

- Weiler North America Corporation, Mt. Pleasant, South Carolina

Repair Shop Turns On the Gas

Lathe supplier adds Sinumerik custom graphical user interface for fast turnaround.

The oil, gas and power generation industries rely on machinery such as pumps and compressors or drilling equipment, all containing long and heavy circular metal sections. This equipment has to work hard and maintenance and repair is a regular and expected requirement. Weiler, a manufacturer of heavy lathes, has used the open architecture of the Sinumerik 840D to produce a dedicated graphical programming interface for its E70 CNC lathe for improved quality and faster turnaround times of large repair jobs.

The concept of the Weiler E70 is for a lathe that can be operated as a manual machine yet can also be used for turning complex items. A very rugged, rigid and high precision machine is married up with CNC controls that have been designed by machinists for machinists. The controller, based on CNC architecture, is provided with customized screens for particular machining functions, tool management, thread cutting cycles, part profiling and cut simulations. Aimed at the specific needs of the lathe operator, no extensive knowledge of G-code or CNC knowledge is required. The result is a machine where the operator can go from drawing to cutting in far less time and with great flexibility.

Time-to-part reduced

Rotating Equipment and Repair (RER) of Sussex, Wisconsin performs heavy repair and rebuild operations on pumps, primarily for the power generation



Siemens Energy & Automation, Inc.

RER plant manager Bob Merriman at the Weiler E70 CNC lathe equipped with Sinumerik 840D

industry. RER installed a Weiler E70 with a 4.5 meter bed and quickly achieved a 33 percent to 50 percent reduction in job times, helped by the programming setup and flexibility. Plant Manager Bob Merriman noted that a previous run taking 45 hours could be completed in 28 hours with the E70 with superior quality in the straightness of the part, tight tolerances held to ± 0.0005 " and outstanding finish quality.

For a pump repair, after the engineering department has prepared a CAD drawing, the machine operator writes the program on his laptop, transfers it to the E70 and cutting begins. But the Sinumerik 840D software also enables the E70 to handle complex tasks. For example, with the look-ahead feature of the CNC, the Weiler control can maintain a constant cutting speed, while adjusting for angle to radius changes, a feature especially useful on precise internal threading.

With a combination of simplicity for one-off repairs and advanced CNC for the production of complex parts, Weiler lathes with Sinumerik 840D CNC are increasingly used for the more sophisticated applications in aircraft, steel and power industries. ■

info
contact

www.siemens.com/sinumerik
SiemensMTBUMarCom.sea@siemens.com