

The third version of the ISO 7170 standard referring to storage units has been published in September 2021.

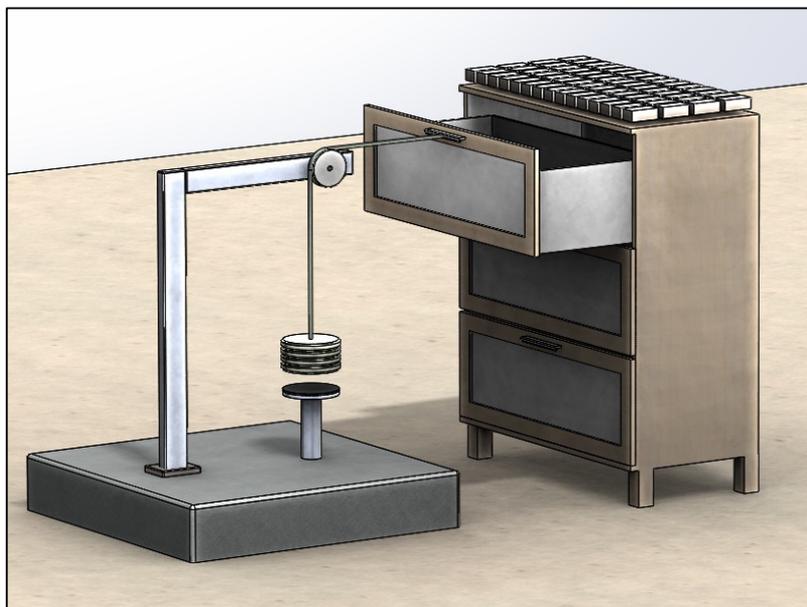
This new version, in addition to providing various general and procedural changes for the execution of tests in line with EN 16122, rules on the method for domestic and non-domestic cabinets, introduces, compared to the previous one, the following novelties:

- integration of the **stability test**, previously defined by ISO 7171;
- introduction, even if for information only, of a specific table with **loads and cycles** for both domestic and non-domestic use;
- definition of **acceptability criteria**;

thus making it an **independent and complete standard**.

Regarding the generalities and test procedures, the **main changes are**:

- **the conditioning time** in a closed environment before the test executions, which decreases from 7 days to 24 hours and **the temperature range**, which increases in the maximum value from 25 to 27°C.
- the increase of entries defined in the **glossary**, useful for a better interpretation of the standard.
- the **addition of tests** on trays and the extension of vertical loading on flap doors that were not considered before.
- the elimination of the method with the speed by means of a pneumatic piston for the tests of opening and closing with impact on the drawers, establishing **only the method with the masses** (Picture 1).



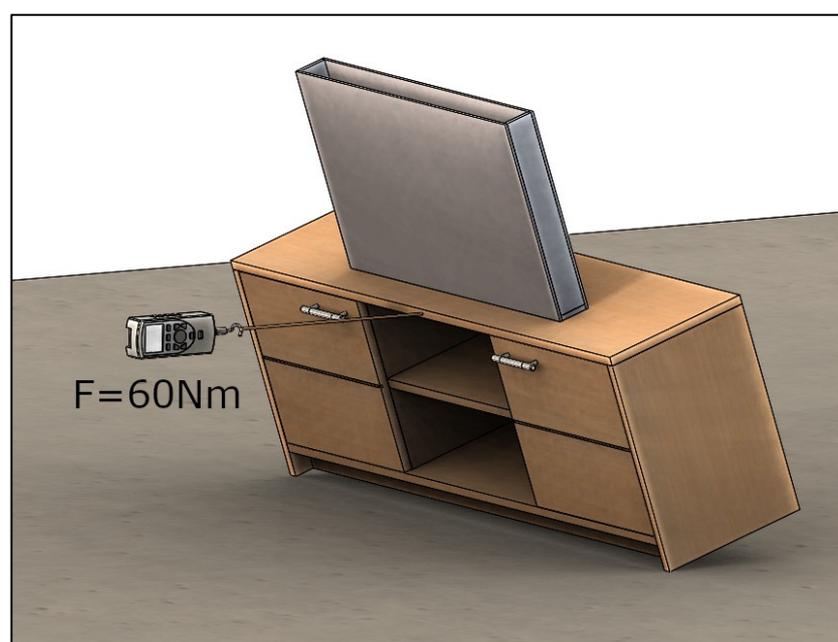
Picture 1: drawer impact with the masses method

Among the most relevant changes, we find the addition of the **stability test**, intended as a tendency to overturn, also **for TV cabinets**.

Templates have been defined to simulate the TV, with dimensions and weight according to the data declared by the furniture manufacturer.

Stability tests on a TV cabinet should be carried out by placing the appropriate template on the top of the cabinet.

In picture 2, for example, is shown the stability test with horizontal force, positioning the template with the center of gravity at 150mm from the front edge and applying an overturning force of 60Nm as required by the standard.



Picture 2: Stability with horizontal force

Although for information purposes only, some important indications have been added, including:

- some guidelines for choosing **the most significant piece of furniture** to be tested, that is part of a family;
- the **definition of acceptability criteria**, that is how to evaluate the test results, also specifying the maximum tolerable deflection;
- the **indication of the stress**, that means loads and cycles to be applied in the various tests depending on the domestic or non-domestic use of the piece of furniture, with its subcategories, such as kitchen or heavy-duty use, for particular intended uses;
- **indications on the purpose and applicability of the individual tests**, in order to simplify their choice depending on the performance to be evaluated

This new version of ISO 7170 therefore, including methods and requirements in terms of both stress and results analysis, is a complete reference document to evaluate a storage unit at an international level

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