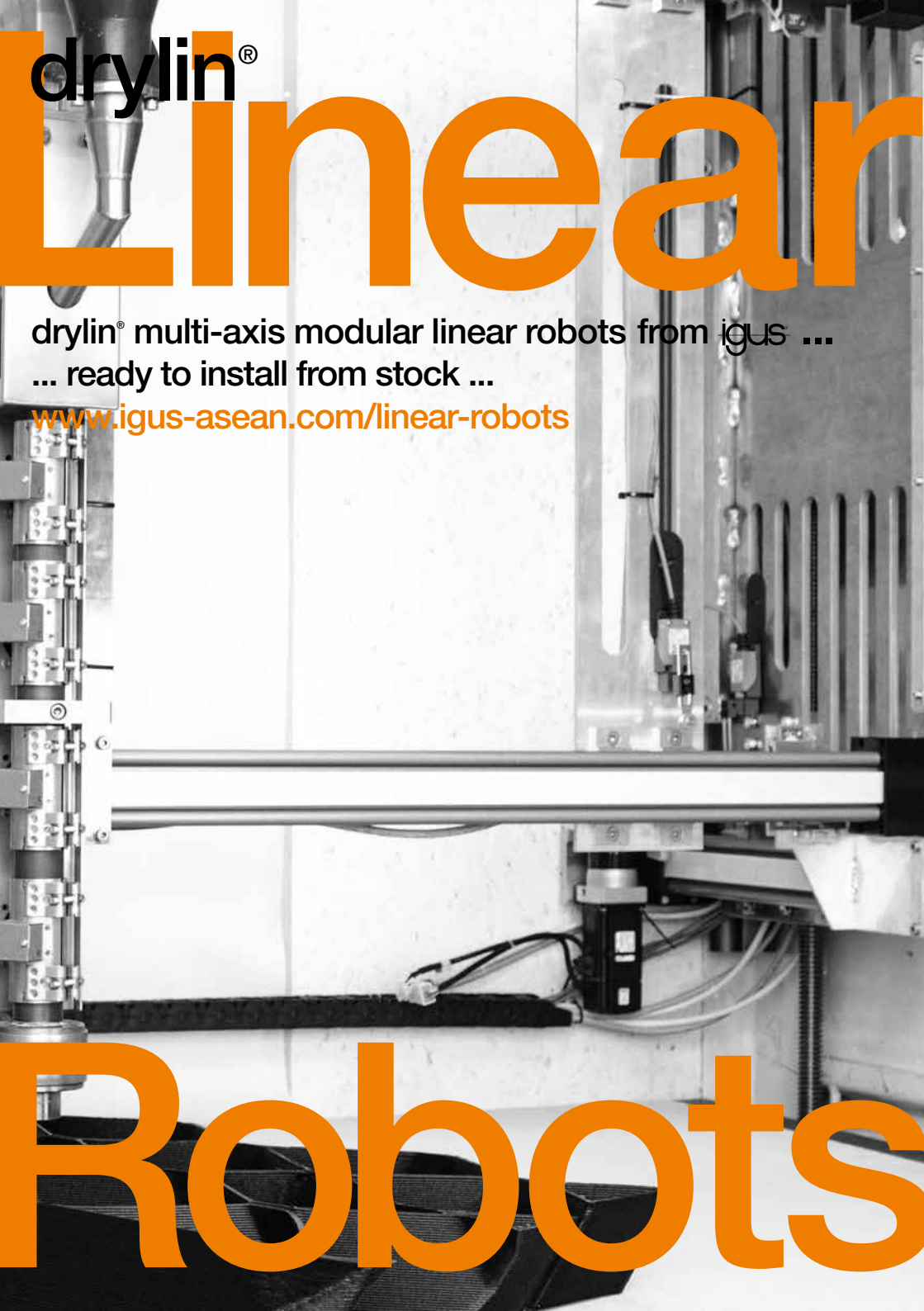
drylin®

Linear Robots

drylin® multi-axis modular linear robots from igus ...
... ready to install from stock ...
www.igus-asean.com/linear-robots



Harnessed from stock ...

