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SPECIFICATION OF
UMBRELLA FITTINGS

BUREAU OF CEYLON STANDARDS

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Gr. 3

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This Standard does not purport to include all the necessary provisions of a contract.

SRI LANKA STANDARD
SPECIFICATION FOR UMBRELLA FITTINGS

FOREWORD

This Sri Lanka Standard has been prepared by the Drafting Committee on Umbrella Fittings. It was approved by the Mechanical Engineering Divisional Committee of the Bureau of Ceylon Standards and was authorised for adoption and publication by the Council of the Bureau on 1977-12-01.

This standard is one of Sri Lanka Standards relating to Umbrellas. Other standards in the series are:

SLS ... Umbrellas.
CS 195 : 1973 Umbrella cloth.
SLS 321 : 1974 Umbrella ribs.

Since the component parts of an umbrella are produced from different sources, it is necessary that Sri Lanka Standard Specifications be made available for the components as well as for the complete umbrella.

All values in this specification are given in SI units.

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 observation shall be rounded off in accordance

with CS 102*. The number of figures to be retained in the rounded off value shall be the same as that of the specified value in this standard.

The assistance derived from the publications of the Indian Standards Institution during the preparation of this standard is gratefully acknowledged.

1 SCOPE

1.1 This standard covers the requirements for umbrella fittings, namely, runner, notch, cap and ferrule.

2 MATERIAL

2.1 The material for the manufacture of different components shall be as follows:

Component	Material
Runner	Steel, tinplate, brass or plastic
Notch	a) Brass conforming to the following composition:

	per cent by mass
Copper plus incidential nickel	64.0 to 71.0
Lead	1.0 to 3.0
Tin	1.5 max.
Iron	0.75 max.
Aluminium	0.01 max.
Zinc	Remainder

Continued..

**CS 102 Presentation of numerical values.*

Component	Material
	OR b) Suitable material having a minimum tensile strength of 185 MPa.
Cap	Tinplate, brass plate or plastic
Ferrule	Tinplate, brass

3 SHAPES AND DIMENSIONS

3.1 Runner

The shapes and dimensions of the various parts of runner shall be as given in Fig. 1 and Table 1.

3.1.1 For use with sticks,

a) d = diameter of stick ± 0.5 mm, max;

b) D_1 = diameter of stick + 16.5 mm, max; and

c) D_2 = diameter of stick + 17.5 mm.

3.2 Notch

The shape and dimensions of the notch shall be as given in Fig. 2 and Table 2.

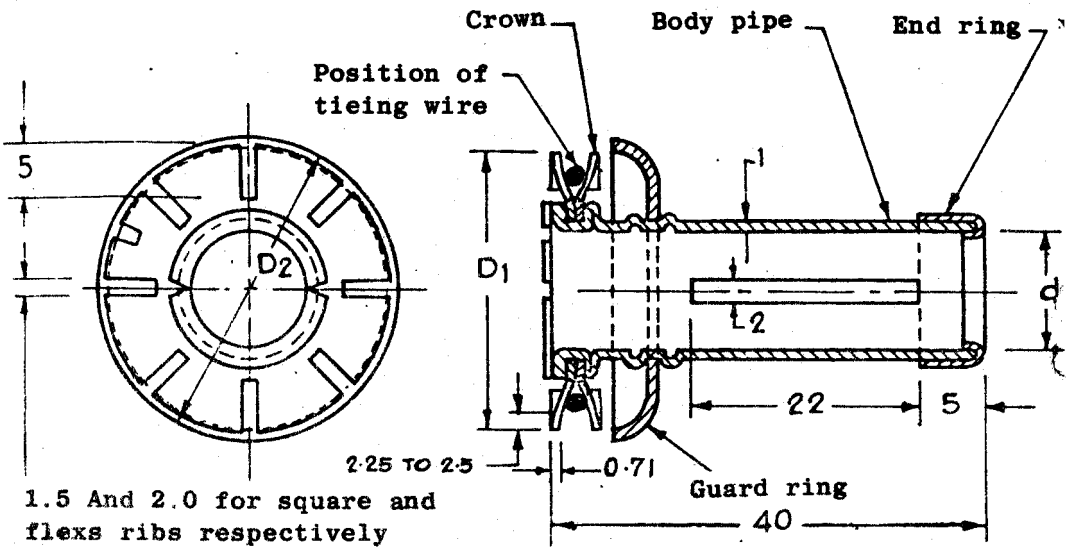
3.2.1 For use with sticks,

a) d = diameter of stick + 0.5 mm max; and

b) D = diameter of stick + 12.5 mm.

3.3 Ferrule

The shape and dimensions of the ferrule shall be as given in Fig. 3 and Table 2.

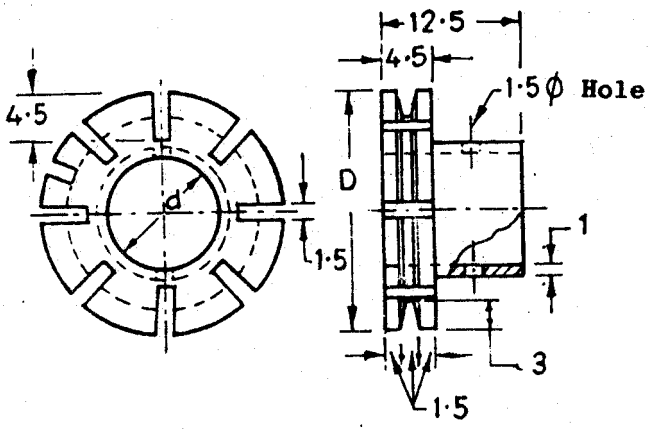


(All dimensions in millimetres.)

