



SG-1645

TRIDEX BURR-FREE ELECTROCHEMICAL NC/CNC SURFACE GRINDER

The Tridex SG-1645 Burr-Free Electrochemical NC/CNC Surface Grinder is a faster alternative to traditional surface grinding. By providing burr-free and low force grinds that leave no heat-affected zones it virtually eliminates the need for deburring or other corrective secondary operations. The SG-1645 comes standard with conversational NC control with the option for Mitsubishi CNC controls. For grinding points on wires or medical needles, the Tridex PGS-100 Point Grinding System can be easily integrated.



KEY FEATURES

- Robust stationary table design makes the machine easier to automate and provides more robust machine guarding.
- Wheel moves in X, Y, and Z axes.
- Available Index Table Pallet Changer allows the operator to load the next part while grinding is in operation.
- Easily integrates with automation to increase process efficiency.
- Standard simple conversational control with color HMI touchscreen. Full CNC is optional.
- Standard MPG Handwheel.
- Heavy duty cast iron weighs 8,000 lbs for superior tolerance and finish.
- Precise flange mounted electrolytic grinding spindle.
- Stainless steel electrolyte tank sealed against mist and leaks.
- Feed components are protected from electrolyte.
- Integration of the Tridex PGS-100 Point Grinding System is simple for grinding points on wire and medical needles.

SPECIFICATIONS

Axis Travel: X: 18.1" (460mm); Y: 15" (380mm); Z: 6.3" (160mm)

Table Size: 22.8" (580mm) x 8.6" (220mm)

Positioning Accuracy: +/- .0001"/4" (0.0025mm/100mm)

Repeatability: +/- .00004" (0.001mm)

Traverse Speeds: Max. 600"/min (15m/min)

High Precision Spindle: Sealed Ceramic Bearings, Direct Coupled

Spindle Motor: 7.5hp (5.6KW) Direct Drive AC Spindle Motor - No Drive Belt, 0 - 4,000 RPM

Power Supply: 0-20V DC, 300A Solid State (600A Optional)

Control: Mitsubishi conversational color touch screen standard; CNC optional; Removable MPG Handwheel

Electrolyte Supply Tank: 50 Gallon (200 Liter) Sealed Stainless Steel

Safety Standards: Meets CE and ISO 13849.1 Safety Standards

Machine Weight: 8,000 lbs (3628kg)

Machine Footprint: W: 80" (2,030mm) ; D: 76.5" (1,945mm) ; H: 75.5" (1,915mm)

Air: 4CFM @ 80PSI



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APPLICATIONS FOR ECG

Medical Devices:

- Bevel Grinding
- Slot Cutting
- Stylet Grinding
- Form Grinding
- Needle Pointing
- Trocar Pointing
- Menghini Pointing
- Phaco Tips
- Biopsy Tools
- Implant Feature Grinding
- Dental Products
- Skive Manufacturing

Aerospace:

- Z Notch Grinding after Weld Repair
- Honeycomb Grinding
- Honeycomb Removal
- Vane Tip Grinding
- Castle Nut Slot Grinding
- Fuel Nozzle Slotting

WORKABLE MATERIALS

- Stainless Steel
- Inconel
- Nickel Titanium, Nitinol
- Cobalt-Chrome
- Hastelloy
- Other high temperature alloys
- Zirconium
- Sintered Metals
- Magnetic Metals, NdFeB, SmCo



Optional Pallet Changer to
Optimize Cycle Time



ECG for Burr-Free Grinding
Applications



High Precision Spindle



Stable Gray Iron Castings
for High Precision



Intuitive User Interface with
Color Touch Screen