### a. MEDC 2 (1542) DTZS/ ISO 3574:2012

Tittle: Cold-reduced carbon steel sheet of commercial and drawing qualities

**Scope:** This standard applies to cold-reduced carbon steel sheet of commercial and drawing qualities. It is suitable for applications where the surface is of prime importance.

### b. MEDC 2 (1541) DTZS/ ISO 3573:2012

Tittle: Hot-rolled carbon steel sheet of commercial and drawing quality

**Scope:** This standard applies to hot-rolled carbon steel sheet of commercial and drawing qualities. Hot-rolled steel sheet is suitable for many applications where the presence of oxide or scale, or normal surface imperfections disclosed after removal of oxide or scale, are not objectionable. It is not suitable for applications where the surface is of prime importance.

NOTE: This International Standard does not cover steel sheet that is to be subjected to subsequent rerolling.

### c. MEDC 2 (1540) DTZS/ ISO 4998:2014 [Rev. TZS 1061:2008]

**Tittle:** Continuous hot-dip zinc-coated and zinc-iron alloy-coated carbon steel sheet of structural quality

#### Scope:

1.1 This standard specifies continuous hot-dip zinc-coated and zinc-iron alloy-coated carbon steel sheet of structural quality.

1.2 The product is intended for applications where resistance to corrosion is of prime importance.

1.3 The steel sheet is produced in a number of grades, coating masses, ordering conditions, and surface treatments.

1.4 This International Standard does not cover steels designated as commercial quality, or drawing quality, which are covered in ISO 3575.

## d. MEDC 2 (1539) DTZS/ ISO 4997:2015

Tittle: Cold-reduced carbon steel sheet of structural quality

**Scope:** This standard applies to cold-reduced carbon steel sheet of structural quality in grades CR220, CR250, CR320, and CH550, usually without the use of microalloying elements. The product is intended for structures that include bolting, riveting, and welding. It is generally used in the delivered condition for fabricating purposes, such as bending, forming, and welding.

This standard does not cover steels designated as commercial quality or drawing qualities (covered in ISO 3574), cold-reduced carbon steel sheet according to hardness requirements (covered in ISO 5954), cold-reduced steel sheet of higher strength with improved formability (covered in ISO 13887), or cold-reduced steel sheet of high tensile strength and low yield point with improved formability (covered in ISO 14590).

### e. MEDC 2 (1560) DTZS/ ISO 3575:2016 [Rev. TZS 1059:2008]

**Tittle:** Continuous hot-dip zinc-coated and zinc-iron alloy-coated carbon steel sheet of commercial and drawing qualities

### Scope:

This document is applicable to the requirements for steel sheet, in coils and cut lengths, metallic-coated by the continuous hot-dip process, with zinc and zinc-iron alloy coatings.

The product is intended for applications requiring corrosion resistance, formability and paintability.

The steel sheet is produced in a number of designations, coating masses, surface treatments and coating conditions designed to be compatible with differing application requirements.

This document does not cover steels designated as structural quality, which are covered in ISO 4998.

# f. MEDC 2 (1561) DTZS/ ISO 15630-1:2019,

**Tittle:** Steel for the reinforcement and prestressing of concrete — Test methods — Part 1: Reinforcing bars, rods and wire

**Scope:** This document specifies chemical and mechanical test methods and measurement methods of geometrical characteristics applicable to reinforcing bars, rods and wire for concrete.

This document does not cover the sampling conditions that are dealt with in the product standards.

A list of options for agreement between the parties involved is provided in Annex A.

## g. MEDC 2 (1562) DTZS/ ISO 15630-2:2019

**Tittle:** Steel for the reinforcement and prestressing of concrete — Test methods — Part 2: Welded fabric and lattice girders

#### Scope:

This document specifies chemical and mechanical test methods and measurement methods of geometrical characteristics applicable to welded fabric and lattice girders for the reinforcement of concrete.

NOTE In some countries, the expression "welded wire reinforcement" is used in place of "welded (wire) fabric".

For those tests not specified in this document (e.g. bend test, rib/indentation geometry, mass per metre), ISO 15630-1 is applicable.

