

iglidur®

Plain bearings

Improve technology and reduce costs with maintenance and lubrication free polymer bearings: 47 different iglidur® materials from stock.

from page

47



iglidur®

More products and services

iglidur® materials in many special designs: Clip bearings for sheet metal, flange bearings, double flange bearings and a complete range of slewing rings bearings.

from page

497



iglidur®

Bar stocks

iglidur® materials for design freedom: Bar stock made from tribo-material, Tribo-Tape and unique on the market: iglidur® Tribo-Filament.

from page

561



igubal®

Spherical bearings

Whether as a rod end, pivot or flange bearing – igubal® spherical bearings suit all requirements and are more economical and lighter than conventional metallic spherical bearings.

from page

591



xiros®

Ball bearings

Lubrication free groove ball bearings and other ball bearing types made from igus® tribo polymers, for maximum service life and reduced coefficient of frictions.

from page

717



drylin®

Linear technology

Slides instead of rolling. Lubrication free linear guide systems with rails and shafts. Modular and cost-effective in different sizes for almost all linear adjustments.

from page

757



drylin®

Lead screw drives

Efficient and long-lasting: High helix threads with dryspin® technology. Self-locking trapezoidal and metric threads. Lubrication and maintenance free.

from page

979



drylin®

Drive technology

Lubrication free, ready to fit and individually configurable. drylin® linear modules with lead screws/toothed belt drives/rack drives for manual adjustment or with motor.

from page

1049



Imperial sizes & services

All products in Imperial sizes in one chapter.

You will find detailed information about chemical resistance, other materials, online-tools and addresses.

from page

1183



Products overview

iglidur® best sellers



The most sold iglidur® bearing worldwide – iglidur® G
► Page 83



Low coefficients of friction and wear: iglidur® J
► Page 99



Excellent vibration dampening: iglidur® M250
► Page 111



Low wear on all shafts: iglidur® W300
► Page 121



High temperatures, chemical resistance: iglidur® X
► Page 133

For almost all applications – iglidur® standards and specialists



4 iglidur® materials for general purpose
► Page 144



8 iglidur® materials for long service life
► Page 178



General purpose endurance runner: iglidur® W360
► Page 207



4 iglidur® materials for high temperatures
► Page 242



5 iglidur® materials with high chemical resistance
► Page 278

For almost all applications – iglidur® standards and specialists



9 iglidur® materials for applications with food contact
► Page 320



3 iglidur® materials for high loads applications
► Page 396



The heavy-duty bearing: iglidur® TX1
► Page 417



9 iglidur® materials for special application areas
► Page 424

iglidur® piston rings and split bearings



An alternative to PTFE tapes: Piston rings
► Page 501



Security with the double flange design: Clip bearings
► Page 510



Easy installation due to split design: Split bearings
► Page 511



With anti-rotation feature
► Page 512



Press in and fold down: Flanged bearing
► Page 513

Solutions for special applications



Press and plug: Double flange bearing
► Page 514



Join and snap into place: Special solution Snap-on
► Page 515



For precise conveying: iglidur® knife edge rollers
► Page 517



Secured by screws: iglidur® flange bearings
► Page 521



Zero play: Preloaded bearings
► Page 525

... solutions for special applications



Cushion and dampen: Polymer disc springs
► Page 529



For all shaft surfaces and materials: iglidur® PEP
► Page 533



Bearings with lip seal: Sealing lip bearings
► Page 537

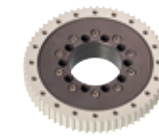


Quick and individual: speedimold service
► Page 541

iglidur® PRT slewing ring bearing



High strength: Type 01
► Page 550



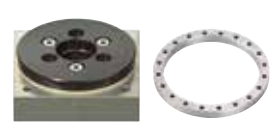
With outer drive ring: Type 01
► Page 551



Light weight: Type 02
► Page 552



Low-cost: Type 03
► Page 553

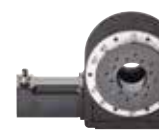


Special geometries and accessories
► Page 554

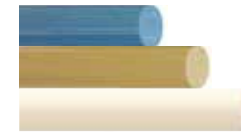
... slewing ring bearings



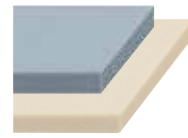
Universal sliding pads
► Page 558



Motor-driven iglidur® PRT slewing ring bearings
► Page 559



For free design: 19 iglidur® materials as round bars
► Page 565

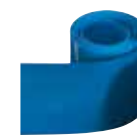


For free design: iglidur® as plate material
► Page 573



In larger diameters as a tube: iglidur® J
► Page 573

Tribo-Tape



iglidur® off the reel: Tribo-Tape A160 / V400
► Page 581

Tribo-Filament



For conventional 3D printers: Tribo-Filament
► Page 585

igubal® – Rod end bearings, angle joints and clevis joints



Rod ends with female/male thread
► Page 601



For temperatures up to +200°C
► Page 620



Angled and in-line joints
► Page 622



Axial joint removable
► Page 624



Easy assembly: Clevis joint combinations
► Page 629

Products overview

... igubal®

igubal® – Pillow block bearings and flange bearings



Can be combined with
rod ends: Individual
components
► Page 634



For small space require-
ment, cost-effective:
Pillow block bearings,
7 versions ► Page 643



**Easy assembly/
disassembly:**
Split housing
► Page 653



**Shafts guides and
flange bearings,**
3 versions
► Page 657



**For temperatures
up to +200 °C**
► Page 669

igubal® – Pillow block bearings and flange bearings



**Housing with ball
stud:**
Female thread
► Page 666



**Housing with ball
stud:**
Male thread
► Page 667



Easy assembly:
Pivoting bearings,
4 versions
► Page 671



Self-aligning:
Pivoting bearings,
3 versions
► Page 681



**Connection
components:**
Double joints, 3 versions
► Page 684

igubal® – Spherical bearings and spherical balls



Weight reduction:
Spherical thrust
bearing
► Page 689



8 different materials:
Spherical balls
► Page 693



**For metallic bearing
 housings**
► Page 706



Quickly to find:
igubal® detectable
► Page 707

xiros® radial deep groove ball bearings



**The ball bearings
standard:**
xirodur® B180
► Page 728



New size:
Size 62
► Page 728



FDA compliant:
xirodur® B180
with PE cage
► Page 728



**Protection against
dirt:**
With shield
► Page 728



Space saving:
Thin ring bearing
► Page 728

xiros® radial deep groove ball bearings



FDA compliant:
xirodur® A500
with PEEK cage
► Page 730



For low loads:
xirodur® A500
with PAI balls
► Page 730



High temperature:
xirodur® A500
with PA cage
► Page 730



**Highest chemical
resistance:**
xirodur® C160
► Page 732

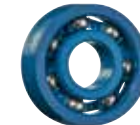


Conductive:
xirodur® F180
► Page 734

xiros® radial deep groove ball bearings ... for special application areas



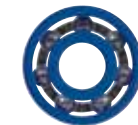
**ESD protection & FDA
compliant:** xirodur®
F180, PE cage
► Page 734



