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BUREAU OF INDIAN STANDARDS

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भारतीय मानक मसौदा

स्टेनलेस स्टील से बने दूध के टब — विशिष्टि

(आई एस 2336 का पहला पुनरीक्षण)

Draft Indian Standard

STAINLESS STEEL MILK VATS — SPECIFICATION

(*First Revision of IS 2336*)

ICS 65.040.10

Dairy Equipment Sectional Committee, FAD 33	Last date of comments: **29 June 2024**

FOREWORD

(Formal clauses will be added later)

Milk vat is used for collection or storage of milk at the reception point and other places in the dairy. The construction of the milk vat should be such that the milk remains hygienic and retains all its natural properties. Therefore, a need was felt to develop Indian Standard to guide the manufacturers in selecting appropriate quality and size in order to reduce the number of types of milk vats.

This standard is intended chiefly to cover the technical provisions relating to stainless steel milk vats, and it does not include all the necessary provisions of a contract.

In this revision, following modifications have been incorporated keeping in view the technological advancements in the field of dairy equipment manufacturing:

a) 200 liters capacity vat has been included in the scope and dimensions for the same has also been incorporated;
b) Material of vats has been modified to Stainless steel grade X04Cr19Ni9; and
c) Specification for handle of vat cover has been incorporated.

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: 2022 ‘Rules for rounding off numerical values (*second revision*)’. 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

This standard prescribes the important constructional details and dimensional requirements for stainless steel milk vats of capacities of 200 litres, 500 litres, 1000 litres, 1500 litres, and 2000 litres, designed to collect or store milk prior to its processing or despatch.

2 REFERENCES

The following standards contain provisions which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

IS No.	***Title***
IS 6911: 2017	Stainless Steel Plate, Sheet and Strip — Specification (*second revision*)

3 MATERIAL

All the component parts shall be made of stainless-steel grade X04Cr19Ni9 conforming to IS 6911.

4 SHAPE AND DIMENSIONS

The vats shall conform to the shape and dimensions shown in Fig. 1. Slight variations in the dimensions are permissible provided the capacity is within the specified limits.

5 CAPACITY

The rated capacity is the capacity of the vat ζ mm below the brim (*see* Table in Fig. 1). A tolerance of +5 percent shall be allowed on the rated capacity.

6 FABRICATION

6.1 Vat

6.1.1 All surfaces which come into contact with the milk shall be finished smooth. All inside corners shall be rounded off to a radius of not less than 6 mm.

6.1.2 All joints which come in contact with the milk shall be welded and finished smooth and shall be water-tight.

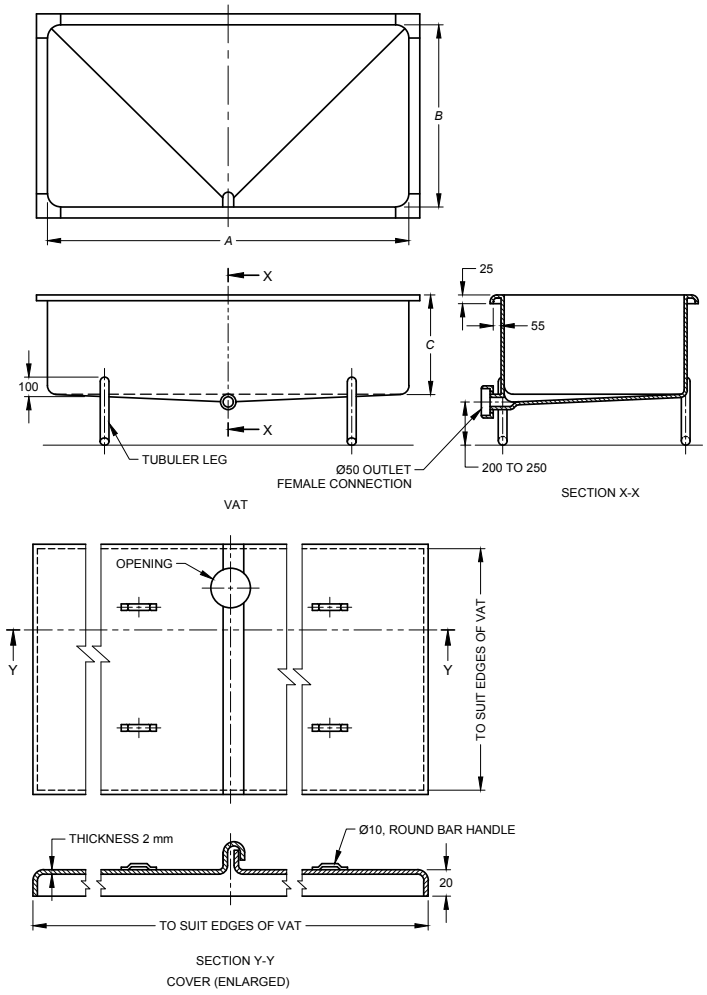
6.1.3 The vat shall be provided with a 50-mm outlet female connection. The outlet shall be of such a design that all parts are easily accessible for thorough cleaning and capable of being maintained in hygienic condition. The outlet shall be fitted on the long side of the vat as shown in Fig. 1. It may, however, be fitted on the short side, if agreed to by the purchaser.

