

# Wilkhahn

## Free-to-move office chairs

with an elevated sitting position (ESP)  
for sit-stand workspaces

Ranges  
170 ON® / 184 IN / 187 AT





## Sitting higher makes standing up easier

### Free-to-move office chairs with ESP for sit-stand options

Electrically height-adjustable desks are increasingly becoming the new standard in offices to encourage people to alternate between sitting and standing. However, that's exactly what most of us don't do because getting up from a normal seating height and adjusting the table height take up way too much time and force us to interrupt what we're doing.

This is why Wilkhahn is offering ESP (elevated sitting position) models in its ON®, IN and AT free-to-move office chair ranges, which include the benefits of patented free-to-move kinematics by prompting a mix of sitting and standing.





ON® task chair 174/72  
Medium-height backrest  
Elevated sitting position (ESP)



IN task chair 184/72  
Medium-height backrest  
Elevated sitting position (ESP)



AT task chair 187/72  
Medium-height backrest  
Elevated sitting position (ESP)



## Free-to-move ranges with ESP.

**The new, multi-award-winning generation of office chairs for healthy dynamic sitting.**

In terms of both their ergonomics and aesthetic, ON, IN and AT free-to-move office chairs are considered benchmarks of healthy dynamic sitting worldwide. The ESP models harmonize seamlessly with the ranges they belong to. Whether users choose standard office chairs, ESP or bar stool models, the product lines provide coherently designed and seamless solutions that are both function rich and clearly belong to the family. For furnishing solutions that are impressive for their clear identity.

Photos of chairs without ESP

### Awards



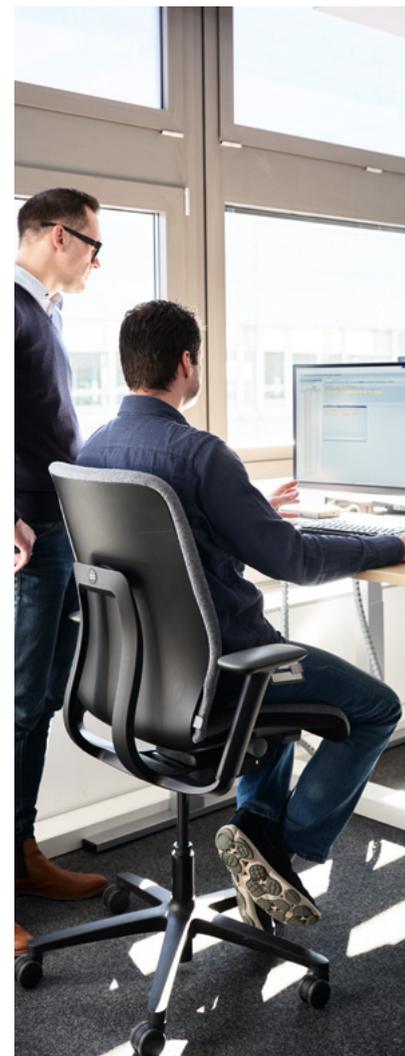
### Awards



### Awards



Not all awards apply to all types.



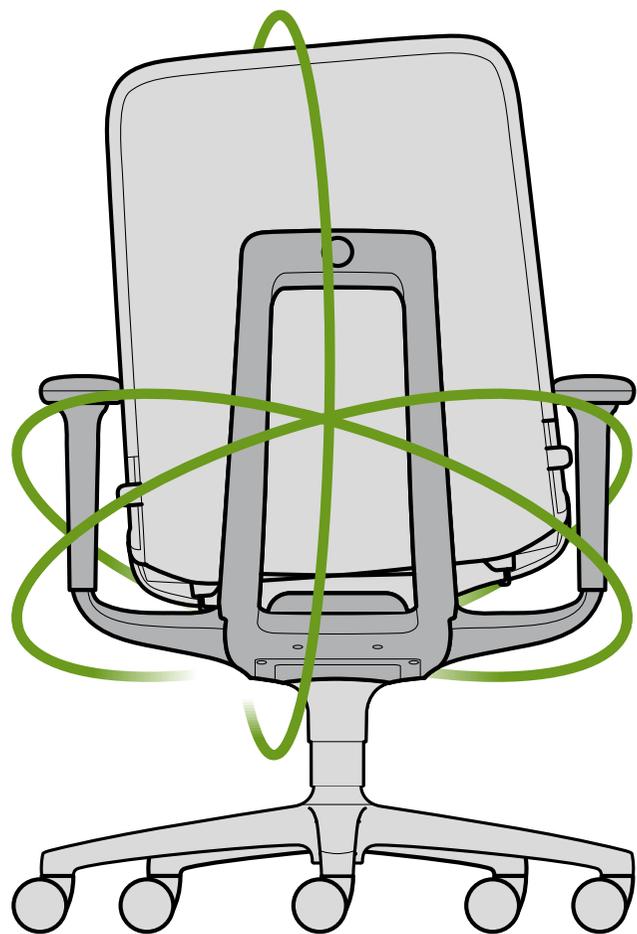
## Areas used.

