

Seminar Program 2022

Basic process knowledge is the base for the success of your foundry company. To build up and expand the knowledge of your employees, we offer short impulse lectures, online seminars for individual process topics, approved face-to-face seminars and individual seminars so that you can continue to meet the specific requirements of your customers in the future.

Operation & Process Knowledge

[Click to offer](#)

Die Design & Consulting

[Click to offer](#)

In order to meet the highest quality requirements, shorten cycle times and ensure long die life time, dies must be professionally constructed and designed. FRECH supports this goal with basic die-specific trainings, a component check and individual practical die consulting.

Maintenance & Troubleshooting

[Click to offer](#)

Around the Die Casting Machine

[Click to offer](#)



There is no right time for a machine failure, but there is for maintenance. Our training program enables your employees to carry out maintenance independently, to determine the detailed technical condition of the machine, to find faults and to derive the necessary measures from this.

Although the subject of die casting is with us every day, it never ceases to surprise us in many ways. That's why this section has been added to FRECH's other training courses. In informative short lectures you will learn about innovative and interesting facts.




We also offer almost all seminars as individual seminars.

FACE-TO-FACE SEMINAR



FRECH HEADQUARTER GERMANY
HOT-COLD CHAMBER
PROCESS TECHNOLOGY
New Technologies, Latest Developments
Die Design and Consulting Service

FRECH USA MICHIGAN CITY 
HOT-COLD CHAMBER
PROCESS TECHNOLOGY
New Technologies, Latest Developments
Die Design and Consulting Service

① We also offer almost all seminars as individual seminars.

ONLINE SEMINARS



| | |
|---|--|
| HOT CHAMBER TEMPERATURE PARAMETERS Overview, Setting | HOT-COLD CHAMBER FILLING TIME Quality parameters for die and machine |
| HOT CHAMBER 3 IMPORTANT SCREEN PAGES Calculation, graphic, profile | HOT-COLD CHAMBER FRECH CONTROLS Individual selection of screen pages |
| COLD CHAMBER 3 IMPORTANT SCREEN PAGES Calculation, graphic, profile | HOT CHAMBER Sensilnject The casting parameter setting assistant |
| HOT-COLD CHAMBER LIMIT LINES Auxiliary graphic tool | |

① We also offer almost all seminars as individual seminars.

Process Technology, New Technologies, Latest Developments Die Design and Consulting Service **Hot Chamber** and **Cold Chamber** (P-GB-Wk-Kk-Seminar)

TARGETS

Process knowledge and operation of die casting machines, new developments and trends and the most important basic principles of professional die design are the basis for a successful foundry. Technical discussions and exchanges between our participants are another important part of our traditional 4-day face-to-face seminar.

CONTENT

Day 1 and 2 - Process Days:

- Shot End, Casting Parameters,
- Adjustment Possibilities, Quality Control,
- Casting Defects in Theory and Practice
- Casting Experiments

Day 3 and 4 - Die Design and Consulting:

- Recent Developments, latest technologies
- Energy Demands
- smartfoundry.solutions (Industrie 4.0)
- Die Temperature Control, Conformal Heating and Cooling
- Runner, Gate Design, Flow engineering,
- Simulation introduction using Nova/Magma
- Mathematic Calculations
- Consulting Service



NOTES

- Meeting point: FRECH Headquarter Schorndorf-Weiler Germany
- Groups for day 1 and 2 will be divided individually in HC and CC – please advise when booking!
- Participants are invited to bring samples to the seminar



TARGET GROUP

Operators, die designers, foundry specialists, quality management staff



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

Sept 27th - Sept 30th, 2022

[REGISTRATION](#)

[REQUEST INDIVIDUAL SEMINAR](#)



PRICES

Costs per person:
4 days 1.900,00 €
Additional persons from the same company 1.720,00 €

Temperature Parameters **Hot Chamber** (O-GB-Wk-Temp-Para)

TARGETS

Die casting is a temperature-dependent process. At the end of this online seminar, your employees will be able to understand the complex temperature balance in the casting process, to adjust it and to identify the temperature-relevant problems.

CONTENT

- Quality-related temperature parameters in hot chamber die casting, their effects and the systematic procedures for optimization
- Avoiding cold flow and bubbles with correct temperatures
- Influence of temperature parameters on cycle time
- Freezing nozzle tips: Effects and troubleshooting
- Sprue bush and distributor cooling
- Die preheating, tempering and cooling
- Tempering with water or/and oil
- Correct selecting and connecting thermal connections with pipes, hoses and couplings



TARGET GROUP

Machine operators, machine setters, quality management staff, tool makers



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

1st date: Feb 17th, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 3 hours

2nd date: Nov 17th, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 3 hours

REGISTRATION

REGISTRATION

REQUEST INDIVIDUAL SEMINAR



PRICES

450,00 € / access

Three Important Screen Pages **Hot Chamber** (0-GB-Wk-3Screens)

TARGETS

There are three elementary important screen pages in die casting: Casting parameter calculation, profile input and casting graphics. The aim of this online seminar is to enable your employees to understand and use these three important screens for process setting.

CONTENT

- Together with the casting graphic, the casting parameter calculation is required for correct profile input
- Setting of 1st phase speed
- Setting of 2nd phase starting point and speed
- Identifying the braking point for ShotStop and RC machines
- Monitoring of the nozzle tip with regard to freezing zinc (P0)
- Positioning of the limit lines for correct visualization of the casting process
- Monitoring of a constant casting process using the limit lines
- Reading, understanding and interpreting the casting graphic



TARGET GROUP

Machine operators, machine setters, quality management staff



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

1st date: Feb 23th, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 3 hours

2nd date: Nov 23th, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 3 hours

REGISTRATION

REGISTRATION

REQUEST INDIVIDUAL SEMINAR



PRICES

450,00 € / access

Three Important Screen Pages Cold Chamber (0-GB-Kk-3Screens)

TARGETS

There are three elementary important screen pages in die casting: Casting parameter calculation, profile input and casting graphics. The aim of this online seminar is to enable your employees to understand and use these three important screens for process setting.

CONTENT

- Together with the casting graphic, the casting parameter calculation is required for correct profile input
- Setting of 1st phase speed
- Setting of 2nd phase starting point and speed
- Identifying the braking point
- Adjusting the final pressure
- Positioning of the limit lines for the correct visualization of the casting process
- Monitoring a constant casting process using the limit lines
- Reading, understanding and interpreting the casting graphic



TARGET GROUP

Machine operators, machine setters, quality management staff



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

1st date: May 27th, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 3 hours

2nd date: Nov 25th, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 3 hours

REGISTRATION

REGISTRATION

REQUEST INDIVIDUAL SEMINAR



PRICES

450,00 € / access

Limit Lines „A Helpful Tool“ (O-GB-Wk-Kk lines)

TARGETS

Limit lines are the basis for obtaining individual and correct measured values for the casting plunger speed and pressure from the casting graphic. For this purpose, the measuring ranges for casting plunger speed of the 1st and 2nd phase as well as the start of the final pressure measurement must be set. We explain the basic procedure for setting these ranges manually with the help of the limit lines.

CONTENT

- Limit lines are a measuring tool and not an adjustment parameter
- Explanation and meaning of the 5 limit lines
- Procedure for correctly setting the limit lines
- The limit lines define the areas for monitoring important quality parameters



TARGET GROUP

Machine operators, machine setters,
quality management staff, foundry manager



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

1st date: May 24th, 2022
Afternoon: 4:00 p.m.
Central European Time (CET)
Duration: 30 minutes

2nd date: Nov 3rd, 2022
Afternoon: 4:00 p.m.
Central European Time (CET)
Duration: 30 minutes

REGISTRATION

REGISTRATION



PRICES

Free of charge

Filling Time „The Quality Feature“ (O-GB-Wk-Kk filling time)

