

A PLAY ON HIGHLIGHTS TO DENOTE THE PART  
NOT ANOTHER PART.



## on call

This is a story about pure industrial design. And it doesn't get any better than this. Big words; big words that need an explanation.





This is about striving for simplicity of design, while being revolutionary. This is about seeking design purity, while harnessing physical and gravitational forces. This is about producing a volume selling product, while staying true to Bauhaus design principles. This is about marketing a global product in 90 countries, while adhering to local and world standards. This is about redefining ergonomics, without having to explain anything. This is about a highly technical product, which doesn't look technical.

This is the story behind a product that's been five years in development – a product that wasn't pulled or diluted in the face of the deepest global recession in 50 years. Not a niche or a craft product; not a premium priced piece of so-what design. Pure industrial design. Researched, designed, developed, costed, marketed – massive investment in a product that will directly impact on the fortunes of a company, its employees and the community in which they live.

Nobody knows whether this piece of pure industrial design will be successful. If it's a winner it will be seen as a revolution in ergonomics. ON is launched by Wilkhahn less than a week after you read this.

We flew to Bad Munder to gather some insights into what the people behind its incubation simultaneously describe as 'just a chair' and 'a leap forward'. That, in a nutshell is what ON is all about. It's ▶▶▶▶▶



►►► highly engineered, elegantly refined and is designed to set a whole new benchmark both in terms of ergonomics and the market. It's not revolutionary in how it looks, it's revolutionary in what it does.

Like most revolutions, though, ON didn't just happen. And although we mentioned that it's been five years in development, the genesis of ON goes back over 30 years, as Communications Manager Burkhard Remmers explains. 'Back in the '70s Hans Roericht conducted a study of mobility for Wilkhahn which became very influential on the whole philosophy of dynamic sitting. There were two critical issues raised by his thesis: that it's unreasonable to tell people how to work at their desk, and that sitting still at that desk for eight hours was a problem. That study resulted in an early chair, our 190 range, which, importantly, was based on the flexibility of materials not mechanisms. When the first synchro mechanised chairs hit the market, our response was the hugely successful (and iconic) FS chair – the core of which is a flexible shell and pivot arms. Modus too, introduced in 1994, was based on an idea of self flexibility, in which materials adjust automatically to you.'

Head of Product Development, Hans Wahlen confirms the point. 'That heritage shows we didn't start from zero, movement is at the

core of our philosophy. In sports science it's accepted that the old ideas about sitting 'right' or 'wrong' are part of the problem. It's now proven that the most important thing is to keep the body moving.'

'I think it's also worth saying that old ideas about ergonomics are linked to social value systems,' adds Burkhard. 'For example, being told to 'sit up straight' at school is about discipline and control, not ergonomics. Influential studies by the Bertelsmann Foundation have shown that it's the way people handle back pain that contributes to the problem – what's needed are not mechanical aids, but stimulation and mobility. Telling people to be careful how they sit also tends to be a self-fulfilling prophecy!'

'This is an important point,' says Hans. 'We don't need to be warned of danger, and we don't need machines – the solution must be natural. All chair manufacturers make ergonomic claims – just check out the brochures! We just want to make a comfortable, natural chair. That's it, just a chair. Yet, from the start of this project we had a really high aim: we had to deliver a contribution to furniture culture.'

The concept development phase was intensive, committed and detailed, as Hans Wahlen explains. 'We brought together a cross-functional team of designers, product developers and mechanical engineers to start to create the concept. We looked at everything: technology, sociology, psychology, materials, whatever influences the person sitting in a chair. We examined what 'looks' comfortable, the visual impression, the influences of social convenience. The research extended to in-depth meetings with corporate medical advisers; we looked at how chairs are marketed...everything was all about getting the functional integration right. Of course we looked closely at our competitors because we needed to be clear about what exists in the market, the price points, the costs. And because ON is to be a world chair, we made careful study of global standards.'

'What we were looking for in this concept development phase was interdependence of key points. We wanted to identify the combination of features needed to make ON a volume seller around the world. This, of course, is the basis of industrial product development. Our differentiator is already part of our philosophy – what makes ON different to everything else on the market is natural movement. What other chair manufacturers concentrate on are the details; what the various mechanisms of their chair intend to do for your neck, or your back or your thighs. ON is focused on your whole body. This is not traditional two dimensional sitting, forward and back. ON is revolutionary because it's three dimensional. Think about how your hips move when you walk – it's all about rotation and movement, laterally as well as forward and back. The idea behind ON is to sit like we walk.'

