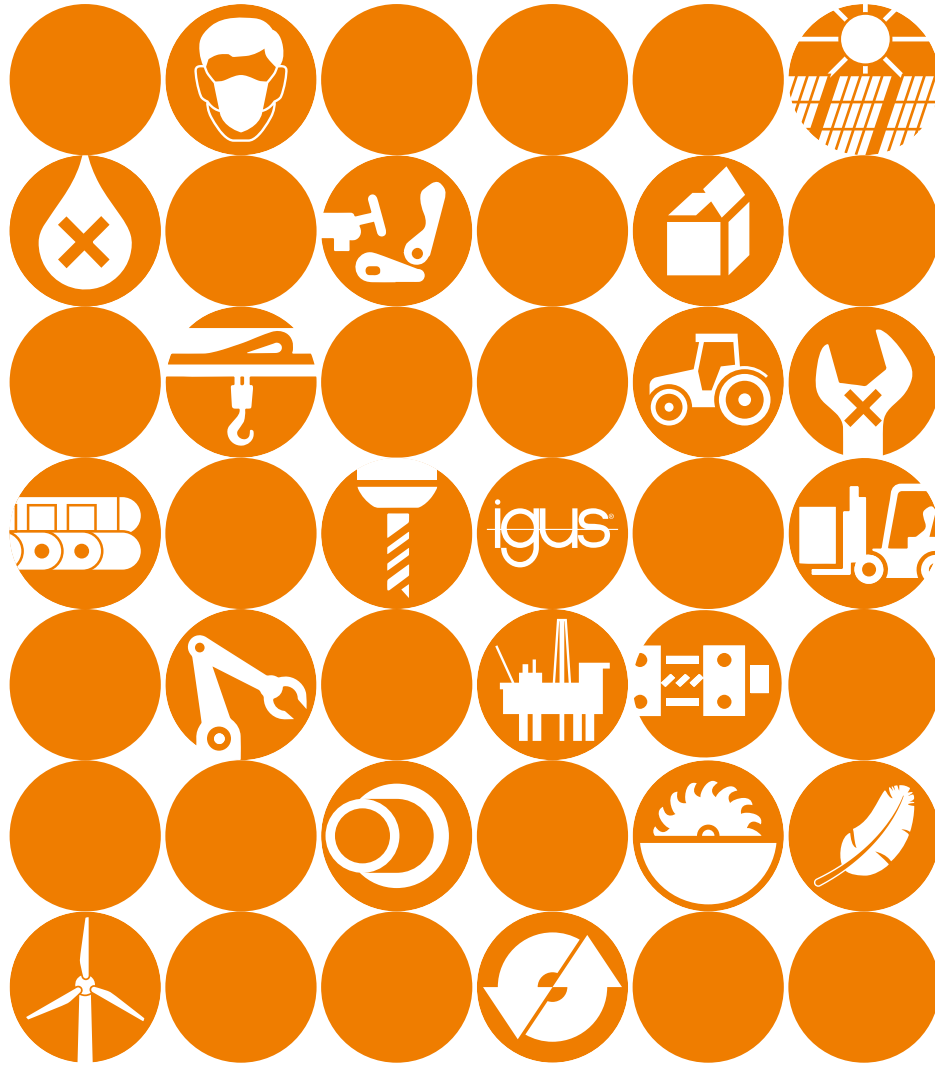


Industry solutions

motion plastics® solutions for any industry ...



igus® motion plastics® solutions for nearly any industry



"Did you know ...

*... that we have polymer solutions
for nearly 60 industries?"*

All industries at a glance

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From a garage to the global market with tribopolymers

Innovative solutions for a lubrication-free future for more than 50 years

Nearly 200,000 customers worldwide trust "plastics for longer life®". Manufacturing products at low cost, while also ensuring quality, this is our commitment with "plastics for longer life®". Plastics are becoming increasingly affordable and technical benefits continue to grow. For years, we have been developing, producing and selling our products based on the principle of "plastics for longer life®". Products made from high-performance plastics ... last longer ... and cost less.



Reduce costs improve technology!

For any task – in any batch size

Different industries need different solutions. From mechanical engineering, automotive assembly or medical technology, to the robotics industry - igus® offers customised solutions for specific applications. igus® already has many years of experience and specialised resources for many industries. If your industry is not listed, please let us know. We're here to help.

Fit and forget - matching solutions from stock

- Innovative and cost effective products that can be assembled quickly
- Fast delivery from stock – lower storage costs
- Large product selection - find the right solution at once
- Time-saving tools on the Internet
- Customised assembly modules delivered ready to install
- Maintenance- and lubrication-free dry-tech® bearings
- Cables with 36 months guarantee (according to igus® guarantee provisions)
- No minimum order charges, no cutting costs for cables

Our online tools also enable you to reduce process costs. Also visit our industry website.



www.igus.eu/industry

I look forward to talking to you - whether during a visit to your premises or at a trade fair.



Harald Nehring

Head of industry management

Phone: +49 2203 9649-117

e-mail: hnehring@igus.de

Ready to install and cost effective ...



Ready to install readychain® systems with transport rack for all axes of a machine tool. Steel parts, hydraulic and control unit customised for your application.



... Machine tool industry

"Toolmakers and their suppliers are facing major global challenges. The competition is becoming more intense, the price pressure is becoming greater, as also the demand for local production. igus® has the right solutions: top quality but are affordable."



Your contacts



Lukas Czaja

Head of industry management

Machine tools

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e-mail: lczaja@igus.de



Products in focus



Light and strong:

System E4.1L

► www.igus.eu/E41light



For flexible use, cost effective:

chainflex® M

► www.igus.eu/chainflexM



Dirt repellant dry

running: drylin® hybrid bearing

► www.igus.eu/WJRM



Tested!



Chip tests at the igus® test-lab prove the excellent sealing of igus® RX e-tube, even with hot chips.



Online



Industry web pages with detailed information, application examples and more ...

► www.igus-machinetools.com

Move reliably in all axes ...



Specially customised for robots with small to medium loads, the igus® triflex® RSE retraction system offers a way to prevent loop formation in the workspace of the robot, even in highly dynamic applications.



... Robotics industry

"For all 3D applications: triflex® R provides modular protection of cables and hoses in the robotic modular kit."



Your contact:



Jörg Ottersbach

Head of industry management

Robotics

Phone: +49-2203 9649-698

e-mail: jottersbach@igus.de



Products in focus



For sophisticated 6-axis applications: triflex® TRCF

► www.igus.eu/TRCF



Easy, quick to fill, for large hoses: triflex® TRLF

► www.igus.eu/TRLF



Twistable robot cables up to $\pm 180^\circ/\text{m}$: chainflex® CFROBOT

► www.igus.eu/CFROBOT

Guarantee
igus chainflex
36
month guarantee



Tested!



