ČESKÝ METROLOGICKÝ INSTITUT

Okružní 31, 638 00 Brno
legmet@cmi.cz
+420 545 555 414

1. ------IND- 2019 0290 CZ- EN- ------ 20190624 --- --- PROJET

Executive summary for the EC (not part of this legislation)

'Serving measures' may be placed on the market in the Czech Republic for use in measuring with protection of public interest significance in the areas of *consumer protection, contractual relations, imposition of sanctions, fees, tariffs and taxes, health protection, environmental protection, occupational safety, or the protection of other public interests protected by special legislation* in accordance with Directive 2014/32/EU (MID). The requirements of this legislation do not apply to measuring instruments placed on the market in the Czech Republic for anything other than the above purposes.

The purpose of this notified regulation is to lay down metrological and technical requirements for measuring instruments after they have been placed on the market, and only for the purpose of examining the measuring instruments at the request of a person who may be affected by incorrect measurement.

(End of executive summary.)

P U B L I C N O T I C E

As the authority with substantive and territorial jurisdiction in the matter of laying down metrological and technical requirements for legally controlled measuring instruments and stipulating the testing methods for type approval and verification of legally controlled measuring instruments pursuant to § 14(1) of Act No 505/1990 on metrology, as amended (hereinafter referred to as the 'Metrology Act') and in accordance with the provisions of § 172 et seq. of Act No 500/2004, the Administrative Procedure Code (hereinafter referred to as the 'APC'), the Czech Metrology Institute (hereinafter referred to as the 'CMI') commenced ex officio proceedings on 12 February 2016 pursuant to § 46 APC, and, on the basis of supporting documents, issues the following:

I

D R A F T G E N E R A L M E A S U R E

number: 0111-OOP-C099-19

laying down metrological and technical requirements for legally controlled measuring instruments, including testing methods for verification of the following legally controlled measuring instruments:

'serving measures'

1 Basic definitions

For the purposes of this general measure, the terms and definitions pursuant to VIM and VIML[1] and the following shall apply:

1.1
capacity serving measure
a capacity measure (in particular a drinking glass, jug or thimble measure) designed to determine a specified volume of a liquid (other than a pharmaceutical product) which is sold for immediate consumption

1.2
line measure
a capacity serving measure marked with a line to indicate nominal capacity

1.3
brim measure
a capacity serving measure for which the internal volume is equal to the nominal capacity

1.4
transfer measure
a capacity serving measure from which it is intended that the liquid is decanted prior to consumption

1.5
capacity
the capacity is the internal volume for brim measures or internal volume to a filling mark for line measures

1.6
error in the capacity of a capacity serving measure
the difference between the nominal capacity and the actual capacity

2 Metrological requirements

The metrological requirements for measuring instruments are governed by special legislation[2].

3 Technical requirements

The technical requirements for measuring instruments are governed by special legislation[2].

4 Measuring instrument markings

The marking of measuring instruments is governed by special legislation[2].

---

[1] TNI 01 0115 International Vocabulary of Metrology – Basic and General Concepts and Associated Terms (VIM) and International Vocabulary of Legal Metrology (VIML) are part of the technical harmonisation compendium 'Terminology in the field of metrology', which is publicly available at www.unmz.cz.

[2] Government Regulation No 120/2016 laying down technical requirements for measuring instruments (hereinafter referred to as 'Government Regulation'), and implementing Directive 2014/32/EU of the of the European Parliament and of the Council of 26 February 2014 on measuring instruments (MID)

5 Type approval of measuring instruments

Serving measures are not subject to type approval in accordance with Act No 505/1990 on metrology, as amended.

6 Initial verification

Serving measures are not subject to initial verification in accordance with Act No 505/1990 on metrology, as amended.

7 Subsequent verification

Subsequent verification is not performed.

8 Measuring instrument examination

The procedure in this chapter applies to the examination of a measuring instrument pursuant to § 11a of the Metrology Act at the request of a person who may be affected by an incorrect measurement.

8.1 Maximum permissible errors (MPE)

The maximum permissible errors applicable when examining capacity serving measures pursuant to § 11a of the Metrology Act are provided in Table 1.

Table 1 – Maximum permissible errors (MPE)

---	Line measures	Brim measures
Transfer measures		
<100 ml	±2 ml	−0 +4 ml
≥100 ml	±3 %	−0 +6 %
Capacity serving measures		
<200 ml	±5 %	−0 +10 %
≥200 ml	±(5 ml + 2.5 %)	−0 +10 ml + 5 %

8.1 Tests

8.2.1 Reference conditions

The reference temperature for measurement of capacity is 20 °C.

Ambient temperature is (20 ± 5) °C.

The temperature of the water used for testing is (20 ± 5) °C.

Position for correct indication: the instrument is free standing on a level surface.

8.2.2 Test procedure

Tests to assess the conformity of capacity serving measures consist of the following:

a) visual inspection;
b) capacity accuracy test.

