

Chilling times for maintenance costs: ice-chain prevents standstill at low temperatures

Special design makes igus e-chain and chainflex cables the ideal solution for frost and snow

In order to prevent freezing of the energy supply, for example on inclined lifts, the motion plastics specialist igus has developed the new e-chain called "ice-chain". With injection-moulded raised contact points, the chance of freezing is significantly reduced along with the costs of downtime and maintenance.

Inclined lifts are used in a variety of places to carry people or goods. Regardless of whether it is for transporting people or goods, they always require long-lasting, trouble-free operation. A failure would usually cause high maintenance costs due to the height and poor access. These challenges are compounded when inclined lifts are used in adverse weather conditions, for example in passenger lifts in the mountains or in construction lifts outdoors. Operation can be continued only after a complicated defrosting. Concepts that prevent freezing, such as the innovative ice-chain from igus, are needed to guarantee safety and reliability under these extreme conditions.

New design prevents plant failure

There is a risk of freezing especially in systems with energy chains that are moved rarely or with a long-time interval in adverse weather conditions. The freezing-resistant ice-chain can be used for such applications. 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. As a result, the contact surface area, and thus the risk of freezing, are significantly reduced. The e-chain is still safe in the guide, but it touches with only a tiny surface area and does not stick. The domes applied on the crossbars by injection moulding optimise the climate behaviour of the ice-chain without diminishing the traditionally high strength of the e-chains. 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. Since the domes have only a height of 1.8 millimetres,

the installation height is only slightly larger. The ice-chain can therefore be easily integrated even in confined installation spaces.

e-chains and chainflex cables withstand freezing temperatures

Like all e-chains 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 . Together with chainflex cables optimised for continuous dynamic use in energy chains, the ice-chain reliably moves applications even in snow and ice. With jacket materials made of PUR or TPE, chainflex cables provide trouble-free service even at temperatures well below freezing over a very long period of time. And if temperatures down to -35°C should actually occur, a chainflex CF29 series servo cable 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.

Caption:



Picture PM5618-1

Two moulded domes per chain link reduce the contact surface area and thus also the risk of freezing of the ice-chain. (Source: igus GmbH)

PRESS CONTACT:

Oliver Cyrus
Head of Media and Advertising

igus[®] GmbH
Spicher Strasse 1a
51147 Cologne
Tel. 0 22 03 / 96 49-459
Fax +49 22 03 / 96 49-631
ocyrus@igus.de
www.igus.de/de/presse

ABOUT IGUS:

igus GmbH is a globally leading manufacturer of energy chain systems and polymer plain bearings. The Cologne-based family business has offices 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. 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", "Apiro", "chainflex", "CFRIP", "conprotect", "CTD", "drylin", "dry-tech", "dryspin", "easy chain", "e-chain", "e-chain-systems", "e-ketten", "e-kettensysteme", "e-skin", "flizz", "ibow", "igear", "iglide", "iglidur", "igubal", "kineKIT", "manus", "motion plastics", "pikchain", "plastics for longer life", "readychain", "readycable", "ReBeL", "speedigus", "triflex", "roboLink", and "xiros" are protected by trademark laws in the Federal Republic of Germany and internationally, where applicable.