

# 115 Linear motion friction guides

As a global leader in the design and manufacture of sliding systems, Accuride® presents a range of plain bearing friction guides for automation and handling systems.

Using only the highest quality materials Accuride has developed three friction guides to be used on a hard anodised aluminium track.



**Three guide options:** non-adjust, manual adjust and auto adjust

# Why use friction guides?

Friction guides are competitively priced compared to high precision ball guides, yet are still suitable for most automation requirements.

The height, width and hole pitches all refer to the same ISO standard so they can be used as an interchangeable alternative to recirculating linear guides (guide and track together).

Obviously, friction movement means no ball bearings so no lubrication maintenance is required. **They can be used in harsh environments and in and around many types of liquids.**

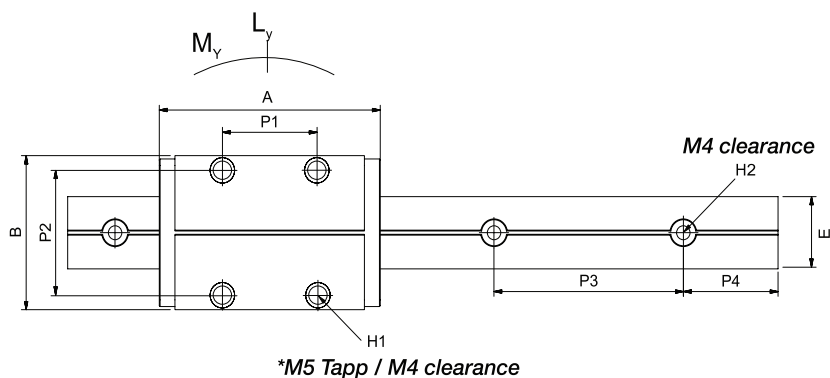
The products are ultra-low weight and yet have a high static load bearing and are exceptionally durable. Because of the simple design and construction, they are not subject to catastrophic failure.

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- Lightweight aluminium track, lengths 1m and 2m with pre-drilled fixing holes
  - Three guide options: non-adjust, manual adjust, automatic adjust
  - Ultra-low wear
  - No lubrication required: maintenance free
  - Resistant to dirt and dust
  - Suitable for harsh environments
  - Vibration resistant and quiet operation
  - Corrosion resistant and suitable for high pressure wash down
  - The guides can be used in any orientation. They have been designed to absorb equal wear in both the Y and Z orientations
  - Two or more tracks can be butted together to create a longer track. Misaligned tracks will cause excessive wear on the guides

Item	Order Code
1m track x 1	DFG115-0100
2m track x 1	DFG115-0200
Guide x 1 (Manual adjustment)	DFG115-CASSMA
Guide x 1 (Automatic adjustment)	DFG115-CASSAA
Guide x 1 (Non-adjustable)	DFG115-CASSNA

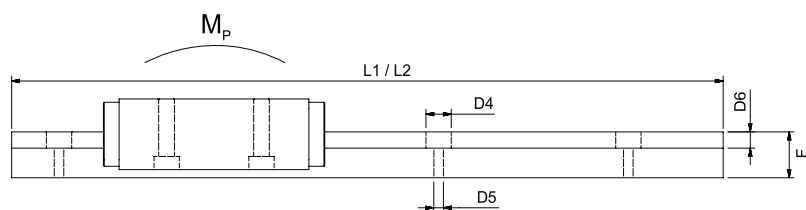
## Guide Dimensions (mm)

A	B	C	D	P1	P2	H1*	D1	D2
70	47	24	2.5	30	38	M5	8	17.5



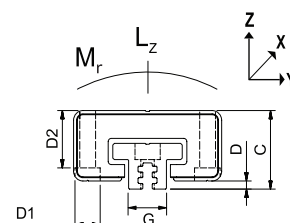
## Track Dimensions (mm)

						L1	L2				
E	F	G	L1	L2	P3	P4	H2	D4	D5	D6	
22	14	12	1000	2000	60	20	40	M4	8	4.3	5



## Technical Data

Static Load (kN)			Static Moments (Nm)			Temp Range	
$L_y$	$L_z$	$-L_z$	$M_y$	$M_r$	$M_p$	Min	Max
2	4	4	10	10	10	-10°C	+90°C



Order Code	DFG115-CASSNA	DFG115-CASSMA	DFG115-CASSAA
<b>Description</b>	The non-adjustable version is our most cost effective guide. The movement /clearance cannot be adjusted	Manually adjust the guide with an Allen key to create the perfect clearance or preload for your application**	Once loaded onto the track and the installation pins removed*** the guide automatically adjusts the friction elements to produce a small preload. This adjustment will continue to operate throughout the life of the product in the unloaded orientations. The friction elements will also act as a preloaded floating bearing
<b>Size</b>	Refers to ISO standard 12090		
<b>Friction element</b>	Advanced technical polymer		
<b>Clearance</b>	± 0.125mm clearance in Y and Z orientations	Can be configured to retain a ± 0.3mm clearance in Y and ± 0.25mm clearance in Z orientation	N/A
<b>Preload</b>	N/A	Or up to a 30N preload	Preload 4.5N (± 1N)
<b>Accuracy*</b>	± 0.45mm (Y axis) ± 0.475mm (Z axis)	± 0.675mm (Y axis) ± 0.75mm (Z axis)	± 0.675mm (Y axis) ± 0.75mm (Z axis)
<b>Weight</b>	92 grams	99 grams	96 grams

\* Figures refer to the out of the box installation clearance, plus the maximum wear limit over the products' life

