

# Newsletter

## Newsletter



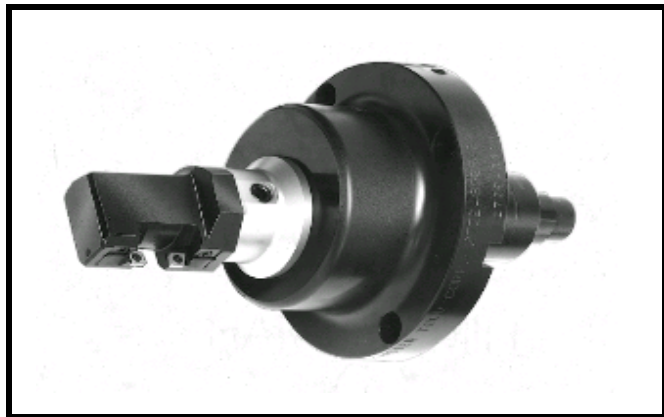
# Master Tool

**Innovators of Special Design & Build Tooling Systems**

210 River Street, Grand River, Ohio 44045

Phone (440) 354-0600 FAX (440) 354-6372

Email: [master@mtctools.com](mailto:master@mtctools.com)



**F**ive years ago Master Tool was chosen as the special tooling supplier for Ford Motor Company's Cleveland Engine Plant #2 on their new Giddings & Lewis transfer line installed to produce 2.5 & 3.0 Liter Aluminum engine blocks.

One of the most critical stations on the line is machining the thrust face. The tooling must control both the width and location of the thrust wall. Traditionally, this operation is performed with expensive eccentric spindles. Eccentric spindles also have a high maintenance factor.

Because of our successful history with helical spline style feed-out heads, Master Tool proposed performing this operation with a feed-out head with a quick change cutting unit that could be preset off-line.

This operation has been running over four years with absolutely no problems. The heads have produced over 500,000 engine blocks with little or no maintenance. The CPK values consistently produced in production are:

**Width** - 2.7 CPK  
**Location** - 3.1 CPK

Included in the many advantages of using a helical spline feed-out head rather than an eccentric spindle are:

- Lower overall cost
- Ability to accurately pre-set the cutting tool
- Lower maintenance
- Higher part quality
- No backlash
- Sealed head
- Bearing encased
- No frictional (rubbing) wear
- Spindle quality manufacturing
- Balanced through the stroke
- "First Part --- Good Part" - Guaranteed

For more information on helical spline feed-out heads contact Master Tool Corporation.