Detectable:
xirodur® M180
► Page 736



**For tobacco
industry:**
xirodur® T220
► Page 737



High speeds:
xirodur® D180
► Page 738



High temperatures:
xirodur® G220
► Page 739

... flange bearing



**Ball bearings with
single/double
flange**
► Page 742



System-solution:
Aluminium tube with
flange ball bearing
► Page 742



Good axial stability:
End caps
► Page 745



**Spherical outer
diameter:**
xirodur® B180 / M180
► Page 744



Higher loads:
xirodur® B180,
double row
► Page 740

... other designs



Multi axis
► Page 741



Skate wheel
► Page 746



Axial-thrust bearing
► Page 748



**Axial double row
bearing**
► Page 748



Thrust washer
► Page 749

xiros® – Further designs made from xirodur® B180



**Polymer transfer unit
with clamp rings**
► Page 750



**Axial polymer
transfer unit**
► Page 750



Slewing ring bearing
► Page 751



**Combination with
pillow block bearings:**
Fixed/Pivoting
► Page 752



**Combination with
flange bearings:**
4-holes / 2-holes
► Page 754

xiros® combination with igubal®

drylin® W profile guides



**Single rails and
housing bearings:**
square/round
► Page 794



Weight saving:
Housing bearing made
from aluminium
► Page 797



Fast assembly:
Housing bearing
tandem
► Page 798



**Manual clearance
adjustment:**
"Turn-To-Fit" bearing
► Page 799



Corrosion resistant:
Stainless steel
versions, single/double
► Page 800

Products overview

drylin® W profile guides



Double rails:
square or round
► Page 802



High strength:
High profile rail
► Page 807



Complete carriages:
square/round
► Page 804



Simple assembly without alignment:
Mono-slide carriage
► Page 805



Reduced weight:
Double rail
► Page 810

drylin® W profile guides



Wear resistant:
Slider-rail
► Page 811



For simple positioning:
Manual clamp WHKA
► Page 812



For higher retention forces:
Manual clamp WHKD
► Page 813



Roll and slide:
Hybrid bearings
► Page 822



Higher load capacity:
Hybrid double roller bearing
► Page 823

... drylin® W hybrid bearings



For lateral adjustments:
Hybrid carriages
► Page 824



Compact:
Hybrid carriages
► Page 824



Smooth and quiet operation:
Hybrid carriages
► Page 825



Smallest installation space and high load capacity: Size 17
► Page 834



The largest variety of carriages (options): Size 27
► Page 836

... drylin® N Low-Profile guide systems



Suitable for aluminium construction profiles: Size 40
► Page 838



High loads with reduced space: Size 80
► Page 840



Telescopic system:
drylin® NT
► Page 842



Telescopic rails with locking mechanism
► Page 843



Accessories:
Manual clamp and end caps
► Page 844

drylin® T rail guide systems



Maintenance free without lubricant:
drylin® TK-01
► Page 855



With manual clamp:
drylin® TK-HKA
► Page 856



Automatic clearance adjustment:
drylin® TKA
► Page 857



Heavy-Duty version:
drylin® TK-02
► Page 858



Compact design:
drylin® TK-03
► Page 859

drylin® T rail guide systems



Miniature guide:
drylin® TK-04
► Page 860



Adjustable miniature guide:
drylin® TKE-04
► Page 861



Accessories for fast positioning:
Clamps
► Page 862



Lubrication free:
Liners and pressfit bearings
► Page 880



Lubrication free adjustment:
drylin® slide discs
► Page 889

drylin® R shaft guides



Aluminium or stainless steel linear bearings with liners
► Page 892



Housing bearing and floating housing bearings
► Page 898



Solid plastic linear bearings
► Page 894

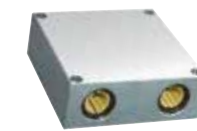


Easy installation:
Flange bearing
► Page 913

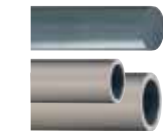


For supported shafts:
Open linear plain bearings
► Page 908

drylin® R shaft guides and shafts



Closed or open design:
Quad block
► Page 916



Different materials to achieve the best coefficient of friction
► Page 927



Supported shafts
► Page 936



Accessories:
Shaft end supports and shaft blocks
► Page 939

drylin® Q square linear guides



Square section rail
► Page 950



For all unsupported solutions:
small and adjustable
► Page 951



Adjustable bearing housing with manual clamp
► Page 952



Q20 pillow block
► Page 953

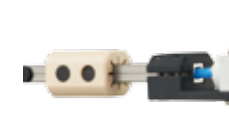


Flange bearings:
square or round
► Page 954

... drylin® Q



Q10 pillow block:
Solid plastic
► Page 955



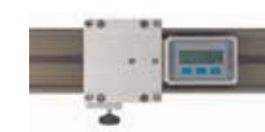
Components kit:
Extensive accessories
► Page 956



