

CASE STUDY

IG Machines & Fiber sees 90% drop in labor with industrial vacuum



THE PROBLEM: Manually shoveling fine, abrasive sand waste in a confined space was time consuming and unsafe.

OUR SOLUTION: The PowerLift 25 speeds cleanup and saves workers' backs.



It was the laborious shoveling of fine but abrasive sand waste inside a confined space that prompted IG Machine & Fibers Ltd. to order a DuroVac industrial vacuum.

Located in Brampton, ON, IG Machine & Fibers Ltd. is owned by IKO, a global manufacturer and seller of shingles for commercial and residential markets. The company manufactures more than 200 different products, and consequently creates a fair bit of waste too.

IG Machine & Fibers had been using a combination of manual labor and vacuum trucks to remove the backsurfacing sand, wet granules, and very fine rock dust. "It's a confined space – in pits," explains

Adrian Meers, who manages IG Machine's big capital projects. "You don't want to be shoveling in a confined space," he notes, alluding to possible injuries and lost productivity that could happen shoveling heavy material in tight spaces.

Why DuroVac?

"Word of mouth from another plant," Meers explained. It all started with IKO in Madoc, ON, another location that manufactured shingles. They had an older DuroVac system but wanted a new one for the same reasons that IG Machines would eventually order a DuroVac. From there, IKO in Hawkesbury, ON purchased a unit, followed by CanRoof, an IKO plant located in Toronto. "It's a great tool for keeping our site clean, not to mention keeping our operation going," Meers says.

All of the Ontario IKO locations run the same DuroVac unit: the PowerLift 25 (PL 25). Given that each location manufactures the same product using the same raw materials, each plant opted for the PowerLift 25 under advisement from their DuroVac rep.

“ The PowerLift 25 can remove 8,000 lbs. of sand per hour with a three-inch hose. ”

Based on the bulk density and the size of the material they needed to clean up, the PL 25 meshed very well with their requirements

Spec'd with a 1.3-cubic-foot hopper and a three-inch inside diameter hose, IG Machines and their sibling plants can move up to four tons of material per hour. Or, put another way, 8,000 lbs of sand per hour with a three-inch hose. That's fast and that means plant workers don't have to be down in the sand pit for very long.

"We're saving a huge amount of money on the vac truck," Meers notes. "In terms of labor, we spend maybe ten percent of the time vacuuming that we would have spent shoveling, not to mention being worried about people getting hurt shoveling."

Portable plug 'n' play

IG Machines uses a forklift to pick up their PL 25 and move it anywhere on site as needed. A complete compact unitary system, the PL 25 is fully built in the shop. Once it's complete, it goes into the test bay where it's powered up and run to ensure it's working properly. Once the unit arrives at the customer's site, all they have to do is have their electrician wire a power supply to the control panel and boom – they are ready to go. Plug 'n' Play.

Controls are simple, too. On the control panel, there's a start and stop button along with an alarm for when the hopper is full. When the hopper is full the alarm light comes on and shuts the unit down. Users can't keep vacuuming until the hopper is emptied.

And emptying the hopper? Easy. A pallet truck

with a manual pump is fixed to the PL 25's framework to raise and lower the unit, allowing the hopper to easily slide out from the platform with the help of a 5,000-lb forklift. The driver of the forklift then takes the hopper away and, with the help of a lever, automatically dumps the hopper's load. Bringing the hopper back to the unit is just as easy as removing it, and a seal ensures it is secured tight.

The secret to handling wet waste

"It handles wet stuff very well," notes Meers, explaining that IG Machines and other IKO locations often deal with wet granules and occasionally water. Typically, with industrial vacuum systems, the big fear is that when dust and powders mix with water, a solid wall of material will form on the filter that won't allow air through, affecting the suction. With the PowerLift, any water stays down in the hopper and doesn't get sucked into the filters. DuroVac filter bags are lined with Teflon, so any material that gets up to the filters doesn't stick to the inside of the filter bag. For added insurance, there's a manual shaker handle that does exactly that: shakes any material from the interior surface of the filter bag down into the hopper – also much easier thanks to the Teflon lining. The design of the PowerLift system also ensures only very light, airborne material is drawn into the filters.

"It was very laborious to try and do this without a vacuum," reflects Meers. DuroVac reps were also "very helpful," and offered on-site training. So, would he buy another one?

"Yeah, we would."

“ We spend maybe 10 percent of the time vacuuming that we would have spent shoveling. ”