

Office chairs: new requirements for their dimensions

Arianna Visintin

June 2020

On the 22nd of April the new European standard EN 1335-1:2020 for dimensional requirements of office working chairs has been finally published.

All the European Countries have now a defined period of time to transpose it to their national level.

The most important change of this standard is related to its structure: it now contains only the dimensional requirements and not the relating test methods which directly refers to the international standard for the determination of the office chairs dimensions: ISO 24496:2017.

The previous standard, EN 1335-1:2000, remained in use for even 20 years; this was a very long period because the European standardization body was waiting for the publication of the international standard on dimensional determination mentioned above, that happened only in 2017.

The activity on this international method started in 2000, involving both European and not European Countries like USA, Canada and Australia. This working group had initially checked all the dimension methods for office chair available in that period: Bifma CMD, BS 5940-1, DIN 4551, EN 1335-1, the dimensional determination with the German "Sedometer", ISO 9241-5, NF D 61040, UNI 7498. The intention was to create a new repeatable and reproducible international method that should have reproduced the normal use of an office chair, loading the seat and the back rest simulating a person sit on it.

The new method for the dimensional determination describes, in fact, the use of a template composed by an anatomical shape and by a vertical element which total mass is 64 kg.

The vertical element is provided by 18 segments pushed against the back rest with a force of 3,5 N each in order to determine the lumbar support protrusion.

This is only one of the changes regarding the most important feature for the physical well-being of the people using office chairs.

When the standard describing the test method was completed, the definition of the dimensional requirements started, being a very difficult activity because of the extremely variable anthropometric data of the European population.

The EN 1335-1:2020 standard describes the dimensional requirements of four office chairs types (one new type was added to the previous standard): AX, A, B e C.

Chairs type AX and A present a wide range of possible adjustments:

- adjustable seat depth;
- adjustable inclination of the seat and the of the back rest;
- lumbar support adjustable in height;
- armrest adjustable at least in height and width.

Moreover, the seat height range has been increased compared to the previous version of the standard.

Chairs type B:

- adjustable or fixed seat depth;
- adjustable or fixed inclination of the seat;
- adjustable inclination of the back rest;
- lumbar support adjustable in height or fixed;
- adjustable or fixed armrest.

Chairs type C describes minimal dimensional requirements but with the same adjustments of type B.

Office chairs: new requirements for their dimensions

Arianna Visintin

After the publication it was immediately realized that both standards are indeed very complex and maybe, for this reason, some parts should be modified and re-written. This kind of modification, called "Amendment", can be already implemented because the standard is published by CEN even if not all the European Countries have just transpose it. This means that in a few months the new "standard plus the amendment" will be published, and again all the European Countries shall transpose it.

CATAS is already able to verify the office chairs according to this new standard.



For info:

Arianna Visintin
+39 0432 747233
visintin@catas.com

Ivan Cossar
+39 0432 747239
cossar@catas.com

All rights reserved

Reproduction or duplication of the contents of this article is authorized under condition that the source
- © CATAS - San Giovanni al Natisone - Udine - Italy is being cited