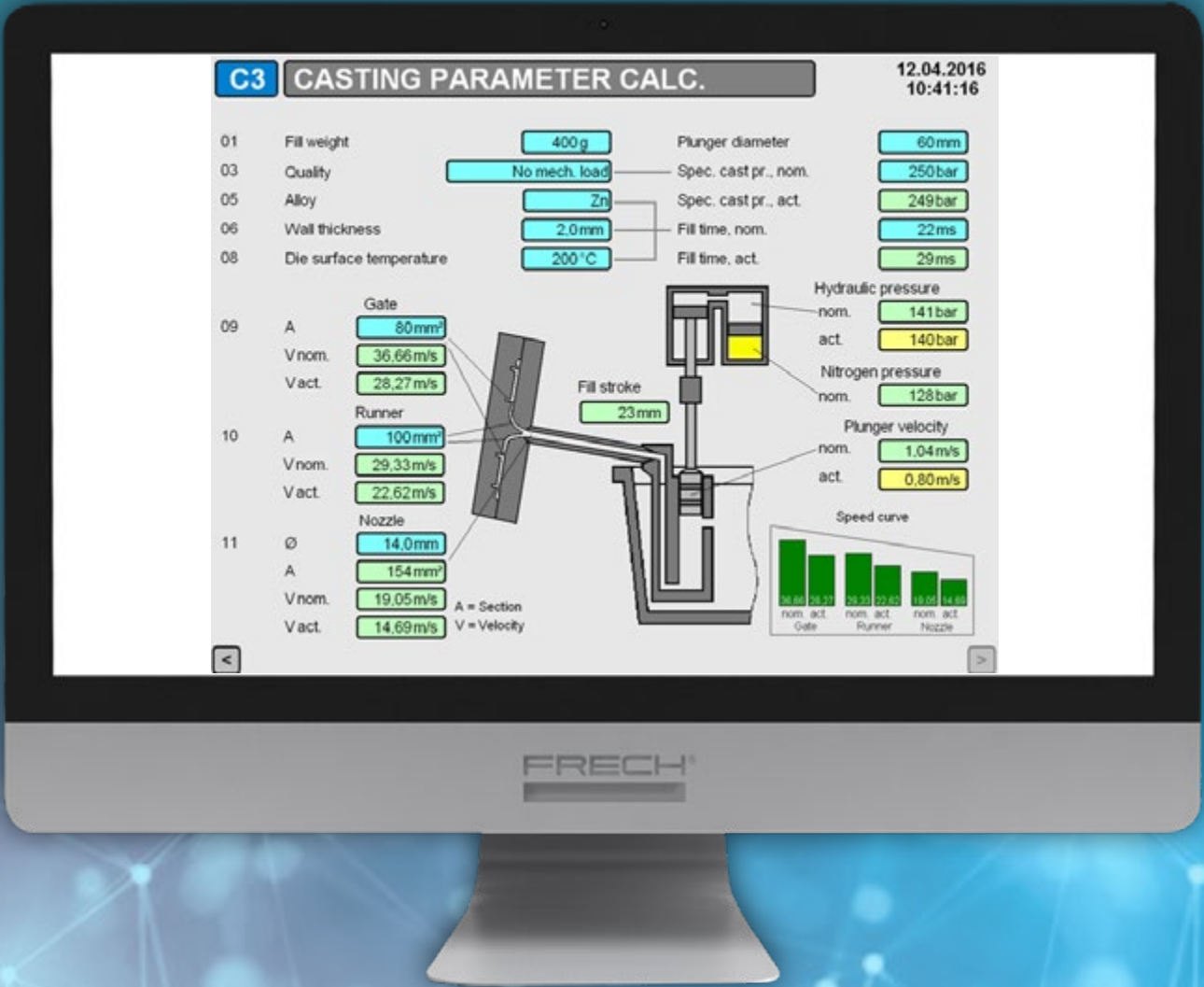
TARGETS

The filling time is the basis for all cross-sectional designs of a die. It is absolutely essential for the design of any die. The filling time is also the basis for setting the 2nd phase. We clarify the term, the origin, the dependence, the determination and the verification.

CONTENT

- What is filling time and what is it needed for?
- What does the required filling time depend on?
- Calculation possibilities
- Monitoring the filling time

$$t_F = (0,1 \sim 0,15) \times t_E$$



TARGET GROUP

Die designers, machine setters, foundry managers



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

1st date: May 23th, 2022
Afternoon: 4:00 p.m.
Central European Time (CET)
Duration: 30 minutes

2nd date: Nov 2nd, 2022
Afternoon: 4:00 p.m.
Central European Time (CET)
Duration: 30 minutes

REGISTRATION

REGISTRATION



PRICES

Free of charge

FRECH Controls for **Hot** and **Cold Chamber** Machines (O-GB-Wk-Kk control)

Free choice of screen pages

TARGETS

The control system is the command center of the die casting machine and must be understood and mastered by the foundry personnel. Depending on the type of control, year of manufacture and machine equipment there is a wide range of setting and programming options. The special feature of this seminar is not a given content, but rather a question and answer session that is precisely tailored to the participant(s).

CONTENT

- You name us control type and machine number
- In addition, the wishes on which screen pages we should concentrate
- Alternatively, the FRECH trainer can also compile an extract of the most frequently requested screen pages

This seminar is offered individually for the following controllers:

| | |
|--------------------|----------------------|
| DATAMAT | Hot and Cold Chamber |
| DATAVARIO | Hot and Cold Chamber |
| DATACONTROL | Hot and Cold Chamber |
| DATALOGIC | Hot and Cold Chamber |
| DATADIALOG | Hot and Cold Chamber |
| WIN_CC-CASTCONTROL | Cold Chamber |



TARGET GROUP

Machine operators, machine setters, quality management staff, tool makers



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

on request

[SEND REQUEST](#)



PRICES

on request

SensilInject „The Adjustment Assistant“ (O-GB-Wk-SensilInject)

TARGETS

Assistance systems are a trend in the menu navigation of complex processes. We will show you how „SensilInject“ supports the die caster in adjusting the die casting machine.

CONTENT

- Brief introduction to the „FRECH assistance systems family“.
- We will show the „SensilInject“ assistant which, in dialog with the operating personnel, leads in logical steps from the programming of the casting parameter calculation via creation of a casting profile up to the casting graphic.
- Experience in this short presentation the valuable support for your operating personnel by “SensilInject”



TARGET GROUP

All those interested in assistance systems, operators and machine setters, for whom „SensilInject“ is new



EVENT DATE

1st date: Feb 15th, 2022
Afternoon: 4:00 p.m.
Central European Time (CET)
Duration: 30 minutes

2nd date: Nov 15th, 2022
Afternoon: 4:00 p.m.
Central European Time (CET)
Duration: 30 minutes

REGISTRATION

REGISTRATION



PRICES

Free of charge

FACE-TO-FACE SEMINAR

FRECH HEADQUARTER GERMANY
HOT-COLD CHAMBER
PROCESS TECHNOLOGY

New Technologies, Latest Developments
Die Design and Consulting Service

FRECH USA MICHIGAN CITY
HOT-COLD CHAMBER
PROCESS TECHNOLOGY

New Technologies, Latest Developments
Die Design and Consulting Service



① We also offer almost all seminars as individual seminars.

ONLINE SEMINARS

HOT-COLD CHAMBER
DIE DESIGN
COMPACT PART 1
Thermal

HOT-COLD CHAMBER
DIE DESIGN
COMPACT PART 2
Geometrical

HOT-COLD CHAMBER
DIE DESIGN
COMPACT PART 3
Mathematical

HOT-COLD CHAMBER
SIMULATIONS
INTERPRETING
Read and understand

HOT-COLD CHAMBER
SIMULATION RUNNER,
GATE SYSTEM
Creation and implementation

HOT-COLD CHAMBER
DIE CHECK
for new and existing dies

HOT-COLD CHAMBER
COMPONENT CHECK
Component design suitable for casting

① We also offer almost all seminars as individual seminars.

Thermal Die Design Compact **Hot** and **Cold Chamber**

(O-GB-MtWk-Kk-Therm)

TARGETS

Die casting is a temperature-dependent process and requires careful design, placement and conceptualization of tempering channels. We explain the most important relationships, so that the chapter „thermal design“ can be included in the designer's to-do-list of the design engineer.

CONTENT

- Dimensioning and design of tempering channels
- Determination of the necessary capacity of heating and cooling units
- Contour-based tempering completes classic tempering systems

At the end of this online module, we offer you the possibility to take a brief look via “screen sharing” at your cooling channel concept. **For a more detailed examination of your die, we offer our “Die Check”.**

[TO THE SEMINAR](#)

Note

In addition to this online module we offer 2 further modules for geometric and mathematical die design. **As an alternative or in addition we offer our detailed die design face-to-face seminars.**



TARGET GROUP

Developers, die designers, technologists, quality management staff



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

1st date: Mar 14th, 2022
Morning: 9:00 a.m.
Central European Time (CET)
Duration: 3 hours

2nd date: Nov 7th, 2022
Afternoon: 3:00 p.m. (CET)
Considering American Region
Duration: 3 hours

[REGISTRATION](#)

[REGISTRATION](#)

[REQUEST INDIVIDUAL SEMINAR](#)



PRICES

450,00 € / access

Geometric Die Design Compact **Hot** and **Cold Chamber**

(O-GB-MtWk-Kk-Geo)

TARGETS

A professionally designed runner and a well-considered gating design are the elementary prerequisites for perfect die filling. Prior to each simulation corresponding concepts must be developed, which we will work out with you in this training module.

CONTENT

- Geometric design of the runner and gating system
- Sensible part placement and gate design
- Showing of venting possibilities
- We use die filling simulation as a modern auxiliary tool

At the end of this online module, we offer you the possibility to take a brief look via “screen sharing” at your casting or at your runner and gating concept. Please have your parts ready for this, including the runner with overflows. **For a more detailed examination of your die, we offer our “Die Check”.**

[TO THE SEMINAR](#)

Note

In addition to this online module we offer 2 further modules for mathematical and thermal die design. **As an alternative or in addition we offer our detailed die design face-to-face seminars.**



TARGET GROUP

Developers, die designers, technologists, quality management staff



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

1st date: Mar 15th, 2022
Morning: 9:00 a.m.
Central European Time (CET)
Duration: 5 hours

2nd date: Nov 8th, 2022
Afternoon: 3:00 p.m. (CET)
Considering American Region
Duration: 5 hours

[REGISTRATION](#)

[REGISTRATION](#)

[REQUEST INDIVIDUAL SEMINAR](#)



PRICES

750,00 € / access

Mathematical Die Design Compact **Hot** and **Cold Chamber**
(0-GB-MtWk-Kk-Math)

TARGETS

The mathematical die configuration is the preparation for the correct cross-section design and the basis for the required parameters of a die filling simulation. In this training module we concentrate on the necessary calculations.

