DryLin®

ZLW belt drive

- 100 % Lubrication-free
- Compact and fast
- Standard, off the shelf
- 100 % Corrosion-free
- Almost silent

DryLin® ZLW

Quick positioning without lubrication

- 100 % lubrication-free version with plain bearings
- Multi-purpose and simple assembly
- Variable stroke length
- Flat and sturdy
- Light and corrosion resistant
- Two sizes in 2 versions (Version 1 and Version 2)
- Delivered ex-stock

DryLin® toothed belt drives have been developed for the fast positioning of small loads. The linear units are corrosion resistant, light and compact, besides having a low inertia due to the low mass of the guide and sliding carriage.
The use of polymer plain bearings on all moving parts makes the toothed belt axis 100 % free of maintenance and lubrication free. The elimination of lubricants means the unit is dirt resistant, as particles do not get stuck on the moving parts. Consequently, the drive offers a high degree of robustness in many applications.
You can choose between the two versions according to your application and requirements:

Version 1 – The original:
Pulley supports, drive shaft and linear carriage all use polymer plain bearings. The complete drive unit is lubrication-free and is suitable for operation underwater operation. It can reach speeds up to max. 2 m/s.

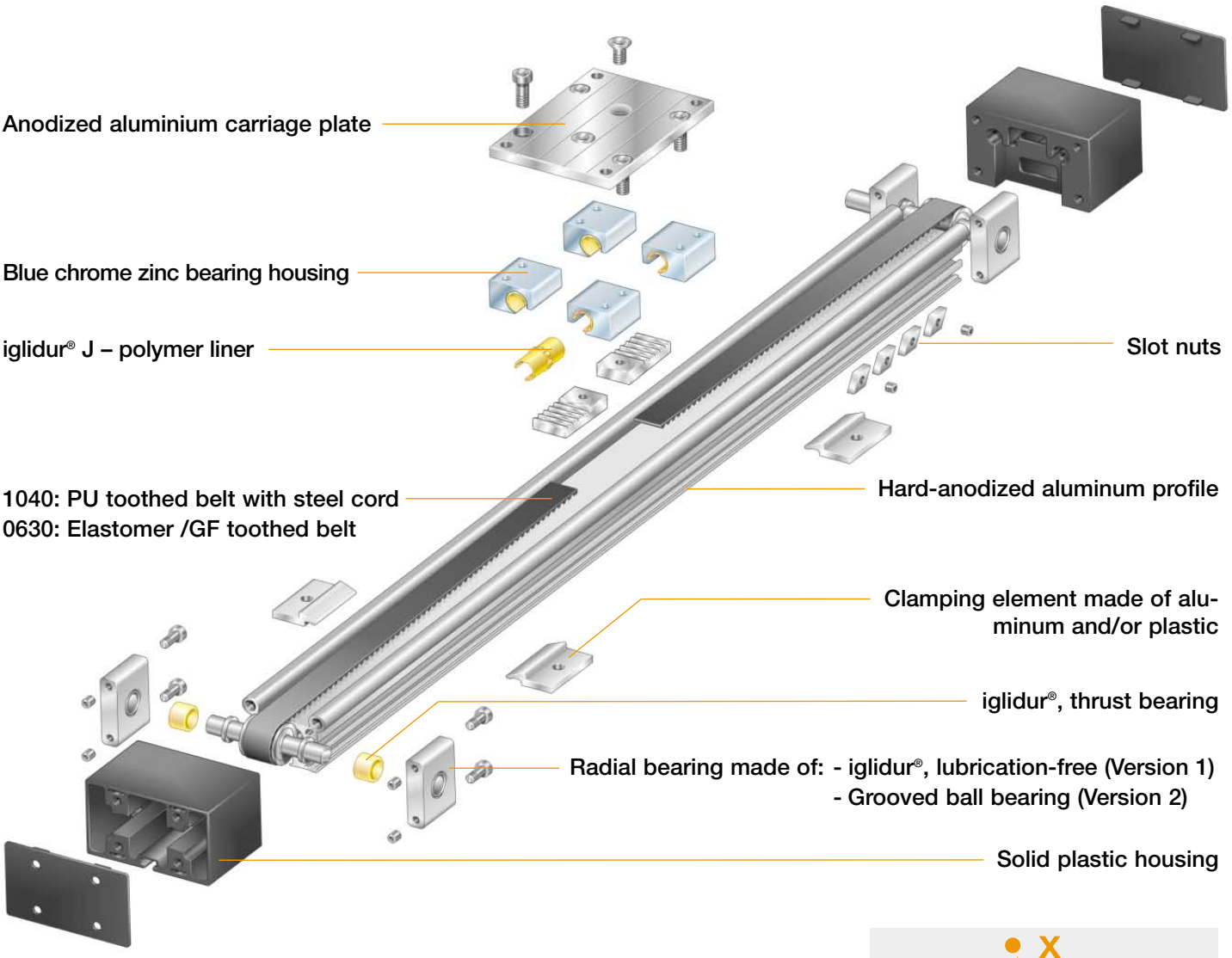
Version 2 – The quick one:
In this version, roller bearings are used in the pulley supports. The higher belt tension enables speeds up to 5 m/s.

