

CASE STUDY

Twelve Years in High Viscosity Service

Stelco Corporation, Hamilton, Ontario, Canada



“We haven’t had to fix the pump once in two and a half years. A pump operating for two and a half years in this application is unheard of,” comments Gary Fletcher, analyst expeditor at Stelco Corporation’s Hilton Works steel manufacturing plant in Hamilton, Ontario.

Stelco Steel, the largest steel manufacturer in Canada, installed a Discflo Disc pump at its iron-making plant in 1996 for pumping coal sludge. Not only is the fluid an extremely abrasive mix of coal and water, but it also contains solids “the size of a baseball”. Moreover, the pump is in a critical application, pumping coke from the conveyors for use in the furnaces.

Prior to using the Discflo unit, Stelco used an air-operated diaphragm pump in this application. “It was always underwater, it just couldn’t keep up,” says Gary Fletcher. “It was always clogging from the solids, so that we were going through a pump a week. By the time we’d rebuilt it, it would be underwater again and then the gear boxes would corrode regularly from being underwater.” The company estimates it was spending four hours a day in labor and up to \$10,000 (Canadian dollars) in replacement gear boxes from the corrosion.

The problems have been solved by the Discflo pump. A Model 302-2HHD-10 4ft cantilever was specified for the coal slurry application, sized to pump 100 GPM at 30 ft TDH. It has been run for two and half years now with no maintenance or downtime. That is a first for Stelco.

The Challenge

Clogging from baseball-sized solids in coal slurry

Extremely abrasive coal dust

Frequent gearbox failure from corrosion due to water

The Discflo Solution

No close tolerances, open design handles large solids with ease

Discflo pump’s ‘boundary layer effect’ minimizes abrasive wear

No downtime, no maintenance in 2 ½ years’ service

DISCFLO
INTELLIGENT. SUSTAINABLE. SOLUTIONS

Call Discflo now to find out how our pumps can solve your problems.