227 motion plastics® news

igus

Spring 2026

Improve what moves

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With motion plastics®

PTFE-free and PFAS-tested

Page 12

Numerous tested PTFE-free materials and products

Low Cost Automation

Page 8

Reduce costs with economical robotics for companies of all sizes

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Improve what moves with 227 new products

We set high standards for ourselves and our products: improve what moves! For us, this is not just a motto - it is what drives us every day. This year, we are presenting 227 new products that originated from ideas, from curiosity, from discussions with customers and the desire to improve technology. Solutions that are more compact, more lightweight, more durable, more cost-effective, more robust - and sometimes offer precisely the one detail that is crucial. Tested. Predictable. Proven.

Each of these new products is a promise: that we will keep listening, keep questioning, keep developing. This magazine is about progress that doesn't have to be loud to achieve great things - and about the conviction that the best way to shape the future is to have the courage to constantly rethink the status quo.

Innovative wishes from Cologne

Michael Blaß,
CEO e-kettensysteme®

Tobias Vogel,
CEO dry-tech® & New Businesses

Dr. Thilo Schultes,
CEO Operations

Artur Peplinski,
CEO igus® International

Highlights 2026

6 of 227 new products

48 **Unsupported twisterchain® with 600° angle of rotation**
One product, two solutions: innovative rotary module for robots

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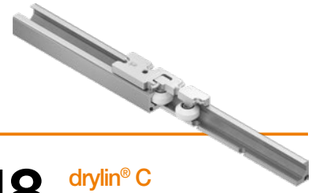
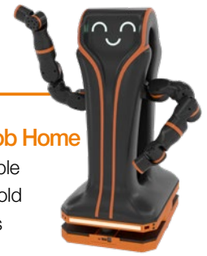
Using DeviceNet safely

112 **drygear® Apiro® heavy-duty housing**
Robust, resilient, modular and expandable

144 **xiros® hybrid ball bearing with stainless steel inner race**
Optimised for higher loads thanks to hybrid material



148 **drylin® C CamRoller series**
Smooth-running roller guide for minimal operating effort



188 **iggyRob Home**
Affordable household robotics

Our new products - thanks to you!

You are our inspiration

We honour innovative commitment with our awards
igus.eu/competitions

We listen

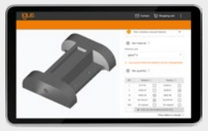
On site, virtually or at the digital igus® trade show IMPS
igus.eu/contact

We ask questions

Every year in our Christmas wish list
igus.eu/wishlist

You help us

Typical applications feed our igusGO® app - and show optimisation potential via photo
igus.eu/igusgo



We try things out

Use our manufacturing services for the fast production of special parts: 3D printing, CNC
igus.eu/ffh

We set up systems

With our assembly and conversion service
igus.eu/assembly

We recycle

For a more circular economy, resource conservation and maximum sustainability
chainge.igus.eu

We come to your premises

With sample boxes, displays and the roadshow
igus.eu/roadshow

Improving technology together

The new e-spool® theatre kit is the result of real customer feedback. On stages in particular, space is often limited, which makes assembly more difficult. With the new e-spool® theatre kit, the system can be assembled from individual modules directly on site - with an installation service on request. A solution that shows: we ask questions.
Page 56

Certified safety for your requirements

We take care of tests, certifications and further developments. Whether new standards or individual specifications: we deliver solutions that fit. Certifications are often limited to the specific, tested assembly - please contact us if you require other sizes. We do not (yet) fulfil a standard? We listen and are happy to keep improving.
igus.eu/standards

Inspiration that moves

Spectacular applications are part of our annual customer awards with hundreds of participants. The best proof of what is possible with motion plastics®. Avoiding emissions from cruise liners in ports, for example, which can draw clean shore power via the mobile igus® Mobile Shore Power Outlet (iMPSO) and switch off the diesel generators.
igus.eu/vector

Sustainability, clearly proven

A milestone for chainge®: the SKZ has confirmed our calculated carbon footprint as compliant with ISO 14040/14044. This allows us to precisely determine the CO_2 savings of recycling compared to incineration - and issue you with a customised certificate of these savings.
chainge.igus.eu

We will stay tuned.

Will we also prove ourselves in your application?

Improve what moves ...

with motion plastics®

Tech up through research on 5,500m²

A new product begins in the test lab

We test millions of movements and extreme conditions to ensure that your application runs reliably. Our data flows into products and online tools - right up to the guaranteed service life.

Proven. Predictable. Performance.

Our guiding principle "Improve what moves" is not just a marketing slogan for us. To fundamentally improve your application, we test our products extensively in our 5,500m² test laboratory.

Based on the results of these tests we can offer you a wide range of products for almost every application. The data also flows into our online tools. You can configure suitable components online, receive feasibility analyses and calculate the service life tailored to your application parameters. We give you a guarantee of up to 4 years on the calculated service life.

We not only test a variety of mechanical movements of all our products, but also very specific environmental conditions. Did you know, for example, that we have set up our own cleanroom laboratory with an ISO Class 1 cleanroom system in collaboration with the Fraunhofer IPA?

An outdoor testing area, a laboratory for noise tests and the climate chamber with temperatures of -40°C (dreaded by igus® employees) supplement the tests for chemical resistance in different media, weathering conditions and electrical tests.

We are happy to share this knowledge about our tribologically optimised high-performance polymers with you. You can find a wide range of white papers, videos and additional information about our products online - from the best design to special application areas to potential savings.

If you would like to test our products in real life: book our roadshow, request sample boxes or use our 3D printing and special-parts service for fast production of prototypes.

Cleanliness at the highest level

More and more products with IPA Class 1 are being created in the cleanroom and dry-cleanroom test laboratory - essential for high-tech industries such as battery production. Tested, certified, ready for use. We try things out.

Page 10

Tests as cold as ice

As part of the igus® test laboratory, we carry out tests in the cold chamber at temperatures as low as -40°C - a considerable challenge for technical materials as well as mechanical and electrical systems. This results in tested safety for new products such as our new liner made of iglidur® X for temperatures from -40 to +250°C.

Page 154

igus® white papers

Knowledge that helps: compact, understandable and practical - our white papers provide guidance on complex topics and help you make better decisions.

igus® white papers

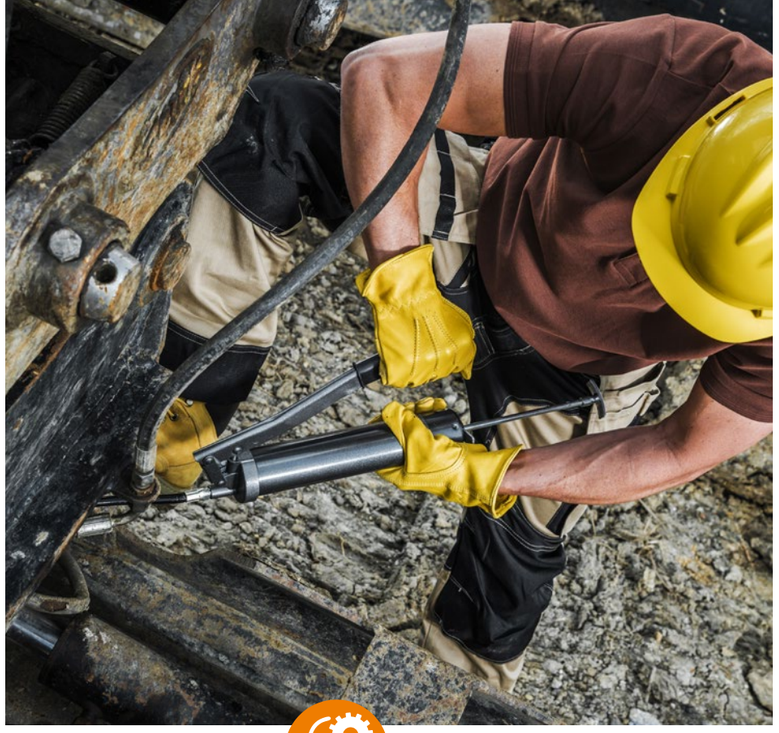
- Compact and easy to understand
- Clear structure with high practical relevance
- Immediately applicable expertise
- Free download

igus.eu/white-paper

Proof of sustainability: 100% lubrication-free products

Clean technology for lubrication-free applications

Our tribopolymers use integrated solid lubricants and ensure permanently maintenance-free movement - without oil, without grease - but with a long service life, clear cost and cleaning benefits and maximum process reliability. Clean technology that keeps machines reliable.



Top solutions for this topic

New

26-DRG-01

STOP

kg up to 70kg

drygear® Apiro® heavy-duty housing

Robust, resilient, modular and expandable

Page 112

Huge savings potential

Savings of up to €14 million per year would be possible by using lubrication-free plastic bearings (RWTH study).

igus.eu/lubrication-free

24-IGL-08

iglidur® Q3E plain bearing

Two-component heavy-duty plain bearings for large quantities

Plus

26-DRS-04

PTFE FREE

inch

mm

dryspin® lead screw nut geometry

Saving through universal exchange

Page 164

Clean technology. Longer service life. Zero lubrication.

Lubrication-free motion solutions have been a central element of the igus® philosophy since the company was founded: machines and systems should function reliably - without oil, without grease and without the risks associated with conventional lubricants. Our approach is based on so-called high-performance tribopolymers in which solid lubricants are already integrated. They are released evenly during operation and make sure that friction is minimised and service life is maximised - completely without maintenance.

The elimination of lubricants has several advantages: firstly, companies significantly reduce their maintenance costs. Lubrication intervals, service calls, inspections and the handling of hazardous fluids are no longer necessary. Secondly, the risk of unplanned system downtimes is reduced as lubrication-free components also work reliably in dusty, damp or particularly dynamic environments. Where there is no lubricant, it cannot escape or contaminate the environment - a decisive factor, especially in sectors such as food or medical technology or the packaging industry.

One aspect that is often underestimated is the contribution to sustainability. Machines release large quantities of lubricant into the environment every year. Completely dispensing with them means actively practising environmental protection - without compromising on technology. Our materials undergo thousands of practical tests every day in the igus® test laboratory. This is where the world's largest database on the friction and wear of polymer bearings is created. The result is products with a service life that can be precisely calculated and high reliability - including a 4-year guarantee for all products with a predictable service life.

At igus®, lubrication-free is more than just a promise: it is a system concept that runs like a red thread through our entire product range, providing our customers with long-term operational reliability, clean processes and predictable cost-effectiveness.

The easy way to industrial automation

Cost-effective robotics for companies of all sizes. Offers fast integration, flexible expansion possibilities and transparent costing - the easiest way to efficient automation.

Automation for everyone. Easy. Fast. Affordable.

For a long time, automation was seen as a cost-intensive large-scale project that was mainly reserved for large companies. With Low Cost Automation from igus®, this is changing fundamentally: we make automation possible for everyone - quickly, affordably and intuitively. The foundation is lightweight, robust and lubrication-free polymer components that are used in robots, linear robots or handling modules, replacing cost-intensive metal or special solutions.

The aim of igus® is to make automation as accessible as possible. Our modular system allows applications to be put together individually - from simple pick & place solutions to collaborative applications to complex assembly processes. The lubrication-free design ensures a long service life, high repeatability and minimal maintenance requirements. This makes the systems ideal for SMEs that have previously shied away from high investment risks.

A key component is the igus® Robot Control: a free, browser-based software that visualises, simulates and controls robot movements without users having to be programmers. Step-by-step wizards, templates and intuitive user interfaces lead to quick results - regardless of previous knowledge.

For igus®, cost-effective automation also means transparent costing. Users receive prices, service life data and technical information immediately online and can start projects without long planning phases. The result is an automation approach that can be planned financially, expanded flexibly and remains attractive even in economically challenging times.

Top solutions for this topic

Study

iggyRob Home
Affordable household robotics **Page 188**

New

ReBeLMove Pro with cobot
The mobile robot platform for all cobots **Page 190**

New

New generation of robots in sizes S, M, L
Linear robots for every requirement **Page 192**

Certified for cleanrooms and dry cleanrooms

Precise movement without particle risks

igus® solutions allow for safe movement in highly sensitive production areas. From semiconductors to medicine: our systems minimise abrasion, reduce complexity and reliably safeguard even the most demanding cleanroom processes.

Particle-free movement. Precision in the highest class.

In cleanrooms, every single particle decides whether a production step is a success or a reject. Industries such as semiconductor production, pharmaceuticals, laboratory automation and battery technology in particular place the highest demands on technical cleanliness. igus® therefore develops solutions that have been specifically designed for these sensitive environments and certified at the Fraunhofer IPA - up to the highest cleanliness class ISO 1.

Our lubrication-free tribopolymers in particular offer decisive advantages: where there are no greases, there can be no oily or sticky deposits on which dust or abrasion accumulates. Thanks to their tribological optimisation, our materials also produce extremely low particle quantities and run reliably even under vacuum or dry-room conditions. This makes igus® components ideal for high-precision and low-particle motion sequences.

With the concept of the "dry cleanroom", igus® is going one step further - towards systems that do not require additional ventilation ducts, external lubrication or complex infrastructure. The aim is to make cleanroom processes simpler, more sustainable and more economical. The results show that even highly dynamic axes or robot systems can run with a low particle count if they are designed to be fundamentally lubrication-free.

As cleanroom technology often incurs high costs, process reliability is particularly important. Our products support this not only with their technical cleanliness, but also through their documented service life. Users benefit from high reliability, predictable maintenance intervals and a clear reduction in potential sources of error - a decisive added value in sensitive high-tech production.

Top solutions for this topic

New

clean-room

SKF.S.10.055.01.0 e-skin® flat with support chain for e-skin® flat

More stability, easier to install Page 45

Study

clean-room

e-skin® flat multi-pods

Extended modularity for the smallest installation spaces Page 42

Study

clean-room

C6 cleanroom energy chain with special e-spin guide system

ISO Class 1 for long travels Page 40

New

clean-room

ISO Class 4

Precise linear technology for dry cleanrooms

drylin® SLW-1040-10X25-E7-AL Page 172

Tech up with PTFE-free and PFAS-tested materials

Safe alternatives for the future

PFAS TESTED

PTFE FREE

BPA BPS FREE

Our PTFE-free/PFAS-tested high-performance polymers offer excellent coefficient of friction, high wear resistance and full legal certainty. For companies, this means no regulatory risks, more sustainable production and long-term material planning - without compromising on technology.

Future without PTFE and PFAS. Reliable. Powerful. Compliant with the rules.

The global discussion about PTFE and PFAS is causing uncertainty in many companies. While regulatory requirements are becoming increasingly stringent, the need for high-performance materials with low friction and a long service life remains. For many years, igus® has consistently relied on its own polymer developments that do not contain any PTFE or PFAS - and at the same time offer outstanding tribological specifications.

Our materials have been designed to not only match, but often exceed the performance of traditional solutions containing PTFE. They are lubrication-free, resistant to wear and temperatures and chemically robust. Due to continuous research in the igus® lab, we can prove exactly how materials behave in use - including documented service life forecasts. This creates certainty for technical, regulatory and strategic decisions.

For companies, switching to PFAS-free solutions is not just a compliance issue, but increasingly a sustainability argument. Our products help them avoid legal risks, make supply chains safer and reduce their environmental impact at the same time. As igus® relies entirely on its own formulations, we can react quickly to new market requirements and offer our customers long-term planning security.

igus® stands for a future without PTFE and PFAS - with materials that are efficient, resistant and have been developed with responsibility.

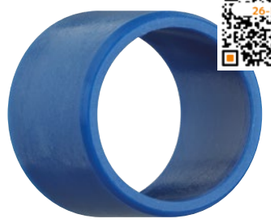
Top solutions for this topic

New

EU 10/2011 · PTFE FREE · PFAS TESTED

iglidur® i6000 resin
High-performance tribology meets food safety
Page 128

New



BPA BPS FREE · PTFE FREE · FOOD

iglidur® A181PF
Without PTFE and bisphenol
Page 102

New

PTFE FREE · PFAS TESTED

drylin® NTM
PTFE-free motor-driven telescopic extension
Page 178

New

PFAS TESTED · PTFE FREE · kg up to 20kg

xiros® hybrid ball bearings
Higher loads thanks to hybrid material
Page 144

Intelligent technology that reduces operating costs

Thanks to maintenance-free tribopolymers, longer service lives and documented test data, igus® products noticeably reduce the total cost of ownership. Lighter designs, lower friction and higher system availability make it easy and efficient to increase efficiency.

Cost down with igus® means:

Increased efficiency from the very first component - without compromising on quality or reliability.

igus.eu/products

Lower costs. More efficiency. Immediately measurable.

In industrial applications, many costs are not incurred at the time of purchase, but during operation: through maintenance, lubrication, downtime or the replacement of worn components. igus® therefore pursues a clear economic approach: reduce costs with lubrication-free technology, durable materials and data-based planning.

Our tribopolymers completely eliminate the need for lubricants. This means: no costs for lubricants, no maintenance work, no disposal. At the same time, the service life of many machines is extended as the risk of breakdowns due to insufficient lubrication is eliminated. Less service means higher system availability - a factor that translates directly into productivity.

With over 15,000 annual tests, igus® has a unique database. This allows us to calculate the service life of our products precisely and transparently. In the planning stage, users can already see which components will last how long - and can thus reduce cost risks and optimise spare-parts strategies. In addition, the use of lightweight polymer components allows for smaller drives, lower energy costs and reduced moved mass.

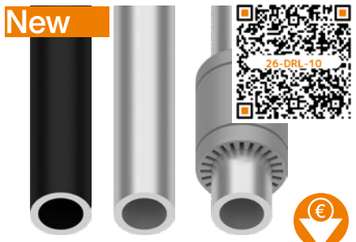
Saving costs with igus® means: increased efficiency from the very first component - without compromising on quality or reliability, including a 4-year guarantee on all motion plastics® with a predictable service life.

Top solutions for this topic

New

iglidur® PRT-05-PC-CP-AL
Compact solution for tight installation spaces
Page 118

New



drylin® R aluminium tubes
40% lighter, more cost-effective and black anodised for the first time
Page 158

New

igubal® EFOM-2.0/EFSM-2.0
Optimised design for our flange mounted bearings
Page 136

Save time and increase efficiency

Faster planning, faster production, faster growth

Configure, simulate, order - everything within minutes. igus® products shorten development times and minimise downtimes thanks to maintenance-free operation. Ideal for fast projects, lean processes and maximum availability in dynamic markets.

Less effort. Finished sooner. More efficient production.

Time is one of the most important factors in modern production processes. igus® supports companies in reducing development times, speeding up assembly processes and drastically lowering maintenance costs. This is made possible by products that are immediately available, digital tools and maintenance-free solutions.

Our comprehensive online offer provides CAD data, configurators, service life calculations and real-time price information - all without waiting times or individual approvals. Users find the right components in minutes instead of days. The digital igus® tools and services create a system that has one end-to-end workflow for planning, validation and ordering.

igus® products also save valuable time during operation. Lubrication-free components do not require regular maintenance and minimise unplanned downtimes. Modular systems allow solutions to be quickly adapted or expanded without operators having to rebuild entire systems.

In automation, the igus® Robot Control provides additional support with simple programming and fast commissioning times. Even complex movements can be created and tested without specialised knowledge - a decisive advantage in dynamic markets.

At igus®, saving time means less effort, faster throughput times and maximum availability - from the initial idea to ongoing operation.

Top solutions for this topic

New

e-chains® Long Life Calculator
Planning reliability for hanging e-chains®
Page 34

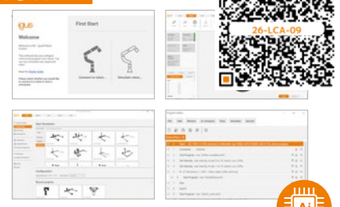
Update

Firmware update for D1 motor control system
Save time and reduce cost with the new functions
Page 180

Plus

readycable® drive technology product range extension
More than 200 new cables ready to connect

New



iRC V15 software update
Faster programming, cleaner welding, more precise dosing
Page 197

New

CNC service
Price comparison for over 50 materials, automatic drawing verification and express option
Page 125

Better applications thanks to motion plastics®, improve what moves

motion plastics® from igus® combine high performance with a compact design and excellent resistance to media and environmental influences.

Tech up. Save space. Increase performance.

For igus®, tech up means developing motion solutions that perform better, take up less space and are also more robust in the case of external influences. Our motion plastics® combine these goals in a unique way. They allow for compact, highly functional designs, even where the available installation space is minimal or classic bearing and guide elements reach their limits.

The lubrication-free design not only dispenses with maintenance, but also frees up the space otherwise required for lubrication channels, fittings or relubrication devices. This makes our polymer bearings, linear modules and energy chains particularly attractive for applications with very confined installation situations - from small devices to laboratory automation to high-density machine modules. Lightweight components entail lower moved mass, which means that smaller drives can be used and additional energy is saved.

Another key advantage of motion plastics® is their excellent resistance to media and chemicals. igus® high-performance polymers withstand oils, greases, cleaning solutions, cooling lubricants, solvents and numerous aggressive chemicals. Dirt, moisture and dust do not impair their function either as there are no sticky lubricants to which particles could adhere. These specifications make our solutions ideal for harsh industrial environments such as machine tools, the automotive sector, packaging technology and the food and process industries.

This combination of compact, robust and maintenance-free characteristics creates clear technical added value: applications become simpler, more reliable and more economical. Constructions can be slimmer without compromising on performance or service life. At the same time, the availability and efficiency of machines is increased as wear points can be planned and unplanned downtimes are reduced.

We offer many motion plastics® as a complete, ready-to-install system - including linear axis, motor, control system and suitable energy chain. These ready-to-install solutions are pre-fitted, tested and delivered ready for assembly. This not only saves time during design and integration, but also ensures that all components work reliably together. For customers, this means a compact, resilient and ready-to-use solution from one source.

Tech up with igus® means: more performance in a smaller space, greater durability in demanding environments and maximum simplicity in planning and integration. This is exactly what motion plastics® stand for - today and in the future.

Top solutions for this topic

New

Industrial edge module for intelligent monitoring
i.Cee² combines data from a wide range of sensors
Page 66

Plus

chainflex® CFROBOT8.PLUS.030
Using DeviceNet safely
Page 74

New

guidelok slimline mini
Compact, lightweight vertical e-chain® guide
Page 32

New

Stainless-steel linear module with liner made of iglidur® X
Reliable despite environmental factors
Page 154

New

drylin® SLW
Miniature linear module for tight installation spaces
Page 178

New

up to +250°C

Liners made of iglidur X
Maximum performance under extreme conditions
Page 154

Improve what moves ...

e-chain systems® and accessories

Tech up · Cost down · Proof · Sustainability · Digital

22 Constant attachment height and smooth operation
e-spin for the E4Q family

26 Space-saving, safe and easy to use
e-tract DC horizontal

28 Overhead organisation of charging cables for AC charging points
e-tract AC horizontal

30 Carry higher loads, faster, in the smallest of spaces
tri-spool

32 Compact, lightweight guide for vertical movements
guidelok slimline mini

34 Planning reliability for hanging e-chains®
e-chains® Long Life Calculator

Quick consultation anywhere, at any time

In person

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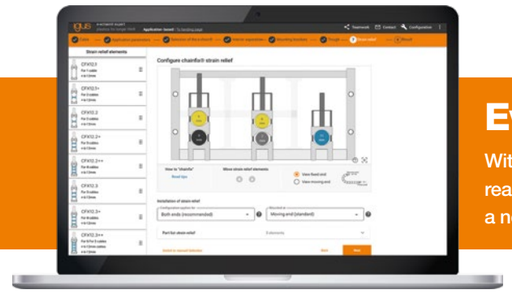
Chat
Online and WhatsApp
igus.eu/chat

On site
Field service roadshow/trade show
igus.eu/on-the-move

Heavy-duty scissor lift table

Güdel AG uses an E4 energy chain in its feed systems for its press plant, which allows for a travel of up to 15m despite only 5m of installation space.



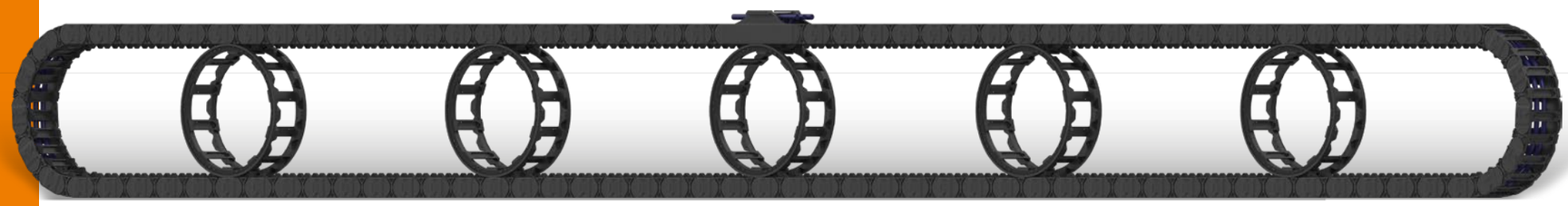
Even quicker and easier

With the e-chain® expert, you can put together your customised, ready-to-connect energy chain system in just a few steps, including a new strain relief configuration: **igus.eu/ece**

igus.eu/news-ecs

e-spin E4Q

Always at the top



Study

Constant attachment height and smooth operation

e-spin for the E4Q family

With the e-spin, we are expanding the E4Q family with a quiet and safe guide for long travels of up to approx. 30m - completely without guide trough. The support wheels ensure smooth operation. An ideal solution for applications that require particularly smooth running and cannot be realised without support due to the travel length, e.g. large-format printers or precise axes on linear robots. Plant manufacturers with variable axis lengths benefit from a standardised chain configuration and attachment height across all lengths.

- ▲ Smooth, safe operation for the course of any travel length
- ▼ Standardised attachment height for all axis lengths reduces number of versions, design effort and installation time
- ■ Reliable, smooth operation thanks to precise tooth contour between upper and lower run - E4Q.44 tested with over 3 million cycles in the igus® laboratory: on 5m travel at dynamics of 3m/s and 2m/s² and an additional load of 4.1kg/m
- ● Have your energy chain recycled at the end of its service life with the igus® chainge® recycling program, regardless of manufacturer: igus.eu/chainge

Interview

Background of the e-spin development

"How did the idea for the e-spin come about in the first place?"
Michael Otrebowski: "Specific projects from the semiconductor industry triggered it. A cleanroom-compatible energy supply was required for travels of 30m and more - with particularly quiet operation and the highest requirements regarding particle avoidance. This could not be achieved with conventional gliding solutions. So we asked ourselves how we could guide an energy chain over long travels without gliding. That was the starting point for the combination of e-spin and our C6 cleanroom chain."

"What technical challenges did you have to solve during development?"
Michael Otrebowski: "One of the biggest tasks was to make extremely smooth and reliable movement possible over very long distances. For this, we required precise gearing to guide the support wheel exactly. My previous work in the field of gearbox technology at igus® helped us enormously here. This expertise was crucial for designing the tooth contour in such a way that it engaged cleanly and unrolls evenly. I was also able to draw on the extensive igus® range of tribo-optimised plastics, which means we can now even achieve the highest cleanliness class."

"What makes the e-spin particularly suitable for long travels in cleanrooms?"
Michael Otrebowski: "We roll instead of gliding - with defined guidance. This keeps the movement consistent and quiet over the entire distance. The support wheels prevent the upper run from sagging, and the tooth contour stabilises the movement. This ensures controlled, smooth operation even in the case of very long lengths. With our C6 cleanroom chain, we achieve ISO Class 1 in this way (for details, see p. 38).

"What fields of application are there for e-spin outside the cleanroom?"
Christian Ziegler: "The e-spin technology has the potential to open up completely new markets for us, for which there are currently no optimal energy supply systems. For long travels, for example in large-format printers, automated storage and transport systems or large-scale assembly systems, e-spin can replace oversized and wear-prone solutions with compact, low-maintenance e-chain systems®. We also see potential in the offshore sector: on oil platforms, e-spin can reduce loads caused by sagging and vibrations, stabilise movements and result in a long service life. e-spin also offers significant advantages for the seventh axes of robots, linear-robot axes and other variable-length systems."

"What specific advantages does the e-spin offer system manufacturers with variable axis lengths?"
Christian Ziegler: "e-spin creates planning security and flexibility: the attachment height remains constant across all lengths. Up to now, an unsupported energy chain was often used for smaller axis lengths. Starting at an axis length of around 10 to 12m, a gliding solution with guide trough is used. This has led to different configurations of the system. There is also a critical area in which the travel is too long to be unsupported and not yet ideal for gliding because the energy chain does not settle properly in the guide trough. With the e-spin, system manufacturers will no longer have to make any compromises. The same configuration can be used all the time and the energy chain can be designed to be smaller. This reduces the number of versions, simplifies design and speeds up project completion - regardless of whether the travel amounts to 5, 10 or 30m."

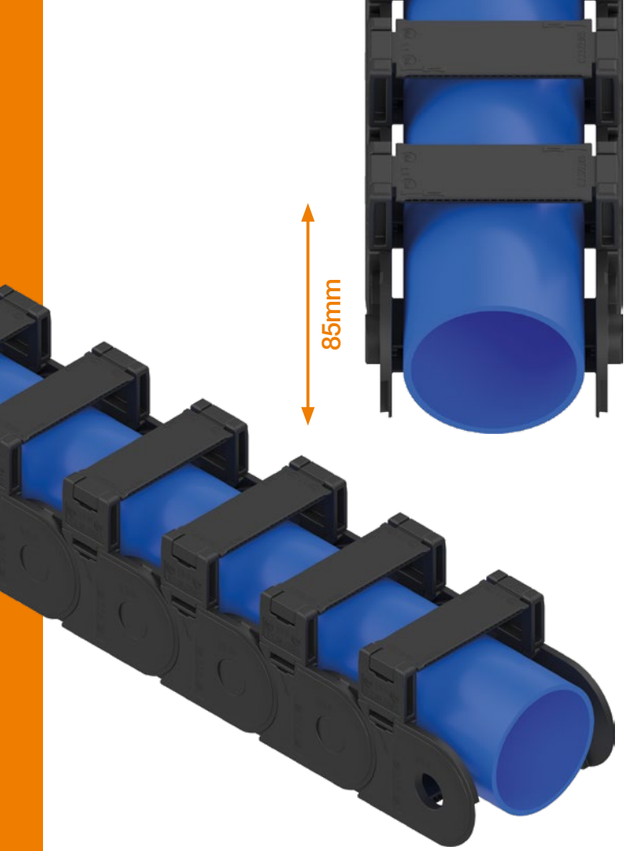
"In your opinion, what is the greatest benefit for the user?"
Christian Ziegler: "Users focus on operation and suitability for everyday operation. The e-spin runs particularly quietly, does not require a guide trough on the floor and is easy to install. As the system rolls instead of gliding, wear is significantly reduced. The result is a virtually maintenance-free, durable energy supply with consistent motion sequences and high process reliability over its entire service life."

Benefits

1. **Smooth, safe operation** on long travels of up to approx. 30m - without guide trough
2. **Constant attachment height** for all axis lengths reduces number of versions and design costs
3. **Maintenance-free, durable energy supply system** with consistent motion sequences and high process reliability over the entire service life

Michael Otrebowski
Development Engineer e-chains®

Christian Ziegler
Head of Product Management e-chains®



New

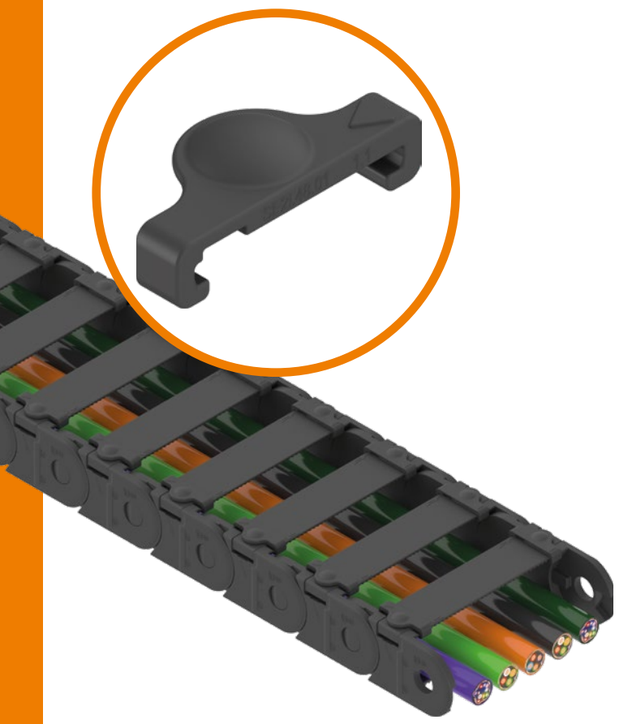
Optimum hose guidance

Extender crossbar clip for E2(i).26/ E2(i).38 / E2(i).48 series

To extend the inner height and for guiding oversized hoses. The extender crossbar clip can also be retrofitted to existing applications if required.

- ▲ Extender crossbar available for every chain width
- ▼ Backwards compatible: existing systems can be retrofitted
- ■ Extension of the inner height of the e-chain® by up to 77% (extender crossbar clip E2(i).48)
- ● Have your energy chain recycled at the end of its service life with the igus® chainge® recycling program, regardless of manufacturer: igus.eu/chainge

Part No.: E2.26.CB42, E2.38.CB62, E2.48.CB85



New

Simple and cost-effective quiet operation

Damper clip for E2i.26

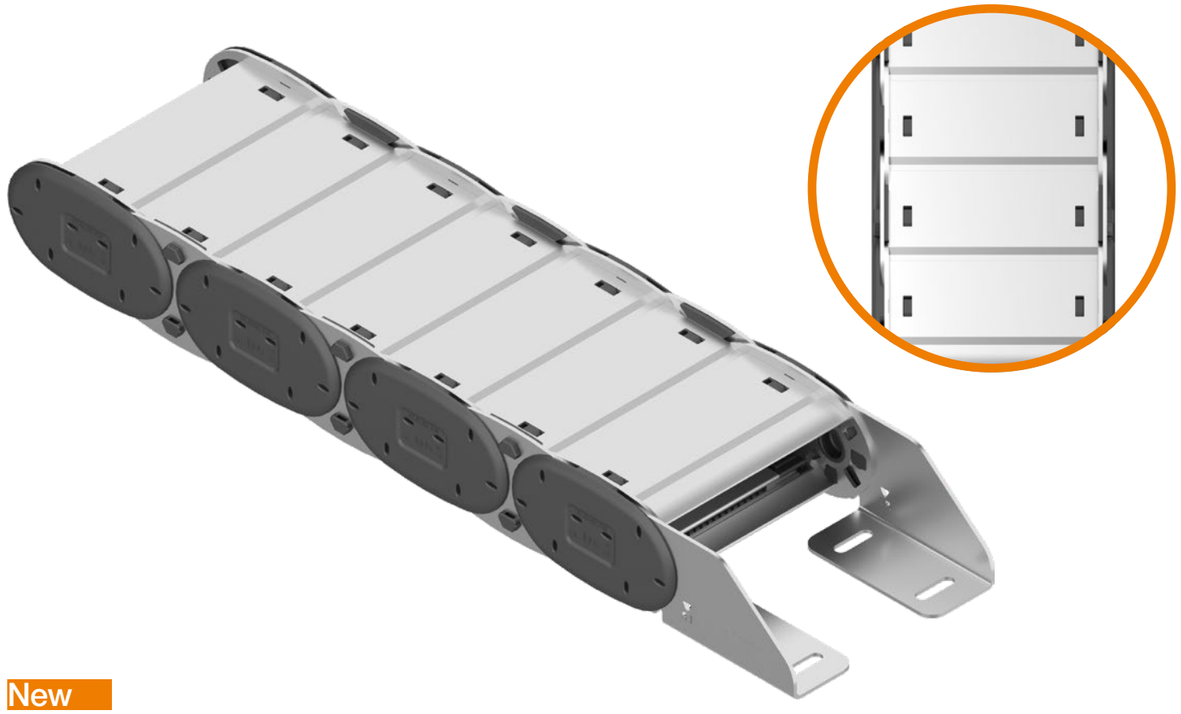
For sound reduction in unsupported applications. The damper clip can also be retrofitted to existing applications.

- ▲ Easy to retrofit - no rework of the chain links necessary
- ▼ 70% more cost-effective (compared to the predecessor series S2400)
- ■ Up to 5dB(A) lower noise emission compared to the E2.26 series
- ● Have your energy chain recycled at the end of its service life with the igus® chainge® recycling program, regardless of manufacturer: igus.eu/chainge

Part No.: SE2.26.01, SE2i.48.01

YRA.42.Bi.RRR.0 and YRA.56.Bi.RRR.0

Maximum swarf protection



New

Easy to upgrade: YE chains now swarf-resistant with aluminium lids

YRA.42.Bi.RRR.0 and YRA.56.Bi.RRR.0

The YE series can now also be equipped with aluminium lids. Widths start at an inner width of 100mm and can be adjusted in increments of 1mm. The aluminium lids ensure a very tight overlap, prevent the ingress of particles and offer protection against hot swarf - ideal for demanding environments.

- ▲ Widths available in 1mm increments - for customisation that fits into any installation space
- ▼ Improve existing applications cost-effectively
- ■ YE series successful in customer applications with high fill weights
- ● Have your energy chain recycled at the end of its service life with the igus® chainge® recycling program, regardless of manufacturer: igus.eu/chainge

Part No.: YRA.42.Bi.RRR.0, YRA.56.Bi.RRR.0

Overhead organisation of charging cables for DC and MCS charging points

High power. Zero obstacles.

New

Space-saving, safe and easy to use

Overhead organisation of charging cables for DC and MCS charging points

As an automated overhead cable guide system, the e-tract DC horizontal is a technically outstanding solution for safe, protected and space-saving high-performance charging processes. Cable damage, collisions and maintenance costs are significantly reduced thanks to cable guidance that is completely decoupled from the floor.

- ▲ Maximum space for manoeuvring thanks to overhead cable organisation
- ▼ Low maintenance costs - no cable theft and lower cable wear
- ■ Tested in the igus® laboratory
- ● Use of recycled or recyclable raw materials

26-ECS-08

Technical data

Background to the development of the e-tract DC

The e-tract DC horizontal is an automated overhead cable guide system for high-performance DC and MCS charging cables, developed for electric lorries, coaches and buses. It allows for safe, space-saving and protected energy transmission in demanding depot and charging infrastructures. It can be installed on shaft end supports, roofing, hall ceilings or as a stand-alone system.

How it works

The charging cable is extended electrically and only lowered into the manoeuvring area when required.
When not charging, the cable is completely retracted into the system.
The cable and its connections remain mechanically strain-relieved, protected and insulated from the weather.

Technical advantages

No obstacles on the floor: no tripping hazards, collisions or risk of damage.
Cable protection and durable infrastructure: no contact points with the travel path, no dragging of the cable across the floor.
Space-saving design: maximum space for manoeuvring - the charging cable disappears above the vehicle Theft protection: the fully retracted cable is not accessible - ideal measure for preventing increasing theft of high-priced DC cables.
Flexible integration: scalable for different charging yards, vehicle sizes and performance requirements.

Areas of use

- Bus depots: automated, secure multi-vehicle charging bays
- Logistics centres and transshipment centres: high fleet availability with maximum operational reliability
- Motorway service areas and megawatt charging points: infrastructure protection for places with frequently changing users
- Port logistics: safe and organised charging

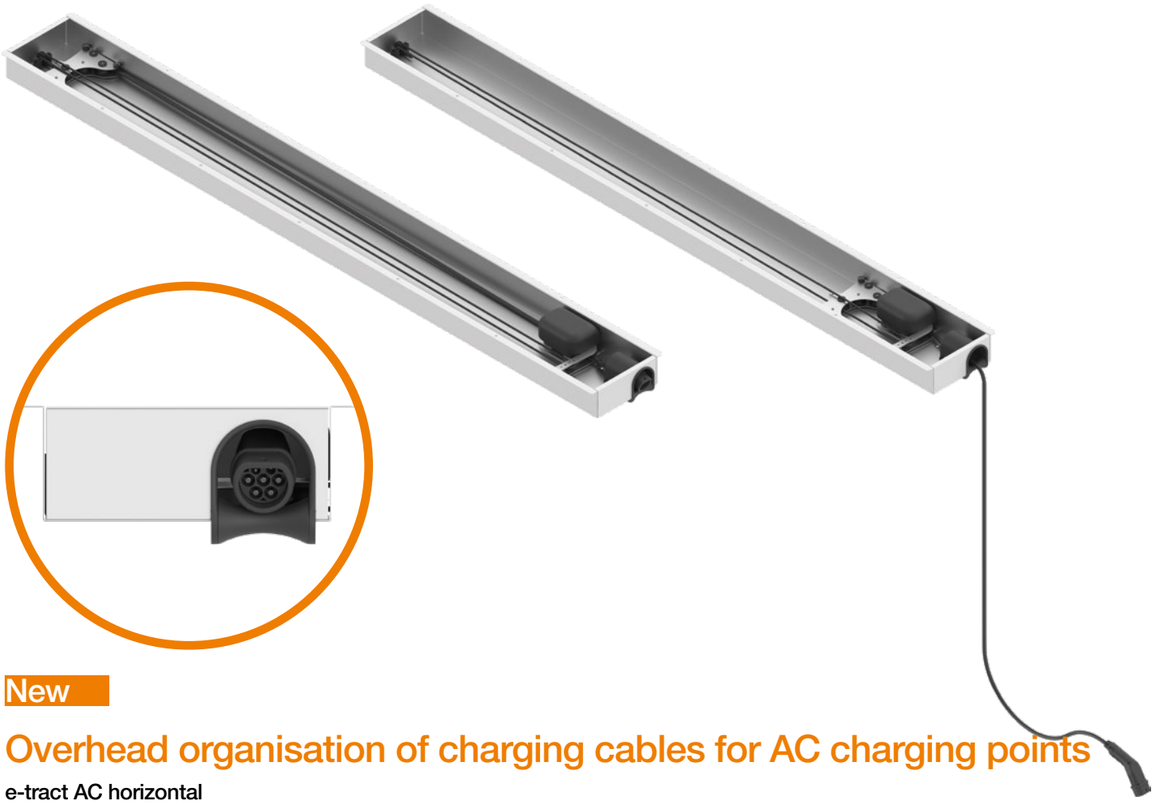
Your added value

The e-tract DC horizontal reduces damage, downtime and maintenance costs while significantly increasing the safety and efficiency of the high-power charging infrastructure. Ideal for operators who rely on scalable, robust and automated DC charging solutions.

Christoph Koch
Product Manager e-chains®

e-tract AC horizontal

Premium charging convenience



New

Overhead organisation of charging cables for AC charging points

e-tract AC horizontal

The e-tract AC horizontal is an electrically powered cable management system for AC charging points that is mounted on the ceiling or on trusses. It allows for the charging cable to be extended and retracted automatically. This means it requires little space, and reduces the mechanical stress on the charging cable and eliminates the risks posed by them lying around. The system protects the charging cable completely in the housing at a distance from the charging process, contributing to greater operational safety and lower maintenance costs. The space-saving installation makes the system particularly suitable for narrow parking environments where every centimetre counts.

- ▲ High level of mechanical protection: cable is only accessible during charging
  → protection against theft, vandalism and accidental damage
- ▼ Reduced space requirement per charging point: no column, no charging cable lying around
  → ideal for tight car parks and narrow parking spaces
- ■ Tested in the igus® laboratory
- ● Extends the service life of the charging cables considerably and reduces resource consumption, spare-parts requirements and maintenance

26-ECS-09

New

Convenient cable retraction in confined spaces

e-tract mini cable retraction system

The e-tract mini is a small, linear retraction module with stepless cable locking. Compact design, defined bend radius and economical construction with standard parts.

- ▲ Convenient cable extension with flexible locking mechanism for a wide range of work areas
- ▼ Cost-efficient thanks to the use of standard components and a reduced number of parts
- ■ Service life tests in the igus® laboratory and handling tests at igus® workstations
- ● Have your energy chain recycled at the end of its life cycle with the igus® chainge® recycling programme. Irrespective of the manufacturer: igus.eu/chainge

26-ECS-11

Further highlights

Solutions for the automatic rewinding of cables

e-tract 3.1
Compact cable retraction unit for EV charging stations

e-tract DC
Cable retraction system for quick-charging stations

tri-spool 4.0 for crane systems and handling equipment

Ultra-compact 3D movement

Study

Carry higher loads, faster, in the smallest of spaces

tri-spool 4.0 for crane systems and handling equipment

The tri-spool can guide many different cables in a very small space. The system combines two different energy supply systems: a triflex® R e-chain is guided by a roller and makes sure that the energy supply system always has exactly the right length and tension thanks to an integrated retaining spring. In the starting position, the e-chain® is rolled up completely to save space. The twisterband connects the roller with the shaft end block, which serves as an interface to the supply side cables.

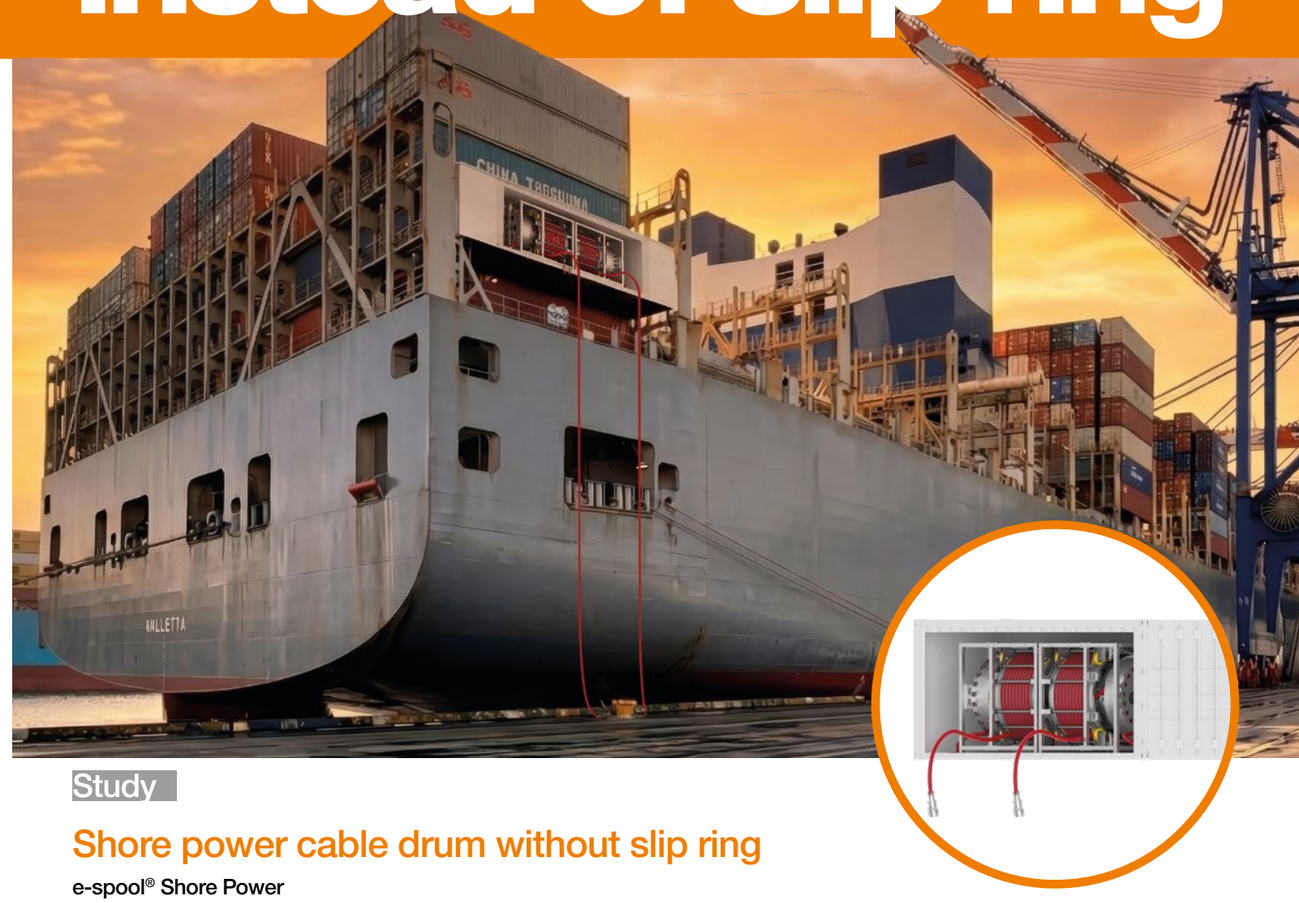
- ▲ Move loads up to 12m at up to 1m/s
- ▼ Only one compact system for different cables and media
- ■ twisterband proven as a slip ring alternative in hundreds of e-spool® applications
- ● Less raw material required thanks to the option of partial repair instead of complete replacement
- Spring force/rotary sensor monitoring (optional)

Part No.: TSP1.1200.120000.01.R.0 (spring-loaded)
TSPM1.1200.120000.01.R.0 (motor-driven)

26-ECS-05

e-spool® Shore Power

Rotary module instead of slip ring



Study

Shore power cable drum without slip ring

e-spool® Shore Power

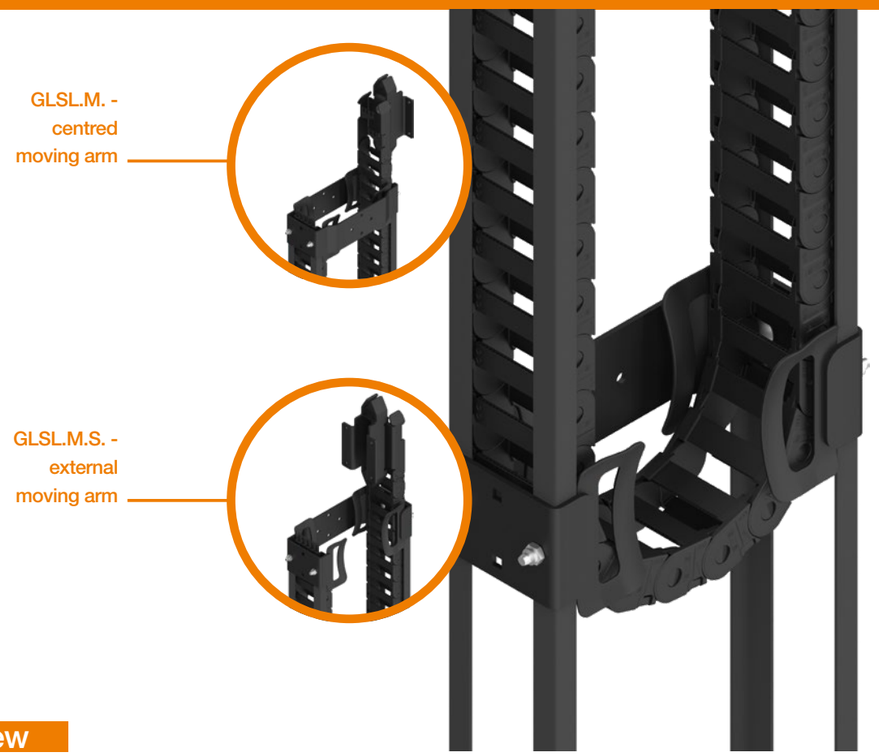
e-spool® Shore Power is a cable drum without slip ring and used for shore-side power supply on container ships, for example. A patented rotary module replaces the slip ring and reduces maintenance and susceptibility to faults. The system significantly increases operational safety and ensures a reliable energy supply.

