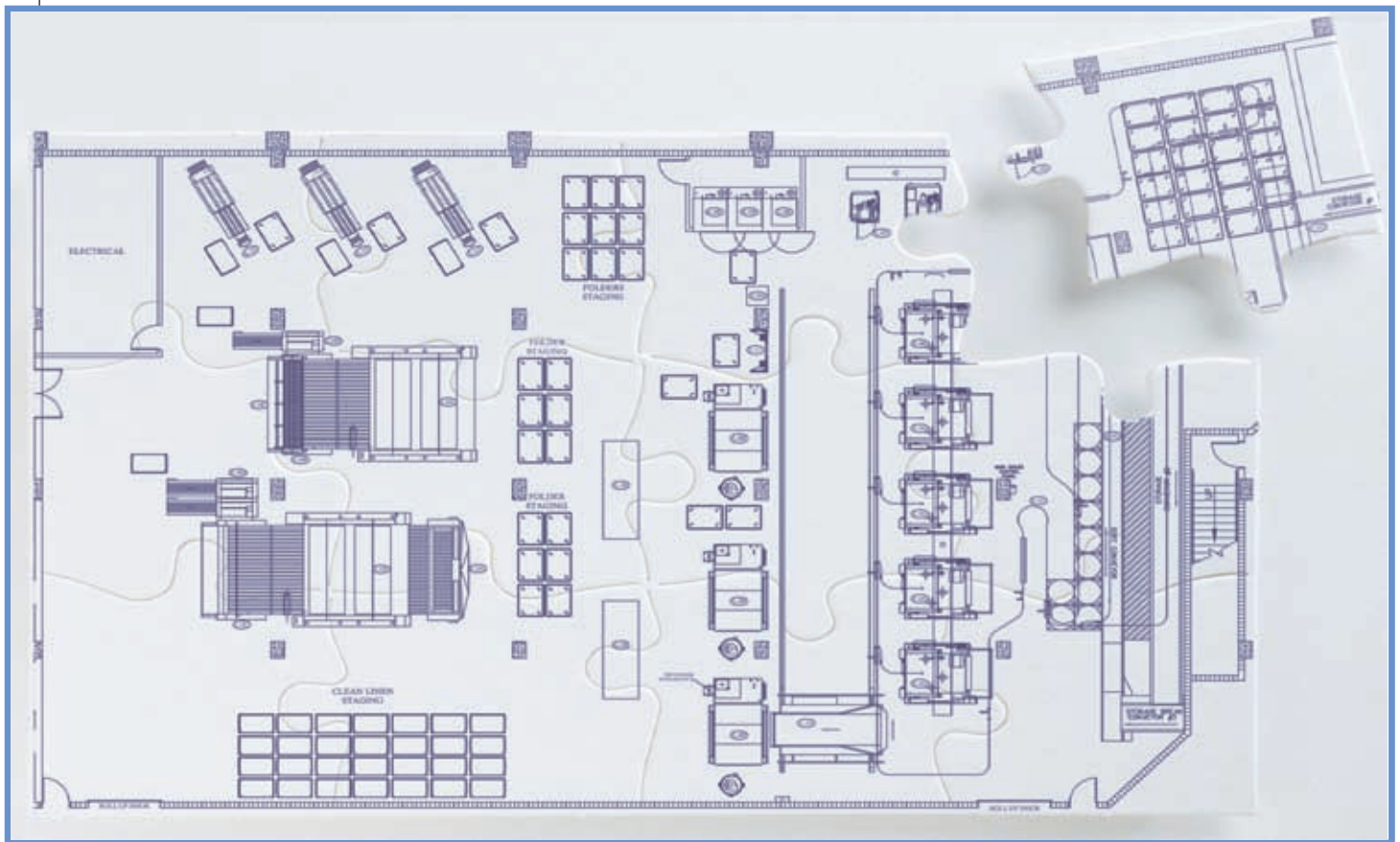




## Fitting pieces into machine addition puzzle



By Amy Dickerson

**W**hen a laundry facility is looking to purchase a new machine to fit into an existing wash aisle or replace a particular piece of equipment, typically, the plant layout needs to be overhauled. This is not only to accommodate the work flow, but it must be done to validate what existing utility and site infrastructure can be reused, while minimizing the amount of capital that must be invested to support such an endeavor.

