

TYPICAL SPECIFICATION

Exit Area Sealing System (Dust Curtains)

The exit area of the load zone shall be fitted with dual exit curtains to minimize the escape of air borne dust. These exit curtains shall consist of rubber dams, hanging vertically near the exit end of the load zone.

The dust curtains shall be installed at the exit area and be positioned 18 inches (450 mm) apart. The inner curtain (closer to the load point) shall be a solid sheet of 3/16-inch (4.75 mm) thick 60 durometer SBR rubber. The outer curtain shall be 1/8-inch (3.175 mm) thick 60 durometer SBR rubber with 1.5 inch (38 mm) slits to prevent conveyed material from being deflected from the product stream.

The curtains shall hang down to one inch (25 mm) below the profile of the normal material load on the belt.

The exit dust curtains shall be bolted in position to allow easy replacement of the rubber curtain after wear.

The supplier of the exit dust curtains shall be ISO 9001 quality system certified.

The dual exit curtains shall be MARTIN[®] Dual Dust Curtains, as supplied by Martin Engineering, Neponset, Illinois.

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TYPICAL SPECIFICATION

MARTIN[®] FOG Dust Suppression

Each conveyor transfer point will be equipped with a dust suppression system to capture airborne dust and return it to the main body of material on the belt.

This dust suppression system will use hydraulic atomization to produce an ultra-fine mist of water to effectively agglomerate airborne dust, returning the combined particles to the belt. (Hydraulic atomization converts water to fog by pushing the water through nozzles at high pressure without the addition of compressed air)

The system will be composed of an electric pump supplying water at a rate of 2 gallons per minute (7.5 liters per minute) electric pump which supplies water to a set of 2.5 gallon-per-hour (9.5 liters-per-hour) hydraulic atomization nozzles. Normal pump operating pressure will be 500 psi (34.5 bar) with a maximum pump pressure of 1200 psi (83 bar). The pump will be equipped with thermal safety valve to prevent pump failure.

The nozzles will be installed in the transfer point's skirtboard cover or chute enclosure to apply fog above the body of conveyed material. To reduce air currents and improve the effectiveness of the spray, spray application points onto the belt shall be enclosed between rubber dust curtains.

Nozzles will provide a cone spray pattern with a .012 inch (.03 mm) orifice to provide maximum fog density. Each nozzle will be individually accessible for maintenance from outside the chute.

In addition to a manual on/off switch, the controls for the dust suppression system will be interlocked with the controls for material or conveyor drive.

The supplier of the dust suppression system will be ISO 9001 quality system certified.

The dust suppression system shall be a MARTIN[®] FOG Dust Suppression System, as supplied by Martin Engineering, Neponset, Illinois.