

igus ice-chain keeps equipment moving in freezing temperatures

In order to prevent cable management systems seizing up during wintery conditions, igus has developed a new energy chain, called ice-chain. With injection-moulded raised contact points, the chance of freezing to the running surface is significantly reduced along with the associated cost of downtime and maintenance.

Inclined lifts are used in a variety of places to carry people or goods over mountainous terrains. Regardless of use, long-lasting, trouble-free operation is a must - because of the high altitudes and poor access, a failure would usually result in high maintenance costs. These challenges are compounded when inclined lifts are used at very high altitudes or in adverse weather conditions.

Here, there is a risk of freezing especially in systems with energy chains that are moved infrequently. If the system does freeze to the running surface, operation can only be resumed after a complicated defrosting process. Concepts that prevent freezing, such as the innovative ice-chain from igus, are needed to guarantee safety and reliability under these extreme conditions.

The technique implemented here is just as simple as it is effective: two raised domes per chain link are injection-moulded onto the crossbars of the e-chain along the outer radius of the chain – this reduces the contact surface area, and thus the risk of freezing. The rectangular stop-dog system, which distributes the forces evenly, and the strong pin/bore connection in the side links guarantee high strength, offering large payloads or fill weights. As the domes are only 1.8 mm high, the installation height is only slightly larger when compared to standard e-chains. The ice-chain can therefore be integrated easily even in confined installation spaces.

As for all e-chains developed for outdoor use, the ice-chain is made of weatherproof and media-resistant high-performance plastics. The material, igumid G, can be used in applications down to -40°C. With jacket materials made of PUR or TPE, chainflex cables provide trouble-free service even at temperatures well below freezing over very long time periods. And, if temperatures go down to below -35°C, a chainflex CF29 series servo cable can be used, which will still reliably supply any drive system.

As part of the igus readychain concept, the ice-chain is also available as a complete system fully equipped with pre-harnessed cables that can be quickly installed and connected. For more information about the ice-chain, please visit: www.igus.co.uk/info/energy-chains-icechain or call igus directly on: 01604 677240.

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About igus:

Based in Northampton in the UK and with global headquarters in Cologne, Germany, igus is a leading international manufacturer of energy chain systems and polymer plain bearings. The family-run company is represented in 35 countries and employs 3.800 people around the world. In 2017, igus generated a turnover of 690 million euros with motion plastics, plastic components for moving applications.

With plastic bearing experience since 1964, cable carrier experience since 1971 and continuous-flex cable since 1989, igus provides the right solution based on 100,000 products available from stock with between 1,500 and 2,500 new product introductions each year. igus operates the largest test laboratories and factories in its sector to offer customers quick turnaround times on innovative products and solutions tailored to their needs.

The terms igus, chainflex, CFRIP, conprotect, CTD, drylin, dry-tech, dryspin, easy chain, e-chain, e-chain systems, e-ketten, e-kettensysteme, e-skin, flizz, ibow, iglide, iglidur, igubal, manus, motion plastics, pikchain, readychain, readycable, speedigus, triflex, plastics for longer life, robotlink and xiros are protected by trademark laws in the Federal Republic of Germany and internationally, where applicable.

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