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Indian Standard

SPECIFICATION FOR FORKS (TABLE, FISH, PASTRY AND SERVING), STAINLESS STEEL

(Revised)

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

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Indian Standard

SPECIFICATION FOR FORKS (TABLE, FISH, PASTRY AND SERVING), STAINLESS STEEL

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Indian Standard

SPECIFICATION FOR FORKS (TABLE, FISH, PASTRY AND SERVING), STAINLESS STEEL

(Revised)

0. FOREWORD

0.1 This revised Indian Standard was adopted by the Indian Standards Institution on 29 June 1964, after the draft finalized by the Cutlery Sectional Committee had been approved by the Consumer Products Division Council.

0.2 This standard was first published in 1957 and was one of a series of Indian Standard specifications on table cutlery. Revision of the series has been taken up on account of necessity to metricize and also to avoid such details as will hinder the improvement of design. Pastry forks have also been included in this revised standard. Other standards in the series are:

IS : 990-1964 SPOONS, STAINLESS STEEL (*Revised*)

IS : 991-1964 SPOONS, BRASS AND NICKEL SILVER (*Revised*)

IS : 993-1964 FORKS (TABLE, FISH, PASTRY AND SERVING), BRASS AND NICKEL SILVER (*Revised*)

IS : 994-1964 BUTTER KNIVES AND FISH KNIVES

IS : 995-1964 TABLE KNIVES, DESSERT KNIVES AND FRUIT KNIVES (*Revised*)

0.3 This standard deals with the requirements for forks (table, fish, pastry and serving) made of stainless steel. Designs other than those covered by this standard are also popular with certain organizations to suit aesthetic requirements. In such cases, it is recommended that the forks may be made according to the designs of individual organizations but other provisions of this standard shall apply to guide the manufacture and purchase. An important aspect of table cutlery is that the different items in a set such as spoons, forks and knives should match in shape and appearance. This factor is to be borne in mind by the manufacturers when supplying cutlery in sets.

0.4 Wherever a reference to any Indian Standard appears in this specification, it shall be taken as a reference to the latest version of the standard.

0.5 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 Rules for Rounding Off Numerical Values (*Revised*). The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

0.6 This standard is intended chiefly to cover the technical provisions relating to stainless steel forks (table, fish, pastry and serving), and it does not include all the necessary provisions of a contract.

1. SCOPE

1.1 This standard covers the requirements for the following types of forks made of stainless steel:

a) Table fork,

b) Fish fork,

c) Pastry fork, and

d) Serving fork.

2. MATERIAL

2.1 The stainless steel used for the manufacture of forks shall conform to designation 07Cr19Ni9 of Schedule V of IS : 1570-1961 Schedules for Wrought Steels for General Engineering Purposes.

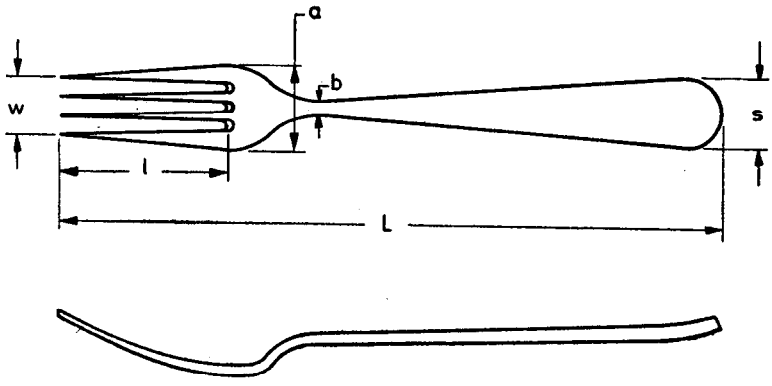
2.2 The nickel silver used in the manufacture of hollow handles of fish forks shall conform to Grade NS 10 or NS 20 as specified in IS : 2283-1962 Specification for Nickel Silver Sheet and Strip for General Purposes.

2.3 The plastics material used for the handles of fish forks shall be free from deleterious substances and shall resist the action of dilute organic acids. It shall not be so inflammable as to burst into flames when a lighted match is applied to it.