This document does not cover the sampling conditions that are dealt with in the product standards.

A list of options for agreement between the parties involved is provided in Annex A.

### h. MEDC 2 (1563) DTZS/ ISO 15630-3:2019,

**Tittle:** Steel for the reinforcement and prestressing of concrete — Test methods — Part 3: Prestressing steel

### Scope:

This document specifies test methods applicable to prestressing steel (bar, wire or strand) for concrete.

This document does not cover the sampling conditions that are dealt with in the product standards.

A list of options for agreement between the parties involved is provided in Annex A.

## i. MEDC 11 (1453) DTZS/ ISO 23550:2018

**Tittle:** Safety and control devices for gas and or oil burners and appliances - General requirements

### Scope:

This document specifies safety, construction, performance and testing requirements for controls for gas burners and gas burning appliances for use with natural gas, manufactured gas or liquefied petroleum gas (LPG).

This document applies to controls for use at maximum operating pressures up to and including 500 kPa. This document provides the general requirements that are intended to be the basis for the specific control standards found in the ISO 23551 and ISO 23552 series. These include the following:

- automatic and semi-automatic gas valves;
- gas thermoelectric flame supervision controls;
- gas and oil /air ratio controls;
- gas pressure regulators;
- manual gas valves;
- mechanical gas thermostats;
- multifunctional gas controls;
- air and gas pressure-sensing devices;
- gas vent valves;
- gas valve-proving systems.

This document covers type testing only.

This document is also applicable to Gas Quick Connectors (GQC) for use inside appliances with connections up to, and including DN 25, and a maximum operating pressure up to and including 100 kPa. GQCs include:

- tube to tube connections;
- tube to control connections; and
- tube to fitting connections.

This document does not apply to mechanical controls for use with liquid fuels. It is also not applicable to corrosive and waste gases.

## j. MEDC 11 (1676) DTZS/ ISO 5167-1:2022

**Tittle:** Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full — Part 1: General principles and requirements

**Scope:** This document defines terms and symbols and establishes the general principles for methods of measurement and computation of the flow rate of fluid flowing in a conduit by means of pressure differential devices (orifice plates, nozzles, Venturi tubes, cone meters, and wedge meters) when they are inserted into a circular cross-section conduit running full. This document also specifies the general requirements for methods of measurement, installation and determination of the uncertainty of the measurement of flow rate.

ISO 5167 (all parts) is applicable only to flow that remains subsonic throughout the measuring section and where the fluid can be considered as single-phase. It is not applicable to the measurement of pulsating flow.

### k. MEDC 11 (1677) DTZS/ ISO 5167-2:2022

**Tittle:** Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full — Part 2: Orifice plates

#### Scope:

This document specifies the geometry and method of use (installation and operating conditions) of orifice plates when they are inserted in a conduit running full to determine the flow rate of the fluid flowing in the conduit.

This document also provides background information for calculating the flow rate and is applicable in conjunction with the requirements given in ISO 5167-1.

This document is applicable to primary devices having an orifice plate used with flange pressure tappings, or with corner pressure tappings, or with D and D/2 pressure tappings. Other pressure tappings such as "vena contracta" and pipe tappings are not covered by this document. This document is applicable only to a flow which remains subsonic throughout the measuring section and where the fluid can be considered as single phase. It is not applicable to the measurement of pulsating flow. It does not cover the use of orifice plates in pipe sizes less than 50 mm or more than 1 000 mm, or where the pipe Reynolds numbers are below 5 000.

#### I. MEDC 11 (1678) DTZS/ ISO 5167-3:2022

**Tittle:** Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full - Part 3: Nozzles and Venturi nozzles

#### Scope:

This document specifies the geometry and method of use (installation and operating conditions) of nozzles and Venturi nozzles when they are inserted in a conduit running full to determine the flowrate of the fluid flowing in the conduit.

This document also provides background information for calculating the flowrate and is applicable in conjunction with the requirements given in ISO 5167-1.

