

# Melting

MF Induction Furnace Type FS

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# MF Induction Furnace

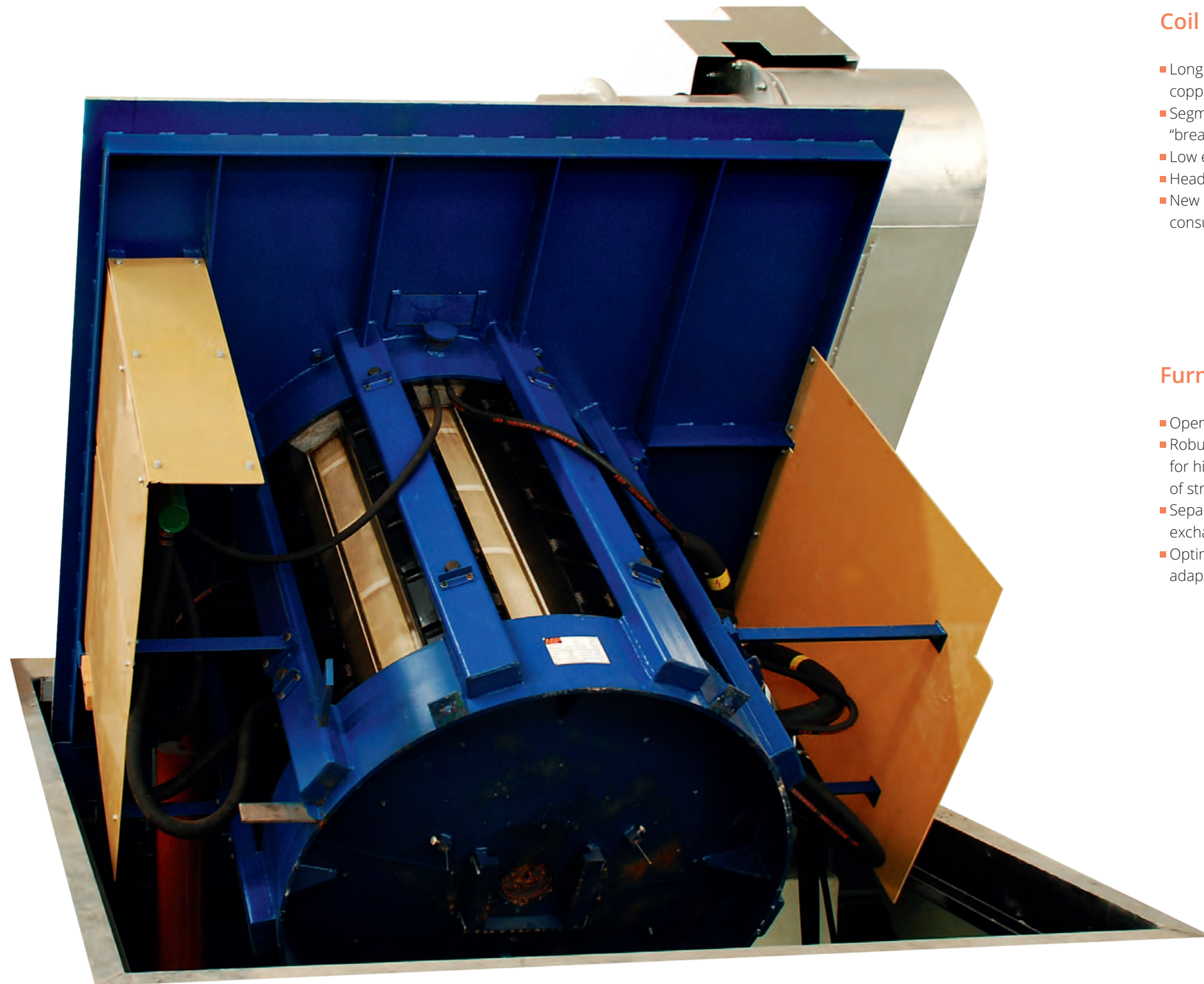
## Type FS

### Available systems

- meets requirements for melting ferrous and non-ferrous alloys
- 1.000–6.000 kg capacity (related to cast iron)
- Melting rates between 1.000 kg/h–9.600 kg/h

### Enhanced safety

- Improved ground-fault detection system
- Automatic test of bath-grounding
- Automatic reactivation of detection system after manual deactivation
- Automatic self-test
- Furnace coil designed as hedgehog-coil to avoid breakthroughs



