



# Tablet Characterization with Regulatory Compliance - USP <1062>

**SEPTEMBER 9-11, 2025**

NATOLI SCIENTIFIC - TELFORD, PA

## Hands-on Excellence in Solid Dosage Formulation

TRAINING COURSE

### LET INDUSTRY EXPERTS TRAIN YOU

Learn best practices for evaluation of raw materials, and the scientific process in formulation development, all while ensuring proper scale-up in tablet and capsule manufacturing.



**NATOLI**  
*SCIENTIFIC*  
a division of Natoli Engineering Company, Inc.

FEATURING



**TaBlitz**  
Predict | Analyze | Optimize | Create

# COURSE OVERVIEW

Understand the best practices to address issues of tablet compaction by securing the USP <1062> data you need to ensure you're in full compliance. Let us teach you practices for identifying your compaction problem – picking, sticking, binding, capping, low hardness – this training examines root causes and provides solutions.

## **LEARNING OBJECTIVES**

Participants of this training course will finish with an understanding of these concepts:

- Role of Material's Molecular and Macroscopic Properties on Final Attributes of Tablets
- Dynamic Compression Profile Parametrization (Heckel analysis, SRS index, Work Descriptors)
- Explain the Components and Operations of Formulation Selection
- Data Acquisition Hardware & Software to Collect Detailed Compaction Analysis Data
- Optimized tablet design, steel types, coatings and maintenance
- Independently Perform Tableting Operation & Manufacturing Equipment Setup
- Quality Control of Pharmaceutical Materials
- Identify and Resolve Common Manufacturing Equipment Challenges
- Tableting Profiles Derived Through Compactibility, Compressibility and Tabletability, Speed Sensitivity, and Force-Displacement to Ensure USP <1062> Compliance

## **WHO SHOULD ATTEND?**

This course was designed to benefit industry professionals in the roles of:

- R&D Pre-formulation and Formulation Scientist
- Pharmaceutical Manufacturing Research & Development Staff
- QA/QC Analyst, Technical/Quality Personnel Manufacturing & Process Development Operators, Engineers, Formulators
- Contract Manufacturing & Research Organizations
- Technical Services, Line Operators, and QA Specialist
- Maintenance Technicians
- Supervisors & Production Support



## **HANDS-ON** TRAINING SEMINAR

**Natoli Scientific** 100 Emlen Way Ste. 104-108, Telford, PA 18969 P: (636) 926-8900

## **SEATING IS LIMITED**

**Ask us about group discounts**

**COURSE FEE: \$2,995**

**EARLY BIRD SPECIAL: \$2,695**

**Register online! | [natoli.com/trainings](http://natoli.com/trainings)**

# COURSE OVERVIEW

## LECTURE TOPICS

- Tooling, Tablet Design & Troubleshooting Reducing Manufacturing Issues with Regulatory Compliance
- Tooling Best Practices (for Health of Your Tablet Press)
- Compression Phases
- Tablet Compression Characterization with Molecular and Macroscopic Attributes of the Pharmaceutical Materials
- Tooling Cup Configuration Impact on USP <1062> Profile
- Diametrical Compression - Hardness Testing
- Data Normalization for Different Tablet Dimensions
- Scaling of Mechanical Properties
- Machine Compliance
- Calibration of Instrumented Tablet Presses, Accuracy, Strain Gauge, LVDT and Acceptable Calibration)

## LAB SESSIONS

- Natoli Engineering, Inc., Natoli Scientific, and TaBlitz - Tablet Design
- RD30 / AIM
- Rotary Press Process & Setup
- Machine Speed Sensitivity
- RD10A / AIM – USP <1062> Hands-On Training
- Punch Displacement – Time Profiles (Heckel, Work, Compression Models, etc.)
- USP Basic Powder Testing [USP<1174>] (Flowability, Density and Particle Size Distribution Measurements)
- Advanced Powder Testing with FT4 Powder Rheometer
- Compaction Emulation



**Register online! | [natoli.com/trainings](https://natoli.com/trainings)**



# SIMULATION & TESTING | EQUIPMENT ON-SITE

A training course that engages all the elements required for tableting and leverages it with Regulatory Compliance USP <1062> Data. What's your compaction problem?

