PIVOT

116176

The Continuous Structural Language of Transformable Furniture

Design Concept

The PIVOT furniture collection explores how to use a single manufacturing process to construct a unified structural language across different furniture types.

The collection includes side tables, umbrella stands, low tables, and longe chair. While each piece functions differently, they all share the same structural DNA: a continuous metal tube, locally compressed at precisely defined bending points, and then shaped.

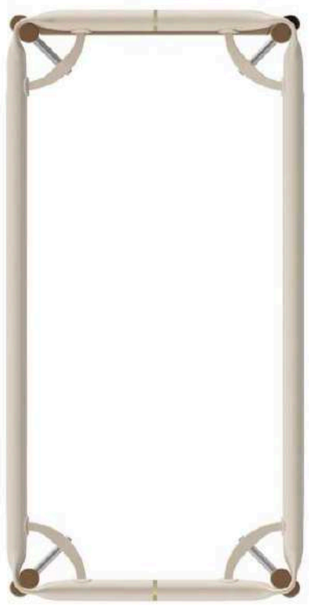
PIVOT does not view manufacturing as a purely technical process, but rather as the cornerstone of design. The shaping process itself becomes the source of the collection's structure, aesthetics and function.



PIVOT series products

Single Structure, Multiple Forms

This collection demonstrates how a single structural system can achieve multiple functions through orientation rather than mechanical complexity.







PIVOT series products

ONE STRUCTURE, FOUR FUNCTIONS

Combination of two different types of shelves and pallets

Pivot is created from a simple metal tube structure and two tray sizes.
By combining the structure with different trays and orientations, the system transforms into four distinct pieces of furniture.

STRUCTURE　TRANSFORM　ORIENTATION　+　CUSHION　=　FOUR FUNCTIONS





COFFEE TABLE



UMBRELLA STAND



SIDE TABLE

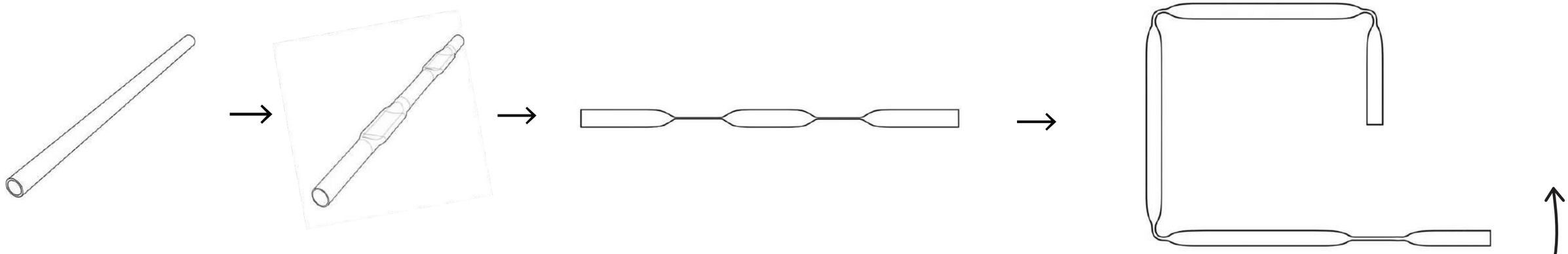


LOUNGE CHAIR

SAME WIDTH, TWO LENGTHS, FOUR FUNCTIONS.

With the same width, two different lengths of trays fulfill four functions.
A system that reduces components to the essentials, yet expands the possibilities of use.