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Linear robots combine several linear axes in order to implement a predefined multidimensional movement.
Our drylin® linear robots are based on proven Tribo technology, i.e. all systems use sliding, self-lubricating linear units, a fact that enables operation without external lubrication over the entire service life.
Typical areas of use are pick & place automation, measuring and testing automation, assembly handling, marking and labelling devices and handling tasks in low-cost automation.

Whether they are individual components or systems such as fabricated energy chains® with cables and connectors or ready-to-install linear axes with a motor, igus® products provide the following benefits:

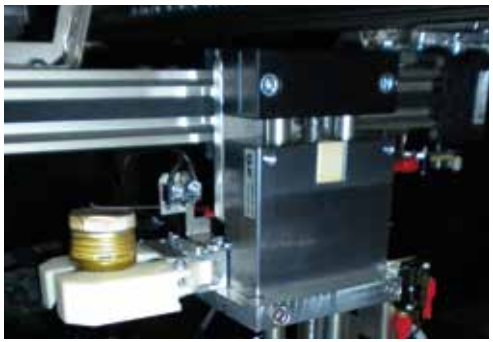
- **Maintenance-free, dry operation**
- **Quiet operation**
- **Resistance to dust and dirt**
- **Corrosion-resistant**
- **Modular system: a wide array of variants and material types**
- **Free consultation and installation at your premises**
- **Delivery from stock, from batch size 1**
- **Standard product range available with short delivery time**

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

www.igus-asean.com/linear-robots

Draw inspiration from the ideas and solutions in this brochure.

... lubrication-free in use

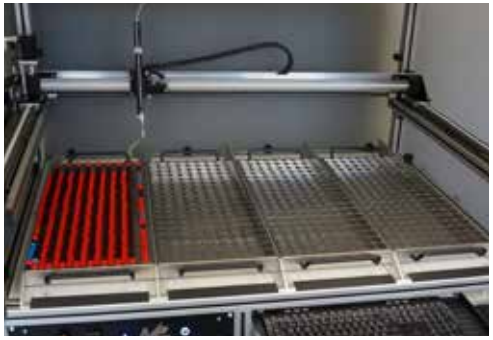


drylin® ZLW toothed belt axes and drylin® SHT linear module on the three axes of movement

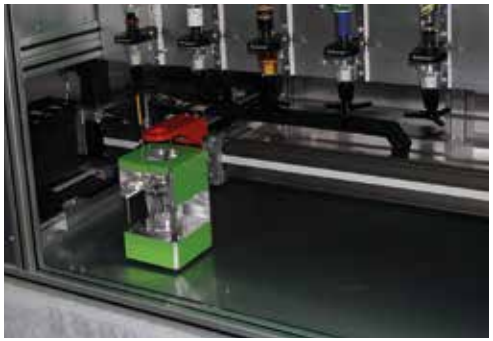
No maintenance due to lubrication-free linear guide systems

drylin® toothed belt axes are used on the three linear axes of this Pick & Place system

In this 3D printer, a linear robot is used, in which the x- and y-axis have been implemented with drylin® toothed belt units



For example, maintenance-free and lubrication-free linear robots from igus® enable the performance of filling tasks involving biochemical liquids



The lubrication-free, easy-to-clean guide system is in the form of a drylin® standard multi-axis room linear robot DLE-RG-001

The igus® modular system ...

drylin® E - electric drive technology
- Stepper motors and linear robot drives
- NEMA Standard 11/17/23/23xl/34
- Encoder and brake optionally

www.igus-asean.com/drylinE

chainflex® cables
- Connecting cables with straight or angled connectors
- Flexible, cost-effective, durable
- All cross-sections from stock

www.igus-asean.com/chainflex

e-chains®
- Guidance and protection for cables and hoses
- Modular interior separation
- From small to large, smooth running and strong

www.igus-asean.com/e-chains

drylin® cantilever axis
- Dynamic with rack (GRW)
- Precise with lead screw (SLW/SAW)
- Lightweight with linear square guide (GRQ)

www.igus-asean.com/drylin

drylin® toothed belt axes
- For fast positioning
- Efficient, durable, quiet
- Variable carriage lengths, free selectable stroke length

www.igus-asean.com/drylinZLW

Harnessed readychain®
- Energy supply systems, complete with connectors and cables
- Everything from one source
- Customer-specific production

