



## Heinz Gothe GmbH - Four times faster beveling

### Company profile and product range of Heinz Gothe:

Heinz Gothe GmbH is specialized in processing stainless steel, heat-resistant steels, and highly corrosion-resistant alloys such as Monel, Inconel®, nickel, copper-nickel, Hastelloy®, and titanium. The company was founded in 1920 as a Coppersmith in Düren (Germany) and has been family-owned ever since. At Heinz Gothe's production site in Mönchengladbach (Germany), more than 120 employees work every day to produce the highest quality for its customers. With almost 100 years of history, the company has established itself as a reliable partner among its global customers from the energy, chemical, paper, and other industries.

The production and delivery range of Heinz Gothe is as follows:

- Longitudinally welded pipes/fittings out of stainless steel and other special materials
- Apparatus and vessels construction for various applications
- Pipeline construction
- Trading of pipes and pipe accessories

### Need for productivity and efficiency:

As listed above, the production range of Gothe is very broad. The pipe materials vary from copper-nickel to super-duplex with an outside diameter from ½" to open end, and the wall thicknesses of the pipes differ from 2mm to 70mm. Heinz Gothe was in need of a pipe finishing machine to improve their production efficiency by replacing their old and slow bevel machines with a new, fast and safe solution that is capable of providing required standards on different materials and shapes.

The first and most important requirement of Gothe was safety. Working with large-sized pipes on a traditional lathe, where the pipe is turning and the tool is fixed, was causing danger for the operator due to lack of control and safety of the cycle.

Another production requirement of Gothe was following the different welding standards such as ASME and EN. Such standards are highly important to meet in terms of quality, safety, and continuing qualities for pipe fabrication.

Starting a new era in production and boosting efficiency was the other critical quality factor for Heinz Gothe. As the batch specifications differ in terms of material, pipe

size, wall thickness, and required bevel shape, adjustment of the old turning lathe is required per batch. Bringing and positioning the pipe, adjusting the tooling, and completing the whole bevel cycle with their outdated beveling machine were taking too much time.

Back then, the available solutions on the market were limited and not fully meeting the production requirements of Gothe.

### **Copier's solution:**

After an extensive collaboration with Gothe, it has been decided that the Beaver 24 CNC for pipes up to 24" is the best solution to meet all the production requirements and reach the goal of increasing production efficiency.

### **Safety first:**

Our beveling machines are operating the opposite way of traditional lathes. The workpiece is fixed by clamping safely, while the tool is rotating. A chuck with tools mounted on it moves and turns to perform a variety of pipe bevel shapes according to the ASME's standards. Besides, custom-made bevel shapes can be created. This machining principle is safer than the traditional turning principle, especially for the bigger size of pipes and tubes.

Additionally, a height-adjustable roller bench is designed to support, and bring the pipe in line with the center of the turning chuck, and the clamping system. Such a combination of the CNC-controlled machine and the automatic roller bench ensures the safe and perfect set-up in a short time and eliminates the major challenges that Gothe was dealing with. Moreover, with the user-friendly interface of the Beaver 24 CNC, the machine operators were ready to use the machine after 4 hours of on-site training.

### **Four times faster beveling:**

Our Beaver CNC series is specifically designed to meet complex production requirements by meeting welding standards (i.e. ASME, EN) where different pipe materials (especially tough materials, i.e. super-duplex) and various bevel shapes are involved. The biggest advantage of Beaver CNC is that there is no need to change tools per bevel shape or bevel angle. The radial and axial feeding can perform the pre-set shapes automatically and precisely which is speeding up the production cycle by four times!

The solution that Copier provided to Gothe is playing a crucial role to achieve the company's goal of increasing production efficiency while providing the safest possible working conditions to the beveling operators.

"The solution Copier provided us started a new era within our production facility in terms of production speed and safety. We rely on Copier's capabilities of engineering because our machine is highly durable, and requires minimal maintenance. It is the best price/quality ratio in the market! Additionally, always being reachable and providing service rapidly when needed makes Copier a good business partner!"

Harald Winking, Quality Management Leader of Heinz Gothe