

## Service training: bead mills.

Grinding & Dispersing Customer Service

Wet grinding and dispersing processes are used in many different applications. Through the continuous exchange of ideas with industry-related scientific and research communities, Bühler is able to provide innovative processes and training that allow you to produce products with top quality and high efficiency.

Our specialists provide your personnel with targeted and practical training at our technology and education center or at one of our global test centers. We also offer on-site training for larger groups on request.

### Process technology and maintenance of bead-mills: SuperFlow™, MicroMedia™X, Centex™, Cenomic™, K-series

**Course CD: Process technology, 2-day course**  
**Target areas: Production, development, quality control**

Day 1: Basic theory of wet grinding technology for bead mills  
Day 2: Practical exercises on bead mills

**Course KD: Training on specific machine, 2-day course**

Special application technological training – Technology Center, Uzwil, Switzerland – using a bead mill according to your request.

**Course DD: Maintenance, 2-day course**  
**Target areas: Maintenance**

Day 1: Mechanics and control of bead mills  
Day 2: Replacement of wear parts

**Course expenses/per course:**

1500 € / course including one overnight stay per training day and meals. Courses CD and DD may be combined during the same week.

## Course content:

### Course CD: Process technology

#### Day 1: Process technology bead mills

- Basics wet grinding technology bead mills
- Difference between high performance mills and standard full-volume mills
- Influence, possibilities and evaluation of specific energy requirements
- Effects of various process parameters, e.g. bead filling degree, temperature, rotor speed, throughput
- Optimization of process parameters
- Scale-up inspections

- Function of mechanical seal
- Set-up of full-volume mill Centex™ and high-performance mills DCP SuperFlow™ and MicroMedia™
- Display, operation and control system

#### Day 2: Practice operation bead mills

- Documentation of data processing
- Grinding preparation
- Practical application of previous day theory

### Course DD: Maintenance

#### Day 1: Mechanical set-up and control technology of bead mills

- Mechanical set-up of bead mills
- Overview of various control models: Comfort- and Premium-package; functions, operation, instrumentation
- Data logging software: WinTrend, interface to superordinated systems
- PLC and operator panel: error search
- Upload/download, backups
- Cabinet: error search, parameters, frequency inverter
- Installation, wiring, inspections

#### Day 2: Assembly and disassembly of wear and tear parts

- Error detection and explanation of machine safety systems
- Wear and tear assessment/residual service life assessment based on process data and operation hours
- Performance of maintenance work and preventive servicing
- Replacement of wear parts
- Repairs to mechanical sub-assemblies; modular design allows replacement and repairs of individual segments

### Course KD: Training on a specific machine

#### Day 1 and 2: Training on a specific machine

- Technical construction of machine
- Control and service
- Documentation of process data
- Influence and possibilities to evaluate specific energy requirements

- Effects of various process parameters, e.g. bead filling degree, temperature, rotor speed, throughput
- Optimization of process parameters
- Scale-up inspections
- Practical application at the machine, on request with your special product

If you have any questions regarding this offering or about our services, please send an e-mail to:

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#### Hotline

#### The direct line to our experts

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