CLEANING

FOR EXTENDED TOOL LIFE & IMPROVED TABLET QUALITY

natoli.com
PROPER TOOL CLEANING IS CRUCIAL

EXTEND TOOL LIFE
DECREASE PRESS DOWNTIME
REDUCE PRODUCTION-RELATED COSTS
IMPROVE TABLET QUALITY

Tablet compression tooling is a significant investment for tablet manufacturers, and keeping tooling clean is an essential part of the tablet production process. Lack of cleanliness is the No. 1 cause of tablet press failure, and clean tooling is critical to the production of quality tablets. Dirty tools can cause tableting and product quality-related problems, including sticking and picking. Excessively worn or improperly maintained tools can create downstream production difficulties by creating a perception of poor quality to the consumer. Tablet manufacturers will receive the most use and highest quality tablets from their tooling if the tools are properly cleaned and maintained.

PRODUCTS FOR MANUAL TOOL CLEANING
IDEAL FOR CLEANING SMALL QUANTITIES OF TOOLS

The durable and stable Acetal Wash Basin provides the safety and security that are paramount when hand cleaning a small number of tools. With deep channels to hold tooling in place, this tough thermoplastic wash basin is highly resistant to solvents and chemicals and has low moisture sensitivity and excellent fatigue-life.

Use Natoli Alkaline Wash Solution in the acetal wash basin to remove oils, greases, carbon residues, oxides, particulate matter, and other contaminants from steels, ceramics, glasses, and other compatible materials. Use as a standalone cleaner or as an alkaline wash solution booster.

Prior to returning tooling back into service or storage, use PK-2 cleaner and corrosion inhibitor, which penetrates and leaves a food-grade film for extended protection.
ULTRASONIC CLEANING: A CRITICAL STEP IN TOOLING MAINTENANCE

Ultrasonic cleaning is highly effective for removing all traces of product and/or contaminants from tablet compression tooling. The Tableting Specification Manual (TSM) states an ultrasonic bath is ideal for cleaning tooling. After cleaning, moisture from the operator’s fingers can contaminate the tooling and cause rust, so it is recommended that the operator wear gloves while handling tooling. Beyond cleaning tools, an ultrasonic cleaner also can be used to clean press parts. This high-tech cleaning process saves time, reduces costs, and is better for the environment.

HOW ULTRASONIC CLEANING WORKS

Ultrasonic cleaners use high-frequency pressure waves to cause cavitation to agitate a liquid (usually cleaning solution and/or water), which in turn creates tiny bubbles that loosen and remove debris. The ultrasonic waves penetrate all surfaces of the tool, including hard-to-clean areas such as key slots, cups, and die bores, and cause debris such as oil, grease, and biological residue to break up and disperse.

In addition to using an ultrasonic wash unit, it’s also critical that tools are rinsed and dried properly because any residue left from the cleaning solution or rinse can cause corrosion or discoloration of the tooling.

BENEFITS OF ULTRASONIC CLEANING

MORE EFFECTIVE CLEANING

Ultrasonics clean more effectively and thoroughly than manual scrubbing, which can be ineffective on heavily soiled tooling and can cause damage to delicate surfaces. Using ultrasonic waves to clean will remove material even tightly adhered to surfaces.

REDUCED COSTS AND CLEANING TIME

Not only does ultrasonic cleaning save labor costs, it also completes the cleaning cycle in less time. A typical cleaning cycle for moderately soiled tools can last 15 minutes or less and requires little supervision, which frees up staff to spend time completing other tasks. The most important cost savings, however, may be reduced wear and tear on tools. Ultrasonic cleaners provide superior cleaning without using abrasives to remove grime and do not create friction or wear during the cleaning process.

COMPLETES CLEANING VALIDATION PROCESS

Many tablet manufacturers must adhere to strict regulations and audit procedures that require them to ensure product contamination is removed from all components, including tooling for the tablet press. Ultrasonic cleaning is the best method to validate that all tooling is free of contaminants. Completing all steps in the ultrasonic cleaning process enables tablet producers to verify that tooling is clean and that the cleaning process is repeatable.

The Tabletop Ultrasonic Cleaner provides an effective and efficient method for cleaning tablet compression tooling by delivering alternating pulses of high- and low-pressure waves to ensure uniform cleaning.

The ultrasonic cleaner removes oils, grease, oxides, and particulates. It is especially beneficial for hard-to-clean areas such as key slots, punch cups, and die bores.

RELATED ACCESSORIES

- MA 6100 Digital Ultrasonic Tabletop Unit
- SU 2545 H-1 Food-Grade Tooling Storage Protectant
- MA 5178 Tooling Storage Box with Lid and Insert Safety Storage
- MA 6026 Natoli Alkaline Wash Solution
- MA 5082 B-Type & MA 5084 D-Type Stainless Steel Tray
- MA 5082 B-Type & MA 5084 D-Type Stainless Steel Tray with Handles

MA 5082 B-Type & MA 5084 D-Type Stainless Steel Tray with Handles

The ultrasonic bath is ideal for cleaning tooling.”
The Natoli Stainless Steel 3-Piece Ultrasonic Cleaning System allows for quick and easy transfer of tooling from the wash to rinse to drying tanks—a great time and labor saver! The entire cleaning cycle can be completed in about 20 minutes and provides a controlled consistency that validates the cleaning process.

The modular units are designed to work in conjunction with each other; however, they can be purchased or used individually to customize your cleaning procedure. The modular drying unit comes equipped with an air wand that can be used to remove excess water.

Easily place / remove stainless steel tooling trays

Air wand easily removes excess water

**FEATURES:**
- All stainless steel construction
- Space-saving bifold tank covers
- Easy-access front panel controls
- Adjustable thermostats with digital display
- Automatic dryer shutoff
- Illuminated runtime-cycle switch
- Individual unit dimensions: 32" x 30" x 34 ¼" (812.8 x 762 x 882.65 mm)
- Power supply: 240/1 phase

*Units may be purchased individually

Please refer to natoli.com for most current model. Upgrades and modifications available upon request.
ENHANCE YOUR TOOLING MAINTENANCE PROGRAM WITH THESE NATOLI PRODUCTS AND SERVICES

CLEANING TRAINING
To arrange a one-on-one cleaning training session for your staff to learn both fundamental and advanced cleaning techniques and procedures contact your Natoli representative today. Training classes are available on-site at your company or at one of our training facilities.

CUSTOM SOP
A well-structured cleaning program can extend tool life, decrease press downtime, and increase high-quality tablet yields. Let Natoli help complete your tool maintenance program with a custom SOP to ensure your cleaning program is efficient, effective, and safe.

TABLET COMPRESSION ACCESSORIES CATALOG
Prolong tool life, maintain tablet quality, and increase productivity with the industry’s most comprehensive accessories catalog. Natoli’s newest edition of the Tablet Compression Accessories Catalog includes all the tablet manufacturing accessories needed to help keep your operation running efficiently and profitably.

The FREE catalog is available in printed and digital versions at natoli.com.