Robotic fibre optic cable CFROBOT5.501 fibre optic cable withstands more than 28 million cycles with $\pm 180^\circ/\text{m}$ torsion.



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/robotics

Reduce weight ...



For example, iglidur® plain bearings in brake calliper bearings replace metallic bearings under extreme conditions.



... Automotive industry bearings

"igus® bearings are 7 times lighter than metallic rolled, PTFE coated bearings and do not rust."



Your contact:



Markus Feth

Head of industry management Automotive

dry-tech® bearing technology:

Phone: +49-2203 9649-251

e-mail: mfeth@igus.de



Products in focus



Cost-effective for the engine compartment: iglidur® H4

► www.igus.eu/H4



Save 90% weight:

igubal® coupling rods

► u.igus.eu/double-joint



Customised special parts on request, from a quantity of 1

► www.igus.eu/specialparts



Tested!



Quality assurance: 100% visual inspection for the highest quality, target: 0 errors



Online



Industry web pages with detailed information, application examples and more ...

► www.igus-automotive.com



Specifically customised for your space, weight and load limits. Whether in cars, commercial or special vehicles - the requirements for energy supply solutions are becoming increasingly complex. The multitude of moving, electrically controlled functions require reliable, long-lasting and lightweight solutions for the constant supply of energy and signals.



... Automotive industry on board

"Failsafe energy supply systems specifically for your installation space, adapted to your weight and load limits."



Your contact:



Johannes Zournatzis

Industry manager
e-chainsystems®
On Board systems
Phone: +49-2203 9649-7355
e-mail: jzournatzis@igus.de



Products in focus



Modular and in one piece for easy application: e-chain® E1

► www.igus.eu/E1



Stable, quiet, light and easy to assemble: e-chain® E2.10

► www.igus.eu/E2micro



Corrugated hose solution with inherent rigidity: e-skin®

► www.igus.eu/e-skin



Tested!



Test 3621: Control cable CF98.05.04 withstands more than 138 million strokes at a radius of 18 mm (3.2 x d).



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/automotive-onboard



Two-component rollers (polymer bearing and roller) ensure smooth and wear-free movements on the expensive PEEK rotation axis in inspection technology.
[Clamping star of Krones AG]



"Tuned to the specific needs of the packaging industry, such as food hygiene or FDA compliance, we offer you solutions made of high-performance plastic solutions that optimise your packaging machines."



Your contact:

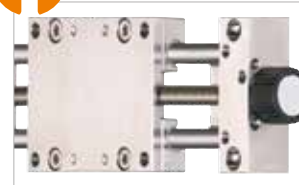


Lars Braun

Head of industry management
Packaging industry
Phone: +49-2203 9649-218
e-mail: lbraun@igus.de



Products in focus



Corrosion resistant steel components: drylin® SLW

► www.igus.eu/drylinSLW



Temperatures up to +250°C,
FDA compliant: iglidur® A500

► www.igus.eu/a500

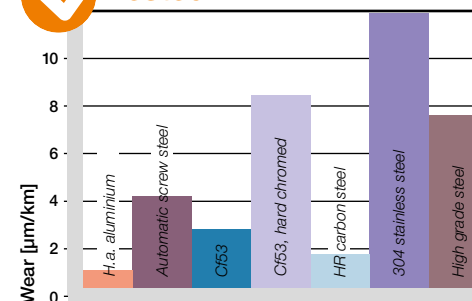


Assembled and ready to
install: readychain® systems

► www.readychain.eu



Tested!



Wear iglidur® G with various shaft materials (rotating 0.3 m/s; 1.0 MPa). Low load applications can often be worked with inexpensive shaft materials.



Online



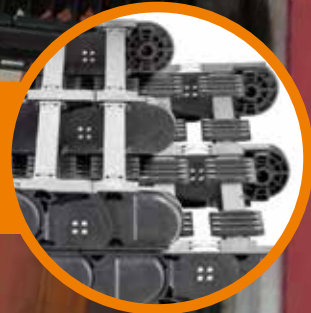
Industry web pages with detailed information, application examples and more ...

► www.igus-packaging.eu

On long travels up to 800 m ...



Several advantages were achieved by the replacement of the old roller e-chainsystem® with the igus® P4- e-chain®: the service life of the crane was enhanced, the e-chain® runs with lower noise in the trough and the wear of the rollers was significantly reduced. [Container loading crane, Qing Dao/China]



... Crane industry

"igus® e-chainsystems® and flexible chainflex® cables have been successfully used worldwide on more than 800 STS, 5,000 RTG / RMG and over 10,000 harbour installations, like bulk handling cranes, Goliath cranes, reach stackers, empty container trucks, spreaders, lifts and forklifts."



Your contacts



Theo Diehl

Head of industry management
Cranes & Material Handling
Phone: +49-6162 6808
e-mail: tdiehl@igus.de



Products in focus



For very high fill weights and speed: P4 roller chain

► www.igus.eu/P4



Predictable maintenance with intelligent products: smart plastics

► www.igus.eu/smart-plastics



For outdoor applications, TPE-qualities: chainflex® CF330, CFLG

► www.igus.eu/chainflex

Guarantee
igus chainflex
36
month guarantee



Tested!



Field test: igus® e-rover enables automatic coupling and decoupling on e-chainsystem®. Supply energy, data and fibre optic signals at Gbit speed.



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/cranes



Economical energy supply for crane girders and indoor cranes - quickly installed as a modular solution: The guidefast guide trough is side-mounted on the crane girder. This makes it possible, for example, to avoid welding brackets on crane girders during assembly.



... Indoor crane industry

"igus® e-chainsystems® with flexible chainflex® cables for single or double girder cranes, rolling and box girder profile cranes, as well as travelling, overhead or jib cranes. Easily and safely mounted directly on or above the crane girder."



Your contacts



Jens Göbel

Industry manager

Cranes & Material Handling

Phone: +49-2203 9649-114

e-mail: jgoebel@igus.de



Products in focus



High stability and quiet operation: e-chainsystem® E2/000

► www.igus.eu/E2000



For side mounting on crane girders: guidefast trough

► www.igus.eu/guidefast



All cross sections from stock: chainflex® cables

► www.igus.eu/chainflex

Guarantee
igus chainflex
36
month guarantee



Tested!



Bending cycle test: Just one of the many series of tests for the reliable prediction of igus® e-chains®.



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/indoorcranes

Defy loads in the most adverse environment ...



