

WORLDWIDE EN131 STANDARDS RENEWED



Meet the new EN131 standards !

EN 131

Norm

EN131 standards for Professional Ladders have been extensively updated.

This update, which came into force at the end of 2017 in Europe, has made the ladders safer with the **extra tests, required by the new standard**. According to the new Standards there were some mandatory changes made in the products and tests that carried the safety boundaries to further point.

Çağsan Ladder new EN131 certified!



Cagsan's ladders has successfully passed all tests with its products that are compatible with the updated standards, and continues to produce with **TÜV-SÜD** and **TSE EN131** certificates!





Certificate EN 131 Norm

Leaning Rung Ladders
TÜV-SÜD - TSE EN131-1-2-3

Extending Ladders
TÜV-SÜD - TSE EN131-1-2-3

Multipurpose Ladders
TÜV-SÜD - TSE EN131-1-2-3



The changes on the EN131 Standard have been stated in the scope in the deviation of A2/2017.

New Standard **invented the mandatory changes** on the design of the ladders also invented the new **extra stringent tests** on the ladders

Old EN131

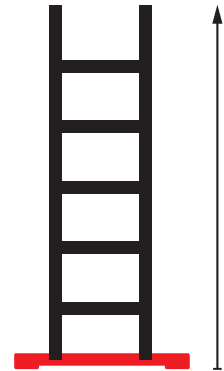
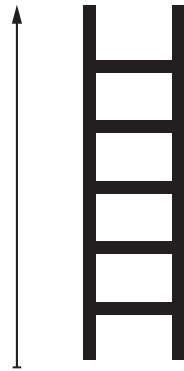
New EN131

New mandatory changes:

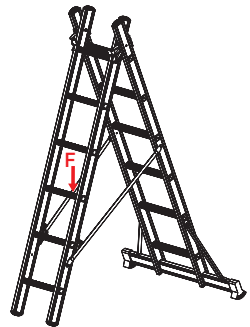
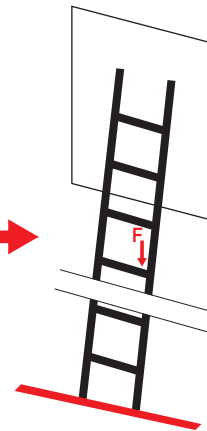
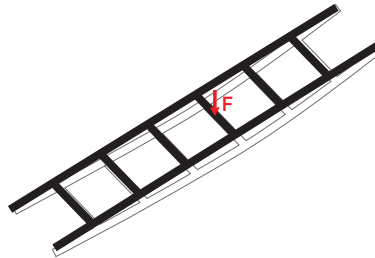
Stabiliser :

For ladders which are **300 cm.** or higher will be produced with stabiliser.

300 cm.



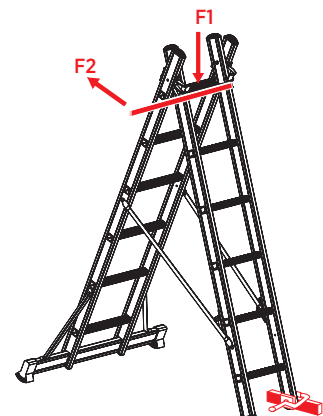
New test :
Strength test for all ladders



New Test :
Torsion test for standing step ladders



No previous standard



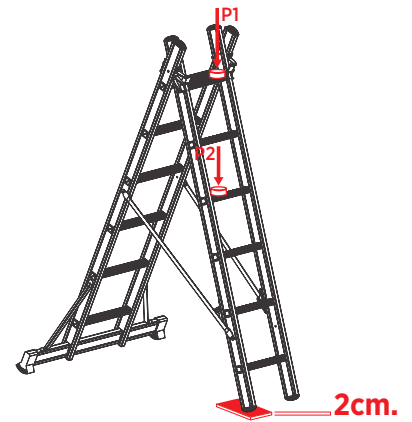
Old EN131

New EN131

New test :
**Strength test
for all ladders**
(50.000 repeats)