### **Workspaces and project offices with sit-stand options.**

The free-to-move ESP models are office chairs with full 3D movement capability at a standard table height but can also be raised by up to 62 cm. The elevated sitting position also offers new options, when tilted forward, the chair is a comfortable place for people to perch but they can still lean on the backrest if they like. If they lean back, the tiniest shifts in weight suffice to stimulate the three-dimensional flexibility of their pelvises while dangling their legs as well. On the other hand, the forward movement doesn't stop when people sit upright but almost automatically when they stand. Because the desk is slightly higher from the outset, it requires no or very little adjustment if users feel like standing up for a little while. The impact is enormous because people intuitively, and therefore frequently, incorporate alternating between sitting and standing into the way their bodies move and their workflow. As a result, the extra investment in height-adjustable desks truly pays dividends.



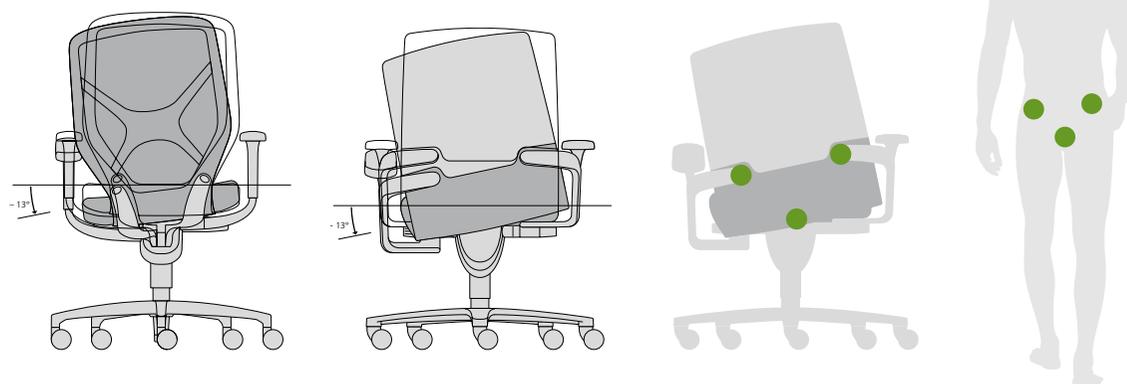
# ON<sup>®</sup> / IN / AT ESP chairs. Free-to-move. More active, more dynamic, healthier.



All health experts agree that our muscles, bones, joints, cardiovascular and digestive systems, our ability to combat stress and powers of concentration depend on movement. On the other hand, sitting still for long periods of time makes us lethargic and is harmful in the long term. Primarily, it's the three-dimensional movement of the hips that has the biggest impact on a healthy metabolism. For this reason, Wilkhahn joined forces with the German Sport University Cologne to develop free-to-move kinematics, which prompts people to move their bodies in all directions while sitting down.

Several scientific case studies corroborated the healthy, performance-enhancing effects of the free-to-move office chairs. These chairs encourage users to move more frequently and in different ways, therefore boosting their feeling of wellbeing, powers of concentration and the metabolism of the muscles in the lumbar region (which is very often plagued by backache). The scientists have proved the impact of free-to-move capability in preventing complaints typically caused when people sit down for long periods of time. And over 500,000 users worldwide are already benefiting from Wilkhahn's new office chair generation.

The free-to-move models with ESP offer the best of both worlds by providing a healthy way of sitting and encouraging users to embrace sit-to-stand options.