3. SHAPES AND DIMENSIONS

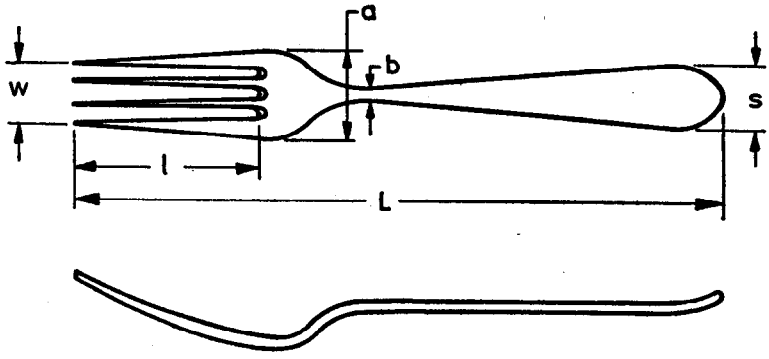
3.1 The forks shall conform to the shapes and dimensions given in Fig. 1 to 3.

3.1.1 The forks may have shapes and dimensions other than those given in this standard subject to agreement between the manufacturer and the purchaser. The forks shall, however, conform to other provisions laid down in this standard.



All dimensions in millimetres.

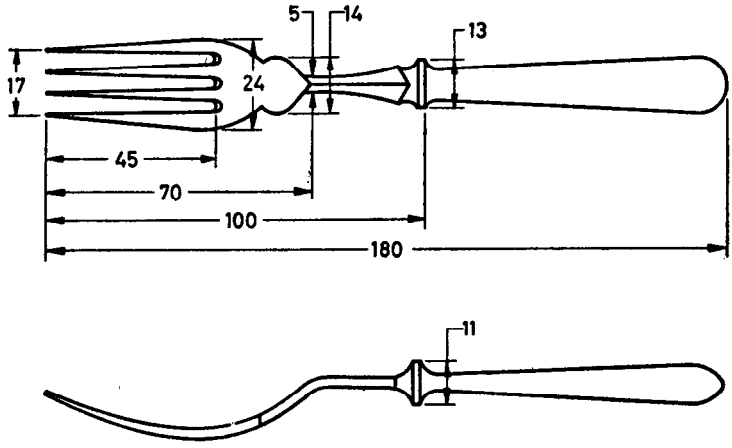
FIG. 1A TABLE FORK AND SERVING FORK, SOLID HANDLE



	L	*l*	*a*	*b*	*s*	*w*
			Min			
TABLE FORK	175	45	22	4	18	15
SERVING FORK	200	50	25	5	20	18

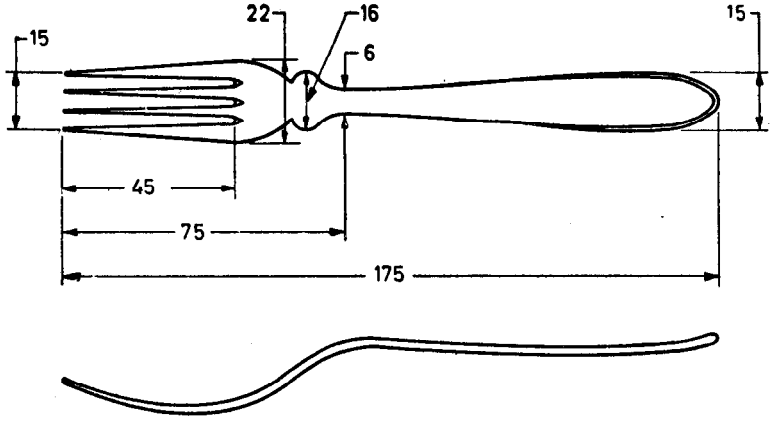
All dimensions in millimetres.

FIG. 1B TABLE FORK AND SERVING FORK, PRESSED HANDLE



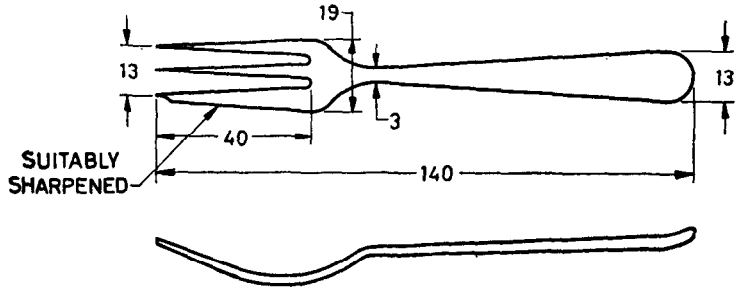
All dimensions in millimetres.

