



The classic ON® chair's sleek look ensures 24-hour workplaces have a superior aesthetic too.

With an attention to detail and an athletic appeal, IN's design immediately suggests a healthy way of sitting.

#### **Awards**



GOOD Design



























### **Awards**











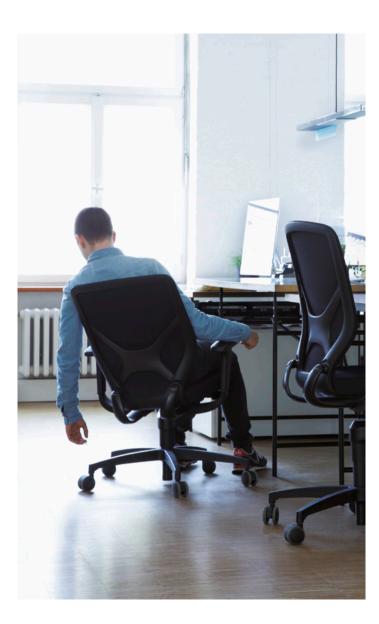
### Destined for agility around the clock.

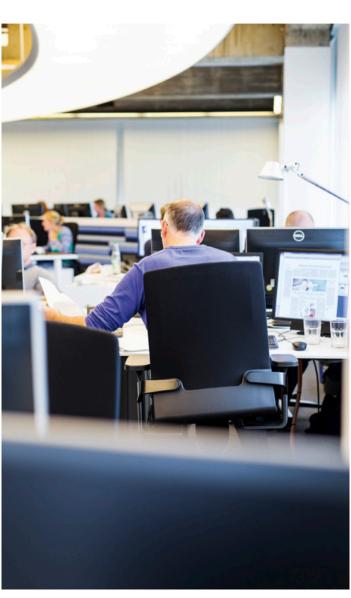
### The free-to-move ON® and IN models for 24-hour use.

Sedentary workspaces that are used in shifts 24/7 place exceptional demands on both people and the furniture concerned. In particular, jobs in control centers and CCTV rooms require exceptional focus at all times. On the one hand, people need hard-wearing office chairs and on the other, to adopt a wide range of motion to stop themselves from getting tired and maintain their powers of concentration. And what's more, because these workspaces are used by several people, customized settings need to be as easy and intuitive to make as possible.

Which is why Wilkhahn is offering special ON® and IN office chair models to allow users to enjoy the healthy benefits of the patented free-to-move kinematics, even when the furniture is used for 24 hours.

The energizing range of motion offered, the ease with which they can be adjusted and their aesthetic appeal sets them apart from other 24-hour chairs. Because the two office chair ranges are designed for exceptional durability and to cope with lots of use anyway, just a few of the details of the two 24-hour models have been modified compared with the standard versions. Therefore, the multi-award-winning design is unchanged and the chairs harmonize perfectly with the design concept of the other workspaces. For seamless solutions.