Integrated measuring:
drylin® Q measuring system
► Page 962



With digital measuring display:
drylin® SLW
► Page 963



Variable applications:
drylin® W measuring systems
► Page 964

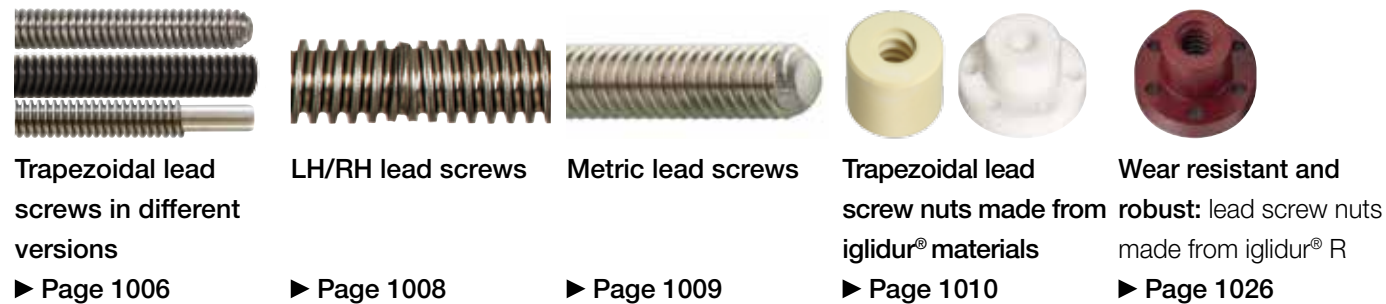
... drylin® measuring systems

Products overview

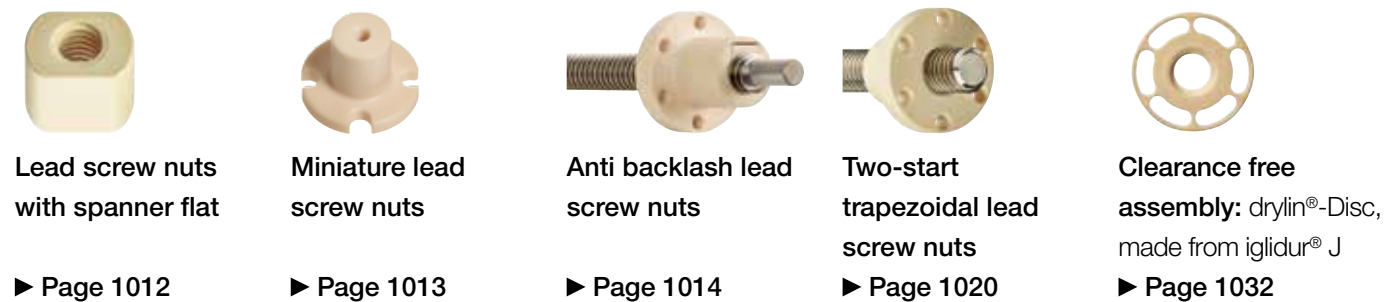
drylin® lead screw technology



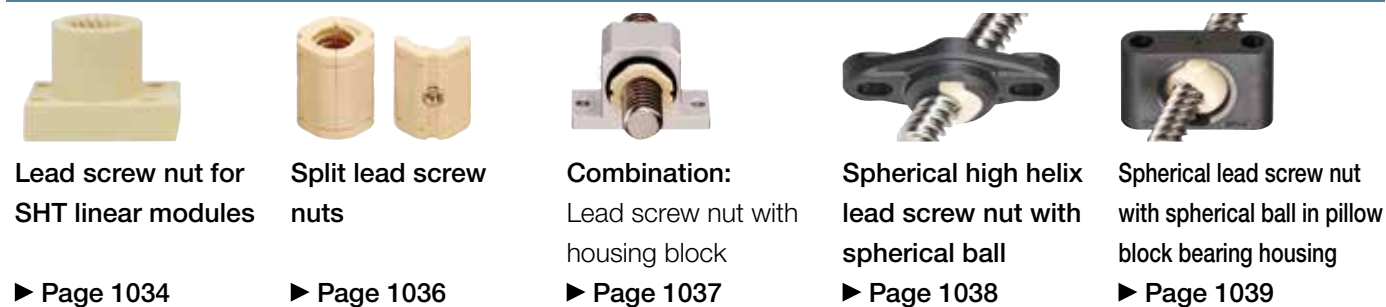
drylin® lead screw technology



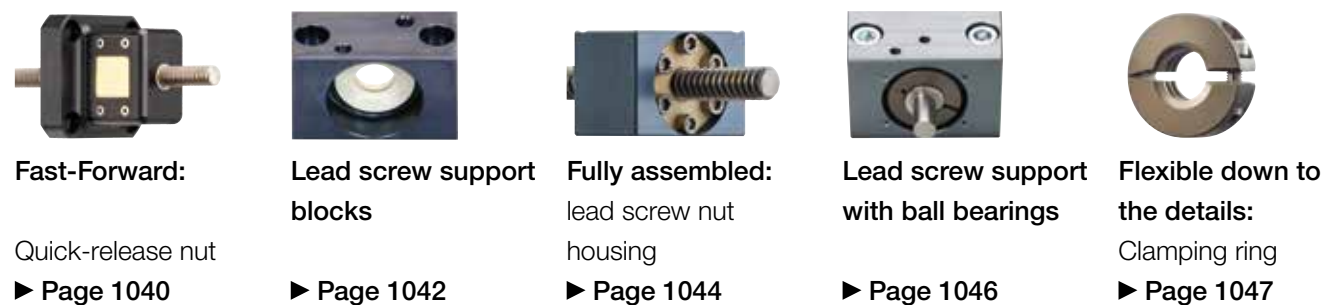
drylin® lead screw technology



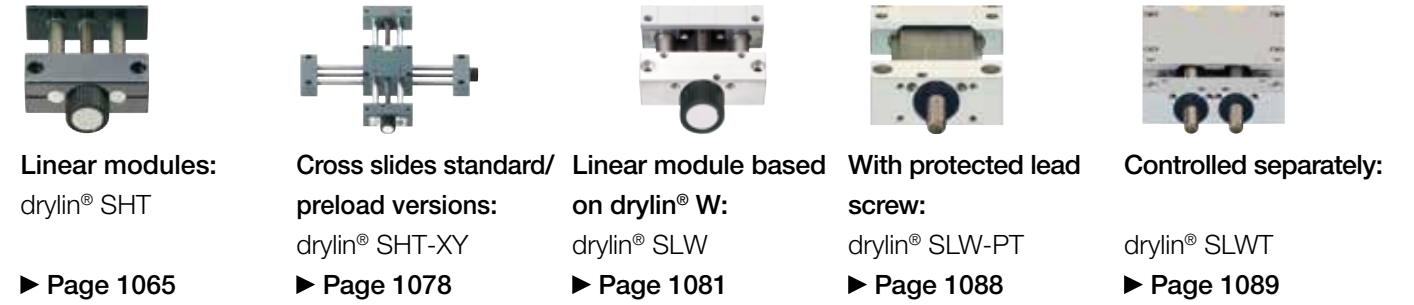
drylin® lead screw technology



drylin® lead screw technology



drylin® drive technology



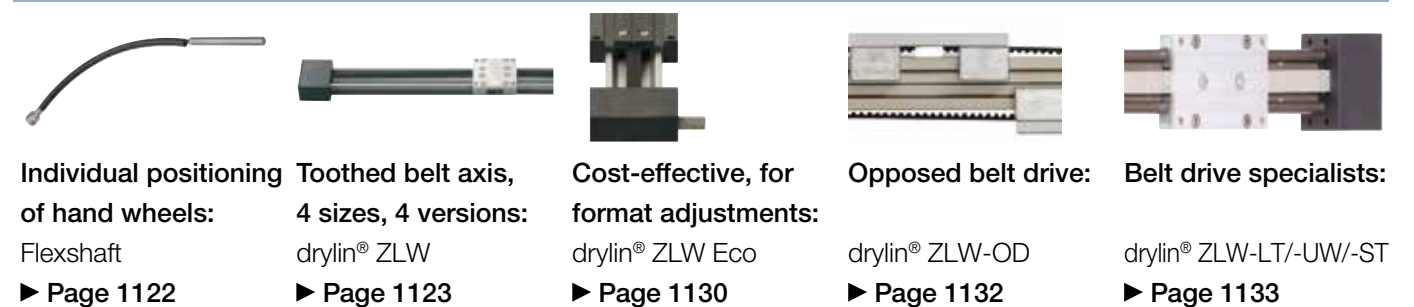
drylin® drive technology



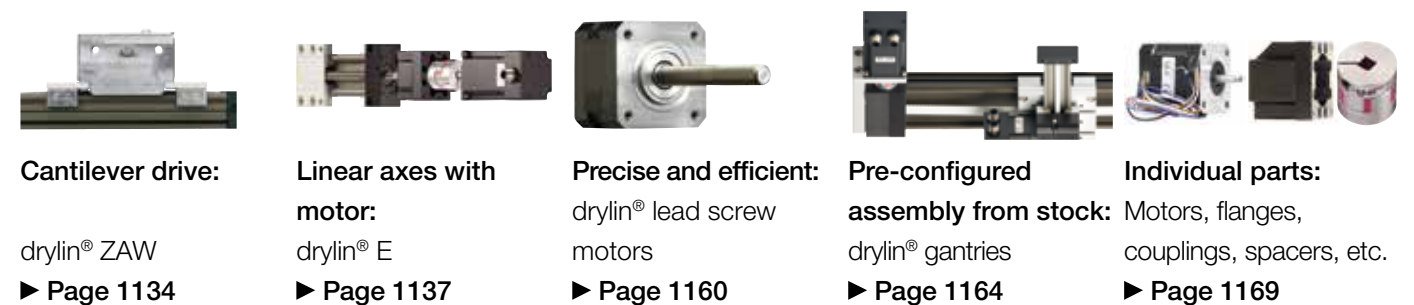
drylin® drive technology



drylin® drive technology



drylin® E – Electric drive technology





igus® headquarters in Cologne – research, development and production from a single location.

plastics for longer life®

make your machines more durable with motion plastics®

Improve technology and reduce costs

For years the igus® motto has been "plastics for longer life". By this we mean the production of innovative plastic products which reduce maintenance work, achieve technical improvements, at the same time as reducing costs and increasing service life, everything delivered immediately from stock.

Orders can be placed until 8:00 pm local time.

Phone +49 2203 9649-145

"Emergency-Service" around the clock.

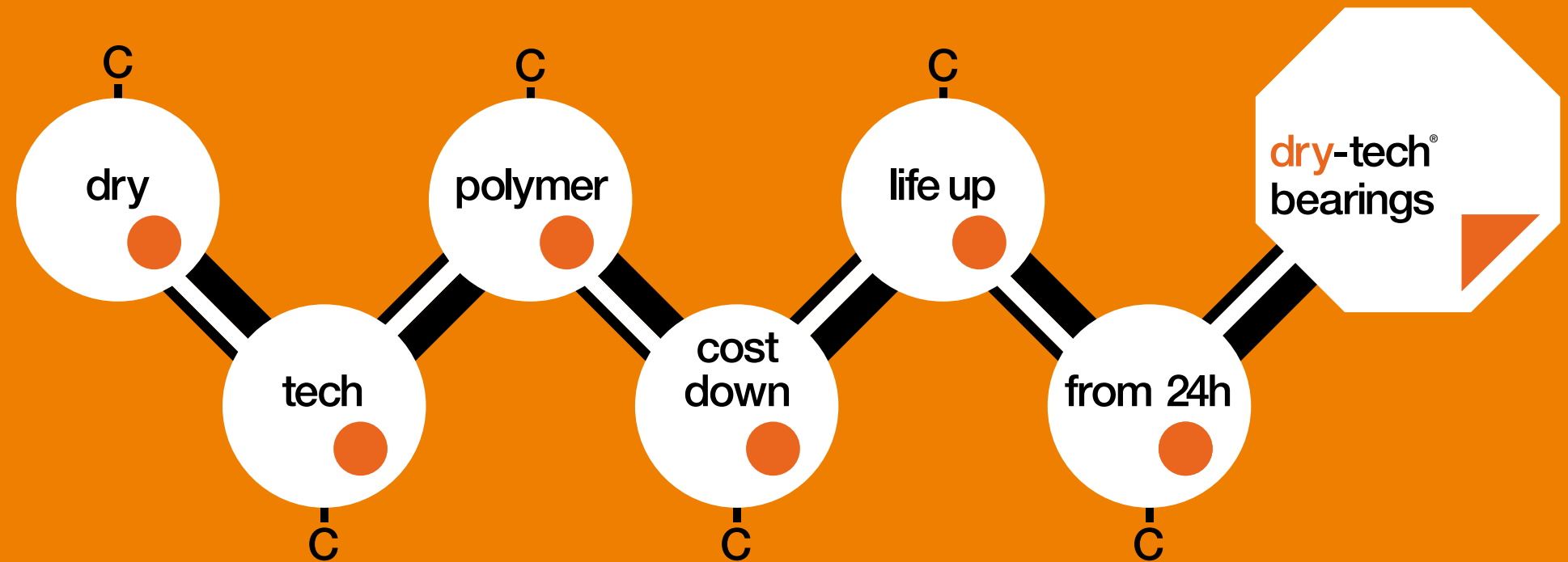
No minimum order quantity, no surcharges.

12,000 polymer bearings from stock.

No lubrication. No maintenance.

No downtime.

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.



dry-tech®: Improve technology without lubrication

More than 50 % of machine failures are caused by deficient lubrication. igus® **dry-tech®** bearings are an alternative for lubricated plain and roller bearings. igus® develops tribopolymers for continuous dry-running operation.

By avoiding lubrication, **dry-tech®** polymer technology attains superior service life: from –100 °C up to +250 °C at continuous exposure, from cleanrooms to extreme dirt exposure, from vacuum to extreme humidity.

dry-tech®: More than USD 700 M caused by excessive friction and wear due to inadequate lubrication. igus® **dry-tech®** bearings reduce your costs. A direct product comparison shows that you can reduce your current costs for bearing components by as much as 50 %.

► www.igus.eu/dry-tech

Cost down, life up!

Innovations with high-performance plastics

igus® polymer plain bearings constitute the step from a simple plastic bushing to a tested, predictable and available machined component.

Our research is essentially aimed at precise forecasts of bearing properties – especially life cycle – achieved by continuous advancements in materials.

Predictable service life – no lubricant necessary

Lubrication free operation is something every designer strives for. igus® polymer plain bearings make this dream a reality. Decades of research now permit precise calculations of a polymer plain bearing's life cycle.

Fit and forget – matching solutions from stock

- Innovative, quickly assembled and economical products
- Delivery from stock – lower storage costs
- Large product selection – find the right solution at once
- Time-saving tools on the Internet
- We deliver customised, ready-to-fit units
- Quick reaction customer service with many local representatives in Germany and worldwide.

igus® maintenance free polymer plain bearings help improve your products and reduce costs at the same time.

Many sample applications can be found at
► www.igus.eu



Resistant to dirt with igus®. Zero-maintenance and high dirt resistance are not the only advantages of drylin®. Longer life cycles – lower costs!



No maintenance with igus®. Various iglidur® materials for a wide variety of operating conditions. Large program of dimensions compatible with nearly all environments. Predictable life cycle!



