242 motion plastics® news

igus®

Autumn 2026



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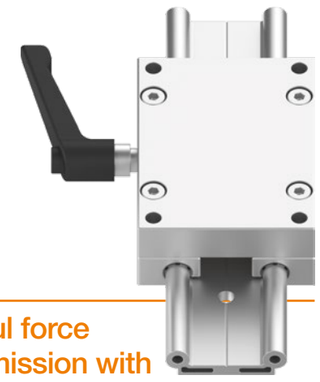
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Harnessing of ready-to-connect systems



>2,500 automation solutions in the factory



Manufacturing in Cologne

Industrial cable harnessing



247,000 products in over 1,000,000 variations from stock



In motion ...

Since igus® was founded in 1964, the company has specialised in the development of polymer components designed specifically for moving applications. iglidur® high-performance polymers are particularly important as they are resistant to wear and chemicals and operate without maintenance. These materials are used to create products in a wide range of shapes, such as plain bearings, liners, bar stock or 3D printing components.

This variety allows the production of standard solutions in addition to customised components.

The processing of iglidur® materials goes beyond individual components. For example, liners are integrated into linear guides, which are combined with drives to form linear modules. These axes can then be used in more complex systems such as linear robots for automation solutions.

The same principle applies to energy supply systems: in addition to individual components and metres of e-chains®, there are cables with and without plug-in connectors, fully harnessed up to the customised readychain® as a ready-to-connect energy supply system for your machine. This principle of modularity makes the solutions suitable for a wide range of industrial requirements, from small individual components to comprehensive designs.

Problem-solving from the start

"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 founded igus® together with his wife, a 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. The challenging component 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. So did the new premises in Bergisch Gladbach.
Today, the headquarters of igus® SE & Co. KG are back in Cologne - in the Lind district - and now house more than 850 injection-moulding machines across an area of more than 200,000m². igus® employs 5,662 people worldwide and is represented in over 80 countries by 37 locations and 50 distributors. The turnover in 2025 amounted to €1.155 billion.



motion plastics® ... improve what moves

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Automation is only as strong as its components

For less downtime and more efficiency

If a cable breaks, a guide wears out or an energy supply fails, the system comes to a standstill. The consequences are loss of productivity, delivery delays and high consequential costs - especially in 24/7 operation, where every unplanned interruption costs time and money.

At the same time, manufacturing companies are under increasing pressure: a shortage of skilled workers, rising personnel costs and high demands on quality and delivery capability require automation solutions that are easy to integrate, can be expanded flexibly and operate reliably at all times.

This is exactly where igus® comes into play. With our maintenance- and lubrication-free motion plastics®, we create the basis for durable, efficient automation solutions. The modular system includes ready-to-install energy supply systems, intelligent sensors for predictive maintenance and components for Low Cost Automation and automated guided vehicles. This technology helps you reduce maintenance costs and downtime, increase system availability and lower operating costs in the long term.
igus.eu/automade

Automation in industry

Automation does not have to be a major project!

Read these guidelines to find out how to start automating your processes successfully. They contain real-life examples, checklists and useful tips and tricks for small and medium-sized enterprises to large industrial companies.



▲ Tech up ▼ Cost down ■ Proof ● Sustainability Digital

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Improve what moves ...

e-chain systems® and accessories

Tech up · Cost down · Proof · Sustainability · Digital

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e-tract DC horizontal

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guidelok slimline mini

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e-tract 3.1

Quick consultation anywhere, at any time



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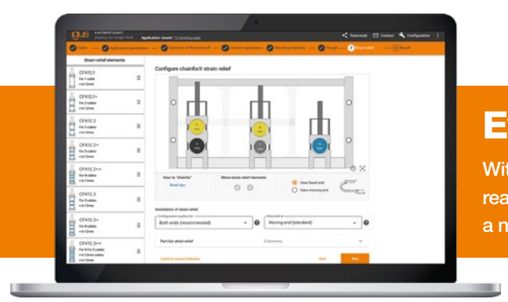
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On site
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igus.eu/on-the-move



Cable guide systems for charging infrastructure

Comfortable retraction and reliable protection of charging cables: that's what e-tract 3.1 ensures.



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/eke**

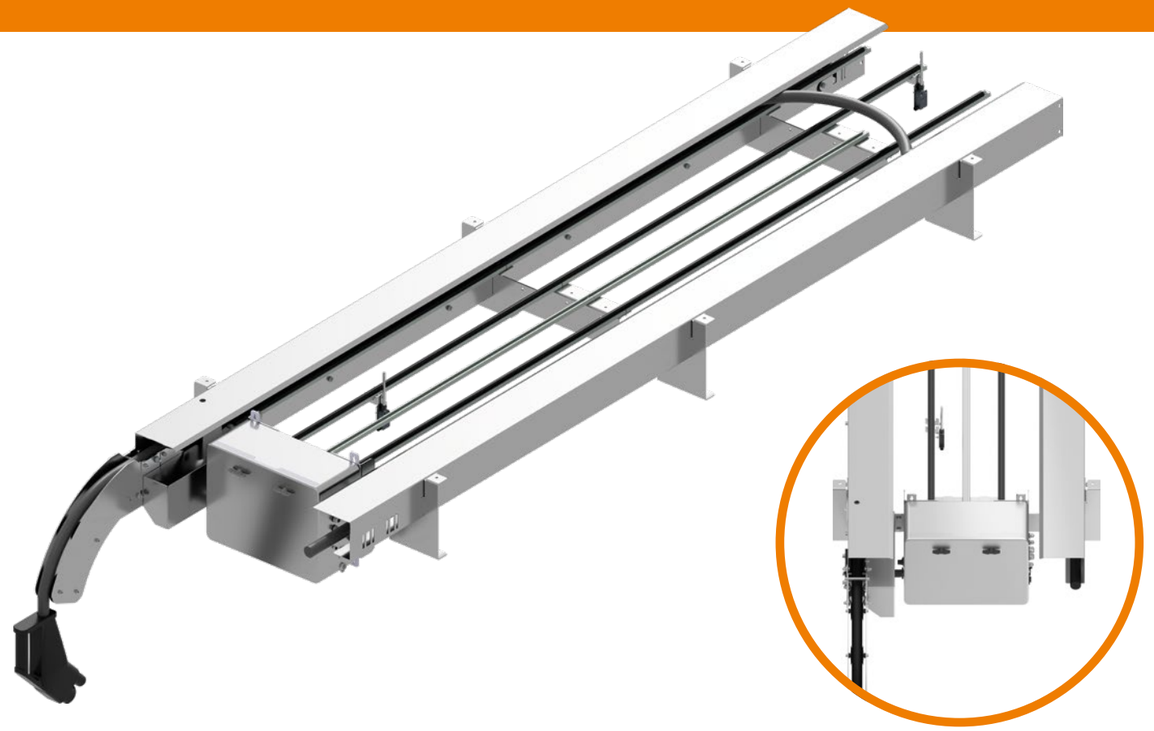
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Overhead organisation of charging cables for DC and MCS charging points

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. Cable damage, collisions and maintenance costs are significantly reduced thanks to a cable guidance that is completely decoupled from the floor. The particularly cable-friendly lifting and lowering of the charging cable means that the manoeuvring area is always 100% usable, collisions with the cable and the charging infrastructure are excluded and maintenance is significantly reduced.

- ▲ Maximum space for manoeuvring thanks to overhead cable organisation
- ▼ Low maintenance costs - no cable theft and lower cable wear
- ■ Tested in the igus® laboratory with over 20,000 cycles
- ● Use of recycled or recyclable raw materials

26-ECS-37

▲ Tech up ▼ Cost down ■ Proof ● Sustainability Digital

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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 masts, 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. Safe, durable and low-maintenance due to design without a slip ring. Compact system that does not require a corridor to lower the cable.

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 expensive 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.



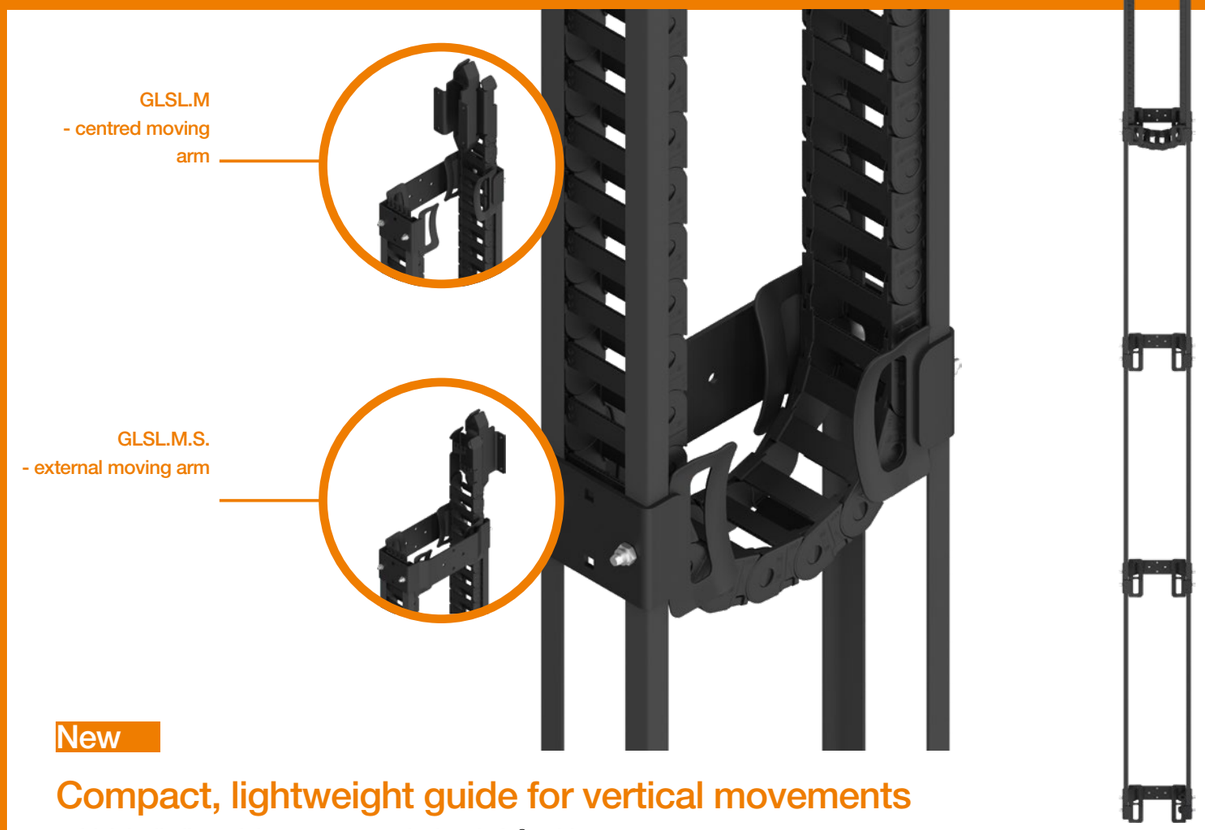
Christoph Koch
Product Manager e-chains®



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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 life cycle with the igus® chainge® recycling program. Irrespective of the 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-38

Convenience at charging stations



New

The charging station with cable retraction

e-tract 3.1

Automatic retraction and reliable protection of the charging cable: the e-tract 3.1, the integrated cable management system for AC charging points, ensures this. The expanding design means that long extension lengths are possible where there is limited installation space. The design dispenses with a slip ring, which would be susceptible to wear. More than just the inner workings: you can now obtain our proven e-tract cable management technology as a fully integrated cable management solution. The combination of retraction system and high-quality housing allows for a customised charging station that is technically impressive and fits in with the look of your brand. Various wallbox models from Mennekes and other suppliers with a charging cable of at least 7.5m can be integrated.

- ▲ Full charging power even when the cable is rolled up and finely graduated cable locking thanks to a latching mechanism with automatic retraction
- ▼ Easy integration into existing structures/systems/installations
- ■ Tested for over 20,000 double strokes in the igus® laboratory
- ● Longer service life thanks to protection from weathering

26-ECS-39

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Silver vector award winner 2026

Improve what moves ...

e-chain systems® for cleanrooms

Tech up | Cost down | Proof | Sustainability | Digital

14 **Global leader and pioneer in battery production: first energy chains with ISO Class 1 certification**
e-skin® flat ESD and e-skin® soft ESD

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

17 **Increasingly challenging application conditions in the cleanroom system e-skin® flat**
SKF.S.10.100.02.0 e-skin® flat with support chain

Quick consultation anywhere, at any time



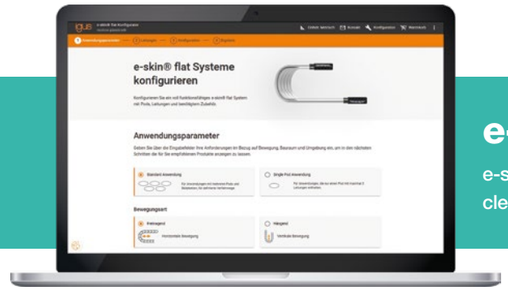
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Chat
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On site
Sales representative
Roadshow/trade show
igus.eu/on-the-move

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**

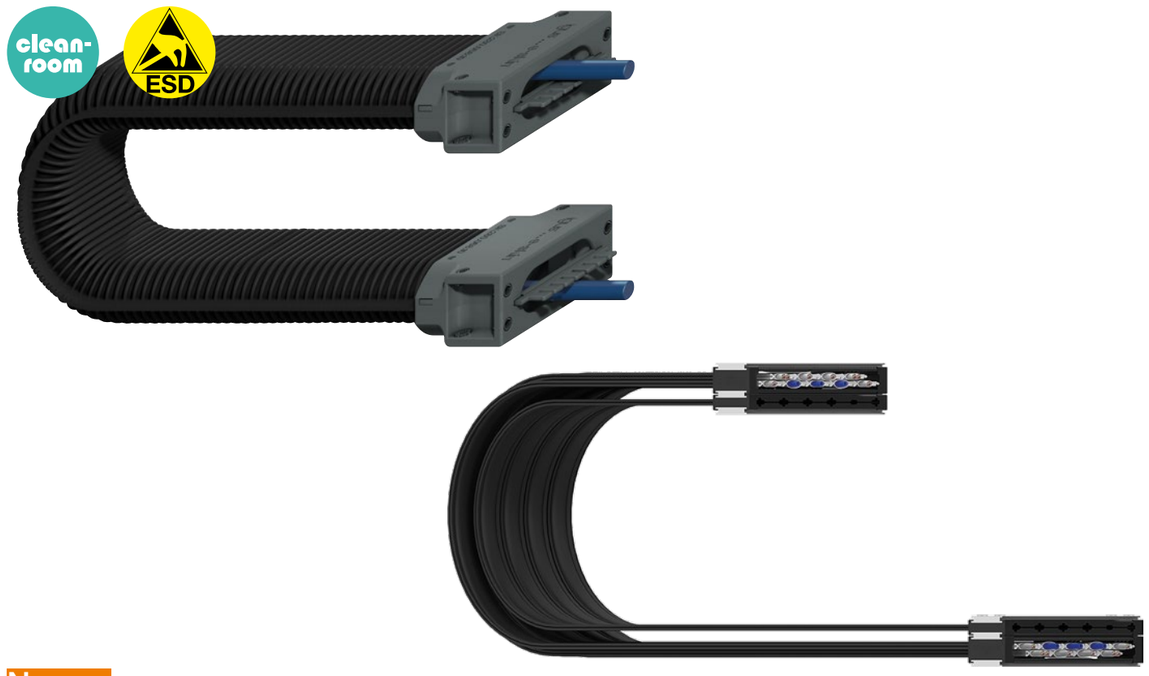
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e-skin® flat ESD and e-skin® soft ESD

New benchmark for dry cleanrooms



New

Global leader and pioneer in battery production: first energy chains with ISO Class 1 certification

e-skin® flat ESD and e-skin® soft ESD

The evolution of battery production is also increasing the demands on production environments. Cable guides must emit virtually no particles during movement despite the extremely dry atmosphere of modern dry cleanrooms. igus® offers the energy chains e-skin® flat ESD and e-skin® soft ESD, which have now become the world's first energy chains to receive ISO Class 1 certification from the Fraunhofer IPA. This ensures planning security for future purity requirements in battery production.

- Combination of ESD protection and suitability for dry cleanrooms
- No contamination in batteries that could lead to a reduction in performance
- Dry cleanroom certificate ISO Class 1 from the Fraunhofer IPA
- Extremely confined installation spaces - for the smallest dry cleanroom
- e-skin® flat ESD and e-skin® soft ESD can be configured online

Part No.: SKF12C.1.0.ESD, SKF12O.1.0.ESD, SKS28.068.02.0.ESD

Setting new standards for dry cleanrooms

First energy chains with dry cleanroom certification ISO Class 1

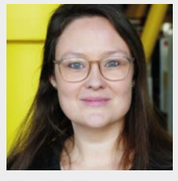
There are two adversaries in modern battery production: moisture and contamination. Machines and systems must therefore function in extremely dry environments that have a relative humidity of less than 1%. They must not release any particles that could damage the sensitive cell materials. This also poses a challenge for energy chains that guide cables and hoses to moving machine parts, for example in cell assembly. Frictional conditions change in extreme dryness, which can increase wear and particle emissions. "We have developed e-skin® flat ESD and e-skin® soft ESD systems for this demanding scenario. They are made of high-performance plastic that is particularly abrasion-resistant, so that virtually no particles are emitted even during fast movements in an extremely dry atmosphere," says Kira Weller, Product Manager for e-chains® and cleanroom expert at igus®. Proof is provided by a new certificate from the Fraunhofer IPA, according to which the e-skin® flat ESD and e-skin® soft ESD are the world's first energy chains in dry cleanrooms to achieve the highest degree, ISO Cleanroom Class 1. Weller: "The certificate is an important milestone for us. With the global expansion of battery production, the requirements for process reliability and purity are constantly increasing. We assume that industry and regulators will therefore demand even higher standards in future. The energy chains, which are certified according to ISO 1, already provide the security for future high-purity production plants in the battery industry today."

Certification possible thanks to the new Fraunhofer IPA test facility

igus® has been working with the Fraunhofer Institute for Manufacturing Engineering and Automation IPA for several years to have its energy chains independently tested and certified. However, specifically for dry cleanrooms testing technology previously set limits. In the past, certifications were only possible up to ISO Class 4 under dry cleanroom conditions. With a new test facility, the Fraunhofer IPA can now examine particle emission behaviour under dry cleanroom conditions up to ISO Class 1 for the first time. The results create additional transparency for users who have the highest requirements for cleanliness and process safety.

Two designs for a wide variety of movement tasks

To cover as many applications as possible in the microelectronics industry, igus® has developed various energy chains: the e-skin® flat ESD is a low-profile, modular energy supply system that can be assembled from individual closed cable compartments depending on the size of the application. The e-skin® soft ESD, in contrast, consists of a flexible, closed corrugated tube. The upper and lower shells can be zipped together to form a closed tube so that no particles can escape from the cables. The additional "ESD" stands for "electrostatic discharge". The energy chains are conductive thanks to additives in the material, so that electrostatic charges can be discharged via the mounting brackets and do not strike sensitive components. "With the two types, we can cover a wide range of movement tasks," says Weller. "Both systems combine two decisive specifications for cleanrooms: minimal particle emission and ESD safety, even under extremely dry conditions."



Kira Weller
Product Manager e-chains®



Particle emission test in the igus® cleanroom laboratory during product development

Fraunhofer IPA TESTED® DEVICE igus GmbH SKS28.068.02.0.ESD Report No. IG 2609-1811 Dry-Cleanroom valid until: September 23, 2031

IPA classification - report IG 2609-1811
SKS28.068.02.0.ESD

Test parameters	Result
v_1 = 0.5m/s; a_1 = 1.0m/s²	1
v_2 = 1.0m/s; a_2 = 2.0m/²	1
v_3 = 2.0m/s; a_3 = 4.0m/²	1
Overall result	**Cleanroom Class 1**

Fraunhofer IPA TESTED® DEVICE igus GmbH e-skin flat ESD system SKF12.ESD Report No. IG 2609-1811 Dry-Cleanroom valid until: September 23, 2031

IPA classification - report IG 2609-1811
e-skin® flat ESD singlepod system

Test parameters	Result
v_1 = 0.5m/s; a_1 = 1.0m/s²	1
v_2 = 1.0m/s; a_2 = 2.0m/²	1
v_3 = 2.0m/s; a_3 = 4.0m/²	1
Overall result	**Cleanroom Class 1**

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Compact modular system e-skin® flat

Modularity for small spaces



New

Extended modularity for the smallest installation spaces

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

Multi pods consisting of two to six pods in size SKF12C reduce the mounting bracket's installation space depth by 17%. With the new sizes, the proven igus® quality can be used in existing applications. In combination with the single-pod modular system, all accessories such as the e-skin® flat with support chain can also be used. This helps users realise highly dynamic applications in the cleanest environments and extremely small spaces. Available sizes can be configured in the e-skin® flat configurator.

- ▲ Expansion of the e-skin® flat portfolio to make the best use of extremely small 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.4.1.10

▲ Tech up ▼ Cost down ■ Proof ● Sustainability Digital

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New

More strength, easier to install

SKF.S.10.100.01.0 e-skin® flat with support chain for the e-skin® flat system

A radius of 100mm has been added to the new two-part e-skin® flat with support chain range. Both two-part e-skin® flat with support chain designs of the e-skin® flat system (radius 55mm and 100mm) use clevis pins to meet increasing application conditions. They are also easier 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, where they provide greater stability.

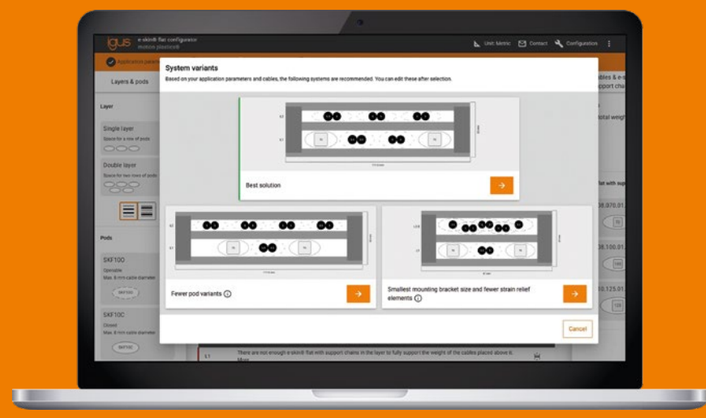
- ▲ Flexible, proven, cleanroom-compatible e-skin® flat system with CFCLEAN
- ▼ More demanding application conditions, such as higher speeds, higher accelerations and longer travels in the cleanroom can be met
- ■ e-skin® flat IPA ISO 1 certificates
- ● Small installation space - effective in the smallest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

Part No.: SKF.S.10.100.02.0

e-skin® flat configurator

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

- Automatic design with all criteria for the best result
- Complete e-skin® flat system design in under five minutes including the preparation of a drawing
- Cleanroom class ISO 1 certification from Fraunhofer IPA for e-skin® flat systems with one and three layers



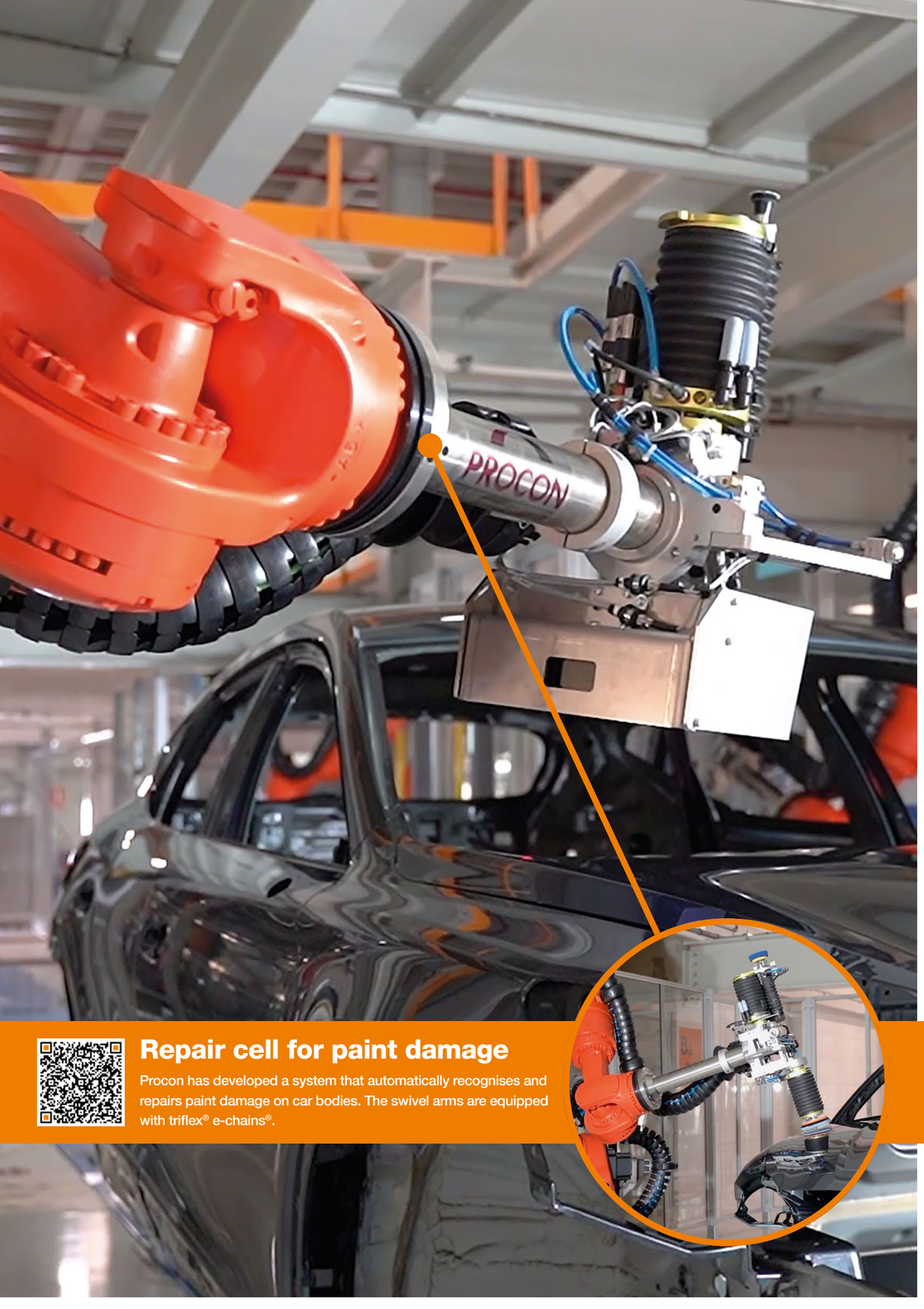
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Improve what moves ...

Multi-axis energy chains & robotics

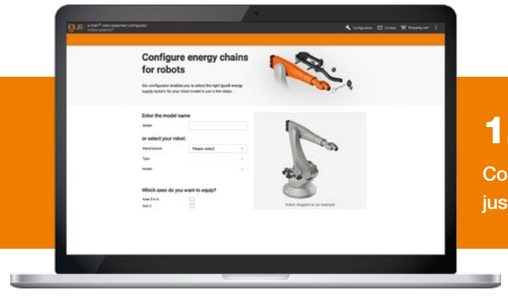
Tech up · Cost down · Proof · Sustainability · Digital

20

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

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**

Quick consultation anywhere, at any time



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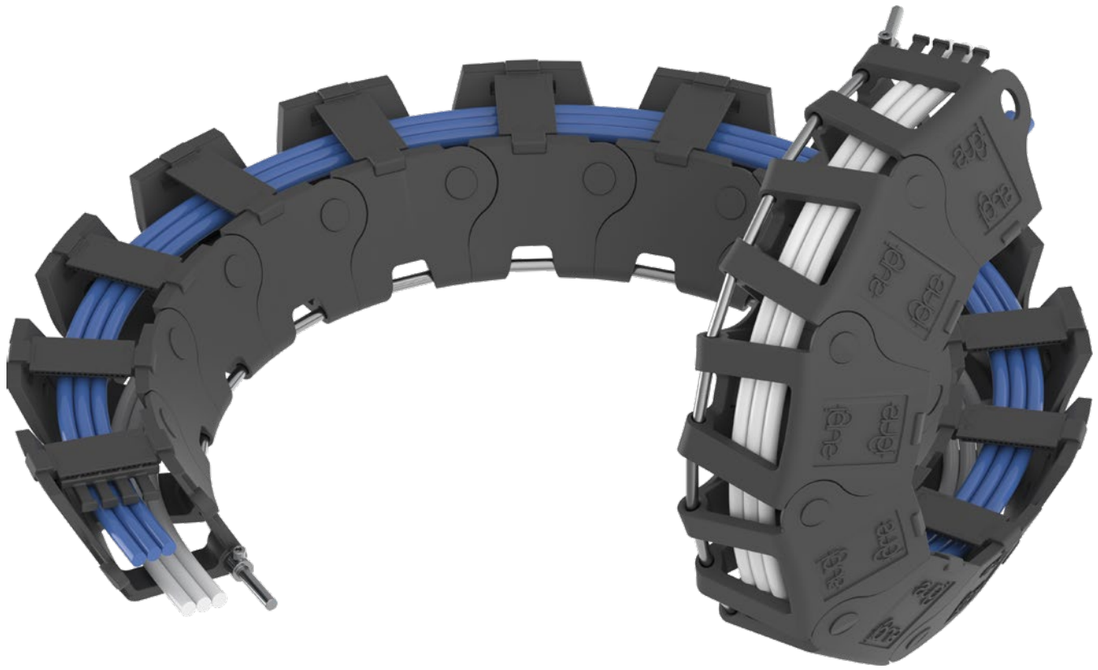
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Self-supporting twisterchain® with 600° angle of rotation

Over 600° and self-supporting



New

One product, two solutions: innovative rotary module for robots

Self-supporting 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.

- ▲ Self-supporting with a rotation angle of over 600°
- ▼ No complex and expensive trough system required
- ■ Tested in the igus® laboratory with over 1.3 million cycles: a rotation angle of 360° with dynamics of 550°/s and an additional load of 0.8kg/m
- ● Have your energy chain recycled at the end of its life cycle with the igus® chainge® recycling program. Irrespective of the manufacturer: igus.eu/chainge

Part No.: 90° rotation angle: TCF48.53.115/255.09.0
180° rotation angle: TCF48.53.115/255.11.0
270° rotation angle: TCF48.53.115/255.13.0
360° rotation angle: TCF48.53.115/255.15.0
450° rotation angle: TCF48.53.115/255.17.0
Further rotation angles available upon request

26-ECS-23

Self-supporting twisterchain® with 600° angle of rotation

Maximum freedom of movement, minimum effort

The new self-supporting twisterchain® sets new standards in robotic energy supply: the high inherent rigidity allows for a completely unsupported installation - without any additional trough systems. 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 pre-tension 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.

