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A healthcare worker in blue scrubs and gloves is feeding a young child in a specialized wheelchair. The child is wearing a red shirt and is seated in a wheelchair with a tray attached. The worker is holding a white bowl and a spoon, and the child is holding a spoon and eating. The background is a warm, indoor setting.

“After an exhaustive testing process, we determined the ROEMHELD Linear Actuator was an upgrade on several fronts.”

Kirk Wareham | Rifton Equipment | Director of Product Design



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SUPPORTING ACCESSIBILITY

Linear Actuators Allow Critical Height Adjustment

Enhanced Activity, Durability, and Safety

Rifton Equipment introduced the Activity Chair, a versatile seating system designed for therapy, feeding, and various activities. Featuring a height-adjustable base, this chair allows for vertical position changes while ensuring the person remains comfortably seated.

At Rifton, their primary objective is to develop products that enhance activity and mobility for individuals with disabilities, prioritizing durability, user-friendliness, and safety. Each major component undergoes rigorous testing to simulate the typical life cycle of a special-needs product in real-world conditions.

The design of the Activity Chair aimed to offer a wide range of support options while maximizing freedom of movement. Special focus was placed on promoting forward leaning, dynamic seating, and facilitating easy transitions to standing.

“One of the required features was a base that allowed height adjustment with a 225 lb client in the chair,” says Kirk Wareham, Rifton’s director of product design.

To achieve this, a foot-operated hydraulic linear actuator pump was utilized, initially sourced from another supplier but later outsourced to ROEMHELD North America.

“Prior to making a final decision, we then paid a visit to the ROEMHELD North America facility in Fenton, Missouri, in the hopes of establishing a strong and long-term relationship.”

Wareham says, adding that ROEMHELD North America offered a smoother, more consistent operation, as well as better paint quality and a higher success rate.





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Optimizing Cost Efficiency

Another significant factor influencing the decision was price. Although the pump from the original supplier performed well, it was costly.

“We felt it was only responsible to reduce our costs where possible, and ask for a price reduction commensurate with the dramatically rising sales of the Activity Chair,” Wareham says. “We were disappointed to find that the previous supplier would not even entertain a discussion on either point. There were also some minor quality issues. An additional driver of the project was the hope to reduce the amount of inventory held in our warehouse.”

“ROEMHELD North America offered a price that would save us a significant amount of money. They also made some minor design modifications to meet our requirements, including custom packaging specifications.”



Superior Supplier Collaboration

Because ROEMHELD North America agreed to hold stock for us, and to deliver on a one-week lead-time, we were able to reduce our inventory by more than \$100,000. We also received a visit from an engineer from their manufacturing plant in Germany, to review quality expectations and design features,” Wareham comments.





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Met with Rewarding Smiles

“The ROEMHELD linear actuators played a crucial role in enabling the Activity Chair to offer important range-of-motion benefits to children and adults with disabilities.”

“The most rewarding part of the design process comes at the end when we make our final round of field trips just before going into production,” says Sam Durgin, Rifton’s project design leader. “I’ll never forget watching a little girl in New Jersey smile when she had access to a sink for the first time, or the appreciation from the teacher who could quickly position her child with special needs to join her peers for circle time at floor level.”

Many similar accounts of enhanced abilities have consistently underscored the Activity Chair’s significant advantages for caregivers and disabled patients of all ages. Wareham acknowledged the invaluable contributions ROEMHELD North America made to the design process.



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Linear Actuators

Linear actuators are versatile devices used to convert rotational motion into precise linear movement, making them integral to applications in assistive and ergonomic workplaces.

These systems provide reliable height and positional adjustments for hospital beds, therapy couches, patient transporters, ergonomics chair, and assistive devices. Their durability, safety, and adaptability contribute significantly to enhancing both patient care and caregiver efficiency.

- **Enhanced Accessibility and Independence**

Allows seamless adjustments, enabling users with disabilities to perform tasks like reaching sinks or joining peers at floor level, as highlighted in the design of Rifton's Activity Chair.

