

## NOTIFICATION OF THE MINISTRY OF COMMERCE

### RE: PRESCRIPTION OF TYPE OF WEIGHING INSTRUMENT, DETAILS OF THE MATERIAL USED FOR MANUFACTURING VOLUME MEASURING INSTRUMENT, MAXIMUM PERMISSIBLE ERROR, AND VALIDITY OF VERIFICATION

---

By virtue of section 5, section 16, section 26 and section 33 of the Weights and Measures Act B.E. 2542 amended by the Weights and Measures Act (No. 3) B.E. 2557, the Minister of Commerce, upon the recommendation of the Weights and Measures Committee hereby issues the Notification as follows:

**Clause 1.** This Notification shall come into force upon the expiration of ninety days from the date of its publication in the Government Gazette.

**Clause 2.** In this Notification:

“maximum permissible error” means extreme value of an error permitted by each volume measuring instrument;

“indicating device” means a part of volume measuring instrument used for indicating the quantity of the measured volume;

“scale marks” means a line, sawtooth or any other symbol used for indicating the value of the quantity of the measured volume.

## TITLE I

### TYPE OF VOLUME MEASURING INSTRUMENT

---

**Clause 3.** There are two types of volume measuring instruments as follows:

- (1) liquid volume measuring instrument:
  - (a) liquid volume measuring instrument without scale marks;
  - (b) liquid volume measuring instrument with scale marks;
  - (c) fuel oil and gasoline volume measuring instrument;
  - (d) pumping fuel oil volume measuring instrument;
- (2) dried goods volume measuring instrument.

## TITLE II

### CHARACTERISTICS, DETAILS OF THE MATERIALS USED FOR MANUFACTURING AND MAXIMUM PERMISSIBLE ERROR

---

## CHAPTER I

### GENERAL PROVISIONS

---

**Clause 4.** All volume measuring instruments used for selling or exchanging goods for other people or providing volume measuring services or the use of volume measuring instrument for the purpose of calculating the remuneration, tax and fee shall be constructed in the manner as follows:

Any person who wishes to manufacture or import a volume measuring instrument which has the specifications which are different from the prescription under this Notification such volume measuring instrument shall pass the examination from the Central Bureau. In the case where the test result appears that the specifications of such volume measuring instrument has the standard which is not different from the prescription under this Notification and the Minister has approved, a competent official shall provide the verification for such volume measuring instrument.

**Clause 5.** All volume measuring instrument shall be made permanent and difficult to be a tool for fraudulence.

All volume measuring instruments shall be made with good materials, strong and durable with the design and constructed in the manner that when it is used under the usual circumstance, it has to always be accurate. The components of the instrument shall operate continuously and shall not be damaged, bend or different from the original to the extent that it affects the accuracy of the instrument. In the case of modification of volume measuring instrument, the modified instrument must maintain the accurate condition appropriately.

In the case where it is necessary, the Central Bureau may test the model of the volume measuring instrument in accordance with the rules, procedures and conditions as prescribed by the Central Bureau.

**Clause 6.** All volume measuring instrument shall indicate the following details on the instrument and must be easily read, clear and indelible:

- (1) name or trademark of a manufacturer, importer or seller;
- (2) model which specifies the form of the instrument;
- (3) serial number as specified by a competent official.

The provisions under paragraph one shall apply to the component separated from the volume measuring instrument which is necessary for volume measurement and shall not affect the accuracy of such volume measurement or volume measuring instrument is not able to indicate the details or upon indicating, it damages the volume measuring instrument;

**Clause 7.** The capacity of such volume measuring instrument shall be indicated clearly and indelible. In this regard, it may be displayed in abbreviation.

The capacity under paragraph one shall be illustrated in Thai or Arabic numbers and Thai letters or letters or symbols as prescribed by the Minister.

**Clause 8.** The volume measuring instrument which is made especially for the custom rate must indicate the capacity in unit under metric and unit under the custom but must indicate in the metric system first following by the unit in the custom system in bracket.

**Clause 9.** The accuracy of all volume measuring instruments must be within the maximum permissible error as prescribed under this Notification.

For verification of volume measuring instruments, the accuracy of the volume measuring instrument must be within the maximum permissible error which does not exceed the maximum permissible error for the initial inspection.