ZLW-1040	Weight without stroke [kg]	Weight / 100 mm stroke [kg]	Max. stroke length [mm]	Trans-mission [mm/rev]	Toothed belt			Max. radial stress [N]	Guide bearing	Max. speed at 60% on-time [ms]
					Material	Width [mm]	Tension [N]			
Version 01	1,0	0,14	1000	70	PU with steel	16	75	300	iglidur®	2
Version 02	1,0	0,14	2000	70	PU with steel	16	200	300	Ball bearing	5

ZLW-0630 Mini	Weight without stroke [kg]	Weight / 100 mm stroke [kg]	Max. stroke length [mm]	Trans-mission [mm/rev]	Toothed belt			Max. radial stress [N]	Guide bearing	Max. speed at 60% on-time [ms]
					Material	Width [mm]	Tension [N]			
Version 01	0,43	0,08	500	54	Elastomer /GF	9	35	100	iglidur®	1
Version 02	0,43	0,08	1000	54	Elastomer /GF	9	70	100	Ball bearing	2

DryLin® ZLW

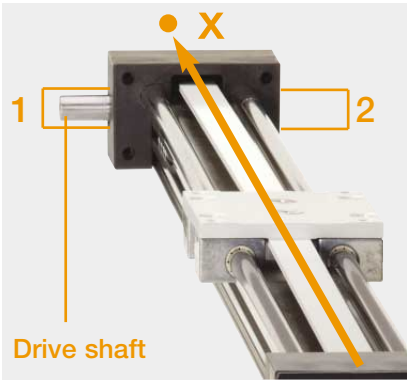
Assembly of the belt drive



Construction of the part number:

