

**CASE STUDY**

**ARCONIC  
CORPORATION  
STREAMLINES ITS  
SCRAP HANDLING  
OPERATIONS**

Cranberry Township, PA



# INTRODUCTION

Arconic Corporation, a prominent manufacturer in the aluminum converting industry, operates a high-volume aluminum extrusion facility in Cranberry Township, Pennsylvania. The plant's continuous production schedule generates significant volumes of scrap material.



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## THE CHALLENGES

Operating continuously, Arconic's facility produces approximately 1,500 pounds of aluminum scrap per hour. Without an automated scrap handling system, employees had to manually remove aluminum extrusions up to 26 feet in length, a process that presented numerous challenges for both the facility and its workers.

**High Scrap Volume:** The constant flow of aluminum scrap demanded frequent attention from production personnel to cut and bundle extrusions into 8-foot sections for shipping.

**Production Bottlenecks:** Scrap was stored on racks until personnel could process it. When these racks reached capacity, production halted until the racks could be emptied, disrupting operational flow.

**Resource Diversion:** Production staff were frequently pulled from their primary tasks to manage scrap, impacting productivity and straining resources.

**Sustainability and Efficiency Needs:** Arconic aimed to minimize manual intervention, reduce downtime, and improve their recycling process.

To overcome these obstacles, Arconic needed a solution that would streamline the scrap handling processes and support production goals.



# AES SOLUTIONS

Advanced Equipment Sales (AES) partnered with Arconic to design a customized scrap management system tailored to the facility's high-volume aluminum extrusion production needs. After evaluating multiple configurations, AES recommended a semi-automated shredding system. The design also accounted for future upgrades, including the addition of a baler and an automated robotic arm for rack unloading.

## High-Powered Shredding

**System:** A 150HP dual-shaft shredder enables continuous, high-capacity scrap processing, reducing the need for manual intervention and supporting Arconic's goal of minimizing downtime.

## Efficient Material Handling:

The system includes a semi-automatic rack tipper with a chain feed slat table and a 48-inch-wide feed and discharge conveyor, ensuring smooth and consistent material flow throughout the process.

## Turnkey Installation and

**Training:** AES provided a comprehensive, end-to-end service package covering installation, commissioning, and on-site training, equipping Arconic's personnel with the skills needed to operate the system confidently.



This innovative system has become an integral part of Arconic's workflow, allowing for efficient scrap processing and enabling future scalability as production demands increase.

# THE RESULTS

The AES shredding system has significantly improved Arconic's operations by enhancing efficiency and minimizing downtime. Scrap aluminum extrusions are now processed through the shredding system and discharged into one-cubic-yard self-dumping hoppers, eliminating the need for manual cutting and bundling. Each hopper fills in approximately 13 minutes, with an average weight of 1,001 pounds per hopper.

With AES's solution, Arconic's team can focus on production, achieving a smoother and more efficient workflow through streamlined scrap management. The system not only aligns with Arconic's commitment to operational efficiency but also accommodates future expansion, ensuring the facility is well-prepared to scale as production demands grow.



# About AES

AES is a leading full-service provider of integrated conveyance systems specializing in scrap, trim, and dust that designs, builds, and maintains economical solutions for more efficient byproduct handling. As a single source for conveyance needs, AES engineers custom scrap systems and works as a partner in process improvement to help businesses achieve greater profitability, productivity, and sustainability in their manufacturing operations.



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