# ON<sup>®</sup> / IN / AT ESP chairs. Free-to-move. More active, more dynamic, healthier.

## A new approach to ergonomics in the office

### Lab study:

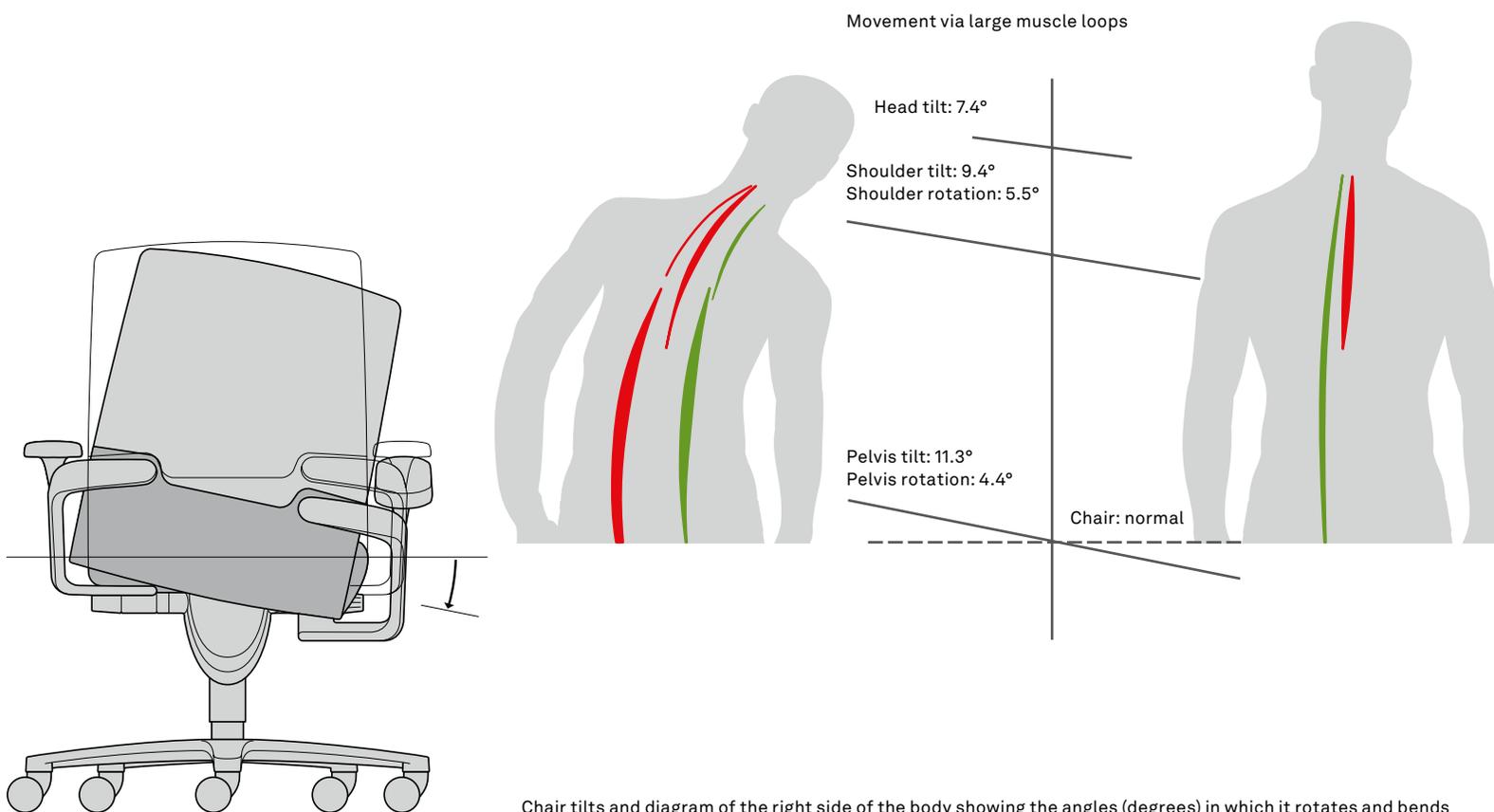
The lab study examined how the concept correlated with our bodies, the biomechanical impact and the subjective feeling of comfort that Trimension<sup>®</sup> provides in the ON<sup>®</sup> office chair.

### Results:

- Pressure is distributed evenly while people are sitting down and perceived to be very comfortable.
- By motivating people to bend, stretch, lean sideways and rotate their pelvis, Trimension<sup>®</sup> stimulates the body to engage in a range of natural movements where the head, shoulder and pelvis form a functioning unit when moving with the chair.
- In addition to the large muscle loops, the physiological rotation of the torso activates the muscles deep in the back which are key to stabilizing the spine.
- Some 90% of the test persons would like this sort of sitting concept in their workspace.

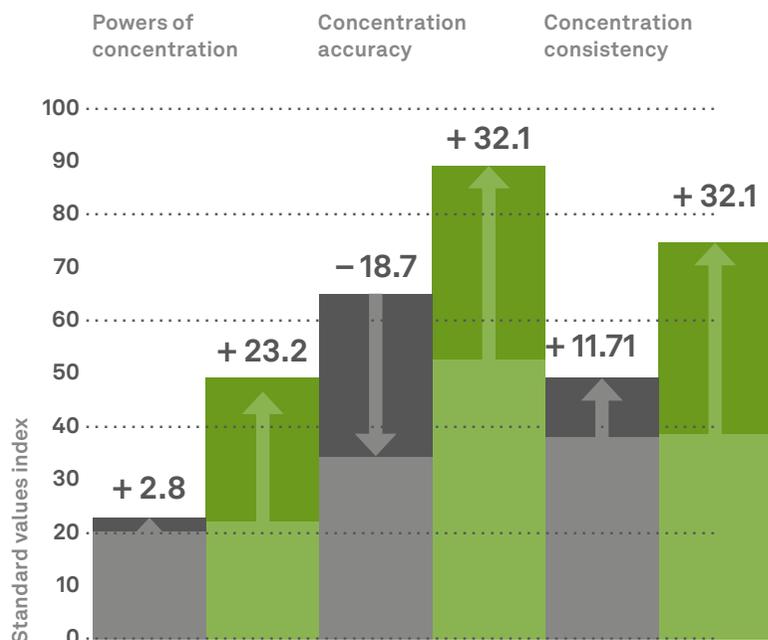
### Conclusion drawn by the university:

Free-to-move, powered by Trimension<sup>®</sup>, coordinates with the body's natural range of motion and stimulates us to try out new dimensions of flexibility. Typical complaints associated with sitting at desks won't arise in this case.

