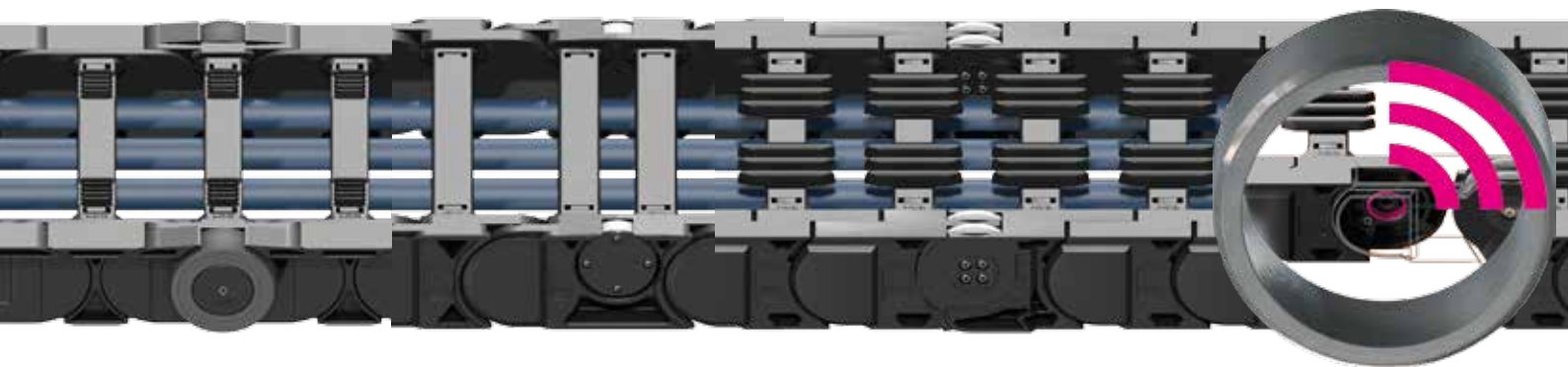
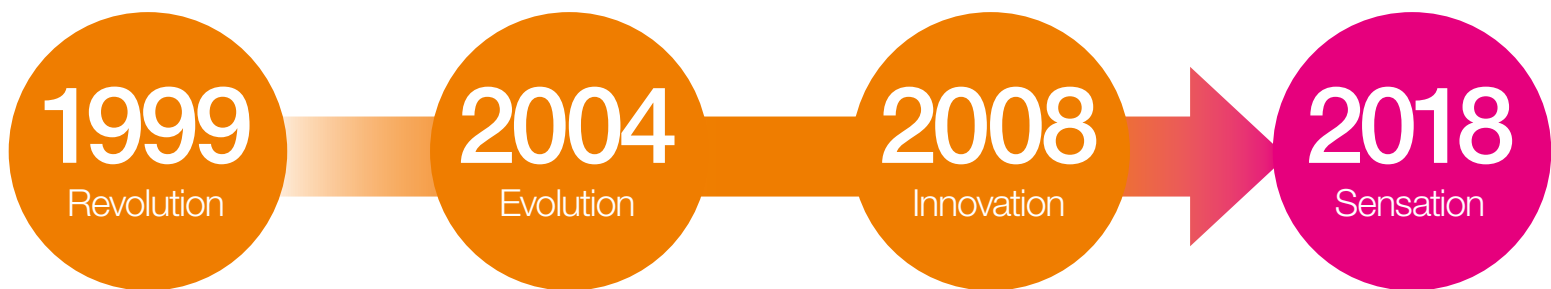


The evolution of igus[®] rol e-chain[®]

igus[®] rol e-chains[®] journey over the last 20 years



igus[®].eu
plastics for longer life[®]

Editorial

From revolution to evolution



From technical innovation to standard product – development of the rol e-chains® from igus®

For almost 50 years, igus® has been developing energy supply systems that reliably guide cables and hoses and protect them against damage. In the beginning, they were almost exclusively products for the mechanical engineering sector, the invention of the rol e-chain® more than 20 years ago brought about the breakthrough into other branches of industry. The technical basis is the integration of rollers into the e-chain® links to enormously reduce the coefficient of friction on long travels. In this way, up to 57 % of the required drive energy can be saved while moving the energy chain system. Noise is also significantly reduced. Thanks to the design, travels of up to 1,200m and more are now possible.

