



**Load
Runners®**

**HEAVY-DUTY
IDLER ROLLER &
RAIL SOLUTIONS**

OSBORN WORLDWIDE



GLOBAL REACH. LOCAL SUPPORT.

Osborn designed the world's first non-needle roller bearing idler roller more than fifty years ago to solve an internal manufacturing challenge on the company's foundry equipment. Today, Load Runners is the world's leading idler-roller and rail solution, used in numerous industries from healthcare and primary metals to automotive and general industry.

Osborn is the global leader in surface treatment and finishing solutions, with more patents on products and processes than all other brush companies combined. Established in 1887 in Cleveland, Ohio, U.S.A., Osborn's innovative culture has produced numerous industry firsts --- including Load Runners® brand precision load-handling systems.

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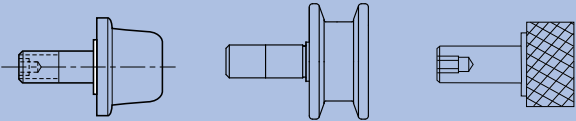
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LOAD RUNNERS
Product Information

Choosing the right idler roller and rail solution for your application can make or break your bottom line.

Often the “unsung hero” in the application, idler rollers play a significant role in the overall success of any rail-riding operation. Properly specified, idler rollers optimize line speed and product handling, regardless of material run or machinery used.

If you’re involved with product selection, operating parameters, or sourcing, contact the Osborn team for support throughout the entire design/specification/sourcing process.

Application Considerations:

The proper selection and application of power transmission products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending on the use and application of such products or components.

The scope of the technical and application data included in this publication is necessarily limited. Unusual operating environments and conditions, lubrication requirements, loading supports, and other factors can materially affect the application and operating results of the products and components, and the customer should carefully review its requirements.

Any technical support, advice or review provided by Osborn and its divisions with respect to the use of products and components is given in good faith and without charge, and Osborn assumes no obligation or liability for the advice given, or results obtained, all such advice and review being given and accepted at customer’s risk.

What is the application environment?

Environmental conditions can impact the life and performance of load bearing roller assemblies. Applications with exposure to one or more of the following operating environments may require special consideration:



Terms and Conditions:

For a copy of Osborn’s standard terms and conditions of sale, disclaimers of warranty, limitations of liability and remedy, please contact Osborn customer care. These terms and conditions of sales, disclaimers, and limitations of liability and remedy, apply to any person who may buy, acquire, or use Osborn (Load Runners, Cam Runners or Load Rail) referred to herein, including any person who buys from a licensed distributor of Osborn products.

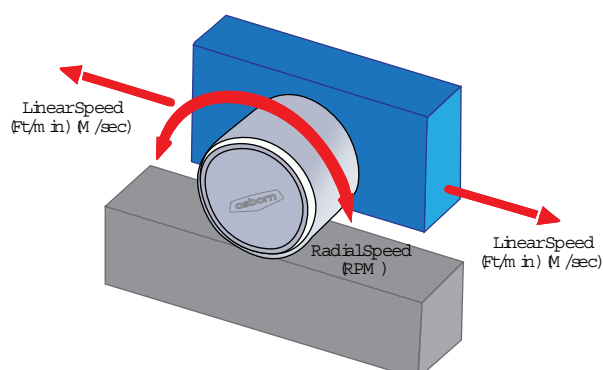
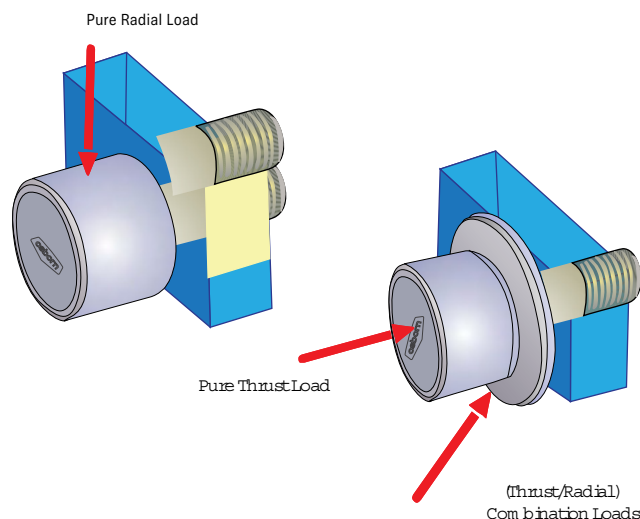
WHAT'S YOUR Challenge?