### Coil Design

- Long lifetime, based on rectangular copper profile
- Segmental technology allows “breathing” of the coil
- Low energy consumption
- Hedgehog coil for higher safety
- New coil design to reduce energy consumption

### Furnace Design

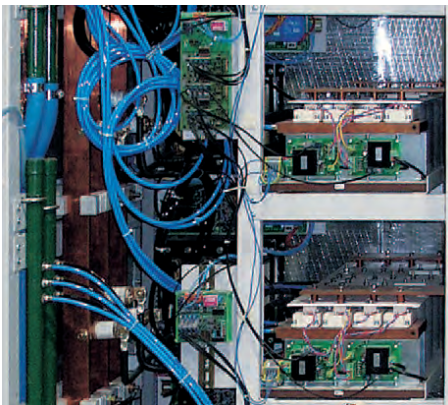
- Open design for easy maintenance
- Robust designed magnetic yokes for higher efficiency and reduction of stray fields
- Separate furnace head for easy exchange reduces downtimes
- Optimized fume-extraction with adapted ABP ECOTOP®-hoods

## Meltprocessor PRODAPT® - Advanced

- PLC-based solution
- Calculation of energy request according to the furnace content
- Control of energy supply for melting and holding operation, as well as for cold-start and sintering
- Monitoring and visualization of operation data and conditions
- System monitoring and alarm function
- Reporting function

## Efficient power supply with modern IGBT technology

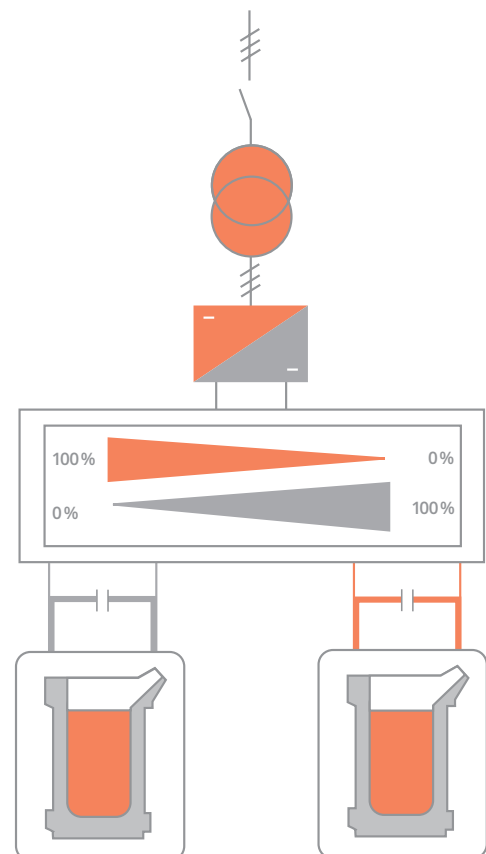
- Compact design based on modular structure
- High efficiency
- Cooling with plant water possible
- Improved availability through short service times during a breakdown
- Power factor  $\cos \varphi > 0,95$



IGBT Converter

## 2 furnaces, 1 converter – TWIN-POWER® principle

- Converter power freely distributable between both furnaces
- Melting in one furnace and simultaneously sintering or holding in the other possible
- Improved usage of the converter
- Lower maintenance costs
- Lower investment costs compared to separated power supplied



TWIN-POWER® principle

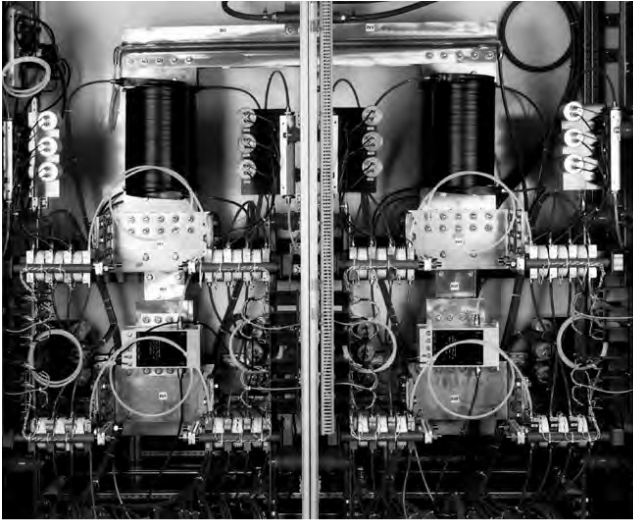


# Type FS

## Advantages at a glance

- For ferrous and non-ferrous metals
- High reliability and availability
- Low energy consumption
- High operational safety
- Maintenance friendly design
- Low life cycle costs
- energy supply in modern IGBT as well as in approved SCR design





