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IS 901 (1988): Specification for Couplings, Double Male And Double Female, Instantaneous Pattern For Fire Fighting [CED 22: Fire Fighting]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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*Indian Standard*

**SPECIFICATION FOR  
COUPLINGS, DOUBLE MALE AND  
DOUBLE FEMALE INSTANTANEOUS  
PATTERN FOR FIRE FIGHTING**

*( Third Revision )*

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**BUREAU OF INDIAN STANDARDS**  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110 002

## *Indian Standard*

# SPECIFICATION FOR COUPLINGS, DOUBLE MALE AND DOUBLE FEMALE INSTANTANEOUS PATTERN FOR FIRE FIGHTING

*( Third Revision )*

### 0. FOREWORD

0.1 This Indian Standard (Third Revision) was adopted by the Bureau of Indian Standards on 30 November 1988, after the draft finalized by the Fire Fighting Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 Couplings, double male and double female instantaneous pattern for fire fighting are some of the important accessories used for fire fighting operations. This standard covering the specification of these items was first published in 1958 and revised in 1965 and 1975. The third revision has been prepared so as to include all the amendments

issued besides aligning the various figures according to the basic Indian Standard.

0.3 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.

\*Rules for rounding off numerical values (*revised*).

### 1. SCOPE

1.1 This standard lays down the requirements regarding material, shape, construction and test for couplings, double male and double female instantaneous pattern, used for fire fighting purposes.

### 2. MATERIALS

2.1 **Copper Alloys** — Copper alloys used for casting or forgings shall conform to the requirements given below:

- |                         |                                  |
|-------------------------|----------------------------------|
| a) Sand castings        | Grade LTB 2 of<br>IS : 318-1981* |
|                         | Grade HTB 1 of<br>IS : 304-1981† |
| b) Die castings         | Grade 3 of<br>IS : 292-1983‡     |
| c) Hot forgings         | Grade 1 of<br>IS : 291-1977§     |
| d) Gravity die castings | IS : 1264-1981                   |

\*Specification for leaded tin bronze ingots and castings (*second revision*).

†Specification for high tensile brass ingots and castings (*second revision*).

‡Specification for leaded brass ingots and castings (*second revision*).

§Specification for naval brass rods and sections (suitable for machining and forging) (*second revision*).

||Specification for brass gravity die casting ingots and castings (*second revision*).

2.2 Aluminium alloys used for castings shall conform to IS Designation 4450, 4225 or 4600 of IS : 617-1975\*.

2.3 The phosphor bronze wire used for the spring shall conform to IS : 7608-1975† to be used in case of copper alloy couplings and stainless steel wire used for the spring shall conform to IS : 6528-1972‡ to be used in case of aluminium alloy couplings.

2.4 The washers used in the couplings shall conform to Type A of IS : 937-1981§.

### 3. DIMENSION

3.1 The typical shape and essential dimensions are given in Fig. 1 and 2.

### 4. HYDRAULIC TEST REQUIREMENT

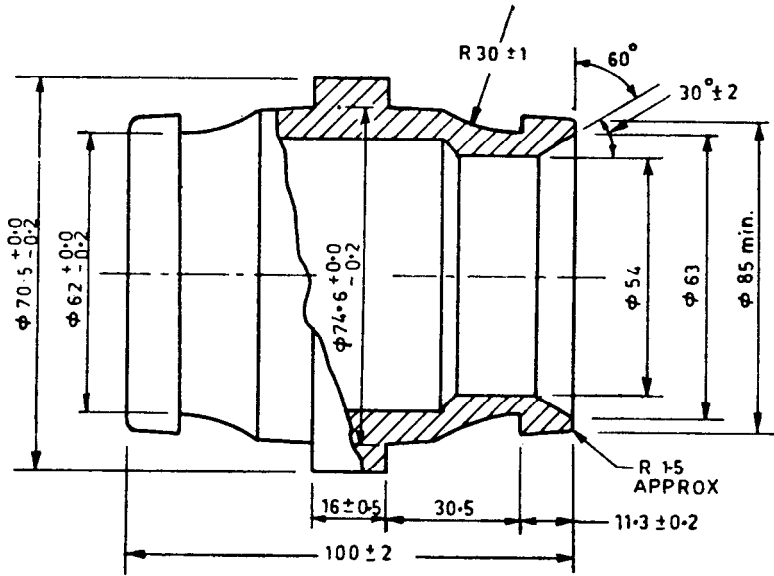
4.1 The coupling shall be subjected to a hydraulic pressure of 2.1 MN/m<sup>2</sup> (21 kgf/cm<sup>2</sup>) for a period of 2 minutes. The coupling shall not show any sign of leakage or sweating.

