



Zenith Ultrasonics

Waves at Work

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ASTRO Clean & Dry System

Designed for the rapid cleaning of steel parts that require rust preventative coatings



The ASTRO Clean & Dry System is a 2-stage system that includes a high-powered ultrasonic cleaning tank and a high-speed drying tank. This system is the perfect option for customers who want a fully-automated ultrasonic cleaning system that cleans steel parts at high volumes while simultaneously coating the parts with a thin film of rust preventative that will prevent oxidation of parts after the process is complete. The design is commonly used in the automotive parts manufacturing industry to clean intake manifolds, exhaust manifolds, steel cylinder heads, and other similar components.

While most multi-stage ultrasonic cleaning systems include rinsing tanks to remove detergents from the parts prior to the drying operation, these tanks increase system cost, water consumption, and equipment size and are not normally required when cleaning many types of steel parts. In addition, when

rinsing tanks are included, a separate rust preventative dipping tank must then be added to the process after the rinsing tanks when rust preventatives are required. The CORONA will clean steel parts to a high degree of cleanliness, removing metal chips, fines, oils, coolants, and other typical manufacturing contaminants and will provide rust prevention with only 2 processing tanks.

Parts are placed onto a load platform and a recipe of operation is selected on the included color touch-screen HMI (human/machine interface). Parts are automatically transferred into the ultrasonic cleaning tank where all contaminants are removed using ultrasonics and intermittent fully-adjustable agitation to flush loosened contaminants from blind holes and other parts areas.

Once cleaning is complete, parts are automatically transferred into the high-efficiency drying tank where parts are dried while the next batch of parts is transferred to the ultrasonic cleaning tank. 2 baskets are processed simultaneously to drastically increase processing speed. When drying is complete, the basket is ejected onto the unload platform for removal. Typical basket ejection rates are 7-10 minutes per basket.

The key to making this system successful is the use of Zenith's Green Power detergents which include a built-in rust preventative which prevents parts from oxidizing after the process is complete. This low-cost environmentally-safe detergent is available only from Zenith and is designed specifically for use with the Corona or other similar equipment



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Included & Optional Features:

- ORION Hi-power Digital Ultrasonic Generators & PULSE-SONIC transducers with Sweep Frequency Circuit, Power Intensity Controls, internal over-temperature protection, overload indicator, multi-function digital display, and automatic frequency tracking
- Dual-housing stainless steel filtration system with high-volume stainless steel flow pump
- 316L stainless steel processing tanks which are internally and externally welded and supported
- Polished 304 stainless steel frame and exterior latching access panels
- Single-position load and unload platforms with sensors
- High-speed immersion heating systems with closed-cell foam insulation and digital temperature controller
- Zenith's MBT Automation System with intermittent oscillation, adjustable for stroke speed stroke length, agitation time, and dwell time.
- High-efficiency drying tank with high-volume blower, "quick heat" heater core, closed cell foam insulation package, digital temperature controller, and compressed air blow-off wand to remove large water deposits.
- Automatic water make-up system which monitors and maintains liquid levels fully automatically
- Compressed air treatment system which includes air lock-out valve, slow start block to reduce erratic piston motion, and electric air lock-out valve.
- Automatic integrated tank covers to reduce evaporative losses.
- 7" wide-screen touch-screen HMI and PLC control system with input monitor for troubleshooting. 5 recipes of operation and full manual control for all devices are included.
- NEMA4X main control enclosure with lock-out capable disconnect switch
- OPTIONAL: Pump drain system to pump waste liquids to location of choice
- OPTIONAL Process Area Enclosure with Mist Eliminator and interlocked access doors
- OPTIONAL: 3-position load and unload conveyors

Standard Models:

COR-1216: Basket size 12" x 16" x 25" tall (for intake/exhaust manifolds or other tall & narrow parts).

COR-2000: Basket size 12" x 20" x 14" tall

COR-2400: Basket size 18" x 24" x 15" tall

COR-2800: Basket size 22" x 28" x 15" tall

COR-3600: Basket size 24" x 36" x 18" tall

Custom sizes are available upon request at no additional cost