**Clause 10.** A volume measuring instrument shall have the appropriate indicating device and sufficient for use.

**Clause 11.** The indicating device of a volume measuring instrument shall have the following characteristics:

(1) analog indicating device:

(a) scale mark and the indicating device must be designed appropriately and work corporately;

(b) scale mark, number, letter or other symbols must be easily to be read, clear and indelible;

(c) in the case where are several indicating devices, every device must indicate the according value;

(d) in the case where there is a printing device, it must print the according value;

2) digital indicating device:

(a) an indicating device whether it uses the number, letter or other symbols as a part of such device, it must not cause confusion in reading the value;

(b) in the case where there are several indicating device, every device must indicate the according value;

(c) in the case where there are digital and analog indicating devices, the digital indicating device must be in accordance with the analog indicating device;

(d) in the case where there is a printing device, it must print the correct value as indicated;

(3) for the indicating device of a volume measuring instrument which can calculate the price, the amount of money must be in accordance with the amount of measuring indicated.

**Clause 12.** All symbols of the control, indicating device including the switch of the volume measuring instrument must be easily to be read, clear and indelible.

**Clause 13.** A volume measuring device must have an affix to prevent any modification after the verification. In the case of amendment, modification or repair of such volume measuring device, such affix must be destroyed.

## CHAPTER II

### VOLUME MEASURING DEVICE

---

#### PART I

#### LIQUID VOLUME MEASURING DEVICE

---

**Clause 14.** Liquid volume measuring device which has no scale mark shall have the following characteristics:

(1) the device must be made from glass, metal by which such metal must be thick enough to prevent such instrument to lose its shape easily or other material which has been inspected by the Central Bureau that it has the specification which can be replaced;

(2) capacity of a volume measuring instrument must be indicated on the external side of the device which is clear and permanent by which it must be specified by adding the liquid to be equal to the edge or by displaying via the sheet, tube or line at the point displaying the maximum volume of such instrument;

(3) in the case where there is a collar, such collar shall be attached outside the volume measuring instrument. There shall be no scratch inside the instrument as the scale mark;

(4) maximum permissible error:

(a) the maximum permissible error for the initial verification and inspection for the positive not exceeding the value as prescribed in the following table:

Capacity	Maximum permissible error
20 liters	75 milliliters
10 liters	50 milliliters
5 liters	25 milliliters
1 liter	5 milliliters
500 milliliters	5 milliliters
200 milliliters	2 milliliters
100 milliliters	2 milliliters
50 milliliters	1 milliliter

(b) the maximum permissible error for the initial verification and inspection for the negative shall not exceed one half of the positive.

**Clause 15.** A volume measuring instrument with the scale mark shall have the following characteristics:

- (1) it must be a cylinder shape;
- (2) the instrument must be made from glass or other materials which has been inspected by the Central Bureau that it has the specification that can be replaced;
- (3) the instrument shall have the constant thickness and is able to see the level of the liquid inside;
- (4) upon measuring the inside of the instrument from the bottom to the maximum scale mark and it has to be less than 5 times the inside diameter of the instrument;
- (5) the base of the instrument shall be vertically perpendicular to the instrument and shall be large enough to ensure that the empty instrument does not fall when placing it on the 15 degree smooth floor;

(6) scale mark shall be vertically perpendicular to the instrument and each scale mark shall be parallel and has equal thickness, can be easily seen, easily to be read and having the permanent manner;

(7) having the statement or mark stating that the volume measuring instrument is for delivery or TD or Ex or instrument for containing or TC or In and it shall display the reference temperature of such instrument;

(8) the main scale mark must indicate the volume clearly, easily to be read and permanent;

(9) for the maximum permissible error for the initial verification and inspection for the liquid volume measuring instrument with the scale mark indicating one volume and liquid volume measuring instrument which indicate different volume with positive and negative, it shall be in accordance with table (a) or (b), as the case may be, as follows:

(a) liquid volume measuring instrument with the scale mark indicating one volume:

Capacity	Maximum permissible error	
	For delivery	For containing
Not exceeding 30 millimeters	-	0.06 millimeters
More than 30 millimeters but not exceeding 50 millimeters	-	0.1 millimeters
More than 50 millimeters but not exceeding 100 millimeters	0.4 millimeters	0.2 millimeters
More than 100 millimeters but not exceeding 250 millimeters	1 millimeter	0.5 millimeters
More than 250 millimeters but not exceeding 400 millimeters	2 millimeters	1.0 millimeters
More than 400 millimeters but not exceeding 600 millimeters	3 millimeters	1.5 millimeters



