

Scientific assessment of the VINTAGEis5 office chair by Interstuhl

Introduction

The VINTAGEis5 office chair has been reworked and expanded with the following three innovative features.

- **Smart Motion Technology:**
A novel mechanism that is an extension of the synchronous movement, namely, an adaptive, dynamic seat angle tilt.
- **Bionic Effect:**
The latex print on the mesh back rest offers flexible lumbar support.
- **Auto Flow Armrests:**
Flexible armrests that dynamically readjust.

Fraunhofer IAO was asked to conduct a scientific assessment of the new models to test ergonomic quality, user acceptance and user experience. In the user tests, which lasted several weeks, 15 office professionals were asked to use the new VINTAGEis5 for day-to-day work for two to five days. The results were as follows:

Ergonomic quality

The new models met or exceeded all ergonomic and biomechanical requirements that promote healthy sitting. In particular, the Smart Motion Technology facilitates an easy transition between forward, middle and reclined seating positions thanks to an adaptive, dynamic seat angle tilt. Additionally, it increases the range of motion while sitting upright and enables more pelvic motion. From the viewpoint of human factors research, the increased range of motion opens up the possibility of activating core muscles to a greater extent than is possible with traditional concepts, which particularly encourages dynamic and thus healthy sitting habits.

Thanks to their movable positions and ability to dynamically readjust, the Auto Flow armrests adapt to the individual's forearm movements. When used actively, they provide an ideal counterbalance to the static load of the neck and shoulder muscles.

User experience

During testing, the VINTAGEis5 demonstrated a very positive user experience. In evaluating the office chair's attractiveness, users tended to describe it as "worthwhile", "comfortable", "practical" and "innovative". All participants were able not only to recognise the chair's high quality, but also to immediately identify with the product. The VINTAGEis5 achieved a high level of user acceptance. In particular, the integrated design of the levers and the backrest's innovative, flexible lumbar support with its latex print (Bionic Effect) were categorised as very attractive design features.



The ergonomic quality of the new VINTAGEis5 series was able to be further increased. Thanks to the innovative Smart Motion Technology, the flexible lumbar support with Bionic Effect and the Auto Flow armrests, the VINTAGEis5 supports healthy, comfortable sitting to a high degree.

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