... for example, enclosed E4 system roller e-chain®. Long travels of 600 m and more. The special enclosure keeps away dirt, coal, snow and ice from the energy supply system.



... Bulk handling

"Moisture, dirt, chips, heat, cold – we have the solution for every requirement. igus® is the specialist in plastics research and can bank on its experience of more than 50 years."



Your contact:



Frank Schlögel

Phone: +49-2203 9649-166

e-mail: fschloegel@igus.de



Products in focus



Save up to 57% drive power:
roller e-chain®

► www.igus.eu/rol-chain



Rotary motion from 1250° and
more: rotary module

► www.igus.eu/MRM



TPE control cables for extreme
flexing performance

► www.igus.eu/chainflex

Guarantee
igus chainflex
36
month guarantee



Tested!



Service life test on long travels at high speeds
in the igus® lab



Online



Industry web pages with detailed information,
application examples and more ...

► www.igus.eu/bulkhandling



Speed and precision are asked for when using storage and retrieval machines in the warehouse. For the energy supply within the device, a leading manufacturer therefore relies on ready-to-connect, assembled igus® e-chainsystems® for the extreme dynamics of 6 m/s and 4 m/s² to 7m/s and 10m/s²



... Material handling

"No other manufacturer offers this diversity in energy chains® and cables from stock and no other manufacturer provides as much service as igus®."



Your contact:



Christian Strauch

Industry manager

Material handling

Phone: +49-2203 9649-7208

e-mail: cstrauch@igus.de

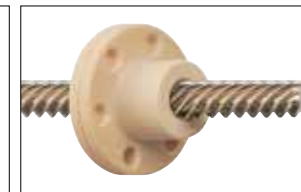


Products in focus



For storage and retrieval systems: GLSL-P guide troughs

► www.igus.eu/GLSL-P



Efficient and quiet running: dryspin® high helix thread

► www.igus.eu/dryspin



For increased tensile stress, hanging up to 50 m: CFSPECIAL.182

► www.igus.eu/cfspecial182

Guarantee
igus chainflex
36
month guarantee



Tested!



chainflex® CFSPECIAL proves itself in the tensile force test as the ideal solution for applications with extremely high tensile forces, such as in forklifts.



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/materialhandling



"They are already in use in many offshore applications and have proved very effective: energy chain systems and plain bearings from igus® withstand the toughest environmental conditions."



Your contacts



Tim Schneebeck

Industry manager
Offshore, Oil and Gas
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Products in focus



The largest e-chain® with 350 mm inner height: e-chain® E4.350

► www.igus.eu/E4-350



Rotary motion from 1250° and more: rotary module

► www.igus.eu/MMR



With DNV-GL approval for offshore applications: CFLG.LB.PUR

► www.igus.eu/CFLG

Guarantee
igus e-chain®
36
month guarantee



Tested!



RBR test set-up: customer-specific construction of a circular motion in the igus® lab. Each product is tested thoroughly before it is delivered to the customer.



Online

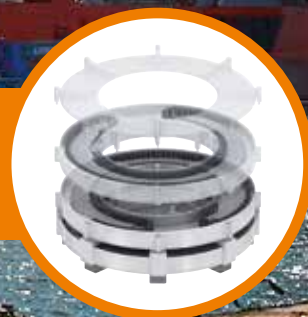


Industry web pages with detailed information, application examples and more ...

► www.igus.eu/maritime



igus® rotary module with 560° rotation angle in the heavy-duty crane.
Complete systems, custom designed - modular and space-saving, easy to integrate.





"Especially in agriculture you need solutions that will withstand the harshest conditions such as dirt, shocks and high edge loads. Freedom from lubrication and long service life are also important."



Your contact:



Uwe Sund

Industry Manager

Agricultural Technology

Phone: +49-2203 9649-487

e-mail: usund@igus.de



Products in focus



Long lasting at high loads:
igidur® Q290

► www.igus.eu/Q290



Curved guides according to
your specifications

► www.igus.eu/curved-rails



Reliable cable routing for the smallest
installation spaces: E2 micro

► www.igus.eu/E2micro



Tested!



Pivot test on galvanised shafts: iglidur® Q290
plain bearing (left) against metallic model.



Online



Industry web pages with detailed information,
application examples and more ...

► www.igus.eu/agriculture

By the use of lubrication-free plastic plain bearings in the overload element of the Karat 9 (intensive cultivator) a subsequent lubrication can be completely dispensed with.
[Lemken GmbH & Co. KG]





Moisture, dirt, chips, heat, cold - we have the solution for every requirement and we entirely dispense with steel and other metals in our e-chains® materials. With strong vibrations it has been shown that igus® e-chains® last longer and no bolts or screws can get loose as in steel energy chains®.



... Construction machinery

"Machine components are subjected to high loads particularly in the construction equipment and machinery industry. igus® products have been tested for outdoor applications with vibration, cold, heat and UV radiation."



Your contact:



Harry Suckau

Industry manager

Construction machinery

Phone: +49089 37506228

e-mail: hsuckau@igus.de



Products in focus



Reliable under vibration:
e-chain® E4 "Heavy Duty"

► www.igus.eu/E4-HD



Extremely wear-resistant and dimensionally stable: iglidur® Q2

► www.igus.eu/Q2



High UV-resistance and use in up to -35°C: chainflex® CF9

► www.igus.eu/CF9

Guarantee
igus chainflex
36
month guarantee



Tested!



Vibration test: A standing installation of igus® E4 e-chain® was exposed to direct vibration (comparable to a rock drilling).



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/constructionmachinery

Highest hygiene standards ...



The energy supply is implemented using a "side-mounted" igus® e-chain® of the E4.80 series, which is installed on the ceiling and follows the movement of the unit by rolling or unrolling of the chain. The moving ends of the e-chain® are mounted on rotary tables, to give the X-ray machine further movement range.
[GE Healthcare, Buc, France]



... Medical engineering & lab equipment

"Functional safety and the prevention of contamination are top priorities in medical and laboratory equipment, as well as in the production of pharmaceuticals. Due to the elimination of lubricants, igus® products are often the first choice."



Your contact:

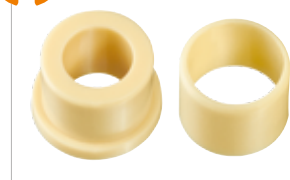


Ulf Hottung

Industry manager
Medical technology
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e-mail: uhottung@igus.de



Products in focus



Reduces the germ load: anti-bacterial iglidur® AB

► www.igus.eu/AB



Parallel guiding of two capillary hoses possible: e-cord

► www.igus.eu/e-cord



Minimum bending radii up to 4 x d: chainflex® CF9 and CF98

► www.igus.eu/chainflex

Guarantee
igus chainflex
36
month guarantee



Tested!