FIG. 2A FISH FORK, SOLID HANDLE



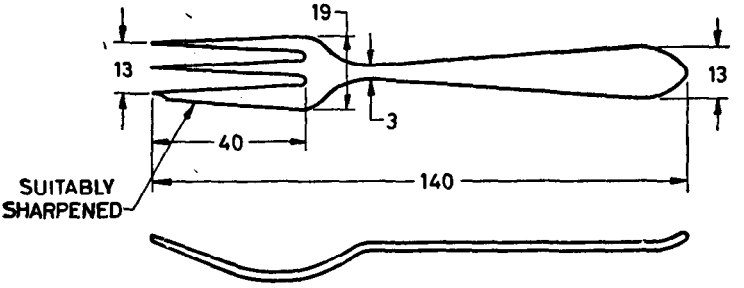
All dimensions in millimetres.

FIG. 2B FISH FORK, PRESSED HANDLE



All dimensions in millimetres.

FIG. 3A PASTRY FORK, SOLID HANDLE



All dimensions in millimetres.

FIG. 3B PASTRY FORK, PRESSED HANDLE

3.2 The forks shall be manufactured in one piece either with solid handle forged with pronged plate or pressed into shape. The fish fork may be manufactured also with hollow handle or with plastics handle. The design of the handles of forks shall be as agreed to between the manufacturer and the purchaser. When spoons, forks and knives are required to be supplied in sets, the design of the handles and general appearance of the items in a set shall match.

4. MANUFACTURE

4.1 *The forks with solid or pressed handles shall be made in one piece.*

4.2 The fish forks with hollow handles shall have the prongs forged and the tangs well drawn. The scales shall fit closely to the tang and shall be finished flush and smooth. The joints shall be silver-soldered in case of nickel silver hollow handles and welded in case of stainless steel hollow handles.

4.3 Where the plastics handles are cast, they shall be soundly moulded with the tang in position. The tang shall be properly shaped and grooved. The end of the tang shall be at least 15 mm away from free end. Where plastics handles are fitted, the length of the tang shall be at least 65 mm to ensure rigid fixing.

5. WORKMANSHIP AND FINISH

5.1 Workmanship — The forks shall be free from burrs, seams, cracks or other manufacturing defects. All edges shall be well-rounded or chamfered. The prongs shall be properly curved and evenly tapered to the point and sharpened. The shank and the prongs shall be in good alignment.

5.2 Finish — The forks with solid or pressed handles or forks with hollow handles of stainless steel or NS 20 grade nickel silver, shall be supplied unplated unless otherwise specified by the purchaser.

5.2.1 The forks with NS 10 grade nickel silver hollow handles shall be supplied in any of the following finishes as may be specified by the purchaser:

Finish	*Minimum Thickness*
a) Nickel	15 microns
b) Nickel and chromium	Nickel 15 microns, and chromium 0·5 micron
c) Silver	40 microns

5.2.2 The plating shall conform to IS : 1068-1958 Specification for Copper, Nickel and Chromium Electroplated Coatings, in the case of nickel and chromium platings, and to IS : 1067-1958 Specification for Commercial Silver Plating in the case of silver plating.

6. DESIGNATION

6.1 The designation of a fork shall indicate:

a) name,
b) type of handle, and
c) number of this standard.

Example:

A serving fork with solid handle, made of stainless steel shall be designated as:

Serving Fork, Solid Handle, IS : 992

7. TESTS

7.1 Sampling — The number of forks 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 forks are given in Appendix A.

7.2 Staining Test — The fork, when dipped for 16 hours in each of the following solutions, shall not show any sign of staining after removal from each solution at the end of above period:

a) Ten grams of glacial acetic acid (99 percent) dissolved in distilled water to make 100 ml, and

b) Five grams of pure sodium chloride dissolved in distilled water to make 100 ml.

7.3 Bending Test — The fork shall be held rigidly from the extreme end of the shank and supported in the middle of the overall length in such a way that it is approximately horizontal. A load of one kilogram in case of pastry fork and load of 1·5 kg in case of table, fish and serving forks shall then be applied at the extreme end of the prongs for two minutes and then removed.

7.3.1 The permanent deflection shall be measured after removal of the load. It shall not exceed 8 mm.

7.4 Test for Fish Forks with Hollow Handle — Hollow handles after fitting shall be immersed for 30 seconds in clean air-free water maintained at 80°C. They shall not show any expulsion of air bubbles.