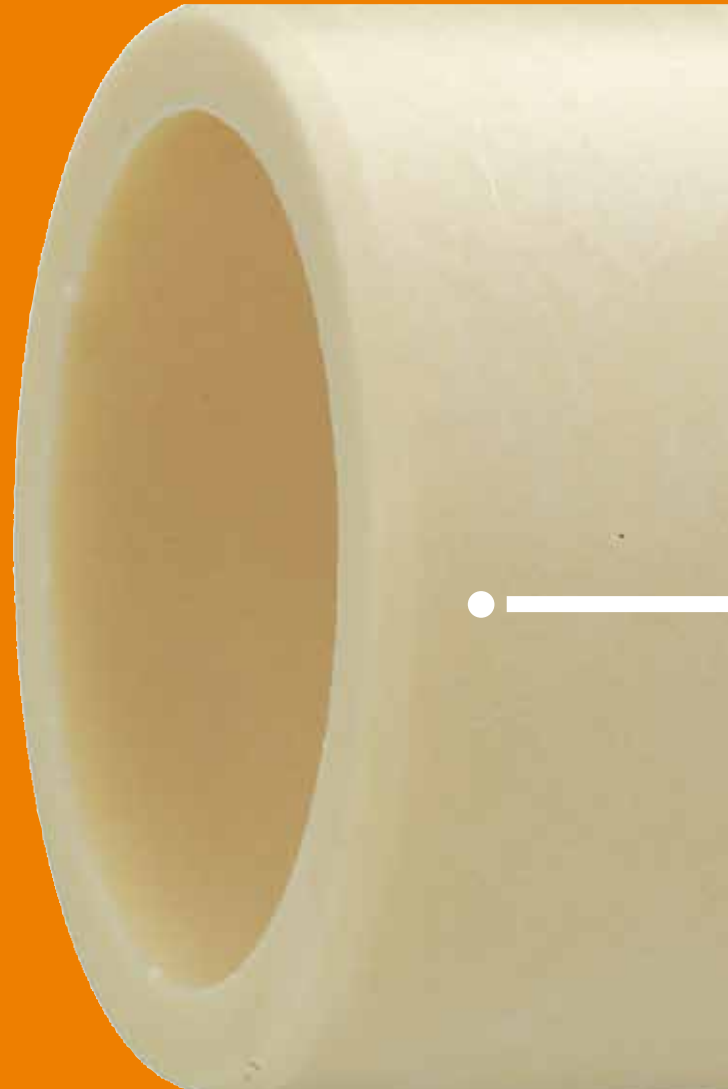
No lubrication with igus®. The lubrication free design of iglidur® also permits its use in the food and pharmaceutical industries. Don't wait any longer!



Corrosion free with igus®. Low weight, corrosion resistance as well as zero maintenance and lubrication achieve solutions for nearly all types of applications. Fit and forget!

iglidur® polymer plain bearings from page 47

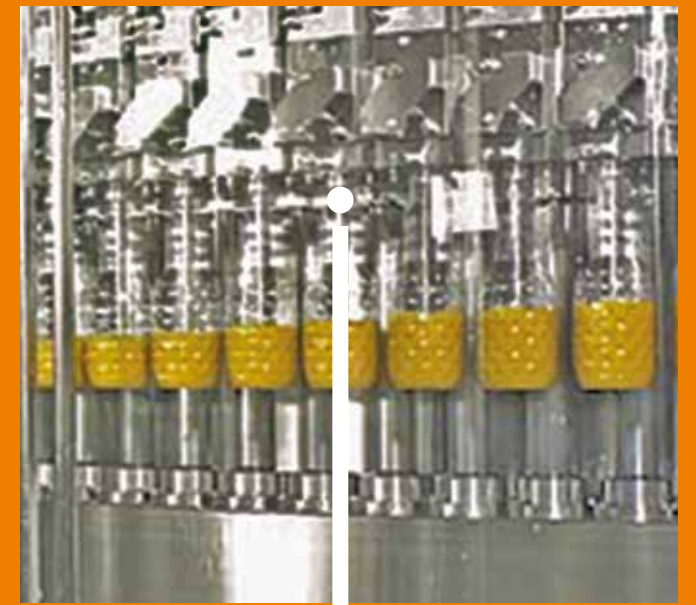
Excellent polymers, improved through precise additions of reinforcements and solid lubricants, tested thousands of times, and proved millions of times – that is iglidur®. Every year, igus® engineers develop more than 100 new plastic compounds and conduct more than 5,000 tests on maintenance free plain bearings. Over the years, this has made it possible to establish a large database of polymers' tribological properties. In addition to their general properties, every iglidur® bearing material possesses a number of special features making it suitable for particular applications and requirements.



Practical example

KHS AG bottling plant

igus® bearings and linear sliding films made from iglidur® material, which meets all demands of aseptic filling, are used here. Low adhesion and attrition factors against different kinds of stainless steel, negligible moisture absorption, very good stability against PES-cleaners, lubrication free, all of that means no contamination of products of the aseptic atmosphere.



Lifetime calculation online
► www.igus.eu/iglidur-expert



Product finder iglidur®
► www.igus.eu/iglidur-finder

Exciting applications can be viewed online at
► www.igus.eu/iglidur-applications

Other designs, e.g. iglidur® PRT – from page 497

igidur® PRT is a slewing ring bearing with the proven and tested advantages of the igus® polymer bearings. The sliding elements made from iglidur® materials operate absolutely free of maintenance and lubrication. All housing parts are made from aluminium and the running surfaces of the iglidur® materials sliding elements are hard-anodised. All fixing screws are made from stainless steel.

Very cost-effective, the polymer slewing ring bearings are a ready-to-install solution for applications in alternating ambient media, for low to medium surface speeds, extreme overturning torques and high loads.



Lifetime calculator for slewing ring bearings
► www.igus.eu/prt-expert



Product finder bar stocks
► www.igus.eu/barstock-finder



Lifetime calculation online
► www.igus.eu/barstock-expert



Product finder piston rings
► www.igus.eu/pistonring-finder

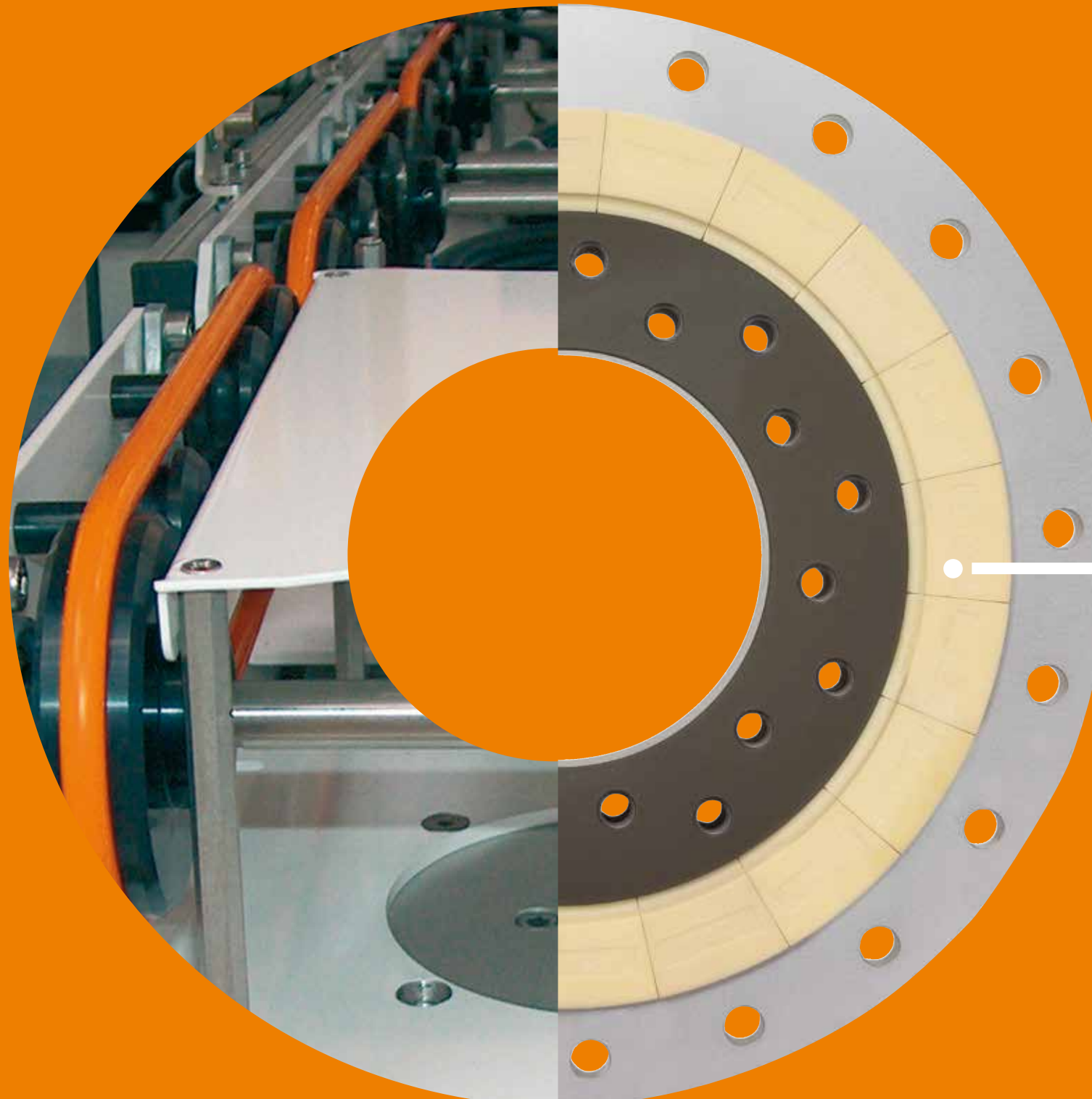


Special parts according to customer request
► www.igus.eu/speedigus

Exciting applications can be viewed online at
► www.igus.eu/igidur-applications

Practical example

igidur® PRT-01-60 is used here in a handling/transport system for semiconductor carriers. The entire plant is suited for cleanroom applications. Through a cylinder control, the PRT polymer slewing ring bearing provides a deflection at the end of the system's track. Much more economical than the previous self-made solution, the maintenance free and self-lubricating iglidur® PRT also allows a very flat installation.



igubal® spherical bearings

from page 591

igubal® spherical bearings are self-aligning components made entirely of high-performance plastics.