Special test bench for comparative wear rate determination of materials of igus® and competitors



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/medical

In all axes and maintenance-free ...



igus® has products in its wide range that covers all requirements in the wood industry. Whether for multi-axis, hanging, standing or rotating movements or even clamp chains for large suction hoses.



... Wood working / processing

"Chip-resistant igus® plastics solutions help you decrease installation times and the demands on your logistics, reduce throughput times and dispense with virtually all maintenance."



Your contact:



Guido Lopes

Phone: +49-2203 9649-7209

e-mail: glopes@igus.de



Products in focus



With integrated seal against dust: e-chain® E4.64L

► www.igus.eu/E4-64L



Drive cables according to 24 manufacturers: readycable®

► www.readycable.eu



Dry running and resistant to dirt: drylin® hybrid bearing

► www.igus.eu/WJRM



Tested!



Customer-specific tests: We test each product also specifically for the application. Here a test with wood chips for a side mounted E4.64L e-chain®.



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/woodworking

Dry running, without lubrication ...



In the support of the thread guide unit for the thread winder, concentricity errors and shocks are compensated for by means of spherical rod ends. With the elasticity of the rod end bearings, the micro-vibration that occurs is more attenuated than in the comparable metallic products. [SAHM GmbH & Co. KG]



... Textile industry

"The textile industry places top priority on components being free from lubricants and resistant to dust. Maintenance-free and tribologically optimised plastics from igus® ideally fulfil these and many other requirements."



Your contact:



Patrick Carl

Phone: +49-2203 9649-265

e-mail: pcarl@igus.eu



Products in focus



ESD-compatible universal bearings: iglidur® F2

► www.igus.eu/F2



Usable as a belt tensiometer or guide roller: xiros®

► www.igus.eu/xiros

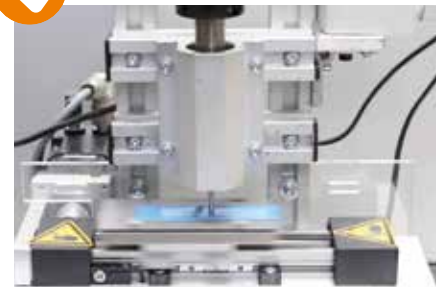


Suitable for multiple lining of surfaces: Tribo-Tape

► www.igus.eu/tribotape



Tested!



Wear test: igus® materials are significantly more resistant to wear than PTFE films in the test.



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/textile



In pit furnaces, 4-metre slabs are heated. Temperatures up to 1,200°C or blasting flames from the furnace place high demands on the system. The used e-chain® of the 4040CR series meets the requirements without failure. [voestalpine Grob-blech GmbH, Austria]



"In steel mills and foundries there is constantly high external strain on man and machine. For these tough environments we offer you low-maintenance, low priced and long-lasting systems."



Your contact:



Michael Berteit

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e-mail: mberteit@igus.de

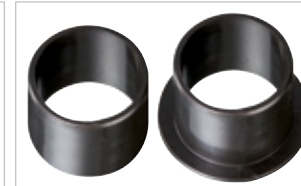


Products in focus



Save up to 57% drive power:
roller e-chain®

► www.igus.eu/rol-chain



Highly abrasion-resistant at tem-
peratures up to +250°C: iglidur® X

► www.igus.eu/X



TPE control cables for extre-
me flexing use: chainflex® CF9

► www.igus.eu/CF9

Guarantee
igus chainflex
36
month guarantee



Tested!



Wear-resistant: Every e-chain® has a mileage of more than 10,000 km.



Online



Industry web pages with detailed information,
application examples and more ...

► www.igus.eu/steelmills



Cost-efficient, lubricant- and maintenance-free iglidur® polymer plain bearings from igus® provide for the absolutely essential smooth running.
[Nowy Styl GmbH]



"Smooth running, corrosion resistant and high load capacity instead of rust, lubrication and squeaking. The convenience of igus® high-performance plastics are great for your furniture and interior ... long-lasting and low priced."



Your contacts



Michael Hornung

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e-mail: mhornung@igus.de



Products in focus



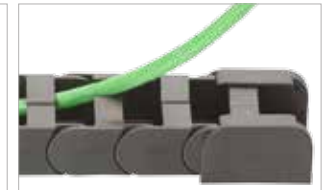
Low price and flexible sliding guide: drylin® N

► www.igus.eu/drylinN



Ideal for chairs, lights, handles: clearance-free pretensioned bearing

► www.igus.eu/JVSM



Aesthetic for height-adjustable applications: e-chain® ZF

► www.igus.eu/ZF14



Award-winning igus® designs



Since 1987, 35 igus® products have been awarded by the "iF Forum Design GmbH" in the category "Industry Design".



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/furniture

Print out a single part quickly yourself ...



... 3D Printing technology

"The use of maintenance-free drylin® linear bearings eliminates the regular greasing, and they move quietly and dampen the vibrations occurring during high accelerations while printing."



Your contacts



Tom Krause

Head of Business Unit
Additive Manufacturing
Phone: +49-2203 9649-975
e-mail: tkrause@igus.de



Products in focus



Up to 50 times more resistant to wear: iglidur® Tribo-Filaments

► www.igus.eu/tribofilament



3-times more abrasion-resistant for laser sintering: iglidur® I3

► www.igus.eu/I3

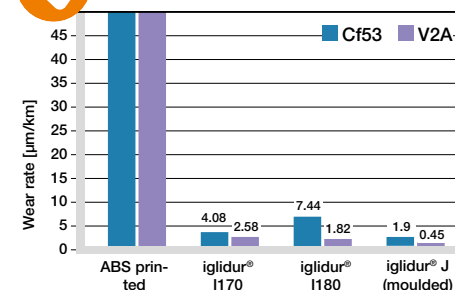


Interchangeable 1:1 with recirculating ball bearings: drylin® R

► www.igus.eu/drylinR



Tested!



Wear-resistant, linear: Up to 50 times more abrasion-resistant than common 3D printing filament materials.



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/tribo-printing

This 3D Delta printer consists of a variety of lubrication free igus® products: drylin® W high profile for the Y/Z adjustments, ready-to-install linear axes with motor, igubal® spherical bearings and aluminium shafts, triflex® R e-chains® with chainflex® motor cables. [igus® GmbH]





Always there in the most difficult terrain and under extreme stressing: iglidur® G polymer plain bearings from igus® in the guide roller of the SRAM derailleur - no maintenance. [SRAM rear derailleur]



"In all types of cycling, there is one factor that is always crucial – the weight of the bike! To achieve top sporting performances or simply enjoy a relaxed bike ride without too much effort, it is essential for the bike to have a low weight."



