a hydraulic pressure of 200 metres head.

*Specification for landing valves (internal hydrant).

†Specification for sluice valves, for water-works purposes (50 to 300 mm size) (*fourth revision*).

‡Specification for surface boxes for sluice valves.

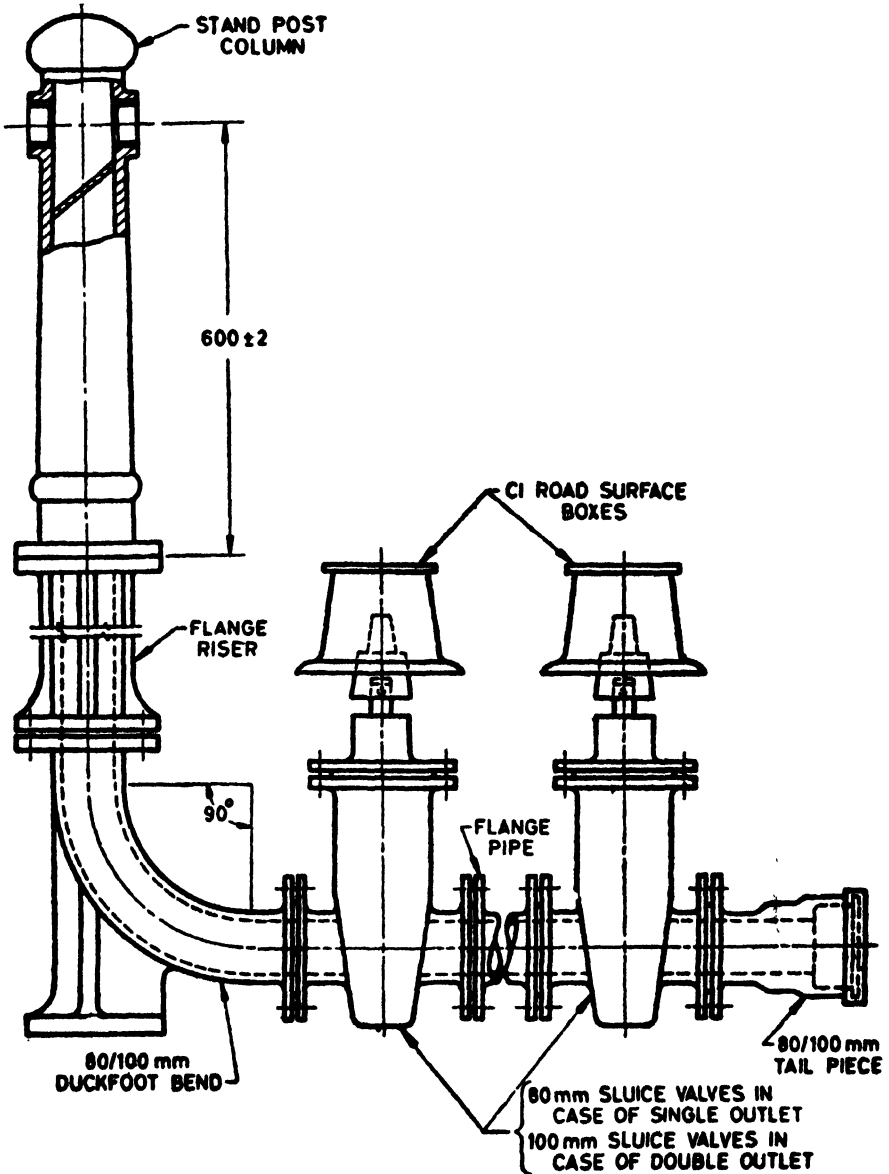
§Specification for cast iron fittings for pressure pipes for water, gas and sewage (*first revision*).

||Specification for horizontally cast iron double flanged pipes for water, gas and sewage.

¶Specification for grey iron castings (*second revision*).