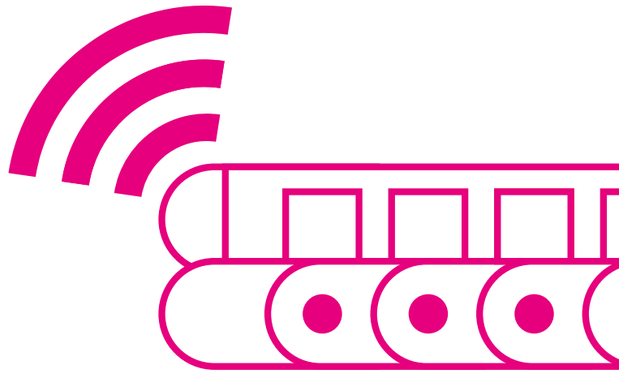
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Improve what moves ...

smart plastics

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24 **Increased safety thanks to intelligent cable monitoring**
Strain gauge force sensor now with cable monitoring

25 **A measurement platform in a suitcase**
i.Cee² measurement case

25 **Optimise robot movements based on data**
TR.P measurement case

Quick consultation anywhere, at any time



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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 in the e-chain® expert: **igus.eu/ece**

igus.eu/news-smartplastics

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Strain gauge force sensor now with cable monitoring

Advanced sensor intelligence



New

Increased safety thanks to intelligent cable monitoring

Strain gauge force sensor now with cable monitoring

For the first time, the new strain gauge force sensor also detects cable and contact faults. This speeds up troubleshooting and increases system availability.

- ▲ Cable breakage and contact faults are automatically detected
- ▼ Lower diagnostic effort in the event of system downtime
- ■ Thousands of proven force-monitoring systems further developed
- ● Fewer service calls thanks to more precise fault detection
- ◞ Digital product information via QR code

Part No.: IS.EC.P.SU.DMS.S5/L5.X.01

26-SMA-06



Study

A measurement platform in a suitcase

i.Cee² measurement case

Mobile measurement platform for industrial applications. Connect sensors, collect data and start analyses, all without stationary infrastructure.

- ▲ Open platform for a wide range of sensors
- ▼ Start measurement campaigns without complex engineering
- ■ Data acquisition, analysis and communication in one system
- ● Simply digitise existing machines
- ◞ Edge analytics provides insights that can be used immediately on site

Part No.: IS.ZB.K.ICX2.01.00.0

26-SMA-07



Study

Optimise robot movements based on data

TR.P measurement case

Mobile diagnostic solution for analysing real loads in robotic applications. Can be used on changing robot cells and without complex cabling.

- ▲ Wireless force measurement during real robot movements
- ▼ A measuring system for commissioning and service on many robots
- ■ Make loads visible instead of optimising on gut instinct
- ● Longer service life of cables and hose packages
- ◞ Wireless data transmission with live dashboard and reports

Part No.: IS.ZB.K.TR.P.01.00.0

26-SMA-08

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Improve what moves ...

chainflex® cables

Tech up · Cost down · Proof · Sustainability · Digital

28 **Reliable cables for lifting platforms**
chainflex® cables for cherry pickers

30 **Up to 40% smaller installation space**
chainflex® CF280.UL.H hybrid cable suitable for SEW MOVILINK DDI®

32 **Maximum reliability in cleanrooms with PTFE-free cables**
New cleanroom cable series CFCLEAN.EVO

34 **Functional earth in pink according to DIN EN IEC 60445**
chainflex® CFSPECIAL.762.100.01.RS

35 **For small installation spaces and heavy-duty applications**
CAT6A bus cable chainflex® CFBUS.LB.050

Quick consultation anywhere, at any time



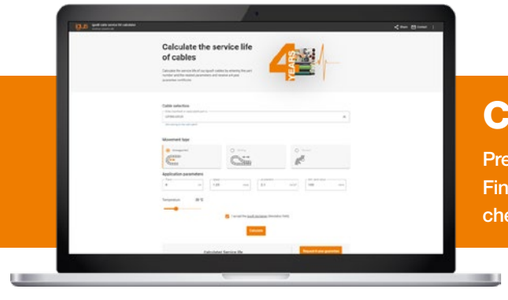
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Production line for high volumes

Production line for high volumes. Space is at a premium, so the design engineers had to use the installation space carefully.



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**

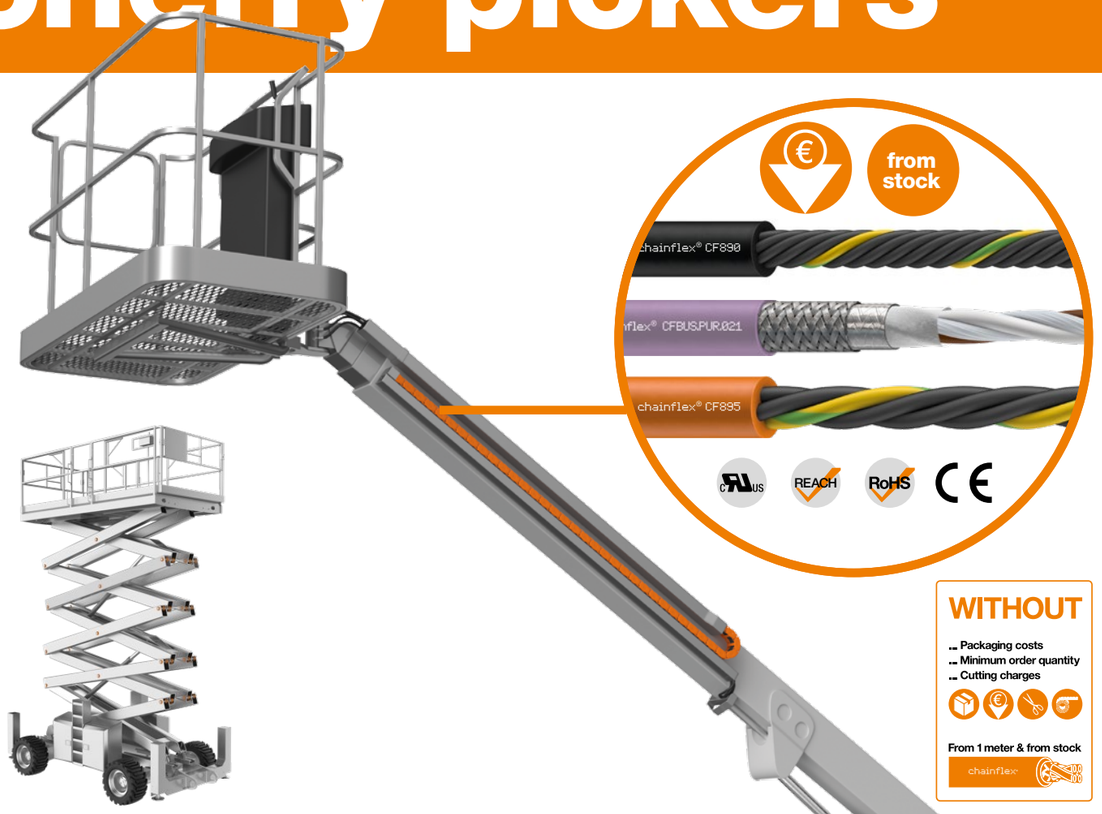
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chainflex® solutions for your application

Cables for cherry pickers



WITHOUT

... Packaging costs
... Minimum order quantity
... Cutting charges

From 1 meter & from stock

chainflex

Reliable cables for lifting platforms

chainflex® cables for cherry pickers

Every day, lifting platforms are exposed to high mechanical loads as well as changing weather conditions and temperature fluctuations. Our chainflex® cables are in such high demand because they function reliably in the long term despite constant movement, tight bend radii and exposure to UV radiation, oil and moisture. Our chainflex® cables, which are optimised for movement, use jacket materials that ensure maximum operational safety, reduced downtime and a long service life.

- ▲ Optimised for constant movement and tight bend radii
- ▼ Reduced downtimes due to high operational reliability
- ■ Test 6004: 250,000 double strokes tested in the chainflex® laboratory, specially qualified for use in lifting platforms
- ● Long service life due to motion-optimised jacket materials

Test series in the chainflex® laboratory

Qualified tests for use in lifting platforms



To ensure that you always find the most cost-effective chainflex® cable that is ideal for the requirements of lifting platforms, telescopic work platforms etc., we carry out special tests in our own laboratory. In ongoing test series, the chainflex® cables are moved with a radius of 63mm on travels of 8m. As a result, all "qualified" chainflex® cables (see box below) have completed at least 250,000 double strokes.

Tried and tested

1. Qualified in Test 6004 specifically for use in lifting platforms
2. 250,000 double strokes tested in the chainflex® laboratory
3. More than 10 million metres of cables supplied for applications in lifting platforms etc. in over 30 years

Recommendations from the chainflex® portfolio ...

... based on tests, over 30 years of experience and implemented customer projects.

chainflex® control cables

- **CF890.05.07** 7G0.5
- **CF890.05.18** 18G0.5
- **CF890.07.04** 4G0.75
- **CF890.07.12** 12G0.75
- **CF890.07.18** 18G0.75
- **CF890.07.25** 25G0.75
- **CF890.10.02** 2x1.0
- **CF890.10.03** 3G1.0
- **CF890.10.04** 4G1.0
- **CF890.10.05** 5G1.0
- **CF890.10.07** 7G1.0
- **CF890.10.12** 12G1.0
- **CF890.10.18** 18G1.0
- **CF890.10.25** 25G1.0
- **CF890.15.03** 3G1.5
- **CF890.15.04** 4G1.5
- **CF890.15.05** 5G1.5
- **CF890.15.07** 7G1.5
- **CF890.25.03** 3G2.5
- **CF890.25.04** 4G2.5
- **CF890.25.07** 7G2.5
- **CF9.07.20** 20G0.75

chainflex® motor cables

- **CF895.40.04** 4G4.0

chainflex® bus cables (CAN bus)

- **CFBUS.PUR.020** (4x0.25)C
- **CFBUS.PUR.021** (2x0.5)C
- **CFBUS.PUR.022** (4x0.5)C



More motion plastics® for lifting platforms

can be found in the corresponding leaflet

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Single-cable solution for energy chain applications

Wherever travels of up to 10m and powerful drives or motors are used, high dynamics, maximum system availability and efficient use of space are needed. This is where chainflex® hybrid cables offer a high-performance single-cable solution for use in energy chains: they combine power supply, signal transmission and data communication in a single cable, reducing space requirements in energy chains and machines. Thanks to hybrid technology, up to 40% of the installation space in energy chains can be saved and the material combination of plastic and copper weighs 43% less than separate servo and measuring system cables do.
Whether in automated production lines, industrial handling systems, machining centres or material handling applications - hybrid cables allow for a compact and reliable connection of modern drives. By combining several functions in one cable, the number of cables, connections and potential sources of error is reduced. At the same time, installation and maintenance are simplified, which has a positive effect on total operating costs.
Specifically developed for continuous movement in energy chains, chainflex® hybrid cables combine power cores for the motor supply with signal and data cables according to manufacturer standards. Shielding, stranding and materials are optimised to ensure both reliable data transmission and high mechanical reliability. Thanks to special materials and a cable structure that is ideal for continuous movement, chainflex® hybrid cables are designed for up to 10 million double strokes, including the unique chainflex® guarantee of up to 4 years. They help users minimise downtime, increase operational safety and cost-effectively implement modern single-cable concepts in drive technology.
This makes them a future-proof solution for the more and more stringent requirements of automated systems in a wide range of industries.



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CF280.UL.H hybrid cable suitable for SEW MOVILINK DDI®

High current, for up to 10m



PTFE FREE · cULus · NFPA · REACH · RoHS · cleanroom · DESINA · CE

New

Up to 40% smaller installation space

CF280.UL.H hybrid cable suitable for SEW MOVILINK DDI®

Expansion of the chainflex® CF280.UL.H hybrid cable with PUR outer jacket to include cross sections of 4, 6 and 10mm², so that higher current can be transmitted reliably in energy chains -even over long travels of up to 10m.

- ▲ Larger cable cross sections allow higher current flow for reliable energy supply on travels of up to 10m
- ▼ Reduce the required installation space in energy chains by approx. 40% thanks to hybrid technology with only one cable
- ■ Test 5039: over 13 million strokes tested in the chainflex® laboratory
- ● Material (plastic and copper) weighs 43% less than separate servo and measuring system cables
- Only in the online shop: order residual lengths of less than 50m at a 50% discount

Part No.: CF280.UL.H207.40.04.D, CF280.UL.H207.60.04.D, CF280.UL.H207.100.04.D, CF280.UL.H208.60.04.D, CF280.UL.H.209.100.04.D

26-CF-07

Further highlights

for drive technology



readycable® drive technology
Ready-to-connect cables suitable for more than 40 manufacturer standards



iggyRob Home
More flexibility with AI and real-time data



Configurator for LCA linear robots
Configure linear robots down to the last detail

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New cleanroom cable series CFCLEAN.EVO

Evolution for the cleanroom



PTFE FREE · REACH · RoHS · clean-room · CE

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

New

Maximum reliability in cleanrooms with PTFE-free cables

New cleanroom cable series CFCLEAN.EVO

The new CFCLEAN.EVO series features data, bus, control and motor cables and was developed for use in the e-skin® flat to ensure maximum reliability for cleanroom applications.

- ▲ Maximum reliability in high-speed cleanroom applications with a bend radius of 40 to 70mm in the e-skin® flat
- ▼ 32.3% more cost-effective than CFCLEAN
- ■ 20 million double strokes guaranteed in combination with e-skin® flat and a bend radius from 40mm
- ● PTFE-free, highly abrasion-resistant insulation and jacket materials
- Configure and request CFCLEAN.EVO with e-skin® flat in just a few steps

Part No.: CFCLEAN.EVO.1.02.04, CFCLEAN.EVO.1.03.07, CFCLEAN.EVO.1.07.04, CFCLEAN.EVO.3.01.05.02, CFCLEAN.EVO.3.01.08.02, CFCLEAN.EVO.3.02.03.02, CFCLEAN.EVO.3.02.06.02, CFCLEAN.EVO.6.PE.25.01, CFCLEAN.EVO.7.15.04, CFCLEAN.EVO.8.045

26-CF-08

Use in combination with e-skin® flat

Particle-free energy supply in cleanrooms, now also without PTFE!

In cleanrooms, the absence of particles, flexural strength and high process reliability are the focus; in addition, there is an increasing demand for PTFE-free products to meet the latest standards. With a selection of 1,093 cleanroom-compatible chainflex® cables, which have been specifically designed for highly sensitive environments such as semiconductor manufacturing, electronics production and medical technology, igus® offers solutions that meet the highest purity requirements. All cables are certified by the Fraunhofer IPA Institute according to DIN EN ISO 14644-1 for cleanrooms of ISO Class 1 or 2 (Reports IG1303-640-1 and IG0704-400), which emphasises their high quality and suitability for cleanrooms. In addition, we guarantee the service life of the cables and offer a clear statement regarding their durability.

The chainflex® cables are characterised by their high flexibility under alternating bending stress and the use of highly abrasion-resistant jacket materials, which reduce abrasion particles to a minimum. The product range includes, among others, ready-to-connect bus, control and motor cables. Together with the e-skin® flat, the special chainflex® CFCLEAN cable and the new PTFE-free CFCLEAN.EVO series constitute a powerful team for cleanrooms.

The closed design of the e-skin® flat makes sure that the cables are guided safely and abrasion particles are effectively retained. With a guarantee of up to 4 years and a selection of industry-standard core and cross section combinations, including data, bus, control and motor cables, the range offers everything for reliable energy and data transmission from stock. In addition, the modular design allows for easy replacement of compartments or stranding units and minimises maintenance effort and system downtime.

Thanks to their 16% smaller diameter and a weight reduction of up to 21% compared to standard jacketed cables, the CFCLEAN and CFCLEAN.EVO can be integrated into confined installation spaces in a space-saving and easy way. Both the cables and the e-skin® flat ensure maximum purity and reliable operation in dynamic applications with short cycle times. The combination not only guarantees energy and data transmission that is suitable for cleanrooms, but also supports economical and productive manufacturing processes in demanding industries.

Advantages of the e-skin® flat system

1. **Minimal particle emission:** closed system for safe cable guidance in sensitive cleanroom environments.
2. **Space-saving design:** The combination of CFCLEAN.EVO and e-skin® flat allows for 30% less installation space and 45% less weight compared to standard round cables.
3. **Reduce maintenance/downtime:** quick assembly, easy cable replacement and a long service life for cost-effective operation.

Further highlights

for cleanrooms



Compact modular system e-skin® flat
Extended modularity for the smallest installation spaces



e-skin® flat ESD and e-skin® soft ESD
First energy chains with ISO Class 1 certification



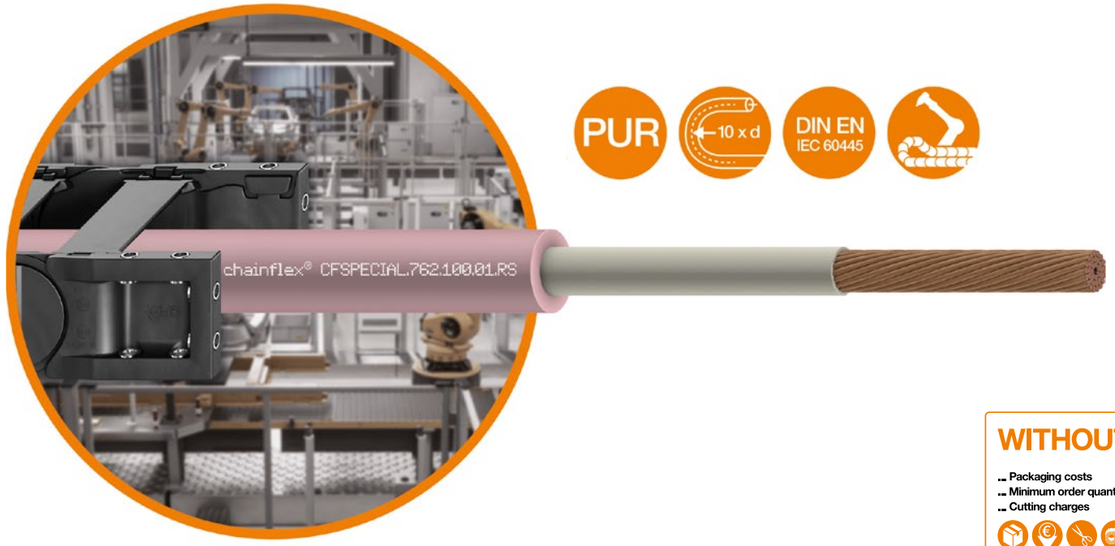
e-skin® flat configurator
Configure cleanroom-compatible energy supply system quickly

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chainflex® CFSPECIAL.762.100.01.RS

No confusion



PUR · 10 x d · DIN EN IEC 60445

PTFE FREE · cULus · NFPA · REACH · RoHS · clean-room · DESINA · CE

WITHOUT

... Packaging costs
... Minimum order quantity
... Cutting charges

From 1 meter & from stock

chainflex

New

Functional earth in pink according to DIN EN IEC 60445

chainflex® CFSPECIAL.762.100.01.RS

Pink earth in 10mm² to ensure the function of a system. High number of cycles, long travels and small bend radii of up to 10xd in energy chains.

- ▲ PUR outer jacket in pink according to DIN EN IEC 60445
- ▼ Available from stock
- ■ Test 5384: tested with a service life of more than 32 million strokes
- ● PTFE-free design
- Calculate the cable service life online: igus.eu/chainflexlife

Part No.: CFSPECIAL.762.100.01.RS

26-CF-09

CAT6A bus cable chainflex® CFBUS.LB.050

25% longer service life



7,5 x d · CAT 6A · 12.5 million double strokes

PTFE FREE · cULus · CLPA · REACH · RoHS · clean-room · dry clean-room · DESINA · CE

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

New

For small installation spaces and heavy-duty applications

CAT6A bus cable chainflex® CFBUS.LB.050

The new CAT6A bus cable CFBUS.LB.050 with a bend radius of 7.5xd offers maximum precision, short cycle times and fast handling in small installation spaces.

- ▲ Addition of the CAT6A bus system
- ▼ Service life increased by 25% to 12.5 million double strokes
- ■ Test 5108: tested with a service life of more than 24 million strokes
- ● Longer service life is practical resource protection, enhancing economic efficiency and protecting the environment
- Only in the online shop: order residual lengths of less than 50m at a 50% discount

Part No.: CFBUS.LB.050

26-CF-10

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... 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

PTFE FREE · REACH · RoHS · clean-room · CE

New

Use DeviceNet safely with ±360°/m torsion

chainflex® CFROBOT8.PLUS.030 for DeviceNet cable

Expansion of the chainflex® CFROBOT8.PLUS family by 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, cutting charge or packaging costs. Available from 1m and with a 4-year guarantee.

- ▲ 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



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... 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

PTFE FREE · NFPA · REACH · DNV · RoHS · clean-room

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

24-CF-05

▲ Tech up ▼ Cost down ■ Proof ● Sustainability ◗ Digital

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

PTFE FREE · REACH · RoHS · clean-room · dry cleanroom · CE

New

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 (8x0.25)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 extremely small 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

26-CF-06

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

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New

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 up to 4-year guarantee.

- 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 to conserve resources
- Calculate the cable service life online: igus.eu/chainflexlife

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







New

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 for, e.g. machining units 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







chainflex® 4G1.0 motor cables in four qualities

Big range for small installations







New

Cost down or tech up ... or 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 up to 4-year guarantee.

- 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



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Improve what moves ...

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readychain®

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42 **Ready to connect in your required length, no minimum order quantity**
readycable® drive technology product range extension

44 **Fast and organised cabling in the field**
Sensor/actuator electric main with M23 plug-in connector

45 **Reliable energy via M12 power for automation**
Cables with M12 power coding

46 **Audio, data, energy - with a guarantee**
readycable® cables for stage technology

Quick consultation anywhere, at any time



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Online and WhatsApp
igus.eu/chat

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

Reliability in warehouses

Pre-harnessed energy chain systems for storage and retrieval units simplify assembly and service. This saves time and increases operational reliability in warehouses.



Find drive cables in 2 steps

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

igus.eu/news-readycable

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readycable® drive technology product range extension

36 new cables



Plus

Ready to connect in your required length, no minimum order quantity

readycable® drive technology product range extension

We are adding 36 new cables suitable for three manufacturer standards (B&R, SEW-EURODRIVE and STÖBER) to the readycable® portfolio of ready to connect, harnessed and tested drive cables. Ready to ship 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
- ▼ No individual components in stock, no offcuts, no over-delivery, no special tools, no capacity commitment
- ■ 100% tested (test seal of approval and test report)
- ● Individual service life calculation, precisely tailored to your application, with a chainflex® guarantee of up to 4 years
- Get the right drive cable in just two steps, online: igus.eu/rc-finder

▲ Tech up ▼ Cost down ■ Proof ● Sustainability Digital

igus

The igus® readycable® service

Harnessing, service life calculation, guarantee

Cable harnessing according to your specifications or industrial standards is one of the core competences of igus®. We rely on the high-quality, flexible chainflex® cables and combine these with plug-in connectors from renowned manufacturers such as Harting, Binder, TE Intercontec, Yamaichi and others.
On request, we can manufacture harnessed cables with no minimum order quantity - precisely tailored to your requirements and applications.

A special benefit: our wide range of jacket materials that are customised to your application. This allows you to avoid unnecessary costs - for example by using an inexpensive PVC cable in a dry environment instead of a more expensive TPE jacket. We guarantee a service life of up to four years for all cables in energy chains.
With over 6,000 harnessed motor, servo, signal and encoder cables suitable for 41 manufacturer standards, igus® is the world's leading supplier of harnessed cables for energy chains.

Our range comprises seven cable qualities so that you can find the suitable and most cost-effective solution for every application. Thanks to our online service life calculator, you can quickly and easily calculate the expected service life of your ready-to-connect cable. In addition, igus® is the only manufacturer to offer a guarantee of up to four years on its cables.



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Find and order the right drive cable online in 2 steps

Select with the new readycable® finder, ready to ship in 5 working days



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Sensor/actuator electric mains with M23 plug-in connector

A wider choice for sensors



New

Fast and organised cabling in the field

Sensor/actuator electric mains with M23 plug-in connector

Distribution boxes simply bundle several cables into one master cable that is connected to the control system. Suitable for your project in the desired length and/or as customised configuration.

- ▲ 16+3 or 12-pole - flexible connection with various electric mains
- ▼ Reduced assembly effort due to tool-free installation
- ■ Higher machine availability with ready-to-install cables
- ● Longer service life due to robust and tested components

Cables with M12 power

Compact and powerful



New

Compact energy – M12 power for automation

Cables with M12 power

Compact, robust and industry-proven: igus® is expanding its portfolio for decentralised energy supply with cables for M12 power coding. The standardised M12 interface combines high performance with a space-saving design and simple integration.

- ▲ Reliable energy transmission for decentralised systems via standard M12 interface
- ▼ Less space required in machine and plant engineering
- ■ M12 as an established industry standard for secure connections
- ● Durable plug-in connectors and cables for future-proof solutions

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readycable® cables for stage technology

Ready for the big show



New

Audio, data, energy - with guarantee

readycable® cables for stage technology

Audio, data and power from one source: with ready-to-connect readycable® cables for XLR, etherCON and CEE connections, igus® is expanding its portfolio for professional stage and event technology. The industrially harnessed solutions reduce installation effort, shorten assembly times and ensure reliable connections in live operation.

- ▲ Stage cabling supplied ready to connect: audio, data and power from one source
- ▼ Less time required and no troubleshooting thanks to fully harnessed cables
- ■ Industrially harnessed, including 100% testing (test seal and report)
- ● Robust for recurring stage use
- Select and order online immediately

26-RC-09

igus® solutions for shows and events

When the show is on, nothing can fail

The audience sees the stage. The artists are in the spotlight. The show is always visible. The hundreds of connections in the background, which ensure that light, sound, video and effect control systems work together perfectly, are invisible. This is where an event runs smoothly or hectic troubleshooting shortly before the show jeopardises the schedule.
Whether a concert, festival, theatre production, trade show or TV studio: modern event technology has to perform more than ever before. Components are constantly being transported, set up, converted and reloaded. Cables are rolled, pulled, plugged in and disconnected. Often under significant time pressure and changing environmental conditions.

Made for the tough everyday life of the event industry

With the ready-to-connect readycable® solutions, igus® offers robust and ready-to-use cables for audio, network and energy applications. New additions to the portfolio are harnessed solutions for XLR, etherCON and CEE interfaces. They provide users with quality-checked connections for direct use on stage, in the studio or in the event hall. The advantage is that instead of selecting individual components, harnessing cables or risking sources of error during assembly, users receive the cables at their premises ready to connect and use. This saves time and hassle, reduces installation effort and creates space during the setup and commissioning of the show.
Many event technicians know the critical moments:

- A cable is too short or too long and the excess length has to be untangled and then hidden.
- A connection has a loose contact.
- There is hardly any time for troubleshooting.

The set-up and the show could be delayed, and this must be avoided at all costs. These challenges can be overcome with ease thanks to industrially harnessed and tested cables.
Every readycable® cable is manufactured and tested under standardised conditions. This ensures consistently high quality and eliminates the risk of wiring or connection errors.

Proven technology for moving applications

For decades, igus® has been developing solutions for applications in which cables are constantly moved. This know-how is also incorporated into the connection solutions for the event industry. Whether moving stage elements, truss systems, camera tracking or mobile installations: the cables used must operate reliably despite frequent transport, recurring assembly and dismantling processes and high mechanical loads.
The basis for this is extensive and long-term testing in our own test laboratory. The findings we obtain help us consistently design products for durability and reliability.

The advantages for event organisers and technical service providers:

- Ready-to-connect cables for immediate use
- Shorter assembly and installation times
- Fewer sources of error during assembly and commissioning
- High reliability in live operation
- Robust solutions for frequent transport and application changes
- One contact person for cable and connection technology directly on site

The best event is one where no one talks about the technology. Sound, network and energy simply work from the first sound check to the last applause. That is exactly why igus® offers connection solutions for the event industry. With ready-to-connect readycable® cables, installation effort, sources of error and failure risks can be reduced while assembly and conversion processes are sped up.
Anyone who wants to spend less time troubleshooting and instead focus on a perfect show will find the right solution for professional audio, network and energy connections with readycable®.

Tested reliability

1. **Reliably connected:** from the soundcheck to the final applause.
2. **When every minute counts:** unpack, connect, get started.
3. **Tested quality:** proven technology for moving applications.



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iglidur® coating

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50 **PTFE-free wear protection in white and black**
iglidur® IC-01PF and iglidur® IC-02PF

52 **Wear protection on metallic surfaces**
iglidur® IC-05A

Quick consultation anywhere, at any time



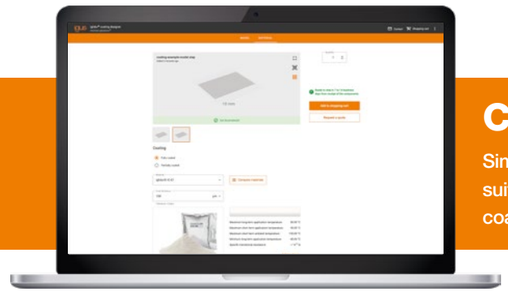
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Parcel chutes in material handling

iglidur® powder coatings create a long-lasting surface that is optimised for sliding, reduce wear and ensure smooth sliding.



Coat components individually

Simply upload your CAD model, get an immediate recommendation for the suitable coating including price and delivery time and have your component coated by igus® right away: **igus.eu/icd**

igus.eu/news-coating

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iglidur® IC-01PF and iglidur® IC-02PF

For durable sliding surfaces



New

PTFE-free wear protection in white and black

iglidur® IC-01PF and iglidur® IC-02PF

PTFE-free, PFAS-tested coating powders for wear-resistant surfaces with improved sliding performance in white and black.

- PTFE-free coating powder tribologically optimised for friction and wear
- Extends the service life of metal components due to direct wear protection
- 480-hour salt spray test according to DIN EN ISO 9227 confirms the corrosion protection
- Fewer replacements of parts thanks to durable coating of existing components
- Select the right coating powder using the iglidur® coating designer: igus.eu/icd

Part No.: IC-01PF, IC-02PF

Interview with Marc Trenkler, Product Manager for iglidur® Coating

PTFE-free coatings for durable sliding surfaces



Coating process

With -PF, we are creating an alternative for applications that require tested materials and long-lasting wear protection.

With the new iglidur® IC-01PF and IC-02PF coating powders, igus® is adding PTFE-free and PFAS-tested solutions for surfaces subject to wear to its product range. The coatings combine improved sliding properties with a high degree of protection against abrasion and corrosion. This way, metallic components can be specifically upgraded and their service life extended.

With iglidur® IC-01PF and IC-02PF, igus® is adding PTFE-free variants to its coating range. Why was this step necessary?
"The requirements for industrial coatings are changing. Many users are now looking for solutions that are not only technical high-performers, but also meet current requirements for materials and sustainability. Especially in connection with PFAS, companies are increasingly faced with the task of evaluating the materials they use and testing alternatives. With iglidur® IC-01PF and IC-02PF, we therefore offer coating powders that do not contain PTFE and also have tribologically optimised properties for sliding and wear applications. The suffix "-PF" stands for "PTFE-free". The materials have also been tested for relevant PFAS compounds. This way, we help our customers use durable coating solutions without having to forego the advantages of good sliding performance."