Your contact:



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e-mail: pcarl@igus.de

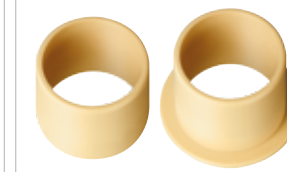


Products in focus



Very wear-resistant on (al-most) all shafts: iglidur® J

► www.igus.eu/J



The classic endurance runner up to 30 MPa: iglidur® W300

► www.igus.eu/W300



Excellent price-performance ratio: iglidur® G

► www.igus.eu/G



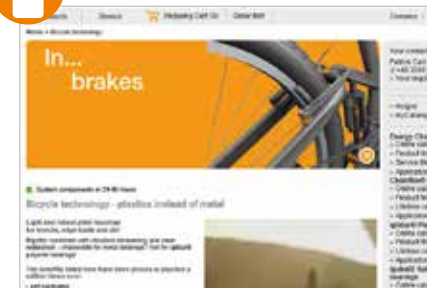
Tested!



Simulation of continuous load. Tested with impact in suspended parallelogram seatpost.



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/bicycle



A chainflex® cable used in a moving energy supply system ensures smooth opening and closing of the doors. Improved conductors and jacket materials make it possible that no more failures occur despite high continuous stresses. [low-floor trams]



"Lasting, tough and reliable mechanical components form the backbone of the transport industry. A maintenance-free continuous operation is critical in applications with high cycle rates under changing weather conditions."



Your contact:



Thorsten Mersch

Industry manager

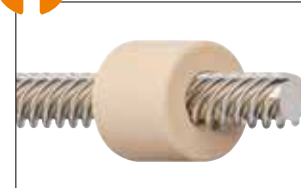
Rail technology

Phone: +49-2203 9649-7038

e-mail: tmersch@igus.de



Products in focus



High reliability and efficiency:
dryspin® technology

► www.igus.eu/dryspin



Low-cost all-rounder for fire safety: iglidur® G V0

► www.igus.eu/GV0



Particularly for use in rail vehicles.

► www.igus.eu/cfspecial414



Tested!



igus® has certified the material igumid V0.GF for the fire safety standard EN45545. With these test results igus® covers the requirement areas R22, R23 and R24.



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/railwaytechnology



"Lightweight, quiet, failsafe and as small as possible. igus® combines these product requirements for aviation - specifically for the interior design - with freedom from lubrication and maintenance."



Your contact:



Alexander Mühlens

Phone: +49-2203 9649-7742

e-mail: amuehlens@igus.de



Products in focus



For flexible adjustments (backrest, tables, etc.): drylin®

► www.igus.eu/drylin



Reliable cable guiding for smallest installation spaces with UL94-V2

► www.igus.eu/easychain



Extremely lightweight, rugged and stable: drylin® carbon

► www.igus.eu/drylin-carbon



Tested!



igus® has certified the material iglidur® G V0 for the fire safety standard EN45545. With these test results igus® covers the requirement areas R22, R23 and R24.



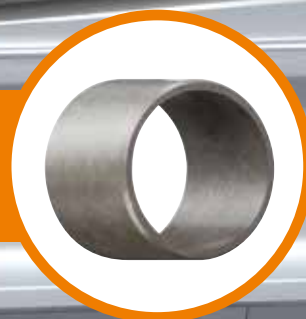
Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/aircraft

Lubrication- and maintenance-free iglidur® polymer plan bearings and drylin® linear guide systems for smooth adjustment of arm rests, neck-rests and tables in airplanes.



Silent operation and smoothly sliding ...



Advantage of the CAM sliders from the drylin® W linear modular kit are the low weight and the transparent structure with high strength. The rails offer 3/8" thread for tripod connection and a central Ø 10 mm hole in the carriage for direct camera attachment.



... Camera technology

"The lubrication-free components can be moved with millimetre accuracy and have an absolutely smooth movement. The best conditions for perfect photos."



Your contacts



Martin Kochmann

Phone: +49-2203 9649-538

e-mail: mkochmann@igus.de



Products in focus



Pre-assembled camera slider with double roller: drylin® WWH

► www.igus.eu/drylinW



For rotary and pivoting movements: slewing ring bearings

► www.igus.eu/PRT

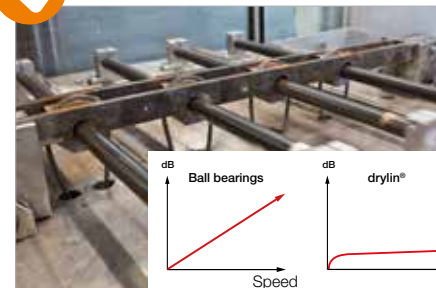


For small installation spaces, height max. 12 mm: drylin® N

► www.igus.eu/drylinN



Tested!



Noise test: comparison of noise development of ball bearings against drylin® linear bearings



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/camera



"The requirements of systems for the recovery of energy from sunlight could not be more different. Extreme temperatures and weathering by wind, water, dirt and dust expose products to their very limits."



Your contact:



Thomas Preißner

Phone +49-2203 9649-115

e-mail: tpreissner@igus.de



Products in focus



Self-adjusting and high fatigue strength: igubal®

► www.igus.eu/pillowblocks



Dirt-repellant threaded nuts: dryspin®

► www.igus.eu/dryspin



Twistable up to 10°/chain link: 3D e-chain® triflex® R

► www.igus.eu/triflexR



Tested!



Endurance test: igubal® rod end bearing (right) against metallic rod end bearing. 97 million cycles, steel has failed by about 50 million cycles.



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/solar

The iglidur® bearings are installed in the main axles of the tracking system: they provide low-friction rotary movements even under unfavorable conditions. For the kinematics of the adjustment system, Conergy decided on the drylin® linear bearings from igus®. [Conergy]





"Wind power is your strength, motion plastics® ours. igus® offers a wide selection of solutions for wind power generation as well as in production equipment, transport and installation."



Your contact:



Christian Ziegler

Phone: +49-2203 9649-418

e-mail: cziegler@igus.de



Products in focus



Azimuth and rotor blade adjustment: RBR system

► www.igus.eu/RBR



Rotor blade adjustment and brake: iglidur® linear bearings

► www.igus.eu/iglidur



Reliable torsion up to $\pm 10^\circ$ per link in the rotor hub: triflex® R

► www.igus.eu/triflexR



Tested!



