

VIBRA SCREW CASE HISTORY

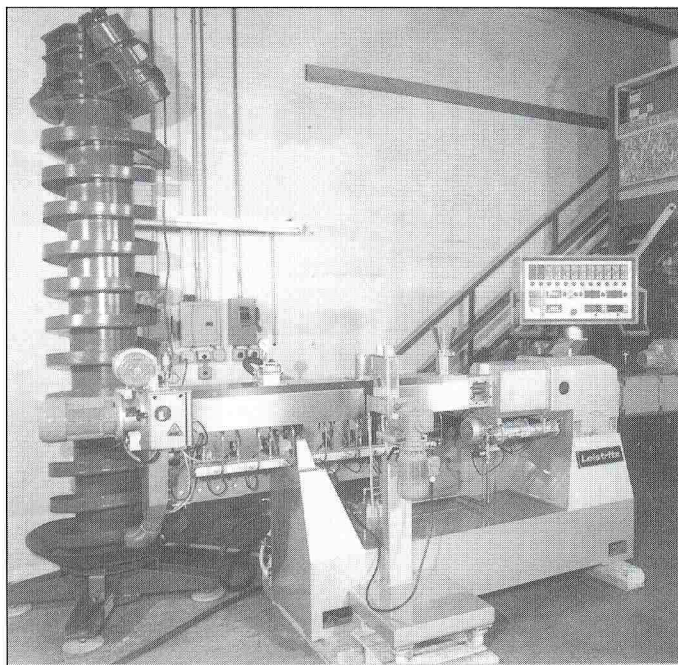


C-270

Vibrating Spiral Feeder Brings Economy to Cooling Polymer

Customer

American Leistritz Extruder Corp., manufactures compound extruders in Nurnberg, Germany and assembles extruder-based systems in Somerville, New Jersey.



Vibra Screw Spiral Feeders provide an economical way to cool polymer pellets produced by American Leistritz extruders.

Problem

Using high temperatures, compound extruders produce strands or pellets of polymer which are further processed or packaged for sale. Polymer, a good natural insulator, has high heat retention and takes a long time to cool. Operators of Leistritz extruders often use water to cool polymers, but polymers used as desiccants absorb water. Polymers used for pharmaceutical or medical end uses prohibit the use of water for cooling. In these cases, air, a less efficient coolant, is the only choice.

Long, flat vibratory conveyors offer the appropriate air exposure but could waste considerable floor space to achieve the cooling. The company used spiral feeders which occupy the smallest of floor space, but, as sourced in Germany, they added considerable cost to the extruder systems.

Solution

The Vibra Screw spiral feeder, used as a cooling tower, carries the pellets over the proper distance, for the proper time to release the pellet heat. And the heavy-duty Vibra Screw feeders save Leistritz considerable cost over imported units.

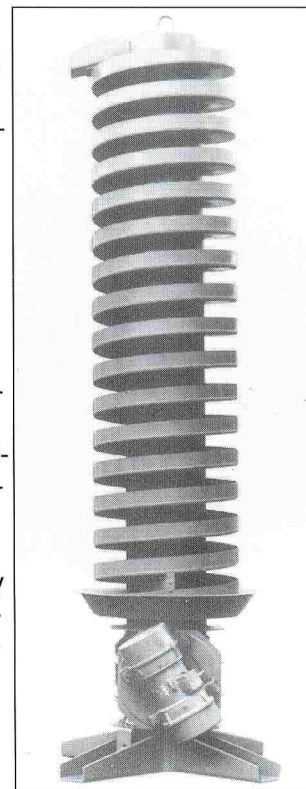
With the Vibra Screw feeders, Leistritz is able to regulate cooling time by altering the feeder's height to match the extruder's output.

The units use no belts, screws, gears, bearings or other items which require maintenance or periodic replacement. Vibra Screw offers nineteen standard models to handle 33 to 353 cubic feet of material per hour.

Results

Leistritz installed its first Vibra Screw spiral feeder in its New Jersey test lab and found the unit to be economical and maintenance-free. After that success, the company has continued to incorporate Vibra Screw units where air cooling is required. They recently supplied a 24" diameter, 12' high feeder to cool a 90% metal-filled polymer. They more commonly specify 7' high units to match 30-40 lb/hr output with lower heat retention. For applications exceeding 1000 lb/hr, Leistritz uses forced air blowers, but for most applications, the spiral feeder system is perfect.

Leistritz has incorporated both carbon steel and polished stainless steel Vibra Screw spiral feeders into its systems, depending upon the end use of the polymer product. Leistritz engineers believe the Vibra Screw feeders are priced right. They are heavy duty and they display high quality workmanship. They also provide Leistritz customers with trouble-free and maintenance-free operation.



Vibra Screw Spiral Feeders convey, dry, heat or cool materials from 33 to 353 cubic feet per hour in extremely tight floor space.