CONTENT

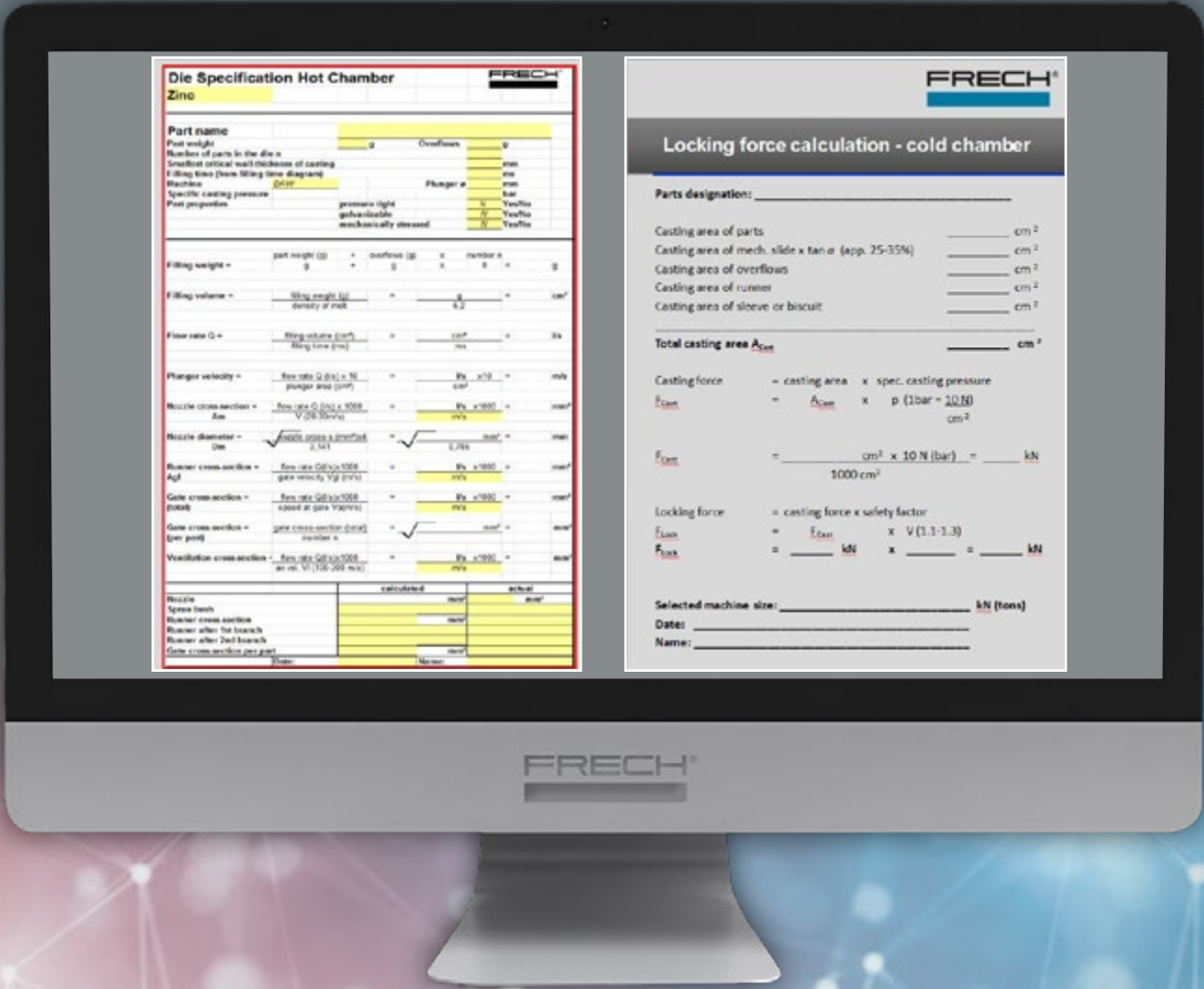
- Cross-section calculations with FRECH Excel forms
- Calculation of the required locking force
- Calculation of theoretical and practical casting volume
- Calculation of casting capacity, flow rates and pressures
- Calculation of casting parameters such as filling time, velocities etc.

At the end of this online module we offer you the possibility to take a brief look via „screen sharing“ at your calculations. **For a more detailed examination of your die, we offer our “Die Check”.**

TO THE SEMINAR

Note

In addition to this online module we offer 2 further modules for geometric and thermal die design. **As an alternative or in addition we offer our detailed die design face-to-face seminars.**



TARGET GROUP

Developers, die designers, technologists, quality management staff



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

1st date: Mar 16th, 2022
Morning: 9:00 a.m.
Central European Time (CET)
Duration: 4 hours

2nd date: Nov 9th, 2022
Afternoon: 3:00 p.m. (CET)
Considering American Region
Duration: 4 hours

REGISTRATION

REGISTRATION

REQUEST INDIVIDUAL SEMINAR



PRICES

600,00 € / access

Interpreting Die Filling Simulations

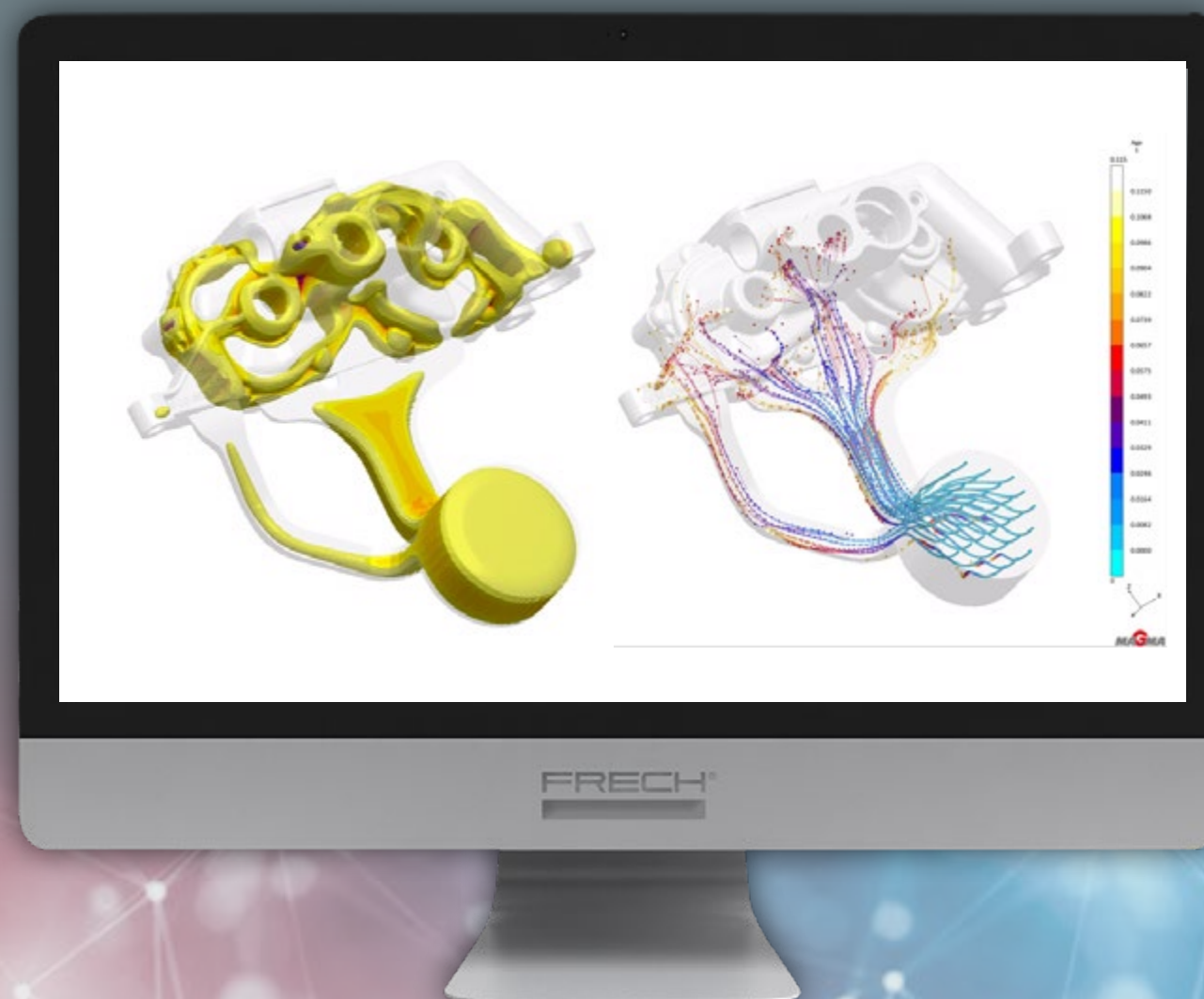
(O-GB-MtWk-Kk-Simu)

TARGETS

Die filling and solidification simulations are now „state of the art“. We will show how simulations are created and what general conditions and prerequisites are required. To derive measures from simulations, they have to be interpreted. This seminar is a tutorial on the interpretation of die filling and solidification simulations.

