

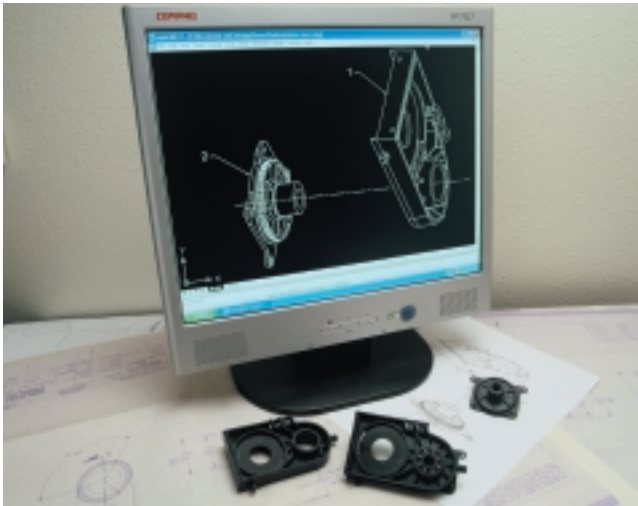
PLASTIC & AISI 316 STAINLESS RADIAL BALL BEARINGS





Since 1979, KMS Bearings, Inc. has been a leader in the development and manufacturing of plastic and AISI 316 stainless raceway, radial ball bearings. KMS Bearings is located in Anaheim, California, just 30 minutes from the Los Angeles area. KMS has been at its current location since 1990. We have expanded by adding several offices and warehousing within our industrial site.

The KMS goal is to provide quality products and services on time, in full responsiveness to the demands of our customers and prospects. KMS believes it cannot achieve these strategic goals and objectives without the total ongoing commitment to COMPANY WIDE EXCELLENCE.



APPLICATION ENGINEERING TECHNOLOGY

When you call KMS, you will reach technically trained personnel who understand bearing and engineering principles. Interaction between sales, engineering and the customer results in the creation of a design that best suits the application.

TRUE RACE TECHNOLOGY™ HIGH PRODUCTION AUTOMATED MACHINING CENTERS

KMS produces true radial ball bearing race grooves. We have developed special automated speed lathes for the specific task of machining ball grooves. This procedure removes any molding imperfections and produces concentric deep ball grooves for optimum performance and life.



CONCEPT TO CAD TO CNC

CNC capability gives us the ability to rapidly respond to customer needs going from conceptual to actual working bearings, within a few days. This blending of technology allows us to make low and high quantity runs of special sizes and materials.



KMS PROPRIETARY MOLDING SYSTEMS

Special designs and sizes can be made with a minimum tooling investment through our proprietary molding system. Through this system, our customers realize a substantial savings in piece price and tooling cost.

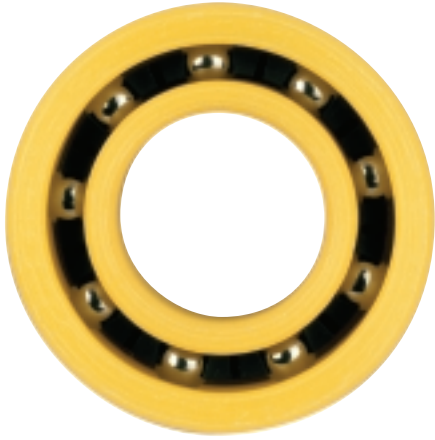
AUTOMATED ASSEMBLY

KMS assembly technologies allow KMS to produce large volume bearing requirements on time, with consistent quality.



QUALITY ASSURANCE

Our mission is to meet the expectations of the customer. Our approach is to treat each customer individually, by understanding their needs and expectations. Our quality control methods insure that customer requirements are communicated to all stages of manufacturing. Our objectives are to deliver on time and to consistently produce the product that the customer expects and deserves.



PLASTIC RACEWAY BALL BEARINGS

CORROSION RESISTANCE:

Most bearing failures today are caused by corrosion. KMS Bearings' plastic ball bearings can be utilized in environments destructive to conventional bearings. They can operate in hostile environments such as sea water, film processing solutions and swimming pools. In many cases the medium can be used as a lubricant.

DESIGN FLEXIBILITY:

Special designs are readily and inexpensively made from plastics. This allows engineers complete freedom to design the bearing around the device rather than attempting to design the device around a limited range of standard bearings. KMS can design a bearing around a stock cage that is determined by the load, speed and overall size requirement. We have standard cages to accommodate bearing sizes from as small as 1/2" O.D. to as large as 5" I.D. If we do not have a cage for your size requirement, we can easily make a new cage size by either machining or making a new mold tool. There are numerous modification possibilities for our standard bearing. We can modify the round hole to a hex, square, or to a self mounting fastener design. The outer ring can be modified from a round to a two-hole flange, a sprocket, or to a gear. See integrated bearing assemblies on the following pages for examples.