ZLW - 1040 - 01 - 100 - L - XX

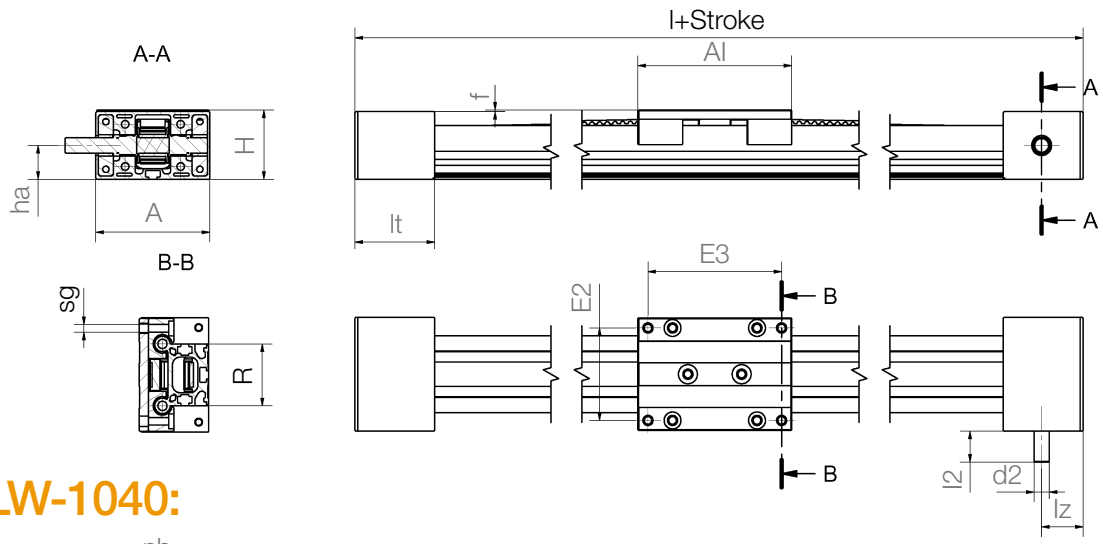
- XX: Stroke length in mm
- L: Position of drive shaft (L / R)
- 100: Slide length in mm (Standard: 100 / 150 / 200 mm)
- 01: Version 01 (The original) – end blocks fitted with plain bearings
- 02: Version 02 (The quick one) – end blocks fitted with ball bearings
- 1040: Size 1040 (Guide shaft diameter 10 / Shaft distance 40 mm)
- 0630: Size 0630 (Guide shaft diameter 6 / Shaft distance 30 mm)
- ZLW: DryLin® W belt drive



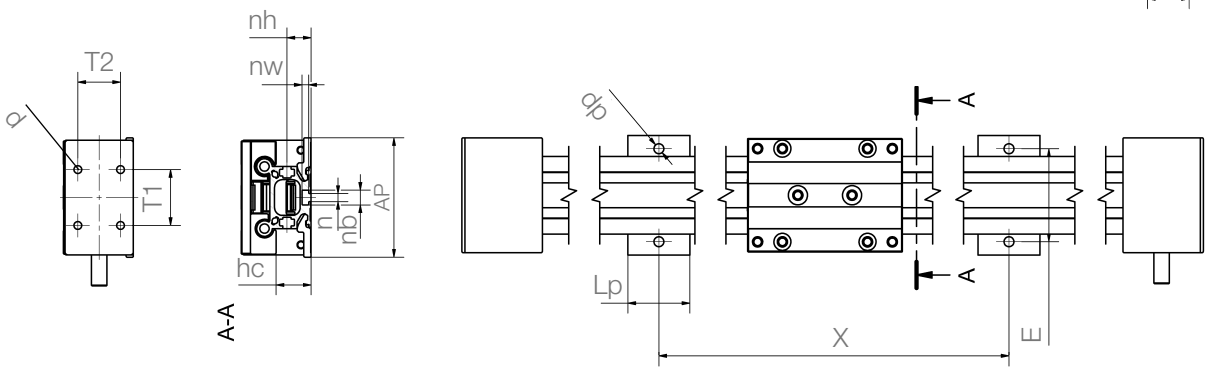
Right or left positioning for drive shaft. Determination of Position determined along line of vision 'X'!
1 = Left drive shaft (L)
2 = Right drive shaft (R)

DryLin® ZLW

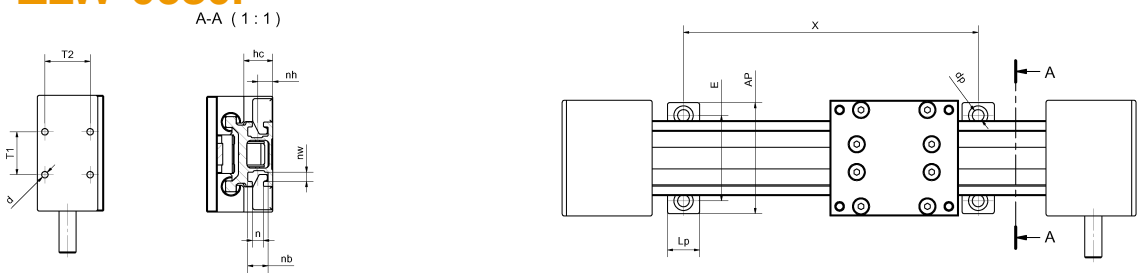
Dimensions



ZLW-1040:



ZLW-0630:



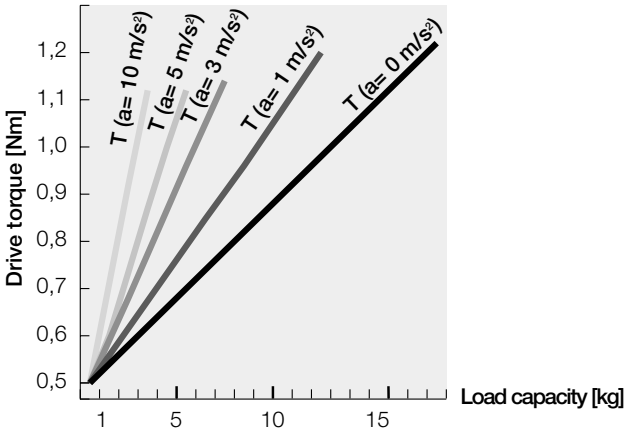
Part no.	A -0,3 [mm]	Al [mm]	H [mm]	E2 ±0,15 [mm]	l [mm]	E3 ±0,15 [mm]	R ±0,15 [mm]	f [mm]	lt -0,3 [mm]	sg	ha [mm]	lz [mm]	l2 [mm]	d2 [mm]
ZLW-1040-..	74	100	45	60	204	87	40	1	52	M6	22	27	20	10
ZLW-0630-..	54	60	31	45	144	51	30	3	42	M4	14	22	20	8

Connecting dimensions Part no.	X [mm]	E ±0,2 [mm]	AP -1 [mm]	LP [mm]	dp [mm]	hc [mm]	n [mm]	nb [mm]	nw [mm]	nh [mm]	T1 [mm]	T2 [mm]	d [mm]
ZLW-1040-..	variable	60	78	40	6,4	22,5	5,2	9,5	4,3	15,5	36	27	5,0
ZLW-0630-..	variable	40	52	15	5,5	13,5	5,2	9,5	4,3	7	20	21	3,2

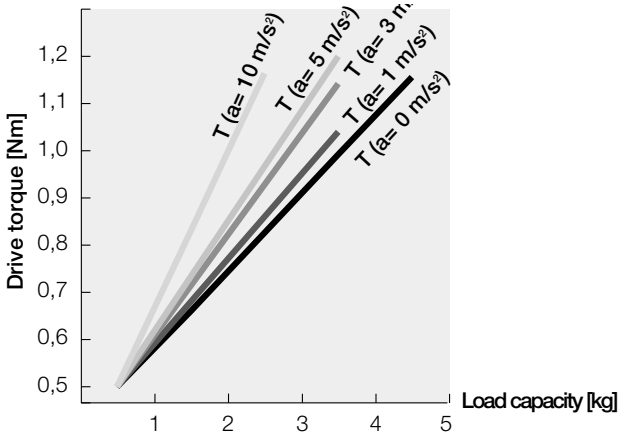
DryLin® ZLW

Technical data

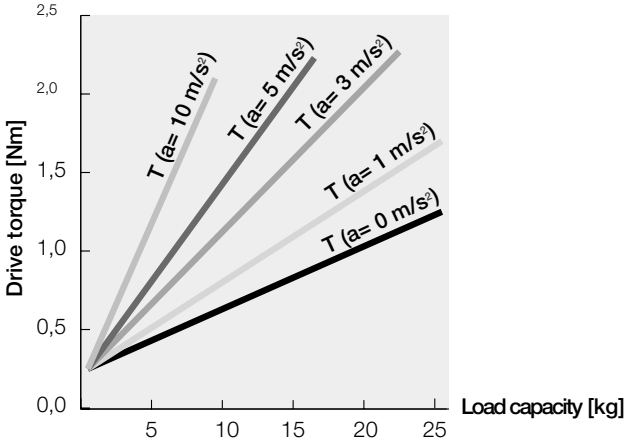
Required drive torque*
Horizontal orientation – ZLW-1040 Version 1



