

SETCO SEG 125 - Spark Erosion Grinding







PRECISION HONEYCOMB FINISHING SYSTEM

The Setco Spark Erosion Grinding (SEG) system is the industry standard to machine honeycomb seals and rings for jet engines. This system effectively reconditions critical components at a fraction of the cost of new parts. The SEG process is efficient and superior to the mill-type remanufacturing process—typically reducing total production time by 30 to 50%.

Features:

- Burr free honeycomb finishing (min. clean-up)
- Finish machine to manufacturer's specs with minimal mechanical preparation
- Up to .040" (1.00mm) stock removal per pass (alternate methods remove .005" (.127mm) per pass)
- Machine contour shapes with tracer control or by using shaping electrodes
- No contact "electrical machining" process eliminates cutting force strain on the part. Machine honeycomb down to 1/32" cell size

- Machine foil down to 0.002" (.050mm) thickness
- Machine with coolant to flush away particles, and help cool the electrode and part
- Low maintenance-- requires only periodic coolant replacement
- Electrode wheels options include copper tungsten, cold-rolled steel. Custom sizes upon request.
- Integrates with existing turning equipment, manual and cnc
- Setco SEG has been the proven process for all major jet engine manufacturers for over 30 years.

Setco SEG system is used by NADCAP certified companies and suppliers

SPECIFICATIONS

SEG process is superior and more efficient than EDM or conventional grinding. For cylindrical parts, a lathe or turning center is used to secure the honeycomb part and provide part rotation. The SEG spindle is mounted to the cross slide and fed into the part for stock removal. AC electrical current is fed through the spindle arbor to form a controlled arc between the electrode wheel and the metallic honeycomb. As the SEG spindle is fed into the part, the electric arc precisely erodes the honeycomb to final print diameter.

GENERAL SEG 125 SPECS	
Input Power	3 ph, 60hz, 230V or 460 single voltage, Specify connection voltage on order, Special voltages available upon request.
SEG AC Output Power	0 to 24 VAC, up to 125 amps continuous, 170-200 amps peak (3 sec max.)
Spindle	SETCO Model 2701.5-36GTY, Motorized Grinding Spindle 1-1/2 hp (1.1kw), 3600 rpm, 12.1" Nose Barrel Length, Tapered Arbor. Style 1 ANB Wheel Holder. SEG 125 includes standard aluminum spindle mounting bracket.
General Application Limits	Honeycomb Metal Structure, Machines foil down to .002" (.050mm) thickness Machines down to 1/32" cell size, Metal removal: . 040" (1.00mm) / pass approx.
Electrode Wheel	Electrode wheels options include copper tungsten, cold-rolled steel. Copper tungsten electrodes recommended for maximum material removal. Custom sizes upon request.
Cabling	Plug-type Connections 14' (4.2m) Connection Cables (std). Special lengths available upon request.
Shipping Info	Weight: 1050 lbs (475kg) with Crate (approx.) Shipping Crate: 60"L x 40"W x 50"H (1.5m x 1.0 m x 1.3m)
Certification	CE and CSA certification available upon request





SEE THE SEG IN ACTION
Setco1912 Channel





Setco is the technical leader in the design, manufacture, and service of precision spindles, milling heads, slides, and spindle/slide combinations. With the largest variety of spindles, new and rebuilt, including belt-driven, geared, motorized, high-speed and high-frequency models, Setco is a major spindle manufacturer. Through its ten global locations, Setco is the industry forerunner in the repair and servicing of spindles for over 350 machine tool brands.

SERVICE CENTERS

MIDWEST SERVICE CENTER*
Corporate HQ

5880 Hillside Avenue Cincinnati, OH 45233 (513) 941-5110 1 (800) 543-0470 Toll-Free

SOUTHEAST SETCO 2402 Tech Center Pkwy, Suite 200 Lawrenceville GA 30043 (678) 407-6206 1 (800) 830-4992 Toll-Free

GREAT LAKES SERVICE CENTER 41129 Jo Drive Novi, MI 48375 (248) 888-8989 1 (877) 773-5349 Toll-Free

WEST COAST SERVICE CENTER 5572 Buckingham Drive Huntington Beach, CA 92649 (714) 372-3730 1 (866) 362-0699 Toll-Free

MEXICO SERVICE CENTER Blvd. Las Torres 418 A Colonial Molinos del Rey Ramos Arizpe, Coahuila, Mexico CP 25903 (442) 824-1445

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