



***CARTER***  
***Manufacturing***  
**Grand Haven, Michigan**



***Bearings Are Our Business***





# ALL LOCATED AT THE SAME FACILITY

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Manufacturing Plant

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Inventory

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Quality control

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Engineering Team

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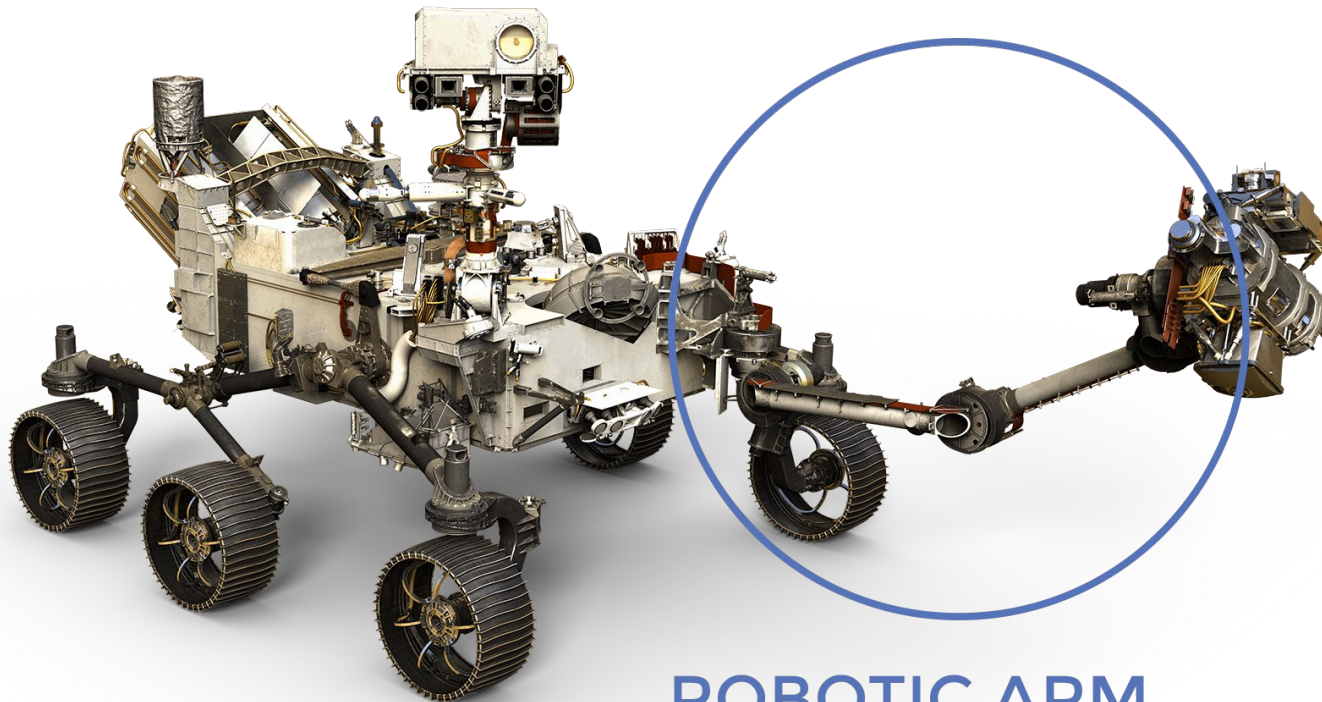
Sales & Marketing Team

