

# DryLin® W Linear Guide Systems

## DryLin® W Selection Guide

	Temperature	Maximum Load
<ul> <li>DryLin® W06</li> <li>06 mm bearing</li> <li>Small size for design constraints</li> <li>Flexible</li> <li>J200 liner for reduced friction</li> <li>Great for manual and motor driven applications</li> <li>Square design for optimal floating option</li> </ul>	-40°F to +194°F (-40°C to +90°C)	94 lbs
<ul> <li>DryLin® W10</li> <li>10 mm bearing</li> <li>Available in the most configurations</li> <li>Round standard with iglide® J material</li> <li>Square standard with iglide® J200 material</li> <li>Use square style as floating bearings</li> <li>Round style is excellent in aggressive environments</li> </ul>	-40°F to +194°F (-40°C to+90°C) -148°F to 482°F (stainless)	Single Carriage 270 lbs Mounted System 1079 lbs
<ul> <li>DryLin® W16</li> <li>16 mm bearing</li> <li>All use the enhanced iglide® J200 liner</li> <li>Available square rail for optimal floating feature</li> <li>Also available in round profile</li> <li>Durable size</li> </ul>	-40°F to +194°F (-40°C to +90°C)	Single Carriage 462 lbs Mounted System 1848 lbs
<ul> <li>DryLin® W20</li> <li>20 mm bearing</li> <li>Robust size</li> <li>All use the iglide® J200 liner for reduced friction and wear</li> <li>Available in both round and square profiles</li> </ul>	-40°F to +194°F (-40°C to +90°C) -148°F to 482°F (stainless)	Single Carriage 719 lbs Mounted System 2876 lbs

Maximum Speed	Maximum Rail Length	Size Range	Rail Material	Carriage Material
49 fps (15 m/s)	9.84 ft	27.5 mm 30 mm	Hard-Anodized Aluminum	Chromated Zinc / iglide® J200
49 fps (15 m/s)	12 ft (4m upon request)	20 18 mm 444 mm 444 mm 440, 80 mm	Hard-Anodized Aluminum	Chromated Zinc / iglide® J / J200 Anodized aluminum and 316 stainless steel optional
49 fps (15 m/s)	12 ft (4m upon request)	27 mm 27 mm 52 mm 52 mm 60 mm	Hard-Anodized Aluminum	Chromated Zinc / iglide® J200 Anodized aluminum optional and 316 stainless steel optional
49 fps (15 m/s)	13.1 ft (4m upon request)	36 mm 52 mm 52 mm 36 mm 36 mm	Hard-Anodized Aluminum	Chromated Zinc / iglide® J200 Anodized aluminum and 316 stainless steel optional





#### **Technical Data**

#### Sliding elements:

Maintenance-free iglide® J / J200

iglide® T500 (SS only)

#### Max. surface speed:

49 f/s (15 m/s)

#### Temperature range:

-40°F to +194°F (-40°C to +90°C)

#### Rail:

Hard anodized aluminum Optional 316 stainless

#### Carriages:

Chromated Zinc Anodized aluminum Optional 316 Stainless



DryLin® W used for a stop dog in the glass industry



DryLin® W in permanent use in a conveyor belt



DryLin® W for guiding the igus® EnergyChain® in an inkjet printer

#### DryLin® W Linear Guide System

DryLin® W was developed to promote both design flexibility and quick assembly in both single and double rail configurations. DryLin® W is also available in several mounted assemblies eliminating the need for both shaft alignment and bearing assembly. All DryLin® W systems are available with our enhanced J200 liners, which reduce friction and optimize bearing life.



#### DryLin® W - The original flexible guiding systems

DryLin® W uses iglide® J200 liners similar to DryLin® R but is also offered as cost-effective, harnessed systems. The design of DryLin® W promotes flexibility of design, and ease of assembly, with both single and double rail configurations:

- The single rail system, which may incorporate a floating square bearing, efficiently compensates for extreme shaft misalign-
- The double rail system eliminates altogether the need for shaft alignment, offering a single bolt-on solution.

Hard anodized aluminum is used as the rail material, therefore DryLin® W also offers low wear, low friction without lubrication, resistance to dirt and dust, low weight and quiet operation.

#### Also available as pre-assembled driven systems







**ZLW Page** 30.34









Turn-To-Fit carriages allow you to adjust the clearance for your application



DryLin® W Linear Guide Systems

PDF: www.igus.com/iglide-pdfs CAD: www.igus.com/iglide-CAD RoHS info: www.igus.com/RoHS







#### DryLin® W Single Rail - Square

Due to their geometry the square rails offer enhanced lifetime as the bearing surface area is larger than the round bearings. They also allow better compensation for shaft misalignments and angle errors, as well as are ideal to compensate for poor tolerances, mounting surfaces. Rails are hard-anodized aluminum, bearings are zinc (optional hard-anodized aluminum), and the bearing materials are iglide® J200 and iglide® J, depending on the series.





#### DryLin® W Single Rail - Round

The round series offers the most options, such as WJUME bearings with adjustable clearance, WJRM rolling hybrid bearings, as well as manually-locking hand clamps. This series is particularly well suited for dirty, dusty appplication.





#### DryLin® W Double Rail

This series reduces assembly time by eliminating shaft alignment. They also offer high torque support and torsional rigidity. This series also offers the most options, such as WJUME bearings with adjustable clearance, WJRM rolling hybrid bearings, as well as manually-locking hand clamps.





#### DryLin® W Complete Carriage

Pre-assembled bearing carriages are available to reduce assembly time and purchasing costs.





#### DryLin® W Stainless Steel

For the ultimate corrosion-resistant linear guide series our plastic linear bearings are coupled with 316-Series stainless.





#### DryLin® Specialists

WJUME - Adjustable, allows radial clearance adjustment by the use os a simple allen key.

WJRM - Rolling hybrid with reduced for hand powered and very low cycle applications.