METAL TUBE PROCESSING TRANSFOMATION PROCESS



01

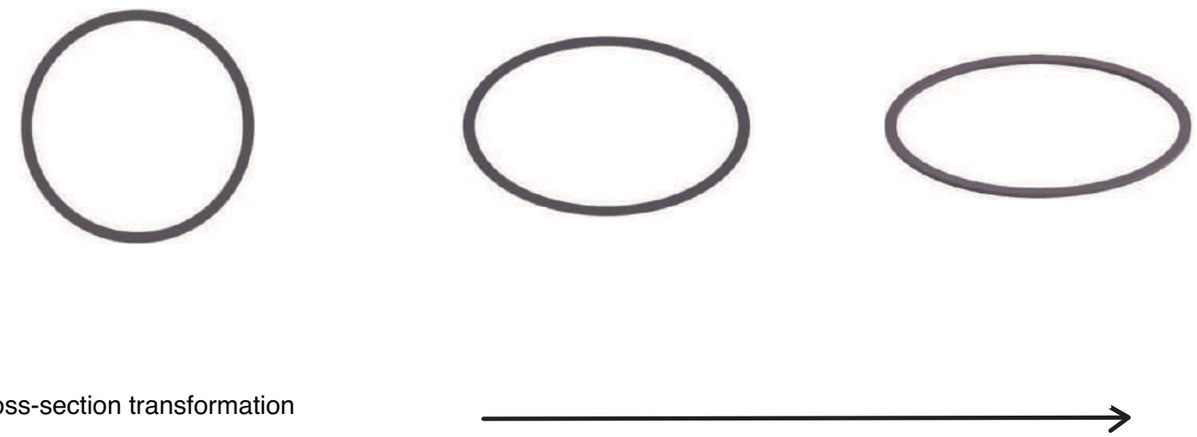
Round metal tube (raw material)

02

Local compression forming (Controlled compression)

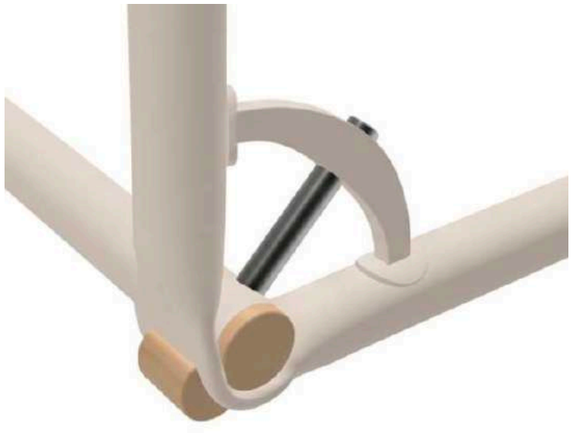
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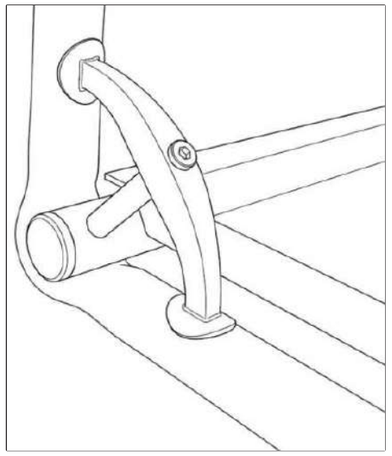
Tube bending



Cross-section transformation

During the extrusion process, the inner tube edge should not be glued too tightly ,otherwise cracks may form on the outer edge.

