

I_xtra-Profiles

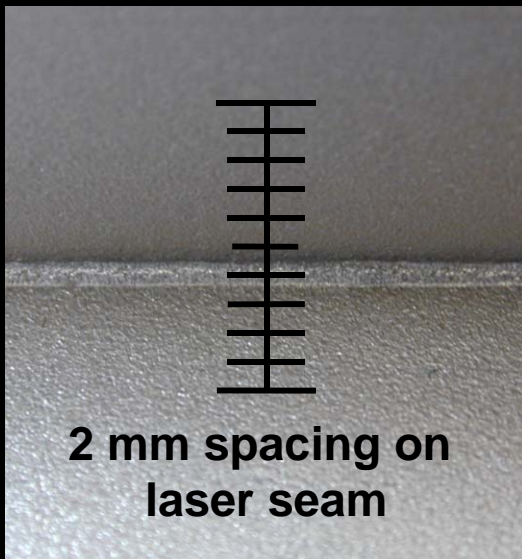
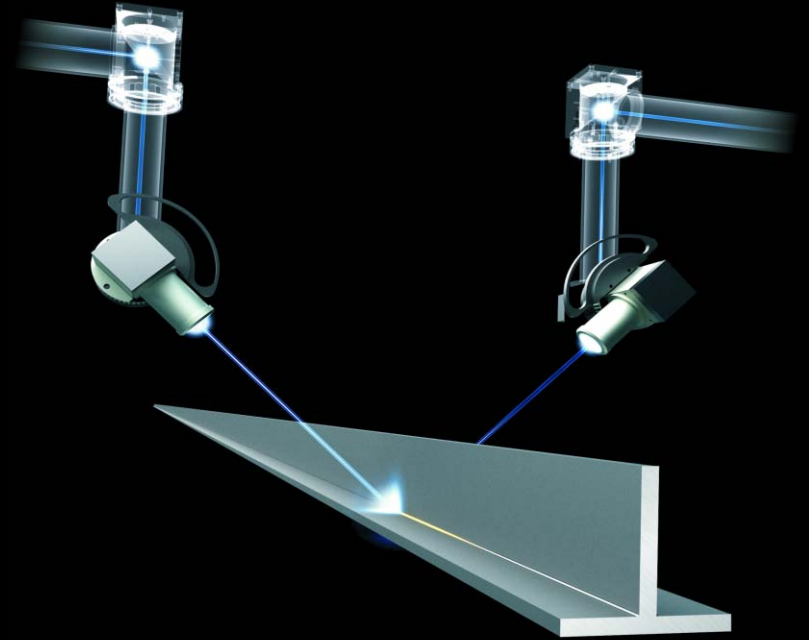
Laser Fusion Technology



Laser Fusion Technology

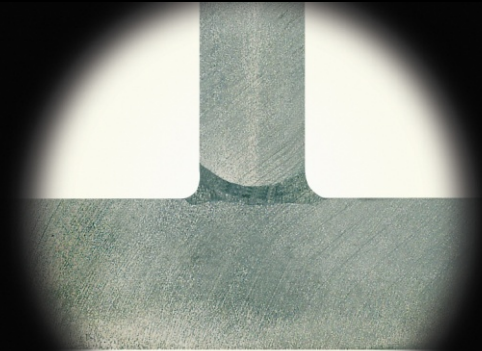
Laser fused steel sections produced by Montanstahl differ from conventional fillet-welded products in that they can perfectly calibrate the penetration according to the structural load requirements of the curtain wall.

The seam created by the laser fusion is very small, neat and barely noticeable. This is very much appreciated by architects because the sharp contour of the steel shape is maintained. The products are known as well under the name "I_xtra" promoted by Schüco steel systems Jansen.



