**Cold Root Rolling** 



🐢 🐢 🔶 Manufacturi

Kingston Machine Tool has been providing oil country solutions to the energy sector for over 40 years. "One ongoing concern for petroleum industry professionalsespecially relating to offshore extraction-is preventing threaded connection failures within the length of a drill string," said a company spokesperson. "Drilling in high-pressure and high-saturation environments leads to corrosion, thread fatigue and eventual (costly) failure within the connection itself. Fortunately, these connections can be improved by using a process called cold root rolling, wherein a thread-rolling tool is used to burnish the root of a previously cut thread. This deforms and condenses the metal itself, which increases its hardness and makes it more resistant to corrosion, cracks and other imperfections-essentially avoiding costly downtime and repairs in these hostile environments. Unfortunately, not every CNC machine is up to this task."

"Cold rolling the thread roots of drill pipe can put serious wear and tear on the ball screw of a lathe," said Kingston President Karen Lin. "You need a machine built to withstand these significant lateral forces." She noted that Kingston's CK model's heavily ribbed one-piece casting and 28" wide bedway allow for high loading capacity, extreme rigidity, vibration buffering and heavy cutting capability. "We designed our flatbed CK to thrive in environments where lighterduty machines give up," she said.

## I would thread drill pipe on a Kingston CK or CK Chucker any day.

- Darren Peltier, Champions Machine Tool

Kingston Machine Tool Mfg, Inc. 5421 Business Drive Huntington Beach, CA 92649 714-894-1648 sales@kingstonmachine.com www.kingstonmachine.com



## **Cold Root Rolling**

"I would thread drill pipe on a Kingston CK or CK Chucker any day," said Product Specialist Darren Peltier of Champions Machine Tool Sales in Spring, TX. "Our customers are very happy about the CK's performance, especially the threading capabilities."

Peltier also noted that the CK performs thread root rolling and API re-threading in conjunction with FANUC's Arbitrary Speed Threading feature, which comes standard on the CK model. "When you switch to the thread-rolling tool, you have to roll the remaining thread root at a much slower RPM, closer to 25 RPM, without splitting the thread or losing the lead reference," he added. Kingston's cold root rolling CK model is available in bore sizes of 7.1", 10.1", 12.5" and 14.7", swing distances of 34", 40" and 46", and lengths up to 200" C.C. It is available in configurations with V8 turret, H6 350 turret or no turret-with or without tailstock."

## We designed our flatbed CK to thrive in environments where lighter-duty machines give up.

- Karen Lin, President, Kingston Machine Tool



Kingston Machine Tool Mfg, Inc. 5421 Business Drive Huntington Beach, CA 92649 714-894-1648 sales@kingstonmachine.com www.kingstonmachine.com