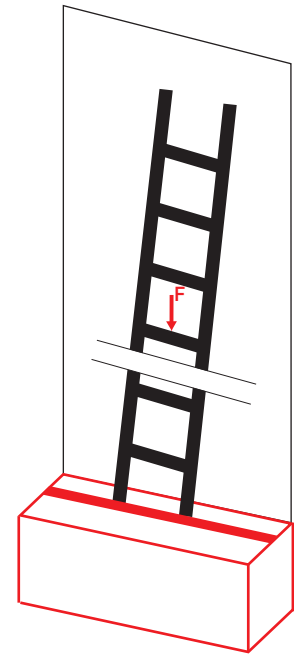
No previous standard



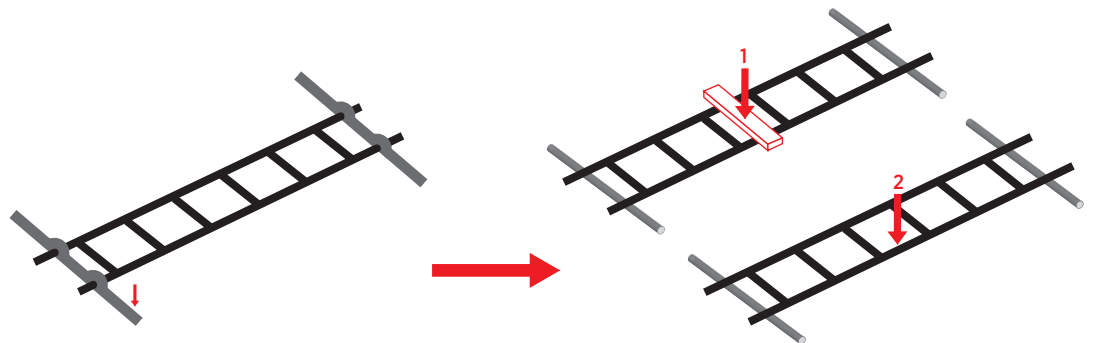
New Test :
Base Slip Test



No previous standard



New Test :
**Torsion test for
leaning ladders**

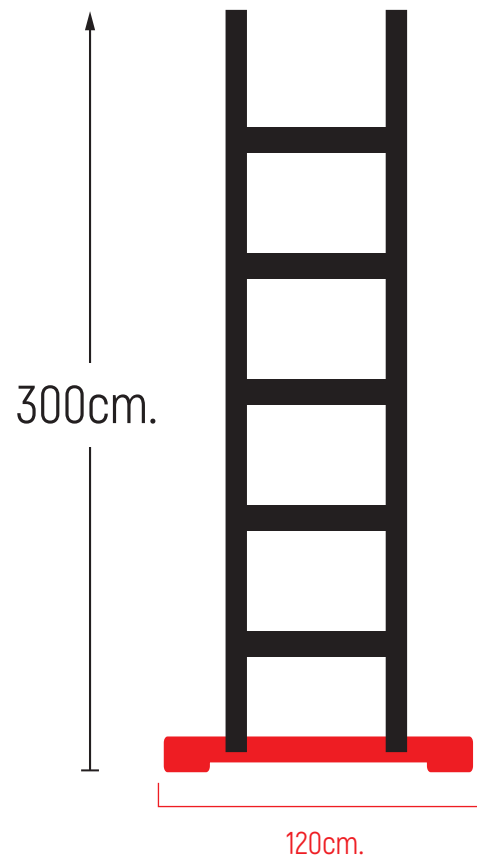


Requirement

Stabiliser

- ▶ For ladder which has height 300 cm. or more equipped with Stabiliser.
- ▶ A stabiliser can be maximum 120 cm. length.

! Because of this new requirement it has been restricted to separate the parts of extensional ladders and using them as a single ladder which has height of 300 cm. or more.