## TRAINING BEYOND TEXTBOOKS



**Diosna**  
Wet Granulation



**GlobePharma V-Shell Blender**  
Setting parameters for powder blending



**Natoli RD-30 Rotary Tablet Press**  
Preparing Tablet Press for R&D



**Natoli Disintegration Tester**  
Tablet Testing



**Presster**  
Measure punch displacement, calculate tablet volume and display Heckel or stress vs. strain under high speed conditions



**Mettler Toledo Moisture Balance & Micromeritics Helium Pycnometer**  
Sample moisture balance for loss on drying testing

QUESTIONS? COMMENTS?

Please email Robert Sedlock at [rsedlock@natoli.com](mailto:rsedlock@natoli.com)



# FEATURED EXPERT INSTRUCTORS

Our instructors are trained in best practices of pharmaceutical formulation for tableting and utilize a Quality By Design (QBD) strategic process for product purity and efficacy.



## **ROBERT SEDLOCK**

Robert Sedlock is the Director of Natoli Scientific and brings over 25 years of industry experience. Robert's earlier career spans strain gage technology and data acquisition systems. When joining Natoli Engineering Company in 2015, Robert with the industrial pharmacy graduate students at Natoli Institute / Long Island University, AMS school of Pharmacy in Brooklyn, NY. This initiative brought in industry contract laboratory projects and developed the solid dosage manufacturing process training program. In 2018 Robert opened the Natoli Scientific, Telford, PA facility which is now a 14,000 square foot facility that offers solid dosage training programs, contract research and development projects from pre-formulation to formulation development and start-up manufacturing GMP services. Robert is an invited speaker at many universities worldwide and has published many technical articles and peer-reviewed research papers.



## **WILLIAM (BILL) TURNER**

Mr. Turner has been with Natoli Engineering for over 43 years, starting at a young age of 21. He is currently the Technical Service Manager for Tooling and Tablets. Prior to that position, he was the Engineering Manager and tablet and tool designer for over 20 years, as well as a Technical Customer Service Representative for 20+ years. He educates, trains, and assists Natoli sales and service staff. He leverages these decades of experience into in-house and on-site seminars to the industry in these same topics.



## **DR. RAHUL HAWARE**

Dr. Haware is a Pharmaceutical Scientist currently serving as the Director of Scientific Support and New Business Development at Natoli Scientific. His professional and academic expertise is in leveraging Process Analytical Technology (PAT), and Quality-by-Design (QbD) paradigms to develop the DM(3) approach. He was a professor for eight years and has authored several book chapters (3) and peer-reviewed international review and research papers (46). Dr. Haware holds Master's degrees in Pharmacy and Molecular Biology. He completed his PhD in Powder Compaction Physics at UiT The Arctic University of Norway.



## **KEVIN EDWARDS**

Kevin Edwards is a pharmaceutical professional with 20+ years of experience in drug product development from conception to launch, with a focus on oral solid dosage forms. Kevin began his pharmaceutical career as an analytical chemist at Shire Pharmaceuticals and quickly moved into formulation development. Here Kevin developed novel drug delivery formulations and was the lead formulation scientist for several marketed products including Oxtellar XR, and Orenitram. Kevin then moved to Colorcon where he developed expertise in film coating as a Technical Manager. He then joined Merck, where during his 10-year tenure, he led the development and launch of a lifesaving medicine which generates over \$300M per year. Additionally, he was the lead film coating subject matter expert where he developed Merck's white paper on film coating and led the training of the film coating subject matter expert team. Kevin holds a Bachelor's degree in Biochemistry and a Master's degree in Pharmaceutical Sciences. Kevin's range and depth of pharmaceutical development and manufacturing knowledge will be instrumental in achieving Natoli Scientific's vision for the future.

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## GRANT SEDLOCK

Grant Sedlock is a technical representative at Natoli Scientific with a background in solid dosage development, manufacturing, quality control, and strain gage instrumentation systems. Grant's area of expertise also includes troubleshooting common tablet compression issues through micromeritic analysis, USP<1062> tablet characterization profiling and x-ray computed tomography.

Grant is an invited instructor at the university of Mississippi (Hands-On course on Tablet Technology) and the university of Maryland (Tablets & Capsules Hands-On short course).



