



Performance by Design—  
Innovation Through Experience

## Solution Spotlight: Metal Chip Conveyor System

### Why Endura-Veyor, Inc.

Endura-Veyor, Inc. focuses on providing superior customer service, competitive pricing, quick and reliable delivery, innovative products, and lifetime technical assistance on everything we sell. We strive to be a Trusted Advisor to our clients by providing applications assistance based on many years of industry experience. Contact Endura-Veyor to see how our innovative high quality products can be put to work for you.



### 1. Versatility increases production capacity

Endura-Veyor's drag chain conveyors feature multiple discharge gates that allocate controlled flows of material to multiple machines for higher volume throughputs, significantly increasing the facility's production capacity.

### 2. Reduces downtime

Automating chip removal and management reduces manual labor requirements, unnecessary downtime, and production stoppages.

### 3. Maximizes recovery

Effectively handles large sums of aluminum chips in high-speed machining environments, optimizing chip and coolant flow for further processing.

## Overview

Endura-Veyor, Inc.'s Steel Belt Conveyors are a staple in metal fabrication operations due to their durability and ability to handle wet or dry scrap material with great efficiency. Z-Conveyors' rugged, modular construction make the most efficient use of production and processing space and reduces transition points. Drag Chain Conveyors are highly reliable and feature multiple discharge gates, heavy-duty chain, frame, and enclosures that endure harsh, abrasive environments and contain loose, moving material.



## Application: Aerospace Aluminum Machining & Chip Processing

### The Challenge

A major aerospace company was adding a new operation to their plant dedicated to milling large blocks of aluminum into aircraft framework. Lightweight, resistant, strong, and easy to mill, aluminum has become an indispensable material for the aerospace industry. However, one of the inevitable challenges that comes with high machinability is rapid and excessive chip accumulation. Generating around 375 pounds of aluminum chips per part, the efficiency of this customer's high speed milling machines was contingent upon a proper chip management solution. Machining aluminum generates heat quickly, requiring high volumes of coolant to regulate chip temperature before further processing. Heat, liquid, and abrasion-resistant equipment was needed to effectively transport sums of wet aluminum chips to feed downstream briquetting machinery for chip compression and coolant drainage. In order to keep up with demanding production capacities, an extremely reliable solution was critical to manage chip flow, support all machines, and ultimately enable material and coolant recovery.

### The Solution

As five high speed milling machines cut through large aluminum slabs, rapidly accumulating chips were fed onto Endura-Veyor, Inc.'s durable trunkline pit conveyor for primary transportation. The 200-foot trunkline conveyor carried hot aluminum chips in coolant to the other side of the plant, where chips, along with coolant, could be processed for recovery. Preparing high value aluminum scrap for processing continued with a Z-Conveyor that elevated chips to feed a Drag Chain Conveyor, positioned above two briquetting machines and a collection bin. Endura-Veyor's Drag Chain Flight Conveyor features multiple discharge points, which allowed operators to control exactly when and where chips were to be allocated. This unique feature enabled their briquetting machines to effectively compress aluminum chips into pucks and release coolant without being overwhelmed, while excess chips could be discharged for temporary storage. Introducing chip management and flow control boosted milling production rates and supported briquetting throughputs to effectively process valuable aluminum chips for recovery. Integrating Endura-Veyor's aluminum chip handling solution not only made this operation possible, but profitable- as it generates an ROI of tens of thousands of dollars a year.



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