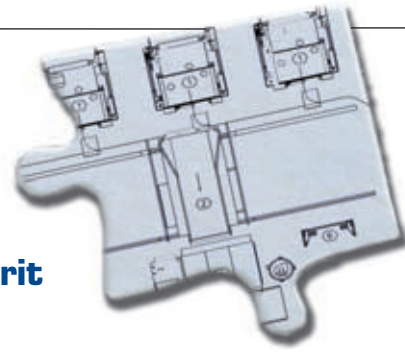
Due to various machine dimensions, safety and maintenance considerations, and systems integration requirements, there may be a need to relocate

or remove existing processing equipment and support systems.

Ideally, it's best to start with a "blank page" and work with an architectural/engineering firm to design a laundry that best suits the needs of the customer and maximizes the utilization of the entire cubic space. This typically occurs with new construction. However, when retooling existing sites a compromise must be made between supporting existing processing requirements, and trying to alter or expand the processing environment.

As a result, most "design" work in these instances consists of determining the laundry's cur-

**Dryers often are the biggest culprit  
in taking up more floor space  
than a laundry owner may concede**



rent and future production needs, the most efficient manner in which to process goods, and the most optimal fit for the equipment and flow. An architect/engineer might be involved, but in this case, a process expert typically can provide greater value in altering the work space in support of expansion needs.

It usually doesn't matter if the facility handles healthcare, linen, or industrial work. We see many older buildings with limited space to expand. When these plants were built, future expansion and technological advancements weren't taken into consideration. In many cases plants that have been expanded tend to look like a jigsaw puzzle due to multiple expansion efforts, or the various site renovations that have taken place in order to support the needs of the business over time.

The results are often not pretty. There is no room to expand production capacity or replace aging equipment. The changes over time to support the immediate demands of the business in many cases create a very inefficient operating space. To help with situations like this, a significant emphasis on designing processing solutions that will afford end users the ability to grow their business without extensive capital costs for "bricks and mortar" is recommended.

Particularly, Braun's N2 platform of open pocket washer/extractors is a prime example of this philosophy, as our current generation 450-pound machine fits into the space of a typical 200-pound machine, and the 650 N2 fits into the same footprint as the previous generation and most other existing manufacturers'



Braun's 650 N2 (right) is said to process 675 pounds in the same space as the industry's average 400-pound machine; the 450 N2 is the equivalent for 200-pound machines.

400-pound machines.

By using these smaller footprint washers, you can significantly increase your facility processing capacity with a nominal investment to the facility infrastructure, thereby increasing production and throughput. This eliminates the need (and costs) to modify an existing rail system or relocate existing washers.

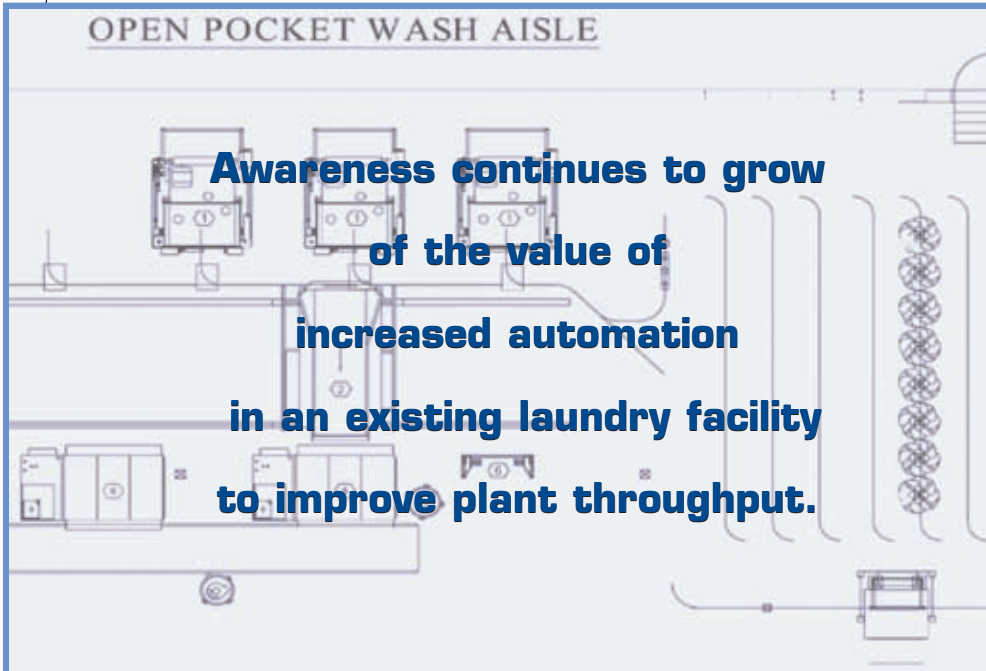
**How plant design can fill a building fast!**