# Melting

MF Induction Furnace Type IFM

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# MF Induction Furnace

## Type IFM

### Available systems

- meets requirements for melting ferrous and non-ferrous alloys
- 8.000 – 65.000 kg capacity (related to cast iron)
- power supplies between 1 MW and 42 MW available

### Enhanced safety

- Improved ground-fault detection system
- Automatic test of bath-grounding
- Automatic reactivation of detection system after manual deactivation
- Automatic self-test
- Furnace coil designed as headgehog-coil to avoid breakthroughs



### Coil Design

- Long lifetime, based on rectangular copper profile
- Segmental technology allows "breathing" of the coil
- Low energy consumption
- Headgehog coil for higher safety

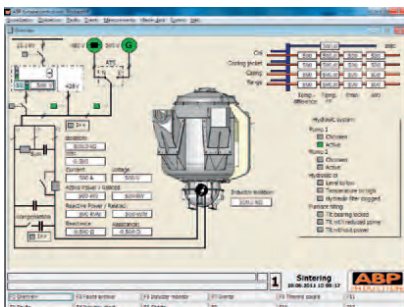


### Furnace Design

- Open design for easy maintenance
- Water-cooled magnetic yokes
- Separate furnace head for easy exchange reduces downtimes
- Segmental technology
- Pouring spout in tilting axis of the furnace to avoid moving pouring stream
- Low noise generation
- Optimized fume-extraction with ABP ECOTOP®-hoods

## Meltprocessor PRODAPT® - Advanced

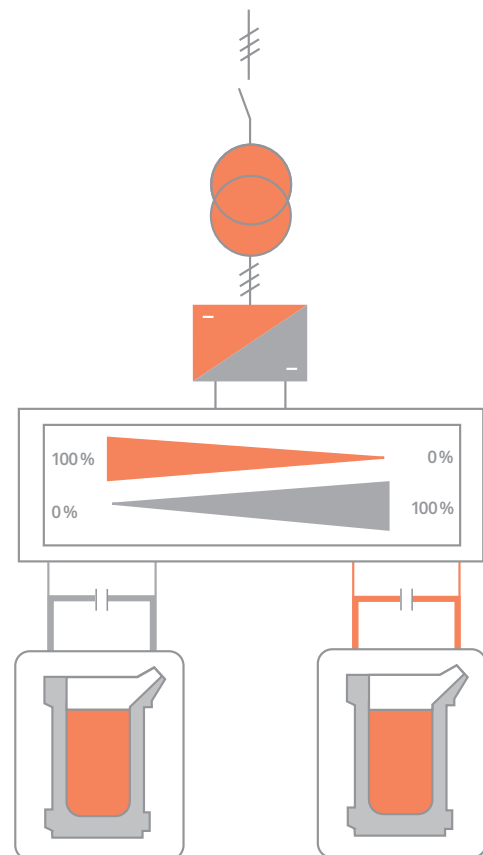
- PLC-based
- Calculation of energy request according to the furnace content
- Control of energy supply for melting and holding operation, as well as for cold-start and sintering
- Monitoring and visualization of operation data and conditions
- System monitoring and alarm function
- Reporting function
- Data exchange with SCADA systems possible