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Customer Service



# **CARTER** Bearings



**ROBOTIC ARM**



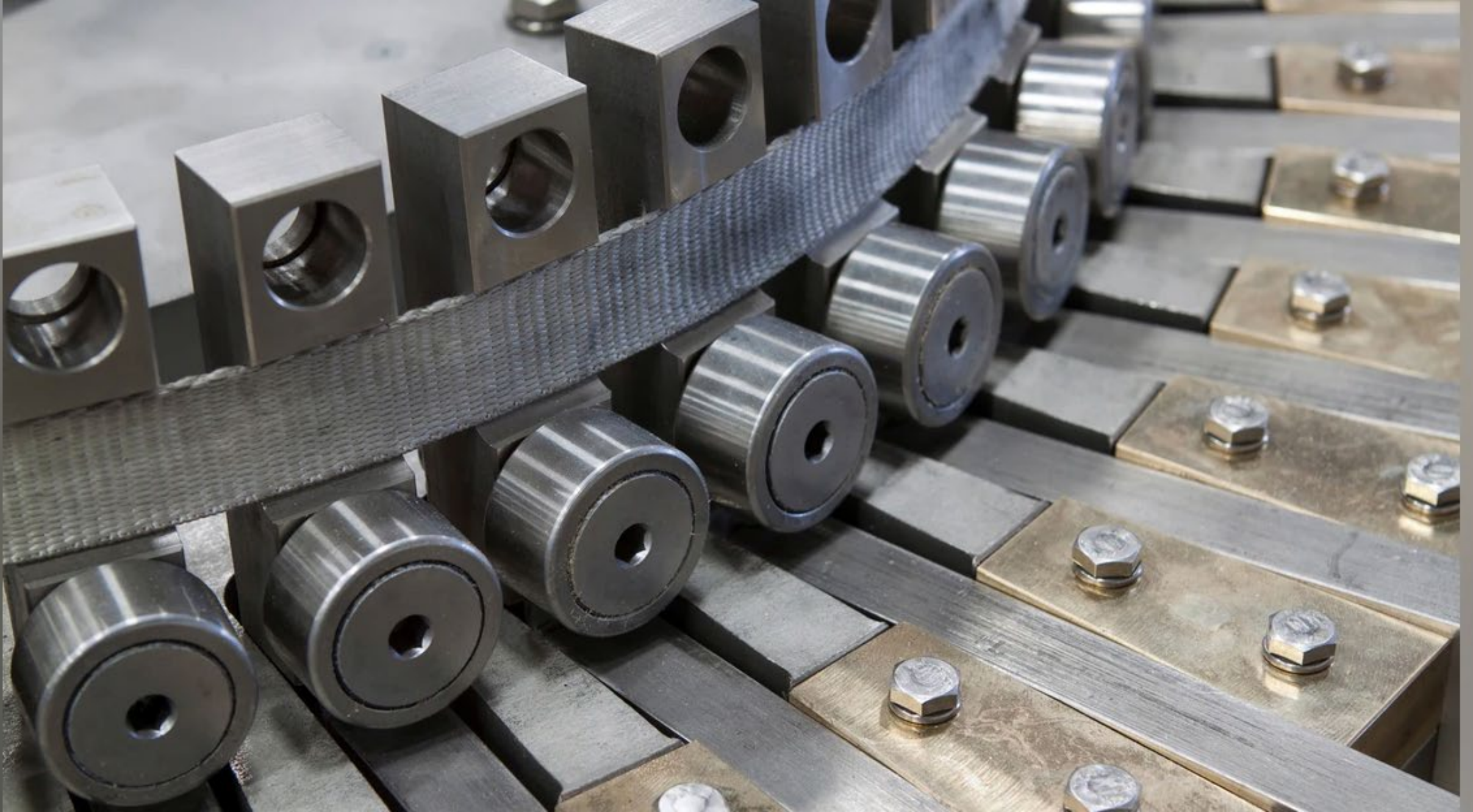
**On Board**  
MARS 2020 ROVER  
PERSEVERANCE

On Feb 18, 2021, NASA successfully landed the Perseverance rover (nick name Percy) on Mars. Specifically, our bearings help assist Percy's robotic arm which is used mainly for analyzing the terrain and taking samples.

We at **CARTER** are proud to be part of this historic event.

**CARTER** has been manufacturing exceptional quality custom bearings for over 50 years and it is no surprise to all of us here in Grand Haven that we are part of this remarkable mission.





# What does a cam follower do?

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- CONVERTS ROTARY MOTION TO LINEAR MOTION.
- USED FOR HEAVY RADIAL LOAD APPLICATIONS WHERE SHOCK LOADS MAY BE PRESENT. *THIS BEARING DESIGN CAN NOT HANDLE MEDIUM TO HIGH THRUST LOADS.*
- REDUCES SLIDING FRICTION AND WEAR ON A CAM OR A TRACK TO MAINTAIN PRECISE LOAD HANDLING.