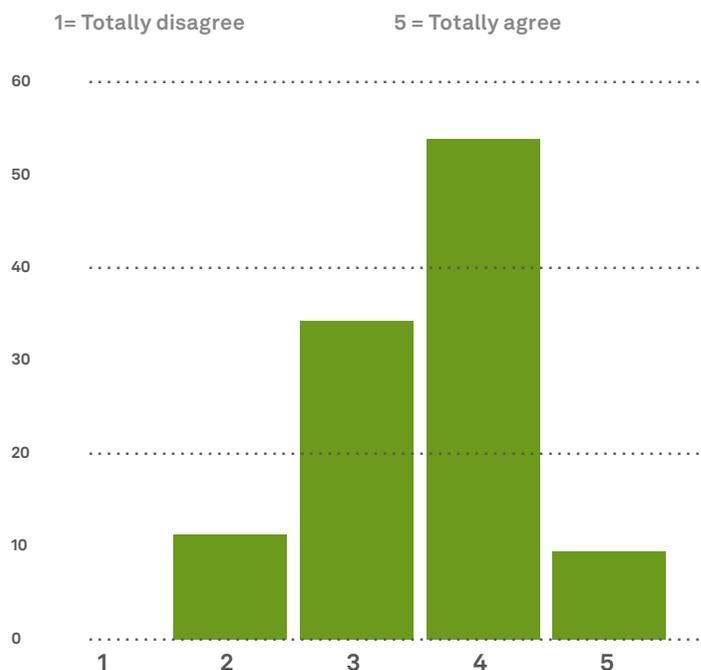


Chair tilts and diagram of the right side of the body showing the angles (degrees) in which it rotates and bends

# ON<sup>®</sup> / IN / AT ESP chairs. Free-to-move. More active, more dynamic, healthier.



The control group (gray) with conventional office chairs and trial group (green) with 3D dynamic ON chairs over a period of three months.



My physical fitness has improved thanks to ON over the past 11 months.

## Three-dimensional dynamic seating for better performance in offices

### Comparative field study:

The researchers then investigated whether, alongside wellbeing, this sitting concept while using ON<sup>®</sup> also boosted people's performance. The study was carried out with 80 test persons in an insurance company's office complex over a period of 12 weeks. Recognized, standard tests and questionnaires were used to identify powers of concentration.

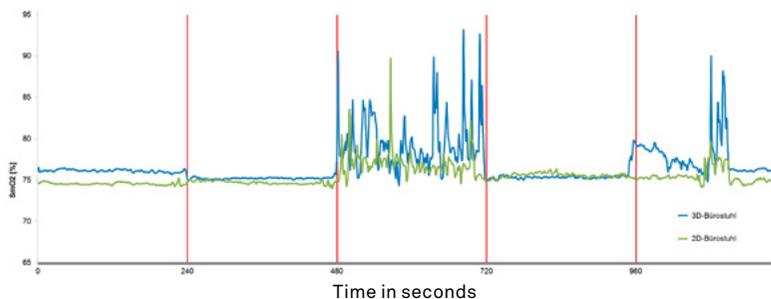
### Results:

- Compared with the control group, the metrics used to gauge the free-to-move group's powers of concentration had improved in every respect at the end of the three months. They were faster, made fewer mistakes and worked more consistently.
- After a short space of time, the free-to-move group got used to and were confident about applying the new movement options.
- The free-to-move group's wellbeing didn't just improve in relative but also in absolute terms.

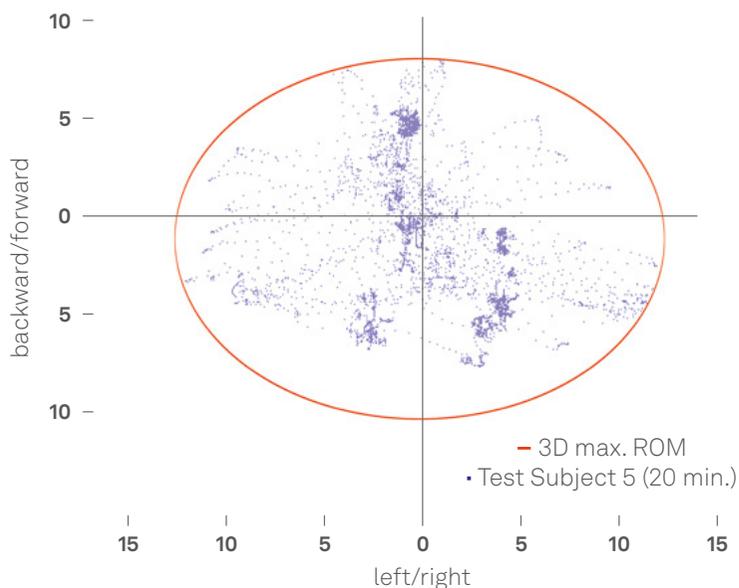
### Conclusion drawn by the university:

Free-to-move dynamic sitting is used intuitively, frequently and perceived as being beneficial. And improved powers of concentration means it pays dividends in no time.

