

The image shows two men in a factory or industrial setting. They are both wearing safety glasses and blue work shirts. The man in the foreground is looking intently at a device, while the man behind him is also looking at the same device. The background is slightly blurred, showing industrial equipment. There are two large, semi-transparent circular shapes on the right side of the image, one in red and one in teal. A white rounded rectangle is positioned in the lower-left quadrant, containing the main text.

Bühler Training.
**Getting the most
from your cell.**

Training with Bühler.

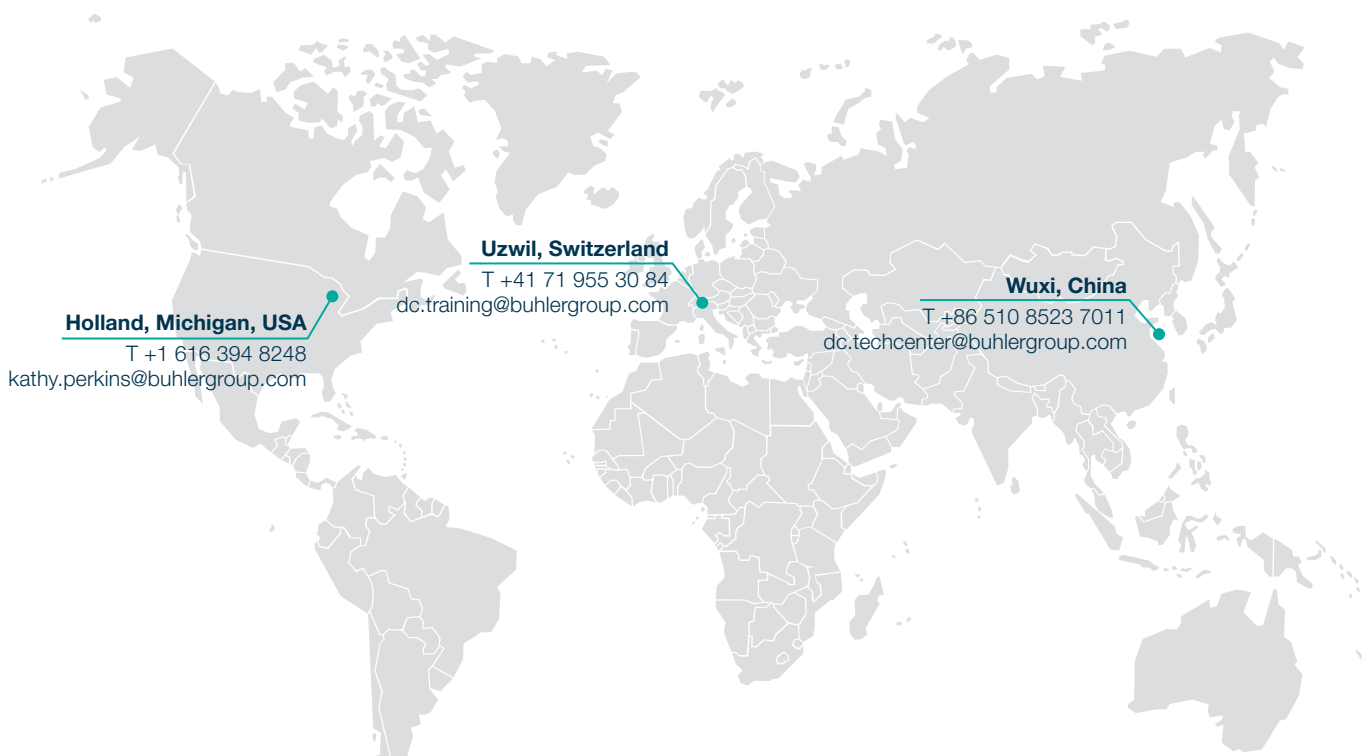
An investment that pays off.


Why is training so important?

- If you are constantly searching for higher quality and faster die-casting production, highly-trained personnel can make a significant impact. Quality training is an investment in your OEE.

Why send your people to train with Bühler?

- Our comprehensive know-how across the entire die-casting process covers everything from the basics, to the operation and maintenance of our machines and expert knowledge on processes and technologies.
- Our live die-casting cells in centers around the world include Carat, Evolution, Ecoline and Fusion machines, with furnaces, integrated peripherals and advanced control functions so we can simulate a wide range of applications to match your production set-up.
- The training can take place in our application center in Uzwil (Switzerland), Wuxi (China) and Holland, MI (USA). All are equipped to help you learn how to get the most from your Bühler cell, explore best practice solutions from around the world and see the latest technological developments in action.
- Our trainers can combine classroom teaching with practical lessons on live machines so your people can learn under production conditions and enjoy a hands-on experience fixing real problems.
- With 170 training courses every year, there is bound to be a topic that could help your people to improve your die-casting performance.



