



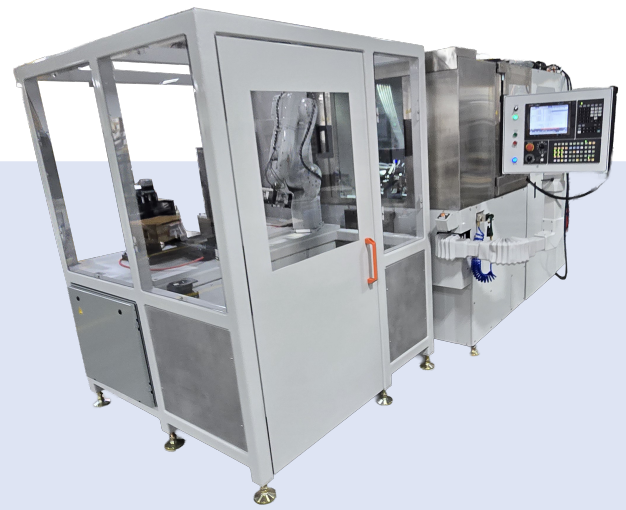
APM-SG

Automated Pointing Machine Surface Grinder

The Tridex APM-SG Automated Pointing Machine Surface Grinder is a fully automated, programmable pointing and material-handling system for the production of Menghini, tri-bevel, back-bevel, trocar, diamond, stylet, Franseen, Chiba, Pencil point, and other custom points. Its design is modeled on the same burr-free grinding technology as the Tridex SG-1645 and SG-2060 ECG Grinders and the precision handling of the Tridex PGS-100.

For maximum productivity, the APM-SG incorporates a pallet index table and two PGS-100 fixtures for ECG or two PGS-100A fixtures for abrasive grinding. By loading automatically while grinding, output and productivity increase by nearly 3x for specialty medical needle-pointing applications such as Menghini and Trocar needles. The APM-SG easily integrates into a complete pointing cell with secondary operations, such as electropolishing, grit blasting, and laser marking.

For shorter cannulas, blanks are cut and pointed in the APM-SG, where a robot transfers the pointed parts to a single-axis ECG cutoff machine, such as the Tridex MCS-12 Single Axis Burr-Free Cutoff Machine, for trimming to length.



Key Features

- For maximum productivity, the APM-SG incorporates a larger pallet index table accommodating two PGS-100 fixtures for ECG or two PGS-100A fixtures for abrasive grinding.
- Capable of producing Menghini, tri-bevel, back-bevel, trocar, diamond, stylet, Franseen, Chiba, Pencil point, and other custom points.
- Capable of grinding cannula and other parts with hubs.
- Cannula (tubes or wires) remain stationary for point angles and do not tilt.
- Easily integrates into a complete pointing cell with secondary operations, such as electropolishing, grit blasting, and laser marking.
- Double-ended needles can be pointed with additional tooling
- With an additional automation cell, shorter cannulas can be pointed and then automatically transferred to a single-axis ECG cutoff machine.
- Precise flange-mounted electrolytic grinding spindle, with 7.5HP (10kw) Direct Drive Servo Motor
- A moving platen with a servo motor and ballscrew precisely controls cannula rotation.
- Cannula needs no tape for holding the tubes in place.

To learn more about the APM-SG, including a comprehensive list of features and specifications, please visit:



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Additional Features

- Point Geometry is changed by rotation and wheel position controlled by CNC.
- Servo ballscrew design for high-precision rotation and repeatability.
- 4" wide wheel Plunge Grinds all cannulas at once
- Integrated Servo Drive Wheel Dresser
- Robust all stainless steel construction and enclosed doesn't corrode keeps the loading area dry and protected from electrolyte.
- Stainless steel electrolyte tank sealed against mist and leaks.
- Long-life precision rubber clamp pads.
- Pneumatic cylinders for clamping.
- Programmable part setup, no mechanical adjustments.
- Wheel moves in X, Y, and Z axes.
- Standard Mitsubishi M80CNC control with MPG Handwheel.
- Meets CE & ISO 13849 safety standards.
- Standard machine is ECG and depending on customer requirements an abrasive version is also available.
- The ECG process allows for higher metal removal and long wheel life.
- Based on the proven Tridex SG-2060 platform
- Machine front opens towards operator or robot for easier setup and loading; changeovers between diameters and tip profiles take minutes to complete.
- Simpler Automation.

Specifications

Work Piece Diameter:	0.012" (30 gauge) - 0.240"
Work Piece Length:	Min 0.9" - Max 15.5"
Bevel Angle:	10 degrees minimum standard, smaller point angles are tooling dependent
Positioning Accuracy:	+/- .0001"/4" (0.0025mm/100mm)
Repeatability:	+/- .00004" (0.001mm)
Clamp Width:	3.94" (100mm)
Spindle Motor:	7.5HP (5.6KW) Direct Drive AC Spindle Motor – No Drive Belt, 0 – 3,500 RPM
Power Supply:	20V DC, 300A Solid State (600A, 1000A Optional)
Control:	Mitsubishi M80CNC control, MPG Handwheel
Electrolyte Supply Tank:	50 Gallon (200 Liter) Sealed Stainless Steel
Safety Standards:	Meets CE and ISO 13849.1 Safety Standards
Machine Weight:	17,000 lbs (7,711kg)
Footprint:	171" x 66" x 88" (4,343mm x 1,676mm x 2,235mm)
Electric:	480V 60amps 3ph
Air:	10CFM @ 80PSI



Tridex is proud to be an MMT company – the sole source for automated, process-driven medical manufacturing.

Medical Manufacturing Technologies (MMT) brings together applications expertise, technical solutions, and aftermarket support to revolutionize medical device manufacturing.