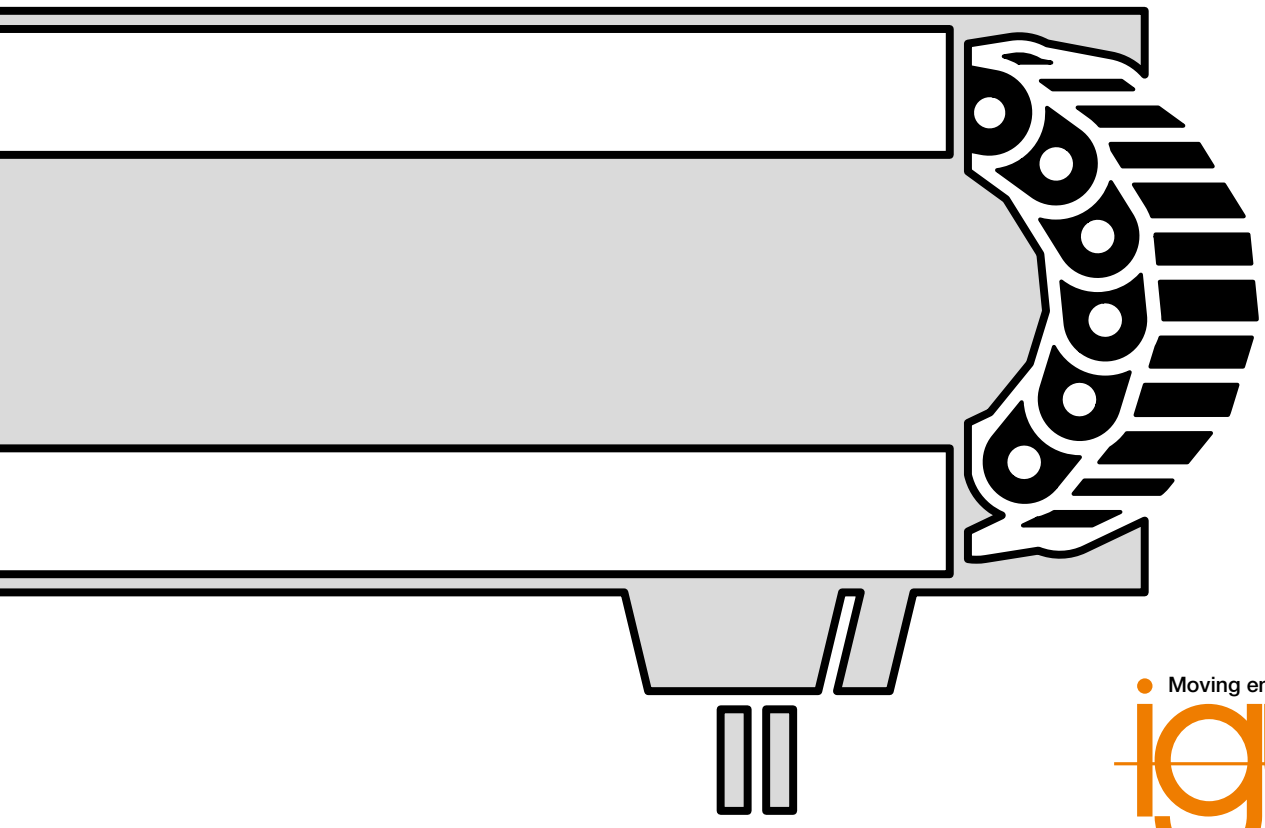
igus® GmbH, October 2021

7 Reasons

... to use micro flizz® in sliding gates

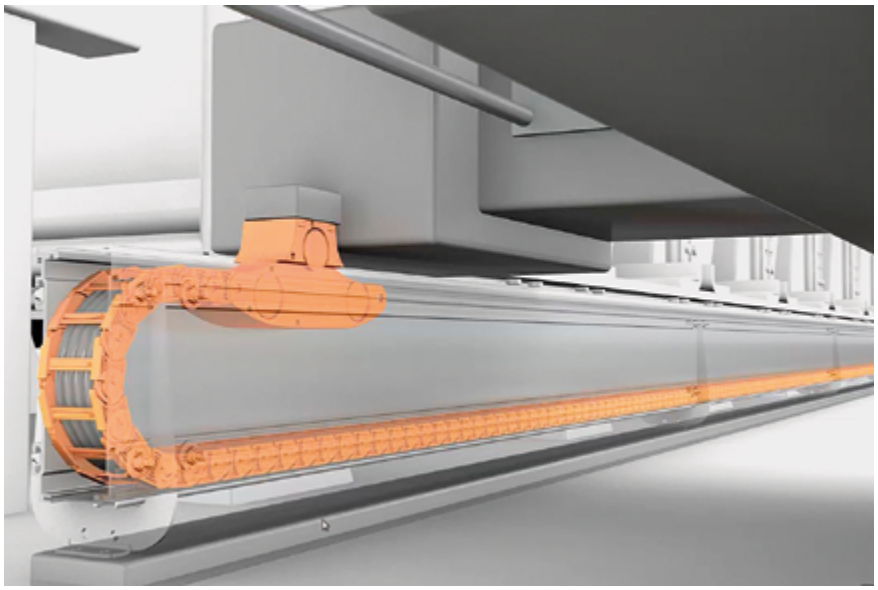


Moving energy made easy

igus®

00

What is micro flizz®?

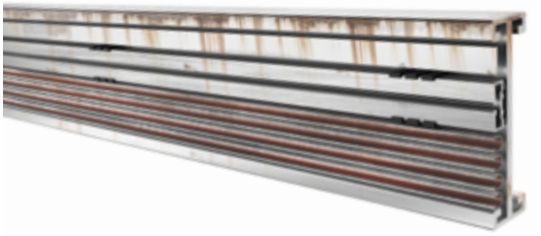


From courtyard gates to aircraft hangars: most modern sliding gates no longer operate purely mechanically. They need power and data cables - for motors and safety devices, for example.

The solution from igus®: micro flizz®, an energy supply system that has won the iF Design Award. It consists of cables from the chainflex® series, an energy chain made of high-performance plastic and an aluminium housing. A system that safely guides data, energy and media in the smallest of spaces - for lengths of up to 100 metres, protected from wind and weather.

01

Sliding gates become increasingly fail-safe



Conventional busbar

Wind, rain, snow and frost are constant adversaries of sliding gates. Conventional busbars reach their limits under this load. This can occurs when sliding contacts and copper tracks corrode due to moisture ingress causing intermittent faults and requiring repair. igus® has designed the micro flizz® so the system can withstand harsh environmental conditions. The corrosion-free aluminium housing is closed on three sides and protects the cables from moisture, dirt and dust throughout the seasons. Numerous applications show: micro flizz® increases the reliability of sliding gates.

02

Gates live longer

Integrated side wings (blue) for a secure guidance of the energy chain

igus® outdoor test: micro flizz® on a 40m travel at 4m/s speed and an acceleration of 1m/s²

To reduce the wear of the energy chains to a minimum, therefore increasing the longevity of sliding gates, the designers of the micro flizz® came up with a special feature: integrated side wings with a spring element to hold the e-chain® securely. When the chain rolls, the wings fold in automatically. The chain can leave the groove and be placed freely.

The advantage is that the upper and lower runs do not have to rest on each other - even with travels of 100 metres and at speeds of 6m/s. The elimination of friction reduces wear. Tests in the company's own 2,700m² test laboratory show: even after a million double strokes and over 6,000 kilometres, virtually no wear can be detected on the micro flizz® system. This also applies to cables of the chainflex® series, for which igus® provides an above-average warranty of up to 36 months. They also support the longevity of sliding gates.

03

Gates require less maintenance

Aircraft hangar with sliding doors

Sliding gates must work reliably - around the clock, 365 days a year, with minimal maintenance and cleaning as possible. Here, micro flizz® scores twice. Cleaning work is redundant, as the housing protects cables and energy chains reliably against moisture, wind, dust and dirt. Maintenance service for lubrication is also not necessary.

