

FS-Line. Environmental Product Information.

design made in germany

Wilkhahn



FS-Line.
An idea moves the world.
Design: Klaus Franck, Werner Sauer

The FS-Line has revolutionized sitting in the office like no other office chair. The congenial designer duo of Klaus Franck and Werner Sauer developed the FS-Line that has since become legendary, on the basis of internationally recognized ergonomics studies that regard changes in posture and the principle of dynamic sitting as the most important demand made on an ergonomic office chair. The two designers were responsible for the legacy of "sitting without a driving licence": highly simple operation with optimal self-adjustment and excellent, time-stable form and enduring quality.

A high flexible seat shell is inserted into the distinctive lateral swing arms like a hammock using just two screws. This permits optimal self-adjustment to varying body dimensions and sitting positions, and the body-synchronous movement of armrests, seat and back sections in order to promote intuitive changes in postures completely automatically. In terms of robustness, standardization and both aesthetic and ergonomic quality, the FS-Line is still unrivalled.

Guidelines.

Truthfulness in product design

We strive to develop lasting products, increase their utility value and reduce waste. "Less is more" or "reduce to the max" are the guiding principles that Wilkhahn continually translates into future contexts. Ecologically oriented design principles are a natural, integral part of product development.

Fairness in cooperation

We focus on people. This implies a cooperative style of management that recognizes employees' representatives as being co-managers who share in shaping the company. Profit-sharing for employees, the development of new forms of work with partly autonomous group and project work, as well as a firmly established health management scheme mark Wilkhahn's social orientation.

Ecological responsibility

Wilkhahn pursues the goal of sustainable development. Wilkhahn corporate culture is shaped by the balance that we strive to achieve between economic, ecological, social and cultural objectives for safeguarding the independence of the company. Adherence to environmentally relevant criteria throughout the entire product life cycle forms the basis of the way in which we judge our success.

Wilkhahn at a glance – commitment statements, certification, awards.

UN-Global Compact, ISO 9001/14001, EMAS, GREENGUARD™, LEED

Sustainability:



UN Global Compact

Processes:



ISO 9001
ISO 14001



EMAS

Product: FS-Line



GREENGUARD™



Complies with the requirements for the following number of credits under LEED:
LEED CI 5 – 7
LEED NC 5
LEED EB 7

Milestones of socio-ecological development at Wilkhahn

2009 Wilkhahn signed an international framework agreement to assure and extend exemplary social standards on a global scale. Regular internal checks and external monitoring carried out by the workers union IG Metall guarantee that Wilkhahn and its suppliers meet fundamental standards of the International Labour Organization (ILO).

2008 The newly erected co-generator for combining power and heat at the Bad Münder site is powered by renewable raw materials and since 2008 it has ensured virtually CO₂-neutral production

2001 First company in Lower Saxony, Germany, to be certified in accordance with the European Environmental Standard of EMAS 2

2000 Publication of the first sustainability report in the sector of medium-sized companies: Wilkhahn Added Values

1997 Corporate Conscience Award of Council on Economic Priorities, New York

1996 German Ecology Prize of the Deutsche Bundesstiftung Umwelt

1995 Development and introduction of transport packaging; changeover in table lacquering to low-solvent, water-based lacquer

1994 Preparation and implementation of a waste management concept according to the premises of recycling management

1992 Introduction of the Picto swivel chair range as the first office chair in the world with a design concept integrating consistently ecological criteria

1989 Start of "Wilkhahn Green" with a policy statement on ecology: "The Administrative Board and Management have decided jointly to take ecological matters seriously and, in case of doubt, to give priority to such over and above quick profit"

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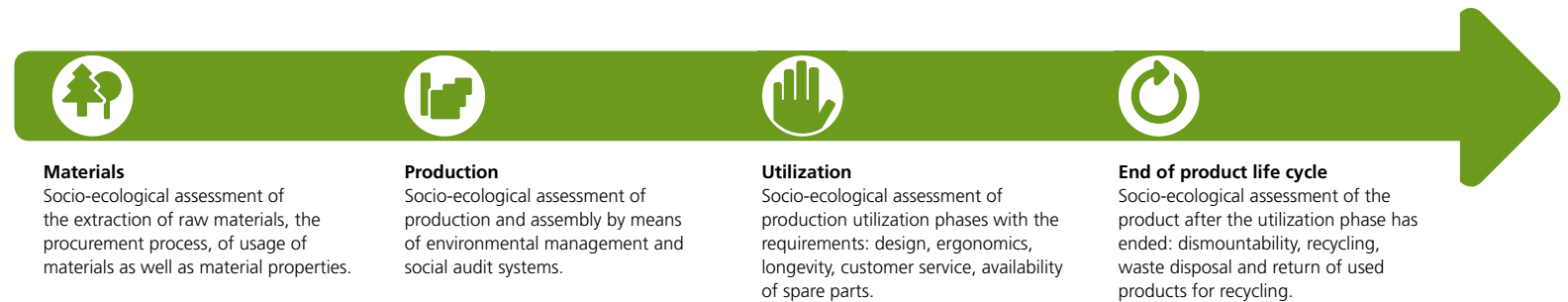
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Responsibility from the very start – Wilkhahn Environmental Product Information