A photograph of two men in a factory or industrial setting. They are looking intently at a computer monitor. The man on the left has a beard and is wearing a dark jacket. The man on the right is clean-shaven and wearing a light blue shirt under a dark jacket. The background is filled with industrial machinery and blue lighting. There are two large, overlapping circular graphic elements: a red one at the top left and a teal one at the bottom left, both partially overlapping the text area.

We offer a wide range
of trainings –
**from product trainings to
process know-how.**

Technology Courses.

Die Casting Principles.

This course will give you a thorough basic understanding of die-casting technology, metallurgy, and processes.

The hands-on course includes

- The principles of die casting and metallurgy
- Process principles
- Die protection
- Systematics of spraying technologies and die tempering
- Casting trials

By the end of the course you will have a good basic understanding of the principles of die casting.

Target group: Die-casting beginners, supply chain managers, executives and board members

Required skill level: This course requires no previous die-casting knowledge or experience

Duration: 2 or 3 days

Locations: ▪ Uzwil, Switzerland ▪ Wuxi, China ▪ Holland, USA

Process Optimization.

The focus of this course is the optimization of your die-casting process to increase productivity, improve quality and maximize cost-efficiency.

This hands-on course includes

- Understanding the die-casting process
- Principles of metallurgy
- Analyzing casting parameters
- How to recognize process errors and their causes
- The optimization of the die-casting process
- How to protect the die during casting
- Recognizing statistical correlations
- Spraying technology and die tempering
- How to run casting trials

By the end of the course you will be able to optimize your die-casting process with effective troubleshooting, die protection and statistical data. This can help you to reduce cycle time and scrap, while improving quality and productivity.

Target group: Setters, operators, buyers, quality professionals, technologists

Required skill level: This course requires a basic knowledge of our die-casting machines and how to operate them

Duration: 4 days

Locations: ▪ Uzwil, Switzerland ▪ Wuxi, China ▪ Holland, USA

Die Casting Errors.

This course will teach you to recognize quality deviations as they begin to happen. This means you can intervene early to cut waste and increase output of quality parts.

This hands-on course includes understanding

- The 20 most common casting errors
- The causes and effects of casting errors
- A systematic approach to identify errors
- How to prevent casting errors
- Hands-on training

With this new knowledge, you may find you can counteract potential casting defects as early as the product development and die design stage.

Target group: For technologists, quality engineers and foundry supervisors

Required skill level: The course requires a basic understanding of die-casting technology as well as the principles of alloy treatment

Duration: 2.5 days

Locations: ▪ Uzwil, Switzerland ▪ Other locations on request

Die Design.

In this course you will learn about the most important aspects of die design. We want to enable you to increase product quality, reduce cycle time, and improve productivity and efficiency.

This hands-on course includes

- The basics of good die design
- Principles of die casting and flow technology
- Construction and design of the die
- Simulation analysis
- Die concepts
- Gating technology and calculations
- Die ventilation and overflowing
- Runners
- Design and calculation for die tempering

By the end of the course you will be able to use your deeper understanding of die design and construction. This will help you to produce high quality, complex components faster, more efficiently and more economically.

Target group: Die design engineers, technologists

Required skill level: The course requires a basic understanding of die-casting technology

Duration: 4 days

Locations: ▪ Uzwil, Switzerland ▪ Other locations on request



Machines - Setting up. DataNet and DataView.

Setting up and programming.

This course will teach you how to set up your machine.

This hands-on course includes

- Structure and function of die-casting machines
- How to operate and program your machine and its peripherals independently
- Know-how for preventive maintenance
- Safety of operation
- Programming and settings for the machine, as well as the die
- Practical training with casting trials
- Process monitoring and diagnostics
- Identifying malfunctions in the process and on the machine

By the end of the course you will be confident in the set-up and adjustment of a Bühler cell. You will also be able to handle diagnostics and malfunctions faster, leading to less downtime and higher availability of your cell.

Target group: Setters, operators, adjuster and technologists working on die-casting machines

Required skill level: This course requires a basic knowledge of our machines and how to set them

Duration: 4-5 days

Locations: ▪ Uzwil, Switzerland ▪ Wuxi, China ▪ Holland, USA

Setting up Courses	Carat	Fusion	Ecoline	Evolution	Duration
Setting up DataNet	CH, CN, US			CH, CN, US	4 Days
Setting up DataView	CH, CN, US	CH, CN, US		CH, CN, US	4 Days
Setting up Ecoline			CH, CN, US		4 Days

Machines - Maintenance. DataNet and DataView.

Maintenance Electronics and Hydraulics.

The content of this course is how to operate, program, maintain, and troubleshoot the electronic and hydraulic system.

This hands-on course covers

- Principles of hydraulics
- Function of the hydraulic and electronic systems
- Operate and program the machine
- Control technology, engineering of the proportional hydraulic system
- Electrical safety gates
- Machine sensors
- Working with the machine interface
- Fault analysis and remedies
- Use and interpretation of diagrams
- Maintenance, repair of electric and hydraulic systems

By the end of the course you will be able to operate and maintain your system to maximize efficiency, improve availability and reduce downtime.