\*\* Do not overtightened grub screws. Max. torque 0.1Nm

\*\*\* Pins may become loose if left in place whilst in operation

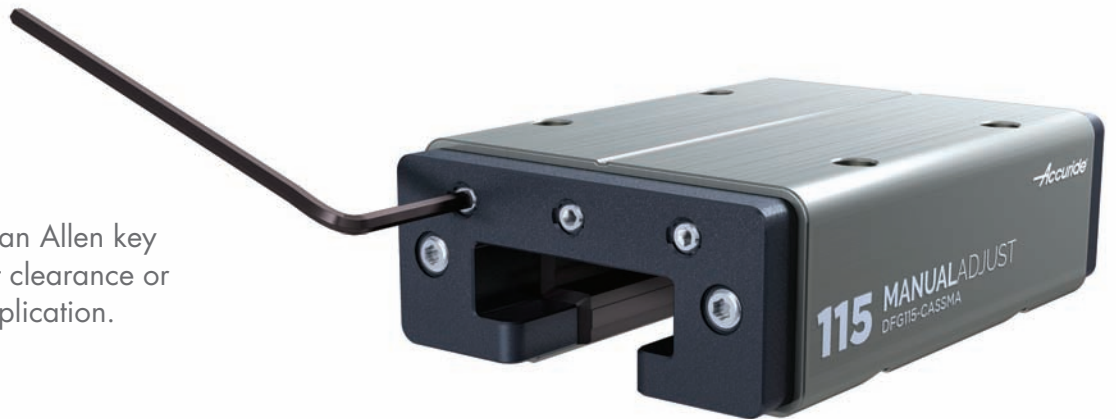
## Product Specifications

Track	Aluminium 6063 - T6
Guide chassis	Hard anodised
Friction elements	Advanced technical polymer
Polymer components	Acetyl
Metal components	Stainless steel/lead brass

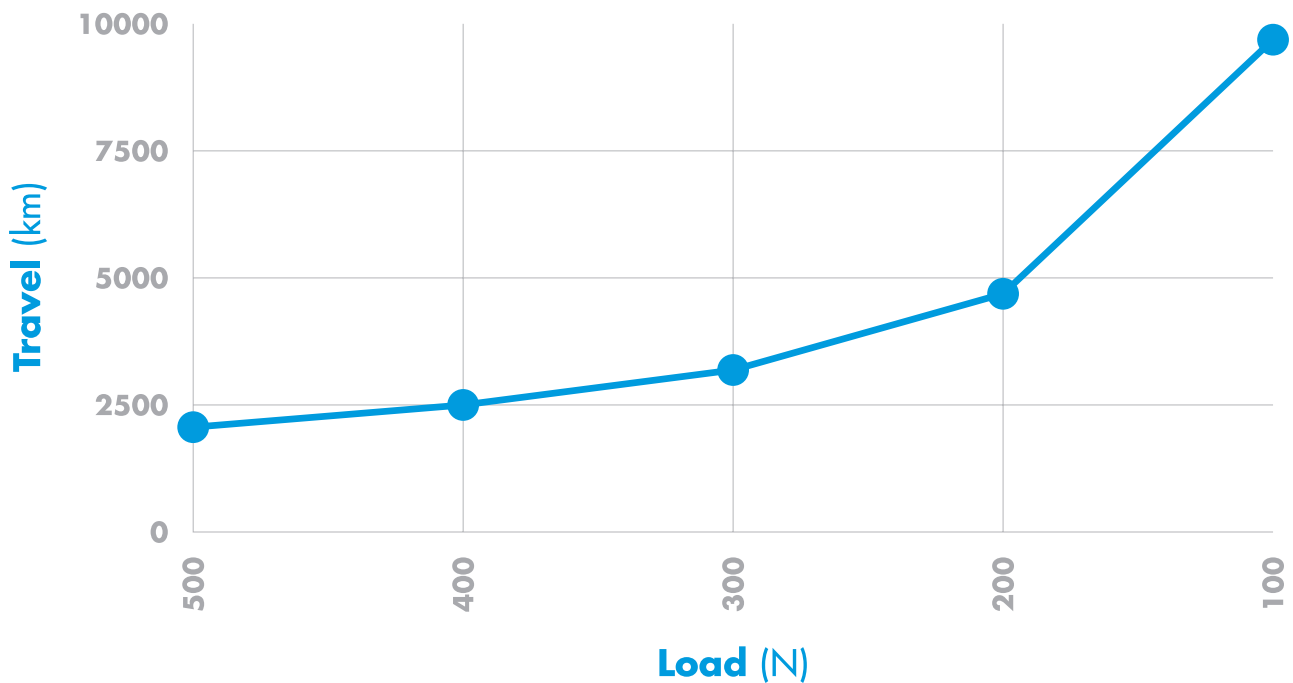


Both the manual and automatic adjustable guides can be adjusted in the Z and Y directions.

Manual adjust: use an Allen key to create the perfect clearance or preload for your application.



Packaging protects the products during transit and storage, and is colour coded for easy identification.



The graph shows Accuride's travel rating (km) per load (N) for a single guide in a clean environment. Data was taken under a constant speed of 1m/s and at an ambient temperature of 20°C. Travel rating may vary when altering these variables.

Accuride has tested to maximum of 2m/s and higher speeds are achievable.

Please ensure loads are applied correctly and within the limits specified. All fixing holes should be used. Off centre loading will apply additional wear. Environment, temperature and speed can affect performance. Please test products to your specific requirements.

Visit [www.accuride-europe.com](http://www.accuride-europe.com) for our load, travel and service life calculator.

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