#### DryLin® W Linear Guide Systems

#### DryLin® W - Sliding elements iglide® J and iglide® J200



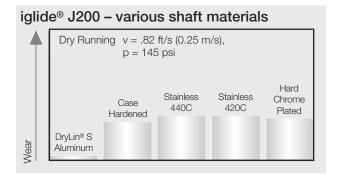
iglide® J (Standard in 10mm round only)



iglide® J200 Square



iglide® J200 Round



#### The iglide® J200 material

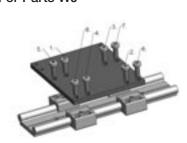
iglide® J200 material is especially developed for hard anodized aluminum surfaces. Comprehensive laboratory tests showed that iglide® J200 is by far the most suitable polymer material for linear motion applications on aluminum rails. iglide® J200 is 3 times as abrasion resistant on anodized aluminum than hardened steel. Special Characteristics of iglide® J200:

- Extreme durability using anodized aluminum
- Low abrasion using anodized aluminum
- Excellent wear resistance using anodized aluminum
- Maintenance free

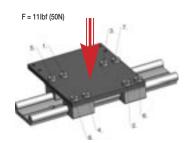
Iglide® J200 is standard on all DryLin® W products using hard anodized aluminum rail.

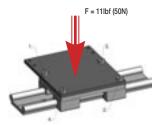
#### **DryLin® W Mounting Instructions**

#### For Parts WJ-

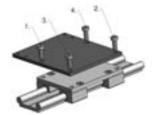


For Parts WK-









A thrust force of at least 11lbs (50N) applied to the center of the assembly is recommended during the mounting process.

#### Fastener/Torque

W-06: M4 = 13.27 lbf · in (1.5 Nm)W-10:  $M6 = 53 \text{ lbf} \cdot \text{in } (6 \text{ Nm})$ 

W-16: M8 = 133 lbf  $\cdot$  in (15 Nm)

W-20: M8 = 133 lbf  $\cdot$  in (15 Nm)

# DryLin® W Linear

# PDF: www.igus.com/iglide-pdfs





Size 06

Size 10 Size 16

Size 20

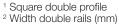
#### DryLin® W Linear Guide Systems **Technical Information**

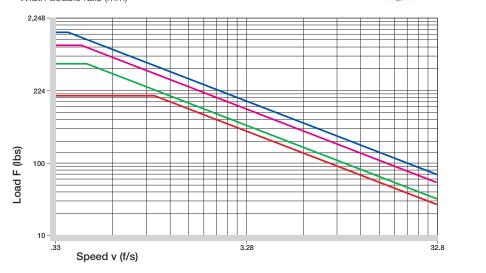
Туре	Type Carriage Length		Coy	Coz	Mox (lbf · ft)	Moy (lbf · ft)	Moz (lbf · ft)
	(in.) mm	Width (in.) mm	(lbs) N	(lbs) N	Nm	Nm	Nm
WW-06-30-06	(2.36) 60	(2.13) 54	(377) 1680	(377) 1680	(18) 25	(25) 34	(25) 34
WW-06-30-08	(3.15) 80	(2.13) 54	(377) 1680	(377) 1680	(18) 25	(37) 51	(37) 51
WW-06-30-10	(3.94) 100	(2.13) 54	(377) 1680	(377) 1680	(18) 25	(50) 68	(50) 68
WW-10-40-10	(3.94) 100	(2.87) 73	(1079) 4800	(1079) 4800	(70) 96	(125) 170	(125) 170
WW-10-40-15	(5.91) 150	(2.87) 73	(1079) 4800	(1079) 4800	(70) 96	(213) 290	(213) 290
WW-10-40-20	(7.87) 200	(2.87) 73	(1079) 4800	(1079) 4800	(70) 96	(302) 410	(302) 410
WW-10-80-10	(3.94) 100	(4.21) 107	(1079) 4800	(1079) 4800	(131) 178	(125) 170	(125) 170
WW-10-80-15	(5.91) 150	(4.21) 107	(1079) 4800	(1079) 4800	(131) 178	(213) 290	(213) 290
WW-10-80-20	(7.87) 200	(4.21) 107	(1079) 4800	(1079) 4800	(131) 178	(302) 410	(302) 410
WW-16-60-10	(3.94) 100	(4.09) 104	(1888) 8400	(1888) 8400	(177) 240	(199) 270	(199) 270
WW-16-60-15	(5.91) 150	(4.90) 104	(1888) 8400	(1888) 8400	(177) 240	(354) 480	(354) 480
WW-16-60-20	(7.87) 200	(4.09) 104	(1888) 8400	(1888) 8400	(177) 240	(509) 690	(509) 690
WW-20-80-15	(5.91) 150	(5.20) 134	(2877) 12800	(2877) 12800	(387) 525	(434) 670	(434) 670
WW-20-80-20	(7.87) 200	(5.20) 134	(2877) 12800	(2877) 12800	(387) 525	(730) 990	(730) 990
WW-20-80-25	(9.84) 250	(5.20) 134	(2877) 12800	(2877) 12800	(387) 525	(922) 1250	(922) 1250

Load capacities for complete carriage plates

#### DryLin® W - Rail Systems

	Size 6 (mm)	Size 10 (mm)	Size 16 (mm)	Size 20 (mm)
Single Rail - Round		•	•	•
Single Rail – Square	•	•	•	•
Double Rail				
	•	• •	•	•
Linear Guide System				
CI D	•	•	•	•





F x V Diagram, maximum permissible dynamic loads (4 bearing system)



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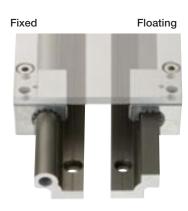
#### DryLin® W Linear Guide Systems - Design Notes

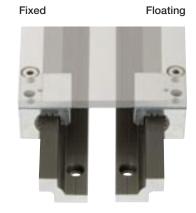


Floating bearings for all directions compensate misalignments and parallelism errors

#### System Assembling: Rails





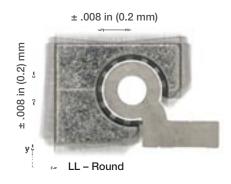


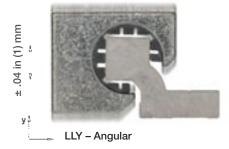
#### Floating bearings facilitate assembly – only necessary for individual rails.

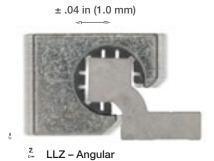
Assembly is easy with the DryLin® WQ square profile. Floating bearings for all directions (±1 mm) compensate for misalignments and parallelism errors between rails. This includes jamming, otherwise only prevented by time-consuming parallel alignment of the system.

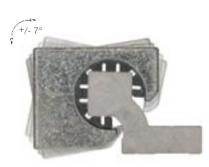
Although DryLin® W is a profile rail system, it is able to compensate angular rotation errors about the x-axis. An angular adjustment of  $\pm 7^{\circ}$  is possible. This effectively eliminates the problems known to occur when fitting to sheet metal.