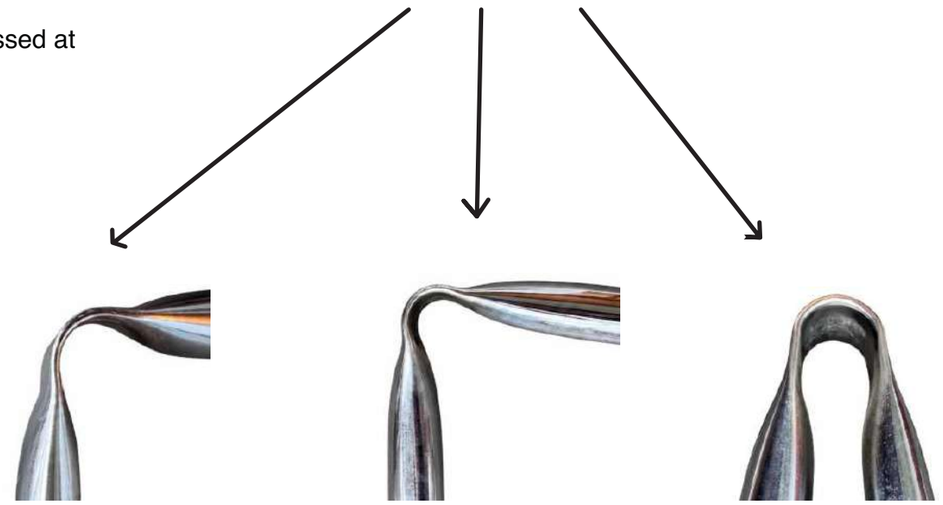


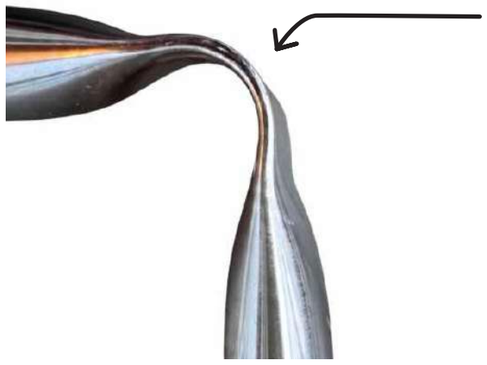


PIVOT JOINT

The metal tube is locally pressed at the bending point

Results of steel pipe extrusion bending

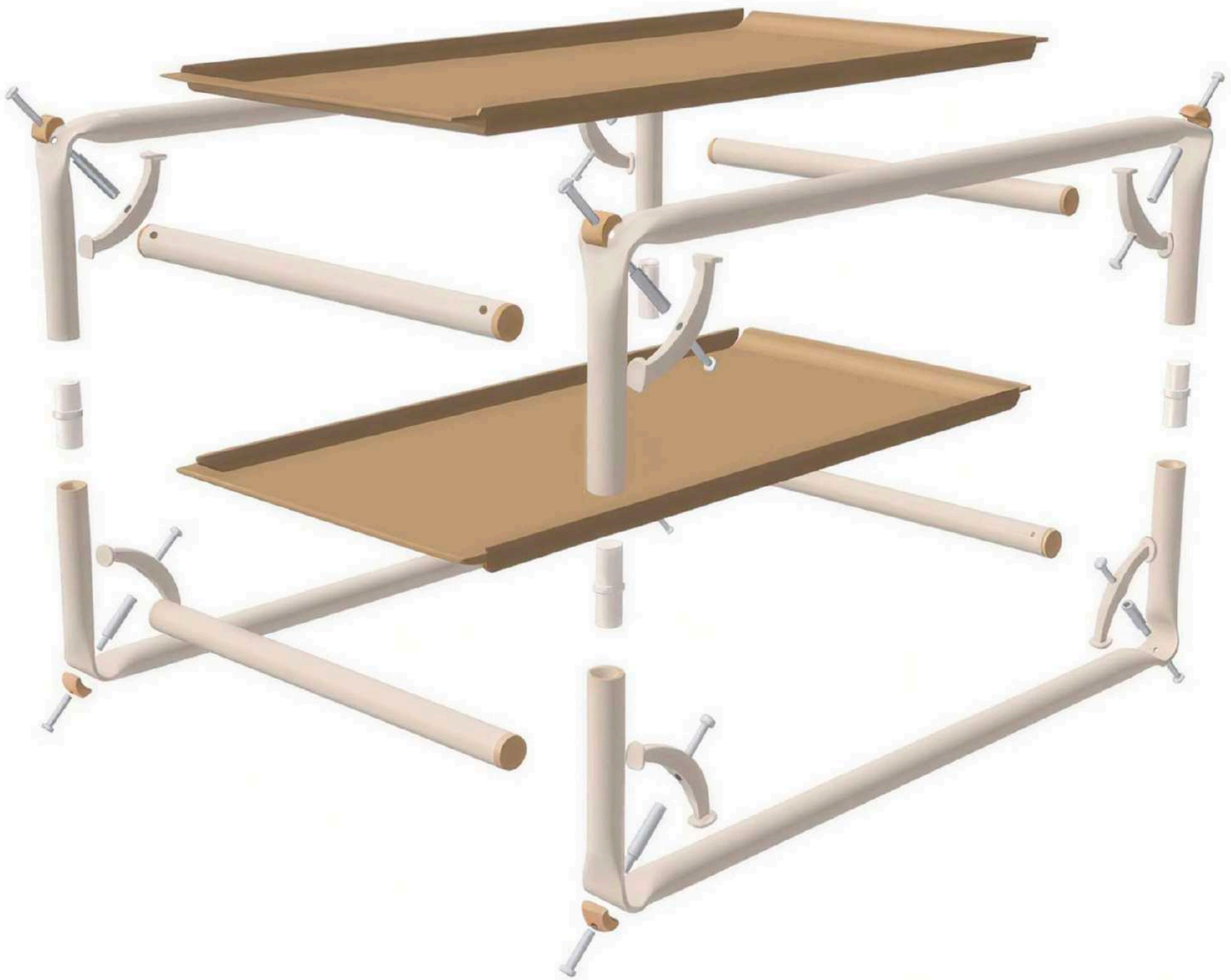




The inner wall of the pipe edge should not be completely flush,otherwise , cracks may appear at the outer edge.

