



## Middle-Sized Enterprise With Century-Old Tradition Thrives In Times Of Globalization

by Neven Jeremić

Romer Omega Arm Helps Kraye GmbH Comply With ISO9001 Standards, Assuring Global Reach For Products

The picturesque Lake Constance, located near the rim of the Alpine region of Germany, Austria and Switzerland, is home to Kraye GmbH, a middle-sized company of about 50 employees specializing in the production of 3D forming parts. The company has a rich history, dating back to 1884, when Franz-Joseph Kraye founded a modest fabrication shop in the lakeside town of Langenargen. The business has weathered two world wars and the turbulent hyper-inflation times in-between, only to see its pressing equipment completely confiscated by the allied occupying forces right after the end of WWII. However, the company rose from the ashes and expanded, quickly making up the losses.

The product offerings are mind-boggling. Over 1,000 tons of rolled and cut sheetmetal in all grades, shapes and thicknesses are kept in stock at any one time. Tens of thousands of tools are stored in the basement, utilizing a modern motorized storage system for quick access. The customers are primarily subcontractors to the commercial vehicle sector, many of which have been cooperating with Kraye for decades, such as world-famous ZF from Friedrichshafen, who are known for their high-performance gearboxes found in the world's fastest production sedans and sports cars. But Kraye also produces a plethora of pressed sheetmetal parts varying from large-sized sinks for the gastronomy industry to the "indestructible" keyboards found at public-space internet access point booths.

Managing Director Christoph Brugger points out: "We specialize in fabricating small and medium-sized runs of pressed and perforated sheet metal parts, with series running anywhere from just one part to tens, hundreds or thousands of parts. For smaller runs, we rely on old-fashioned manpower. Larger runs are automated, and we use industrial robots to free up our workforce for those tasks for which programming a robot would be too time-intensive relative to the time savings resulting from automation. Our extensive collection of tools lets us quickly alter production runs, and we can also rapidly manufacture new tools, which is very important for the development of prototypes. Within a very short period of time, we are able to produce sample parts based on test tools, letting us keep pace with the ever-changing needs of our customers."



Keeping up with the changing times has also meant acquiring ISO9001 certification. Depending on the specifics of a particular production run, representative samples need to be compared against part drawings. Checking the dimensions of the parts produced has the potential to slow the production down: parts need to be taken into the metrology lab, where their actual dimensions are compared to the target values. This is especially troublesome if parts are large, heavy or difficult to handle.

This is why Krayer was looking for a more contemporary solution to this measurement task. After seeing a Romer Omega articulated arm in action at an industrial trade show, the management organized a product demonstration on the premises and was quickly convinced of the arm's benefits. Krayer has been relying on a Romer Omega articulated arm for over a year to streamline and expedite its metrology tasks as part of ISO9001 compliance.

"The main benefit of the Romer articulated arm is its portability," Brugger continues. "As you can see, we have mounted it on a mobile cart work station, so we can take it directly to any machine located in our factory. While one worker is producing parts, a metrology technician can perform the necessary measurements right there on the spot. In addition, the Romer Omega articulated arm is much faster than the conventional measurement methods, letting us perform the required measurements in a fraction of the time previously required for the same task."

Production Manager Michael Banhardt expands: "The arm is very easy to use, and the workflow can be quickly learned by practically any



employee. That way, the production process does not need to be interrupted, the machine operator does not need to leave his station to bring the part to the stationary CMM and compare the part's dimension to the technical drawings. The evaluation is done in the PC-DMIS software, and we have documentable results to show to the customer."

Another reason for purchasing the Romer arm was to have it as an alternative to a contourgraph. With the arm, Krayer can check the contours of even the smallest parts, something that was not possible with a classical contourgraph.

Today, Krayer is still true to its roots, being run by a closely-knit family of long-time associates. Over the years, the company has been able to expand its business to include not just the German and the greater EU market, they also have customers from the Far East and beyond. What all these customers have in common is that they have all heard of Krayer by word of mouth: the company is proud to emphasize that they invest no money whatsoever in any form of marketing or advertising; the quality of their products speaks for itself.

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