



The Automatic Passivation Series

Automated Ultrasonic Series

E992 Automated Passivation Equipment

Single Process Unit



Dual Process Unit Systems



Triple Process Unit Systems



Completely closed, modular system incorporating integrated heated storage containment tanks with a self-contained, automatic ultrasonic washer



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Features & Specs



Passivation Process: (50—60 minutes)

1. Ultrasonic clean (alkaline)
2. Ultrasonic Rinse from Storage
3. Ultrasonic Passivation
4. Ultrasonic Rinse from Rinse Storage#1
5. Ultrasonic Rinse from Rinse Storage#2
6. Final Ultrasonic Rinse from Bldg. Water Source
7. Dry

** User defined programming available

Esma's automatic ultrasonic passivation systems provide a unique and closed process of cleaning-rinsing-passivating-rinsing and drying all at the push of a button. Easily described as a one-of-a-kind process, these systems are designed and built to provide medical device manufacturing operations an alternative to outsourcing their parts passivation by incorporating this modular equipment into the manufacturing process. These systems do not require much floor space and provide great cost savings when compared to other automated robotic passivation systems.

AUTOMATED PROCESS MOVING FLUIDS NOT PARTS

The process will easily integrate into virtually any manufacturing line. By moving fluids in and out of a single high-powered ultrasonic cleaning tank, the system eliminates the need of an operator moving parts through a series of baths, and reduces interaction with dangerous chemicals. Modular, covered, heated storage tanks are integrated with the system to allow re-use of chemicals and rinse water. PLC controlled monitoring systems integrate with company servers through standard Ethernet connectivity to provide data collection for process steps and are an important upstream factor for ensuring a validated state. Durable stainless steel construction, an unconditional 1-year warranty, and industry-recognized customer service make Esma's automated ultrasonic systems a cost saving step for in-house cleaning and passivating.

The E992 passivation system can be configured as a single processing system or as multiple processing system—each configurations using a single set of storage tanks. Listed below are the E992 system configurations (single, dual & triple). These would be considered “standard” tank sizes using the same outer dimensional cabinet, but tank size modifications based on customer part requirements is common.

Esma brand chemistries which can be used in system

- Esma Metal Wash—Mildly alkaline cleaning detergent
- Esma General Purpose Cleaner—Alkaline cleaning detergent
- Esma DeOx 964—Citric Acid Passivation Solution (meets ASTM 967-01 Standard)

E992 - 18 Gallons System

- Washer: 35” x 25” x 45”H Cabinet
- Tank: 24” x 14” x 12”D
(Working dimensions: 24” x 12” x 10”D)
Ultrasonic wattage: 1,800
Dryer: 4,500 watts

30 Gallon Integrated Storage Tanks

- Storage Tanks: 22” x 30” x 30”H
(With pump/filters 30” L x 30” W x 30”H)
- 3,000 watts, temperature controlled heat

Dual E992 - 18 Gallons System (2 units)

- Washer: 35” x 25” x 45”H Cabinet/each
(Working dimensions: 24” x 12” x 10”D)
- Tank: 24” x 14” x 12” D
Ultrasonic wattage: 1,800/each
Dryer: 4,500 watts/each

60 Gallon Integrated Storage Tanks

- Storage Tanks: 28” x 38” x 30”H
(With pump/filters 36” L x 30” W x 30”H)
- 4,500 watts, temperature controlled heat

Triple E992 - 18 Gallons System (3 units)

- Washer: 35” x 25” x 45”H Cabinet/each
- Tank: 24” x 14” x 12” D
(Working dimensions: 24” x 12” x 10”D)
Ultrasonic wattage: 1,800/each
Dryer: 4,500 watts/each

100 Gallon Integrated Storage Tanks

- Storage Tanks: 18” x 34” x 38”H
(With pump/filters 21” L x 45” W x 46”H)
- 6,000 watts, temperature controlled heat



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