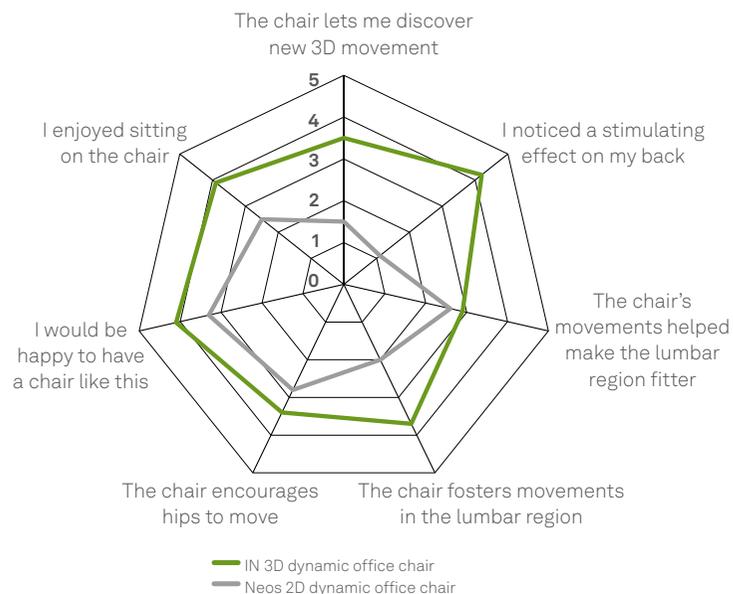
# ON<sup>®</sup> / IN / AT ESP chairs. Free-to-move. More active, more dynamic, healthier.



The metabolism of muscles in the lumbar region is much more active when people sit on the 3D dynamic office chair.



3D dynamic chair: Movement frequency pattern and maximum ranges of motion.



Comparison of results from the questionnaire about sitting on the 3D and 2D dynamic office chair

## More movement in sedentary workspaces

### A study on the impact of Trimension 3D kinematics on dorsal muscles, the range of motion and physiological stimulation

Based on standardized office processes (static and dynamic), new measurement methods were applied to examine metabolic activity in the particularly important muscles in the lumbar region. The results measured while people were sitting on the IN free-to-move office chair were compared with those of people sitting on the very good Neos 2D dynamic office chair.

### Results:

- The test persons used the whole three-dimensional range of motion that Trimension<sup>®</sup> offers.
- When people lean sideways, there are significant differences between a 2D synchro-adjustment mechanism and Trimension.
- Importantly, people sitting on an IN free-to-move chair alternate between tensing and relaxing their muscles to a greater extent than on the chair used as a comparison.
- The test persons rated the free-to-move office chair better on all criteria.

### Conclusion drawn by the university:

Dynamic sitting on IN with Trimension<sup>®</sup> is shown to make muscles in the lumbar region healthier, so we can assume that muscle-based backache can be reduced.

# ON® / IN / AT ESP chairs. Free-to-move. More active, more dynamic, healthier.



## ON® – the classic one

As a broad product family for furnishing first-class front offices and conferences, this chair encourages movement and a change of posture. Its generous size, variety of models with different backrest heights, wide choice of upholstery and covers are signs of exceptional prestige and comfort. The ESP version is available with a medium-height backrest.



## IN – the athletic one

This chair's impressive because it can be controlled directly and adjusted to adapt to people on the lighter or the heavier side (45 to 140 kg) and its color palette offers plenty of choices. It's not just the covers of the ESP models that come in different colors, the star bases and swivel arms are also available in different shades that range from quietly stylish to expressive in terms of contrast.



## AT – the smart one, with automatic weight adjustment

A whole host of basic models, automatic weight adjustment, a wide range of features and seminal design make AT the top free-to-move office chair for hot desking and the number one choice for changing setups in modern office environments. The ESP version with a medium-height backrest is available with black and white base frames and an optional backrest covered on the rear.

# ON<sup>®</sup> / IN / AT ESP chairs. Comfort and adjustments

## Wilkhahn



The range of motion helps keep people fitter, but the chair equally needs to be comfortable and easy to adjust as well. Because lots of settings are pointless if these are so complicated that people end up not using them incorrectly or not at all.

The ON<sup>®</sup> and IN backrests are covered frames so that they adapt to different body shapes, movements and postures automatically and ensure good air flow. Users just need to grab and pull up ON's backrest to adjust the height by 60 mm in six lockable positions and IN offers optional and AT standard height adjustment of the lumbar support.

Once the backrest's counter pressure has been customized to personal levels of comfort, it automatically adapts to different movements. As a result, the body is supported whatever movement is made or posture adopted. It also maintains its center of gravity, which always lies between the two swivel arms that move independently of one another. AT achieves the same effect with automatic synchro-adjustment functionality combined with the suspension of the seat and backrest shell in the middle so that the body automatically regains its equilibrium. The free-to-move capability can even be combined with automatic weight adjustment. Whether ON, IN or AT is chosen, the patented free-to-move concept ensures unique flexibility and superior comfort.

# ON<sup>®</sup> / IN / AT ESP chairs. Comfort and adjustments

## Wilkhahn



ON: Control with integrated knob for fast adjustment of the backrest's counter pressure (for people weighing from 45 to 120 kg), the seat depth can be optionally increased or decreased by simply pulling out or turning in the front edge of the seat.