Meltprocessor PRODAPT®

## 2 furnaces, 1 converter – TWIN-POWER® principle

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TWIN-POWER® principle

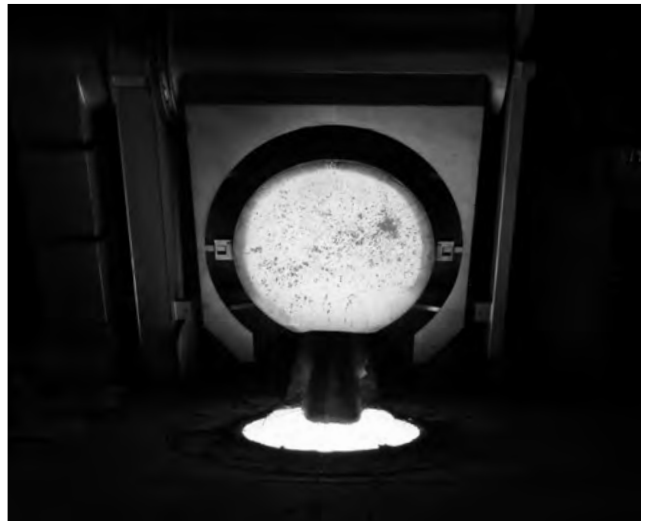
# Type IFM

## Advantages at a glance

- For ferrous and non-ferrous metals
- For high melt performance
- High reliability and availability
- Low energy consumption
- High operational safety
- Maintenance friendly design
- Low life cycle costs







# Melting

MF Induction Furnace Type IFM-S

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# MF Induction Furnace

## Type IFM-S

### Available systems

- For steel and steel alloys
- 8.000 – 65.000 kg capacity
- power supplies between 1 MW and 42 MW available

### Enhanced safety

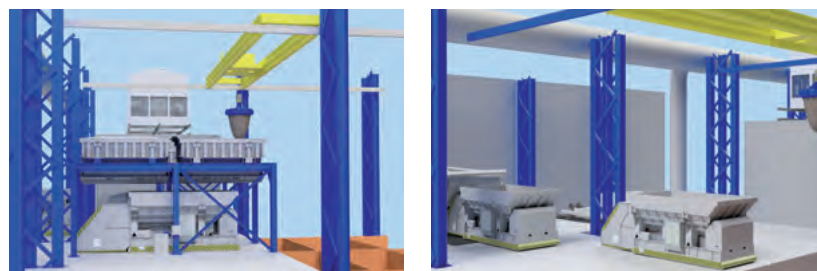
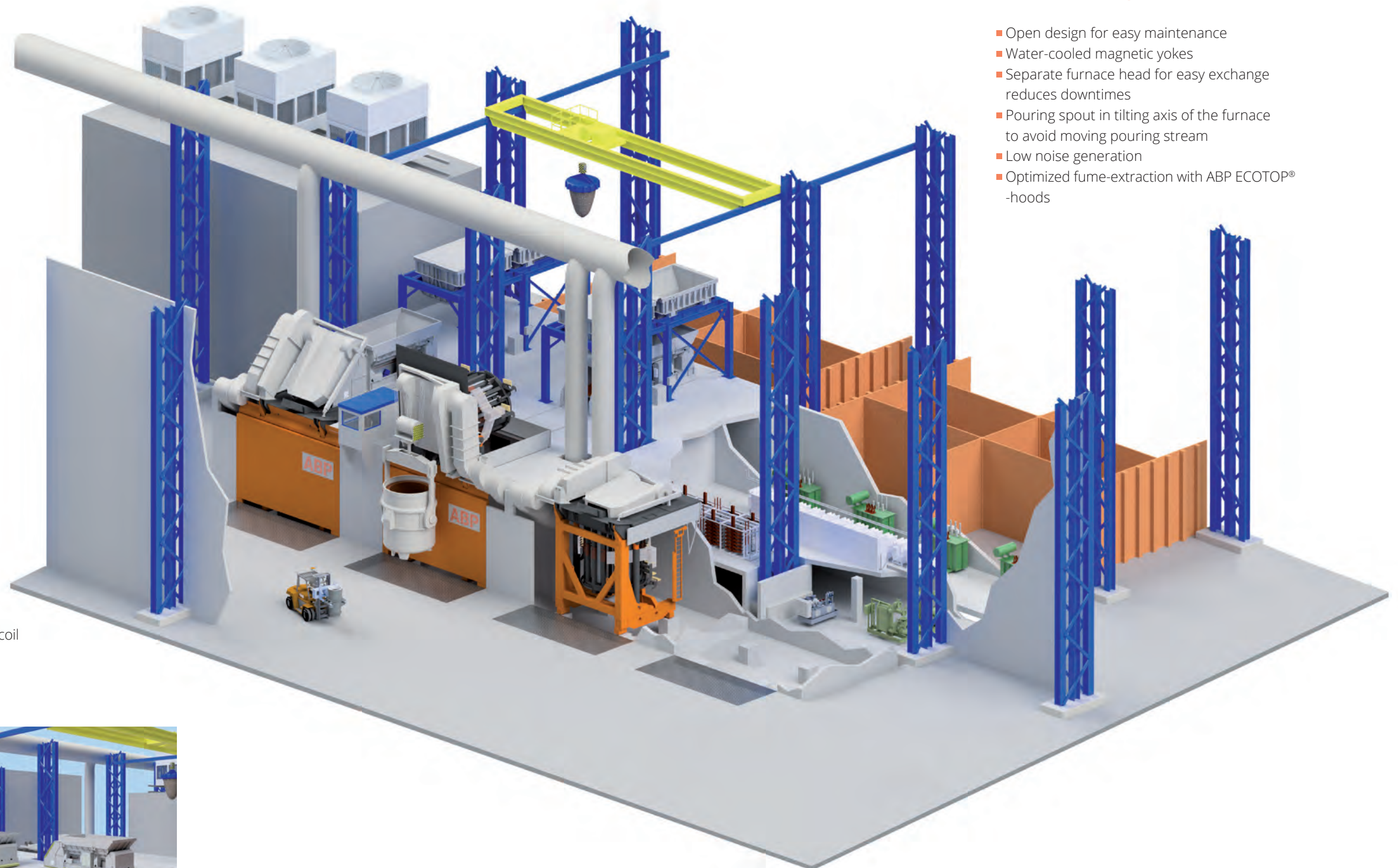
- Improved ground-fault detection system
- Automatic test of bath-grounding
- Automatic reactivation of detection system after manual deactivation
- Automatic self-test
- Furnace coil designed as hedgehog-coil to avoid breakthroughs