#### Available floating bearing blocks









Rotating - Angular

27.8

#### DryLin® W Linear Guide Systems - Design Rules





DryLin® W Linear



PDF: www.igus.com/iglide-pdfs CAD: www.igus.com/iglide-CAD





When using systems with 2 parallel rails, one side must be designated as the "fixed" rail, and the opposite side as the "floating"

#### Why use floating bearings?

- promotes smooth gliding performance and maximizes bearing life
- prevents binding caused by parallelism and angle
- decreases necessary drive force and wear by minimizing friction-forces
- Enhances the precision of the system over the bearings' lifetime.
- · Reduce assembly time and cost

#### **Fixed Bearings**

The "fixed" bearing rail should be positioned closest to the drive force. This rail will determine the precision of the system; no system should contain more than two "fixed" bearings.

#### Floating/Self-Aligning Bearings

The "floating" rail should be the rail located furthest from the drive force. It is to act only as a guide, and will compensate for any misalignments or angle errors in the system ensuring proper functionality.

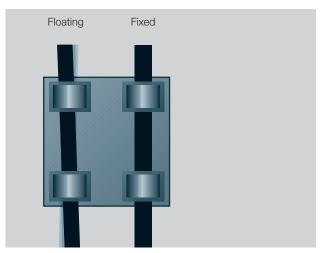
#### **Mounting Surfaces**

The mounting surfaces for rails and bearings should have a very flat surface (e.g milled surface) in order to enhance performance. Variations in these surfaces may be compensated for by using floating bearings.

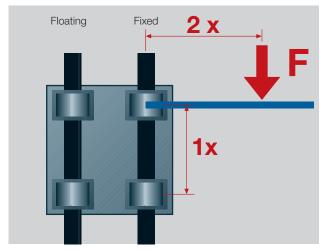
#### Eccentric Forces — The 2:1 Rule

When using linear plain bearings it is important to ensure that the acting forces follow the 2:1 Rule (see drawing). If either the load or the drive force (F) is greater than twice the bearing length (1X), then a binding or interrupted motion may occur.

If the location of the drive force or load cannot be changed, simply increase the distance between the bearings, or create a counterbalance to move the center-of-gravity back within the 2 to 1 ratio.



Automatic compensation of parallelism errors



The 2:1 Rule

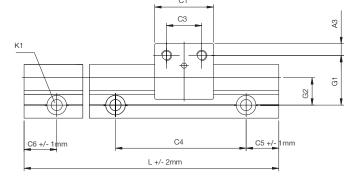
QuickSpec: http://www.igus.com/iglide-quickspec

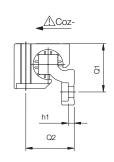


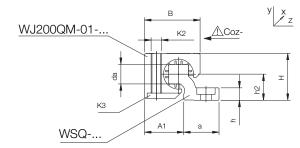
#### DryLin® W Linear Guide Systems Single Rail and Bearing Block - Square



 No cut charges for standard C5/C6 and overall length tolerances







#### DryLin® W guide rails - Square

Part No.	Weight	Н	da	L	а	h	h1	h2	G1	G2	A1	Q1	Q2
	(kg/m)	± 0.07 (mm)	-0.1 (mm)	Max. (mm)	–0.3 (mm)		(mm)						
WSQ-06	0.23	14	5	3000	14	4	4*	7.5	18	10.5	13.5	17	15
WSQ-10	0.54	20	7.5	4000	25	5.5	5.5*	11	27	17	18.5	26	21
WSQ-16	0.94	27	11.5	4000	27	7.5	3.5	14	33	19	25	32	28
WSQ-20	1.41	36	15	4000	27	9.5	4.5	20	38	21	30	37	37

Part No.	C4	C5 Min.	C5 Max.	C6 Min.	C6 Max.	K1 for screw	ly	lz	Wby	Wbz
	(mm)	(mm)	(mm)	(mm)	(mm)	DIN 912	(mm⁴)	(mm⁴)	(mm³)	(mm³)
WSQ-06	60	20	49.5	20	49.5	M4*	2200	640	220	100
WSQ-10	120	20	79.5	20	79.5	M6*	16100	3300	950	350
WSQ-16	120	20	79.5	20	79.5	M8	33000	10800	1700	910
WSQ-20	120	20	79.5	20	79.5	M8	56500	34000	2600	2100

Standard bore pattern symmetrical: C5 = C6; please order C5 ≠ C6 with drawing

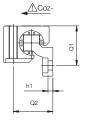
<sup>\*</sup> Through hole

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WJ200QM0120ALY

± 1.0

190

42.5

45

27

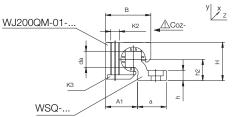
M8

M6

719 (3200)

719 (3200)

112 (500)