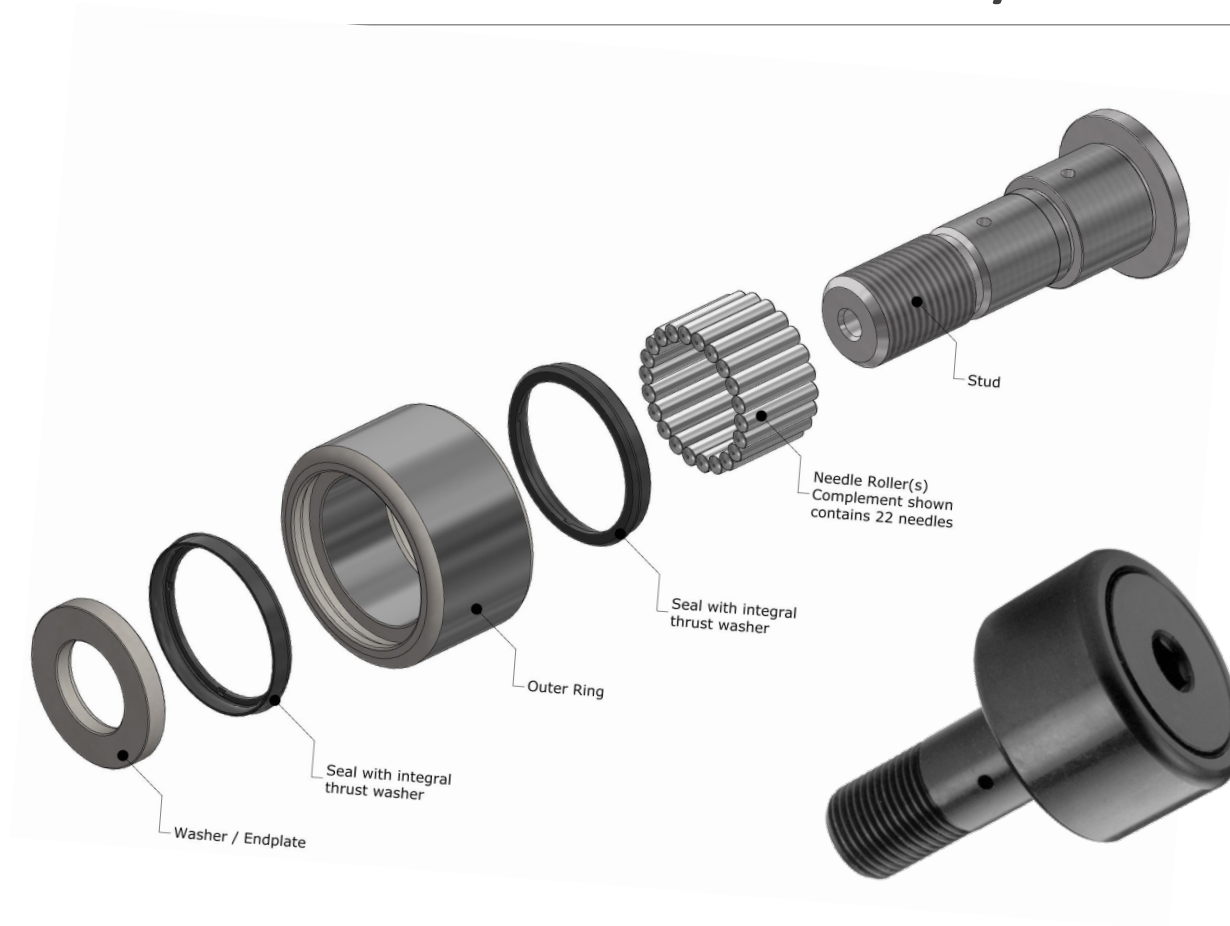


# What does a cam follower do?



- Cam followers are power-transmission devices with a rotary bearing core that bears load while serving as the interface between independently moving machine sections.
- Cam followers also find use in assemblies that pair them with linear tracks and other engineered paths on customized assemblies.
- The outer diameter (OD) of the cam-follower bearing assembly is its working face — typically made of steel, nylon, urethane, polyamide, or other engineered material.