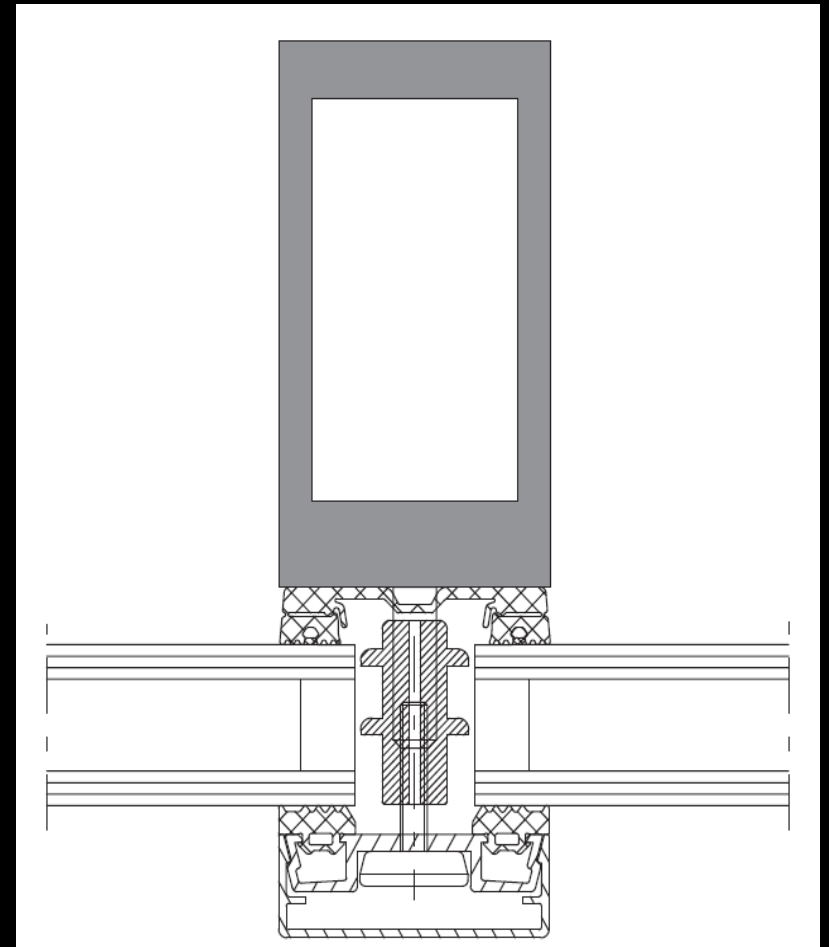
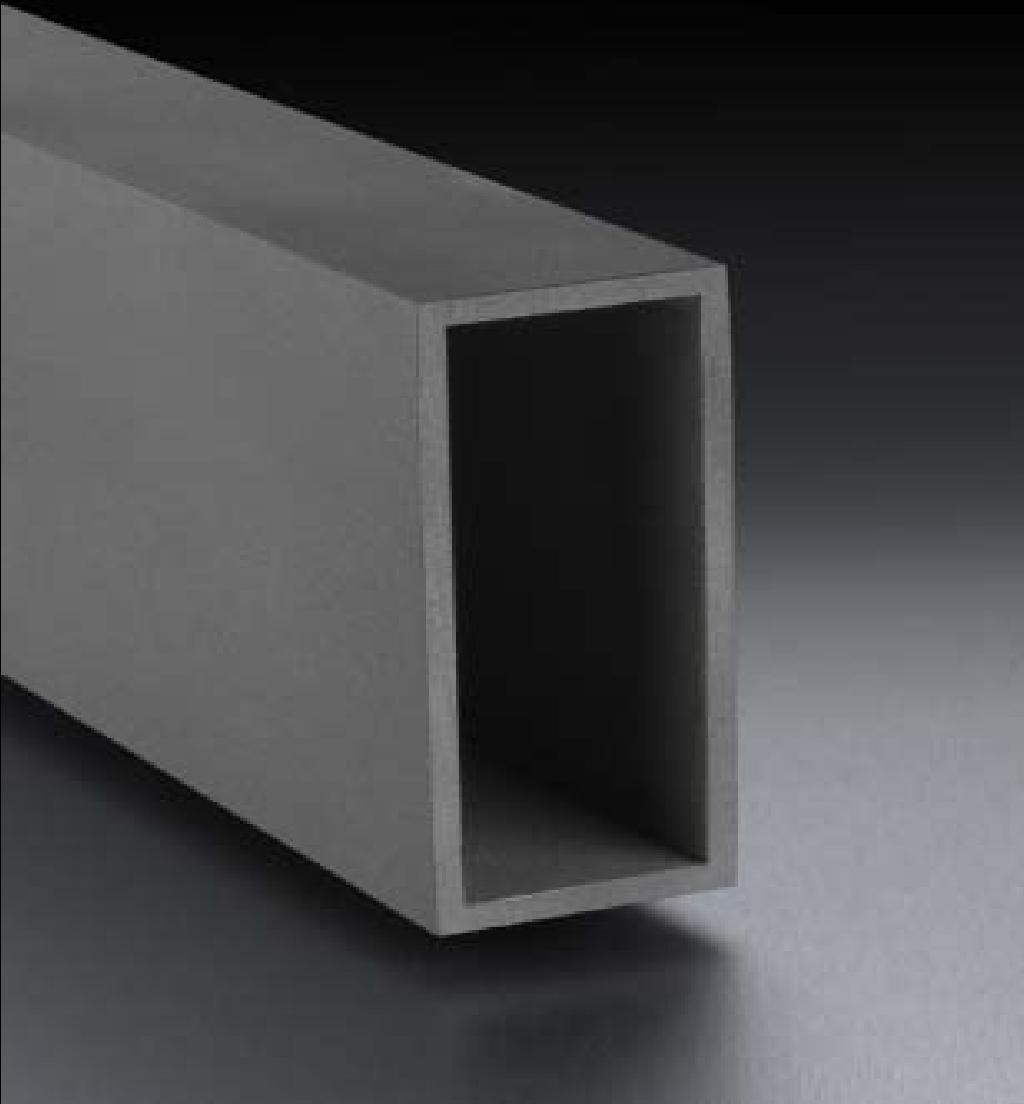
The high flexibility of the production machinery allows fulfilling orders where low batches are requested. Laser fused sections have a very high accuracy on dimensional tolerances and geometry.

