

## **TYPICAL SPECIFICATION**

### **MARTIN® or TRAC-MOUNT® Brush Cleaner (*Spiral or Strip*)**

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The conveyor shall be fitted with a powered rotary brush cleaner at the discharge point.

Positioned against the belt at the bottom of the head pulley, this brush will act as a secondary cleaning system, removing from the belt fines which have passed the pre-cleaner installed at the face of the pulley just below the material's discharge trajectory. (*In the case of a chevron, flighted, ribbed, or grooved belt, the brush cleaner may be the only cleaning device.*)

The brush shall be rotated in a direction opposite the direction of belt travel by an explosion-proof 1750-RPM electric motor. For belts up to 42 inches (1067 mm) in width, this will be a 1 HP motor; for belts from 48 to 96 inches (1219 to 2438 mm) wide, a 2 HP motor will be used. A heavy-duty 5-to-1 gear reducer will rotate the brush at 350 RPM (1 HP motor) or 420 RPM (2 HP motor).

*TRAC-MOUNT Brush Cleaner: The cleaner shall be equipped with a track-mounted brush assembly, which allows the brush to slide easily in and out for cleaning or replacement. The direct drive motor shall be mounted to the same track.*

*Spiral Brush: The brush shall be 10 inches (250 mm) in diameter and composed of .038 diameter polypropylene bristles wrapped in a spiral.*

*Strip Brush: The brush will be formed of a set of 12 brush strips with composed of polypropylene bristles with a diameter of 0.04 inch (1 mm). The strips are assembled on a shaft to form a 10-inch (254-mm)-diameter brush. The strip design allows material to fall off the brush, without clogging the bristles. The Strip Brush design will allow simple replacement of individual brush strips as worn.*

*(For alternative bristle specifications, consult Martin Engineering.)*

The supplier of the powered brush cleaner shall be ISO 9001 quality system certified.

The powered brush cleaning system shall be a TRAC-MOUNT® Brush Cleaner/MARTIN® Spiral Brush Cleaner/MARTIN® Strip Brush Cleaner as supplied by Martin Engineering, Neponset, Illinois.

## **TYPICAL SPECIFICATION**

### **MARTIN® Chevron Belt Cleaner**

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The conveyor will be fitted with a chevron belt cleaning system to remove any material that has adhered to the belt past the discharge point. This cleaning system shall be installed against the bottom of the head pulley (in the secondary cleaner position) or further back along the conveyor return. If the cleaner cannot be installed against the head pulley, the belt should be supported by a roller at the point of blade contact.

*Standard Chevron Belt Cleaner: Each cleaner will be composed of a set of molded 90-durometer urethane (rubber) cleaning blades, which are individually mounted on a shock-absorbing arm. The arms offset the blades at a 30° angle to the direction of belt travel. Blades are installed in a UHMW track to allow slide-in/slide-out service. For optimum cleaning performance, it is recommended that two cleaners be installed with blades offset in opposite directions.*

*In-Line Chevron Belt Cleaner: Each cleaner will be composed of a set of molded 90-durometer urethane (rubber) cleaning blades that are individually mounted onto metal sliding sleeves. The sliding sleeves are assembled onto a steel mainframe allowing slide-in/slide service.*

Each blade will be composed of fourteen independent 1/2-inch (12-mm)-wide fingers. Tensioned against the belt with a maximum of six psi of pressure, these fingers will remove carryback material and "walk" over the chevrons, cleats, ribs, or other obstructions in the belt.

The supplier of the conveyor belt cleaner will be ISO 9001 quality system certified.

The conveyor belt cleaner shall be a *MARTIN® Chevron Belt Cleaner/ MARTIN® In-Line Chevron Belt Cleaner* as supplied by Martin Engineering, Neponset, Illinois.

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## **TYPICAL SPECIFICATION**

### PIGLET™ Conveyor Belt Cleaning System

The belts will be equipped with a cleaning system that provides efficient cleaning with minimum service requirements. The belt cleaning system shall be composed of rugged food-grade plastic elements, installed so no metal components are positioned in the material flow. The system should be non-corroding and resistant to oils, food acids, alkalis and chemicals.

#### Pre-Cleaner

Initial cleaning of the belt shall be provided by a pre-cleaner positioned at the discharge point of the head pulley. This pre-cleaner shall be composed of individual, 4-inch- (100 mm-) wide blades mounted on a stainless steel mainframe, and held against the belt by an appropriate tensioning system. The profile of the pre-cleaner blades will be designed with a curve to maintain a constant cleaning angle against the belt and a constant amount of urethane against the belt at all stages of blade wear. Blades shall be composed of a long-wearing food-grade (polyethylene, nylon, or polyurethane) plastic with appropriate USDA/FDA approvals.

#### Secondary Cleaner

Final cleaning of the belt will be provided by one (or more if required) secondary cleaning assembly. Each assembly will be composed of modular 4-inch- (100 mm-) wide arm-and-blade cleaning elements aligned to form a single continuous cleaning edge across the width of the belt. Cleaning arms shall be mounted on a stainless steel mainframe and held against the belt by an appropriate mount/tensioning system. These cleaning elements shall be fabricated from a long-wearing, food-grade plastic or aluminum with appropriate USDA/FDA approvals.

The supplier of the conveyor belt cleaning system will be ISO 9001 quality system certified.

The belt cleaning system shall be a PIGLET™ Belt Cleaning System, as supplied by Martin Engineering, Neponset, Illinois

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## **TYPICAL SPECIFICATIONS**

### **"PM" High-Temperature Secondary Cleaner**

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At least one multiple-arm belt cleaner with blades installed at a negative or scraping angle in the secondary cleaner position will be used to provide final carryback removal.

To withstand high-temperature applications, the belt cleaner shall be of all-metal construction. The cleaner shall be assembled from individual 6.5 inch (165 mm)-wide (*stainless steel /tungsten carbide*) blades mounted on independent steel coil spring arms. The arms shall be installed on a galvanized steel mainframe in an alternating long arm, short arm, long arm pattern to provide complete belt coverage.

A mount/tensioning system will hold the secondary cleaner against the belt firmly to provide effective cleaning, while allowing relief for the passage of belt splices.

The supplier of the high temperature secondary cleaner will be ISO 9001 quality system certified.

The high temperature secondary cleaner shall be a "PM" Secondary Cleaner as supplied by Martin Engineering, Neponset, Illinois.

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## **TYPICAL SPECIFICATIONS**

### MARTIN® “Washbox” Spray Belt Cleaning System

The conveyor system will be equipped with spray belt washing system, placed directly after the head chute to provide complete removal of any remaining material. This spray wash system will be supplied in a watertight metal enclosure fitted with water service and a drain.

The spray wash system shall consist of a minimum of three straight rollers to hold the belt in position. The box shall be fitted with a water spray bar with nozzles positioned to wet the entire belt width and flush out the box through the installed drain.

The wash system shall be fitted with of a minimum of two modular secondary cleaners to provide complete removal of fines and water from the belt surface.

The washbox shall allow easy inspection and service through a watertight access door.

The supplier of the spray belt cleaning system will be ISO 9001-quality system certified.

The belt washing system shall be a MARTIN® “Washbox” Spray Belt Washing System as supplied by Martin Engineering, Neponset, Illinois.

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