Test 3105: chainflex® robotic fibre optic cable can withstand more than 27.5 cycles in the torsion test.



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/windpower

This wind turbine runs constantly. Because, with the use of three drylin® linear round guides and a drylin® flange bearing in the rotor head, the operator eliminates the need to grease the bearings at a height of 30 metres.

[Fiscante, Casalnuovo Monterotaro, Italy]



Guide all media while saving space ...



... Theatre / Stage construction

"Fit and forget ... this summarises the requirements of a stage and theatre builder. This is possible with igus® products."



Your contacts



Thomas Piepenbring

Industry manager

Theatre / Stage construction

Phone: +49-2203 9649-7040

E-mail: tpiepenbring@igus.de



Products in focus



Space-saving and vertically hanging: zigzag solutions

► www.igus.eu/zigzag



The "igus® cable reel" without slip ring: e-spool

► www.igus.eu/e-spool



For flexing applications without influence of oil: chainflex® cables.

► www.igus.eu/chainflex

Guarantee
igus chainflex
36
month guarantee
on chainflex cables



Tested!



Noise test: The e-spool is moved in a sound-insulated space at a speed of approx. 0.3 m/s. The noise development is measured.



Online



Industry web pages with detailed information, application examples and more ...

► www.igus.eu/theatre

Whether in stage installations, lighting systems or audio technology, igus® products can help you to technically optimise your application. igus® products are ideal for limited installation space and with low noise and low vibration.



... and solutions for many more ...

... industries and applications



Vending machines



► www.igus.eu/vending-machines



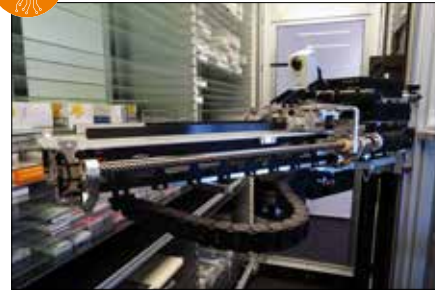
Building material manufacturing



► www.igus.eu/materials



Electronics manufacturing



► www.igus.eu/electronics



Facade technology



► www.igus.eu/facade



Sheet metal processing



► www.igus.eu/sheet



Boats / Yachts



► www.igus.eu/boats



Fitness & Rehab



► www.igus.eu/fitness



Fluid technology



► www.igus.eu/fluid



Caravan



► www.igus.eu/caravan



UAVs



► www.igus.eu/uav



Beverage industry



► www.igus.eu/beverage



Glass industry

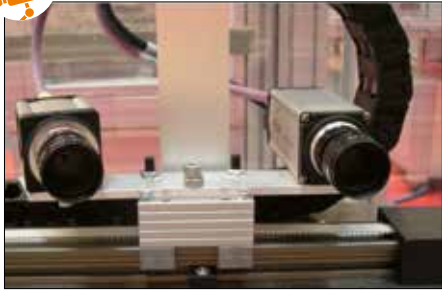


► www.igus.eu/glass

... in all sectors ...



Industrial image processing



► www.igus.eu/image-processing



Sewage treatment plants



► www.igus.eu/sewage-plants



Composting plants



► www.igus.eu/compost



Engineering offices



► www.igus.eu/construction-offices



Plastic machines



► www.igus.eu/plasticmachines



Shore power



► www.igus.eu/shorepower



Food industry



► www.igus.eu/food



Modelling



► www.igus.eu/modelbuilding



Motorbike / scooter



► www.igus.eu/motorbikes



Waste incineration systems



► www.igus.eu/waste



Musical instruments



► www.igus.eu/music



Utility vehicles



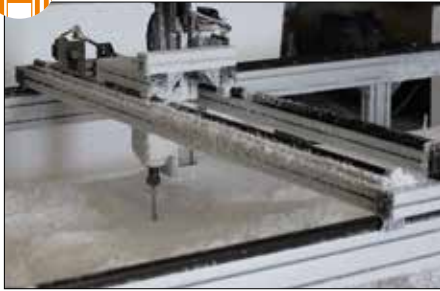
► www.igus.eu/vehicles

... of the industry

... in all sectors ...



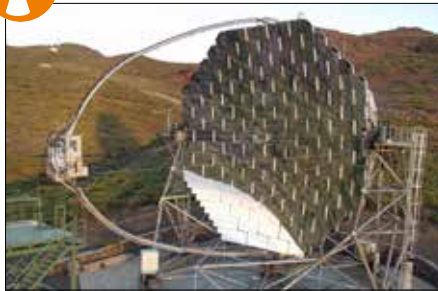
Gantries



► www.igus.eu/gantry



Radar equipment / telescopes



► www.igus.eu/radar



Service robots



► www.igus.eu/servicerobots



Sports and leisure



► www.igus.eu/sports



Clean room



► www.igus.eu/cleanroom



Switch cubicle construction



► www.igus.eu/switchboard



Roadworks



► www.igus.eu/roadworks



Traffic engineering



► www.igus.eu/traffic



Heavy machinery



► www.igus.eu/heavyduty



Pool construction



► www.igus.eu/pools



Car wash



► www.igus.eu/carwash



... is for all those who would like to develop, to research, to work meticulously, to create (and want to succeed) - whether you are a trainee, student, teacher or professor ... more information online.

► www.igus.eu/yes

Moving energy made easy ...

The igus® e-chain® construction kit.

e-chainsystems® are the "umbilical cords" of modern machines. They reduce downtime and increase the service lives of cables and hoses. Plastic energy chains® have been developed, produced and tested by igus® since 1971. e-chain-systems® carry sensitive bus, data and fiber optic cables, as well as energy forms such as electricity, gas, air and hydraulics.