STANDARD SIZE - SPECIAL MATERIALS:

Any standard size plastic bearing can be made from alternative plastics for increased strength, temperature capability or chemical resistance.

NON METALLIC - NON MAGNETIC:

Plastic ball bearings become completely non magnetic when fitted with either polymer, glass or non magnetic 316 stainless balls. They are ideal for use where there can be no magnetic distortion.

LUBRICATION FREE:

There are three reasons steel bearings require lubrication; to reduce friction, dissipate heat and resist corrosion. Plastic, by nature, does not corrode. Due to the design of plastic ball bearings, there is no metal to metal contact, resulting in less friction; therefore dissipating heat becomes less critical.

LIGHTWEIGHT:

Plastics are five times lighter than steel, thereby reducing the weight and energy required to move them.

HYGIENIC:

Plastic ball bearings are naturally clean because they do not corrode or require lubrication. They are ideal for wash down applications and clean room environments.

LOW INERTIA FREER TURNING:

Plastic ball bearings run freer and naturally have low inertia due to the low coefficient of friction between plastic and stainless. Two other factors contributing to low inertia are the ability to run without grease and lighter weight.

SHOCK LOAD SUPPRESSION:

Plastics absorb shock loads better than metal due to their elastic nature. Many conventional radial ball bearings fail due to brinelling of the raceway, ie: balls denting the raceway.

NOISE CONTROL:

Plastics have the inherent ability to dampen vibrations. Add lubrication and they become virtually silent.



AISI 316 STAINLESS RACEWAY BALL BEARINGS

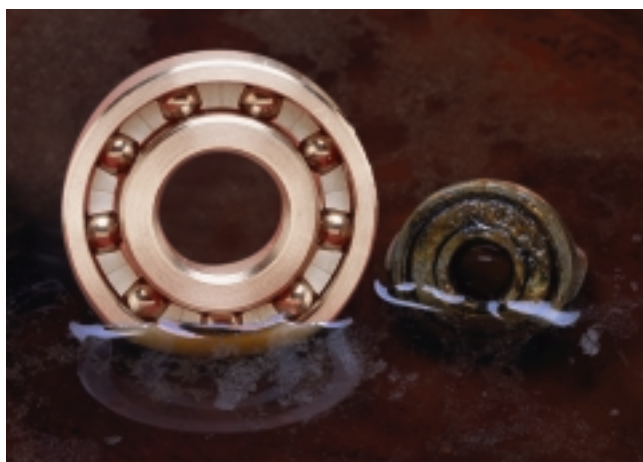
“Superior Corrosion Resistant Ball Bearings”

WHY AISI 316 STAINLESS?

KMS Bearings, Inc. manufactures radial ball bearings utilizing type AISI 316 stainless which provides superior corrosion resistance when compared to conventional standard 440C stainless bearings. AISI 316 is more resistant to atmospheric and general corrosive conditions than any of the other standard stainless steels. AISI 316 stainless is widely used in the food and medical industries. Bearings produced from this type of steel can run in liquids or can run dry at slow speeds.

HOW THEY ARE MADE:

Machined semi-precision rings, polymer cages, and grade 100 AISI 316 stainless balls are used in the manufacture of KMS Stainless Ball Bearings. Rings are machined from solid rod stock to produce true running concentric bearings. This type of bearing is intended primarily to reduce friction and permit free movement of turning parts. They are best suited for moderate loads and slow speeds.



WHERE THEY ARE USED:

- **Hostile Environments**
- **Submerged**
- **Non-Magnetic**
- **Dry – No Lube**
- **High Temperature**
- **Clean Rooms**
- **Wash Down**

MATERIALS

RINGS:

AISI 316 stainless, non-magnetic, unground semi-precision.

BALLS:

Standard balls are AISI 316 stainless. When necessary, other types of balls are available on a special order basis.

BALL RETAINER (CAGE):

Standard ball retainers are acetal. For increased chemical compatibility, polypropylene can be provided. When higher heat capability is required, bearings can be manufactured with either a high temperature polymer cage or without a cage.

SHIELDS/SEALS:

Open design is standard. Polymer shields and seals can be provided on a special order basis.

LUBRICATION:

KMS supplies the bearings with a light proprietary oil that reduces friction and noise, and is non contaminating in most applications. When necessary, special order lubricants can be provided.