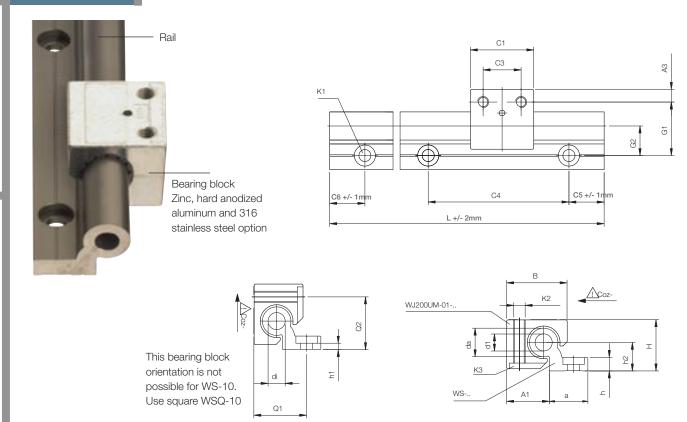


	C1	8
K1	<b>—</b>	- 5
		62
C6 +/- 1 nm	C4	m
-	L +/- 2mm	

<del></del>	L +/- 2mm										
Part No.	Floating	Weight	В	C1	C3	А3	K2	K3	Sta Cov	atic load capa Coz+	icity Coz-
	bearing <sub>play</sub>	(g)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	lbf (N)	lbf (N)	lbf (N)
Zinc Block											
WJ200QM-01-06	-	16	18	19	10	4.5	M4	МЗ	94 (420)	94 (420)	31 (140)
WJ200QM-01-10	-	41	26	29	16	6.5	M6	M5	270 (1200)	270 (1200)	56 (250)
WJ200QM-01-16	-	100	34.5	36	18	9	M8	M6	472 (2100)	472 (2100)	89 (400)
WJ200QM-01-20	-	190	42.5	45	27	9	M8	M6	719 (3200)	719 (3200)	112 (500
Floating Z-Direction											
WJ200QM0106LLZ	± 0.5	16	18	19	10	4.5	M4	МЗ	94 (420)	94 (420)	31 (140
WJ200QM0110LLZ	± 0.7	41	26	29	16	6.5	M6	M5	270 (1200)	270 (1200)	56 (250
WJ200QM0116LLZ	± 1.0	100	34.5	36	18	9	M8	M6	472 (2100)	472 (2100)	89 (400
WJ200QM0120LLZ	± 1.0	190	42.5	45	27	9	M8	M6	719 (3200)	719 (3200)	112 (500
Floating Y-Direction											
WJ200QM0106LLY	± 0.5	16	18	19	10	4.5	M4	МЗ	94 (420)	94 (420)	31 (140
WJ200QM0110LLY	± 0.7	41	26	29	16	6.5	M6	M5	270 (1200)	270 (1200)	56 (250
WJ200QM0116LLY	± 1.0	100	34.5	36	18	9	M8	M6	472 (2100)	472 (2100)	89 (400
WJ200QM0120LLY	± 1.0	190	42.5	45	27	9	M8	M6	719 (3200)	719 (3200)	112 (500
Aluminum Block											
WJ200QM0106AL	-	7	18	19	10	4.5	M4	МЗ	94 (420)	94 (420)	31 (140)
WJ200QM0110AL	-	20	26	29	16	6.5	M6	M5	270 (1200)	270 (1200)	56 (250)
WJ200QM0116AL	-	47	34.5	36	18	9	M8	M6	472 (2100)	472 (2100)	89 (400
WJ200QM0120AL	-	94	42.5	45	27	9	M8	M6	719 (3200)	719 (3200)	112 (500
Floating Z-Direction											
WJ200QM0106ALZ	± 0.5	16	18	19	10	4.5	M4	МЗ	94 (420)	94 (420)	31 (140
WJ200QM0110ALZ	± 0.7	41	26	29	16	6.5	M6	M5	270 (1200)	270 (1200)	56 (250
WJ200QM0116ALZ	± 1.0	100	34.5	36	18	9	M8	M6	472 (2100)	472 (2100)	89 (400
WJ200QM0120ALZ	± 1.0	190	42.5	45	27	9	M8	M6	719 (3200)	719 (3200)	112 (500
Floating Y-Direction											
WJ200QM0106ALY	± 0.5	16	18	19	10	4.5	M4	МЗ	94 (420)	94 (420)	31 (140
WJ200QM0110ALY	± 0.7	41	26	29	16	6.5	M6	M5	270 (1200)	270 (1200)	56 (250
WJ200QM0116ALY	± 1.0	100	34.5	36	18	9	M8	M6	472 (2100)	472 (2100)	89 (400



#### DryLin® W Linear Guide Systems Single Rail and Bearing Block - Round



#### DryLin® W guide rails - Round

Part No.	Weight	H ± 0.07	da -0.1	di	L Max.	a -0.3	h	h1	h2	G1	G2	A1	Q1	Q2
	(kg/m)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
WS-10	0.62	18	10	-	4000	27	5.5	5.5**	9	27	17	16.5	-	-
WS-16	0.98	27	16	8.0	4000	27	7.5	3.5	14	33	19	25	32	28
WS-20	1.32	36	20	10.2	4000	27	9.5	4.5	20	38	21	30	37	37
Part No.		C4	C5	C5	C6		C6	K1 for		ly	lz	Wby		Wbz
		(mm)	Min. (mm)	Max. (mm)	Min. (mm)		Max. (mm)	screw DIN 912		(mm <sup>4</sup> )	(mm⁴)	(mm³)		(mm³)
WS-10		120	20	79.5	20		79.5	M6**		19000	2850	1000		310
WS-16		120	20	79.5	20		79.5	M8		36000	12900	1800		940
WS-20		120	20	79.5	20		79.5	M8		57100	35000	2700		1900

Standard bore pattern symmetrical: C5 = C6; please order C5  $\neq$  C6 with drawing

<sup>\*\*</sup> Through hole





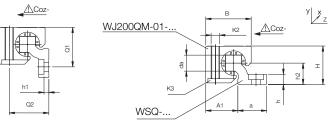
DryLin® W Linear **Guide Systems** 

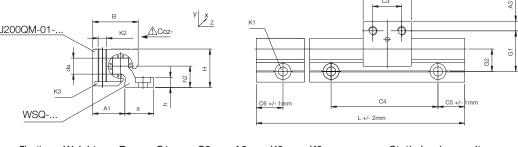
RoHS info: www.igus.com/RoHS CAD: www.igus.com/iglide-CAD PDF: www.igus.com/iglide-pdfs











Part No.	Floating	Weight	В	C1	C3	A3	K2	K3	Static load capacity		city
	bearing								Coy	Coz+	Coz-
	play	(g)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	lbf (N)	lbf (N)	lbf (N)
Zinc Block											
WJ200UM-01-10	-	41	26	29	16	6.5	M6	M5	270 (1200)	270 (1200)	56 (250)
WJ200UM-01-16	_	100	34.5	36	18	9	M8	M6	472 (2100)	472 (2100)	89 (400)
WJ200UM-01-20	_	190	42.5	45	27	9	M8	M6	719 (3200)	719 (3200)	112 (500)
Floating (extra clearance)											
WJ200UM0110LL	±0.2	41	26	29	16	6.5	M6	M5	270 (1200)	270 (1200)	56 (250)
WJ200UM0116LL	±0.2	100	34.5	36	18	9	M8	M6	472 (2100)	472 (2100)	89 (400)
WJ200UM0120LL	±0.2	190	42.5	45	27	9	M8	M6	719 (3200)	719 (3200)	112 (500)
Aluminum Block											
WJ200UM0110AL	-	20	26	29	16	6.5	M6	M5	270 (1200)	270 (1200)	56 (250)
WJ200UM0116AL	-	47	34.5	36	18	9	M8	M6	472 (2100)	472 (2100)	89 (400)
WJ200UM0120AL	-	94	42.5	45	27	9	M8	M6	719 (3200)	719 (3200)	112 (500)
Floating											
WJ200UM0110ALL	±0.2	41	26	29	16	6.5	M6	M5	270 (1200)	270 (1200)	56 (250)
WJ200UM0116ALL	±0.2	100	34.5	36	18	9	M8	M6	472 (2100)	472 (2100)	89 (400)
WJ200UM0120ALL	±0.2	190	42.5	45	27	9	M8	M6	719 (3200)	719 (3200)	112 (500)

