SCHUST

A MEMBER OF THE SCHEUCH GROUP

# PROJECT PROFILE

## DESIGNING AND ENGINEERING FOR HIGH HEAT APPLICATIONS

### The Situation

A foundry was reduced to only one rotary copper magnet wire furnace whose old dust collector wasn't sized properly. The antiquated system required more maintenance each year. Historically, the manager at this foundry will find solutions that work and stands behind them.

### The Solution

To control emissions and reduce the maintenance needed on the dust collectors, three new dust collector modules capable of filtering 45,000 acfm were installed equipped with a lime injection system, control dampers and inline spark quencher. Schust specified and installed a 45,000 acfm single fan.

The dry injection system utilized a volumetric feeder hopper and feed screw controlled with a VFD. Hydrated-lime is metered down the duct and the lime will coat the bags in the dust collector to help neutralize the acids that are in the air

**PROJECT IN BRIEF:**

EQUIPMENT & SERVICE

- Engineering
- Turnkey
- Installation
- Commissioning
- Dust Collector

INDUSTRY

- Foundry

APPLICATION

- Emission Control

AIR VOLUME

- 45,000 ACFM

stream from the manufacturing process.

Due to the high heat the equipment is exposed to, the foundry manager wanted equipment designed that was built to last. Schust fabricated the duct from stainless steel to eliminate the need for painting in the future. The dust collectors were designed and fabricated of mild steel that was insulated and cladded. The dust collectors were also equipped with a sprinkler system.

The rotary process's ventilation system was constructed to tolerate high heat and it took all safety precautions necessary to protect the employees. Steel wire mesh curtains were added around the hood to protect employees from radiant heat, but allow access to the rotary kiln.

Contact Schust to learn more about this project.

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