Target group: Electronic and mechanical maintenance engineers, automation specialist

Required skill level: This course requires experience in mechanical and electronic maintenance, diagram readings and basic machine programming

Duration: 4-5 days

Locations: ▪ Uzwil, Switzerland ▪ Wuxi, China ▪ Holland, USA

Maintenance Electronics.

In this course you will learn to maintain and troubleshoot the electronics system of your die-casting machine to get maximum efficiency with minimum downtime.

This hands-on course includes

- How to operate and program your machine with the DataNet or DataView control unit
- The basics of electronic system structure and operation
- Control technology
- Control engineering of the proportional hydraulic system
- Electrical safety gates
- Machine sensor technology
- Working with the machine interface
- Practical fault analysis, troubleshooting, diagnostics and repair

By the end of the course you will be able to confidently and effectively operate and troubleshoot your system, improving availability and lessening downtime.

Target group: Electronic maintenance engineers, electricians and automation specialists

Required skill level: This course requires experience in electronic maintenance, diagram readings and basic machine programming

Duration: 4-5 days

Locations: ▪ Uzwil, Switzerland ▪ Wuxi, China ▪ Holland, USA

Maintenance Hydraulics.

This course will teach you how to maintain and troubleshoot the hydraulic system of your die-casting machine to ensure it operates at maximum efficiency and to increase your system availability.

This hands-on course includes

- The basics, structure and operation of hydraulics in die-casting systems
- An in-depth look at specific components like pumps, valves and proportional hydraulic systems
- How to operate and program the die-casting machine with DataNet or DataView
- Practical troubleshooting, diagnostics and repair
- Maintenance and servicing of the hydraulics system

By the end of the course you will be able to prevent malfunctions and troubleshoot your system, improving availability and reducing downtime.

Target group: Mechanical maintenance engineers, mechatronics

Required skill level: This course requires experience in mechanical maintenance, diagram readings and basic machine programming

Duration: 4-5 days

Locations: ▪ Uzwil, Switzerland ▪ Wuxi, China ▪ Holland, USA

Maintenance Courses	Carat	Fusion	Ecoline	Evolution	Duration
DataView Electronics	CH, CN, US			CH, CN, US	4 Days
DataView Hydraulics	CH, CN, US			CH, CN, US	4 Days
DataView Hydraulics + Electronics	CH	CH, CN, US		CH	8 Days
DataNet Electronics	CH, CN, US			CH, CN, US	4 Days
DataNet Hydraulics	CH, CN, US			CH, CN, US	4 Days
Ecoline Hydraulics + Electronics			CH, CN, US		4 Days



Robot Programming.

This course focuses on programming the BuhlRob die-casting foundry robot to optimize your die-casting processes.

This hands-on course includes

- Settings for the HMI of the die-casting machine for BuhlRob
- How to load and configure all Bühler specific program modules and files
- Completing a cycle and test-run on a simulated die-casting machine
- How to develop additional programs
- Error handling and safety settings

By the end of the course you will be able to set up, program and use the BuhlRob foundry robot confidently, gently and effectively. You will be able to carry out your own changeover and retooling operations, and improve overall productivity.

Target group: Robot specialists, operators or technicians working with foundry robots

Required skill level: You will need to understand the basic principles of robot programming from your suppliers training program

Duration: 2 – 5 days

Locations: ▪ Uzwil, Switzerland



Customized Training.

From basic operations and management training, to the specifics of optimizing die design or the die-casting process, our bespoke training courses are tailored to your individual requirements.

Our expert instructors will work with you to deliver the training content you need. They will also provide personalized guidance and tuition based on specific application questions or queries during the sessions. Training can take place at your site or in one of our training centers around the world.

With our customized training you can be sure that whatever your needs, however basic or specialized, we will provide exactly the type and level of instruction you need to improve your die-casting performance.

Target group: Managers, operators, technologists, maintenance and support engineers

Required skill level: Your customized training course will be specifically tailored for the skill level of those that you wish to train

Duration: According to your needs

Locations: ▪ Uzwil, Switzerland ▪ Wuxi, China ▪ Holland, USA

Die Casting Academy E-Learning Courses.

To support and enhance our hands-on training sessions, we also offer a convenient and flexible E-Learning package.

Developed by our experienced die-casting tutors, our E-Learning is arranged in popular topics and guides your people through a series of learning experiences.

Available 24/7 through a secure log-in system, Bühler E-Learning allows your people to access the information they want, when they need it most. Videos, interactive modules and quizzes make it easy to learn even complex subjects. Assessments at the end of each topic will help to confirm how well they have done.

An overview dashboard enables you to see who has engaged in which areas, and which topics they have completed.

Target group: All levels of your people involved with die-casting operations and decision-making

Required skill level: Caters to all levels, from beginners to experienced die-casters

Duration: Annual subscriptions, available to your learners, 24/7/365

Locations: Anywhere with an authorized log-in for your system



**For a detailed schedule
please visit our website**

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