



# Drier Evaluations, Training and Seminars

Buhler Aeroglide  
Field Engineering services

Educate. Evaluate. Enhance.



**AEROGLIDE**<sup>®</sup>

**BUHLER**

# Achieve New Levels of Drying Performance

## Buhler Aeroglide experts show you how

### Enhance Existing Drier Operations Through Education and Evaluation

#### Drier Evaluation

- Detailed process evaluation of your existing drier, regardless of brand
- Complete process analysis
- Process/mechanical inspection
- On-site adjustments
- Conclusive, written report detailing areas of opportunity and recommendations
- Hands-on learning and active participation for customer personnel

#### Training at Your Facility

- Half day: basic drying theory and application
- Full day: adds evaluation techniques and optimization
- Multi-day: adds a hands-on evaluation of your drier

#### Drying Seminars

- “Drying Theory Put to Practice”
- “Drier Maintenance: A Hands-On Approach”
- Professional Engineering Credit. Aeroglide is an approved sponsor of Continuing Professional Competency (CPC) activities for Professional Engineers and Surveyors licensed by the State of North Carolina. Each drying seminar is worth 17 Professional Development Hours (PDHs).

Buhler Aeroglide’s Field Engineering department has provided education and evaluation services to processors around the world for over 15 years. The group is driven by three guiding principles – **Educate, Evaluate, Enhance.**

**Education** is provided through drying theory and drier maintenance seminars, on-site training programs and technical publications on a variety of thermal processing topics. Participants in Aeroglide’s educational programs return to their facility with a greater understanding of their process, and new solutions for operational improvement.

**Equipment and Process Evaluations** provide the greatest potential for energy savings, improved product quality and increased throughput. Available on all brands of driers, a typical evaluation yields tremendous results.

**Enhancing** your drying operation is the primary goal of Aeroglide’s Field Engineering group. We achieve this time and again through educational programs and evaluation services tailored specifically to thermal processing.



## Drier Evaluation: Experience 25-75% Operational Improvement

Buhler Aeroglides equipment and process evaluation program is designed to enhance the performance of existing drying systems. Customers can expect any combination of improved product quality, increased throughput, better moisture uniformity and energy efficiency. Following are some important facts:

- The average convection conveyor drier operates 10% - 30% below its expected efficiency and capacity. An evaluation will uncover any inefficiencies, and put you on an immediate path to recovery.
- Aeroglides field engineers often detect critical energy losses that typical operational measurements do not.
- Customers have reported as much as **50% energy savings** after an evaluation.

Our Field Engineering department specializes in process evaluations of industrial thermal processing equipment – regardless of make, model or vintage.

### A Typical Evaluation Project Scope

- Meet to review current conditions, perceived drying issues, operational data, and goals of the evaluation.
- Conduct drier evaluation (shut down inspection and process data collection).
- Make short-term system adjustments based on drier data (if possible).
- Conduct summary meeting to review initial data results and preliminary recommendations.
- Field engineer representative returns to Buhler Aeroglides
  - Perform necessary calculations, re-analyze the data collected and discuss with other Aeroglides engineers to provide the best possible set of recommendations.
  - Submit final report and recommendations.

### Who Should Attend?

Typically, one helper is required to assist in the evaluation process. However, it is highly recommended to involve anyone with the desire to learn more about basic drier operation.

### Special Equipment

- Buhler Aeroglides responsibility: all test equipment unless otherwise specified.
- Customer responsibility: ladders, flashlights, safety equipment, moisture measurement capabilities, and/or small hand tools.

### Satisfaction Guaranteed

If you are not completely satisfied with your drier evaluation, Buhler Aeroglides will rectify all concerns (returning to your site if necessary) or void all charges.

For more information, or to request an evaluation, call +1 919 851 2000 or email [evaluation@aeroglides.com](mailto:evaluation@aeroglides.com).



**Since its inception, Buhler Aeroglides Field Engineering group has conducted over 1100 detailed drier evaluations.**

### Sample Observation and Resolution

#### Problem

System static pressure too high; reducing airflow through product.

#### Solution

Install properly sized recirculation fans.