- ▲ Rotary module instead of corrosion-prone slip ring ensures high operational reliability in a maritime environment
- ▼ Particularly low-maintenance and easy-to-maintain system
- ■ Tested in the igus® laboratory
- ● Contact points and sliding contacts no longer require replacement/maintenance

26-ECS-13

guidelok slimline mini - compact vertical e-chain® guide

Compact vertical guide



New

Compact, lightweight guide for vertical movements

guidelok slimline mini - compact vertical e-chain® guide

The guidelok slimline mini is an ultra-compact guide trough system for energy chains that travel vertically in confined installation spaces. It was specially developed for smaller storage and retrieval units (SRMs) and mini-load applications and ensures precise, safe guidance of the chain even when subjected to high lateral acceleration. The system consists of lightweight, modular guide and safety elements that guide the energy chain securely on both sides, thereby reliably eliminating vibration and impact movements. Thanks to its slim design, it fits into even the tightest installation spaces and ensures safe guidance - even at high dynamics. The GLSL.M is available for the E2.15 and E2.21 series and comes in two versions: with the moving arm either on the front or on the side.

- ▲ Very compact and lightweight design: ideal for extremely limited installation spaces
- ▼ Minimised number of parts, cost-effective design, low maintenance
- ■ Calculate service life online and receive a guarantee of up to 4 years
- ● Have your energy chain recycled at the end of its service life with the igus® chainge® recycling program, regardless of manufacturer: igus.eu/chainge
- Design the guidelok slimline systems with just a few clicks in the CAD configurator and download step models

Part No.: GLSL.M.E2.15.50.075.LLLL/FFFF.(L/R), GLSL.M.S.E2.15.50.075.LLLL/FFFF.(L/R)
GLSL.M.E2.21.050.075.LLLL/FFFF.(L/R), GLSL.M.S.E2.21.050.075.LLLL/FFFF.(L/R)

26-ECS-10

Expert interview

Background of the guidelok slimline mini development

"Mr Koch, why did igus® develop the guidelok slimline mini?"
"In modern mini-load systems and small storage and retrieval units, less and less installation space is available, while the dynamic requirements are increasing. Traditional guide troughs were too large, too heavy or too expensive. We wanted a system that was exactly right for these conditions: very compact, strong and economical."

"Who actually needs such a solution?"
"Plant manufacturers, integrators and operators of automated small-parts warehouses. Safe guidance is required wherever energy chains that travel vertically experience high lateral acceleration - for example during fast lifting movements. Mini-load systems in particular benefit from the minimal space requirement of the **guidelok slimline mini."**

"How does the system work?"
"The energy chain runs in a slim, modular guide system. Guidelok elements on both sides grip the chain every 1,000mm, stabilising it and preventing lateral deflection."

"How does the system prevent the chain from swinging?"
"The chain is not only guided by the double-sided safety catch, but is also fixed laterally and to the inner radius. This prevents vibration and the typical 'chain slap' that can cause damage or downtime."

"Are there different solutions for different requirements?"
"Yes, there are two sizes: for **E2.15.50.075.0** (inner dimension: 15 × 50mm) and **E2.21.050.075.0** (inner dimension: 21 × 50mm). Both with centred moving arm (**GLSL.M**) or external (**GLSL.M.S**). This allows the system to be optimally integrated into different installation spaces."

"And what makes the guidelok slimline mini lighter than other systems?"
"Reduced use of materials: instead of a continuous trough made of aluminium or steel, slim brackets are installed every 1,000mm, into which the guidelok elements are integrated. Lightweight GRP brackets guide the chain between them. This significantly reduces the weight while maintaining high stability. An advantage for any vertical axis system as less mass has to be moved."

"How does the assembly work?"
"The assembly is kept deliberately simple. The individual elements are pre-assembled and can be attached to the system in a modular fashion using two screws each. Thanks to their low weight and compact size, installation and adjustment are much quicker than with conventional guide systems. This reduces assembly times and makes retrofit projects easier."

"Why is the guidelok slimline mini so cost-effective?
"Thanks to a clear, function-orientated architecture: few components, modular design, no oversizing. Everything is tailored to actual requirements. This way, we were able to create a system that is technically absolutely reliable, but at the same time remains significantly more economical than many conventional solutions."

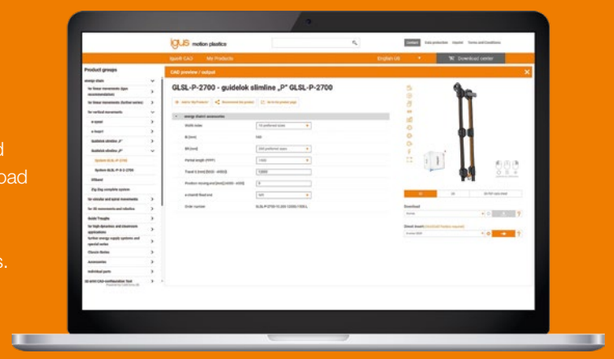
Christoph Koch
Product Manager e-chains®

3D CAD portal

Faster designing of energy chains with 3D CAD

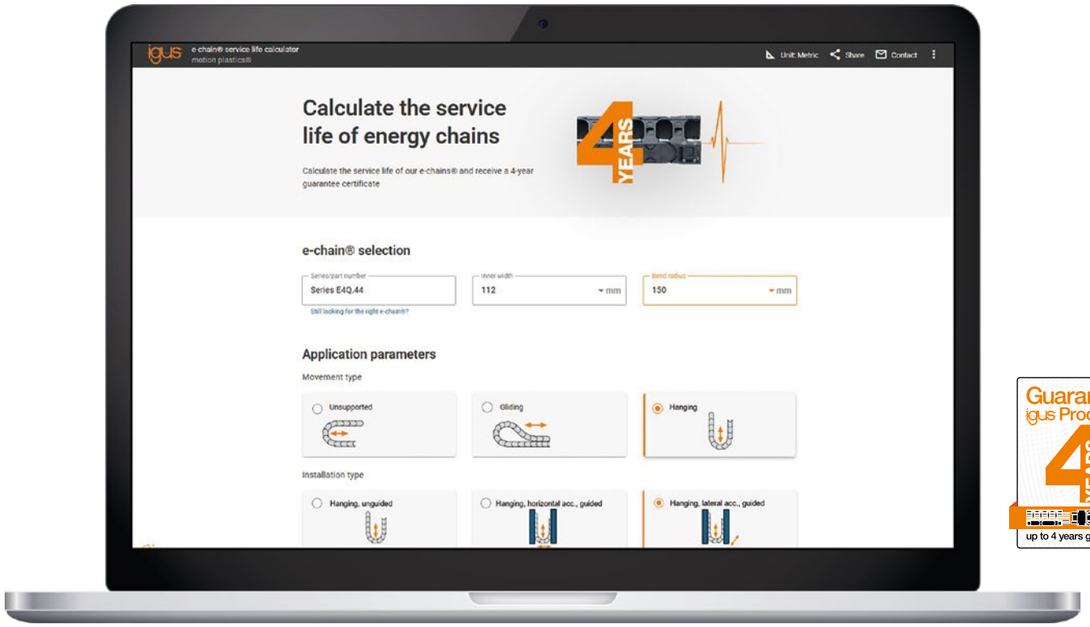
Free of charge and with no registration. In various formats for numerous energy chains and movements.

Integrate energy chains into your design as a 3D CAD file. Without registration and completely free of charge. Quickly download CAD models of energy chains in various file formats. Also, for rotary and circular movements, long travels and accessories.



e-chains® Long Life Calculator

4-year guarantee - now for vertical



Guarantee igus Products 4 YEARS up to 4 years guarantee

New

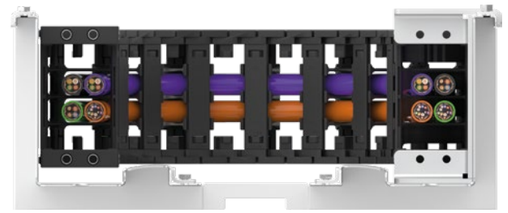
Planning reliability for hanging e-chains®

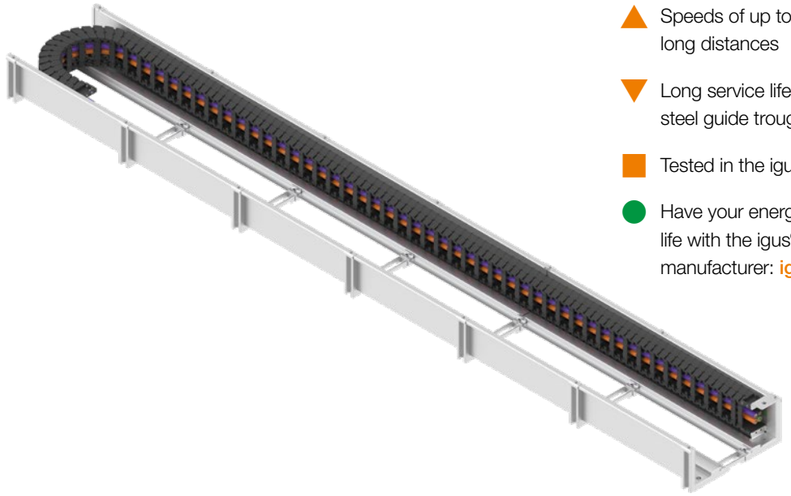
e-chains® Long Life Calculator

After you enter a few application parameters, the Long Life Calculator now also offers a statement about the expected service life of vertical hanging energy chains. You can also use the tool to create a guarantee certificate for up to 48 months (*the guarantee is valid for the calculated service life, and not longer than 48 months).

- ▲ Planning security now also for hanging installation types thanks to a guarantee that is up to four times longer than the statutory warranty
- ▼ Always find the most cost-effective e-chain® for the required service life using the Long Life Calculator
- ■ Calculated service life based on over 4,000 e-chain® tests in the igus laboratory (with approx. 10 billion e-chain® cycles)
- ● Sustainability thanks to a longer service life is practical resource protection, enhancing economic efficiency and protecting the environment
- Calculate the service life online in seconds: igus.eu/ESL

26-ECS-01





Study

High speed over long distances

plane-chain 2.0 guide trough

Guide trough for e-chains® gliding on their side on travels of up to 100m. Thanks to the design of the guide channels, speeds of up to 10 m/s and running performances of over 200,000km are possible. Further advantages are the flat design, the simple installation and the smooth operation of the system.

- ▲ Speeds of up to 10m/s and accelerations of up to 30m/s over long distances
- ▼ Long service life thanks to material combination of stainless-steel guide trough and E6 e-chain®
- ■ Tested in the igus® laboratory
- ● Have your energy chain recycled at the end of its service life with the igus® chainge® recycling program, regardless of manufacturer: igus.eu/chainge

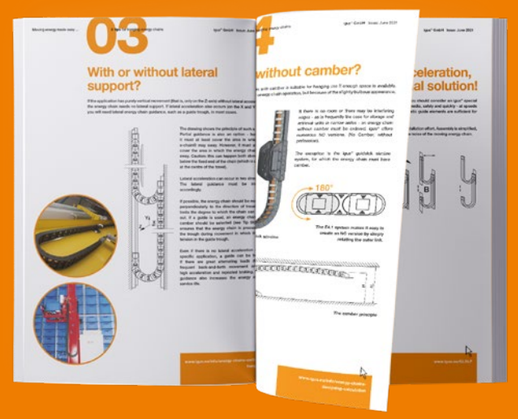
26-ECS-12

Tips for hanging energy chains

Durable energy supply in hanging application

In hanging applications, cables that move freely often pose a problem. When the system moves, the cables start to vibrate and can collide with system components and, in the worst case, break. This is where energy chains come in. They protect individual cables and hoses and guide the movement in a controlled way.

In this white paper, we show you what you should look out for in a hanging application.



igus.eu/designtips-hanging

Silver vector award winner 2026

Improve what moves ...

e-chain systems® for cleanrooms

Tech up · Cost down · Proof · Sustainability · Digital

38 Innovative cleanroom solution for travels of up to 30m
C6 cleanroom energy chain with special e-spin guide system

40 Extended modularity for the smallest installation spaces
e-skin® flat multi-pods

43 Increasingly challenging application conditions in the cleanroom system e-skin® flat
SKF.S.10.055.01.0 e-skin® flat with support chain

44 Cleanroom classes, small installation space and ESD protection
e-skin® soft ESD

45 Service life guarantee for e-skin®
e-skin® Long Life Calculator

Quick consultation anywhere, at any time

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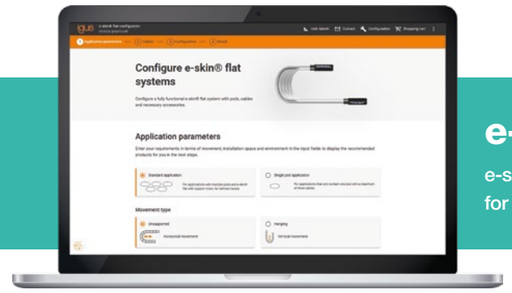
blenz@igus.net

Chat
Online and WhatsApp
igus.eu/chat

On site
Field service roadshow/trade show
igus.eu/on-the-move

Precision positioning system

e-skin® flat guarantees consistently high accuracy and friction-free, dynamic movements of the multi-axis system.



e-skin® flat configurator

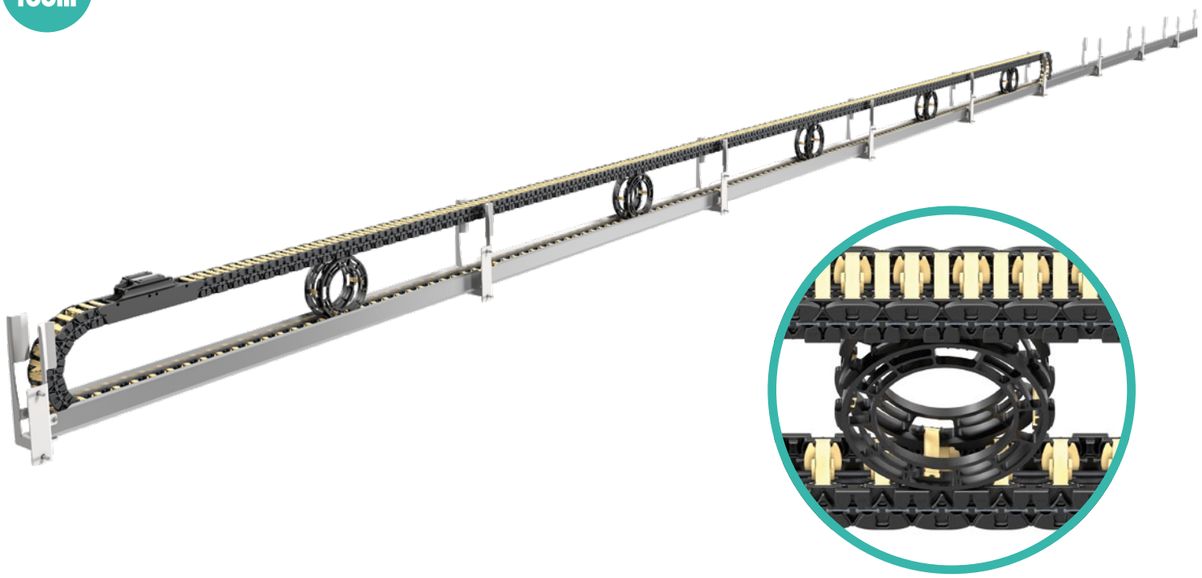
e-skin® flat energy supply systems: quickly configure your own flat cable for cleanroom applications via drag & drop: **igus.eu/skf-configurator**

igus.eu/news-ecs

C6 cleanroom energy chain with special e-spin guide system

ISO Class 1 for long travels

clean-room



Study

Innovative cleanroom solution for travels of up to 30m

C6 cleanroom energy chain with special e-spin guide system

The new version of the C6 cleanroom energy chain has a special guide system. It is compact and durable, enabling manufacturers to guide energy and data even on very long travels in production environments involving cleanrooms.

- ▲ Innovative cleanroom solution with special guide, so that virtually no particles are produced even over long travel distances
- ▼ Secure power and data supply without further particle emissions on long transport distances in one system
- ■ Complete system with 8m certified by Fraunhofer IPA with ISO Class 1-4
- ● Higher production yield due to particle reduction saves resources
- Digital: C6 e-chain® can be configured online: igus.eu/eke

▲ Tech up ▼ Cost down ■ Proof ● Sustainability Digital

igus

Solution to the challenge of "long travels in cleanrooms"

Automated wafer transport in cleanrooms

Decisive advantages of the cleanroom solution for long travels

1. Abrasion-resistant and ISO-certified by the Fraunhofer IPA
2. Reliable for long travels of up to 30m
3. Modular and low-maintenance - ideal for highly automated cleanroom environments

In modern semiconductor factories, silicon wafers undergo numerous process steps - from lithography and etching to doping and metallisation. These processes take place in different plants, which are often located far away from each other. Due to the strict requirements for cleanliness and freedom from particles, manual transport within the cleanroom is not feasible. Instead, automated material handling systems (AMHS) carry out the safe and efficient transport of wafer cassettes (FOUPs - front-opening unified pods) over long distances. One proven solution is the overhead hoist transport (OHT) - a rail-guided transport system that moves the FOUPs overhead and makes optimum use of cleanroom space. In addition to transport, storage in so-called stockers is also extremely important. These systems place high demands on the power and data supply. You need reliable energy supply systems for: the power supply for the OHT units, the data transmission (e.g. Ethernet, sensor technology), safe cable guidance in dynamic and often confined cleanroom environments.

Our new cleanroom solution for travels of up to 30m offers decisive advantages:

- Abrasion-resistant and ISO-certified by the Fraunhofer IPA
- Reliable for long travel lengths
- Modular and low-maintenance - ideal for highly automated cleanroom environments

Kira Weller
Product Manager e-chains®

Fraunhofer TESTED® DEVICE IPA Cleanroom (atmospheric) igus GmbH C6.29 e-spin stand alone Report No. IG 2510-1677

IPA classification - report no. IG 2510-1677 C6.29 e-spin stand-alone

Test parameters	Result
v_1 = 0.5m/s; a_1 = 1.0m/s²	1
v^2 = 1.0m/s; a_2 = 2.0m/²	3
v_3 = 2.0m/s; a_3 = 4.0m/²	4
Overall result	**Cleanroom Class 4**

Next-level battery manufacturing

Find out in this white paper how motion plastics® not only makes your production cleaner, but also more efficient and economical.

- Understanding requirements in battery production
- Correctly categorise dew points and ISO classes
- Use IPA-certified energy supply systems

Compact modular system e-skin® flat

Modularity for small spaces

clean-room

Study

Extended modularity for the smallest installation spaces

e-skin® flat multi-pods as an extension to the single-pod modular system

Various multi-pods of the e-skin® flat help you save even more installation space. Multi-pods of 2 to 6 SKF12C allow savings in the installation space depth of the mounting brackets of 17%. With the new sizes, the proven igus® quality can be used in existing applications. In combination with the single-pod modular system, the complete range of accessories, such as the e-skin® flat with support chain, can also be used.

- Further variants to optimally utilise the smallest installation spaces
- Savings in installation space depth of up to 17%
- Proven and IPA ISO Class 1 certified e-skin® flat system
- Optimum use of installation space for less material and energy consumption in cleanrooms
- Can be designed online via the e-skin® flat configurator: igus.eu/ECS

Part No.: SKF12C.X.1.10

26-ECS-22

Best of Industry Award

The winner is the dry-cleanroom-compatible e-skin® flat

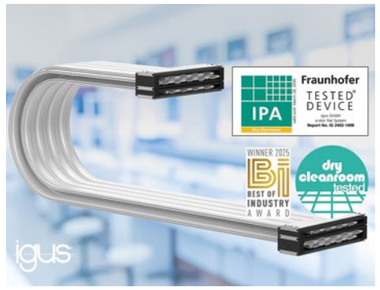
Our dry-cleanroom-compatible e-skin® flat was honoured with the Best of Industry Award in the "Battery development & production" category

Our e-skin® flat, which is compatible with dry cleanrooms, was honoured with the Best of Industry Award in the "Battery development & production" category! Many standard components such as energy chains, cables and lubrication points wear out more quickly in dry cleanrooms, which leads to breakdowns and production interruptions. Our lubrication-free, abrasion-resistant and maintenance-free cable guidance system e-skin® flat fulfils the highest cleanroom standards, prevents particle formation and ensures trouble-free operation.
Today more than ever, the industry needs innovations and new approaches to master present and future challenges. However, which solutions really stand out from the crowd? And which solutions offer companies real added value?
The Vogel Communications Group's Best of Industry Award has been answering this question since 2016 - and honours the best of the best every year. Together with konstruktionspraxis, PROCESS, LABORPRAXIS, DeviceMed and Automobil Industrie, MM MaschinenMarkt honours only the best new products of the previous year with the Best of Industry Award.

Fraunhofer IPA TESTED® DEVICE igus GmbH e-skin flat System Report No. IG 2402-1498

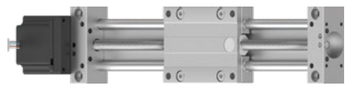
IPA classification - Report No. IG 2411-1575 e-skin® flat system

Test parameters	Result
Test 1, new, (after running-in phase; 0 cycles)	4
Test 2, after 2 months (3.2 million cycles)	4
Test 3, after 4 months (5.1 million cycles)	4
Test 4, after 6 months (7.5 million cycles)	4
Test 5, after 8 months (10 million cycles)	4
Test 6, after 10 months (15.1 million cycles)	4
Overall result	**Cleanroom Class 4**



Further cleanroom highlights

New



26-DRE-02

drylin® SLW-1040-10X25-E7-AL
Precise linear technology for dry cleanrooms
Page 172

New

25-XRS-04

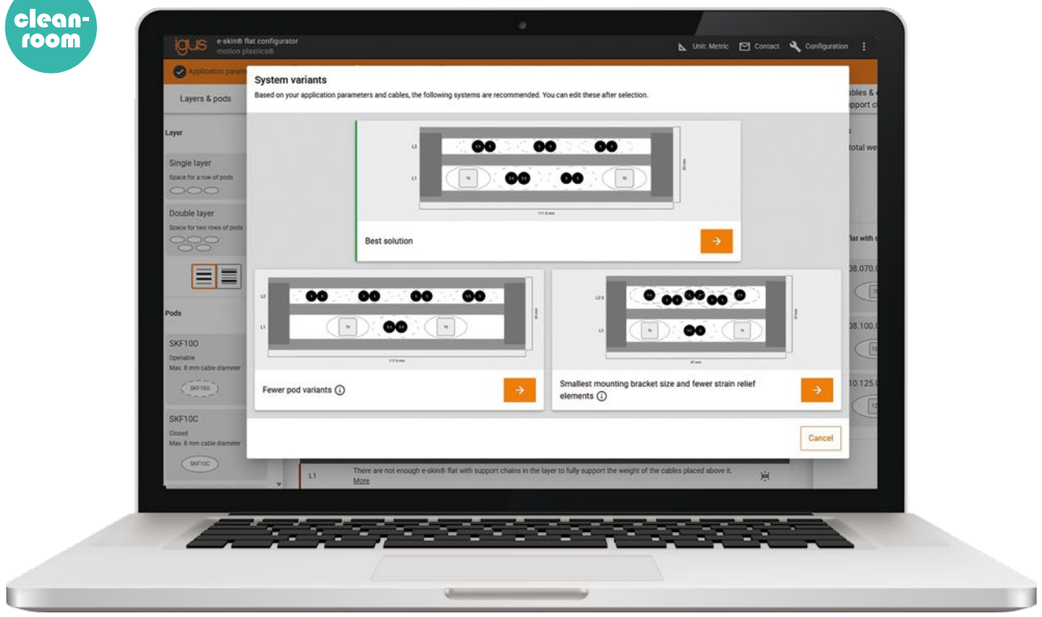
xiros® cleanroom ball bearing
High resistance to abrasion and chemicals

chainflex® CFCLEAN
Highly flexible and extremely variable in the cleanroom

e-skin® flat configurator

Automated configuration

clean-room



New

Configure your energy supply system with certified cleanroom suitability in just a few steps

e-skin® flat configurator

With the new e-skin® flat configurator, anyone can design an e-skin® flat system in next to no time and download a technical drawing and the parts list for the system straight away. The large chainflex® cable pool with prioritisation of the most suitable cables for the e-skin® flat and readycable is available in the online tool. However, it is also possible to add your own cables. The information is then automatically filled in to suggest the best result for the known application data. However, you can always make changes by hand.

- ▲ Automatic design with all criteria for the best result
- ▼ Complete e-skin® flat system design in under five minutes
- ■ Cleanroom class ISO 1 certification from Fraunhofer IPA for e-skin® flat systems with one and three layers
- ● Project-based production without minimum purchase quantities for clean cables conserves resources
- igus.eu/ESC

clean-room

New

More stability, easier to install

SKF.S.10.055.01.0 e-skin® flat with support chain for e-skin® flat

The new support chain with a radius of 55mm has been added to the radius portfolio. As it uses „bolted joints“ or „pinned joints“, it can meet increasingly challenging application conditions and is easier to assemble. The e-skin® flat with support chain is also simpler to extend and shorten. The e-skin® flat with support chain is guided in the e-skin® flat POD SKF12C and can be integrated into the existing structure of the mounting brackets.

- ▲ Flexible, proven, cleanroom-compatible e-skin® flat system with CFCLEAN
- ▼ More demanding application conditions, such as higher speeds, higher accelerations and longer travels in the cleanroom can be met
- ■ e-skin® flat IPA ISO 1 certificates
- ● Small installation space - effective in the smallest cleanrooms
- Configure e-skin® flat online: igus.eu/ESC

Part No.: SKF.S.10.055.02.0

clean-room

New

Straight run guaranteed

e-skin® flat layer holder new in two sizes and with all-round guide

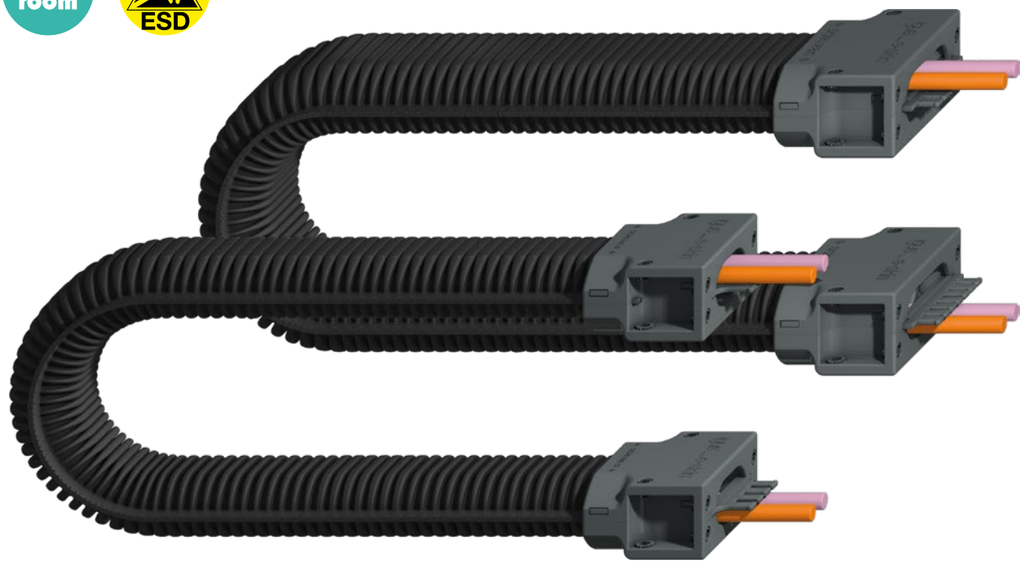
The layer holder ensures straight guidance of several layers of e-skin® flat, even in the case of very long unsupported lengths. This means that the e-skin® flat layers rest steadily on top of each other and can use the unsupported specifications of the e-skin® flat with support chains, even if they are not present in every layer. The layer holder has no influence on the cleanroom class and is available immediately.

- ▲ Straight running of the e-skin® flat guaranteed even with multiple layers
- ▼ The e-skin® flat with support chain not required in all positions
- ■ Fraunhofer IPA ISO Class 1 certified e-skin® flat system
- ● Higher production yield due to particle reduction saves resources
- Configure e-skin® flat online: igus.eu/ESC

Part No.: SKF.LG.08.035.1, SKF.LG.10.050.1

e-skin® soft ESD

ESD protection for cleanrooms



New

Cleanroom classes, small installation space and ESD protection

e-skin® soft ESD

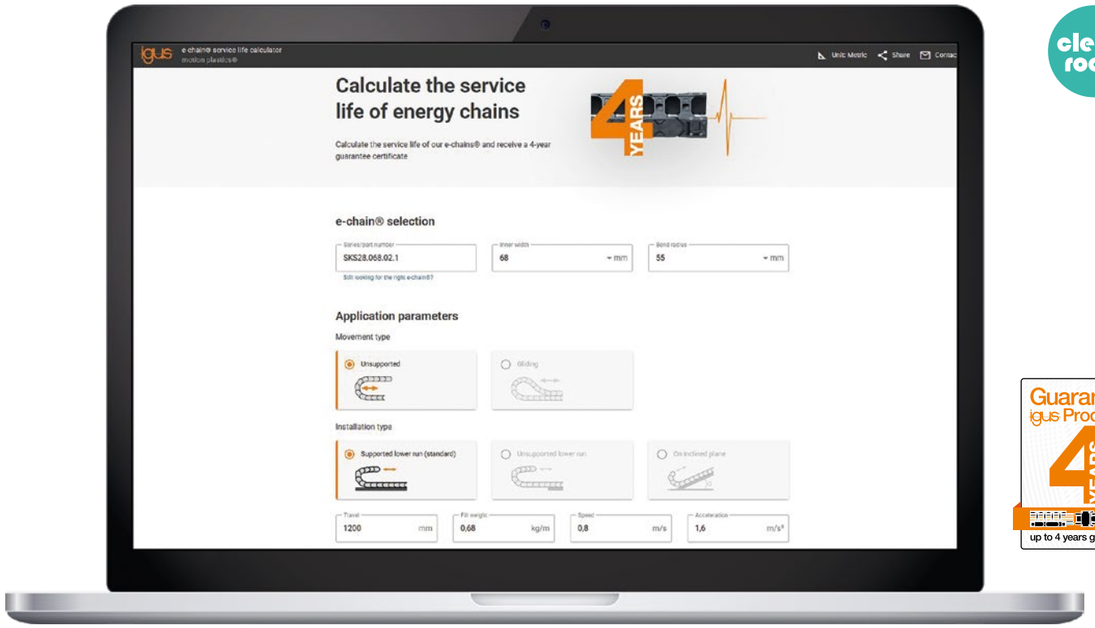
The tried-and-tested e-skin® soft made of dissipative material is now available in sizes 20, 24, 28.068 and 40. This prevents the formation of electrostatic fields and the abrupt discharge caused by the movement of the black e-skin® soft due to the material. The e-skin® soft ESD is suitable for the highest cleanroom classes and requires very little installation space. It has a self-supporting function and a closed design.

- ▲ A series for all areas, whether cleanroom or ESD area
- ▼ Fewer faults with ESD-sensitive parts, due to abrupt discharge or particles
- ■ Discharge and cleanroom capability tested in the igus® internal (ISO 1 cleanroom) laboratory
- ● Long service life (more than 10 million double strokes) with low installation space requirements (200mm with a radius of 55mm)
- Configure online: igus.eu/ESL

Part No.: SKS40.085.02.0.ESD

Cleanroom-compatible e-skin® with service life guarantee

Clean service life



Guarantee igus Products 4 YEARS up to 4 years guarantee

New

Service life guarantee for e-skin®

e-skin® Long Life Calculator

After you have entered a few application parameters, the Long Life Calculator now also gives you an indication of the expected service life of e-skin® corrugated tubes. You can also use the tool to create a guarantee certificate for up to 48 months (*the guarantee is valid for the calculated service life, and not longer than 48 months).

- ▲ Integration of the e-skin® corrugated tubes into the Long Life Calculator with an intuitive and modern design
- ▼ Cleanroom-compatible energy supply solution with a defined service life
- ■ Approx. 4,000 e-chain® tests per year in the igus® test laboratory (with approx. 10 billion e-chain® cycles) and cleanroom tests in our own igus® cleanroom laboratory
- ● Reduced resource consumption: selection of the smallest possible cleanroom-compatible e-chains®
- Configure online: igus.eu/ESL

Improve what moves ...

Multi-axis energy chains & robotics

Tech up · Cost down · Proof · Sustainability · Digital

48 One product, two solutions: innovative rotary module for robots
Unsupported twisterchain® with 600° angle of rotation

50 Increased protection due to closed outer contour that can be opened
triflex® TRXC energy chain

51 Safe cable guidance on multi-axis linear robots with TR.SCS.48
SCARA cable solution nominal width 48

51 ESD-conductive cobot kit
ESD cobot kit

Quick consultation anywhere, at any time

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Online and WhatsApp
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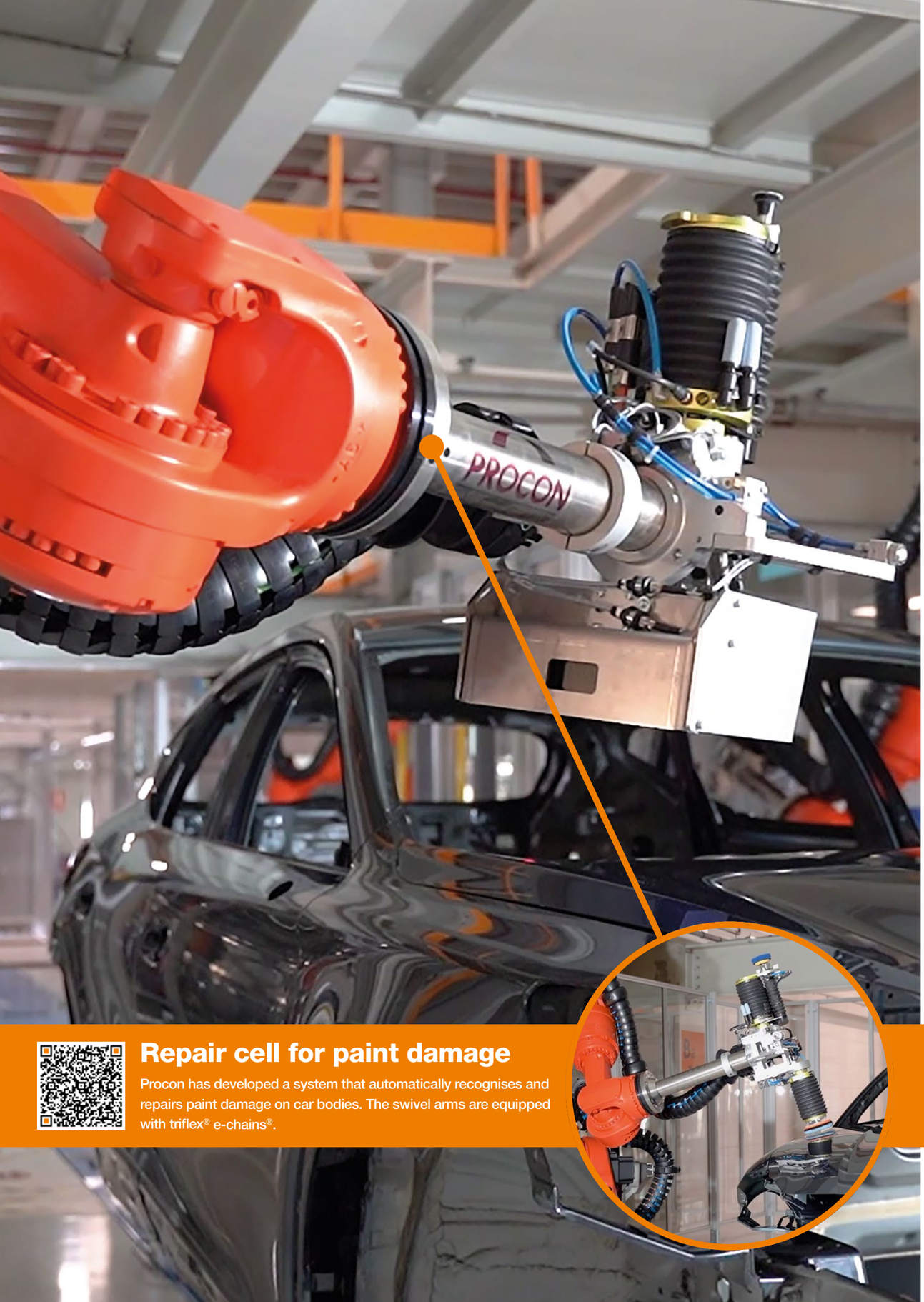
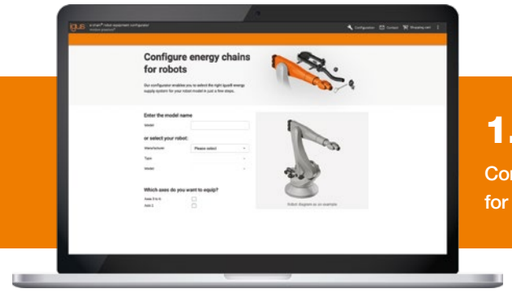
On site
Field service roadshow/trade show
igus.eu/on-the-move



Repair cell for paint damage

Procon has developed a system that automatically recognises and repairs paint damage on car bodies. The swivel arms are equipped with triflex® e-chains®.



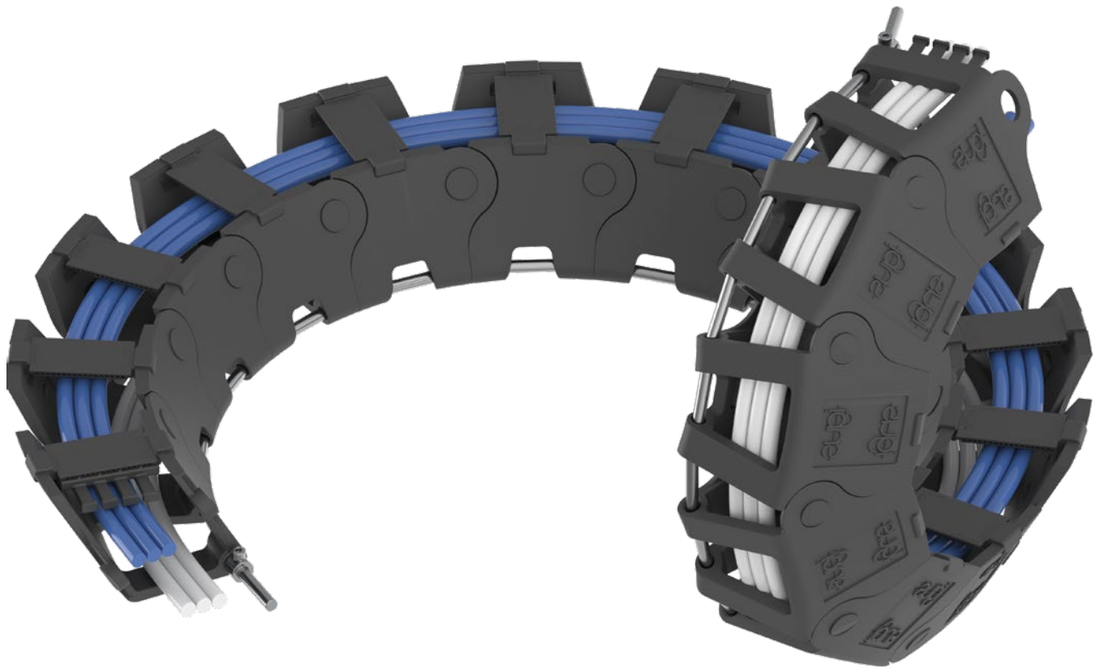
1.5 million configurations

Configure a suitable energy supply system from igus® for your robot model in just a few steps: **igus.eu/erk**

igus.eu/news-ecs

Unsupported twisterchain® with 600° angle of rotation

Unsupported, even for 600°



New

One product, two solutions: innovative rotary module for robots

Unsupported twisterchain® with 600° angle of rotation

The new twisterchain® supplies energy with over 600° rotation, fast assembly, maximum flexibility and a long service life for robotic applications.

- ▲ Unsupported with a rotation angle of over 600°
- ▼ No complex and expensive trough system required
- ■ Tested in the igus® laboratory
- ● Have your energy chain recycled at the end of its service life with the igus® chainge® recycling program, regardless of manufacturer: igus.eu/chainge

Unsupported twisterchain® with 600° angle of rotation

Maximum freedom of movement, minimum effort

The new unsupported twisterchain® sets new standards in robotic energy supply: the high inherent rigidity allows for a completely unsupported installation - without any additional trough systems or guide plates. This not only reduces the design effort, but also significantly lowers the overall installation costs as additional components and assembly steps are no longer required. Furthermore, the result is a particularly clean, efficient and space-saving system architecture that impresses both technically and economically.
Thanks to its special design, it can achieve rotations of over 600°. The system therefore offers maximum freedom of movement for applications with extended angles of rotation and ensures reliable energy supply even in case of highly dynamic motion profiles. The internal opening crossbars support fast, intuitive and service-friendly installation: cables can be inserted and removed quickly - without long downtimes or complicated dismantling.

The cable-friendly overall concept with integrated shelves as an option protects sensitive cables and ensures permanently reliable guidance. Friction and mechanical loads are reduced, which increases both the service life of the cables and the overall availability of the system.
The system has an adjustable pretension so that it can be precisely adapted to any application. This can be precisely adjusted to the cable weight and required rotation angle - a decisive advantage for the fine-tuning of robots and machines that require maximum repeatability and stability.
The system shows its strengths particularly in robotic applications with high dynamic requirements. On the base of small industrial robots (axis 1), it can be installed both on the floor and on a raised plinth. This flexible assembly option permits clean cable guidance from the robot's entry point, ensuring a strong, unsupported energy supply.

The system can also be used on axis 5 of modern palletising and handling robots. It can be installed either on the robot arm or on the end-of-arm tooling - depending on the preferred cable guide or application design. This allows the internal energy supply system to be adapted precisely to the movement space and the requirements of the tool, which further increases the reliability and service life of the overall system.

Matthias Meyer
Head of Business Unit
ECS triflex® & robotics

The benefits at a glance

1. **Rotation angle of over 600°** Maximum freedom of movement for extended robotic rotary axes
2. **No guide trough required** Unsupported system reduces costs, saves space and simplifies construction and assembly.
3. **Quick assembly and cable-friendly** Intuitive crossbars for quick assembly. Safe guiding for maximum service life.

triflex® TRXC energy chain

Closed and telescopic

Study

Increased protection with closed outer contour that also can be opened

triflex® TRXC energy chain

The new triflex® TRXC energy chain offers a closed and robust exterior, which provides significantly increased protection against external influences even under demanding operating conditions. This optimisation contributes significantly to extending cable service life. The opening outer lids also ensure quick and easy assembly of the cables and hoses. The fundamental system is based on the tried and tested components of the TRXE energy chain, which guarantees maximum reliability and long-term operational safety.

- ▲ Closed design that is also openable - improved protection against dust and dirt
- ▼ 2 in 1: integrated retraction system and cable guidance
- ■ TRXE design principle already successfully used by customers for over three years
- ● Significantly less material required compared to conventional retraction systems

New

Safe cable guide on multi-axis linear robots

SCARA cable solution nominal width 48

The new size NW48 of the SCARA cable solution offers significantly higher stiffness and thus ensures maximum stability even under demanding operating conditions. The rotating connections effectively counteract torsional forces and reliably protect the system. At the same time, the design ensures safe cable guidance and allows for long unsupported lengths without compromising functional safety.

- ▲ Increased dimensional stability with maximum flexibility
- ▼ Modular design reduces assembly times
- ■ Comparable sizes of the NW29 and NW36 already in use by customers thousands of times
- ● Components individually interchangeable

Part No.: TR.SCS.48.02.00.01.0 (screw-on connection),
TR.SCS.48.02.50.01.0 (connection with M50 thread)

New

ESD-conductive cobot kit

ESD cobot kit

With the new ESD-conductive mounting clamp for cobots, the triflex® R ESD energy chains can be securely fastened directly to the robot arm. Thanks to the tried-and-tested electrically dissipative plastics, it ensures controlled dissipation of electrical charges and thus reliably protects sensitive electronics from damage.

- ▲ Maximum process reliability thanks to ESD discharge capability
- ▼ Fast and easy installation
- ■ Cobot kit made of base material has been successfully used by customers for over 10 years
- ● Low wear and high reusability

Part No.: TR.911.965.[ ].Z0.ESD (size 30 without strain relief),
TR.911.965.[ ].Z1.ESD (size 30 with strain relief),
TR.911.966.[ ].Z0.ESD (size 40 without strain relief),
TR.911.966.[ ].Z1.ESD (size 40 with strain relief)
[ ] = size of hinge pin clamp

Bronze vector award winner 2026

Improve what moves ...

In all axes

Tech up | Cost down | Proof | Sustainability | Digital

54 Compact guidance of various cable diameters of up to 30m
e-spool® cable

56 Easy installation in confined installation spaces
e-spool® theatre kit

58 Static, modular rotary module for confined spaces
Rotary chain SRM static

59 Simple rotation for complex applications and heavy fill weights
TRM triflex® rotation module

60 Cost-effective standard system for challenging environments
CT200 modular enclosure for e-chain systems®

62 Cost-effective, durable and easy to install
basic flizz® E2.26

Quick consultation anywhere, at any time

In person

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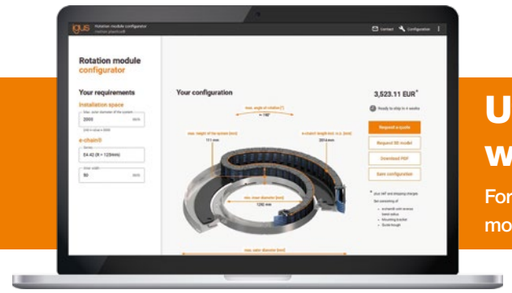
On site
Field service roadshow/trade show
igus.eu/on-the-move

Royal Opera London

Customised and space-saving zig-zag energy chain system for the lighting trusses.



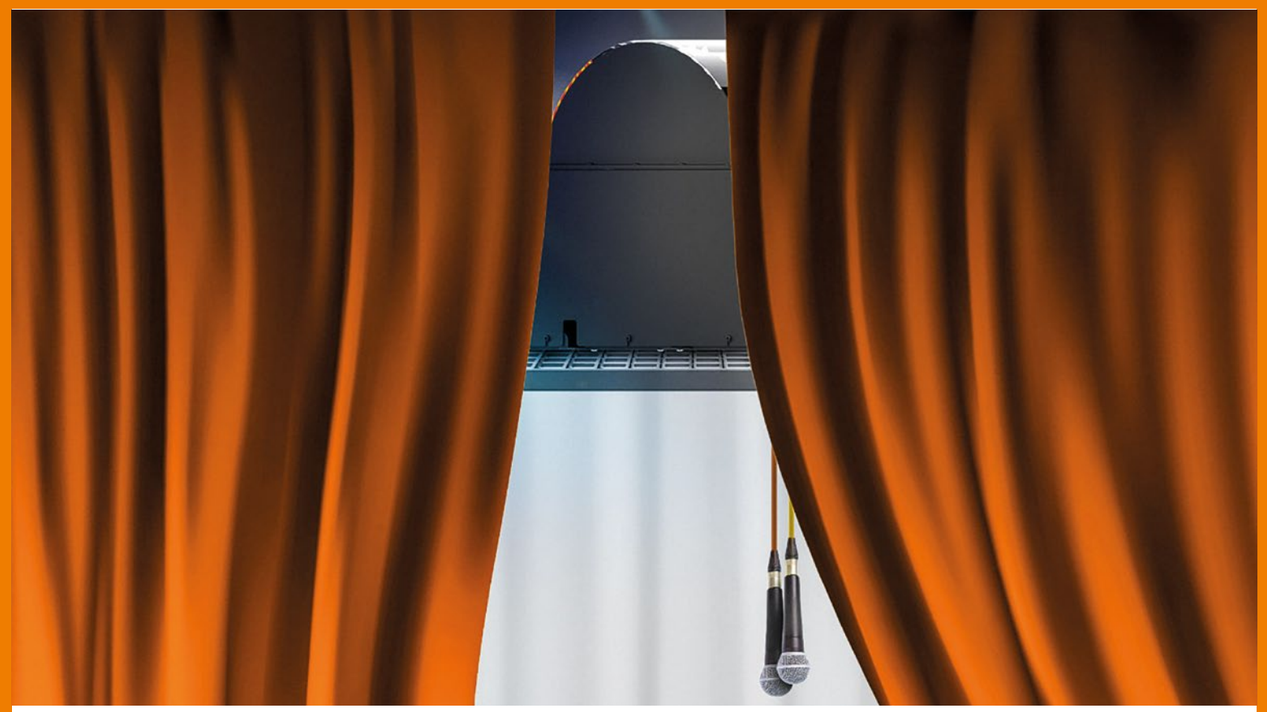
Utilise installation space with millimetre precision

For rotary movements, configure and request as a set with mounting brackets and guide trough: **igus.eu/irm-configurator**

igus.eu/news-ecs

e-spool® cable

Unwinding of two cables



Study

Compact guidance of various cable diameters of up to 30m

e-spool® cable

The e-spool® cable allows for the electrically driven, remote-controlled movement of one or two cables and offers maximum flexibility in use. Thanks to its compact design and lateral winding, it is particularly space-saving. In addition, cables with small and different diameters can be wound reliably.

- ▲ Guiding two cables with different diameters without slip ring
- ▼ Space-saving design due to lateral cable winding
- ■ Proven technology used by customers around the world
- ● All components from a single source - simplified logistics processes

26-ECS-28

▲ Tech up ▼ Cost down ■ Proof ● Sustainability Digital

igus

Modern stage technology makes special demands

Top solutions for stage technology

Movements must be quiet, vibration-free and invisible

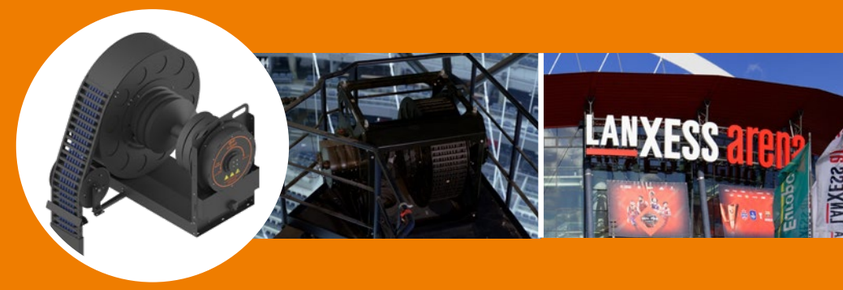
The systems have to be compact and lightweight

Reliability and safety are crucial, especially for overhead systems

e-spool® theatre

Cable drum without slip ring for stage platforms, movable lighting rails and AV system devices.

- Secure guidance of different media types in one system
- Compact installation in ceilings and under the stage or on catwalks



e-spool® microphone

Microphone winch for the automatic laying of microphone cables with a length of up to 30m.

- Without slip ring for uninterrupted audio transmission
- No physical work at height

Zig-zag systems

A proven classic since 1998 - used for vertical movements, e.g. winches, lighting bridges and platforms.

- Very small installation space
- Cost-effective
- Slim and unobtrusive design

igus.eu/theatre

e-spool® theatre kit

For optimum access

New

Easy installation in confined installation spaces

e-spool® theatre kit

The e-spool® theatre kit is a modular, space-saving solution for travels of up to 15m in theatres and event spaces with limited access. It can be flexibly installed on site and offers the full performance, quality and compatibility of the tried-and-tested e-spool® theatre.

