

# TriFactor Solution

## MOTORIZED DRIVE ROLLER

Case Study

### Company Description

Exactech, Inc. of Gainesville, FL, develops, manufactures, and markets orthopedic implant devices, related surgical instrumentation and biologic services to hospitals and physicians in the United States. The company, which employs more than 200 workers, has annual sales in excess of \$100 million.

### Situation

The company invested heavily over the years to develop its administrative, infrastructure and distribution network to meet the growing demands of the healthcare industry for its products. It is imperative for Exactech to deliver its products quickly to meet critical medical deadlines. Faced with increased demand, the company's relatively small 12,000 sq.ft. warehouse and labor-intensive hand-picking system was unable to fulfill orders as quickly and efficiently as necessary.

### Assessment

The TriFactor Needs Analysis determined that there was not sufficient warehouse space for hand-picking. A new facility was needed so that the distribution operation could be totally reengineered, and yet be efficient in a relatively small space. To achieve this objective, it was necessary for Exactech to change the way it handled distribution, particularly with accuracy and speed driving the process. As a result, it was determined that a larger facility and more automation was needed to eliminate as many "human touches" as possible.

### Solution

The decision was made to move the operation to Exactech's 25,000 sq.ft. warehouse, still relatively small for this type of operation, but with twice the space of the original facility. TriFactor designed and installed a 24v MDR (Motorized Drive Roller) style conveyor, which utilized a smaller footprint, partially because of its ability to accumulate on the inclines and declines. This style of conveyor is 40%-60% more energy efficient and 45% quieter than traditional conveyor systems. Because operation can never be "down"—they must ship on time, every time—the system was designed to operate with a backup generator during power outages. With the use of correctly applied automation, TriFactor increased picking and replenishment efficiencies by 200% and the company's receiving capacity by 400%. The new system allowed in-coming product to be segmented and sorted to four separate workstations, where it could then be transported to a pick location for distribution. Not only is the 24v MDR conveyor

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### System Summary

**Company:**  
Exactech

**TriFactor Provided:**  
Phase 1 Needs Analysis  
Phase 2 Final Design  
Procurement  
Installation and Training

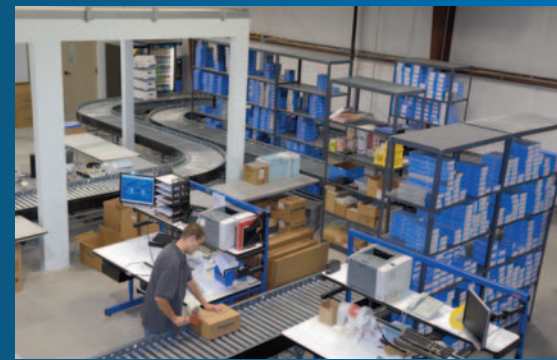
**Size:**  
29,000 Square Feet

**Facility Type:**  
Customer Operations Center,  
Distribution

**Products Handled:**  
Surgical Implants and Tools

**Markets Served:**  
Physicians and Hospitals Worldwide

**Products Utilized:**  
24v MDR Conveyor  
Merge and Sortation  
Accumulating Inclines and Declines  
Scanning Equipment  
Mezzanine and Pick Modules



Formerly Advanced Handling Systems  
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a 'green' technology, it is virtually maintenance free. To complement the 'green' aspect of the conveyor, Exactech installed energy-efficient low power lighting, a polished floor in which the reflection would allow for less lighting and a high-gloss floor to reflect more light. They also added a whisper-quiet, high efficiency compressor – all of which allowed Exactech to qualify as an Environmentally Friendly workplace. The system was designed to be flexible to meet the needs of a growing business.

### Result

The TriFactor team completed the project on time and on budget. The immediate results included creating an environmentally friendly facility with work-noise reduction to 55-60 decibels (about the level of the average soft rock radio station) that is energy-efficient. The new system also allowed for 20%-40% growth without hiring additional personnel. In addition, the automation cut distribution time by allowing orders to be filled later in the day and still be delivered on time, which was not possible previously.



### ROI

A return on investment is estimated to be less than 18 months.

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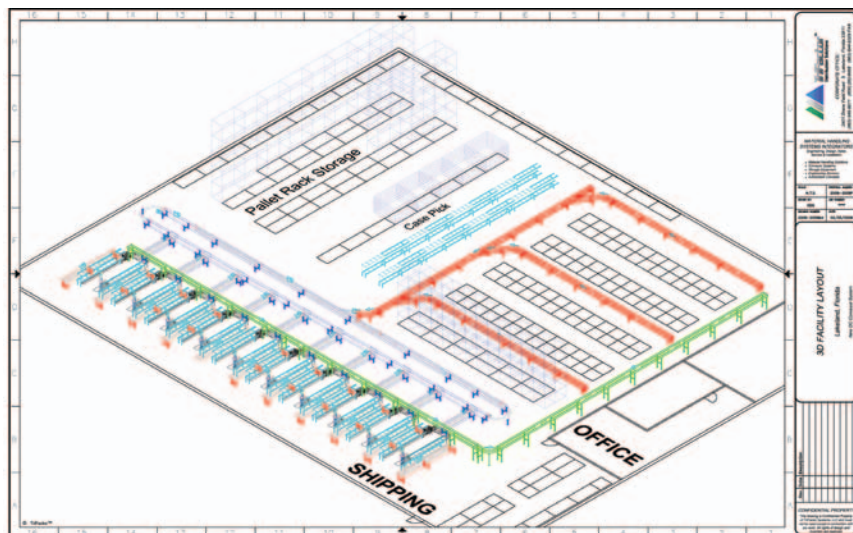
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