6.1.4 The sides of the vat shall be flanged as shown in Fig. 1.

6.1.5 The milk vats shall be provided with four or more stainless steel tubular legs. The legs shall be securely welded to the sides and shall be provided with adjustable ball feet made of stainless steel.

6.2 Vat Cover

6.2.1 The cover of 200 litres and 500 litres vat shall be in one piece and those of the remaining sizes shall be in two pieces. The vat covers shall be fitted with two rigid handles made of 10 mm round bar. The covers shall be sloped to provide drainage from the surface and fit over the edges of the parts they cover.



Capacity in litres	*A*	*B*	*C*	ξ	Thickness of sheet
200	900	700	375	50	2

500	1500	1000	375	50	2
1000	2000	1000	545	50	2
1500	2200	1200	620	62	2
2000	2400	1400	655	62	2.5

All dimension in millimetres.

FIG. 1 MILK VAT

6.2.2 The cover shall he suitably strengthened by panelling or other means to avoid buckling.

6.2.3 The two sections of the covers of 1000, 1500 and 2000 litre vats shall be so designed and shaped that they could be suitably overlapped to prevent any inflow of liquid or entry of foreign matter from external sources.

6.2.4 If the purchaser requires the vats to be used in conjunction with weighing bowls, then the covers shall be provided with a suitable opening. In this case, the cover of 200 litres or 500 litres vat may be made in two sections and those of the other sizes in three sections.

6.3 Bottom of the Vat

The bottom of the vat shall be suitably sloped towards the outlet so as to ensure quick and complete drainage.

6.4 Vats with Two Compartments

If the purchaser so desires, the vats may be fabricated with two compartments. The capacity of a double ‘compartment vat refers to the total capacity, that is, the capacity of both the compartments taken together.

6.4.1 In case of a two-compartment vat, two outlet connections shall be provided, and the bottom of each compartment shall be sloped towards its outlet.

6.5 Welding

All the welds shall be of satisfactory quality and they shall be free from porosity and brittleness. If filler rods are used, they shall be of the same material as the sheets welded.

6.6 Outlet Valve or Cock

The vat shall be supplied with a suitable stainless steel valve or cock, if required by the purchaser. the valve or cock shall be such that there is no chance The design of the wall of cock shall be such that there is no chance of milk pockets being formed within their body or fittings of milk pockets.

7 TESTS

7.1 Leakage Test

The vat shall be leak-proof.

8 MARKING

8.1 Each vat shall be indelibly marked with the following information:

a) Manufacturer's name, trade-mark or initials;
b) Identification number; and
c) Capacity of the vat.

8.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.