NATOLI AIM™ SOFTWARE

for data acquisition, analysis, and control systems
Natoli AICM™ Software is a powerful, industry-leading data acquisition and analysis or operating system platform that simplifies tablet and capsule R&D and production. The flexible Natoli AICM™ platform is featured on Natoli R&D and production tablet presses and can be retrofitted to most brands of tablet presses, encapsulation machines, roller compactors, and high-shear granulators.

Natoli AICM™ Software provides a single software platform for your entire research lab or production facility and makes creating and storing data reports fast and easy.

One universal platform saves time and money from R&D to production. Use the power of technology to solve R&D issues with ease and produce high-quality tablets and more!

The same outstanding customer support that has made Natoli Engineering an industry and technological leader in tooling, parts, and tablet presses extends to the Natoli AICM™ Software platform.

Natoli AICM™ Software users are provided with training and support that adds value to their Natoli tablet press or customized machine retrofit.

RESEARCH & DEVELOPMENT

Data acquisition and analysis software for single-station and rotary R&D tablet presses
- Speeds product to market
- Supports science-based decisions during development process
- Ensures scalability

TABLET PRODUCTION

Tablet press operating software for production tablet presses
- Reduces downtime
- Increases product yields
- Reduces waste
- Increases efficiency

CUSTOMIZED RETROFITTING

Get all the benefits of Natoli AICM™ data acquisition and analysis or control system software on your current R&D or tablet production press.
- Maximizes press investment
- Improves performance

ENCAPSULATION MACHINES

Natoli AICM™ Software and instrumentation for encapsulators:
- Improves performance
- Identifies issues quickly
- Decreases setup time
- Achieves consistent and scalable end-point determinations

HIGH-SHEAR GRANULATORS

Natoli AICM™ Software and instrumentation for high-shear granulators:
- Expands functionality
- Increases product yields with consistent ribbon density
- Reduces product waste

ROLLER COMPACTORS

Natoli AICM™ Software and instrumentation for roller compactors:
Makes Oral Solid Dose Research and Scale-up Fast and Easy!

When used with an R&D tablet press, Natoli AIM™ Data Acquisition and Analytical Software enables tablet developers to easily measure and evaluate tablet formulations and properties. This saves time during development and solves common issues related to scale-up. Natoli AIM™ Data Acquisition and Analytical Software is featured on Natoli R&D tablet presses and can be retrofitted to most brands of single-station and rotary R&D presses.

**EASY-TO-USE SOFTWARE**

- Obtains data directly from the R&D tablet press
- Features intuitive, highly flexible user interface
- Acquires and analyzes data, quickly displays results
- Displays force and pressure in real time
- Stores data in SQL-driven database for easy retrieval and analysis
- Generates and exports easy-to-read reports

**Quickly Measure and Evaluate Tablet Formulations and Properties**

**NATOLI AIM™ SOFTWARE ENABLES DEVELOPMENT TEAM TO:**

- Evaluate compaction properties of API and potential formulations
- Obtain data from minimal amounts of API
- Calculate tensile strength for round, convex, and oblong tablets
- Identify tablet defects such as sticking and picking in real time
- Reduce trial and error
- Optimize lubrication levels with ejection/compression profiles
- Understand disintegration and dissolution potential
- Generate easy-to-read reports for tabletability, compactibility, compressibility, strain rate profiles, and more
- Compare tablet press scalability parameters (for rotary presses only)
Many R&D tablet presses do not come with data acquisition and analytical capabilities. The flexible Natoli AIM™ architecture enables Natoli Engineering to retrofit this powerful R&D software to many brands of R&D presses. Generate profile plots (seen on previous page) and more with a customized platform to meet your exact needs and R&D goals.

Natoli can even customize an upgrade of the existing analytical software on your current R&D press to include the advanced features and benefits of Natoli AIM™ Data Acquisition and Analytical software.

Add the Benefits of Natoli AIM™ R&D Software to Your Existing R&D Press

The power of Natoli AIM™ software isn't limited to R&D tablet presses. It can also be retrofitted to encapsulators, roller compactors, and high-shear granulators for complete data acquisition.

NOT JUST FOR TABLET PRESS R&D

NATOLI AIM™ ENCAPSULATION MACHINES
Provides real-time encapsulation process monitoring and related reports, and measures forces critical in the capsule manufacturing process—including pin tamping force and pin displacement—to enable consistent setup. Also allows identification of out-of-spec capsules.

NATOLI AIM™ ROLLER COMPACTORS
Allows you to quickly and easily monitor the compaction process by recording and displaying roller force and pressure, roll gap/ribbon thickness, torque, and speed. Identify how much force is being applied to the counter-rotating rollers so you can adjust the parameters on the roller compactor to produce a consistent ribbon density.