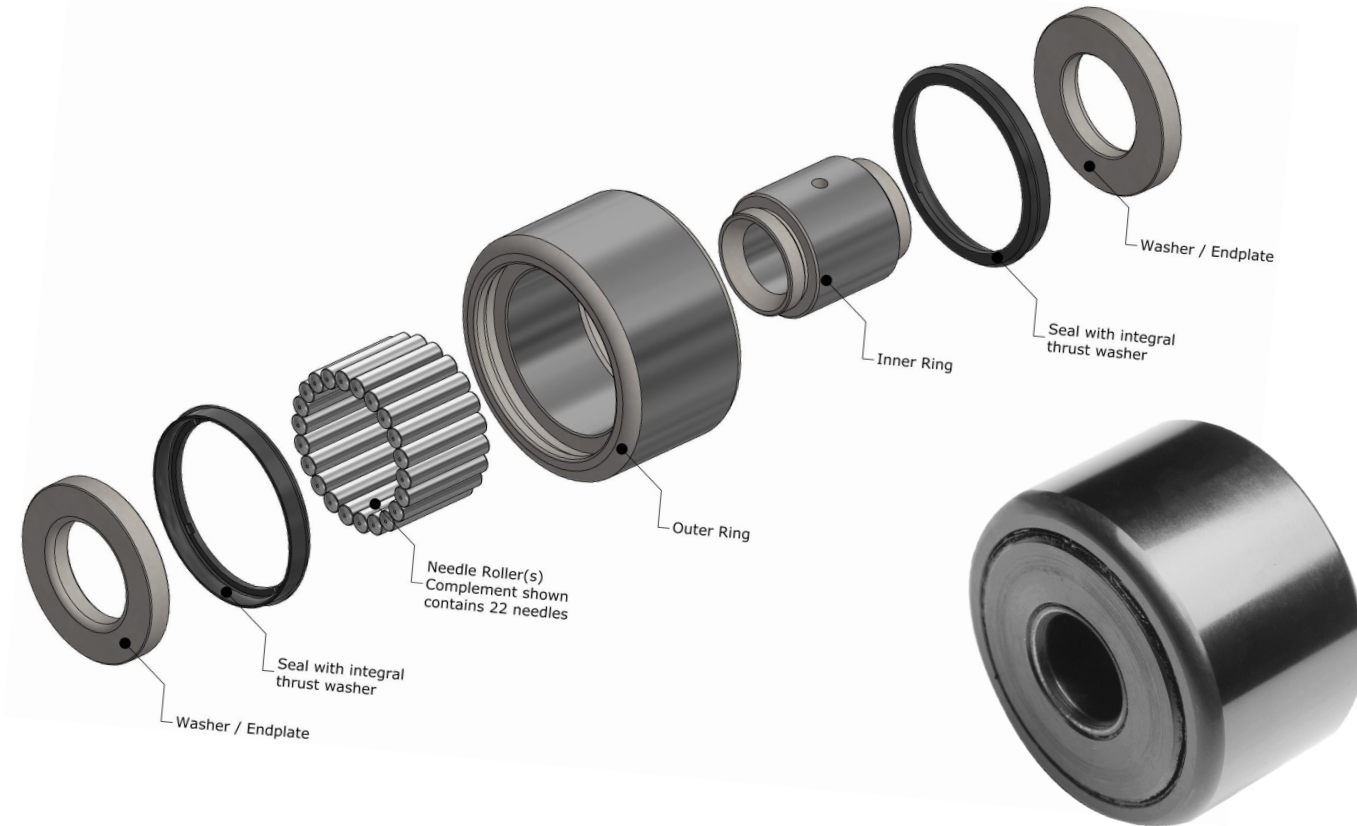
# Cam followers assemble onto machines in one of two ways.



**Stud-type cam followers include a partially threaded shaft fixed to the follower inner diameter (ID) for assembly onto a machine frame with a nut or similar fastening device.**

stud cam followers are indispensable in an array of applications — including those that are subject to high loads.

# Cam followers assemble onto machines in one of two ways.



**Yoke cam-follower variations (identifiable by their open ID) often mate to machine frames via press fit at a hardened inner race usually held by the follower's end plates.**

Because they're not a cantilevered design, yoke followers exhibit minimal deflection.



# CARTER Product Line

- ✓ Standard Size Cam Followers and Yoke Rollers
- ✓ Metric – Same features a Standard Cam (16mm-72mm) and limited yoke followers
- ✓ Xtenda™ Stainless Steel Cam Followers and Yoke Rollers
- ✓ Chrome Plate Bearings
- ✓ Hi-Roller™ Idlers
- ✓ Polyurethane Coated Bearings
- ✓ Neverlube™ Cam and Yoke Rollers
- ✓ Xtreme™ Duty Stainless
- ✓ Heavy Cylindrical Roller Bearings

# Applications for Standard Cam and Yoke Followers

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- Track Followers – Material Handling
- Rotary Index Tables
- Turntable Conveyors
- Robotic Transfer Units – RTU's
- Fuel Pumps
- Hydraulic Systems
- Printing Machines
- Textile Machinery – stitching
- Automatic Lathes
- Transmissions
- Gear Cutting Machines
- Machine Feed Mechanisms
- Palletizers
- Baggage Handling
- Truck Bed Slides

# Xtenda™ Stainless Steel

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- 440C stainless steel
- Seal Tight design minimizes contamination
- Reduces machine shutdowns
- FDA approved rating for seals and food grade lubricants
- Precision manufactured for accuracy and bearing life
- Corrosion resistant requirements
- Standard and custom sizes



