

Five Benefits of
Hydraulic Rope
Equalizers

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Despite its incredible safety and cost-saving benefits, the hydraulic rope equalizer is easily one of the most overlooked tools available for elevators and other lift systems. While elevator ropes usually fail to disperse tension evenly, these instruments equalize tension across all ropes involved, which is critical toward preventing costly wear and tear of your cables and sheaves. When rope tension remains uneven, there can be significant consequences in terms of both safety and maintenance.

First, unequal tension can cause excessive wear on your ropes, significantly shortening their lifespan. When rope tension is unequal, it also puts additional stress on the system's sheaves, causing unnecessary wear on them as well. Overall, unequal tension distribution has been known to significantly affect the general performance of your cables.

Installing rope equalizers on your lift system, however, can make a substantial difference by helping you successfully avoid the significant long-term issues caused by unequal rope tension. Hydraulic elevator rope equalizers effectively and automatically keep tension distributed evenly—extending the life of your cables and providing significant cost savings.

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Below we discuss the five major advantages that hydraulic rope equalizers can provide.

1 Significantly Lower Maintenance Costs

Hydraulic rope equalizers can help to significantly lower maintenance costs for your operation. Once they are installed, they do not require any type of routine or preventative maintenance. When cable tension is unequally dispersed, this often causes greater stress on specific sections of cable, and wear occurs at a much faster rate than normal. When cables wear out quickly, they require more frequent monitoring and maintenance to ensure they remain safe to use.

With rope equalizers, however, the life of your cables will be extended exponentially. Because the machine equalizes tension among cables, the need to inspect or monitor cables for undue wear is greatly reduced. Cables will instead wear evenly and can simply be replaced at the interval recommended by the manufacturer. Additionally, since the rope tension and rope length is balanced equally, sheave groove wear is eliminated, which is caused by inconsistent rope tension and rope stretch.



2 Quick and Easy Installation

Fortunately, hydraulic rope equalizers can be quickly and easily installed. In fact, most units are shipped and delivered fully assembled, meaning you won't have to worry about taking the time to put components together.

Instead, you can begin reaping the benefits of the equalizer almost immediately upon arrival. Rope equalizers are designed to be easily mounted, and they have a great deal of flexibility in their installation. Rope equalizers can be installed in almost any possible position needed—an optional console even allows upside-down installation—to fit any unique requirements of your specific application, operation, or building.

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3 Auto-Remediation of Inconsistent Rope Tension

Historically, rope tension in lift systems has been difficult to measure. Even the best tools are fairly inaccurate, and one of the most common methods still involves a technician estimating the tension of a rope by touching it with their hand. Hydraulic rope equalizers offer efficiency when carrying out their intended function without the need for continuous input from operators and technicians.

These devices are capable of evenly distributing weight to all ropes with perfect precision, and can detect inconsistent rope tension in real time in order to provide instantaneous remediation of the tension. This virtually eliminates the need for manual touch testing or other tension inspections.



4 Increased Rope Life Expectancy

By using an automated mechanism to even out the tension on your cables, you can significantly extend the life of your ropes—ultimately saving you a great deal of money over time by drastically extending the time between costly replacements. In fact, some studies have shown that by reducing the differences in rope tension, you can extend the life of your rope by nearly 50%.

The use of an equalizer helps to defer the negative long-term effects of uneven tension, such as minimizing the amount of wear occurring on ropes, eliminating the irregular wear on sheaves/pulleys, and removing the risk of loose ropes jumping out of sheaves. Hydraulic rope tensioning devices automatically compensate for rope stretch and can warn the system when the ropes need to be shortened before they begin to slide through the sheave, causing rasping wear or rope slapping in the hoistway.



5 Improved Ride Comfort and System Performance

One of the greatest benefits of the rope equalizer is its ability to create a smoother ride for the user. Because the equalizer reduces the amount of shearing that typically occurs on the rope, there is much less vibration felt by the customer when riding inside the lift. Hydraulic rope equalizers also prevent buckling and unnerving noises, which can be extremely uncomfortable and stressful for some lift users.

In addition, elevator rope equalizers even help to improve the precision of the lift—increasing its accuracy when it stops at the holding position. Together, these attributes can create a much more enjoyable, safe, and relaxed experience for the rider when using the elevator.

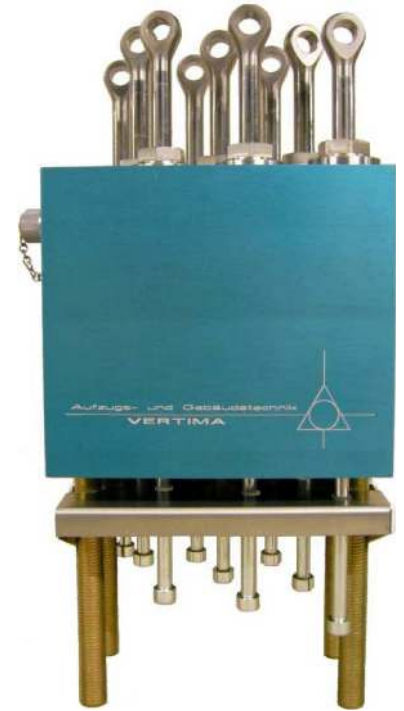


Learn More

As you can see, with these five unique benefits, it can be extremely advantageous for your operation or business to install a hydraulic elevator rope equalizer. The Vertima Balance Hydraulic Rope Equalizing device is currently available from Renown Electric to help you begin enjoying reduced maintenance costs and smoother rides as soon as possible.



The Balance is permanently installed in the lift system to ensure that it continuously balances and redistributes the tension of the ropes, guaranteeing all of the benefits discussed above. In fact, this system is able to automatically equalize the tension under any given condition—including variances in the lift's load, speed, rise, and position. This feature enables the Balance to equalize the rope's tension at any given time and to accommodate changing environmental conditions—including gradual stretching of ropes over time.



When you transition from a traditional lift rope system to the Vertima Balance, you'll quickly see how the use of a rope equalizer can optimize your lift's efficiency, performance, and operating costs. At Renown Electric, we have extensive experience working with elevator systems, and our team possesses the knowledge and expertise needed to work with, maintain, and repair a wide range of elevator and lift systems.

If you're interested in learning more about how Renown Electric can help you to optimize your elevator costs and performance, [contact us](#) today.

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