IN: Knob underneath the bottom of the seat in the middle to adjust the counter pressure (for people weighing between 45 to 140 kg). Button at the side to lock the backrest in place and activate the optional forward tilt of the seat.



AT: Lever to release the backrest and knob for optional fast adjustment of the counter pressure (for people weighing 45 to 140 kg)

All adjustment options are child's play to use. All three ranges have just two controls each, one for adjusting the height and the other for locking the backrest in place, which are conveniently placed at the sides underneath the seat and can be operated while the person is sitting down. ON has a knob integrated in the control to adjust the backrest's counter pressure quickly and conveniently and a similar knob on IN activates the optional forward tilt. The counter pressure on this chair is adjusted by turning the knob underneath the seat. The AT range has optional automatic weight adjustment functionality so that the body maintains its center of gravity regardless of the angle of the backrest, or it comes with a knob for fast adjustment of the backrest's counter pressure.

Photos of chairs without ESP

# ON<sup>®</sup> / IN / AT ESP chairs. Comfort and adjustments

Wilkhahn

All three ESP ranges come with seat depth that can optionally be increased and decreased by between 450 to 500 mm for ON and IN, and between 390 and 500 mm for AT. And this setting can also be made while people are sitting down too.



ON's seat depth can be changed by pulling the front edge of the seat in or out.

IN: Slide buttons on both sides for optionally increasing or decreasing the seat depth.

AT: Knob at the side to push in and pull out the front edge of the seat.

# ON<sup>®</sup> / IN / AT ESP chairs. Comfort and adjustments

## Wilkhahn



**ON 3D armrests:**  
Adjust the height at the touch of a button, the depth of the armrest pad by simply moving it and turn it inward or outward for the position required at the side.

**IN 4D armrests:**  
Adjust the height at the touch of a button, the depth of the armrest pad by simply moving it, turn it inward or outward for the position required at the side and move it sideways to obtain the preferred width.

**AT 4D armrests:**  
Identical to the adjustments for IN with 4D armrests.

# ON<sup>®</sup> / IN / AT ESP chairs. Quality and sustainability

# Wilkhahn



Ensuring office chairs last a long time is the key to guaranteeing that materials and resources are used responsibly. The longer an office chair remains in use, the better it is for the environment. Wilkhahn has had a sustainability policy in place for decades, which won it the German Environmental Prize back in 1996. Since 2001, the company has been certified annually for compliance with the European environmental and sustainability standard EMAS. Similarly to all Wilkhahn products, the ESP models in the ON, IN and AT ranges are designed to last for a long time. High-strength materials like die-cast aluminum, high-performance plastics and robust covers withstand lots of wear and tear. Wilkhahn's philosophy is also about easy-to-repair products and detachable connecting parts. Should any component need repairing after a long period in use, it can be replaced and the chair is as good as new again.

Knock-down capability allows ON's backrest to be fitted and removed again easily. And AT's seat shell can be taken off in just a few minutes, which saves on extra space required to store and transport it. The materials used also meet stringent ecological requirements. If possible, only pure materials are used so that they can be recycled without compromising on quality.

All three ranges have Greenguard certification, a rigorous standard that ensures that the quality of air in a room isn't impaired by emissions harmful to the health and the environment. To date, ON is the only office chair to have been awarded the German Federal Environment Agency's Ecodesign Award. The judges praised the furniture's ecologically responsible design and its healthy movement options. And this is where we come full circle, because health and the environment are inseparable at Wilkhahn.

## Product certificates / product standards



## Company's certificates, memberships



# ON<sup>®</sup> / IN / AT ESP chairs. Quality and sustainability

## Wilkhahn



The ESP models with free-to-move capability are also tested regularly for compliance with international standards. Furthermore, the company has developed its own free-to-move testing procedures that exceed the requirements of the standards by far. Wilkhahn offers a comprehensive 5-year guarantee on the ON, IN and AT ranges (which comes into force from the date shipped from the factory).



The ON swivel arms and mechanism shell are made of die-cast aluminum. High-performance foams, fleeces and hard-wearing covers are designed to be durable. The ESP models are destined for people weighing from 45 to 120 kg.



As a standard, the IN range's ESP models are even tested for people weighing up to 140 kg. In this case too, the swivel arms and mechanism shell made of die-cast aluminum, the high strength steel spring in the middle, the upholstery foam and the covers ensure the chair will last and last.



The AT free-to-move range's backrest frames and synchro-adjustment mechanisms are made of advanced, fiberglass-reinforced plastic in shapes and sizes destined for extensive use by a wide range of people. As a result, the ESP models are also ideal for anyone weighing between 45 to 140 kg. The padded seat and backrest are designed as an upholstery panel, so that they can be replaced quickly and easily if cleaning them proves impossible or they have been damaged. This is vital in areas where several users share the same chairs in the workplace.