Floor space is a precious commodity in a laundry facility. When a new piece of equipment is being added or a new laundry design is being created, dryers often are the biggest culprit in taking up more floor space than a laundry owner may be willing

to concede. When placing dryers, the designer and end user must take into consideration the clearances needed to support machine tilting, door opening heights, and load and unload requirements.

Additionally, if this site is currently a manual operation, attention should be paid to ensure that ample space is allocated to support the future addition of a shuttle system in support of the business automation and growth strategy.

Large-piece finishing areas provide another example of designing for growth and automation. Today's single ironer plant or labor-intensive operation may fail to see the benefits of allocating ample space for the addition of automated stacking and accumulation devices to further support the reduction of overhead and



improve end product quality. Too often, operators are too close to the process and adopt a mind-set that dictates a philosophy of adding processing hours, equipment and labor, as opposed to embracing automation to take on the demands that growth places on the business.

That's why we emphasize workflow analysis as the first step in choosing a solution. It may not be the first thing on a launderer's mind, but it will have a significant impact on their satisfaction with the implemented processing solution. Ultimately, how goods flow in and out of a laundry plant determines the equipment needed. You may very well need to add a new machine, but it might not be valuable unless modifications to material handling are made as well.

To reduce human handling of goods, quite often conveyors are used behind system dryers to deliver goods from each dryer to a cart or automatically load to a clean monorail system. Conveyors are

also used on the finishing side to collect goods from a small piece folder or ironing system and transport to a central collection point for packaging.

Monorail systems reduce the use of push carts by raising goods into the air to free up valuable floor space. Such systems are extremely valuable to the end user to effectively stage loads, reduce material handling, and reduce operating costs.

Braun has seen an increase in customers' interest to include more material handling solutions in their improvement pursuits with an end goal to reduce the amount of carts utilized in the process, free up valuable real estate, and reduce non-value adding handling and labor requirements.

Awareness continues to grow regarding the value of increased automation in an existing laundry facility. When and where appropriate, we strongly recommend the use of the solutions noted to enhance

existing or new processing environments. However, space constraints in existing plants can present obstacles to incorporating these systems. Such drawbacks include height restrictions as well as insufficient room to accommodate rail storage capabilities and conveyor inclines to load goods into carts or slings.

When designing a new facility, these factors can be taken into consideration early on in the design process to accommodate new and future equipment and systems. Planning the flow of goods in and out of the laundry and placing new equipment in an ideal configuration are needed to reduce human handling.

Thus, the importance of taking a comprehensive approach to assessing the processing environment and stated objectives of any project cannot be overstated. Nor can the importance of making certain all equipment and plant system providers work closely together during this phase of the project. These companies all must work together seamlessly to design an effective laundry plant for the customer. **IL**



*Amy Dickerson, layout design engineer for G.A. Braun, graduated from the State University of New York (SUNY) Institute of Technology, Marcy (Utica), with a degree in industrial engineering. Prior to joining Braun, she was with the state Energy Research and Development Authority in Albany as an associate project manager. In addition, Dickerson has worked in a variety of computer-aided design and construction roles and on ISO 9000 projects.*