More than 600 millimeters but not exceeding 1,000 millimeters	5 millimeters	2.5 millimeters
More than 1,000 millimeters but not exceeding 1,500 millimeters	8 millimeters	4.0 millimeters
More than 1,500 millimeters but not exceeding 2,000 millimeters	10 millimeters	5.0 millimeters

(b) liquid volume measuring instrument which has the scale mark indicating several volumes

Liquid volume measuring instrument capacity not exceeding 2,000 milliliters	Maximum permissible error
For delivery	Equal the volume of the minimum scale mark
For containing	Equal one half of the volume of the minimum scale mark

**Clause 16.** Fuel volume measuring instrument and gasoline shall have the following characteristics:

(1) the volume measuring instrument shall be made of appropriate metal and shall be in the form of pitcher and while tilting for 120 degrees from the vertical angle and the gasoline must complete flow out of the instrument;

(2) the capacity of the instrument shall be specified by adding the liquid to be at the level of bottleneck and shall have the letters indicating the capacity clearly, easily to be read and the permanent manner which is at bottleneck;

(3) the maximum permissible error for the initial verification and the inspection shall have only the positive under the following table:

Capacity	Maximum permissible error
5 liters	25 millimeters
4 liters	20 millimeters
3 liters	15 millimeters
2 liters	10 millimeters
1 liter	5 millimeters

**Clause 18.** The pump fuel volume measuring instrument is the equipment which is the coin, banknote or credit card inserting. In addition to the characteristics under clause 17, the equipment which is the coin, banknote or credit card inserting machine shall have the additional characteristics as follows:

(1) being a mechanism for controlling the fuel in the volume measuring instrument;

(2) having the device indicating the amount of money which the instrument is received by pumping the fuel into the instrument each time on the instrument in the area which is easy to be read and easily seen.

## PART II

### DRY OBJECT MEASURING INSTRUMENT

---

**Clause 19.** A dry object measuring instrument shall have the following characteristics:

(1) a dry object measuring instrument shall be made of a material which does not change its form regardless of whether it is metal, mixed metal, hard wood or other materials as inspected by the Central Bureau that has the specification which can be replaced;

(2) a dry object measuring instrument which is made of wood shall have the metal covered on the neck and bottom in the manner of secured and shall not all be made of wood or wood which absorbs water;

(3) a dry object measuring instrument in addition to the instrument under (5) shall indicate the capacity of the instrument on the outside of the instrument which is clear, easily read and permanent;

(4) a dry object measuring instrument shall be in a cylinder shape with the diameter which is approximately the same size as the in-depth line;

(5) a volume measuring instrument which is made from bamboo and rattan shall have the following characteristics:

(a) on the instrument, it shall be weaved carefully and secured and is in the manner which cannot lose shape easily from the pressure force. The upper edge shall be made in circle and attached to the instrument and covered with metal. The metal must cover inside and outside of the instrument. It shall be at least 5 centimeters in width for each side with the diameter of approximately 30 centimeters;

(b) this type of instrument shall only be made under the capacity of 20 liters (*nueng-sad-luang*);

(c) this type of instrument shall be coated with wood oil;

(d) the capacity of such instrument shall be indicated clearly, easily to be read, and permanent on the outside edge of the metal and shall only be indicated in Thai number;

(e) the maximum permissible error for the initial verification and inspection of this instrument shall be positive only and shall not exceed 180 milliliters;

(f) the characteristics of this instrument shall not be misshaped or damaged to the extent that the measuring result is wrong;

(6) the capacity shall be specified by adding the liquid and shall not have the scale mark;

(7) a dry object measuring instrument shall not be made to be able to used for both sides in the manner that the bottom can measure objects regardless of whether its capacity is the same or different;

(8) a dry object measuring instrument shall not be moved or the bottom can be moved;

(9) the maximum permissible error for the initial verification and inspection of the dry object measuring instrument under the instrument under (5) for the positive and shall not exceed the value as prescribed in the table as follows:

Capacity	Maximum permissible error
50 liters	250 milliliters
40 liters	200 milliliters
20 liters	160 milliliters
10 liters	100 milliliters
5 liters	50 milliliters
2 liters	20 milliliters
1 liter	10 milliliters
500 milliliters	10 milliliters
200 milliliters	5 milliliters
100 milliliters	5 milliliters
50 milliliters	2 milliliters

TITLE III  
VERIFICATION

---

**Clause 20.** All types of volume measuring instruments verified by a self verified repairer shall be valid for 60 days as from the date of verification

Given on the 19<sup>th</sup> of June B.E. 2560

Apiradi Tantraporn  
Minister of Commerce

Unofficial