Case History 103

Industry:
Cementitious Products

Components/Products:
Decorative floor and wall tiles.

Background:
Decorative floor and wall tiles are manufactured using a wet press or granular press method. In both cases the raw materials are deposited in a mold and then put under high pressure to form the tile. The tile is then removed from the mold and, in the case of unglazed porcelain floor tiles, passes through a high temperature roller hearth kiln. Glazed tiles repeat this firing process after they have been sprayed with glaze. After cooling the finished tiles are inspected and packed ready for shipment. This process from start to finish takes place on one machine.

The Problem:
Residual dust from the process covers the surfaces of each tile. The manufacturer believed this detracted from the quality product he manufactured as first impressions are important. His first thought was to hand wipe each tile (406mm x 406mm). To do this, several people were needed to just keep up with production.
The Solution:
(2) Model 110024 24" (610mm) EXAIR Super Air Knives were installed; one above the roller and the other below the roller. In this way, the tiles were cleaned directly at the exit of the kiln. The air curtain generated by the two EXAIR Super Air Knives eliminated the water, dust and clay residue from the tiles. The contamination problem was eliminated without the need for additional personnel.

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