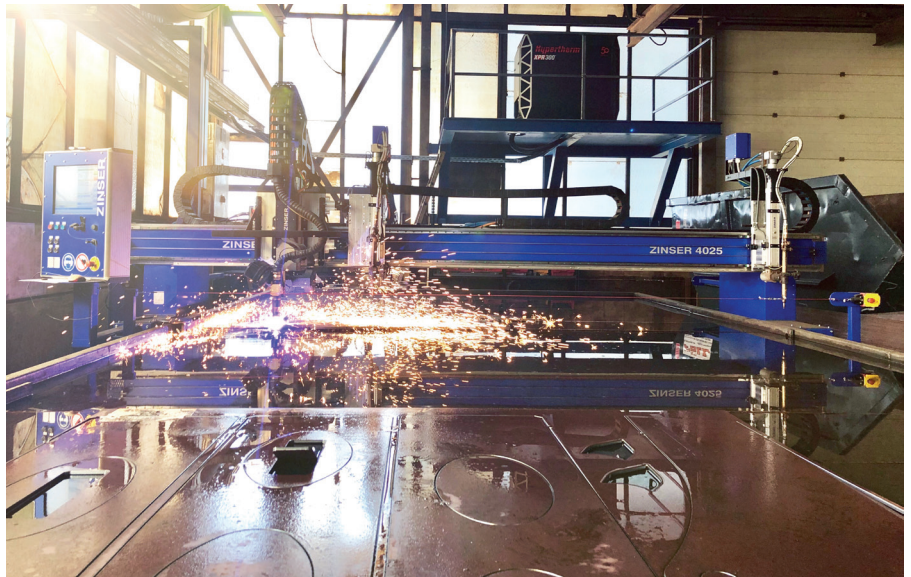


Substantial time and energy reduction thanks to ZINSER's plasma bevel unit

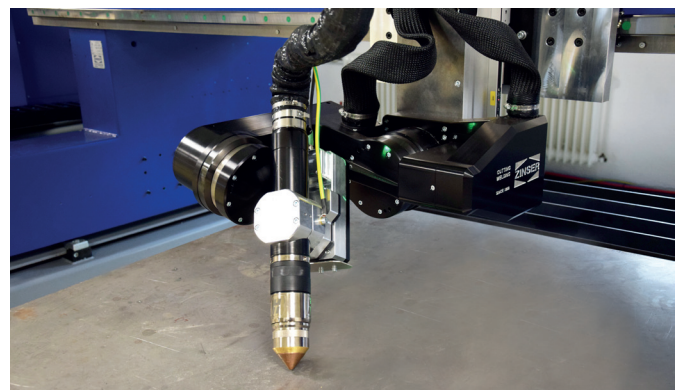
When preparing steel products with welding bevels, the company Arpogaus from Wiggensbach counts on its 5-axes-controlled ZINSER 4025 with plasma bevel head. Thanks to its extreme robustness and high dynamic, welding preparation becomes child's play. With its new ZINSER machine, Arpogaus was able to combine two processing steps into one and thereby achieve substantial savings in time and energy.

In many industries, such as machine building, shipbuilding, plant engineering and construction or apparatus construction, welded connections are indispensable. For industrial welding of steel, a high level of automation is an increasingly crucial competitive advantage. In many cases, the welding process has to be prepared by beveling the edges of the steel parts in order to guarantee an ideal welding connection. Adding the bevels prior to the welding process is therefore as important for automated welding as the quality of the welding seam itself.



ZINSER 4025 with plasma bevel unit and two oxy-fuel torches

asant for the technicians, they are also uneconomical.



Plasma bevel unit for cutting bevels within +/- 50°



In the past, welding bevels were often added manually in a separate production process

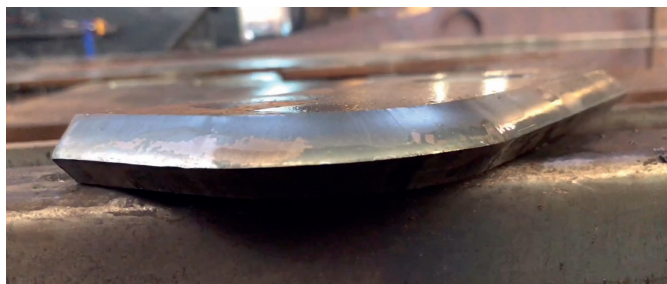
In the past, welding bevels were often added in a time-consuming manual or half-automated process using e.g. angle grinders or nibblers. The disadvantages are obvious: not only are these kinds of processes highly unple-

Alike the deburring of flame cut parts, today many companies leave the addition of welding bevels to steel plates and pipes within the responsibility of their suppliers. A division of labor which makes perfect sense, because cutting experts like the company Arpogaus from Wiggensbach have the necessary know-how and, through ZINSER cutting systems, also the needed equipment to perform these tasks professionally and economically.

With 45 employees, Arpogaus is a responsible partner in the areas of steel construction and mechanical proces-

sing. Its experienced staff allows the medium-sized company from Allgäu to specialize in the manufacturing of large welded constructions with a unit weight of up to 20 tons and lengths of up to 20 meters. The company covers every step in the value chain: from cutting over welding, mechanical processing and assembly to the final paint-work. On a regular basis, Arpogaus successfully masters the challenges of prototype construction and small batch production for well-known customers from the construction machinery industry and manufacturers of heavy-duty machines. On its production site of 4300 m², Arpogaus produces about 500 parts a year.

At the beginning of 2019, Arpogaus invested in a new ZINSER 4025 cutting system in order to meet the requirements of bevel cutting. In addition to two oxy-fuel torches, the machine is equipped with the automatically swiveling ZINSER plasma bevel head. It allows the cutting of bevels even of inner contours without loops. It is fully programmable, thus enabling the cutting of parts comprising both bevels and vertical cuts. The unit is driven by high-quality AC servomotors along three dimensions (inclination, rotation and height adjustments), all five axes are interpolated by the CNC control. The plasma bevel head covers cuts from 0° to +/- 50°.



Parts with different bevels, cut with the plasma bevel head on Arpogaus's ZINSER 4025

As a plasma power source, Arpogaus chose Hypertherm's new XPR 300. The advanced True Bevel technology also contributes to the excellent cutting results.

In 2021, Arpogaus's CEO and owner Tobias Grimmig is still completely satisfied with his choice of and investment in the ZINSER cutting system. "Two years ago, we chose to invest in a ZINSER, because the company simply offered the best bevel cutting solution", explains Grimmig his decision. "Today, after working with the machine for two years, we can only confirm, that ZINSER was the right choice. So far, we were able to perform every cutting task on the 4025 within the needed quality range. Thus, for the second time, ZINSER was able to convince with the excellent quality and reliability of their cutting systems." Besides the new ZINSER cutting machine, Arpogaus owns a second ZINSER from 2000. After a CNC-controller update in 2018, the machine with four oxy-fuel torches still cuts as reliably as ever.

Video link:
<https://youtu.be/HoWyfoMscyl>



CUTTING
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