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Big Conveyors for Big Mattresses

Exceeding expectations by delivering turnkey solutions that work; on time and on budget.

On many jobs, Advanced Equipment Company (AEC) tackles the challenges of taking a busy manufacturing environment and improving on it. Sometimes the job calls for a turnkey system installation in a yet empty building. A clean slate to design and build the most optimal solution possible.

This was the case with mattress manufacturing client, Kingsdown Inc in North Carolina. AEC was brought in at the beginning of a new facility to design a scalable conveyor system that will last its client for years to come.



Quality Mattresses Require Specialized Handling

For over a century, Kingsdown has been manufacturing mattresses and box springs in North Carolina—but not just any mattresses. World-renown for craftsmanship and designed to deliver scientifically-calculated support for healthy, holistic sleep, every square inch of a Kingsdown mattress is made from superior quality materials.

Meticulous attention to detail is a hallmark of who they are and when they moved production locations within North Carolina, they teamed with AEC for a conveyor system to meet their unique needs.



“First and foremost, they were looking for a business partner that could deliver the equipment in an expedited time frame and provide turnkey installation as soon as it arrived on site,” said Ivar Lonon, AEC Conveyor and Material Handling Specialist. “They also required that it handle the broad range of sizes and weights and did not mark or damage the mattresses in any way.”

A Bigger Than Average Job

Anyone who has ever moved a mattress knows what a bear it is. Kingsdown's are no exception. Ranging from crib-size to king, their conveyor systems must be efficient movers of tiny to nearly 200 pounds of mattress.

With an aggressive eight-week schedule, AEC had to accommodate a specific list of needs for the new facility:

- Product assembly
- Conveyor system capable of handling up to 200 pounds per product
- Accumulation zone conveyor that could manage the size and weight of the product
- Multiple production cells
- Transportation to automatic wrapping stations
- Transportation to two inspection flipping stations
- Quality assurance



The Solution? Hytrol ABEZ Conveyor

"I knew the Hytrol ABEZ conveyor was perfect for their needs to ensure every step—from assembly to testing to wrapping—would be smooth and easy," said Lonon.

Because of the size and weight, **Hytrol has an 87-inch by 96-inch conveyor system designed specifically for the mattress industry.** Each zone of the conveyor system is an individual section with supports at every joint to best accommodate large and heavy product. The axles are reinforced to keep them from deflecting.

Zero Pressure Accumulation Conveyor

Additionally, the product must be protected from other product as it travels the system. "Hytrol's **zero-pressure accumulation conveyor** allows their product to be positioned accurately every time without ever touching the mattress ahead without any backup pressure. The outcome is that final product lives up to their high-quality standards delivered as efficiently as possible."



Zinc Flow Coated Rollers

In keeping with their commitment to quality, Kingsdown needed to be sure nothing would mark the mattresses during assembly and flow to wrapping. After testing, it was determined that Hytrol's standard zinc flow coated rollers worked perfectly.

Smooth Production Transition

Before final turnover, the entire system was methodically tested followed by after sales training and support. Not only did AEC meet the aggressive delivery schedule but they created a smooth transition from Kingsdown's previous production facility to the new one.

Systems On-Time & Performed Perfectly

Customer Testimonial

“Ivar Lonon designed, quoted, and installed complex conveyor systems in several of our factories.

The delivery, installation, and performance of the systems were done on time or ahead of schedule and performed perfectly from Day 1.



Ivar’s after sale follow-up and response has always been done quickly and professionally. Ivar is the first person we call when we need conveyor systems,” said Joe Schmoeller, COO/EVP Operations at Kingsdown, Inc.

About the author: **Ivar Lonon is a Conveyor & Material Handling Specialist** at Advanced Equipment Company. He is responsible for system sales and turnkey integration of material handling systems with over 30 years of experience in systems engineering, project management and systems integration. **Contact Ivar** with any questions and **connect with Ivar on LinkedIn.**