#### DryLin® W Linear Guides with "Turn-to-Fit"



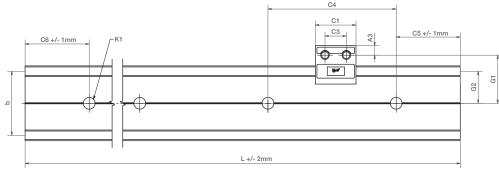
- Manual adjustable clearance by "Turn-To-Fit" function (allen key included in delivery)
- Adjusting screw: max. torque 0.1 Nm
- 100 % lubrication-free
- Compact dimensions
- 8 different rail profiles available

Part No.	Weight	В	C1	C3	А3	K2	Н	SW Required Allen Key	G1	
	(g)	(mm)	(mm)							
WJUME-01-10	43	26	29	16	6.5	M6	18	1.5	27	
WJ200UME-01-16	110	34.5	36	18	9	M8	27	2.5	33	
WJ200UME-01-20	222	42.5	45	27	9	M8	36	2.5	38	

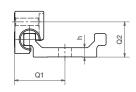


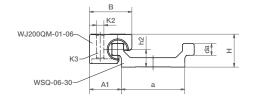
#### DryLin® W Linear Guide Systems Double Rail and Bearing Block - Square













#### DryLin® W Guide Rails - Square

Part No.	Weight	н.	da	di	L	а	b	h	h1	h2	G1	G2	A1	
			±0.07	-0.1		Max.	-0,3							
	(kg/m)	(mm)	(mm)		(mm)									
WSQ-06-30	0.45	14	5	-	3000	27	30	4	4	7.5	22.5	10.5	13.5	

Part No.	C4	C5 Min.	C5 Max.	C6 Min.	C6 Max.	K1 for	ly	lz	Wby	Wbz
	(mm)	(mm)	(mm)	(mm)	(mm)	DIN 912	(mm <sup>4</sup> )	(mm <sup>4</sup> )	(mm³)	(mm³)
WSQ-06-30	60	20	49.5	20	49.5	M4	19000	1250	1100	200

#### DryLin® W Bearing Block

Part No.	Weight	В	C1	C3	A3	K2	K3	Stat	ic load cap	acity
								Coy	Coz+	Coz-
Zinc Block	(g)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(N)	(N)	(N)
ZIIIC DIOCK										
WJ200QM0106	16	18	19	10	4.5	M4	M3	94 (420)	94 (420)	31 (140)
Aluminum Block										
WJ200QM0106AL	7	18	19	10	4.5	M4	M3	94 (420)	94 (420)	31 (140)

#### DryLin® W Linear Guide Systems Guide Carriage, Fitted - Square





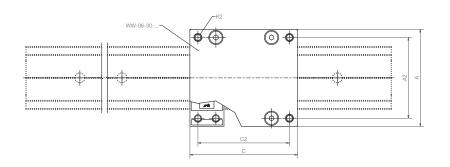
DryLin® W Linear Guide Systems

PDF: www.igus.com/iglide-pdfs CAD: www.igus.com/iglide-CAD RoHS info: www.igus.com/RoHS

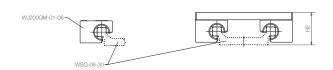










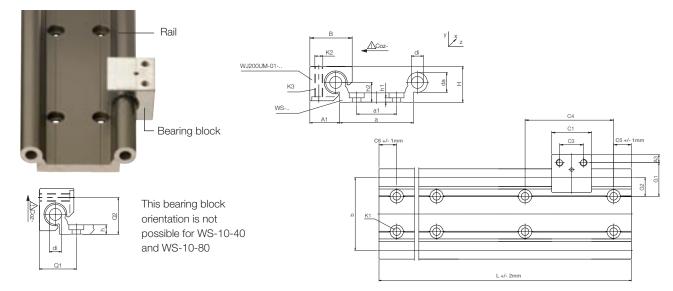


#### DryLin® W Carriages, fitted

Part No.	Weight	Α	С	A2	A2 C2		H2	Static load capacity					
		Width	Length				±0.17	Coy	Coz	Mox	Moy	Moz	
	(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	lbs (N)	lbs (N)	lbs (Nm)	lbf·ft (Nm)	lbf·ft (Nm)	
For Guide Rail WSQ-0	6-30												
Zinc Block													
WW-06-30-06	0.10	54	60	45	51	M4	18	377 (1680)	188 (840)	18 (25)	25 (34)	25 (34)	
WW-06-30-08	0.11	54	80	45	71	M4	18	377 (1680)	188 (840)	18 (25)	37 (51)	37 (51)	
WW-06-30-10	0.12	54	100	45	91	M4	18	377 (1680)	188 (840)	18 (25)	50 (68)	50 (68)	
Aluminum Block													
WW-06-30-06AL	0.07	54	60	45	51	M4	18	377 (1680)	188 (840)	18 (25)	25 (34)	25 (34)	
WW-06-30-08AL	0.08	54	80	45	71	M4	18	377 (1680)	188 (840)	18 (25)	37 (51)	37 (51)	
WW-06-30-10AL	0.09	54	100	45	91	M4	18	377 (1680)	188 (840)	18 (25)	50 (68)	50 (68)	



# DryLin® W Linear Guide Systems Double Rail and Bearing Block - Round



#### DryLin® W Guide Rails

Part No.	Weight	<b>H</b> ± 0.07	da -0.1	di	L Max.	a -0.3	b	h	h1	h2	G1	G2	a1*	
	(kg/m)	(mm)	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
WS-10-40	1.00	18	10	-	4000	40	40	5.5	5.5**	9	27	17	-	
WS-10-80	1.50	18	10	-	4000	74	74	5.5	5.5**	9	27	17	40	
WS-16-60	1.96	27	16	8.0	4000	54	58	7.5	3.5	14	33	19	-	
WS-20-80	3.30	36	20	10.2	4000	74	82	9.5	4.5	20	38	21	40	