- **Precision and Safety**

Advanced linear actuator models, such as the RH 1250, feature integrated flow control valves and safety mechanisms to prevent overload and ensure smooth, uniform motion. The self-locking capabilities of certain models also maintain position during power failure, enhancing safety in critical environments.

- **Ease of Use and Versatility**

Actuators like the RA 600 and RA 60 K offer optional manual or automated control via hand panels, foot switches, or even integration with control systems like LIN or CAN. These capabilities enable rapid, precise adjustments to accommodate diverse activities and ergonomic needs.

- **Cost-Effectiveness and Customization**

Case studies such as Rifton's collaboration with ROEMHELD demonstrates the cost-saving potential of sourcing high-quality, customizable actuators. Tailored solutions meet specific needs, from stroke lengths to advanced measurement systems, ensuring optimal functionality without compromising quality.



DRIVE TECHNOLOGY

Linear Actuators



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**Empowering the future of
mobility and patient care with
maintenance-free lifting solutions.**



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Solutions for Ergonomic Products and Production

Safety in motion is not limited to the end-users of mobility devices but extends to the healthcare workers and factory employees who build and maintain these critical tools. ROEMHELD's extensive range of ergonomic products can play a pivotal role in reducing workplace injuries, improving efficiency, and fostering healthier work environments.

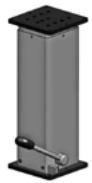
Healthcare

In healthcare settings, products like adjustable hospital beds and therapy couches integrate actuators for smooth, gentle transitions, prioritizing patient safety and comfort. These precise movements help prevent sudden shifts that could result in injury, while also reducing strain on healthcare workers tasked with patient handling.

Industrial

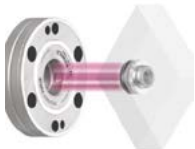
In industrial applications, ROEMHELD's ergonomic solution: moduhub provide easy handling and assembly at optimum position with secure height-adjustable workstations that rotate, tilt, move with ease preventing injuries from repetitive manual handling.

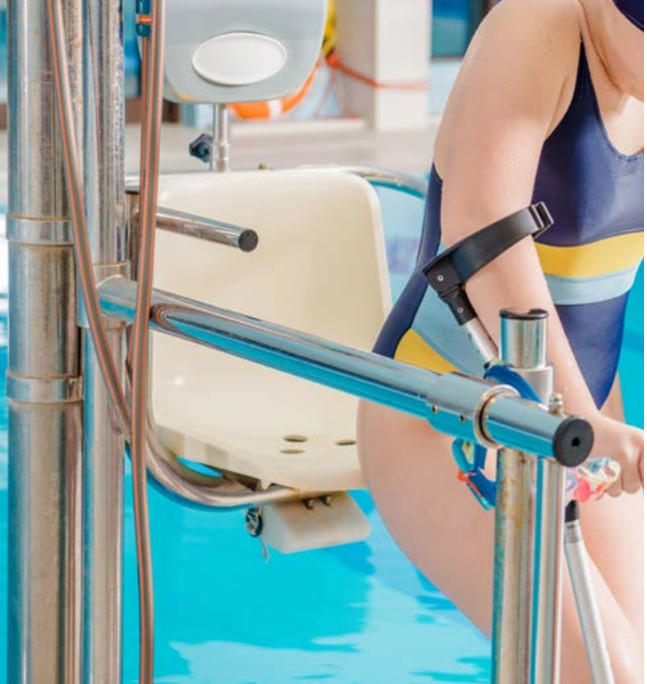






click & hold!





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Let's Collaborate



Linear Actuators

- Maintenance Free Precision Lifting

Moduhub for Ergonomic Assembly

- Increase Your Productivity and Quality with Flexible Assembly Workstations

Free Process Evaluations and Design Concepts Available

- Our North American Application Engineers can provide tailored solutions to address your unique challenges. Whether you're looking for economical products with the best price-performance ratio or customized turnkey systems, we're here to help you succeed.



Contact us to get started!

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