7.5 Tests for Fish Forks with Plastics Handles

7.5.1 *Boiling* — The fork shall be immersed for one hour in a boiling 5-percent soap solution, then rinsed immediately in water at 15° to 20°C and immediately reimmersed completely in boiling water for one hour. The fork shall then be rinsed again in water at 15° to 20°C. This procedure shall be repeated four times. During or on completion of the test, the handle shall not show any sign of cracking, chipping or discolouring of the plastics. The tang shall neither become loose nor shall there be any other damage.

7.5.2 *Impact* — This test shall be conducted after the boiling test. The fork shall be held with the handle facing downwards and dropped from a height of 1·2 m on to a concrete floor or a flat stone five times in succession. The handle shall not show any sign of cracking, breaking or chipping of the plastics and tang shall neither become loose nor shall there be any other damage.

7.5.3 *Staining* — The plastics handle shall be cut into three pieces and each piece shall be immersed in one of the following solutions, maintained

at room temperature:

a) Sodium chloride solution, 10 percent (*w/v*);

b) Acetic acid solution, 5 percent (*v/v*); and

c) Sodium carbonate solution, 2 percent (*w/v*).

Each piece shall be taken out after 24 hours, rinsed with tap water and wiped with a dry cloth. It shall then be examined and immersed again in the same solution. This process shall be repeated seven times. During and at the end of seven days test there shall be no perceptible change in the appearance of the plastics material.

8. MARKING

8.1 Each fork shall be legibly and indelibly marked on the underside of the handle with the words 'Stainless Steel' or 'SS' and manufacturer's name, initials or trade-mark.

8.1.1 The forks may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been 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 ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

9. PACKING

9.1 The forks shall be wrapped in soft tissue paper or wax paper and packed in cartons. The number of forks to be packed in one carton shall be at the discretion of the manufacturer. The cartons shall bear the type and number of forks packed, the name of the manufacturer and the country of manufacture.

APPENDIX A

(*Clause* 7.1)

SAMPLING SCHEME AND CRITERIA FOR CONFORMITY FOR FORKS

A-1. SCALE OF SAMPLING

A-1.1 Lot — In any consignment, all the forks of the same type of handle, shape and size manufactured from the same material under relatively

similar conditions of manufacture shall be grouped together to constitute a lot.

A-1.2 For ascertaining the conformity to the requirements of this specification the tests shall be conducted separately for each lot.

A-1.3 The number of forks to be selected from a lot for ascertaining conformity to the requirements of this specification, shall be according to col 2 of Table I. The forks in the sample shall be selected at random from the lot. If the forks are packed in cartons, as a first step at least 25 percent of the cartons shall be selected at random and then from each selected carton, equal number of forks shall be taken out at random so as to make the required sample size.

TABLE I SCALE OF SAMPLING

No. of Forks in a Lot	For Clauses 3.1 and 5.1		For Clauses 5.2, 7.2, 7.3, 7.4 and 7.5	
	Sample Size	Permissible Number of Defective Forks	Sub-sample Size	Permissible Number of Defective Forks
(1)	(2)	(3)	(4)	(5)
Up to 50	5	0	2	0
51 „ 150	13	1	4	0
151 „ 500	32	3	6	0
501 „ 1 000	50	5	8	0
1 001 „ 3 000	80	7	12	1
3 001 „ 10 000	125	10	16	1
10 001 and above	200	14	20	2

A-2. NUMBER OF TESTS AND CRITERIA FOR CONFORMITY

A-2.1 The forks selected at random according to **A-1.3** shall be examined for the requirements of **3.1** and **5.1**. A fork failing to satisfy any one or more of these requirements shall be regarded as defective. The lot shall be considered as conforming to the requirements of **3.1** and **5.1** if the number of defective forks in the sample does not exceed the number given in col 3 of Table I.

A-2.2 If the lot conforms to the requirements of **3.1** and **5.1**, a sub-sample of size given in col 4 of Table I shall be taken from the forks selected as in **A-1.3**. Each of the forks in the sub-sample shall be tested for the requirements of **5.2**, **7.2**, **7.3**, **7.4** and **7.5**. A fork not satisfying any one or more of the requirements of **5.2**, **7.2**, **7.3**, **7.4** and **7.5** shall be regarded as defective. The lot shall be considered to conform to the requirements of **5.2**, **7.2**, **7.3**, **7.4** and **7.5** if the number of defectives in the sub-sample does not exceed the number given in col 5 of Table I.

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