

MP500

Automated Anodizing System for Medical Applications



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Superior Processing Technology for Precise Control and Repeatability

Technic's **MP500** provides high-throughput and complete automation of the Type II and Type III anodizing processes for titanium in a small footprint.

The MP500 is fully compatible with any commercially available anodizing chemistry, alkaline/acidic cleaning solutions, and etching or pickling solutions. Typical applications include cleaning, etching, pickling, and anodizing of titanium alloys.

Operation data of the tool is automatically logged. Adding a barcode scanner guarantees lot traceability and tracking. Daily usage and maintenance are simple and convenient. The user-friendly HMI allows easy operation and learning for new operators, supervisors, and engineers.



Features

- Capable of processing parts from 10 mm up to 20" long
- Machine footprint on production floor is 7' wide x 20' long x 10' tall
- Robotics integration is possible for loading parts/racks or a combination of both
- HMI touch-screen for operation and monitoring of process parameters
- Recipe management, data logging, and lot traceability available with barcode scanning
- Infrared dryer system to ensure parts of varying geometry are dried
- Integrated wastewater lift station to collect all counterflow rinsing discharge
- Light curtain safety device at load/unload station

Benefits

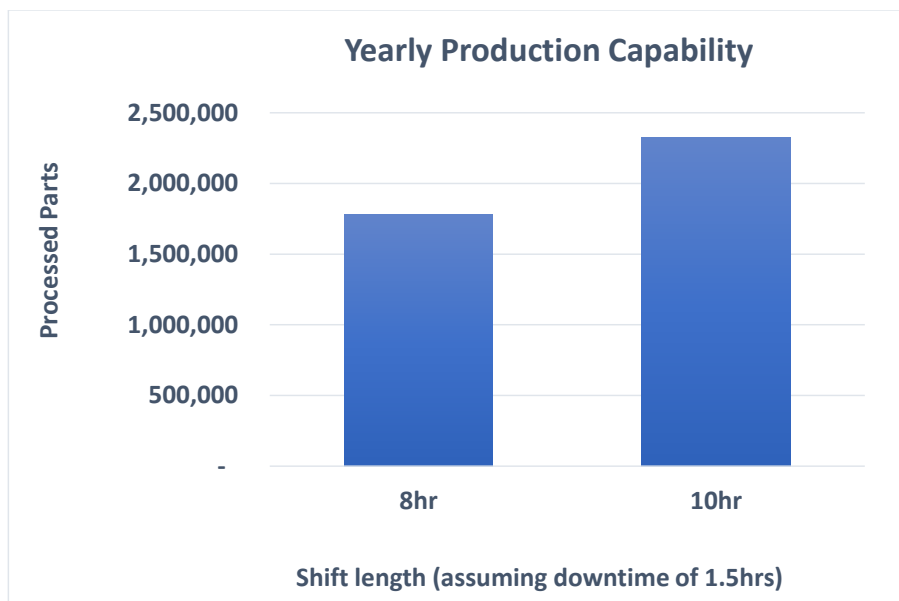
- Superior part-to-part uniformity over batch methods with better throughput
- Repeatable, consistent color and oxide layer using precision-controlled rectifiers
- Increased operator safety via hazardous chemical transfer system
- Minimizes fresh water consumption by using counterflow rinsing



MP500

Step	Process Description	Dwell Time (Sec)	Temp (°F)
1	Manual Load	180	-
2	Soak Clean - Ultrasonic	180	120-150
3	Counterflow Rinse #1	180	RT
4	Counterflow Rinse #2	180	RT
5	Etching/Pickle – Delayed Set Down Feature	Up to 180	70-140
6	Counterflow Rinse #3	180	RT
7	Counterflow Rinse #4	180	RT
8	Type III Color Anodize – Skip Process Feature*	180	70-90
9	Type II Anodize – Skip Process Feature*	180	70-90
10	pH Controlled Rinse #5	180	RT
11	Counterflow Rinse #3	180	RT
12	Hot Counterflow Rinse #4	180	120-150
13	Dryer – Infrared Heating and Forced Air	180	250-300
14	Rack Cool Down – Forced Air	180	RT
15	Manual Unload #1	180	-
16	Manual Unload #2	180	-

*Recommended rectifier size: 150VDC/100A



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