The environmental impact of the Logon table has been evaluated for the entire product life cycle – including the extraction of raw materials, manufacturing, utilization and waste disposal – on the basis of a life cycle analysis and assessment (LCA).



Re-use has priority over recycling

The ingeniously simple concept combines minimum mechanical functions and material input with maximum ergonomically important flexibility. What is more: the constructional principle guarantees that these office chairs can be used virtually limitlessly.

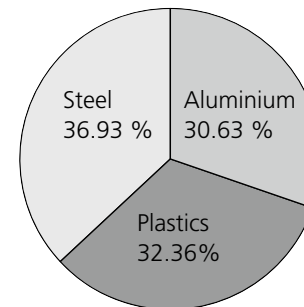
- The high-quality, technical components, such as the frame and the mechanism in die-cast aluminium and steel are marked by high resistance to wear and are repair-friendly. Almost 100 per cent of components can be returned to the material cycle.
- The covered, CFC-free foamed upholstery in polyurethane and the seat shells in through-dyed polypropylene (also 100 % recyclable) may be easily exchanged after years of intensive use, fitted with modern upholstery materials in new colours and, if necessary, adapted to fulfil new standards.
- This is not merely theory, but is current, ongoing procedure: 20,000 "old" FS chairs have been refurbished to look like new in the last seven years alone. The FS-Line thus marks a model of excellence of sustainable product design that does not only focus on recyclability but on high utility value, and service life in particular. This is kind to both the environment and the customer's budget.



Materials.

Material composition

	kg	in %
Metals		
Steel	4.69	36.93
Aluminium	3.89	30.63
Plastics		
Polypropylene	1.98	15.59
Polyurethane foam	1.56	12.28
PVC	0.19	1.50
ABS	0.07	0.55
Others	0.31	2.44
Total weight	12.70	100



The FS Line 211 comprises 38 percent recycling material (aluminium / steel).
The total weight of the chair is 12.70 kg.

The materials used for office chairs from the FS-Line are subject to stringent control. An ABC analysis is used to examine substances contained in these materials in terms of environmental and health compatibility. Prohibited chemicals are not used in the product at all. All manufacturing supplies are contained in a register of hazardous substances that forms a basis for further minimization or substitution in the case of potential problematic substances.

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Architectural environment



Co-generator powered by renewable raw materials



Production.

Water pollution control, waste management and sustainable production of energy

Water is becoming an increasingly important resource. Wilkhahn spares no effort to minimize water consumption in production and to ensure that water quality is not impaired. Due to the treatment of process water, the quantities of waste water requiring special supervision has been reduced by 80 per cent.

The Wilkhahn waste management concept embraces sorting waste according to one-type materials, recycling and disposal of all fractions of waste resulting from production and administration.

The newly erected co-generator for combining power and heat at the Bad Münden site is powered by renewable raw materials and from 2008 onwards it will ensure almost CO₂ neutral production

Wilkhahn production sites

Wilkhahn FS-Line office chairs are produced and assembled in Bad Münden (Germany), Castellon (Spain) and Sydney (Australia).

Environmental management system

All Wilkhahn sites work in conformity with a uniform environmental management system that is validated at the Bad Münden site (Germany) and certified in accordance with EMAS ISO 14001.

Process safety and quality management

Both the main Wilkhahn production site and all European sales offices are certified in accordance with ISO 9001. When selecting suppliers, Wilkhahn assigns great value to a comprehensive and viable quality management system.

ILO: All Wilkhahn production facilities guarantee compliance with labour and social standards as required by the ILO (International Labour Organization). Such compliance also forms the basis of cooperation with suppliers. The ILO is primarily concerned with the formulation and implementation of international labour and social standards, particularly core work standards that ensure social and just interpretation and application of all aspects of globalization, as well as the promotion of decent work.