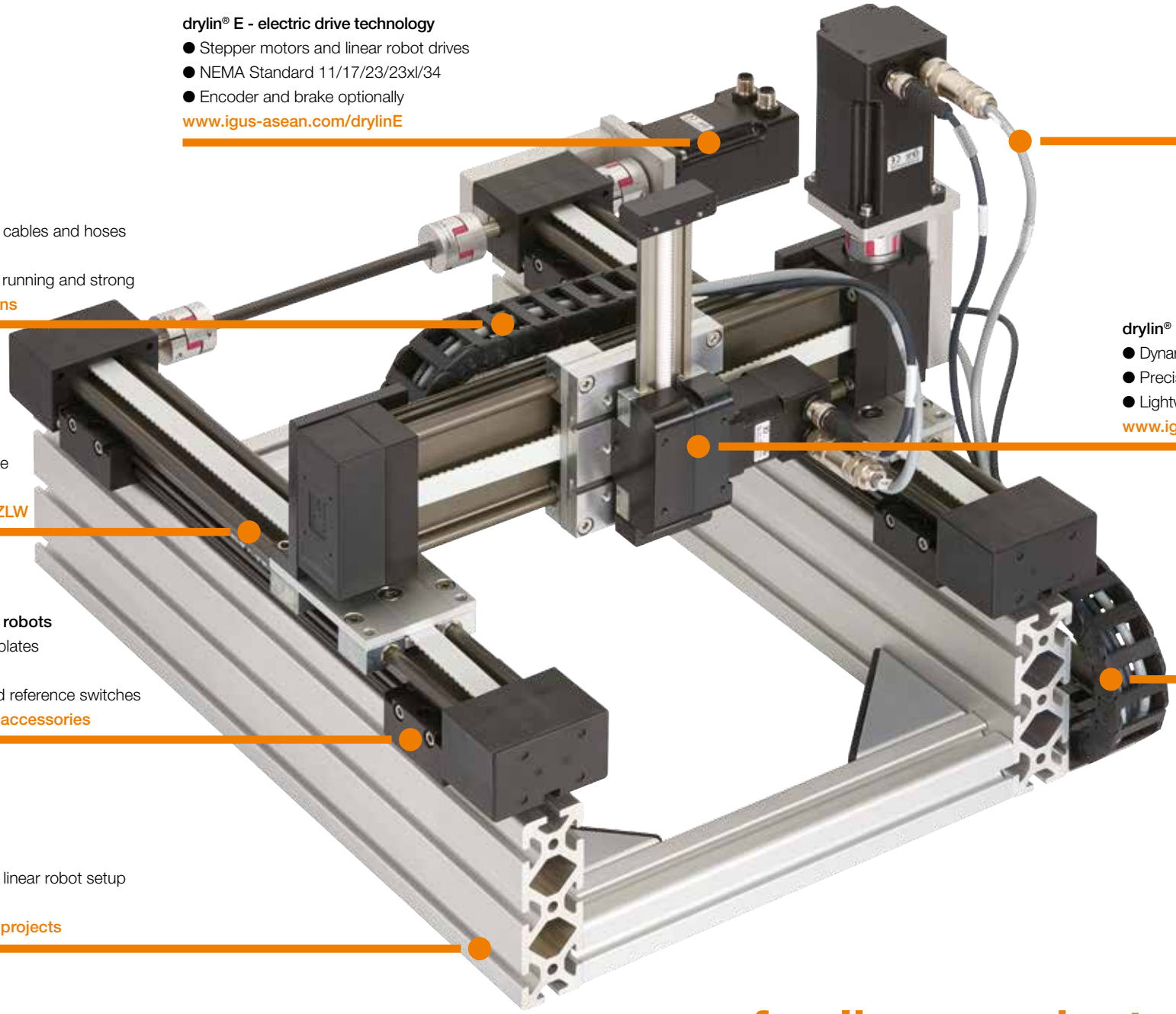
www.igus-asean.com/readychain

drylin® accessories for linear robots
- adapter kits and T-grooved plates
- Mounting bracket
- Proximity switches: Limit and reference switches

www.igus-asean.com/drylin-accessories

drylin® Project Engineering
- drive technology design and linear robot setup
- System integration

www.igus-asean.com/drylin-projects



... for linear robot structures

Multi axis modular linear robots ...