What are the advantages of a PTFE-free coating in practice?
"In many applications, metal components are subjected to friction, abrasion or corrosion. A coating can serve as a protective layer here and extend the parts' service life. This is particularly interesting for components that are complex to manufacture or difficult to access. The coating means that components have to be replaced less frequently, which can reduce maintenance and downtime. The two new coating powders combine wear protection with improved sliding properties. They are therefore suitable, for example, for conveyor surfaces or moving components that require low friction and high resistance."

For which industries are PTFE-free coatings especially relevant?
"We see the demand for PTFE-free solutions primarily in industries where material requirements play an important role. These include the food and packaging industry, mechanical engineering and applications with high requirements for cleanliness and material transparency."



Marc Trenkler
Product Manager iglidur® coating

New



iglidur® IC-01PF
PTFE-free wear protection in white

New



iglidur® IC-02PF
PTFE-free wear protection in black



iglidur® IC-05PF
The all-rounder with FDA in blue

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iglidur® IC-05A

Suitable for contact with food



FDA

New

Wear protection on metal surfaces

iglidur® IC-05A

iglidur® IC-05A is a tribologically optimised coating powder for wear-resistant metal surfaces. It reduces friction and extends the service life of components in packaging and beverage applications.

- ▲ Tribologically optimised coating with high wear resistance and good sliding properties for surfaces subjected to heavy loads
- ▼ Prolongs the service life of components, reduces maintenance and replacement costs
- ■ Up to four times longer service life compared to iglidur® IC-01 in the linear short-stroke test and 480-hour salt spray test according to DIN EN ISO 9227
- ● Longer use of existing components due to wear-resistant coating without additional wear components
- Select the right coating powder using the iglidur® coating designer: igus.eu/icd

Part No.: IC-05A

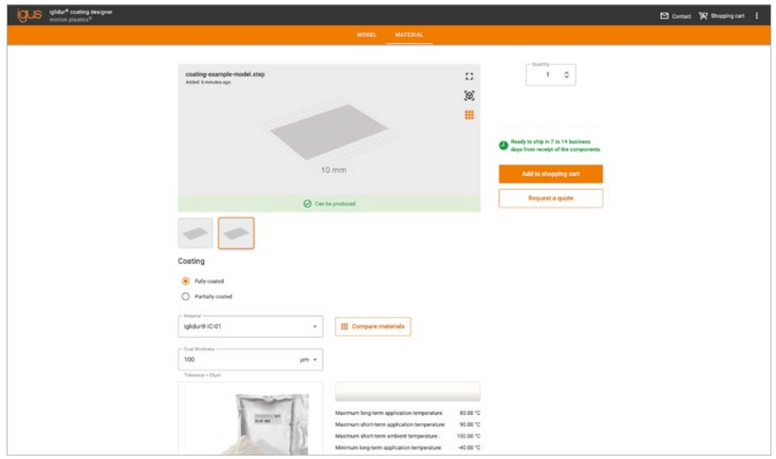
26-IGL-06

▲ Tech up ▼ Cost down ■ Proof ● Sustainability Digital

igus

Two ways to your individual coating

Our coating service is now available with three new materials



Option 1: buy coating material and apply it yourself

Would you like to apply the coating yourself or have it coated by your employees? We can provide you with the suitable iglidur® coating materials for your application - including technical support for material selection and layer structure.

Option 2: coating service for your components

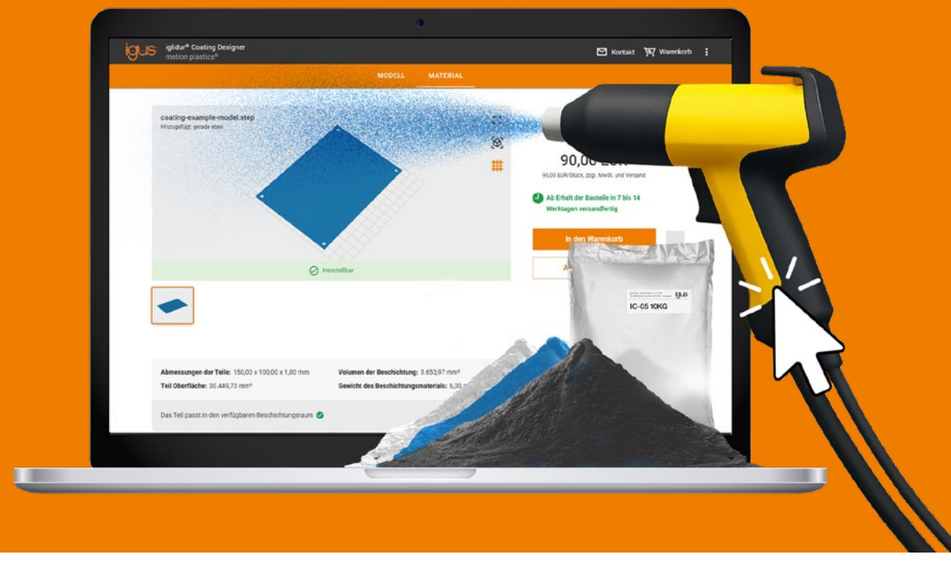
Simply upload your CAD model, receive an immediate recommendation for the suitable coating including price and delivery time and have your component coated by igus®. Whether it is a single part, a prototype or series production: igus® will take care of the entire coating process and send you back the component ready for use.

Your benefits at a glance

1. Digital instant calculation of price and delivery time
2. Individual coating suitable for your application
3. Surfaces optimised for wear and friction
4. Suitable for prototypes, individual parts and series production
5. Test and conformity certificates available
6. Fast and easy processing with the Coating Designer

iglidur® coating designer

Have your component coated individually



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Improve what moves ...

iglidur® rollers

Tech up · Cost down · Proof · Sustainability · Digital

56 **Optimised directional stability and belt centring**
iglidur® P210 knife edge rollers, spherical design

57 **Durable, robust plastic rollers**
Track roller made of iglidur® J

Quick consultation anywhere, at any time



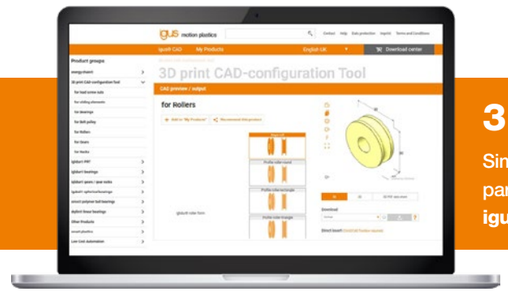
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Transporting glass safely

iglidur® RLVMO guide rollers with V-groove and grip ring allow for quiet, safe glass transport with a strong hold and a long service life.



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**

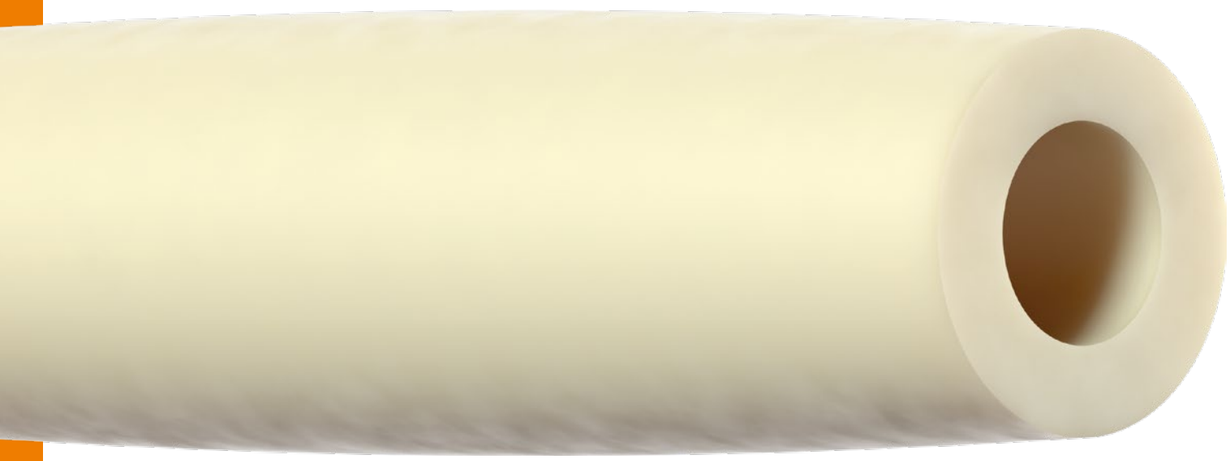
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iglidur® P210 knife edge rollers, spherical design

For ideal belt tracking



New

Optimised directional stability and belt centring

iglidur® P210 knife edge rollers, spherical design

The new knife edge rollers with a conical-cylindrical shape allow for belt centring and ensure improved directional stability of conveyor belts. The material used, iglidur® P210, has an excellent service life. Ten standard dimensions and custom designs upon request offer a wide range of design options.

- ▲ Improved directional stability and belt centring due to spherical shape
- ▼ Cost-effective due to one-piece design
- ■ 16 times longer service life compared to POM rollers (wear, rotating: 0.6m/s, 0.5MPa, 304 stainless steel; POM: 0.69µm/km, P210: 0.041µm/km)
- ● Lubrication- and maintenance-free, so no environmental pollution

Part No.: P210RLZM-0309-50, P210RLZM-0409-50, P210RLZM-0511-70, P210RLZM-0514-70, P210RLZM-0612-70, P210RLZM-0614-70, P210RLZM-0812-70, P210RLZM-0814-70, P210RLZM-0818-70, P210RLZM-1020-70

26-RLS-03

▲ Tech up ▼ Cost down ■ Proof ● Sustainability Digital

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Plus

Durable, robust plastic rollers

Track rollers made of iglidur® J

Durable, economical and ideal for higher loads. The lubrication-free plastic track rollers are the ideal endurance runners for surface pressures of up to 10MPa. They are now available in ten different dimensions, from 12 to 45mm. New additions to the range are the sizes with an outer diameter of 12, 24, 32, 40 and 45mm.

- ▲ 1:1 substitute for ball bearings of the same size
- ▼ Resistance to dust, dirt and grime; less maintenance costs
- ■ Six times longer service life compared to standard POM track rollers, test parameters: 2MPa and 0.6m/s
- ● Lubrication-free operation saves resources and protects the environment

Part No.: JRLFM-0612-12, JRLFM-0624-07, JRLFM-1532-09, JRLFM-1740-12, JRLFM-1245-14

26-RLS-04

Free rollers sample box

Our rollers made of iglidur® high-performance plastic are entirely lubrication-free, maintenance-free and extremely robust. Compared to other plastic solutions, they are even up to six times more durable.

All this can be found in the sample box:

- Profile guide rollers
- Knife edge rollers
- Two-component rollers
- Track rollers



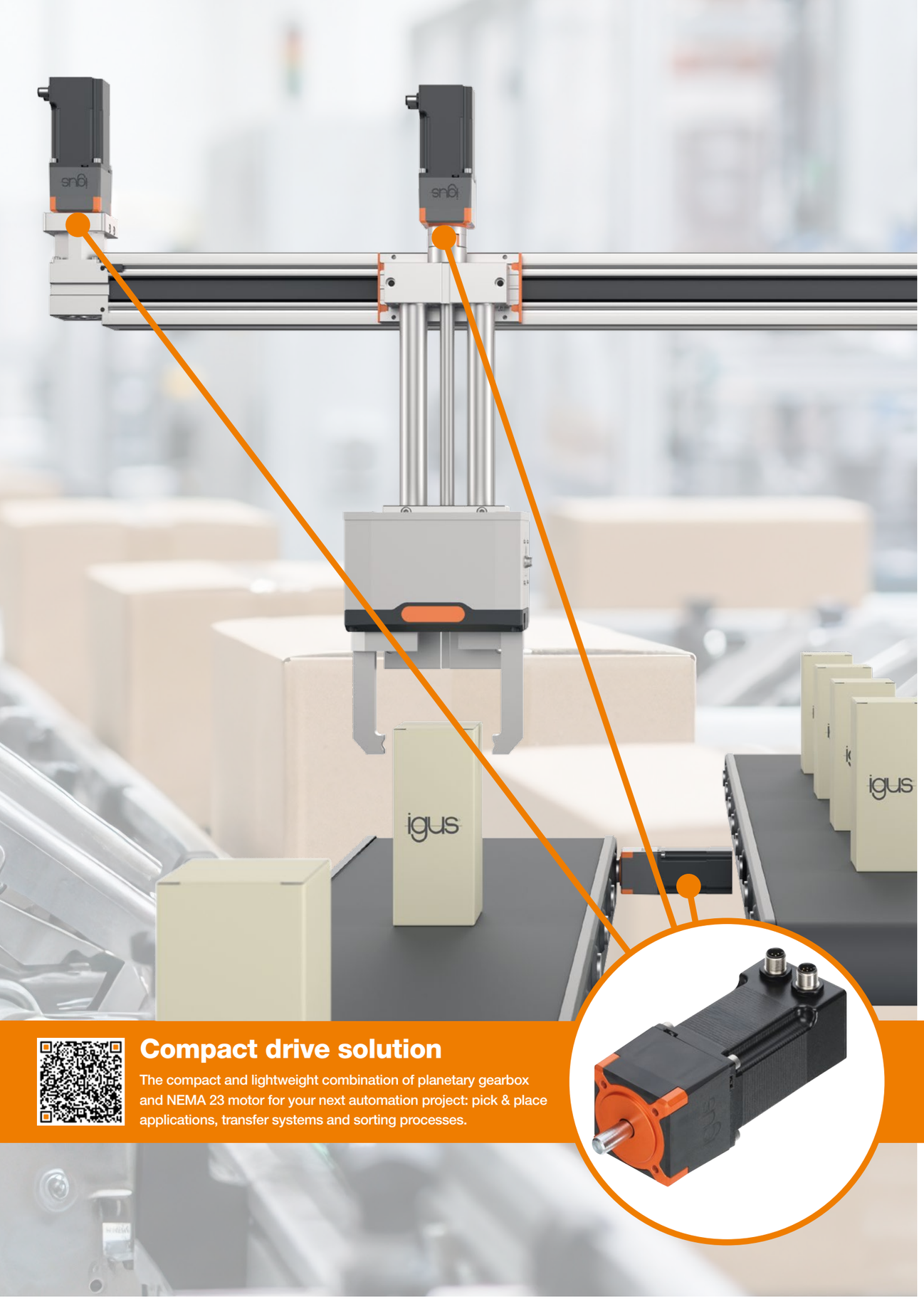
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60 **Complete solution ready for immediate use**
drygear® installation service

62 **Robust performance with resilient housing**
drygear® Apiro® heavy-duty lift/push drive

62 **Heavy-duty housing for reliable performance**
drygear® Apiro® heavy-duty rack gear

63 **High performance for demanding applications**
drygear® planetary gearbox

63 **New motor-gearbox combinations for every challenge**
drygear® planetary gearbox with multiple motor types

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Compact drive solution

The compact and lightweight combination of planetary gearbox and NEMA 23 motor for your next automation project: pick & place applications, transfer systems and sorting processes.



Apiro® iDeas

Easily replicate 12 ideas for automation systems.
Download the brochure now: **igus.eu/apiro-ideas**

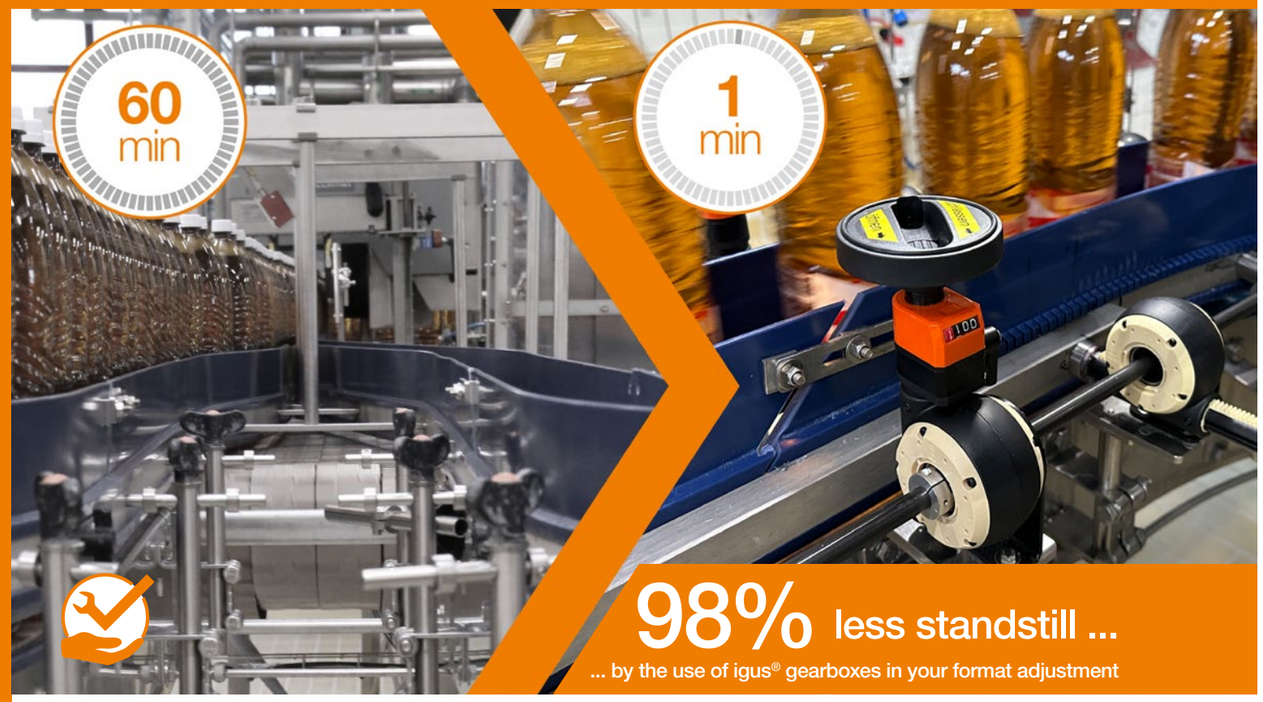
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drygear® installation service

Assembly on site



98% less standstill ...

... by the use of igus® gearboxes in your format adjustment

New

Complete solution ready for immediate use

drygear® installation service

With our installation service, we are now offering a complete solution for format adjustments for the first time. You will receive not only the suitable components, but also professional installation. From selecting the right products to commissioning: everything from one source.

- ▲ We will optimise your entire application, from the design of new systems to the retrofitting of existing equipment
- ▼ Lowered planning and coordination effort combined with professional installation reduce the total costs of your project
- ■ A safe implementation and successful commissioning make the benefits of the solution measurable from day one
- ● Durable, maintenance-free components permanently reduce resource consumption, spare-parts requirements and unplanned downtime

26-DRG-05

Interview with Steffen Schack, Head of Sales drygear® Gears and Gearbox Technology

Full service from our Apiro® installation team

Today we would like to find out more about the new installation service that the drygear® business unit is now offering.

Steffen Schack, can you briefly explain what this is all about?
"With our new installation service for Apiro® gearboxes, we are offering a real all-inclusive service package for the first time. Customers no longer just receive the components for their format adjustment, but also, if desired, professional installation in their system. Our experts provide support during implementation on site and ensure quick and professional commissioning. We support our customers from the selection of the components to the ready-to-use solution."

Why did you decide to offer this service?
“Many companies have their own maintenance or installation teams, but would like to use these resources as efficiently as possible. At the same time, the demand for quick and uncomplicated solutions is increasing. With our installation service, we create added value right here: Customers receive a complete solution for format adjustment from one source and their employees don't have to worry about planning, setup and coordination."

What are the specific advantages for customers?
"Customers benefit above all from less downtime due to the fast and smooth implementation of their optimised format adjustment. As Apiro® gearboxes are installed on site, they are integrated into the existing system straight away. This reduces organisational effort, shortens project durations and ensures professional commissioning by experienced specialists. Especially in the case of conversions or retrofits, the system can be put back into operation much faster."

For which applications is the offer particularly interesting?
"Our installation service is aimed specifically at format adjustment applications. Wherever machines have to be regularly adjusted to different product sizes, packaging formats or production parameters, reliable and automated adjustment technology plays a decisive role. With Apiro® gearboxes and our on-site service, we support customers in integrating such format adjustments into existing systems quickly and professionally, without planning effort and without having to tie up their own assembly capacities."

What are your closing words for the reader of the news brochure?
"With our new installation service for Apiro® gearboxes, we are taking an important step forward. We not only supply the right components for format adjustments, but now also support our customers in implementing them in their system. For companies, this means less coordination effort, faster realisation and a competent contact person from planning to commissioning. If you would like to carry out format adjustments more easily and efficiently in future, please contact us. We look forward to working with you to find the right solution for your application."



Steffen Schack
Head of Sales drygear®
Gears and Gearbox Technology



Highest demands on efficiency and flexibility in beverage production

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New

Robust performance with resistant housing

drygear® Apiro® heavy-duty lift/push drive



The new Apiro® lift/push drive "heavy duty" with robust housing allows users to implement demanding applications in the beverage and packaging industry.

- ▲ The strong housing ensures strength and reliability even under demanding conditions
- ▼ Up to 44% lighter compared to metal gearboxes
- ■ Increase in axial static force absorption by 400%, tested in the drygear® test laboratory
- ● Long service life is how we conserve resources

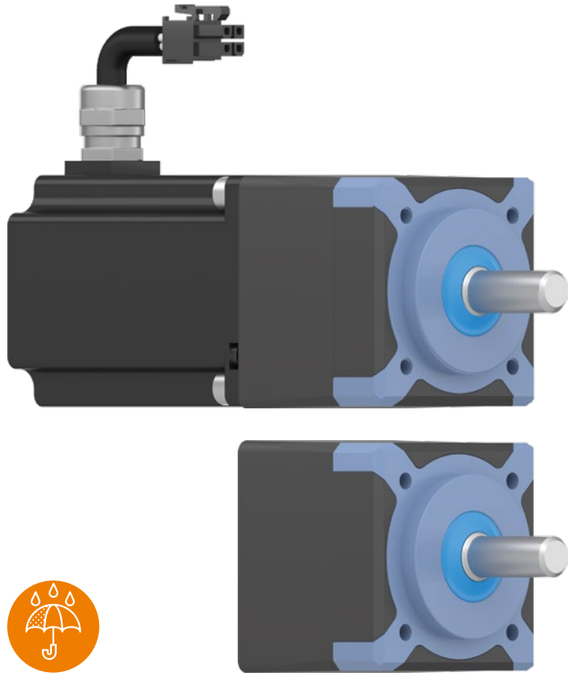
Part No.: RL-A18.8108.[ ]
[ ] = 50, 100, 150, 200

26-DRG-06

New

High performance for demanding applications

drygear® planetary gearbox



The new drygear® planetary gearbox for demanding operating conditions offers maximum flexibility and improved protection against dust and water while maintaining consistently good mechanical specifications.

- ▲ Up to 20,000hrs service life (load: 0.5Nm; 75rpm; duty cycle: 50%)
- ▼ Up to seven times more cost-effective, four times more compact and 32% lighter than comparable gearboxes
- ■ Protection class IP65 in accordance with ISO 20653, tested in drygear® test laboratory
- ● Environmentally friendly, no additional lubricants needed

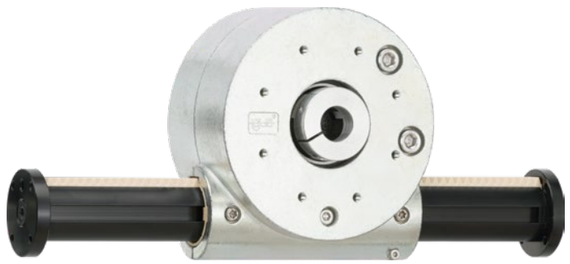
Part No.: DG-PLI-56-AD-AES-IP,
DG-PLI-56-AD-AES-IP-ST56-020-[ ]
[ ] = CA (connection cable),
CC (connection cable and encoder)

26-DRG-08

New

Heavy-duty housing for reliable performance

drygear® Apiro® heavy-duty rack gear



The new Apiro® rack gear with heavy-duty housing easily withstands loads, which makes it ideal for pusher tasks and format adjustments.

- ▲ The robust housing increases the reliability of the rack gear
- ▼ Up to 64% lighter compared to metal gearboxes
- ■ Up to 10 times higher resistance to external influences
- ● Environmentally friendly use in dry operation, 100% lubrication-free

Part No.: RL-A14.8114.[ ]

3 = 60mm	8 = 295mm
4 = 110mm	9 = 345mm
5 = 155mm	10 = 390mm
6 = 200mm	11 = 440mm
7 = 250mm	12 = 485mm

26-DRG-07

Update

New motor-gearbox combinations for every challenge

drygear® planetary gearboxes with several motor types



Discover 12 motor-gearbox combinations and benefit from simple and cost-effective integration into existing and planned systems.

- ▲ Three common connection systems, each with and without an encoder, facilitate integration
- ▼ 63% more cost-effective, 15% lower space requirement, 10% weight saving (compared to the previous combination)
- ■ Tested in the drygear® test laboratory: up to 3Nmat 120rpm
- ● Also available as a PTFE-free version that has been tested for harmful PFAS

Part No.: STANDARD: DG-PLI-56-AD-AST-ST56-020-[ ]
PTFE/PFAS: DG-PLI-56-AD-AST-PF-ST56-020-[ ]
[ ] = LA (stranded wires with JST connector),
LC (stranded wires with JST connector and encoder),
CA (connection cable),
CC (connection cable and encoder),
MA (connector),
MC (connector and encoder)

26-DRG-09

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iglidur® slewing ring bearings

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66 **Replaceable slot nuts**
iglidur® PRT-07 slewing ring bearings

68 **Slewing ring bearing and drive in one compact solution**
iglidur® PRT-04 slewing ring bearings

69 **Easily set rotation positions with integrated locking device**
iglidur® PRT-01 slewing ring bearings

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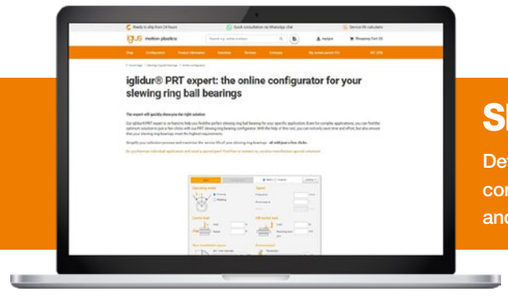
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Smooth rotation

With the PRT-01-05 slewing ring bearing, the company NOUVA BN has improved the functionality of the radiosurgical operating table with the option of 360° rotation.





Slewing ring bearings in just a few minutes

Determine the PRT slewing ring bearing for your individual application, the corresponding service life and the best price-performance ratio simply, quickly and effectively: **igus.eu/PRT-expert**

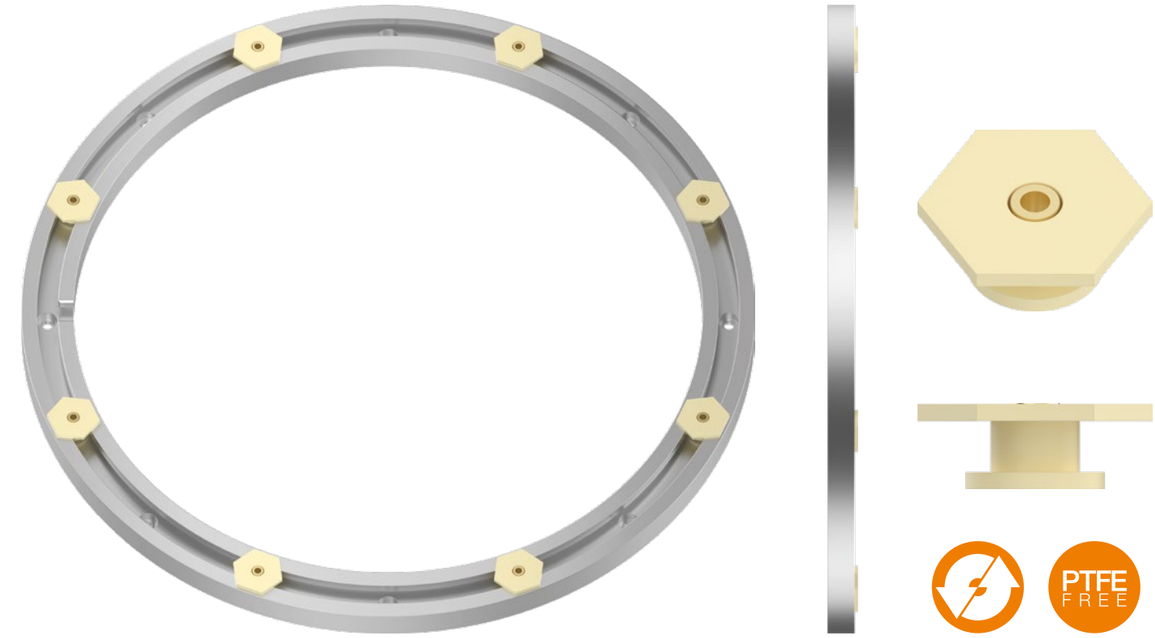
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iglidur® PRT-07 slewing ring bearings

Less design effort



New

Replaceable slot nuts

iglidur® PRT-07 slewing ring bearings

The new iglidur® PRT-07-300 slewing ring bearing with variable slot nuts reduces design effort. In addition, the slot nuts can be added flexibly to increase the load capacity. The slot nuts can be replaced quickly if required. It is also possible to use a slot manufactured by the customer, which makes it easy to produce a bearing.

- ▲ Replaceable slot nuts allow for flexible arrangement
- ▼ Less design and assembly effort due to subsequently movable and replaceable slot nuts
- ■ Simple modular system with individual sliding elements (1,000N axial load each)
- ● Slot nuts permit conversions and extensions without having a new slewing ring bearing
- Configuration and enquiry via the iglidur® PRT Expert with quick selection of the suitable slewing ring bearing: igus.eu/PRT-expert

Part No.: PRT-07-300-JPF, JPFRS-07-10,
PRT-07-10-[ ]-KIT-JPF, [ ] = 8, 16, 24, 32, 40

26-PRT-04

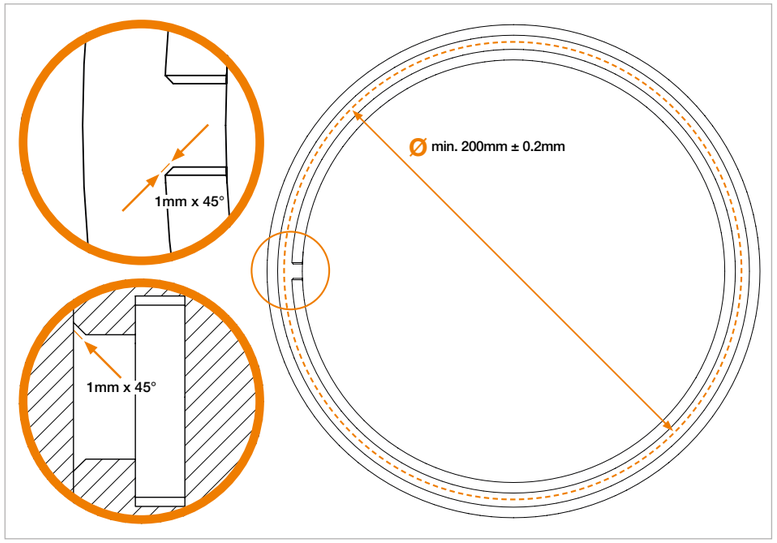
Interview with Jonas Kemp, iglidur® Developer

Replaceable slot nuts for more design freedom

Not every application remains unchanged over its entire service life. Modifications to machines, extensions or adaptations to new requirements can make a flexible fastening solution necessary. The new iglidur® PRT-07 slewing ring bearing with replaceable slot nuts offers exactly this flexibility. Slot nuts can be positioned, replaced or added depending on the application. Developer Jonas Kemp gives insights into the development of the system and explains the advantages for design and assembly.

