

APPLYING TECHNOLOGY

Multispindle heads automate drilling

Die caster claims big benefits

When Premiere Die Casting Co, Avenel, NJ, started to machine large quantities of its castings, drilling and tapping spindle options were numerous. The company eventually based its selection on service and technical support, as well as a modern product.

Sotech Corp met Premiere Die's requirements and is still the firm's choice today for drilling and tapping units. The production ranges from 0.098"-dia drilling holes at 7000 rpm to roll-form tapping of 1- to 12-inch threads, pressure tested for leaks.

"Sotech drill-and-tap equipment features simple yet effective controls that contribute to the high production uptime we experience on these machines," says Ed Zaremba of Premiere Die Casting. "The multispindle heads have been reliable in our tough roll-tapping operations."

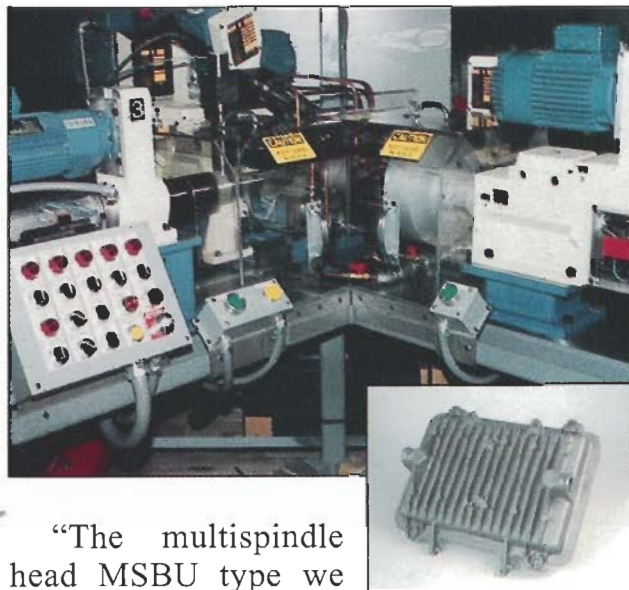
The drilling unit's inline design is novel in that the force of the feed air (or oil) is directly applied to the rotating spindle carrying the drill bit. A concentric hydrocheck on the opposite side of the drill bit controls the feedrate. This concept is a more efficient way to use air or oil as a feed force on a quill-feed unit.

All components in contact with shop air are either of noncorrosive materials or plated inside the drill-feed cylinder. The leadscrew tapping units function on the same design, with the screw assembly on the same shaft as the tap. Therefore, the tap entry can be precisely set for each tap size, and a simple spring mechanism will trip a limit switch if the tap cannot enter the hole.

Sans operator monitoring

Sotech features give Premier Die Casting the ability to make good parts without rely-

ing on the operator to monitor for broken taps. Various special machines drill and tap large housings in stationary fixtures from as many as five sides. This also speaks well for the compact size of the units, with two mounting options on most models. "In addition, we also drill and tap in one pass, with a Sotech two-spindle system that works just great," says Zaremba.



"The multispindle head MSBU type we use has a fixed center distance but can be changed with a different spindle plate. These heads offer us flexibility and interchangeable parts, and they are maintenance friendly. The machines we run here are built to be very cost-efficient, and they must meet a certain payback time," says Zaremba. This is achieved with assistance from Sotech in selection, tooling, and a performance guarantee.

Zaremba adds, "The partnership of a supportive vendor in machining automation such as we do is imperative to our success. After several years of using Sotech units and components for machining our castings, we are still very satisfied." **Sotech Corp**, North Prairie, WI.