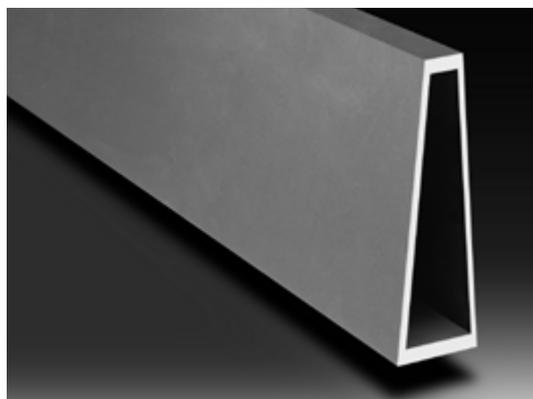


## Trapezoidal sharp edged hollow section



|                         |  |
|-------------------------|--|
| <b>Profile:</b>         | <i>hollow section</i>                            |
| <b>Material grade:</b>  | <i>1.4301</i>                                    |
| <b>Execution:</b>       | <i>laser fused</i>                               |
| <b>Industry served:</b> | <i>Architecture, Building &amp; Construction</i> |
| <b>Destination:</b>     | <i>Ireland</i>                                   |

For a shopping mall in Dublin the architect designed an appealing special stainless steel shape.

The section, a trapezoidal hollow section, was going to be placed as hand-rail on top of a glazing balustrade. In order to be a particular eye-catcher, but also having a practical design, the hollow section had to be trapezoidal, sharp edged and have the surface polished with grit 320 on all four sides.

Given the prestigious execution, the material had to be stainless steel 1.4307 (304L)

This tapered box section had following dimensions: 154x58/20 and overall 4mm material thickness.

Considering the thin material thickness the only production method was to start from plates and laser fuse them to the desired shape.

A conventional TIG or MIG welding would have caused an irrevocable deformation of the bars, that would have affected the overall quality of the result.

Laser fusion is limiting the heat input to an extremely concentrated area, so that distortion is kept under control and does not affect the bar and the final



*high end hand rail*

result. No chamfering is needed for welding and the weld bead is extremely small, and can be easily removed by grinding, giving to the shape the particular sharp edged and precise form, the architects do like so much.

Apart from the aesthetic appeal this tapered box section was extremely friendly for polishing.

This operation, that was not included as service, but was done abroad, was performed with ease thanks to the clearly defined sides and sharp edges.

For safety reasons the polisher had also to break the edges, avoiding the risk of injuries.

The result is a high end hand rail in a Irish shopping mall.

