

# GAIN PRODUCTIVITY & EFFICIENCY

## LAUNDRY PLUS INSTALLS GI TUNNEL WASHER



APRIL 2012 • By Haley Jorgensen

In 2010, Laundry Plus, a quality-focused industrial laundry located in Bradenton, Fla., installed a 12-module Girbau Industrial Continuous Batch Washer processing 3,300 pounds of laundry per hour; one SPR-50 Water Extraction Press; five 250-pound capacity ST-100 Dryers; and associated conveyor and shuttle systems. The new Girbau Industrial laundry system – controlled seamlessly from a central operator station – was successfully placed within a tiny 50 x 25 foot area.

“Now we are running an eight- or nine-hour day to accomplish what we used to do in a 16- to 20-hour day,” says owner Rick Rone of the new equipment. “We used to need four to five people per shift to man the wash line before—to load and unload machines manually. Now, only one person is needed per shift because virtually everything is automated.”

In 2011, bringing additional productivity and quality to linen finishing, Laundry Plus added a Girbau Industrial PC-120 two-roll, 48 inch, natural gas self-contained chest ironer, a DRF Feeder and an FL-King Folder with dual stackers.

### At Its Production Threshold

Thanks to the new industrial equipment, Laundry Plus can now take on new customers and an additional 15,000-30,000 pounds of linen per day.

Laundry Plus is a 20-year-old industrial laundry providing 24-hour turnaround laundry service to area resorts and hotels in the Tampa, St. Petersburg and Sarasota markets. Rone made the decision to purchase a Girbau Industrial TBS-50 Continuous Batch Washer to catapult productivity and lower labor and utility costs.

### Selecting the Right Equipment

The TBS-50 selected by Rone features a modular inner and outer drum system with separate baths for each module. Each wash module is highly programmable, which allows for infinite configurability to meet very specific laundry needs, according to Rone. “The flexibility of the equipment lets us do anything that needs to be done,” says Rone.

### Flexibility to Meet Customer Needs via Programmability

The TBS-50's automated system is programmed from a central control, which allows for 99 general installation programs and detailed adjustments of different



The installation of a Girbau Industrial TBS-50 Continuous Batch Washer helps Laundry Plus keep up with demand during peak season.

operations of every component on the system. Each module of the tunnel is programmable for water temperature and levels, duration of the wash cycle, bath partitions, rapid draining, chemical injection, closing parameters and more. One person per shift uses the touch-screen control to call up customer numbers and individual programs designed for washing and drying that customer's unique linens, according to Rone.

### Slashed Labor & Cleaner Clean

“The tunnel gets goods cleaner, brighter, whiter and softer than they've ever been,” says Rone. He attributes this to his ability to program the tunnel system according to customer needs. Some hotels served, for example, inventory heavy, thick terry towels and higher thread-count sheets. Others inventory thinner towels and lower thread-count sheets. Each requires different washer programming.

From the central control screen, the

other equipment components are also controlled, including the SPR-50 Press, the five new ST-100 Dryers and automated conveyor system. All components, Rone says, work in automated concert . . .

In the past, it required four to five employees per shift to run the laundry's conventional washer system. Today, it requires one employee to do the same volume in one shift. That attendant selects a customer number and program on the central computer screen and loads the tunnel conveyor. Each load equates to over 110 pounds of soiled goods. The linens travel via conveyor to the top of the tunnel, where they are automatically loaded into the tunnel washer. Every 110-pound load travels through 12 modules. Each module of the tunnel is programmed to perform a function for about two minutes, such as flush, pre wash, wash, rinse and neutralizing. After the two minutes, the load is automatically transferred to the next module. Once a