The igubal® series provides designers with a complete system of self-aligning bearings: Rod ends, clevis joints, flange bearings, pivot bearings and pillow blocks. Self-adjusting bearings are easy to fit, adaptable to wide angular ranges and have been used to replace special housings in many cases.

igubal® offers all the advantages of high-performance plastics, including dry-running capability combined with very good vibration damping. igubal® spherical bearings are resistant to dirt, liquids, chemicals and fully corrosion-proof. Bearings from the igubal® range are very light, compact and economical on two fronts:

- Low purchase price
- Low maintenance and installation costs

Practical example

TRIPENDO GmbH Bicycle Manufacturing

The reclining wheel's curve inclination is realised by means of rod ends in the journal link. The high top speed and rapid acceleration are partly due to the rod ends' low weight. The bearing points do not require any elaborate sealing measures.



Lifetime calculation
online
► www.igus.eu/igubal-expert



Product finder igubal®
► www.igus.eu/igubal-finder

Exciting applications can be viewed online at
► www.igus.eu/igubal-applications

xiros[®] polymer ball bearings

from page 717

The xiros[®] plastic ball bearings are single-row grooved ball bearings based on DIN 625. The lubrication free and maintenance free ball bearings consist of four components:

- The outer race
- The inner race
- The cage
- And the balls

The inner and outer races are made from igus[®] tribopolymers to maximise service life and minimise coefficients of friction. In contrast to metallic ball bearings, xiros[®] plastic ball bearings manage absolutely without lubrication. For this reason they are suited for a multitude of applications that depend not on extreme rotary speeds or loads, but just on lubrication free application in contrast to permanently lubricated metallic ball bearings. These areas are for example food and medical industries, packaging and textile industries, or the chemical industry and cleanroom applications as well as electronics and office technology.



Lifetime calculation online
► www.igus.eu/xiros-expert

Exciting applications can be viewed online at
► www.igus.eu/xiros-applications

Practical example

tesa scribos GmbH

The xiros[®] plastic ball bearings are used in coated guide rollers of different machines and provides the material guidance. The xiros[®] polymer ball bearings used now are 50 % lower cost and are supplied faster than the previously used bearings. Moreover, the low weight, low friction and the freedom from lubricants are congenial for the application.



drylin® linear and drive technology from page 757

drylin® linear plain bearings are solid state, a totally different approach when compared with traditional recirculating ball bearing systems. These sliding plain bearings can basically be made from any high-performance polymer of the iglidur® series. This blends the advantages of drylin® linear technology with those of all the various iglidur® bearing materials. drylin® linear bearing systems are designed for dry-running. These systems are thus protected against exposure to greases and oils. As a result, ambient dust and abraded material cannot cling to the bearing surfaces. Unlike recirculating-ball bushings, drylin® bearings have no restrictions in terms of minimum stroke length and are almost inaudible during operation. The flat, compact lead screw linear table for variable formats and handling tasks is extremely rigid due to the hard anodised aluminium profile. All bearing points are fitted with dry-running iglidur® materials.



drylin® CAD configurator
► www.igus.eu/drylin-cad-expert



Lifetime calculation online
► www.igus.eu/drylin-expert



drylin® W product configurator
► www.igus.eu/drylinW-configurator



Product finder for drylin® lead screw technology
► www.igus.eu/drylinSD-finder



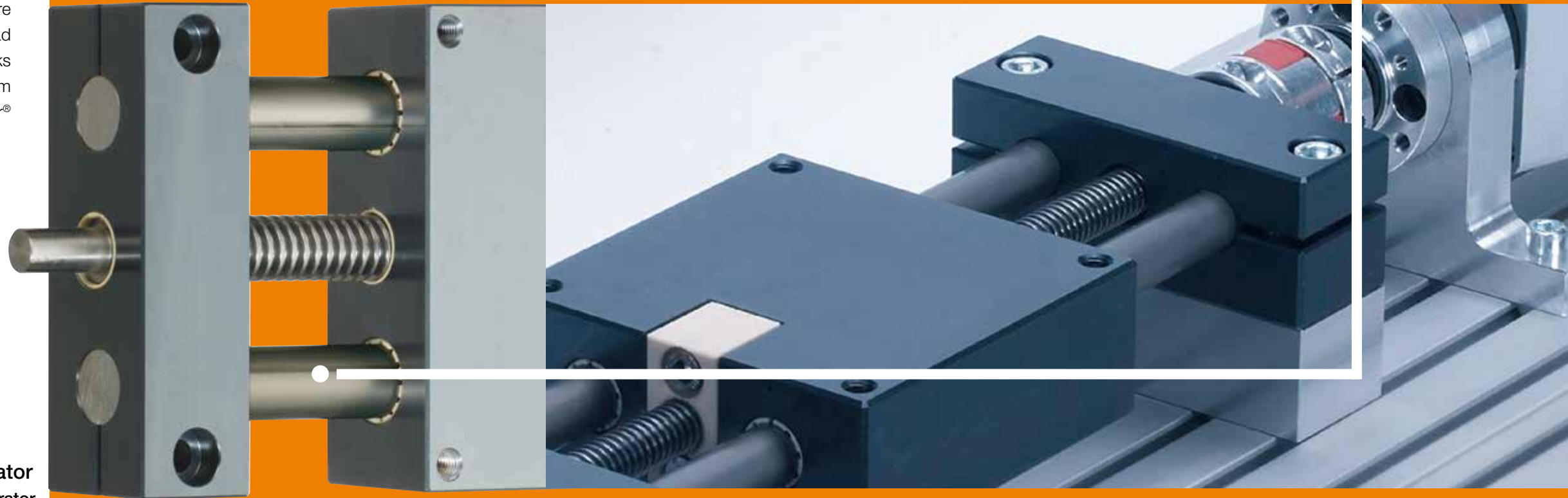
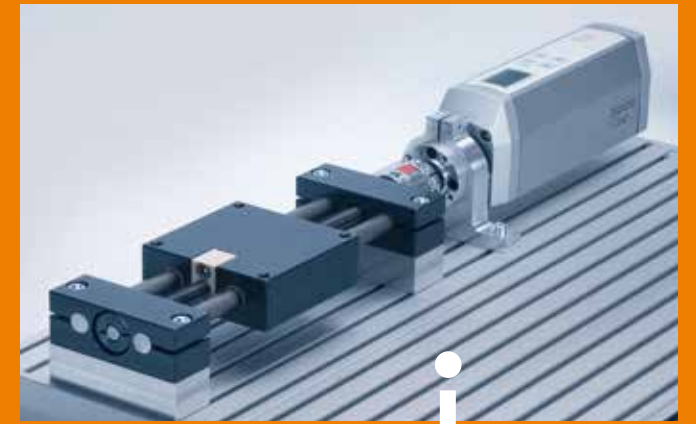
Product finder for drive technology
► www.igus.eu/lineartable-finder

Exciting applications can be viewed online at
► www.igus.eu/drylin-applications

Practical example

FESTO AG & Co. KG Electrical Servo Drives

For a wide variety of formats in printing, paper, packaging, transmission and wood processing systems, Festo demonstrates the use of the SHT drylin® lead screw linear table in conjunction with its electrical servo drive.



Lubrication free bearings from igus®

Lubrication free and light weight

The tribo-optimised iglidur® plastic plain bearings from igus® require neither oil nor grease. Due to continuous advanced developments the bearings specialist igus® now supplies alternatives more in line with environmental considerations for more and more applications that work with lubricated metallic plain and rolling bearings. The energy balance for the manufacture of plastics is very positive. Whereas the energy from 15 litres of oil is necessary to produce 1 litre of aluminium, and 1 litre of steel requires 11 litres of oil, the production of 1 litre of plastic only needs an average of 1.8 to 2.3 litres of oil.

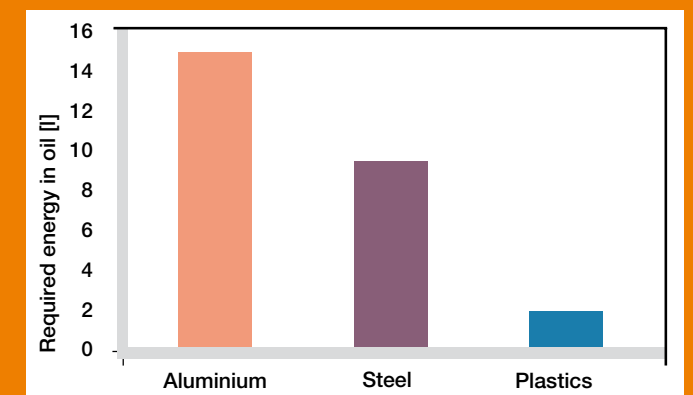
Do you know, that the production of plastics only requires 4 percent of annual worldwide oil requirements?

Good for the environment

igidur® bearings are free from lubrication, so that no contaminants escape into the environment. The lightweight bearings will also help to reduce fuel consumption and carbon dioxide output in, for example, vehicles or aircraft. Basically the reduced weight leads to lower masses and subsequently lower energy consumption.



A study has found that no less than half of all machine lubricants currently used in Germany seeps into soil and waters or evaporates into the atmosphere. According to a research team of chemists, mechanical engineers and environmentalists from the RWTH in Aachen, the estimates for Germany alone consume 250,000 tonnes per year. This corresponds to the amount required to fill 8,000 tankers.



The energy required to produce one volume litre of material (converted to litres of oil).