Load bearing roller assemblies are designed to support moving (dynamic) loads or stationary (static) loads. The load that the rollers will be supporting can be communicated using the following terminology:

Radial Load: Load applied to 90 degrees with the bearing bore or axis of rotation.

Thrust Load: Load applied parallel with the bearing bore or axis of rotation.

Rollers in many applications experience a load comprised of radial and thrust load which can be referred to as **combination load**. This load may not be intentionally designed into the application, but a combination load can be created as a result of misalignment or other functions within the application.

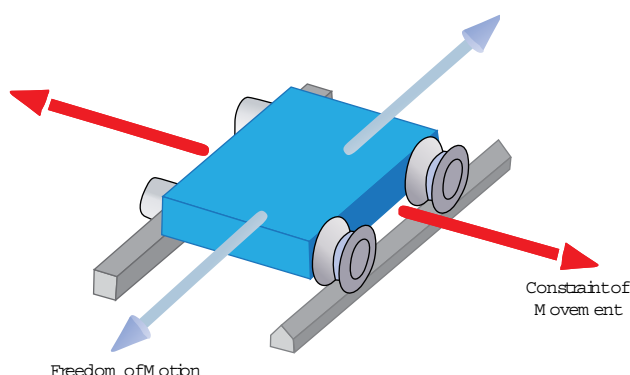


What are the applied speeds?

The rate at which the moving object will be travelling can be communicated in two different ways, in distance per time (FPM, M/sec) for linear movement or in revolutions per minute (RPM) for rotational movement. Depending on the type of application, one of these will best communicate the applied speed.

What are the needs for location?

Load bearing roller assemblies facilitate the location of moving loads or the contact surface by allowing for specific movements and by limiting unwanted ones. Applications must be reviewed to determine the required **freedom of motion** and desired **constraint of movement**.



LOAD RUNNERS

Overview & Technical Information

WE ARE Load Runners

Load Runners Load Guidance Systems for Precision Handling of Heavy Loads in Tough Environments

When reliability is paramount, combine the high capacity of Load Runners idler-rollers with long-lasting, rugged Load Rails®, to move your products, people, or process from Point A to Point B.

Designed To Endure Extreme Operating Conditions

Load Runners' treads are machined from high-alloy steel, then case hardened (Rc 55-60) for a wear-resistant outer shell and tough inner core.

Precision tapered roller bearings (larger sizes) and deep-groove ball bearings withstand heavy radial and thrust loads.

All Load Runners are tightly sealed and lubricated for life to withstand dirt, sand and moisture.

High-shear-strength studs feature a hex socket for easy installation, and thru-shafts eliminate the need for customer fabrication.

- Standard styles: plain, v-grooved, flanged, crowned, double-flanged, and flanged crown.
- Handle both radial and thrust loads
- Case hardened to Rc 55-60
- Lubricated and sealed for life
- Matching precision Load Rails hardened to Rc 60-65
- In-stock availability or short lead-time custom designs
- Backed by a professional, technical inside team



LOAD RUNNERS**Custom Designs and Special Features****CUSTOM
Engineered**

In addition to the standard Load Runners idler-rollers listed in this catalog, custom tread profiles, studs and special features are available. A few examples include:

- Stainless steel treads, studs
- Special plating (zinc, chrome etc.)
- Non-metallic tread materials (urethane, nylon, etc.)
- Special seals
- Special lubricants
- Provision for re-lubrication
- Crowned profiles
- Solid lubricants
- Double-flange rollers

Consult Osborn with special features or requirements not listed.

**Operation in Severe
Environments****Temperature Extremes**

Standard Load Runners idler-rollers are designed to operate in temperatures ranging from -30° F to +225° F (-34° C to +107° C).

Operation in extreme temperature environments as low as -40°F (-40°C) and as high as +325°F (+162°C) continuously requires special seals and/or lubrication provisions.

Moisture Extremes

Operation in wash-down or similar extreme-moisture environments may also require special lubrication provisions.

Consult Osborn for application assistance.