'This is not a small step for ergonomic chairs, it's a big jump,' adds Wilkhahn President Jochen Hahne. 'This main idea, of movement and rotation, is the key behind ON. As soon as I sat on an early concept prototype it was clear that this was the way forward. The next task, of course, was to find a manufacturable, cost effective, marketable solution in line with the Wilkhahn way.'

'The technical challenge was to resolve the different forces at play,' explains Hans. 'The kinematic principle behind ON is based on an intelligent interaction between the mechanics, the material elasticities and the geometry of the seat shell. We divided the mechanism in two halves, thereby creating two independently mobile swivel arms. The challenge was to balance the point of gravity when forces are applied to the seat, back and arms simultaneously. We developed special joints to create a flexible connection between the individually mobile side elements, the seat shell and the back. There are many important innovations to be found in ON. Take for example the seat depth adjustment – to reduce the user simply rolls the front edge down and►►►

►►►away by hand, to extend, roll the seat front back up. Only the ‘torque’ induced by hands makes the seat depth variable, so the lack of applied torque when simply sitting upon the seat means the defined edge remains static. Crucially though, ON is a chair you don’t have to explain or teach – you see it, you sit in it. This is a simplicity of design which is not based on wanting to look radically different; it’s innovative but it’s not extreme to look at. In any case, we have a portfolio of half a dozen good chairs, so it needs to be part of that family. We took the time to ensure that the design has a purity, a simplicity that’s uncluttered by unnecessary detail.’

Michael English, Head Designer of leading design consultants Wiege, confirms ON’s design ethos. ‘One of the key points is that ON’s functions are integrated. You see a lot of products that are additive; we’ve put the elements together holistically. Some products have a technical appearance. A big difference with ON is that it is a technical product, but doesn’t feel like one. It’s intuitive. Another key theme for us is that nobody actually wants to sit ‘correctly’ – it’s contrary to people’s natural behaviour!’

‘When we were developing our ideas, we soon realised that CAD was no good for the three dimensional characteristics of the chair. We changed to clay, so that we could optimise the modelling of the subtle forms. Working closely with product development, the model was analysed for forces and to minimise the use of material – which simultaneously refined the aesthetic and lowered manufacturing costs. It wasn’t easy to reach the cost target, but a single piece makes everything possible. In industrial design there is always a strong correlation between the number of pieces and cost.’

‘ON is a complete family of chairs, with different features, options, finishes and visitor models – it’s important to be able to meet all needs, from basic to the CEO. All the options are designed to make choices easy for the customer, and to suit different design schemes. And of course ON is an environmentally friendly chair, with a raft of different green aspects from recycled components to KD assembly to minimise transport costs.’

Industrial design does not exist in a vacuum. Researched, designed, engineered...the objective for ON is that it sells in volume within a clearly defined market sector. International Markets President Holger Jahnke explains that ON was always a marketing driven project. ‘There was a lot of input from marketing in the development process. Frankly, we’ve not been competitive in the ‘back office’ sector for some time, although until the mid-1990’s we were a leader. We’ve got a good share of the top end task chair sector – with ON we are targeting the mid- and lower-segments of the quality task chair market. This is the important part of that market, contributing about 70% of the whole. Our strategy is clear – to win plenty of projects in that sector. We operate in 90 countries, so ON has been developed from the start as a world task chair – complying with local standards, backed by appropriate manufacturing and assembly costs...with clear Wilkhahn design quality.’

‘ON is a mid-price product with premium quality, innovation and design. It can be assembled worldwide in our factories in Germany, Spain and Australia, with South Africa, Brazil, Japan and Morocco following soon after. We’ve got an impressive roster of international clients such as Nike, Porsche, PwC, Audi and UBS but we recognise that real brand power comes not from a niche position, but from high volume. We will officially launch ON in Berlin on 24th September, with the launch synchronised around the world.’

Marketing driven, supported by heavy investment, cost conscious. Design simplicity allied to sophisticated innovative engineering. Ergonomically revolutionary with a clear link to its trailfinding predecessors. ON is pure industrial design indeed ●

