

## PAINT MANUFACTURER'S NEW PUMPS REDUCE MAINTENANCE PROBLEMS



Pumps play an essential role in the manufacture of paint because they are the main tools used to transfer the raw and manufactured materials from one production step to the next. They are used in the bulk transfer/storage process, mixing/blending process and packaging process. Large paint manufacturers often employ hundreds of pumps and maintaining this equipment can be a continuous chore. If a pump breaks down, it can cause major production problems in this fast-paced environment.

Pump problems used to be a big headache for Danny Marsh and his maintenance crew at Home Hardware's Paint & Home Products Division in Burford, ON. The Division manufactures paint and home-cleaning products for approximately 1000 independently owned Home Hardware stores in Canada

### CUSTOMER

Home Hardware,  
Burford, ON

### APPLICATION

Processing &  
Packaging Paint

### PROBLEM

Pump maintenance  
problems were too  
high.

### SOLUTION

Graco Husky  
diaphragm pumps

### RESULTS

Maintenance reduced  
significantly; less parts  
inventory.



Home Hardware uses over 100 Graco Husky pumps throughout its paint production facility.

replacement kits and parts for all our pumps. It was a pretty big inventory. We also had drawers of extra o-rings, pins and parts mixed up together from opened kits. It was a nightmare trying to match these parts with the right pump."

In an effort to reduce maintenance and consolidate inventory, the department decided to reduce the number of pumps they used from different manufacturers. After monitoring their diaphragm pumps for a period of time and researching the benefits each brand offered, the maintenance department selected Graco's Husky diaphragm pumps as their main transfer pumps throughout the facility.

"We use between 120 to 140 diaphragm pumps in our facility, ranging in size from 3/8-inch to 3-inch diameter pumps," says Marsh. "Pump repair used to be a significant part of our maintenance work. We were troubleshooting pump problems daily."

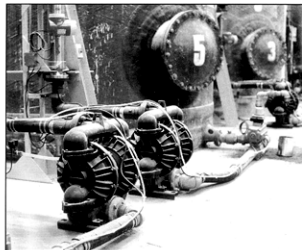
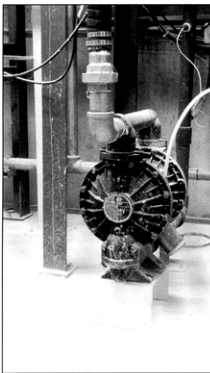
Marsh chalked the problems up to a number of causes. "Through the years, we had acquired diaphragm pumps from at least a half-a-dozen different pump manufacturers. Each one of these different pumps required its own repair kits and parts. Some of these pumps were easy to repair but others would require a major tear down just to replace a minor wear part."

"Furthermore, we never knew how many repair kits or parts to have on hand because we couldn't gauge a pump's reliability" says Ken Winn, Industrial Millwright. "To cover all our bases, we had to stock

valve parts can be serviced externally without taking the entire pump apart. Also, there are fewer parts that make it easier for the maintenance crew to become familiar with the pumps. And unlike some other diaphragm pumps that require you to change the shaft, inner and outer pistons when you convert a pump to Teflon, the Husky pumps can be converted from Hytrel to Teflon without modifying or substituting parts.

Most of the pumps that Home Hardware has are Aluminum/Hytrel. Some are Stainless/Teflon and the rest are Aluminum/Teflon. Material compatibility and cost were the main issues in going with the construction of the pumps. The selection also reduced inventory and overall cost.

Home Hardware's local distributor also played an important role in their decision to install the Husky pumps. "We've always received prompt service from our Graco distributor," says Marsh. "He pays regular visits, is responsive to our needs, and provides invaluable product information. That's not always the case with some of our suppliers. He's a valuable resource and we appreciate it."



### Production Overview

Home Hardware produces waterbase and alkyd paints in a full spectrum of colors at the facility. Raw ingredients are delivered to the facility by truck tankers. Home Hardware uses high volume, 3-inch Husky pumps to unload bulk tankers and transfer the raw materials to 10,000 gallon holding tanks. These raw materials include solvent and waterbase resins. From these tanks, 3-inch pumps transfer the raw materials to the blending/mixing stations.

Ingredients are blended and mixed at this station to make specific paints. Home Hardware uses a sophisticated computer system to assure ratio accuracy and consistency from one batch to the next. An operator calls up a specific recipe, initiates the dispense cycle and monitors the transfer of each ingredient from his computer screen. The system uses flow rate to track the amount of the ingredients added to the mix tanks. In addition to liquid ingredients, Husky pumps also transfer very viscous pigments from grinding tanks to the mix tanks.

From here, the mixed paint is transferred to bulk tanks where it is stored until another pump transfers the paint to the packaging line where it is metered into 1 liter, 1 Et 5 gallon containers. Throughout the process, batches are graded and color matched for quality. It's a high production, fast paced environment.

"Right now we have a very efficient transfer system," says Marsh. "We were lucky to be able to convert many of the old diaphragm pumps to the new Husky's during a plant expansion

reduced our pump maintenance problems significantly. •



Danny Marsh, Maintenance Supervisor (front), and Ken Winn, Industrial Millwright, at Home Hardware's Burford, ON facility.

Home Hardware's Husky system was installed and serviced by

**JET**  
**Fluid Systems Inc.**

125 McBride Place, Unit 3,  
Kitchener, ON N2R 1G4  
phone: (519)-748-4166  
fax: (519) 748-1811

For additional product information or the name of a local authorized Graco distributor, call toll free 877-844-7226 in the U.S.A. In Europe: (32) 89 770 700

©2001 Graco Inc. Form 320-413A 5/01  
Printed in the USA