### Coil Design

- Long lifetime, based on rectangular copper profile
- Segmental technology allows “breathing” of the coil
- Low energy consumption
- Hedgehog coil for higher safety

### Furnace Design

- Open design for easy maintenance
- Water-cooled magnetic yokes
- Separate furnace head for easy exchange reduces downtimes
- Pouring spout in tilting axis of the furnace to avoid moving pouring stream
- Low noise generation
- Optimized fume-extraction with ABP ECOTOP®-hoods

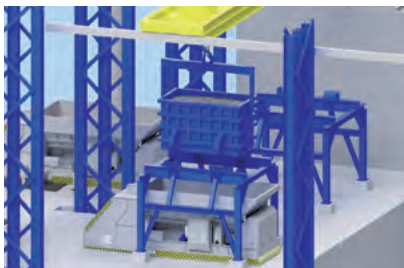


## Meltprocessor PRODAPT® - Enterprise

- PC-based solution
- Calculation of energy request according to the furnace content
- Control of energy supply for melting and holding operation, as well as for cold-start and sintering
- Monitoring and visualization of operation data and conditions
- System monitoring and alarm function
- Reporting function
- Data exchange with SCADA systems possible

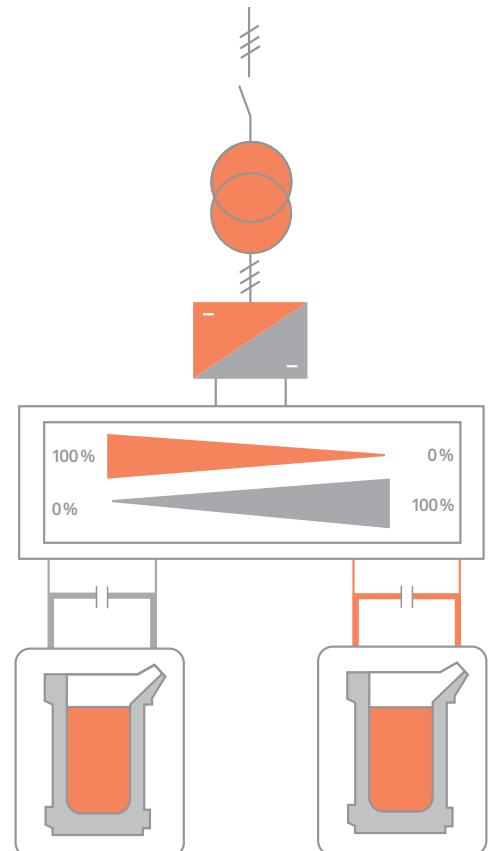


Meltprocessor PRODAPT®



## 2 furnaces, 1 converter – TWIN-POWER® principle

- Converter power freely distributable between both furnaces
- Melting in one furnace and simultaneously sintering or holding in the other possible
- Improved usage of the converter
- Lower maintenance costs
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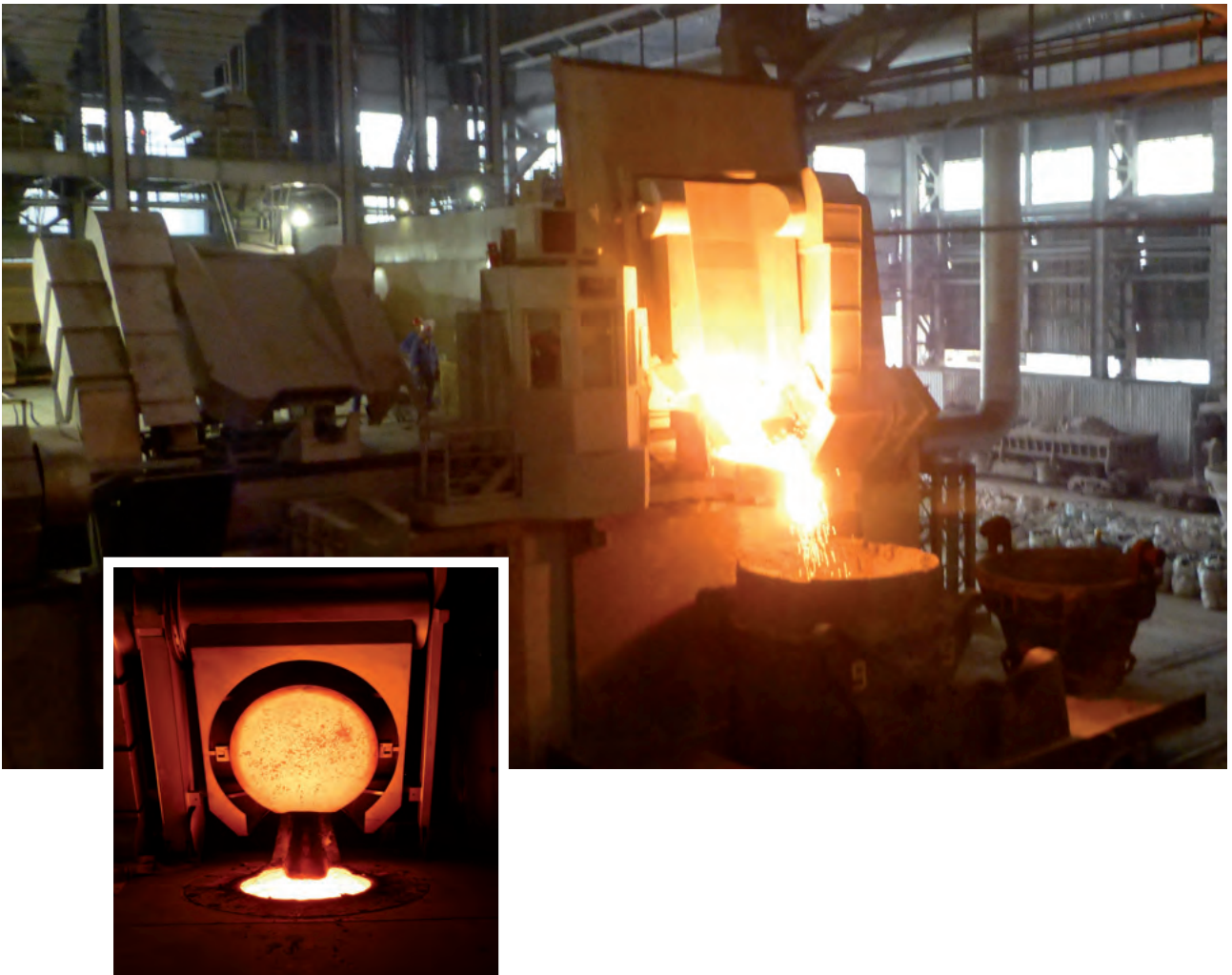
TWIN-POWER® principle



# Type IFM-S

## Advantages at a glance

- For steel plants
- For high melt performance
- High reliability and availability
- Low energy consumption
- High operational safety
- Maintenance friendly design
- Low life cycle costs



# Your Contacts

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