# Two Hundred Tons Uses Innovative Technology to Create Iconic Furniture From Stainless Steel

**Editor**

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Using a hydraulic press and laser cutting, Two Hundred Tons produces stainless steel furniture destined to become future classics.

Prague-based furniture designer, Two Hundred Tons, is focused on creating simple, original and high-quality products and its latest collection involves deconstructing steel tubes. "Steel has fascinated us since our university days," explains Adam Štok, who co-founded the company with Monika Kozderková in 2020. "While wood can be processed in many ways — something we became familiar with during our studies in product and interior design — steel captured our interest because of its seemingly limitless potential. We often say that steel is like 'hard modeling clay' because, with the right amount of heat or pressure, it can be shaped in a way that feels almost sculptural. We love experimenting with metal and pushing the boundaries of traditional steel-working techniques, especially in the context of furniture design."

Štok also loves the durability of steel and the fact that it can outlast some of the more commonly used furniture materials. "One of the biggest advantages of steel furniture is its longevity," he says. "While wood remains the more common choice, we believe that the sustainability of metal products is becoming increasingly recognized. As new generations become more conscious of long-term durability and sustainability, we see great potential for steel in the future of furniture design."

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## Stainless Steel Gets a High-Tech Treatment

To create the new steel tube collection, Two Hundred Tons uses hydraulic and laser equipment. "For most of our products, we use a hydraulic press to flatten the tubes under high pressure — this process inspired the name of our brand," says Štok. "For each type of flattening, we use specially designed jaws that align and guide the tube correctly so that we can press it into its final shape. When working with the hydraulic press, we place the steel tube into the jaws and, using the hydraulic mechanism, we lower the top head to compress the material. Once the jaws rise back up, we have the flattened part ready. For our latest collection, we work with a rotary laser, which can cut through the tube's entire circumference in a single step."

At this point, good old-fashioned craftsmanship takes over and the pieces are fixed together manually. "We weld the parts together, grind the welds and edges, and remove any surface imperfections or rust. Finally, the structures are carefully cleaned to ensure they are perfectly prepared for the final surface treatment, which guarantees their longevity," says Štok.

Intense cleaning of the steel is what ensures it remains durable and doesn't degrade. Each piece of steel used in the furniture is carefully brushed to remove rust and then thoroughly degreased. A powder coating is applied, which perfectly adheres to the stainless steel and, finally, it is cured in a hot oven.

## Waste Is Kept to a Minimum

To keep overheads down and reduce waste, Two Hundred Tons makes sure it uses as much of each stainless steel tube as possible. "One of the key methods we use to maximize the use of steel is designing our products to be made from just four different types of steel profiles. Some products use longer tubes, while others use shorter ones, which allows us to make the most of a 6-m tube. With the new Unroll collection, this process is even more efficient thanks to laser cutting. This technology enables us to arrange the cutouts for individual products along the length of the tube, so they fit directly next to each other, minimizing the leftover material at the ends," reveals Štok.

The Unroll collection currently features side tables, shelving and wall hangers, but more designs are in the works, with stainless steel remaining one of the main component parts. ✦