



Doubled productivity and null downtime

# Machining “Twice as Nice” at Kimray

New Emco Maier machine tools with Siemens Sinumerik CNCs and Simodrive drive controls boosted machining efficiency 40 to 50 % at Kimray, a manufacturer of control valves for oil and gas producing companies. Operator-friendly programming, reliability and good customer support were an added plus.



**A selection of oil field equipment components made at Kimray on dual spindle horizontal lathes**

Kimray Inc.

**K**imray, Inc., an Oklahoma City-based manufacturer of control valves and related equipment for oil and gas producing companies, reports a 40 to 50% increase in their machining efficiency, achieved largely as the result of new CNC-based production equipment.

Founded in 1948 by Garman Kimmell, Kimray operates a 125,000 sq ft facility and employs more than 250 people to serve its expanding customer base of oil and gas producing companies. Kimray machines iron, steel and aluminum, as well as thermoplastic materials, to build its comprehensive line of control valves, thermostats, energy-exchange glycol pumps, gas-operated pilots and other control devices. Its products are used to control vessel and lead line temperatures, liquid level inside pressurized vessels, pressure drops and liquid and gas flow.

The company maintains a turnkey manufacturing facility, including dozens of lathes, grinders, turning, milling, sawing and bore finishing honing machine tools, nearly all with CNC systems onboard. The newest arrivals are Emco Maier Emcoturn 420 MC Plus and Hyperturn 665 MC Plus lathes, each equipped with Siemens Sinumerik 840D CNCs and Simodrive 611D drive packages. Kimray operates its own host system for file storage and back-up on all part production data.

#### **Easy, flexible, sensitive programming**

As one operator of these lathes observed, "I like the CNC we use on other machines in the shop, but with the Sinumerik 840D, you can do so much more, such as programming and cut and paste operations, while the machine is running or stopped. Each screen allows you to be very detailed about what you're doing, such as separat-

ing your mains from your subs with your part and workpiece programs. I use the Siemens CNC for axis and spindle movements on both machines (Emco Maier 420 Dual Main and Counter Spindle Machine and the 665 Main and Counter Spindle Machine). My programs and data can be accessed easily and transferred back to the machines (from the company's main host system) as needed. I can run my programs out of work pieces and sub-spindles, such as milling and stenciling, out of the sub programs. I use the parts program as my way to transfer files and folders to the main system and back again."

He further commented on the controls, "On a typical set-up, I like the sensitivity. Being able to move the axis only a ten thousandth at a time to a hundred thousandth at a time comes in very handy for me. I also like the program test feature, especially on new programs. Each tool has its own geometry page and up to four offsets, making things much less complicated."

On the machine builder, this operator said, "I received lots of good advice and training from the folks at Emco Maier, especially Doug Poling. He's also assisted me a few times by phone, when needed."

#### **"Literally no problems"**

In the manufacture of its oil and gas production controls, Kimray typically machines bar stock of 303, 304, 310, 316 and 17-4 stainless, as well as D-2 Tool steel, 6061-T6 aluminum, brass, Delrin and Teflon. Cast iron, ductile, steel, stainless and aluminum are also machined here.

In determining the increase in overall machining efficiency at Kimray, VP of Operations David Hill commented, "Our commitment to run CNC machine tools has long been in place and the addition of the

Emco Maier lathes with Siemens controls onboard are the latest steps in this process. We've literally had no problems with these machines, the CNCs or the drives. When Kimray operators can keep running and producing parts in such a way, the impact on our overall efficiency is immediate and substantial."

As of this writing, more than a year after installation, not a single service call has been required from either Emco Maier or Siemens.

#### **Two parts, one program**

From the builder's perspective, Emco Maier shares Kimray's appreciation for the performance of its CNC and drive package supplier.

"Our 420 machine enables simultaneous production of two parts without interruption or collision. The digital drives (Simodrive 611D) produce dynamic performance in both the main spindle and X/Z axes," commented Tom Jackson, Director of Sales Support Operations for Emco Maier USA. "Plus, programming is just the same as on any CNC lathe. Only one program is generated. The program for the second workpiece is simply transferred to the bottom system by means of a selector switch. No additional programming is necessary. As we like to say, 'twice as nice'."

The 665 Hyperturn machine enables true four-axis machining plus full C-axis capability on both the main and counter spindles. The 665 uses some of the same programming features, plus the same digital drives system as the 420, but in a larger package. ■

**More information:**  
[www.siemens.com/machine](http://www.siemens.com/machine)