

APPLICATION STORY

THIS STRIPPER TAKES IT ALL OFF

When Richard Rohrbacher, CEO of Cyclone Surface Cleaning Inc. of Tempe Arizona, contacted Ogura for a solution for a new clutched drive wheel system, neither he nor Ogura were aware that within Ogura's vast product line, they would find the perfect design solution. The new machine was a state of the art, industrial strength cleaning system for the removal of petroleum based waste contaminants from concrete and other hard surfaces requiring environmentally friendly methods of cleaning. These machines operate without the use of hazardous chemicals.

The units double flux armature is designed to achieve a high 149 NM of torque in a relatively small package.

Their patented designs use water at a high temperature (up to 200 degrees), high pressure (up to 6500 pounds per square inch) and a recovery system that leaves absolutely no residue or discharge to the environment. The waste water and residue are completely recycled, making his equipment the best in the industry for today's politically correct public or private works operation.

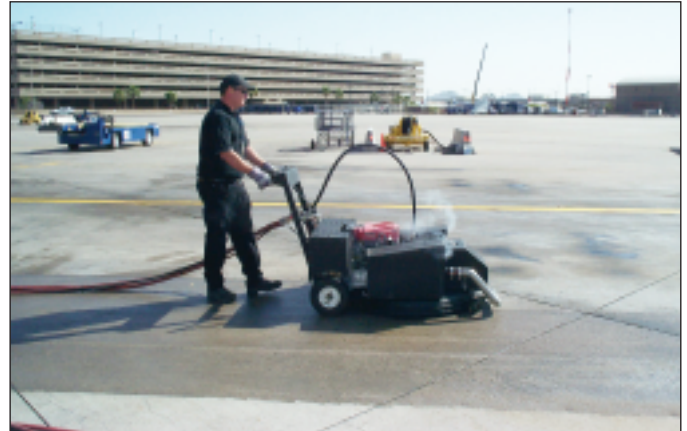
Cyclones walk behind units (they also make truck mounted systems for larger applications), were well balanced and easy to push, but operators were tiring early and straight line tracking wasn't always assured. Always looking for improvements, Richard decided to add a powered drive wheel system to

the machine. He wanted to keep the machine as small and light as possible. He didn't want to add the weight and expense of a separate high speed hydraulic pump, dual hydraulic motors, valves, switches and related hoses. He already had an unused high torque, low speed shaft at the gearbox output that was driven by a 24hp gas engine on the machine. He wanted to use this drive shaft with a simple reliable chain and sprocket drive system to power one "posi-traction" axle with independent on-off controls for each wheel.

His idea was to add one electric clutch per each of

the two uniformly driven wheels. Then, by simple squeeze switches on the handles, he could power both clutches for straight line tracking or one at a time for tank like turning and full power to the outside wheel. The machine could then be easily maneuvered around obstacles and operate in tight corners.

Ogura suggested a double flux combination clutch brake package for the application. The units double flux armature is designed to achieve a high 149 NM of torque in a relatively small package. Not only could he mount his wheels directly to its hub, but the built-in power off brake would slow down the free



Airport surface cleaning



Bus terminal cleaning



Ogura wheel drive clutch brake

wheel affording a tighter turning radius. In addition, with the power off to the machine, the spring set brakes would act as parking brakes, keeping the machine stationary on slight inclines. The simplicity of installation helped as well. Cyclone simply slides each clutch onto the 1 inch diameter shaft, uses a pin as an anti rotation feature, then holds the clutch in place with a center bolt and washer. The exposed hubs then become the mount for the pneumatic drive wheels. Ogura's solid rotor design allows the full weight of the machine to be carried this way. Competitor's designs will not handle these types of extreme radial and axial loads.

Ogura and Cyclone Cleaning services, helping strippers keep the world a little cleaner.