

**N**atoli Engineering, founded in 1973, is the primary source of tablet compression tooling, presses, parts, accessories and hands-on training for hundreds of pharmaceutical, nutritional, confectionary and industrial tablet manufacturers throughout the world.

Natoli has created this catalog in support of the tablet compression industry. The color-coded sections are filled with an assortment of quality products to meet a variety of set-up, inspection and maintenance needs. Please reference the index located in the back of the catalog to locate specific items. Orders of any size and type are welcome, including special requests and custom requirements. All of the products listed in this catalog are available for shipment worldwide.

No matter what your tablet compression needs are, we look forward to helping your business succeed.

Natoli Engineering... You demand. We deliver.



***CLEANING***





Implementing a routine cleaning program will help maximize the longevity of your compression tooling and parts while ensuring peak tablet press performance and consistent tablet quality. Natoli stocks everything from simple, efficient tabletop ultrasonic cleaners to highly advanced, robot-automated ultrasonic cleaning systems. Natoli also provides an assortment of chemical solutions for a variety of cleaning applications, both manual and automated, including encapsulating, mixing and blending equipment, machine parts and more.



# Ultrasonic Optimum Console™

## The Optimum Console

The Optimum Console is a versatile, cost-effective ultrasonic cleaning system specifically designed for cleaning tablet compression tooling or industrial components. Each console is available in either a three or four-station design. The Optimum Console is user-friendly and manually operated.

An optional Automated Rigibot Transport System is also available.

*Deionized water is recommended for wash and rinse tanks.*

*Electrical requirements (Console only): 240V, 60Hz, 3-Phase*

## Features

- ◆ Tanks constructed of 316-series stainless steel
- ◆ High-intensity heated ultrasonic wash
- ◆ Heated ultrasonic rinse
- ◆ 2-stage reverse-flow cascade rinse with spray-over immersion
- ◆ Highly efficient recirculating hot-air dryer
- ◆ Filtered recirculation with overflow to remove oils and contaminants
- ◆ Sliding dryer cover
- ◆ Easy-access power box and operator controls

## Abbreviations Key

- ◆ USDA = US Department of Agriculture
- ◆ CE = Certified for European Standards
- ◆ LCD = Liquid Crystal Display
- ◆ V = Volt
- ◆ Hz = Hertz
- ◆ g = Gram
- ◆ oz = Ounce
- ◆ mm = Millimeter
- ◆ ml = Milliliter
- ◆ L = Liter
- ◆ °F = Degrees Fahrenheit

Part No.	Item Description (specify electrical requirements)
MA 6067	3-Station Optimum Console (Wash, Rinse and Dry)
MA 6167	3-Station Optimum Console with Automated Rigibot Transport System
MA 6065	4-Station Optimum Console (Wash, Rinse, Rinse and Dry)
MA 6165	4-Station Optimum Console with Automated Rigibot Transport System



## Automated Rigibot Transport System

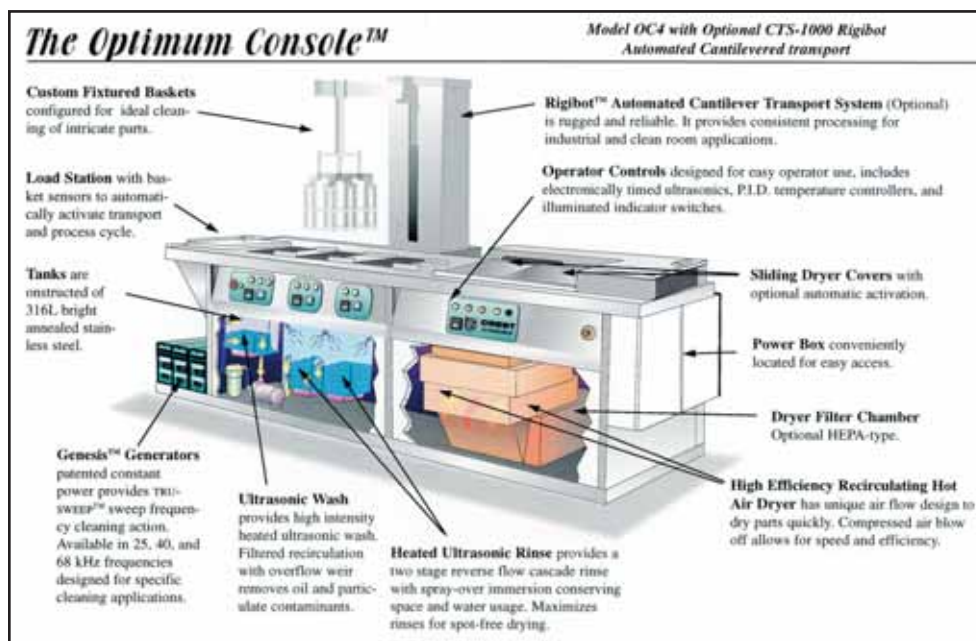
The optional Automated Rigibot Transport System is controlled by an intuitive color touch screen, which directs all the parameters and functions of the Optimum Console for customized cleaning.