The modular system of the drylin® W series ensures that the cost-effective linear robots slide smoothly without any lubricant

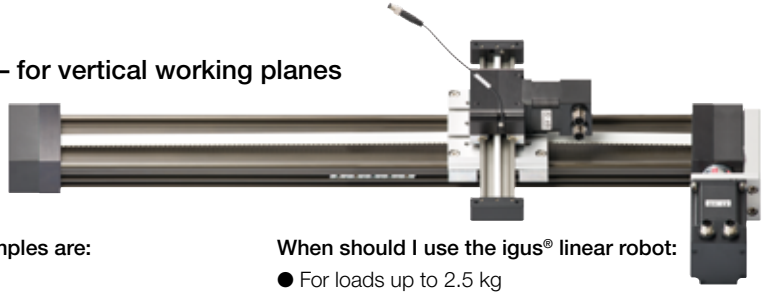
Toolmakers and their suppliers are facing major global challenges. The competition is becoming more intense, the price pressure is becoming greater, including the demand for local production. We offer complete cost-effective systems that automate tasks in order to produce faster and more effectively.

Benefits:

- Easy installation
- Proximity switch mounting by means of T slot along the entire length of the section
- Ready-to-use modular kit with cantilever axis
- Everything from one source

www.igus-asean.com/linear-robots

Linear robot – for vertical working planes



Application examples are:

- Pick and place
- Labelling technology
- Sorting systems
- Identification in microelectronics and medical technology

When should I use the igus® linear robot:

- For loads up to 2.5 kg
- For precision requirements up to approx. 0.2 mm
- For speeds up to max. 1 m/s

www.igus-asean.com/linear-robot

Flat linear robot – for predefined surfaces

Application examples are:

- Measurement and testing
- Labelling technology
- Measuring and testing technology, component marking

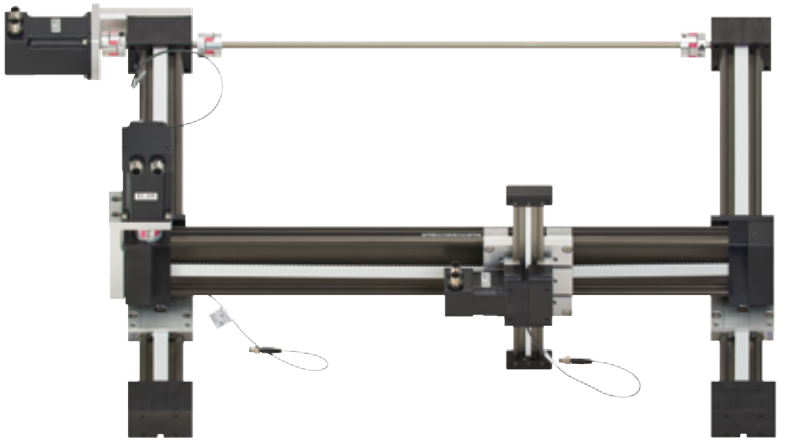
When should I use the igus® flat linear robot:

- For loads up to 30 kg
- For precsion accuracy up to approx. 0.5 mm
- For speeds up to max. 1.5 m/s

www.igus-asean.com/flat-linear-robot

... from stock

Room linear robot – for three dimensional applications



Application examples are:

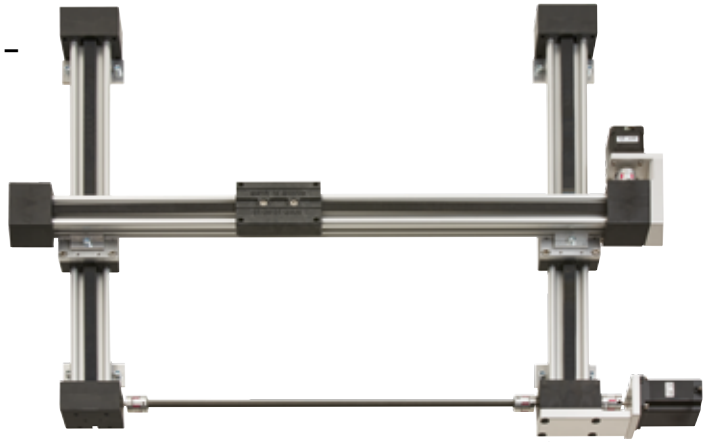
- Measurement and testing
- Handling and assembly technology
- Identification in microelectronics, medical technology
- Small parts handling tasks
- Simple handling tasks