- ▲ Modular design with proven e-spool® theatre standards
- ▼ Optimised installation in confined installation spaces saves assembly effort
- ■ Proven technology used by customers around the world
- ● Flexible transport to the installation site
- Soon available in the online shop

Part No.: IE16.10000730

New

Extension length of up to 25m

e-spool® flex light large

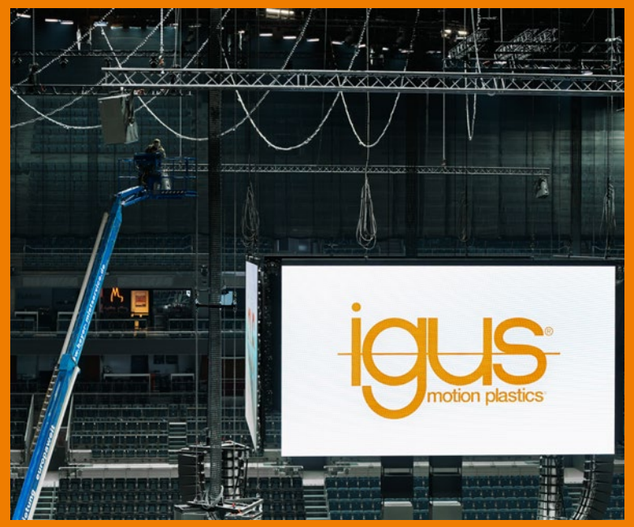
With the new e-spool® flex light large, an extension length of up to 10m (with a cable diameter of 11 to 15mm), 17m (with a cable diameter of 8 to 11 mm) or even up to 25m (with a cable diameter of 5 to 8mm) is possible. Designed for integration into existing customer structures, therefore without external housing, which reduces costs, weight and dimensions.

- ▲ Can be optimally integrated into existing systems
- ▼ Can be adapted to technological development, simple cable replacement
- ■ Up to 66% longer extension length (compared to the SPFL.250)
- ● No additional copper components in the system (apart from cable copper)

Part No.: SPFL.450.08.01.SP, SPFL.450.11.01.SP, SPFL.450.15.01.SP

igus® Supervisor Service

Your experts for reliable stage and theatre technology



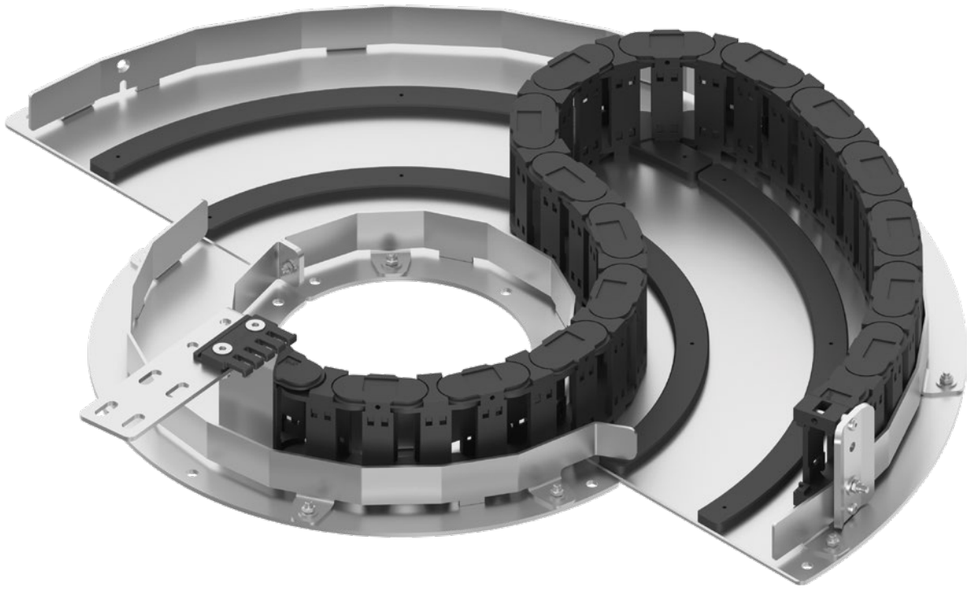
igus® Supervisor Service - your partner for reliable stage and theatre technology

Benefit from the expertise of our igus® supervisors, who will professionally install and commission your systems for you on site. Our customised service includes installation, maintenance and inspection by experienced igus® technicians. For maximum safety, highest precision and reliable performance - so that your stage operations run smoothly at all times.

igus.eu/theatre

Rotary chain SRM static

Rotating in small spaces



New

Static, modular rotary module for confined spaces

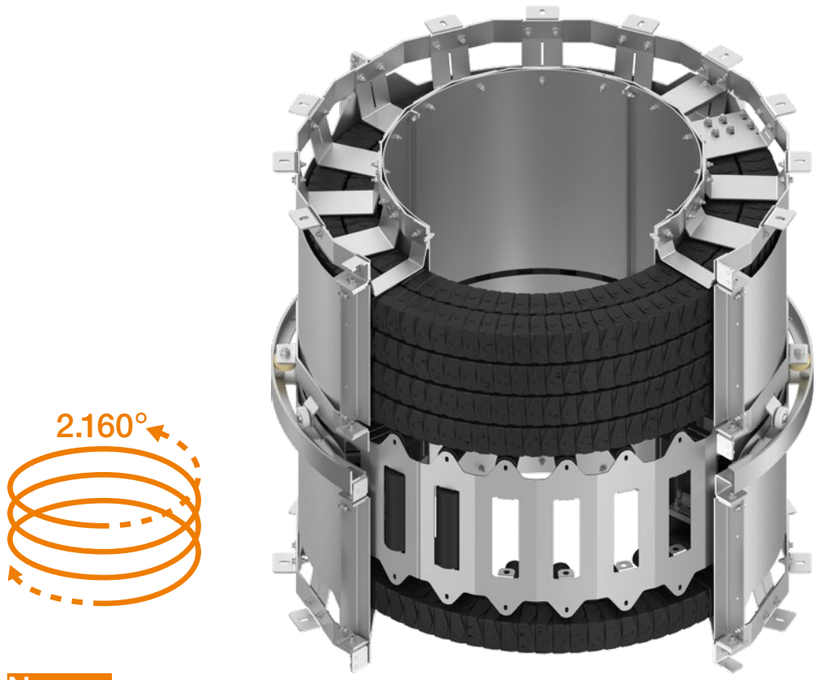
Rotary chain SRM static

The SRM static rotary module impresses with its safe and defined energy chain guidance for rotating applications, modular use for various widths of up to 250mm and simple, low-maintenance integration even in confined installation situations.

- ▲ Defined motion control in extremely small installation spaces
- ▼ Shorter delivery times and cost reduction thanks to simple and uncomplicated installation in existing systems
- ■ Tested in the igus® laboratory
- ● More efficient manufacturing processes save CO_2 in production
- Available shortly in the igus® online configurator

TRM triflex® rotation module

For heavy duty



New

Simple rotation for complex applications and heavy fill weights

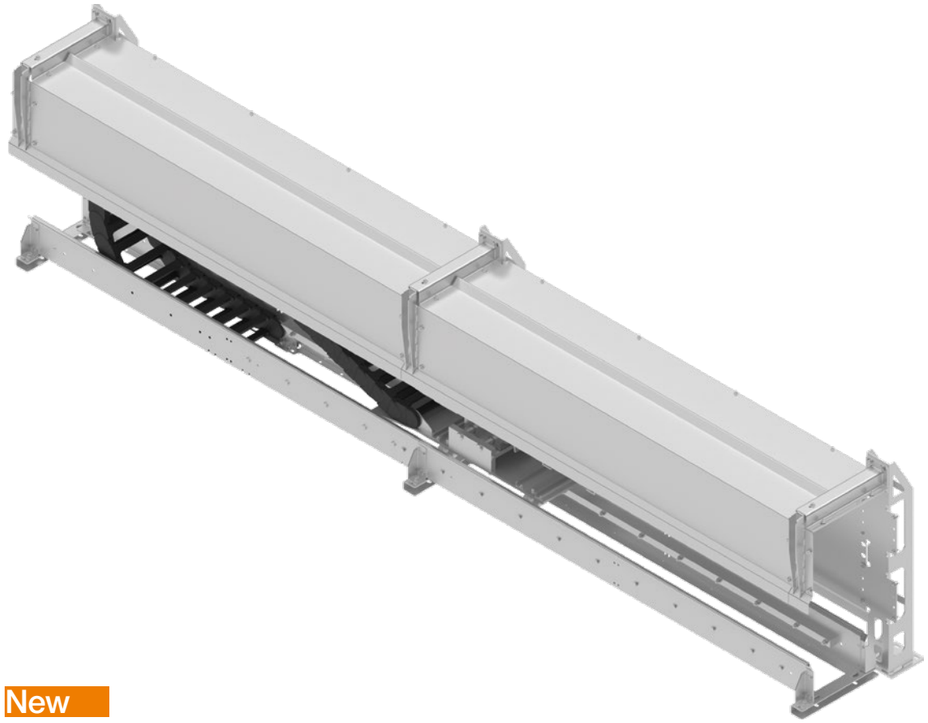
TRM triflex® rotation module

With five triflex® e-chain® installed, the new TRM offers space for a variety of cables and other media for heavy-duty applications in wind turbines or telescopes, for example. In a compact type (outer Ø 1,300mm, installation height less than 1 metre), a rotation angle of 2,160° can be safely achieved.

- ▲ 2,160° rotation in a compact design
- ▼ Save up to 50% installation time on site with the pre-assembled system
- ■ Tested in the igus® laboratory and already used by our customers
- ● Low-maintenance system design

CT200 modular enclosure for e-chain systems®

Modular, simple, affordable



New

Cost-effective standard system for challenging environments

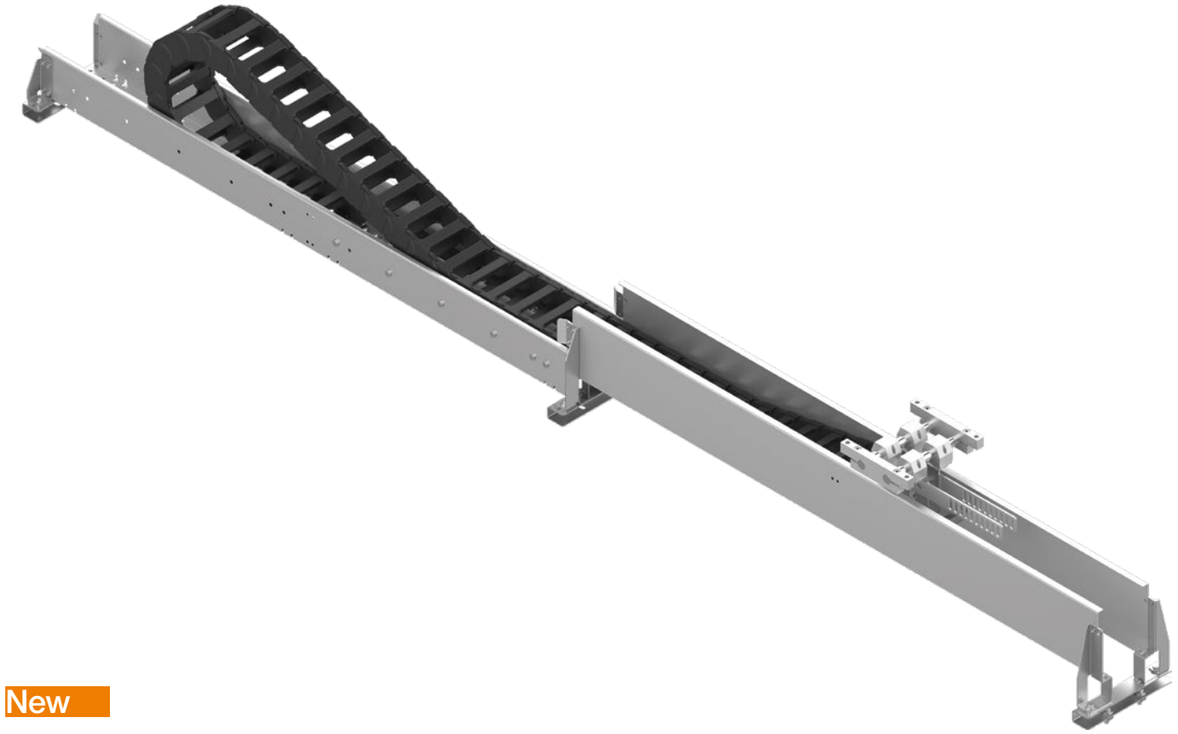
CT200 modular enclosure for e-chain systems®

The CT200 guide trough system is a material-efficient and cost-effective guide trough with an enclosure. Thanks to the reduced number of versions it improves assembly and maintenance and is compatible with several trough and energy chain series for demanding industrial applications.

- ▲ Modular enclosure in various designs to offer protection against external influences
- ▼ Shorter assembly times and reduction of total costs by 25% thanks to the use of identical parts
- ■ Tested in the igus® laboratory
- ● Optimised design reduces material use

Steel guide trough ST200

Standard guide trough up to 200m



New

Modular, maintenance-friendly and safe guidance of energy chains

Steel guide trough ST200

The ST200 is a standardised, robust and maintenance-friendly solution for long travels - using modular installation sets and the new E4.1R rol e-chain®.

- ▲ Standardised guide trough system for travels of up to 200m
- ▼ Cost savings of up to 40% compared to an individual guide trough system
- ■ Tested in the igus® laboratory and already used by customers around the world
- ● No plastic glide bars - low-maintenance system design
- Available online soon

basic flizz® E2.26

Quick installation, long service life

New

Cost-effective, durable and easy to install

basic flizz® E2.26

The complete system basic flizz® E2.26 is a revised new edition of the basic flizz® 2500. It offers a particularly durable and quiet energy chain system, which is characterised by a modular plug-in trough system with up to 20% shorter installation time and a new floating moving end with integrated EC.P solution.

- ▲ Use of the E2.26 energy chain series as standard
- ▼ 20% shorter installation time thanks to new installation sets
- ■ Design update of a solution that has been tried and tested for years
- ● Reduction of purchased parts thanks to igus®
- Available in the online shop soon

26-ECS-33

Background

More efficient systems: E2.26 - the new version of basic flizz®

A new revised new edition of the basic flizz® 2500 is being launched under the name basic flizz® E2.26. With the integration of the new E2.26 energy chain series, a plug-in trough system and a revised enclosure design, the igus® complete system presents itself in a modernised version. In addition, a new floating moving end with integrated EC.P solution will be introduced. It is compatible with the new basic flizz® E2.26 and with existing systems. The E2.26 energy chain series of the E2.1 system is characterised by a long service life, particularly quiet operation as well as easy filling and installation.

Advantages of the new E2.26:

- Integrated optimised "brake" reduces noise by up to 10dB(A)
- With its openable crossbars, the e-chain® is easily accessible and easy to fill.
- 20% to 30% larger gliding surfaces for longer service life in gliding operation compared to previous E2/000 series

igus.eu/E2.26

Durable, clean, safe: basic flizz® in use

Robust technology for clean processes: igus® energy chain system ensures reliable cable guidance in the Ludesch wastewater treatment plant. The Wastewater Association in the Bludenz region in Vorarlberg, Austria, is responsible for the disposal and treatment of wastewater from eleven municipalities. Since the beginning of this year, the association has relied on the basic flizz® cable energy supply system from igus® - for greater operational reliability, less maintenance and a robust solution in the sand and grease trap.

Improve what moves ...

smart plastics

Tech up · Cost down · Proof · Sustainability · Digital

66 i.Cee² combines data from a wide range of sensors
Industrial edge module for intelligent monitoring

68 Smart FTA recognises risks and secures every travel
Smart FTA - intelligent floating moving end

69 Detects critical movements on robots
i.Sense TR.P

69 Keeps the cabinet closed
i.Sense display for dashboard visualisation

70 Avoid costly downtime with the right service package
superwise service packages

Quick consultation anywhere, at any time

In person
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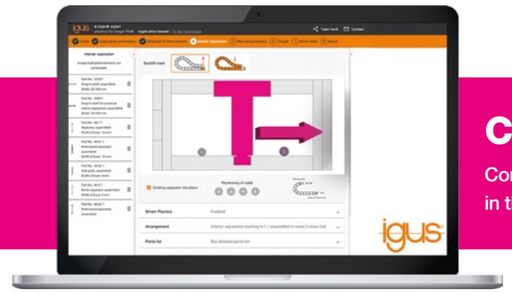
+49 (0) 173-5403904
rhabering@igus.net

Chat
Online and WhatsApp
igus.eu/chat

On site
Field service roadshow/trade show
igus.eu/on-the-move

Mobile conveyor system for bulk handling

The EC.P system ensures safety in high-performance power supply applications over distances of 400m.



Configure condition monitoring

Configuration of smart plastics EC.P, EC.W and EC.WLC now in the e-chain® expert: **igus.eu/eke**

igus.eu/news-smartplastics

Industrial monitoring directly on the machine

Recognise. Understand. Act.

New

i.Cee² combines data from a wide range of sensors

Industry edge module for intelligent monitoring

With integrated sensor connectivity, local edge computing, LTE connectivity and numerous industrial interfaces, i.Cee² provides a robust, ready-to-use platform for industrial monitoring directly at the machine.

- ▲ Instant connectivity with integrated LTE modem. Dual Ethernet, HDMI and sensor interfaces for highly flexible system structures. Modular apps, AI analyses and on-site calibration via display and joystick
- ▼ Lower costs due to elimination of external modems. Fewer on-site visits thanks to remote service, OTA updates and precise maintenance. Fewer downtimes and optimised spare-parts planning reduce operating and storage costs
- ■ Measurable evidence of reliability and downtime creates transparency. Auditable data chains and validation via the superwise platform ensure high data quality for operations, service and quality assurance
- ● A longer service life saves resources. Optimised maintenance reduces energy and material consumption. Efficient digital processes reduce the burden on the environment and the organisation
- Consistent edge-to-cloud data flow, real-time visualisation and industrial sensor interfaces for digital twins. REST and MQTT interfaces facilitate the integration into industrial IT and OT architectures

26-SMA-01

▲ Tech up ▼ Cost down ■ Proof ● Sustainability Digital

igus

i.Cee² - industrial edge module for monitoring

i.Cee² - two worlds. One device. For industrial intelligence.

i.Cee² connects two worlds - and creates a new one.
The industrial edge module for real industrial intelligence. i.Cee² records operating data, interprets it on the machine and combines precise condition monitoring with the openness of an industrial PC. One module. Two tasks. Maximum effect.

Technology that removes boundaries
Integrated LTE modem, dual Ethernet, HDMI and a containerised edge platform - all integrated. Read sensors, visualise processes, deploy apps, carry out diagnostics: immediate use, no additional hardware, no friction losses.

Efficiency that pays off immediately
Fewer external devices. Fewer deployments. Fewer unplanned stops. OTA updates and remote service reduce costs enormously; precise maintenance reduces spare parts and operating costs in the ongoing process.

Documentation that creates trust
i.Cee² provides clearly traceable operating histories and fully auditable data streams. Load profiles, wear curves and event logs are automatically recorded, analysed and prepared in a comprehensible manner. superwise validation ensures reliable, verifiable statements on the system status.

Sustainability that comes from intelligence
Longer operating times, less material consumption, lower energy requirements. Thanks to data-based, optimised maintenance, i.Cee² reduces resource consumption - completely digital and without paper.

Openness for every digital future
REST and MQTT APIs, real-time visualisation and edge-to-cloud data flow. This makes i.Cee² the ideal system for digital twins, AI models and modern production architectures - open, expandable and future-proof.

Richard Habering
Head of Business Unit smart plastics

Benefits

- Fast decisions thanks to local data analysis
- Maximum flexibility due to open architecture
- Robust, industrial platform for heterogeneous environments
- Scalable data acquisition for predictive maintenance

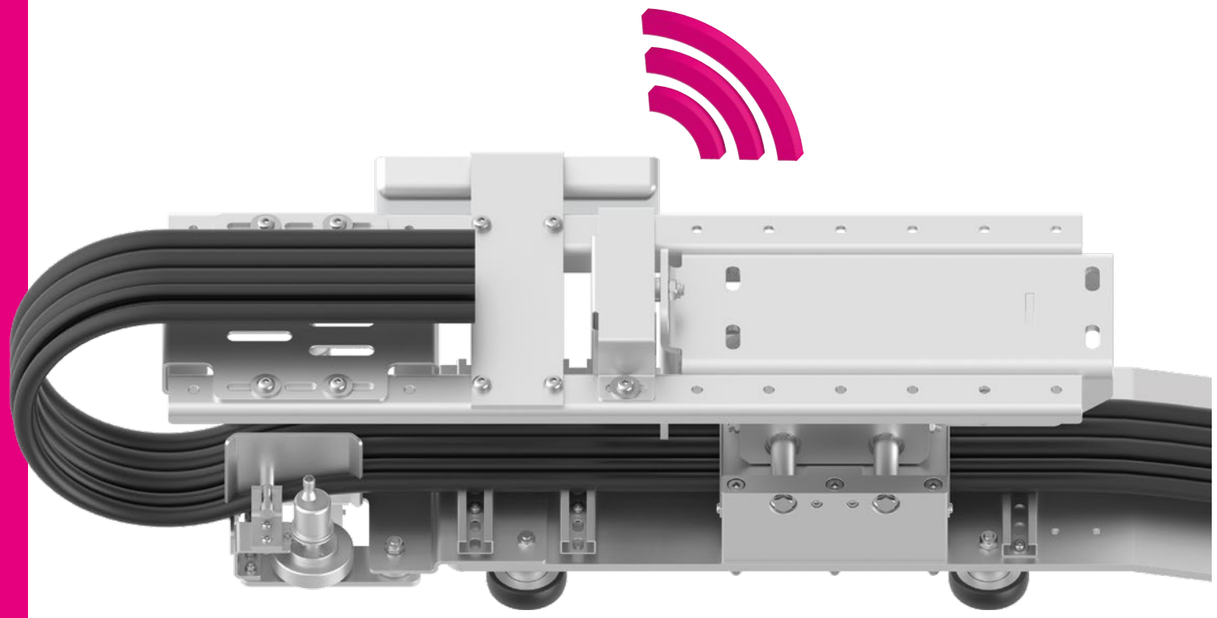
smart plastics general overview

Insight into the entire igus® Industry 4.0 product portfolio:

- Advantages of condition monitoring (i.Sense)
- Systems for condition monitoring
- Advantages of predictive maintenance (i.Cee)
- Systems for predictive maintenance
- Predictive maintenance data flows

Smart FTA - intelligent floating moving end

Early warning



New

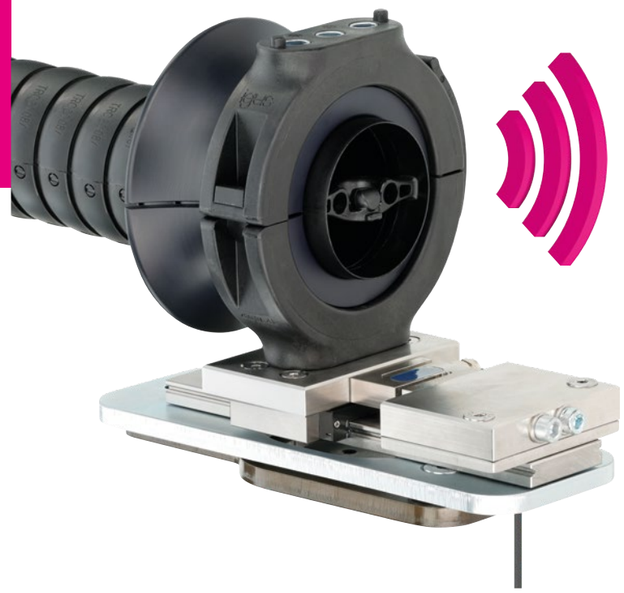
Smart FTA: recognises risks and secures every travel

Extension kit for smart moving ends. Also available as retrofit

The smart FTA turns a tried-and-tested standard floating moving end into an intelligent sensor carrier. The extension kit adds real-time perception along the entire guide trough to the existing mechanics - without adapting the installation space, without design changes, without compromises.

- ▲ The floating moving end is enhanced with sensors that detect trough deviations, load peaks, interfering edges, track offset and structural changes
- ▼ Early detection reduces wear, protects against unplanned downtime and allows for targeted maintenance; existing technology is upgraded economically through retrofitting
- ■ Validated in the igus® test laboratory and confirmed in field tests: clear motion profiles, steady travels and risks that are visible at an early stage
- ● Retrofit instead of new installation. Longer service life, reduced resource consumption and significantly lower spare-parts requirements
- Structured real-time data for a clear view of forces, positions, alignment and trough conditions. Ideal for predictive maintenance, digital twins, precise risk zone analyses and modern service concepts

26-SMA-03



New

Detects critical movements on robots

i.Sense TR.P

Makes invisible risks such as excessive bending, overextension or jamming in the dress pack visible without cameras.

- ▲ Early detection of commissioning damage and damaging movement profiles in real time
- ▼ The system provides the relevant signals straight away without camera setup, image analysis or additional hardware, reducing effort, diagnostic time and troubleshooting
- ■ Reliable operation, clear detection patterns, reliable messages, proven in numerous smart plastics projects
- ● Dress packs achieve maximum, risk-free service life, avoid unnecessary replacement and thus protect resources
- Fully integrated into i.Sense condition monitoring. Provides structured data for smart maintenance, early warnings and digital decision-making processes

26-SMA-04

New

Keeps the cabinet closed

i.Sense display for dashboard visualisation

Effortless system inspection is always on.

- ▲ Real-time display of monitoring data such as push/pull forces as well as break positions. With touch operation outside the control cabinet
- ▼ Information visible from the outside at all times for extremely fast response times. System resets possible on the display
- ■ Developed for the i.Sense ecosystem. End-to-end data chain through to the display for predictive maintenance, transparency in the edge area and smart condition monitoring
- ● Fewer journeys, fewer interventions, less wear. Longer service life due to better decisions at the right moment
- Recognise and control all parameters directly on the device - quickly, logically, intuitively

26-SMA-02

We take care of it

superwise® ... igus® smart service +

New

Avoid costly downtime with the right service package

superwise service packages

The superwise service packages transform maintenance into clarity: a scalable, data-based system that identifies risks, simplifies decisions and makes systems run more reliably.

- ▲ Scalable monitoring from basic to platinum for precise condition and service life assessment. Clearly defined service packages create a technical basis that thinks ahead
- ▼ Fewer unplanned downtimes, less travelling and coordination effort and reduced costs for spare parts and service thanks to predictive planning and digital maintenance impulses
- ■ superwise is based on test and field data from real smart plastics applications. Portal, dashboard and event histories provide the basis for comprehensible, data-based decisions instead of gut feeling
- ● Avoidance of unnecessary material changes, lower costs for energy and service in addition to a noticeably longer system service life thanks to precise, use-based recommendations
- A continuous end-to-end data path - from sensors via ComBox or i.Cee² to the superwise portal - including mobile phone connection and optional customised network integration for maximum transparency and control

26-SMA-05

Strong superwise service packages for secure investments

superwise starts with a simple idea: a system should not only receive attention when something goes wrong.

This is why even the basic package is based on active action. It is free of charge and works without sensors. It is based on customer specifications from project planning - dynamics, payload, ambient conditions - combined with the proven igus® service life calculator. As soon as the theoretically risk-free service life of a gliding e-chain system® reaches its end, igus® automatically contacts the operator and suggests a suitable retrofit. No effort, no risk, no unanswered questions. Only clarity at the right time.

Silver adds real sensor technology to this logic. i.Sense and the ComBox form a small but extremely effective measuring system, which is available for €595. It recognises anomalies more accurately, provides the first real status data and creates a digital foundation that is far more precise than any theoretical calculation. As with all superwise packages, the same rule applies: as soon as the data shows that it would make sense to take action, the customer is actively contacted - not passively informed. Silver is the moment when an investment begins to tell its own story.

Gold opens the door to a new dimension. For €1,800 per year, operators receive full access to internal data: detailed motion profiles, real-time status indicators, use intensities and a much more accurate picture of the real system health. Here, too, superwise remains proactive and issues a warning as soon as a risk arises or a part ought to be replaced. Gold is aimed at operators for whom planning reliability is not a nice-to-have, but the basis of their operations.

Finally, Platinum is the fully integrated, customised form of superwise. The data is not only collected, but also deeply embedded in the customer's hardware and software landscape, including customised interfaces and system logic. Prices are project-based as each integration is unique. Here too, superwise actively monitors and issues a notification as soon as an intervention is useful or necessary. Platinum is not just a service. It is an extension of your own infrastructure.

Alongside these four technical packages, the Service Care line provides the operational framework. Service Care is free of charge and ensures that igus® automatically contacts the customer as soon as the recommended remaining service life is reached.

Service Care Plus - starting at €2,870 per year - includes all inspection assignments by the igus® Supervising Team, including travel. These assignments are not planned reactively, but based on data: the smart plastics sensor technology provides clear indications, and igus® acts in good time.

Service Care Complete supplements this with all minor repairs that typically occur unexpectedly - a package for operators who want to eliminate operational surprises.

Finally, **Service Care All-In** is the most consistent solution: an e-chain® flat rate where igus® assumes full responsibility for the costs for a defined period of time. Maintenance, repairs, materials, risk - all included. The operator benefits from complete predictability and maximum operational reliability.

The result is a system that is designed the way modern maintenance should be: clear, forward-looking and proactive. A system that doesn't ask: "What happened?", but says: "Here's the important next step." superwise combines technology, service and responsibility into a solution that not only protects, but relieves operators of a burden - and ensures that a system does exactly what it was built to do: run reliably.

Richard Habering
Head of Business Unit smart plastics

Scope of services	Service Care	Service Care Plus	Service Care Complete	Service Care All-In
Service reminder	•	•	•	•
On-site inspection		•	•	•
Travelling and working time		•	•	•
Repair work (labour/maintenance)			•	•
Spare parts and wear material				•
Valid for the entire service life of the product	•	•	•	•

Improve what moves ...

chainflex® cables

Tech up · Cost down · Proof · Sustainability · Digital

74 **Using DeviceNet safely**
chainflex® CFROBOT8.PLUS.030

76 **ctrlX DRIVE cable with a guarantee**
chainflex® CF280.UL.H403.15.04.D
hybrid servo cable

77 **100 million double strokes**
chainflex® CF99.PLUS.02.08 control cable

78 **Cost down or tech up ... or even both!**
chainflex® 4G1.0 motor cables in four qualities

80 **PE cable with halogen-free TPE outer jacket**
chainflex® CFPE.ZH PE single core

Quick consultation anywhere, at any time

In person

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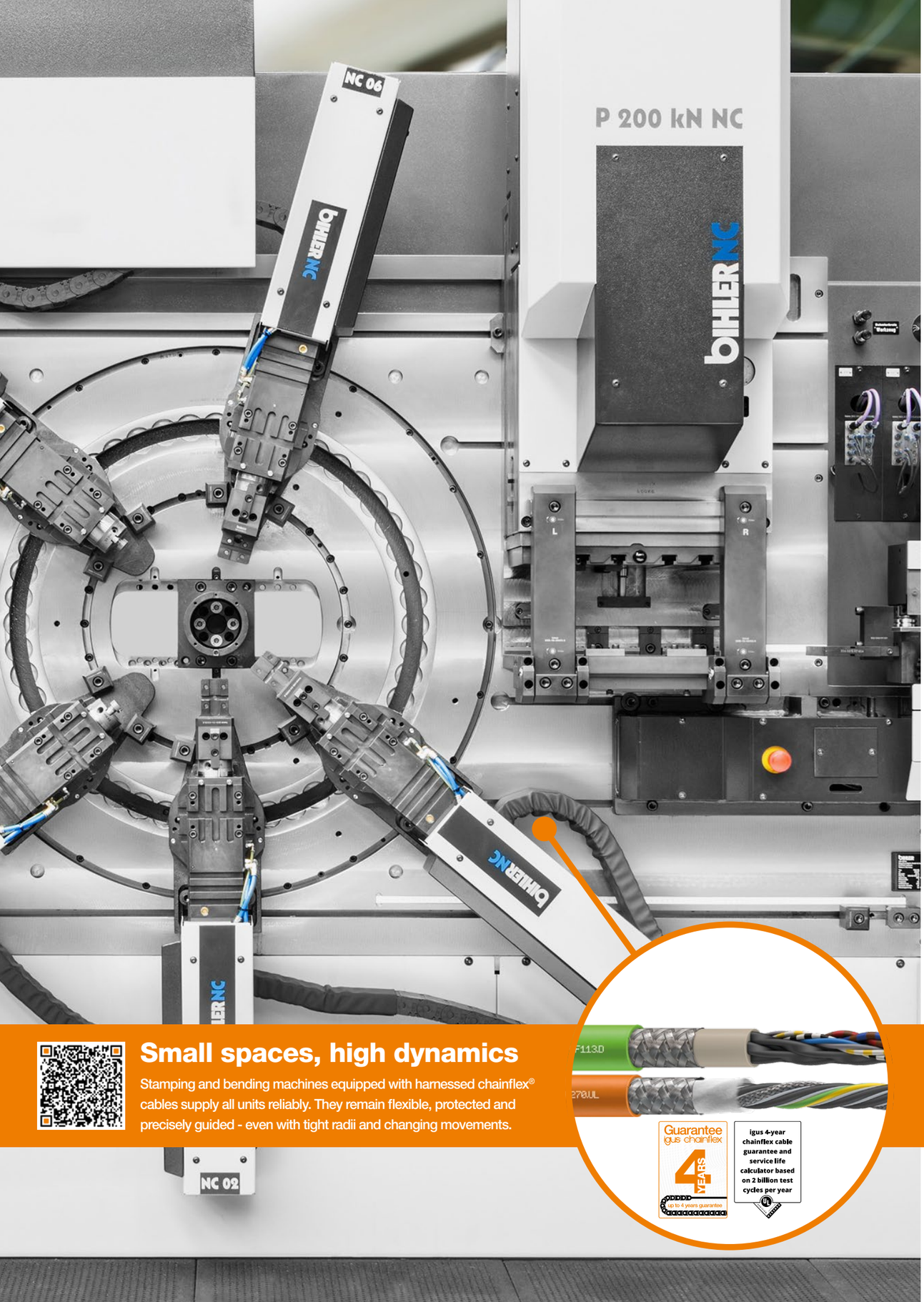
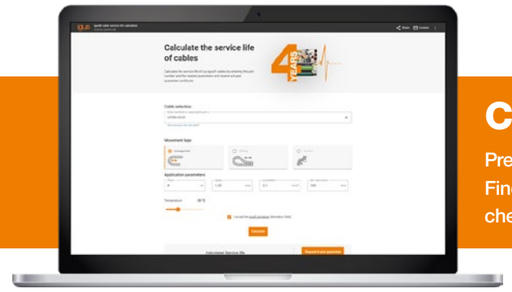


Small spaces, high dynamics

Stamping and bending machines equipped with harnessed chainflex® cables supply all units reliably. They remain flexible, protected and precisely guided - even with tight radii and changing movements.



Calculate the exact service life

Precisely calculate the service life of your cable for your individual application! Find out how long the cable will last - including guarantee certificate and price check. **igus.eu/chainflexlife**

igus.eu/news-chainflex

chainflex® CFROBOT8.PLUS.030 DeviceNet cable

DeviceNet for ±360°/m torsion

Plus

Using DeviceNet safely

chainflex® CFROBOT8.PLUS.030 DeviceNet cable

New addition to the chainflex® CFROBOT8.PLUS family with a DeviceNet cable for applications with ±360°/m torsion on robots. In addition, we are now replacing the entire CFROBOT8 series with all common bus systems in the CFROBOT8.PLUS series. Eight parts from stock, no low-quantity surcharge, no cutting charge and no packaging costs. Available from 1m and with a guarantee of up to 4 years.

- ▲ Torsion angle doubled to ±360°/m with reduction of the outer diameter by 21%
- ▼ Increase service life and reduce downtimes thanks to larger torsion angle
- ■ Test no. 4888 with more than 15 million strokes successfully tested with full data transmission
- ● Complete replacement of the CFROBOT8 series with a more durable cable
- Calculate the cable service life online: igus.eu/chainflexlife

Part No.: CFROBOT8.PLUS.030

26-CF-01

chainflex® cables for robots

Available from stock, with a guarantee of up to 4 years

The new robot cable, which is compatible with the DeviceNet bus system, is a pioneering solution for industrial applications with complex 3D movements. This cable has been specifically designed for the high demands of dynamic robot systems and combines innovative technologies with maximum safety and reliability. The torsion-resistant overall shield made of tinned copper braiding ensures maximum EMC safety and data transmission without disruptions even under extreme mechanical loads.

Optimised for robots
The cable was specifically developed for applications with torsional movements and can withstand torsion angles of up to ±360°/m. This makes it ideal for systems such as robots, handling applications and lead screw drives. Its unlimited oil resistance and UV resistance allows for use both indoors and outdoors. Thanks to its robust design, the cable meets the highest industry standards and ensures reliable performance under demanding movement sequences and extreme loads.

Tested in the laboratory
On an area of over 5,500m², all cables are thoroughly tested in the igus® test laboratory to ensure their functionality and durability. This stringent test procedure guarantees that the cable functions reliably even under the most difficult operating conditions. The cable is also available from stock and can be harnessed if required. The 4-year guarantee emphasises the product's high quality and reliability.
Adding the DeviceNet bus system further expands the portfolio of the CFROBOT8.PLUS family. This means that a large selection of bus systems is now available, including PROFIBUS, CAN bus, Ethernet up to CAT7 and PROFINET. The robot cables offer solutions for a wide range of electrical requirements and impress with their innovative design, comprehensive test procedures and fast availability. Whether in robotics, handling or other applications with 3D movements - the new robot cable for DeviceNet offers maximum safety and performance, is always ready for use and easily masters the challenges of modern industrial applications.

Technical data

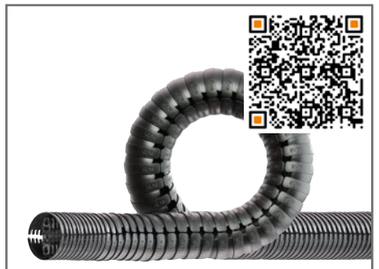
Bus system:
DeviceNet

Structure:
((2xAWG24)C+(2xAWG22))C

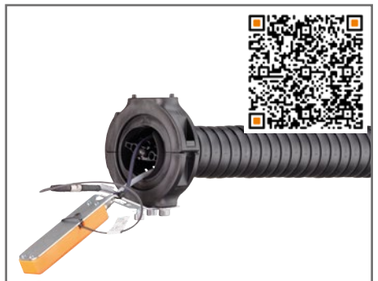
Torsion angle:
±360°/m

Further highlights

for robotics and automation



triflex® R
Multi-axis energy chain for multi-axis robots



i.Sense TR.B
Intelligent condition monitoring for multi-axis energy chains

RBTX® Machine Planner
Assemble cost-effective robot solutions in just five minutes

WITHOUT
... Packaging costs
... Minimum order quantity
... Cutting charges
From 1 meter & from stock

Guarantee igus chainflex 4 YEARS
up to 4 years guarantee

igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year

Plus

ctrlX DRIVE cable with a guarantee

chainflex® CF280.UL.H403.15.04.D hybrid servo cable

ctrlX DRIVE cable with double-shielded data element for maximum transmission reliability in dynamic applications where real-time functionality is critical. Tested. With a guarantee of up to 4 years.

- ▲ Optimised for reliable data communication in e-chain® applications
- ▼ Reduction of mechanical failures and transmission errors
- ■ Test no. 5039: CF280.UL.H successfully tested with 13 million strokes
- ● Long service life is how we conserve resources
- Calculate the cable service life online: igus.eu/chainflexlife

Part No.: CF280.UL.H403.15.04.D

WITHOUT
... Packaging costs
... Minimum order quantity
... Cutting charges
From 1 meter & from stock

Guarantee igus chainflex 4 YEARS
up to 4 years guarantee

igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year

Plus

100 million double strokes

chainflex® CF99.PLUS.02.08 control cable

With the new CF99.PLUS cable, igus® is expanding its high-end control cable series to include a shielded version with a cross-section of (8×0.25)C, which has been specifically developed for highest demands. Thanks to the innovative alloy conductor, we can realise bend factors of up to 3×d in the smallest installation spaces and offer a UL-certified guarantee of up to 100 million double strokes.

- ▲ Bend factor reduced to 3×d (25% smaller than that of CF99.02.08)
- ▼ Service life extended by 250% to 100,000,000 double strokes
- ■ Test no. 5002: CF98.PLUS successfully tested with over 213 million strokes
- ● Complete replacement of the CF99.02.08 with a more durable cable
- Calculate the cable service life online: igus.eu/chainflexlife

Part No.: CF99.PLUS.02.08

WITHOUT
... Packaging costs
... Minimum order quantity
... Cutting charges
From 1 meter & from stock

Guarantee igus chainflex 4 YEARS
up to 4 years guarantee

igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year

Plus

Suitable for Lenze drives in oily environments

chainflex® CF111.033.D measuring system cable

Optimised and tested for use on Lenze drives in oily environments. No low-quantity surcharge, available from stock and starting at 1m. Ready to ship in 36 hours and with a 4-year chainflex® guarantee.

- ▲ Expansion of the CF111.D measuring system cable series for more choice, e.g. for processing and machine tools or low-temperature applications; UL approvals for worldwide use
- ▼ Downtime reduction thanks to clear service life information
- ■ Test no. 5826: CF111.D successfully tested with over 27 million strokes
- ● Long service life is how we conserve resources
- Calculate the cable service life online: igus.eu/chainflexlife

Part No.: CF111.033.D

Helpful information and tips

for using chainflex® cables in your application

10 tips for selecting the right cable for your application

Tips for selecting the suitable cable with the right service life for your energy chain application. Find out what aspects you should consider and which factors influence the best possible selection.

igus.eu/wp-10-tips

chainflex® 4G1.0 motor cables in four qualities

Big range for small installations

WITHOUT
... Packaging costs
... Minimum order quantity
... Cutting charges
From 1 meter & from stock
chainflex

Guarantee igus chainflex
4 YEARS
up to 4 years guarantee

igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year

Plus

Cost down or tech up ... or even both!

chainflex® 4G1.0 motor cables in four qualities

Expansion of the product range by adding eight motor cables 4G1.0mm² (shielded and unshielded) for small installation spaces, with PVC and TPE jackets for a wide range of industrial applications. Tested. From stock. With a guarantee of up to 4 years.

- ▲ High-end TPE cables for the best abrasion properties, smallest bend radii and lowest temperatures
- ▼ Cost-effective PVC cables with very good abrasion properties in e-chains®
- ■ Tested in our in-house test laboratory on over 5,500m²: test report no. 4839, no. 5123, no. 5191, no. 5299, no. 4904
- ● Free from harmful PFAS
- Calculate the cable service life online: igus.eu/chainflexlife

Part No.: CF885.10.04, CF886.10.04, CF30.10.04, CF31.10.04, CF34.UL.10.04.D, CF35.UL.10.04, CF37.10.04.D, CF38.10.04

Do the chainflex® price check

Compare cables and save costs

Motor cables may seem inconspicuous at first glance, but they fulfil a central task in automation technology: they ensure that motors are reliably supplied with energy at all times. Their specific features - such as the voltage class of 600/1,000V and the four cores (L1, L2, L3, PE) - as well as their robust design make them ideal for industrial applications that require the transmission of large amounts of energy. Motor cables are typically used in CNC and packaging machines, handling systems and in technically challenging environments such as port cranes. Increasing demands on reliability, flexibility and mechanical resilience are playing a more and more important role.

Wider variety to choose from

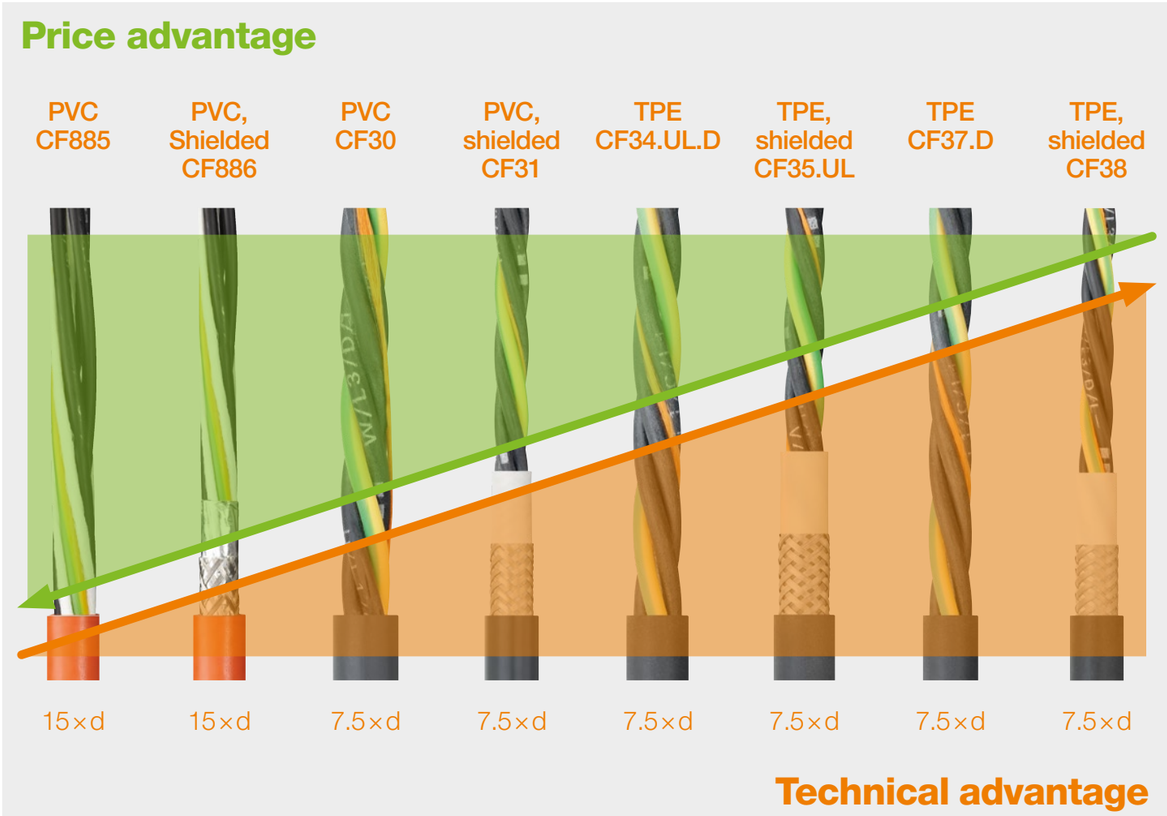
To fulfil these demanding conditions, we rely on innovative materials and advanced manufacturing processes that guarantee long-lasting functionality in energy chains. After all, a reliable power supply for the drive is essential, even under extreme conditions. We now offer new solutions for energy chains, particularly where installation space is limited: eight motor cables have been added to our product portfolio, each with a 4G1.0mm² core cross section combination (shielded and unshielded). This opens up even more versatile application possibilities and rounds off our range (600/1,000V) perfectly. Customers can now not only select the most technically suitable but also the most economical cable.

Our motor cables are designed to meet both technical and economic requirements. Whether cost-effective PVC cables with excellent abrasion properties, oil-resistant PUR cables for demanding environments or high-end cables with an extremely robust TPE outer jacket for maximum media resistance and minimum bend radius - we offer the right solution for all requirements.

In addition, our comprehensive tests, guaranteed reliability and availability from stock ensure maximum planning security for your projects. We emphasise the quality of our products with a guarantee of up to 4 years.

Price check

Our chainflex® price check is a particularly helpful tool for selecting the optimum cable. It not only helps you find the perfect combination of cost-effectiveness and performance, but also selects the right cable for realising your projects efficiently and successfully. With our expanded product range, we are setting new standards in automation technology - for maximum reliability and flexibility in the power supply of your motors.



chainflex® CFPE.ZH PE single core

12.5 million double strokes

WITHOUT
... Packaging costs
... Minimum order quantity
... Cutting charges
From 1 meter & from stock

Guarantee igus chainflex
4 YEARS
up to 4 years guarantee

igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year

New

PE cable with halogen-free TPE outer jacket

chainflex® CFPE.ZH PE single core

New cable series with cold-flexible, halogen-free and media-resistant TPE outer jacket can realise applications with a travel of up to 400m and bend radii of up to 7.5×d.

- ▲ Product range addition: halogen-free TPE alternative to PE single cores
- ▼ Service life increased by 25% to 12.5 million double strokes compared to CFPE
- ■ Test no. 5705: CF330.D successfully tested with 13 million strokes
- ● Longer service life is practical resource protection, enhancing economic efficiency and protecting the environment
- Calculate the cable service life online: igus.eu/chainflexlife

Part No.: CFPE.ZH.15.01, CFPE.ZH.25.01, CFPE.ZH.40.01, CFPE.ZH.60.01, CFPE.ZH.100.01, CFPE.ZH.160.01, CFPE.ZH.250.01, CFPE.ZH.350.01, CFPE.ZH.500.01, CFPE.ZH.700.01, CFPE.ZH.950.01

26-CF-05

Background

What you need to know about REACH and DBDPE

The legal validity of the REACH Directive (EC 1907/2006) has fundamentally changed the regulation of chemical substances worldwide. The directive is one of the strictest sets of rules for chemical safety and strengthens the protection of people and the environment through a transparent assessment and clear responsibilities throughout the value chain.

Dealing with SVHC substances
Some chainflex® cables with a flame-retardant TPE jacket contain decabromodiphenyl ethane (DBDPE, CAS No. 84852-53-9) in concentrations of above 0.1%. DBDPE is classified as a substance of very high concern (SVHC) and has recently been added to the candidate list in accordance with REACH Directive (EC) No. 1907/2006. Open communication is important to us. We therefore fully comply with the obligation to inform and report, and even go one step further and provide information not only in the order confirmation and on the website, but also in our quotations, invoices and data sheets.

Important information:
- This is no ban
- Safe, unrestricted use
- Obligation to notify and inform our customers

Wide range of halogen-free TPE solutions
As an alternative, we can offer our customers cables made with halogen-free TPE material, which has been a standard in our product range for decades. For every flame-retardant TPE cable there is a halogen-free TPE alternative (except for our PE single core).

New: CFPE.ZH - halogen-free PE motor cable
We have therefore added the CFPE.ZH cable series to our portfolio: a halogen-free PE single core for moving applications, available in 11 core cross section combinations. The robust TPE jacket allows for travels of up to 400m, offers high flexibility at low temperatures and bend factors of up to 7.5xd. In addition, the service life has been increased by 25% and now amounts to 12.5 million double strokes. The cable is available from stock and therefore helps you reduce costs and avoid unplanned downtime. The combination of responsible material selection, innovation and transparency makes igus® a reliable partner for moving cables - in accordance with REACH and the expectations of our customers.

Service: we do not leave our customers alone
As REACH is complex for many people, we rely on clear documentation and personal dialogue. Our experts can advise you on materials, limits and alternatives at any time.

Key facts at a glance

1. Sale and use not prohibited
2. As an alternative, we can offer our customers cables made with halogen-free TPE material, which has been a standard in our product range for decades. For every flame-retardant TPE cable there is a halogen-free TPE alternative (except for our PE single core).
3. Open communication with our customers that goes beyond the bare minimum

Katharina Wielpütz
Business Development Manager
chainflex® cable
+49 (0) 2203 9649-7082
kwielpuetz@igus.net

Alternatives to flame-retardant TPE chainflex® cables

TPE flame-retardant cables	UL AWM	Contains DBDPE	Bend radius in e-chain®	TPE halogen-free alternative	UL AWM	DBDPE-free	Bend radius in e-chain®
CF9.UL	✓	✓	5×d	CF9	✓	✓	5×d
CF10.UL	✓	✓	5×d	CF10	✓	✓	5×d
CFBUS	✓	✓	10×d	CFBUS.LB	✓	✓	7.5×d
CF34.UL.D	✓	✓	7.5×d	CF37.D	✓	✓	7.5×d
CF35.UL	✓	✓	7.5×d	CF38	✓	✓	7.5×d
CF300.UL.D	✓	✓	7.5×d	CF330.D	✓	✓	7.5×d
CF310.UL	✓	✓	7.5×d	CF340	✓	✓	7.5×d
CFPE	✓	✓	7.5×d	CFPE.ZH	✓	✓	7.5×d

chainflex® CFSPECIAL.381

Safe performances

New

Fail-safe, cost-effective, subtle

chainflex® CFSPECIAL.381

With the new CFSPECIAL.381, specially developed for the igus® e-chain systems® in theatre and stage technology, we now offer a chainflex® cable product range optimally tailored to the needs of this industry. In addition to the necessary electrical requirements and the visually inconspicuous jacket colour, this cable series offers cable assemblies that are especially required in theatre and stage technology applications.