## MICHAEL RUCH

Michael Ruch is co-founder of TaBlitz. Michael began in mechanical engineering, earning an Associate of Applied Science degree with a focus on design engineering. Starting as a design engineer at Natoli Engineering, Michael advanced by developing software to automate, streamline, and enhance tablet and tool design, leading to the creation of the latest TabletCAD version still in use today. Michael founded DevWorks Automation, specializing in design automation, large-scale engineering integrations, analytics, and AI. In 2021, he co-founded TaBlitz, with a mission to revolutionize tablet design, emphasizing quality, efficiency, and industry impact.



## JOHN STURGIS

John Sturgis is a Technical Support Engineer for Natoli Engineering. His current responsibilities include tablet press training, product development training, tablet press calibration & maintenance, compression consulting, and technical sales. John's experience includes pharmaceutical solid dosage production, process scale up, pharmaceutical solid dosage development, data acquisition systems, and tablet press maintenance. John obtained his degree in Mechanical Engineering from Drexel University.

[natoli.com/trainings](https://natoli.com/trainings) | 636.926.8900



# COURSE REGISTRATION

TABLET CHARACTERIZATION WITH REGULATORY COMPLIANCE - UPS <1062>

NATOLI SCIENTIFIC | TELFORD, PA 18969

**SEPTEMBER 9-11, 2025** | INDIVIDUAL COURSE FEE: \$2,995 PER PERSON

**Space is Limited! Early Registration is Recommended!**

Name: \_\_\_\_\_ Job Title: \_\_\_\_\_

Company: \_\_\_\_\_

Street Address: \_\_\_\_\_ City: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_ Country: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

Special Needs and/or dietary requests: \_\_\_\_\_

How did you learn about this course?: \_\_\_\_\_

## 4 EASY WAYS TO ENROLL!

**1**

Register online  
**HERE!**

**2**

Complete this form and  
mail to: **28 Research Park  
Circle, St. Charles, MO  
63304 Attn: Training  
Coordinator**

**3**

Complete this form and  
email the PDF to:  
**training@natoli.com**

**4**

Complete this form and  
fax to: **(636) 926-8910**  
**Attn: Training  
Coordinator**

## Payment Methods

Full payment in US currency is due no later than two weeks prior to the event. If payment has not been received, a credit card will be required to secure payment for course attendance.

☐ Check - Please make check payable to Natoli Engineering Company ☐ P.O. Number: \_\_\_\_\_

☐ Credit Card: ☐ Master Card ☐ Visa ☐ American Express

Card Number: \_\_\_\_\_ Exp. Date: \_\_\_\_\_ Security Code: \_\_\_\_\_



# HOTEL RESERVATIONS

## TABLET & CAPSULE PROCESS DEVELOPMENT TRAINING COURSE

TUESDAY, **SEPTEMBER 9** THROUGH THURSDAY **SEPTEMBER 11, 2025**



Book your hotel for Natoli Scientific Training

### **Courtyard Philadelphia Lansdale**

Phone: (215) 412-8686

1737 Sumneytown Pike, Lansdale, PA 19446

[Book your hotel for Natoli Scientific Training](#)

### **General Information**

**Event Fees Include:** The course fee of \$2,995 per person (\$2,695 per person when registering two or more participants at one time) entitles each attendee to verbal instruction by leading industry experts, written training materials that will be an invaluable resource in the field, and the use of our cutting-edge machinery. Additionally, meals and other refreshments will be available for the entirety of the course. The event culminates with a dinner reception on the evening of the first day. Natoli will present an official certificate of attendance to each trainee to recognize their commitment to the continued development of their industry expertise.

**Cancellations/Substitutions:** Substitutions will be accepted without penalty if communicated in a timely manner. To receive a full refund, please notify the training coordinator no later than seven business days prior to the course. All cancellations received outside of 7 business days will be subject to a \$125 cancellation fee. However, we understand that life does not always go according to plan. If you are unable to attend, we will apply the remaining funds to the tuition for our next training event.

**Course Confirmation:** Confirmation of registration will be emailed to participants upon receipt of their form and successful payment. Final course details including a timed agenda, maps and other final course details will be emailed and available for download to all registrants approximately 14 days before the event.

**Travel Information:** Information regarding discounted hotel accommodations, airport transportation, and more will be sent via email with the course registration confirmation.

**Notes:** Natoli Engineering Company, Inc. does not anticipate any changes to this course; however, we reserve the right to alter the program and/or speakers without prior notice. In the unlikely event of course cancellation, Natoli's liability is limited to refunding only the course registration fee. Additionally, please note that this course will be taught exclusively in English.