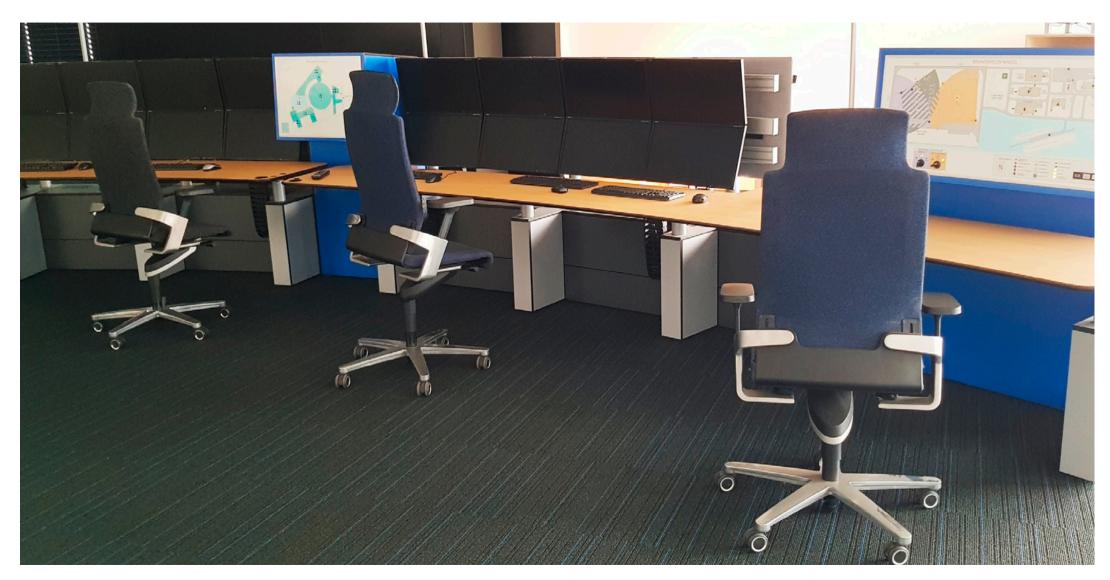


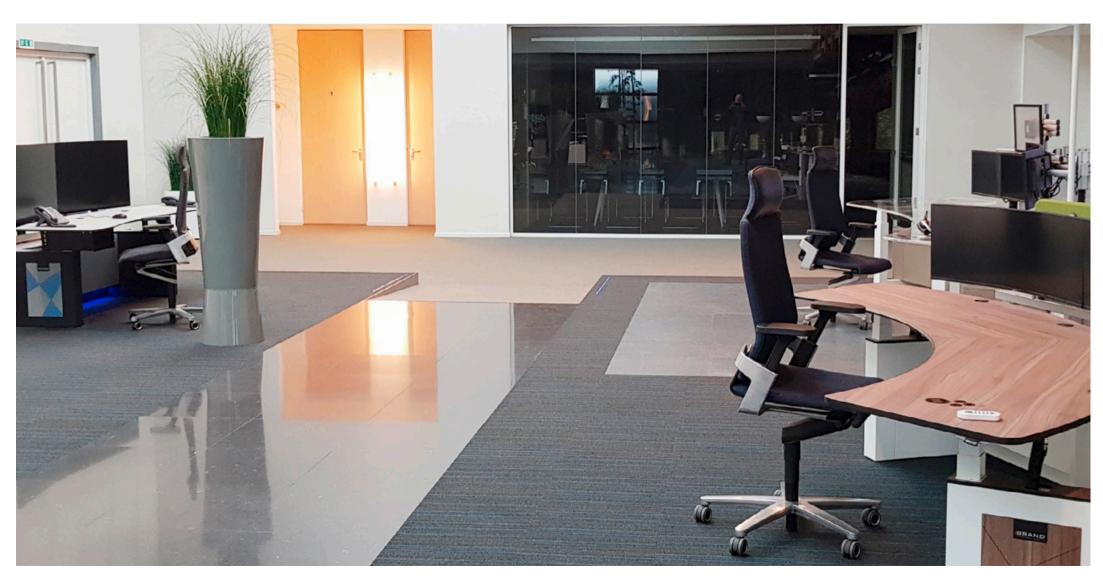
### Areas used.

Control rooms, air traffic control towers, communications and security centers, CCTV rooms, janitor workspaces and receptions.

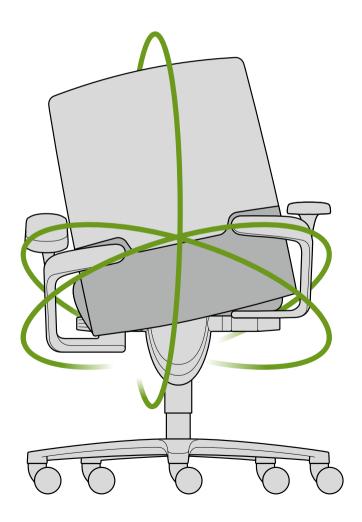
The areas are very different but the requirements are the same. It's all about focused and attentive observation of displays and switchboards, monitors or other screens – and about long periods sitting down in the workplace.

Because human error in these areas often has a serious impact on property or other people's lives, it's vital that state-of-the-art findings from the health sciences and ergonomics is incorporated in the seating. The chairs need to match the tasks at hand and look after the very people who need to do jobs that require the utmost care.