Content of the test

Endurance test

Tested features

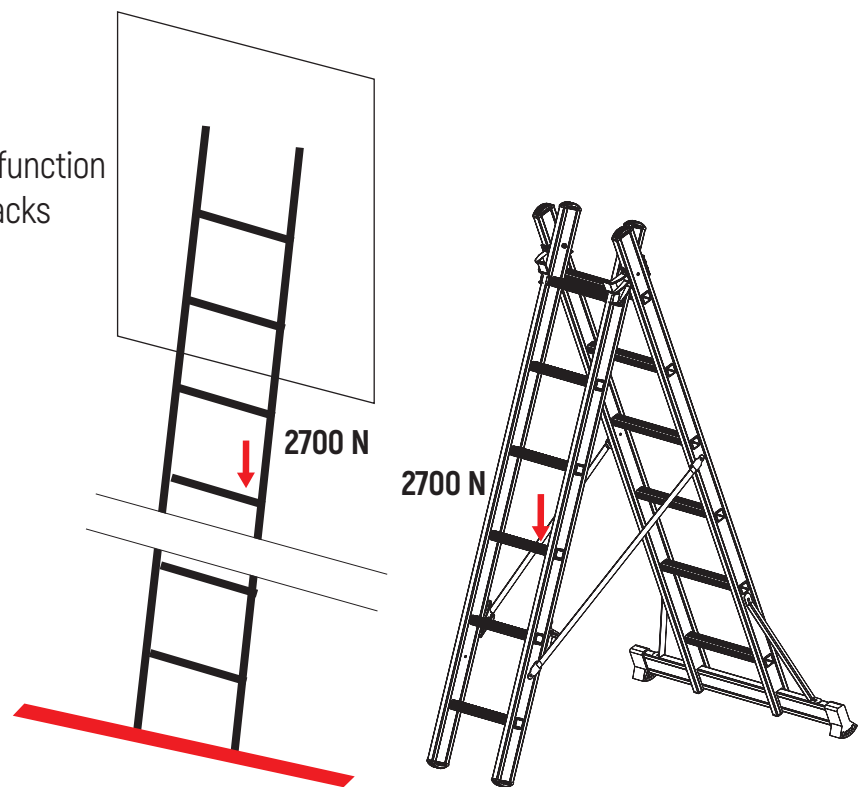
- ▶ Durability of the ladders

Testing method

- ▶ 2700 N of weight applied on the ladder at the using position, from a single point.

Requirement

- ▶ After the test Ladder should remain function and there shouldn't be any visible cracks



Content of the test

Durability of the Standing ladders against torsion effect

Tested features

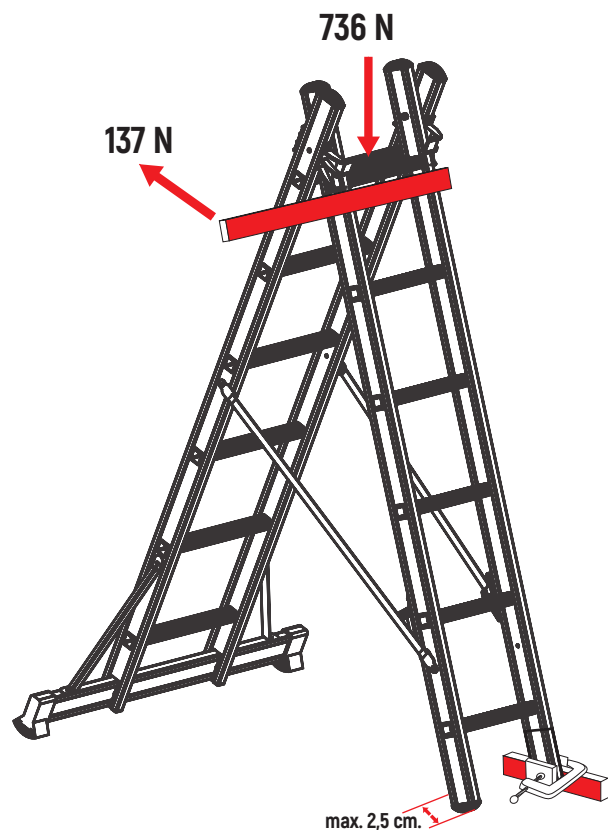
- ▶ Durability of the Standing ladders against torsion effect

Testing method

- ▶ One foot of a ladder is secured using a clamp.
- ▶ The platform of a ladder is subject to a load of 736 N. Subsequently, a lateral pulling force of 137 N is applied to the ladder.

Requirement

- ▶ When the test load is applied, the other ladder foot should not move more than 2,5 cm. from its original position.



Content of the test

Continuous stress test

Tested features

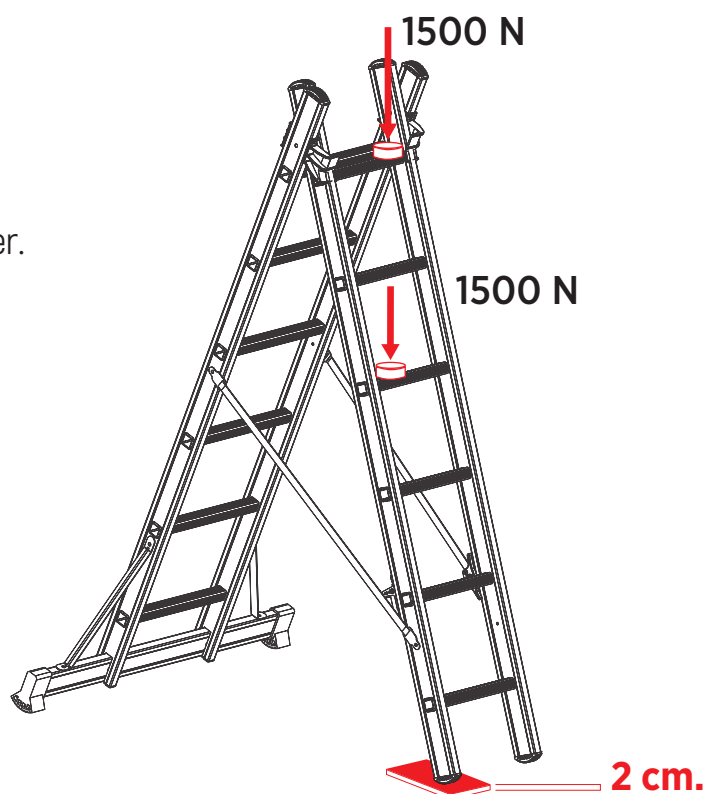
- ▶ Durability of the ladder

Testing method

- ▶ A load of 1500 N is applied to the ladder alternately between the topmost step/rung and the middle step/rung of the ladder
- ▶ Repetitions for non-professional: 10000 cycles
- ▶ Repetitions for professional: 50000 cycles

Requirement

- ▶ There should be no damage to the ladder.