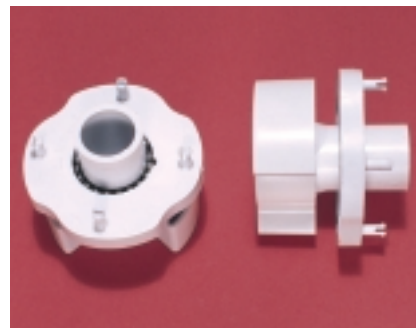
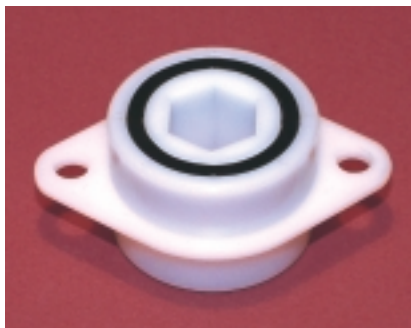
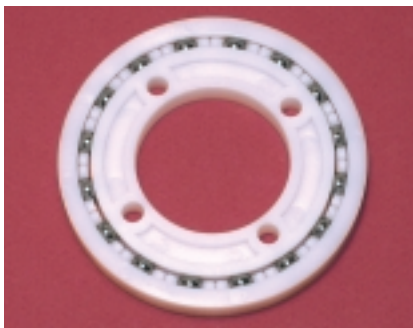
OUR SPECIALTY - INTEGRATED BEARING ASSEMBLIES

KMS Bearings can design and build a complete bearing assembly for the ultimate in cost savings. Integrating mating components or mounting features will ease assembly, reduce time and parts count, thereby reducing your overall cost to manufacture.

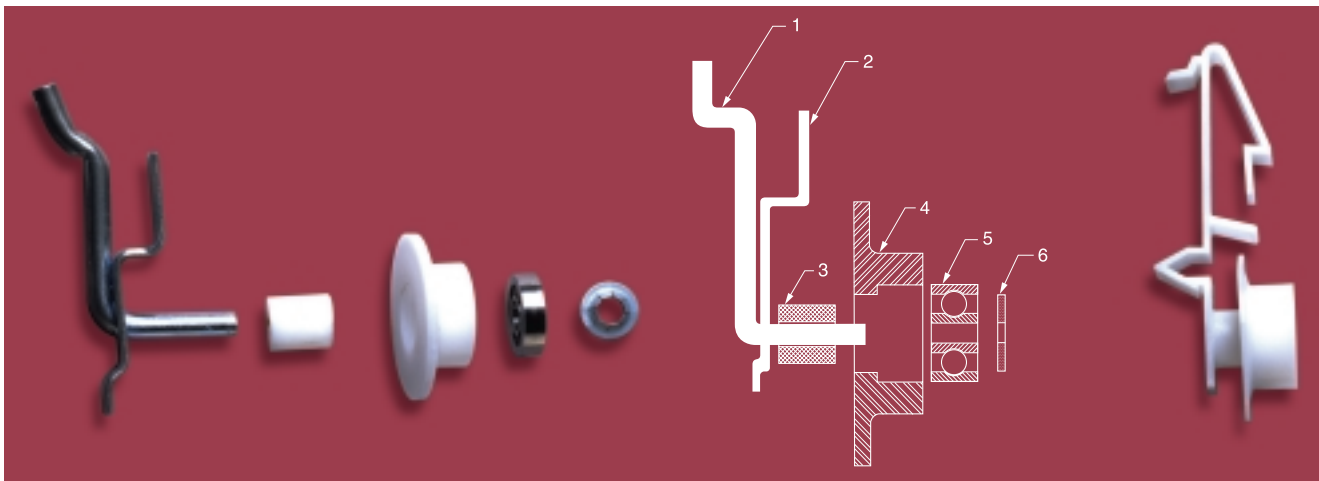
- Agriculture Equipment
- Aqua Massager
- ATM Machines
- Automotive
- Castors
- Chemical Processing
- Clothing Conveyors
- Conveyor Rollers
- Dairy Machinery
- Emergency Rotary Lights
- Food & Drink Processing
- Glass Manufacture
- Hospital Equipment

- Kitchen Equipment
- Laboratories
- Laundry Equipment
- Mail Sorting
- Marine Door + Hatches
- Mechanical Handling
- MRI - Xray
- Office Machinery
- Oil Skimmers
- Optical Effects Projectors
- Overhead Cable Carriers
- Parts Washing Equipment
- Photographic Processing

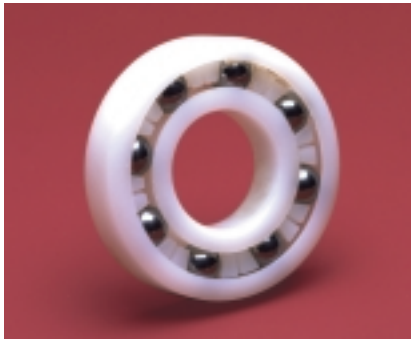
- Pool Cleaners
- Poultry Conveyors
- Radar Equipment
- Revolving Signs
- Rotary Spa Jets
- Satellite Dish Tracker
- Semi-Conductor Mfg.
- Sensors
- Sliding & Revolving Doors
- Sort and Grade Machinery
- Swivel Chairs
- Vending Machinery
- Wind Turbine Ventilator



