

CASE STUDY

MATERIAL HANDLING SOLUTION ZERO-PRESSURE ACCUMULATING CONVEYOR

Whirlpool baths are hard to handle, and trimming the fiberglass and drilling the holes can be even tougher. The world's leading producer of bathroom and kitchen fixtures and faucets decided to invest in automated saws to increase productivity and reduce errors. Once the saws were installed, a problem still existed – how to handle this awkward product efficiently and safely.



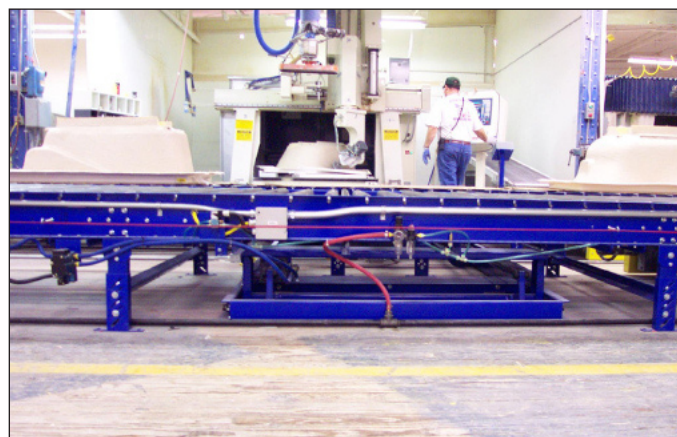
Enter the engineers from Conveyor & Caster. They reviewed the need to stage, accumulate and transport tubs from the molds to the saws and determined that a Zero-pressure Accumulation Conveyor should be used to move each tub into place in front of the three new saws. An operator calls for a tub and the conveyor delivers it to their station where the tubs are lifted off the conveyor and into the saw using existing vacuum hoists. After the saw completes its work, the tubs are placed back on the conveyor and the operator then sends the tubs to the take-away conveyor, which runs parallel to the feed conveyor. The tubs are placed on "slave boards" to avoid damage to the decorative finish and then transferred by pneumatic chain transfers.

The conveyor system eliminated the need for bulky carts and the chain transfers increased the amount of tubs that can be processed simultaneously. Another concern was aesthetics so they wanted the conveyor painted to match their corporate colors. Conveyor & Caster was able to accomplish this with a powder-based paint by Tiger Dry-Lac.

The system was delivered complete with an Allen-Bradley PLC built in to a custom electrical control panel. The PLC controls all of the conveyors and "talks" to the saws with input from the operators.

Conveyor & Caster is currently working to eliminate the "slave boards" needed to convey the uniquely shaped tubs. This can be accomplished by adding a PVC coating to the rollers to protect the tubs from damage and replacing the metal roller chain with Fenner Power-Twist belts on all the pop-up chain transfers.

When customers look for unique solutions to handle their unique products, they look to Conveyor & Caster.



Total Material Handling Solutions

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