

 In-house vacuum heat treatment



 CNC wire EDM



 CNC machining



Integrated Tooling Solutions

About Us

Integrated Tooling Solutions was designed to offer a complete reverse engineering package for the metal forming industry. With in-house state of the art reverse engineering equipment and complicated software packages we are capable of creating a solid model on parts with complicated geometries. The reverse engineering equipment coupled with new CNC equipment, in-house vacuum heat treatment, and in-house coating processes, we are capable of offering both high quality and quick turnaround times on your spare tooling detail requirements

What exactly is Reverse Engineering?

Reverse engineering is the capability to take an existing tooling detail, fixture, and/or finished part and make a complete computer model. Once a computer model has been created it is easy to make an engineering change to the tooling and/or create a spare detail. With in-house reverse engineering, CNC machining, CNC wire, vacuum heat treatment, polishing, and TDX coating – we are capable of creating a TDX coated spare tooling detail all at one location.

Internal Capabilities

- 2D/3D Computer Aided Design
- CNC Machining
- CNC EDM
- Vacuum Heat Treating
- Tool Steel Welding
- Mold / Tool Polishing
- TD/TDX Coating Process

Typical Reverse Engineering Jobs

- Engineering change to existing tooling
- Modifying and/or inserting tooling
- Making a spare tooling detail or fixture
- Creating a computer model of current tooling, fixture, or finished part

THE
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DIFFERENCE...

- ▶ #1 in Quality, Performance, Price, and Lead-time
- ▶ In-house Vacuum Heat Treatment
- ▶ In-house Quality Department
- ▶ Knowledgeable Sales Staff

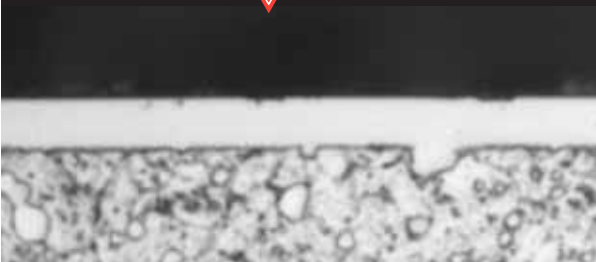
835 South Marr Road
Columbus, IN 47201
Phone.(812) 379-4243
Fax.(812) 379-4222



TDX coating process



TDX coating on top of tooling



The TDX Coating Advantage:

- Longer Tool Life
- Increased Uptime
- Decrease in Wear and Galling
- Improved Part Finish
- Superior Adhesion
- Super Hard Layer (90+ RC)
- Excellent Peel Resistance

TDX coated form blocks



Typical Reverse Engineering Cycle

Step 1: Send used/worn tooling to *Tool Dynamics* for inspection and reverse engineering.

Step 2: *Tool Dynamics* will reverse engineer / digitize existing tooling – Typically takes between 3 to 5 days in-house depending on part complexity.

Step 3: *Tool Dynamics* can remove old coating, repair, polish, and apply TDX coating process prior to shipping back (If required).

Step 4: Create a complete computer model from digitized data – Typically takes between 1 to 3 weeks depending on part complexity.

Step 5: New tooling can be made and TDX coated (if required) from the computer model and shipped back to you.

With over 100 years combined experience in tool design and fabrication, tool steel selection, TD/TDX coatings, and tool steel heat treatment let us help you get the most out of your tooling. For more information about reverse engineering and our in-house machining capabilities please call (812) 379-4243.