CONTENT

- The main objectives of a simulation
- Boundary conditions
- Participants and information flow
- Possible scenarios of data provision
- Distinguishing features of different simulation software
- Presentation of results: as movie, image or statistic
- Which parameters can a simulation show?
- Many evaluations show the same content in different result representations
- What a simulation cannot do
- How much simulation is necessary?
- How is a simulation created?
- Networking: consider networking strategies
- The simulation progress in 4 milestones



TARGET GROUP

Developers, buyers, die designers, technologists, quality management staff



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

1st date: Mar 17th, 2022
Morning: 9:00 a.m.
Central European Time (CET)
Duration: 5 hours

2nd date: Nov 10th, 2022
Afternoon: 3:00 p.m. (CET)
Considering American Region
Duration: 5 hours

REGISTRATION

REGISTRATION



PRICES

750,00 € / access

Consulting „Simulation of Casting Runner System“

(O-GB-Wk-Kk-Simu-Runner)

TARGETS

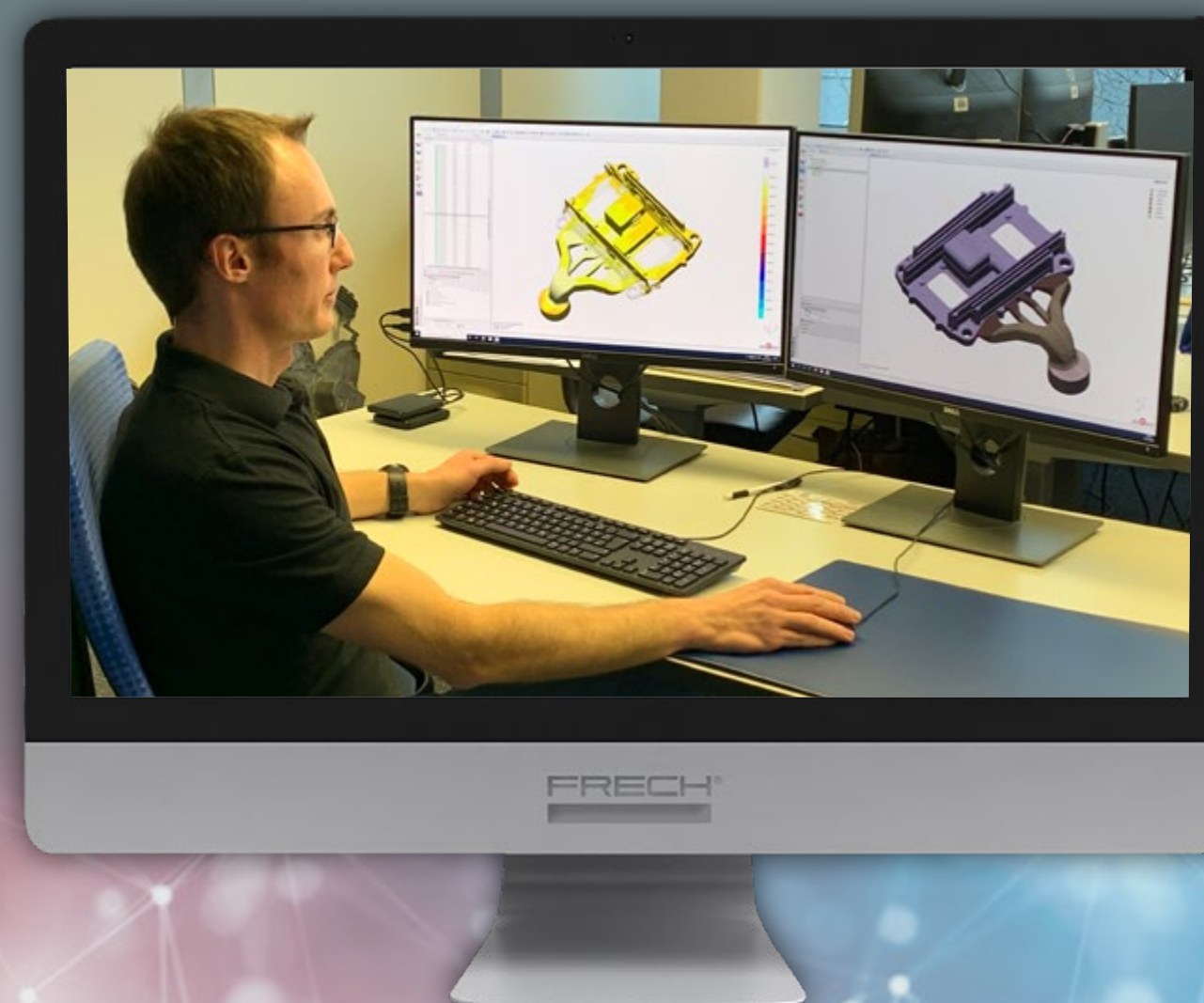
We provide you with a simulation-based design and analysis of your runner system. From this we derive optimization recommendations for your component and casting system.

CONTENT

- Calculation of casting parameters and locking force
- Evaluation of the die design (layout, tempering...)
- Analysis of castng system and venting
- Performance of a MAGMA filling and solidification simulation
- Movies as „avi-file“ (temperature, solidification, velocity, air bubbles)
- Detailed documentation of results in a powerpoint presentation

NOTE

- Revision/optimization of die design and casting runner system (2D/3D) is **not** included in this module
- If you wish we can create this for you



TARGET GROUP

Developers, die designers, technologists, quality assurance employees



EVENT DATE

 on request

Detailed elaboration, complete simulation and preparation by FRECH in advance. Presentation of results approx. 3 hours

[SEND REQUEST](#)



PRICES

3.500,00 € / simulation

Consulting „Component Check“

(O-GB-Wk-Kk-Component)

TARGETS

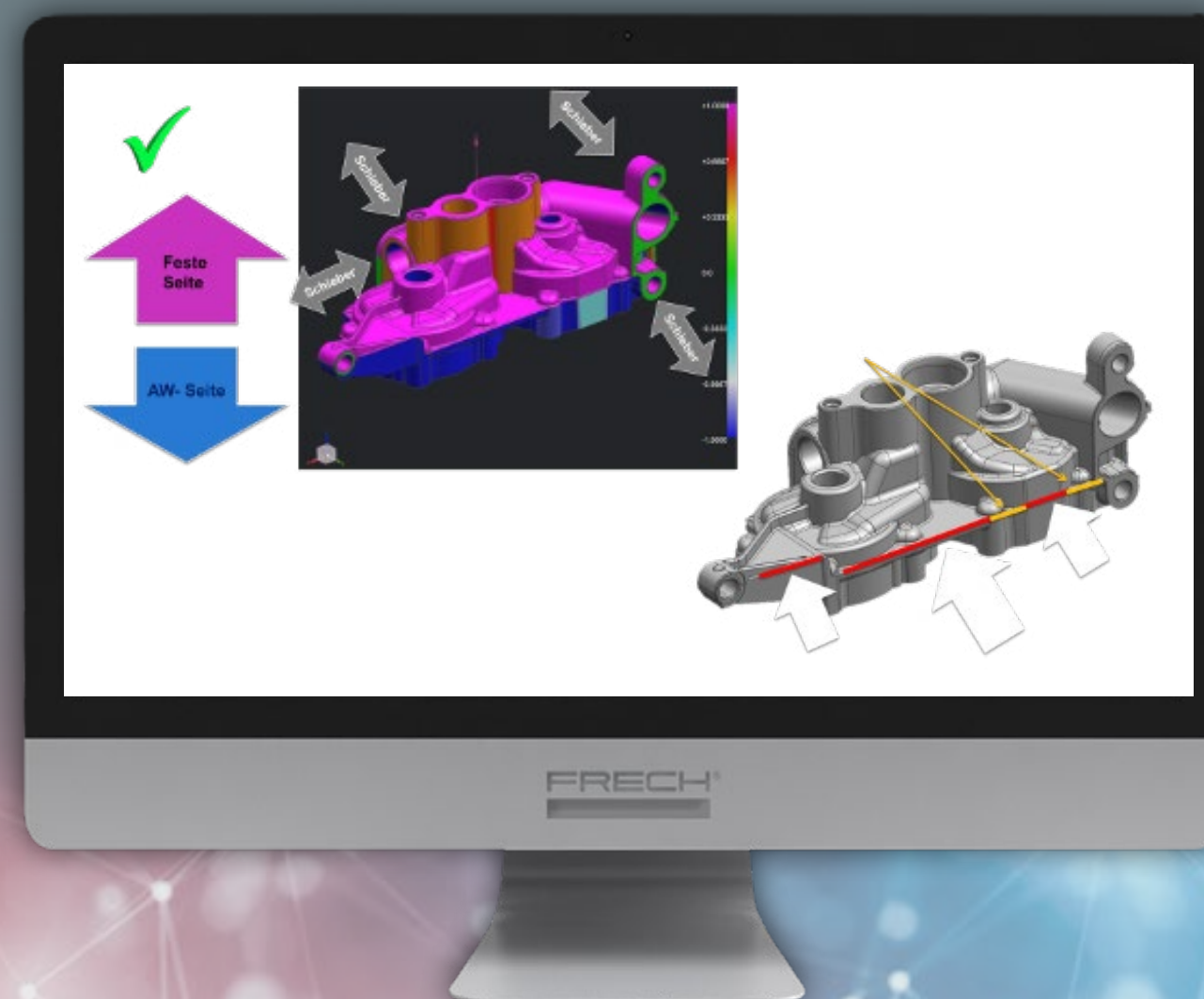
We offer you a comprehensive and detailed component check. The aim of this consultation is to design and optimize components for the die casting process right from the start. We develop with you an optimized component design with regard to component quality, process stability and costs.