\*Specification for aluminium and aluminium alloy ingots and castings for general engineering purposes (*second revision*).

†Specification for phosphor bronze wires (for general engineering purposes).

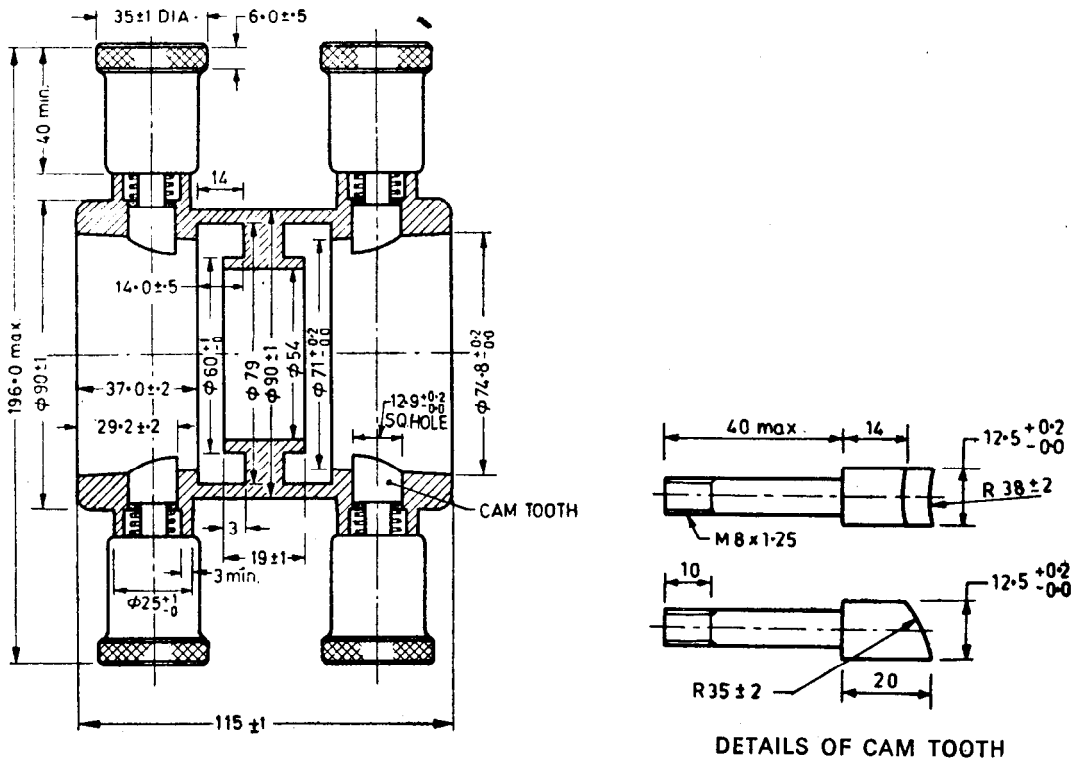
‡Specification for stainless steel wire.

§Specification for washers for water fittings for fire fighting purposes (*second revision*).



All dimensions in millimetres.

FIG. 1 DOUBLE MALE COUPLING INSTANTANEOUS PATTERN



All dimensions in millimetres.

FIG. 2 DOUBLE FEMALE COUPLING INSTANTANEOUS PATTERN

## 5. WORKMANSHIP AND FINISH

**5.1** All fittings shall be of good workmanship, finish and free from all burrs and sharp edges. The forgings and castings shall be sound and free from porosity, blow-holes, scales, cracks and other imperfections and shall not be repaired or filled so as to hide casting defects. The water-way of the fittings shall have a smooth finish. Exposed aluminium surfaces shall have an anodized finish and all threaded parts of aluminium alloy components shall be coated with molybdenum listed grease.

## 6. MARKING

**6.1** Each coupling shall be separately, clearly and permanently marked with the following information:

- a) Manufacturer's name and trade-mark;
- b) Year of manufacture; and
- c) Type of material.

**6.1.1** Each coupling may be marked with the Standard Mark.

NOTE — The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standard Act, 1986 and the Rules and Regulations made thereunder. The Standard Mark on products covered by an Indian Standard conveys the assurance that they have produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by BIS and operated by the producer. Standard Marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

## 7. CRITERIA FOR CONFORMITY

**7.1** Each coupling shall conform to the requirements given in this standard.

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This Indian Standard has been developed from

#### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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