

Recycling Grant Success Story

Triple Arrow Industries

Background

Triple Arrow Industries, located in Marysville and in business since 2010, provides scrap metal and plastic recycling and trading services for commercial and industrial customers. The company's suppliers range from small manufacturing companies to multinational corporations selling unusable post manufacturing scrap metal materials. Customers include primary and secondary metal producers across North America, Europe and Asia.

Challenge

Triple Arrow's new recycling project focused on post-industrial and commercial flexible intermediate bulk containers (FIBCs), also known as polypropylene (PP) Super Sacks. Super Sacks are widely used for handling feeds, chemicals, aggregates, minerals, foodstuffs, plastics and other industrial and agricultural products. Super Sacks are considered one of the most difficult materials to process and recycle due to the tough nature of PP fabric.

Solution

A recycling grant from Ohio EPA's Division of Environmental and Financial Assistance, combined with matching funds from the company, were used to purchase equipment that allows the company to recycle PP Super Sacks from various local and regional end users and other recycling facilities. The new equipment will wash, crush, shred and pelletize old Super Sacks into recycled PP pellets that will be used as feedstock for the automotive and packaging industries. The new recycling line supports three shifts and 25 employees. Through the new recycling process, an estimated 10,000 metric tons of PP Super Sacks annually will be diverted from landfill disposal. The company hopes that since Ohio is a major distribution hub and is strategically located within the U.S. auto industry, there are significant opportunities for post-industrial and post-consumer plastic waste.

Resources

The Triple Arrow project is an example of how Ohio EPA's recycling grants help increase the use of recycling technologies, strengthen the infrastructure for handling and processing recyclables and develop more markets for recycled products. Our grants have helped recycling efforts involving plastics, glass, paper, metals, construction and demolition debris, organics and other materials. Applicants are sponsored by an eligible governmental agency who serves as the grant applicant and a pass-through agency for documenting and receiving funds. For this project, the North Central Ohio Solid Waste District served as the grant applicant and supported Triple Arrow Industries' project at the local level.

For more information about Ohio EPA's recycling grants, visit epa.ohio.gov/ocapp/Grants.aspx or contact Chet Chaney at (614) 728-0043.



Polypropylene Super Sacks before the recycling process and after as polypropylene pellets for automobile and packaging industries.

Project Specifics

Location

Triple Arrow Industries
13311 Industrial Pkwy
Marysville, OH 43040

Details

Purchased a polypropylene Super Sack reprocessing line (washing, crushing, shredding, conveying and pelletizing equipment)

Cost

\$880,000 (\$630,000 from the company and \$250,000 from Ohio EPA's recycling grant)

Environmental Impacts

10,000 metric tons diverted from landfill disposal per year

Economic Impacts

Recovered polypropylene is worth \$0.40-0.45 per pound (1.5 years estimated project payback period)

The new reprocessing line supports three shifts and 25 full-time jobs