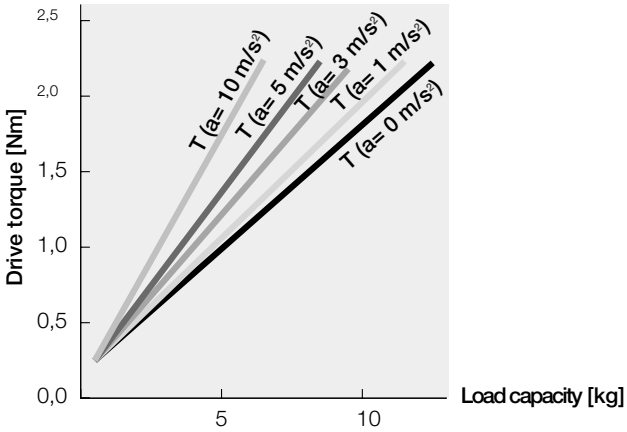
Required drive torque*
Vertical orientation – ZLW-1040 Version 1



Required drive torque*
Horizontal orientation – ZLW-1040 Version 2

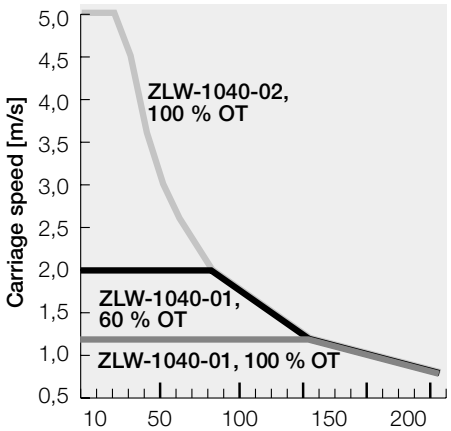


Required drive torque*
Vertical orientation – ZLW-1040 Version 2



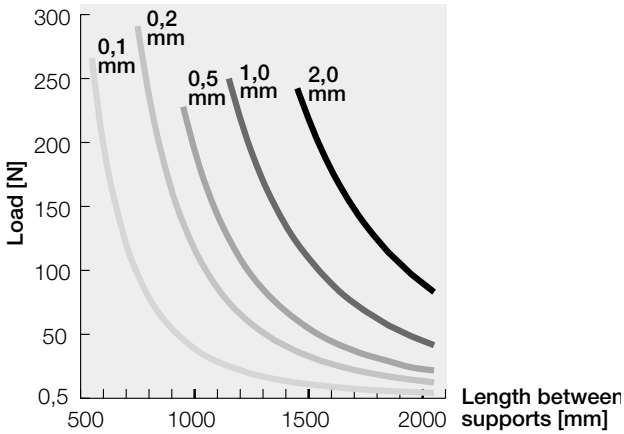
* Assumption: The moving mass is located in a circumscribed circle with a max. R = 100 mm to the middle of the guiding rail, max. permissible torque version 01: 1.3 Nm, a = 0 m/s² ; version 02: 2,4 Nm, a = 0 m/s²; constant drive without nominal value acceleration.

Maximum load
ZLW-1040 Version 1 and 2



The diagram accounts for the sum of all forces active on the carriage. OT = On-time

Sag due to width between supports
ZLW-1040 Version 1 and 2



Sag permissible up to maximum 2 mm.

DryLin® ZLW

Drive options and installation

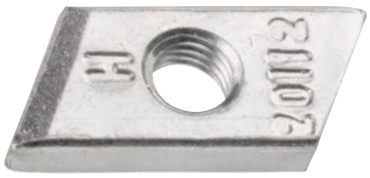
The DryLin® ZLW belt drive can be fastened in different ways (clamping element and slot nuts included in delivery):
The installation position of the axis is optional. Overhead installation is the best option to avoid dirtying.