FIG. 1 Runner

TABLE 1 - Dimensions of various parts of runner for umbrellas
(3.1 and Fig. 1)
(All dimensions in millimetres)

Outside diameter of Umbrealla tube (1)	Body pipe inner diameter d (2)	Crown overall diameter max. D_1 (3)	Fuard ring (optional) overall diameter D_2 (4)
7	7.5	23.5	24.5
8	8.5	24.5	25.5
9	9.5	25.5	26.5
10	10.5	26.5	27.5

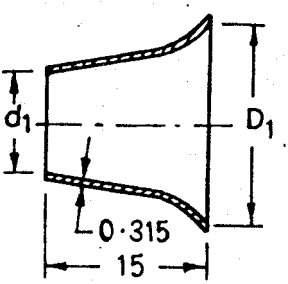


(All dimensions in millimetres)

FIG. 2 Notch

TABLE 2 - Dimensions of notch and ferrule
(3.2, 3.3 and Fig. 2 and 3)

Outside diameter of umbrella tube	NOTCH		FERRULE	
	Inside diameter d	Outside diameter D	Inside diameter (at small end) d_1	Inside diameter (at large end) D_1
(1)	(2)	(3)	(4)	(5)
7	7.5	19.5	7	16 to 17
8	8.5	20.5	8	17 to 18
9	9.5	21.5	9	18 to 19
10	10.5	22.5	10	19 to 20



(All dimensions in millimetres)

FIG. 3 Ferrule

3.3.1 For use with sticks, the inside diameter of ferrule at small end shall be equal to the diameter of the stick, and inside diameter at large end shall be 9 mm to 10 mm more than the diameter of the stick.

3.4 Cap

The shape and dimensions of the cap which is used only with sticks shall be as given in Fig. 4.

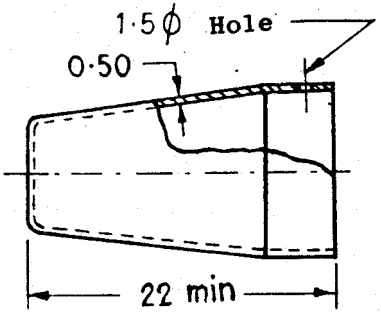
4 WORKMANSHIP AND FINISH

4.1 All sharp edges shall be removed.

4.2 All steel parts shall be thoroughly cleaned and freed from rust, seals and oily substances and shall be suitably protected against corrosion. If painted, they shall be stove enamelled.

4.3 Brass parts shall be brightly finished.

4.4 Cap and ferrule and parts of runner, if required, shall be stove enamelled.



(All dimensions in millimetres)

FIG. 4 Cap

5 MARKING

The fittings shall be marked indelibly with the name, initials or trademark of the manufacturer.

6 PACKING

6.1 The various fittings shall be packed separately as agreed to between the manufacturer and the purchaser.

7 SAMPLING

7.1 The number of runners, notches, caps or ferrules to be selected from a lot for ascertaining conformity to this specification shall be as agreed to between the manufacturer and the purchaser. A suitable sampling scheme and criteria for conformity for runners, notches, caps and ferrules are given in Appendix A.

TABLE 3 - Sample size and criteria for conformity
(A.1.2 and A.2.2)

No. of items in the lot (1)	Sample size (No. of items to be selected) (2)	Acceptance number (3)
Up to 100	13	1
101 to 150	20	1
151 to 300	32	2
301 to 500	50	3
501 to 1500	80	5
1501 to 3000	125	7
3001 and above	200	10

APPENDIX A
(7.1)

SAMPLING SCHEME AND CRITERIA FOR CONFORMITY FOR UMBRELLA FITTINGS

A.1 SAMPLING

A.1.1 lot: In a consignment all runners, notches, caps or ferrules of the same shape and dimensions and belongings to the same batch of manufacture shall constitute a lot.

A.1.1.1 Every lot in a consignment shall be tested separately to ascertain its conformity to the requirements of this standard.

A.1.2 To ascertain the conformity of the lot with the requirements of this standard, the number of runners/notches/caps/ferrules to be selected at random shall be in accordance with Columns 1 and 2 of Table 3.

A.2 NUMBER OF TESTS AND CRITERIA FOR CONFORMITY

A.2.1 The runners/notches/caps/ferrules selected according to A.1.2 shall be inspected for

a) shapes and dimensions, and
b) finish.

A.2.2 Criteria for conformity

The lot shall be declared as conforming to the requirements of this standard if the number of defective items with respect to any one or both the characteristics inspected for in A.2.1 does not exceed the corresponding acceptance number given in Column 3 of Table 3.

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The Sri Lanka Standards Institution is the owner of the registered certification mark shown below. Beneath the mark, the number of the Sri Lanka Standard relevant to the product is indicated. This mark may be used only by those who have obtained permits under the SLS certification marks scheme. The presence of this mark on or in relation to a product conveys the assurance that they have been produced to comply with the requirements of the relevant Sri Lanka Standard under a well designed system of quality control inspection and testing operated by the manufacturer and supervised by the SLSI *which includes surveillance inspection of the factory, testing of both factory and market samples.*

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SRI LANKA STANDARDS INSTITUTION

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The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

The development and formulation of National Standards is carried out by Technical Experts and representatives of other interest groups, assisted by the permanent officers of the Institution. These Technical Committees are appointed under the purview of the Sectoral Committees which in turn are appointed by the Council. The Sectoral Committees give the final Technical approval for the Draft National Standards prior to the approval by the Council of the SLSI.

All members of the Technical and Sectoral Committees render their services in an honorary capacity. In this process the Institution endeavours to ensure adequate representation of all view points.

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