

KINGDOM OF SAUDI ARABIA

SAUDI STANDARDS, METROLOGY AND QUALITY ORGANIZATION

SASO

**SAUDI DRAFT
SASO : 2020**

**SPECIFICATION FOR THERMOPLASTIC WATER METER
CABINET**

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ICS: 17.220.99

THERMOPLASTIC WATER METER CABINET

1. Scope

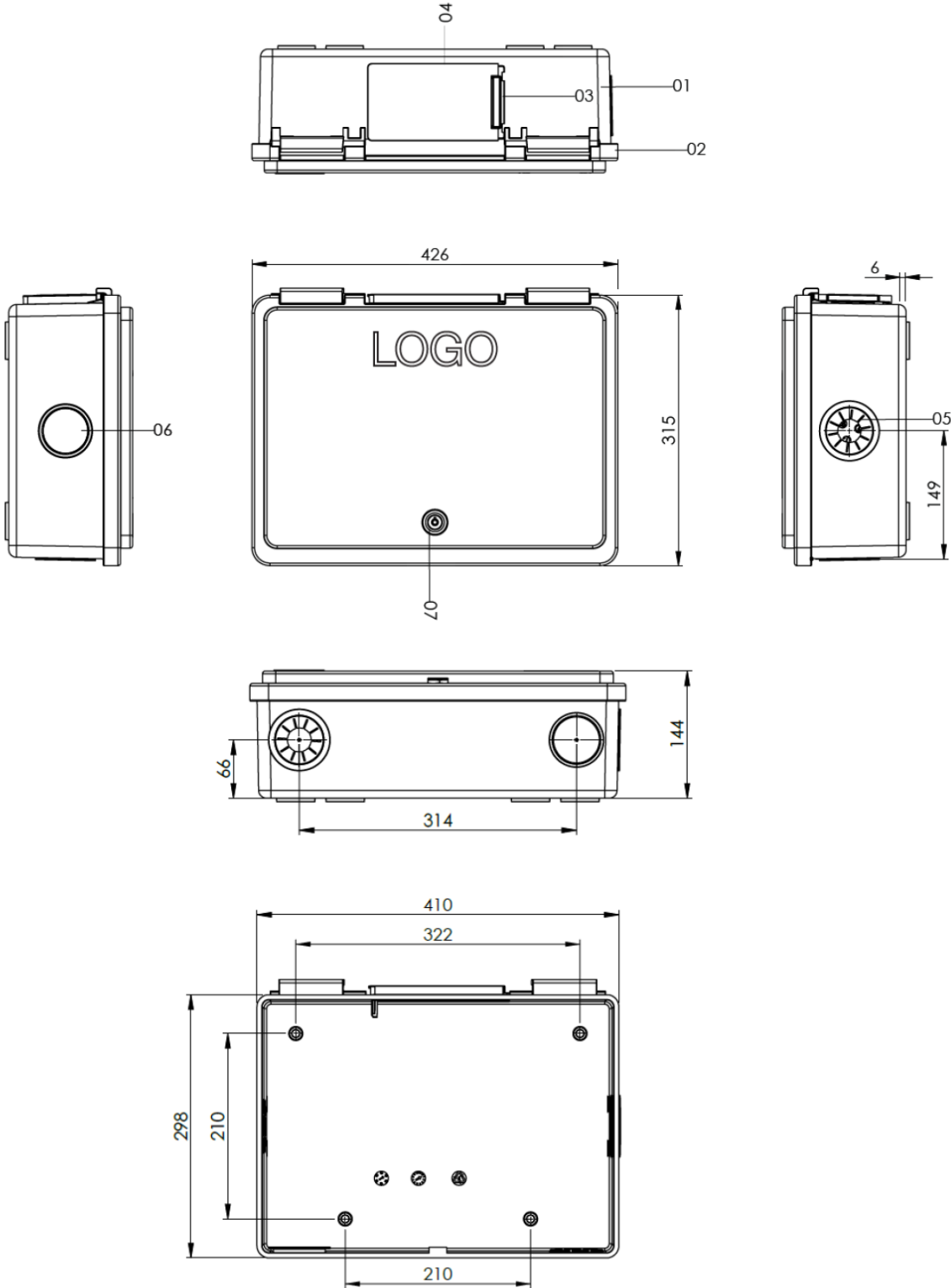
This Saudi standard embraces the general requirements, specifications and requirements of the thermoplastic water meter cabinets in terms of the thickness of material, design drawing, dimensions and accessories incorporated into the construction of it for pipe sizes from 1/2" to 1 1/4".(from 12.7mm to 31.75 mm).

2. COMPLEMENTARY REFERENCES

- 2.1 SASO 775 "Fiberglass reinforced polyester meter boxes"
- 2.2 SASO ISO 306 "Plastics - Thermoplastic materials - Determination of Vicat softening temperature (VST)"
- 2.3 SASO ISO 4892-2 "Plastics - Methods of exposure to laboratory light sources – Part 2: Xenon-arc lamps"
- 2.4 SASO ASTM D2244 "Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates"

3. REQUIREMENTS

- 3.1. When manufacturing of the water meter cabinet, the following requirements shall be considered:
 - 3.1.1 The body of the cabinet shall be made from thermoplastic material , with minimum wall thickness 6mm with good weathering resistance (Tested as per item 2.3) and good color properties (Tested as per item 2.4).
 - 3.1.2 The overall dimensions of the cabinets
 - Height = 426mm
 - Width = 315mm
 - Depth = 144mm
 - 3.1.3 Color of cabinet shall be as required by the authority responsible for water cabinets.
 - 3.1.4 Hinged door with the customer number as required by the Authority responsible for water cabinets.
 - 3.1.5 The hinges shall allow the door to open in vertical angle with 360 degree.
 - 3.1.6 The door shall have Authority LOGO.(Such as NWC or MARAFIQ)
 - 3.1.7 The door shall have the cabinet manufacturer LOGO.
 - 3.1.8 The door must be provided with a locking system to be used by the Authority responsible for water cabinets.
 - 3.1.9 Inlet and outlet of the water pipe suitable for the required pipe size, where both of them contains a rubber ring.
 - 3.1.10 A slot of 5 mm thickness to take the reading with a transparent cover to allow taking the reading with the naked eye. It should be color-changing resistant, scratch proof and heat resistant.
 - 3.1.11 Four holes in cabinet body with provision of four stainless screws and four bolts with a diameter of 8mm to install the cabinet to the wall.
 - 3.1.12 Polycarbonate bills holder attached to the cabinet cover, it shall be transparent, unbreakable and scratch resistant.



Front view without cover

4. SAMPLING

All type tests shall be carried out on a sample of three units as specified in item 5.

5. Testing

The following tests shall be conducted on samples of the materials from which the cabinet is manufactured:

Test	Test method
Visual inspection	ITEM 2.1
Mechanical strength	ITEM 2.1
Heat stability	ITEM 2.1
Heat resistance (Vicat softening)	ITEM 2.2
Dust resistance	ITEM 2.1
Splash resistance	ITEM 2.1
Weathering test	ITEM 2.3

6. MARKING

6.1 The following information shall be legibly and indelibly marked on the outer surface of the cover of the meter box, by means of the hot moulding method. The marking shall be in Arabic and English:

6.1.1 Manufacturer's name and trade mark

6.1.2 Country of manufacture to be marked after the phrase "made in.....".

6.1.3 water company logo

6.2 An instruction sheet in Arabic and English shall be stuck on the inside of metering cabinet cover, including the following information:

6.2.1 All the information mentioned in Sub-clause 6.1.

6.2.2 An illustration of the installation method