Good ideas are hard to come by. To maximize feasibility, I conducted detailed tests, including controlled extrusion tests on the steel pipes and tests for potential problems during bending. Only after confirming everything was correct did I refine the design. to minimize potential problems in mass production, I completely eliminated welding from the design of the main frame.

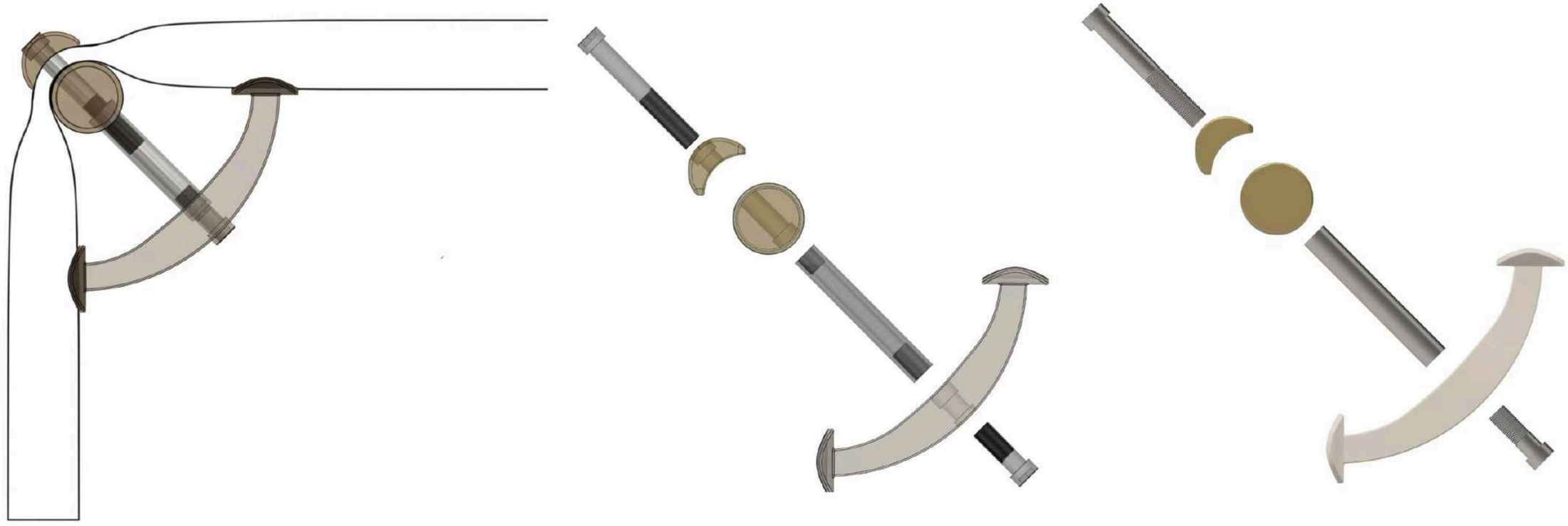




pivot coffee table explosion image



Pivotlounge chair explosion image



The PIVOT series is constructed using steel tubing of uniform diameter; the main frame requires no welding whatsoever and utilizes only a single type of connecting fitting. Although the multi-angle design of the seating necessitates specific configurations for the support structure, the manufacturing process and underlying logic remain highly consistent throughout.

The design here is not for decorative purposes; rather, it aims to ensure structural stability and angle locking, while also facilitating rapid assembly and disassembly.