- ▲ Optimised for moving applications in confined installation spaces, visually unobtrusive
- ▼ Fail-safe and cost-effective PVC outer jacket
- ■ Tested in the 5,500m² test laboratory
- ● Free from harmful PFAS
- Calculate the cable service life online: igus.eu/chainflexlife

Part No.: CFSPECIAL.381.037, CFSPECIAL.381.049, CFSPECIAL.381.052

25-CF-03

From development

Special cable product range for theatre and stage

As a manufacturer of cables for energy chains, we feel at home in the industry. Whether machine tools or the woodworking industry, whether on a crane or in a cleanroom, the chainflex® cables with their seven quality levels offer an optimum cable selection for all the many areas of industry.

However, there are always a few sectors where values other than pure technology also count. One example of this is theatre and stage technology, which not only has technical requirements with special e-chain systems®, but also attaches great importance to visual appearance in addition to special electrical requirements. Bright colours can disrupt the overall appearance - which is why all cable in the CFSPECIAL.381 series have a black PVC outer jacket that blends discreetly into the surroundings.

With the new CFSPECIAL.381, specially developed for the igus® e-chain systems® in theatre and stage technology, we now offer a chainflex® cable product range optimally tailored to the needs of this industry.
In addition to the necessary technical requirements and the visually inconspicuous jacket colour, this cable series offers cable assemblies that are especially required in theatre and stage technology.

The product range comprises three bus cables:

- Ethernet cables in CAT6 and CAT7 for reliable light and sound control and the secure transmission of various data
- A 2-channel cable for microphone applications such as our microphone reeler or DMX control applications

And all this in the usual chainflex® quality, because "chainflex® works! guaranteed and certified!"

The CFSPECIAL.381 offers a reliable solution for your stage and enables trouble-free operation.

Further highlights

for stage and theatre technology

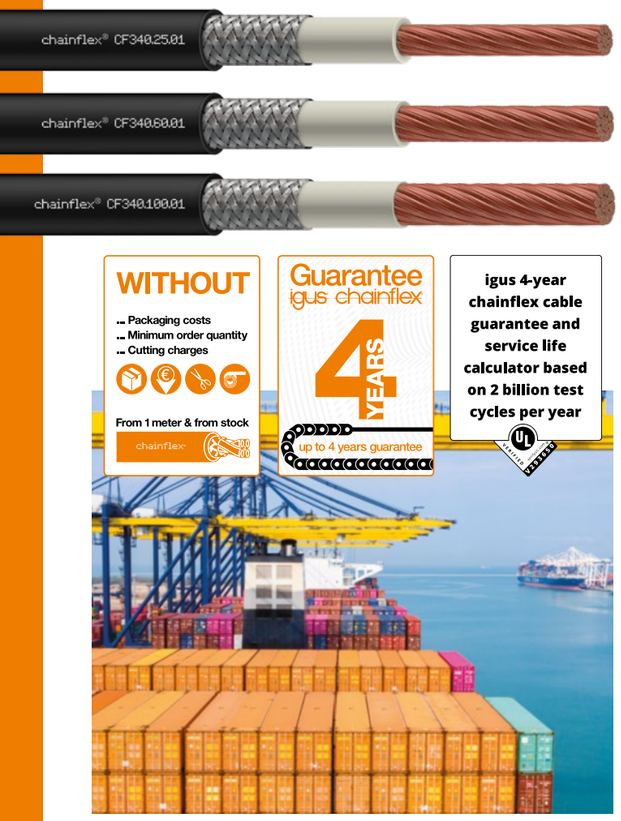
25-ECS-32

e-spool® theatre
Cable drum without slip ring for stage platforms, movable lighting rails and AV system devices

25-ECS-34

Zig-zag systems
For vertical travel lengths up to 40m

e-spool® microphone
Microphone winch for the automatic laying of microphone cables with a length of up to 30m



Plus

Cross section expansion for long travels up to 400 metres

chainflex® CF340 single-core cable

Addition of further cross sections and therefore even more choice with our TPE single-core cable CF340. Ideal for long travels in outdoor applications on cranes or our e-loop® in offshore environments.

- ▲ New cross sections of 2.5mm², 6.0mm² and 10mm² extend the range of outdoor and offshore applications
- ▼ Save 38.58% by selecting single cores
- ■ Test no.: 5384: CF340 successfully tested with 32 million strokes
- ● Long service life is how we conserve resources
- Calculate the cable service life online: igus.eu/chainflexlife

Part No.: CF340.25.01, CF340.60.01, CF340.100.01

Plus

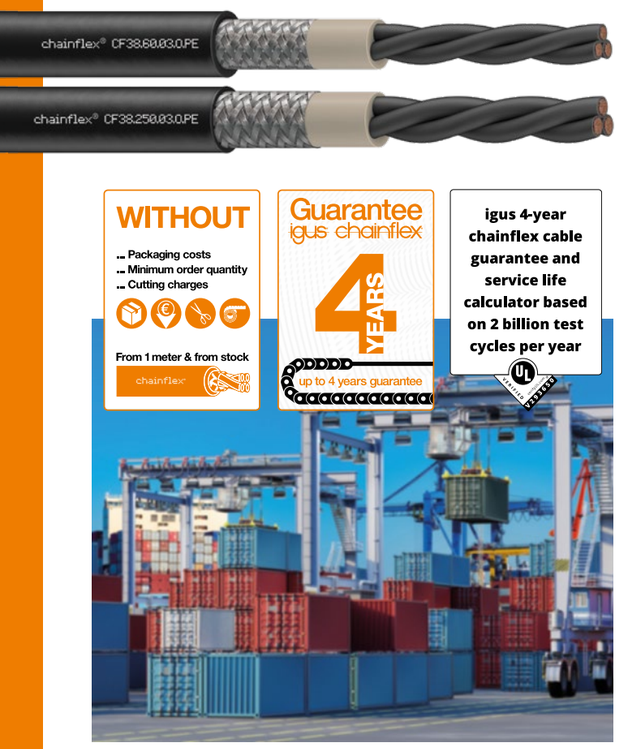
Low-cost version suitable for Lenze in dry applications

chainflex® CF884.032 measuring system cable

We are adding the cost-effective PVC cable CF884.032 to our portfolio of measuring system cables suitable for Lenze. Optimised and tested for use in dry environments. From stock and with a 4-year chainflex® guarantee.

- ▲ Optimised for continuous-motion e-chains® use in dry environments
- ▼ Up to 57.34% more cost-effective than cables with a PUR outer jacket
- ■ Test no. 4843: CF884.001 successfully tested with 14 million double strokes
- ● Long service life is how we conserve resources
- Calculate the cable service life online: igus.eu/chainflexlife

Part No.: CF884.032



Plus

More choice, maximum performance: high-end motor cable for the highest demands

chainflex® CF38 motor cable with shield without protective conductor

The chainflex® CF38 motor cable with the new cross sections 6.0mm² and 25mm² is ideal for long travels of up to 400m in demanding environments with oil contamination or in low-temperature applications.

- ▲ Can be used in e-chains® with the smallest bend radius of 7.5 x d thanks to high-end quality
- ▼ Service life increased by 25% to 12.5 million guaranteed double strokes and with UL approval
- ■ Test no. 4904: CF38.250.04 successfully tested with 43 million strokes
- ● Free from harmful PFAS
- Calculate the cable service life online: igus.eu/chainflexlife

Part No.: CF38.60.03.O.PE., CF38.250.03.O.PE

Future-proof solutions:

New certifications for dry cleanrooms and maritime applications

Certified solutions for dry cleanrooms

The new certificates for dry cleanrooms set an important standard in battery production. All halogen-free chainflex® TPE cables fulfil the requirements of ISO Classes 4 and 5 and impress with minimised particle abrasion, efficiency and safety - confirmed by tests carried out by the Fraunhofer Institute.

IPA Dry-Cleanroom — valid until: March 28, 2030 — Fraunhofer TESTED® DEVICE — igus GmbH, chainflex CF10, Report No. IG 2405-1526

DNV certificates: quality for maritime applications

Over 370 DNV-certified chainflex® cables guarantee reliability, safety and durability at sea. The approval simplifies use in offshore and onshore installations and ensures the highest standards in demanding maritime environments.

TYPE APPROVED PRODUCT — DNV — DNV.COM/AF

Improve what moves ...

readycable®
readychain®

Tech up | Cost down | Proof | Sustainability | Digital

88 **More than 200 new cables ready to connect**
readycable® drive technology product range extension

90 **Round connector available in 36hrs**
615/915, M17, M23, M40, M58 round connectors

92 **Precisely tailored to your requirements, no minimum order quantity**
Customised industrial cable harnessing

93 **Individually machined, no minimum order quantity**
Customised sealing inserts for Glands

Quick consultation anywhere, at any time

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mhueffel@igus.net

Chat
Online and WhatsApp
igus.eu/chat

On site
Sales representative
Roadshow/Trade show
igus.eu/on-the-move

Carrying system for stretchers

Compact, robust and durable guidance of power and data cables for adverse operating conditions. readychain® with Module Connect interface for an assembly that takes just a few hours instead of days.

Find drive cables in 2 steps

Find and order the right drive cable online in only 2 steps. Select with the new readycable® finder, ready to ship in 5 working days: **igus.eu/rc-finder**

igus.eu/news-readycable

readycable® drive technology product range extension

Five times more choice

Plus

More than 200 new cables ready to connect

readycable® drive technology product range extension

We are adding more than 200 additional new cables suitable for five manufacturer standards to the readycable® product range of harnessed and tested drive cables. Delivered in five working days, in the desired length, with no minimum order quantity, including chainflex® guarantee.

- ▲ The seven qualities always give you the most cost-effective cable that is guaranteed to work in your application
- ▼ Reduced storage: no waste, no special tools required
- ■ 100% tested (test seal of approval and test report)
- ● Customised service life calculation, precisely tailored to your application, with chainflex® guarantee
- Get the right drive cable in just two steps, online: igus.eu/rc-finder

readycable® drive technology

Delivered in five working days, to the required length, with no minimum order quantity, including chainflex® guarantee

Offering more than 6,000 harnessed motor, servo, signal and encoder cables that can be used in energy chains and are suitable for 41 manufacturer standards, igus® has the right drive cable for almost any application.

The selection of drive cables is so large because there are up to seven cable qualities per cable specification. This means you will always find the most cost-effective cable that is guaranteed to work in your application. New cables suitable for the following manufacturers are now being added to the range of drive cables:

15 x suitable for Beckhoff

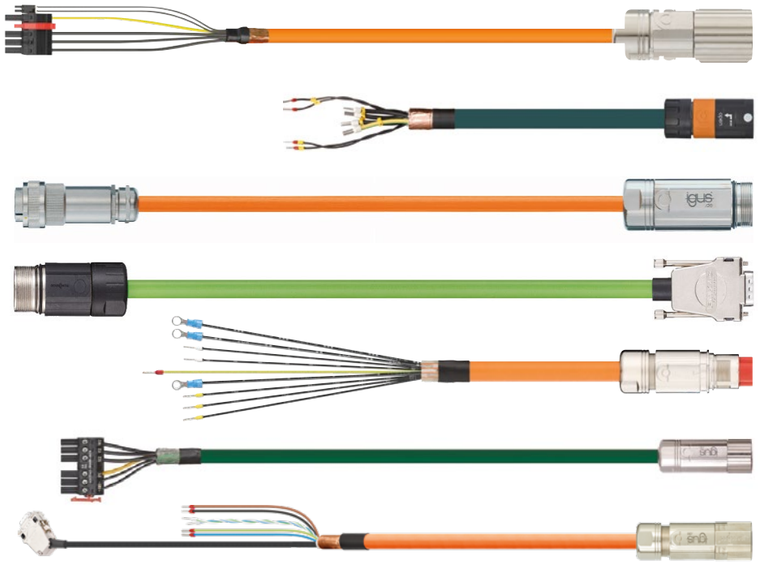
8 x suitable for Bosch Rexroth

9 x suitable for Harmonic Drive

8 x suitable for Heidenhain

29 x suitable for Siemens

In autumn 2025, we added 142 cables to the product range that are suitable for these manufacturers:



23 x suitable for Bosch Rexroth

6 x suitable for Delta

25 x suitable for Fanuc

5 x suitable for Harmonic Drive

10 x suitable for SEW Eurodrive

55 x suitable for Siemens

18 x suitable for Stöber

615/915, M17, M23, M40, M58 round connectors

TE Intercontec straight from stock

Guarantee igus chainflex 4 YEARS up to 4 years guarantee

igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year

New

Round connector available in 36hrs

615/915, M17, M23, M40, M58 round connectors

TE Intercontec connectors from the igus® warehouse in Cologne. Individual parts such as housings, clamps, contacts etc. in large packaging units.

- ▲ Original TE round connector supplied from the igus® warehouse in Cologne
- ▼ Savings thanks to large packaging units
- ■ Optimised, robust, efficient for industry, motion control, robotics and many other applications
- ● Single sourcing - your advantage: everything directly from igus®
- Online shop for plug-in connectors: igus.eu/connectors

26-RC-02

Background

TE Intercontec round connectors at igus® - everything from one source for mechanical engineering

The increasing time pressure in industrial production calls for components that are not only of high quality, but above all available in sufficient quantities. This is precisely where igus® offers a big advantage: a wide range of TE Intercontec plug-in connectors is available directly from stock. Numerous versions and series of these tried-and-tested round connectors in designs such as Speedtec, Locktec as well as different numbers of poles and types. These include the signal connector series 615, 617, 623 and 627 in addition to the power connector series 915, 917, 923, 958 or the hybrid connector series 723 and 740. Many of the versions offered in large packaging units **are ready to ship within just 36 hours**.

TE Intercontec plug-in connectors are established solutions in modern mechanical and plant engineering. They are used wherever reliable connections are required for power, signal or data transmission - for example in machine tools, robotics or drive and automation technology as well as in special-machine construction. The versions available from igus® cover a wide range of designs, including couplings, signal and power connectors. The products are characterised by robust materials, EMC-compliant design and protection classes up to IP66/67.

The combination of Intercontec plug-in connectors with the highly flexible chainflex® cables from igus®, which were developed for applications with permanent movement, is particularly attractive. As readycable®, igus® creates ready-to-connect cable solutions for demanding industrial environments that can be configured quickly and used immediately.

For design engineers, maintenance engineers and plant manufacturers, rapid availability means minimum downtimes and maximum planning reliability. If spare parts are needed at short notice or a project has to be realised in a tight schedule, the stock availability at igus® allows for immediate supply - without long waiting times or complex procurement processes.

In addition, igus® supports its customers with personalised advice, online configurators and a wide range of compatible system components. This makes igus® a reliable partner for anyone who depends on high-quality plug-in connector technology and also wants to optimise their processes quickly.

Faster assembly. Safer operation. Lower costs.

Which levers reduce assembly work and downtime?

Whether the assembly of a new system takes a lot of time or unplanned downtimes occur with existing systems, process costs rise quickly - especially when every hour and every move has to be right.

In the new white paper, we share practical experience and show which levers lead to particularly fast results in projects. We focus on these four areas:

- Trends and challenges in energy supply
- Solutions using ready-to-connect harnessed energy chain systems
- User reports
- Modern solutions for greater efficiency and sustainability

igus.eu/wp-process-optimisation

Customised industrial cable harnessing

Every connector, every cable

New

Precisely tailored to your requirements, no minimum order quantity

Customised industrial cable harnessing

Our industrial cable-harnessing department manufactures over 10,000 customised cables every week exactly according to customer requirements. Industrial cable harnessing involves cutting the cable to a defined length and attaching clearly specified connectors. Standardised processes and maximum machine optimisation result in cables that are ready to connect - with no minimum order quantity and always produced with industrial and machine-supported manufacturing.

- ▲ Everything from a single source: industrially harnessed and quality-checked with chainflex® guarantee
- ▼ Reduce your throughput times from days to hours and reduce overhead costs
- ■ 100% inspection of harnessed products and guarantee of up to 4 years
- ● Reduced storage: no waste, no special tools required
- Service life precisely predictable online

26-RC-03

readycable®

Customised cable harnessing with igus®

readycable® stands for high-precision, customised cable harnessing, in which each component is precisely matched to the respective machine. Users can specify any combination of chainflex® cable type, number of cores, shielding concept, jacket material and connector definition - from standard servo cables to complex hybrid and feedback cables. Each cable is harnessed with exactly the connector systems specified by the system architecture, including coded interfaces, special housing versions or application-specific locking mechanisms.

The plug-in connectors are processed in a technically correct manner with thorough electrical testing, so that complete cable harnesses are ready for immediate installation. Special lengths, asymmetrical outgoing circuits, labelled cores or additional protective elements such as braided sleeves can also be integrated. Thanks to the series of extensive testing in the igus® laboratory, every customised cable fulfils defined criteria, such as specific bend radii, cycle times and temperature ranges, and is optimally designed for dynamic energy chains. This creates a durable, standardised plug & play solution based on individual specifications - precisely manufactured, can be integrated immediately and works reliably, even under adverse operating conditions.

Markus Hüffel
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and readychain®
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New

Individually machined, no minimum order quantity

Customised sealing inserts for cable glands

Sealing inserts in cable glands are invisible heroes. They are only noticed when they are missing or don't fit properly. This makes it all the more important to ensure that it fits in precisely with the individual cable configuration on site. Thanks to an automation solution developed in-house, customised software programming and AI-supported drawing creation, the inserts are manufactured with no minimum order quantity exactly in line with the customer's requirements and can be reordered at any time.

- ▲ AI-optimised layout for positioning the cable inlets
- ▼ Customised, industrially manufactured with no minimum order quantity and a specially developed automation solution
- ■ Easy reproduction for reordering individual parts at any time
- ● Production tailored precisely to your requirements without oversizing

26-RC-05

Improve what moves ...

Bicycle components

Tech up | Cost down | Proof | Sustainability | Digital

96 **Optimised for demanding everyday cargo bike use**
Rotomoulded wheels

98 **Uncompromising quality, clear lines**
Integrated handlebar-stem unit

99 **Perfect, clean design and technical perfection in series production**
Bike frame made of plastic

Quick consultation anywhere, at any time

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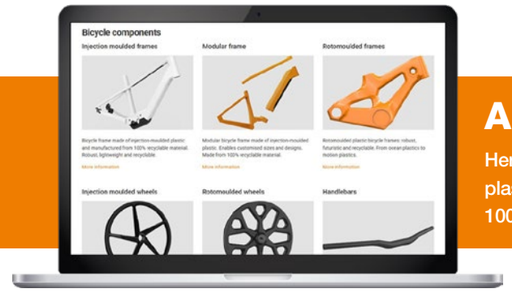
On site
Sales representative
Roadshow/Trade show
igus.eu/on-the-move



All components at a glance

Here you will find everything you need to know about igus® expertise and our plastic components for the bicycle industry. Tech up, eliminate maintenance, 100% recyclable: **igus.eu/bike-components**

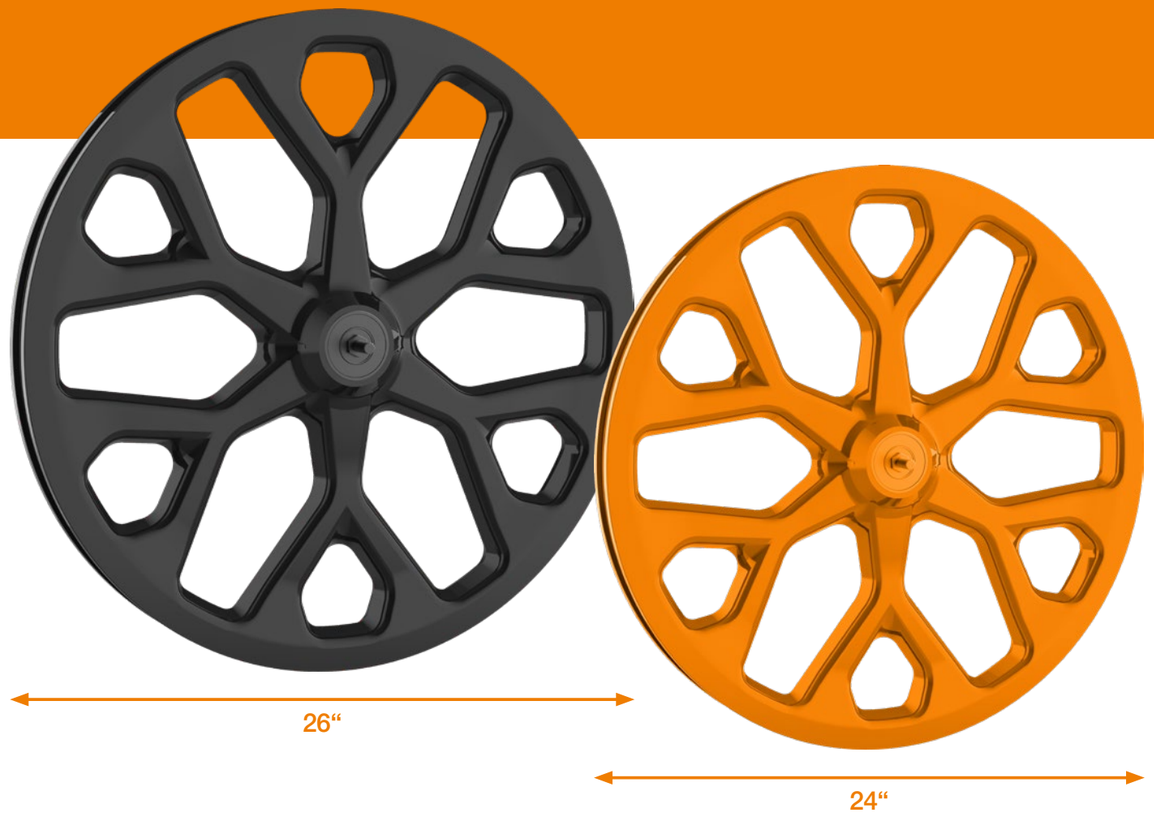
Noticeably better performance

Plain bearings and sliding elements machined from bar stock allow for low friction, high dimensional accuracy despite tight tolerances, compact integration and a long service life in gravity applications at Rimpact.

igus.eu/news-bike-components

Rotomoulded wheels

For high loads



New

Optimised for demanding everyday cargo bike use

Rotomoulded wheels

24" and 26" wheels. Strong spoke design, especially suitable for high loads. Manufactured using the energy-saving rotomoulding process.

- ▲ Optimised design for cargo bikes
- ▼ 80% lower tool costs than with injection moulding for new wheel sizes
- ■ The wheels have been successfully tested by the velotech testing institute in accordance with DIN 79010:2020-02 with a load of 110kg
- ● Short transport routes (local supply chains)

Part No.: BP-C-M-0200-2

Strong design, low manufacturing costs, easy to recycle

igus® bike components - wheels for heavy-duty use on cargo bikes

With the new bike components wheels in 24" and 26", igus® is launching a new generation of robust plastic wheels, which have been specifically developed for high loads, intensive use and daily use in urban delivery traffic. The wheels play to their strengths particularly in cargo bikes as they place high demands on durability and stability. Whether last-mile delivery in densely populated cities, transporting bulky goods or regular use in harsh weather conditions - the wheels impress with their exceptional resilience and reliability. Their origins lie in the igus:bike®, an innovative concept for maintenance-free bicycle components®, which covered thousands of kilometres on various continents during the igus:bike® world tour on related 27.5" wheels - through blistering heat, persistent rain, biting cold, tropical humidity and even in inhospitable asphalt deserts.

The experience gained there was used for the new product generation, which demonstrates how reliably the motion plastics® components from igus® function even under extreme conditions. The feedback from the tour made it possible to further optimise material use and production processes. The findings of this global test have been directly incorporated into the new cargo series: the wheels have been specifically optimised for professional cargo bike use and offer a perfect combination of durability, stability and high load capacity, which is indispensable in the tough everyday life of the transport industry.

The wheels are manufactured with the energy-efficient rotomoulding method in the new igus® production hall in Cologne. This modern manufacturing process allows for the production of robust and dimensionally stable structures that can withstand even strong impacts, lateral forces and high dynamic loads with ease. Rotational moulding also produces a homogeneous and seamless surface, the structure of which ensures exceptionally high torsional strength - a decisive advantage in cargo operations, where sudden braking manoeuvres, frequent stop-and-go cycles and poor road conditions with bumps and potholes put the use of materials to the test.

The ecological aspect also plays a central role. Once the wheels have reached the end of their useful life, they can be simply returned to the material cycle. This is a clear advantage for bike manufacturers and fleet operators who not only focus on efficiency and durability, but also take environmental considerations into account when selecting components. The circular economy, which is promoted by the simple recycling process, emphasises the commitment of igus® to sustainable manufacturing processes and resource-conserving materials. This way, the wheels help reduce the environmental impact without compromising on resilience and reliability.

Prototype of a cargo bike with igus® plastic wheels

Integrated handlebar-stem unit

Premium design

Study

Uncompromising quality, clear lines

Integrated handlebar-stem unit

Adjustable bike cockpit with hybrid material structure. Cables and electronic components can be easily integrated.
Clear, aerodynamically optimised design. Local production with repeatable manufacturing tolerances.

- ▲ Various design options, different colours
- ▼ Local production for just-in-time deliveries
- ■ The handlebar has been statically and dynamically approved by the EFBE testing institute up to 50% weight above the standard requirements in accordance with DIN ISO 15194
- ● Energy-saving injection moulding process and short transport paths (local supply chains)

Bike frame made of plastic

Improved ride comfort

Update

Perfect, clean design and technical perfection in series production

Bike frame made of plastic

Minimalist look, eye-catching design, no welding seams, special integrations - injection moulding offers many options with 100% repeatable manufacturing tolerances. Various composites are possible.

- ▲ At just 3,341g, the frame is significantly lighter than a comparable aluminium frame
- ▼ Fully automated production process (300s per frame)
- ■ Tested according to Bosch BTSI (EFBE value: 0.98); the frame fulfils the highest standards for bottom bracket, head tube and overall rigidity
- ● Energy-saving injection moulding process and short transport paths (local supply chains)

Part No.: BP-C-C-0100-1

Improve what moves ...

iglidur® plain bearings

Tech up · Cost down · Proof · Sustainability · Digital

102 **Universal for food contact, without PTFE or bisphenol**
iglidur® A181PF

104 **Durable, food-safe, bisphenol-free**
iglidur® A351

105 **Protected against dirt under high loads**
iglidur® polymer radial shaft seals

Quick consultation anywhere, at any time

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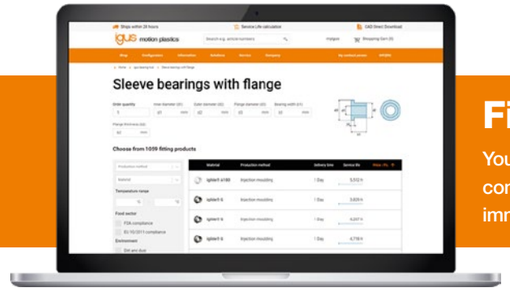
igus.eu/chat

On site
Sales representative
Roadshow/Trade show
igus.eu/on-the-move

Food safety

Our high-performance polymers for the food sector are lubrication-free and can be sterilised with hot steam and cleaned with chemical substances without any problems.



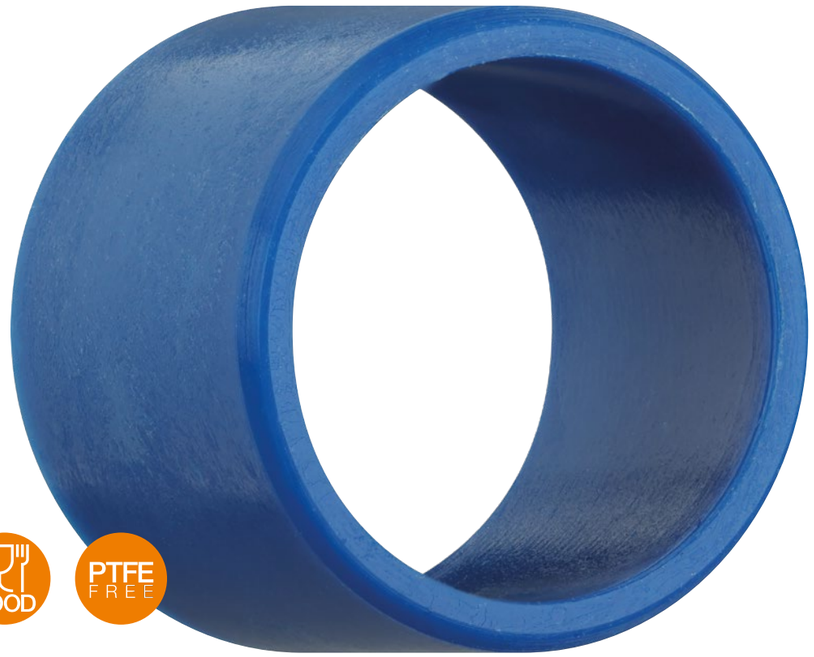
Find plain bearings easily

You will receive a real-time overview of existing and similar catalogue components for the information you have provided and - if necessary - immediate prices for your custom-made products: **igus.eu/ibh**

igus.eu/news-iglidur

iglidur® A181PF

Food contact PTFE-free



BPA BPS FREE · FOOD · PTFE FREE

New

Universal for food contact, without PTFE or bisphenol

iglidur® A181PF

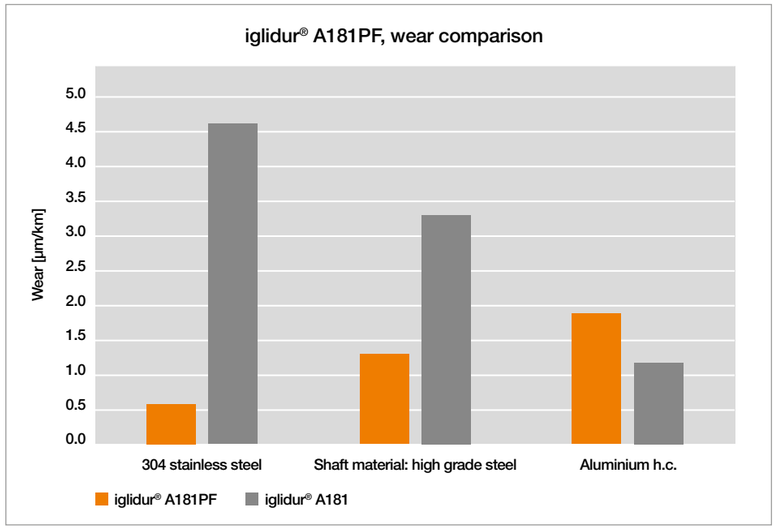
The PTFE-free alternative to the proven standard for food contact iglidur® A181 offers the same performance at almost the same price.

- ▲ 100% comparable or better running performance than iglidur® A181 - without PTFE
- ▼ Price only 10% higher than iglidur® A181
- ■ Tested in the igus® tribo laboratory (rotating wear: 0.3m/s, 2MPa, 304 stainless steel; A181PF: 0.57µm/km, A181: 4.6µm/km)
- ● Sustainable due to the absence of PTFE or perpetual chemicals
- Can be configured online with service life calculation: igus.eu/ibh

Part No.: e.g. A181PFSM-2023-20 (sleeve bearing, inner Ø 20mm, outer Ø 23mm, length 20mm)

From the Development Department, interview with Dr Magnus Orth, Head of the igus® Material Centre

New PTFE-free plain bearing material for food contact



Wear, rotating, p=2MPa, v=0.3m/s

Dr Orth, what do you think of the current status of PFAS regulation? "The European Chemicals Agency (ECHA) is still working on evaluating the PFAS restriction proposal. The final scientific opinions of the relevant committees are expected in 2026. A decision by the European Commission is therefore not due until 2027 at the earliest. In 2025, the original proposal was extended and additional areas of application were added, which shows that the regulatory discussion has broadened." [cirs-ck.com] [echa.europa.eu]

Why did igus® decide to develop a PTFE-free material specifically for food contact?
"Our customers in the food technology sector need materials that are regulatory safe in the long term. PTFE is part of the PFAS family and is therefore automatically at the centre of the current discussion. Regardless of what the final rules will look like, we want to offer our customers solutions that are not affected by possible future restrictions. Materials for food contact are subject to particularly strict purity and hygiene standards. A PTFE-free material provides a clear and reliable starting point right from the beginning."

What were the technical challenges in developing a PTFE-free plain bearing material?
"PTFE traditionally fulfils an important function when it comes to low coefficient of friction and good dry-operation properties. Developing an alternative that works without PTFE meant completely realigning the tribological specifications. For applications with food contact, there are additional requirements: resistance to cleaning and media, low migration, strong mechanical specifications. We tested a wide range of material combinations until we found a solution that reliably fulfils all these aspects. The new material is therefore based on a combination of alternative solid lubricants and an optimised polymer matrix, which together result in a robust, food-safe overall profile."

What advantages does the new material offer users in the food industry?
"First of all, it provides planning security - especially in view of the ongoing PFAS regulation. Customers can be sure that they will be able to use the material without restrictions regardless of its future design. In technical terms, it impresses with its good dry-operation properties, high wear resistance and resistance to cleaning and disinfection processes. This makes it suitable for typical applications in food production where reliability, hygiene and short maintenance intervals are important."

What does the future development of igus® look like?
"The new material is an important step, but not the last one. We are already developing other PTFE-free materials for applications with higher loads, higher temperatures or abrasive media. We want to offer our customers a wide range of modern, PFAS-free plain bearing materials that are convincing in the long term both from a technical and a regulatory point of view."

Technical data

Min. temperature: -50°C
Max. temperature: +90°C

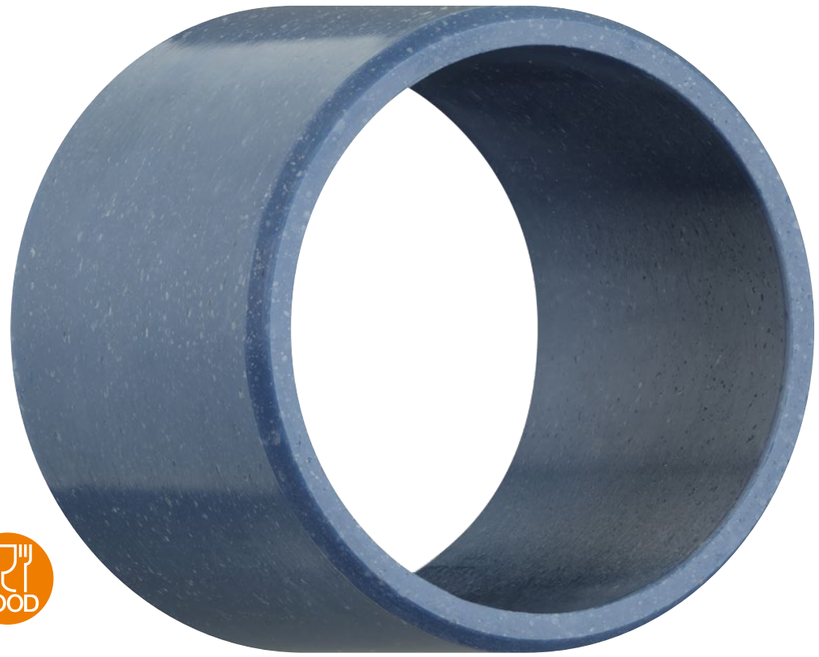
Wear, rotating:
0.57µm/km at +23°C,
1MPa and 0.3m/s against steel

Rotating coefficient of friction:
0.14µ at +23°C,
1MPa and 0.3m/s against steel

Dr Magnus Orth
Head of igus® Material Centre

iglidur® A351

For contact with food



BPA BPS FREE

FOOD

New

Durable, food-safe, bisphenol-free

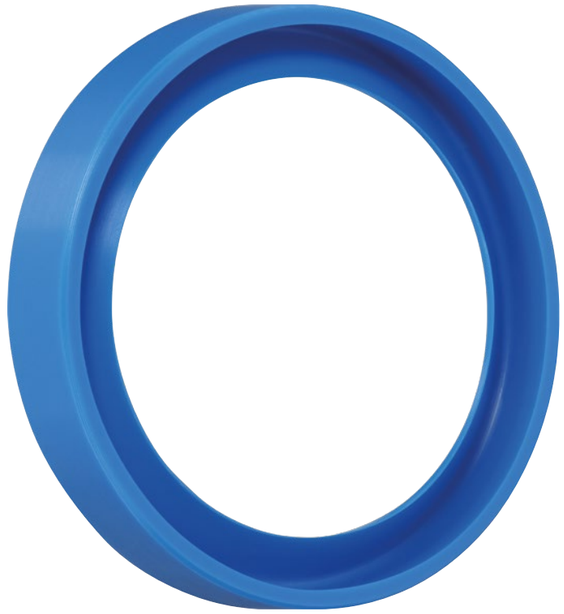
iglidur® A351

The new material iglidur® A351 is ideal for food contact at high temperatures in corrosive environments.

- ▲ Resistant to wear and media at high temperatures
- ▼ Up to 75% more cost-effective than PEEK-based alternatives with a service life that is up to three times longer
- ■ Tested in the igus® tribo laboratory (rotating wear: 0.3m/s, 2MPa, 304 stainless steel; A351: 11.52µm/km, PEEK: 41.2µm/km)
- ● Lubrication-free dry operation, free from bisphenols
- Can be configured online with service life calculation: igus.eu/ibh

Part No.: e.g. A351SM-2023-20 (sleeve bearing, inner Ø 20mm, outer Ø 23mm, length 20mm)

26-IGL-02



PTFE FREE

PFAS TESTED

Study

Protected against dirt under high loads

iglidur® polymer radial shaft seals

With the new press-fit iglidur® polymer radial shaft seals, you can protect bearing points from dirt and dust in an easy and cost-effective way. Available in 20, 30 and 40mm or as a customised product.

- ▲ Simple, one-piece design to protect against dirt ingress
- ▼ Cost-effective thanks to low-cost polymer
- ■ Tested in the dirt test rig in the igus® test laboratory
- ● No lubrication required

26-IGL-03

High load, low price

iglidur® 2-component plain bearings

Inner layer

- Tribologically optimised
- Self-lubricating
- Low friction
- Low wear

Outer layer

- Resilient mechanics
- Ensures dimensional stability

igus.eu/2c-bearings

Improve what moves ...

iglidur® rollers

Tech up · Cost down · Proof · Sustainability · Digital

108 **Minimal wear on the inside, maximum drive on the outside**
iglidur® RLVMO rollers

109 **Food-safe and chemical-resistant**
iglidur® A160 knife edge rollers

Quick consultation anywhere, at any time

In person
Lars Kleist
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On site
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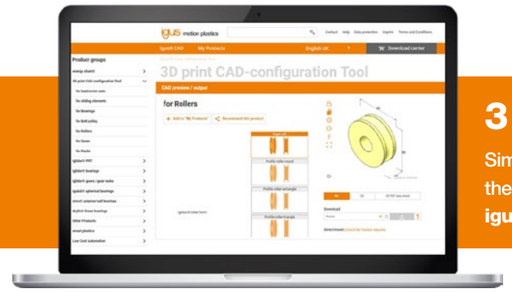
Infinitely happy

In the platform lift of Ascendor GmbH, iglidur® guide rollers make sure that the travelling unit rolls smoothly on the stainless-steel rail - thanks to good sliding properties without noise.



3 steps to your required product

Simply click on the configurator, select the roller design and fill in the parameters: the customised CAD model is immediately available for download:
igus.eu/CAD-rollers

igus.eu/news-rollers

iglidur® RLVMO rollers

Secure grip, quiet running

New

Minimal wear on the inside, maximum drive on the outside

iglidur® RLVMO rollers

Optimised rolling properties for demanding applications. Inside, a low-wear bearing material with a low coefficient of friction ensures smooth, lubrication-free running. At the same time, the rubber coating made of NBR material (Shore hardness: 70) on the outer diameter reliably prevents any slippage. Ideal for applications where a dampening, vibration-reducing surface is required. Available directly from stock in six sizes with outer diameters from 12 to 45mm.

- ▲ 2-component design for optimum rolling
- ▼ Plain bearing material with very low coefficient of friction (coefficient of friction, rotating: 0.3m/s, 0.25MPa, 304 stainless steel; P210: 0.19)
- ■ 16 times more wear-resistant than standard POM on the inner diameter (wear, rotating: 0.6m/s, 0.5MPa, 304 stainless steel; P210: 0.041µm/km, POM: 0.69µm/km)
- ● No additional lubrication necessary

Part No.: P210RLVMO-0310-06, P210RLVMO-0512-08, P210RLVMO-0616-10, P210RLVMO-1024-12, P210RLVMO-1030-12, P210RLVMO-1240-14

26-RLS-01

iglidur® A160 knife edge rollers

Safe in hygiene zones

FDA EU 10/2011 · PTFE FREE · PFAS TESTED

New

Food-safe and chemical-resistant

iglidur® A160 knife edge rollers

The new knife edge rollers made of iglidur® A160 were specifically developed for direct contact with food and comply with FDA and EU 10/2011 regulations. Thanks to its blue colour, the material is visually detectable and also offers very high chemical resistance. Ideal for smooth belt deflection in applications with frequent, aggressive cleaning cycles.

- ▲ Highly chemical-resistant and food-safe in blue colour
- ▼ Low-cost variant as an alternative to iglidur® A250 for lower speeds and loads
- ■ Four times longer service life compared to standard POM (wear, rotating: 0.6m/s, 0.5MPa, 304 stainless steel; A160: 0.16µm/km, POM: 0.69µm/km)
- ● Lubrication- and maintenance-free, so no environmental pollution

Part No.: A160RLM-1020-70

26-RLS-02

Improve what moves ...

drygear® gears and gearbox technology

Tech up | Cost down | Proof | Sustainability | Digital

112 **Robust, resilient, modular and expandable**
drygear® Apiro® heavy-duty housing

114 **Lightweight, durable, sustainable and future-proof**
drygear® planetary gearbox

115 **Easy integration of motor and gearbox**
drygear® evoloid gearbox incl. stepper motor

115 **Efficient retrofitting with the new Apiro® adapter**
drygear® Apiro® installation option, adapter 4

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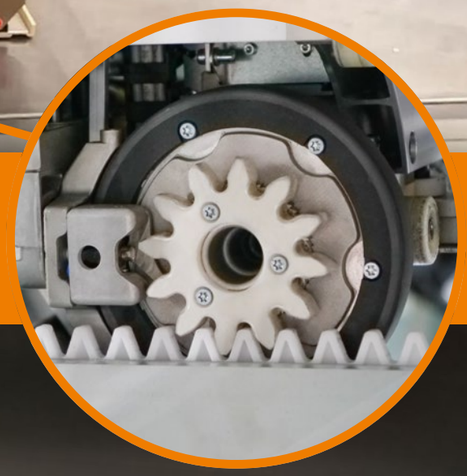
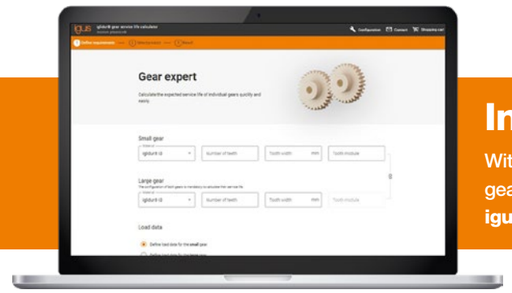
Fully automated shuttles

drygear® gears made of xirodur® B180 ensure fast horizontal and vertical movements through the rows of shelves in advastore SE's 18,000m² logistics centre.





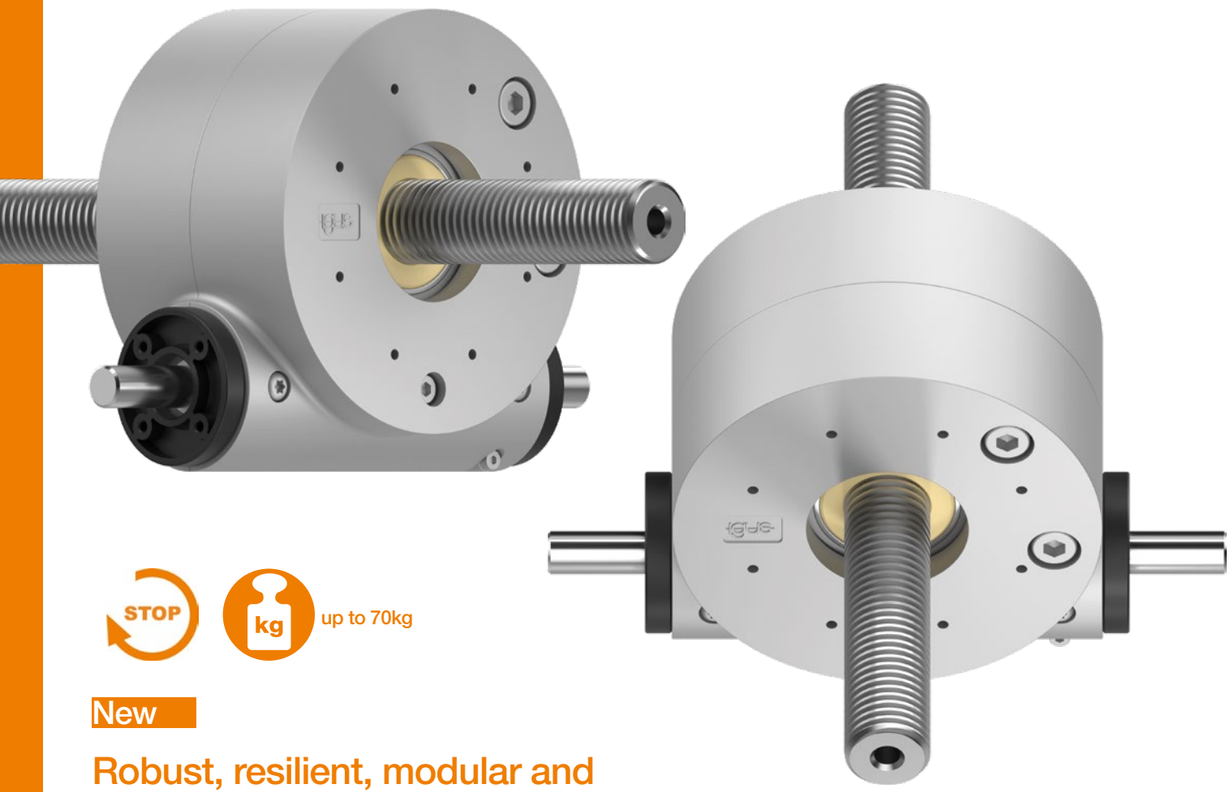
Individual configuration

With our gear configurator you can configure straight-toothed helical gears (single and double) as well as straight-toothed double gears:
igus.eu/gear-expert

igus.eu/news-drygear

drygear® Apiro® heavy-duty housing

For high loads



STOP

kg up to 70kg

New

Robust, resilient, modular and expandable

drygear® Apiro® heavy-duty housing

The tried-and-tested Apiro® worm gear screw jack now with a robust housing - economical due to cost-efficient zinc die-casting. With our automation solution, you can save up to 98% of changeover time in your format adjustment.

- ▲ Increased protection, more stability and sure-footedness for demanding environments
- ▼ Robust design saves maintenance and replacement costs in the long term thanks to long service life and lubrication-free operation
- ■ Increase in axial force absorption by 400%, tested in the drygear® test laboratory
- ● The absence of lubricants and the long service life of the housing make an important contribution to conserving resources

Part No.: RL-A10.8246.100.ES

26-DRG-01

Interview with Timo Eilers, Development Engineer drygear®

Flexible, durable, resilient

We would like to find out more about the new addition to your drygear® product range - the new drygear® Apiro® heavy-duty housing.

Timo Eilers, can you briefly explain what this is all about?
"The Apiro® system is known for its modularity and versatility. We have now added a new heavy-duty housing, which is manufactured via zinc die-casting. This addition has been specifically developed for applications that require greater resilience and protection against external influences. At the same time, the basic principle of our system remains the same: lubrication-free and maintenance-free operation."

What are the benefits of the new housing?
"The new housing offers numerous advantages. It allows for a higher load capacity and offers excellent protection against external influences such as impacts or damage thanks to its robust zinc die-casting material. The improved dimensional accuracy also ensures more precise fastening in the application."

> **For the product changeover [...] we now need less than a minute; in the past, this took up to an hour.**
> Rivella AG

The higher load capacity sounds like a big step forward. What makes the zinc die-casting housing particularly suitable for this?
"Zinc die-casting is characterised by greater stability and resistance. It can withstand even heavy mechanical loads and offers additional protection that plastic alone cannot achieve in some applications. At the same time, we use the material's specifications to increase dimensional accuracy, which makes transmission or movement in the gearbox even more precise. This robust design of the housing perfectly complements our modular system without losing the fundamental character of the system."

How do you position this new housing in terms of price, now that it is made of metal?
"Right from the development stage, we made sure to combine the high stability of zinc die-casting with an attractive price-performance ratio. The drygear® Apiro® heavy-duty housing therefore is a robust and economical solution for a wide range of applications."

For which target group is the new housing particularly suitable?
"It is aimed at users who prioritise efficiency combined with stability. Typical target groups are the automation sector, the food industry, material handling in addition to machine and system manufacturers who require robust, durable and lubrication-free drives. The special design pays off, especially in environments that work under changing external conditions."

Timo Eilers
Development Engineer drygear®

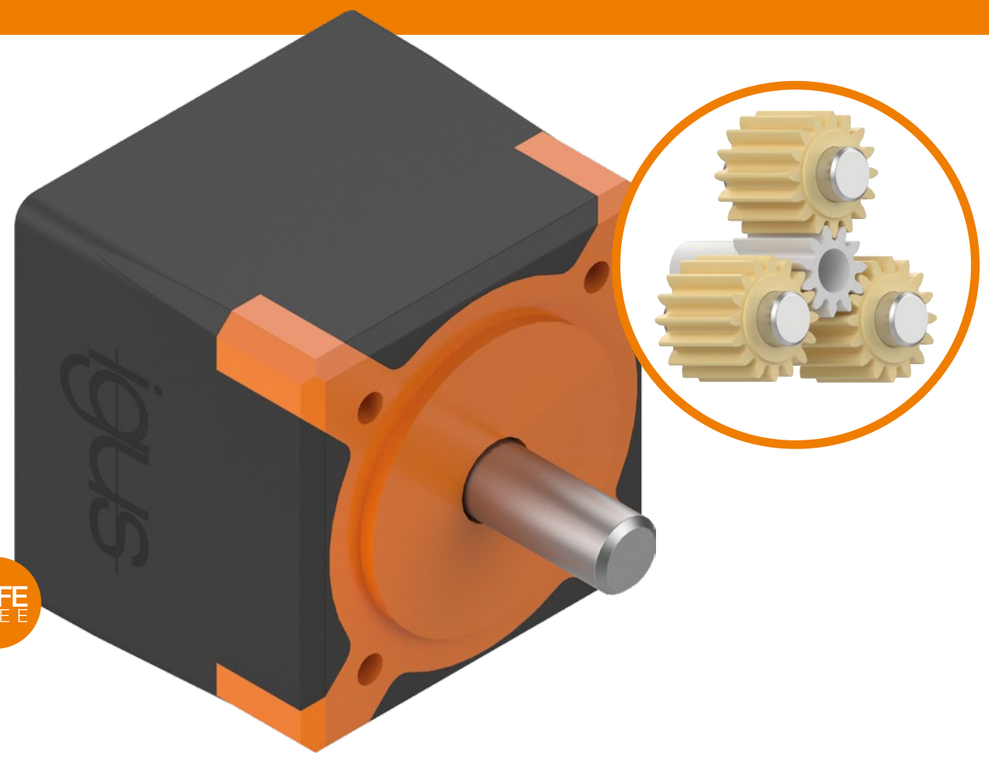
Automation made easy times 12

The modular Apiro® gearbox system is now available with 12 iDeas templates so that you can easily recreate your own structures.

igus.eu/apiro-ideas

drygear® planetary gearbox

PTFE-free and PFAS-tested



PFAS TESTED

PTFE FREE

Update

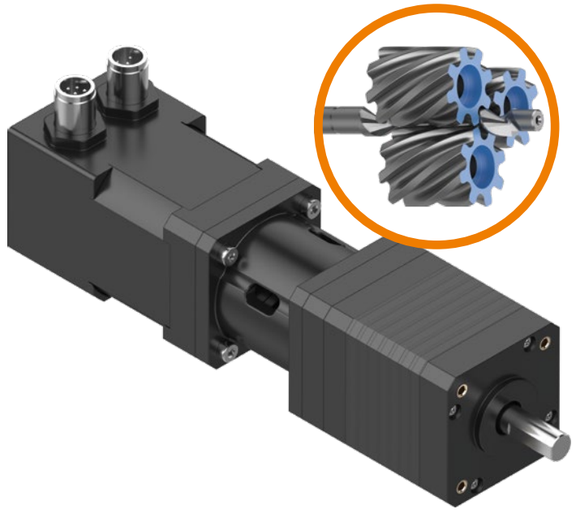
Lightweight, durable, sustainable and future-proof

drygear® planetary gearbox

The PFAS-tested planetary gearbox is PTFE-free, lubrication-free and chemical-resistant - future-proof and environmentally friendly.

