



HEAT METER GENERAL EXAMINATION PROCEDURE

1.PURPOSE AND SCOPE

This procedure defines the general examination processes of heat meters in line with the Ministry of Industry and Technology's Heat Meters Examination Regulation dated 06.07.2018 and numbered 30470.

This procedure covers only the examination procedures included in the Heat Meters Examination Regulation, activities such as repair and maintenance are not carried out, these activities are out of scope.

2.DEFINITIONS

Examination: Examination of a product, process, service or installation or their designs and determination of their conformity to special requirements or their conformity to general requirements based on professional provision.

Heat meter: It is a measuring instrument designed to measure the heat in the heat exchange circuit by means of a liquid called heat conductor.

3.RESPONSIBILITIES

The Examination Manager is responsible for the review of applications, the creation of offers and contracts, the review and approval of reports, the creation of work orders, the assignment of staff,

Heat Meter Examination Staff are responsible for conducting examinations, creating reports, submitting them for approval, and stamping the appropriate meters.

4. APPLICATION

4.1 GENERAL

During the examination procedures applied to heat meters, the results of flow measurement, temperature measurement and thermal energy calculation of the device are examined and the results are evaluated according to the accuracy class of the heat meter. As a result of the evaluations, if the heat meter measures within the limits of the highest permissible error limits (MIH), it is stamped.

Meters are subject to the following examinations specified in the Law:

a) First examination

The first examination is the examination carried out before the sale or use of newly made meters or meters formed by combining parts, or during the importation of imported meters into the country, or after the repair and adjustment of meters whose stamps are canceled at the end of periodic, sudden, complaint and stock examinations.

b) Periodic examination

Periodic examination is the general examination performed for meters in certain periods. The periodic examination period of meters is five years. This period is monitored in years, not dates. In the calculation of the periodic examination period, the year of stamping is taken as basis and the year of stamping is counted as the first year, regardless of the date of stamping during the year.

The periodic examination of the meters is carried out by the user at the services. For periodic examination, an application shall be made to the services from the beginning of January until the end of working hours on the last day of February of the year following the year in which the periodic examination period expires. If the last day of February is a holiday, the application is made until the end of the working hours of the next working day. A document indicating the brand, model/type, serial number, year of production, address of the place of use and date of application is given by the service to those whose application is approved. This document is kept to be submitted to the relevant persons upon request until the examination of the meter is completed. The services notify all applications to the relevant provincial directorate electronically until the end of working hours on the first business



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day following the end of the periodic examination application period. In addition, these applications shall be submitted in writing to the relevant provincial directorate by March 15th of that year at the latest.

(3) It is first checked whether the meter to be periodically inspected is placed on the market in accordance with the relevant technical regulation. For this purpose, the meter's;

- a) Whether there is a type approval certificate,
- b) Whether label information and markings are appropriate,
- c) Whether the stamps on it are appropriate,
- ç) Whether the stamp and/or meter has been tampered with,

is checked.

c) Sudden examination

Sudden examination is an unannounced examination at the location of the meters placed on the market upon the necessity to be determined by the General Directorate and/or the provincial directorate

ç) Complaint examination

It is the examination made upon the written application of the user or any other person to determine whether the meter is working correctly.

d) Stock examination

Stock examination is a type of examination in which the meters, which are not sold but kept in warehouses, workshops, manufacturing and sales places or in stock by not needing to be used, although they bear the first examination stamp, are subjected again within the periodic examination periods.

All stamps to be used in the examinations of our service are reliable and traceable. Stickers or hologram labels are used. Lead seals are also printed. Stamps are self-adhesive, cannot be removed without destruction and will not lose their properties during the periodic examination.

* Basic requirements and responsibilities for examination:

1. Meters must be placed on the market with type approval in accordance with the relevant technical regulation, examination procedures, examination marks and / or stamping procedures and completed transactions with the notified body.
2. All parts of the meters to be placed on the market that may affect the measurement results, including their software, must be mechanically and/or electronically secured.
3. Meters must be installed in the installation as specified in the usage / assembly manual and external temperature sensors / sensors must be installed in the installation and sealed. The provisions of the Regulation on the Allocation of Heating and Sanitary Hot Water Expenses in Central Heating and Sanitary Hot Water Systems published in the Official Newspaper dated 14/4/2008 and bis numbered 26847 shall apply to those responsible for this matter.
4. The seal to be used on the meter to be installed for the first time shall have a mark and/or information symbolizing the meter manufacturer or importer.
5. The seal to be used on the meters that need to be removed and reinstalled for examination or repair shall have a mark and/or information symbolizing the service holding the Service Services Authorization Certificate. The seal is provided with each meter that is inspected or repaired or adjusted by the service to be replaced during installation.



