

R.T. Patterson Company, Inc.

Engineers and Consultants

CLIENT

AK Steel
Mansfield, Ohio

PROJECT

AOD Fume Control Upgrade



PROJECT SCOPE

The project consisted of upgrading AK Steel Mansfield's existing AOD fume control system in order to maximize throughput of high chrome heats as they become a larger portion of their product mix. Major improvements included:

- Installing a new canopy roof design including a new damper
- Installing a new Mixing Chamber downstream of the new canopy roof
- Modifications to the existing reverse air fan at the #8 Baghouse
- A new AOD stack support arm and stack drive
- A new automatic sampler at the AOD

RTP SCOPE OF WORK

RTP provided the following installation engineering services:

- General arrangement drawings of a new canopy roof design, a new Mixing Chamber, modifications to the existing reverse air fan, a new AOD stack and stack drive, and a new automatic sampler at the AOD
- Foundation design and installation drawings for the new Mixing Chamber and associated structural supports
- Structural and ductwork design, demolition, and installation drawings for the new canopy roof design and access platforms, a new Mixing Chamber, a new AOD stack support arm, and a new automatic sampler support at the AOD
- Piping design and installation drawings for the new automatic sampler at the AOD and ductwork expansion joint analysis
- Electrical design and installation drawings for the new canopy roof design, rewire the relocated tempering air damper onto the new Mixing Chamber, wiring for the new AOD stack and stack drive, and wiring for the new automatic sampler at the AOD



Project Value: \$5 Million