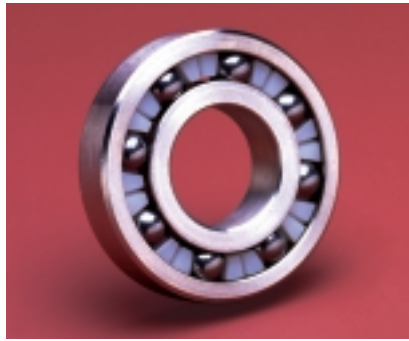
PRODUCT INTEGRATION → **SIX COMPONENTS** → **ONE**



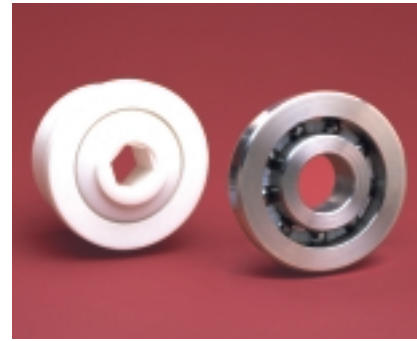
PRODUCTS MADE THE KMS WAY



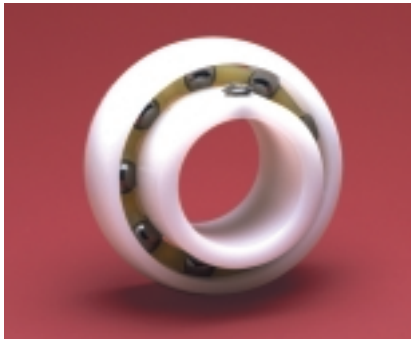
PLASTIC RADIAL



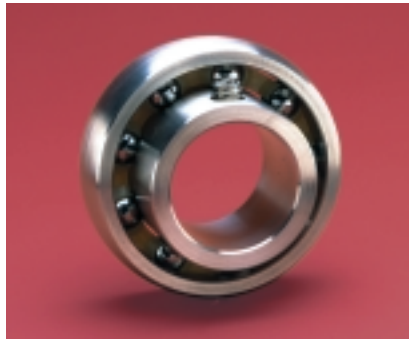
AISI 316 STAINLESS RADIAL



CONVEYOR



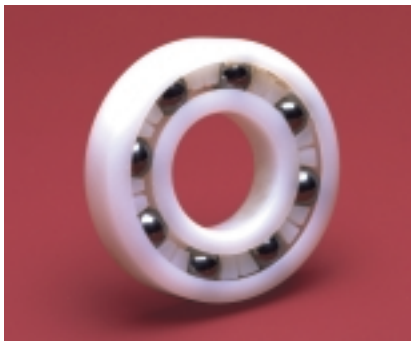
PLASTIC INSERT



AISI 316 STAINLESS INSERT



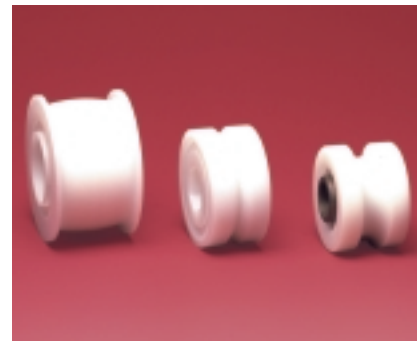
SKATEWHEEL CONVEYOR



4 POINT CONTACT



THIN RACE



PULLEY



PILLOW BLOCK

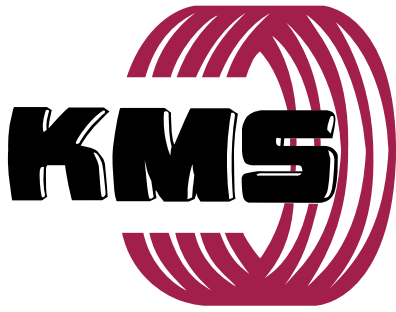


2-BOLT FLANGE



4-BOLT FLANGE

S
T
A
N
D
A
R
D
P
R
O
D
U
C
T
S



KMS Bearings, Inc.

1560 Harmony Circle, Anaheim, California 92807
Telephone (714) 970-0280 • Fax (714) 970-0560

Toll Free (800) 448-2412

www.KMSBearings.com

E-Mail: Info@KMSBearings.com

