

# Faster Fastener Removal



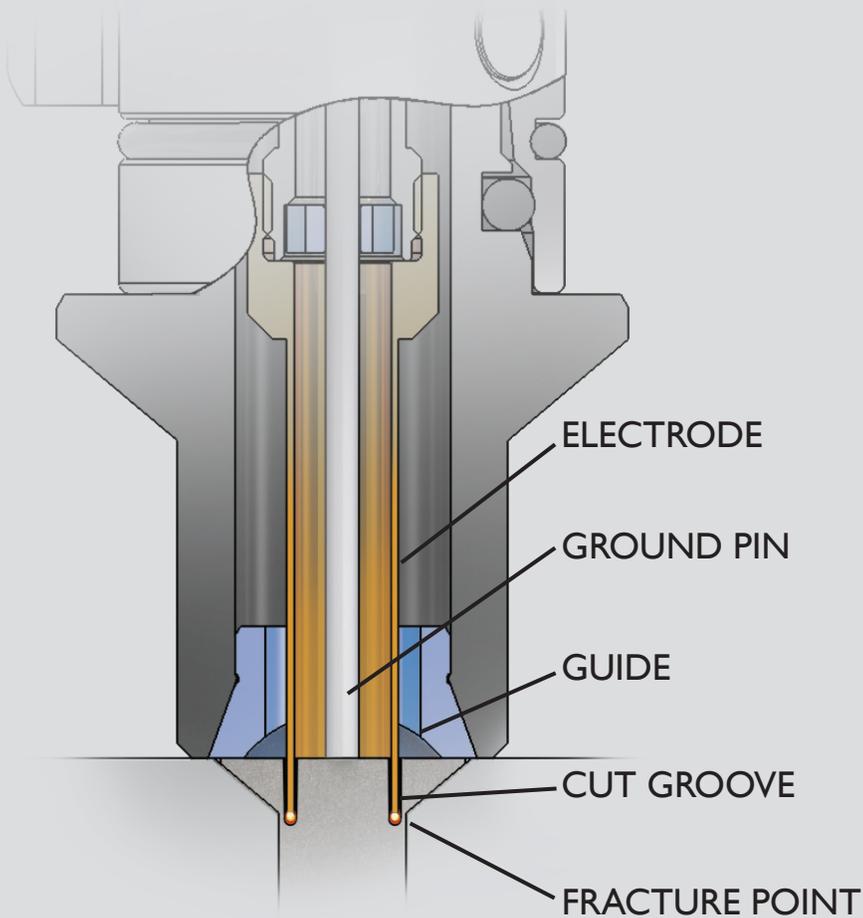
**e-drill™**

**Remove hard metal fasteners  
in seconds not minutes.**

 **Perfect Point**

[www.ppedm.com](http://www.ppedm.com)

# TECHNOLOGY



Perfect Point's patented handheld electro discharge machining (EDM) technology removes the hardest fasteners quickly and easily. The precision sized electrode cuts a circular groove of material from the fastener head leaving a very thin fracture point between the electrode and the airframe. The exact sizing of the electrode coupled with precision depth control greatly decreases the risk of airframe damage when compared to conventional removal methods. A closed-loop fluid system, consisting of filtered water, flushes the area and removes cut debris. Aggressive flushing during the cut means no heat is transferred to the surrounding area. The forceless cut process significantly reduces the risk of damage to the airframe and repetitive motion injury to the operator. Adaptable to flush head, protruding head and collar side applications. Reduced damage, fast cycle times, and elimination of debris result in efficiencies that mean a very quick return on investment.

## PROCESS

A precision cut results in low punch out force, eliminating stress on the airframe structure. Drill shards are not created and all cut debris is captured, leaving only the severed fastener for cleanup.



- FORCELESS EDM CUTTING
- ERGONOMICALLY SUPERIOR
- QUICK CYCLE TIMES
- CLOSED LOOP SYSTEM
- CAPTURES CUT DEBRIS
- LOW PUNCH OUT FORCE
- REDUCES AIRFRAME DAMAGE
- WORKS ON ALL FASTENERS

# BENEFITS

## e•drill™ Fastener Removal Benefits:

**Productivity Improvement** - 5 to 10 times faster than mechanical drilling on hard metals (Titanium, Stainless Steel, Inconel, Monel).

**Damage Reduction** - 90%+ reduction in damage rate.

**Ergonomics** - the e•drill™ is a forceless process, while mechanical drilling exposes operators to all seven ergonomic risk factors (Force, Vibration, Compression, Posture, Repetition, Duration, and Noise).

**FOD (Foreign Object Debris)** - easier collection of FOD from the aircraft, faster cleanup of surrounding area, fewer injuries to operators. The only FOD produced by the e•drill™ is the fastener head and stem (no more drill shards).

**Total Cost Reduction** - the cost savings range is \$2.00 to \$5.00 per hard metal fastener removed (consumable and labor costs). Additional cost reduction comes from reduced damage, a more productive workforce, and less FOD to clean up after the job.

**Remove All Fastener Types** - Hi-Lok®, Jo-Bolt®, CherryLOCK®, CherryMAX®, HuckBolt®, Composi-Lok® & more.



# ACCESSORIES



VACUUM LOCATOR



GUIDED PUNCHES



ADAPTER KITS

Perfect Point offers a complete line of **e•drill™** accessories that will handle most fastener types and installations. Adapters are currently available for flush head and protruding head applications from 3/32" to 3/8". Collar side adapters are available from 5/32" to 1/4". The library of fastener types, sizes and materials is constantly expanding and Perfect Point's engineering staff can create custom solutions for many specific fastener removal needs. Precision optical locators and guided punches augment the **e•drill's™** labor savings and damage avoidance benefits.

## SPECIFICATIONS

### Fastener Removal:

#### Fastener pin diameter

3/32" to 3/8" (head side)

5/32" to 1/4" (collar side)

#### Flange removal time\*

Aluminum 3 sec.

Titanium 10 sec.

Inconel 12 sec.

\*Approx. based on 1/4" pin diameter

#### Material

Aluminum, Stainless, Titanium,

Inconel, etc.

### Physical:

#### Mobile service unit

Dimensions: 19"W x 38"H x 16"D

Weight: 148 lbs.

Umbilical cable: 10' long

#### Hand Tool

Dimensions: 7.5"L x 5"H

Weight: 1.5 lbs.

#### Power

220–240v, Single Phase, 20 amp

All specifications subject to change without notice.

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**e•drill™** proudly made in the USA



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