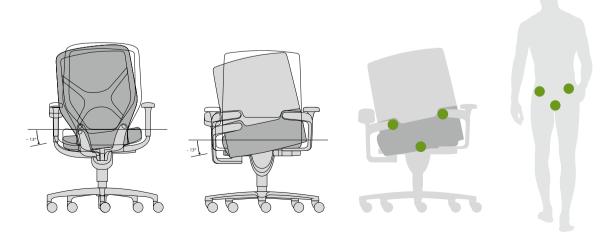


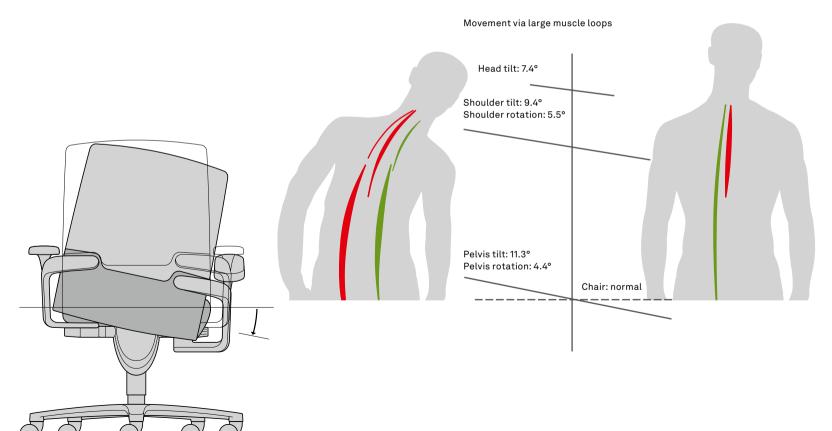
# ON®/IN 24-hour chairs. Free-to-move. More active, more dynamic, healthier.



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 effect 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 ON and IN 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 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.





### 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® provides in the ON® 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® 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
- Some 90% of the test persons would like this sort of sitting concept in their workspace.

### Conclusion drawn by the university:

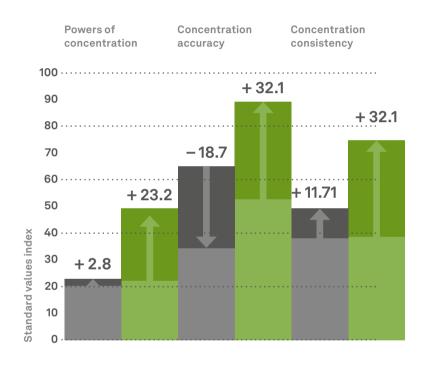
Free-to-move, powered by Trimension®, coordinates with the body's natural range of motion and stimulates us to try out new dimensions of flexibility. Typical complaints associated with sitting at desks won't arise in this case.

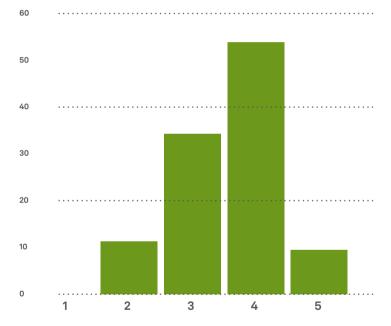
Chair tilts and diagram of the right side of the body showing the angles (degrees) in which it rotates and bends

1= Totally disagree

Ergonomics and health (3/5)

5 = Totally agree





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:

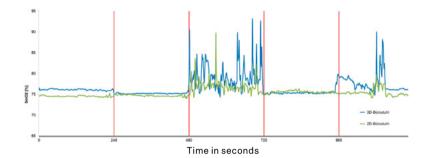
The researchers then investigated whether, alongside wellbeing, this sitting concept while using ON® also boosted people's performance. The study was carried out with 80 test persons in an insurance company's office complex over a period of 12 weeks. Recognized, standard tests and questionnaires were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

### Results:

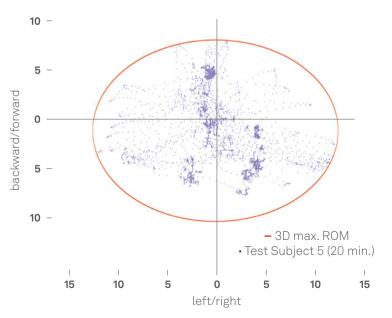
- Compared with the control group, the metrics used to gauge the free-to-move group's powers of concentration had improved in every respect at the end of the three months. They were faster, made fewer mistakes and worked more consistently.
- After a short space of time, the free-to-move group got used 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:

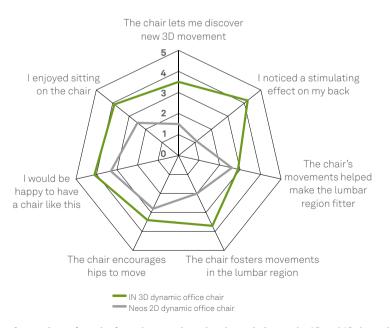
Free-to-move dynamic sitting is used intuitively. frequently and perceived as being beneficial. And improved powers of concentration means it pays dividends in no time.