Bearing Disassembly (If Required)

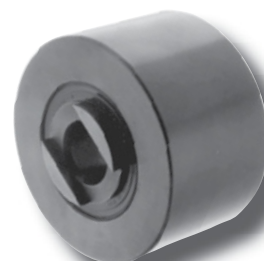
Tapered-roller-bearing assemblies used in Load Runners idler-rollers are pre-set with custom-ground spacers for the correct running clearance. If a bearing assembly is removed and then reassembled, the same cups, cones and spacers must be used.

Bearing assembly components cannot be mixed and matched. Even new cups or cones cannot be substituted in an existing assembly.

Osborn does not recommend disassembly and does not provide separate component parts.

Application Considerations

The customer assumes responsibility for proper selection and application of Osborn Load Runners, Cam Runners and Load Rails. Technical advice or review provided by Osborn with respect to the use of Osborn products is given in good faith and without charge, and Osborn assumes no obligation of liability for the advice given. Advice provided is to be accepted at the customer's risk.





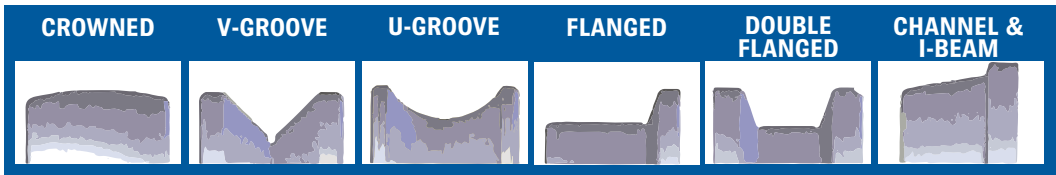
LOAD RUNNERS
Heavy-Duty Idler Rollers & Rail

HIGHLY ENGINEERED
Highly Regarded

Every Application Has Its Own Unique Requirements

Engineering expertise and manufacturing skills are what set the Load Runners brand apart. We collaborate with customers across the globe to solve their unique load-handling challenges all with one common goal: achieving optimum results. Before recommending a custom solution, we consider many specific attributes: moisture extremes, temperature, speed, loads, lubrication requirements, operating environment, and cycle counts.

In addition to thousands of standard products sold in more than 120 countries, Osborn offers local technical and customer support that's just a phone call/email away. No matter where you or your customers are located, you'll always have access to Osborn's application expertise and the industry's leading idler-roller/rail design and support team.



Superior Design Means Longer Life. Longer Life Means Lower Costs.

Osborn Load Runners are robust assemblies of carefully fabricated outer shells/treads and precision bearings fitted to high tolerance shafts. All Osborn Load Runners match the tread, shaft and bearings into a cohesive, highly engineered unit used in dozens of industries and hundreds of applications.

Manufactured in the USA, Load Runners feature heat-treated specialty steel, precision bearings, a maintenance-free lubrication and seal system, and a global network of sales support and application engineering expertise.

Osborn Load Runners are designed and manufactured using exacting engineering principles with an emphasis on achieving:

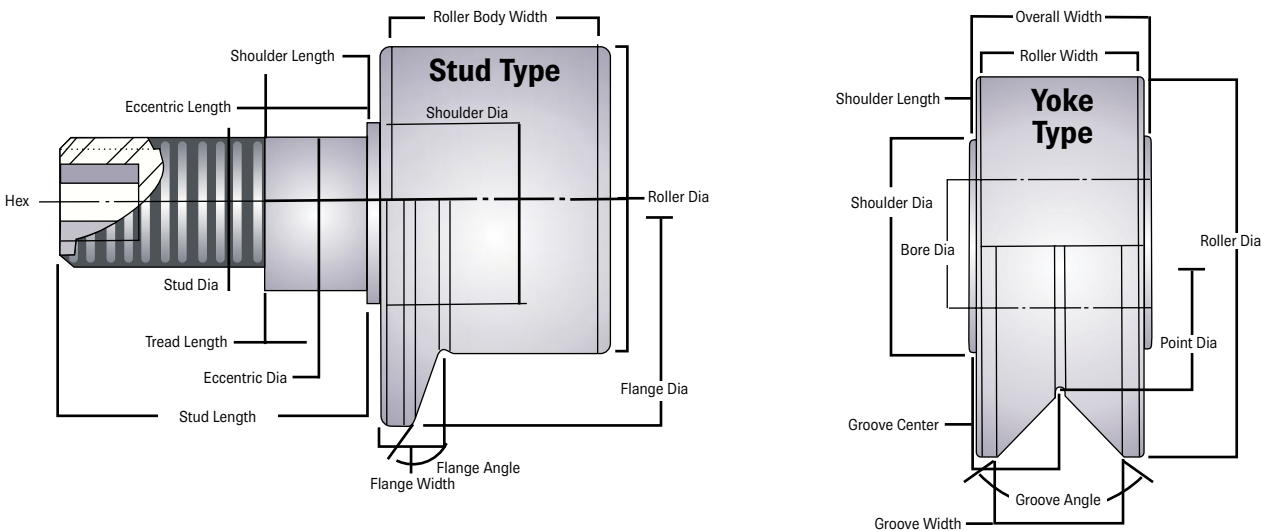
- Better balance
- Increased bearing life
- Less tread/outer shell wear
- Reduced power consumption
- Smooth performance
- Quieter operation