- ▲ Extremely resistant to chemicals and 100% lubrication-free
- ▼ 60% more cost-effective and 75% lighter than comparable metal gearboxes
- ■ PTFE-free and tested for 96 PFAS substances considered critical for environment and health
- ● Free from persistent chemicals, promotes the protection of environment and resources

Part No.: DG-PLI-56-AD-AST-PF



Plus

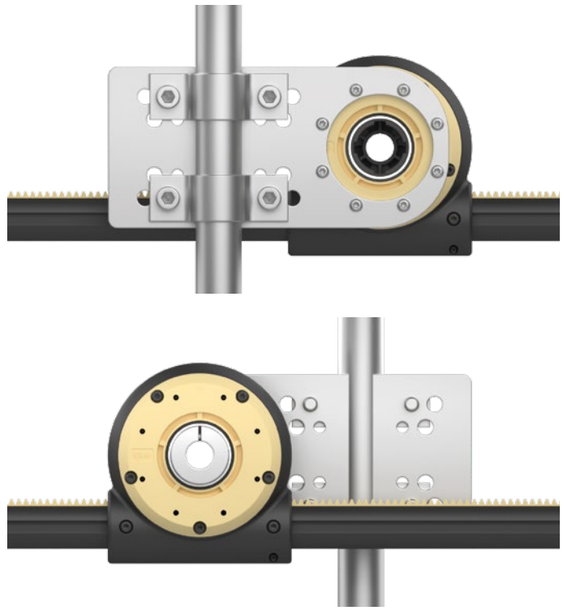
Easy integration of motor and gearbox

drygear® evoloid gearbox incl. stepper motor

The suitable combination of gearbox and motor simplifies your processes, reduces assembly work and ensures error-free and efficient integration into your machines or systems.

- ▲ Compact type with high power density enables up to 60% higher transmission ratio in one stage compared to traditional planetary gearboxes
- ▼ Direct compatibility for an error-free integration
- ■ The combination of motor and gearbox has been successfully tested in the drygear® test laboratory and can withstand unsupported loads of up to 4kg
- ● Fewer individual components and shorter assembly processes conserve resources and promote sustainable production

Part No.: DG-EVO-42-18-ST



Plus

Efficient retrofitting with the new Apiro® adapter

drygear® Apiro® installation option, adapter 4

The Apiro® adapter offers quick installation, time savings and maximum flexibility. It is ideal for retrofit solutions and existing systems.

- ▲ It allows easy integration of Apiro® gearboxes for greater efficiency
- ▼ It reduces material and assembly costs thanks to direct shaft integration
- ■ It is assembled in one to two minutes
- ● Reuse of existing components conserves resources

Part No.: RL-A54.0200

Improve what moves ...

iglidur® slewing ring bearings

Tech up | Cost down | Proof | Sustainability | Digital

118 Compact solution for tight installation spaces
iglidur® slewing ring PRT-05 compact version

120 Now also for larger applications
iglidur® slewing ring PRT-05 made of solid plastic

121 For clearance-free applications
iglidur® slewing ring PRT-04 with locking device

Quick consultation anywhere, at any time

In person

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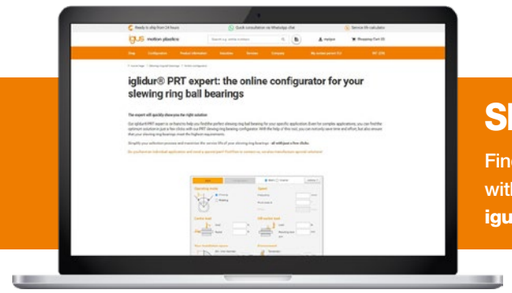
For emergencies and the stage

The Odysseus Gimbal from Hikade ensures reliable positioning and stable rotation with iglidur® PRT slewing ring bearings - from disaster control to event technology.



Slewing ring bearings in just a few minutes

Find the ideal PRT slewing ring bearing for your application in just a few steps - with a transparent service life calculation and the best price-performance ratio:
igus.eu/PRT-expert

igus.eu/news-prt

iglidur® slewing ring PRT-05 compact version

Compact lightweight

New

Compact solution for tight installation spaces

iglidur® slewing ring PRT-05 compact version

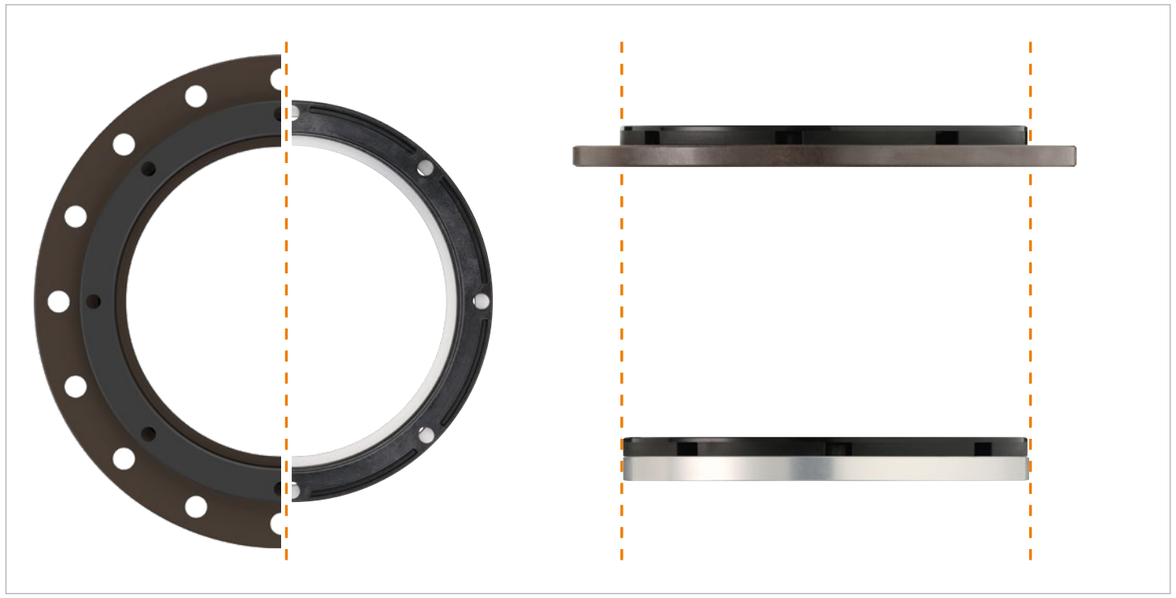
The new PRT-05-94-PC-CP-AL is space-saving, strong and lightweight - ideal for tight installation spaces. The slewing ring bearing is available in various installation sizes.

- ▲ Compact outer ring for confined installation spaces
- ▼ Cost-effective alternative to the PRT-04-CP with savings of up to €140
- ■ Lightweight and compact design with a weight of 80g and a diameter of 122mm
- ● The material is made from at least 75% regranulate; lubrication-free operation saves resources and protects the environment

Part No.: PRT-05-94-PC-CP-AL

Interview with Marc Trenkler, Product Manager PRT slewing ring bearings

Larger and more resilient: the PRT-05 solid-plastic series is being expanded



Standard version vs. compact version - two designs in direct comparison

With the iglidur® PRT-05-94-PC-CP-AL, igus® is expanding its proven low-cost series of solid-plastic slewing ring bearings with a larger installation size. We talk to Product Manager Marc Trenkler about real-world requirements and the special features of the new solution.

Why was this installation size added to the PRT-05 solid-plastic series?
We have received feedback from many applications that users require a larger installation size with a higher load capacity - without compromising on a compact design and an attractive price. This is exactly what the new PRT-05-94-PC responds to. It closes the gap between compact dimensions and the ability to accommodate higher loads with larger diameters.

What distinguishes the compact version of the PRT-05-94-PC-CP-AL from previous solutions?
A key feature is the very simple yet robust design. The slewing ring bearing consists of an injection-moulded and an aluminium ring, which facilitates assembly and reduces costs. Despite its low weight of around 80g, the bearing offers high stability and is ideal for confined installation spaces.

How does the bearing perform in terms of load capacity?
We tested the PRT-05 intensively in our own igus® test laboratory. The bearing performs particularly well in terms of axial load support (7,500N). This makes it ideal for applications where a large diameter and durable, robust slewing ring bearings are required.

What advantages does the bearing offer compared to the PRT-04-CP?
The PRT-05-94-PC-CP-AL is a low-cost alternative and, depending on the version, allows huge savings. At the same time, users benefit from an easy and cost-effective setup.

For which applications and industries is the PRT-05-94-PC-CP-AL particularly interesting?
The PRT-05 is particularly suitable for applications requiring a durable, maintenance-free and cost-effective slewing ring bearing. Typical fields of application can be found in machine and plant engineering, automation technology and also in simple display adjustments and rotating devices. Thanks to its compact design and large diameter, the bearing is particularly interesting where installation space is scarce.

Sustainability plays an important role at igus®. How does this show with the PRT-05?
The material consists of at least 75% regranulate. In combination with its lubrication-free operation, the bearing makes an important contribution to conserving resources and protecting the environment - without compromising on performance or service life.

igus.eu/prt-05-news

Marc Trenkler
Product Manager PRT slewing ring bearings

iglidur® slewing ring PRT-05 made of solid plastic

Large installation size - light weight

New

Now also for larger applications

iglidur® slewing ring PRT-05 made of solid plastic

The solid plastic slewing ring bearing PRT-05-94-PC offers durable slewing ring bearings at a low price - in a new size (d = 94mm) and with at least 75% regranulate for maximum sustainability.

- ▲ New installation size with an inner diameter of 94mm for higher loads
- ▼ Simplified design consisting of only two components
- ■ Tested in the igus® laboratory: 20,000N static axial load capacity
- ● Made from at least 75% regranulate

Part No.: PRT-05-94-PC

iglidur® slewing ring PRT-04 with locking device

Precise locking in 8 installation sizes

Plus

For clearance-free applications

iglidur® slewing ring PRT-04 with locking device

The iglidur® slewing ring PRT-04 with locking mechanism offers clearance-free, precise locking points every 90° and is compact, robust and modular.

- ▲ Compact, clearance-free and robust design
- ▼ Part of the PRT-04 series's modular system
- ■ Maximum holding force of the locking bolt: 700N
- ● Replaceable sliding elements, environmentally friendly use in dry operation, 100% lubrication-free

Part No.: PRT-04-[ ]-ART-PR
[ ] = 20, 30, 50, 60, 100, 150, 200 or 300

Improve what moves ...

iglidur® bar stock

Tech up · Cost down · Proof · Sustainability · Digital

124 For temperatures up to +150°C
iglidur® C301 tribotape®

124 Now even thinner, but just as strong: 0.1mm
iglidur® A160 tribotape®

125 Food-compatible, now without PTFE
iglidur® A181PF round bars

125 Smart verification of drawing
CNC service

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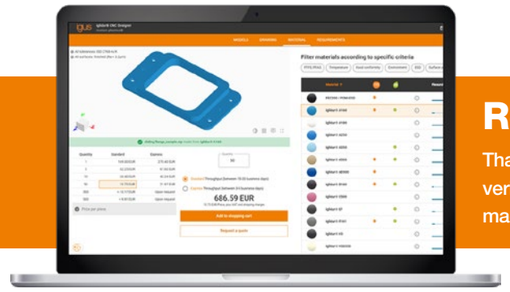
Wear-resistant industrial profiles

They ensure precise chain guidance, minimise noise thanks to less vibration and friction and extend the service life of the conveyor chains - indispensable in material handling.



Request CNC parts in three minutes

Thanks to the instant price comparison for over 50 materials, automatic drawing verification and express option, you will receive all relevant information on your machined parts in just a few minutes: **igus.eu/cnc**

igus.eu/news-barstock

New

For temperatures up to +150°C

iglidur® C301 tribotape®

We are expanding our range with the iglidur® C301 tribotape®, which stands out due to its increased resistance to abrasion and high temperatures of up to +150°C. It extends the service life of components, reduces downtimes and saves costs. At the same time, it conserves resources and supports sustainable use.

- ▲ Can be used permanently at up to +150°C
- ▼ The long service life and minimisation of downtimes significantly reduce maintenance and costs for spare parts
- ■ Tested in the igus® tribo laboratory (rotating wear: 0.3m/s, 1MPa, 304 stainless steel; C301: 0.55µm/km, POM: 4.2µm/km)
- ● Protecting the components conserves resources and effectively reduces material consumption

Part No.: C301-T-005-xxxx, C301-T-005-xxxx-G

New

Food-compliant, now without PTFE or bisphenol

iglidur® A181PF round bars

The PTFE-free alternative to the proven standard for food contact iglidur® A181. The new material is resistant to wear and withstands media and application temperatures of up to +90°C.

- ▲ All-round material for food contact with low coefficient of friction
- ▼ Reduced maintenance costs thanks to long maintenance intervals
- ■ Tested in the igus® tribo laboratory (rotating wear: 0.3m/s, 2MPa, 304 stainless steel; A181PF: 0.57µm/km, A181: 4.6µm/km)
- ● Sustainable thanks to the absence of PTFE and eternity chemicals
- Request customised machined parts from the CNC service or order directly: igus.eu/cnc

Part No.: SFRA181PF-3000

Plus

Now even thinner, but just as strong: 0.1mm

iglidur® A160 tribotape®

In addition to the standard thicknesses 1.0 and 0.5mm, the iglidur® A160 tribotape® is now also available, which is 0.1mm thick and can therefore be used in small installation spaces. The material iglidur® A160 is characterised by outstanding sliding properties, food suitability (EU/FDA-compliant) and high abrasion resistance.

- ▲ Allows for use even in the smallest installation spaces (only 0.1mm thick)
- ▼ iglidur® A160 show a service life that is up to 16 times longer than that of other liners (linear wear test: 9,600mm/s, 10N load, against stainless steel)
- ■ FDA- and EU10/2011-compliant
- ● No lubrication, no PTFE

Part No.: A160-T-001-0500

Update

Smart verification of drawing

CNC service

Our CNC service simplifies the procurement of your machined plastic parts and ensures a smooth process. With the newly integrated drawing verification, you can check tolerance, surface and thread specifications immediately online and make sure that your designs are suitable for plastics. Benefit from fast instant cost calculation, automated feasibility and drawing checks, a wide range of materials as well as components that are ready to ship in just three days.

- ▲ The automated verification of technical drawingsgives you immediate feedback with clear suggestions for improvement
- ▼ This reduces coordination effort and results in a faster response to your enquiry or order
- ■ Prices, delivery times and feasibility information in just a few seconds, around the clock
- ● Ensuring feasibility at an early stage reduces the risk of defective parts and thus material waste
- Simply upload the drawing (PDF or image file) and the tool will check all details according to our manufacturing standards: igus.eu/cnc

Improve what moves ...

iglidur® 3D printing

Tech up · Cost down · Proof · Sustainability · Digital

128 **High-performance tribology meets food safety**
iglidur® i6000 resin for DLP 3D printing

130 **Completely without PTFE**
iglidur® i190PF for FDM 3D printing

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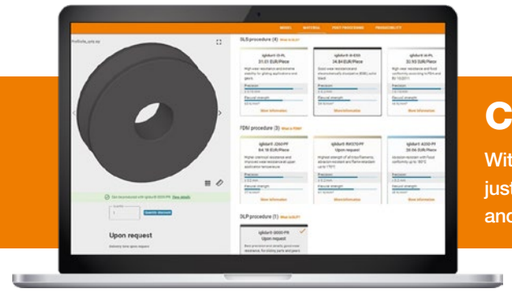
Maximum flexibility

The 3D-printed gripper fingers in the automated pick-and-place system for perfume bottles are 90% more cost-effective and six times more wear-resistant than their POM counterparts.



Customised components in 1-3 days

With the igus® 3D printing service, you can find your customised component in just a few steps: upload CAD model, select manufacturing process and material, calculate service life - done: **igus.eu/idd**

igus.eu/news-3d-printing

iglidur® i6000 resin for DLP 3D printing

For direct contact with food

EU 10/2011

PTFE FREE

PFAS TESTED

New

High-performance tribology meets food safety

iglidur® i6000 resin for DLP 3D printing

The new triboresin iglidur® i6000 has been specifically developed for contact with food and is available in white or blue with high surface quality (roughness Ra = 0.8µm; Rz = 4.2µm). It is ideal for a wide range of applications in the food, packaging and pharmaceutical industries as well as laboratory automation.

- ▲ Food-safe according to EU 10/2011, in white and blue
- ▼ No minimum order quantity, no tool set up costs
- ■ Very high surface quality: DLP process leads to components that are up to 10 times less rough (according to ISO 1997) than those produced with other processes
- ● No additional lubrication necessary
- Now also available in the online 3D printing service. Upload CAD files and order directly online: igus.eu/idd

Part No.: I6000-PR-1000, I6000-BLUE-PR-1000

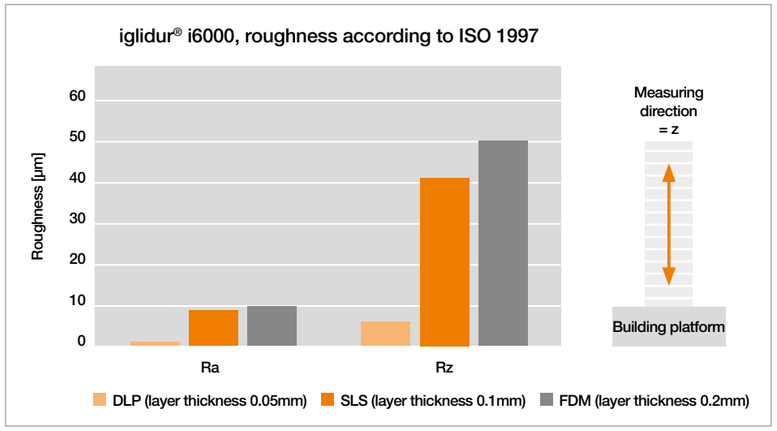
From the development department: interview with Daniel Cossu, Development Engineer 3D printing

New 3D printing resin for demanding tribological applications - now also as food-compliant version

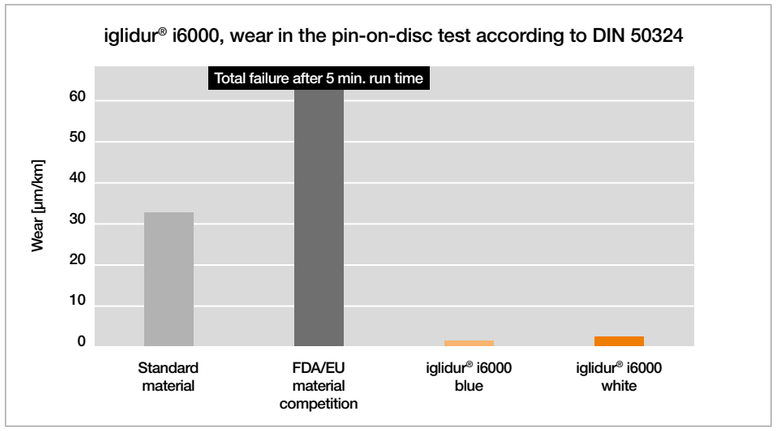
What exactly characterises the new 3D printing resin and what makes it particularly interesting in real life?
"iglidur® i6000 is the first product to combine the typical tribological values of igus® - low coefficient of friction, high wear resistance and good endurance - with an approval for direct food contact. This makes it possible to print tribologically resilient functional components that also fulfil all legal requirements in the food environment. Surface quality was also a key focus during development. The new resin achieves a smooth finish straight from the printer - without the need for time-consuming post-processing. This means that fewer particles adhere to the surface of the parts, which are easier to clean. At the same time, the high precision allows for clean contours, which results in clear advantages, especially for guides, sliders or grippers."

For which 3D printers can this resin be used?
"As with our other materials, we focus on simple integration. The resin can be processed with standard DLP, LCD and SLA printers, i.e. with systems that are already available in many development departments and workshops. No special hardware is required."

Why is the combination of tribological performance and food conformity so important right now?
"In a wide range of industries - whether packaging technology, food production or laboratory automation - the demand for functional plastic parts that can come into direct contact with food is increasing. At the same time, these parts have to perform. In the past, it was necessary to make compromises. The iglidur® i6000 resin now combines both requirements for the first time."



Standard layer thicknesses of the processes
Measuring direction = z for best comparability



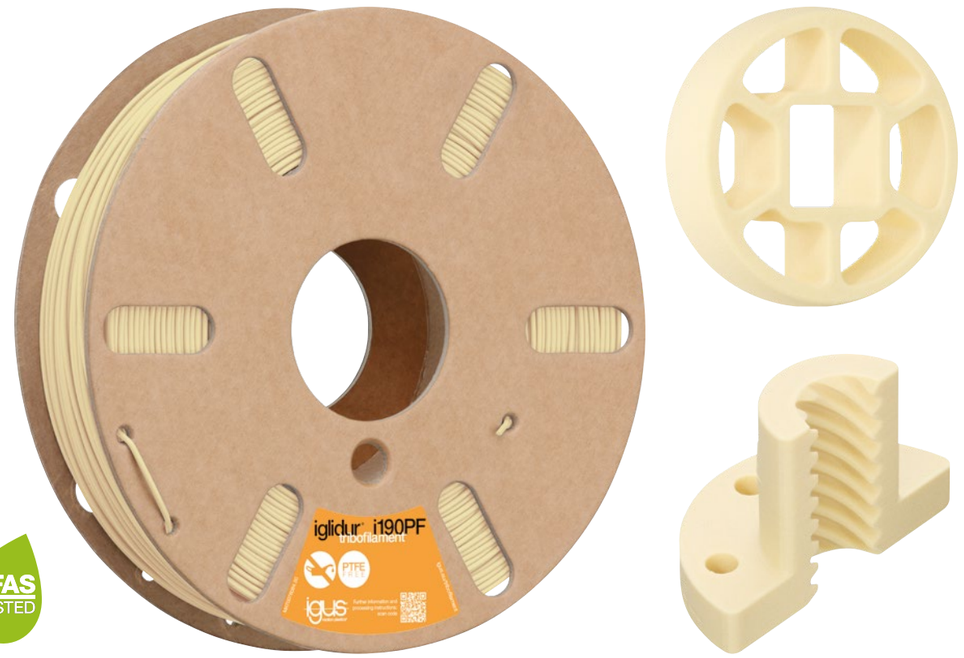
Test parameters: 1.4MPa; 0.5m/s; total run time 17hrs, mating partner 304 stainless steel

Which user groups benefit the most?
"Especially companies that develop components for conveying, gripping or positioning systems in the food sector. Typical parts are plain bearings, small guide elements, gripper fingers, rollers or test aids. Wherever precision, high surface quality and regulatory safety need to be combined, the resin offers a new, very economical solution."

Daniel Cossu
Development Engineer
3D printing, additive manufacturing

iglidur® i190PF for FDM 3D printing

Without PTFE



PTFE FREE

PFAS TESTED

New

Completely without PTFE

iglidur® i190PF for FDM 3D printing

The new tribofilament® iglidur® i190PF impresses with its excellent friction and wear properties - without PTFE. It opens up new possibilities for heavy-duty applications with simultaneous environmental awareness.

- ▲ PTFE-free and PFAS-tested - sustainable and environmentally conscious. Further information: igus.eu/ptfe-free
- ▼ No minimum order quantity, no tool set up costs
- ■ Long service life due to integrated solid lubricants: up to 78 times more wear-resistant than PETG in the pin-on-disk test according to DIN 50324
- ● No additional lubrication necessary
- Now also available in the online 3D printing service. Upload CAD files and order directly online: igus.eu/idd

Part No.: I190PF-PF-0175-0750

26-3DP-02

▲ Tech up ▼ Cost down ■ Proof ● Sustainability Digital

igus

From the development department: interview with Daniel Cossu, Development Engineer 3D printing

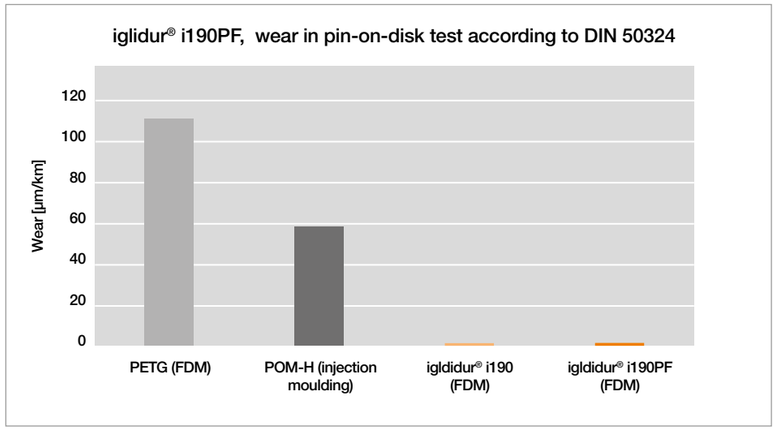
New tribological 3D printing filament - free from PTFE

What distinguishes the new igus® filament from the materials already available for FDM printing?
"For many years, our filaments have been known for their excellent wear properties. They allow for durable, resilient components for moving applications. What makes this new filament special is that we are now achieving this level of performance without any PTFE additives for the first time. Although PTFE is a proven material for lubricated applications, it is increasingly under regulatory and environmental scrutiny. With the new filament, we offer a sustainable alternative - without compromising on performance."

Are there any processing restrictions?
"No. The filament is suitable for commercially available FDM and FFF 3D printers and can be processed just as easily as our other tribological filaments if our processing instructions are followed. It requires no special hardware and the print parameters can be downloaded for free."

What specifications particularly characterise the filament in practical use?
"In addition to pure tribology, we paid attention to a balanced interplay of precision, dimensional accuracy and good surface quality. The filament produces components that are characterised by very low coefficient of friction and high wear resistance - ideal for guide systems, sockets, rollers or other functional components in continuous operation. The surface quality we achieve also helps ensure that movements are quieter, smoother and more efficient.

The material is therefore of particular interest to companies that manufacture resilient functional components in smaller quantities or want to have spare parts available quickly. This includes mechanical engineering, automation technology, special system manufacturers as well as laboratory and testing technology. Wherever moving components are used, the filament is a high-performance, sustainable and economical alternative."



Test parameters: 1.4MPa; 0.5m/s; total run time 17hrs, mating partner 304 stainless steel

Daniel Cossu
Development Engineer
3D printing, additive manufacturing

iglidur® tribofilament® with integrated solid lubricants

Filament for demanding applications

Our technical filaments have been developed for the highest demands in industrial 3D printing. Some of our versions are food-safe for hygienically sensitive areas, others withstand heat and are used in thermally demanding environments. We also offer extremely resilient, carbon fibre-reinforced versions for maximum stiffness:

- igus® filaments print components that work in dry operation, are clean and maintenance-free without requiring lubrication
- They are ideal for prototypes, individual parts and series-produced components that need to function reliably in moving applications

igus.eu/tribofilament

Improve what moves ...

igubal® spherical bearings

Tech up | Cost down | Proof | Sustainability | Digital

134 Expansion of our pillow block bearing series for solar trackers
ESQM-2.0 and ESQM-2.0-LEAN pillow block bearings

136 Optimised design for our classic models EFOM and EFSM
EFOM-2.0-30 and EFSM-2.0-30 flange mounted bearings

138 Heavy-duty spherical plain bearing
Heavy-duty study

140 Flanged bearing set: fewer positions, more advantages
Flanged bearing set

141 High speed now also for 25mm shafts
Spherical insert bearings made from iglidur® H3

Quick consultation anywhere, at any time

In person

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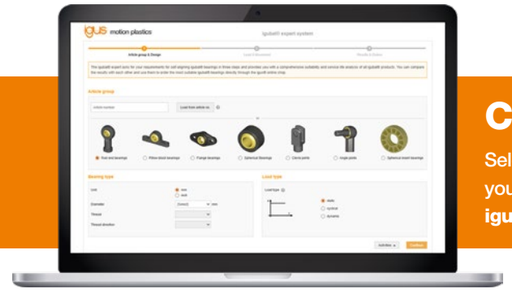
igubal® in robotics

Rod ends ensure lubrication-free and low-friction movements in the AIDIN hand from AIDIN ROBOTICS.



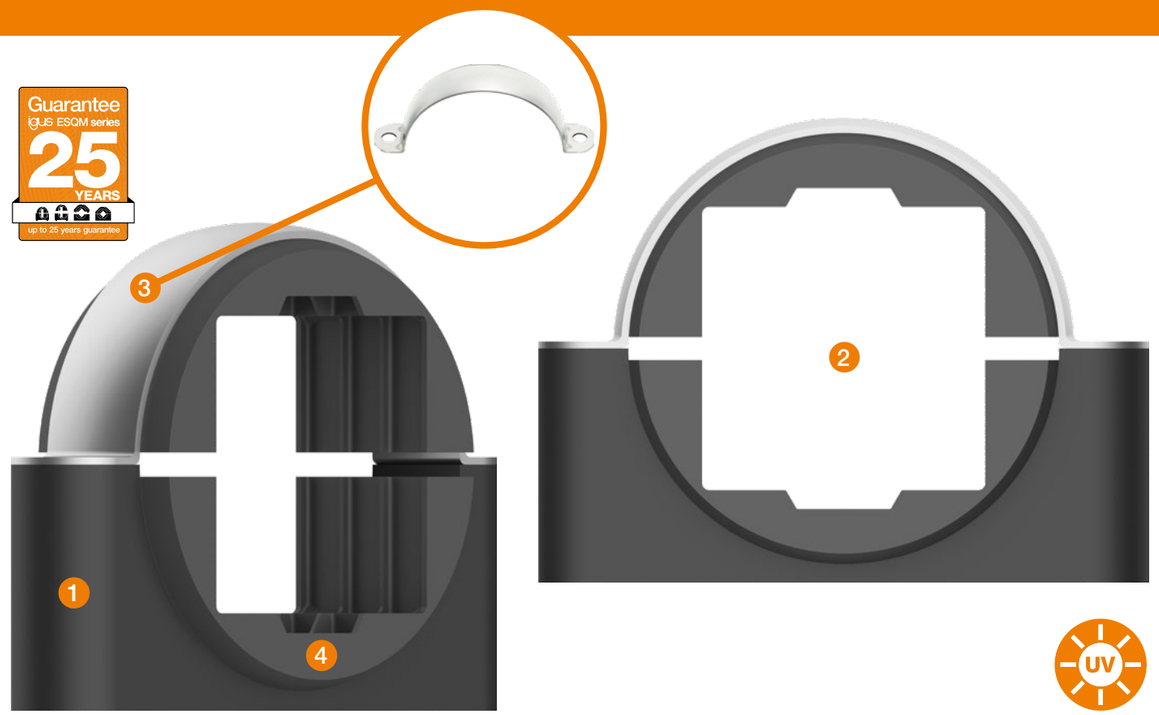
Calculate the service life in three steps

Select product type, enter application parameters, find out service life and make your online order straight away. With manufacturer's guarantee of up to 4 years: **igus.eu/igubalexpert**

igus.eu/news-igubal

ESQM-2.0 and ESQM-2.0-LEAN pillow block bearings

Even more fun with the sun



Plus

Expansion of our pillow block bearing series for solar trackers

ESQM-2.0 and ESQM-2.0-LEAN pillow block bearings

Now also available for 100mm and 150mm profiles; additional LEAN versions for different system concepts, increasing system loads and cost-orientated projects.

- ▲ Angular compensation due to spherical shape (up to 14°)
- ▼ Cost-effective integration thanks to modular system
- ■ Static radial load: at 0° angular compensation = 40kN, at 14° angular compensation = 30kN (ESQM-2.0-120)
- ● Weathering and temperature resistance reduces the number of replacement intervals

Part No.: ESQM-2.0-100, ESQM-2.0-120, ESQM-2.0-150

From development

Precise bearing solutions for modern solar systems

The igubal® ESQM-2.0 is the second generation of our pillow block bearing series for the solar industry. It was specifically developed for tracking solar modules and is designed to meet the requirements of large-area tracker systems. The update is characterised by 1 a new material with three times higher UV resistance 2 the conversion of the profile holder from V to U alignment and 3 a galvanised sheet metal extender crossbar that reduces the installation height of the upper part by up to 36mm compared to the previous model. 4 Recesses in the spherical cap allow cables to be guided along the profile, which means that cabling can be realised in an organised manner within the structure.

Leading tracker manufacturers around the world have relied on our ESQM portfolio for many years. A significant difference to comparable models on the market lies in the quality of our engineering plastics, which we are continuously improving - such as iglidur® P UV, which has been specifically designed for permanent outdoor use. It offers high UV stability, low coefficient of friction and reduced abrasion. This results in fewer particles in the system; the bearing points run more smoothly and show no stick-slip effect. All of this has a direct effect on wear behaviour and service life.

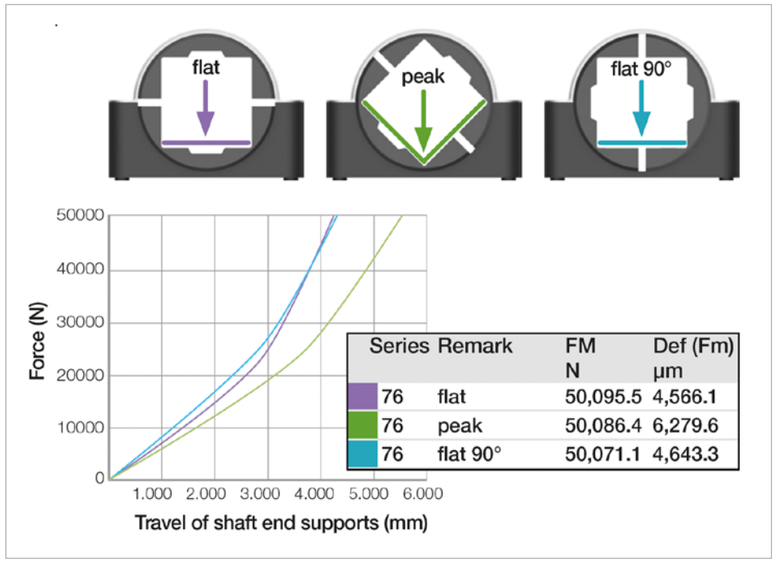
The ESQM 2.0 was subjected to an intensive wear test on the outdoor test rig. The test comprised a total of 18,900 cycles with a constant test load of 7.5kN.

The ESQM series is designed for a guaranteed service life of 25 years. For operators, this means predictable freedom from maintenance and long-term operational reliability - even when the parts are exposed to high levels of UV radiation, temperature fluctuations and dust ingress. We consider the continuous cooperation with OEMs and system integrators when we improve our series. With the new sizes for 100mm and 150mm square profiles, we are responding to the demand for different system concepts and increasing system loads.

In addition to the ESQM 2.0 generation, a cost-optimised alternative is available in the form of the LEAN variant. The design basis remains identical, but the material formulation has been adapted to applications with special service life requirements.

The targeted material customisation results in an adapted price level with a technically resilient design for typical tracker applications. It is ideal for markets or projects that prioritise cost efficiency.
The ESQM 2.0 LEAN variant is an economical solution that does not change the series' fundamental design advantages.

Julian Lewerenz
Development Engineer igubal®



ESQM-2.0-LEAN

Are you interested in our cost-optimised LEAN version? Contact us with your project and we will discuss your service life requirements together.

Contact us now with no obligation.

EFOM-2.0-30 and EFSM-2.0-30 flange mounted bearings

Surface-mounted assembly area

New

Optimised design for our classic models EFOM and EFSM

EFOM-2.0-30 and EFSM-2.0-30 flange mounted bearings

With version 2.0, we are adding a revised housing design for flat assembly and less dirt ingress to our EFOM and EFSM series.

- ▲ Surface-mounted assembly area at a more favourable price
- ▼ Lighter than the predecessor models, weight saving: 18% (EFOM-2.0-30) / 16% (EFSM-2.0-30)
- ■ Static load capacity up to 6,000N (EFOM-2.0-30) / 6,800N (EFSM-2.0-30)
- ● Lubrication and maintenance-free

Part No.: EFOM-2.0-30, EFSM-2.0-30

From development

Equal load capacity with reduced mass

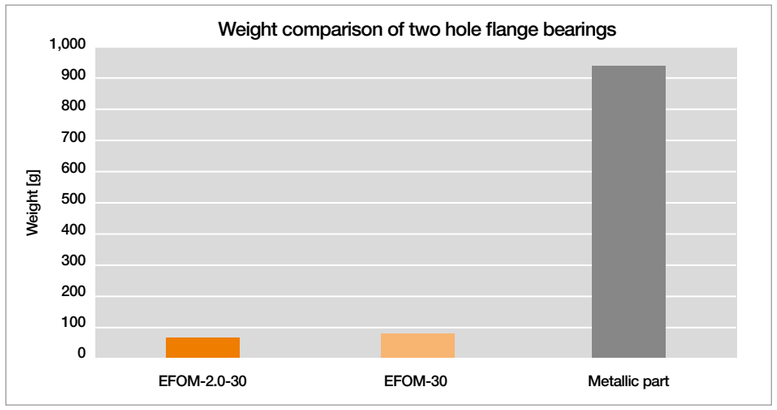
With our EFOM and EFSM product range, we have been offering a maintenance-free alternative to metal flanged bearings for many years. The bearings are corrosion-resistant, insensitive to dirt and dust and designed for static loads of up to 6,800N. They also permit smooth, lubrication-free operation in addition to easy assembly and handling. The previous versions already offered significant weight advantages compared to metallic solutions. With the 2.0 generation, we were able to reduce the weight once more by up to 18%. The lower mass also has positive effects in moving applications, such as reduced drive power and lower inertia, which results in energy savings and cost reductions.

Despite the weight optimisation, the full static load capacity of 6,000N or 6,800N remained. The basis for this is a nature-inspired tree root geometry, which allows for a more homogeneous stress distribution and reduces stress peaks. With the new version, we are responding specifically to feedback from the field. Customers wanted a surface-mounted assembly that permitted a level installation of the bearing.
This requirement was implemented.
The full-surface contact creates a tighter match between the bearing and the assembly area, which means that less dirt and dust can ingress into the gap.

This makes cleaning easier and reduces deposits around the bearing, especially in dirty environments. In the first step, we start with two- and four-hole versions for a shaft diameter of 30mm. The new version is available under part numbers EFOM-2.0-30 and EFSM-2.0-30. The flanged bearings are still available with spherical balls made of iglidur® J, J4 and W300.

Jakob Fußbroich
Development Engineer igubal®

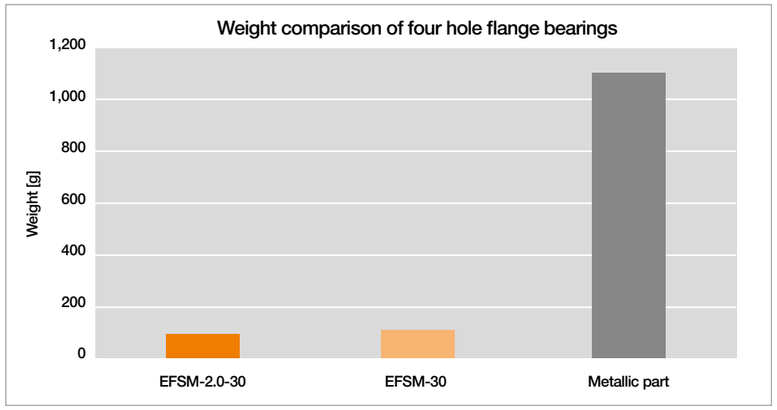
Lighter than metallic solutions:



EFOM-2.0-30 is 18% lighter than EFOM-30 and 93% lighter than a metallic version.

EFOM-2.0-30

EFOM-30



EFSM-2.0-30 is 16% lighter than EFSM-30 and 92% lighter than a metallic version.

EFSM-2.0-30

EFSM-30

Heavy-duty study

Spherical bearing for high loads

Individual sizes can be implemented

Study

Heavy-duty spherical plain bearing

Heavy-duty study

With igubal® Heavy Duty, we are developing polymer solutions with very high static loads.

- ▲ Quiet operation and dirt resistance even under high loads
- ▼ By eliminating lubricants, we can guarantee a long-term cost advantage of up to 60%
- ■ Successful application with a load capacity of more than 70kN
- ● Completely lubrication and maintenance-free

26-IGU-03

From development

Special spherical bearing for extreme conditions

High loads and plastics are often considered a contradiction. However, the overall tribological system consisting of material, geometry and contact surface is decisive. The aim of our heavy-duty development is to distribute load peaks in a controlled manner, keep friction at a consistent level and completely dispense with lubricants. Lubrication-free operation prevents adhesion of dirt particles, reduces maintenance work and minimises the risk of failure.
At the same time, it helps eliminate costs for lubricants and their tracking. We have already proven that this concept works in specific heavy-duty applications with our plain and spherical bearings. In projects that we have already realised, customers replaced lubricated bearing points and reduced maintenance costs in a sustainable way. The need for robust, dirt-resistant and economical bearing points is growing, particularly in areas where conventional spherical bearings depend on regular lubrication or stop working in case of contamination.

As heavy-duty applications are often very different from one another and have individual requirements, we develop these solutions on a project basis together with users. We focus on special projects with high static loads, impact loads or demanding environmental conditions. We want to identify resilient concepts together and develop them further to reliably overcome extreme operating conditions.

igubal® EGLM-80 spherical bearing
Tried and tested in mobile cranes, lifting platforms and special machines

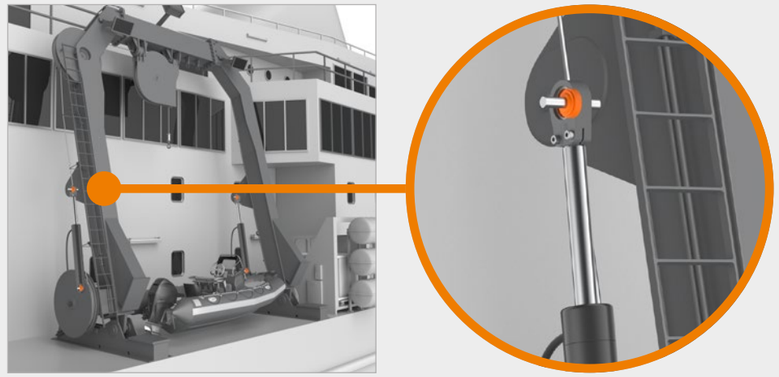
Our heavy-duty spherical bearings in the standard range

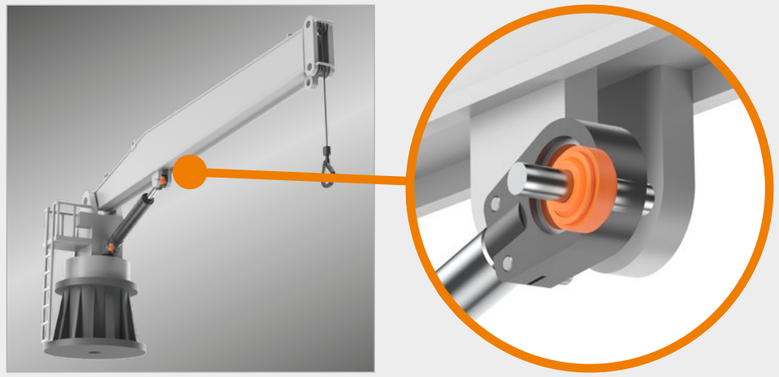
The EGLM for 80mm shafts is designed for radial static loads of up to 50kN and withstands rotating, oscillating and axial movements. It has already proven its worth in mobile cranes, lifting platforms and special machinery.

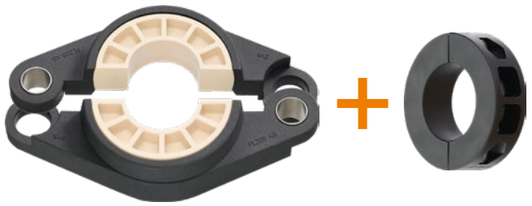
Become part of the heavy-duty study

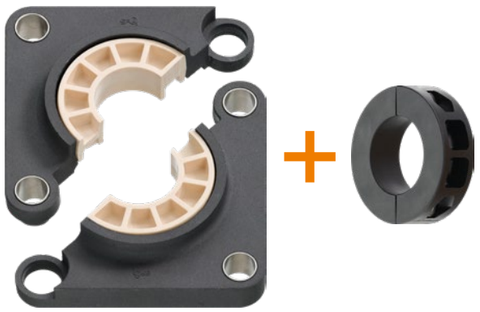
Do you have an application with high loads? Let us include your project in our study - we will test the lubrication-free design with igubal® spherical bearings and develop and optimise your solutions together.

Have your application checked now!









Plus

Flanged bearing kit: fewer positions, more benefits

Flange mounted bearing kit

Our split flanged bearings are now available as a set with fixing collar, so that you can reduce the amount of order items and costs compared to individual purchases.

- ▲ Flanged bearing and fixing collar in one part number
- ▼ Price advantage in a kit
- ■ Predefined scope of delivery - less administrative effort, lower error rate
- ● Bundling in one packaging unit

Part No.: F205-KS-J3EM-25-17-SP-TP-SRM,
F(L)206-KS-J3EM-30-19-SP-TP-SRM,
F(L) 208-30-KS-J3-SP-TP-SRM,
F(L)208-40-KS-J3-SP-TP-SRM,
F(L)208-KS-J3EM-40-21-SP-TP-SRM

PTFE FREE · PFAS TESTED · iF DESIGN AWARD 2026

26-IGU-04

Plus

High-speed now also for 25mm shafts

Injection-moulded spherical insert bearing made of iglidur® H3

With the new 25mm version, iglidur® H3 spherical insert bearings tap into further standard applications in conveyor technology and mechanical engineering - with unchanged performance.

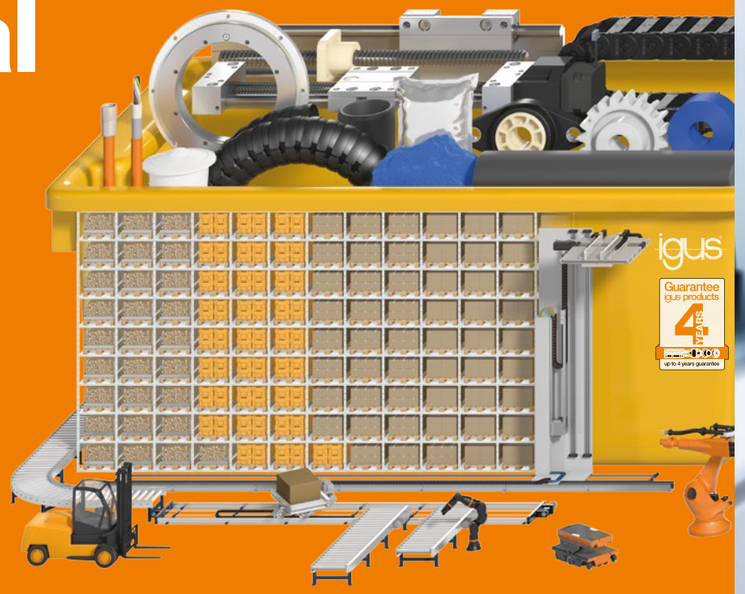
- ▲ Speeds of up to 200rpm, also for 25mm shafts
- ▼ Reduced downtimes thanks to durable, low-wear design and maintenance-free operation
- ■ Customer references with run times of over several years and load tests in the laboratory
- ● Reduced replacement intervals due to longer service life than conventional bearings

Part No.: H3EM-25-17-SP

26-IGU-05

motion plastics® in material handling

In conveyor belts, sorting systems, forklifts or for pick & place tasks: with the wide range of different products in the igubal® series, misalignments can be reliably compensated and defined turning, tilting and swivelling movements realised without lubrication.



More about motion plastics® for reliable energy, data and material flow.

Ready for a cleanroom?

Cleanroom-compatible spherical bearings require suitable materials. Successful applications have already been realised with igumid® G in combination with iglidur® W300, J and X - lubrication-free and low in particles.

Are you planning a cleanroom application with spherical bearings? Contact us!

Improve what moves ...

xiros® ball bearings

Tech up | Cost down | Proof | Sustainability | Digital

144 **Optimised for higher loads thanks to hybrid material**
xiros® hybrid ball bearing with stainless steel inner race and polymer outer race

145 **Lightweight and high load capacity**
xiros® ball transfer units with hollow ball and iglidur® J350 housing, sliding

145 **Dissipative and efficient**
xiros® conveyor rollers with dissipative plastic ball bearings

Quick consultation anywhere, at any time

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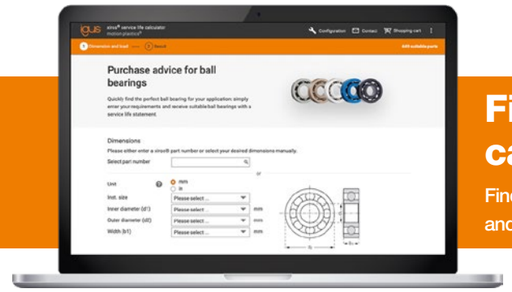
On site
Sales representative
Roadshow/Trade show
igus.eu/on-the-move

No compromises

xiros® hollow balls reduce the weight of the overall system and thus achieve massive fuel savings.



Find ball bearings online and calculate service life

Find the perfect solution for your application quickly: simply enter your requirements and get the suitable ball bearing with a service life statement: **igus.eu/XLR**

igus.eu/news-xiros

xiros® hybrid ball bearing with stainless steel inner race and polymer outer race

The best of two worlds

PFAS TESTED · PTFE FREE · kg up to 20kg

New

Optimised for higher loads thanks to hybrid material

xiros® hybrid ball bearing with stainless steel inner race and polymer outer race

The new hybrid ball bearings combine a xirodur® outer race with a stainless-steel inner race and offer a higher load capacity with lubrication-free and maintenance-free operation. Ideal for demanding applications.

