AA EDM CORPORATION
ISO 9001 : 2001 CERTIFIED

Diesel Fuel Injectors

Advanced EDM Technology

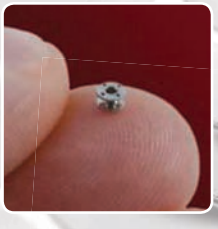
Microhole & Fasthole EDM Prototype Parts and High Precision, High Production Machines

Better Microholes Make Better Injectors

EDM MACHINES FOR:

- **Microholes for Fuel Injectors**
  Perfect Geometry Hole within 5 Microns
  Diesel and High-Pressure Gasoline
  Orifice, Lift and Damper Plates
- **Aerospace EDM**
  Blades and Vanes
  Nozzle Guide Segments
  Combustion Liners
- **Medical and Textile**
- **Hydraulic & Pneumatic Valve Spools**

Valve Spools



Medical Devices

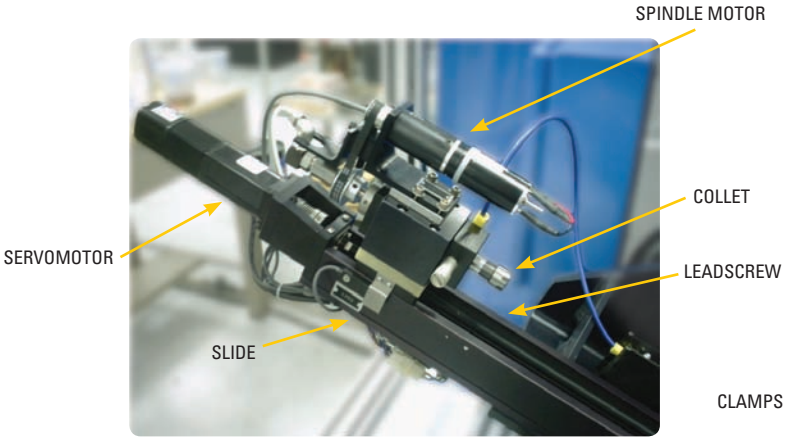
Aerospace Components

www.aaedmcorp.com

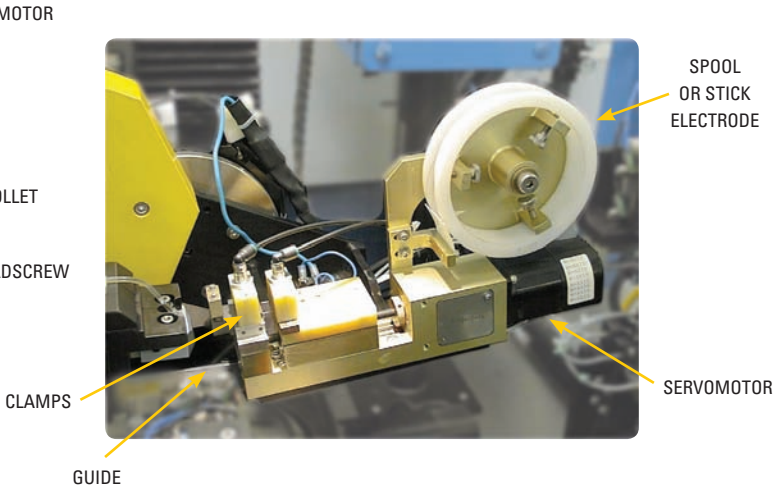
AA EDM CORPORATION custom designs, builds and maintains EDM hole drilling machines for the special requirements of high volume production. Our staff of engineers and technicians have many years of combined experience in custom EDM design, applications, automation and manufacture. Chances are if you have a custom high production EDM machine it was built by one of our employees.

AA EDM generators are a sophisticated design featuring multiple processors, digital signal processing and a unique and highly intuitive operator interface. AA EDM machines feature modular construction with a distributed architecture and fiber optic networking for better reliability and ease of maintenance with minimal footprint. The result is the fast and accurate production of parts on a versatile, reliable, easy to operate and long-lived machine. Our machines drill holes in a range of materials, including aluminum, carbides, inconel, steel and stainless steel using oil and water dielectrics. Holes can be produced with circular or non-circular shapes, K Factor (reverse taper) holes, deep or shallow entry angles, and small or large depth-to-diameter ratios—without burrs, surface distortion, minimal micro cracks and residual stress. The machines can have automatic flow test, adaptive control, laser markers, and vision systems designed in. We supply to a wide range of industries, from aerospace and automotive to power generation, medical and materials.

