



**PRODUCT MANUAL FOR
FIRE HOSE DELIVERY COUPLINGS, BRANCH PIPE,
NOZZLES AND NOZZLE SPANNER
ACCORDING TO IS 903: 1993**

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 903 : 1993
	Title	:	FIRE HOSE DELIVERY COUPLINGS, BRANCH PIPE, NOZZLES AND NOZZLE SPANNER
	No. of Amendments	:	4
2.	Sampling Guidelines:		
a)	Raw material	:	a) Delivery hose coupling, Nozzles – Clause 5.2 of IS 903 b) Branch Pipe – Clause 6.1 of IS 903 c) Nozzle spanner – Steel (Grade 35C4 and 40C8) of IS 1570 (Part 2/Sec 1) : 1979
b)	Grouping guidelines	:	Please refer ANNEX – A
c)	Sample Size	:	1 no: of each fitting
3.	List of Test Equipment	:	Please refer ANNEX – B
4.	Scheme of Inspection and Testing	:	Please refer ANNEX – C
5.	Possible tests in a day :		
	(i) Workmanship and finish (Clause 3) (ii) Size and dimensions (Clause 5.3, 6.2, 7.2 and 8.2) (iii) Hydraulic test requirements (Clause 5.4, 6.3, 7.3) (iv) Deflection test requirement (Clause 8.4)		
6.	Scope of the Licence : Please refer ANNEX –D		

ANNEX A

Grouping Guidelines

1. IS 903: 1993 covers the following varieties of fittings (accessories) used in firefighting operations:
 - a) Fire hose delivery couplings – 63 mm and 70 mm
 - b) Branch Pipe – 63 mm
 - c) Nozzles – 6 mm, 12 mm, 15 mm, 20 mm, 25 mm and 30 mm.
 - d) Nozzles spanner – 6 mm, 12 mm, 15 mm, 20 mm, 25 mm and 30 mm.

2. The grouping guidelines as given below shall be followed for GoL/CSoL of each fittings (accessories):
 - a) Fire hose delivery coupling of any size shall be tested to cover both the sizes.

 - b) Branch pipe of size 63 mm shall be tested.

 - c) Nozzles and Nozzle spanner having the minimum and maximum size shall be tested to cover Nozzles and Nozzle spanner of all sizes in that range.

3. The Firm shall declare the varieties of fittings (accessories) intended to be covered in the Licence. The Scope of Licence may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.

4. During the operation of the Licence, BO shall ensure that all the types and sizes covered in the Licence are tested in rotation, to the extent possible.

ANNEX B**List Of Test Equipment***Major test equipment required to test as per the Indian Standard*

S. No.	Tests used in with Clause Reference	Test Equipment
1	Size and Dimensions (Clause 5.3, 6.2, 7.2 and 8.2)	a) Snap gauges b) Vernier caliper c) Thread ring gauges d) Radius gauges e) Angle gauges f) Thickness measurement gauge
2	Hydraulic test requirements (Clause 5.4, 6.3, 7.3)	Hydrostatic pressure testing arrangement with pressure gauge and timer
3	Deflection test requirement (Clause 8.4)	Weight of 35 Kg

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

ANNEX C

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 requirements of IS 903: 1993.

4. CONTROL UNIT – Fire hose delivery couplings, Branch pipe, Nozzles, Nozzle spanner of each size manufactured from same material in one day 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 Standard 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		
Cl.	Requirement	Test Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
3	Workmanship and finish	3 & 5.2.2	IS: 903	R	All	-	-
DELIVERY HOSE COUPLINGS							
5.2	Material	5.2.1 to 5.2.6	IS 903	S	One	Each consignment received	#
5.3	Size & Dimensions	5.1 & 5.3, Fig. 2	IS 903	R	All	-	May be checked with gauges
5.4	Hydraulic test	5.2	IS 903	R	All	-	-
BRANCH PIPE							
6.1	Material	6.1	IS 903	S	One	Each consignment received	#
6.2	Shape & Dimensions	6.2 & Fig. 3	IS 903	R	All	-	May be checked with gauges
6.3	Hydraulic test	6.3	IS 903	R	All	-	-
NOZZLES							
7.1	Material	7.1	IS 903	S	One	Each consignment received	#
7.2	Size & Dimensions	7.2 & Fig. 4	IS 903	R	All	-	May be checked with gauges
7.3	Hydraulic test	7.3	IS 903	R	All	-	-

NOZZLE SPANNER							
8.1	Material	8.1	IS 903	S	One	Each consignment received	#
8.2	Shape & Dimensions	8.2, Fig. 5	IS 903	R	All	-	May be checked with gauges
8.3	Anti-corrosive treatment	8.3	IS 903	R	All	-	-
8.4	Deflection Test	8.4	IS 903	R	One	Each control unit	-

No further testing is required, if material received is accompanied with test certificate or ISI marked.

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 obligatory in nature.

ANNEX- D**Scope of Licence**

“Licence is granted to use Standard Mark as per IS 903 : 1993 with the following scope:	
Name of the product	Fire hose delivery couplings/ Branch pipe/ Nozzles / Nozzle spanner
Sizes	Fire hose delivery couplings – 63 mm and 70 mm Branch Pipe – 63 mm Nozzles – 6 mm, 12 mm, 15 mm, 20 mm, 25 mm and 30 mm. Nozzles spanner – 6 mm, 12 mm, 15 mm, 20 mm, 25 mm and 30 mm.