# ON<sup>®</sup> / IN / AT ESP chairs. Designs.

# Wilkhahn



## ON® Task chairs

### Medium-height backrest elevated sitting position (ESP)

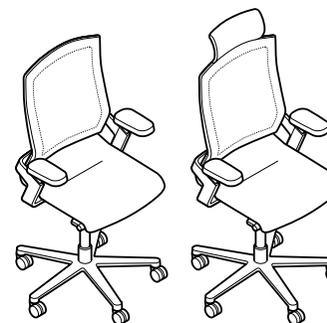
#### 174/72

with seat cushioning,  
optionally with soft padding (please state in order),  
with 3D armrests,  
backrest covered with Fiberflex fabric,  
precision-adjustable height,  
adjustable backrest height (to 60 mm),  
Trimension tension control  
Plastic star base, aluminum-coated swivel arms

■ 101/119   ■ 69   ■ 66  
■ 44/62   ■ 50   ■ 43

#### Optional features:

Covered backrest (not in the case of artificial leather 58)  
Backrest with soft padding  
Permanent comfort tilt (6°)  
Coated aluminum star base  
Polished aluminum star base  
Aluminum bright chrome-plated star base  
Polished aluminum swivel arms  
Aluminum bright chrome-plated swivel arms  
Polyurethane foam armrest pad  
Upholstered, leather-covered armrests  
Mechanism shell coated in black or with a silver satin finish  
Electrically conductive casters



## ON® Task chairs

### High backrest elevated sitting position (ESP)

#### 175/72

with seat cushioning,  
optionally with soft padding (please state in order),  
with 3D armrests,  
backrest covered with Fiberflex fabric,  
precision-adjustable height,  
adjustable backrest height (to 60 mm),  
Trimension tension control  
Plastic star base, aluminum-coated swivel arms

■ 109/127   ■ 70   ■ 66  
■ 44/62   ■ 50   ■ 43

#### Optional features:

Covered backrest (not in the case of artificial leather 58)  
Backrest with soft padding  
Headrest in same material as backrest cover  
Headrest covered in leather on the front, 74/99, black  
Permanent comfort tilt (6°)  
Coated aluminum star base  
Polished aluminum star base  
Aluminum bright chrome-plated star base  
Polished aluminum swivel arms  
Aluminum bright chrome-plated swivel arms  
Polyurethane foam armrest pad  
Upholstered, leather-covered armrests  
Mechanism shell coated in black or with a silver satin finish  
Electrically conductive casters

# ON<sup>®</sup> / IN / AT ESP chairs. Designs.

# Wilkhahn



■ 105/123   ■ 69   ■ 66  
■ 44/58   ■ 46   ■ 43

## IN Task chairs

### Medium-height backrest elevated sitting position (ESP)

#### 184/72

with seat cushioning  
 optionally with soft padding (please state when ordering),  
 single-ply Formstrick backrest,  
 seat- and backrest frame in black or white,  
 with 1D-armrests, armrest pads made of PP  
 precision-adjustable height,  
 Trimension, tension control,  
 optionally with 3D forward tilt of 5° that can be activated (please  
 state when ordering)  
 Plastic star base, aluminum-coated swivel arms

#### Optional features:

Aluminum coated star base and swivel arms  
 Polished aluminum star base, coated swivel arms  
 High-luster polished aluminum star base, coated swivel arms  
 Aluminum polished star base and swivel arms  
 Aluminum high-luster polished star base and swivel arms  
 Back covered in Formstrick knit, two-ply, with integrated upholstery  
 foam with different support zones  
 Height-adjustable lumbar support  
 3D armrests, armrest pads made of PP  
 4D armrests, armrest pads made of PP  
 Armrest pads made of polyurethane foam for 1D, 3D and 4D armrests  
 Electrically conductive casters

A gas lift for seating heights of 48/66 cm is available on request.

# ON<sup>®</sup> / IN / AT ESP chairs. Designs.

# Wilkhahn



■ 101/119  
■ 43/61

■ 67  
■ 50

■ 64  
■ 43

## AT Task chairs

### Medium-height backrest elevated sitting position (ESP)

#### 187/72

with seat- and back cushioning,  
seat optionally mit soft padding (please state when ordering),  
seat- and backrest shell, automatic synchro-adjustment mechanism  
in black  
height-adjustable lumbar support  
without armrests  
precision-adjustable height,  
3D kinematics mit automatic weight adjustment,  
optionally with customized presetting  
Trimension  
3D 5° forward tilt can be activated  
Plastic star base

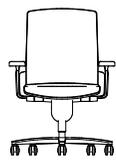
#### Optional features:

Coated aluminum star base  
Polished aluminum star base  
High-luster polished aluminum star base  
Seat-depth extension (approx. 39 to 45 cm) not possible in the combination without armrests and/or plastic star base)  
1D armrests, armrest pads made of PP  
3D armrests, armrest pads made of PP  
4D armrests, armrest pads made of PP  
Armrest pads made of polyurethane foam for 1D, 3D and 4D armrests  
Coat hanger  
Electrically conductive casters  
Seat-/backrest shell covered in fabric on the rear  
(fabric 68 not possible)  
Seat and backrest shell, synchro-adjustment mechanism and,  
if applicable, armrests in white