## Applications

Food and Beverage

Bakery Proofer Ovens

Food Stackers

Can Seaming

Automatic Lubrication Machines

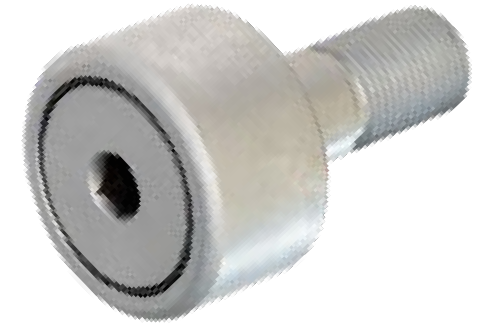
Can and bottle conveying

Pharmaceutical automation



# Chrome Plated Cam Follower Bearings (Stud & Yoke Type)

- Manufactured from standard bearing steel – SBC
- Thin dense chrome plated with stainless steel rollers
- Higher corrosion protection than standard cam followers at a reasonable price
- Improves wear rating of bearing and maintains higher load rating than a 440C stainless steel bearing



## Applications

Heavy load food conveying

Machine Tools

Pulp and Paper

Etching machines

Automatic Lubrication Machines

Dairy Machinery

Bottle Filling Machines

Soda Production Machines

# Hi-Roller™- Track Roller Bearings

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- Designed to handle both radial and thrust loading
- Deep Groove ball bearings (higher speeds) or tapered roller bearings (heavier loads)
- Available in stud & yoke configurations
- Plain, Flanged & V-Groove outer roller housing configurations.
- Standard configuration is tightly sealed for high dust and high moisture environments.



## Applications

Heavy Load Industrial Conveying

Foundry material process and conveying

Lumber Conveying and Load Transfer

Mining Conveyors

Warehouse AS/RS Systems

Overhead Crane Conveyors

Beam type roller applications

# Polyurethane Coated Bearings

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- Reduces noise
- Reduces track wear
- Non-marking on track guides
- Improves load traction
- Food grade polyurethane available on stainless steel bearings
- Available in both cam and yoke follower configurations
- Prevents electrical grounding trough roller contact.



## Applications

Elevators

Medical Equipment

Conveyor Systems

Bakery Proofer Ovens

Clean-Room Applications

Robotics

Pin Insertion Machine



# Heavy Cylindrical Roller Bearings

- Heavy Cylindrical Roller Bearings have VB type lip seals that offer a better seal than a standard needle bearing CAM follower, preventing debris from entering the interior of the bearing.
- Heavy Cylindrical Roller Bearings are designed to keep the grease in until re-lube pressure is applied.
- Heavy Cylindrical Roller Bearings offer speeds that are more than double single row needle bearings.



## Applications

Heavy Construction

Mining

Bulk Handling

Top Drives Oil/Gas

Lumber

# Neverlube™ Cam Followers

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## Applications

- Available in both stud & yoke configurations
- Sintered Bronze bushing design serves as lubricant reservoir
- Resist shock & impact, wear & corrosion
- Continuous self-lubrication
- Reduces maintenance and lowers cost
- Clean lubrication and self restoration
- Interchangeable with standard needle bearings

Food Processing Machinery

Farm Machinery

Construction Machinery

Machine Tools

Metalworking Machines

Packaging Machines

Pin Insertion Machine

# Modified Standard Bearings

Modifications done on standard products can be a more **cost-effective** solution along with comparable delivery of standard products.

## Types of Modifications

- ✓ Materials and finishes
- ✓ High/low temperature modifications
- ✓ Special re-lube port options
- ✓ Stud lengths & roller widths
- ✓ Grease options

**CARTER** will also create samples for your evaluation and testing. Once we have final approval, we will start production on your product as promptly as possible, maintain quality inspections and for free we'll laser-etch your product!



Oversized w/ Poly-coating



Flanged Acetyl Outer



Acetyl Outer Race

## Applications

Mast Guides

Vacuum, radioactive and caustic applications

Aerospace

Military/Defense

Medical



# SPECIAL APPLICATIONS

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Have an application that might need a unique bearing? **CARTER** will work within your specifications in manufacturing bearings for special applications.

Contact your **CARTER** Sales Rep for more information regarding **CARTER'S** production/manufacturing capabilities.





# ***LASER ETCHING***

*on any product for no  
additional cost*

***CARTER**  
Manufacturing*