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6. Examination procedures after the placing of the meters on the market are carried out by the user at the services.
7. The services that perform the operations related to the repair, maintenance, adjustment, examination and stamping of the meters and the technical employees working in these services must be certified by the Ministry. It is forbidden to perform these operations by services and persons who do not have an authorization certificate.
8. In the sensory examination made before starting the examination of the meters, the meter is not inspected in cases where it is determined or concluded that there is no stamp or the stamp is interfered with or the meter is interfered with even though the stamp is appropriate.
9. Meters found suitable as a result of the examination shall be stamped in accordance with the provisions of this Regulation.

4.2. EXAMINATION PROCESS; APPLICATION, CONTRACT, EXAMINATION, REPORTING AND STAMPING

4.2.1. Receipt of application, request-offer and Contract

Applications for Heat Meters are received by the Examination Staff using the **MF.01 Heat Meter Examination Application Form**. An Application Number is defined for each application received and the process is followed through this number.

The application form received is reviewed and checked by the Examination Manager, and if it is found appropriate, **MS.03 Heat Meter Examination Contract (with Annex Heat Meter List)** is prepared and sent to the customer with the approval of the General Manager. After customer approval, the examination of the meters is put into the program.

4.2.2. Acceptance, Transportation, Storage and Preservation of Heat Meters

Heat meters brought/sent by the customer are received by the Heat Meter Examination Staff using the **MF.02 Sampling-Return Delivery Record**. At the receipt stage, visual checks of the meters are made in accordance with the Heat Meter Examination Regulation. If there is a physical damage for the meter to enter the examination (such as a broken temperature sensor) or if there is a technical obstacle for the examination (such as the meter screen cannot be read), the seal of the incoming meter is also checked and the Customer is contacted and returned.

4.2.3. Staff Assignment for Examination and Examination Process

The meters determined to be suitable for examination are taken into the examination process in order. For this, an assignment is made by the Examination Manager by sending a work order to the staff via e-mail according to the authorization areas in the **ML.03 Examination Staff Authorization List**. Information about the work (Application number, customer name, meter serial number(s), scope of work) is specified in the work order. The work order is attached to the relevant file.

For the examination process, after pre-controls by the examination staff, the meters are tested by the Examination Staff according to **MT.01 Heat Meter Examination Instruction** by the Examination Staff to determine the measurement errors.

In the pre-control, checks such as type approval and stamping of the meters are carried out according to the Heat Meters Examination Regulation. In case of any nonconformity, the findings are recorded with **MF.03 Nonconformity Form**.

4.2.4. Examination Records and Examination Reporting

Measurement error data according to the examination instruction is recorded in **MF.04 Heat Meters Measurement Record Form**. Formed as **MF.05 Heat Meter Test Report** and **MF.06 Heat Meter Examination Report**.



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4.2.5. Stamping of Heat Meters

Stamps to be used by the services:

All stamps to be used in Sastek examinations are reliable and traceable. They are used as stickers or hologram labels. The stickers are self-adhesive, cannot be removed without destroying them and will not lose their properties during the periodic examination. Lead stamps are also made. Lead stamps are made at the Prime Ministry Undersecretariat of Treasury, General Directorate of Minting and Printing as authorized by the Ministry and registered with the Ministry.

2. The stamp used by Sastek includes the identifying mark/logo determined by Sastek, the code of Sastek, the last two digits of the year of the stamp and the coding of the staff performing the examination.

3. The stamp is applied to the points specified in the stamp plan based on type approval and where the settings of the meter can be intervened.

4. On the other hand, periodically inspected heat meters are recorded in the **MF.07 Periodic Examination Record Book Form**.

4.3. EXAMINATION PERIODS and NUMBERS

Product Group	Examination Type	Examination Time (Minute)	Daily Examination Amount (8 hours) Quantity
Heat Meter First Examination	Fully Heat Meter	60 (for 1-5 pieces)	40 Pieces
Heat Meter Periodic Examination Heat Meter Stock Examination	Combined Heat Meter - Flow Sensor - Temperature Sensors - Calculator	90 (for 5 pieces)	25 Pieces
Heat Meter Complaint Examination	Fully Heat Meter -Combined Heat Meter - Flow Sensor - Temperature Sensors - Calculator	60 (for 1 piece)	8 Pieces