- ▲ Higher load capacity due to metallic inner race
- ▼ Maintenance-free with increased service life
- ■ Min. 50 times longer service life at 200N and 500rpm compared to plastic ball bearings with plastic inner ring
- ● Lubrication-free

Part No.: BB-608-420-B180-35-ES, BB-608SO-420-B180-35-ES,
BB-6000-420-B180-35-ES, BB-6000SO-420-B180-35-ES,
BB-6001-420-B180-35-ES, BB-6001SO-420-B180-35-ES

26-XRS-01

PFAS TESTED · FAR 25.853 · UL94 V0

New

Lightweight and high load capacity

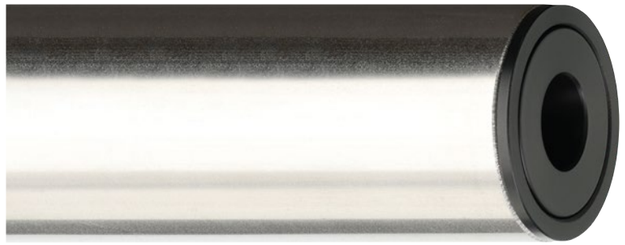
xiros® ball transfer units with hollow ball and iglidur® J350 housing, sliding

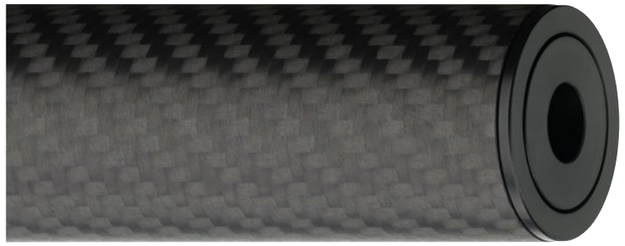
Ball transfer units with a hollow ball reduce energy costs thanks to their significantly lower weight, without compromising on load capacity. The housing material iglidur® J350 fulfils the requirements of the FAA. Perfect for modern conveyor technology in the aerospace industry.

- ▲ Up to 49% weight reduction with hollow balls
- ▼ Reduce energy costs through lightweight design
- ■ In installation size 525, the ball transfer unit with hollow ball is 43g lighter than the version with the solid ball (87g)
- ● Save fuel and improve your CO_2 footprint

Part No.: BB-522G-J350-ES-H,
BB-525G-J350-ES-H,
BB-530G-J350-ES-H

26-XRS-02





New

Dissipative and efficient

xiros® conveyor rollers with dissipative plastic ball bearings

Conveyor rollers with xirodur® F182 plastic bearings prevent uncontrolled electrical discharges and protect against technical defects and follow-up costs.

- ▲ Avoid uncontrolled electrical discharges, reduce follow-up costs
- ▼ Technical defects caused by uncontrolled electrical discharges are avoided
- ■ Conductivity tested in the igus® laboratory: surface resistance: $2 \times 10^4 \Omega$ and $8 \times 10^3 \Omega$
- ● Conserves resources by avoiding defects

Part No.: BBT-CF30-6000-F182-10-ES,
BBT-CF30-6001-F182-10-ES,
BBT-CF50-6004-F182-10-ES,
BBT-ES30-6000-F182-10-ES,
BBT-ES30-6001-F182-10-ES,
BBT-ES38-6000-F182-10-ES,
BBT-ES38-6001-F182-10-ES

26-XRS-03

Improve what moves ...

drylin® linear technology

Tech up | Cost down | Proof | Sustainability | Digital

148 Smooth-running roller guide for minimal operating effort
drylin® C CamRoller series

150 Corrosion-resistant, easy to install, fully integrated
drylin® W linear structural profile

152 Flexible monitor and control system adjustments for modern driver's cabs
drylin® W linear guide with RAM hole pattern

156 First linear guide in the world with EHEDG certification
drylin® linear guide in hygienic design

160 12mm wide, 5mm high, lightweight and easy to install
drylin® N miniature guide

Quick consultation anywhere, at any time

In person

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On site
Sales representative
Roadshow/Trade show
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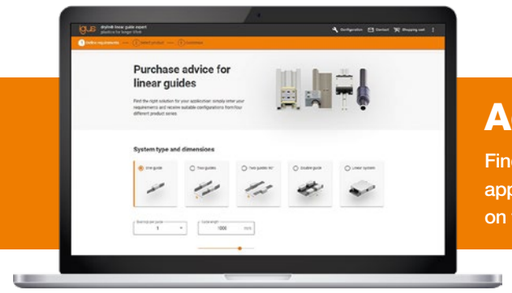
Active axis shift

Robust linear guide for the agricultural and municipal technology at novaziun AG.



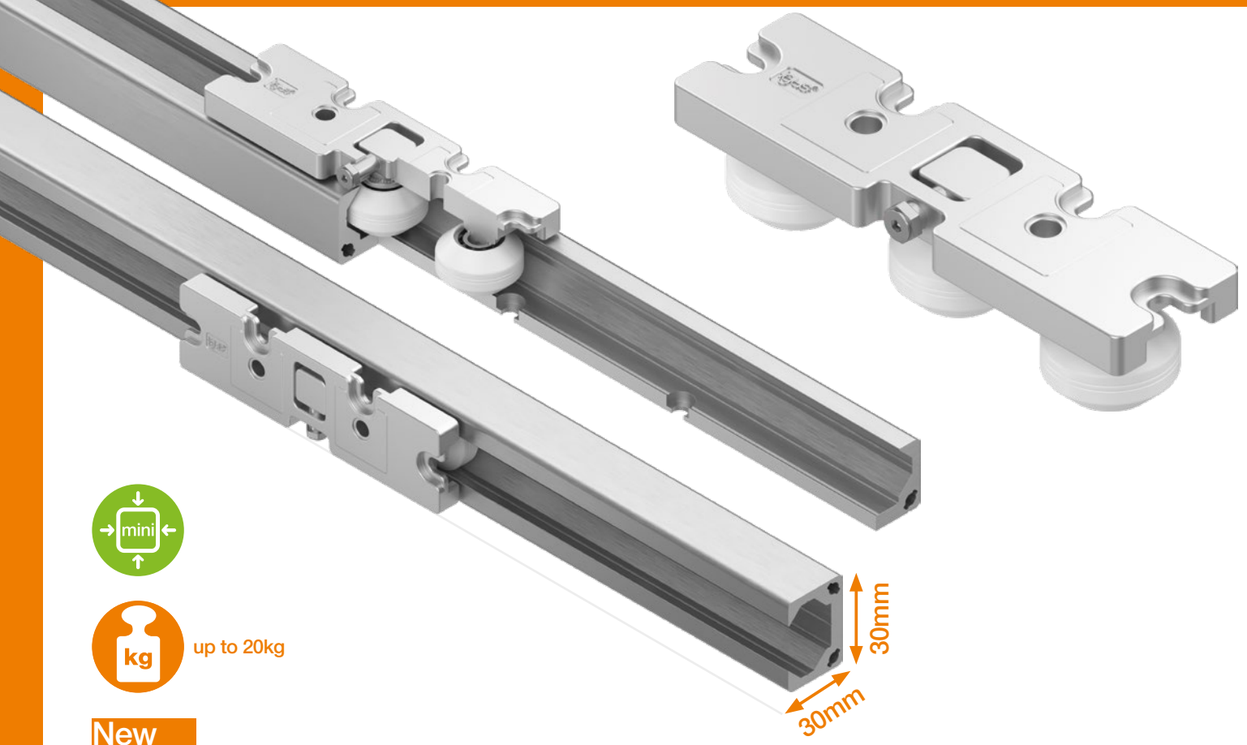
Advise, calculate, buy

Find the right solution for your application: select the installation position, enter application parameters, select the system and order. Comes with a guarantee on the calculated service life for up to max. four years: **igus.eu/dlx**

igus.eu/news-drylin-linear

drylin® C CamRoller series

Effortless adjustment



mini

kg up to 20kg

New

Smooth-running roller guide for minimal operating effort

drylin® C CamRoller series

For the first time, igus® is expanding its linear-technology portfolio by adding a CamRoller series, drylin® C, that has been specifically developed for effortless manual adjustments. The compact rails (width and installation height of 30mm) and the low coefficient of friction allow the carriage to unroll very smoothly - ideal for doors, hoods and moving elements in machine and interior construction.

- ▲ Smooth manual operation: coefficient of friction μ = 0.05, clearance and guide can be adjusted via eccentric rollers
- ▼ Cost-effective carriages due to zinc die-casting
- ■ Design freedom for loads of up to 200N
- ● 100% lubrication-free and maintenance-free
- Configure online and calculate service life: igus.eu/dlx

Part No.: CSO-3021-01-CA-D, CW-3030-10-31-02

New drylin® design

igus® launches CamRoller linear guide

With the new drylin® C series, igus® is presenting a CamRoller track roller guide for the first time - developed for applications in which extremely smooth manual operation is crucial. The roller carriages run with a minimum coefficient of friction (μ = 0.05) on compact 30mm rails with a system height of just 30mm. This makes the series ideal for manual adjustments, e.g. safety doors on machine tools, doors and sliding solutions in yachts and ships, cabin interiors and many other moving constructions.

With plastic rollers, the drylin® C roller guide systems allow for quiet, low-vibration operation - unlike classic ball guide systems. They are suitable for robust requirements such as safety gates as well as for high-quality interior fittings, e.g. the adjustment of monitors, displays or screens.

A special feature of the new series: in addition to straight rails, curved profiles are also available, and even the standard roller carriage can be adapted to these radii by adjusting the rollers.

Advantages of the drylin® C CamRoller guides

- Smooth manual operation: coefficient of friction μ = 0.05 - ideal for doors, hoods and manual adjustments
- Quiet operation: quiet rolling instead of recirculating balls

- Low weight: aluminium rail with zinc die-casting carriage with three polymer rollers - lighter than systems made entirely of steel
- Easy adjustment: eccentric bolt for immediate clearance adjustment or pretension on the carriage
- Easy to install, compact type: 30mm rail wide and 30mm high
- More design freedom: loads of up to 200N; extensive range of accessories (brackets, stop-dog steel sheets, variable installation positions)
- Unique - straight and curved rails available: can also be used with standard roller carriages

Technical data

Rail width: 30mm

System height: 30mm

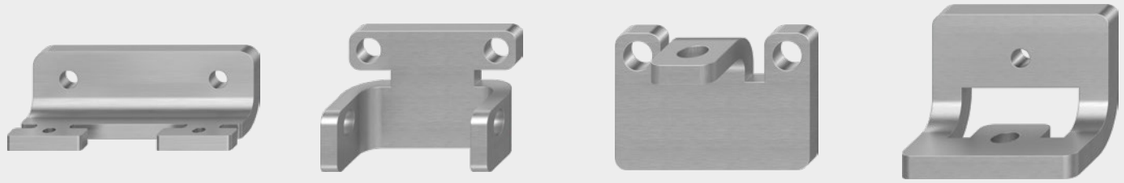
Material: aluminium

Coefficient of friction: 0.05μ

Load: 200N in any installation type

Max. load: 1,400N when four CamRoller carriages are in use

Rollers with ball bearings made of iglidur® materials



CWA-3030-02-04
Bracket for two additional M6 screw attachment points on the side of the carriage

CWA-3030-02-01
Rail cover with additional M4 plain hole in z-direction

CWA-3030-02-02
Rail cover with additional M4 plain hole in y-direction

CWA-3030-02-06
Metal bracket for lateral screw connection of the rail with M4 plain hole

Extensive range of accessories for easy attachment of the rail and assembly on the carriage

drylin® W linear structural profile

Strong and protected

New

Corrosion-resistant, easy to install, fully integrated

drylin® W linear structural profile

The new drylin® W linear structural profile made of clear anodised aluminium is corrosion-resistant and available in lengths of up to 4,000mm. It combines assembly flexibility with the proven performance of the drylin® W linear guide, installation size 16. The profile allows for unsupported constructions and offers numerous options for quick connection to commercially available profiles or for the installation of additional components.

- ▲ The complete linear guide is protected inside the profile - invisible, quiet and absolutely safe from external influences
- ▼ Modular: Double bearing housing or pre-assembled carriages
- ■ Ideal for mechanical engineering and automation due to the combination of aluminium modular profile system and linear guide
- ● 100% lubrication and maintenance-free, hygienic and extremely quiet
- The service life can be calculated quickly and easily online: igus.eu/dlx

Part No.: WJ200QM-806016-001-AL, WWQ-806016-001, WSX-806016-CA

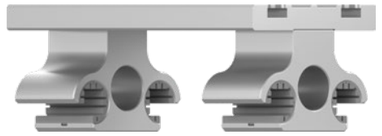
Protected linear technology for sophisticated designs

Self-supporting, fully integrated linear guide

The new drylin® W high profile opens up new possibilities for modern machine and system design by combining freedom of assembly, protective functions and high linear performance in a single component. The clear anodised aluminium profile is corrosion-resistant and available in lengths of up to 4,000mm - perfect for movement axes modular structures.

Versatile profile for flexible designs
The high profile functions reliably with unsupported applications and classic installation in machine frames. Several integrated grooves allow for quick connection to a large number of common profiles (type B) and easy attachment of additional components or systems. This makes the profile ideal for the design of workspaces and automation cells in which several linear axes are often combined.

Performance of the drylin® W installation size 16 - fully integrated
The proven drylin® W linear guide (size 16) works inside the profile - completely protected against external influences and virtually invisible during operation. Customers can choose between two guide solutions:



Aluminium carriage in compact design

- Individual double bearing housings with drylin® W sliding elements allow for flexible carriage spacing and customised configurations.
- Pre-assembled linear carriages with mounting plates in three lengths offer a ready-to-install solution for fast implementations.

The internal structure means that the guide remains protected from all sides, which reduces wear, increases service life and makes the system ideal for sensitive or dirt-prone environments.

Clean, quiet, maintenance-free
Like all drylin® systems, the high profile works entirely without lubrication or maintenance, which ensures clean, hygienic and quiet processes. The design is therefore particularly suitable for applications in automation, laboratory and hygiene areas, but also in mechanical engineering, where reliability and cleanliness are crucial.

The liner made of iglidur® J200 is known for its long operating hours ("24/7") against aluminium and is suitable for temperature ranges from -50°C to +90°C.
The system's service life can be calculated conveniently and practically online to provide design engineers with planning security and fast design.

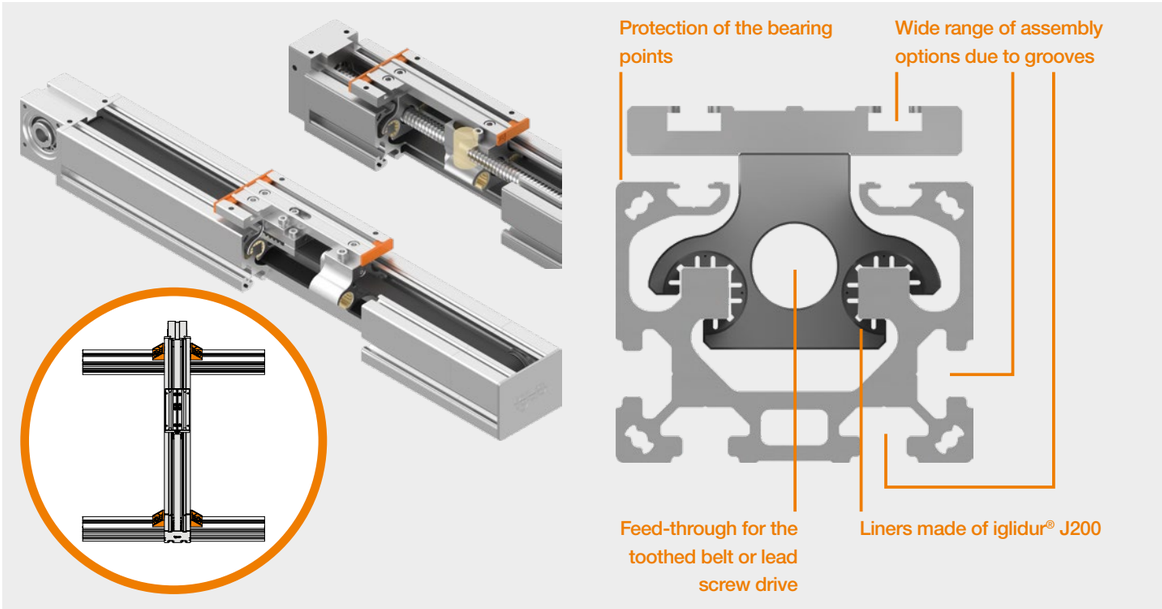
Technical data

System width: 80mm

System height: 80mm

Liners material: iglidur® J200

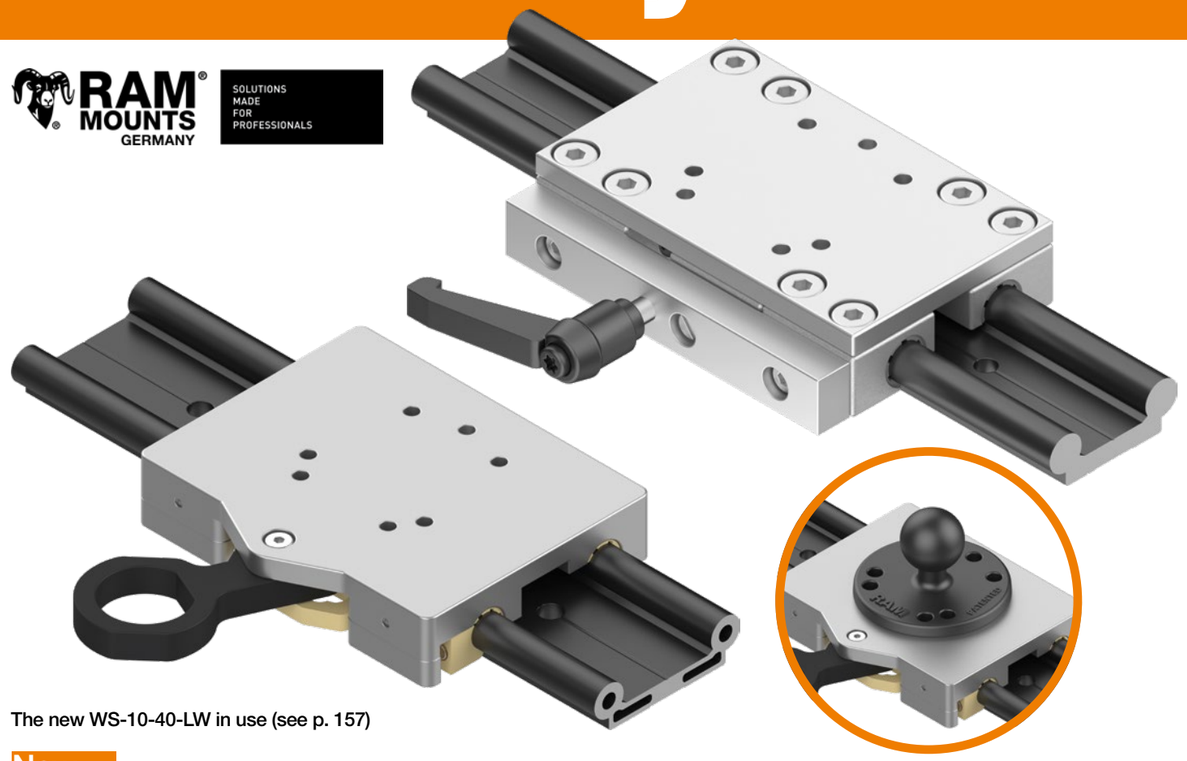
Linear guide material: aluminium, clear anodised



Structural profile with integrated linear guide, ideal for unsupported superstructures. Simple assembly using angle brackets.

drylin® W linear guide with standardised RAM hole patterns

Perfect for RAM Mounts systems



The new WS-10-40-LW in use (see p. 157)

New

Flexible monitor and control system adjustments for modern driver's cabs

drylin® W linear guide with standardised RAM hole patterns

With the new combination of drylin® W linear guide and a linear carriage with a hole pattern compatible with RAM Mounts (2, 3 and 4 holes), assembling monitors and control elements in driver's cabs is now even easier. Sizes 10-30 and 10-40 - hard-anodised, silver or black anodised - have been used successfully in monitor adjusters for years and now offer a plug & play solution without additional adapters for the first time.

- ▲ Customisable - straight or curved rails, different sizes and integration of e-chains® for tidy cable guidance
- ▼ Customisable rails up to 4,000m, precise to the millimetre, with or without fixing hole pattern, available in silver or black anodised finish
- ■ RAM as an industry standard - many displays are already RAM-compatible and fit onto the igus® carriage
- ● 100% lubrication-free, ideal for clean cabin environments

Part No.: WW-10-40-10-CC-RAM, WW-10-30-10-HKD-RAM, WW-10-40-10-HKD-RAM

26-DRL-07

drylin® W meets RAM Mounts

Plug & play with RAM Mounts ball heads

Universal, lubrication-free linear guides with RAM hole pattern for fast assembly and smooth, ergonomic adjustments.

Driver's cabs in agricultural and construction machinery are developing rapidly: away from being just a workplace and towards ergonomically designed comfort areas that becoming more and more similar to modern automotive standards. Monitors, control elements, cameras or GPS displays are increasingly being used in mobile and flexible applications - and this is precisely where the new cooperation drylin® W × RAM Mounts combines functional linear adjustment with a globally established fastening standard.

Directly compatible: drylin® W linear guide with standardised RAM hole patterns
The drylin® W linear guides in sizes 10-30 and 10-40 - available with a hard-anodised, silver or black anodised surface - have been a preferred solution for monitor adjustment in commercial vehicles for many years. For the first time, we now offer a linear carriage with an integrated hole pattern containing two and four holes that is suitable for RAM Mounts ball heads.
This means: can be mounted immediately without adapters, special plates or additional construction effort.

Why is this important? The driver's cab is turning into a high-end workspace!
Modern cabs for agricultural machinery are increasingly resembling the interiors of luxury vehicles - with high-quality seats, ergonomic armrests and control panels, sound systems, high-resolution displays and multi-functional comfort elements.

Advantages of the new drylin® W × RAM solution
Lubrication-free and clean
The linear guide runs entirely without lubrication and is ideal for clean cabin environments. No additional dirt can adhere - an advantage if soil, dust or plant residues get into the cabin during work.

Vibration dampening and quiet
Guided monitors and armrests reduce vibrations that occur during daily operation. The result: a smoother driving experience, less strain on the operator and a quiet, high-quality sense of movement. Can be customised to any cabin.
drylin® W offers almost unlimited design options: curved rails, various profile shapes, numerous lengths and installation sizes and integrated e-chains® to guide monitor or camera cables tidily and out of sight. The balls from RAM Mounts complement the system perfectly as they consist of a solid elastomer body with vibration-dampening specifications.

Flexible use
Depending on the application, several displays are often required:
- GPS
- Terminal for attachments
- Camera monitors

With the clip carriage, it is easy to add, remove or repositioned monitors on the spot.

Can be used across cabs: operator terminals can be quickly switched between different tractors or machines - an advantage for farms with changing work groups.

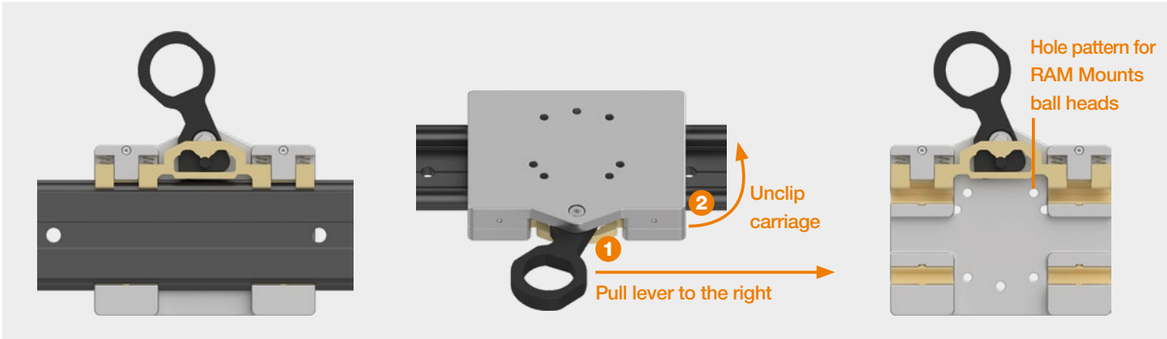
RAM Mounts as industry standard
RAM offers a globally established system that can be perfectly combined with the igus® carriages. A lot of monitors are already offered with RAM compatibility ex works - a clear advantage for all users.

Technical data

Rail size: WS-10-30, WS-10-40

Compatible with RAM Mounts ball and socket joint systems in sizes B, C and D

Sebastian Nehnes
Key Account Manager
RAM Mounts Germany GmbH
Michael Hornung
drylin® linear and drive technology
igus® SE & Co. KG



Simple connection, clip-on for quick (dis)assembly

mini

up to +250°C

New

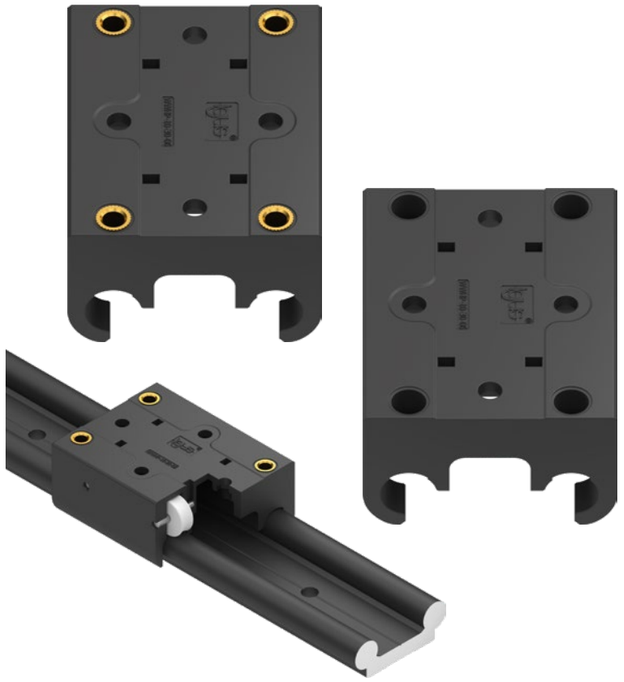
Maximum performance under extreme conditions

Liners made of iglidur® X

Thanks to the liner made of iglidur® X, the drylin® series 0620 can be used wherever extreme ambient conditions prevail in small installation spaces. It is ideal for applications with strong temperature fluctuations, thermal stress and permanent exposure to heat as well as chemically demanding environments.

- ▲ Dimensionally stable at temperatures from -40°C to +250°C with reliable sliding properties
- ▼ Versatile integration: in the T415 linear carriage on stainless-steel rails and in lead screw modules
- ■ Tested in the igus® laboratory: resistance of iglidur® X material: igus.eu/x-material
- ● Lubrication-free and maintenance-free solution - hygienic, clean and absolutely reliable

Part No.: XUMO-01-06



50 grams

New

Lightweight, compact and quiet: hybrid roller carriage for smooth running

Hybrid roller carriages in installation size 10-30

The carriage impresses with its compact design, low weight and quiet operation. Four integrated polymer rollers allow for smooth movement, especially with light loads.

- ▲ Rollers for easy adjustment, combined with a fail-safe sliding movement that reliably supports off-centre loads
- ▼ Entry system for hybrid rollers guideways, compatible with rail installation size 10-30
- ■ The carriage is made of the material iglidur® JBPF, is PTFE-free and PFAS-tested
- ● 100% lubrication and maintenance-free

Part No.: WWRHP-10-30-06

STAIN-LESS STEEL

mini

New

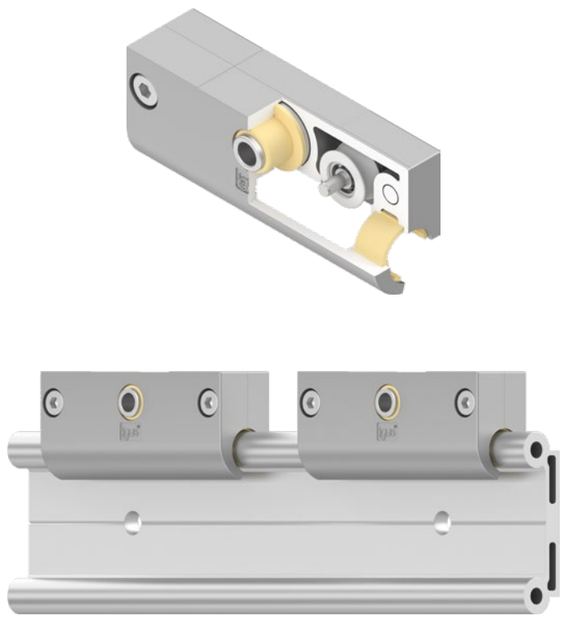
Reliable despite environmental factors

Stainless-steel linear module with liner made of iglidur® X

Developed for extreme conditions: lubrication-free, hygienic, compact. The new liner made of iglidur® X in combination with a stainless-steel housing offers reliable sliding performance from -40°C to +250°C and high resistance to aggressive media. It is ideal for applications subjected to extreme thermal and chemical conditions.

- ▲ With integrated rib structure for draining moisture and dirt, and protection against rotation and displacement
- ▼ Can be used as a linear guide on stainless-steel rails and in lead screw modules
- ■ Tested in the igus® laboratory: resistance of iglidur® X material: igus.eu/x-material
- ● 100% lubrication and maintenance-free

Part No.: WW-06-20-T415-ES2-X



New

Self levelling for smooth running

Tandem hybrid roller bearing WJRM-51

The tandem hybrid roller bearing combines two polymer rollers in a compact bearing housing. The system of pivoting guide rollers distributes the load evenly over both rollers. The system is available with plain or ball bearings.

- ▲ Flat system height of 20.5mm, ideal for manual door adjustments, maintenance flaps and protective covers
- ▼ Cost savings of up to 65% thanks to zinc die-casting housing, without compromising on stability or precision
- ■ Tested: system with single rail WS-10, four tandem bearings WJRM-51-10-AL, load 15N, rail length 700mm, carriage length 400mm, rail distance 1,000mm, drive force 1.5N, service life at 20°C: 333,333 double strokes
- ● 100% lubrication and maintenance-free
- ◠ The service life can be calculated quickly and easily online: igus.eu/dhc

Part No.: WJRM-51-10, WJRM-51-10-BB

drylin® linear guide in hygienic design

Hygienic, safe, certified

STAIN-LESS STEEL

FOOD

New

First linear guide in the world with EHEDG certification

drylin® linear guide in hygienic design

The WK-10-60-ES-A160-HYD1 is the world's first EHEDG-certified linear guide and sets new standards for hygiene and food safety. Thanks to its hygienic design, it is particularly easy and quick to clean, reduces downtimes and increases process reliability. This is crucial for food technology and HACCP concepts.

- ▲ The monobloc design allows for quick carriage changes while smooth surfaces, radii and defined geometries guarantee residue-free water drainage
- ▼ Hygienic design reduces cleaning effort, conserves resources, minimises downtime and extends the system's service life
- ■ EHEDG-certified: the world's first linear guide with official approval for food technology
- ● The carriage made of iglidur® A160 is PTFE-free and PFAS-tested
- Call up the operating instructions online: igus.eu/hyd-documentation

Part No.: WK-10-60-ES-A160-HYD1

Lightweight rail profile in installation size 10

30% lighter, 80% recycled material

CO_2

New

The classic: now lighter, easier to install and more sustainable

Lightweight rail profile in installation size 10

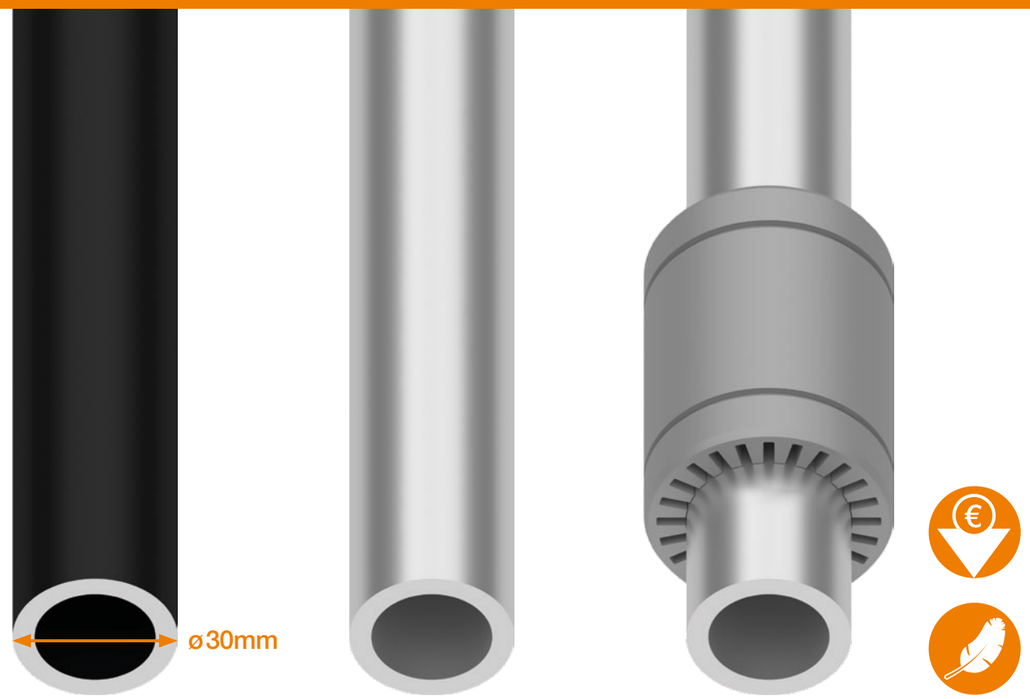
The drylin® W WS-10-40 rail profile has been one of the most widely used profiles for decades - in yachts, packaging machines and camera slider systems. The new version now makes the bestseller even better in three aspects: weight, ease of installation and sustainability.

- ▲ Axial channels (M5) allow quick, clean and secure fastening. This reduces the effort required for new designs and retrofit solutions
- ▼ Fully compatible with all linear carriages, plain bearings and hybrid roller bearings from the drylin® W series 10
- ■ Up to 30% lower weight for WS-10-40 with the same stability
- ● First linear profile with a recycling rate of up to 80% and a reduced CO_2 footprint of up to 80%

Part No.: WS-10-40-LW, WS-10-40-LW-CA, WS-10-40-LW-AR

drylin® R aluminium tubes

New, lightweight round shafts



New

40% lighter, more cost-effective and black anodised for the first time

drylin® R aluminium tubes

With the new aluminium tube series, drylin® now offers round shafts that have been specifically developed for lightweight, efficient constructions. Due to their reduced wall thickness, the tubes are lighter and more cost-effective than previous aluminium-shaft versions. Also available as an option with an anti-reflective black anodised surface - perfect for visible areas and optical applications.

- Up to 40% less weight than previous hollow aluminium shafts - ideal for lightweight construction and dynamic applications
- More economical to manufacture thanks to clear anodised surface
- In combination with RJMP or RJ4JP plain bearings (see diagram above), the lightest round shaft guide in installation size 30 is created
- REACH/RoHS-3-compliant

Part No.: AWMR-30-CA, AWMR-30-AR

Lubrication-free polymer liners from igus® make 3D printers from Italian company WASP more fail-safe

3D printer builds houses from clay

Creating affordable living space in off-grid regions: this is possible thanks to a large-format 3D printer from the Italian company WASP, which uses clay to build house walls.

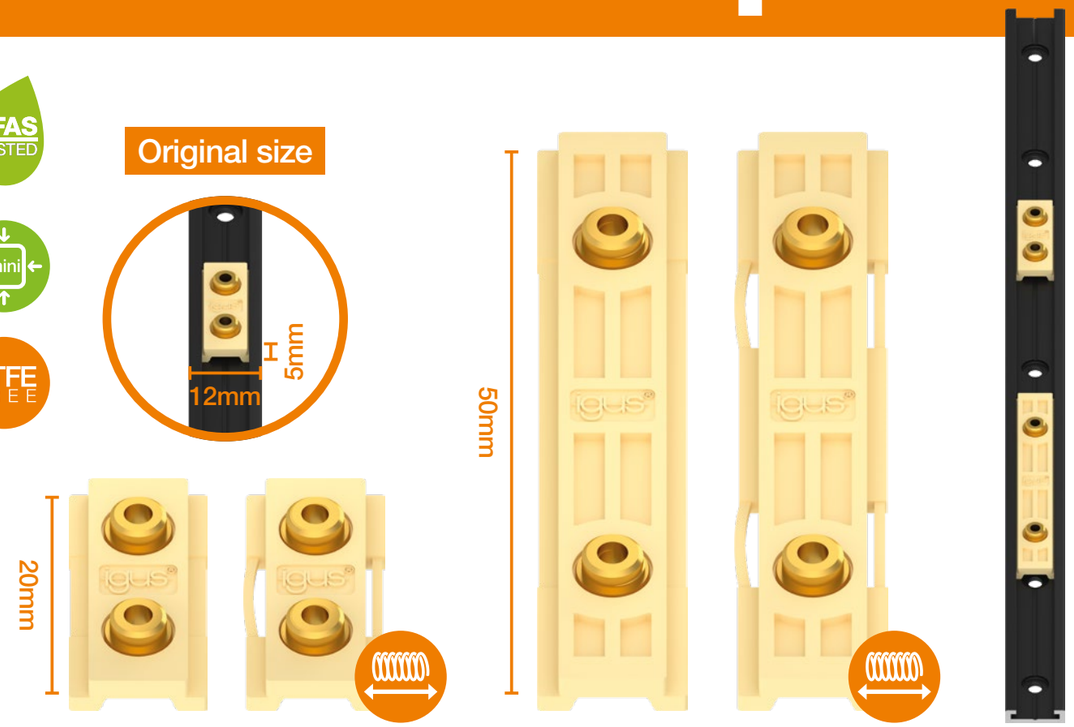
The 3D printer consists of a main printer unit that can be assembled in various configurations. The printing area of a single unit has a diameter of 8.2 metres and a height of 3.2 metres. The Crane WASP has a vertical mast and a height-adjustable boom that can be swivelled through 360 degrees. A clay extruder travels horizontally on the boom, erecting the walls of the building layer by layer. To ensure that the printer can carry out this work reliably and without constant service and despite high dust and dirt loads, the engineers rely on lubrication-free drylin® R liners made of high-performance plastic iglidur® J in the machine's mechanics. The carriage with the print head slides over these liners on the aluminium struts of the boom. The special feature: no lubricating grease is required as igus® integrates solid lubricants into the high-performance plastic, which are released during operation and allow for dry operation over years.

drylin® W - the key to design freedom. Cleverly designed, suitable for a wide range of applications. Order miniature installation size 06 as a sample now.

igus.eu/wasp

drylin® N miniature guide

Ultra-flat for small installation spaces



New

12mm wide, 5mm high, lightweight and easy to install

drylin® N miniature guide

The drylin® N low-profile guide system in width 12 is the solution for miniature and lightweight applications with minimal space requirements. The combination of narrow profile and a system height of 5mm allows for precise linear movements even in extremely confined tightest installation spaces. Black anodised profiles are ideal for reduced light reflection, e.g. in optical measuring systems.

- ▲ Short and long carriages, also with pretension. Adhesive rail assembly possible
- ▼ Extremely lightweight, easy assembly without drilling thanks to adhesive tape
- ■ Lightweight construction: rail (500mm) and carriage (50mm) together only weigh 45g
- ● The carriages are PTFE-free and PFAS-tested thanks to iglidur® JPF

Part No.: NS-01-12, NS-01-12-AR, NW-42-12-20/50, NW-42-12-20/50-P

Why small linear guides are indispensable today

Machines and devices are getting smaller - the requirements are getting bigger

Modern devices are becoming ever more compact, but performance requirements are increasing: longer adjustment paths, greater precision, robust dynamics and absolute reliability - in tiny spaces. Especially in medical technology, laboratory automation and mobile analysis or point-of-care systems, this leads to noticeable challenges.

1. **Maximum range of functions with minimal installation space**
   Small assemblies must realise long, precise movements and still operate smoothly and steadily. The level of miniaturisation of modern devices leaves little room for oversized components.
2. **Hygienic, contamination-free movement**
   In analytical and diagnostic systems any kind of lubrication is problematic. Lubricants can influence measurement results and pose a risk for approval and operation.
3. **Maintenance-free operation for global applications**
   Many compact devices operate continuously and without access for service. Durable, self-lubricating solutions that can reliably withstand fluctuations in temperature and humidity are required.
4. **Easy integration into extremely small installation spaces**
   Developers need flat, lightweight systems that can be developed into compact housings - without the need for special designs or additional installation space.

Miniature linear guides as a key component of new device generations
Small, lubrication-free linear guides such as the drylin® N low-profile guide systems address precisely these requirements. They combine:

- Compact, ultra-flat design for low device profiles
- Completely lubrication-free operation for clean sensor and sample environments
- Precise, quiet and repeatable movement
- Robust, maintenance-free polymer sliding technology
- Long service life with an attractive price-performance ratio

In compact laboratory and diagnostic systems, they allow for reliable guidance of sensor carriers, calibration units or sample handling - they are clean, quiet and eliminate the risk of particles. The miniaturisation of modern devices makes small, powerful and maintenance-free linear guides more important than ever. They ensure precision and purity in the smallest of spaces - and thus form the basis for the next generation of compact medical technology, laboratory and automation solutions.

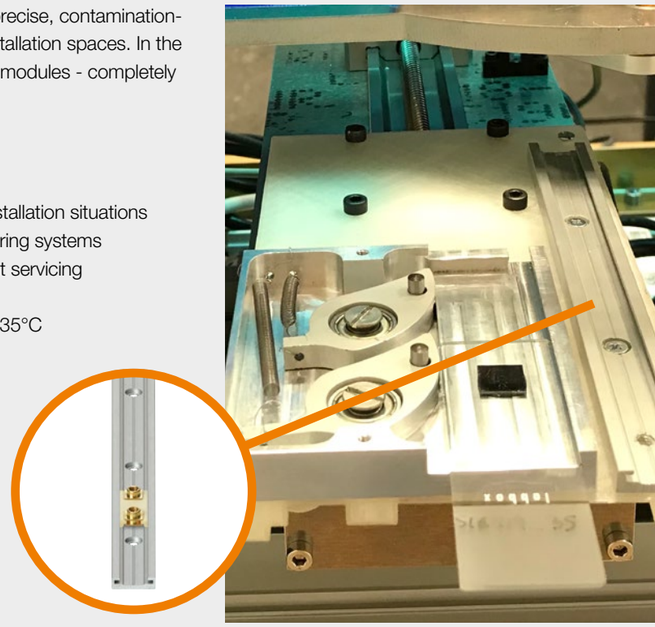
Lubrication-free precision guide for compact diagnostic devices

Clean, reliable linear technology for sensitive measuring environments

The drylin® N low-profile guide system, installation size 17, allows for precise, contamination-free movements in analysis and diagnostic systems with very small installation spaces. In the "biod MOX", it ensures the precise guidance of sensor and calibration modules - completely without lubricants and therefore ideal for biomedical applications.

Benefits

- **Lubrication-free and hygienic**: no particles, no contamination
- **Compact, low-profile design**: ideal for mobile devices and tight installation situations
- **High precision and repeatability**: reliable results in sensitive measuring systems
- **Maintenance-free and durable**: robust polymer technology without servicing
- **Quiet operation**: suitable for laboratory environments
- **Reliable in varying conditions**: for use in temperatures from 0 to +35°C



Improve what moves ...

dryspin® lead screw technology

Tech up · Cost down · Proof · Sustainability · Digital

164 Saving through universal exchange
New dryspin® lead screw nut geometry

166 One pitch after another - more variety for a 5mm pitch
Expansion of the product range

168 Machined lead screw nuts made from bar stock
New pitch with DS10x5-RH

168 Injection-moulded lead screw nuts with machined thread
New pitches DS10x5-RH (machined thread)

169 Angle compensation of up to 30° made easy
Spherical lead screw nut 2.0

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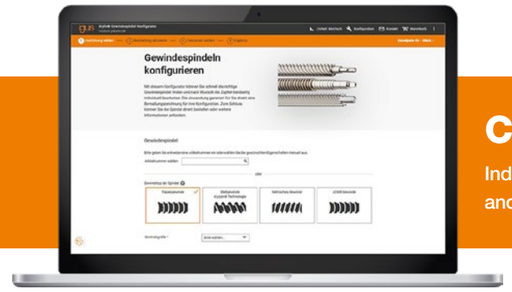
Height adjustment

Lubrication-free bearing technology for precise adjustment of solar trackers for mobile homes.



Configure lead screws online

Individual machined end without CAD software. 2D dimensioned drawing and 3D step file, generated directly online: **igus.eu/dsk**

igus.eu/news-dryspin

Range expansion of the new dryspin® lead screw nut geometry

PTFE-free, interchangeable

PTFE FREE

inch

mm

Plus

Saving through universal exchange

Range expansion of the new dryspin® lead screw nut geometry

The lead screw nut made of iglidur® JPF is characterised by its versatile fixing options on the flange. Injection-moulded, it ensures high precision and load capacity. For more specific applications or technical details, please visit our website or contact our experts. Five new sizes for diameters from 12 to 32mm are being added to the product range.

- ▲ Quiet due to thread geometry and longer service life due to the dryspin® asymmetrical thread geometry
- ▼ Low replacement costs due to identical connection dimensions - no redesign necessary
- ■ Ongoing test program in the in-house test laboratory: igus.eu/dryspin-testreports
- ● Lubrication-free operation, PTFE-free and PFAS-free

Part No.: DST-JPFFRM-UF-01[ ]X[ ]

Lead screw nut made from iglidur® JPF: dryspin® universal lead screw nut with flange

Combination of versatility and environmental friendliness

The material: iglidur® JPF
By dispensing with PTFE and PFAS, iglidur® JPF contributes to more sustainable production and fulfils the increasing requirements for environmentally friendly materials.

KM KUNSTSTOFF MAGAZIN Product of the Year 2025 Winner www.kunststoff-magazin.de

The material took first place in the competition for the products of the year 2025 in the materials category.

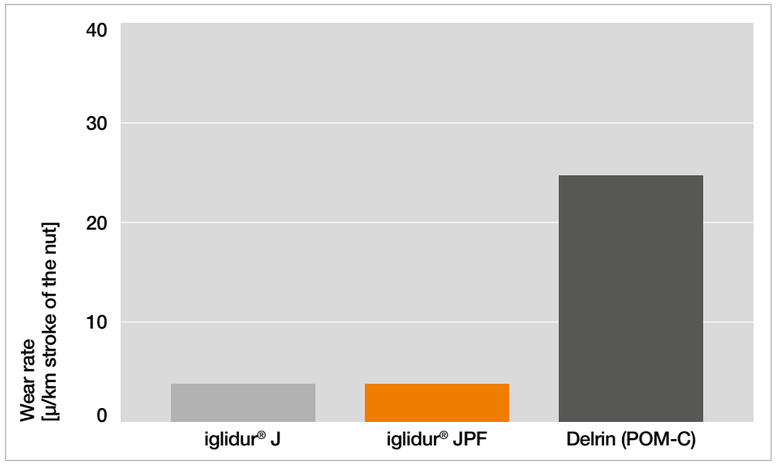
Technical data

Upper long-term application temperature: +90°C

Lower application temperature: -20°C

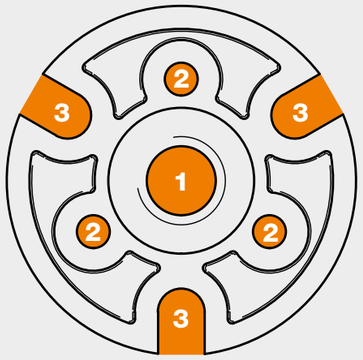
Max. permissible surface pressure on the thread (DS/TR) at +20°C: 2.5/4.0MPa

The lead screw nut made of iglidur® JPF represents an innovative solution for numerous industrial applications. It is manufactured using the injection moulding process. Thanks to the wide range of fixing options on the flange, it can be installed flexibly and replace many other solutions 1:1, making it easier to adapt to different requirements. This saves time and costs during installation and enables projects to be realised quickly and efficiently. This versatility makes them a favoured choice in various industries, from the packaging industry to medical technology.



Coefficient of friction and wear identical to that of our all-rounder iglidur® J: wear test iglidur® J and iglidur® JPF vs. Delrin (POM-C) (DS10×2) Stroke length 200mm/force 250N/200rpm/0.8MPa/20,000 cycles

Spacing of the screw-on dimensions for the new thread sizes



1 Thread diameter [mm]	2 Borehole [mm]	3 Elongated hole [mm]
12	28.6	31.7
12.7	28.6	31.7
14	28.6	31.7
16	30.18	38
18	36.5	39
20	36.5	45
25	47.6	54.9
32	47.6	54.9

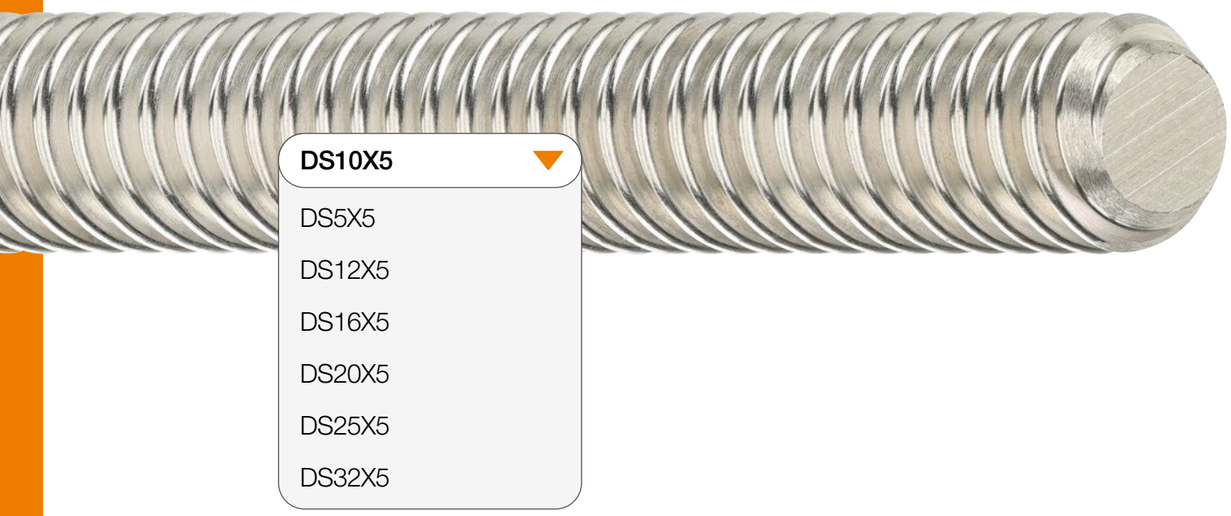
Simple replacement! - identical connection dimensions as many other solutions.

- Easy replacement possible without design changes to the nut mount
- PTFE-free material
- Service life calculation incl. guarantee

Request free sample here:
igus.eu/drypin-sample

Expansion of the product range

More choice ... long service life



Plus

One pitch after another - more variety for a 5mm pitch

Expansion of the product range

The new dryspin® dimension DS10x5-RH is being added to the product range, expanding the DST thread product line by a further pitch. The new DS10x5 thus closes another gap in the range of pitches with 10mm diameters. All dryspin® lead screws can be individually machined. Configure online or send us your drawing for quick quotations.

- ▲ Quiet due to thread geometry, longer service life
- ▼ Up to 30% longer service life
- ■ High efficiency of 37% - in comparison: DS10x3 has an efficiency of 27%. Ongoing test series in the internal test laboratory: igus.eu/dryspin-test-reports
- ● Lubrication-free operation and clean
- Free online tool for lead screw machining with instant price: igus.eu/dsk

Part No.: DST-LS-10X5-R-ES

DST thread geometry - THE alternative to trapezoidal threads

More operating smoothness, less vibrations

2013
The patented dryspin® high helix thread technology was developed by igus® in 2013 and offers numerous advantages compared to conventional high helix threads. Due to the flat thread angle, it efficiently converts the force introduced into a linear movement. With specifications and geometries matched to the plastic nut and spindles, dryspin® provides an even longer service life and more efficiency for high helix threads.

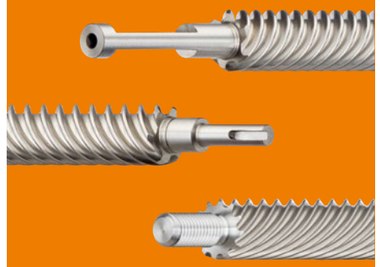
Quiet operation
Due to the rounded tooth geometry, the contact surface between the lead screw nut and the lead screw is reduced. This is due to the fact that the greater the contact of two surfaces moving against one another, the more vibrations are transmitted, which can be perceived as a rattle or squeak. The rounded teeth minimise this effect and the thread moves vibration-free and virtually noise-free.