Theo Diehl
Head of International Cranes Unit e-chains®
Phone: +49 6162 6808
e-mail: tdiehl@igus.net

1999
Revolution

2004
Evolution

2008
Innovation

2018
Sensation

World record application

615m-long travel in operation for 10 years without failures

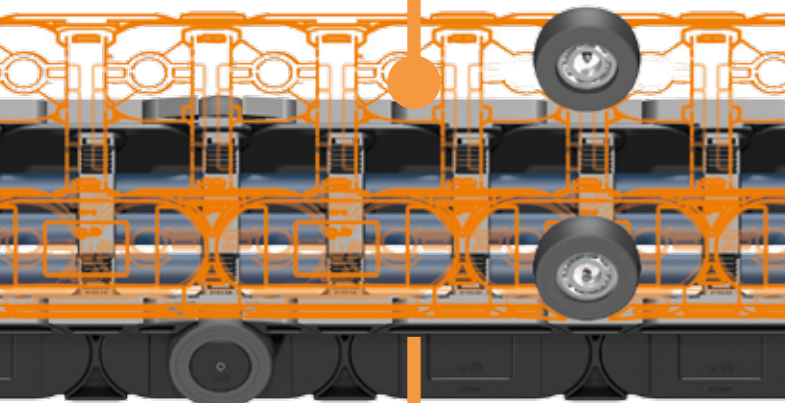


In addition to the motor, control and data cables, a water hose is routed in the e-chain® of the 5050RHD series (shown right in the e-chain®), which can be heated.

10 times longer service life for rol e-chains® ...

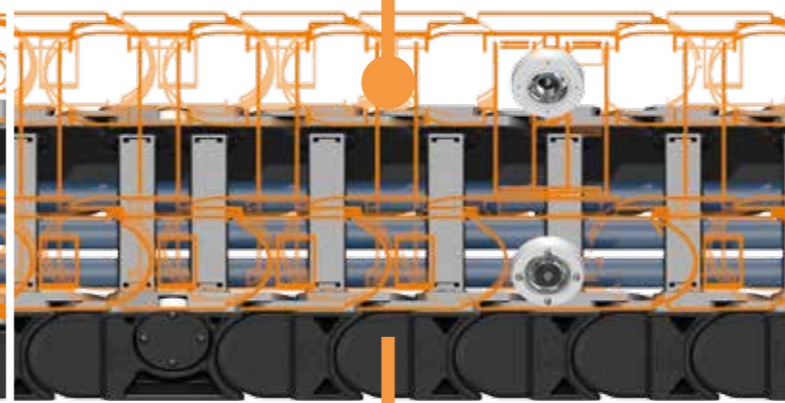
More than 20 years of continuous improvement of the igus® rol e-chains® for long travels and reduced drive force

1999
the revolution
first
rol e-chain®
E400R



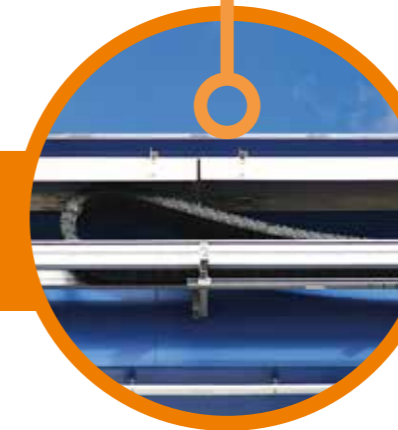
The first igus® rol e-chain® in Europe with a travel of 130 metres as the main way of supplying power to a crane system.

