

The μ Star System

Micro-Machining for Specialty Markets

Introducing the μ Star Micro-Machining System, a highly-accurate machining unit for use in a wide variety of specialty markets, including printed electronics, micro lenses, and films.

A new name in the micro-machining market? Hardly. Daetwyler has been building high-precision machines for the gravure industry over 25 years. Our cutting head is known for sub-micron accuracy. Now, with the growth of new, unique markets, we are bringing our knowledge and experience to you.

Features

Highest Accuracy

- Linear Motor with Interferometer
- Direct Magnetic Drive Cylinder Spindle
- Ultra High Resolution Encoders
- Optimized Phase Lock-loop Multipliers
- Environmental Controls

Engrave Heads

- Up to 40 μ s Rise Time and 12,000 features per second
- Highest accuracy achieved via:
 - Loop Feedback Sensor
 - Floating Head

Operator Tools

- Machinist Pendant
- High Resolution Microscope
- Process Monitor Signals

Custom 3D Shapes

- Unique Stylus Design
- Unique Head Design
- Unique Cutting Algorithms

Data Processing with *Collage* Micro

- Full flexibility in numerically specifying engrave data of MacroCells to the Pixel Level
- MacroCells will be defined and replicated in seamless fashion compatible with the μ Star system
- Includes ability to save/load parameter sets and graphical preview of predicted engrave shapes
- Infrastructure for custom pattern creation
- Windows Vista PC application

Expanded Control Set

- Step Over and Spiral Engraving Modes
- Over-Cut Algorithm
 - Provides Dynamic Cutting Options
 - Provides Chip Removal Options
 - Bi-directional Control
- Alignment Capability for Second Pass Engraving

Cylinder Specifications

- 2200 mm Max Face Length
- 1500 mm Max Circumference

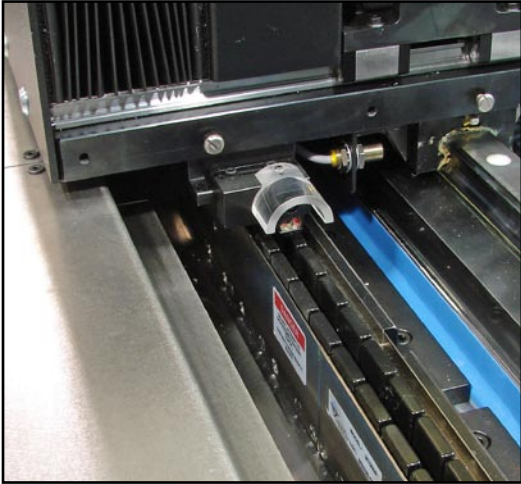


The μ Star Micro-Machining System



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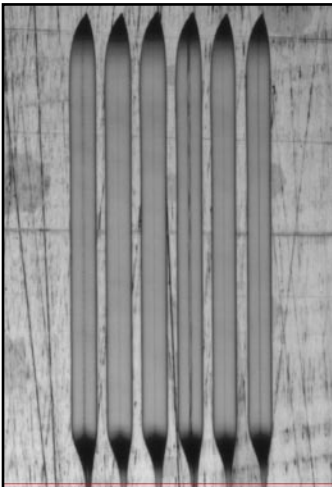
High-precision, versatile machine tool for Specialty Markets:
Printed Electronics, Micro Lenses, Films and Medical Strips



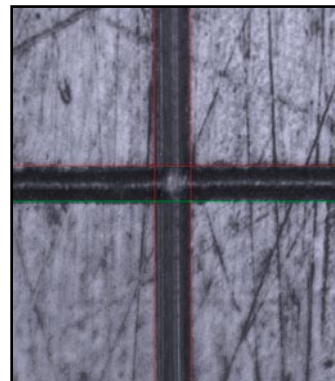
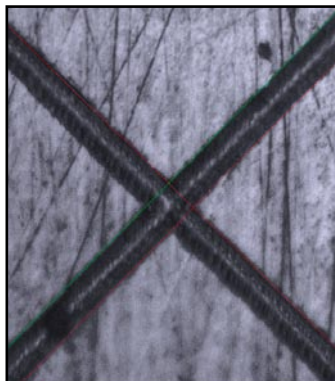
Linear carriage drive track & Interferometer mirror.



Micro-Positional Control of carriage and cutting head.



An example of grooves for lens applications. Groove shown is 38 μm wide.



Examples of lines for printed electronics. Lines are 6 μm wide.



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