<sup>\*</sup> WS-10-40 and WS-16-60 have a single row of mounting holes down the center line

<sup>\*\*</sup> WS-10-80 and WS-20-80 have two parallel rows of mounting holes

Part No.	C4	C5	C5	C6	C6	K1 for	ly	lz	Wby	Wbz	
		Min.	Max.	Min.	Max.	screw					
	(mm)	(mm)	(mm)	(mm)	(mm)	DIN 912	(mm <sup>4</sup> )	(mm <sup>4</sup> )	(mm³)	(mm³)	
WS-10-40	120	20	79.5	20	79.5	M6***	91000	5100	3600	590	
WS-10-80	120	20	79.5	20	79.5	M6***	388000	6100	9200	650	
WS-16-60	120	20	79.5	20	79.5	M8	367600	26100	9900	1900	
WS-20-80	120	20	79.5	20	79.5	M8	1080000	78700	21000	4000	

Standard bore pattern symmetrical: C5 = C6; please order C5 ≠ C6 with drawing. \*\*\* Through bore

#### DryLin® W Bearing Block

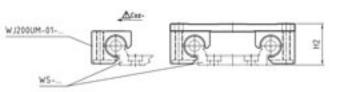
Part No.	Weight	В	C1	C3	A3	K2	K3		tic load capa	•
	(g)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	Coy (N)	Coz+ (N)	Coz– (N)
Zinc Block	(9)	()	()	(******)	()	(******)	()	()	(-7	()
WJ200UM-01-10	41	26	29	16	6.5	M6	M5	270 (1200)	270 (1200)	56 (250)
WJ200UM-01-16	100	34.5	36	18	9	M8	M6	472 (2100)	472 (2100)	89 (400)
WJ200UM-01-20	190	42.5	45	27	9	M8	M6	719 (3200)	719 (3200)	112 (500)
Aluminum Block										
WJ200UM0110AL	41	26	29	16	6.5	M6	M5	270 (1200)	270 (1200)	56 (250)
WJ200UM0116AL	100	34.5	36	18	9	M8	M6	472 (2100)	472 (2100)	89 (400)
WJ200UM0120AL	190	42.5	45	27	9	M8	M6	719 (3200)	719 (3200)	112 (500)
Aluminum Block										
WJ200UM0110AL	41	26	29	16	6.5	M6	M5	270 (1200)	270 (1200)	56 (250)
WJ200UM0116AL	100	34.5	36	18	9	M8	M6	472 (2100)	472 (2100)	89 (400)
WJ200UM0120AL	190	42.5	45	27	9	M8	M6	719 (3200)	719 (3200)	112 (500)

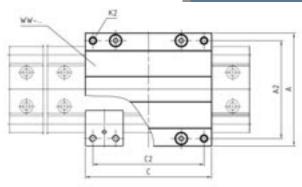
#### DryLin® W Linear Guide Systems Guide Carriage, Fitted - Round





\*DryLin® W manual clamp (optional) Use suffix HKA to the end of the part number when ordering Example: WW-16-60-15HKA







Also available as version with adjustable clearance in installation sizes 10, 16 and 20: Order example, WWE-10-40-15

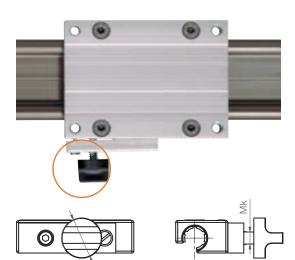
Dryl in®	W	Carriages,	fitted
	W W	Carriages,	IIIII

Part No.	Weight	A	С	A2	C2	K2	H2		Statio	c load car	oacity	
		Width	Length				±0.17	Coy	Coz	Mox	Moy	Moz
For Cuido Dail W	(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	lbs (N)	lbs (N)	lbs (Nm)	lbf·ft (Nm)	lbf·ft (Nm)
For Guide Rail W	5-10-40								(See Page 27	7.7 for more	informatio	n)
Zinc Block												
WW-10-40-10	0.29	73	100	60	87	M6	24	1079 (4800)	539 (2400)	70 (96)	125 (170)	125 (170)
WW-10-40-15	0.34	73	150	60	137	M6	24	1079 (4800)	539 (2400)	70 (96)	213 (290)	213 (290)
WW-10-40-20	0.40	73	200	60	187	M6	24	1079 (4800)	539 (2400)	70 (96)	302 (410)	302 (410)
Aluminum Block												
WW-10-40-10AL	0.29	73	100	60	87	M6	24	1079 (4800)	539 (2400)	70 (96)	125 (170)	125 (170)
WW-10-40-15AL	0.34	73	150	60	137	M6	24	1079 (4800)	539 (2400)	70 (96)	213 (290)	213 (290)
WW-10-40-20AL	0.40	73	200	60	187	M6	24	1079 (4800)	539 (2400)	70 (96)	302 (410)	302 (410)
For Guide Rail W	S-10-80											
Zinc Block												
WW-10-80-10	0.34	107	100	94	87	M6	24	1079 (4800)	539 (2400)	131 (178)	125 (170)	125 (170)
WW-10-80-15	0.42	107	150	94	137	M6	24	1079 (4800)	539 (2400)	131 (178)	213 (290)	213 (290)
WW-10-80-20	0.50	107	200	94	187	M6	24	1079 (4800)	539 (2400)	131 (178)	302 (410)	302 (410)
Aluminum Block												
WW-10-80-10AL	0.34	107	100	94	87	M6	24	1079 (4800)	539 (2400)	131 (178)	125 (170)	125 (170)
WW-10-80-15AL	0.42	107	150	94	137	M6	24	1079 (4800)	539 (2400)	131 (178)	213 (290)	213 (290)
WW-10-80-20AL	0.50	107	200	94	187	M6	24	1079 (4800)	539 (2400)	131 (178)	302 (410)	302 (410)
For Guide Rail W	S-16-60											
Zinc Block												
WW-16-60-10	0.71	104	100	86	82	M8	35	1888 (8400)	944 (4200)	177 (240)	199 (270)	199 (270)
WW-16-60-15	0.84	104	150	86	132	M8	35	1888 (8400)	944 (4200)	177 (240)	354 (480)	354 (480)
WW-16-60-20	0.97	104	200	86	182	M8	35	1888 (8400)	944 (4200)	177 (240)	508 (690)	508 (690)
Aluminum Block												
WW-16-60-10AL	0.71	104	100	86	82	M8	35	1888 (8400)	944 (4200)	177 (240)	199 (270)	199 (270)
WW-16-60-15AL	0.84	104	150	86	132	M8	35	1888 (8400)	944 (4200)	177 (240)	354 (480)	354 (480)
WW-16-60-20AL	0.97	104	200	86	182	M8	35	1888 (8400)	944 (4200)	177 (240)	508 (690)	508 (690)
For Guide Rail W	S-20-80											
Zinc Block												
WW-20-80-15	1.20	134	150	116	132	M8	44	2878 (12800)	1439 (6400)	387 (525)	494 (670)	494 (670)
WW-20-80-20	1.30	134	200	116	182	M8	44	2878 (12800)	1439 (6400)	387 (525)	730 (990)	730 (990)
WW-20-80-25	1.50	134	250	116	232	M8	44	2878 (12800)	1439 (6400)		922 (1250)	
Aluminum Block								, , ,		,	,,	. ,
WW-20-80-15AL	1.20	134	150	116	132	M8	44	2878 (12800)	1439 (6400)	387 (525)	494 (670)	494 (670)
WW-20-80-20AL	1.30	134	200	116	182	M8	44	2878 (12800)	, ,	387 (525)	730 (990)	730 (990)
WW-20-80-25AL	1.50	134	250	116	232	M8	44	2878 (12800)	, ,	` ′	922 (1250)	, ,
								(.2000)	(0.00)	11. (020)	(1200)	( 0)