*Electrical requirements for Optimum Console with Rigibot: 480V, 60Hz, 3-Phase*

### Features

- ◆ Reduces need for operator handling
- ◆ Cleans tools consistently
- ◆ Provides process data for off-line analysis
- ◆ Customize to fit new or existing console
- ◆ Eliminates tool damage
- ◆ Tracks multiple process programs
- ◆ Validation package available
- ◆ Optional Automation Interface

Part No.	Item Description
MA 5098	Automated Rigibot Transport System



## Optimum Console Options

Part No.	Item Description
MA 6163	Auto-Fill Wash
MA 6162	Auto-Rust Inhibitor for rinse tank
MA 6161	Stainless Steel Sanitary Plumbing
MA 6160	HEPA Filter for dryer system
MA 6158	Ultrasonic Console Generator

## Accessories (See Page 9)

Part No.	Item Description
MA 5082	Stainless Steel Punch Tray for “B” Tooling
MA 5084	Stainless Steel Punch Tray for “D” Tooling
MA 5115	General Purpose Basket with cover
MA 7003	Quick-Release Handle Adapters for “B” Tooling Tray
MA 7004	Quick-Release Handle Adapters for “D” Tooling Tray

# Tabletop Ultrasonic Units

## Tabletop Ultrasonic Units

Tabletop Ultrasonic Units provide an effective and efficient method for cleaning compression tooling and parts. The ultrasonic source delivers alternating phases of low and high pressure to ensure uniform cleaning consistency. Tabletop units are available with either a digital or analog timer. All units are available in both 115 and 220V configurations. A cleaning basket is included with each unit.

*Units are CE approved. Deionized water is recommended for ultrasonic cleaning.*

## Interior Tank Dimensions (L x W x H)

5.75 Gallon Tank (21.8L): 19.5 x 11.5 x 6" (495 x 292 x 152mm)

7.75 Gallon Tank (29.3L): 19.5 x 11.5 x 8" (495 x 292 x 203mm)

## Exterior Tank Dimensions (L x W x H)

5.75 Gallon Tank (21.8L): 20.375 x 12.125 x 13" (518 x 309 x 330mm)

7.75 Gallon Tank (29.3L): 20.375 x 12.125 x 15" (518 x 309 x 381mm)



## Digital Units

Part No.	Capacity	Voltage
MA 6005	5.75 Gallons (21.8L)	115
MA 6006	5.75 Gallons (21.8L)	220
MA 6089	7.75 Gallons (29.3L)	115
MA 6088	7.75 Gallons (29.3L)	220

## Analog Units

Part No.	Capacity	Voltage
MA 6007	5.75 Gallons (21.8L)	115
MA 6008	5.75 Gallons (21.8L)	220
MA 6090	7.75 Gallons (29.3L)	115
MA 6091	7.75 Gallons (29.3L)	220

## Digital Immersion Thermometer

A must to prevent damage and discoloration of punches and dies. Natoli advises testing the water temperature in your ultrasonic cleaning units before every use. For optimum cleaning conditions, use a water temperature of 115 – 125°F. **Never exceed 150°F.**



## Features

- ◆ Accuracy of  $\pm 2\%$
- ◆ 6" stainless steel stem
- ◆ 3.5" LCD
- ◆ Protective sleeve

Part No.	Item Description
MA 5110	Digital Immersion Thermometer

## Stainless Steel Tooling Tray

Save time, reduce handling and prevent tool damage with the Natoli Stainless Steel Tooling Tray. The tray is designed with folding handles and rubber-tipped legs for use in the Optimum Console™ and Tabletop Ultrasonic Units. The tray provides secure handling of punches and dies from the tablet press to the cleaning system to the storage shelf. For maximum efficiency, the Natoli Stainless Steel Tray is designed to replace the plastic insert tray in the Remcon Plastic Storage Box.