- Carry sensitive bus, data and fibre optic cables, as well as energy forms such as electricity, gas, air and liquids in one system
- For high dynamic loads and tough service life requirements
- Many possibilities in terms of movement and length

- For all environments and climates (from -40°C to +120°C)
- Easy to clean
- Space-saving installation
- Enclosed or open types
- Also as detectable material or as ESD/ATEX version
- Available as preassembled readychain® system (chain + cable)
- Easy installation of the systems, and quick retrofitting
- Numerous standards, approvals and certificates

► www.igus.eu/e-chains

Strong "stop-dogs" for high loads and forces

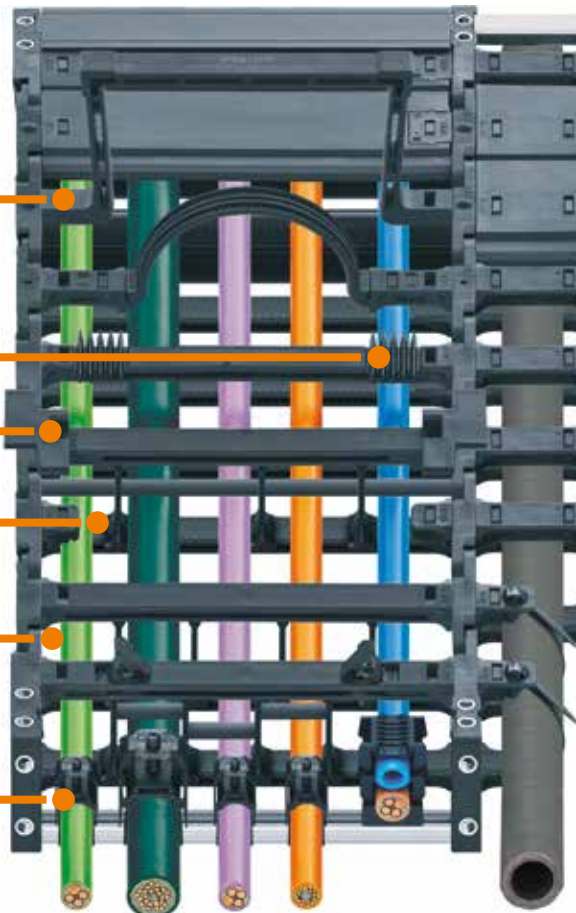
Cross bars snap open on both sides for quick filling

Dirt-repelling exterior contour

Very quiet operation due to structural stop brake

Gliding surfaces for long service life

Custom colours and special solutions



... cables for flexible movements

More than 1,354 highly flexible igus® chainflex® cables from stock

Flexible cables in energy chains® need special characteristics to last through many cycles, high speeds and accelerations, as well as demanding environmental conditions. Likewise, EMC safety and the fulfillment of standards and guidelines such as NFPA 79, UL, CSA, VDE, Inter- and Pro-fibus are today essential requirements to be met. The igus® chainflex® range extends over control, servo, motor and robot cables up to bus, data, encoder and fibre optic cables, all ideal for the energy chain®.

- Temperatures -40 °C to +90 °C
- For highly dynamic applications in energy supply systems
- Special design prevents cable failure and "corkscrewing"
- Highly abrasion-resistant jacket materials (PVC, PUR, TPE)
- 3 years guarantee for every chainflex® cable*
- readycable®: assembled cables with connectors according to 22 manufacturer standards

► www.igus.eu/chainflex



* 36 months or up to 10 million double strokes (5 million for cables of the chainflex® M family); whichever is first



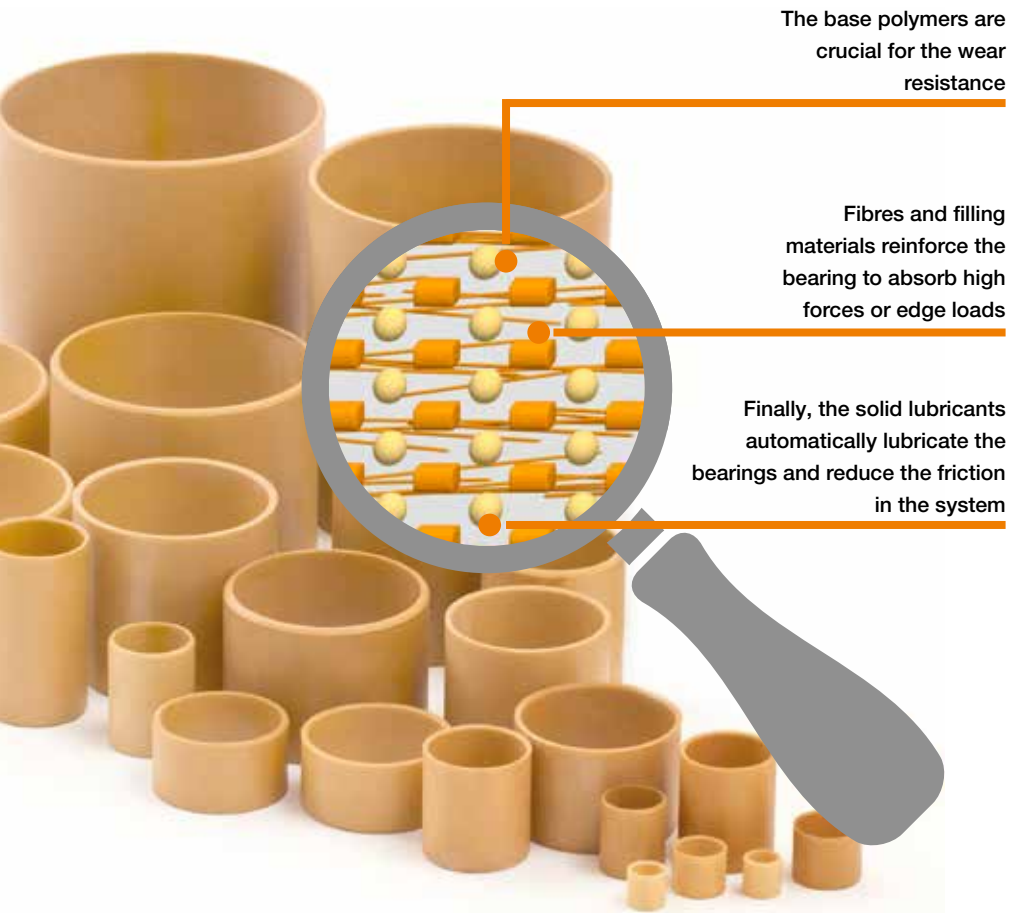
Lubrication-free ... maintenance-free

Maintenance-free iglidur® plain bearing made of plastic

No lubrication and thus low maintenance, while cutting costs and increasing service life, everything from stock and delivered promptly – that is the central idea of all igus® products. iglidur® plastics have been extensively tested with respect to wear and friction values including other relevant material properties. iglidur® polymer plain bearings from igus® signifies the step from the plastic bushing to the tested and therefore predictable machine element.

- Absolutely lubrication-free
- Very light weight
- High static loads
- No corrosion
- Vibration dampening
- Metric and imperial dimensions
- Special dimension and designs
- Numerous standards, approvals and certificates

► www.igus.eu/igidur



... dry running ... gliding ... low noise

Maintenance-free drylin® linear plain bearings and linear guides

drylin® is a product range of lubrication-free linear plain bearings based on the principle of sliding instead of rolling. Tribologically optimised iglidur® high performance polymers are used as sliding surfaces. The drylin® linear systems use dry operation and are maintenance-free. Linear guides on rails or round shafts are available. The drylin® drive technology can supply ready-to-connect systems with lead screw drives or toothed belt drives, with or without motor. The focus is on the ruggedness and resistance to influences such as dirt, water, chemicals, heat or impacts, as well as the freedom from maintenance and lubrication.