Asymmetry = Longer service life
Due to the larger distances between the individual dryspin® thread turns, the thread perfectly matches the specifications of the lubrication-free igus® high performance polymers. The proportion of the tribologically optimised polymer in the thread turns can be enhanced by a factor of 1.3 for all sizes. More wear-resistant material and higher levels of efficiency are crucial for a service life that is up to 5 times longer compared to standard thread geometries.

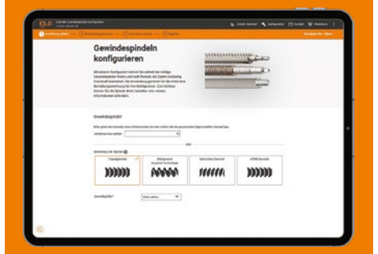
Dry-operating - sustainable
Our lead screw systems are developed for maintenance-free dry operation. Basically, you should not compare a lubricated lead screw system one-to-one with a dry-operating system. Due to the external lubrication, the coefficient of friction is lower compared to a dry-operating lead screw system. However, the lubricant also causes a high maintenance effort and additional costs that are often not accounted for.

Lead screw configurator

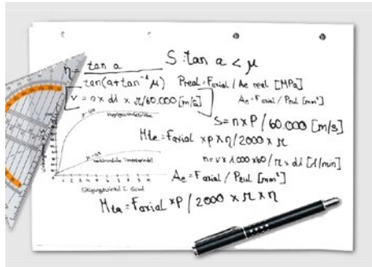
With this configurator, you can quickly find the right lead screw and individually machine the pins at both ends. The application generates a dimension drawing for your configuration directly. At the end, you can directly order the lead screw or request further information.



Configuration of lead screws and shafts with imperial dimensions including automated creation of 2D drawings.



igus.eu/dsk



Higher efficiency due to optimised flank angle
Due to a flatter thread angle in dryspin® high helix lead screws, the applied force is efficiently converted into a translational motion. Compared to a steeper thread angle, this means a lower power loss and therefore a more efficient system.

Single start trapezoidal lead screws achieve efficiencies between 20% and 48% in dry operation. Ball screw drives achieve efficiencies of up to over 90%, depending on the system. dryspin® high helix lead screws achieve efficiencies between 35% and 80% in dry operation.

Plus

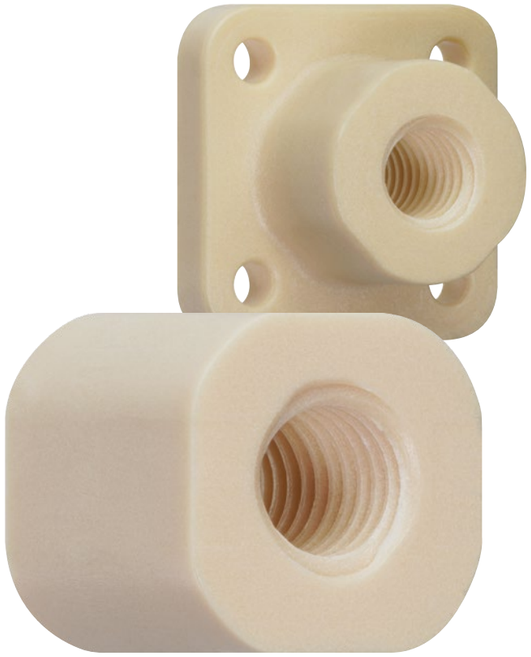
Machined lead screw nuts made from bar stock

New pitch with DS10x5-RH

The new dryspin® lead screw nuts made from bar stock in a cylindrical, flange or spanner flat version.

- ▲ Quiet operation due to tighter manufacturing tolerances and rounded tooth geometries by default
- ▼ Up to 50% lower cost than metallic lead screw nuts
- ■ Up to 25% less wear compared to POM+PTFE (dimensions 10×3) igus.eu/dryspin-testreports
- ● No lubricating grease or oil in the lead screw drive
- Online calculation tool for service life

Part No.: DST-[ ]FRM-2525DS10X5, DST-[ ]FRM-252525DS10X5, DST-[ ]SRM-2220DS10X5, DST-[ ]SRM-172220DS10X5



Plus

Injection-moulded lead screw nuts with machined thread

New pitch DS10x5-RH (machined thread)

The new dryspin® injection moulding lead screw nuts in cylindrical design, with flange or with spanner flats.

- ▲ Quiet operation due to tighter manufacturing tolerances and rounded tooth geometries, lead screw nuts including spanner flats by default
- ▼ Cost-effective production with injection moulding
- ■ Up to 25% less wear compared to POM+PTFE (size 10x3): igus.eu/dryspin-testreports
- ● No lubricating grease or oil in the lead screw drive
- Online calculation tool for service life

Part No.: DST-[ ]FRM-C-01-DS10X5, DST-[ ]SRM-C-01-DS10X5

Spherical lead screw nut 2.0

Angle compensation

Max. 30° pivoting angle

Study

Angle compensation of up to 30° made easy

Spherical lead screw nut 2.0

Spherical lead screw nuts - often used as joint nuts or compensating nuts in conjunction with lead screws - are an ideal solution when misalignments, tilting or edge loads occur in the system. igus® combines this functional principle with the advantages of dryspin® lead screw technology and tribologically optimised materials such as iglidur® or igubal® components. The special feature: igus® relies on lubrication-free high-performance polymers that guarantee a long service life and maximum reliability in demanding applications.

- ▲ Two-part housing for greater precision, less axial play than previous version
- ▼ Easy to replace: connection dimensions like standard ball-guided systems, concept study in thread size DS16x5
- ■ 10+ times higher axial load possible compared to the predecessor (EFOM)
- ● Aluminium housing or even solid-plastic version available as an option

Part No.: DST-JFRM-ECMG-DS16X5

Improve what moves ...

drylin® drive technology

Tech up · Cost down · Proof · Sustainability · Digital

172 Precise linear technology for dry cleanrooms
drylin® SLW-1040-10X25-E7-AL

176 Toothed belt and lead screw axes with integrated cover
drylin® ZLX and SLX Protect

179 Lightweight, rigid Z-axis for large robot and boom applications
drylin® GRR-30

182 Control unit for igus® motor control systems
Control unit for inching/jog mode, positioning and mini-automation

183 Lead screw motors for powerful adjustments
Lead screw stepper motors with high torque

Quick consultation anywhere, at any time

In person

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Online and WhatsApp
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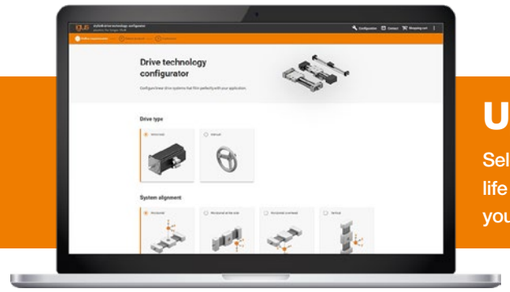
On site
Sales representative
Roadshow/Trade show
igus.eu/drylin-roadshow

XY table for date printing light barrier

For Darguner Brauerei GmbH, an SLW stainless-steel XY table was realised for the optimum positioning of a data light barrier.



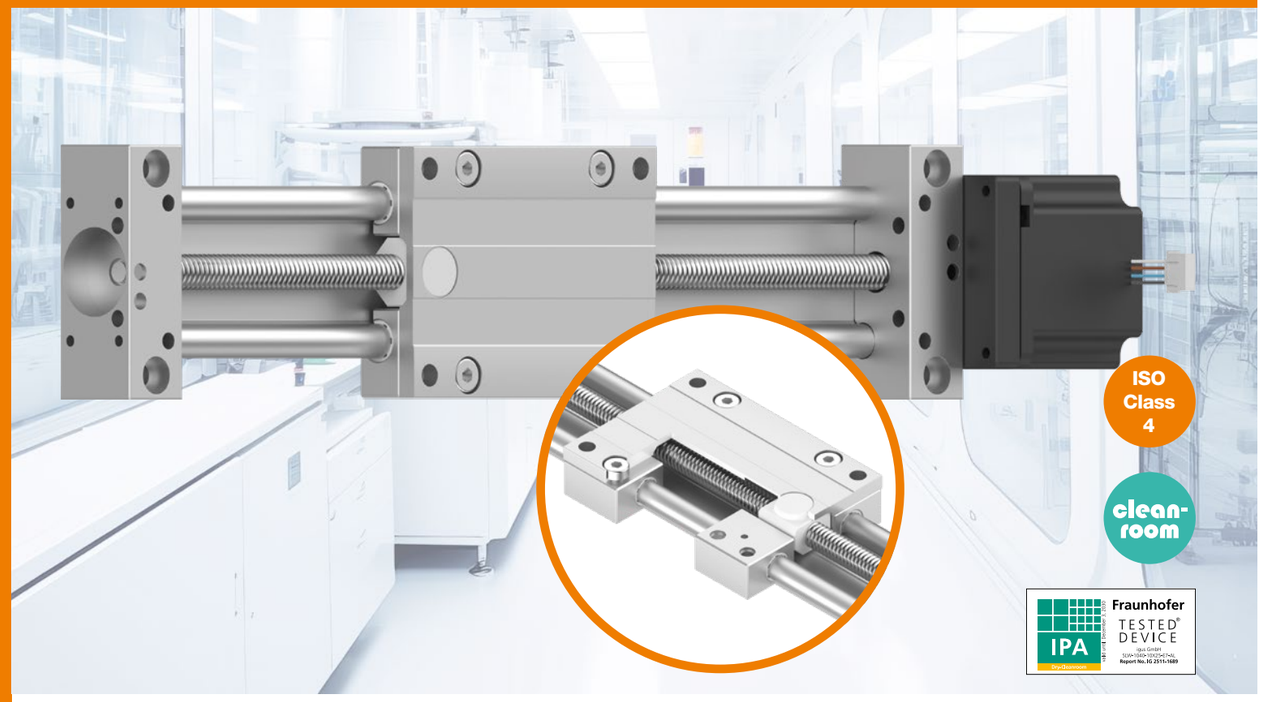
Up to 4-year guarantee

Select the suitable linear module and receive information on function, service life or used motor capacity. Put it into the shopping cart with one click and make your order, with a guarantee certificate if required: **igus.eu/ddx**

igus.eu/news-drylin-drive

drylin® SLW-1040-10X25-E7-AL

For dry cleanroom



New

Precise linear technology for dry cleanrooms

drylin® SLW-1040-10X25-E7-AL

The drylin® SLW linear axis for cleanroom applications sets standards in precision and low particle levels. The SLW-1040 series combines lightweight, rigid aluminium components with a powerful high helix lead screw dryspin® 10×25 and low-friction plain bearings made of iglidur® E7 - ideal for clean and dry environments with high demands on cleanliness and wear resistance.

- ▲ Design for minimal particle emissions: aluminium shaft end supports, rails and carriages - optimised for cleanroom scenarios
- ▼ No maintenance due to elimination of external lubrication
- ■ Under test conditions of 22°C (±2°C), it achieved the best possible result, ISO Class 4, in an ISO 3 test environment, even at varying lead screw speeds (50/80/100rpm)
- ● No risk of contamination from greases or oils

Part No.: SLW-1040-10X25-E7-AL

26-DRE-02

Tested by the Fraunhofer Institute IPA: SLW-1040-10X25-E7-AL

Tested according to ISO 146441 - best possible classification: ISO Class 4

With the SLW-1040-10X25-E7-ALlinear axis, igus® presents a solution that has been specifically developed for use in dry cleanrooms. The axis was measured by Fraunhofer IPA, the leading test institute for cleanroom technology, in an ISO 3 test environment and achieved the best possible result, ISO Class 4, according to ISO 146441. It was used together with a dryspin® high helix thread DS10×25 with a feed rate of up to 40mm/s. This makes it suitable for highly sensitive production and testing processes where low particle levels and process stability are essential.

The design is based on shaft end supports, linear guides and carriages made of aluminium, combined with a dryspin® 10×25 high helix lead screw and iglidur® E7 plain bearings. These components are designed for particularly low particulate emissions. The system is completely dry-running, so that lubricants, which constitute a potential source of contamination, are eliminated.

Why dry cleanrooms have special requirements

Dry cleanrooms are characterised by the fact that the air humidity is greatly reduced; this helps avoid moisture ingress, condensation or water-bound particle processes. This is crucial for applications such as

- Electronics assembly and semiconductor production
- Optics production and laser technology
- Precision measurement and microanalysis technology
- Battery production and dry test environments

Particularly strict requirements apply in such environments: no mechanical movement is allowed to generate any particles that could affect sensitive structures, sensors or surfaces. Lubricants can dry out, outgas or act as particle media, which is why dry-running mechanisms such as the SLW-1040 are essential.

Thanks to special tribo-polymer plain bearings, dry lead screw technology and a smooth, low-particle aluminium construction, the SLW-1040 guarantees permanent cleanroom suitability, even in the case of higher movement profiles.

Your benefits at a glance

- Best possible cleanroom classification
- Tested by Fraunhofer IPA, certified for ISO Class 4 dry cleanrooms in accordance with ISO 146441 and validated under realistic conditions
- Measurements in an ISO 3 test environment, stable at 50/80/100rpm
- Design for minimum particle emissions
- Aluminium shaft end supports, rails and carriages - optimised for cleanroom scenarios
- Efficient dryspin® high helix thread technology 10×25
- High speed, smooth operation, low abrasion
- iglidur® E7 plain bearings
- Developed for long service life with very low level of particle formation - completely dry-running
- Lubrication-free and fail-safe
- No risk of contamination from grease or oil; ideal for permanently dry environments
- Optimised for demanding high-tech applications
- Perfect for electronics, optics, measurement technology, battery production and sensitive test sequences

IPA Dry-Cleanroom — valid until: December 3, 2030 — Fraunhofer TESTED® DEVICE
igus GmbH
SLW-1040-10X25-E7-AL
Report No. IG 2511-1689

Test parameter	Cleanroom class
Pause time: 1,000ms Load (force): 25N	
V_1 = 20.83mm/s;	4
V_2 = 33.30mm/s;	4
V_3 = 41.70mm/s;	4
Overall result	**4**

Technical data

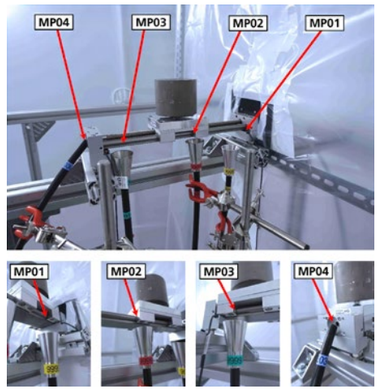
Installation size: SLW-1040

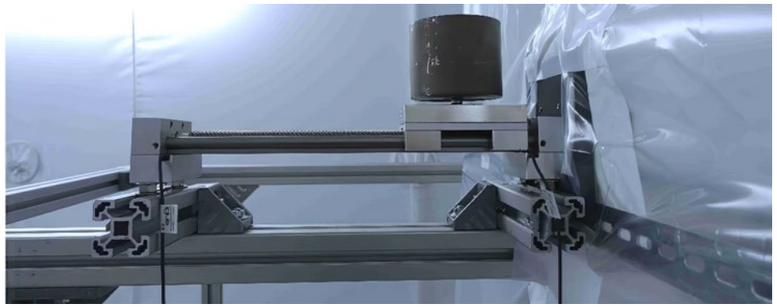
Lead screw size: DS10x25

Stroke length: 340mm

Liner and nut material: iglidur® E7

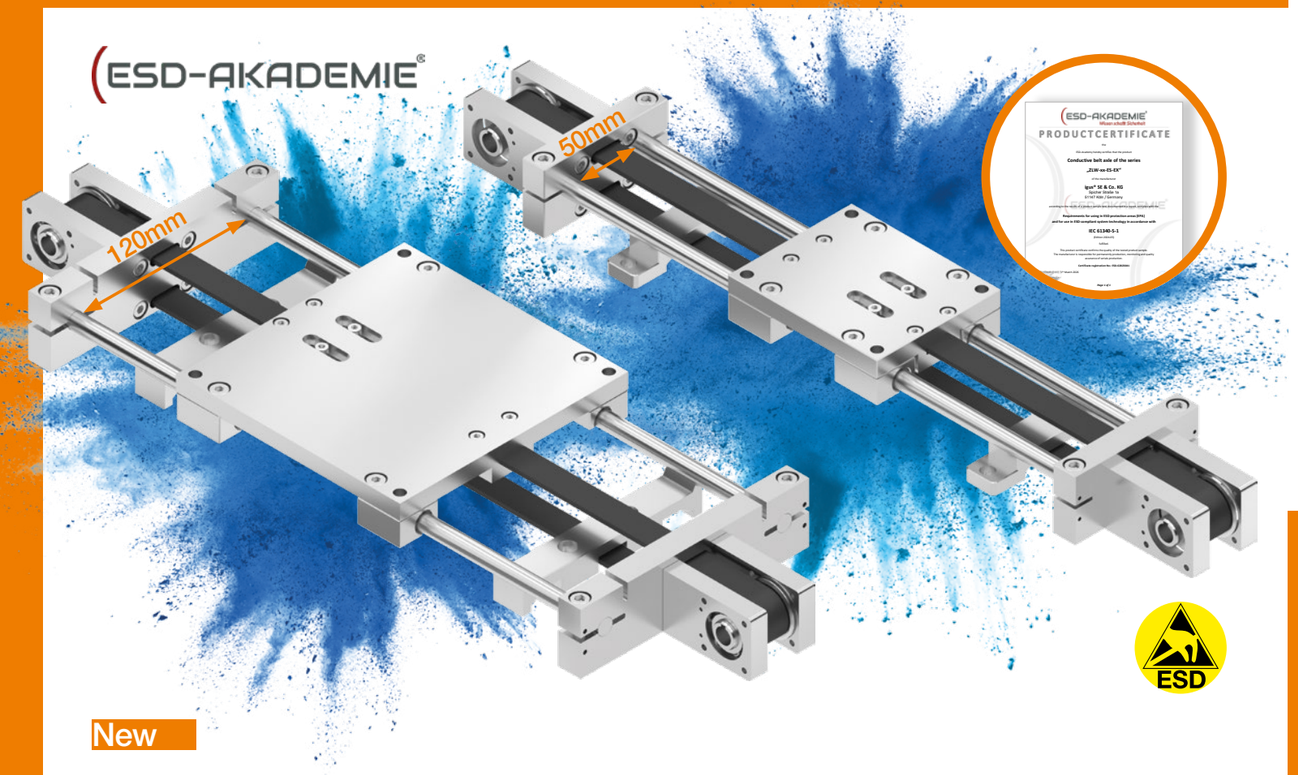
Linear guide material: aluminium





drylin® ZLW-xx-ES-EX

Certified acc. to IEC 6134051:2024



New

Safe linear movement without electrostatic risks

drylin® ZLW-xx-ES-EX

The drylin® ZLW-xx-ES-EX offers precise, maintenance-free linear movements and offers protection against electrostatic discharge. All guides, bearings and the toothed belt are made of conductive materials and have been certified by the ESD Academy according to IEC 6134051:2024. The axis is available in two widths. Thanks to stainless-steel components and iglidur® X bearing points, it is a corrosion-resistant and reliable solution in ESD-sensitive applications such as chemical plants or powder-coating processes, where even the smallest sparks can trigger critical reactions.

Two compact sizes: for small spaces (50mm) or wide supports (120mm)

▼ High process reliability: minimises downtime and production costs

■ Continuous ESD dissipation across the entire system, certificate available online at: igus.eu/drylin-esd

● 100% hygienic, no contamination of the operating environment

Part No.: ZLW-1050-ES-EX, ZLW-10120-ES-EX

Toothed belt axes in two installation sizes - certified according to IEC 6134051:2024

Safe linear movement without electrostatic risks

The new drylin® ZLW-ES-EX combines precise linear technology with reliable protection against electrostatic discharge. All relevant components - toothed belts, plain bearing points and guides - are made of conductive materials and have been certified by the ESD Academy in accordance with IEC 6134051:2024. This makes the system ideal for applications in sensitive areas such as electronics production, assembly automation or inspection and test systems.

The series is available in two versions: a narrow stainless-steel axis with a width of 50mm for compact installation spaces and a version with a width of 120mm for high stability and larger support surfaces. Shaft end support elements and linear guides made of stainless steel ensure corrosion resistance while the bearing points made of iglidur® X guarantee high wear resistance and reliable electrical conductivity.

Why ESD protection is crucial

Electrostatic discharges can permanently damage sensitive electronic components or falsify measurement results. Even voltages that are imperceptible to humans are enough to cause failures. An incorrectly derived system leads to:

- Increased reject rates
- Unplanned downtimes
- High costs for service and production

ESD-certified components safeguard the process, protect products and increase the reliability of the entire system.

Your benefits at a glance

- Certification by the ESD Academy in accordance with IEC 6134051:2024
- Protection against electrostatic discharge: safety for users and sensitive electronics
- Greater reliability, lower downtime costs: minimise production downtimes, protect against follow-up costs
- Corrosion-resistant stainless-steel components: stainless-steel shaft end supports and stainless-steel linear guide
- Bearings with iglidur® X: wear-resistant, maintenance-free and electrically conductive
- Conductive toothed belt: safe ESD dissipation across the entire system

Technical data

Toothed belt: polyurethane with graphite, steel reinforcement, electrically conductive

drylin® W linear guide round shafts/rail connectors: stainless steel AISI 304

drylin® W carriage: stainless steel AISI 304/AISI 316

drylin® liner material: iglidur® X

Shaft end supports/deflection unit: AISI 304/AISI 303

Extreme areas of application

Smooth operation of linear drives even at -40°C

Temperatures as low as -40°C pose a considerable challenge for technical materials as well as mechanical and electrical systems. They change physical characteristics, cause thermal contraction and can lead to condensation. Such conditions occur in Arctic regions, but are mainly application-related in:

- Food industry
- Logistics, cold stores
- Defence and commercial vehicles
- Research and science ...

Find out more in our new white paper!

Do you have special areas of application that you would like us to test for you? We have in-house testing facilities for cleanroom applications, cold chambers, ESD, dirt and more - we are happy to help you customise your system.

igus.eu/wp-cold

drylin® ZLX and SLX Protect

Fully protected

New

Toothed belt and lead screw axes with integrated cover

drylin® ZLX and SLX Protect

The drylin® Protect linear axes ZLX-806016-PT (toothed belt) and SLX-806016-PT (lead screw) offer maximum reliability thanks to a fully integrated metal cover that protects the guide, bearings and drive from dust, dirt and particles. In combination with the new drylin® W high profile made of clear anodised aluminium, a robust, assembly-friendly and completely closed system solution is created - ideal for automation, workspaces and machine panelling.

- ▲ Options for flexible assembly on profiles (type B) and components
- ▼ More reliability and longer service life. Less failures, lower wear, reliable operation
- ■ Tested in the igus® laboratory: ZLX-806016-PT, stroke length 1,000mm, speed 700mm/s, required cycles achieved (>500,000)
- ● 100% lubrication and maintenance-free, hygienic and quiet
- Service life can be predicted online using the drylin® online tools: igus.eu/ddx

Part No.: ZLX-806016-PT, SLX-806016-PT

Advantages of the Protect axes

Designed for maximum reliability

The new drylin® Protect linear axes ZLX-806016-PT (toothed belt) and SLX-806016-PT (lead screw) have been developed for applications in which dust, dirt and particles must be kept away from the linear technology. The integrated protective strip completely encloses the guide and protects the mechanics, bearings and drive from external influences. In combination with the new drylin® W high profile made of clear anodised aluminium, a robust, assembly-friendly and completely closed linear unit is created - ideal for workspaces, machine panelling, production cells and automation tasks.

Thanks to its sophisticated groove geometry, the high profile offers maximum design freedom: unsupported installation, compatible with standard profile structures and ideal for integrating additional components. Form-fit double bearing housings or pre-assembled carriage versions are available as a modular system - fully protected, quiet and lubrication-free.

Advantages of the Protect system

- All-round protection thanks to integrated metal cover:
  protects the entire linear guide from dust, dirt and particles
- Greater reliability and longer service life:
  fewer failures, less wear, reliable operation
- Increased mechanical robustness:
  closed design, rigid high profile, integrated guide technology
- Reduced risk of injury:
  moving components are fully covered.
- The metal band completely closes the profile so that no small parts or product residues can get into the guide
- Visual privacy screen:
  ideal for machine panelling, cleanroom workstations and handling zones

Advantages of the drylin® W linear design profile

- Corrosion-resistant and easy to assemble:
  clear-anodised rail profile
  Part No. WSX-806016-CA (see p. 150)
- Fully protected - guide is on the inside:
  invisible, quiet, safe from external influences
- Flexible integration:
  numerous grooves for connecting profiles (type B), accessories or additional modules
- Modular:
  Double bearing housing or pre-assembled carriage in three lengths
- Can be combined with SLX and ZLX linear modules
- 100% free from lubrication and maintenance:
  hygienic, quiet, long service life

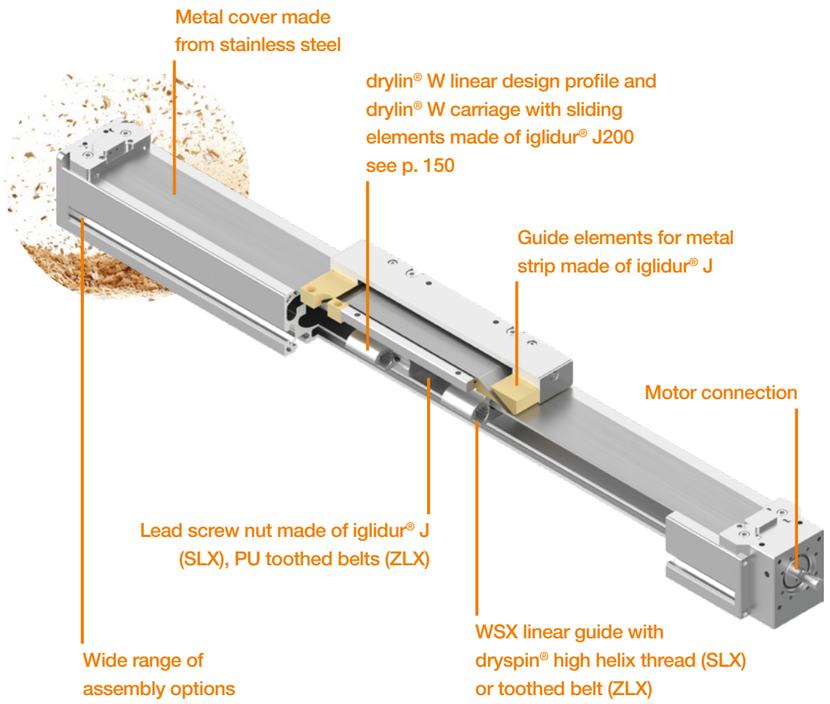
Service life can be predicted online using the drylin® online tools: igus.eu/ddx

Technical data

Max. temperature: +60°C

Horizontal load: 1,600N

Vertical load: 400N

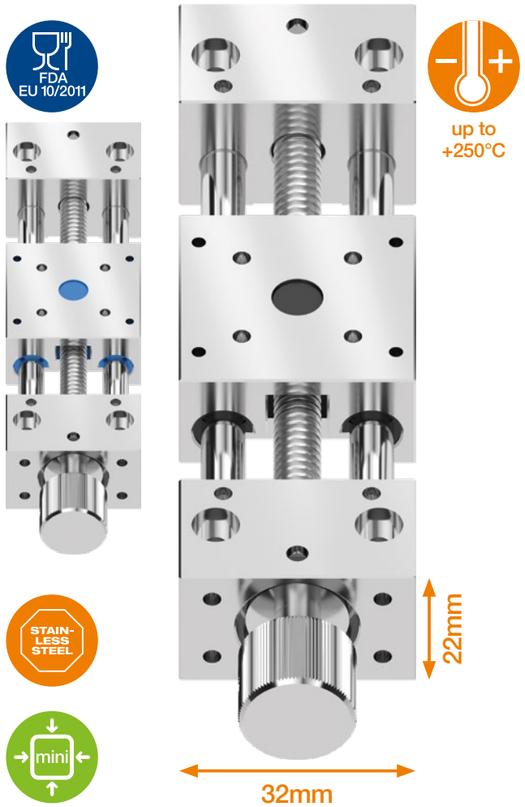


New

drylin® ZLX Protect
Protect linear axis with toothed belt drive

New

drylin® SLX Protect
Protect linear axis with lead screw drive



New

Miniature linear module for tight installation spaces

drylin® SLW

The SLW-0620-FL-ES-X is a space-saving solution for precise linear movements in tight installation spaces. With a width of only 32mm and a height of 22mm, the stainless-steel module combines a high level of stability with minimal installation size.

- ▲ With iglidur® X bearings: for extreme temperatures (from -100°C to +250°C), chemical demand or applications with conductivity. Other bearing materials: A160 (FDA/EU-compliant), JPF (PTFE-free, PFAS-tested)
- ▼ Simple cleaning processes thanks to highly resistant materials
- ■ Variable pitches: 1 to 25.4mm/rev for precise or fast movements
- ● Lubrication-free and low-maintenance

Part No.: SLW-0620-FL-ES-X

New

PTFE-free motorised telescopic extension

drylin® NTM

The NTM-45-PF driven telescopic extension combines a lightweight aluminium construction with completely PTFE-free and PFAS-tested sliding elements - ideal for hygienic, maintenance-free applications. Particularly impressive in mobile or compact applications, such as service robots, drone hangars or automated dispensing stations.

- ▲ Infinite stroke of up to 500mm, total length of up to 1,000mm
- ▼ Combination of dryspin® lead screw technology, toothed belt drive and drylin® E motor for long-lasting, clean and energy-efficient system
- ■ Tested: drylin® NTM-45 telescopic system with dryspin® lead screw DS8x10 and NEMA 17 lead screw motor, stroke: 500mm full extension, vertical installation position: load 40N, feed rate: 15mm/s, cycles: 50,000
- ● Aluminium centre-rail coated with iglidur® -IC-05PF (blue, PFAS-tested) - hygienic and future-proof

Part No.: NTM-45-PF

drylin® GRR-30

Pick & place up to 25kg

Application with the new drylin® R aluminium tube AWMR-30-CA see p. 158

kg up to 25 kg

New

Lightweight, rigid Z-axis for large robot and boom applications

drylin® GRR-30

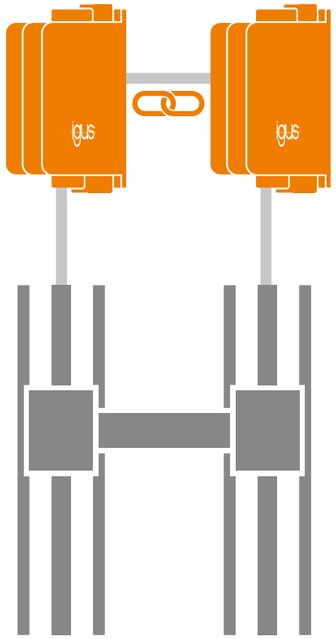
The Z-axis drylin® GRR-30 ensures high stiffness, low weight and precise movement despite long stroke lengths. With its new three-axis boom design, a powerful rack and pinion drive and lubrication-free components, it is ideal for continuous industrial operation in XXL linear robots.

- ▲ Triangular aluminium construction for high stiffness and low weight, no limitation of length thanks to rack and pinion drive
- ▼ Robust, rigid, ideal for 24/7 operation in industrial environments
- ■ High performance: up to 1,500mm stroke length and up to 25kg load capacity
- ● Plain bearings and gear racks made of high-performance plastic - low-maintenance and clean

Part No.: GRR-30

Firmware update for D1 motor control system

Synchronous and torque extension



Update

Save time and reduce cost with the new functions

Firmware update for D1 motor control system

The new firmware update for the D1 includes five updates. In addition to a synchronous movement of two to four axes for heavy-duty adjustments, there is also the "Torque Mode" which realises defined torques in turning, closing and opening applications.

- Five improvements/functions for automation
- The free update can be loaded on any D1
- Shorter commissioning thanks to tips in the GUI
- Digital product with unlimited multiple use
- Available online 24/7

Firmware update for D1 motor control system

The automation market is in constant transition, as both customer requirements and technical possibilities are continuously changing.

If a few years ago it was enough for a motorised drive to be able to move from A to B, it also has to be energy-saving, time-optimised and quiet today. Smart solutions should also be possible in order to network products. Furthermore, commissioning must be as quick and inexpensive as possible. To be constantly up to date, a motor control system must be updated regularly.

The D1 was developed many ago with digital signal processors and an integrated web server interface, so that it would still be up-to-date years later. This basis allows for regular release updates with new features that work with Google Chrome, Microsoft Edge and Mozilla.

A new function is synchronised adjustment, which uses two to four D1 controls as multi-axis adjustment without a separate master. One D1 takes over the control of the other D1 control units, whereby no programming skills are required. Both linear and rotary movements are supported.

The new function can be used for height adjustments, heavy-duty AWs and parallel adjustments in general mechanical engineering.
Torque mode allows defined torques to be used in turning, closing and opening applications.

The implementation is integrated according to CiA 402 with the following modes: Profile Torque, Cyclic Synchronous Torque, Profile Velocity + Torque Set-Point. Typical applications are the screwing on of screw caps in the bottling industry or the assembly of screws in general mechanical engineering. You will also be able to install further firmware updates on the D1 in future. We look forward to customer ideas and requests, which we can integrate.

drylin® E dryve experience

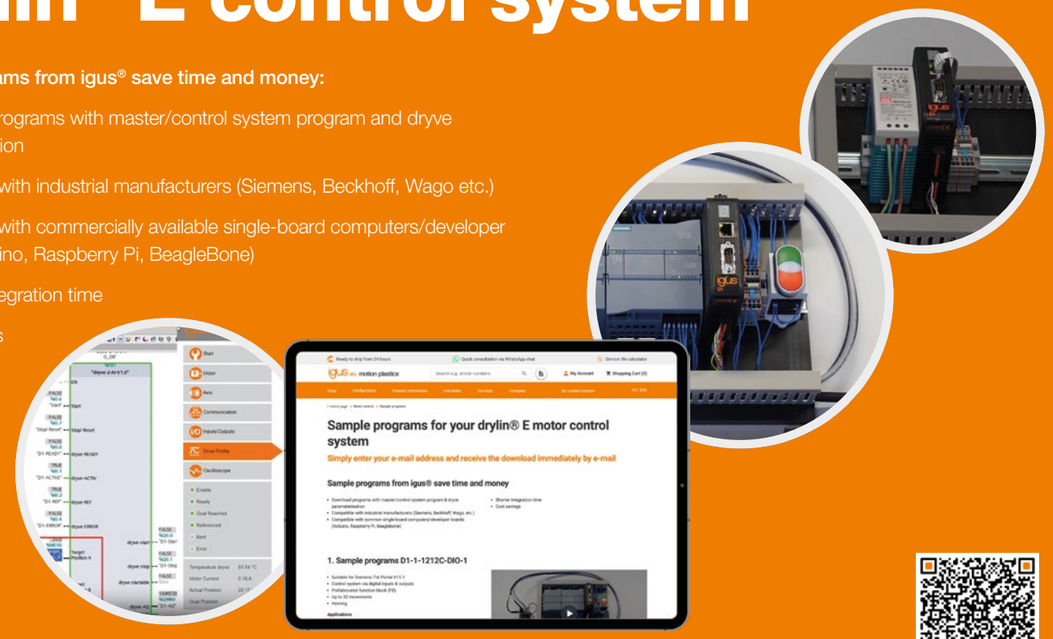
With the help of our drylin® E dryve experience, we support you during selection and commissioning. There you will find detailed tutorial videos of all functionalities for the respective motor control system, information on applications that have already been implemented as well as a selection guide for the motor control system that is right for you.

igus.eu/dryveXP

Sample programs for your drylin® E control system

Sample programs from igus® save time and money:

- Download programs with master/control system program and dryve parametrisation
- Compatible with industrial manufacturers (Siemens, Beckhoff, Wago etc.)
- Compatible with commercially available single-board computers/developer boards(Arduino, Raspberry Pi, BeagleBone)
- Reduced integration time
- Cost savings



igus.eu/sample-program

Spindle stepper motors with high torque

Compact and strong

New

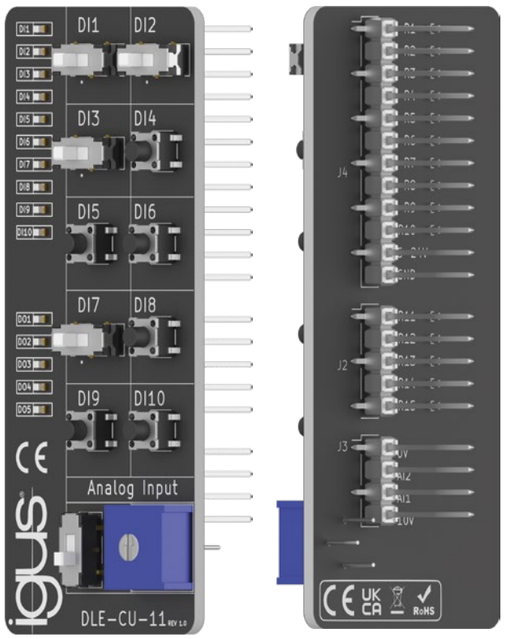
Control unit for igus® motor control systems

Manual control for jog mode, positioning and mini-automation

Mini automations can now be implemented directly on the touch display using the new control unit. In addition to basic linear and rotary movements, which can be performed in relative and absolute terms, functions such as counters, timers and the use of digital inputs/outputs can also be utilised. This means that the simplest automation systems such as test and inspection systems, production machines or even exhibition stand construction can be implemented.

- ▲ Automation without prior knowledge (no programming required)
- ▼ Control unit suitable for D1/D2, D5/6, D7/8/9
- ■ 14 additional control systems can be operated via control unit
- ● CE for EMC and ROHS

Part No.: DLE-CU-10



New

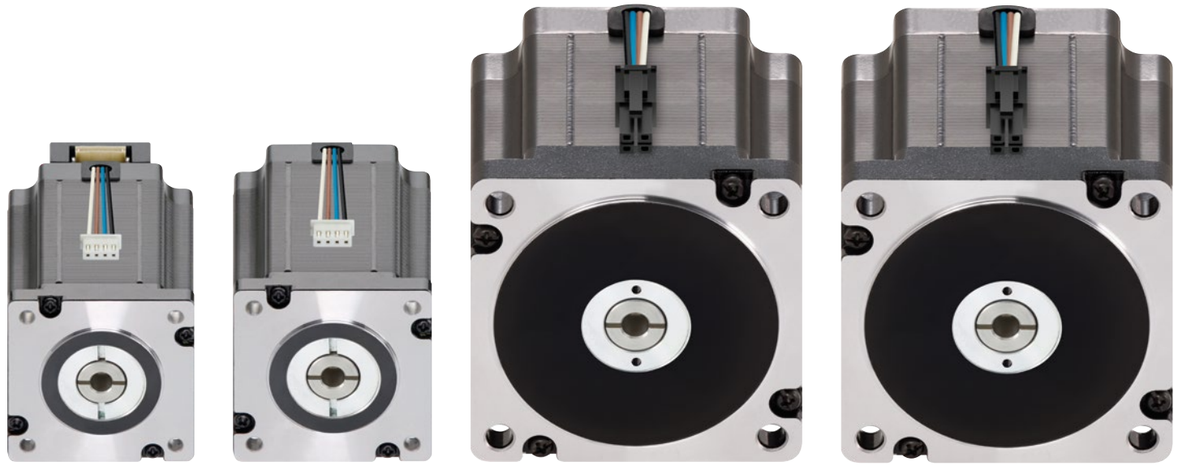
Simulator for igus® motor controls

Simulation of input/output signals

The new simulator control unit can be used to simulate the input/output signals of a D1/D2. Buttons, switches, potentiometers and coloured LEDs are installed on the circuit board to enable it to function with the motor controller. The simulator can be plugged onto the D1/D2 without tools, which saves time and costs during commissioning. The simulator is used for initial commissioning, as a simple control unit and for test purposes in research and development.

- ▲ Quick and easy operation of controls
- ▼ Control unit suitable for D1, D5/6, D7/8/9
- ■ 14 additional control systems can be operated via control unit
- ● CE according to ROHS

Part No.: DLE-CU-11



Plus

Spindle motors for powerful adjustments

Spindle stepper motors with high torque

The new NEMA24 and 34 size spindle motors expand the product portfolio of spindle drives. They have up to three times more torque compared to the familiar NEMA23 motor. The motors are equipped with the same spindle mount (7H7/M6), which enables a large selection of suitable spindles. Both motor sizes are available with and without encoders. All four motors are integrated both in the online configurator for spindle drives and in the D1 motor control unit. This ensures both quick selection and fast commissioning.

- ▲ Powerful spindle motor with direct spindle connection
- ▼ Four new engine types
- ■ Up to three times greater torque compared to NEMA23
- ● Lubrication- and maintenance-free with up to 20,000 operating hours
- Spindle actuators can be calculated online: igus.eu/DSE

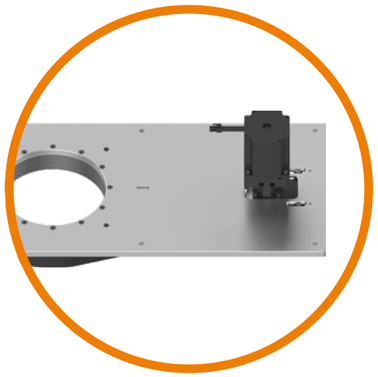
Part No.: MOT-ST-60-L-A-A, MOT-ST-60-L-C-A, MOT-ST-86-L-A-A, MOT-ST-86-L-C-A

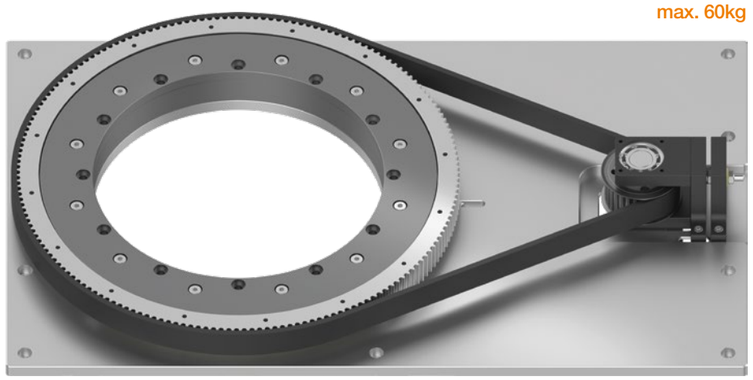
Rotary tables with high torque drive

Round and powerful

max. 40kg

max. 60kg





New

Rotary tables for high snapshots

Rotary tables with high torque drive

The new rotary tables in sizes 200 and 300 expand the product portfolio of drylin® rotary actuators. The larger bearing diameter enables higher loads and greater rigidity with off-centre loads. The motor bearing has an integrated belt tensioning device that enables inspection, adjustment and maintenance. Mounting holes are integrated in the aluminium base plate to enable the operator to be easily mounted on aluminium structural profiles. Both motors and geared motor combinations can be installed as drives.

- ▲ Powerful rotary actuator with high momentum
- ▼ Predefined rotary table axes
- ■ 600% higher load compared to the DLE-RT-50
- ● Adjustable belt tension
- Rotary table can be calculated online: igus.eu

Part No.: DLE-RT-200-xxxx, DLE-RT-300-xxxx

Mobile drive technology on tour in Europe

Experience the world of drylin® drive technology live - with the igus® dryve bus, our mobile in-house exhibition full of electrical linear technology. From motors and control technology to complete linear axes: bus brings the latest products directly to your company premises - customised, free of charge and entirely according to your wishes.

Highlights:

- **Live demonstration of drylin® linear technology, motors and control systems**
- **Personalised advice specifically for your application**
- **Drive two linear axes synchronously? No problem - experience it live!**
- **Manual adjustment, emergency stop scenarios, control concepts - everything at your fingertips**
- **No travelling or accommodation costs for your employees**
- **Flexible in terms of time - you determine the process**

igus.eu/drylin-roadshow

igus®

Improve what moves ...

Low Cost Automation

Tech up · Cost down · Proof · Sustainability · Digital

188 Affordable household robotics
iggyRob Home

189 The smart ReBeL® with AI features
ReBeL® 6 DOF AI version

190 The mobile robot platform for all cobots
ReBeLMove Pro with cobot

192 Linear robots for every requirement
New generation of robots in sizes S, M, L

197 Faster programming, cleaner welding, more precise dosing
iRC V15 software update

Quick consultation anywhere, at any time

In person

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Chat
Online and WhatsApp
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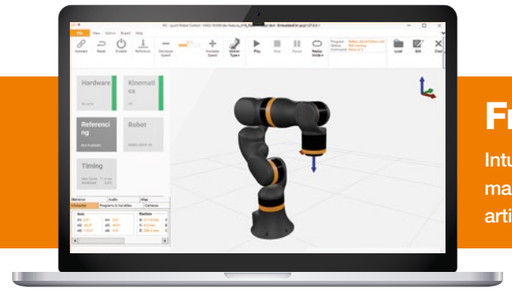
On site
Sales representative
Roadshow/Trade show
igus.eu/lca-roadshow

Robotics meets agriculture

The ReBeL® cobot takes on repetitive tasks in vegetable growing - reliable, cost-efficient and around the clock.



Free robot software

Intuitive software for robot programming and control that supports nine manufacturers with over 100 kinematics, such as delta, linear and multi-axis articulated robots: **igus.eu/irc**

igus.eu/news-LCA

iggyRob Home

Helpful. Flexible. Human.

Study

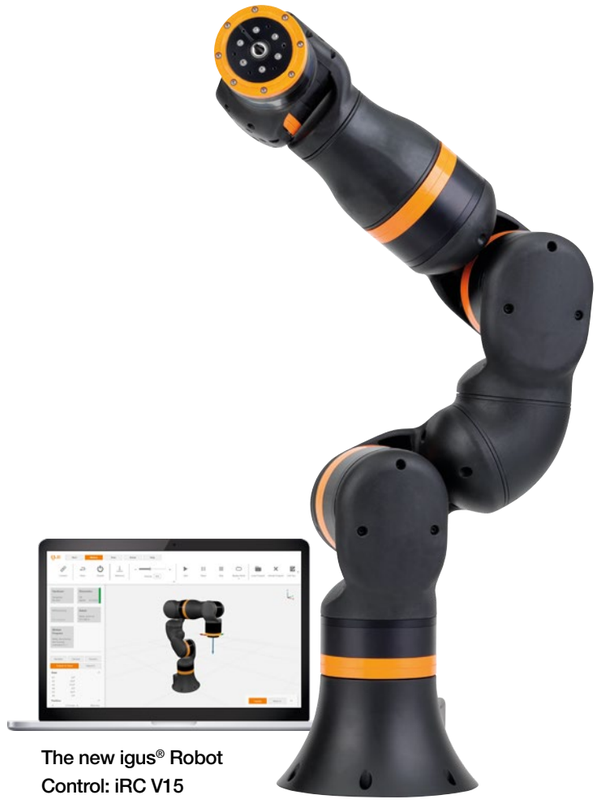
Affordable household robotics

iggyRob Home

The iggyRob Home combines ReBeL® cobot arms with a mobile base and lift for use from the floor to the table. It can be combined with other cobots as an option. The iggyRob Home is the ideal household helper. It carries out repetitive tasks and provides support in everyday life. Robot platform with its own software that can also be controlled via ROS2 integration.

- ▲ Two ReBeL® arms on a mobile platform with height adjustment for maximum reach
- ▼ Can be used in many applications regardless of their location
- ■ Customers have used ReBeL® cobots successfully for years
- ● Lightweight construction thanks to motion plastics® components
- Free robot control system: igus.eu/irc

26-LCA-04



The new igus® Robot Control: iRC V15

Update

Developed, designed, manufactured - in Cologne

ReBeL® Cobot

Our cobot is not a system with parts we purchased - we developed, designed and manufactured it from scratch at igus®. As one of the few European manufacturers to realise cost-effective robotics entirely in-house, we know every detail. This makes us independent, fast and reliable.

- ▲ Optimisations to the axis geometry now allow unlimited rotation of the 6th axis
- ▼ Most cost-effective cobot made in Germany
- ■ Over 1,000 ReBeLs® already in use
- ● Lubrication-free thanks to motion plastics®
- Over 50 digital interfaces

Part No.: REBEL-6DOF-03

26-LCA-06

Summer 2026

Study

The smart ReBeL® with AI features

ReBeL® 6DOF AI version

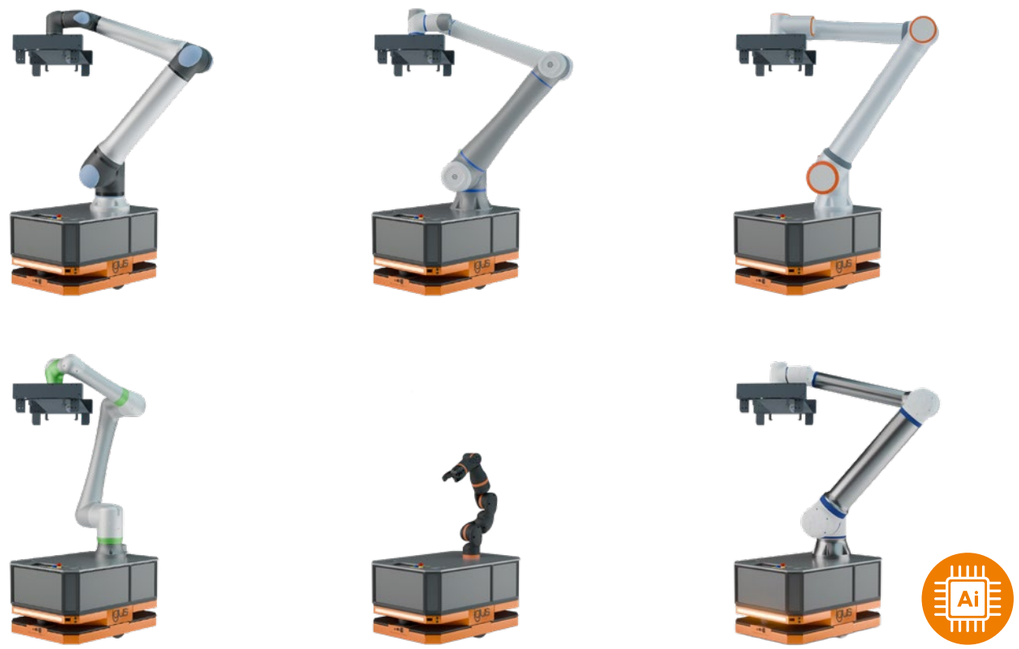
Thanks to state-of-the-art AI chip technology from a leading supplier of semiconductors and sensors, the ReBeL® runs more precisely. No referencing required, simply switch it on and get started.

- ▲ Integrated AI chip allows for absolutely reliable start-up behaviour and ultra-smooth movement sequences
- ▼ Predictive maintenance recognises wear and prevents expensive production downtime
- ■ First presentation at the Automate 2026
- ● Reduced material wear thanks to AI-optimised, jerk-free motion paths
- Real-time data analysis without delay thanks to external cloud connections

26-LCA-05

ReBeLMove Pro with cobot

Mobile robot learns to grip things



New

The mobile robot platform for all cobots

ReBeLMove Pro with cobot

The mobile robot platform can be equipped with cobots from the following manufacturers: igus®, Fairino, FANUC, Dobot, Elite Robots or UR for flexible use at any location. This turns the mobile platform with cobot into a multi-functional mobile cobot. Your robot is not included? We are happy to make this integration available to you.