CONTENT

- Analysis of part properties and requirements
- Testing for ideal demoldability
- Sprue options - identification and recommendation for placement
- Determine venting positioning
- Part location in the die
- Clamping force calculation
- Wall thickness check
- Recommendations for die design
- Output of the detailed result documentation for further use internally or with your business partners

NOTE

For internal preparation, we require relevant information and data on die design and/or die concept in advance. Then we present and discuss the result with you. The creation of a 3D model of the runner and gate is **not** included in this module.



TARGET GROUP

Developers, die designers, technologists, quality management staff



EVENT DATE

on request

Duration: Detailed elaboration and preparation by FRECH in advance.
Presentation of results /
Training approx. 2 hours

[SEND REQUEST](#)



PRICES

1.500,00 € / component check
Reduced 1.200,00 € when booking
a die design seminar in 2022

Consulting „Die Check“

(O-GB-Wk-Kk Die Check)

TARGETS

We offer you a thorough and detailed die check. The aim of the consultation is to identify possibilities for quality improvement through modifications to existing dies. Alternatively, this online consulting module can also be used to assist in the design of new dies.

CONTENT

- Mathematical calculations
- Analysis of cross sections of the nozzle, the runner, the branches, gates and vents
- Developing runner & gate optimization
- Find or adapt venting options
- Check tempering channel design
- Draw up sketches and suggestions for improvements
- Output of the detailed result documentation for further use internally or with your business partners

NOTE

For internal preparation, we require relevant information and data on die design and/or die concept in advance. Then we present and discuss the result with you. The creation of a 3D model of the runner and gate is **not** included in this module.



TARGET GROUP

Developers, die designers, technologists, quality management staff



EVENT DATE

on request

Duration: Detailed elaboration and preparation by FRECH in advance.
Presentation of results /
Training approx. 2 hours

[SEND REQUEST](#)



PRICES

1.500,00 € / die check
Reduced 1.200,00 € when booking
a die design seminar in 2022

ONLINE SEMINARS

HOT CHAMBER
MAINTENANCE COMPACT
Instruction for maintenance

COLD CHAMBER
MAINTENANCE COMPACT GDK-SERIES
Instruction for maintenance

COLD CHAMBER
MAINTENANCE COMPACT
Instruction for maintenance

① We also offer almost all seminars as individual seminars.

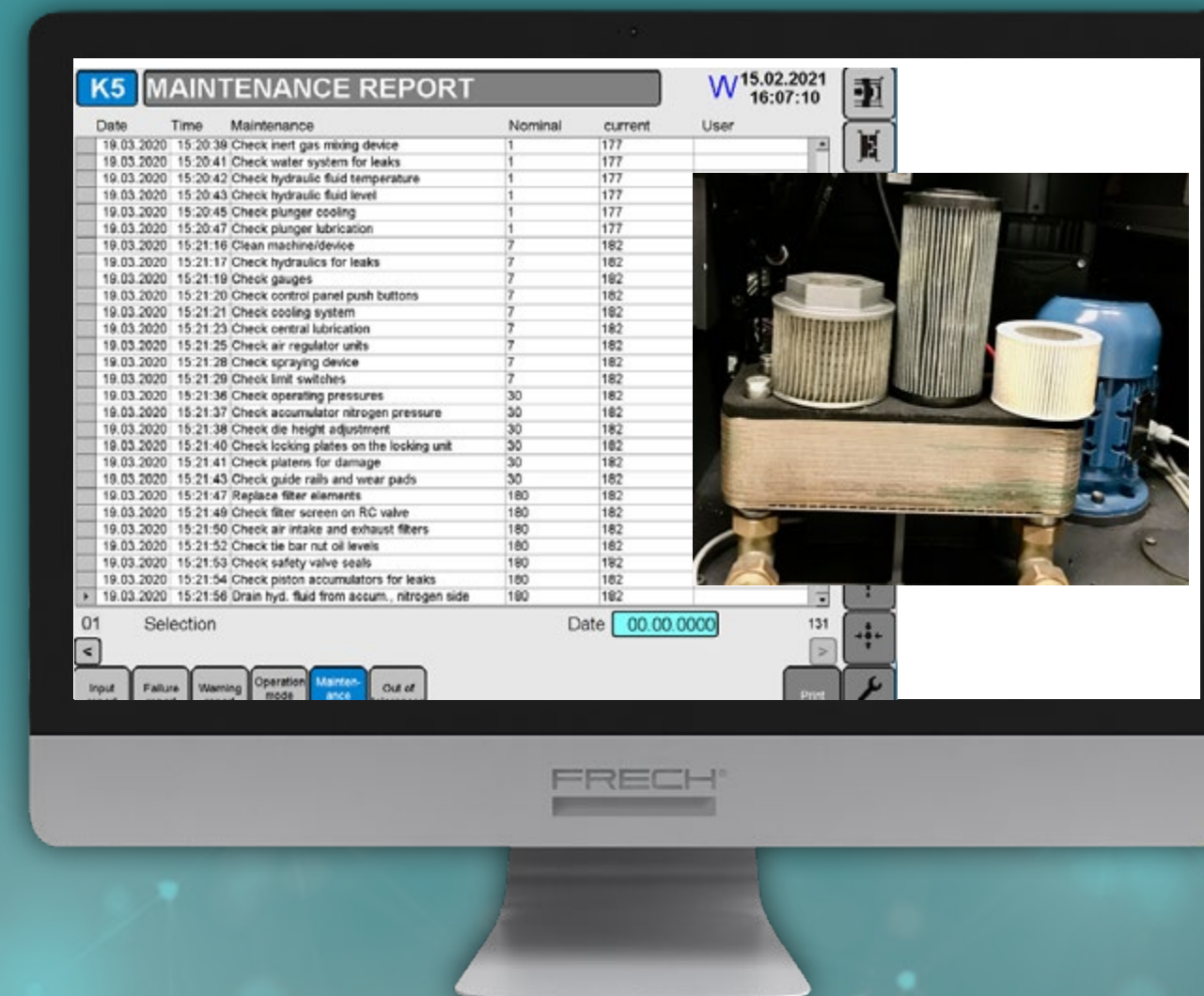
Maintenance „Compact“ of the **Hot Chamber** Die Casting Machine (O-GB-WaWk-Compact)

TARGETS

With this online module we train your employees to carry out maintenance independently, to determine the detailed technical condition of the machine and measures to be taken. The explanations are illustrated with a virtual tour around the machine.

CONTENT

- Safety during maintenance is the top priority
- Organize maintenance according to checklist
- Determine the mechanical, hydraulic and electrical condition of the components during a virtual tour around the machine
- Tips on filter replacement
- Check hydraulic hoses and initiate the necessary measures
- Waterglycol, sampling, but correctly
- Screen pages for maintenance



TARGET GROUP

Maintenance personnel,
foundry planners



PREVIOUS KNOWLEDGE

Basic technical understanding



EVENT DATE

1st date: Mar 24th, 2022
Afternoon: 3:00 p.m. (CET)
Considering American Region
Duration: 4 hours

2nd date: Oct 20th, 2022
Afternoon: 3:00 p.m. (CET)
Considering American Region
Duration: 4 hours

[REGISTRATION](#)

[REGISTRATION](#)

[REQUEST INDIVIDUAL SEMINAR](#)