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® 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® is shown to make muscles in the lumbar region healthier, so we can assume that muscle-based backache can be reduced.

All figures: Center for Health at the German Sport University Cologne







Ergonomics and health (5/5)







As a broad product family for furnishing first-class front offices and conferences, it encourages movement and a change of posture. The generous sizes, variety of models with different backrest heights, wide choice of upholstery and covers are signs of exceptional prestige and comfort in the 24-hour chairs too.











### 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 150 kg (99 to 330 lb)) and its color palette offers plenty of choices. The design of the 24-hour models can be varied by choosing different colors and, what's more, the star bases and swivel arms are also available in different shades that range from quietly stylish to expressive in terms of contrast.





The range of motion helps keep people fitter, but the office 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. This applies to 24-hour chairs above all because lots of different people use the same workspaces.

ON and IN's backrests are designed as covered frames so that they adapt automatically to different body shapes, movements and postures and ensure good air flow. Users just need to grab and pull up ON's backrest to adjust the height by 60 mm ( $2^3/8$ ") in six lockable positions. With IN, the height of the additional, optional lumbar support in the backrest frame can be changed (see figure on the following page).

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. This makes the patented, free-to-move concept so uniquely flexible and comfortable at the same time.

All adjustment options are child's play to use. Both ranges have just two controls each which are conveniently placed at the sides underneath the seat and can be used while people are sitting down too. One changes the height and the other locks the backrest in place. 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. IN's counter pressure is adjusted by turning the knob underneath the seat.



ON: Control with integrated knob for fast adjustment of the backrest's counter pressure (for people weighing from 45 to 120 kg (99 to 264 lb)), the seat depth can be optionally increased or decreased by simply pulling out or turning in the front edge of the seat.

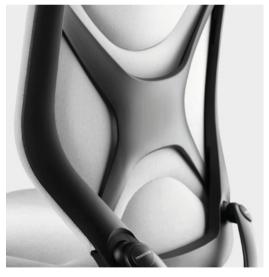


IN: Knob underneath the bottom of the seat in the middle to adjust the counter pressure (for people weighing between 45 to 150 kg (99 to 330 lb)). Button at the side to lock the backrest in place and activate the optional forward tilt of the seat.





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



IN: The height of the optional lumbar support can be adjusted by moving the backrest frame.

# ON®/IN 24-hour chairs. Comfort and adjustments.







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.

# ON®/IN 24-hour chairs. Quality and sustainability.





### Product certificates / product standards













**ON:** DIN EN 1335 type A or B DIN EN 16139-L1 DIN EN 1022 ANSI/BIFMA X 5.1

IN: DIN EN 1335 ANSI/BIFMA X5.1

### Company's certificates, memberships















### 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 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, which saves on extra space required to store and transport it.

The materials used to make ON and IN also comply with demanding ecological requirements. If possible, only pure materials are used so that they can be recycled without compromising on quality. Both ranges have Greenguard certification, a stringent 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 fact that the chair was ecologically responsible and fostered a healthy range of motion. And this is where we come full circle, because health and the environment are inseparable at Wilkhahn.

# ON®/IN 24-hour chairs. Quality and sustainability.

### Wilkhahn



The 24-hour chairs with free-to-move flexibility are tested regularly for compliance with all internationally relevant 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® and IN ranges (which comes into force from the date shipped from the factory).



The ON® range's 24-hour chairs all have an aluminum star base with additional swivel arm supports, a modified synchro-adjustment mechanism and with particularly hard-wearing covers from the Wilkhahn fabric and leather collection. These minor modifications are already sufficient for the models designed for people weighing up to 120 kg (264 lb) to meet the advanced requirements of DIN EN 1335 for 24hour use.



As a standard, the IN range has already been tested for use by people weighing up to 140 kg (308 lb). With an aluminum star base, additional swivel arm supports and hard-wearing covers, the 24-hour model even complies with the British Standard. To comply with this standard, it underwent several months of uninterrupted test cycles (24/7) for people weighing 150 kg (330 lb).