2004
the evolution
integrated rollers
4040RHD



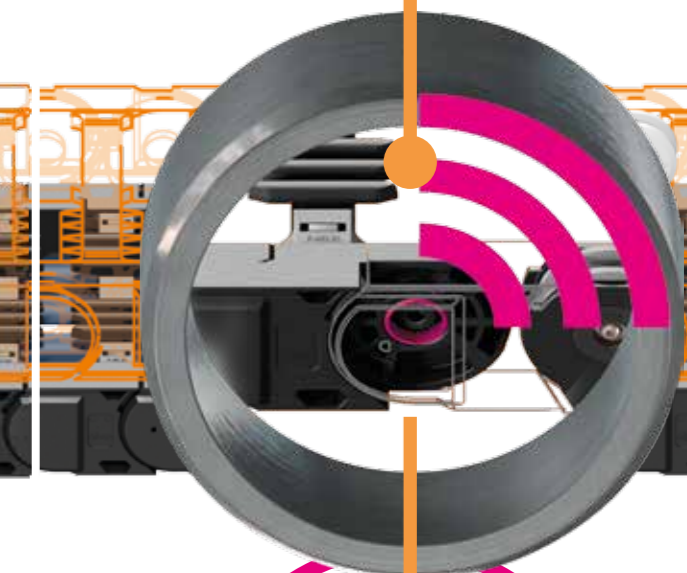
Heavy-duty rol e-chain® in a STS crane. The "HD version" of the rol e-chain® becomes the standard for STS crane applications and ship loaders/unloaders with long travels and high speeds, worldwide.

2008
the innovation
split rollers
P4



As an addition to the rol e-chain® product range, the P4 is for applications involving very high speeds (<240m/min) and installations where noise is a very important factor. In use worldwide for STS crane systems, ASC cranes etc.

2018
the sensation
smart
rol e-chain®
P4.1



P4.1 – The latest generation of rol e-chains® is the "long distance runner" and supersedes the P4. In the case of ASC cranes, the P4.1 enables the primary supply of power and data and operates at very high speeds (<300m/min). In use worldwide for STS crane systems, ASC cranes etc.



Fail-safe cables

1,354 cable types – tested and with a 36-month guarantee. For light - to heavy-duty applications. Calculate service life easily online ► www.igus.eu/chainflex



igus® system warranty

Every application is different. igus® warranty certificates can be issued for your individual application. Ask for the igus® warranty: "chain, cable, guarantee"

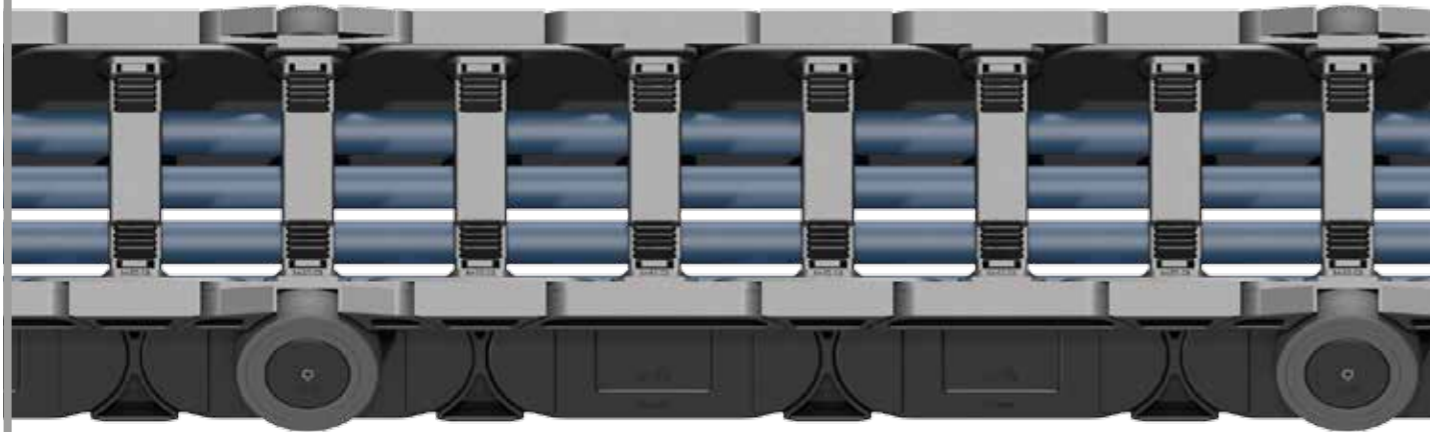


Find online everything you want to know about the evolution of igus® rol e-chains®. Numerous application examples from the last few years ► www.igus.eu/evolution