ANATOMY OF A FASTHOLE HEAD



ANATOMY OF A MICROHOLE HEAD



EDM MACHINES:

Diesel Injector Machine

Diesel Injector Machine

Orifice/Lift Plate Machine

Fasthole Production Machines

Gas Injector Machine

Microflex Machine

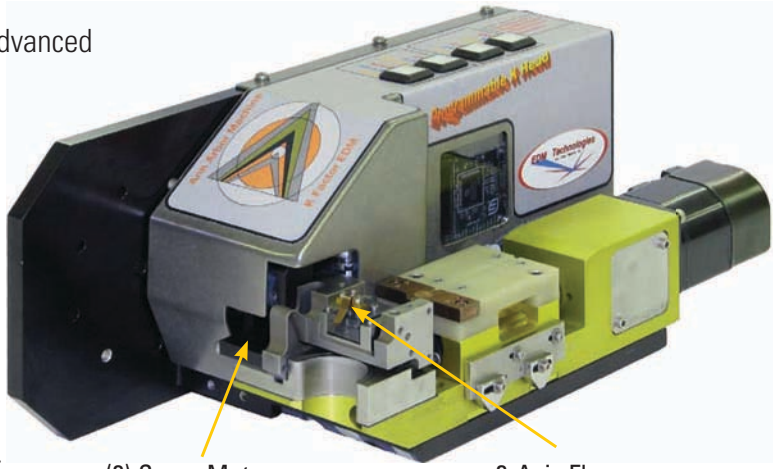
120 AMP Fasthole Machine

Tel: 734-222-4847 • **Internet:** www.aaedmcorp.com • **e-Mail:** sales@aaedmcorp.com

PATENTED REVERSE TAPER EDM HOLE ATTACHMENT

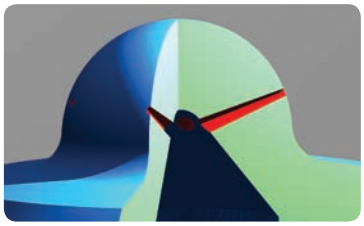
IMPROVED INJECTOR PERFORMANCE, INCREASED FUEL ECONOMY, REDUCED EMISSIONS, INCREASED INJECTOR LIFE.

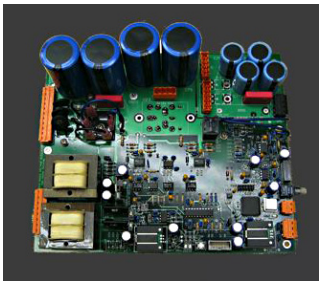
AAEDM's patented reverse taper machines features our advanced microhole EDM generator with taper-specific software. It's reverse tapered head is small, lightweight, durable, easy-to-install, and easy-to-use. It offers a superior way to increase versatility and productivity. You will be making better parts, more efficientl , overnight.



FEATURES:

- K-Factors up to 5 can be programmed!
- K-Factor can change with depth–to get a uniform taper
- Speed of orbit can change with depth
- Dual-axis capability for hole shaping–not just round tapered holes!
- Multiple patterns from conical to semi conical to irregular
- Holes can be straight on one edge and reverse tapered on the other
- Parts can have a combination of straight and K-Factor holes!





Proprietary Electronics

Reversed Taper Hole

CHARACTERISTICS OF TYPICAL INJECTOR MICROHOLE:

- Size from 0.004" to 0.012" (100µm to 400µm) diameter
- Hole tolerance + or – 0.00005" (1.3µm)
- Hole depth : 0.40" to 0.80" (1mm to 2mm)

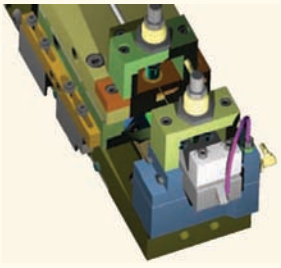
Patents: 7,019,247; 6,734,384; 5,951,883; 5,908,563

THE SYNERGY OF FOUR ELEMENTS:

1. Advanced Generator Technology

2. Bottom Dielectric Flushing

3. Electrode Guide Design And Material



4. Unsurpassed Applications Expertise

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HOW IT ALL BEGAN

The key staff started their EDM careers at Raycon Corporation in the 1970's, moving to Ann Arbor Machine in 1992 and finally to AA EDM Corporation in 2009. e made production of microholes using EDM both faster and more accurate while at the same time simplifying machine operation, change-over and maintenance. The founders envisioned a company which would develop innovative solutions to its customers' most challenging manufacturing problems. We build relationships with our customers and support them with service and spare parts.

MILLIONS OF INJECTORS

We have built hundreds of machines for customers worldwide helping them to manufacture the best injectors in the world. From very simple manual load-unload to fully automatic, robotically loaded machines, our machines are working in many industries around the clock in real life production environment.

BANK OF PRODUCTION MACHINES

SOME OF OUR CUSTOMERS:

CATERPILLAR®

MAGELLAN AEROSPACE CORPORATION

HI-TEK

sun hydraulics CORPORATION

YANMAR

STS SANDERS TOOLS & SUPPLIES SANDERS TECHNICAL SERVICES

Cummins

GE

Westport INNOVATIONS INC.

BOSCH Invented for life

AA EDM

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