Their parallel flanges, excellent rectangularity and straightness add further value to this product.



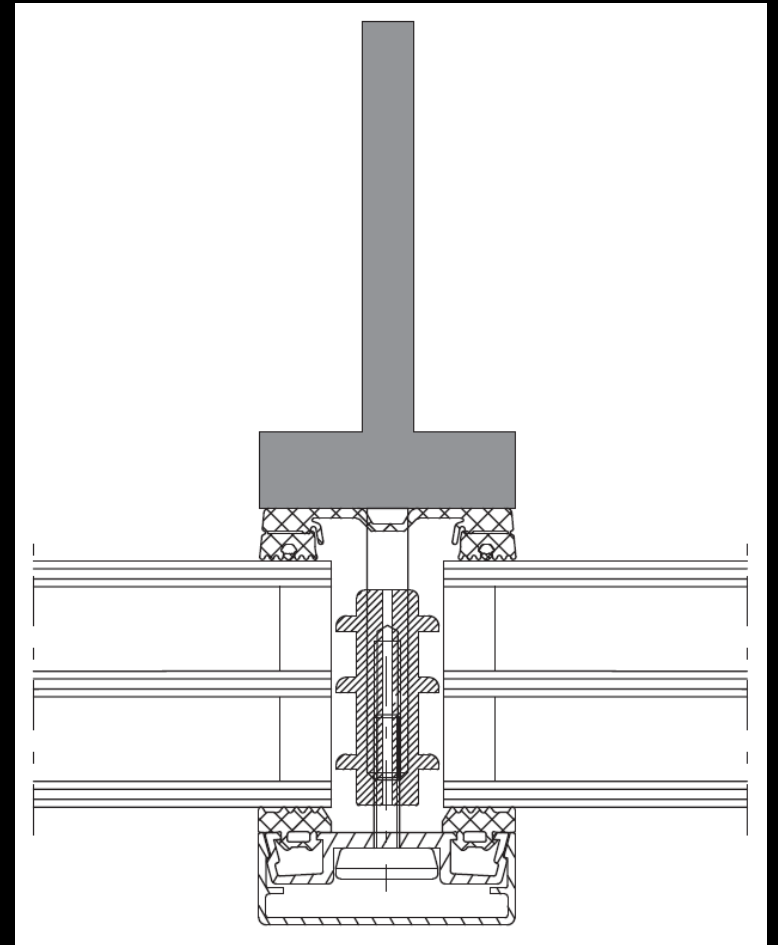
Application

Rectangular structural hollow sections are a very popular design on façades. Conventionally welded rectangulars in steel have the inconvenience of rounded corners (2 x material thickness). Laser fused rectangulars not only have perfect sharp outside corners independent from thickness but can be optimized to the requested loads by increasing wall thicknesses were required.