Source: Clausthal University of Technology

Exciting plastic facts

► www.igus.eu/plastics

In contrast to metallic plain and rolling bearings, iglidur® plastic plain bearings from igus® require no oil or grease for lubrication.

Reduce process costs: bearings online

For every product in this catalogue, there is a special quicklink or direct online pointer to further useful details,data and facts. These include:

- Online wizards for calculating service life
- 3D-CAD files
- DXF data
- PDF-data and other formats for download
- Application pictures
- Imperial dimensions
- Personal support
- Catalogue, CD and sample ordering forms
- Online pricelist and Online-Shop

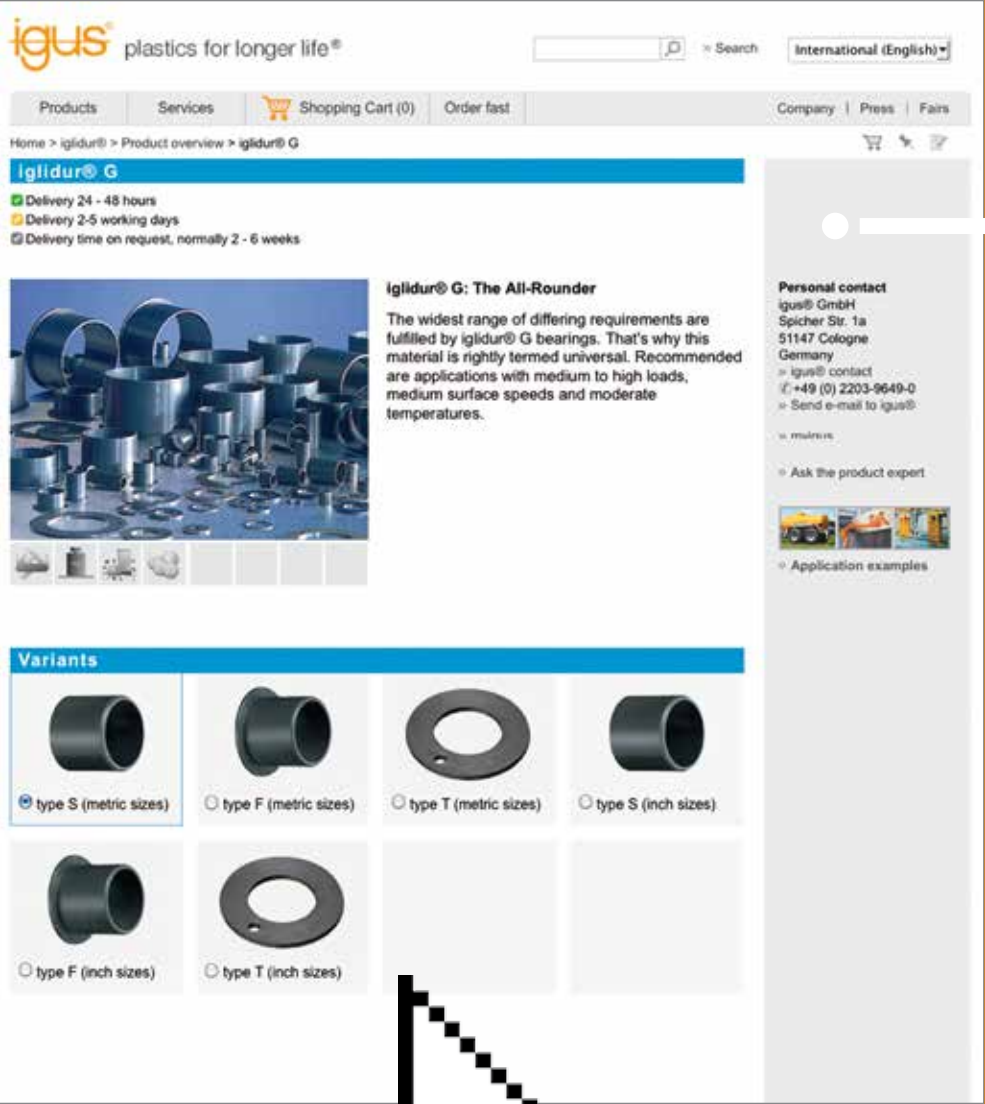
30 helpful online tools for quick finding, configuring and calculating your product. No registration neccessary. 3D-CAD models also online for downloading. Easy to use.



Online shopping – 24h!

- iglidur® ► www.igus.eu/iglidurshop
- igubal® ► www.igus.eu/igubalshop
- xiros® ► www.igus.eu/xirosshop
- drylin® ► www.igus.eu/drylinshop

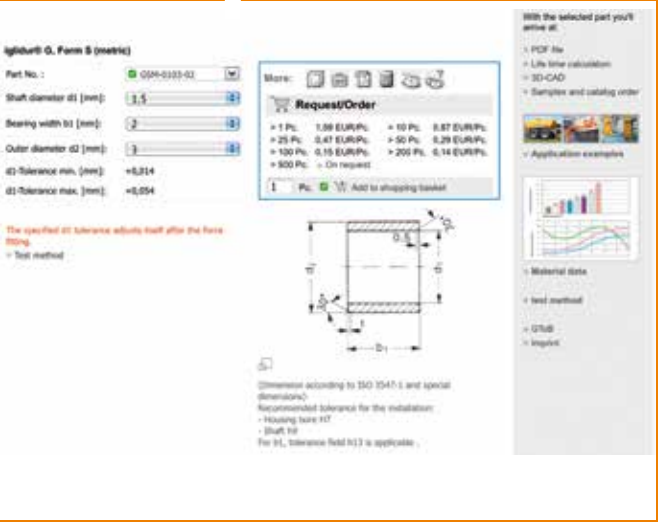
Visit www.igus.eu and make use of all the advantages



SEARCH
igidur® product finder
Find the right bearing quickly.



CALCULATE
igidur® life time calculation
Simple and quick input of your application parameters, allows a precise calculation of the life cycle. Also download and save CAD data free of charge.



ORDER
igidur® online catalogue
The online catalogue is just a click away. See all important product details, information and tools by clicking again on the corresponding link.

Quick and reliable. igus® delivery service.

The igus® delivery service: from 24h or today*

No minimum order quantities, no surcharges. Over 100,000 products available from stock! Order two plain bearings or 2.46 m drylin® T-rail with 2 carriages without any surcharge. Invoices and confirmations can be sent via post, fax or e-mail.

There are 2,250 employees in Germany and 33 international subsidiaries, plus distributors in another 55 countries to guarantee a rapid delivery worldwide.

- Delivery and consultation Mon-Fri from 7am-8pm and Sat from 8am-12pm
- Order tracking possible
- No fuss return
- Round-the-clock emergency service

Order at igus®:

No minium order quantities, no surcharges.

i-net customer information system

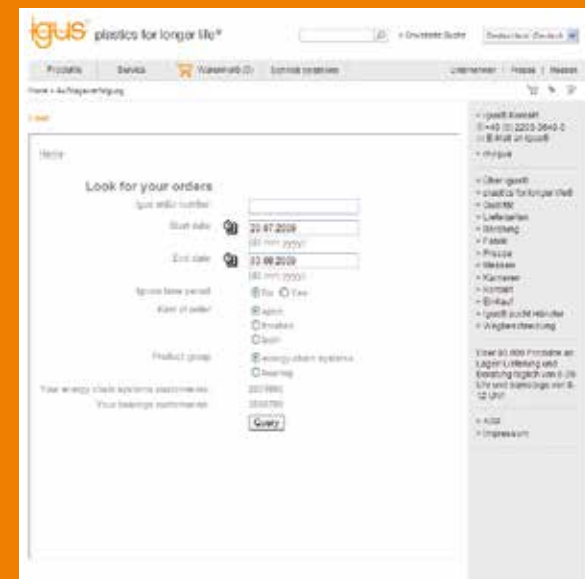
Track your orders in real time with igus® i-net. Just request a password, log into i-net and track your job status via a webcam. igus® i-net shipment tracking permits a monitoring of deliveries from igus® outlet right up to your doorstep.

- Detailed order data including an overview of target and actual deadlines
- Order confirmation via post, fax or e-mail as required
- Track your orders via webcam

* Delivery time means time until shipping of goods.

Request order tracking here:

► www.igus.eu/i-net



24_h

24-48_h

24-72_h

3-10_{days}

3-6_{weeks}

Individual components

Example:
iglidur® W300 plain
bearings; standard
igubal® ball joint
or drylin® flange
bearing.



Custom made linear systems

Example:
2.46 m drylin® T rail
with 2 carriages.



Ready made modules

Example:
Linear leadscrew
tables made
to your individual
requirements and
dimensions.



Mechanically machined components

Example:
Machined shafts
made to design
or machined
bearings.



Initial samples from new tools

Example:
Injection moulding
of parts made to
your design.



Quality from the igus[®] laboratory

**Tested thousands of times,
proven millions of times.**

Applications involving high cycle counts, speeds and accelerations or demanding environmental conditions require proven systems providing durable and reliable operation, especially when it comes to energy chains[®], cables, polymer plain bearings and linear systems.

igus[®] regularly conducts tests at its own laboratory under realistic conditions. Every year, we conduct more than 4,100 tests on e-chains[®] and cables, and over 9,600 tests on plain bearings. These tests focus on push-/pull forces, friction values, wear rates, drive forces and abrasion under all possible conditions at diverse speeds.

Influential factors like soiling, weathering, cold and impact are examined.