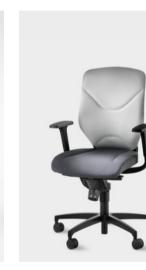








ON®, model 175/81 with headrest



IN, model 184/8 with double-ply backrest



IN, model 184/8



IN, model 184/8

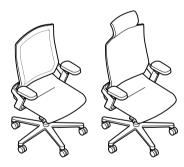
ws and references Ergonomics and health Comfort and adjustments Quality and sustainability Designs (2/2) Models and dimensions Technical detail

# ON®/IN 24-hour chairs. Designs.

## Wilkhahn



■97/109	<b>日</b> 69	<b>⊟</b> 66
(■38¼/42%"	<b>日</b> 27⅓"	<b>⊟</b> 26")
<b>□</b> 40/52 ( <b>□</b> 15¾/20½"	⊞50 ⊞195/8"	⊞43 ⊞16%



⊟105/117	<b>日</b> 70	<b>日</b> 66
( <b>⊫</b> 41¾,/461/₃"	<b>日</b> 27½"	<b>日</b> 26")
∃40/52 (⊑153/ /201/6"	<b>■</b> 50	<b>■</b> 43

### ON® DIN EN 1355-compliant 24-hour chairs

#### 174/8 and 174/81

Standard backrest height, adjustable by 60 mm ( $2^{\,9}/8^{\,1}$ ) in six lockable positions

### 175/8 and 175/81

High backrest, height is adjustable by 60 mm (2<sup>3</sup>/<sub>8</sub>") in six lockable positions, optionally with headrest

Upholstered seat and covered backrest, in the 81 version.

### Design for all models:

seat and backrest with management grade upholstery. with 3D armrests whose height can be adjusted by 100 mm (3<sup>7</sup>/<sub>8</sub>") and depth by 40 mm (1<sup>5</sup>/<sub>8</sub>") in eight increments
Can be swiveled 30° inwards and outwards
Precision-adjustable seating height 3D Trimension® kinematics
With counter pressure that is precision adjustable in all directions for people weighing from 45 to 120 kg (99 to 264 lb)
Die-cast aluminum star base and swivel arms, coated, polished or bright chrome-plated

### Optional features:

With 6° forward tilt Seat-depth extension (approx. 400 to 450 mm (15³/4 to 17³/4")) Polyurethane foam armrest pad Upholstered, leather-covered armrests Anti-static casters Without armrests



⊫101/113	<b>日</b> 69	<b>⊟</b> 66
(⊫39¾/44½"	<b>日</b> 27⅓"	<b>⊟</b> 26")
1534/20½" [□ 1534/20½]	⊞46 ⊞181⁄8"	⊞43 ⊞16%")

### IN 24-hour chairs compliant with British Standard BS-5459184/8

### 184/8

Type:

Backrest with a 3D form-fit knit cover with different support zones with seat cushioning, optionally with soft padding Seat shell and backrest frame optionally in black or white with 1D armrests, height and depth adjustable in 10 100 mm (37/s") increments, Precision-adjustable seating height

3D Trimension® kinematics with counter pressure that is precision adjustable in all directions infinitely variable adjustment counter pressure for people weighing from 45 to 150 kg (99 to 330 lb), optionally with 5° forward tilt that can be activated Die-cast aluminum coated, polished or high-luster polished star base and swivel arms.

### Optional features:

Backrest covered in form-fit knit with different support zones, double-ply with upholstery foam

Seat-depth extension (approx. 400 to 450 mm (15 ³/4 to 17 ³/4"))

Height-adjustable lumbar support

3D armrests

4D armrests

Polyurethane foam armrest pad

Anti-static casters

Without armrests

97/109

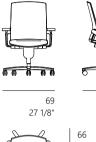
40/52

38 1/4" / 42 7/8"

15 3/4" / 20 1/2"

174/8 24-hour chair





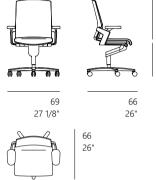
69

27 1/8"



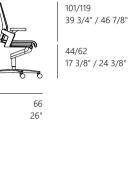




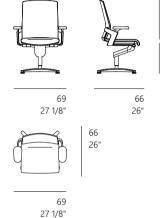


69

27 1/8"

