

# **BUSCH** HOT ROLLING MILL

Fume Exhaust Systems



## *For steel hot rolling mill emissions*

**B**USCH International provides problem solving expertise for steel hot rolling mill particulate emissions using the "4C" approach. The "4C" approach includes *Containment*, *Capture*, *Conveying*, and *Cleaning* of emissions.

To effectively *Contain* particulate emissions from hot rolling mills, combinations of hoods and closures and in some cases close capture exhausts are tailored to the specific operation of the mill. Often, BUSCH International's expertise is combined with that of the rolling mill manufacturer's to provide the most effective solution. Either close capture hoods or BUSCH **FUME-SHIELD™** hoods are employed as is determined for each specific rolling mill.

Proper *Containment* and *Capture* of the particulate insures a clean interior space in which to work. BUSCH's experience, having installed more than 150 rolling mill fume systems, is uniquely applied to each mill.

*Conveying* the particulate to a control device requires aerodynamic design expertise to reduce the accumulation of particulates within the duct and insure the ability to properly clean any particulates that have accumulated.

*Cleaning* the contaminant from the airstream is important. BUSCH International has successfully applied multi-venturi scrubbers to complete this function and obtain the desired high efficiencies associated with



emission control systems of this type. The scrubber design utilizes unique features which result in the most efficient utilization of the scrubbing liquid while forcing it to remain in close contact with the gas stream where particulate impaction most likely occurs. Low pressure water delivery systems coupled with an efficient design of multi-venturi scrubbers are employed to provide the best possible performance.

Components of the system such as volume control dampers and gasketing are each tailored to a specific application. Specialized modifications such as quick removal duct and ports for emission testing are common to our design.

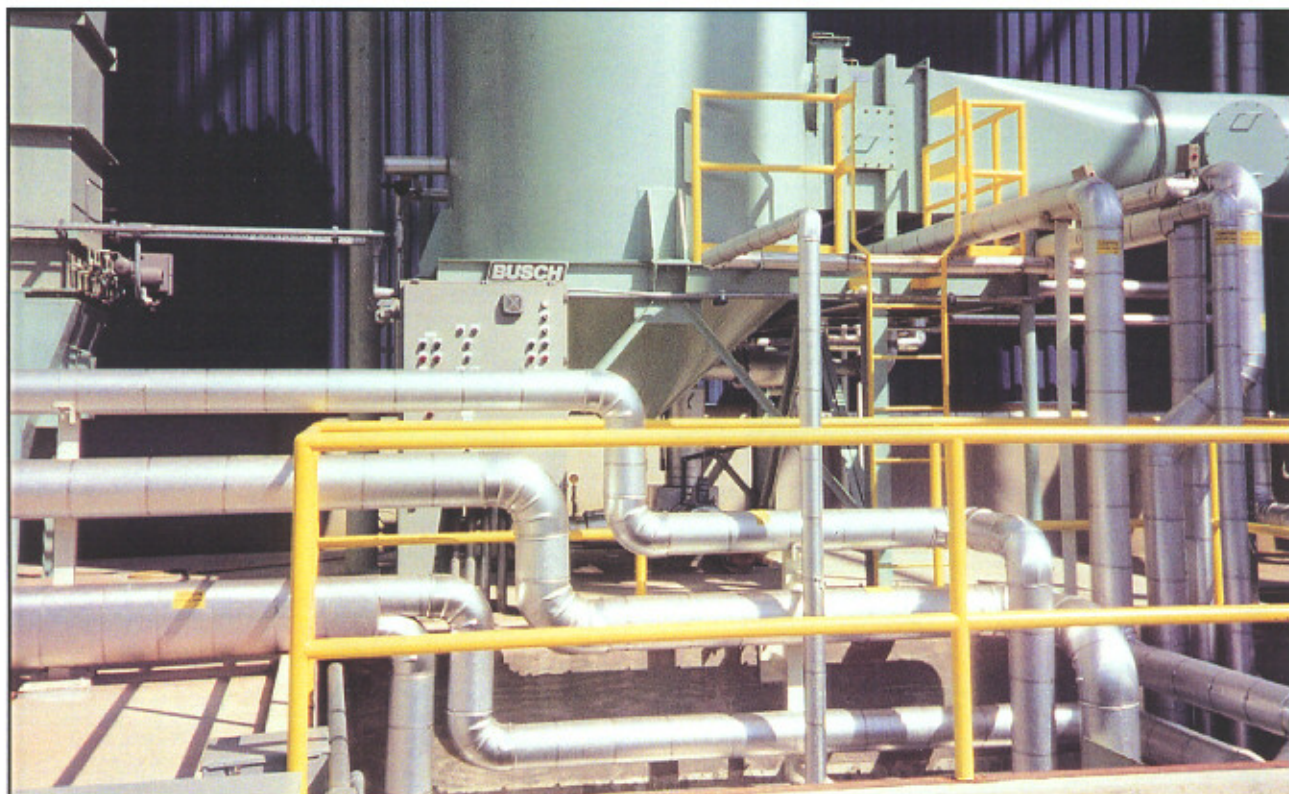
### DESIGN AND CONSTRUCTION

BUSCH hot rolling mill exhaust systems utilize heavy gauge, all welded construction. Systems are available in carbon steel and stainless steel as dictated by the applica-



10431 Perry Highway  
Wexford, PA 15090  
Phone: 724.940.2326  
Fax: 724.940.4140

tion and customer preference. System aerodynamic analysis and modeling are often used to enhance the collection of particulate and to reduce pressure drop within the duct system. Fans are designed specifically for particulate laden gas streams and are normally direct drive. Components of the system are modified to enhance collection and minimize maintenance. BUSCH experience is applied to each component within the system to insure maximum efficiency and the durability desired in a heavy industrial application.



*System duct and piping for Hot Mill Fume Control.*

### ACCESSORIES AND OPTIONS

- Noise attenuation
- Power control and starters
- Pumping packages
- Variable frequency drives
- Heat tracing and insulation
- Platform, walkways, and stairs
- Other access equipment