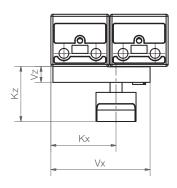
### DryLin® W Linear Guide Systems Accessories

#### DryLin® W - manual clamp



#### Special properties

- Cost-efficient option
- Universal applications
- Clamping force based on tightening torque
- Clamping by locking friction



#### DryLin® W Manual Clamp

Part number	Mk	Vx	Kx	Vz	Kz	Dk	Min. holding strength**	Min. tightening torque
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(N)	(Nm)
WHKA-10*	M6	50	33	8	28	20	30	0.8
WHKA-16*	M8	72	32	10	31	26	60	1.5
WHKA-20*	M8	90	29	10	31	26	70	1.5

\*DryLin® W manual clamp is also available as a complete carriage us suffix HKA when ordering. Example: WW-10-40-10HKA

#### ➤ Complete carriage WW page X.XX

**Please Note:** The creep behavior of the clamped plastic results in reduced clamping force over time (up to 70%). Therefore safety-related parts should use an alternative method.

<sup>\*\*</sup> Condition: dry rail surface

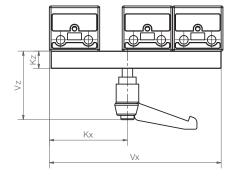
#### DryLin® W Linear Guide Systems Accessories

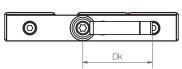
#### DryLin® W - manual clamp

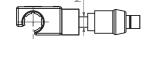


#### Special properties

- Available as single part or assembled on guide carriage
- Clamping force based on tightening torque
- Clamping by locking friction







#### DryLin® W Manual Clamp

Part number	Mk	Vx	Kx	Vz	Kz	Dk	Min. holding strength**	Min. tightening torque
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(N)	(Nm)
WHKD-10*	M6	99	45	40	10	40	70 N	2.5 Nm
WHKD-20*	M8	149	87	-	15	-	90 N	3.5 Nm

\*DryLin® W manual clamp is also available as a complete carriage us suffix HKA when ordering. Example: WW-10-40-10HKD

#### ➤ Complete carriage WW page X.XX

Please Note: The creep behavior of the clamped plastic results in reduced clamping force over time (up to 70%). Therefore safety-related parts should use an alternative method.

#### DryLin® W – digital measuring device

#### Special properties

Installation: right (R) or left (L) of guide carriage

Measuring principle: magnetic with magnetic tape (10 x 1.4 mm)

Resolution:

Accuracy: ±0.1 + 0.01 x measured length (m) mm

5 years powered 100% of the time Service life:

● Operation temperature: +32 °F to +140 °F

LCD Display: Repeat accuracy: ±1 Digit

Absolute and incremental measuring method



Wireless measuring device with direct, digital indication of position

Part No.: WKM-10 / WKM-20

#### Clean room suitability and ESD-compatibility



You can find detailed results on

➤ Page 25.12

<sup>\*\*</sup> Condition: dry rail surface



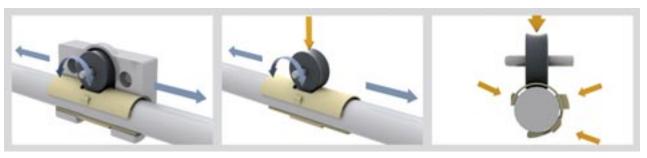
#### DryLin® W Linear Guide Systems Hybrid Linear Bearing - Roll and Slide

An additional DryLin® W solution is a combined rolling and sliding carriage. Because of the defined load direction the required drive force is reduced by a maintenance free roller bearing. This system represents an ideal solution for many hand powered applications. Ideal for machine tool guards, furniture and camera/film applications.

- Roller made pf plastic
- Liner made of iglide® J
- Low drive force needed, friction: 0.04-0.05µ
- Cost-effective vs. other roller systems
- Can be combined with 7 linear profile rails

#### Compatible Guide Rails

WS-10	Page 27.12
WS-10-40	Page 27.16
WS-10-80	Page 27.16
WS-16	Page 27.12
WS-16-60	Page 27.16
WS-20	Page 27.12
WS-20-80	Page 27.16



#### Load Data and Dimensions

Part number	Stat. load capacity  Co	•	. load capacity running distan	F·v	
		10	100	200	max.
	[N]	[N]	[N]	[N]	(N·m/s)
WJRM-01-10	250	250	90	50	50
WJRM-01-16	400	400	140	70	80
WJRM-01-20	550	550	200	100	80

Part number	Friction in +z direction	Weight (g)	В	B2	C1	C3	G1	A3	A1	K2	K3 (N)	Q1	Q2
WJRM-01-10	< 0.1	46	26	2.5	35	22	27	6.5	16.5	M6	M5	-	-
WJRM-01-16	< 0.1	131	34.5	5	48	30	33	9	25	M8	M6	32	28
WJRM-01-20	< 0.1	232	42.5	6	52	34	38	9	30	M8	M6	37	37