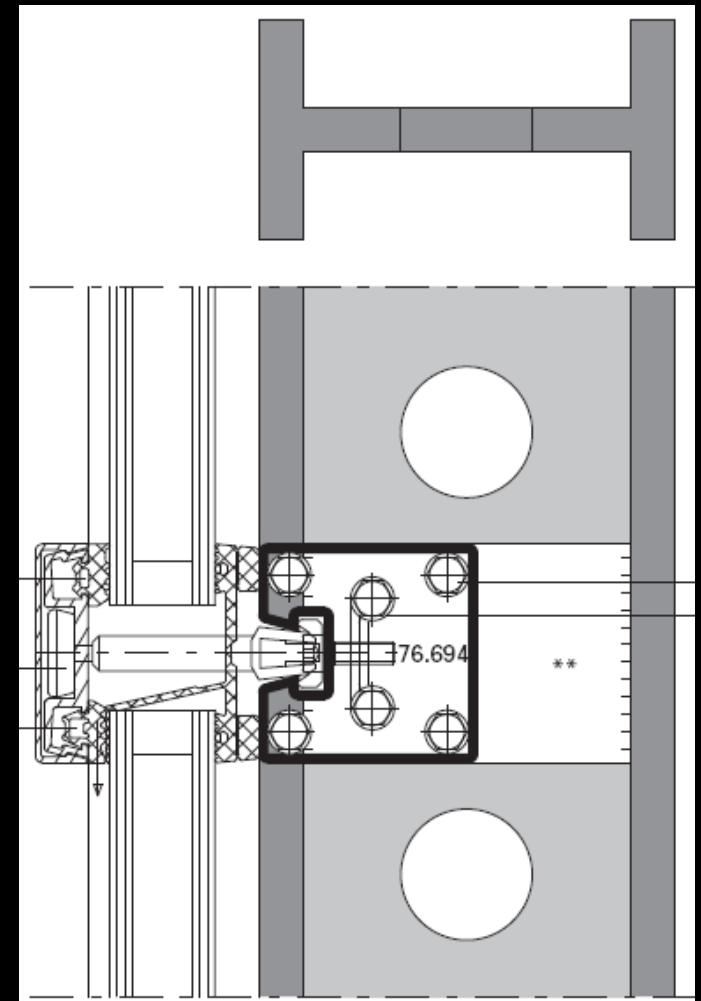
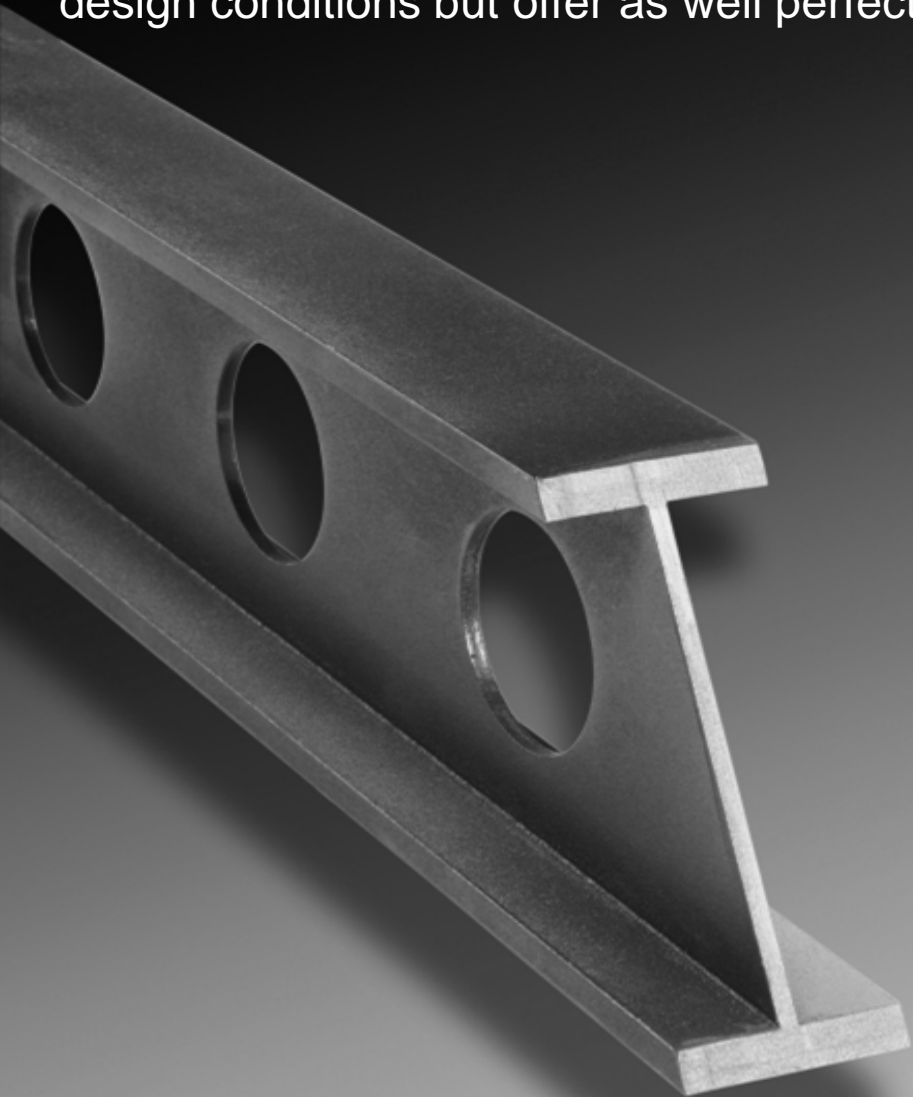
Application

