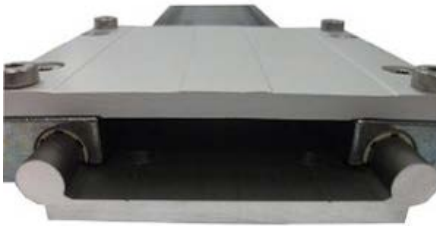


TECHTALK DESIGN ADVICE SERIES

5 WAYS TO CHOOSE THE BEST DRYLIN® W LINEAR GUIDE FOR YOUR APPLICATION



Ten years ago, [round-shaped ball bearings](#) or [T-shaped linear profile rails](#) were the two geometries found on most machines.

Nowadays, the introduction of flexible, long-lasting DryLin® W linear guides has changed all that.

DryLin® W is available either as a double-rail system — which eliminates the need for alignment — or as single rails, for flexibility.

The lightweight, oil-free, and low-cost linear guides replace bulky pillow blocks and shaft supports, as well as unnecessary seals, wipers, and lubrication systems.

Here are five steps that will help you select the best DryLin® W system for your application:

1. Choose your materials:

a) Carriages

Choose between single carriage blocks in low-cost zinc, hard-anodized aluminum, and 316 Stainless Steel:

Hard-anodized aluminum is better suitable to high shock loads and is also lightweight and corrosion resistant. 316 Stainless Steel is both



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impervious to corrosion and can handle higher loads than both the zinc and aluminum carriages.

There are two carriage assembly options:

1. WW parts

These use four individual carriage blocks mounted to an anodized-aluminum plate. They are the most cost-effective and flexible solution, as you can switch out the bearing blocks for different materials or block styles - for e.g. zinc, aluminum, Stainless Steel, adjustable.)



2. A one-piece WWC-xx-xx aluminum monoslide

This design eliminates any alignment issues that may occur between individual blocks and enables rapid, problem-free assembly.

Both carriage variations are available in several lengths, from 60-250mm.



The Mono-Slide: A one-piece carriage for rapid assembly and no inadvertent misalignment.

INSIDER TIP:

>> For higher precision applications, we recommend our [adjustable zinc WJUME bearing blocks](#), which allow you to dial-in the precision you need.

>> [WJRM hybrid rolling bearings](#) provide a lower friction option — for example, when you have a hand-powered or low-cycle application.

b) Rails

Choose between hard-anodized aluminum and 316 Stainless Steel.

2. Check the bearing load capacity:

The load applied to the linear guide in your application will determine which diameter bearing you need.

For example, DryLin® W is available in diameters of 6 mm, 10 mm, 16 mm, 20 mm, 25 mm — with static load capacities ranging from 94 to 1,180 pounds per bearing.

3. Choose between a double-rail or single-rail system:

a) Double-rail system

If the application permits, we recommend you use our double-rail system, since you will not need to worry about carriage alignment and your installation time will be reduced.

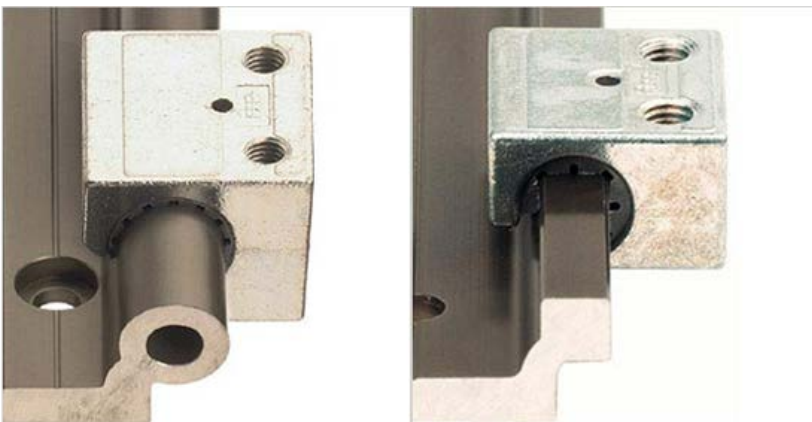
Double-rail carriages are available in multiple widths, depending on the bearing diameter.

b) Single-rail system

If it is not possible to use a double-rail system, you can use two of our single rails and space them apart as needed.



Double rail guide



Single round- and square-rail configurations.

INSIDER TIP:

Because of their ability to compensate for angular errors between rails, the DryLin® W square-rail systems are excellent at compensating for misalignment between rails and can help save on assembly time.

4. Use our system selection & lifetime calculation tool:

The [system selection and lifetime calculation tool](#) will not only enable you to ensure your chosen configuration will perform correctly with the loads and moments involved with your particular application, but it will also calculate the minimum driving force required, in addition to the necessary clearance, and the estimated wear rate.

You will be given the associated part number for your complete DryLin® system from which you can request a quote, sample, or access our CAD database and download drawings.

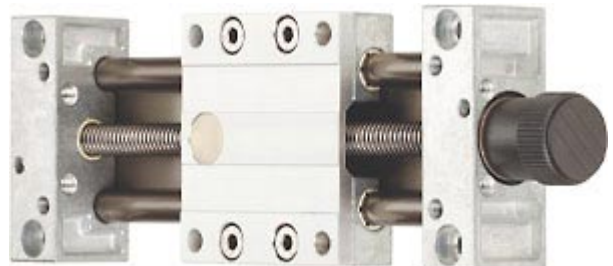
INSIDER TIP:

Remember to follow [the 2-to-1 rule](#).

For hand-powered applications, don't forget to consider our [WJRM hybrid rolling carriage](#) for reduced friction.

5. Decide how you will drive your system:

To save time in your design process, and reduce the number of parts and suppliers you need to deal with, consider using one of our [SLW lead-screw, or ZLW belt-driven systems](#) in your application. You will then be able to use our simple product configurators.



Our SLW lead screw tables and ZLW belt-driven tables are ideal for a multitude of applications and use the DryLin® W system within their design.

INSIDER TIP:

For hand-powered and simple positioning tasks, consider the [SLW standard lead screw table](#).

For higher speed applications, the [SLW-BB](#) and SAW lead screw systems with axial ball bearings allow a high RPM motor output. Our ZLW belt-driven systems are also ideal for applications up to 16 feet per second.

Useful links:

[DryLin® W](#)

[TechTalk Design Advice Series: overview](#)