



# Invitation to the 87. AMAP Colloquium

Presentation by

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**Decarbonization in foundries through  
heat recovery from process and hall exhaust air**

on Thursday, **August 22<sup>nd</sup>, 2024 at 4.00 pm**  
with subsequent discussion at AMAP

All interested persons are sincerely invited to the AMAP foyer.  
Snacks and refreshments will be available.

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## Decarbonization in foundries through heat recovery from process and hall exhaust air

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### **Abstract**

How can a foundry improve its energy efficiency and reduce its CO<sub>2</sub> emissions on the path to decarbonization through modern environmental technology?

Due to stricter emission limits and clearly formulated requirements for sustainable production sites by end customers, foundries are looking for suitable energy-saving concepts with the aim of decarbonization. Using energy as efficiently as possible is becoming the foundation for the competitiveness of foundries. The tried-and-tested KMA solutions support foundries in saving energy, reducing CO<sub>2</sub> emissions and at the same time creating a modern working environment for qualified personnel.

In practice, many foundries are faced with the challenge of implementing an effective and efficient air management system without being able to accurately assess the individual suitability of non-specialist technical solutions. The determination of important influencing variables and operating cost drivers, such as the exhaust air volume, the hourly air exchange rate, the needs-based design and connection of the exhaust air and supply air systems and the options for capturing smoke at the emission sources, is foundry-specific and requires tried-and-tested expertise. As an expert in integrated solutions for exhaust air purification, heat recovery and heat utilization, KMA deals with the entire range of environmental technology services for all foundry processes.

Foundries not only create clean air through smart air management, but also benefit from significant energy savings of up to 90% with the help of targeted efficiency measures and intelligent heat recovery compared to other processes. Using professionally designed ventilation concepts, as well as energy-efficient filter and heat recovery systems, can successfully improve the air quality and energy efficiency in the foundry and can significantly reduce the operating costs for the supply air and exhaust air systems at the same time.

To optimize the foundry's own energy efficiency, KMA provides an overview of various measures ranging from hall ventilation systems with heat recovery, to effective smoke capture of emissions, the use of energy-efficient filter systems and tried-and-tested energy recovery.