

STEEL TEMPER MILL FUME EXHAUST SYSTEMS



PiTTek has provided Steel Temper Mill and Steel Skin Pass Mills with RME-4 Fume Exhaust Systems. Some features of these systems will vary with the type of mill and the choice of coolant/lubricant used.

These mills use both organic hydrocarbon based and “soap” based coolants/lubricants. The materials of construction for oil based coolants may be different than those materials used for water based coolants. Oil based coolants for stand-alone Temper Mills typically use carbon steel construction. In-line Skin Pass Mills using water based coolants may use stainless steel construction.

Hoods and closures for these mills may take a conventional form, or a series of high velocity exhaust slots may be used. Closures will incorporate both fabricated sheet metal plates and modified electrically operated rolling doors over the mill windows at the roll stack.

Ducts for these mills follows the normal PiTTek design standards and uses either “Buna N” or “Viton” gaskets depending on the coolant in use. Features such as drains, fire protection ports, and dampers follow the normal PiTTek designs.

PiTTek prefers the use of centrifugal fans for all RME-4 applications. The improved collection efficiency, reduced motor horsepower and quiet operation of this type of fan and their generally low rpm operation, improve the quality of the entire system.

Mist eliminators are selected to meet the client’s required efficiency. Coolants will also contribute to the selection of the correct type of mist eliminator. PiTTek RME-4 Rolling Mill mist eliminators are available to meet almost all required criteria. If the client requires vapor phase controls as well, PiTTek can meet these requirements by forming an alliance with a firm that has applied many such vapor phase control systems.

As is the case with all RME-4 systems, the final system components are the stack and the SCE. Properly designed stacks reduce emissions. The addition of an SCE at the stack discharge reduces the chance of “spitting” or “rain” at the stack location. Reacceleration cones can also be added to improve stack discharge conditions.

There are many features of the PiTTek designs that make up a successfully operating rolling mill exhaust system. Please contact us to discuss your particular application.