Fast installation at your site...

...complete e-chainsystems® with guarantee

plastics for longer life®...igus

service...

www.igus.eu/installation
Energy made easy – installation and maintenance service from igus®

Every energy supply is unique. igus® has more than 30 years of experience with energy chains in thousands of applications, in a wide range of industries and in almost every environment. Any system installation is a challenge, ranging from cranes in ports or steelworks, to mining and material handling applications, from robots or storage and retrieval equipment to composting plants, from waste-water treatment to waste incineration and many other sectors.

We have the know-how when the job calls for a reliable energy supply and its installation on your site, ranging from replacing individual energy chain® links to complex system upgrade projects, from individual component assemblies to fully harnessed systems.

This experience also allows us to give a system guarantee of up to 36 months on igus® installed energy supplies – after all, we know our products.

Please find many exciting references in this brochure or on our website www.igus.eu/installation, or request an appointment with igus®.

We're looking forward to your phone call or e-mail.

► +49 2203/9649-800
► info@igus.eu

Please note: The fully igus® installation service support is not available in all countries. Please ask for further details your local igus®-contact at ► www.igus.eu/contact

Explore the many customer application examples at:
► www.igus.eu/installation
... with guarantee

Innovative machinery components from igus®.

- new installation
- conversions / upgrades / retrofits
- repair / maintenance
- inspection
- maintenance
- supervisor service
- installation support
Save time and money
... when installing or maintaining your energy chain systems®
New installation
- Installation of a custom e-chainsystem® at your facility or new plant
- Documentation and planning for work at your site
- Configuration of the system interfaces by igus® engineering
- Fast and professional installation on your machine
- Everything from a single source – including system guarantee

Conversion / Modernisation / Retrofit
- Upgrade concept for the conversion of existing energy supply systems to e-chainsystems®
- Increase your application capability or capacity
- Increase plant reliability
- Reduce costs and energy consumption
- Increase service life

Inspection
- Assessment of the existing energy supply system and risks
- Determination of the repair and/or maintenance requirements
- Report on upgrade proposal

Maintenance
- Preventive maintenance for more complex e-chainsystems® proactively recognise and address any issues to extend the service life of your system.
- Minor adjustments on e-chains®, cables and strain reliefs
- Measurement, assessment and documentation in a maintenance handbook

Repair / Service
- Prompt, flexible and professional support to repair or service echainsystems® and their components
igus® installation service
From a single source – components, service, and reliability

„Improve technology and reduce costs“
System guarantee up to 36 months (depending on application)

Supervisor Service
New installation
Installation support

igus® installation service

Inspection Maintenance
Repair Service
Upgrade Retrofit

igus® e-chains®
igus® chainflex® cables
igus® harnessed system

Tested: igus® lab, Cologne

Design and production: igus® GmbH, Cologne
Prompt, professional installation by specialised staff
Cuts down on installation time and costs, increases service life, reduces downtime.

Fixed prices for installation and maintenance
Cuts down on your costs for planning and purchasing.

Planned installation schedule for your system
Helps improve your scheduling and plant availability

Fast response with approved partners in your area
Keeps travel and response times short saving cost.

Short-notice, flexible installation appointments even on nights or weekends
Simply give us a call, we will find a solution.

Everything from a single source – the manufacturer – including system guarantee!
We’ll be with you every step of the way, from the initial meeting through system design and on to delivery and on-site installation of the system at your site.
References ...

from simple to complex ... from repairs to complex projects

Installation of an igus® flizz® system on a long scraper

Crane swivel boom equipped with e-chain®
(rotating motion)

Conversion from a festoon cable system to an e-chainsystem®

Restricted access to the boom of a container crane

Guide trough installation on a ship loader / unloader (STS)

Installation of an igus® triflex® R 3D cable management system on a robot
... anywhere ... anytime ...

Replacement of festoon cable system with roller e-chain® in a waste bunker crane

Installation of twin opposing e-chains® for two crane gantries

Installation of two cross travels on crane gantries

Installation possible on evenings or weekends

e-chain® installation for circular motions

Installation in a plating facility with restricted access
References ... more: igus
from simple to complex ... from repairs to complex projects

Upgrade: slip ring conversion to e-chain®

Guide trough installation on a circular track – inner and outer supports

Pulling in a fully populated e-chain® from a drum

Fully assembled e-chain® with reverse bend radius (circular motion)

Upgrade of eight passenger bridges at Cologne / Bonn airport

Conversion of telescoping gantry to e-chainsystem®
s.eu/installation

... anywhere ... anytime ...