igus® rol e-chain® evolution ... comparison

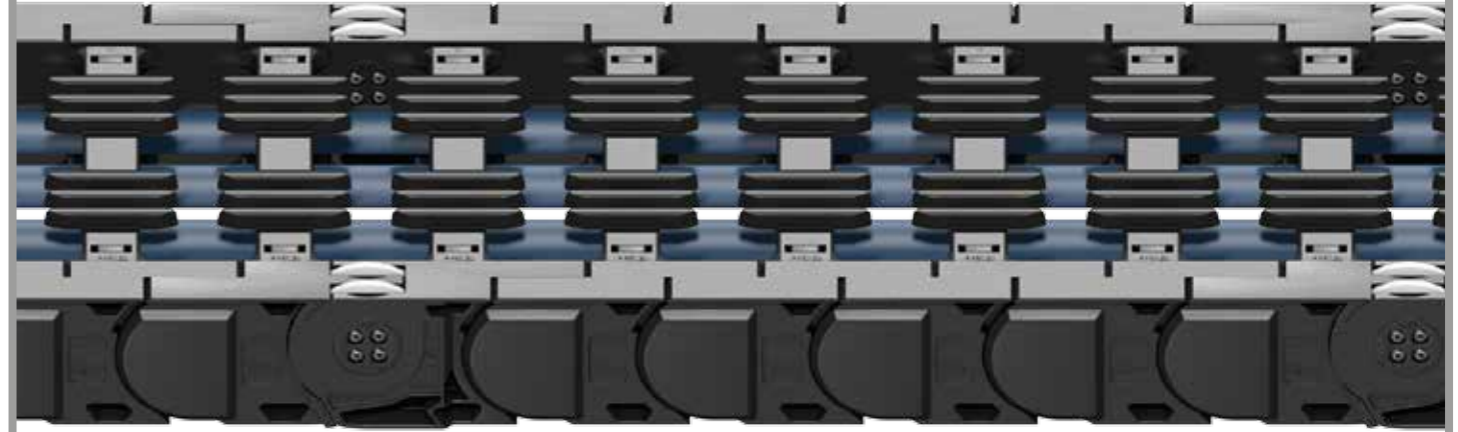
The individual development stages of the igus® rol e-chain® family

1999 E400R



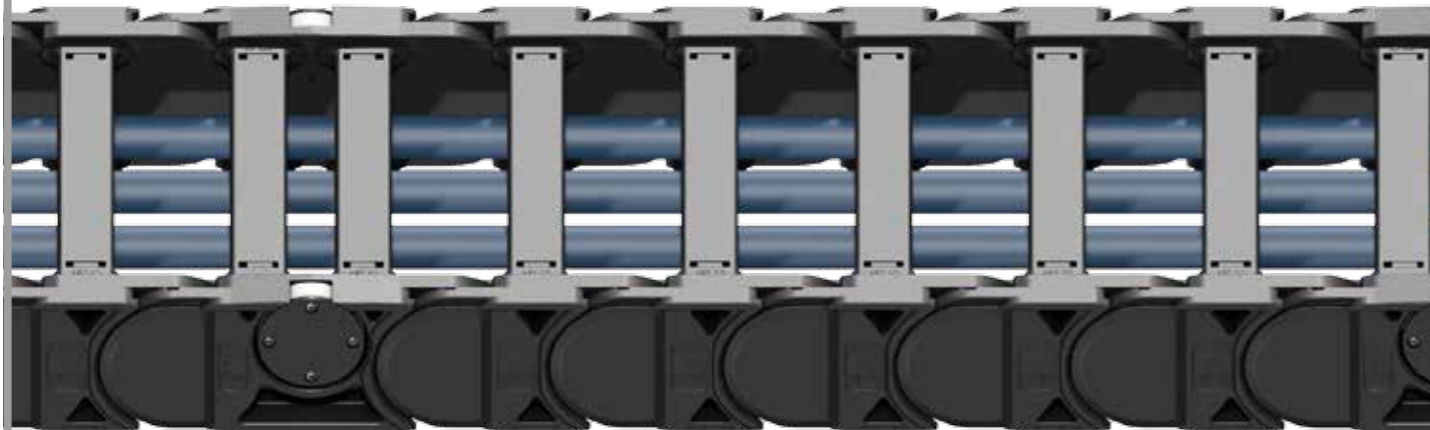
Due to rollers in the e-chain® links, the coefficient of friction and therefore the drive energy needed for energy supply systems can be significantly reduced. Especially for long travels of more than 100 metres, this is crucial and led to the success of the rol e-chain® from igus®.