Content of the test

Slip test

Tested features

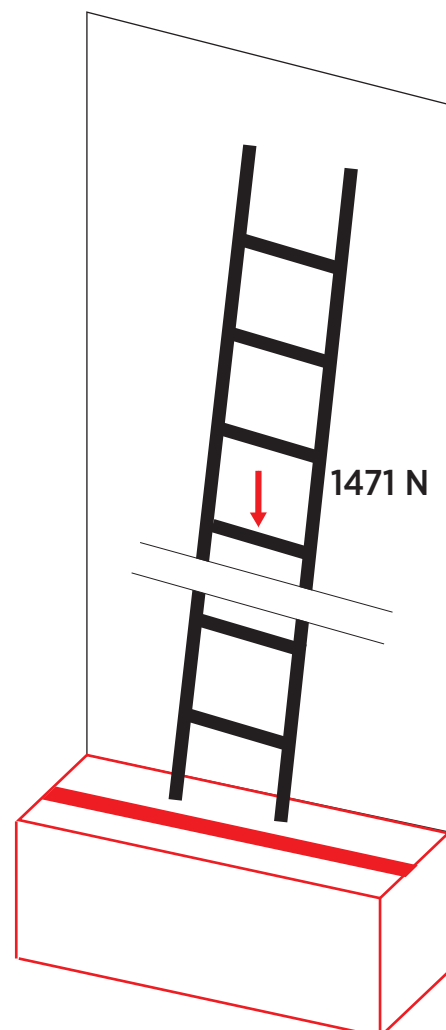
- ▶ Slip-resistance of the ladder end caps

Testing method

- ▶ The ladder is placed standing on a glass panel.
- ▶ The ladder is subject to a concentric load of 1471 N
- ▶ The load is applied 4 times to the ladder.

Requirement

- ▶ The feet of the ladder should not slide more than 40 mm. within 1 minute.



Content of the test

Torsion test leaning ladders

Tested features

- ▶ Torsional stiffness

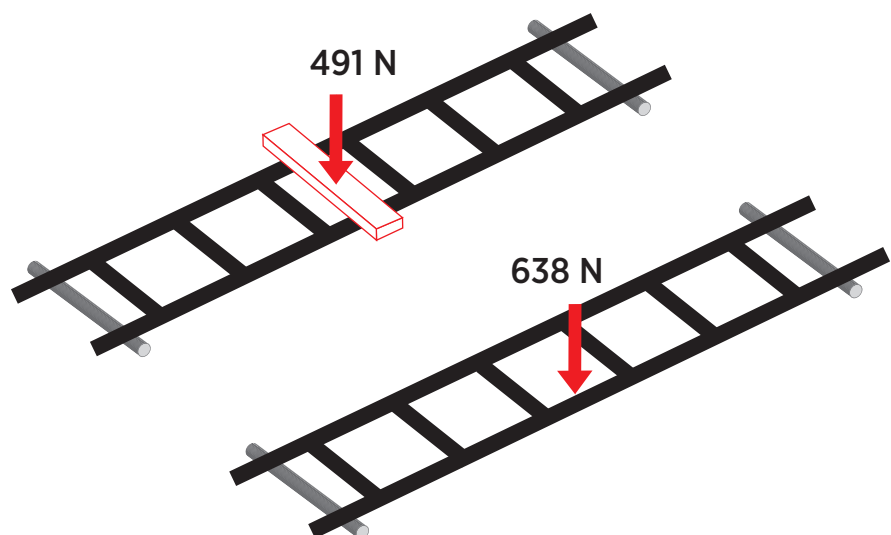
Testing method

- ▶ The first step involves applying a concentric load of 491 N. to the ladder for 30 seconds. This is then done to determine the initial value.
- ▶ In the next step, a concentric load of 638 N is applied to one of the stiles and the deformation of both stiles are measured relative to the initial value.

Requirement

- ▶ The difference between the deformation of the two stiles should not exceed 0.07 times of the ladder width.

$$f_1 - f_2 \leq 0,07 b_u$$





"All tests described in this document together with TÜV-SÜD and TSE
It was carried out in the test laboratory of our factory in Balıkesir."