What was the challenge in developing the new iglidur® PRT-07?
"In many applications with slewing ring bearings, the requirements don't change before the design phase or later in operation. Positions of attachment parts have to be adjusted, additional components integrated or existing designs extended. Until now, this often meant that components had to be redesigned or slewing ring bearings completely replaced. Our goal was therefore to develop a solution that allows more flexibility while reducing design and assembly effort."

How does the new system with the replaceable slot nuts work?
"The iglidur® PRT-07 slewing ring bearing has replaceable slot nuts that can be positioned infinitely and exchanged if required. The JPFRS-07-10 slot nut is inserted into a corresponding standard slot in the component and allows for a secure connection between the slewing ring bearing and the application. The great advantage: The positioning of the slot nuts can be adapted to the respective application. Depending on the loads that occur, the number of slot nuts can be varied. For higher loads, for example, more slot nuts can be used to distribute the forces evenly. This way, the system can be individually adapted to the requirements of the application."



Requirement and dimensional specifications of the T-slot

What options do customers have for integration?
"We offer various variants. Customers can either purchase a slot nut kit with a defined number of slot nuts and machine the necessary slot into their existing component themselves. We provide instructions for this. The number of slot nuts required depends on the respective application and the forces involved. Alternatively, the iglidur® PRT-07 slewing ring bearing is also available with a pre-machined slot. This eliminates the need for post-processing the component and the slewing ring bearing can be assembled directly."

What are the advantages for design engineers?
"The biggest advantage is the flexibility they gain. Designs can be adapted or extended more easily without a completely new slewing ring bearing. Changes to the application can thus be implemented faster and reduce the effort in development, assembly and service. Especially with machines and devices that are regularly adapted or enhanced, the system offers an additional degree of freedom. Design engineers can replace or add slot nuts without having to rebuild the entire design."

What was particularly important during development?
"In addition to flexibility, it was crucial for us to maintain the well-known maintenance-free operation and simple integration of the iglidur® PRT slewing ring bearings. The new concept was not supposed to create additional complexity, but offer a simple way to implement existing and new designs more efficiently. With the iglidur® PRT-07, we therefore combine a robust slewing ring bearing with a variable fastening solution that can be adapted to different requirements."



Jonas Kemp
iglidur® Developer

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iglidur® PRT-04 slewing ring bearing

Integrated sprocket



New

Slewing ring bearing and drive in one compact solution

igildur® PRT-04 slewing ring bearings

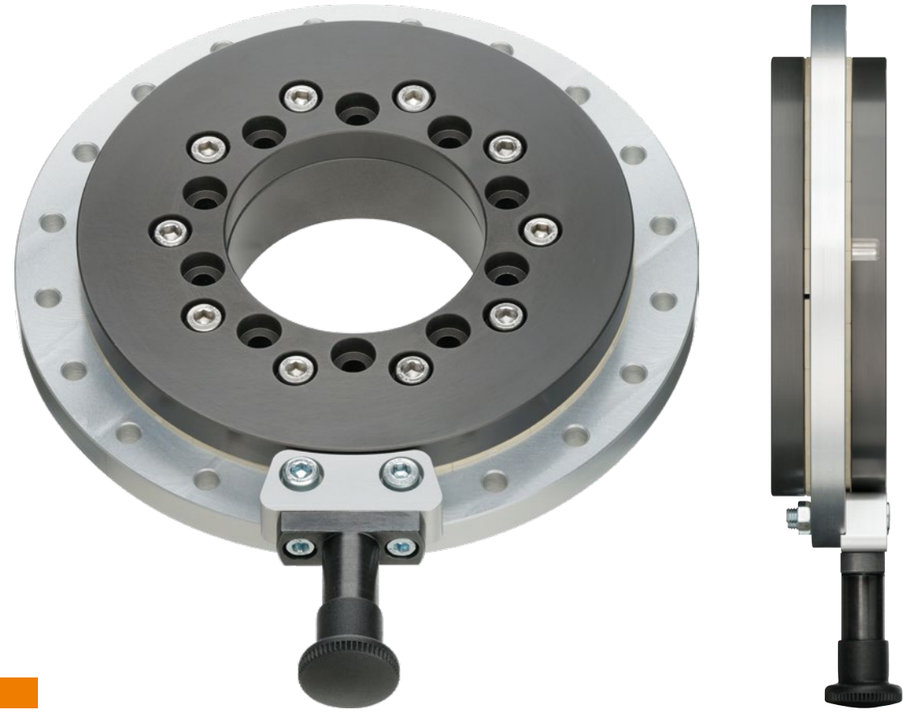
The iglidur® PRT-04 slewing ring bearing with sprocket combines a slewing ring bearing and drive in one compact unit - for simple integration and less assembly effort.

- ▲ Integrated sprocket for driving the slewing ring bearing
- ▼ Fewer components and less assembly effort due to the combination of drive and slewing ring bearing
- ■ Standard 06B-1 rol e-chain toothing for simple integration into your system
- ● Individual components mean less material and assembly effort
- Use the iglidur® PRT Expert to configure a solution that is suitable for your application and submit your enquiry: igus.eu/PRT-expert

Part No.: PRT-04-[ ]-TO-06B-1
[ ] = 20, 30, 50, 60, 100, 150, 200 oder 300

iglidur® PRT-01 slewing ring bearings

Integrated locking device



New

Easily set rotation positions with integrated locking device

iglidur® PRT-01 slewing ring bearings

The iglidur® PRT-01-ART slewing ring bearing allows rotary positions to be secured in place. The integrated locking mechanism ensures simple operation and flexible applications.

- ▲ Integrated locking mechanism for defined and secure positioning of rotary movements at 90° intervals
- ▼ No additional clamping or locking elements necessary - fewer components and less assembly effort
- ■ Holding force of the locking pin 700N
- ● Longer service life due to flexible positioning and adaptation of the application without additional components
- Quick selection and configuration of the suitable slewing ring bearing via the iglidur® PRT Expert: igus.eu/PRT-expert

Part No.: PRT-01-[ ]-ART
[ ] = 20, 30, 50, 60, 100, 150, 200 oder 300

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72 **Dimensionally stable solution for the safe guidance drive chains under high loads**
Chain guide profile

73 **Reliable despite extreme conditions**
iglidur® K230N plates

73 **Durable, food-safe, free from bisphenol**
iglidur® A351 round bars

Quick consultation anywhere, at any time



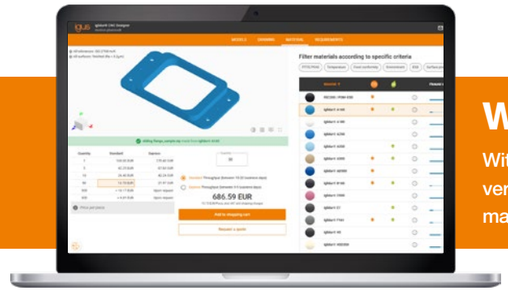
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Sliding plates in telescopic loaders

Low-friction and long-lasting guidance of the telescopic booms, which optimises the machine's functionality and makes it easier to maintain.



We manufacture your CNC parts

With 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**

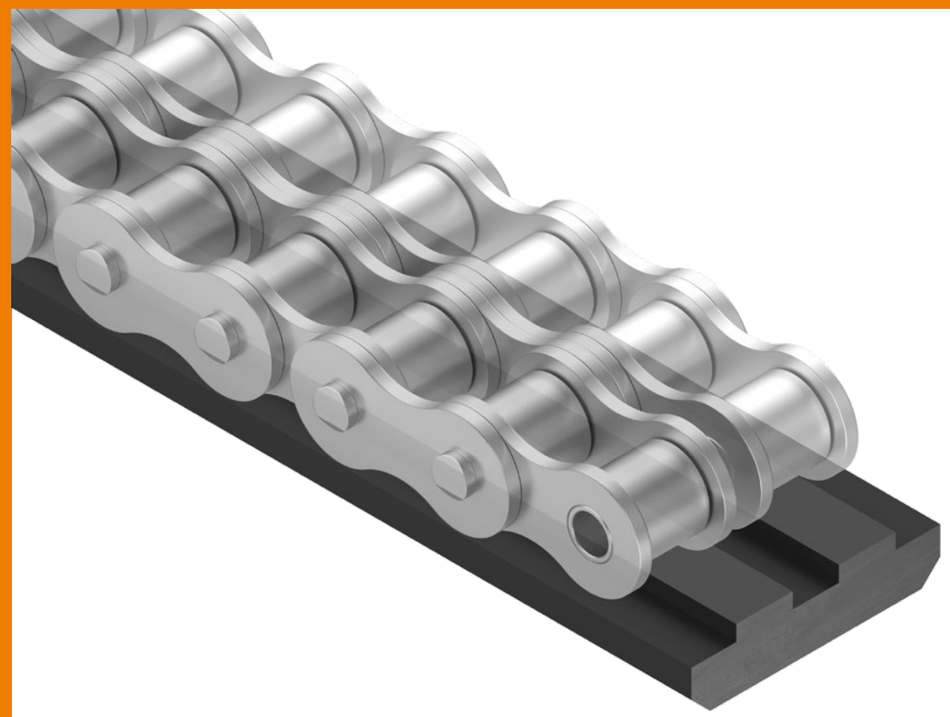
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Chain guide profile

Wear-resistant at high loads



New

Dimensionally stable solution for the safe guidance of rol drive chains under high loads

Chain guide profile

The new chain guide profile sets standards in the safe guidance of rol e-chains. Thanks to its high wear resistance and dimensional stability, it offers reliable performance under high loads. As it has been designed for demanding applications, it offers safety and durability when guiding rol e-chains.

- ▲ Highest wear resistance even with a pallet weight of over 1t
- ▼ Minimal downtime thanks to wear-resistant material
- ■ Flattening reduced by more than 40% compared to PE-UHMW under the same load (roller test specimen: 30mm diameter and 10mm width)
- ● Long-lasting materials for reduced resource consumption

Part No.: SFCG-10B2-40-10, SFCG-12B1-25-10

26-SFP-05



New

Reliable despite extreme conditions

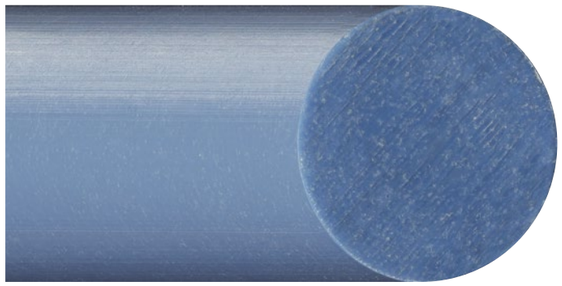
iglidur® K230N plates

The new iglidur® K230N plates impress due to their considerable resistance to impacts and wear. Even when subjected to high surface pressures, they can easily cope with edge loads as well as shock and impact loads.

- ▲ Durable use under the most difficult conditions up to +110°C
- ▼ Maintenance-free operation and longer service life saves time and money
- ■ Tested in the igus® tribo-laboratory (rotating wear: 0.3m/s, 1MPa, 304 stainless steel; K230N: 0.37µm/km, W300: 0.83µm/km, M250: 3.98µm/km)
- ● 100% lubrication-free
- Request customised machined parts from the CNC service or order directly: igus.eu/cnc

Part No.: SFPK230N-15-1000-610, SFPK230N-25-1000-610

26-SFP-06



BPA BPS FREE

FOOD

New

Durable, food-safe, bisphenol-free

iglidur® A351 round bars

The iglidur® A351 round bars are resistant to media and wear. They are also ideal for use involving 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)
- ● Sustainability through the elimination of external lubricants
- Request customised machined parts from the CNC service or order directly: igus.eu/cnc

Part No.: SFRA351-1500

26-SFP-07

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Improve what moves ...

iglidur® 3D printing

Tech up · Cost down · Proof · Sustainability · Digital

76 **Lighter than machined, available in two to three weeks**
Timing screws for conveyor systems

78 **Low-friction, high-performance, sustainable - and without PTFE**
iglidur® i190-BL and iglidur® i190PF-BL

79 **Improved formula and food-safe in three colours**
iglidur® i151

Quick consultation anywhere, at any time



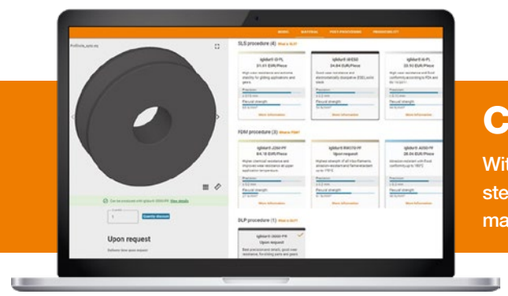
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Product turning with reliability

The 3D-printed turner for beverage cans on a high-speed conveyor system is up to 70% more cost-effective and 90% lighter than the conventional machined version.



Customised components in 1-3 days

With the igus® 3D printing service, find your individual component in just a few steps: upload your CAD model and choose a manufacturing procedure and material. You can also calculate the service life - that's it: **igus.eu/idd**

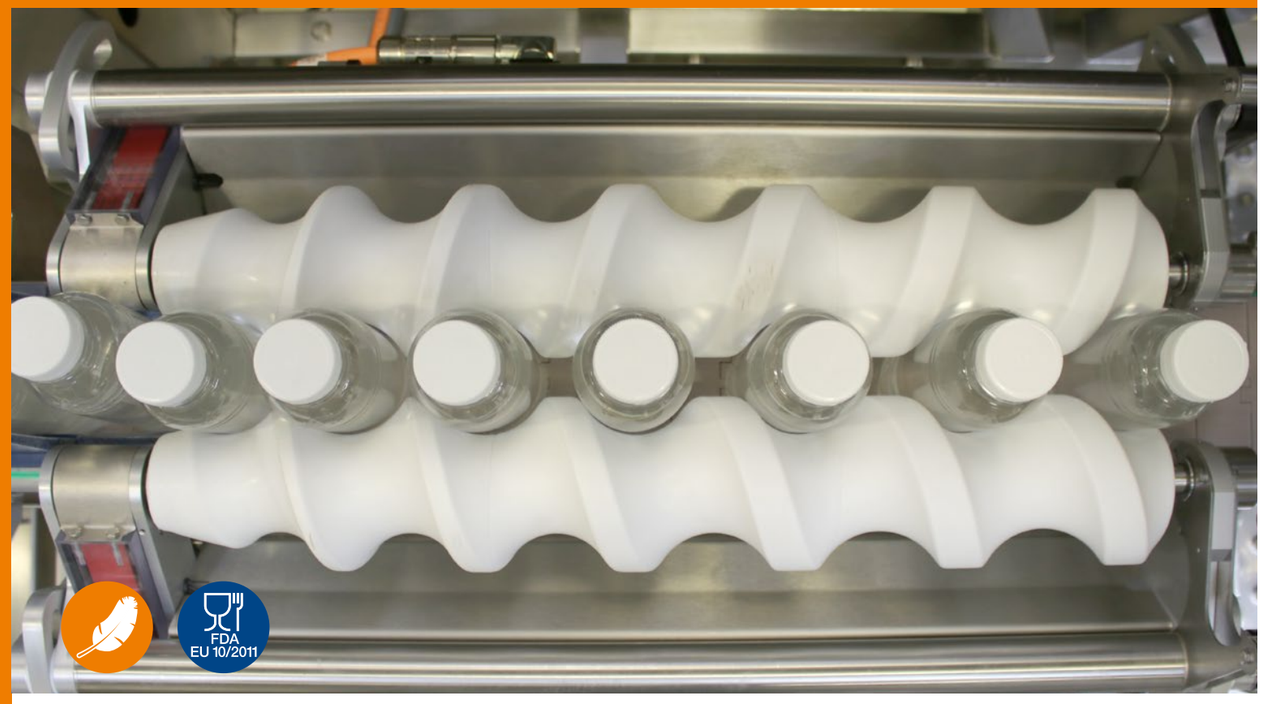
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Timing screws for conveyor systems

80% lighter, 100% faster



New

Lighter than machined, available in two to three weeks

Timing screws for conveyor systems

Timing screws, often also called separating screws, are a central component in packaging and filling technology. They are used to separate containers such as bottles, cans or other products at a defined distance and feed them into the machine in a synchronised way. If desired, they can also rotate and align products.

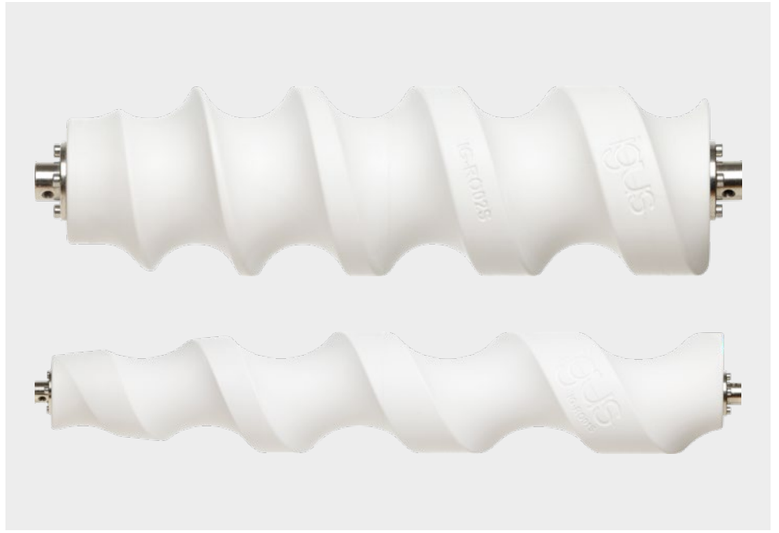
- ▲ Up to 80% weight savings with lower wear
- ▼ No minimum order quantity, no tooling costs, low material costs
- ■ Up to 78 times longer service life than POM in the pin-on-disc test according to DIN 50324: iglidur® i190 filament with integrated solid lubricants
- ● Up to 75% fewer CO_2emissions in the manufacturing process thanks to material savings
- Digital No CAD model required: simply submit a drawing and we will take care of the CAD design for your individual timing screw

Part No.: SCW-XXX

From the development department: interview with 3D Printing Application Developer Niklas Eutebach

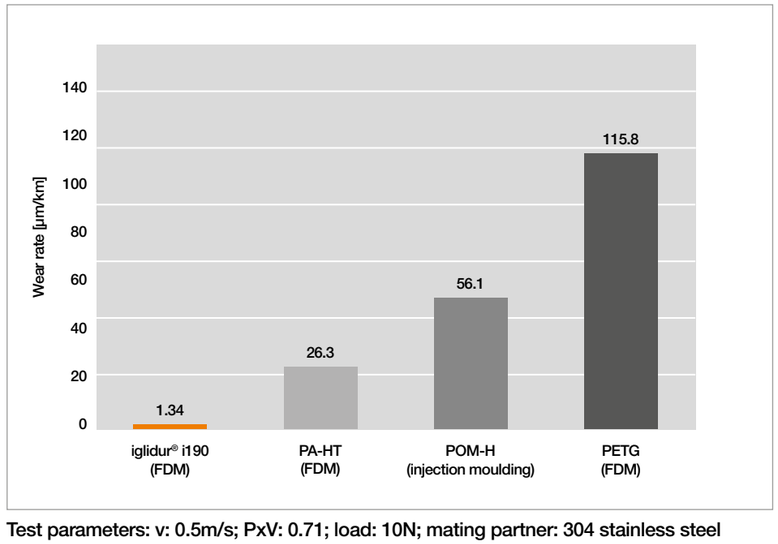
New application solution from 3D printing for filling, labelling and capping processes

Why was the timing screw rethought at igus® and developed for 3D printing?
"Conventional timing screws are usually machined from plastic. This is not only cost-intensive, but also leads to long delivery times and high material consumption. At the same time, many users face the problem that the screws wear out in continuous operation and make format changes more difficult due to their weight. We were able to specifically address these weaknesses with industrial 3D printing. We manufacture the screws from tribologically optimised high-performance plastics that are more wear-resistant than classic materials such as POM or PA. In addition, we do not need any tools and can manufacture any geometry quickly and cost-effectively. This reduces costs by up to 50% and weight by up to 80%; also, delivery takes only a few weeks instead of months."



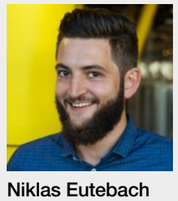
Timing screws for conveyor systems

What can the printed timing screw do better than conventional solutions?
"The screws are used for separating, positioning and supplying products onto conveyor belts with predefined spaces. The combination of lightweight design, wear resistance and surface quality is crucial. Our 3D-printed screws have very abrasion-resistant flanks and a particularly smooth surface with a roughness grade of RA < 2.5. This allows even sensitive containers to be guided gently. The low weight also facilitates handling during format changes and improves the dynamics of the entire system. Users benefit from a longer service life, less maintenance and higher system availability."



Test parameters: v: 0.5m/s; PxV: 0.71; load: 10N; mating partner: 304 stainless steel

For which applications and industries is this application solution particularly suitable?
"Basically, wherever products have to be separated, clocked or precisely positioned on conveyor systems. Typical areas of application are filling, labelling, capping and packaging lines in the beverage industry. In addition, we see great potential in pharmaceutical and medical technology as we can also offer materials that comply with FDA and EU 10/2011. Manufacturers in the cosmetics, chemical and household industries also benefit from the solution. The screws can be individually configured for a wide variety of products, from glass and PET bottles to cups and detergent containers to syringe components or other sensitive medical products. It is precisely this flexibility that makes 3D printing so interesting for many users."



Niklas Eutebach
Application Developer 3D Printing, Additive Manufacturing

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iglidur® i190-BL and iglidur® i190PF-BL for FDM 3D printing

Top performance, without PTFE



PTFE FREE

PFAS TESTED

Plus

Low-friction, high-performance, sustainable - and without PTFE

iglidur® i190-BL and iglidur® i190PF-BL for FDM 3D printing

A black variant of the iglidur® i190 filament is now also available in the proven quality as well as a sustainable version without PTFE. The material is suitable for numerous components subject to wear, such as format adjustments, parts chutes and guide elements, and hence ideal for applications that require low friction, a long service life and maintenance-free operation.

- ▲ Low coefficient of friction and high wear resistance
- ▼ 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
- ● iglidur® i190PF-BL: PTFE-free and PFAS-tested - sustainable and environmentally conscious. Further information: igus.eu/ptfe-free
- Available in the online 3D printing service. Upload CAD files and order directly online: igus.eu/idd

Part No.: I190-BL-PF-0175-0750, I190PF-BL-PF-0175-0750

▲ Tech up ▼ Cost down ■ Proof ● Sustainability Digital

igus



FDA EU 10/2011

Plus

Improved formula and food-safe in three colours

iglidur® i151 for FDM 3D printing

The FDA-compliant tribofilament® for the food and packaging industry impresses with an optimised formula for easier processing. New in black and white, in addition to blue.

- ▲ Easier processing with improved formula, FDA-compliant in three colours
- ▼ No minimum order quantity, no tool set up costs
- ■ Up to 10 times longer service life than PETG in the wear test: v: 0.5m/s; PxV: 0.71; load: 10N
- ● No additional lubrication necessary
- Print profiles for optimised print settings available to download free of charge: igus.eu/filament-print-profiles

Part No.: I151-PF-0175-0750,
I151-BL-PF-0175-0750,
I151-BLUE-PF-0175-0750

Filament for demanding applications

iglidur® tribofilament® with integrated solid lubricants

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:

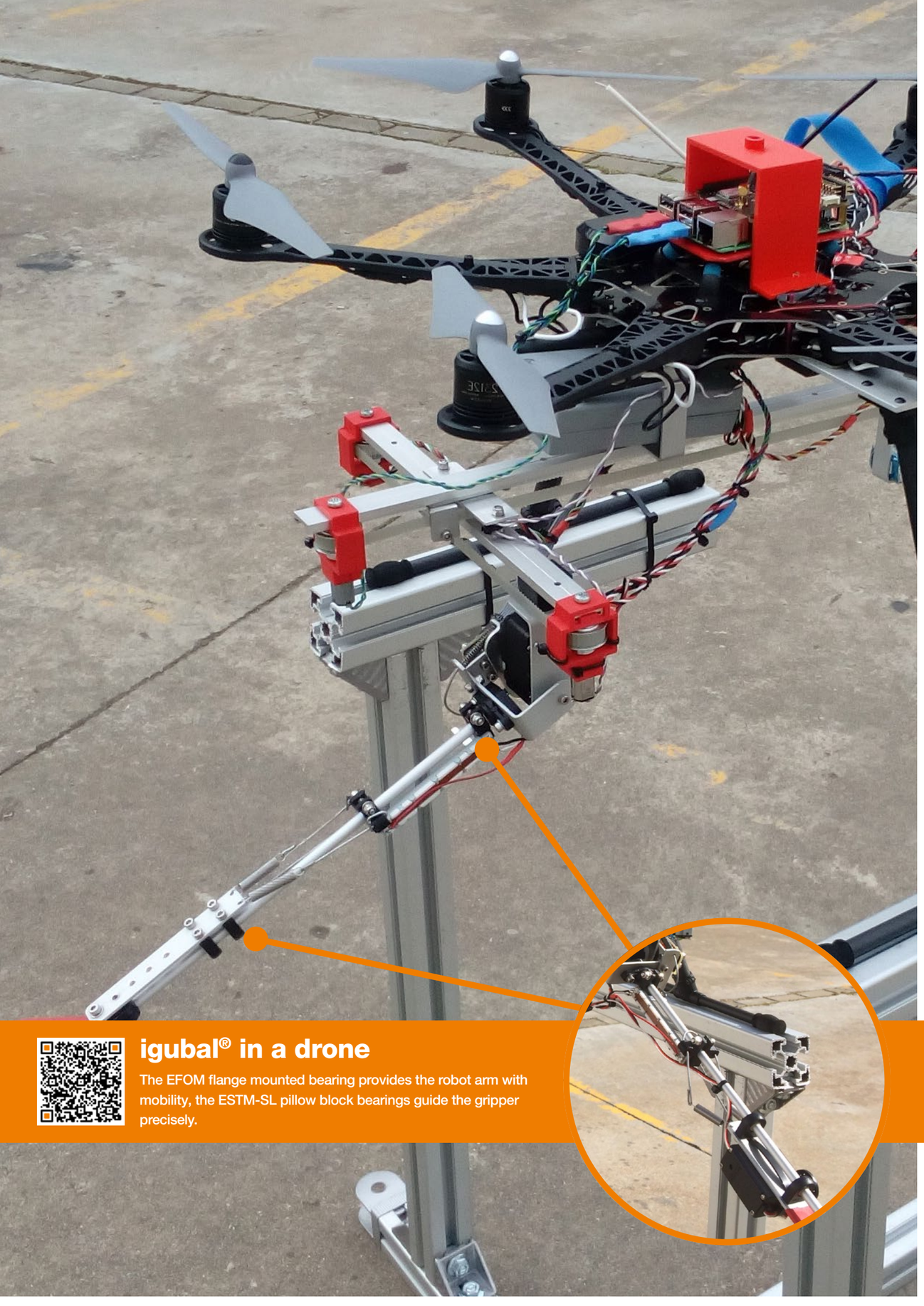
- igus® filaments print components that work in dry operation, are clean and maintenance-free without requiring lubrication
- They are ideal for prototypes, individual parts and series-produced components that need to function reliably in moving applications



igus.eu/tribofilament

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Improve what moves ...

igubal® spherical bearings

Tech up · Cost down · Proof · Sustainability · Digital

82 **Heavy-duty spherical bearings from Ø30mm to Ø60mm**
EGLM-HD spherical bearings

84 **Integrated seal for demanding operating conditions**
Spherical insert bearing with integrated seal

87 **New housing shapes made of galvanised steel and stainless steel**
Metal rod ends with iglidur® inner ring

88 **Optimised flange mounted bearings now also for 20mm and 25mm shafts**
EFOM-2.0 and EFSM-2.0 flange mounted bearings

Quick consultation anywhere, at any time



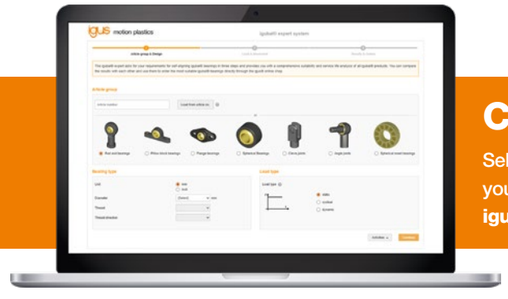
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igubal® in a drone

The EFOM flange mounted bearing provides the robot arm with mobility, the ESTM-SL pillow block bearings guide the gripper precisely.



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**

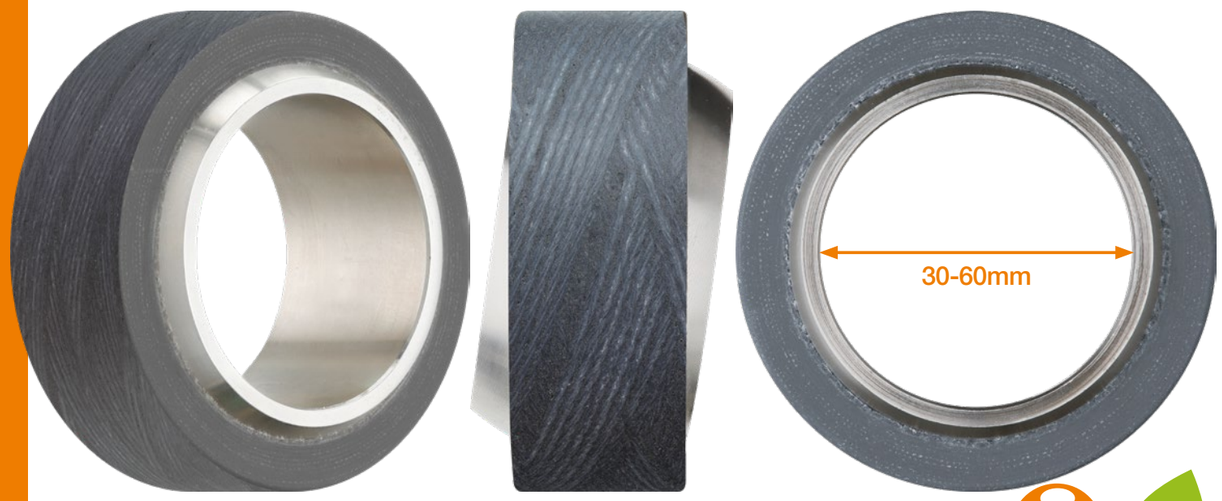
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EGLM-HD spherical bearings

Resilient and lubrication-free



kg

PFAS TESTED

New

Heavy-duty spherical bearings from Ø30mm to Ø60mm

EGLM-HD spherical bearings

Corrosion-resistant stainless steel spherical ball made from igutex® TXH fibre composite material - extremely wear-resistant under high loads.