#### DryLin® W Linear Guide Systems Hybrid Linear Bearing - Roll and Slide



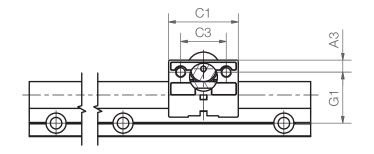


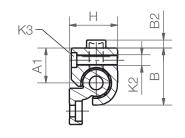
DryLin® W Linear Guide Systems

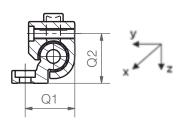
PDF: www.igus.com/iglide-pdfs CAD: www.igus.com/iglide-CAD RoHS info: www.igus.com/RoHS











This installation position is not possible for combination of WJRM-01-10 with rail WS-10/WS-10-40/WS-10-80

#### **Load Data and Dimensions**

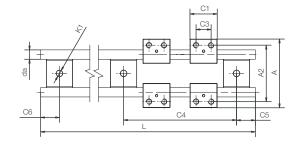
Part No.	Friction in +z direction	Weight	В	B2	C1	C3	G1	A3	A1	K2	K3	Q1	Q2
		(g)	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(N)	(mm)	(mm)
WJRM-01-10	<0.1	46	26	2.5	35	22	27	6.5	16.5	M6	M5	-	-
WJRM-01-16	<0.1	131	34.5	5	48	30	33	9	25	M8	M6	32	28
WJRM-01-20	<0.1	232	42.5	6	52	34	38	9	30	M8	M6	37	37

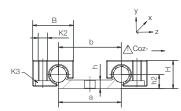




## DryLin® W Linear Guide Systems, 316 Stainless Steel







DryLin® W Guide Rail, Double, ø 10 mm

Part No.	Suitable bearing	Weight	da h9	L Max.	a -0,3	b	h	h2
	(Part No.)	(kg/m)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
WS-10-40-ES (FG)	WJUM-01-10-ES (FG)	1.58	10	3000	40	40	5.5	9
(FG) - cast 316								

Part No.	C4	C5	C5	C6	C6	K1 for
		Min.	Max.	Min.	Max.	screw
	(mm)	(mm)	(mm)	(mm)	(mm)	DIN 912
WS-10-40-ES (FG)	120	20	79.5	20	79,5	M6

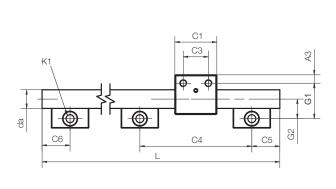
(FG) - cast 316

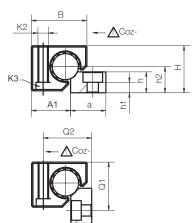
#### DryLin® W Bearing Blocks

Part No.	Weight	Н	В	C1	СЗ	Α	A2	K2	К3	Static load capacity		
		$\pm 0,07$							Countersunk	Coy	Coz+	Coz-
	(g)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	screw	lbs (N)	lbs (N)	lbs (N)
WJUM-01-10-ES (FC	<b>3)*</b> 57	18	26	29	16	73	60	M6	M5	854 (3800)	854 (3800)	213 (950)
(EC) cost 216												

\* TUMO-01-10 liners are optional extra, page 27.26, for high temperatures







#### DryLin® W-Guide rail, single, ø 20 mm

Part No.	Suitable bearing		Weight	da hs		L Max.	a -0,3	h	h2	G2	
	(	Part No.)		(kg/m)	(mı	m) (	mm)	(mm)	(mm)	(mm)	(mm)
WS-20-ES (FG)	WJUM-	01-20-ES (	(FG)	3.37	20	0 3	8000	27	16	20	21
(FG) - cast 316	t 316										
Part No.	C4	C5 Min.	C5 Max.	C6 Min.	C6 Max.	K1 for screw	h1	ly	lz	Wby	Wbz
	(mm)	(mm)	(mm)	(mm)	(mm)	DIN 912	(mm)	(mm <sup>4</sup> )	(mm <sup>4</sup> )	(mm³)	(mm³)
WS-20-ES (FG)	120	20	79.5	20	79,5	M8	8	7854	7854	785	785
(FG) - cast 316											

#### DryLin® W housing bearings

•	o. WT H		0													
Part No.			В	C.	1 C3		G1 A3		A1	K2	K3	Q1	Q2	Static load capacity		
		$\pm 0,07$	0,07							Countersunk-			Coy	Coz+	Coz-	
	(g)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	head screw	(mm)	(mm)	(N)	(N)	(N)	
WJUM-01-20-ES (FG)*	280	36	42.5	45	27	38	9	30	M8	M6	37	37	2473 (11000)	2473 (11000)	4270(1900)	

<sup>\*</sup> TUMO-01-20 liners are optional for high temperatures up to 482°F

(FG) - cast 316



DryLin® W Linear Guide Systems

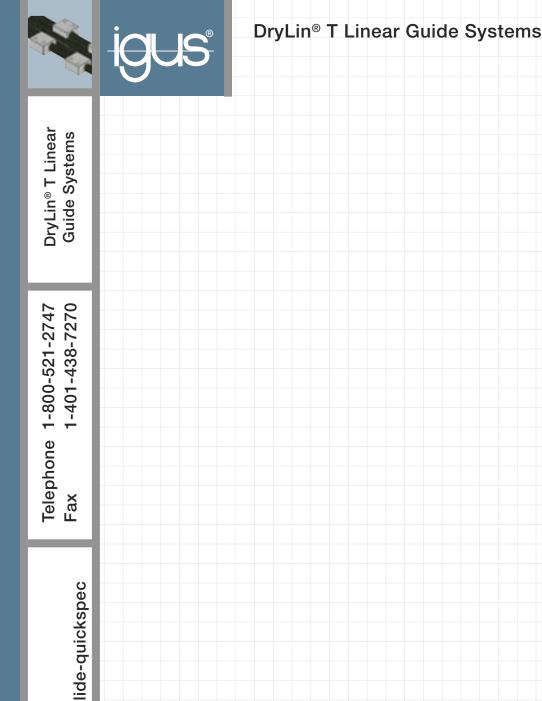
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