Doc: MED 27 (xxxxx)wc
August 2024

BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENT ONLY

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***DRAFT* AMENDMENT NO. 2**

to

IS 17941 : 2022

HANDPUMP CUM SOLAR PUMPING SYSTEM — SPECIFICATION

Handpumps Sectional committee, MED 27	Last date of receipt of comments is **27 October 2024**

(*Second cover page, Foreword, para 4***)** — Add the following *para* 5 after *para* 4:

'This standard also provides guidance for tank mounting structure as given in Annex B.'

(*Second cover page, Foreword, para 5***)** — Substitute the following for the existing:

'The composition of the Committee responsible for the formulation of this standard is given in Annex C.'

(*Page* 6, *Annex A*) — Delete entries relating to IS 1161 : 2014, IS 2062 : 2011, IS 2629 : 1985, IS 4759 : 1996, IS 4923 : 2017, IS 9595 : 1996, IS 1367 : Part 13 : 2020/ ISO 10684 :2004 and entries relating thereto.

(*Page* 3 and 4, *clauses* **6.6, 6.7** and **6.9**) — Delete **6.6, 6.7 and 6.9;** and renumber the subsequent clauses accordingly.

(*Page* 6, *Annex A***)** — Add the following Annex after Annex A and renumber the subsequent Annex accordingly.

'ANNEX B
(*Informative*)

GUIDANCE FOR TANK MOUNTING STRUCTURE

B-1 TANK MOUNTING STRUCTURE

B-1.1 Raw Material

B-1.1.1 Components of the structure should be made out of M.S. tubes, square tubes, angles and channels covered under Quality A of Grade E 250 of IS 2062 to withstand self-weight and weight of 2000 to 5000 litres of water at wind speed of 150 km/hr.

B-1.1.2 Structure can be of 3, 4.5, 6 meters or higher height as per the requirement of the buyer.

B-1.1.3 Preferably structures should be in knockdown condition for ease of transportation and installation. (see Fig. 5, 6, 7, 8, 9 and 10)

B-1.2 Welding

B-1.2.1 Various mild steel components of the structure should be welded in accordance with IS 9595.

B-1.2.2 Unless otherwise specified, the minimum specified thickness of the metal to be welded will be the guiding factor for deciding the weld fillet size. It should normally be not less than the specified thickness of the metal to be welded.

B-1.3 Anti-Rusting Treatment – Galvanizing

B-1.3.1 All the components of the structure should be hot-dip galvanized in accordance with IS 2629 and IS 4759.

B-1.3.2 All the fasteners used for the structure should be hot-dip galvanized as per IS 1367 (Part 13)/ISO 10684.

B-1.4 Workmanship

B-1.4.1 All the components should be free from rough edges, burrs and other surface defects.

B-1.4.2 All the components of the structure when assembled should be free from internal stresses. The members of the structure should have interchangeability. Components/members of the structure should fit in the place freely without applying any external forces while installing the structure on site.

B-1.5 Panel Mounting Structure

B-1.5.1 Panels can be mounted on tank tower structures as per Fig. 6, 7, 8, 9 and 10.

B-1.5.2 Panels can be mounted separately on a single pole arrangement at a minimum height of 2 500 mm.

B-1.5.3 Single panel structure should be made out of pipe confirming to IS 1161 or tube conforming to IS 4923.

B-1.5.4 Channels and angles confirming to quality A of grade E 250 of IS 2062 may be used as the support structure for the panels.

B-1.6 Foundation for Tank Tower Structure and Single Pole Structure

It shall be made out of RCC. Design of the structure foundation should be suitable to withstand self-weight of structure, deadweight of the tank with water and wind forces acting on the structure.

B-2 STABILITY CERTIFICATE

The structure design should be approved by the qualified structural engineer for its stability at wind speed of 150 km/hr.

B-3 STAND POST

B-3.1 Prefabricated hot-dipped galvanized stand post square pipe with 1, 2 or 4 stainless steel 25 mm taps with the self-closing arrangement (see Fig. 12).

B-3.2 Platform for Stand Post Min 1 000 × 1 000 mm square or circular in shape, platform made of grade 10 concrete with proper drainage arrangement. To strengthen the platform in loose formation, rubble soling of min 300 mm depth shall be provided. Alternatively, mild steel reinforcement may be provided. (see Fig. 12)'

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