- ▲ Highly resilient and vibration-dampening
- ▼ Up to 25% lower acquisition costs compared to comparable metal spherical bearings
- ■ 180MPa maximum static surface pressure
- ● Tested for 96 PFAS substances considered critical for environment and health

Part No.: EGLM-30-HD, EGLM-40-HD, EGLM-50-HD, EGLM-60-HD

26-IGU-06

Interview with Dennis Steffen, Product Manager igubal®

igubal® heavy-duty spherical bearings as an alternative to metal

Which bearing sizes will the new product be available in?
"To start with, we are offering the dimensional series E with inner diameters of 30, 40, 50 and 60mm. The 50 and 60mm sizes are even available in the igubal® standard range for the first time."

Can the new heavy-duty spherical bearings take the loads that were previously reserved for metallic solutions?
"No - and that is not necessary. In practice, the theoretical maximum values of metallic bearings are not required, especially since the outer is generally not designed for such loads either. Applications in construction machinery or agricultural engineering usually take place at a surface pressure of approx. 45MPa. Tests with igutex® TXH show surprisingly low wear in these load ranges."

And what loads can be achieved with the HD spherical bearings?

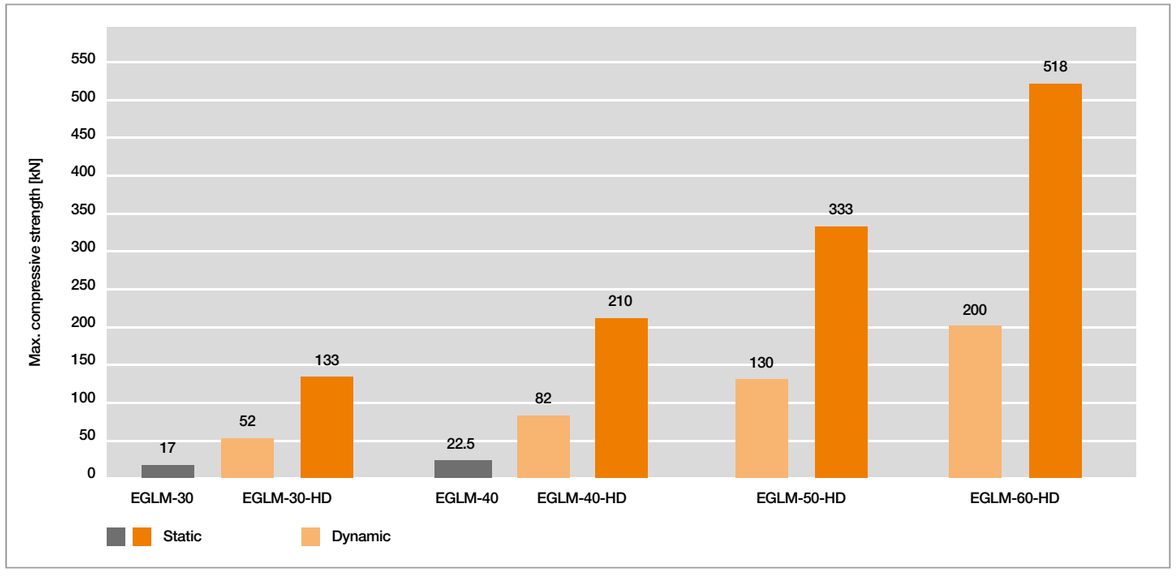
For example, a triceratops could be hung from our EGLM-50-HD. This corresponds to a load of 13t.

As we assume a maximum dynamic load of up to 80MPa, the dinosaur could even have a go on the swing."

What are the advantages for design engineers and operators?
"The bearings operate without corrosion and do not require any additional lubrication. This saves maintenance effort and makes them easier to use in demanding environments. The material has a vibration-dampening effect. In addition, the bearings were tested for the most harmful PFAS substances.

And from an economic point of view?
Compared to metallic heavy-duty spherical bearings, we offer a cost-effective, durable and at the same time low-wear alternative with igutex® TXH. This makes our spherical bearings equally attractive for purchasers, design engineers and maintenance staff."

EGLM-30-HD	EGLM-40-HD	EGLM-50-HD	EGLM-60-HD
5.2t	8.2t	13t	20t



Comparison of the static and dynamic pressure load of heavy-duty and standard spherical bearings of the EGLM series.

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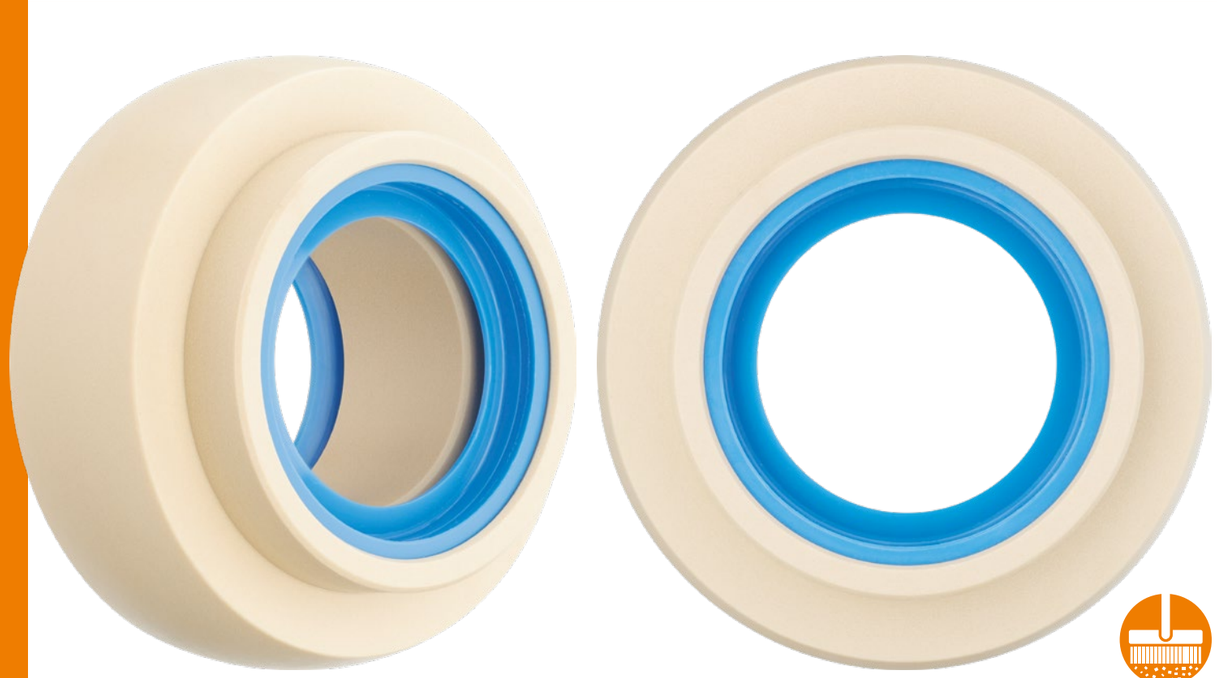
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Spherical insert bearings with integrated seal

Protection against ingress of dirt



New

Integrated seal for demanding operating conditions

Spherical insert bearing with integrated seal

Lubrication-free plastic alternative to UC206 tensioning bearings, mechanically produced from iglidur® J3 and with a sealing ring made of iglidur® A160.

- ▲ Reduced dirt and particle load in the moving contact area
- ▼ Up to 65% lower purchasing costs compared to comparable tensioning bearings
- ■ In a dirt test, in which the seal was completely covered with silica sand, it withstood over 200,000 cycles without problems
- ● Reduced resource consumption due to freedom from lubrication

Part No.: J3EM-30-19-SD1, J3EM-30-19-SD2

26-IGU-07

▲ Tech up ▼ Cost down ■ Proof ● Sustainability Digital

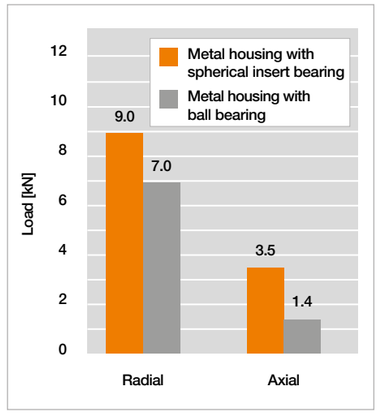
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From development

When the environment makes special demands

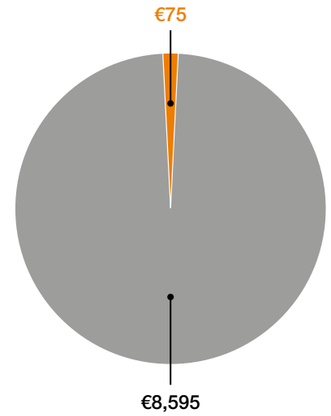
igubal® spherical insert bearings have already proven themselves in numerous demanding applications as a long-lasting alternative to classic tensioning bearings. Moisture and a wide range of cleaning media do not pose a corrosion risk for the lubrication-free plastic bearings - an advantage over metallic insert bearings. In abrasive environmental conditions, plastic bearings, like those made of metal, are exposed to additional loads: sand, dust and mineral particles can get into the area between the bearing and the shaft and accelerate wear.

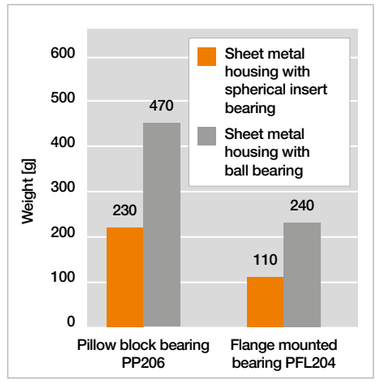
The new igubal® spherical insert bearing with integrated seal was developed for such operating conditions. The wear-optimised spherical insert bearing made of iglidur® J3 is available with an iglidur® A160 seal on one or both sides. The seal reduces the ingress of dirt and abrasive particles into the moving contact area and thus also protects the bearing point from environmental influences. In a dirt test, in which the seal was completely covered with silica sand, it withstood over 200,000 cycles. A bearing without sealing ring, in contrast, failed after only a few cycles.



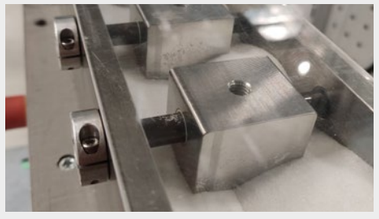
Cost savings with 200 pieces

	Metal option	igubal® J3EM-SP
Costs for 200 pieces	€1,350	€300
Estimated service life	1 year	4-year
Costs for lubricants (per year)	€45	€0
Hourly time required for lubrication (every year) 3 min. per bearing x 24 times every year x 200 bearings	240hrs	0hrs
Hourly rate per employee (€30/hr) x lubrication (240hrs)	€7,200	€0
Total annual costs	**€8,595**	**€75**
Annual savings	€0	€8,520





Load comparison (top) and weight comparison (bottom) of metallic ball bearings and spherical insert bearings





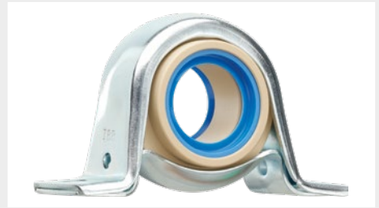
iglidur® A160 seal in the dirt test rig: extreme load from sugar (top) and silica sand (bottom).

Because dust, dirt and abrasive particles are part of everyday industrial life.

New, mechanically produced spherical insert bearing made of iglidur® J3 with iglidur® A160 sealing ring.

Are you interested in other bearing sizes or would you like to have your application tested in our laboratory? If so, please feel free to contact our experts.





Available with a seal on one or both sides for pillow block and flange mounted bearings of the P206, PA206, F206 and FL206 series.

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Injection moulding spherical insert bearings made of iglidur® J3

The new standard



Spherical insert bearings that can do more and cost less

The spherical insert bearings are based on DIN 626-1 and constitute the lubrication-free plastic alternative to classic tensioning bearings - available as flange mounted or tensioning bearing unit.

- 1:1 replacement for UC tensioning bearings
- For housing no. 204 to 210
- Up to 8 times longer service life [1]
- Also available as a split version

The advantages of iglidur® J3:

- 10% more cost-effective[2]
- PTFE-free and PFAS-tested
- Up to 3 times more wear-resistant [3]

Part No.: J3EM-40-21-SP, J3EM-40-21-SP-TP

[1] compared to metallic ball bearings, [2] than housing combinations with iglidur® J, [3] than iglidur® J spherical insert bearings

Metal rod ends with iglidur® inner ring

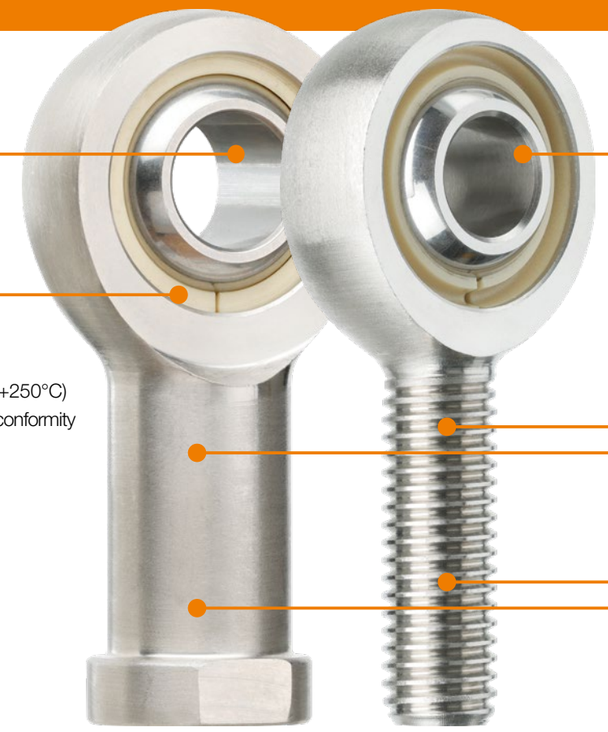
More resilient than ever before!

Inner diameter [mm]

05, 06, 08, 10, 12, 16, 20, 25

Inner race materials

- iglidur® J: high wear resistance
- iglidur® G: high alternating loads
- iglidur® X: high temperatures (up to +250°C)
- iglidur® A181: FDA and EU 10/2011 conformity



Spherical ball material

EK= stainless steel
SH = steel, hard-chromed

Housing material

ST = stainless steel
GS = steel, galvanised

Form

A = male thread
B = female thread

FDA EU 10/2011

New

New housing shapes made of galvanised steel and stainless steel

Metal rod ends with iglidur® inner ring

Steel replaces zinc die-casting: higher load capacity combined with the four proven iglidur® inner race materials for different operating conditions.

- Higher load capacity due to steel as new housing material
- Lubrication-free plastic inner races ensure maintenance-free and cost-effective operation
- The steel version offers 18% higher load capacity than the previous option with zinc die-casting housing
- Reduced resource consumption due to freedom from lubrication

Part No.: e.g. KBLM-GS-06-J-SH, KARM-ST-06-J-EK

Excellent possibilities!

DESIGN AWARD 2026

Split igubal® flange mounted bearings

For a quick and easy replacement - without dismantling the shaft.

Request a free sample now!



igus.eu/igubal-splitdesign

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EFOM-2.0 and EFSM-2.0 flange mounted bearings

Lower costs - full performance



Plus

Optimised flange mounted bearings now also for 20mm and 25mm shafts

EFOM-2.0 and EFSM-2.0 flange mounted bearings

The new design reduces weight through more targeted material use while maintaining the same static load capacity.

- ▲ Fully supported assembly surface for reduced dirt ingress
- ▼ Up to 10% more cost-effective than the predecessor models
- ■ Static load capacity up to 6,000N (EFOM-2.0-25) / 5,600N (EFSM-2.0-25)
- ● Up to 16% less material used (EFOM-2.0-25) and lubrication-free operation
- Service life calculation including 4-year guarantee

Part No.: EFOM-2.0-20, EFOM-2.0-25, EFSM-2.0-20, EFSM-2.0-25

26-IGU-09

▲ Tech up ▼ Cost down ■ Proof ● Sustainability Digital

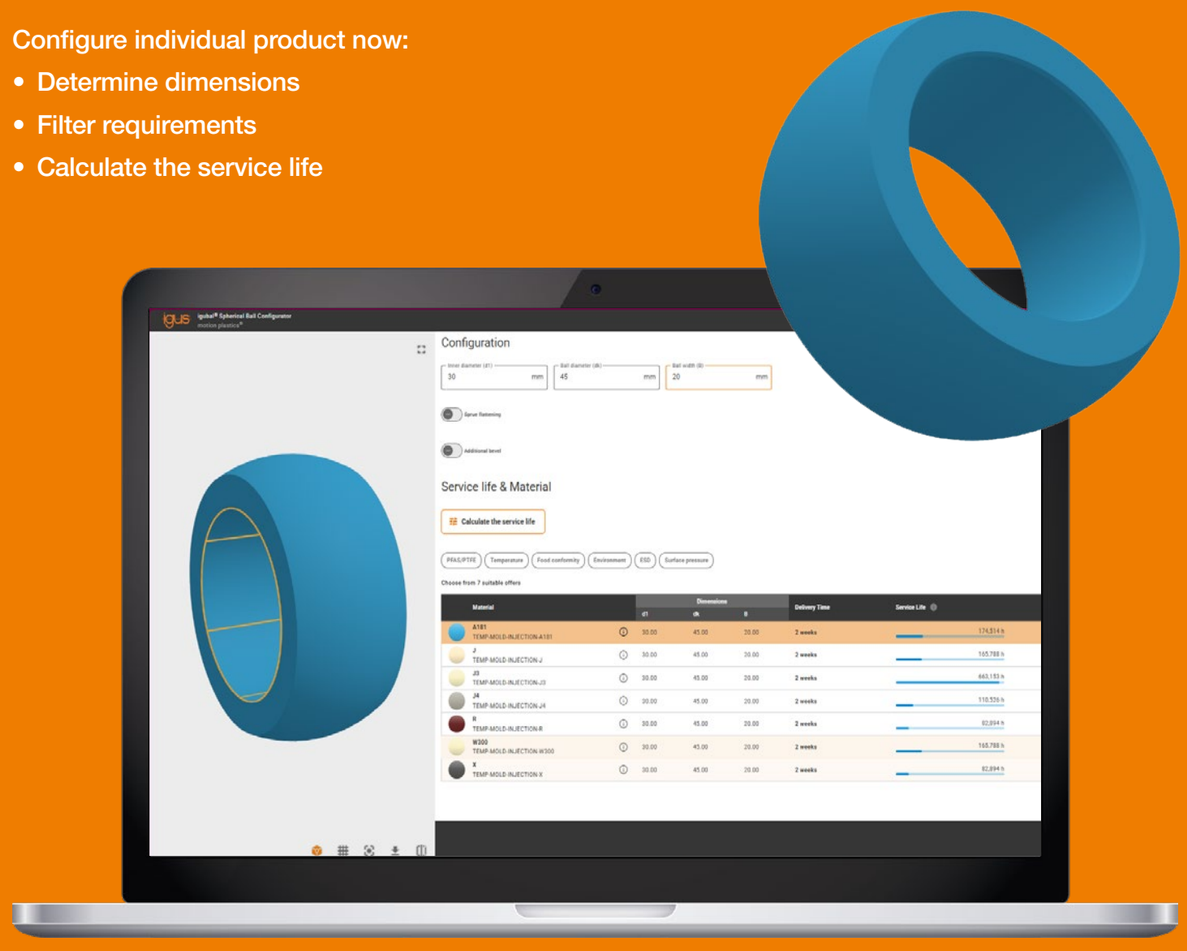
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Spherical ball configurator

Your spherical ball in just a few clicks.

Configure individual product now:

- Determine dimensions
- Filter requirements
- Calculate the service life



PFAS TESTED · PTFE FREE · FDA EU 10/2011 · ESD

igus.eu/sbc

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Improve what moves ...

xiros® ball bearings

Tech up · Cost down · Proof · Sustainability · Digital

92 **Excellent running properties for demanding applications**
Hybrid bearing with stainless-steel races and ceramic balls

93 **Long service life even in case of misalignment**
Self-aligning ceramic bearings with PEEK cage

94 **Runs smoothly even under pressure**
Ceramic thrust ball bearings

95 **High application flexibility**
Conveyor rollers with adapter

Quick consultation anywhere, at any time



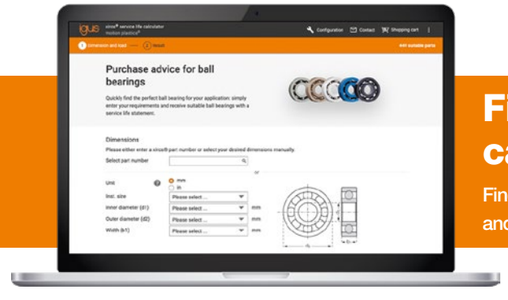
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xiros® in laundry technology

Robust in continuous use: The hybrid bearing for overhead conveyors impresses with its high load capacity thanks to stainless-steel races and significantly reduced downtime.



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

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Hybrid bearing with stainless-steel races and ceramic balls

Maximum performance



New

Excellent running properties for demanding applications

Hybrid bearing with stainless-steel races and ceramic balls

After introducing our hybrid bearing with only one inner race made of stainless steel at the spring trade shows, we are now presenting a new hybrid ball bearing. It is characterised by the combination of two stainless-steel races, ceramic balls and a PEEK cage. This allows for a greater load capacity and higher speeds.

- ▲ Stainless-steel inner and outer races ensure a higher load capacity
- ▼ Reduced downtime
- ■ Up to 100% higher speeds compared to plastic ball bearings
- ● Saves resources thanks to longer service life

Part No.: BB-608-420H-70-SIN, BB-6000-420H-70-SIN, BB-6001-420H-70-SIN

26-XRS-04

Ceramic bearings with PEEK cage

Self-aligning



New

Long service life even in case of misalignment

Self-aligning ceramic bearings with PEEK cage

The self-aligning, double-row ceramic bearings operate reliably in demanding applications despite misalignment. They automatically compensate for shaft deflections and ensure smooth, vibration-free running.

- ▲ No mechanical stress in the bearing
- ▼ No costly machine downtime
- ■ Up to 25 times longer service life compared to self-aligning plastic ball bearings
- ● Sustainable thanks to maintenance-free operation

Part No.: BB-108-ZRO2-70-ZRO2, BB-1200-ZRO2-70-ZRO2, BB-1201-ZRO2-70-ZRO2, BB-2205-ZRO2-70-ZRO2

26-XRS-05

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Ceramic thrust ball bearings

Lubrication-free and wear-resistant



New

Runs smoothly even under pressure

Ceramic thrust ball bearings

The ceramic thrust ball bearings are characterised by minimal friction and maximum wear resistance in lubrication-free dry operation.

- ▲ Higher load capacity
- ▼ Lower maintenance and replacement costs thanks to longer service life
- ■ Up to 240% higher load capacity than plastic bearings of the same design
- ● Lubrication-free operation reduces environmental impact

Part No.: BB-51100-ZRO2-70-ZRO2, BB-51101-ZRO2-70-ZRO2, BB-51102-ZRO2-70-ZRO2, BB-51103-ZRO2-70-ZRO2, BB-51104-ZRO2-70-ZRO2

26-XRS-06

▲ Tech up ▼ Cost down ■ Proof ● Sustainability Digital

igus



New

High application flexibility

Conveyor rollers with adapter

The conveyor rollers with ball bearing adapters are compatible with standard single-row deep groove ball bearings. They are available in aluminium or stainless steel, with lengths from 50 to 1,500mm.

- ▲ High flexibility due to free bearing selection
- ▼ Reduce assembly, design and storage costs
- ■ Compatible with all bearings according to DIN 625-1
- ● Easy to maintain, reusable: only the bearings are replaced if necessary

Part No.: BBAT-AC30-608-B180, BBAT-ES30-608-B180, BBAT-AC38-6000-B180, BBAT-ES38-6000-B180, BBAT-AC50-6000-B180, BBAT-AC50-6004-B180, BBAT-AC60-6000-B180, BBAT-AC60-6004-B180

26-XRS-07

Request free of charge now

In addition to numerous advantages, material properties, test results from our own test laboratory, successful customer applications and useful information on online tools, you will receive the following product samples, among others:

- Endurance runner ball bearing made of our xirodur® B180 material
- Ball transfer unit with POM ball
- Conveyor roller with clear-anodised aluminium tube
- Special ball bearing
- Flanged ball bearings

... and much more



igus.eu/xiros-sample-box

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Improve what moves ...

drylin® linear technology

Tech up · Cost down · Proof · Sustainability · Digital

98 Careful force transmission with brass clamping jaws
drylin® W clamps

100 Reduced maintenance and spare-parts costs
drylin® W carriage with exchange bearings

102 Robust with reduced material use
drylin® W lightweight linear rails

104 Curved motion paths without special solutions
drylin® C curved guide

107 One product, several extension options
drylin® T telescopic rail

Quick consultation anywhere, at any time



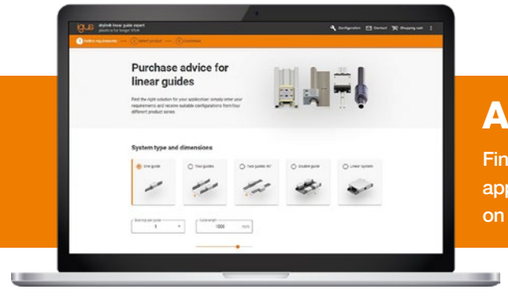
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Verge paver

To adjust the position of the rear sweeper, the company relies on a corrosion-resistant and maintenance-free drylin® linear guide.



Advise, calculate, buy

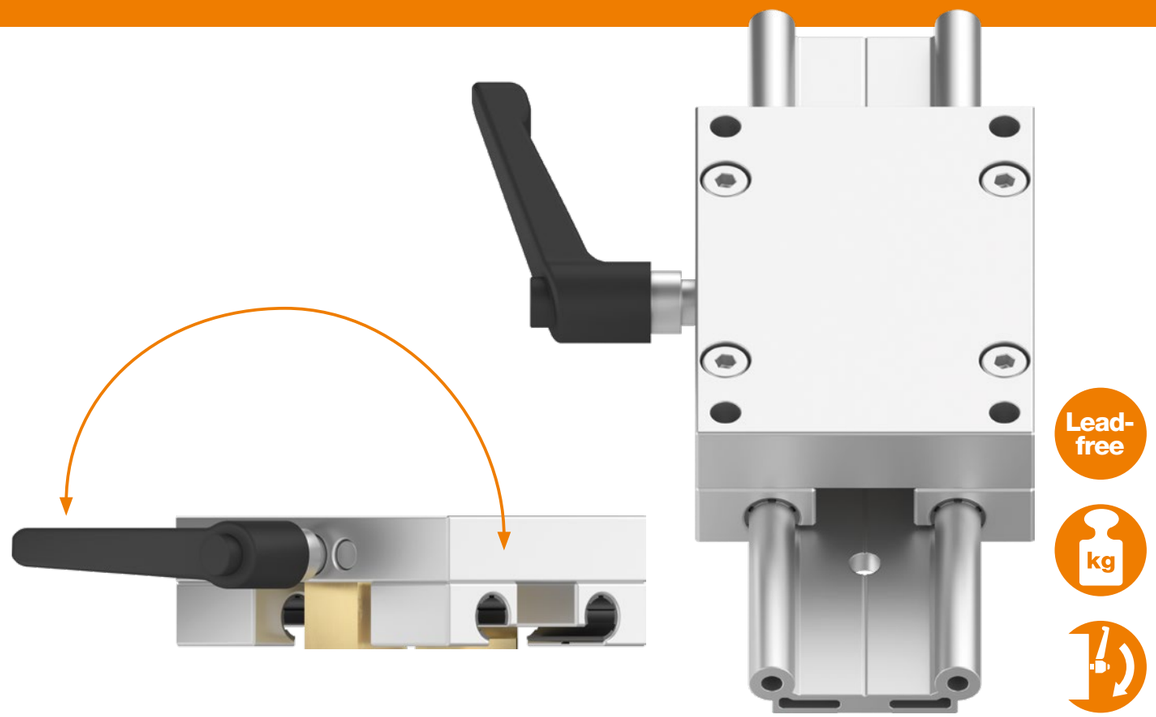
Find the right solution for your application: select the installation position, enter application parameters, select the system and order. Comes with a guarantee on the calculated service life for up to max. four years: **igus.eu/dlx**

igus.eu/news-drylin-linear

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Safe positioning



New

Careful force transmission thanks to brass clamping jaws

drylin® W clamps

Position securely, hold reliably: The new clamping elements with brass clamping jaws offer high clamping forces for demanding adjustment and positioning tasks, ensuring maximum process reliability.

- ▲ Significantly higher clamping forces than standard manual clamps, secure positioning despite vibrations and higher loads
- ▼ Prevents misadjustments, expansion of existing systems without redesign
- ■ Tested: installation size 10-40: holding force 250N, installation size 16-60: holding force 450N (tightening torque 12Nm)
- ● Careful force transmission thanks to brass clamping jaws

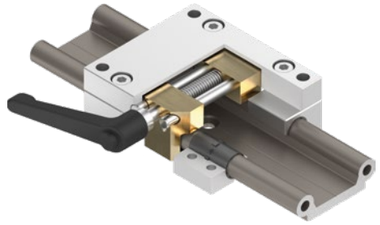
Part No.: WW-10-40-10-HKBM-AL, WW-16-60-12-HKBM-AL

26-DRL-16

New HKBM clamping element carriages for drylin® W

Powerful holding forces for demanding positioning tasks

With the new clamping element carriages from the HKBM series, igus has added a solution for applications with higher force requirements to its drylin® W range of manual clamps. Customers are often looking for reliable clamping elements to position axes, carriages or adjustment units precisely and to fasten them securely in their set position. Especially suitable for vertical installation positions, higher loads, vibrations or manual adjustment processes, powerful holding forces are crucial to ensure process reliability and repeatability in the long term. The new HKBM carriages were developed specifically for these requirements. They allow tool-free positioning and mechanical locking on drylin® W profile rail guides. Clamping is carried out simply by operating a manually adjustable clamping lever. This fixes adjustment units quickly and securely while unwanted movements are reliably prevented.



The centrepiece of the new clamping element carriages is the lead-free brass clamping jaws, which permit up to five times greater clamping force compared to conventional solutions. At the same time, they ensure careful contact with the guide and guarantee a robust and durable clamping function. The use of lead-free materials also means that the clamping jaws meet current requirements regarding the RoHS and REACH guidelines, constituting a future-proof solution for modern machine and plant concepts.