This document is applicable to nozzles and Venturi nozzles in which the flow remains subsonic throughout the measuring section and where the fluid can be considered as single-phase. In addition, each of the devices can only be used within specified limits of pipe size and Reynolds number. It is not applicable to the measurement of pulsating flow. It does not cover the use of nozzles and Venturi nozzles in pipe sizes less than 50 mm or more than 630 mm, or where the pipe Reynolds numbers are below 10 000. This document deals with

- a) three types of standard nozzles:
  - 1) ISA 19321 nozzle;
  - 2) the long radius nozzle2;
  - 3) the throat-tapped nozzle
- b) the Venturi nozzle.

The three types of standard nozzle are fundamentally different and are described separately in this document. The Venturi nozzle has the same upstream face as the ISA 1932 nozzle, but has a divergent section and, therefore, a different location for the downstream pressure tappings, and is described separately. This design has a lower pressure loss than a similar nozzle. For all of these nozzles and for the Venturi nozzle direct calibration experiments have been made, sufficient in number, spread and quality to enable coherent systems of application to be based on their results and coefficients to be given with certain predictable limits of uncertainty.

## m. MEDC 11 (1679) DTZS/ ISO 5167-4:2022

**Tittle:** Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full -Part 4: Venturi tubes

#### Scope:

This document specifies the geometry and method of use (installation and operating conditions) of Venturi tubes1 when they are inserted in a conduit running full to determine the flow rate of the fluid flowing in the conduit.

This document also provides background information for calculating the flow rate and is applicable in conjunction with the requirements given in ISO 5167-1.

This document is applicable only to Venturi tubes in which the flow remains subsonic throughout the measuring section and where the fluid can be considered as single-phase. In addition, Venturi tubes can only be used uncalibrated in accordance with this standard within specified limits of pipe size, roughness, diameter ratio and Reynolds number, or alternatively they can be used across their calibrated range. This document is not applicable to the measurement of pulsating flow. It does not cover the use of uncalibrated Venturi tubes in pipes sized less than 50 mm or more than 1 200 mm, or where the pipe Reynolds numbers are below  $2 \times 105$ .

This document deals with the three types of classical Venturi tubes:

a) "as cast";

- b) machined;
- c) fabricated (also known as "rough-welded sheet-iron").

A Venturi tube consists of a convergent inlet connected to a cylindrical throat which is in turn connected to a conical expanding section called the divergent section (or alternatively the diffuser). Venturi nozzles (and other nozzles) are dealt with in ISO 5167-3.

NOTE In the USA the classical Venturi tube is sometimes called the Herschel Venturi tube.

### n. MEDC 11 (1680) DTZS/ ISO 5167-6:2022

**Tittle:** Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full — Part 6: Wedge meters

#### Scope:

This document specifies the geometry and method of use (installation and operating conditions) of wedge meters when they are inserted in a conduit running full to determine the flow rate of the fluid flowing in the conduit.

NOTE 1 As the uncertainty of an uncalibrated wedge meter can be too large for a particular application, it could be deemed essential to calibrate the flow meter according to Clause 7.

This document gives requirements for calibration which, if applied, are for use over the calibrated Reynolds number range. Clause 7 could also be useful guidance for calibration of meters of similar design but which fall outside the scope of this document.

It also provides background information for calculating the flow rate and is applicable in conjunction with the requirements given in ISO 5167-1.

This document is applicable only to wedge meters in which the flow remains subsonic throughout the measuring section and where the fluid can be considered as single-phase. Uncalibrated wedge meters can only be used within specified limits of pipe size, roughness,  $\beta$  (or wedge ratio) and Reynolds number. It is not applicable to the measurement of pulsating flow. It does not cover the use of uncalibrated wedge meters in pipes whose internal diameter is less than 50 mm or more than 600 mm, or where the pipe Reynolds numbers are below 1 x 104.

NOTE 2 A wedge meter has a primary element which consists of a wedgeshaped restriction of a specific geometry. Alternative designs of wedge meters are available; however, at the time of writing there is insufficient data to fully characterize these devices, and therefore these meters are calibrated in accordance with Clause 7.