

Reducing Costs and Downtime

Replacing two vane pumps with one claw pump

Industry:

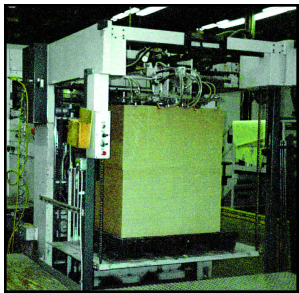
Packaging

Customer:

Walter G. Anderson

Problem:

Carbon vanes breaking every three to six months, causing downtime and added costs.



Bobst die-cutting press

Solution:



The Busch Merlin

Results:

- Low cost of ownership
- Eliminated costly parts
- Eliminated maintenance fees and downtime
- Replaced two carbon vane pumps with one Busch Merlin rotary claw-type pump.



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Walter G. Anderson, located in Hamel, Minnesota, is one of the top suppliers of folding cartons in the Midwest. They manufacture folding cartons for medical products, pharmaceuticals, hardware, sporting goods and a wide range of consumer products. By operating three shifts a day, five days a week, Walter G. Anderson has a tight production schedule to follow and unscheduled downtime equals costly delays.

In the spring of 1999, the carbon vane vacuum pumps on their Bobst die-cutting press were experiencing numerous problems. The carbon vanes were breaking every three to six months. With the vanes breaking so often, Walter G. Anderson had to keep the vanes in stock. This would allow the maintenance staff to replace them and avoid any unscheduled downtime. Not only did their maintenance department have to worry about vane replacement, they also had to frequently replace the bearings.

"Another result of broken vanes were bearings gone bad and high vibration that would cause the filters to rattle loose," said Lead Mechanic, Mark Halvorsen. "We couldn't have maintenance personnel being taken away from other issues to always deal with the vane problem."

The carbon vanes were running \$200 a set. With a total of eight carbon vane pumps for their Bobst die-cutting machines, it was quickly adding up. Another setback with replacing vanes was the frequent downtime that the maintenance department experienced.

"We can't have our machines down. It costs us too much money to have the machines not running and it slows down our production schedule," said Darryl Slinde, Maintenance Supervisor.

With the expense of parts, maintenance and downtime associated with the carbon vane vacuum pumps, it was essential to the Maintenance Department to find a pump that would eliminate these problems. They decided to switch to a different type of pump. Darrel Slinde wanted a pump that would adhere to a demanding production schedule, eliminate costly parts, maintenance fees and downtime. He found that the Busch Merlin ME 2048D combination pressure/ vacuum rotary claw-type pump would fulfill all of these requirements.

The Busch Merlin is a rotary claw-type, positive displacement pump that features non-contacting and non-wearing internal components. Pressure and vacuum are provided by independent pumping chambers, which are 100% oil-free. They are highly efficient, typically requiring smaller motors. Their rugged construction makes them highly reliable and tolerable to paper dust and offset powder. The Busch Merlin also provides low cost of ownership due to minimal maintenance and low energy consumption. The Merlin operates by having two non-contacting claws trap a volume of air at the inlet and convey it to the exhaust where it is compressed and discharged.

Walter G. Anderson installed their first Busch Merlin combination pressure/vacuum pump on the Bobst die-cutting presses in 1999, and it has been running successfully ever since.

In addition to eliminating costly vane replacement and unscheduled pump repairs, another added benefit of the Busch Merlin is that it replaces two carbon vane pumps with one Busch Merlin rotary claw-type pump.

"We saved enough through maintenance costs alone to pay for the pump the first year," said Slinde.

After seeing how well the first Busch Merlin combination pump performed, they began to replace the remaining carbon vane vacuum pumps as soon as they went down in other Bobst die-cutting machines. Walter G. Anderson also replaced their carbon vane pumps on their feeder machines with the Busch Merlin rotary claw type vacuum pump. Currently, Walter G. Anderson has a total of eight Busch Merlin pumps.

"Busch pumps have definitely solved our problems," said Mark Halvorsen **"I can't even think of one problem with the Busch pumps in regards to reliability and maintenance."**

