# Huhle Stahl- und Metallbau GmbH

www.huhle-stahlbau.de

As a full-service provider, Huhle Stahl- und Metallbau GmbH Wiesbaden plans, builds, manufactures and installs customized steel and metal construction solutions. This includes, among other things, structural engineering, small bridge and escape ladder construction as well as the production of mobile radio systems and radio masts.

| INDUSTRY | NUMBER OF EMPLOYEES | SALES |
| --- | --- | --- |
| Huhle Stahl- und Metallbau GmbH | 110 | € 15 million |

## Challenge

Huhle was selected as the general contractor for the construction of the 25-meter high Kion Tower, an all-glass presentation tower. The market leader for forklift trucks can exhibit up to eight vehicles in the tower within view of the Frankfurt airport. The large proportion of glass (total weight: almost 30 tons) required an extremely stable steel frame construction weighing 60 tons, held together by numerous fittings and around 150 weld seams of varying lengths. High-tensile weld seams played an important role. Moreover, the surface of the edges were to be oxide-free and geometrically uniform.




"The machine has already paid for itself with the first order."

**SEBASTIAN FEILER**

PRODUCTION MANAGER - WELDING TECHNOLOGY

## Solution

The company achieved the necessary surface quality quickly, reliably and without a great of effort thanks to the TRUMPF beveler TruTool TKF 1500. The machine creates geometrically consistent, metallic bare edges which do not have to be reworked. This made Huhle much faster than when using other procedures, providing the best conditions for perfect weld seams that delivered everything they promised. Sebastian Feiler's team have been using the TRUMPF tool since mid-2016, now using it to create around 90 percent of the welding edges. Only particularly large chamfers which exceed the maximum of the TKF 1500 (>15 millimeters chamfer length) are milled or cut on stationary systems. Flame cutters and angle grinders which were frequently used in the past are now obsolete at Huhle.

**Implementation**

Work often had to be carried out in tight spots when constructing the Kion Tower. Weighing 16.5 kg, the TKF is no lightweight, but is still easy to handle thanks to its ergonomic structure. Once positioned, it processes the materials almost fully autonomously with a working speed of two meters per minute. A certified Huhle technician can then weld the steel construction together with no further reworking, making it an inseparable connection. The machine can also be firmly clamped into a bracket to process small components such as top plates. In this case, Huhle's welding experts hold the workpiece and guide it manually through the tool. It can also be done the other way round if the metal sheets or profiles to be processed are large and heavy. The staff then approach the workpiece with the TKF 1500. The tool was also a winner when the job entailed applying 200-millimeter-long weld seams every 200 millimeters to several circular segments measuring eight meters in length for the construction of a pavilion. One worker was able to create 144 individual welding edges in just a few hours, as the machine can be set down or picked up anywhere, facilitating extremely fast operation.








**Forecast**

The investment in the TKF 1500 has really been worth it, according to Sebastian Feiler, Production Manager at Huhle. Apart from its many benefits, the machine stands out thanks to its high level of flexibility. At Huhle, standard steels up to S355 as well as corten steel and aluminum are predominately processed. The material thicknesses are largely between 6 and 60 millimeters and the required welding edge angles between 30 and 55 degrees – perfect conditions for the beveler, and for many future projects as well.

The TruTool TKF 1500 is equipped with a powerful 2600 W motor. Hand protection, integrated in the motor, ensures a high degree of user-friendliness and ensures safe operation. The soft grip ensures user-friendly operation with low vibrations. This means you can always expect consistent, oxide-free results. Regardless of whether you are processing straight sheets, T-beams, or tubes. The surface roughness remains low.

Photo source: Huhle Stahl- und Metallbau GmbH