### Features

- ◆ Storage capacity is equivalent to plastic tray in tooling storage box (see page 114)
- ◆ Reduces tool damage from mishandling

### Exterior Dimensions (L x W x H)

17 x 10 x 5" (432 x 254 x 127mm)

Part No.	Item Description
MA 5082	Tray for "B" Tooling
MA 5084	Tray for "D" Tooling
MA 5100	Replacement Tips for Punch Tray



### Quick-Release Handle Adapters

Required to stabilize tray handles to accommodate the Stainless Steel Tooling Tray in the Optimum Console equipped with the Rigibot™ Transport System.

- ◆ Compatible with all ultrasonic cleaners

Part No.	Item Description
MA 7003	Adapters for "B" Tooling Tray
MA 7004	Adapters for "D" Tooling Tray



### Stainless Steel General Purpose Basket

- ◆ Use to clean parts in ultrasonic cleaners
- ◆ Perforated cover secures buoyant items
- ◆ Folding handles and plastic feet

### Basket Dimensions (L x W x H)

16 x 10 x 4.125" (406 x 253 x 106mm)

Part No.	Item Description
MA 5115	General Purpose Basket with cover
MA 5116	General Purpose Basket (no cover)
MA 5117	Cover for General Purpose Basket

# Stainless Steel Cleaning Units

## **3-Piece Brushed Stainless Steel Cleaning/Rinsing/Drying Set**

The Ultrasonic Cleaning, Rinsing and Hot-Air Drying Units provide the ideal method for cleaning, rinsing and drying compression tooling and parts. The set is designed for side-by-side positioning to ease the transfer of tooling and parts from unit-to-unit. Units are also available for purchase individually.

*Deionized water is recommended for Ultrasonic Cleaning and Rinsing Units.*

## **Exterior Dimensions (L x W x H)**

23.75 x 15 x 37" (603 x 381 x 940mm)

## **Ultrasonic Cleaning and Rinsing Unit Features**

- ◆ 115V, 15 amp, 50/60Hz
- ◆ Sensor detects fluid level and temperature
- ◆ Dual-filter system
- ◆ Continuous circulation
- ◆ Digital preset heating units
- ◆ 60 minute timer
- ◆ Easy-access drain handle

## **Drying Unit Features**

- ◆ 115V, 15 amp, 50/60Hz
- ◆ Updraft heat circulation
- ◆ Side-slotted draft vents

## **3-Piece Brushed Stainless Steel Cleaning Set**

<b>Part No.</b>	<b>Item Description</b>
MA 7540	3-Piece Brushed Stainless Steel Cleaning Set
MA 7543	Ultrasonic Cleaning Unit
MA 7541	Ultrasonic Rinsing Unit
MA 7542	Hot-Air Drying Unit

## **Optional Accessories**

<b>Part No.</b>	<b>Item Description</b>
MA 5082	Stainless Steel Punch Tray for "B" Tooling
MA 5084	Stainless Steel Punch Tray for "D" Tooling
MA 5115	General Purpose Basket with cover

## **Optional Chem-Crest® Chemicals**

<b>Part No.</b>	<b>Item Description</b>
MA 6023	Chem-Crest 25 General Purpose Cleaning Additive (1 Gallon / 3.8L)
MA 6036	Chem-Crest 77G Rinse Additive and Corrosion Inhibitor (1 Gallon / 3.8L)
MA 6035	Chem-Crest 14 Stainless Steel Exterior Cleaner (1 Gallon / 3.8L)



MA 7543  
Ultrasonic Cleaning Unit



Interior View



MA 7541  
Ultrasonic Rinsing Unit



MA 7542  
Hot-Air Drying Unit

# Ultrasonic Cleaning Solutions

## Abbreviations Key

- ◆ GP = General Purpose
- ◆ BC = Buffing Compound
- ◆ MP = Multi-Purpose
- ◆ HD = Heavy-Duty



### **Chem-Crest® 25**

An aqueous GP, HD, biodegradable, non-ammoniated alkaline cleaner.