PIVOT side table and umbrella stand



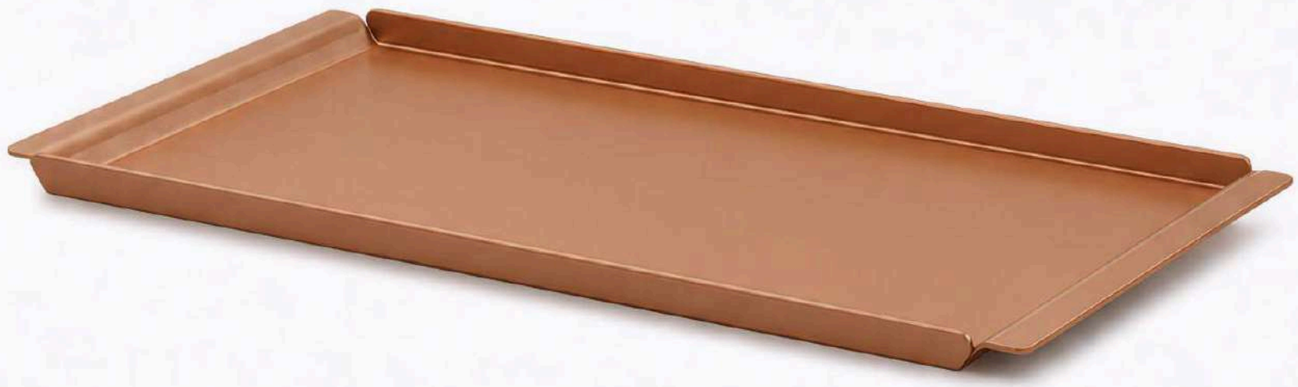


PIVOTumbrella stand





PIVOT trays





PIVOTlonge chair



PIVOT
A Continuous Structural Language for Transformable Furniture
Design Statement

PIVOT is a furniture collection that explores how a single manufacturing process can generate a unified structural language across different furniture typologies.

The collection includes a side table, an umbrella stand, a low table, and a lounge chair. Although each piece serves a distinct purpose, they all share the same structural DNA: a continuous metal tube that is locally compressed at precisely defined bending points before being formed into shape.

Rather than treating manufacturing as a purely technical process, PIVOT transforms it into the foundation of design. The forming process itself becomes the origin of the collection's structure, aesthetics, and functionality.

The Innovative Tube Forming Process

Unlike conventional metal furniture, which is typically constructed by cutting, welding, and assembling multiple tubes with additional connectors, PIVOT introduces an alternative structural approach.

At each bending point, the round metal tube is first locally compressed, altering its cross-sectional geometry before bending. This controlled deformation allows the tube to change direction while maintaining structural continuity, creating joints directly through the transformation of the material itself.

Instead of attaching connectors to define the structure, the structure is generated by the material's own deformation.

The compressed sections are not concealed; they remain visible as an integral part of the design language. These transformed areas express the interaction between material behavior, manufacturing technology, and structural performance, giving the furniture its distinctive visual identity.

One Structure, Multiple States

The collection demonstrates how a single structural system can generate multiple functions through orientation rather than mechanical complexity.

When positioned vertically with the smaller metal tray placed at the top, the structure functions as a compact side table. By relocating the tray to the lower position, the same frame becomes an umbrella stand, providing an elegant solution for storing wet umbrellas near an entrance.

When rotated horizontally and combined with a larger tray, it trsforms into a low side table suitable for contemporary living spaces.

These transformations require no hinges, locks, or additional mechanisms. Function emerges naturally from the relationship between orientation, interchangeable trays, and the continuous structural frame.

Extending the Structural Language to Seating

The lounge chair extends the PIVOT design philosophy beyond occasional furniture into seating.

Employing the same compressed tube forming process, the chair creates a lightweight yet structurally stable frame that seamlessly supports both the seat and backrest.

By minimizing unnecessary components, the design achieves both visual clarity and structural efficiency while maintaining a high level of comfort through the balance between the rigid metal frame and soft upholstered cushions.

The compressed bending points are not merely structural connections—they become expressive features that reveal the manufacturing process and reinforce the collection's unified visual identity.

Design Philosophy

PIVOT challenges the conventional belief that multifunctional furniture depends on additional mechanisms or complex transformations.

Instead, it proposes that adaptability can emerge from a deeper understanding of material behavior, manufacturing processes, and structural logic.

By rethinking how a simple round metal tube can be compressed, bent, and transformed, the collection establishes a new structural language that is lightweight, adaptable, and visually coherent across multiple furniture types.

The project demonstrates that innovation in furniture design does not necessarily come from adding complexity. Instead, it can arise from redefining the relationship between material, process, and structure.

Through a single manufacturing technique, PIVOT creates a family of furniture that shares one structural principle while accommodating different functions and living scenarios.

Ultimately, the collection proposes a new perspective on contemporary furniture design—one in which manufacturing is not merely a means of production, but the very source of form, function, and identity.

Design Manifesto

The process becomes the form.

The structure becomes the identity.

The material becomes the language