1. Clamping element offers an easy fastening option for the drive, among other things, on aluminum machine profiles. Part no. 75.40.
2. Slot nuts enable the installation of 3 sides (1040: left, right, below) or 2 sides (0630: left, right) as well as the fixing of sensors and proximity switches.
3. Screw connection: Threaded holes for individually insertable screws are located each end block face.

Clamping element

Included in delivery

Slot nuts



Included in delivery

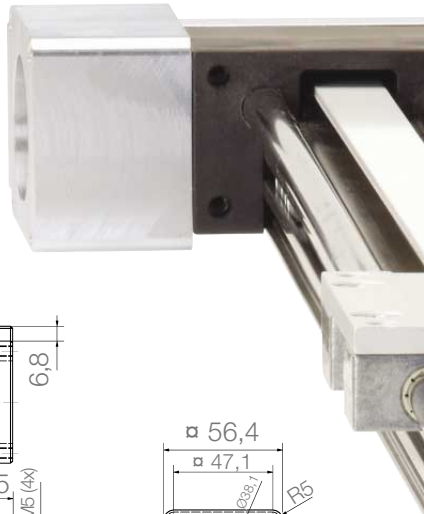
Screw connection

4 x M6/M4

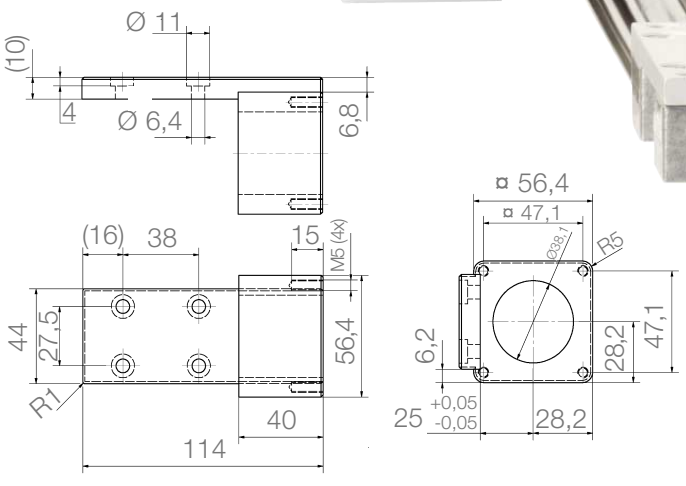
Directions for installation: the end blocks should not be used as a mechanical stop under any circumstances. A minimum spacing equal to one rotation of the drive shaft should be provided on both sides. The safety distance provided at both sides of the guide carriage can be reduced, providing it is ensured that the housings of the drive and end blocks do not collide with the mechanical parts. The igus® staff are happy to provide you with more information on the fastening and connecting of the belt drive.
Call 01604 677240, or e-mail to sales_uk@igus.co.uk

Motor flange

The motor flange can be fastened on the end of the cross bar with four screws.
Different types of motor flanges are available.
Item no**. SAX-104005**



The DryLin® ZLW belt drive is also available with a hand crank.

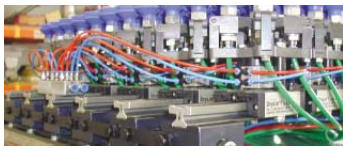


DryLin® ZLW

The complete DryLin® range

DryLin® T adjustable linear slide guides (T profile)

- Free of Lubrication-free and corrosion resistant
- Wear resistant
- Low stick-slip factor
- Very low running noise
- Dimensionally interchangeable with many ball bearing monorails



DryLin® T in the primary head for tiling, Kautenburger GmbH, Merzig

DryLin® N super-flat miniature slide guides (C profile)

- Lubrication-free
- Low installation height, surface and weight
- Interchangeable plastic sliders
- Rails made of anodized aluminum
- High speeds possible

