

# Stamp Collecting

## Tennessee company expands and becomes a substantial presence in Canada

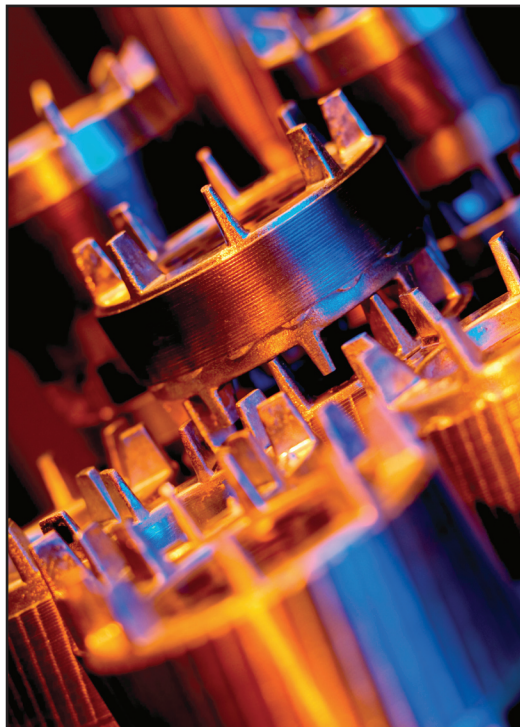
When one thinks of metal stamping, it tends to conjure up visions of a plant that's pounding out the products with a process that hasn't changed much over the years.

It's a sector that's like an old warhorse trudging along at a determined, but unspectacular pace.

There's something wrong with this picture, though. In this day and age, if you don't progress, you're history. Since stamping is still with us, it's obviously keeping pace.

A prime example is **Orchid International**, a Tennessee-based supplier of metal stampings, assemblies, lamination stampings and die casting products.

Last month, it enhanced its Canadian presence with the acquisition of **R. Reininger & Son Ltd.**, a respected Ontario metal stamper

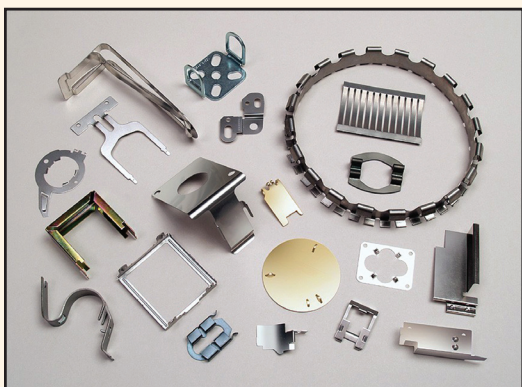


While in pursuit of new technology and clientele, Orchid is still heavily involved in die casting.

### IS YOUR PART A FOURSIDE PART?

Manufacturers are slashing part cost, speeding product delivery, and streamlining quality assurance with an integrated stamping and forming operation called fourslide.

Manufacturers have traditionally relied on power press machines to stamp out many of their parts in large numbers at high rates—but that may be changing as the economics of production change.



A sampling of what can be made using the fourslide process.

Not long ago manufacturers would routinely set up complex tooling, such as timed cams and benders, to perform sophisticated work on progressive power press operations, expecting the cost would amortize over the life of the product.

Today, however, the trend toward greater customization, shorter product life cycles, smaller lot sizes, and higher material prices has thrown such expectations out the window.

Manufacturers can no longer accept a typical power press tooling price of \$20,000 and up as simply the cost of doing business.

In a time of six-sigma quality and just-in-time delivery, they can no

longer tolerate tooling lead times of six months for involved work or laborious hand adjustment after production to get specifications right.

While the fourslide part making process was previously used mostly for complex work such as that with involved forming, multiple bends, or elements beyond 90-degrees, manufacturers are now choosing the process over power press to slash part cost, speed product delivery, and streamline quality assurance.

From precision metal stampings, flat springs and wire forms to complex forms with multiple bends, whatever its name, if a part is stamped or formed, less than two inches wide and less than 0.075 inches thick, it may be a fourslide part.

What makes the fourslide part-making process capable of cutting typical tooling costs to as little as \$3,000, halving tooling lead times, and eliminating after-production adjustment to meet specifications is its unique integration of stamping and forming operations.

The process begins with the raw material in flat strip form off a coil, which is stamped or blanked in the progressive die section of the fourslide machine. The strip is then fed into the forming die section of the machine, where four tool carrying slides approach the part from the north, south, east, and west, forming the material around a center tool or mandrel.

The set-up of the machine cams determines the sequence of tool strikes. After forming, the finished part is ejected into a parts catcher.

(For an animated explanation of the fourslide process, visit [www.fourslide.com/fourslide-reference.htm](http://www.fourslide.com/fourslide-reference.htm)).

Since fourslide machines have cams and slides built into them, this eliminates the need for the costly, complex tooling of progressive power press operations.

With the fourslide process, precise multiple bends, twists, tapped and threaded holes, even controlled burr direction and location can be accomplished in multiple operations before the part is ejected.

Production rates up to 15,000 pieces per hour can be achieved depending on part size and complexity.