2008 P4



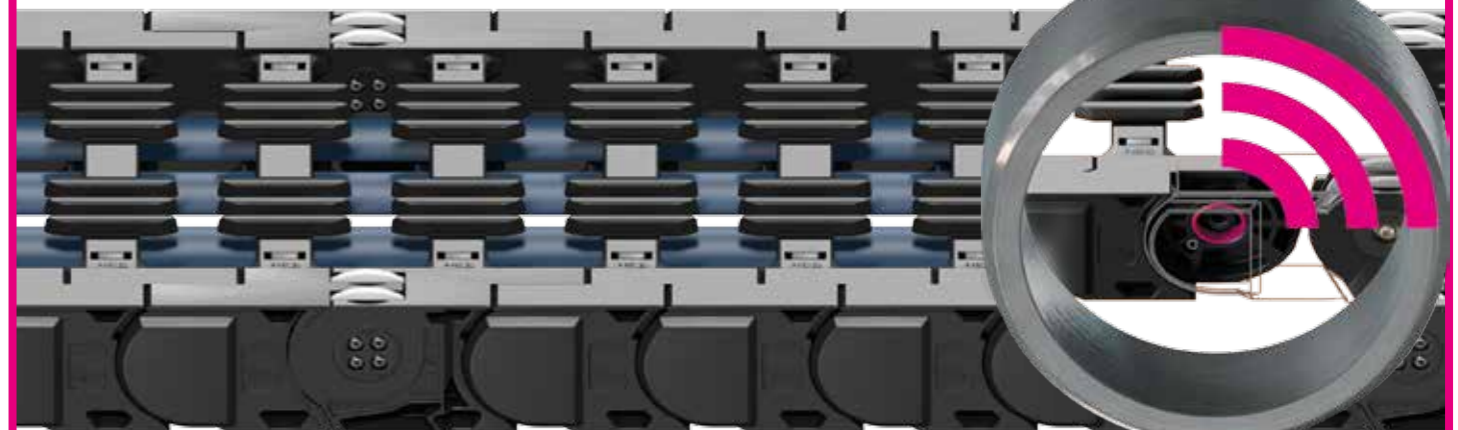
The P4 is a new development. It is characterised by lower noise and vibration due to the double-roller design, which also increases the service life of the system. Due to the same-sized pitch of standard links and roller links, the polygon effect is reduced as well.

2004 4040RHD



In the second development stage of the rol e-chain®, the chain was strengthened at all critical points. In the case of this "heavy-duty version", the pin/bore connection in particular was enlarged by 100% while the size of the contact surfaces was increased by more than 30%. As a result, the expected service life doubled compared to the preceding series.

2018 P4.1



In the latest development stage of the igus® rol e-chains®, the use of maintenance-free, tribo-polymer plain bearings in the connection of the e-chain® links also considerably lengthens the service life. As an option, they can also be fitted with wear sensors, to reliably predict the expected service life of the system. Compared to the first rol e-chain®, the expected service life has been more than trebled.

igus®.eu/8pm

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/9001:2015 /16949:2016

igus® is certified in accordance with ISO 9001:2015 and IATF 16949:2016 in the field of energy supply systems, cables and harnessing, as well as plastic bearings.

/readychain®

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igus® GmbH Spicher Str. 1a 51147 Cologne (Germany)

Phone: +49 2203 9649-800 Fax +49 2203 9649-222

info@igus.de www.igus.eu

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Subject to technical alterations. MAT0074561.20 Issue 06/2019

rolling instead of gliding