The carriages consist of four individual aluminium bearing housings of the type WJ200UM-01-10 or WJ200UM-01-16-AL, equipped with low-wear iglidur® J200 linear liners. The carriage plate is made of coated aluminium, making it lightweight very strong. The interaction of aluminium components, lubrication-free plain bearings and the new brass clamping jaws ensures a robust, low-maintenance and long-lasting overall solution.

For ergonomic operation, the carriages are equipped with adjustable clamping levers. These are ideal for confined installation situations or when a defined lever position is required. The handle is connected to the clamping mechanism via a spline and can be detached. By pressing the integrated release button, users can adjust the lever position easily without changing the set clamping. The new HKBM clamping element carriages thus are an ideal solution for demanding adjustment and positioning tasks. Users benefit from significantly greater holding forces, secure fastening even in vertical applications, high repeatability and simple and intuitive handling. The result: more safety, higher process stability and reliable positioning in everyday use.



Clamping force test rig in the igus® test laboratory

Note:
The clamp is intended exclusively for positioning and fastening. It is not a safety device and must not be used in applications where a loss of clamping force could result in personal injury or damage to property.

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New

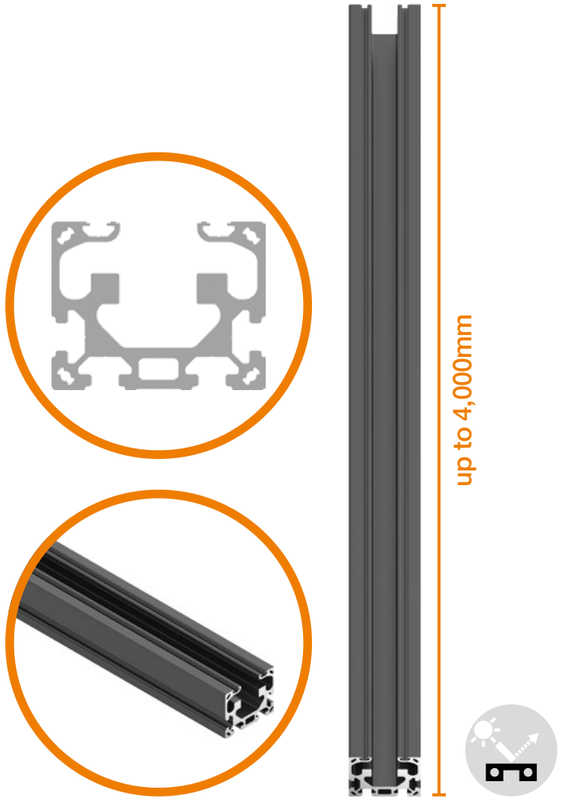
Reduced downtime, tool-free bearing replacement

Exchange bearing drylin® W made of zinc die-casting

Reduces costs with an optimised pillow block material (zinc die-casting), allows quick replacement without disassembly and increases the application's operating time for maximum system availability.

- ▲ Replacement of the liner in less than 30s without dismantling, optimised housing concept for individual bearings, carriages and linear axes
- ▼ Up to 50% lower housing costs compared to milled aluminium versions
- ■ Tested: use of four pieces WJ200UMA in ZLW-20120-S toothed belt axis. Stroke length: 1,200mm, load: 80N, horizontal installation position. Result: speed: 1,205m/s, acceleration: 1.8m/s², service life: 1,748,000 double strokes
- ● 100% lubrication-free, housing reusable for life

Part No.: WJ200UMA-03-20



New

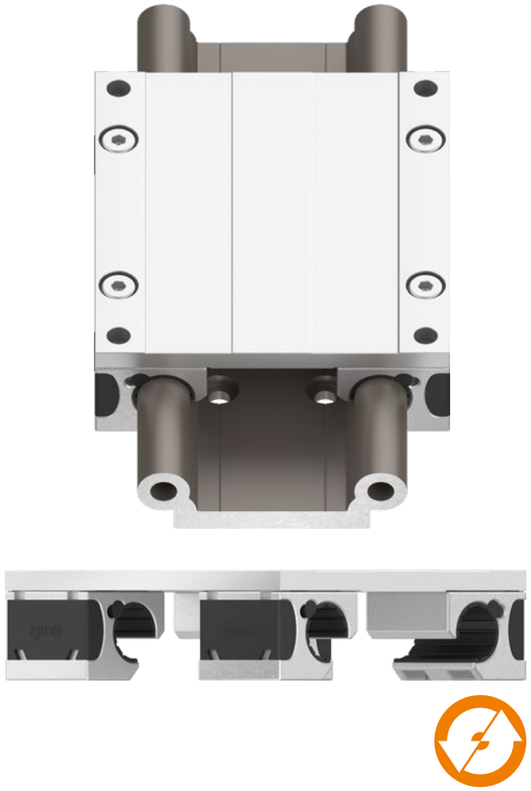
No reflection

drylin® W high profile

Subtle in design, strong in function: The black anodised drylin® W high profile with integrated linear guide reduces reflection, protects the guide from external influences and permits elegant integration into modern machine and automation solutions.

- ▲ Internal linear guide protected from dirt, integration of structural profile and guide in a compact unit
- ▼ Longer service life due to protected guide, less effort for additional covers or shielding measures
- ■ Tested: linear guide in ZLX-8060-16 toothed belt axis, stroke length: 450mm, load: 78N, horizontal mounting position. Result: speed: 0.452 m/s, acceleration: 0.7 m/s², service life: 41,281,000 double strokes
- ● Aluminium compliant with ROHS 2 and 3

Part No.: WSX-806016-AR



New

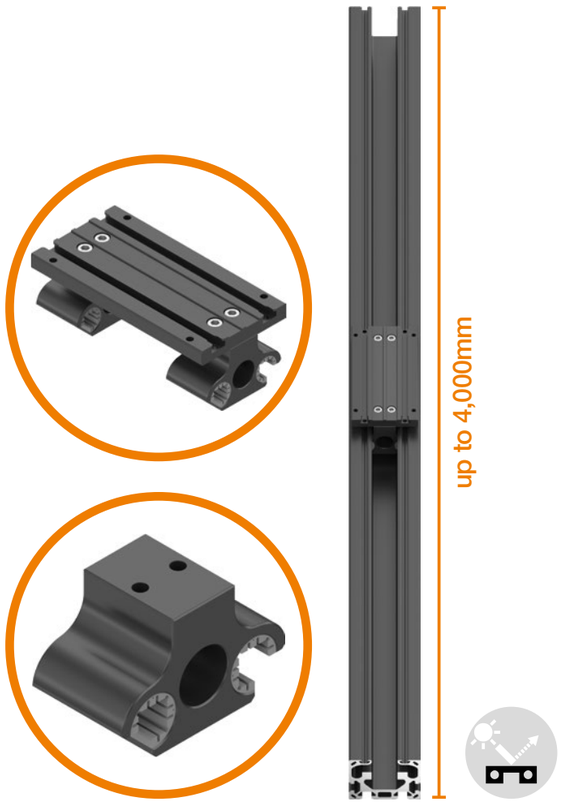
Reduced maintenance and spare-parts costs

drylin® W carriage with exchange bearings

Save costs instead of replacing components: The carriage with zinc die-casting pillow block and lubrication-free iglidur® J200 plain bearings reduces procurement costs by over 50%, allows for fast bearing replacement without disassembly and ensures a longer service life with minimal maintenance effort.

- ▲ Replaceable plain bearings allow fast exchange of wear-resistant parts, optimised bearing material for a long service life and low maintenance
- ▼ Over 50% lower component costs, less system downtime due to fast bearing replacement
- ■ Tested: drylin® W installation size 20, carriage length: 250mm, rail length: 1,500mm, dynamic load: 100N, speed: 0.722m/s, acceleration: 0.6m/s², horizontal installation position, achieved service life: 7,945,956 double strokes
- ● Replacing bearings instead of complete assemblies, longer service life reduces material consumption

Part No.: WWA-03-20-80-15, WWA-03-20-80-20, WWA-03-20-80-25



New

Black anti-reflect anodising for optical applications

drylin® W linear carriage element

Proven drylin® J200 liner technology. Milled aluminium carriage for high stability. Ideal for camera, sensor, laboratory and testing applications.

- ▲ Compact unit consisting of profile and linear guide, flexible positioning of the double bearing element in the profile
- ▼ Reduced design and assembly effort, fewer components due to integrated guide system
- ■ Tested: drylin® W structural profile in ZLX toothed belt axis, carriage length: 150mm, stroke length: 800mm, dynamic load: 35N, speed: 0.133m/s, duty cycle: 75%, horizontal installation position, achieved service life: 35,313,000 double strokes
- ● Lubrication- and maintenance-free operation, long operating times reduce spare-parts requirements, durable and recyclable aluminium

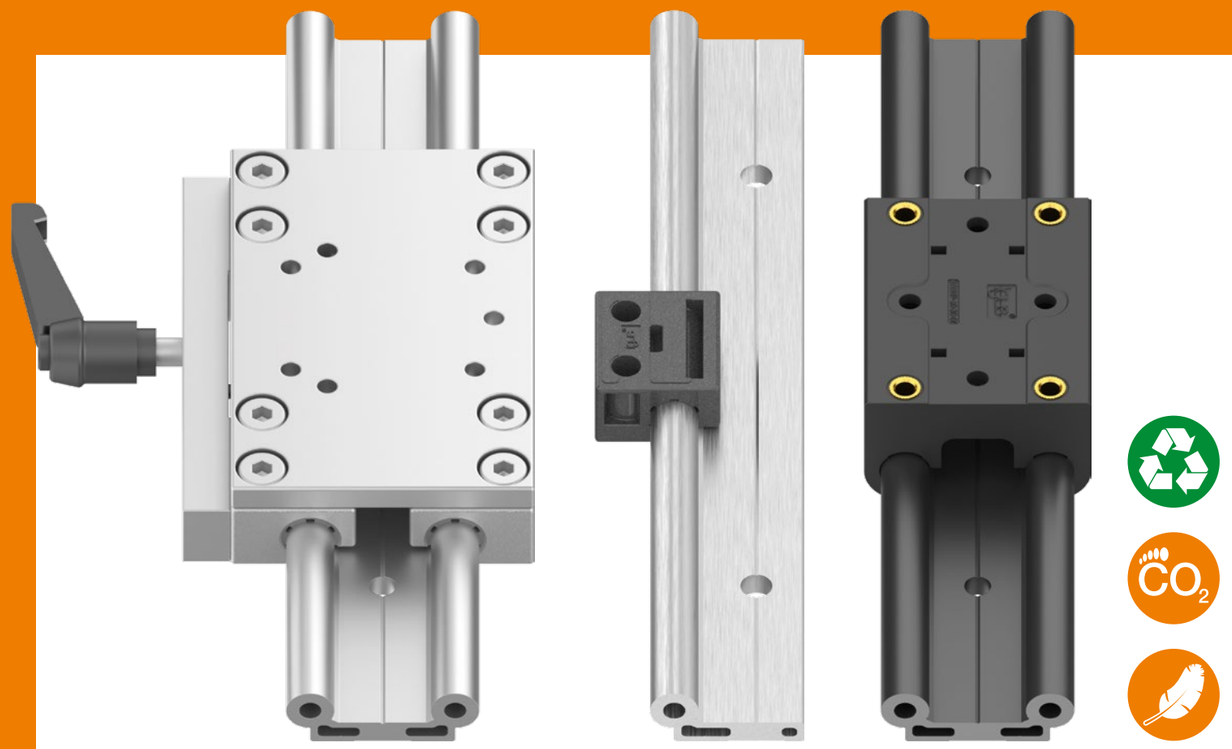
Part No.: WJ200QM-806016-001-AL-AR

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drylin® W lightweight linear rails

30% lighter ...



New

Robust with reduced material use

drylin® W lightweight linear rails

Up to 30% lighter with an intelligent hollow rail design: The lightweight linear rails reduce moving masses, simplify the design thanks to the hollow linear shaft and contribute to CO_2 reduction with up to 80% recycled aluminium.

- ▲ Hollow rail design reduces dead weight by up to 30%, tubular linear shaft allows for simple axial connection
- ▼ Lower moving masses lower energy requirements, CO_2 reduction of up to 80% thanks to recycled aluminium
- ■ Weight saving 25%. Example: WS-10-30: 0.85kg/m, WS-10-30-LW: 0.63kg/m, savings: 25.88%
- ● Up to 80% recycled aluminium, 4 CO_2e per tonne aluminium

Part No.: WS-10-LW-CA, WS-10-LW-CA-UNGEBOHRT, WS-10-LW-AR, WS-10-LW-AR-UNGEBOHRT,
WS-10-30-LW-CA, WS-10-30-LW-CA-UNGEBOHRT, WS-10-30-LW-AR, WS-10-30-LW-AR-UNGEBOHRT

▲ Tech up ▼ Cost down ■ Proof ● Sustainability Digital

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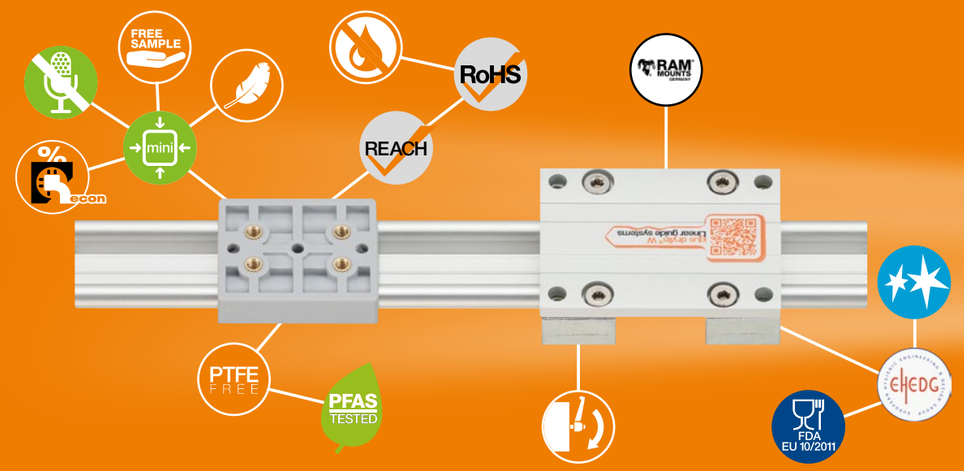
Axis all areas

Your key to design freedom ... drylin® linear systems

The most versatile linear axis drylin® W is opening up more and more areas of application. As a modular system. With the widest range of different versions. Always lubrication-free, lightweight and inexpensive.

That's why drylin® linear technology has long since revolutionised our everyday lives. And it can do the same for your application.

Whether PTFE-free/PFAS-tested materials, FDA-compliant applications or HMIs with RAM® Mounts that can be positioned flexibly: drylin® combines powerful linear technology with the requirements of tomorrow





Cleverly designed, suitable for a wide range of applications. Order miniature installation size 06 as a sample now.

igus.eu/AAA

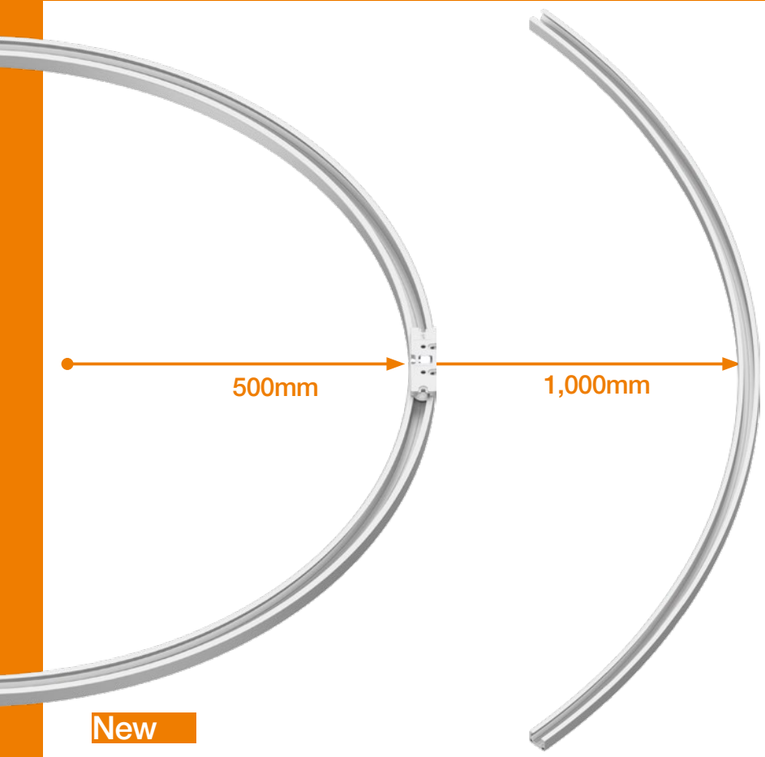
AI ENHANCED



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Curves with 500 and 1,000mm radii





New

Curved motion paths without special solutions

drylin® C curved guide

Curves instead of compromises: With standard radii of 500mm and 1,000mm, machine access points can be designed to be more space-saving, user-friendly and individual. The linear guide makes manual adjustments easy to operate - smooth-running without much effort.

- ▲ Standardised curve radii available, roller carriages can still be used via roller adjustment
- ▼ Fewer special designs necessary, more design freedom at lower development costs
- ■ Up to 50% lower system costs by using a drylin® C standard roller carriage instead of a custom-made carriage for curved rails with machined aluminium components
- ● 100% lubrication and maintenance-free

Part No.: CSOB-3021-01-CA-UD-RK500-180, CSOB-3021-01-CA-UD-RK1000-90

26-DRL-20



New

Vibration reduction with shock absorption

drylin® C cam roller with buffer

Smooth movement, reliable dampening: the drylin® C cam roller guide combines convenient manual adjustment with a new buffer option that effectively reduces shocks, vibrations and noise.

- ▲ Shock absorption via natural rubber buffers, protection of carriages and stop dogs
- ▼ Less damage to components, extended service life of the application
- ■ Tested: 2 CSO rails, 4 CW-3030 roller carriages, horizontal installation position, rail length: 2,000mm, spacing: 500mm, weight force: 140N, speed: 0.833m/s, acceleration: 0.7m/s², result: 175,488 double strokes
- ● 100% lubrication- and maintenance-free

Part No.: CWA-3030-02-10 (Buffer),
CW-3030-D01232962 (Roller carriage with buffer)

26-DRL-22



New

Integrated cleaning of the rail

drylin® C cam roller with scraper

Integrated cleaning for a longer service life: The wiper keeps the rail clean, maintains the smooth running of the guide and causes neither additional wear nor higher operating forces.

- ▲ Continuous "cleaning" of the rail surface, no increase in displacement forces
- ▼ Longer service life of the guide, constant movement quality over long running times
- ■ Tested: 2 CSO rails, 4 CW-3030 roller carriages, vertical installation position, rail length: 800mm, spacing: 250mm, weight force: 75N, speed: 0.333m/s, acceleration: 0.3m/s², result: 553,841 double strokes
- ● 100% lubrication and maintenance-free

Part No.: CWA-3030-02-08 (Scraper),
CW-3030-D01232964 (Roller carriage with scraper)

26-DRL-21

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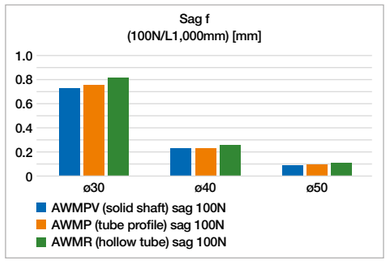
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New

Stiff and light

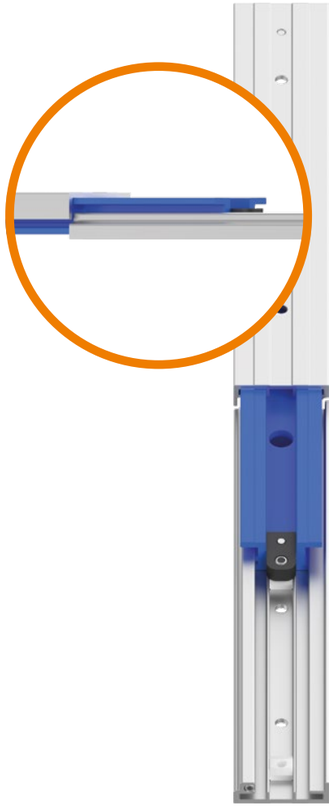
drylin® R aluminium tubes

Up to 40% lower weight, available in Ø 30, 40 and 50mm: The new drylin® R aluminium tubes increase dynamics, lower system costs and reduce reflections thanks to the optional black anti-reflect surface.

- ▲ Up to 40% lighter than previous hollow shafts, black anodised anti-reflect version available
- ▼ Simplified assembly due to low weight, cost-effective production with optimised tube design
- ■ The drylin® AWMR hollow tubes have only an insignificantly higher sag than a solid shaft - despite material savings of approx. 66%
- ● Aluminium compliant with ROHS 2 and 3

Part No.: AWMR-40-AR, AWMR-40-CA, AWMR-50-AR, AWMR-50-CA

26-DRL-19









New

Higher operating and process reliability

drylin® NT telescopic rail with end position snap function

The drylin® NT-LM-35-P-HD is now also available with a snap function in the end positions.

- ▲ Secure snap function in the open and closed position, high load capacity thanks to coated aluminium centre-rail
- ▼ Prevents unintentional shifting; less wear due to defined end positions
- ■ Food-compliant: IC-05PF coating complies with the requirements of the FDA and the EU 10/2011 regulation (ideal for the food and packaging industry)
- ● IC-05PF coating, PTFE-free and PFAS-tested, silent sliding instead of balls generating rolling noises

Part No.: NT-LM-35-P-HD

26-DRL-23









New

Secure cover for open profile ends

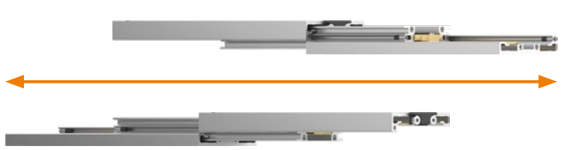
drylin® N end caps

The new end caps for the drylin® N NS-01-12 rail profile ensure neat edges, protect the rail and give the application a premium look.

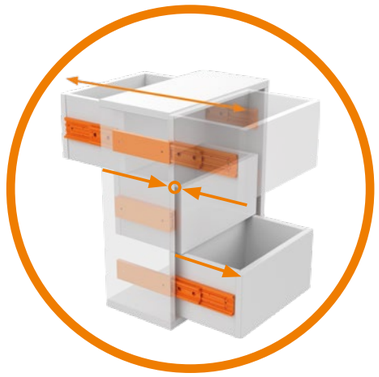
- ▲ Protection of the rail ends from damage, improved integration in visible applications
- ▼ Less damage during handling, reduced reworking effort
- ■ The rounded design improves occupational safety and minimises the risk of injury in the machine's immediate environment
- ● Demountable and reusable, fewer replacement and spare parts result in lower energy consumption for production, transport and disposal

Part No.: NSKB-12

26-DRL-25











New

One product, many options

drylin® T telescopic rail

Maximum flexibility in the smallest space: the drylin® NT-60-DS-CP telescopic rails offer extensions of up to 1,000mm from both sides, centre locking in the retracted state as well as maintenance-free and quiet operation without balls.

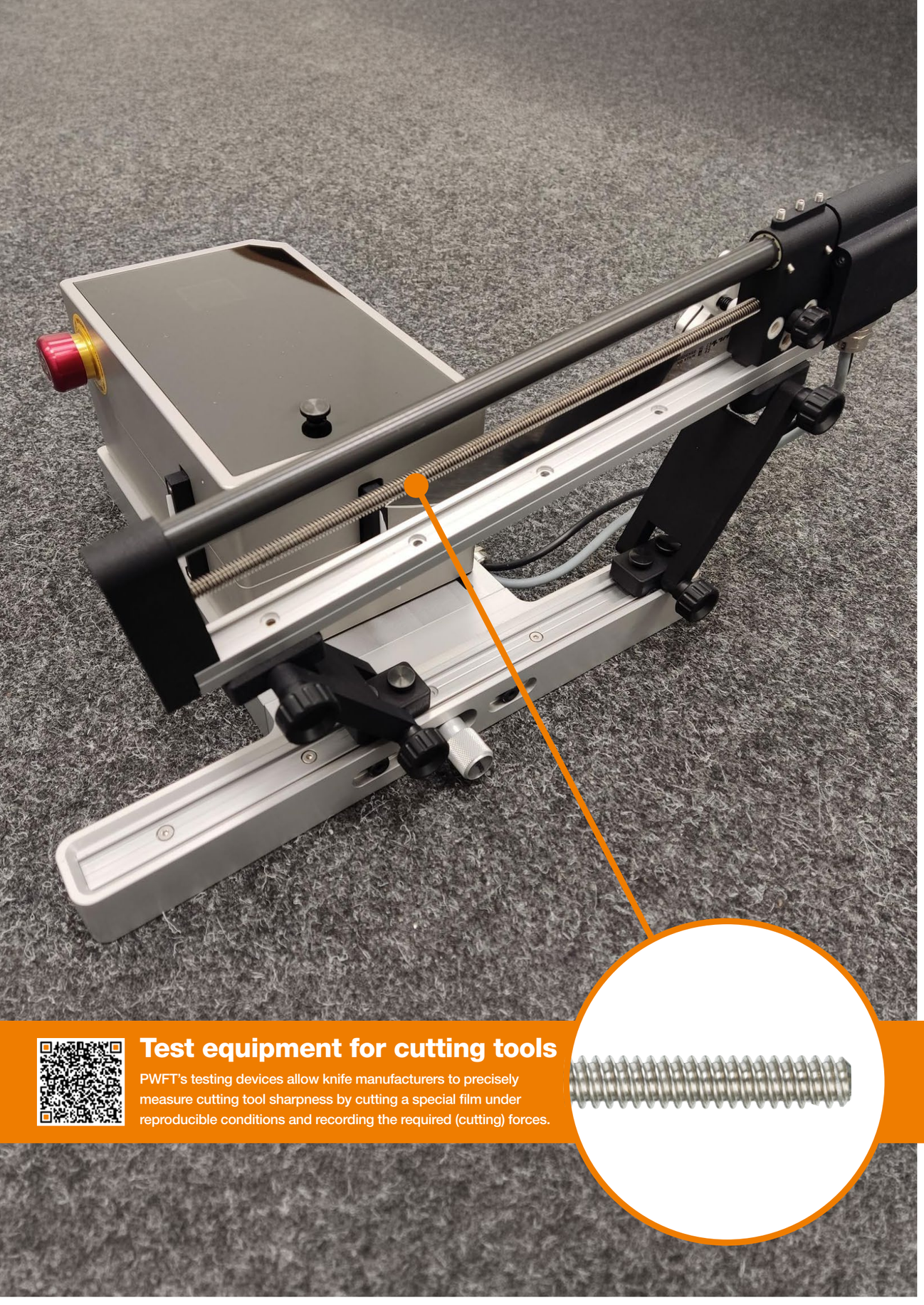
- ▲ Extension of up to 1,000mm in each direction, centre locking in the retracted state
- ▼ Maintenance-free operation without lubrication, less downtime due to high insensitivity to dirt
- ■ Tested: drawer assembly with 2x NT-60, vertical installation position, centric load 200N, requirement of 25,000 cycles (opening and closing) achieved
- ● Sliding elements are PTFE-free and PFAS-tested, rails (silver clear-anodised/black anodised), springs and threaded inserts comply with REACH/RoHS 3

Part No.: NT-60-DS-CP

26-DRL-24

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Improve what moves ...

dryspin® lead screw technology

Tech up · Cost down · Proof · Sustainability · Digital

110 **One thread after another - more variety for 8mm diameter**
Expansion of the product range

112 **Machined lead screw nuts from bar stock**
New pitch with DS8x4-RH

112 **Injection-moulded lead screw nuts with machined thread**
New pitch DS8x4-RH (machined thread)

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

Quick consultation anywhere, at any time



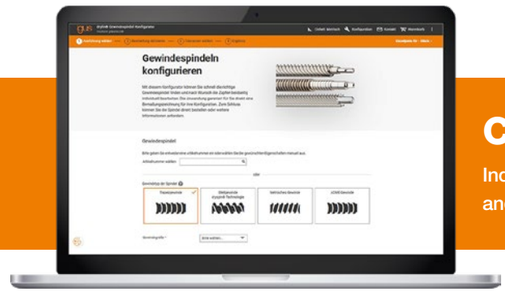
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PWFT's testing devices allow knife manufacturers to precisely measure cutting tool sharpness by cutting a special film under reproducible conditions and recording the required (cutting) forces.



Configure lead screws online

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

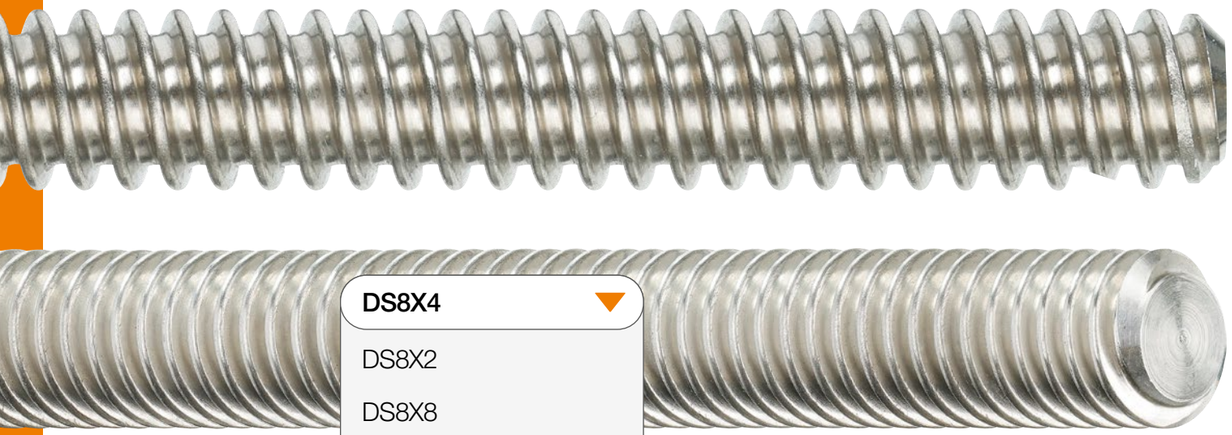
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Expansion of the product range

More choice ... long service life



- DS8X4
- DS8X2
- DS8X8
- DS8X10
- DS8X15
- DS8X24
- DS8X40

Plus

One thread after another - more variety for 8mm diameter

Expansion of the product range

The new dryspin® dimension DS8x4-RH is being added to the product range, expanding the DST thread product line by a further pitch. The new DS8x4-RH closes another gap in the range of pitches with 8mm 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-8X4-R-ES

DST thread geometry - THE alternative to trapezoidal threads

Smoother and quieter



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 silent.



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.