Treatment plant / sand collection

Installation of the world’s largest plastic energy chain – igus® Series E4.350

Conversion of bucket wheel plant from cable reel to e-chainsystem®

Planning for installation of 366 m of guide trough

Installation of rol e-chain® - offering low friction for a very long travel

Fitting guide trough „roof“ for weather and environmental protection
**igus® lab and developer**

1,750 m² lab ... more than 700 cables under test...
2 billion test cycles ... real world tests

Partial view of the igus® e-chain® lab, Cologne

**Quality assurance:** on-going batch testing to ensure the quality level

**Custom test rigs** for special-purpose solutions, installation methods, and environments
Cable/hose test: testing durability under chemical influence whilst in motion

Test for combined motions: simulation of complex motions in robot applications

Rotating tests: demanding e-chain® applications with small radii

Cold tests on cables and energy chains® at -40°C
Energy made easy: igus® e-chainsystems®

Designed to guide and protect
Energy chain systems are the umbilical cords of modern machines. They reduce downtime and increase the service life of cables and hoses. igus® has been developing, producing and testing plastic e-chains® since 1971. The igus® product range includes over 90,000 innovative products from stock with no minimum order quantity. From the smallest micro e-chain® to the world’s biggest* polymer e-chain®, we continuously advance our knowledge and apply this to our products.

Easily filled

**easy chain® – easy fitting of cables**
- filled from inside or outside
- cost-effective
- single piece e-chain® link
- [www.igus.eu/easychain](http://www.igus.eu/easychain)

**zipper e-chain® – energy chain with zipper**
- for fast fitting of cables and hoses
- quick and easy opening and closing
- small and mid-sized e-chains® / e-tubes
- [www.igus.eu/zipper](http://www.igus.eu/zipper)

Smallest to medium sizes

**System E2 micro – energy chains for restricted spaces**
- single piece link
- low weight
- small sizes, 5-15 mm inner heights
- small pitch, smooth operation
- cable-friendly interior
- [www.igus.eu/E2micro](http://www.igus.eu/E2micro)

**System E2 mini – small and medium sizes**
- single and two-piece energy chains
- small pitch, smooth operation
- optimised relationship of strength to weight
- 18-21 mm inner heights
- versatile inner separation
- [www.igus.eu/E2mini](http://www.igus.eu/E2mini)

E2 standard

**System E2/000 – two-piece energy chains**
- medium sizes, 21-45 mm inner heights
- snap open on both sides
- very fast opening – with E2 chain opener
- modular interior separations
- [www.igus.de/E2000](http://www.igus.de/E2000)
RX e-tube

System RX – extremely chip-tight tubes
- opens along the outer radius
- smooth, rounded exterior contour prevents chips from collecting
- no openings, gaps

www.igus.eu/RX

Standard construction kit for nearly any application

System E4.1 – universal energy chain®
- inner heights from 21-350 mm
- e-chains® and e-tubes
- cable-friendly design
- snap-open along both sides
- fast installation

www.igus.eu/E4.1

quiet, low abrasion, vibration-free

System E6 / E6.1 – extremely low noise
- extremely quiet operation, 46 dB(A)
- low vibration
- high speeds and accelerations
- cleanroom compatible
- snap-open along both sides

www.igus.eu/E6.1

robotic, 3D and circular motions

triflex® R - 3D e-chain® made specifically for robotic applications
- three versions - closed, easily fillable, or light version.

www.igus.eu/triflexR

twisterchain® and twisterband – circular and spiral-shaped motions – rotating motions up to 7000°
- for circular motions up to 540°
- compact, modular, cost-effective
- rotational speeds up to 360°/s
- modular design – variable widths
- Possible even for confined spaces
- bands can be lengthened or shortened as needed

www.igus.eu/twisterband
www.igus.eu/twisterchain

For long travels

System P4
- travels up to 800 m
- speeds up to 10 m/s
- quiet operation due to split rollers

www.igus.eu/P4
**Harnessled e-chain®**

**readychain®:** chain – cable – guarantee

**readychain® – fully harnessed systems in 3-10 days**
700 systems per week in 11 readychain® factories around the world – to help optimise your cash flow.

- eliminate storage costs for cables, e-chains® and connectors
- cut turnaround times by half
- flexibility when demand varies
- reduce the number of suppliers and orders by 75%
- fast changeover to minimise downtime
- system guarantee - depending on application

More information:
► [www.readychain.eu](http://www.readychain.eu)

**readychain® rack**
80% savings during prototyping.
Installation transport rack for ready-to-install energy supply systems.
readycable® – from 24-48 hrs. or same day

igus® provides more than 2,830 harnessed cables for drive technology pursuant to 20 different manufacturer standards. Professionally produced, 100% tested.

- servo, power and signal/encoder cables
- no cutting charges, no surcharges for small quantities and packaging
- cable length accurate to the centimetre per customer spec
- smallest bending radius from 7.5 x d
- reduce storage costs and increase cashflow

More information:
▶ www.igus.eu/readycable

Intercontec SpeedTec
Service packs (starting at 1 piece) or harnessed directly to your specifications

Also available as an over-moulded version to your specifications

QuickPin 2.0
Connector-cable configurator
▶ www.igus.eu/quickpin
chainflex® cables ...

