Spirof OV Coffee

Cableflow Tubular Drag Conveyors Help Eight O'Clock Coffee Expand Production



Conveyor Outlet



90° Conveyor Tube Bends & Corner Sprockets



Delivering product from one conveyor to another

Customer Requirements

An increase in demand prompted Eight O'Clock Coffee to invest in a second packaging system. Eight O'Clock Coffee had been using mechanical and dilute-phase pneumatic conveyors to move whole bean and ground coffee.

An additional conveying system was required that could transfer coffee from 11 roasters to bagger hoppers above the packaging equipment. The new system had to:

- 1. Transport 10,000 lb/hr / 4,500kg/hr of material from silos to a high-speed packing machine
- 2. Maintain required dimensional layout to fit into existing plant
- 3. Provide a system with minimal operator interaction for optimum productivity
- 4. Provide an enclosed system to eliminate dust in compliance with OSHA
- 5. Improve sanitary operation by using advanced handling techniques
- 6. Short payback on capital investment

Spiroflow Solution

We recommend a mechanical conveying solution featuring Cableflow Tubular Cable Drag Conveyors.

- We supplied four 4"/ 100mm diameter stainless steel tubular drag conveyors.
- All four conveyors utilize 304 stainless steel cable and USDA accepted polyurethane discs and are fitted with Spiroflow's patented Dynamic Automatic Rope Tensioning system (DART) which maximizes cable life and minimizes required operator maintenance.
- The conveyor can travel in multiple directions, from horizontal to vertical and at many angles. Instead of traditional sprockets and bearings at corners, the tubing is bent to form sweeps.
- One 34'/ 10m long tubular drag conveyor is operated by an individual control panel.
- Three additional conveyors are operated by a single master control panel and transport ground or whole bean coffee to a packaging hopper.
- During installation the wire cable was upgraded to a 5/16"/ 0.8mm cable with fully encapsulated, coupling-free one-piece discs to maximize performance.

The Results

The tubular drag conveyor's ability to make three types of directional changes is the primary benefit. Furthermore, the slide gates allow material to go to two different machines. It is gentle while conveying whole beans, and it features a clean-out cylinder. This cylinder allows the coffee to be easily drained into a tote with no need to connect pipes, drains or hoses like the previous system required.

"The design has proved wonderful," says Plant Manager, Richard Holiday. "It is designed to automatically bring up the slack of the tensioning system rather than needing to correct slack manually. This saves time and reduces breakdowns."

Have a question? sales@spiroflow.com www.spiroflow.com