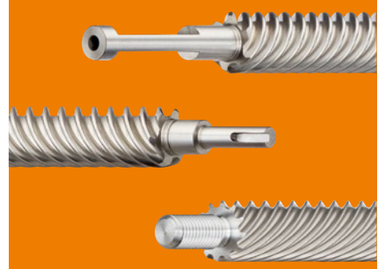


Dry-operating - sustainable

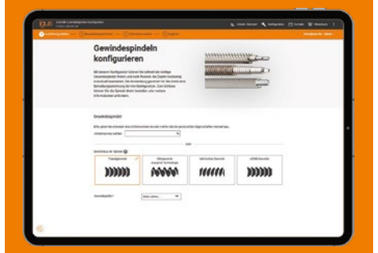
Our lead screw systems are developed for maintenance-free dry operation. Basically, you should not compare a lubricated lead screw system one-to-one with a dry-operating system. Due to the external lubrication, the coefficient of friction is lower compared to a dry-operating lead screw system. However,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

Lead screw configurator

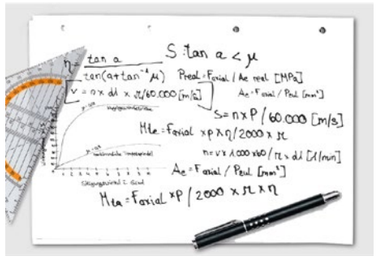
With this configurator, you can quickly find the right lead screw and individually machine the pins at both ends. The application generates a dimension drawing for your configuration directly. At the end, you can directly order the lead screw or request further information.



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.

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Plus

Machined lead screw nuts from bar stock

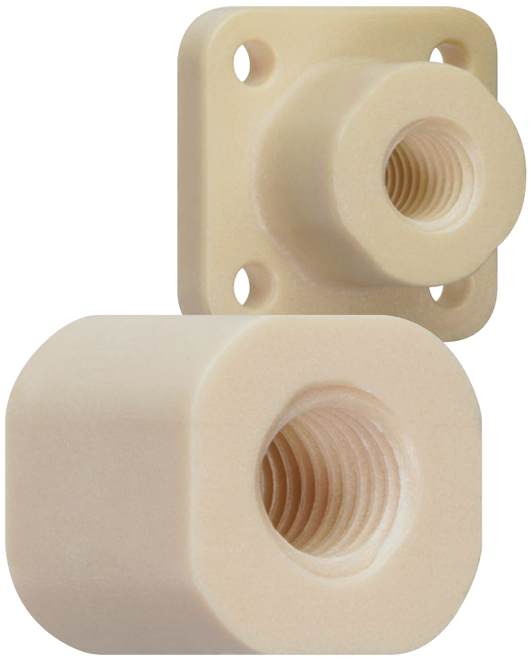
New pitch with DS8x4-RH

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 (size 10x3): igus.eu/dryspin-test-reports
- ● No lubricating grease or oil in the lead screw drive
- Online calculation tool for service life

Part No.: DST-[ ]FRM-2020DS8X4, DST-[ ]FRM-202020DS8X4, DST-[ ]SRM-1812DS8X4

26-DRS-03



Plus

Injection-moulded lead screw nuts with machined thread

New pitch DS8x4-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-test-reports
- ● No lubricating grease or oil in the lead screw drive
- Online calculation tool for service life

Part No.: DST-[ ]FRM-C-01-DS8X4, DST-[ ]SRM-C-01-DS8X4

26-DRS-08

Spherical lead screw nut 2.0

Angle compensation ...



Max. 30° pivoting angle







New

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. The new spherical lead screw nuts are now available in an initial series of different dimensions and include a pillow block bearing version.

- ▲ Two-part housing for greater precision, less axial play than previous version
- ▼ Easy to replace: fitting 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-E[ ]MG-DS12X3, DST-JFRM-E[ ]MG-DS14X4, DST-JFRM-E[ ]MG-DS16X5, DST-JFRM-E[ ]MG-DS16X10, DST-JFRM-E[ ]MG-DS18X4

26-DRS-09

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Improve what moves ...

drylin® drive technology

Tech up · Cost down · Proof · Sustainability · Digital

116 **Reduced effort for design adjustments**
drylin® ZLX toothed belt axis, anti-reflect

117 **Stiff and light**
drylin® SLR linear axis, anti-reflect

118 **Greater robustness due to simplified design**
drylin® ZLN toothed belt axis

119 **Reduced clearance and improved guide quality**
drylin® NTM telescopic axis

Quick consultation anywhere, at any time



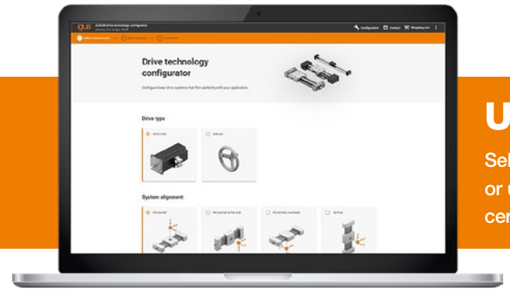
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Precise height adjustment

Lubrication-free and low-maintenance in the lifting, lowering and transverse movements of grinding machines.



Up to 4-year guarantee

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

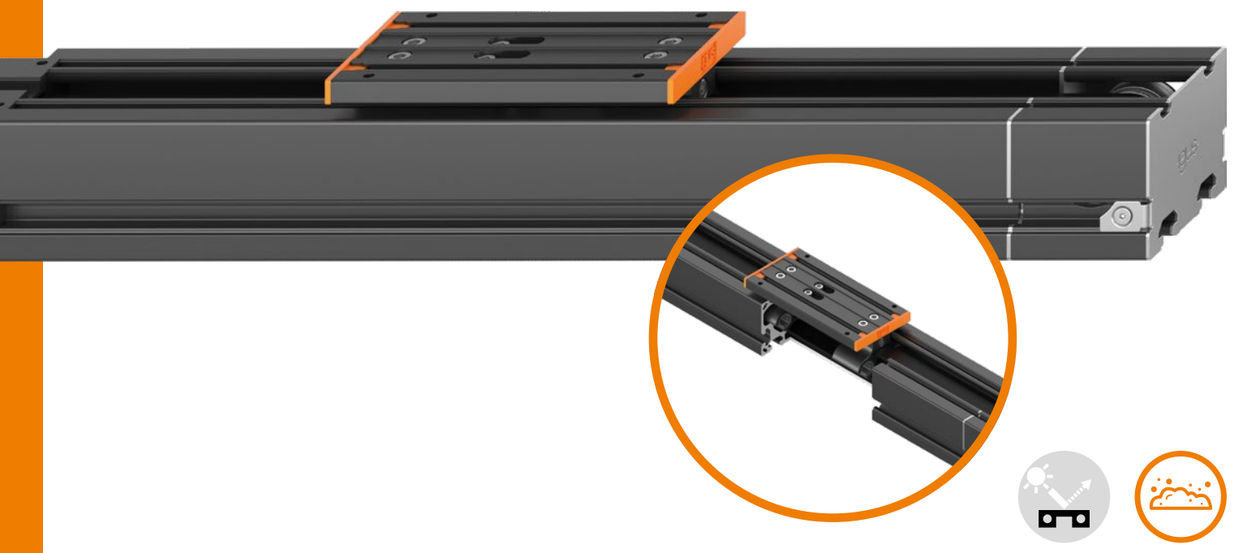
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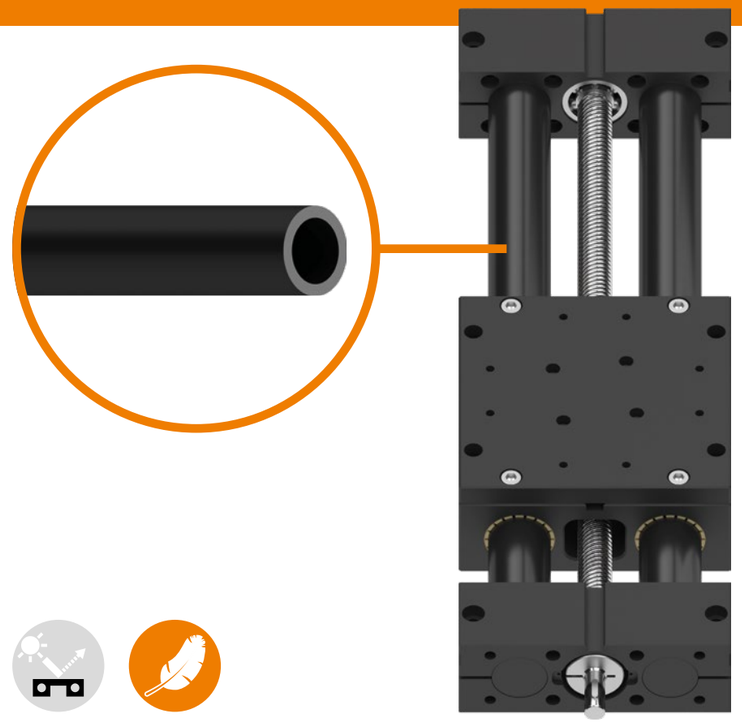
drylin® ZLX toothed belt axis, anti-reflect

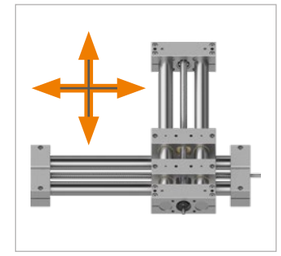
Protected guidance



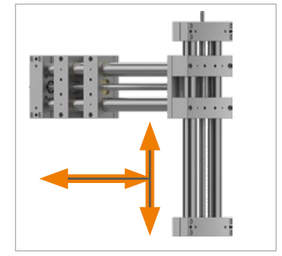
drylin® SLR linear axis, anti-reflect

Less light reflection





XY structure



XZ structure

New

Reduced effort for design adjustments

drylin® ZLX toothed belt axis, anti-reflect

Less reflection, more design freedom: The new black ZLX toothed belt axis for stroke lengths of up to 3,000mm is the ideal solution for scanner, kiosk and measuring systems that have to work reliably without the optics taking centre stage.

- ▲ Black anodised anti-reflect version, high stiffness of the high profile
- ▼ No distracting reflections in scanner and measuring systems, simple integration into existing housing concepts
- ■ Tested: ZLX-8060-16 toothed belt axis, ambient temperature: +20°C, duty cycle: 50%, stroke length: 600mm, load: 65N, vertical installation position, speed: 0.602m/s, acceleration: 0.9m/s², service life: 103,647,000 double strokes
- ● Lubrication-free operation, reduced downtime due to low-maintenance design

Part No.: ZLX-806016-AR

New

Stiff and light

drylin® SLR linear axis, anti-reflect

Black. Light. High quality. The new anti-reflect version of the SLR-30 reduces light reflections, improves the machine design and combines high stiffness with low weight thanks to the new AWMR-30-AR hollow tubes.

- ▲ Black anodised carriages, shaft end supports and mounting plates. Anti-reflect surfaces for camera and sensor systems
- ▼ Fewer faults in optical applications, lighter axes reduce system loads
- ■ Tested: SLR-30, stroke: 650mm, pitch: Ds16x35, load: 250N, horizontal installation position, speed: 0.1m/s, acceleration: 1.0m/s², duty cycle: 50%, motorised with NEMA 24 stepper motor, service life at +20°C: 224,000 double strokes
- ● Sustainable linear movement without lubrication, higher system availability

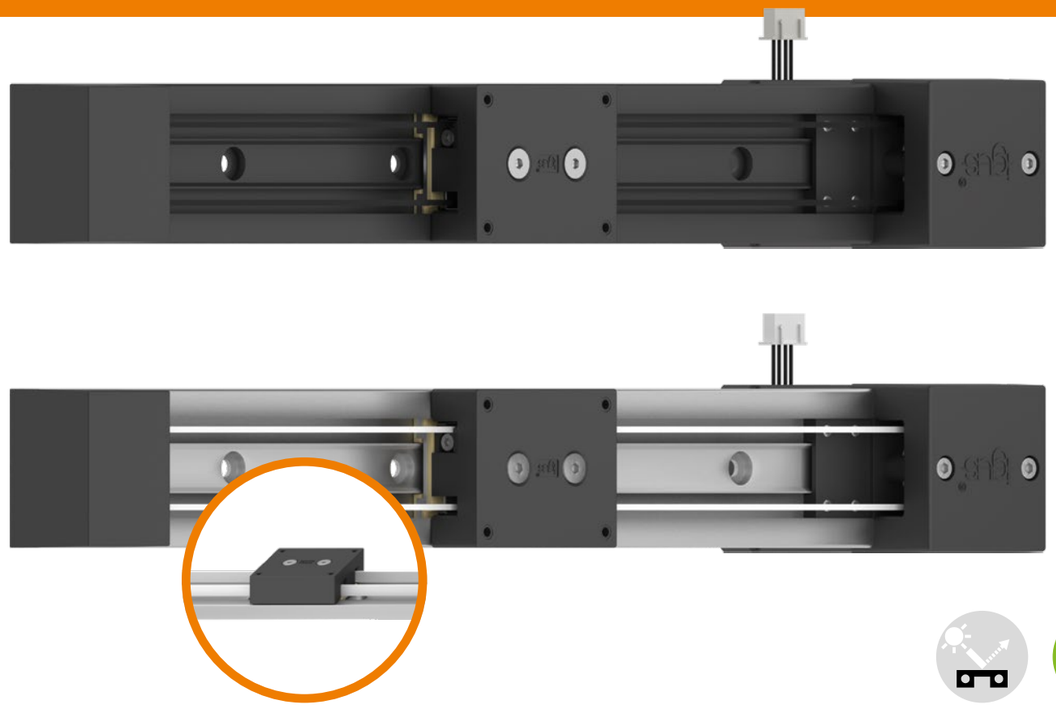
Part No.: SLR-30-AR

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drylin® ZLN toothed belt axis with anti-reflect design

Small and strong



New

Robust and simple design

drylin® ZLN toothed belt axis with anti-reflect design

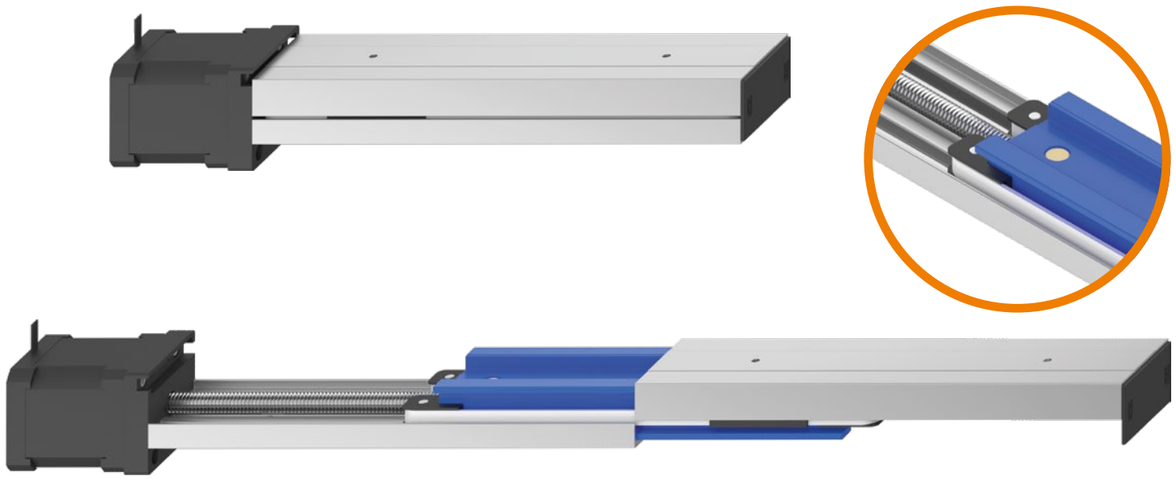
Simplified, robust, durable: The new zinc die-casting carriage combines three functions in one component. In the black anti-reflect version, the ZLN also blends unobtrusively into modern equipment and machine concepts.

- ▲ New zinc die-casting carriage, functional combination of three components in one, black anti-reflect version for reduced light reflections and high-quality appearance
- ▼ Fewer individual parts in the system, simplified assembly and procurement
- ■ Tested: ZLN-40 toothed belt axis, ambient temperature: +20 °C, duty cycle: 50%, stroke length: 320mm, load: 35N, horizontal-lateral installation position, speed: 0.321m/s, acceleration: 0.5 m/s², service life: 7,366,000 double strokes
- ● Clean operation without oil or grease residues, longer service life and higher stability due to zinc die-casting

Part No.: ZLN-40-AR

drylin® NTM telescopic axis

Efficient use of space



New

Reduced clearance and improved guide quality

drylin® NTM telescopic axis

Better by default: PFAS-tested coating and integrated pre-tensioning elements ensure smooth running, a long service life and a future-proof telescopic solution for the NTM-45.

- ▲ PTFE-free, PFAS-tested coating of the centre-rail, standard pre-tensioning elements for smooth running
- ▼ Future-proof material selection, less maintenance due to low-wear guide
- ■ Tested: NTM-45, horizontal installation, extension length: 200mm, load: 75N, speed: max. 0.05m/s, dryspin® thread Ds8x10, result: 300,000 cycles
- ● Less energy consumption due to electric adjustment instead of compressed air, PTFE-free and PFAS-tested coating of the centre-rail made of IC-05PF, RoHS-3-compliant aluminium

Part No.: NTM-45-PL

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Improve what moves ...

Low Cost Automation

Tech up · Cost down · Proof · Sustainability · Digital

122 **More flexibility thanks to AI and real-time data**
iggyRob Home

123 **Simple programming, versatile automation**
ReBeL® Cobot

124 **Corrosion-resistant linear robots for special requirements**
Stainless-steel linear robots

125 **Configure linear robots down to the last detail**
Configurator for LCA linear robots

126 **More functions. Less effort. One platform.**
iRC X robot control platform

Quick consultation anywhere, at any time



In person
Alexander Mühlens
+49 (0) 2203 9649-8255
amuehlens@igus.net

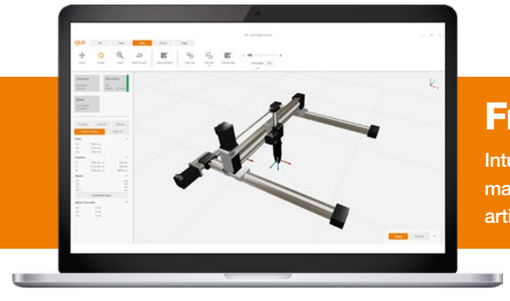
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igus.eu/lca-roadshow



Humanoid robotics from Europe

From the base frame to the assembly of the individual components to the finished robot: the iggyRob is developed and produced entirely in Europe.



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**

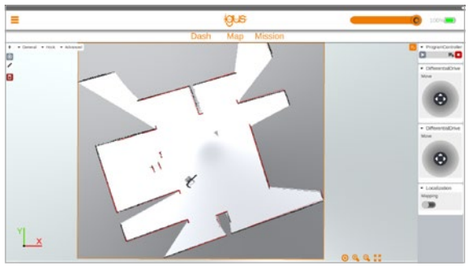
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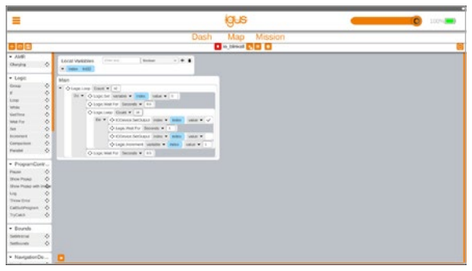
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iggyRob Home

The clever colleague







Update

More flexibility thanks to AI and real-time data

iggyRob Home

The software update connects iggyRob Home to AI, image processing and external systems in real time so that tasks can be adapted in a dynamic way.

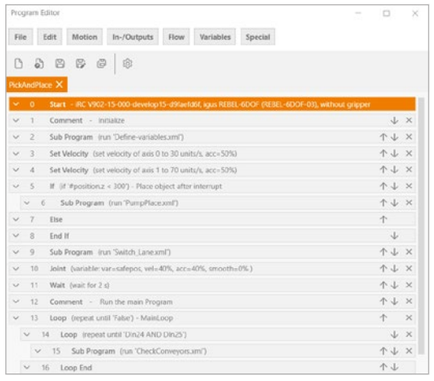
- ▲ The Dynamic Mission Data Interface exchanges data bidirectionally in real time and adapts robot tasks dynamically
- ▼ Graphical programming and open interfaces reduce individual programming and integration work
- ■ AI voice commands, external image processing and shelf space data can be integrated directly into ongoing robot processes
- ● One robot for all tasks with dynamic use
- Digital The web app connects iggyRob Home via ROS2 and real-time data for maximum connectivity

26-LCA-16

ReBeL® Cobot

Robotics made in Europe







Update

Simple programming, versatile automation

ReBeL® Cobot

iRC V15 makes programming the ReBeL® more intuitive and helps users implement automation projects faster. New digital tools make it easier to get started and expand the cobot's application areas.

- ▲ Easier and more versatile programming of the ReBeL® thanks to integrated wiki, realistic simulations as well as camera and dosing functions
- ▼ Most cost-effective cobot made in Europe
- ■ Developed and produced in Germany, from the printed circuit board to its final assembly
- ● The software update adds new functions to existing ReBeL® systems without replacing the robot or the control system
- Digital Programs can be tested in the 3D simulation with iRC V15 and then transferred to the ReBeL®

26-LCA-17

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Stainless-steel linear robots

Great corrosion resistance



New

Corrosion-resistant linear robots for special requirements

Stainless-steel linear robots

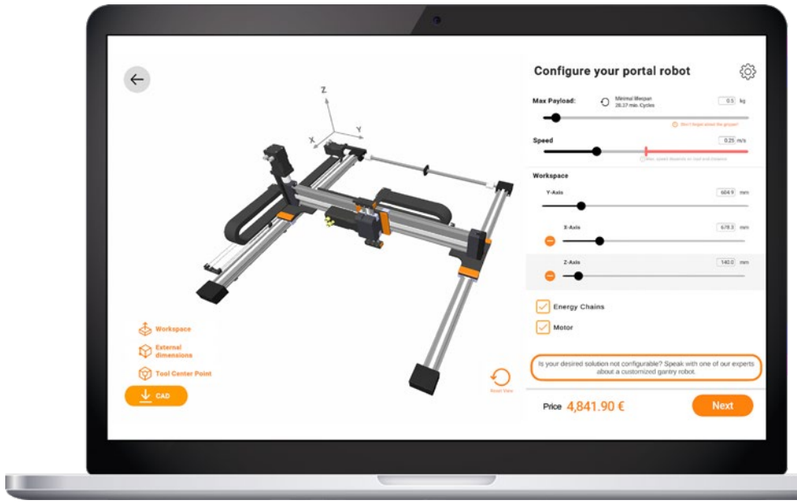
The new M and L series of linear robots are now also available in stainless steel - for applications with splash water, high humidity and for offshore use.

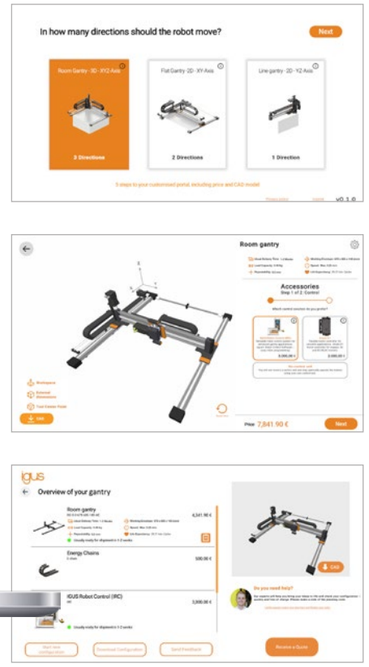
- ▲ Stainless-steel design extends service life in corrosive conditions and reduces corrosion-related wear
- ▼ Longer service life leads to lower maintenance and replacement costs
- ■ Stainless-steel axes have already been used in numerous customer applications for years
- ● Longer service life due to reduced corrosion wear
- Integration in the linear-robot configurator, including CAD download and drawings

26-LCA-18

Configurator for LCA linear robots

Your linear robot in five steps





Update

Configure linear robots down to the last detail

Configurator for LCA linear robots

Your individual linear robot. Linear, flat and room linear robots designed for your exact load and installation space - including speed, service life, control system, price and accessories.

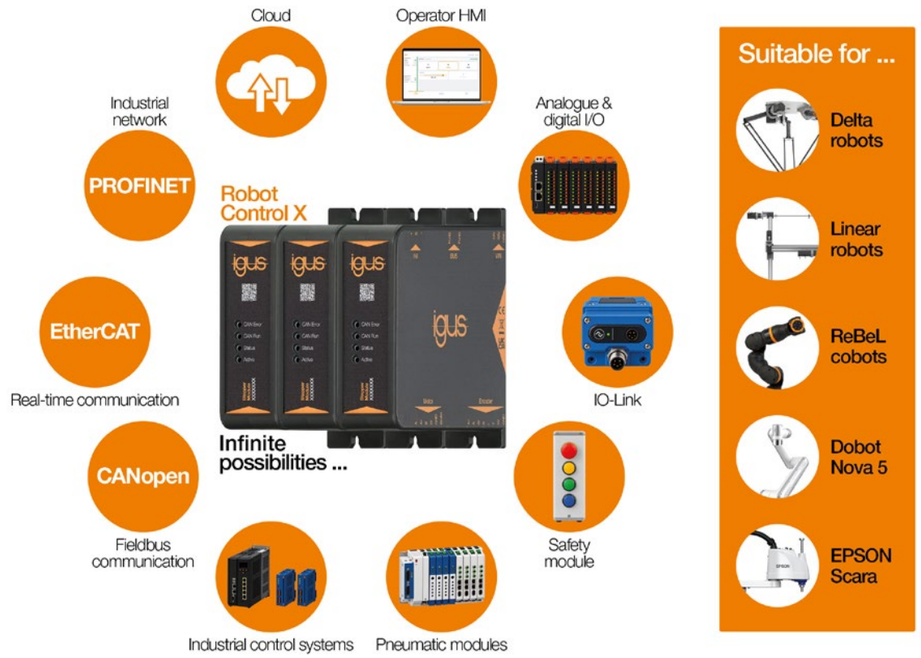
- ▲ Load-dependent speeds and service life are calculated immediately for the selected linear-robot configuration
- ▼ Live price in the configurator saves calculation time and costs
- ■ Service life calculation is based on the key figures determined in our Low Cost Automation laboratory
- ● Design that is accurate to the millimetre reduces oversizing and thus unnecessary material use
- Use the tool to download CAD/STEP files, generate a quotation and save your configurations: igus.eu/linear-robot-configurator

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The one to connect them all



Update

More functions. Less effort. One platform.

iRC X robot control platform

iRC X functions add vision, OPC UA, integration of third-party robots such as Fairino, KUKA and ROBOTIS, Operator HMI and new kinematics to robotics applications.

- ▲ New vision, OPC UA and five-axis functions significantly expand the range of applications
- ▼ Less additional hardware and engineering due to integrated fieldbuses, apps and operating solutions
- ■ Over 5,000 iRC control systems are already in use worldwide
- ● Existing robots and systems can still be used via software and upgrades
- Digital End-to-end platform for simulation, networking, visualisation and robotics automation

26-LCA-20

One control system. Endless possibilities.

iRC X: the new generation of igus® Robot Control

A robot control system should adapt to your application - not the other way around. This is precisely where the new generation of igus® Robot Control (iRC) comes into play. The proven modular control system is being consistently further developed and will provide users with significantly more freedom in future when selecting drives, sensors and peripherals. At the same time, complete automation sequences can be controlled even more easily from a central software.

CANopen opens up new possibilities
One of the most important new features is communication with drives via CANopen. The established industry standard makes it possible to connect servo controllers from different manufacturers to the iRC. For users, this means more flexibility when planning new systems in addition to the possibility to continue using existing drive technology.

From sensor to valve cluster
A new feature is the option of integrating analogue inputs and outputs via the iRC. This way, sensors can be integrated that provide continuous measured values for pressure, temperature or other process variables, for example. Actuators with variable control can also become part of the application. Furthermore, IO-Link devices can be connected via already available couplers. Intelligent sensors with extended diagnostic information or pneumatic valve clusters can thus be integrated directly into the automation concept.

Complete automation cells without an additional PLC
Drives, digital and analogue IOs and IO-Link devices can be brought together via a common control architecture and controlled directly from the robot program.

An example: The robot removes a component, a sensor checks the process status, a conveyor belt is then started and a pneumatic unit is controlled. Such processes can be implemented centrally within one application.

In many systems, this can eliminate the need for an additional higher-level PLC. It reduces the number of components required, simplifies cabling and can significantly reduce the effort required for planning, programming and commissioning.

Open to existing system architectures
At the same time, the new iRC remains open to larger and already existing automation landscapes. It can be integrated into higher-level control systems via PROFINET. EtherCAT is also available for applications with high real-time requirements. This makes the architecture suitable for both compact stand-alone cells and networked production systems.

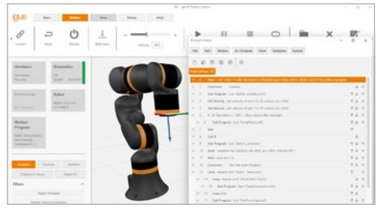
A central point for configuration
With the new possibilities, the software's scope of functions is also growing. This is why the igus® Robot Control is being given a new central configuration area. Connected components such as drives, IO modules, analogue signals or IO-Link devices can be set up and put into operation there. The goal: less complexity during setup.

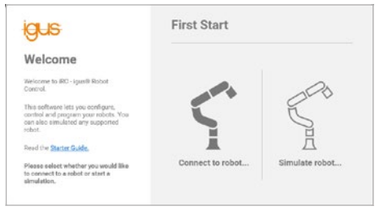
The software for all robot systems
At the same time, the number of robot types that can be operated with the iRC is growing. A new addition, for example, is Fairino. This allows users to increasingly operate robots from different manufacturers using the same software environment.

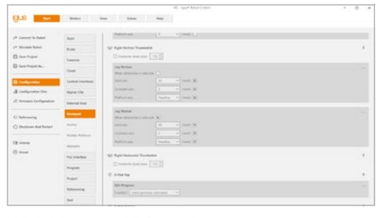
Instead of having to establish separate operating and programming logic for each system, one environment can be used for different automation solutions.

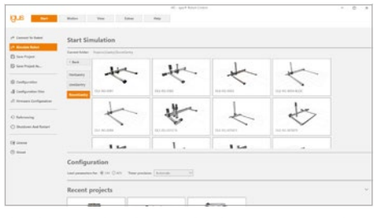
More freedom for the next automation solution
The new generation of the iRC therefore does not simply expand the range of functions of a robot control system.
It creates a more open automation platform: more choice in drive technology, new possibilities for sensor technology and actuators, the direct integration of IO-Link, flexible interfaces to higher-level control systems and a central configuration. The iRC can be adapted more flexibly to the respective task, be it a compact robot cell without an additional PLC or an integrated part of a larger production plant.