8.2.2.1 Visual inspection

The purpose of the visual inspection is to ascertain whether the measuring instrument is:

- not mechanically damaged;
- made of material which is sufficiently rigid and dimensionally stable to maintain capacity within the MPE;
- appropriately marked (capacity markings in legal units; designation of the manufacturer; the CE marking and the supplementary metrology marking, including the identification number of the notified body);
- no further tests are performed on a measure that has not met the visual inspection requirements.

8.2.2.2 Accuracy test

A capacity accuracy test of the capacity serving measure using a standard capacity serving measure:

- The capacity accuracy test consists of determining the actual volume of water in the measure and comparing it with the nominal capacity.
- The tested measure shall be cleaned, wetted and left to drain for a waiting period of 10 s. After the waiting period has elapsed, the remaining drops are removed from the rim of the measure by tapping it against the edge of the container in which the drained water is captured.
- A wetted and drained standard capacity serving measure with a capacity corresponding to that of the tested measure is placed on a horizontal plate and filled with water so that the upper edge of the filling mark is tangent to the lowest point of the meniscus when the viewing direction is in the same plane. If a standard measure with a cut-off neck and ground cut surface is used, after filling the measure, the meniscus is adjusted by trimming the level using a ground-glass plate. If relevant, when using a standard measure, the error of the standard measure at the given value (according to the calibration sheet of the standard measure) is taken into consideration.
- The content of the standard capacity serving measure is poured into the tested measure placed on a horizontal plate. After the water no longer flows continuously, wait 10 seconds for the water to drip out.
- The actual volume of the tested measure is determined using a previously wetted graduated pipette or burette by removing or adding the amount of water necessary for the upper edge of the filling mark on the tested measure to be tangent to the lowest meniscus when the viewing direction is in the same plane. The amount of water thus added or removed represents the error Δ.
- If two, or a maximum of three, capacities are marked on the measure, the test is performed for both marked capacities.

8.2.2.3 Assessment of the accuracy test

Assessment of the capacity accuracy test on the capacity serving measure using a standard capacity serving measure:

The relative error in the capacity of the tested capacity serving measure is calculated using the following equation:

$$\delta = \left(\frac{\Delta}{V_{jm}}\right).100 \quad \%\,, \tag{1}$$

where Δ ..... is the error in the capacity of the capacity serving measure measured according to 8.2.2.2 in ml;

V_{jm} ..... is the nominal capacity of the standard measure (identical with the nominal capacity of the tested measure) in ml.

The determined errors of the tested measure shall not exceed the relevant maximum permissible errors specified in Chapter 8.1, Table 1.

9 Notified standards

For the purposes of specifying the metrological and technical requirements for measuring instruments and specifying the testing methods for their type approval and verification arising from this general measure, the CMI shall notify Czech technical standards, other technical standards or technical documents of international or foreign organisations, or other technical documents containing more detailed technical requirements (hereinafter referred to as 'notified standards'). The CMI shall publish a list of these notified standards attached to the relevant measures, together with the general measure, in a manner accessible to the public (at www.cmi.cz).

Compliance with notified standards or parts thereof is considered, to the extent and under the conditions stipulated by a general measure, to be compliance with the requirements stipulated by this measure to which these standards or parts thereof apply.

Compliance with notified standards is one way of demonstrating compliance with the requirements. These requirements may also be met by using another technical solution guaranteeing an equivalent or higher level of protection of legitimate interests.

II.

G R O U N D S

The CMI has issued this general measure laying down the tests for the examination of legally controlled measuring instruments – 'serving measures' – in accordance with § 14(1)(j) of the Metrology Act to implement § 11a(3) of the Metrology Act.

Under item 1.3.2 in the Annex 'List of the Types of Legally Controlled Measuring Instruments' to Implementing Decree No 345/2002 specifying the measuring instruments whose verification is mandatory and measuring instruments subject to type approval, as amended, this type of measuring instruments is classified as an instrument subject to type approval and mandatory verification.

This legislation (General Measure) will be notified in accordance with Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services.

III.

I N S T R U C T I O N S

In accordance with § 172(l), in conjunction with § 39(l) APC, the CMI has stipulated a time limit for comments of 30 days as of the date of posting on the official notice board. Comments submitted after this time limit will not be considered.

The persons concerned are hereby invited to comment on this draft general measure. With a view to the provisions of § 172(4) of the CAP, the comments shall be submitted in writing and meet the requirements for submissions in accordance with § 37 of the CAP.

The comments shall include the particulars referred to in § 37(2) APC and clearly state the following: who is making the comments; which general measure they concern; to what extent the comments challenge the measure; how the general measure runs contrary to legislation or how the general measure or the procedure that preceded it is inaccurate; which matters the comments concern and what is being proposed. Said comments must also identify the administrative authority to which they are addressed and be signed by the person making them.

The supporting documents for this draft general measure may be consulted at the Czech Metrology Institute, Legal Metrology Department, Okružní 31, 638 00 Brno, after making arrangements by telephone.

This draft general measure shall be posted for 15 days.

Czech Metrology Institute
Director General