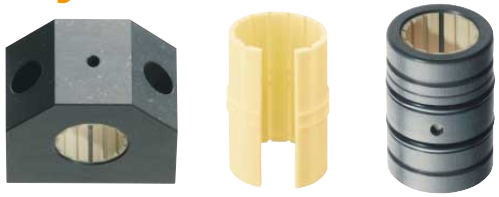
DryLin® N in NTS ultra-speed application equipment, AS-Morawski, Lüdenscheid

DryLin® W double rail system with sliding guide carriage

- Lubrication-free
- Optimum installation space usage
- Robust and insensitive to dirt
- Light and low noise
- Runs dry up to 15 m/s
- Corrosion-free
- Cost effective

DryLin® W in flatbed inkjet printer, Durst Phototechnik

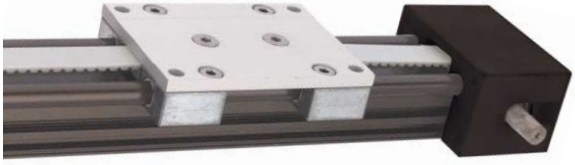
DryLin® R adapter, housings, and round shafts



- Corrosion-free
- Wear resistant
- Insensitive to dust and dirt
- Low adhesion factor and lightweight
- Very low running noise
- High load capacity
- Eight different shaft materials

DryLin® R in concrete pipe cutter, Haas Maschinenbau, Oberbrück

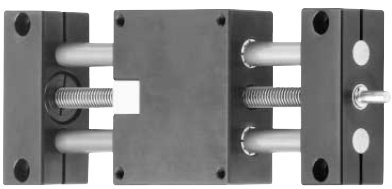
DryLin® ZLW belt drive



- For quick positioning of small loads
- Lubrication-free and dirt resistant
- Low weight and minimal noise
- Hard-anodized aluminum profile with DryLin® W linear guide
- Corrosion resistant

DryLin® ZLW on test bench, Forschungsinstitut für Wärmeschutz, Gräfelfing

DryLin® SHT leadscrew linear guide systems



- Optimum use of installation space
- Free from lubrication and corrosion
- Robust and dirt resistant
- Low weight and minimal noise
- Choice of different leadscrew materials

Positioning of cutter head with DryLin® SHT-20-SWM, Berchtold GmbH

DryLin® ZLW

System solutions

Over 80,000 products

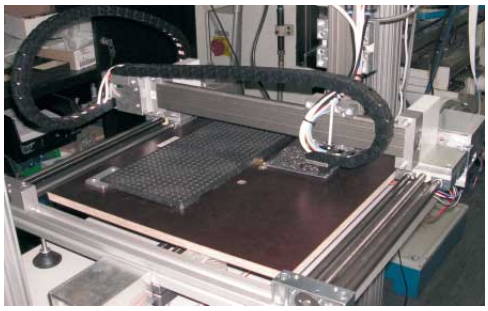
Beside the DryLin® ZLW belt drive igus® offers more than 80,000 different products for almost every conceivable application. You can find full information on our website: www.igus.co.uk

- DryLin® linear bearings
- 26 iglidur® plain bearing materials
- igubal® spherical bearings
- Energy Chain Systems®
- Chainflex® cables
- ReadyChain®: complete systems

New catalogue

Over 9,600 products – the standard reference for igus® polymer plain bearings

- Handy DIN A5 size
- Greater selection and more accessories
- More solutions and practical tips
- Quick web links (3D CAD data, configurators, downloads in PDF downloads)



Application of DryLin® drive units with igus® Energy Chain Systems® in 3D portal axis.

xiglidur 4.1

- CD product catalogue in several languages
- No need to install!
- Quick self-configuration for customized 3D files
- Direct transfer of your project data in selection, parts list and 3D files
- 3D and 2D file formats

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Chainflex® special cables
iglidur® igubal® DryLin® plain bearings
51A Caswell Road, Brackmills,
Northampton NN4 7PW
Tel: 01604 677240
Fax: 01604 677245

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