Drive Controlled Pump

Industrial Washing Machine Manufacturer Increases Production and Control with Parker System Solution

Unmet Needs:

The G.A. Braun Advantage Tilting Side Loader® is an industrial washing machine with four discrete laundry chambers. The machine had to be easy to use, reliable and efficient.

In a commercial laundry environment, non-productive time has a significant impact on the ability of the service company to be market competitive and also directly impacts the direct labor cost per load. Non-productive time is caused by lengthy drum positioning cycles, loading cycles and unplanned maintenance events. By improving the ability to stop and start more quickly, the Advantage reduces labor cost overhead for the end user by improving load and unloading times and significantly increases available capacity. The Advantage also has design advantages to reduce both scheduled and unscheduled maintenance events. During normal operation, industrial washing machines must accommodate a wide range of RPM with a variable load and torque and high to low displacements. Constant stopping, which requires precisely and quickly locating the inner wash drum for loading and unloading the machine, is all part of the daily non-productive time. This also is very hard on the machine and components causing an increase in MRO costs. Shorter cycle times equate to more capacity, meaning more loads can be completed in the same period of time. Increased production capacity results in an improvement in throughput and resulting revenues. In addition, controlled deceleration from high speed extract, or from loss of power must be completed in a minimum amount of time. Safety is a key factor. The final concern was the need for interchangeable drive system. All components must be field replaceable with limited down time.

Contact Information:

Parker Hannifin Corporation
dcptechnology@parker.com

www.parker.com/dcp

ENGINEERING YOUR SUCCESS.

The Parker Solution

The Parker Drive Controlled Pump (DCP) solution for the Advantage includes an AC890 drive, a C136 hydrostatic pump and a MRD1100 dual displacement radial piston motor. The DCP communicates directly to the machine control to take operator inputs and manage the various cycle by controlling the electronic motor speed and torque as well as the hydrostatic pump's displacement electronically. The 890 drive closes the loop around a drum mounted encoder and system pressure inputs to precisely control the load efficiently.

Customer Value

- Decreased loading and unloading times
- Long-term system integrity
- GPP system – leak free technologies
- Auto-tune function for quick in service calibration
- Increased production throughput at customer by decreasing cycle times
- Better wash control

The DCP Solution includes a mix of Parker products coupled with with a customized, proprietary application software macro specifically design, installed, and tested to meet the performance requirements.

C Series Variable Flow
Hydrostatic Pump

Calzoni
Two Speed Hydraulic Motor

AC890SD Variable Speed Drive &
Application Software

ENGINEERING YOUR SUCCESS.