Laser fused T-sections with sharp corners and slim side lines are an answer for objects where the main criteria is to achieve a very basic or minimalist façade structure. This lean and strict architectural expression avoids any superfluous and disturbing elements.



Application

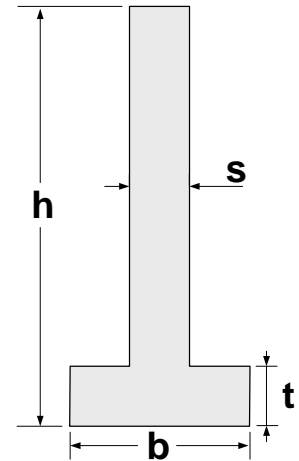
I beams with large web cut-outs are used to enhance the design of mullions and to give more transparency to curtain walls. Hot rolled standard beams are a suboptimal choice due to the request for slim side lines. Laser fused beams not only adapt the geometries to suit structural and design conditions but offer as well perfect sharp outside corners and tighter tolerances.



Size Range

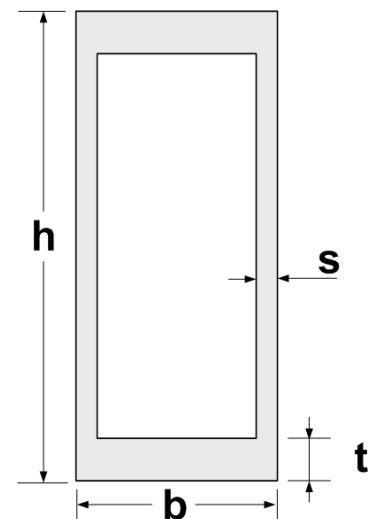
T-Sections and I-Beams

| | min. (mm) | max. (mm) |
|----------------------|-----------|-----------|
| Profile width (b) | 30 | 500 |
| Profile height (h) | 30 | 1000 |
| Flange thickness (t) | 3 | 40 |
| Web thickness (s) | 3 | 40 |
| Profile length (b) | 500 | 15.000 |