Tests are also performed on electric cables, media as well as hydraulic and pneumatic hoses of all kinds.

Our laboratory is at your disposal. Should we happen to lack a ready solution for your special problems, we will gladly conduct tests according to your requirements.



igus[®] quality assurance



Oscillating wear test rig for testing the wear in oscillating movements at medium loads



Measurement of the inner diameter of a pressfit plain bearing



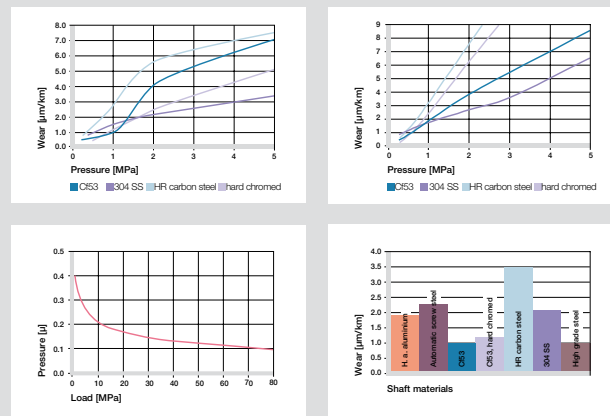
Determination of the max. running speed of an igubal[®] pillow block bearing



Friction and abrasion measurement in the rotation test



Test bench for loads up to 150 MPa and temperatures up to +250 °C



The results of more than 9,600 tests are fed to our database annually.

All products are tested and available from a single source. Examples of test certificates and quality seals for igus[®] products:



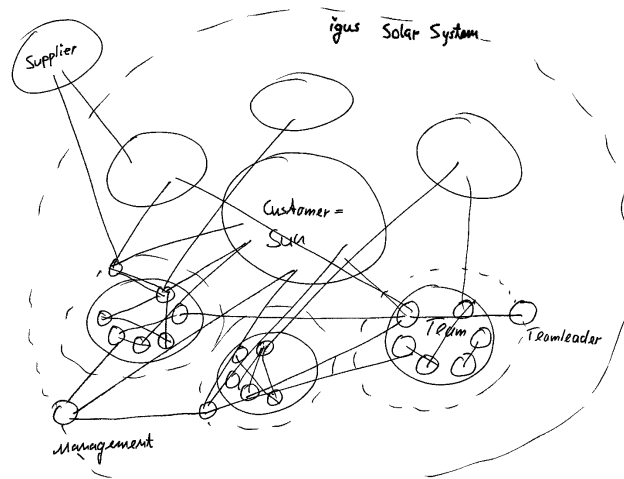
...more upon request



The flexible igus® factory



The environment at igus® is fully open – anyone can contact anyone else directly, everyone works at identical desks, has the same work equipment, the same choice of meals at the cafeteria and the same bathroom facilities.



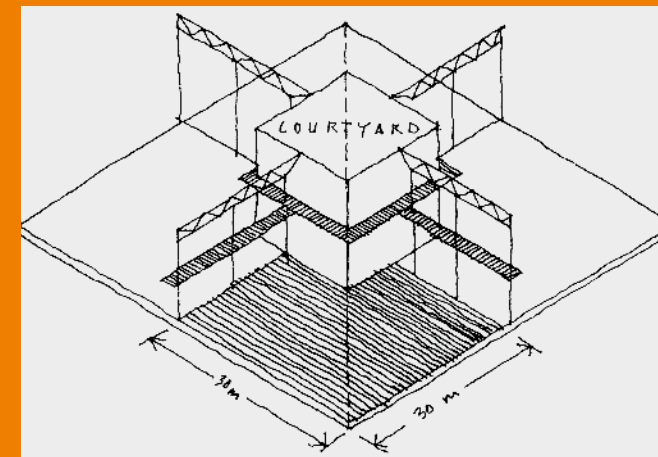
For us, customers have the same significance as the sun to life on earth. The sun gives light, warmth and energy; our customers give us ideas, work and money.

Figure right:

The extension by around 60 percent to our lean igus® factory in Cologne is now finished and been put into operation. We supply 90,000 products from stock in 24 hours or on the same day, from a quantity of one and without minimum quantity surcharges.

Investments in better technology and faster delivery times

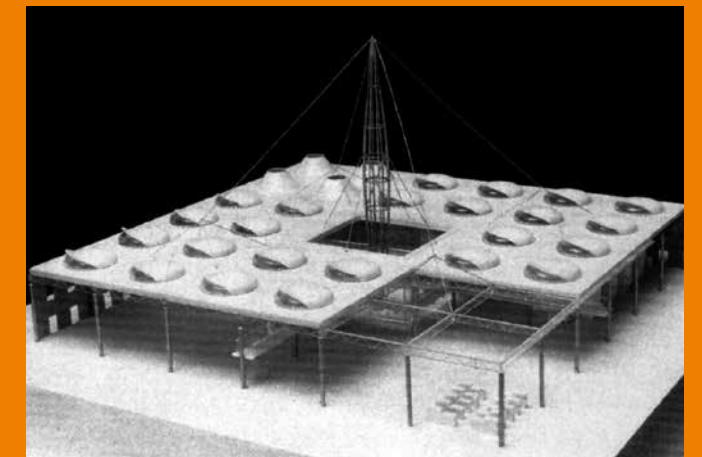
Catalogue items have to be on stock, to mount the modules according to customer requests within hours and shipped. igus® send out from stock in 24 hours or at the same day. We deliver from batch size one and have no minimum order value. igus® are continuing their growth trend and is focusing more than ever on sophisticated yet simpler solutions for all innovations and investments. Nine facilities worldwide were expanded 2012 by between 50 % and 250 % last year, the factory in Cologne already expanded by 60 % in 2009 and is being expanded by more 10,000 m² in 2013, and innovation speed stepped up to 115 product innovations (2014).



Excerpt of architect's briefing

"In October 1988, igus® acquired a plot sized about 40,000 m² in the Porz-Lind district of Cologne.

This will be the future site of development, production, sales, administration and planning. As the centre of all activities, this location will serve as the new igus® headquarters. igus® has made preparations for fast growth, fast change and flexible response in all areas.



Offering the necessary facilities and technology, the new "igus® premises" will also be designed to promote staff performance.

The interior and exterior will be designed to reflect the enterprise's products and key philosophy: innovation – service – reliability, the customer being comparable to a solar system's centre orbited by all igus® staff and igus® entities dedicated toward solving the customer's problems."



The igus® story from 1964 till today.

Innovative solutions for a lubrication-free future

In 2015, igus® is launching 155 new products for moving applications. These "motion plastics®" offer designers enhanced technology and delight purchasers with lower prices.

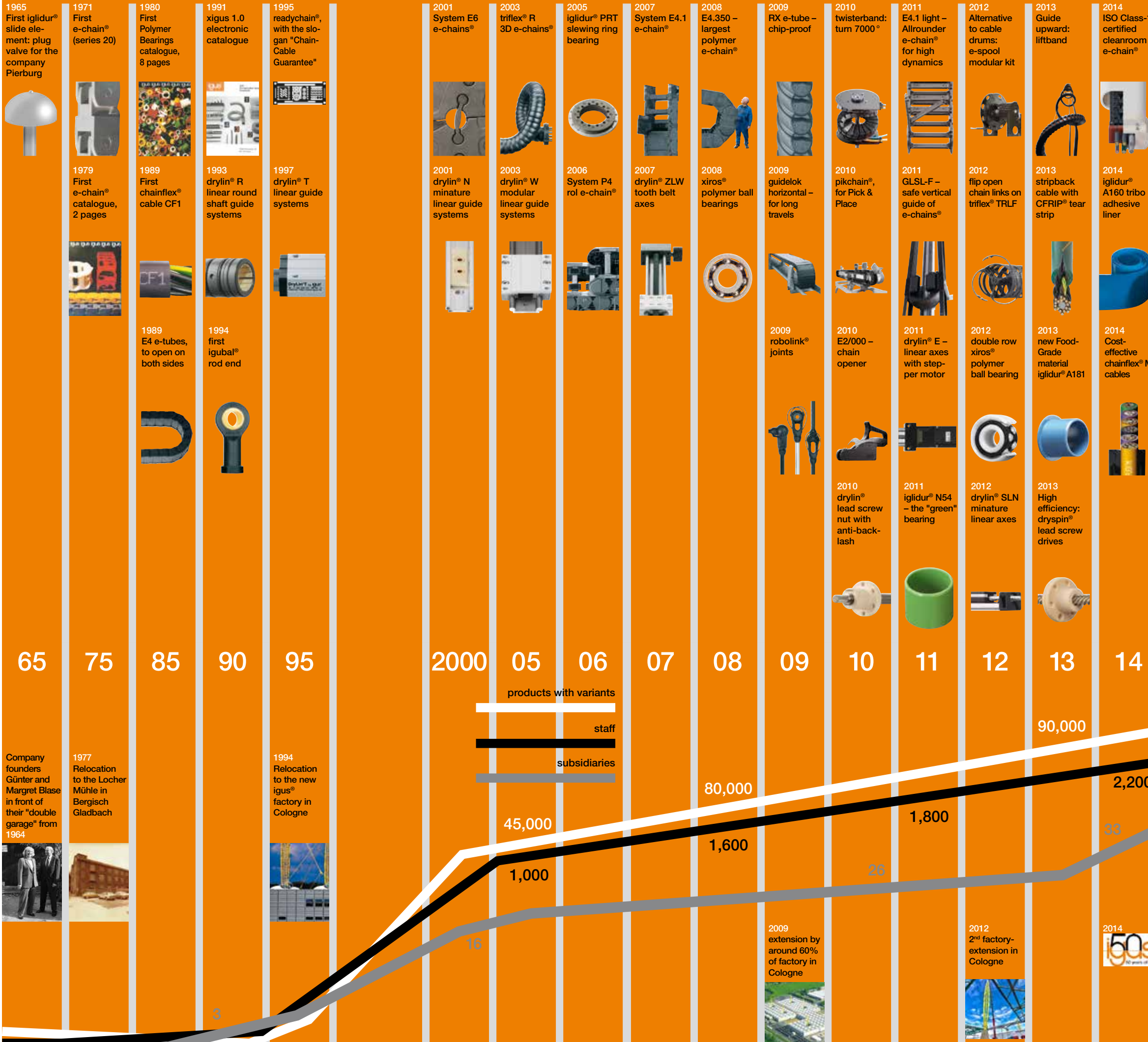
The igus® story begins on October 15th, 1964 with Günter Blase in a double garage in Cologne-Mülheim. In its first 20 years, igus® operated as a supplier of technical plastic components. In 1983, son Frank Blase started to concentrate on full products like e-chainsystems® and Polymer Bearings and established a separate marketing department. Between 1985 and today, igus® expanded from 40 over 2,450 staff members distributed all over the world. igus® will continue to invest in expansion in the coming years. Modern materials have opened up further opportunities for innovative products.