Employees as partners

Top performance requires a potential-oriented corporate organization with flexible working hours, a bonus scheme, and group and project work. In turn, all employees share in corporate success in material terms. They have a comprehensive pension scheme; they are at the heart of company health promotion measures and they work in an environment that, by taking groundbreaking steps in industrial architecture, strives to achieve a synthesis of social, ecological, economic and aesthetic needs.

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Use.

Aesthetics and design

Sustainable products must be purposive. The timeless aesthetics of the FS-Line result in an increase in utility value in terms of enduring use. Good design as a counterpoint to the throw-away mentality. The FS-Line was the first office chair in the world to which a monograph was devoted in the acclaimed "Design Classics" publication series.

Longevity and guarantee

The FS-Line was launched in 1980. More than 1.6 million FS chairs have been sold throughout the world. The FS-Line has long since become a coveted design classic; it sets new standards for product design that is "sustainable" in the most optimal way. The enduring quality of the high-quality materials, the innovative sitting concept and the classic, understated design guarantee usability over a period of decades. We give a two-year manufacturers' guarantee which thus provides a serious planning and specifying timeframe. We can vouch for this regardless of the long product service life entailed. We regard guarantees over and above such timeframes as an investment in the future. Our service in terms of "ecological prolongation of service life" includes general overhaul and maintenance of older chairs. Wilkhahn offers repair service for furniture units no longer produced for two further years following discontinuation. Being on the market for a long time, overhaul service and the high durability of the FS-Line mark key aspects of Wilkhahn product philosophy.

Air quality and emissions of pollutants

Office chairs from the FS-Line do not emit any concentrations of gas that are harmful to the environment or to health. Products from der FS-Line are certified in the USA in accordance with GREENGUARD Indoor Air Quality™. GREENGUARD™ is a certification programme for low emitting products.



LEED

Office chairs from the FS-Line support companies by allowing credit points to be achieved in the case of potential LEED certification (U.S. Green Building Council's Leadership in Energy and Environmental Design). Buildings in the USA are evaluated according to this system in terms of their ecological and social impact.

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End of product life cycle.

Return of used products and recycling

Our responsibility does not stop at the end of the utilization phase of a product as we offer our customers extensive services for taking back and recycling used products. We guarantee that used products may be returned in their entirety. The tables are dismantled at our plant, all components are sorted according to one-type materials and – if possible – are recycled. Due to the clear marking and identification of all materials, due to their nontoxicity and due to easy dismantability, we can today ensure that the components of a Wilkhahn product are returned to both decentral and local material and production cycles and are properly recycled and, if necessary, disposed of. This serves to reduce energy-intensive (and thus ecologically questionable) return transport over long distances.

Disassembly and recycling

All components of FS-Line office chairs permit non-destructive disassembly. All components weighing more than 150 g bear a material identification mark to ensure that materials can be sorted according to a single type. No material protecting agents or halogen-organic combinations are used that prevent subsequent recycling. A total of 83 percent of components of the chair can be recycled.

Returnable transport packaging

Returnable transport packaging made from renewable raw materials is used for FS-Line office chairs that can be reused, recycled or composted.

International awards

- 1984: Philadelphia Museum of Art
- 1981. 1982. 1984: Design Center Stuttgart
- 1984. 1986. 1989: "Deutsche Auswahl" (German Selection) Haus Industrieform, Essen
- 1986. 1987. 1988. 1989: "Produktfamilie mit dem höchsten Designwert" (Product Family with Highest Design Value) Gute Industrieform, Hanover
- 1986: Design, Schönheit + Nutzen (Aesthetics * Use), Moscow
- 1986: Ergodesign, Montreux
- 1988: Design "Made in Germany", Taiwan
- 1985: M.I.T.I. Award, Tokyo (Ministry of International Trade and Industry)
- 1989: World Design Exposition, Nagoya (Japan)
- 1989: M.I.T.I. Award "G-Mark" (Good Design), Tokyo
- 1990. 1991/1992: Designed in Germany, Exhibition Rat für Formgebung (German Design Council), Los Angeles, Hong Kong and Mexico
- 1991: Technogerma Seoul "Made in Germany"
- 1990: Sitzklassiker von A-Z (Sitting Design Classics from A-Z), Design Zentrum Nordrhein-Westfalen, Essen
- 1991: Design Zentrum Nordrhein-Westfalen, Essen, "TOP TEN"
- 1996: "G-Mark", Special Prize for Long-Selling Good Design Products, Ministry of International Trade and Industry (M.I.T.I.)
- 2004: Jubilee Award "10 aus 50" (10 out of 50), TOP 5 swivel chairs, md International magazine of design