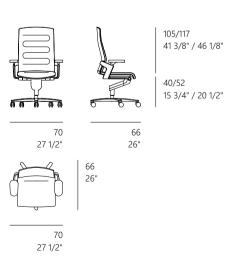




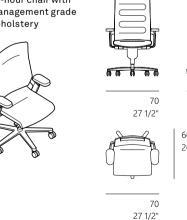


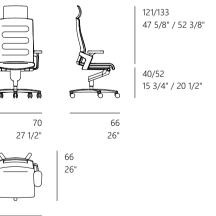
174/81 24-hour chair with management grade upholstery

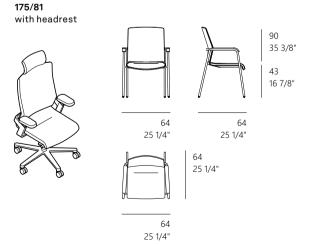






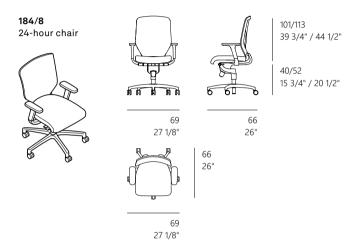


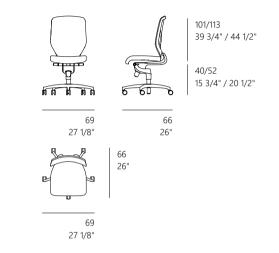




184/8

without armrests







#### **Function**

Task chairs with Trimension®. synchronous, three-dimensional supporting kinematics that fosters three-dimensional dynamic sitting. The perfect interaction of the synchro-adjustment mechanism, seat and backrest automatically adapts to any posture the user adopts. The supporting counter pressure is quickly and precisely adjustable in any direction (4.5 rotations max.) for people weighing from 45 to 120 kg. Backrest height adjustable by up to 60 mm in six lockable positions. The backrest and seat can be locked in the front sitting position. The seating height is precision adjustable between 400 mm and 520 mm at the touch of a button with a DIN 4550-compliant gas lift. All models are optionally available with seat-depth extension of 400 to 450 mm.

#### Frame

Die-cast aluminum five-star base coated in black or signal white. matte polished or bright chromeplated. Twin wheel swivel casters with load-dependent braking. made of black polyamide compliant with DIN EN 12529 as the standard version for carpets: with grav soft polyurethane tire for hard floors. The casters are optionally electrically conductive. Swivel arms made of diecast aluminum, coated (black or black textured matte finish or silver satin finish), polished or bright chrome-plated with additional swivel arm supports. Modified technology, with the synchro-adjustment mechanism shell made of die-cast, shotblasted aluminum, optionally coated in black or with a silver satin finish, with top cover made of black, through-dyed polypropylene. The gas lift is covered by a telescopic protective tube made of black, through-dyed polypropylene.

#### Seat

Highly elastic, flexibly suspended seat shell with seat upholstery panel made of black, throughdyed polypropylene, polyurethane seat cushion covered in the same material as the backrest cover in Fiberflex, or fabric. The seat is replaceable. All models except for those with management grade upholstery optionally available with soft padding (with additional cut foam fleece). In models with management grade upholstery, seat cushioning also with extra padding and side facings, optionally covered in leather too. Optionally with seat-depth extension from 400 to 450 mm (all types with upholsterv).

Optionally with a permanent tilt of 6 degrees.

### **Backrest**

Elastic backrest frame, height adjustable by 60 mm in six lockable positions, made of throughdved, fiberglass-reinforced polvamide, covered with Fiberflex. optionally also with fabric (and extra padding). All models except for those with management grade upholstery optionally available with soft padding (with additional cut foam fleece). For models with management grade upholstery, the backrest frame also optionally comes with back cushioning and the front of the backrest also with concealed, cut foam fleece sewn into the cover and with side facings, optionally with leather cover. Medium-high and high backrest, high backrest optionally with headrest (height 16 cm), either in the same material as the backrest cover, or covered in leather on the front. The backrest is replaceable.

### **Armrests**

### Task chairs

3D armrests made of fiberglassreinforced, black, through-dyed polyamide. Armrest pads made of black, through-dyed polyurethane (TPU), optionally also made of polyurethane foam and covered in leather if desired. Armrest covers made of black. through-dved polypropylene. Height of armrests adjustable by 100 mm (eight lockable positions), depth by 40 mm, can be swivelled 30° inward and outward in each case.