From stock, no minimum quantity, no cutting charges

chainflex® lasts... in energy chains
- highly abrasion-resistant TPE, PUR and oil-resistant PVC jacket materials
- halogen-free and/or flame-retardant materials
- various standards and certifications
- smallest bending radii as low as 4 x d
- cleanroom certified

7 basic rules for a good cable

chainflex® cables prevent cable failures in energy chain applications.

1. strain-relieving centre element
2. optimised stranding
3. high-quality core insulation
4. braiding in bundles using short pitches
5. gusset-filling extruded inner jacket
6. shielding with optimised braiding angle
7. abrasion-resistant outer jacket, pressure extruded

More information:
▶ www.chainflex.eu
1,040 types from stock

Example chainflex® cables

chainflex® control cables
control cables, oil-resistant, flame-retardant, shielded or unshielded

chainflex® data cables
Data cables now with up to 32% smaller bending radius: 6.8 x d for TPE and 7.5 x d for PVC data cables. Abrasion resistant outer jackets, shielded, pair stranded, oil resistant and flame-retardant

chainflex® bus cables
Bus cables, shielded, resistant to oil and bio-oil, flame-retardant, hydrolysis and microbe-resistant

chainflex® servo cables and measurement system cables
servo and measurement system cables, shielded, oil-resistant, flame-retardant

chainflex® power cables
power cables, oil-resistant, flame-retardant, shielded or unshielded

torsion-resistant chainflex® cables
torsion-resistant robot cables (CFROBOT cable family) available from stock, with UL/CSA rating, for torsional applications, unshielded or shielded, abrasion resistant, flame-retardant
Installation service, online tools, igus® service ... from stock in 24 h

Installation service webpage
Information, applications, videos and product details for the igus® installation service can be found at
► www.igus.eu/installation

Online tools, e.g.: QuickChain.60
Using the QuickChain.60, you can configure your entire energy supply system for long travel distances from 10 to 60 m within minutes. From the cable selection to the optional installation of the energy supply system at your site, QuickChain.60 can help. After entering a few basic parameters, a suitable solution for your application is automatically proposed. Within minutes, you get an estimate of the cost of the complete system and installation.

- automatic configuration of a solution for long travels from 10 m to 60 m
- combined product selection tool for e-chains® and cables
- display of total price and delivery time
- simple options for enquiries and ordering

► www.igus.eu/installation

Benefits for you:
- fixed price for installation and maintenance
- fast and professional installation and maintenance by qualified personnel
- guarantee
- cost-effective components and services from one supplier
A selection of the key online tools

- **QuickChain.100** Design & calculation
  - [www.igus.eu/ecs-expert](http://www.igus.eu/ecs-expert)

- **QuickChain.13** Product finder up to 13 m
  - [www.igus.eu/quickchain13](http://www.igus.eu/quickchain13)

- **QuickLife** e-chains® service life
  - [www.igus.eu/ecs-lifetime](http://www.igus.eu/ecs-lifetime)

- **QuickFind** Find & compare
  - [www.igus.eu/ecs-finder](http://www.igus.eu/ecs-finder)

- **QuickCad spiral** Spiral-shaped e-chains®
  - [www.igus.eu/twisterconfigurator](http://www.igus.eu/twisterconfigurator)

- **QuickPin 2.0** Connector-cable configurator
  - [www.igus.eu/quickpin](http://www.igus.eu/quickpin)

- **QuickLin** drylin® system design
  - [www.igus.eu/drylin-expert](http://www.igus.eu/drylin-expert)

- **QuickFill** e-chain® filling expert
  - [www.igus.eu/ias-configurator](http://www.igus.eu/ias-configurator)

- **QuickCable** Product finder Cables
  - [www.igus.eu/quickcable](http://www.igus.eu/quickcable)

- **QuickBearing** iglidur® product finder
  - [www.igus.eu/iglidur-productfinder](http://www.igus.eu/iglidur-productfinder)

- **QuickLin** Product finder drive systems
  - [www.igus.eu/sht-productfinder](http://www.igus.eu/sht-productfinder)

- **QuickBearing.custom** Bar stock finder
  - [www.igus.eu/barstock-productfinder](http://www.igus.eu/barstock-productfinder)

- **QuickRobolink** Multi-axis joint configurator
  - [www.igus.eu/robolink-configurator](http://www.igus.eu/robolink-configurator)

**igus® catalogue range**

All igus® catalogues can be ordered at [www.igus.eu/catalog](http://www.igus.eu/catalog)

**Delivery times from stock, 24 hrs or on request.**

Shipments leave our facility within 24 hours. Upon request, we will also deliver by express shipment or other special delivery.

**Online shop**

Take advantage of [www.igus.eu](http://www.igus.eu). Here you can find our entire product range. Place your order around the clock.

**Help and advice**

Monday to Friday 7:00 am to 8:00 pm
Saturday 8:00 am - 12:00 noon

**Order hotline**

Telephone  +49-2203-9649-800
Fax  +49 2203 9649-222

Do you have any questions? If you have any questions, simply call us or use our online tools at [www.igus.eu](http://www.igus.eu).
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.