#### Result

Improved moisture uniformity through product bed, production rates increase by 25%.

## On-Site Training: Comprehensive Drier Programs at Your Facility

For plant and product development engineers, operators, maintenance and QC personnel who wish to increase understanding of their drying process.

Buhler Aeroglidge conducts initial, refresher and advanced training programs to promote a better understanding of your thermal processing system, and to optimize its performance and up time. On-site training is available in half day, full day or multiple day formats. Customized training is also available.

### Skills Learned:

- Drying theory, and how it relates to your products.
- Basic troubleshooting for your drier(s), and how to make improvements.
- Understanding the airflow of your drier(s) and the effects of internal baffling.
- Operating the drier in best practice methods to achieve higher quality products and improved energy efficiency.
- Identifying (and avoiding) the most common drier pitfalls.

To request drier training at your facility, call +1 919 851 2000 or email [training@aeroglidge.com](mailto:training@aeroglidge.com)



### Typical Course Material

- Drying Basics
- Drying Control Parameters (airflow, humidity, temperature)
- Drier Operation & Adjustments (humidity, bed depths, retention time, temperature, balancing the drier)
- Understanding Airflow
- Process Troubleshooting (airflow short-circuits, optimizing bed heights and speeds, optimizing operating humidity)
- Drier Parameters: Cause and Effect (open discussion on the cause and effect of different changes to process parameters)

### Full Day Session Additions

- Evaluation Techniques
- Equipment Inspection
- Data Compilation and Review
- Field Data: analysis of the effects on drier performance

### Multi Day Session Additions

- Drier Evaluation Simulation
- Drying Basics, continued
- Overall Course Review

## Seminars: Learn the Principles and Techniques for Optimal Drying

A simple process change in your drier can increase production rates, decrease energy costs, or both. Buhler Aeroglide's drying seminars teach participants how to recognize such opportunities and make adjustments to improve the process.

These hands-on, three-day courses cover all aspects of drier operation and optimization – from the basics of drying to evaluating performance and enhancing the operation of a drier. Participants use actual test equipment and small scale driers in a lab environment, applying the techniques developed in classroom sessions. The seminars are open to companies in any industry.

Cost varies with location. Course materials, group meals and evening activities are included. Accommodations are included at events outside the USA. For more information, call +1 919 851 2000 or email [seminar@aeroglide.com](mailto:seminar@aeroglide.com).



Participants develop a drying curve during the hands-on lab session.



Students collaborate to troubleshoot a drier's performance during a simulation exercise.



Attendees at the Puerto Vallarta, Mexico Process course pause for a group photo.

### “Drying Theory Put to Practice”

For plant and product development engineers, operators, maintenance and QC personnel. This course helps participants learn and apply drying theory to enhance the performance of their equipment.

#### Typical Itinerary:

- Day One: explore drying basics including operating parameters, balancing, evaluating, mechanical inspections, troubleshooting and a drier simulation.
- Day Two: learn advanced drying concepts and measurement practices in a hands-on lab session.
- Day Three: advanced calculation methods used for drier sizing.

#### Skills Learned:

- Drying theory, and how it relates to your products.
- Evaluation of your drier(s) and producing a baseline for improvements
- Operating the drier in best practice methods to achieve higher quality products and improved energy efficiency.
- Identifying (and avoiding) the most common drier pitfalls.

### “Drier Maintenance: A Hands-On Approach”

For operators, maintenance personnel and managers. Focus is on preventive and routine maintenance theory and application. The seminar is held at the Buhler Aeroglide Technical Center in Raleigh, NC.

#### Typical Itinerary:

- Day One: drier operation and adjustments, evaluation, mechanical inspections and repair, and lab session with bench top product test.
- Day Two: heat and control systems including interactive labs for steam, gas burner and electrical systems.
- Day Three: advanced drier mechanicals, preventive maintenance and a drier simulation.

#### Skills Learned:

- Understand drier maintenance on a day-to-day and long-term basis.
- Evaluate your drier and understand its components.
- Understand and troubleshoot steam, gas and electrical systems.
- Increase awareness of ancillary equipment and bed assemblies.

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