### Standards

The ON® 24-hour chairs comply with the advanced requirements of the DIN EN 1335 standard for 24-hour usage, type A or B, the GS and the ANSI/BIFMA X 5.1 standards. If required, NPR 1813 models are available.



### **Function**

An office task chair with Trimension®, integrated synchronously supporting 3D kinematics which allows the right and left half of the seat to be tilted in any direction via two swivel arms that move independently of one another. The goal is to encourage the natural range of motion the human pelvis is capable of which includes flexing, extending and moving it sideways to rotating it. The combination of the 3D synchronous adjustment mechanism with a highly elastic seat and backrest element guarantees the chair adapts automatically to any movement made or posture adopted by the person sitting on it. As a result, the body is supported in any position and maintains its center of gravity. The counter pressure, which provides support in any direction moved in, is precision adjustable for people weighing from 45 to 150 kg by changing the elasticity. The backrest has optional, height-adjustable lumbar support (in six lockable positions of up to 60 mm).

The backrest and seat can be locked in a neutral sitting position and the 3D forward tilt of 5° activated at the touch of a button to harness the maximum range of motion. The seating height can be precisely adjusted at the touch of a button between 400 mm and 520 mm with a DIN 4550-compliant gas lift. Seat depth: 430 mm, optionally with

seat depth that can be adjusted while sitting down in 4 lockable positions of 400 to 450 mm.

### Frame

Die-cast aluminum coated, polished or high-luster polished five-star base. Twin wheel swivel casters with load-dependent braking, made of black DIN EN 12529-compliant polypropylene as the standard version for carpets, optionally with gray tire made of polyurethane for hard flooring. Casters optionally electrically conductive. Gas lift covered by telescopic

protective tube made of black through-dyed polypropylene. Mechanism shell made of diecast aluminum, coated matte black with black through-dyed polypropylene bellows and thermoplastic elastomer to accommodate the flexibly mounted central spring, knob to adjust the counter pressure made of polyamide (for people weighing from 45 to 150 kg).

Each chair has two die-cast aluminum, coated, polished or highluster polished swivel arms that move independently of one another with extra swivel arm supports with protective cap made of polypropylene.

### Seat-backrest element

Unitary, highly elastic and flexibly suspended seat-backrest element in black or white throughdyed, high-performance polyamide. Seat shell with

polypropylene seat upholstery panel

Polyurethane seat cushions with CFC-free foam, covered in Racer. optionally also with Formstrick (form-fit knit) that offers different support zones, in the same material as the backrest cover, or with fabric covers from the Wilkhahn fabric collection, then with facings sewn-in and deep top stitching lengthwise to create contours. Seat upholsterv panel, cushioning and covers are replaceable. Optional precision adjustable seat depth from 400 to 450 mm, then with facing made of black Racer sewn in. only in the same material and color when the seat cover is also in Racer and with deep, lengthwise top stitching to create contours.

All models, with the exception of a seat with cover 41/Formstrick, optionally with soft padding for the seat (with extra cut foam). Seat upholstery panel, cushioning and covers are replaceable. The back section is the frame, optionally with Hytrel® lumbar support (which is retrofittable at any time), comes in black or white to match the seat shell and is adjustable in height by 60 mm in six lockable positions. The back is covered in Formstrick (form-fit knit) which includes different elasticity for flexible and supporting zones, optional twoply cover made of Formstrick with integrated upholstery foam with different support zones.

Colors from the Wilkhahn sample card

### **Armrests**

Armrests made of fiberglass-reinforced, black through-dyed polvamide.

1D armrests whose height is adjustable in 10 lockable positions by 100 mm, in the case of 3D armrests the armrest pads can also be swiveled 50 mm in depth and by 25 degrees inward and outward, in the case of 4D armrests, each can also be adjusted in width by 25 mm.

Armrest pads made of black through-dyed polypropylene, optionally made of polyurethane foam. Can also be supplied without armrests.

### Standards

The IN 24-hour chairs comply with the DIN EN 1335, the BS-5459 British and the ANSI/BIFMA X 5.1 and GS standards.

### Information

If very damp, the elasticity of the Formstrick can slightly slacken, but will regain its original shape when it dries.

Subject to change.