2500 State Road 44 • Oshkosh, WI 54904  
920-231-8222 • Fax 920-231-4666  
800-256-1073 • www.girbauindustrial.com



load travels through every module in the tunnel, it enters the SPR-50 Press. This is where each 110-pound load of sheets or towels is compressed into a condensed cake. The water extracted as laundry is compressed is recovered for use in the pre-wash. The cake is then loaded automatically, via conveyor, into an open ST-100 Dryer. Sheets are quickly separated in the dryer and run through the ironing line still damp, while towels are completely dried and subsequently run through the laundry's folding line. An infrared sensor in each dryer automatically puts the dryer into cool-down mode once the goods inside are properly dried. This, according

**“OUR WASHERS HAD LIMITED MECHANICAL ACTION BEFORE BECAUSE OF THEIR SPLIT-POCKET DESIGN,” SAYS RONE. “THE TUNNEL GETS GOODS CLEANER, BRIGHTER, WHITER AND SOFTER THAN THEY’VE EVER BEEN.”**

to Rone, saves natural gas and prevents over-drying and fabric damage.

### **Water Reuse Cuts Water Usage**

With such a large tunnel washer, one might think water consumption would increase, maintains Rone. But, since the installation, water usage has dropped from 3.5 gallons to .6-.7 gallons of water per laundry pound.

The TBS-50 Tunnel Washer is designed

to reuse rinse water at specific points in the wash process. At Laundry Plus, rinse water and water extracted from by the press is redirected into a holding tank and used a second time during the pre-wash phase. Since less water is used, less water is heated, which dramatically cuts natural gas costs, as well. “All the water that comes out of the press is reclaimed and used for pre-wash,” says Rone. Despite saving water, wash quality has dramatically improved, he adds, along with productivity.

Rone also installed two new washer-extractors to handle loads smaller than 110-pounds. “It doesn’t make sense to put small loads into the tunnel, he maintains. Instead, food and beverage linens run through 55- and 90-pound capacity Continental E-Series Washer-Extractors. The soft-mount washers produce 350 plus G-force extract speeds to remove more water from every load, and subsequently, lower drytime and natural gas usage.

### **Bolstered Ironing Line**

Quality is critical, according to Rone, who strives for a perfect finish. That’s why he also added a new Girbau Industrial ironing line that includes a DRF Feeder Spreader with four feeding stations, a PC-120 two-roll chest ironer in natural gas, and an FL-King Flatwork Folder with a Dual Stacker that sorts by item type.

Duvets, sheets, pillowcases and table linens are run through the Girbau Industrial line with little pre-sorting, which saves time, labor and improves productivity. The machines work in tandem. First, The DRF Spreader Feeder seamlessly and automatically straightens and feeds large-sized items into the ironer. It accommodates one to four operators and feeds large pieces from multiple

stations simultaneously. It also converts to handle both large-, medium- and small-piece goods—adding to the laundry’s flexibility. Goods are then finished in the PC-120 Chest Ironer, which is up to 93 percent efficient. Linens then travel through the FL-King Flatwork Folder, which performs up to three primary folds and three cross folds using one, two or four lanes. Finally, the dual stackers sort and stack items by dimension.

Now, the laundry runs high-quality king sheets at 142-feet-per-minute – exceeding 840 units per hour. Heavy duvets speed through the line at 110-feet-per-minute, producing 600 units per hour. The DRF Spreader Feeder, Rone adds, is so flexible it not only feeds large pieces, it offers a dual function that goes into small piece-feeding mode. This, according to Rone, allows for multiple lanes for small pieces—adding flexibility to the ironing line and laundry.

### **Processing More Laundry per Hour**

Thanks to the supporting equipment and tunnel washer, Laundry Plus now processes in eight hours, what the laundry used to handle in 16 to 20 hours. This opened the doors for new customers and 15,000-30,000 additional pounds of customer goods per day.

### **ROI in Three Years**

Today, Laundry Plus boasts a PPOH (laundry pounds per operator hour) that is 10-15 percent higher than before. No wonder Rone expects a full return on his investment in just three years.

*To learn more about the Girbau Industrial Laundry Systems, visit [www.girbauindustrial.com](http://www.girbauindustrial.com).*