# ON<sup>®</sup> / IN / AT ESP chairs. Models and dimensions.

## Wilkhahn

**174/72**

 Medium-height backrest  
 Elevated sitting position  
 (ESP)


69



66

101/119

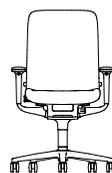
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69

66

**187/72**

 Elevated sitting position  
 (ESP)


67



64

101/119

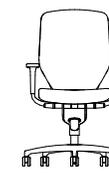
43/61



67

64

**184/72**

 Medium-height backrest  
 Elevated sitting position  
 (ESP)


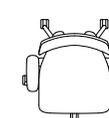
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66

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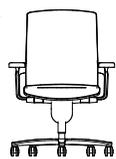
44/58



69

66

**175/72**

 24-hour chair with manage-  
 ment grade upholstery


70



66

109/127

44/62



70

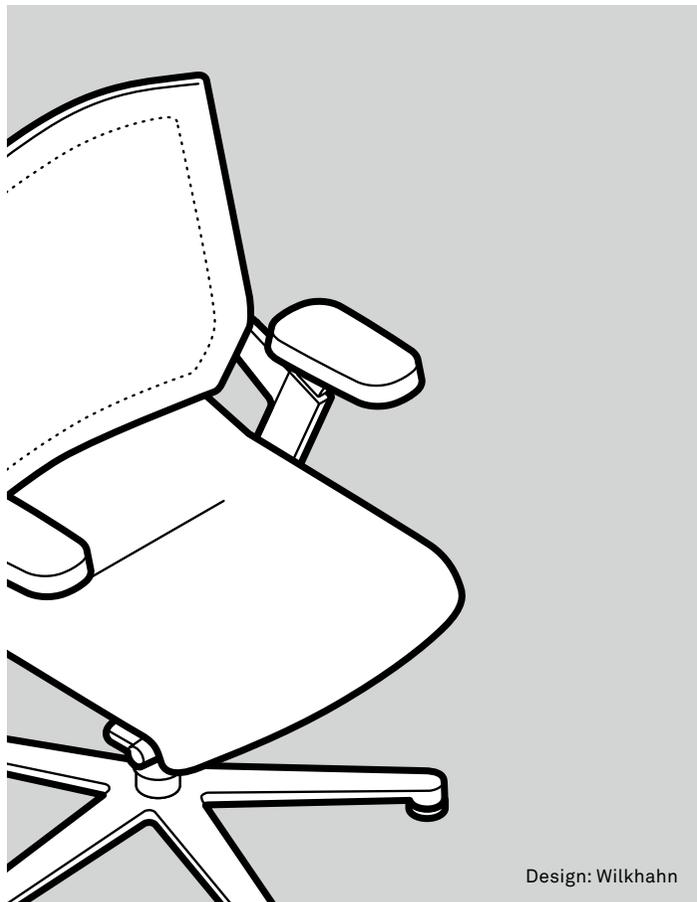
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# Technical details

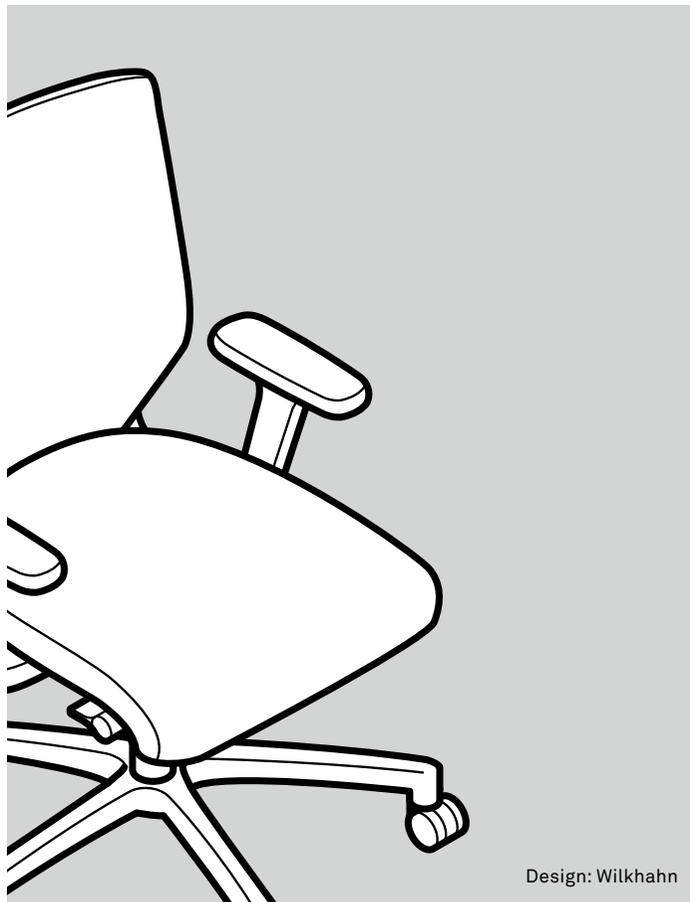
Wilkhahn

You can find more information and technical information about the ranges on our website:

170 ON



184 IN



187 AT