When should I use the igus® room linear robot:

- For loads up to 2.5 kg
- For precision requirements up to approx. 0.8 mm
- For speeds up to max. 0.5 m/s

www.igus-asean.com/room-linear-robot

Eco flat linear robot – the "entry-level" flat linear robot



Application examples are:

- Sample handling
- Positioning of cameras
- Simple handling tasks, Pick & Place
- Identification in electronics
- Learning and education projects (universities and colleges)

When should I use the igus® room linear robot:

- For loads up to 1.5 kg
- For precision requirements in the millimetre range
- For speeds up to max. 0.3 m/s

www.igus-asean.com/eco-linear-robot

Customised ... ... motor-driven or manually

Customised drylin® linear robot solutions from batch size 1

We will be happy to help you with the automation of your movement processes.

Good reasons for complete individualised solutions

- Ready-to-install solutions, linear units with up to 4 axes
- Possible axis lengths in the standard version up to 4,000 mm
- Everything from a single source, save costs
- Completely assembled and 100% tested
- All-round service that does not stop after delivery
- Time saving due to outsourcing of the engineering
- Access to "know-how" accumulated over many years
- You decide the degree of harnessing
- consultation and installation at your premises

Room linear robot based on drylin® ZLW-20 toothed belt axis and SHT linear module

Small linear robots

- For small installation spaces: extremely small and compact
- Cost saving due to parallel synchronisation
- 100% tested
- Installation height from 30 mm

Multi-axis linear robots

- Outsourcing of engineering costs
- Completely ready-to-fit
- Gripper and camera directly adaptable

Submit an enquiry directly online for a robot in accordance with your application and installation parameters

www.igus-asean.com/robot-enquiry

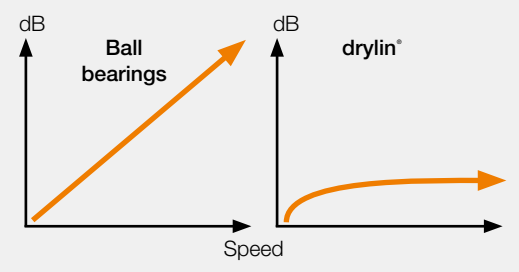
Why igus® ...

100% lubrication-free

drylin® linear guide systems based on the use of maintenance-free, self-lubricating dry-tech® high-performance plastics. The lubrication is incorporated into the bearing material, rendering the bearing materials suitable for dry-running conditions, i.e. they are maintenance-free for their entire service life. Due to no requirement for lubrication, drylin® linear systems can be used in many different areas of use.

Quiet operation

And zero vibrations due to the use of plastic instead of metal. From the functional principle of "sliding instead of rolling", the system is considerably quieter.



Low weight

In contrast to metal bearings, drylin® linear bearings do not need hardened shafts as running partners for operation. With the combination of hard-anodised aluminium shafts and igus® dry-tech® polymers, extremely high levels of performance are achieved, while the actual weight of the system is kept low.

... because it's plastic

No corrosion

All drylin® guidance systems are corrosion-free. In addition, there are specialist products that can be used even in the most adverse conditions due to their outstanding resistance to alkalines, acids, cleaning agents etc. The product range also contains special products for continuous use underwater.

Resistance to dust, dirt and heat

drylin® linear bearing systems are designed for running dry. As there is no grease or oil present, the application tends to naturally self clean, any particles are wiped away from the sliding surface by the ribbed design of the drylin® polymer bearing. This works well in coarse dirt or even sand. Dirt particles are repelled from the contact surface by the movement itself. Here the front of the slider works like a wiper. The contact surface remains clean.

Clean and hygienic

The dry operating mode of the drylin® linear guides is not only advantageous in dirty conditions; the absence of a need for lubrication is also an important criterion in applications where hygiene and cleanliness are very important.

/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 plain bearings.

/newsletter

Free of charge! Discover more about the latest trends and innovations from igus® motion plastics® world. Many exciting applications and videos, even from your industry.
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