- ▲ For example: transport of SLCs weighing up to 20kg
- ▼ One manipulator operates several stations autonomously, reducing the need for expensive, stationary units
- ■ Already in use by customers for several years
- ● A robot arm can work at several workstations regardless of location
- Individual robot control system for synchronised robot programming

26-LCA-07

ReBeL® Pallet Mover 300, 1400 und 1500

Autonomous forklift fleet

Update

Efficient warehouse automation for loads of up to 1,500kg

ReBeL® Pallet Mover 300, 1400 und 1500

Smart warehouse logistics for 300 to 1,500kg payload and a lifting height of up to 10m: our autonomous forklifts optimise warehouse processes and pallet handling.

- ▲ Typical applications include the transport of SLC stacks, transport rollers and lattice boxes. Also available as an outdoor version
- ▼ Maximised operating times and high speeds significantly reduce the process costs per pallet moved
- ■ Live test possible: visit our mobile robot days and test the systems with your application
- ● Energy-efficient for environmentally friendly warehouse logistics
- Integration into existing warehouse management systems through digital fleet control system

Part No.: REBEL-PALLET-MOVER-300, REBEL-PALLET-MOVER-1400, REBEL-PALLET-MOVER-1500

26-LCA-08

New generation of robots in sizes S, M, L

Big or small - we automate it all

New

Linear robots for every requirement

New generation of robots in sizes S, M, L

From compact linear robots in size S to heavy-duty ones in L: our modular system offers ready-to-install solutions with drive technology and customised energy chain sets.

- ▲ Optimised connections for a wide range of mounting accessories for mechanical-engineering profiles and flat surfaces
- ▼ Faster assembly thanks to alignment aids
- ■ Configurator with service life calculation based on data collected in years of testing linear robots in our in-house laboratory
- ● motion plastics® for durable axes
- Precise digital configuration in the online shop and programmable with free igus® Robot Control (iRC): igus.eu/irc

Application example

One solution for many sizes

Small - precision on a small scale
Small linear robots with lead screw or toothed belt drive are the first choice for laboratory and laboratory equipment applications. Their compact design and high repeatability make them ideal for dosing, pipetting or positioning tasks - wherever precision is required in confined spaces.

Medium - versatile in everyday life
Medium-sized linear robots impress with their flexibility in general machine applications. Whether they dispense drinks and ice cream or carry out non-contact layer thickness measurement of sheet metal, foils and powder coatings - they combine reach, dynamics and efficiency for a wide range of applications.

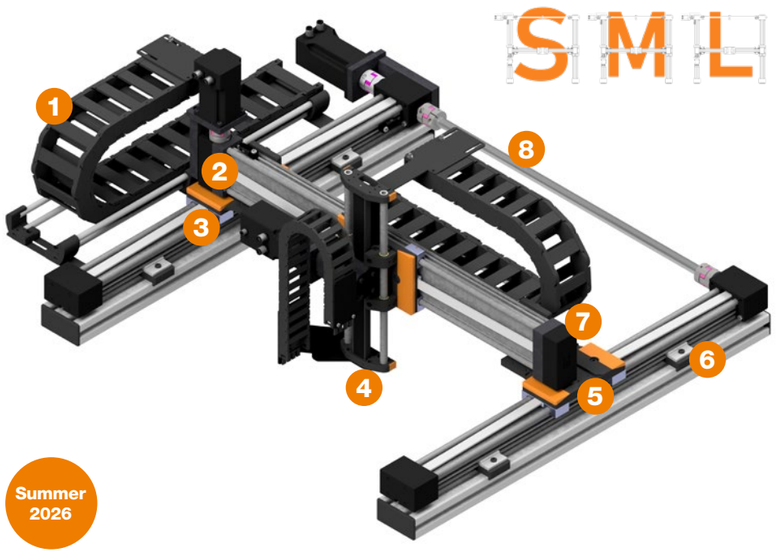
Large - power for big tasks
Large linear robots are predestined for power-intensive and large-area applications. From polishing processes to the loading and unloading of larger machines and demanding material-handling tasks - they offer the necessary load capacity and range to work reliably on an industrial scale.

Series	Part number	Load [Kilogram]	Max. installation space [mm]
S	LCA-LG-S-25	2.5	1,000×150
	LCA-FG-S-75	7.5	1,000×1,000
	LCA-RG-S-25	2.5	1,000×1,000×150
M	LCA-LG-M-50	5	2,000×500
	LCA-FG-M-150	15	2,000×2,000
	LCA-RG-M-50	5	2,000×2,000×500
L	LCA-LG-L-100	10	3,000×1,000
	LCA-FG-L-300	30	3,000×3,000
	LCA-RG-L-100	10	3,000×3,000×1,000

The right room linear robot in minutes - customised and durable

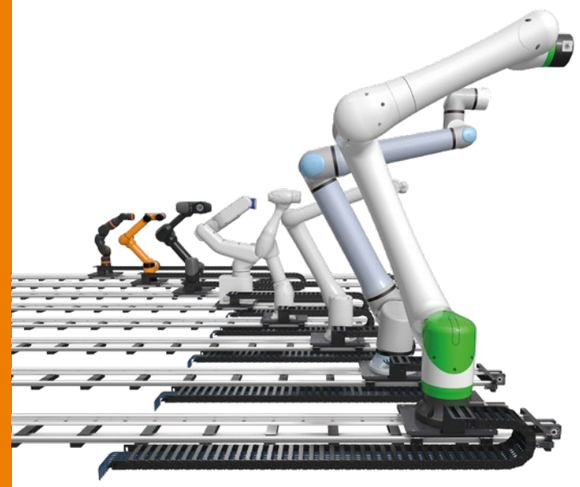
The room linear robot configurator allows for a technically sound design of your system - including load and speed calculations, guaranteed service life statements and the selection of compatible energy chain systems for your cable guide. All parameters are harmonised so that you can quickly achieve a reliable, efficient and industrial linear robot.

tpdb2.truphysics.com/igus/gantry



Summer 2026

1. Energy chains
   - For fast commissioning
   - Ideal protection for your cables
2. Limit switch
   - Ideal for the alignment of your linear robot
   - Flexible positioning
3. Improved bearing technology with parallelism adjustment
4. Extended mounting option at the tool centre point
5. Optimised carriage plate
   - For easy mounting and alignment
   - Design that is optimised regarding workspace and weight
6. Simple fastening
   - Mechanical-engineering profile 40mm
   - Mechanical-engineering profile 80mm
   - For flat surfaces
7. Alignment tool Aid for simplified alignment of the axes
8. Torsionally more rigid main shaft



Plus

Now compatible with cobots from Fairino and Dobot

Seventh axis for a reach of up to 6,000mm

The seventh axis extends the operating range with an accuracy of ±0.1mm and is suitable for maximum industrial flexibility thanks to IP40.

- ▲ Flexible robot use instead of rigid kinematics with a speed of up to 0.6m/s
- ▼ One axis for everything: use one robot at several stations instead of making multiple high investments
- ■ Robust industrial quality with protection class IP40 for permanently fast and precise motion sequences
- ● 100% lubrication-free toothed belt axis - clean in operation and absolutely low-maintenance for the entire service life
- Combine robots from a wide range of manufacturers with a seventh axis in the configurator

26-LCA-02

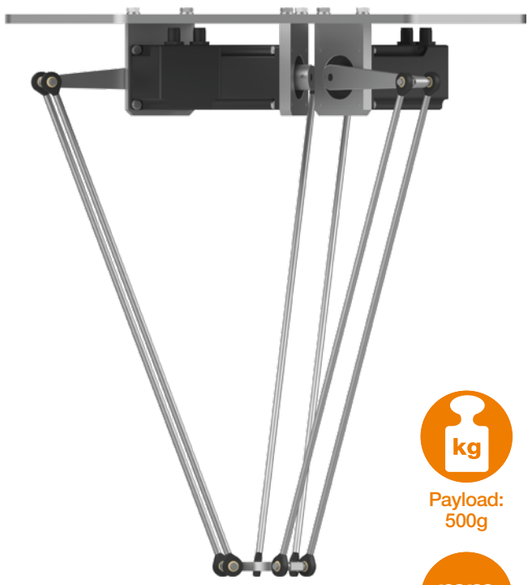
Study

Small delta, high speed

Compact delta robot

The Delta robot automates pick & place tasks precisely on a compact area of 500x500mm. For standard payloads of up to 500g.

- ▲ Dynamic parallel kinematics with up to 60 picks per minute
- ▼ No maintenance required thanks to high-performance polymers
- ■ New installation size: long-term tests with additional Delta robots in the igus® laboratory for millions of cycles
- ● Lightweight design reduces the energy requirement during operation and makes the system very durable
- Quick commissioning and simple programming via the free igus® Robot Control (iRC) software



kg
Payload: 500g

mm
Workspace: 200x120mm

26-LCA-03

ROIBOT IMPACT -

The award for automation that makes an impact

With the new ROIBOT IMPACT Award, we are honouring clever low-cost robotics with a real impact: solutions that improve processes, support people, remove barriers or open up completely new paths in automation. The 2024 winners have shown the potential of this approach - and it is precisely from this that the award's new mission statement is born.

Why take part?

ROIBOT IMPAC - the award for automation that makes an impact. The ROIBOT IMPACT Award recognises applications that are technically smart, economically viable and socially relevant. It's not about the biggest system or the highest budget - but about solutions that visibly make a difference.

Winners 2026

1st place: €5,000 RBTX® voucher

2nd place: €2,500 RBTX® voucher

3rd place: €1,000 RBTX® voucher

What we are looking for

The ROIBOT IMPACT Award is aimed at automation heroes. In other words, companies, makers, start-ups, research teams and anyone who uses robotics in an innovative way and with a goal.

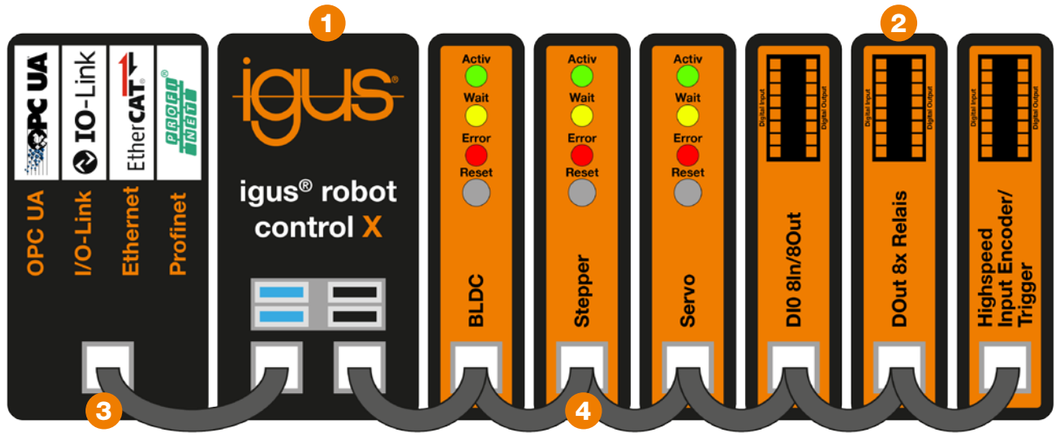
Evaluation criteria are:

- **Impact**: what effect does the robot solution have?
- **Cleverness**: how smart was the use of low-cost robotics?
- **Surprise**: is the application unique?
- **Feasibility and efficiency**: ROI, use of resources, everyday benefits

roibot.com

igus® Robot Control platform

Maximum connectivity



1. Open control architecture based on CANopen
2. IO modules - wide range for every application: digital IO, analogue IO, IO link and safety integration
3. Industrial communication interfaces: ProfiNet, EtherCAT, Madbus, OPC UA
4. Motor modules: BLDC, stepper, servo and other motor technologies can be fully integrated

Update

igus® Robot Control, the platform that connects

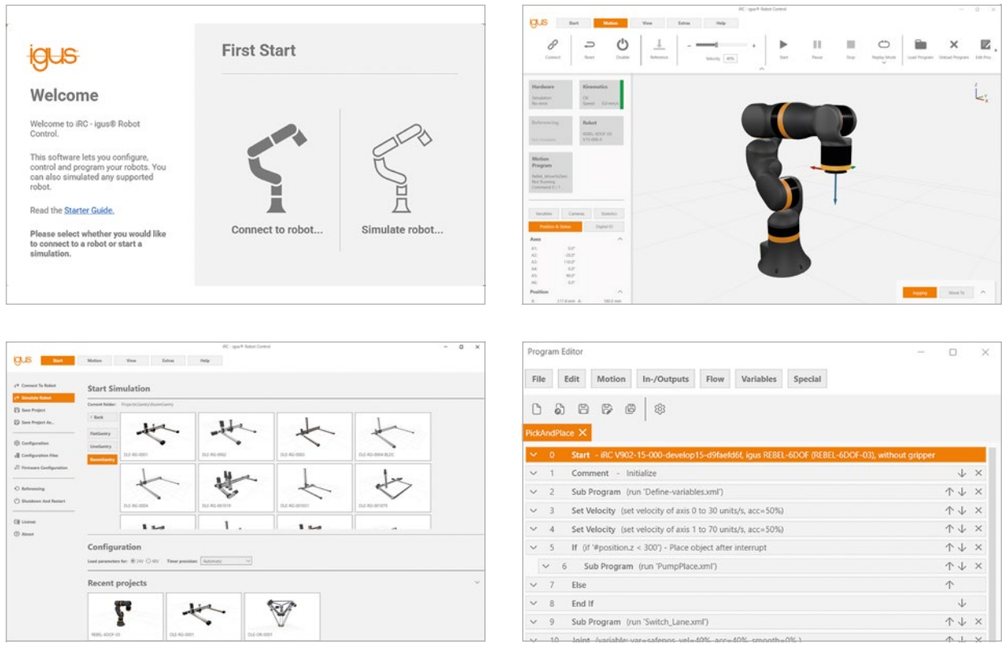
igus® Robot Control platform

The igus® Robot Control is an open, Linux-based control platform for industrial robotics - developed and manufactured in Europe. Compatible with ROS 2, modular and low cost. No black box, no being dependent on third-party providers. The ideal basis for anyone who wants to design their own robotics.

- ▲ App-based control platform for maximum connectivity
- ▼ Scalable number of modules reduces hardware investment costs for system expansions
- ■ Over 5,000 robot control systems in use
- ● Can be expanded at any time without restrictions
- Free igus® Robot Control allows all functions to be integrated online in advance: igus.eu/irc

iRC V15 software update

Programming without prior knowledge



Update

Faster programming, cleaner welding, more precise dosing

iRC V15 software update

The new version offers a variety of apps, such as DXF spot welding, a machine-operating interface and dosing software, optimised path planning for better precision and speed as well as an integrated wiki.

- ▲ Integrated wiki facilitates the creation of robot programs. Quick access, fewer errors, more efficiency
- ▼ New simplified interface for machine operators - focussed on the essentials: program, select, load, start and stop
- ■ Direct error handling with wiki reference shortens troubleshooting time
- ● Resource-saving process management through efficient algorithms for motion control system
- Dedicated apps for dosing and welding processes, all in the iRC: igus.eu/irc

Improve what moves ...

RBTX® Robotix for less

RBTX by igus®

Tech up · Cost down · Proof · Sustainability · Digital

201 **The future is humanoid: solutions for your production and research**
Manufacturer-independent marketplace for humanoid robotics

202 **The fastest way to get started with automation**
RBTX® complete solutions

204 **Robot solution with CE and CAD at a fixed price**
The new RBTX® Machine Planner

205 **Versatile aluminium modular profile system**
Wide range of aluminium profiles

205 **RBTX® Learn: learn automation knowledge efficiently**
RBTX® Learn platform

Quick consultation anywhere, at any time

In person
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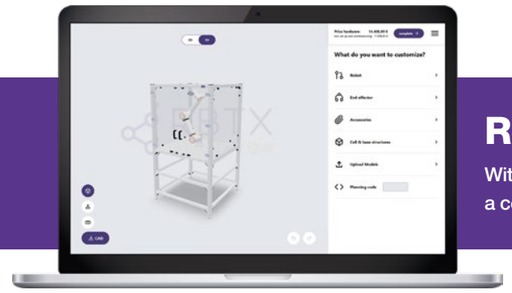
+49 (0) 2203 9649-9449
jens.klaerner@rbtx.com

Online
Free consultation
rbtx.de/en-GB/rbtxpert

On site
Customer Testing Area
rbtx.de/en-GB/customer-testing-area

Automatic test cell

Robotics meets quality inspection. SCARA robots ensure precise testing of printed medical technology sensors. Robust, lubrication-free and reliable in the long term.



Robot solution in 5 minutes

With the Machine Planner, you can create complete machines consisting of a cell, robot, gripper and accessories online: **igus.eu/machine-planner**

igus.eu/news-LCA

Customised automation at a fixed price

Applications that work

Ready-made solutions

We plan, build & install - also on site

Buy & build yourself

1000+ components from 250+ partners

RBTX Learn

Online academy for beginners and experts

New

RBTX® - from the component to the complete system

Customised automation at a fixed price

RBTX® makes low-cost robotics accessible from start to finish with its new integration platform: in the shop, you are guaranteed to find compatible components at transparent prices - from robots and sensors to adapters and software. RBTX® offers a complete integration service as an option. For those who want to build confidence in the technology first, RBTX® Learn is a learning platform that shows how easy robotics really is today.

- ▲ From planning to commissioning, everything is coordinated
- ▼ Only tested, compatible marketplace products at the best possible price
- ■ Proof of concept before the final investment, see the solution in practice before purchase
- ● Customised system selection from tested components avoids bad investments
- Enter your automation requirements and receive a customised solution with the quick configuration on RBTX®

26-LCA-10

Manufacturer-independent marketplace for humanoid robotics

The human being as a yardstick

New

The future is humanoid: robotics is based on humans

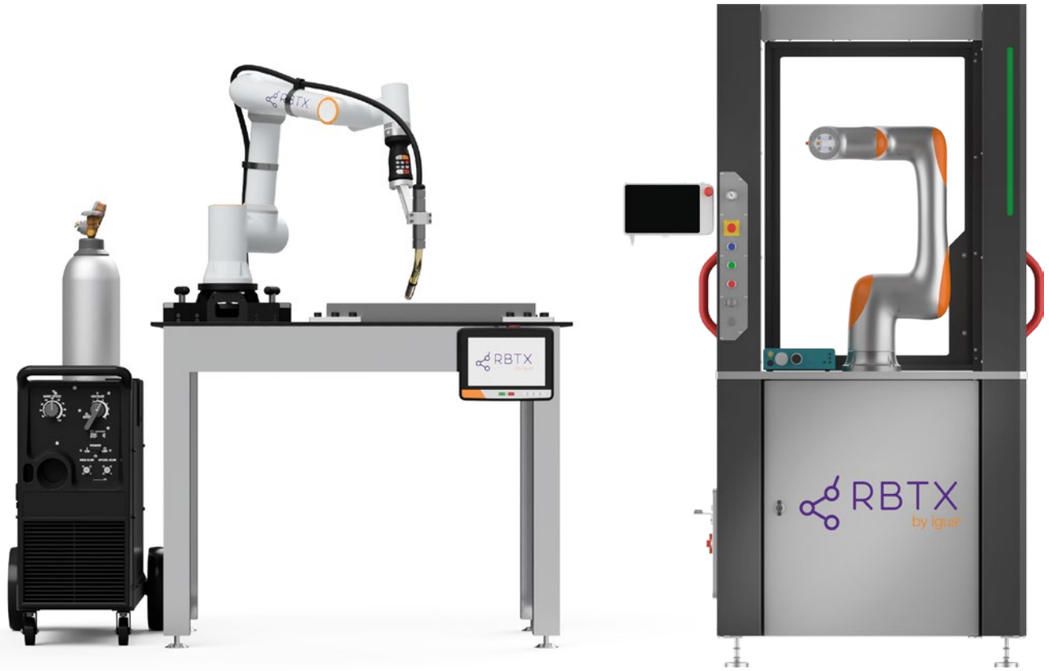
Manufacturer-independent marketplace for humanoid robotics

Large selection of humanoid robots from over 35 manufacturers with over 100 models. We have the right solution for every application, independent of the manufacturer and realistically evaluated. We make it clear what is technically possible and where there are limits, and offer flexible models such as rental or hire purchase for a smooth entry into the world of automation.

- ▲ From the first impression to the finished integration - everything at RBTX®
- ▼ Focus on cost-effective versions and rental models, humanoid robotics without high investment costs, scalable as required
- ■ Test before you invest: experience the robot live before you make a decision
- ● Manufacturer-independent advice prevents bad investments
- Software expertise and marketplace RBTX® for digital comparability

26-LCA-11

Robotix for less... complexity



New

The fastest way to get started with automation

RBTX® complete solutions

Ready-to-use standard solutions on RBTX® based on successfully implemented solutions: cost-effective, proven, can be tested on site and digitally simulated in advance.

- ▲ Complete solutions for frequently requested applications such as gluing, welding or palletising - ready for immediate use
- ▼ Best price-performance ratio, thanks to application-orientated development of software and hardware
- ■ The complete solutions can be tested on site in the RBTX® customer testing areas
- ● Fewer resources required thanks to standardised, tried-and-tested solutions
- Take a remote look at the applications with our RBTXperts

26-LCA-12

Application examples

Wide range of complete solutions

Automated welding with a cobot

RBTX® welding solution

Automated welding made easy: in co-operation with the established welding equipment manufacturer Lorch, RBTX® offers complete turnkey solutions for MIG and MAG welding. Precise, reproducible welding seams without operator expertise.

Cobot cell for dosing and gluing applications

RBTX® adhesive solution

Precise gluing and dosing with the robot cell: whether cartridges, kegs or dosing systems - the robot cell applies adhesives and media, evenly and reliably.

Efficient palletising solution for logistics

RBTX® palletising solution

Boxes, cartons, bags - simply stack and destack them automatically: palletising robots from various manufacturers can be used to palletise goods that weigh up to 50kg reliably and flexibly. Fast commissioning, compact design, ready for immediate use.

Simulation meets reality

RBTX® physical AI learning station

Robots from a wide range of manufacturers can be connected to the learning station. The AI uses real components to learn on the object how to carry out automation tasks.

Can't find anything suitable?

RBTX® offers a wide range of ready-to-use robotic solutions. More than 20 systems are available at transparent prices and in compliance with all the necessary security requirements.

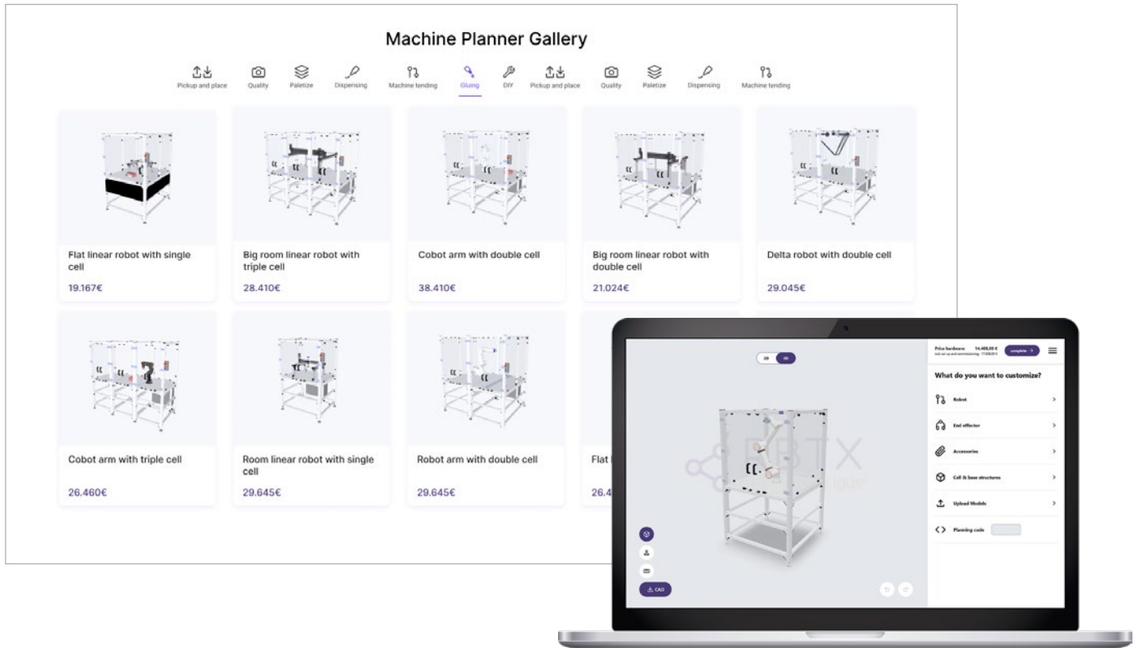
If none of the available solutions exactly meets your requirements, we will support you personally in an RBTXpert appointment. Together, we will analyse your application, clarify technical details and develop a customised solution that automates your process precisely and efficiently.

We will support you as your technical contact - from the initial concept to the selection of suitable components to the final implementation.

rbtx.de/en-GB/rbtxpert

The new RBTX® Machine Planner

Create a robot cell in five minutes



Update

Robot solution with CE and CAD at a fixed price

The new RBTX® Machine Planner

Plan applications now with many new products. These include cobots from Fairino and Dobot, with signal lights and maintenance sets. Plan mobile cells on rollers or with profiled doors. In our application library you will find a variety of designs that are ready to use or can be customised - whatever you require.

- ▲ Automatic creation of risk and hazard assessment during configuration
- ▼ Create an entire robot cell within five minutes
- ■ Thousands of robot solutions already in use by customers
- ● Process optimisation through digital twins conserves physical resources right from the design phase
- Configure CE-ready cell online without CAD knowledge

26-LCA-15

Lengths of up to 3,000mm

New

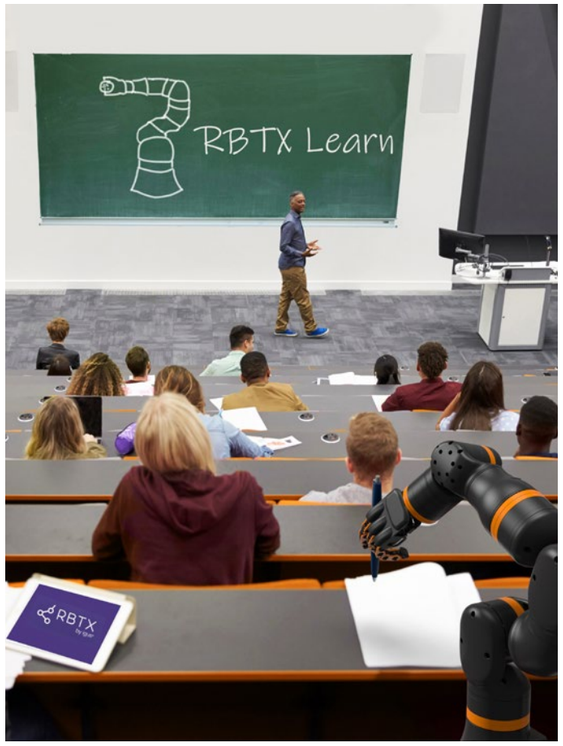
Versatile aluminium modular profile system

Wide range of aluminium profiles

New in the RBTX® shop: large aluminium modular profile system: compatible with item and Bosch, cost-efficient, sustainable retrofitting.

- ▲ Wide range of item- and Bosch-compatible parts for modular robot cells, grippers and frames
- ▼ Lightweight aluminium profiles without rework reduce installation time and costs
- ■ 15 years of experience in cell construction with aluminium profiles
- ● Modular system allows for conversions instead of new purchases - no material waste
- Configure complete robot cell digitally in advance in the RBTX® Machine Planner: configurator.rbtx.com/de/en/machine-planner/designer

26-LCA-14



New

RBTX® Learn: learn automation knowledge efficiently

RBTX® Learn platform

RBTX® Learn is an interactive online platform that offers expertise in robotics, EOAT, safety and programming - perfect for beginners and professionals in automation.

- ▲ Manufacturer-independent teaching of practical automation skills for immediate application
- ▼ Reduces training effort through clear video guides and standard processes
- ■ 25 learning modules available, with new videos being added continuously
- ● Knowledge transfer without time-consuming travelling
- Available around the clock for learning anytime, anywhere and at your own pace

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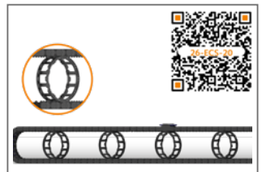
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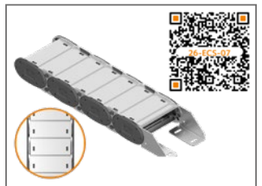
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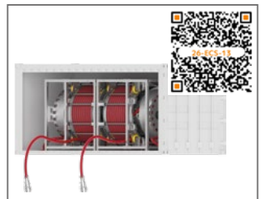
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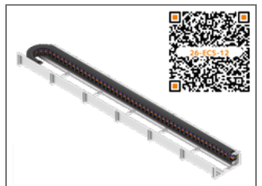
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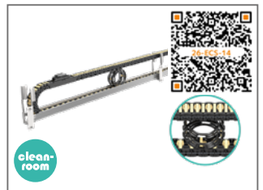
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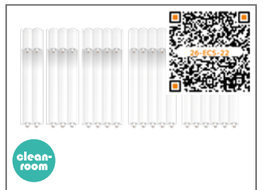
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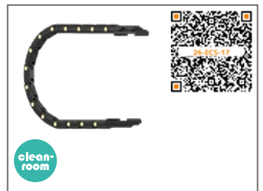
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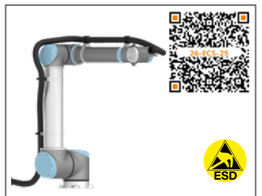
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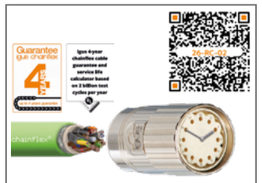

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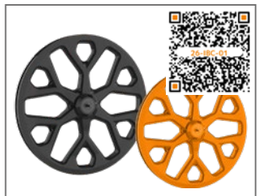

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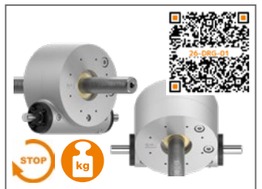

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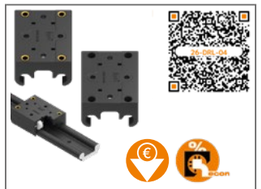
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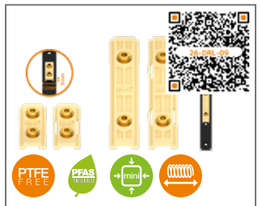
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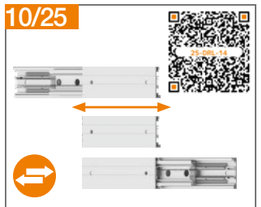
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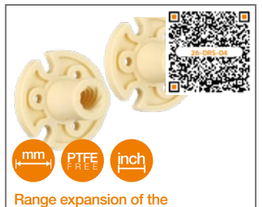
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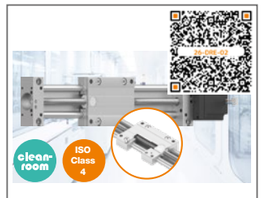
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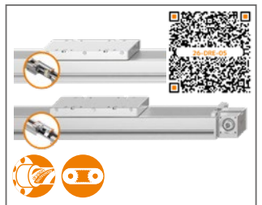
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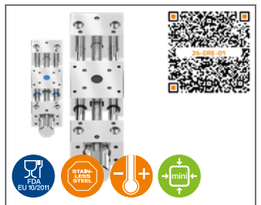
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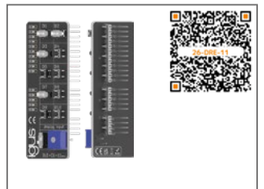
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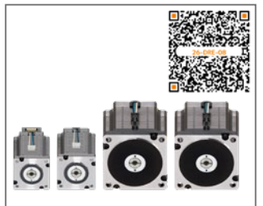
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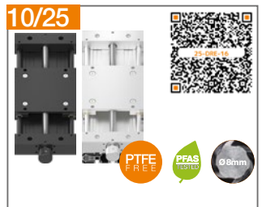
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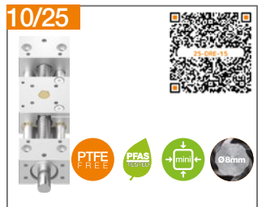
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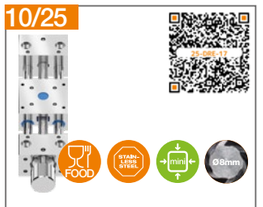
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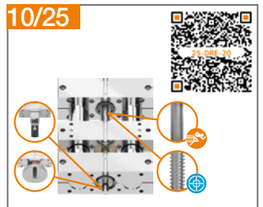
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DLE-CU-9 quick and easy to set up

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DLE-CU-7 easy, safe and quick to install

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Expansion of the series of stepper motors with 24V encoder

Low Cost Automation

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Mobile robot platform - ReBeLMove Pro - from €39,800

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Mobile robot platform ReBeL® EduMove

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ReBeL® Environment

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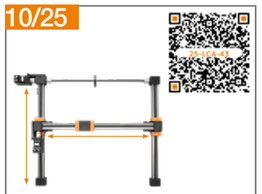

Linear robots with two or three axes

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Operate robot kit with modular system and industrial iRC software

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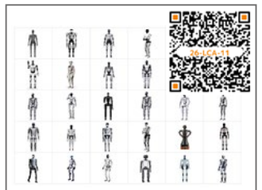
Rotary-drive unit for laboratory and medical technology

RBTX® market place

RBTX by igus®

Customised automation at a fixed price Page 200



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Linear robot with Siemens S7 control system

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XXL 3-axis delta robot with up to 96 picks/min.

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Customised telescopic lifting units for your automation solution

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Practical tips and concrete solutions on the "Learn More" pages of RBTX®

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RBTX® online tools

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Heavy lifting made easy

Discover the diversity of motion plastics®

Print2Digital ... made easy

The QR code will take you directly to the relevant category and/or to the product's shop page.
In addition to the detailed technical information in the shop, you can also access it there as a compact "factsheet" in PDF format.

GRS-A-0007

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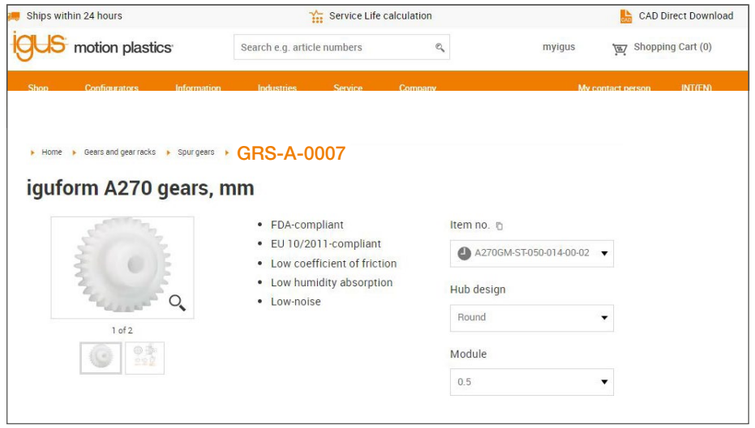


All igus® catalogues online at:

igus.eu/online-kiosk

Facts

The story behind igus®

"Give me your most difficult part and I will give you a solution", said Günter Blase. He had to take a risk in order to win over Pierburg, his very first customer. There were two children at home who needed to be cared for. Money was in short supply. He had just set up igus® with his wife (tax consultant) and the first injection moulding machine still had to be bought. The order from Pierburg was urgently needed.

And Günter Blase received that enquiry from Pierburg. Their complicated problem part was a valve cone for a carburettor. In 1964, no-one would have come up with the idea of using plastic to make this small metal component and, what's more, to do so with an injection-moulding machine. The manufacturing process was simply too complicated. For Günter Blase, this was no reason to lose heart. He went into his double garage and experimented until the first perfect plastic valve plug emerged from the injection-moulding machine.

The double garage in Cologne-Mülheim soon became too small. Just like the new location in Bergisch Gladbach. Today, the headquarters of igus® SE & Co. KG are still located in Cologne - in the district of Lind - but accommodates over 800 injection-moulding machines in an area of over 200,000m². In addition, igus® has over 30 locations worldwide.

The business areas have expanded, from plastic energy chains and plain bearings to other components for moving applications and complex automation solutions. The core philosophy is still the same as in 1964, improve anything that moves.

"Give us your most difficult moving part and we give you a solution."

igus® facts at a glance

5,215 employees worldwide

1.105 billion euros turnover

37 locations and 50 distributors in over 80 countries

188,000 customers

245,000 parts from stock

800 injection-moulding machines

motion plastics® ... improve what moves

Sustainability

Sustainable product developments

Plastic is a much-discussed material. At igus®, we see high-performance plastics as a contribution to environmental protection and resource conservation and orientate our actions accordingly. We consider the entire life cycle: production, use and disposal.

Since 2018, our focus has increasingly been on sustainable production and products. We can now specify the carbon footprint of many iglidur® plain bearings. We also offer new products made from recycled material from our own production - tested and with a predictable service life.

Not all questions about sustainable production have been answered yet, but we are actively working on solutions.

Since November 2024, igus® has also been a partner of the Cologne Climate Declaration climate network. You can find these and other measures online at:
igus.eu/sustainability

Chainge® product range
One digital platform that connects participants of the circular economy providing quick and easy access to engineering recyclates.

Certified according to ISO 14001 and ISO 50001
In order to make our environmental policy transparent and comprehensible, we have been certified according to ISO standard 14001 since 2019, a recognised basis for environmental management systems. This helps us towards having a CO_2 neutral factory.

99% recycled
99% of our rejects in injection-moulding production (sprues, defective parts) are recycled and reused in the manufacturing process.

Our sustainability measures 2025
igus® focusses on sustainability in all three areas: direct emissions (Scope 1), indirect emissions from purchased energy (Scope 2) and emissions in the supply chain (Scope 3). These include, the use of process waste heat, expansion of e-charging stations, modernisation of buildings, use of green electricity and recycling of production waste. We present all the measures in detail under the following link:
igus.eu/sustainability-measures

PTFE-free or PFAS-tested Solutions from igus®
igus® already offers many motion plastics® made from PTFE-free or PFAS-tested materials. This means that our products not only fulfil all current legal requirements, but are also future-proof - ideal for companies that want to switch to environmentally friendly production at an early stage.
igus.eu/ptfe-free

Power consumption
We purchase 100% green electricity and reduce the consumption of our machinery and equipment. We acquire injection moulding machines that are 40% more energy efficient. The power consumption was reduced by 11% in 2021, while increasing production.

Photovoltaic systems
The installed capacity is currently 730kWp, which corresponds to around 700,000kWh of generation capacity.

Machine Heat Recovery System
We have developed a gas-saving concept that allows waste heat from the injection moulding process to be used for heating.
We are also in the process of gradually equipping our buildings with new, modern heat pumps in order to further reduce the use of fossil fuels.

The circular economy goes digital

Chainge
engineering plastics recycling

igus®

170t
Material received in the Chainge® recycling programme since 2019

400,000
400,000kWh of electricity reduced by optimising our injection-moulding production processes

reguse **460**
renewed IT equipment sold or donated since 2020. 153 units in 2024 alone

156,900
CO_2
First group-wide CO_2 balance at the end of 2025. igus® SE - 156,900tCO_2/eq (Scope 1-3)

76,280
trees planted since 2020

igusGO® and iguverse®

Design lubrication-free applications in seconds

igusGO® - Revolutionary AI product search
Experience a revolutionary way of searching for products with igusGO® - our cloud platform with artificial intelligence.

Just take a picture of the existing application and its surroundings, and the igusGO® intelligence will show you which igus® products can help in your application so that it requires no lubrication. The app also shows where there is more potential to improve your machine's technology and even reduce costs at the same time.

Find out more and download the app now: igus.eu/igusgo

iguverse® - Virtual engineering
Simplify your engineering and develop your machines in the virtual world using digital twins. Improve the planning and maintenance of systems by bringing your sales team and your customers together in a parallel universe and simplifying the exchange of information. Take your sales and engineering to the next level with the iguverse®! We are opening our iguverse®, powered by RAUM, as a collaboration platform for augmented reality (XR). Our aim is to promote the development of top engineering with greater sustainability and drastically shorter development cycles. We are at your side as a development partner and will provide you with digital twins of all our products in the iguverse in future.

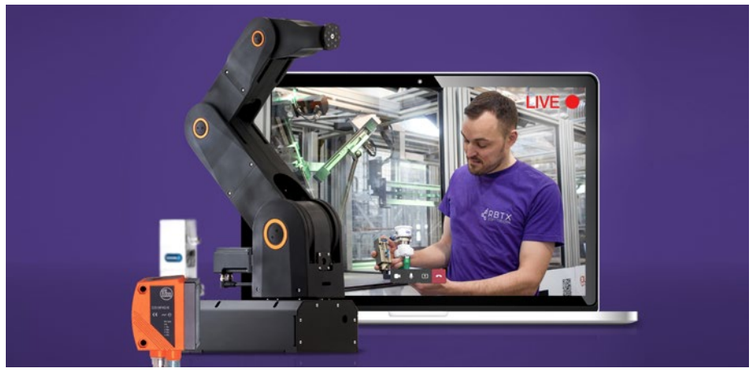
igus.eu/iguverse

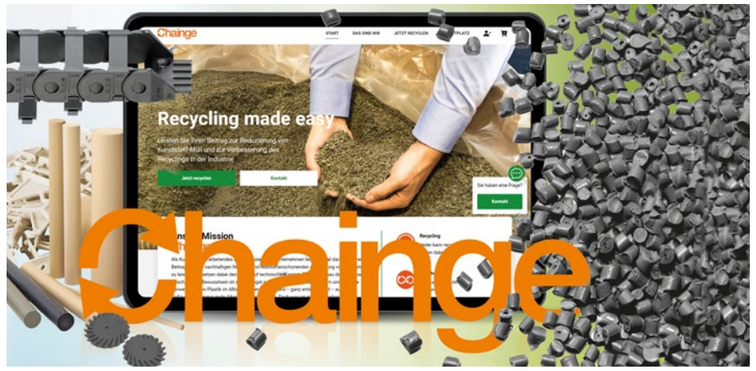
Online platforms

Creating added value together

RBTX®: Platform for robotic components

Users can find individual low-cost components such as linear robots, robot arms, end effectors, camera modules or control systems in one place. At the same time, suppliers of low-cost components can market their products in a targeted manner.



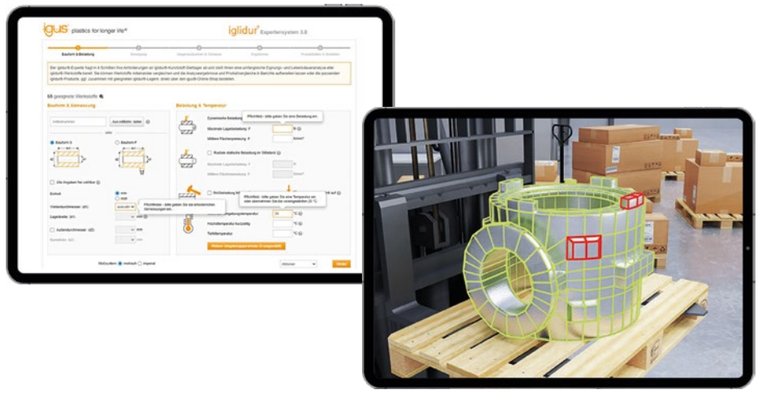


Chainge®: Recycling of technical plastics

Our online platform Chainge® offers easy access to the recycling of technical and industrial plastics. Here you can have plastic products from igus® and other manufacturers recycled. You can also use our marketplace to buy and sell recycled materials.

RCYL: Platform for the bicycle industry

Discover the possibilities of plastic in the bicycle industry with RCYL. We offer you our own urban bike made from recycled plastic as well as an online platform for bicycle and component manufacturers. Become a partner and let us drive sustainable mobility forward together.



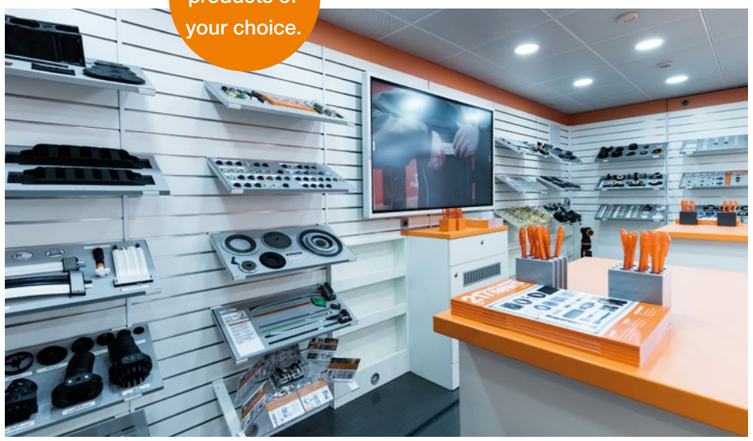
kopla®: Service platform for online configurators

We already offer you many online tools with which you can calculate and simulate the service life and other parameters of our products. With our fully-managed service platform kopla®, we now provide you with a configuration solution that you can use to develop your own configurators.

Customised ... free of charge ... according to your requirements

Roadshow truck ... trade show on wheels with products of your choice

With products of your choice.



- Your employees can find out for themselves
- No cost for travel or accommodation
- Flexible to fit your schedule
- Individual application advice and general new products presentation - anything is possible
- Groups can be customised

igus.eu/roadshow

Experience motion plastics® live

On-site exhibition

For 22 years, we have been visiting you with our mobile pop-up trade show stand. We will show you our latest products, and together we can find the best solution for your application.

With products of your choice.

Low Cost Automation roadshow

We adapt our product range depending on the customer visit, similar to our mobile in-house exhibition. With the Low Cost Automation roadshow, we focus on the direct realisation of an application on site, which brings a quick return on investment.

Virtual/real trade show

igus® motion plastics® show

- Browse our trade show stand & get more information without leaving the website.
- Clear listing of new products in the menu.
- Book a guided news presentation with an igus® expert LIVE at the trade show at any time.
- Use our watch list function. Add news products to your watch list and receive more information via e-mail.

igus.eu/imps

60 years
igus®

6,000km
Distance

0 g
Lubrication

90%
Plastic components

Once around the world

igus® was founded on 15th October 1964. To mark the big anniversary, the unique igus:bike® world tour started exactly 60 years later to the day: 6,000km across the globe!

Europe	Asia	North America
15 countries	7 countries	3 countries
115 stages	74 stages	18+ stages
2,332 kilometres	1,315 kilometres	460+ kilometres
83 customer visits	71 customer visits	9+ customer visits

igus:bike® worldtour

RCYL goes electric ...

Low-maintenance and durable

The integration of the motor and battery was designed to minimise the e-bike's ecological footprint. The bike is virtually maintenance-free and remains easy to handle - at the same time it now offers the technology to make it easier for people to ride, especially on hilly ground.

Driven by engineering

Our team is already working on equipping the electric motor with intelligent features. Conceivable functions include an app that displays the battery status, the distance travelled and even the CO_2 savings in real time. We don't just want to offer our customers a bike, we want to create a real experience - a sustainable, electric mobility solution that is not only practical, but also fun.

The beginning of a new era!

The RCYL bike sets standards in the world of sustainable mobility. With recycled plastics, an innovative design and maintenance-free features, it is a pioneer in the urban-bike sector. Now we are taking the development to the next level: our prototype with an electric motor.

Next-gen e-bike

The idea of equipping the RCYL bike with an electric motor was the logical next step of our concept. We wanted to create a bike that is not only sustainable, but also fulfils the growing needs of modern city dwellers. Commuting, longer distances, hilly ground? No problem. With a powerful motor, the new RCYL e-bike offers support exactly where it is needed.

Revolutionary design

The e-drive has been seamlessly integrated, there are no disruptive components, no unnecessary extras - everything fits in with our design. The bike remains manoeuvrable and agile while the technology provides powerful support.

Corrosion-free and 100% recyclable

As part of our mission to revolutionise mobility, it was essential to maintain sustainability standards. That is why the frame, fork and many other components are still made from 50% recycled fishing nets. This not only ensures resistance to corrosion and long service life. It also makes every RCYL e-bike an active contribution to the fight against environmental pollution and is a major step towards a circular economy.

High-performance plastics

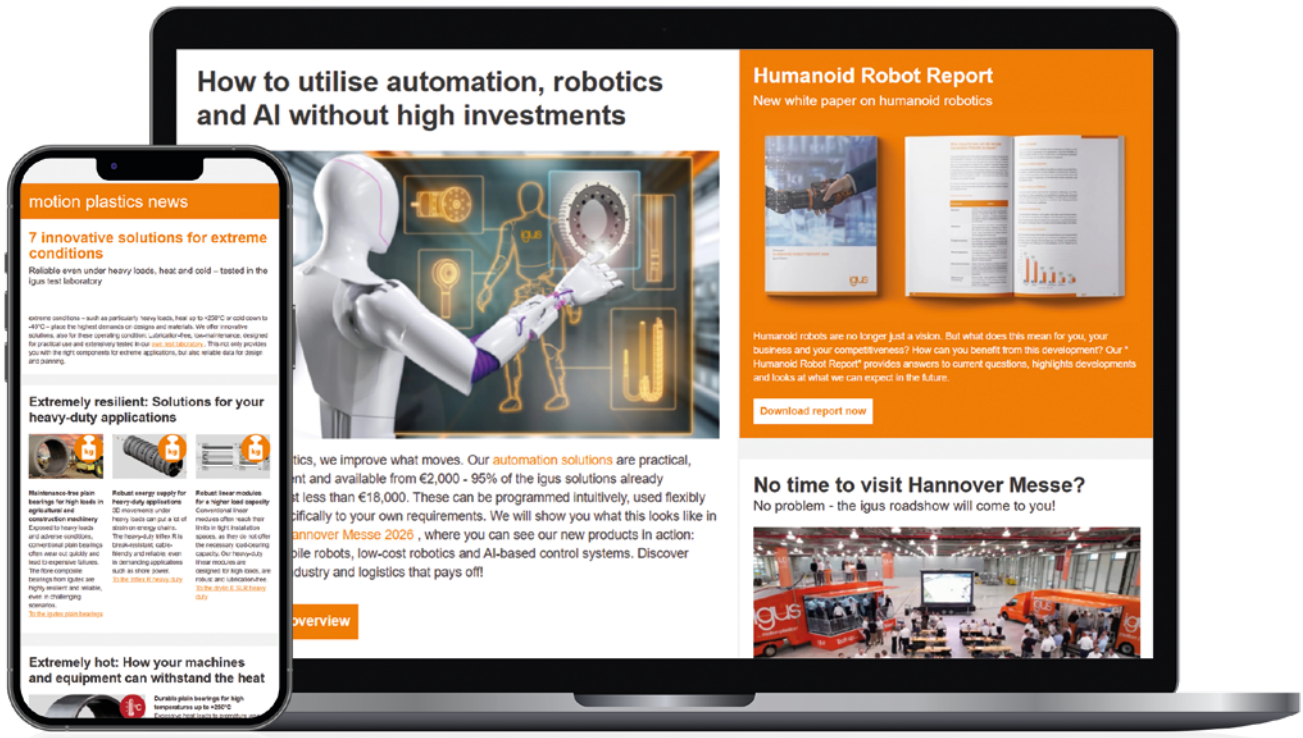
Our aim is to make the bicycle an integral part of a sustainable lifestyle - not only in the city, but also in the countryside and everywhere in between thanks to the practical electric drive. With recycled materials, innovative components and futuristic design, we get people moving - with joy and without compromise.

... Release: Summer 2026

Improve what moves:

Innovation begins in your inbox

Don't miss any more news from igus®:
New products, exciting applications, current laboratory reports, innovative designs and dates for webinars and trade shows.



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