PRICES

600,00 € / access

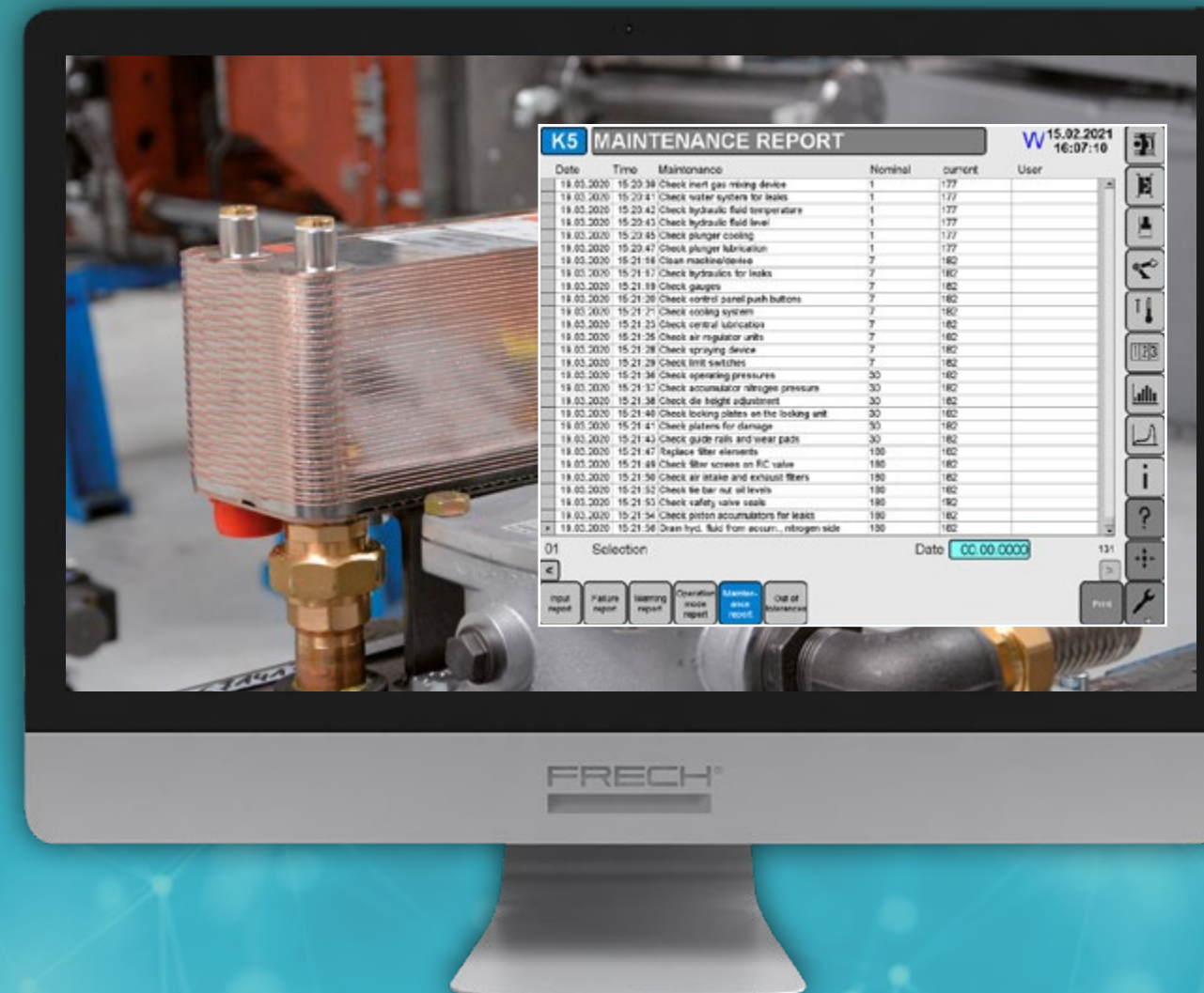
Maintenance „Compact“ of the Cold Chamber Die Casting Machine (GDK-Series) (O-GB-WaGDK-Compact)

TARGETS

With this online module we train your employees to carry out maintenance independently, to determine the detailed technical condition of the machine and measures to be taken.

CONTENT

- Safety is the top priority during maintenance
- The essential points of maintenance: Procedure, evaluation, measures
- Media preparation and filtration as the basis of a „clean“ hydraulics
- Check hydraulic hoses and initiate the necessary measures



TARGET GROUP

Maintenance personnel,
foundry planners



PREVIOUS KNOWLEDGE

Basic technical understanding



EVENT DATE

on request

[SEND REQUEST](#)

[REQUEST INDIVIDUAL SEMINAR](#)



PRICES

on request

Maintenance „Compact“ of the Cold Chamber Die Casting Machine (M- and K-Series) (O-GB-WaKk-Compact)

TARGETS

With this online module we train your employees to carry out maintenance independently, to determine the detailed technical condition of the machine and measures to be taken. The explanations are illustrated with a virtual tour around the machine.

CONTENT

- Safety is the top priority during maintenance
- Carry out maintenance according to checklist
- Determining the current machine condition
- Media preparation and filtration as the basis of a „clean“ hydraulics
- Check hydraulic hoses and initiate the necessary measures



TARGET GROUP

Maintenance personnel,
foundry planners



PREVIOUS KNOWLEDGE

Basic technical understanding



EVENT DATE

1st date: Mar 16th, 2022
Afternoon: 3:00 p.m. (CET)
Considering American Region
Duration: 4 hours

2nd date: Nov 10th, 2022
Afternoon: 3:00 p.m. (CET)
Considering American Region
Duration: 4 hours

REGISTRATION

REGISTRATION

REQUEST INDIVIDUAL SEMINAR



PRICES

600,00 € / access

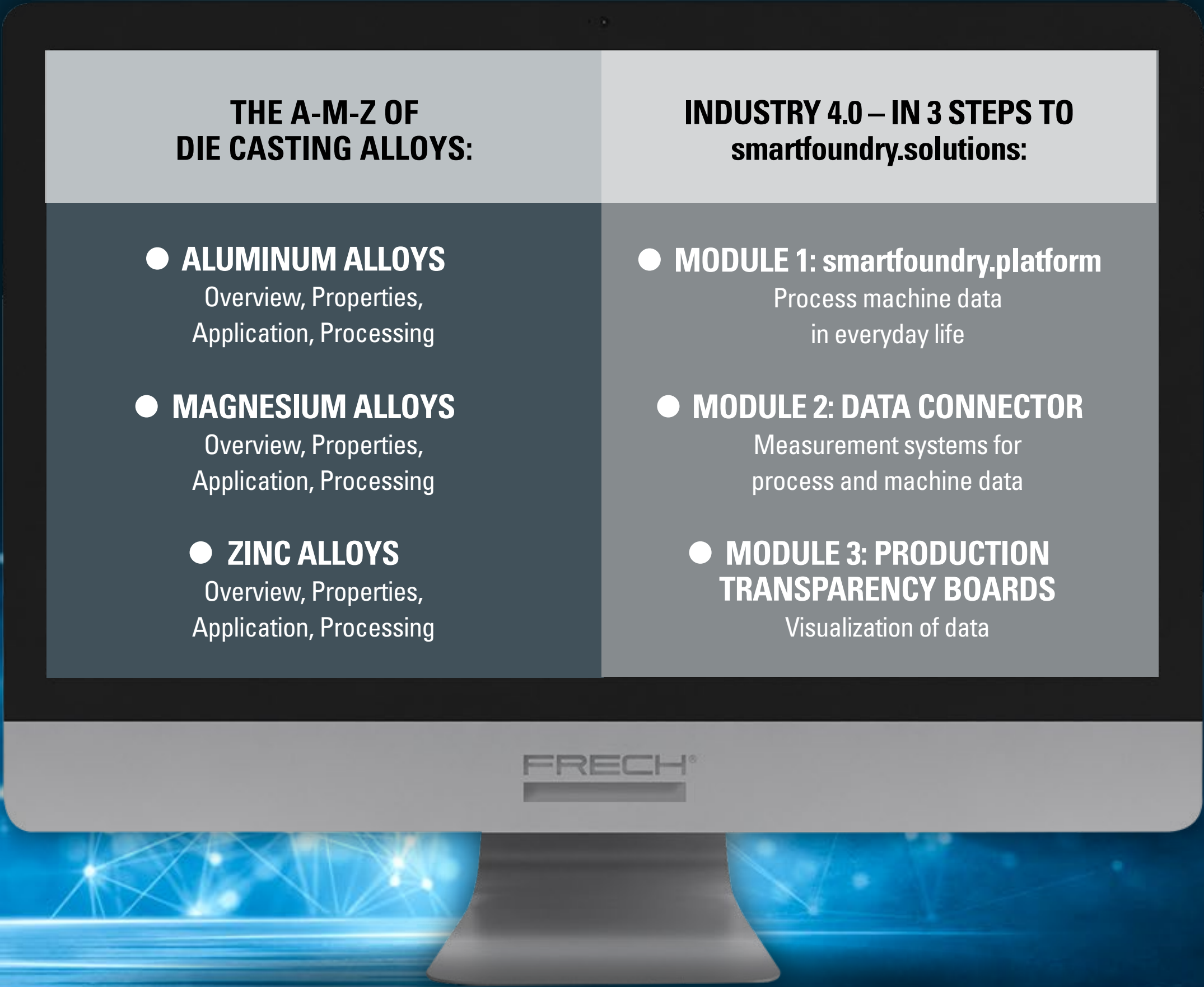
Around the Die Casting Machine



ONLINE SEMINARS



ONLINE SEMINARS



Around the Die Casting Machine Online Seminar

FRECH®

HOT- and **COLD CHAMBER** „What is it?“

(O-GB-Wk-Kk-Basis)

TARGETS

One may also ask which die casting processes there are and how they differ. We explain what is behind the name „Hot and Cold Chamber“.

