

# Highest efficiency from wash to finish



With their innovative machine solutions, the American machine manufacturer G.A. Braun offers especially environmentally friendly devices that live up to the current requirements for maximum energy-efficiency and cost-effectiveness. The core business of the company is the development and production of laundry systems for the health service industry and the catering and hotel industry.

## **Saving valuable resources**

The batch tunnel washer systems in particular are product highlights. These systems allow precise adjustment of the batch sizes to the needs of the laundry operator and are used mostly where large quantities of laundry must be washed. With a throughput of 4,000 kg of laundry per hour and a water consumption of 1.5 to 3.8 liters to process 45 kg units, these are particularly environmentally friendly systems.

Equipped with the most modern control technology, fully-automatic and semi-automatic laundry systems from the American machine manufacturer allow fast product runs even with large quantities. In addition to the actual washing, drying, transport and ironing processes, the systems also handle folding and stacking of the laundry. Integrating the various processing steps into a system requires a control system with excellent functionality and reliability.

The engineers at G.A. Braun were faced with the daunting challenges of providing a high degree of user-friendliness as well as meeting the requirements for the highest level of cleanliness for all processing steps. Beyond that, increasing the processing speed while simultaneously guaranteeing optimum energy efficiency required the use of highly reliable control technology. Even

**Modern technology must be able to handle valuable resources such as water and energy in a manner that is not wasteful. This basic principle is also one of the most important requirements for modern laundry systems. Particularly in areas where large quantities of laundry are managed, such as in the catering and hotel industries or in the health services industry, energy-efficient and powerful solutions that make cleaning fast and cost-effective are in demand.**

in harsh site conditions with lots of dust and lint or extreme heat and moisture, they have to be able to guarantee 24-hour operation.

### Long-term availability with B&R technology

Through the simple integration of modern and robust automation components from B&R, G.A. Braun was able to implement efficient and reliable laundry systems for processing large quantities of laundry. "Reliable 24-hour operation is the most important aspect for our customers, in order for them to be able to wash the large quantities of laundry on-time. When selecting a system, our customers give special attention to long-term availability. Our laundry systems have to provide trouble-free operation over many years, even in the most extreme operating conditions," explains Steve Wilbur, Director of Engineering and Product Development at G.A. Braun.

### 50% less energy required

The goal of the partnership with B&R was to create especially environmentally friendly machine solutions. The batch tunnel washer system is equipped with an integrated water and energy recovery system, which results in the system using only half the water and power



Modern laundry systems must be able to handle large amounts of laundry in the shortest amount of time possible. With the help of B&R control technology, G.A. Braun was able to considerably shorten product throughput.

compared to conventional machines. The system consists of several processing chambers, and the water in a chamber is passed on to the next and recycled. This significantly reduces the amount of energy required to heat the water. The fully-automatic work process also reduces the amount of time and personnel required.

For precisely controlling all processing parameters, for example to control flow and temperature, to manage the wash program, to handle timing or to manage alarms, intelligent Power Panel devices are used that combine control, visualization and drive technology in a single compact unit. The machine manufacturer relies on high-performance Ethernet for networking the B&R controllers. This allows fast data transfer using all control platforms.

Thanks to the simple programming using Automation Studio, the development time for the new systems was able to be significantly reduced. "The visualization system was able to be completed in a very short time because our engineers are skilled in programming with ANSI C and this programming language can be easily implemented in Automation Studio. The simple migration of older control software to the newer software versions was a decisive factor for reducing costs over the entire product life cycle," explains Steve Wilbur.

### One control concept for different machine types

The individual machines such as washers, dryers, conveyors etc. are often integrated in a single laundry system and work together using a variety of protocols. The machines communicate using Ethernet, RS485 or I/O systems depending on the application. An industrial PC is used as the central operating station, which can monitor and control the various system components. A Windows-based data management system provides optimal support. Each machine can be easily connected with the OPC servers via RS485 or Ethernet with the help of this central PC SCADA station.



An intuitive operating concept allows process parameters to be entered easily.

"Through implementation of modern B&R technology, we were able to significantly increase the reliability of our laundry systems. In addition, we were also able to optimally adapt the control solutions to the respective machine requirements. Technological advances such as USB support, color touch screens, CompactFlash application memory and FTP and Web services provide our customers with optimum machine functionality," states Steve Wilbur in closing.

"With the help of Automation Studio, we were able to substantially shorten the development time and reduce the amount of maintenance required." ■

### G. A. Braun, Inc.:



**Founded:** 1946

**Headquarters:** Syracuse, NY (USA)

**Products and services:** Laundry equipment

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