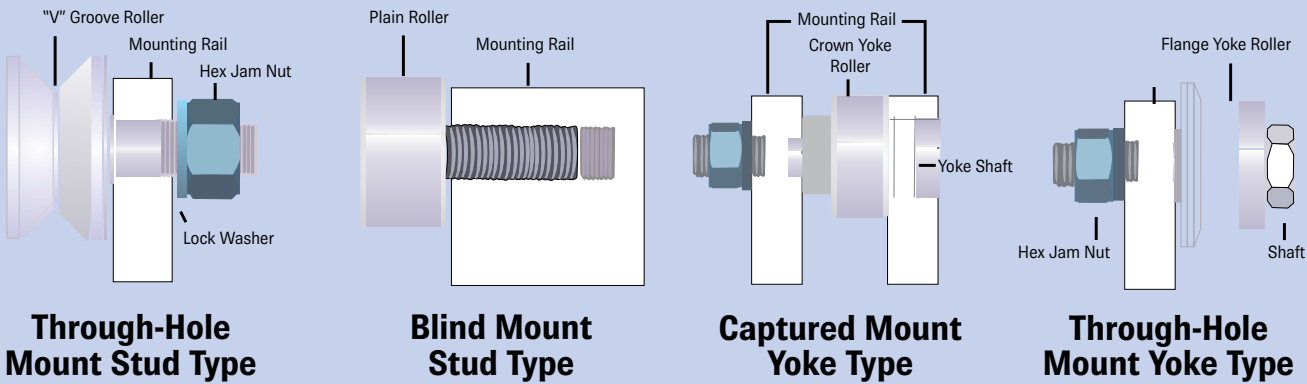
We Keep Things Moving

Osborn Load Runners are the ultimate heavy-duty load rail and idler roller solution in the industry, providing precision performance across numerous applications. Available in all standard configurations -- either metric or inch, stud- or yoke-style -- ranging in rolling sizes up to 12 inches, Load Runners help reduce your design time and lower overall material handling system costs.

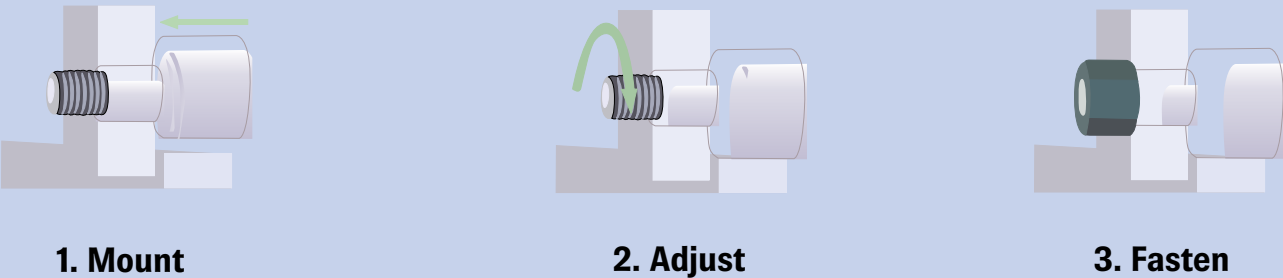
Our design engineers provide custom solutions to handle any challenge.



Rollers are manufactured to accomodate multiple mounting arrangements. The two most common mounting arrangements are stud-type and yoke-type:



For applications requiring precision alignment between a roller and contact surface, an eccentric style roller may be used to achieve uniform contact.



LOAD RUNNERS

CAD-Download

2D drawings 3D models

Available for easy incorporation into your designs