CONTENT

- Definition of the term „Die Casting“
- Brief description of both processes
- A virtual hot chamber cycle explained by means of an animation
- A virtual cold chamber cycle explained with an animation

(better than youtube!)



TARGET GROUP

All who are interested in die casting.
All who have to do with die casting.
Also suitable for your customers!



EVENT DATE

1st date: Mar 21st, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 30 minutes

2nd date: Nov 24th, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 30 minutes

REGISTRATION

REGISTRATION



PRICES

Free of charge

BACK TO OVERVIEW

Around the Die Casting Machine Online Seminar

FRECH®

Vacuum Systems (0-GB-Kk-VDS vacuum)

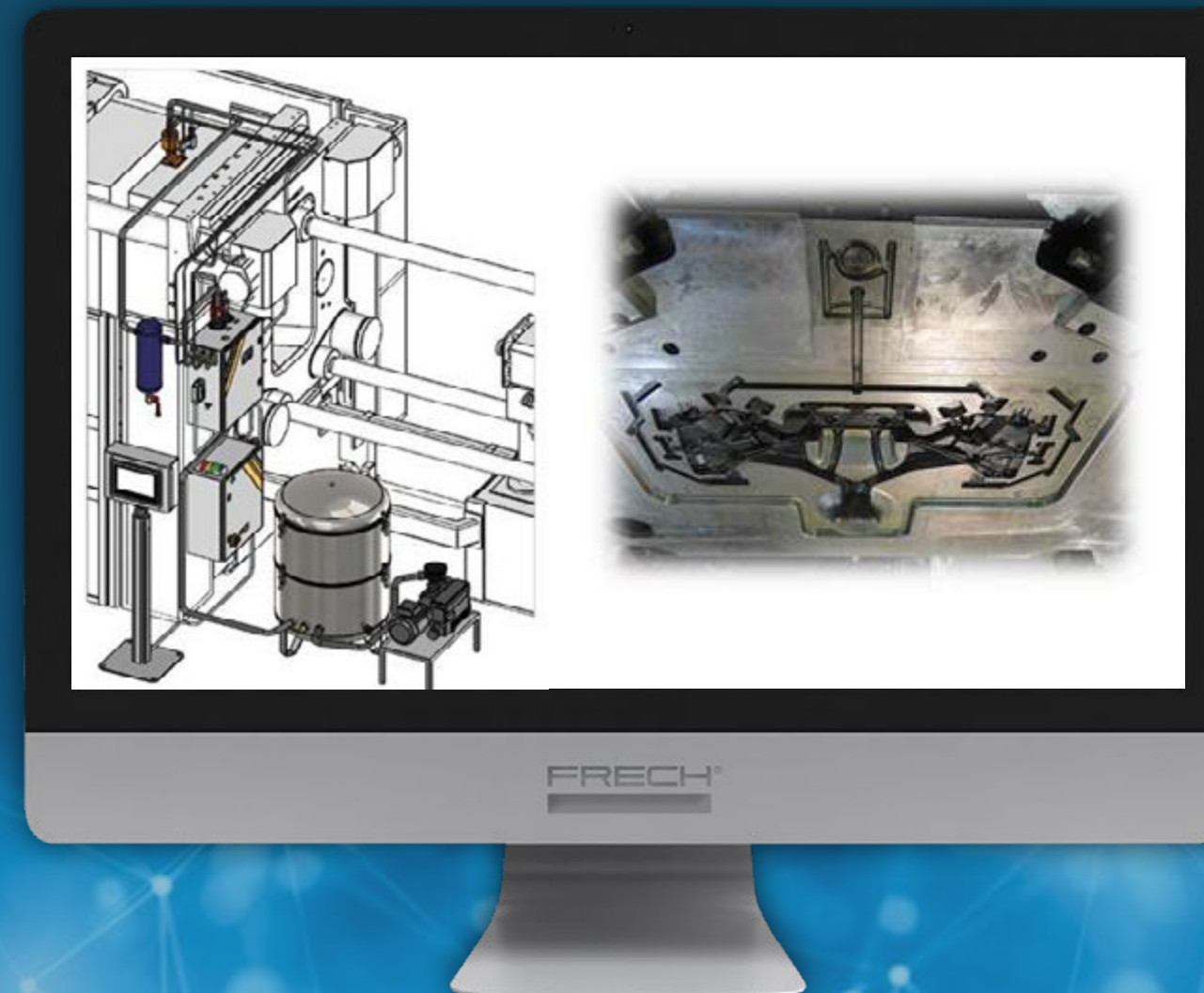


TARGETS

Unfortunately, there is no such thing as non-porous die casting, but there is one with less pores. If passive venting is no longer sufficient to achieve the desired component quality, die evacuation systems are used. You will learn their structure, dimensioning and application with practical examples. We will show you how to adapt the vacuum unit to your casting process, which has a significant influence on the efficiency and repeatability in production.

CONTENT

- Comparison and application possibilities of Chill Vents compared to valves
- Characteristic values and parameter settings of the vacuum unit
- Leak test of die and sleeve
- Process monitoring
- Maintenance and optimization
- Optimal integration and linking of evacuation elements



TARGET GROUP

Machine operators, machine setters, die designers



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

Date: Mar 3rd, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 1 hour

[REGISTRATION](#)



PRICES

Free of charge

[BACK TO OVERVIEW](#)

Around the Die Casting Machine Online Seminar

MELTEC Aluminium Vacuum Dosing (O-GB-Kk-Meltec-AVD)

MELTEC®

TARGETS

Correct dosing of the melt is essential in the die casting process for optimum and consistent part quality. At the end of the online seminar your employees understand the function and advantages of vacuum dosing.

CONTENT

- Functionality of the AVD
- Dosing accuracy
- Transport of the melt - low temperature loss
- Dosing of the melt - low oxide formation
- Maintenance, availability and service life
- Application examples



TARGET GROUP

Newcomers, machine operators,
machine setters, quality management staff



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

Date: Mar 2nd, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 1 hour

[REGISTRATION](#)



PRICES

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„MZT“ - Multi-Zone Tempering System (O-GB-Kk-Robamat-MZT)



TARGETS

Die casting is a temperature-sensitive process. The more precisely the tempering channels approach to the complex die contours and the more sensitive the temperature control, the more stable is the temperature balance. The trend towards minimum or concentrate spraying requires an extreme stable and efficient temperature control concept, which we would like to present to you.

CONTENT

- Up to 80 independent tempering circuits in one compact tempering system can be connected to the die via manifolds. It is important to regulate circuits separately, to monitor them, and to recognize and detect leaks in good time
- Multi-zone tempering versus standard temperature control?
- Structure and function of the multi-zone tempering system
- Possibilities of implementation in existing temperature control concepts
- Monitoring possibilities



TARGET GROUP

Machine operators, machine setters, die designers, technologists



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

Date: Mar 4th, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 1 hour

[REGISTRATION](#)



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Aluminum Alloys

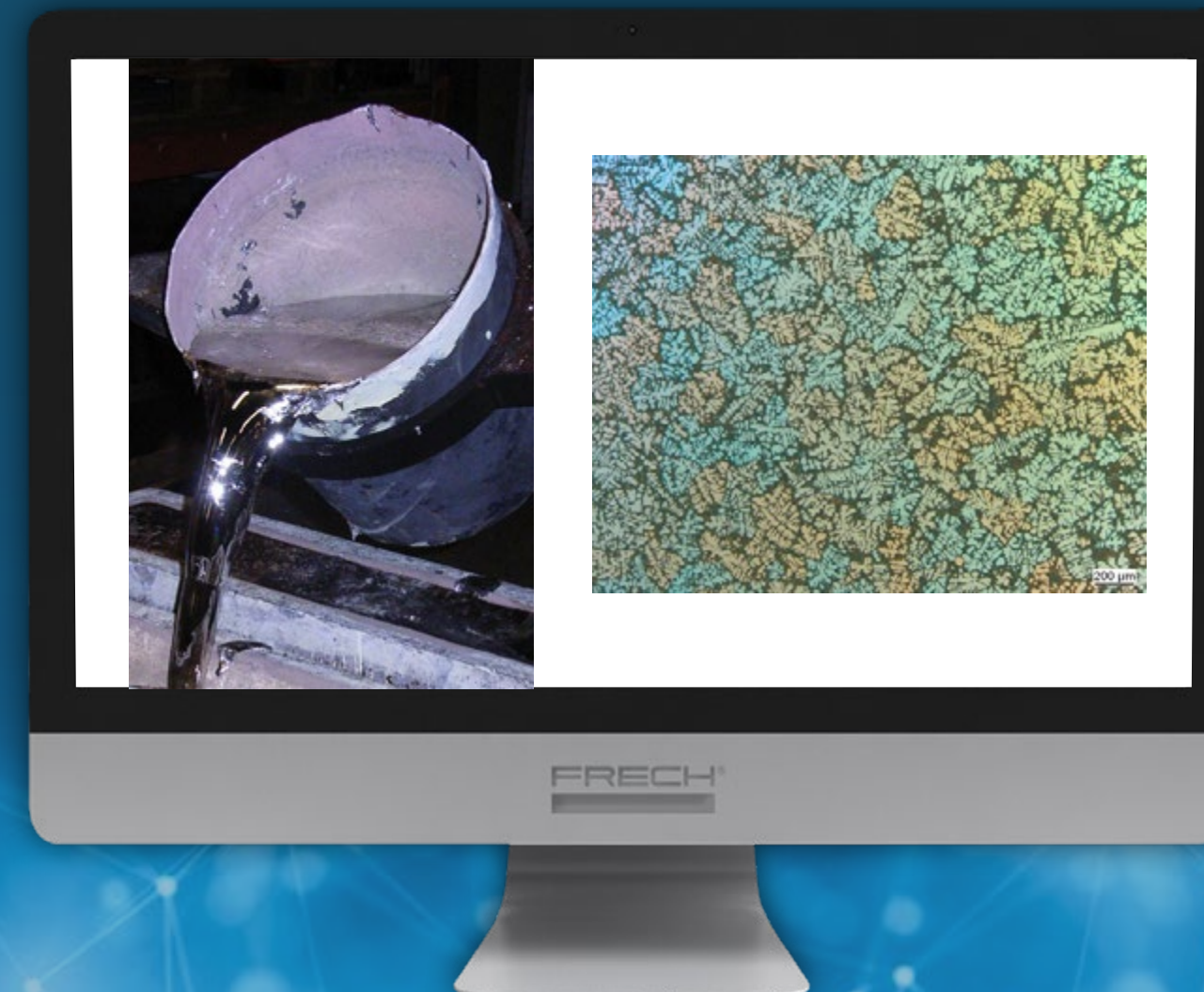
Overview, properties, applications, processing (O-GB-Kk-Aluminium)