With V15, the iRC is given a new user interface for fast navigation and robot programming

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130 **Select, test and integrate humanoid robots**
Customer Testing Area for humanoid Robots

131 **Simple palletising, cost-effective automation**
Palletising solution

132 **Upload sketch. Get customised profiles.**
Aluminium profile configurator

133 **Answer questions. Finding suitable robotics.**
AI consultant

133 **Plan robot cells to make them even more suitable**
Machine planner

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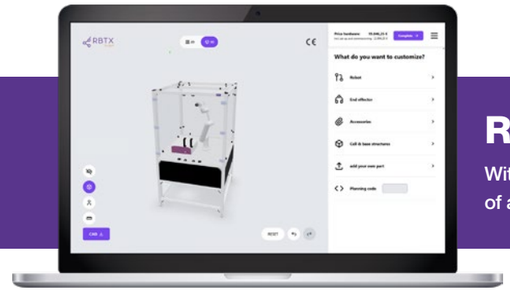
Online
Free consultation
rbtx.de/en-GB/rbtxpert

On site
Customer Testing Area
rbtx.de/en-GB/customer-testing-area



RBTX® Customer Testing Area

A wide range of robots, numerous possibilities:
test your application under real conditions.
Find the right solution with "test before you invest"



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**

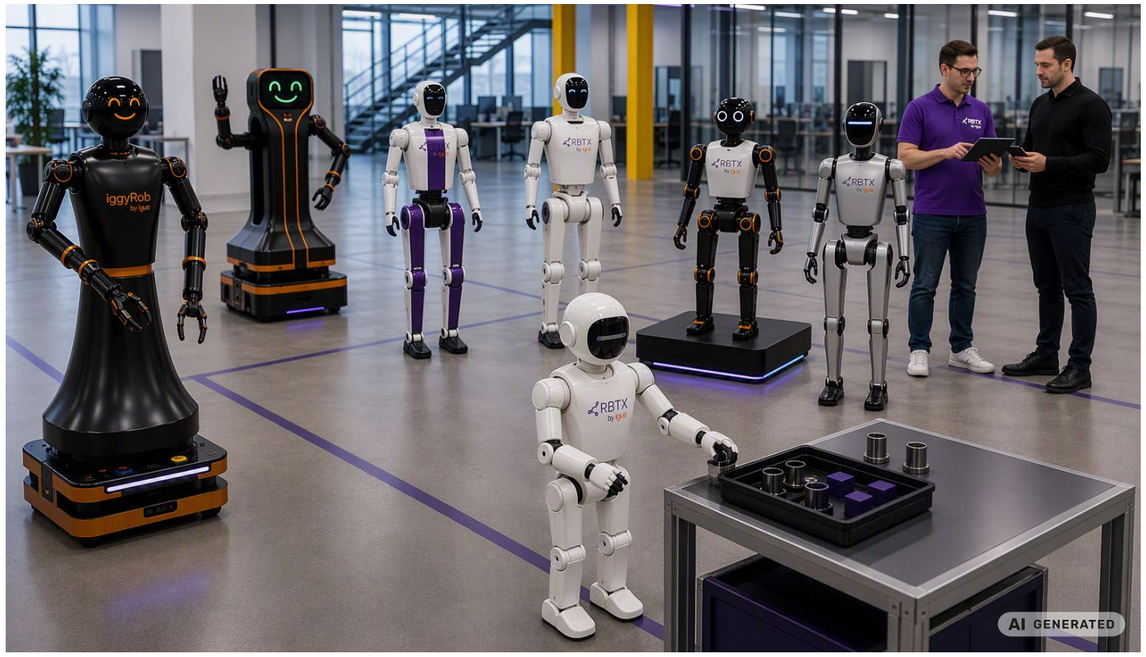
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Customer Testing Area for humanoid robots

Humanoid reality check



New

Select, test and integrate humanoid robots

Customer Testing Area for humanoid robots

Test robots live at RBTX® in Cologne and evaluate them with our experts, including advice on selection, integration and financing options.

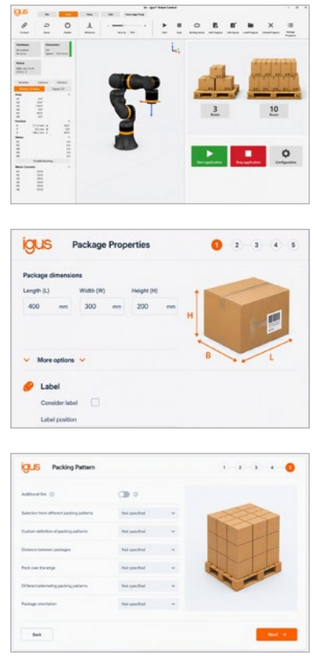
- Control and program a large number of humanoid robots yourself and compare them directly with each other based on their functions
- Precise consultation according to the application shortens the pre-selection and helps to avoid premature investments
- Compare eight humanoid robots on site and find the right solution together with our experts
- Application-related advice supports customers in selecting the right product and helps them avoid unused hardware
- View more than 100 humanoid robots online and arrange a free video call with our experts online

26-LCA-21

Palletising solution

ROI in less than six months





New

Simple palletising, cost-effective automation

Palletising solution

The cost-effective palletising station allows you to get started with automatic palletising and depalletising in a cost-effective way, for example in the food and bottling industry - with optional integration into your production facility.

- Two versions for 30kg and 50kg combine high load capacity with a wide range
- 50% lower investment costs allow for an affordable introduction to automatic palletising
- "Test before you invest" service with your pallets, SLCs, boxes or packaging units
- Automated palletising relieves employees of lifting and stacking heavy objects
- Palletising solution can be configured via RBTX® with suitable grippers and a compatibility guarantee

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New

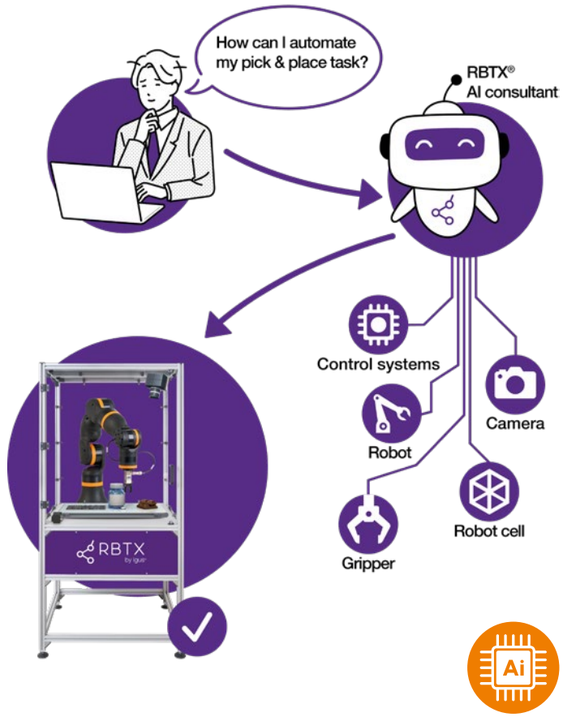
One adapter, many grippers

Universal adapter for end effectors

The standardised interface connects your robot to several grippers and simplifies the changing of end effectors, which takes only seconds.

- ▲ Standardised mechanical interface reduces the effort of changing grippers
- ▼ Fewer adapter variants shorten setup times and reduce procurement and storage costs
- ■ Used in our Customer Testing Areas worldwide
- ● One adapter for several grippers reduces the number of new parts and makes it possible to reuse existing components
- ◆ The gripper can be configured on RBTX® with a compatibility guarantee

26-LCA-23



Update

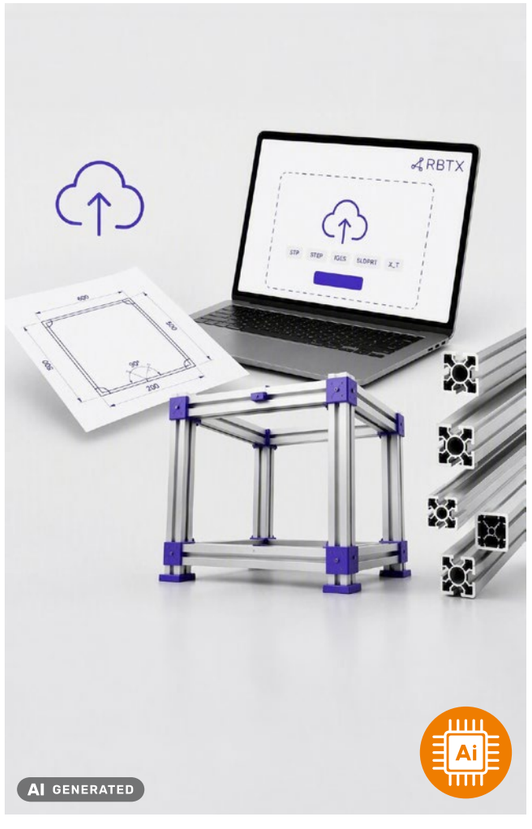
Ask. Find. Automate.

AI consultant

The AI consultant analyses your automation requirements and recommends suitable products or a complete robotics solution from the RBTX® marketplace. The AI consultant also provides support with technical questions, drawing on the combined knowledge of our experts.

- ▲ Questions accompany the decision-making process and lead to a compatible solution consisting of suitable components
- ▼ Needs-based recommendations speed up the product search and reduce the selection and engineering effort
- ■ The AI consultant uses the RBTX® portfolio with more than 1,200 products from 250 partners worldwide
- ● The compatibility check reduces wrong purchases and avoids the purchase of unsuitable components
- ◆ Get advice online around the clock and find suitable products or complete solutions at **chat.rbtx.com**

26-LCA-25



New

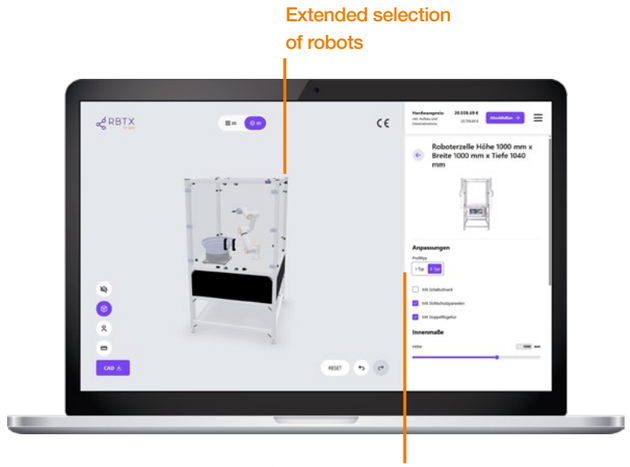
Upload sketch. Get customised profiles.

Aluminium profile configurator

Configure profiles yourself or upload a parts list, sketch and CAD file. Our configurator will check the information and create an offer without obligation. Design profiles in B- and I-types suitable for dimensions, groove, length, machining and accessories.

- ▲ Upload sketches, Word docs, Excel sheets and other files via drag and drop. Our AI will analyse the input and create your offer
- ▼ No entry by hand and reduced coordination and engineering effort thanks to upload of existing planning data
- ■ Configure online now at **rbtx.de/en-GB/aluminium-configurator**
- ● Everything from a single source, from the robot to the profile, and checked for compatibility by RBTX®
- ◆ The RBTX® AI automatically assigns profiles, cut-to-size parts, machining and accessories from the uploaded files

26-LCA-24



CAD

CE

Update

Your robot cell. Configured to fit perfectly.

Machine planner

New cobots and B- or I-type profiles allow for faster, more accurate planning that suits your own operating standard.

- ▲ Design Dobot Nova 2 and 5 as well as Fairino FR3 and FR5 into the robot cell
- ▼ Faster online planning saves time and avoids subsequent adjustments
- ■ The four new robot models are already integrated into the public Machine Planner
- ● Fewer planning errors and existing standard profiles help users avoid buying unnecessary additional components
- ◆ Select robots directly online; the choice between B-type and I-type profiles will follow shortly: **rbtx.de/en-GB/machine-planner**

26-LCA-26

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motion plastics®

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- smart plastics — Page 22
- chainflex® cables — Page 26
- readycable® readychain® — Page 40
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e-chains® and e-chain systems®





New 10/26

Overhead organisation of charging cables for DC and MCS charging points Page 8



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guidelok slimline mini - compact vertical e-chain® guide Page 10



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e-tract 3.1 Page 11



New 10/26

e-skin® ESD dry cleanroom certification Page 14



New 10/26

e-skin® flat multi pods as an extension to the single-pod modular system Page 16



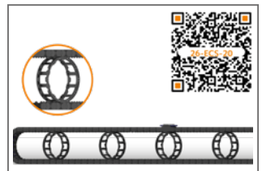
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SKF.S.10.100.01.0 e-skin® flat with support chain for the e-skin® flat system Page 17



New 10/26

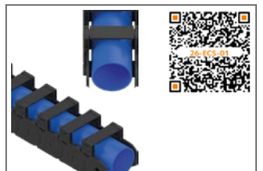
Unsupported twisterchain® with 600° angle of rotation Page 20



Study: e-spin for the E4Q family



Damper clip for E2i.26



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



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



e-tract AC horizontal



e-tract mini cable retraction system



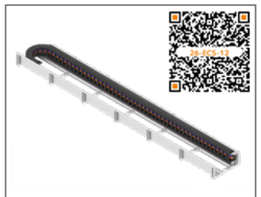
Study: tri-spool for crane systems and handling equipment



Study: e-spool® Shore Power



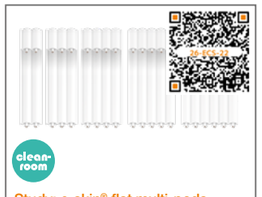
e-chains® Long Life Calculator



Study: plane-chain 2.0 guide trough



Study: C6 cleanroom energy chain with special e-spin guide system



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



e-skin® flat configurator



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



e-skin® soft ESD



e-skin® Long Life Calculator

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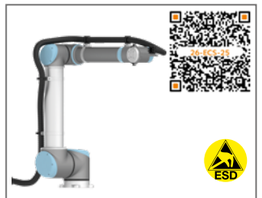
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Study: triflex® TRXC energy chain



SCARA cable solution nominal width 48



ESD cobot kit



Study: e-spool® cable

New 10/26



CAT6A bus cable chainflex® CFBUS.LB.050 Page 35



chainflex® CFROBOT8.PLUS.030 for DeviceNet cable Page 36



chainflex® CFPE.ZH PE single core Page 36



chainflex® CF99.PLUS.02.08 control cable Page 37



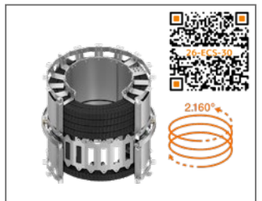
e-spool® theatre kit



e-spool® flex light large



Rotary chain SRM static



TRM triflex® rotation module



chainflex® CF280.UL.H403.15.04.D hybrid servo cable Page 38



chainflex® CF111.033.D measuring system cable Page 38



chainflex® 4G1.0 motor cables in four qualities Page 39

readycable® readychain®



CT200 modular enclosure for e-chain systems®



Steel guide trough ST200



basic flizz® E2.26

smart plastics

New 10/26



readycable® drive technology product range extension Page 42

New 10/26



Sensor/actuator electric mains with M23 plug-in connector Page 44

New 10/26



Cables with M12 power Page 45

New 10/26



readycable® cables for stage technology Page 46

New 10/26



Strain gauge force sensor now with cable monitoring Page 24

New 10/26



Study: i.Cee² measurement case Page 25

New 10/26



Study: TR.P measurement case Page 25



Industrial edge module for intelligent monitoring



615/915, M17, M23, M40, M58 round connectors available in 36hrs



Customised industrial cable harnessing



Customised sealing inserts for cable glands

Bicycle components



Extension kit for smart moving ends. Also available as retrofit



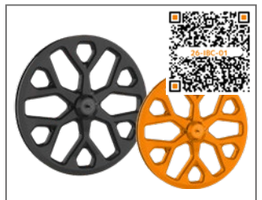
i.Sense TR.P



i.Sense display for dashboard visualisation



superwise service packages



Rotomoulded wheels



Study: Integrated handlebar-stem unit



Bike frame made of plastic

iglidur® plain bearings

chainflex® cables

New 10/26



CF280.UL.H hybrid cable suitable for SEW MOVILINK DDI® Page 30

New 10/26



CFCLEAN.EVO cleanroom cables Page 32

New 10/26



chainflex® CFSPECIAL.762.100.01.RS Page 34



iglidur® A181PF

iglidur® A351

Study: iglidur® polymer radial shaft seals

iglidur® coating

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iglidur® IC-01PF Page 50

New 10/26



iglidur® IC-02PF Page 50

New 10/26



iglidur® IC-05A Page 52

iglidur® rollers



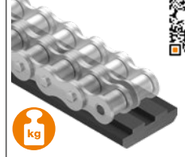


iglidur® slewing ring PRT-04 with locking device

iglidur® bar stock



New 10/26



Chain guide profile Page 72

New 10/26



iglidur® K230N plates Page 73

New 10/26



iglidur® P210 knife edge rollers, spherical design Page 56

New 10/26



Track roller made of iglidur® J Page 57



iglidur® RLVMO rollers



iglidur® A160 knife edge rollers

New 10/26



iglidur® A351 round bars Page 73



iglidur® A160 tribotape®



iglidur® C301 tribotape®



iglidur® A181PF round bars

drygear® gear and gearbox technology



New 10/26



drygear® installation service Page 60

New 10/26



drygear® Apiro® heavy-duty lift/push drive Page 62

New 10/26



drygear® Apiro® heavy-duty rack gear Page 62



CNC service

iglidur® 3D printing



New 10/26



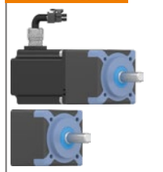
Timing screws for conveyor systems Page 76

New 10/26



iglidur® i190-BL and iglidur® i190PF-BL for FDM 3D printing Page 78

New 10/26



drygear® planetary gearbox Page 63

New 10/26



drygear® planetary gearbox with multiple motor types Page 63



drygear® Apiro® heavy-duty housing



drygear® planetary gearbox

New 10/26



iglidur® i151 for FDM 3D printing Page 78



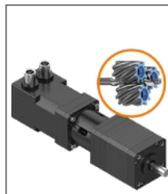
iglidur® i6000 resin for DLP 3D printing



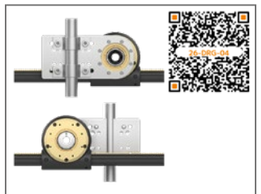
iglidur® i190PF for FDM 3D printing

igubal® spherical bearings





drygear® evoloid gearbox incl. stepper motor

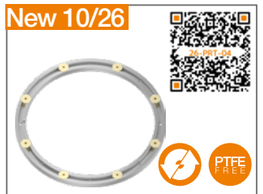


drygear® Apiro® installation option, adapter 4

iglidur® slewing ring bearings



New 10/26



iglidur® PRT-07 slewing ring bearings Page 66

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EGLM-HD spherical bearings Page 82

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Spherical insert bearing with integrated seal Page 84

New 10/26



Metal rod ends with iglidur® inner ring Page 87

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EFOM-2.0 and EFSM-2.0 flange mounted bearings Page 88

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iglidur® PRT-04 slewing ring bearing Page 68

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iglidur® PRT-01-ART slewing ring bearings Page 69

iglidur® slewing ring PRT-05 compact version

iglidur® slewing ring PRT-05 made of solid plastic

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

Study: Heavy duty

Flanged bearing kit

Injection-moulded spherical insert bearing made of iglidur® H3

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xiros® ball bearings



New 10/26



Hybrid bearing with stainless-steel races and ceramic balls Page 92

New 10/26



Ceramic bearings with PEEK cage Page 93

New 10/26



Ceramic thrust ball bearings Page 94

New 10/26



Conveyor rollers with adapter Page 95



Hybrid ball bearing with stainless steel inner race and polymer outer race



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

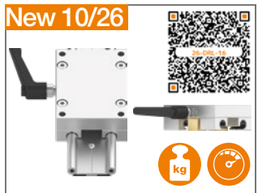


Conveyor rollers with dissipative plastic ball bearings

drylin® linear technology



New 10/26



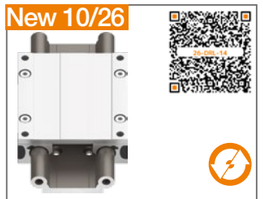
drylin® W clamping elements Page 98

New 10/26



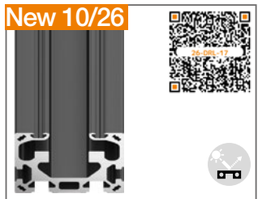
Exchange bearing drylin® W made of zinc die-casting Page 100

New 10/26



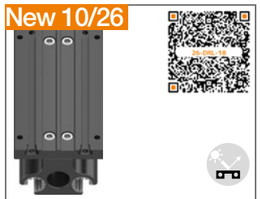
drylin® W carriage with exchange bearings Page 100

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drylin® W high profile Page 101

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drylin® W linear carriage element Page 101

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drylin® W lightweight linear rails Page 102

New 10/26



drylin® C curved guide Page 104

New 10/26



drylin® C cam roller with buffer Page 105

New 10/26



drylin® C cam roller with scraper Page 105

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drylin® R aluminium tubes Page 106

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drylin® N end caps Page 106

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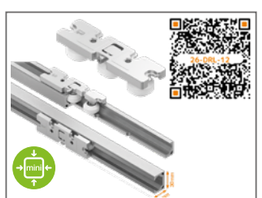


drylin® NT telescopic rail with end position snap function Page 107

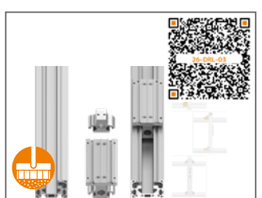
New 10/26



drylin® NT telescopic rail Page 107



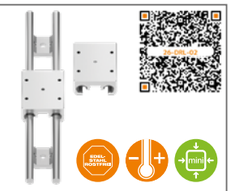
drylin® C CamRoller series



drylin® W linear structural profile



drylin® W linear guide with standardised RAM hole patterns



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



Liners made of iglidur X



Tandem hybrid roller bearing WJRM-51



Hybrid roller carriages in installation size 10-30



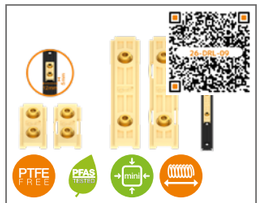
drylin® linear guide in hygienic design



Lightweight rail profile in installation size 10



drylin® R aluminium tubes



drylin® N miniature guide

dryspin® lead screw technology



New 10/26



Expansion of the product range Page 110

New 10/26



New pitch with DS8x4-RH Page 112

New 10/26

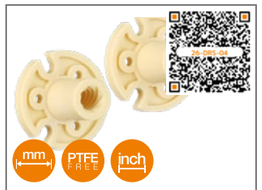


New pitch DS8x4-RH (machined thread) Page 112

New 10/26



Spherical lead screw nut 2.0 Page 113



Range expansion of the new dryspin® lead screw nut geometry

drylin® drive technology



New 10/26

drylin® ZLX toothed belt axis, anti-reflect Page 116

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drylin® SLR linear axis, anti-reflect Page 117

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drylin® ZLN toothed belt axis with anti-reflect design Page 118

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drylin® NTM telescopic axis Page 119

drylin® SLW-1040-10X25-E7-AL

drylin® ZLW-xx-ES-EX

drylin® ZLX and SLX Protect

drylin® SLW

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drylin® NTM



drylin® GRR-30



Firmware update for D1 motor control system



Control unit for inching/ jog mode, positioning and mini-automation

New 10/26



Universal adapter for end effectors Page 132

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Aluminium profile configurator Page 132

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AI consultant Page 133

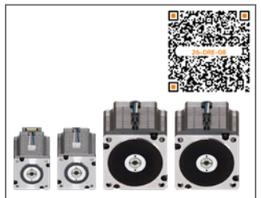
New 10/26



Machine planner Page 133



Simulation of input/output signals



Lead screw stepper motors with high torque



Rotary tables with powerful drive

Low Cost Automation





Customised automation at a fixed price



Manufacturer-independent marketplace for humanoid robotics



RBTX® complete solutions



Wide range of aluminium profiles

New 10/26



iggyRob Home Page 122

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ReBeL® cobot: new functions Page 123

New 10/26



Stainless-steel linear robots Page 124

New 10/26



Configurator for LCA linear robots Page 125



RBTX® Learn platform

New 10/26



iRC X robot control platform Page 126



Study: ReBeL® 6DOF AI version



ReBeLMove Pro with cobot



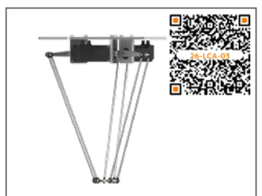
ReBeL® Pallet Mover 300, 1400 und 1500



New generation of robots in sizes S, M, L



Seventh axis for a reach of up to 6,000mm



Study: Compact delta robot



igus® Robot Control platform



iRC V15 software update

RBTX® market place

RBTX by igus®

New 10/26



Customer Testing Area for humanoid robots Page 130

New 10/26



Palletising solution Page 131

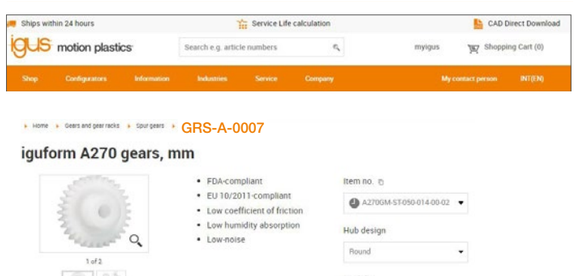
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igus.eu/competitions



manus® award - enter now for 2027!

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Deadline:
12th February 2027



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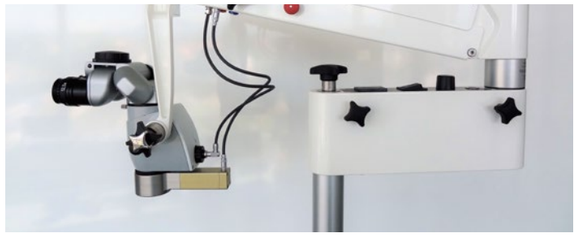


ROIBOT award

For clever automation solutions

The ROIBOT award honours the most innovative, creative, and exciting automation applications involving igus® Low Cost Automation components or partner products from the RBTX® marketplace. The name of the award says it all: a quick return on investment (ROI). Since 2020, the ROIBOT has been awarded every two years by a panel of expert judges and honours the three best automation applications involving low-cost robotics.

The winners of the last few years



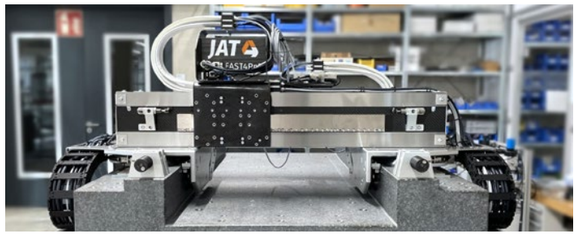
Golden manus® 2025
Portable surgical microscope with clean movements
iglidur® plain bearings impress with lubrication-free operation, reduced installation space and weight



Gold vector 2026
Mobile and sustainable shore power connection at the Port of Rotterdam cruise terminal
Mobile socket provides power precisely for ships along the 230m quay



Silver manus® 2025
Bicycle trailer for the last mile of parcel delivery
Low-maintenance and environmentally friendly use



Silver vector 2026
Durable energy supply systems for positioning systems in electronics production
Quiet, low-vibration, low-abrasion energy supply systems for cleanroom applications



ROIBOT Award 2024
Finally self-determined: automated workplace



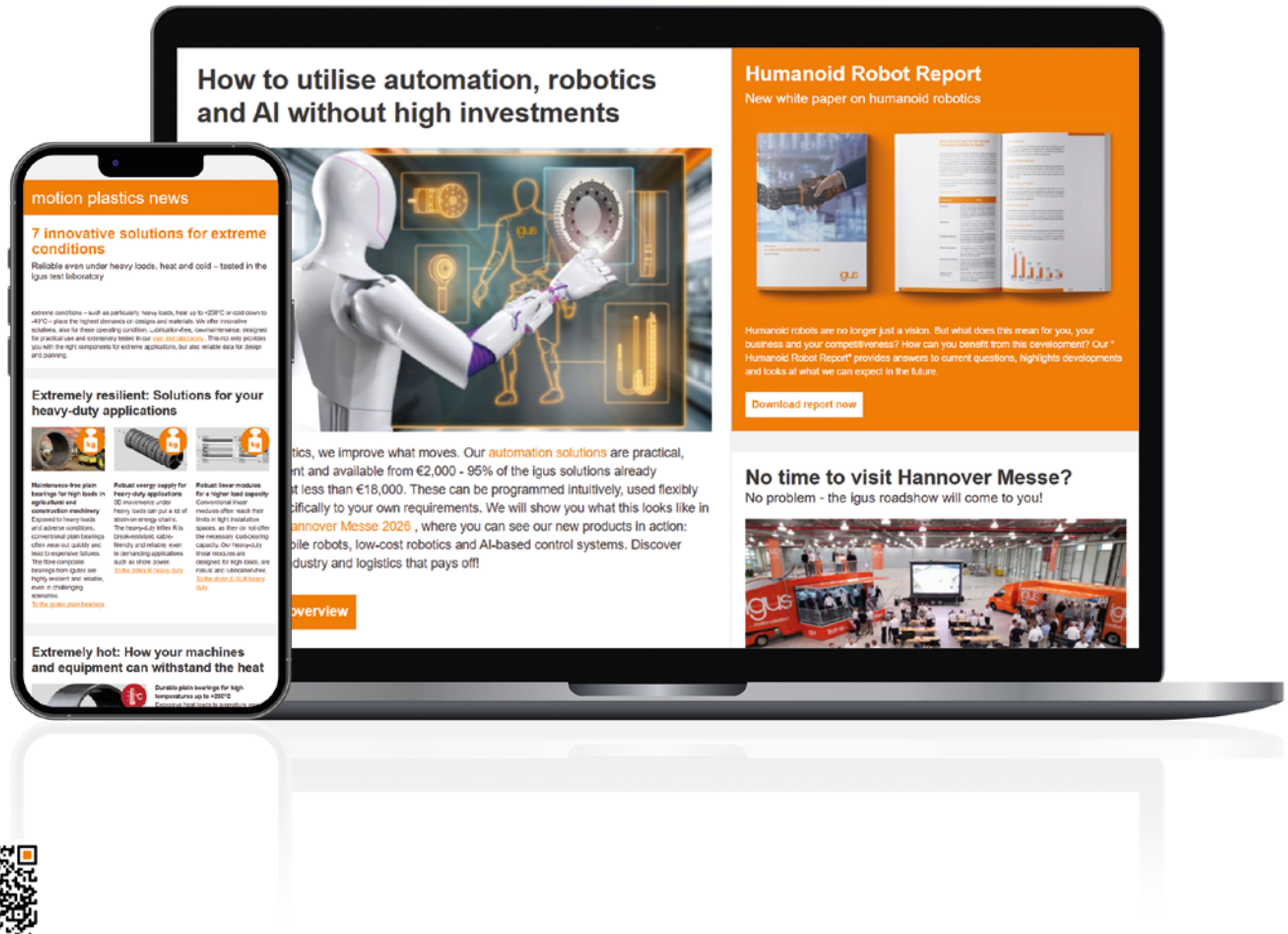
ROIBOT 2024, 2nd place
Visual quality control

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