NATOLI AIM™ HIGH-SHEAR GRANULATORS
Allows you to easily monitor and measure the granulation process. Identify the process endpoint and provide the parameters needed for scale-up by measuring impeller torque, power, amperage, and tip speed.
The powerful Natoli AIM™ ProPlus control system for production tablet presses allows tablet manufacturers to easily control press operations. Designed for ease of use and trouble-free operation, Natoli AIM™ ProPlus acquires, analyzes, and reports critical tablet production data in an integrated CFR 21 Part 11–compliant system architecture. Important press parameters are displayed on an intuitive HMI touchscreen in an easy-to-read graphical format. Menu-driven operation, interactive display modes, and user-friendly graphics ensure ease of use. Real-time production data is monitored on a customizable dashboard.

The Natoli AIM™ ProPlus operating system is network-ready with secure data sets that meet the FDA’s electronic record requirements. Key personnel can have view-only remote access to see critical settings and events that affect production and product quality. These views are the same as the operators see during normal operation. Batch reporting can be transferred to secure network drives for shared views, data backup, and secure storage.

### Natoli AIM™ ProPlus Operating Features for Tablet Production

**PRE- AND MAIN COMPRESSION FORCE MONITORING**

Strain gauge roll pins designed specifically for each roller measure pre- and main compression force. This allows operators to accurately measure and independently adjust pre- and main compression. Force data is set and displayed on the Natoli AIM™ ProPlus interface in several locations to create a flexible and user-friendly environment.

**SERVO-CONTROLLED DOSING FOR AUTOMATIC WEIGHT CONTROL**

Automatic weight control is achieved by monitoring peak compression values with PLC-controlled movements. Dosing is controlled from the Natoli AIM™ ProPlus interface. Adjustments are made automatically based on the high and low force limits set by operator.

**BUILT-IN CALIBRATION**

Perform calibrations for compression and ejection force including calibrating and verifying positional encoders. This ensures the press PLC is synchronized with the actual positioning.

**SERVO-DRIVEN PRE- AND MAIN COMPRESSION ROLLERS**

Enables easy adjustments to the pre-compression and lower main rollers as well as tablet thickness and hardness.

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**SIMPLIFY TABLET PRODUCTION**

Natoli AIM™ ProPlus Easily Reports:

- Batch and end-of-batch production data
- In-batch audit trail of changes during batch production
- Batch RSD monitoring for product variation
- Error code and alarms
- Production activity and performance

Natoli AIM™ ProPlus Tracks:

- Relative standard deviation by batch
- All tablet production based on: setup, batch, sample, and rejected tablets
- Critical alarms, starts, stops, and error codes by batch

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Natoli production tablet presses feature Natoli AIM™ ProPlus operating systems.
Enhance the Performance of Your Outdated Press

A Natoli AIM™ ProPlus Custom operating system can be retrofitted to most brands of tablet presses undergoing refurbishment. Tailored to each customer’s specific requirement, Natoli AIM™ ProPlus Custom control systems are designed to:

- Improve ease of operation of your existing tablet press
- Increase tablet production
- Report CFR 21 Part 11-compliant data
- Reduce product loss
- Improve tablet quality
- Reduce tableting costs

Add menu-driven operation, interactive display modes, user-friendly graphics, and ease of operation to your outdated tablet press. Real-time tablet production data are displayed on a customizable, easy-to-read dashboard on the HMI touchscreen.

Add Simplified Batch Tracking and Reporting to your Tablet Manufacturing

The Natoli AIM™ ProPlus Custom operating system is network-ready with secure data sets that meet the FDA’s electronic records requirements and makes report generation and storage easy. Batch reports can be transferred to secure network drives for shared views, data backup, and secure storage. Press operators can easily and quickly generate:

- Activity/performance reports
- Product and variation reports (RSD)
- Batch and end-of-batch reports
- Error code and alarm reports
- Audit trail of changes during batch production

Get started with Natoli AIM™ today!
Contact your Natoli sales representative and create the optimum software package to meet your specifications and goals.
NATOLI ENGINEERING: Dedicated to Supporting Our Industry

Natoli Engineering Company is the world-renowned leader in tablet press tooling manufacturing. But we are far more. Founded on the uncompromising principle to manufacture and deliver the highest quality products at a fair price with exceptional customer service, Natoli continues to build on 40 years of innovation and industry leadership.

NATOLI ENGINEERING PROVIDES UNPARALLELED SUPPORT IN:

- Tool Design
- Tablet Compression Accessories
- Technical Training
- Tablet Design
- Tablet Press Replacement Parts
- Regional Service Centers
- Tablet Press Refurbishment
- Scientific and On-Site Consulting
- Encapsulation

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