TARGETS

Getting to know the mechanical properties of aluminum alloys, overview of the standardized die casting alloys and the commonly used special alloys as well as modern melting and process technology.

CONTENT

- Aluminum alloys according to DIN EN 1706
- Mechanical properties
- The most common alloys
- Alloy components and their effects on castability and parts properties
- Melting and process technology
- Melt cleaning and handling
- Outlook - challenges for the future



SPEAKER

Dr.-Ing. Alexander Baesgen
Oskar Frech GmbH + Co.KG



TARGET GROUP

Operators, machine setters,
foundry managers, buyers



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

Date: Mar 22th, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 45 minutes

[REGISTRATION](#)



PRICES

40,00 € / access

Magnesium Alloys

Overview, properties, applications, processing (O-GB-Wk-Kk-Magnesium)

TARGETS

Getting to know the mechanical properties of magnesium alloys compared to aluminum alloys, overview of all standardized alloys and the most common special alloys.

CONTENT

- Magnesium alloys according to DIN EN 1753
- Mechanical properties
- The most common alloys and their applications
- Alloy components and their effects on castability and parts properties
- Handling instructions for use in die casting machines
- Outlook



SPEAKER

Christoph Schendera
EFM



TARGET GROUP

Operators, machine setters,
foundry managers, buyers



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

Date: Mar 22th, 2022
Afternoon: 4:00 p.m.
Central European Time (CET)
Duration: 45 minutes

[REGISTRATION](#)



PRICES

40,00 € / access

Zinc Alloys

Overview, properties, applications, processing (O-GB-Wk-Zinc)

TARGETS

Getting to know the mechanical properties of zinc alloys, overview of all standardized die casting alloys and the most commonly used special alloys.

CONTENT

- Zinc alloys according to DIN EN 1744
- Mechanical properties
- The most common alloys
- Alloy components and their effects on castability and parts properties
- Handling instructions for use in die casting machines
- Outlook



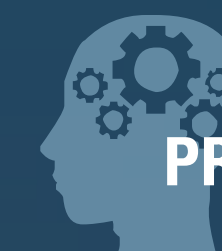
SPEAKER

Dr. Didier Rollez
Grillo Werke Duisburg



TARGET GROUP

Operators, machine setters,
foundry managers, buyers



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

Date: Mar 22th, 2022
Afternoon: 5:00 p.m.
Central European Time (CET)
Duration: 45 minutes

[REGISTRATION](#)



PRICES

40,00 € / access

smartfoundry.platform – Module 1

„Use of process and machine data in daily life“ (O-GB-Wk-Kk-SFS-1-platform)

TARGETS

Through 24/7 process and machine data acquisition, states and trends can be recorded. With a smart data analysis and display adapted to the task, daily work can be simplified and optimization projects can be accompanied. We present the smartfoundry.platform and various applications and show through selected case studies, how process and machine data can be used profitably.

CONTENT

- Presentation of the components for data acquisition
- Presentation of foundryOS and the smartfoundry.platform
- Presentation of the platform application „Production Intelligence Boards“
- Presentation of the platform application „Production Transparency Tool“
- Presentation of the platform application „OEE Agent“
- Discussion of selected case studies

NOTE

This is the first of 3 smartfoundry modules. Please also note Module 2 „Data Connector“ and Module 3 „Production Transparency Boards“.



SPEAKER

Dr.-Ing. Kai Kerber
Oskar Frech GmbH + Co.KG



TARGET GROUP

Management, foundry management



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

1st date: Mar 1st, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 30 minutes

2nd date: Nov 29th, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 30 minutes

REGISTRATION

REGISTRATION



PRICES

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Data Connector – Module 2

„An industrial measuring system for process and machine data“ (O-GB-Wk-Kk-SFS-2-dataconnector)

TARGETS

Not all machine and process data can be recorded via interfaces of the die casting machines or the peripheral devices. In the course of digitalization, additional sensors and measuring devices are increasingly being installed in production. In some cases, personnel, processes and machines are already to be influenced based on the results of data analysis. The Data Connector from smartfoundry.solutions has been developed for this range of tasks. We want to present the current functions, sensor packages and use cases.

CONTENT

- Presentation of the Data Connector
- Insight into the OPC UA interface functions
- Presentation of the integration of the Data Connector into the smartfoundry.solutions data acquisition system
- Presentation of selected sensor and function packages
- Discussion of selected use cases

NOTE

This is the second of 3 smartfoundry modules. Please also note Module 1 „smartfoundry.platform“ Module 3 „Production Transparency Boards“.



SPEAKER

Dr.-Ing. Kai Kerber
Oskar Frech GmbH + Co.KG



TARGET GROUP

Management, foundry management



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

1st date: Mar 23rd, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 30 minutes

2nd date: Nov 30nd, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 30 minutes

[REGISTRATION](#)

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Production Transparency Boards – Module 3

“Visualization of data in and for production” (O-GB-Wk-Kk-SFS-3-Productionboard)

TARGETS

Extensive data and settings, various functions and assistance systems have been available in the controls of production machines for a long time. However, many of these data and functions are not used because the information is difficult to access or is simply available in the wrong place. Data can be visualized interactively, in the right place with a display adapted to the user and the task, by Production Transparency Boards. We want to present Production Transparency Boards and discuss the possible applications.

CONTENT

- Production Transparency Boards in the smartfoundry.network
- Use Case „Machine State“
- Use Case „Maschine State in Detail“
- Use Case „Maintenance and Repair“

NOTE

This is the third of 3 smartfoundry modules. Please also note Module 1 „smartfoundry.platform“ and Module 2 „Data Connector“.



SPEAKER

Dr.-Ing. Kai Kerber
Oskar Frech GmbH + Co.KG



TARGET GROUP

Management, foundry management



PREVIOUS KNOWLEDGE

Not needed



EVENT DATE

1st date: Apr 05th, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 30 minutes

2nd date: Dec 1st, 2022
Afternoon: 3:00 p.m.
Central European Time (CET)
Duration: 30 minutes

REGISTRATION

REGISTRATION



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General Information Online Seminar

REGISTRATION AND BOOKING

You choose an online seminar or consulting module and register by mail using the registration form provided.

COSTS

Please refer to the individual seminar descriptions for costs.
We charge per access, i.e. per customer with max. 5-6 participants.

AFTER BOOKING

Please provide us with the relevant email addresses of the participants who will be attending the online seminar. Unknown mail addresses or participants cannot attend for security reasons and will be removed from the online seminar.

30 MINUTES BEFORE THE SESSION

- We will send you a link to start the training
- We at FRECH are currently working with ZOOM
- You can find more information about Zoom at <https://zoom.us/>.
- For laptops / desktop PCs no preparation is required
- Tablets / smartphones require the download of the application „Zoom“.
- On the homepage of „ZOOM“ via „Support“ into the „Help Center“
> „First steps“ > „Mobile devices“

SHORTLY BEFORE THE SESSION

Connection check on both sides to image, sound and camera. For your part, please use the rooms provided for this purpose. Recording of an online seminar is generally not permitted.

SHORTLY AFTER THE SESSION

Feedback - We always want to improve, so we welcome your feedback on our online seminar, even afterwards, at: gramm.sabine@frech.com.
Sending documentation and certificates of participation in the case of payable online seminars.

INFORMATION

Seminar inquiries, questions about registrations and information can be obtained from Ms. Sabine Gramm.
Tel: 0049 (0) 7181 702-249
Mail: gramm.sabine@frech.com

CHANGES

In case of too few registrations and force majeure we reserve the right to postpone or cancel a seminar. You will be informed in time.