

Strength and loading capacity of wall attachment devices: the revision of the EN 15939 standard

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The revision of the standard EN 15939 was published on June 2019 and replaces the previous edition dated 2014.

For the verification of the loading capacity of all types of wall attachment devices for storage furniture and their components, the revision refers to three different types of test frames:

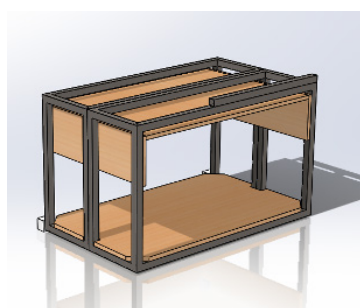
- Test frame A, for structure cases with height > depth;
- Test frame B, for structure cases with height equal to depth;
- Test frame C, for structure cases with height < depth;

The value which is verified according to the EN 15939:2019 standard, represents the maximum load capacity (in kg) that must be indicated by the hardware manufacturer for each specific attachment device.

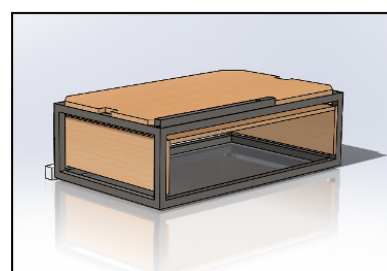
The types of frames described in the standard cover the main furniture suspended units existing on the market, as represented by the following:



Test frame A
Height > depth

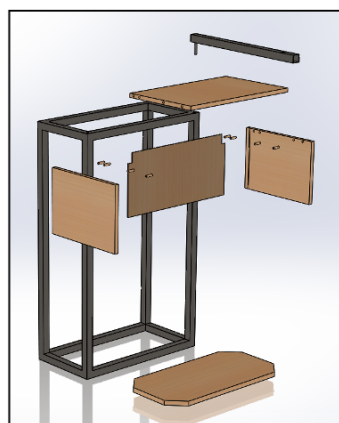


Test frame B
Height = depth

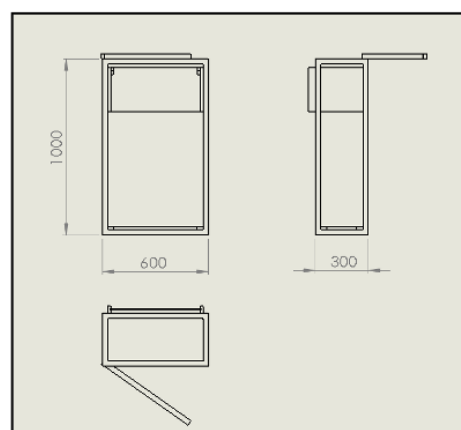


Test frame C
Height < depth

The frame is made of a steel structure and wood based panels that shall be jointed and mounted as described in the standard. The wall attachment devices shall be fixed to the structure according to the hardware manufacturer instructions.



Test frame A
Overall dimensions (mm)



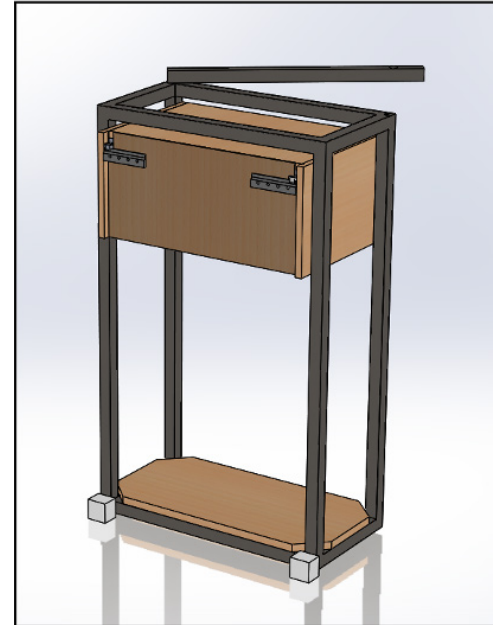
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The frame shall be hung on the wall and shall support the test loads according to the following sequence:

Tests sequence:

- Static load test (clause 6.2.2)
- Impact test (clause 6.2.3, to be carried out only for setting type A)
- Door swing test (clause 6.2.4)
- Static load test of top surface (clause 6.2.6, to be carried out only for setting type B and C)
- Overload test (clause 6.2.7)
- Corrosion test (clause 6.3)

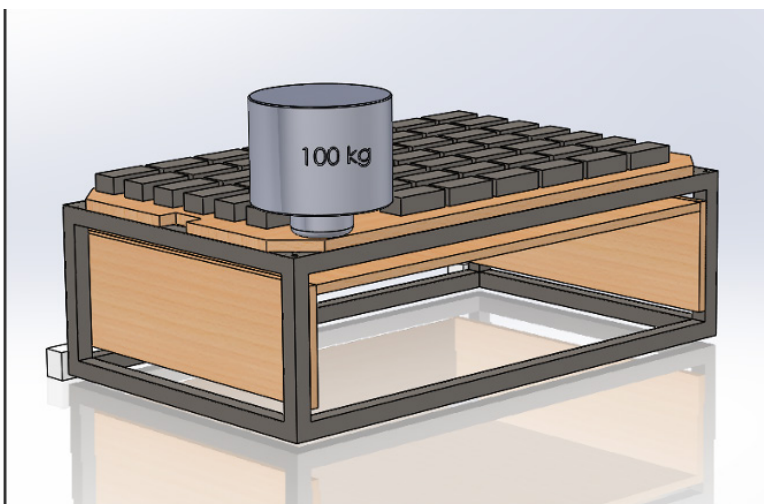


Compared to the 2014 version, the relevant updates refer to:

- new dimensions of the setting type B
- the addition of a new setting type C reporting the height lower than the depth
- the addition of a particularly severe static load test on the top panel, to be carried out only for setting type B and C, as shown in the following 3D representation:

Static load test of top surface

(clause 6.2.6, to be carried out only for setting type B and C)



Distributed load according to clause 6.2.2

Concentrated vertical load: 100 kg

Cycle numbers: 10

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