Design

Go Beyond With Steelcase Karman

People today are more likely to shift between tasks and locations throughout the day, requiring a next generation chair that is incredibly responsive, intuitive and versatile.

Read 5 mins

Organizations seeking to give people more flexibility are also looking for ways to adapt their workplaces, and in many cases they are moving to more unassigned spaces. Flexible work spaces mean people are moving from seat to seat throughout the day, or no longer own a chair. People are more in need of a chair that responds to them when they sit down and doesn't require lots of adjustments. Steelcase Karman was designed for just that kind of effortless comfort.

In a world experiencing fundamental changes in the way people work, whether at home, in the office or both, we need and want a chair that works better.

MARK SPOELHOF | design director, Steelcase

"Comfort is built into every aspect of Karman – it's reactive to each body type and posture and adapts to all the different ways in which we might sit. You're not aware of the chair, but it moves with you continually," says Spoelhof.

That vision led to Steelcase Karman, a new approach that goes beyond traditional mesh desk chairs. Its 21st century design and engineering naturally responds to a body's movement and weight, providing unparalleled comfort. It is designed to be more comfortable than leading mesh chairs, putting less pressure on your seat and back.

Steelcase Karman's 21st century design responds to your body's movement and weight to provide unparalleled comfort.

Beyond Comfort

Designing the seat for Steelcase Karman became a primary focus for the team as they worked to create a new level of comfort. As you sit, regardless of what posture you're in, you're always in contact with the seat. Back pain is often derived from other areas of the body – glutes, hamstrings or your core – making it a kinetic chain issue, which is why designers felt Karman's seat was so important.

Dozens of prototypes and testing culminated in Steelcase Karman's one-of-a-kind patented hybrid seat that combines an all-new performance textile with integrated cushioning. Instead of a rigid frame that's used in most mesh chairs, the team innovated a systematic design in which the textile is suspended from an ultra-light frame that flexes, eliminating painful pressure points and puts less pressure on people's backs and seats.

Nature was an inspiration for the design team throughout the design process. Both Karman's seat and back have an organic flexibility that harmonizes with the movement in the lower frame, providing a level of fluidity that didn't exist in a chair before, that mimics the similar fluidity of our bodies. When you sit in Karman, it follows and moves with you, intuitively responding to your body while providing effortless comfort.

Beyond Mesh

Creating the level of comfort the team wanted with existing mesh materials wasn't possible. While the air circulation, lightness and liveliness are top attributes of a mesh chair, the Steelcase seating team was concerned about the performance as mesh seats can start to sink, making ergonomics even worse. They didn't want to work with mesh until it could deliver a true performance benefit.

After countless hours of collaboration and experimentation, the team created a new proprietary performance textile called Intermix, which is developed through an exclusive weaving process that incorporates yarns and filaments into the weave. In unison with Steelcase Karman's flexible frame, Intermix achieves perfect tension that distributes your weight evenly over the seat and back, flexing to your movement, fitting the contours of your body perfectly and creating ideal ergonomic support so it never sags or feels stiff.

The combination of Intermix with a flexible frame that eliminates stiff edges means people can comfortably sit any way they want. They can lean or sit sideways and feel less pressure on the seat and back, which isn't possible with many other mesh chairs.

Intermix also has a beautiful hand feel. As the design team worked to create a product so close to the human body, they needed a material that felt comfortable, not abrasive. The unique weave not only offers comfort and performance but it also allowed the team to create a platform for diversity and expression. Inspired by the dynamism of athletic performance wear, the filaments can be spaced close together to create an opaque version of Intermix, or further apart to create a transparent, more traditional mesh look. Using multiple colors in the weave creates the appearance of a color shift when looking at the chair from different angles.

Going beyond the basic black, white and gray, Steelcase Karman mesh chairs offers an industry-leading color range, with proprietary Intermix colors and a variety of Lux finishes, which makes infinite aesthetic options possible from monochromatic modern, residential luxury or anything in-between.

Beyond Convention

Responsible design is integral to the Steelcase design team so Steelcase Karman was designed with the planet and the future in mind. Steelcase Karman not only uses sustainable materials, it’s also comprised of the least number of components necessary. Because the design approach uses physics to create responsive movement, the team was able to design the leading model at a weight of only 29 pounds – less than many leading mesh chairs. And yet the engineering of Steelcase Karman makes it incredibly strong.

“We’ve pushed materiality, shape and geometry as far as we can push them, using significantly less material than other performance chairs while offering even better affordances,” said Spoelhof. “Many of Karman’s parts are doing double or triple duty allowing it to function with about one-half less material than traditional task chairs so that it is as organically responsive to the human body as possible.

“Karman is the amalgam of all our learning and legacy – there’s DNA of every single one of our chairs built into it. It’s the evolution of everything we know about seating and the way people work.”

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