- Resistant to dirt due to dry operation
- Resistant to impacts and vibrations
- High static load capacity
- Suited for short-stroke applications
- Lightweight
- Vibration dampening
- Quieter than metallic linear bearings
- Special designs according to customer needs

► www.igus.eu/drylin



... 2,750 m² lab ... 107 test stations ... more than 2 billion cycles/year

Applications with high cycle rates, speeds and accelerations in demanding environmental conditions require tested and reliable systems - especially for energy chains® and cables, as well as polymer plain bearings and linear systems. iglus® constantly conducts tests in its in-house laboratory under real-world conditions.

- 3,000 tests for e-chainsystems® every year on over 180 facilities: climatic chamber, field tests, noise chamber and more

- Two billion test cycles a year for highly flexible cables
- One million electrical measurement data records annually
- 15,000 tribological tests (friction and wear) in 300 test set-ups
- 140 trillion test movements in the bearings business unit

► www.igus.eu/test



igus® laboratory with 2,750 m² inside / outside areas



Torsion tests



Bending cycles tests



Long term wear and life-time test



Cold tests at -40 °C



Chip test

igus® motion plastics® from Cologne

Nearly 200,000 customers worldwide trust "plastics for longer life®".

Manufacture affordable products and yet ensure high quality, this is a promise that we keep with "motion plastics®": moving parts made of plastic that cost less and last longer.

Our core technology consists of tribo-polymers – high-performance plastics, which we have optimised for friction and wear. The technology has made us into a world-wide leader for developing and manufacturing energy supply systems and plain bearings.

The family-run company based in Cologne is represented in 36 countries and employs approximately 2,700 people worldwide. For years, we have been developing, producing and selling our products based on the principle of "plastics for longer life®".

► www.igus.eu/motionplastics



igus® factory, Cologne



Assembling factory



Material preparation



Open offices



Toolmaking



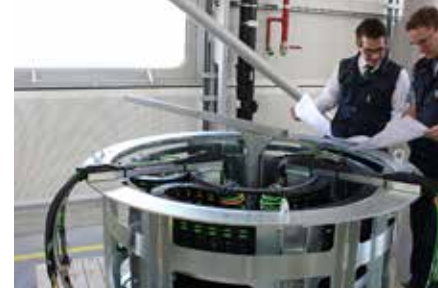
Injection moulding



Fast, professional installation by specialised installation staff: saves installation time and cost, increases the service life, prevents failures.



Predictable fixed prices for the installation and maintenance: saves you administrative work in planning and purchasing.



Engineering

Customer-specific developments with many solutions from the "modular kit"

► www.igus.eu/projects



Harnessing

Assembled energy supply systems, connectors and cables from igus®. Everything from a single source.

► www.igus.eu/readychain



Predictable installation time for your system in your plant: helps you in scheduling and contributes to plant availability.



Short access routes through certified partner in your area: keeps travel and response times short and saves installation costs.



Sampling

We provide support in the construction phase of your (exhibition) machine.

► www.igus.eu/sampling



Open-Space

Save valuable time for construction and reduce process costs.

► www.igus.eu/openspace



Short term, flexible installation dates even on weekends or at night: if you need immediate support or if the scheduled date has to be shifted. Simply give us a call and we will find a solution.



Everything from a single source from the manufacturer - including customised system guarantee! We will guide you! Ranging from the initial review to the system configuration, the delivery, and including the on-site installation of the system on your plant.



Catalogues, brochures, movies

Free download of all product catalogues, brochures, instructions; numerous videos and more.

► www.igus.eu/downloads



Helpful online tools

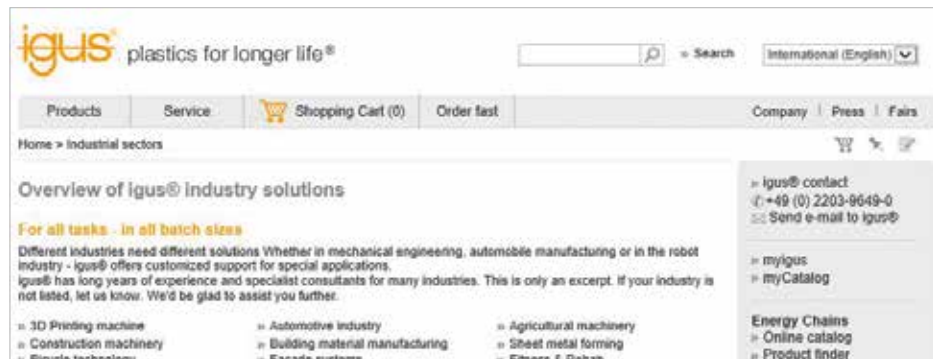
Find the right product quickly, calculate service life online. Over 30 online tools and apps.

► www.igus.eu/online

Find references online ...

Different industries need different solutions. Whether in mechanical engineering, automotive-manufacturing or in the robot industry – igus® offers customised support for specialised applications. igus® already has many years of experience and specialised resources for many industries

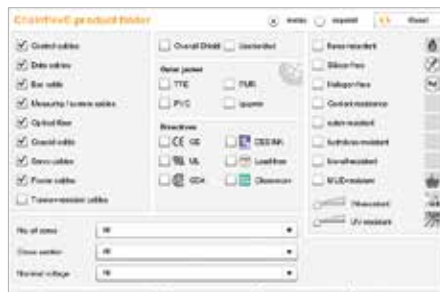
► www.igus.eu/industries



Quickly find and configure products and calculate service life – all online.

Using our online product finders, you can find the right igus® product and get a service life prediction. You can also download 3D CAD files for free and shop around the clock.

► www.igus.eu/online



... brochures & samples in your hands



Industry brochures

Brochures for every sector with numerous references, product ideas and other exciting information. Ask for free or download PDF.

► www.igus.eu/downloads



Sample boxes

Selection of product samples and information specific to your industry. Now order for FREE!

► www.igus.eu/sample



igus® Newsletter

Whether our monthly newsletter or special industries newsletter. Always the latest motion plastics® tips for your industry. Register now!

► www.igus.eu/newsletter



/9001:2008
/16949:2009

igus® is certified in accordance with ISO 9001:2008 and ISO/TS 16949:2009 in the field of energy supply systems, cables and harnessing, as well as plastic bearings.

igus®.eu

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