

CASE STUDY

A steel manufacturer saves on vac trucks and improves plant safety



THE PROBLEM: Iron dust accumulates quickly in the plant and creates safety risks, and vacuum truck contractors are far too expensive to be the only cleanup option.

OUR SOLUTION: The PowerLift® 40 is easy to use and install, and it delivers a fast ROI by reducing the need for vacuum trucks.



One of Canada's largest steel processing facilities houses numerous operations and manufactures more than one million tons of pipe products annually. The company supplies steel to other processors, construction companies, reinforcing steel manufacturers, the automotive market and welding wire manufacturers.

Conveyor belts transport material throughout the facility, creating a health and safety concern in the form of iron dusts – think iron oxides, silica and lime – that pile up, reducing air quality and creating possible tripping hazards.

To tackle the piling health and safety risks, the company hired a local vacuum truck contractor to suck up material that falls around the conveyor belts. With a minimum of four hours per visit each week, the vac trucks became a significant expense over time. They needed a viable way to cut costs and stay on top of the heavy-duty mess.

Custom-built muscle

After the first discussion with their DuroVac representative, the steel company immediately saw an opportunity to reduce maintenance costs by avoiding those four-hour-per-visit minimum payments. DuroVac specified the PowerLift® 40, a system equipped with an inline HEPA filter, connected to a piping system used as a central vacuum.

The PowerLift's constant velocity moves considerable tonnage and supports long hoses.

The steel company values quality, not only in their own products but also in the equipment they purchase. When their DuroVac rep offered to demonstrate a vacuum installed at another facility, the team took him up on the offer.

The steel manufacturer achieved its return on investment within months.

With quality concerns alleviated, DuroVac got to work on a vacuum with enough muscle to handle iron ore fragments the size of marbles.

Installation and use

Installation was straightforward, which was a big selling feature for the equipment. While DuroVac offers installation for customers, bigger companies tend to have the in-house expertise to install these systems themselves. Pre-wired and factory tested, it took two mechanics and an electrician 40 hours each over a 15-day period to have the PowerLift 40 up and running.

After a getting-to-know-you phase, the company decided the first system was so good they got a second system to clean up limestone. The steel manufacturer achieved its return on investment within months.

Continuous growth and budget-friendly leasing

To date, the company has installed seven DuroVac PowerLift vacuums in multiple plants. Together the systems help them control materials such as

coking coal, fly ash, lime dust, limestone, scale, various chemical reagents and heavy steel pellets.

More recently, two of the company's plants have invested in processing calamine, which requires conveying blocks of zinc ore along the full length of the plants, scattering flakes along the way. They reached out to DuroVac for more PL-40s to rein in the mess.

To help the company work within its specific budget, DuroVac reps worked out a flexible leasing plan. Now the company can stay within its monthly cleaning and maintenance budget instead of having to spend more on a one-time purchase.

The vacuum system prevents clogging in the conveyors and reduces downtime in the plant. Staff have the flexibility to use one as a central vacuum for general maintenance and another as a portable solution for major spills and spot cleanups.

DuroVac reps helped the company work out a flexible leasing plan.