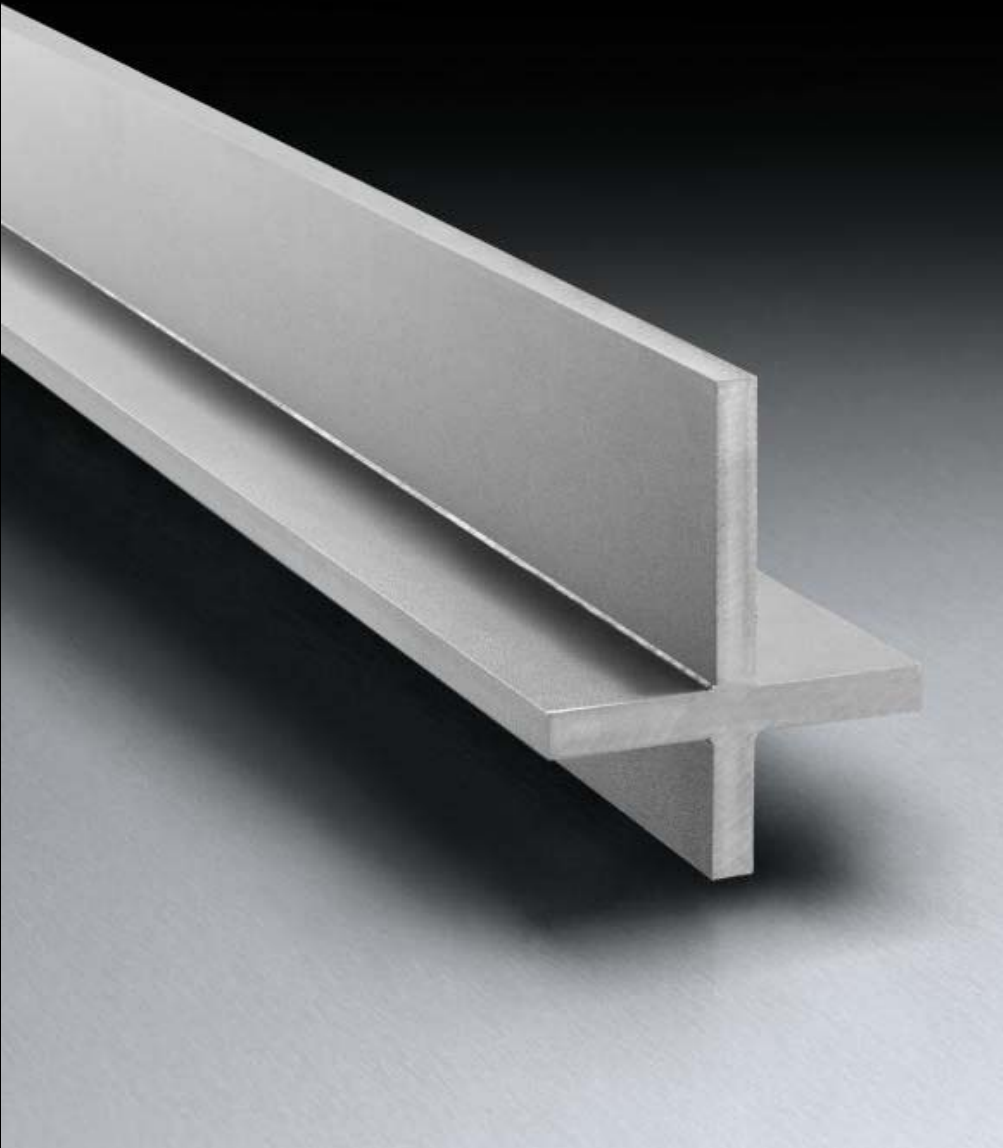


Hollow sections

| | min. (mm) | max. (mm) |
|----------------------|-----------|-----------|
| Profile width (b) | 50 | 450 |
| Profile height (h) | 50 | 1000 |
| Flange thickness (t) | 4 | 20 |
| Web thickness (s) | 4 | 20 |
| Profile length (b) | 500 | 15.000 |



I_xtra-Profiles at a glance



- free combination of material thicknesses
- heavy duty mullions
- high design flexibility
- precise and barely noticeable weld seam
- parallel flanges with accurate rectangularity
- high accuracy on dimensions and geometry

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