From a garage to the global market with tribopolymers

Over the years, the tribopolymer specialist igus® has continuously expanded its in-house research and development work. Today, "motion plastics®" machine components that drive, support and supply are researched in around two billion test cycles a year in the sector's largest test laboratory, measuring 1.750 m².

This benefits customers directly as the test results can be used for tasks such as configuration and service life calculations with the aid of online tools. igus® also uses the ongoing research and development work to enhance the service lives of the products while simultaneously optimising their costs.

The approach has proven highly successful: the two main customers from the early years have now multiplied into around 175.000 "plastics for longer life®" igus® end customers all over the world – who can receive their goods in as little as 24 hours.



Individual consultation by igus® – via phone or on your premises

A large network of sales engineers is at your disposal in Germany and worldwide. We gladly provide consultation on your premises, supply assembly instructions and aids to installation sites, as well as measure installation spaces and register ambient conditions on location.

- This has the following benefits for you:
- We are wherever you need us
 - Numerous e-chain® and Polymer Bearing consultants remain at your disposal at all times
 - Rapid delivery is guaranteed worldwide
 - Spare parts are delivered ex stock in the shortest possible time



All addresses on last page.



Secure under high forces ...
... and extremely wear resistant
iglidur® bearings in a hip joint system.



Practical examples: lubrication free



igubal® rod end bearings made from plastic display
their strength in the demanding environment.



Maintenance free iglidur® bearings in a calibration
cage of a blown film line.



Reduction of the drive power for bottle washing
machines with iglidur® RN plain bearings.



Lubrication free drylin® guides in filling systems.
Resistant to chemicals and frequent cleaning.



drylin® R linear bearings in a transfer unit:
100 % lubrication free and resistance to pungent
detergents.



igubal® spherical bearings are used in the main bearing assembly
of every individual slat owing to their freedom from maintenance,
corrosion resistance and atmospheric resistance.

Always at your service ...
... and so cost-efficient; polymer
bearings guard against downtimes
on a long term.

Practical examples: resistant to dirt



drylin® linear guiding system in the EURO-C welding tongue for the automotive industry.



drylin® trapezoidal lead screw nuts and screws in a wood packaging system.



Harsh surroundings: Lubrication free igubal® rod end bearings in the interlocking machine.



drylin® R in pulp cutting machine.



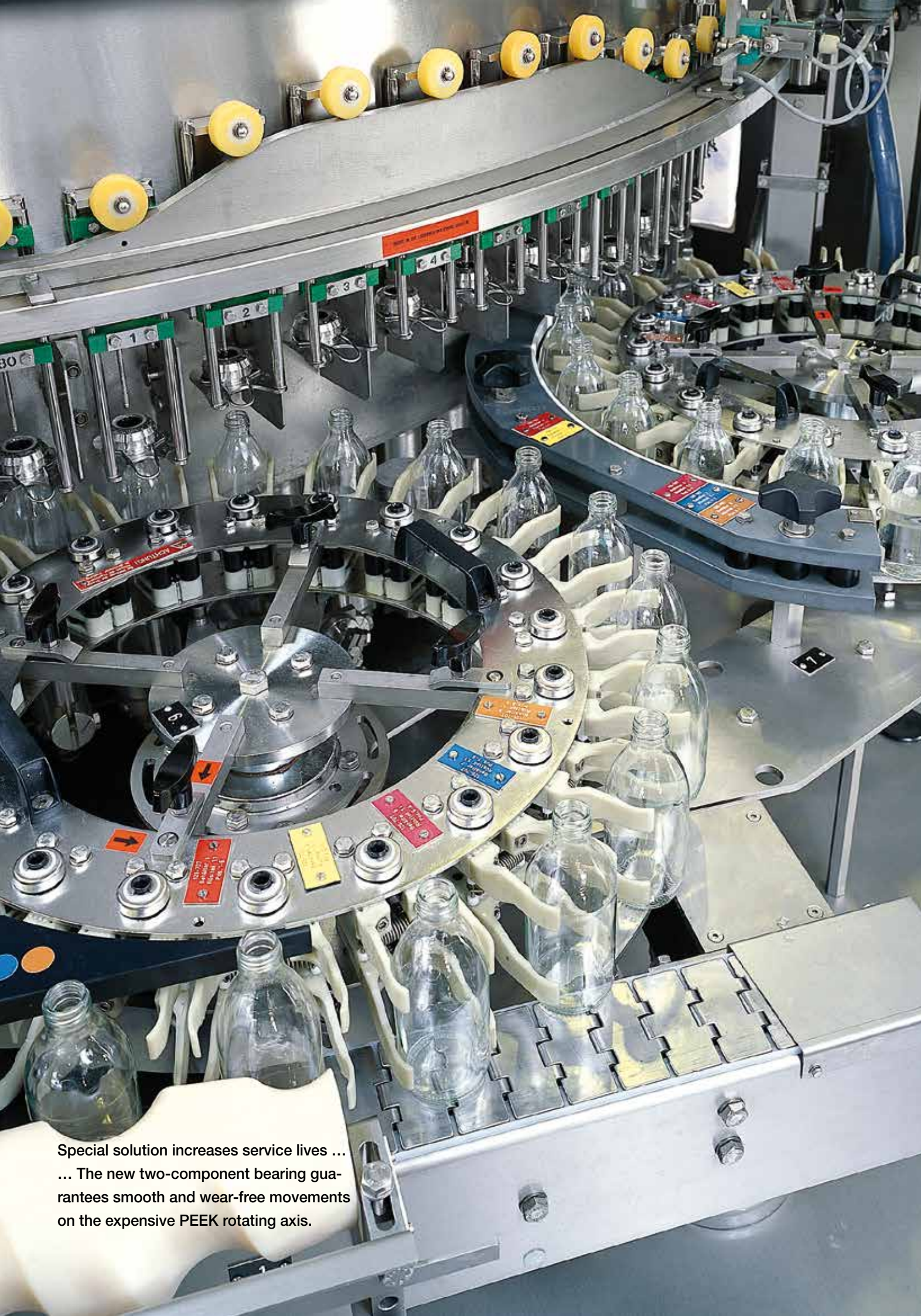
Lead screw unit SHTP-12 with lead screw clamping, position indicator and hand wheel ensures quick and repeatable format adjustments.



Polymer plain bearings in the various hinges, locks and hydraulic cylinders of the root ball transplanter.



Practical example: Packaging industry



Special solution increases service lives ...
... The new two-component bearing guarantees smooth and wear-free movements on the expensive PEEK rotating axis.



This application uses drylin® T linear guide system to steer gripping plates.



igidur® Z bearings resist to temperatures of $+160^{\circ}\text{C}$ and above and meet the requirements of the crimpers in hose packaging machines and are moreover absolutely wear resistant.



igidur® J plain bearings make the filling of PET bottles economic, are vibration dampening and among other things, impress by their good chemical resistance.



Operating temperatures up to max. $+140^{\circ}\text{C}$ and detergent resistance are not a challenge for plain bearings made from iglidur® X.



Lubrication free igubal® rod end bearings under extreme rough conditions: they have been in trouble-free operation for over years in a packaging unit for profiles.



igidur® plain bearings and drylin® liners ensure wear-free production techniques under high mechanical stress.

Light, corrosion free and economical bearings are requirements in this application. In addition iglidur® G bearings offer low coefficients of friction and are absolutely maintenance free.

Practical examples: for almost every industry



drylin® plastic plain bearings in an inspection device for offshore drilling riser.



Lubrication free iglidur® plain bearings defy all adverse conditions in the pendulum steering axles.



Flexible without fault: adjustable camera tripod with drylin® W bearings for quiet operation.



Trouble-free operation over years under the toughest conditions: drylin® R linear bearings replaced ball bushings.



Both the cross tube for the seat suspension and the attachment of the parachute rescue system are fixed on the hull with igubal® flange bearings.



Lightweight and cost-effective iglidur® PRT slewing ring bearing in use in a rotating spotlight.