04

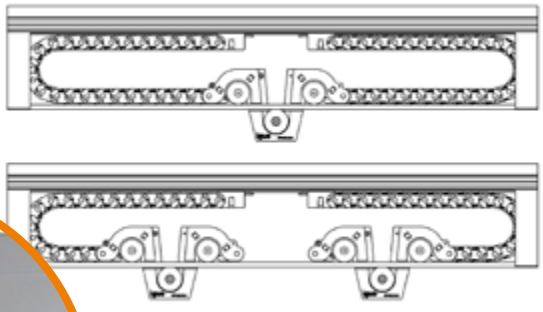
An end to wasted installation space

micro flizz® MF06 on a cold store door

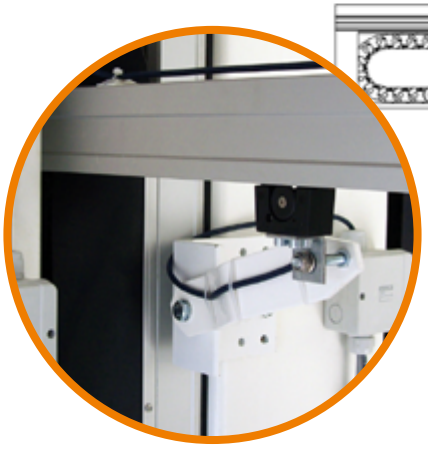
Installation space is usually a valuable commodity in sliding gates. igus® has therefore designed micro flizz® to be as compact as possible. The MF06 series proves this. The housing, which can be installed vertically or horizontally, is only 108.48mm high and 29.5mm wide. The bend radius of the e-chain is also small. Many classic cables would break within this space but not the chainflex® series, which are perfectly adapted to the concept. The cores of the CF9.UL control cables, for example, are stranded in a single layer with a short pitch length and insulated with a mixture of thermoplastic elastomers (TPE). As a result, they have an extremely small bend radius of only 20 millimetres, and are therefore perfect for use in sliding gates.

05

Space-saving: energy supply and data cables in one system



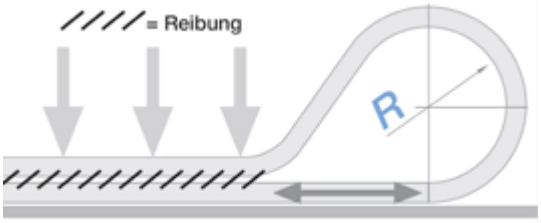
Reverse arrangement



Classic busbar systems not only reach their limits in terms of weather resistance. They are also restricted to power transmission. Control and data cables as well as pneumatic hoses cannot be used in these systems. Not so with micro flizz®: in addition to power cables, the e-chains® can also accommodate hoses and chainflex® fibre optic cables with data rates of up to 10GBit/s. By means of an opposing arrangement, even two e-chains® can run simultaneously in one guide channel. While the power supply runs in one direction, the other could cover the control technology. This way, users not only gain flexibility, but also save even more installation space.

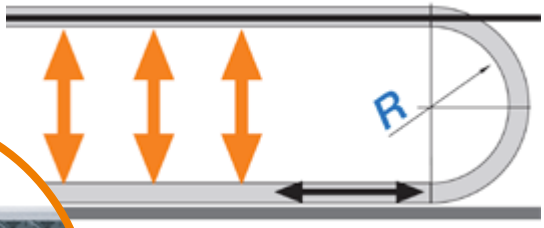
06

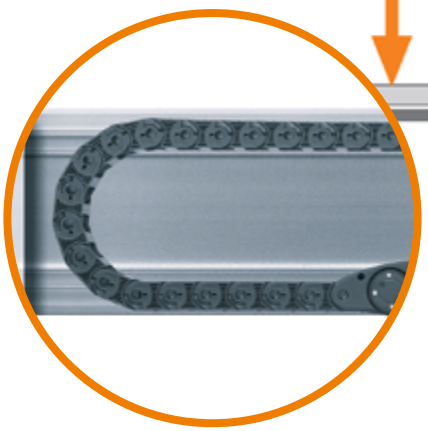
Users save energy



Up to now: traversing lower run - gliding. Long travels require large, strong e-chains®

micro flizz® enables the e-chain® to move over travels of up to 100 meters without the upper and lower runs touching. The frictional forces that occur in the system are correspondingly low. This is an advantage that not only reduces wear, but also the required drive energy and thus energy costs. This aspect will become even more important in the future as energy prices continue to rise.

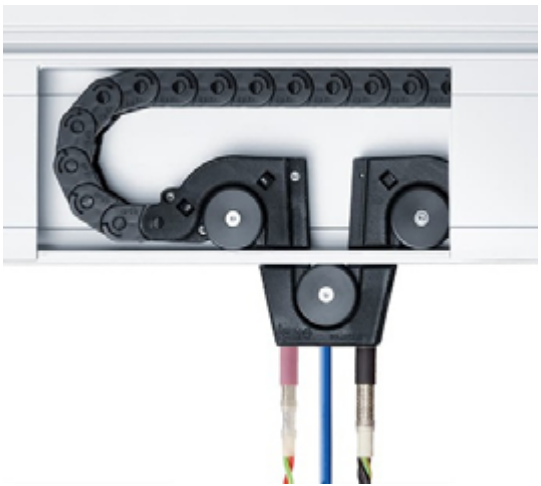




Today: micro flizz® - small e-chains®, self-guiding in the guide channel - frictional force is minimised by a factor of three compared to the conventional system

07

Sliding gates become quieter



Upper and lower run of the micro flizz® e-chain® do not touch each other during movement. This not only reduces the energy consumption, but also lowers the noise level.

Feel free to contact us!

Would you like to equip your sliding gates with micro flizz®? Would you like to save installation space, lower energy costs and reduce maintenance? Then get in touch with us! The igus® project engineering team will support you with measurement, design, project management, installation and commissioning on site.

Our experts would be happy to help!

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