- ◆ Use in ultrasonic cleaning systems to rapidly and effectively remove light oils, greases, fingerprints, particulates and more
- ◆ Safe on aluminum, magnesium, stainless steel, glass, plastics, ceramics, copper and brass

Part No.	Item Description
MA 6023	1 Gallon (3.8L) Concentrate



### **Chem-Crest® 211**

A MP, HD, biodegradable, phosphate-free, concentrated alkaline cleaner.

- ◆ Use in ultrasonic cleaning systems to rapidly and effectively remove airborne contaminants, heavy oils, greases, fingerprints, lubricants, ceramic dust, light buffing and lapping compounds, light silicone oils and ink
- ◆ Safe on cast-iron, steel, brass, aluminum, copper, beryllium, stainless steel, glass, plastics and ceramics

Part No.	Item Description
MA 6024	1 Gallon (3.8L) Concentrate



### **Chem-Crest® 77G**

This rinse additive provides protection from rust and corrosion during rinsing and air drying applications.

- ◆ Ideal for cleaning tooling prior to long-term storage
- ◆ Do not use on aluminum or zinc

Part No.	Item Description
MA 6036	1 Gallon (3.8L) Concentrate



## **Steris DA-7645®**

For use as a GP cleaner or as a detergent additive.

- ◆ **USDA Category A1**
- ◆ Ideal for cleaning tablet presses and tooling
- ◆ Easily removes a broad variety of contaminants
- ◆ Highly effective in low-energy, agitated immersion systems and in manual cleaning applications

Part No.	Item Description
MA 6055	5 Gallon (18.9L) Concentrate



## **Cloverleaf GP-93**

For use with mechanical cleaning devices, automatic scrubbers, soak tanks, steam cleaning applications or for general spray cleaning purposes.

- ◆ **USDA Category A1**
- ◆ Spontaneous emulsifier (For industrial use only)

Part No.	Item Description
MA 6038	1 Gallon (3.8L) Concentrate (Case of 4)



## **Branson GP**

This biodegradable, alkaline cleaner easily removes general soils, fingerprints, dust, packaging particulates, light oils and greases from components in general manufacturing areas, instrument shops, telecommunications applications and other light industrial manufacturing and fabricating facilities.

Part No.	Item Description
MA 6031	¼ Gallon (1L) Concentrate



## **Branson BC**

This biodegradable, phosphate-free cleaner is a blend of non-ionic surfactants, detergents and emulsifiers designed to remove the most difficult buffing compounds and polishing agents. This non-viscous liquid rapidly removes tripoli, rouge, lime, diamond tripoli, etc. from buffed components. It rinses quickly and easily.

Part No.	Item Description
MA 6033	1 Gallon (3.8L) Concentrate



## **Aerosol Stainless Steel Cleaner**

Specially formulated to clean, polish and protect stainless steel.

- ◆ Repels dirt, grease and fingerprints
- ◆ Recommended for use on nonfood contact surfaces
- ◆ Contains no hazardous chlorinated solvents

Part No.	Item Description
MA 6037	16 oz (454g) aerosol can



## **Citrol Degreaser**

Orange-scented Citrol is a MP, concentrated citrus degreaser which is capable of removing the most stubborn stains and spills.

- ◆ Recommended for *ALL* applications below the compression zone
- ◆ USDA approved for nonfood contact surfaces
- ◆ Biodegradable and environmentally safe
- ◆ Great alternative to petroleum solvents

Part No.	Item Description
SU 2535	16 oz (454g) aerosol can



## **Lint-Free Cleaning Cloths**

Solvent-resistant, MP, HD cleaning cloths work well in a variety of cleaning situations.

- ◆ Quickly absorbs liquids, oils and greases
- ◆ Stays strong, even when wet
- ◆ Size of each cloth is 16.5 x 15"

Part No.	Item Description
MA 6018	Pack of 140 cloths



## **Cleaning Cloth Dispenser**

The ideal way to store cleaning cloths.

- ◆ Keeps cloths contaminant free
- ◆ One sheet dispensing reduces waste
- ◆ 16.25 x 7.75 x 8.75" (413 x 197 x 222mm)

Part No.	Item Description
MA 6053	Cleaning Cloth Dispenser