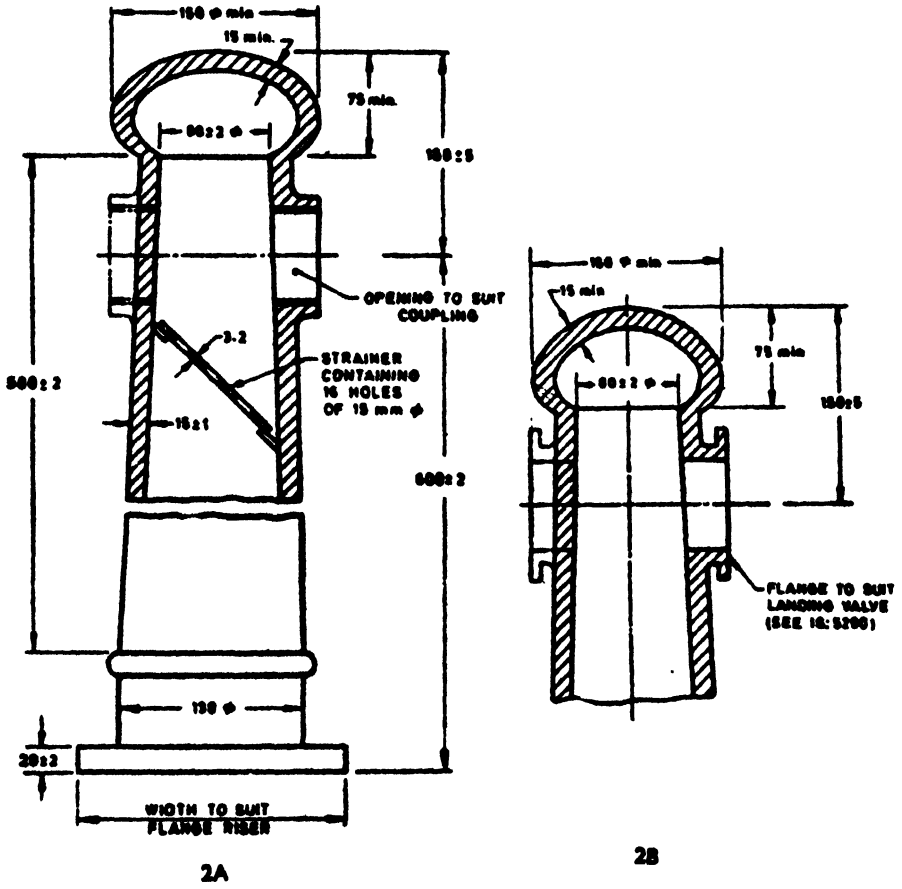
**Specification for fire hose delivery couplings, branch pipe, nozzles and nozzle spanner (*second revision*).

††Dimensions for pipe threads for fastening purposes: Part I Basic profile and dimensions (*first revision*).



All dimensions in millimetres.

FIG. 1 FIRE HYDRANT, STAND POST TYPE ONE/TWO OUTLETS



All dimensions in millimetres.

FIG. 2 STAND POST COLUMN

6. COATING

6.1 Immediately after casting and before machining, all cast iron parts shall be thoroughly cleaned, and before rusting commences, shall be coated by dipping in a bath containing a composition having bituminous base (*see* IS:158-1968*) and maintained at a temperature between 143 and 166°C. The proportions of the ingredients of the composition shall be so regulated as to produce a coating having properties given in 6.2 and 6.3.

6.2 The casting shall be re-heated before dipping, either by immersion in hot water or by heating in an oven, or shall be held in the dipping bath sufficiently long to reach an equivalent temperature, the method used being at the maker's option. Care shall be taken to see that the castings are perfectly dry immediately before dipping. On removal from the bath the castings shall be sufficiently drained and ensure that no portion is left uncoated.

6.3 The coating shall be such that it shall not impart any taste or smell to water. The coating shall be smooth, glossy and tenacious, sufficiently hard so as not to flow when exposed to a temperature of 77°C and not so brittle at a temperature of 0°C as to chip off when scribed lightly with the point of penknife.

7. PAINTING

7.1 Stand post of the hydrant shall be painted in the two coats of fire red paint (*see* Shade No. 536 of IS:5-1961†). The top of the post column above the outlet shall be painted two coats of canary yellow colour (*see* Shade No. 309 in IS:5-1961†). The paint shall conform to IS:2932-1964‡.

8. CRITERIA FOR ACCEPTANCE

8.1 Each hydrant shall be tested for the requirements prescribed in this standard.

9. MARKING

9.1 Each hydrant shall be clearly and permanently marked with the following information:

- a) Manufacturer's name or trade-mark, and
- b) Year of manufacture.

*Specification for ready mixed paint, brushing, bituminous, black, lead-free, acid, alkali, water and heat resisting for general purposes (*second revision*).

†Colours for ready mixed paints (*second revision*).

‡Specification for enamel, exterior, Type 2, (a) undercoating, (b) finishing, colour as required.

IS:908-1975

9.2 The cover of the road surface box shall have the letters 'FH' embossed on it and the cover shall be painted with black colour.

9.2.1 The product may also be marked with Standard Mark.

9.3 The use of the Standard Mark is governed by the provisions of *Bureau of Indian Standards Act, 1986* and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

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