

RADIAL BALL BEARINGS - 316 STAINLESS



WHY AISI 316 STAINLESS?

KMS Bearings Inc., manufactures radial ball bearings utilizing type 316 stainless which provides superior corrosion resistance when compared to conventional 440 stainless bearings. AISI 316 is more resistant to atmospheric and general corrosive conditions than any of the other standard stainless steels. 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.

BEARING CONSTRUCTION

Machined semi-precision rings, polymer cages, and grade 100 type 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.

MATERIALS

RINGS:

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

BALLS:

Standard balls are AISI 316. 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.

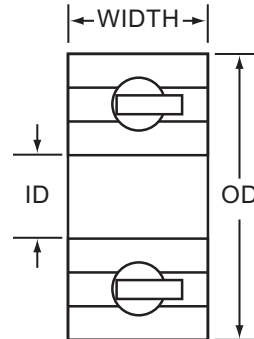
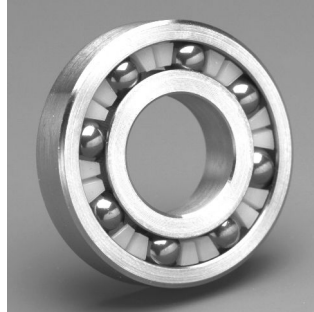
TEMPERATURE: 180 °F

For higher temperature capability consult KMS.



RADIAL BALL BEARINGS - 316 STAINLESS

Single Row 316 Stainless Raceways Inch Sizes



Standard Plastic is Acetal

PART NUMBER	ID	OD	WIDTH	MAX. RPM WITH NO LOAD	DYNAMIC LOAD CAPACITY	STATIC LOAD CAPACITY
SSR4-6	1/4 in	5/8 in	0.196 in	2352	78 lbs	51 lbs
SSR4A-6	1/4 in	3/4 in	7/32 in	2352	78 lbs	51 lbs
SSR4AW-6	1/4 in	3/4 in	9/32 in	2352	78 lbs	51 lbs
SSR6-6	3/8 in	7/8 in	7/32 in	1600	126 lbs	99 lbs
SSR6A-6	3/8 in	7/8 in	9/32 in	1600	126 lbs	99 lbs
SSR8-1/2-6	1/2 in	1 1/8 in	1/4 in	1142	165 lbs	129 lbs
SSR8-5/8-6	5/8 in	1 1/8 in	1/4 in	1142	165 lbs	129 lbs
SSR8A-3/8-6	3/8 in	1 1/8 in	3/8 in	1142	165 lbs	129 lbs
SSR8A-1/2-6	1/2 in	1 1/8 in	3/8 in	1142	165 lbs	129 lbs
SSR10A-6	5/8 in	1 3/8 in	3/8 in	1069	207 lbs	165 lbs
SSR10B-3/8-6	3/8 in	1 3/8 in	7/16 in	1069	207 lbs	165 lbs
SSR10B-1/2-6	1/2 in	1 3/8 in	7/16 in	1069	207 lbs	165 lbs
SSR10B-5/8-6	5/8 in	1 3/8 in	7/16 in	1069	207 lbs	165 lbs
SSR12-5/16W-6	3/4 in	1 5/8 in	5/16 in	840	234 lbs	198 lbs
SSR12-7/16W-6	3/4 in	1 5/8 in	7/16 in	840	234 lbs	198 lbs
SSR16-1-6	1 in	2 in	1/2 in	729	276 lbs	240 lbs
SSR16-1-1/4-6	1 1/4 in	2 in	1/2 in	729	276 lbs	240 lbs
SSR18-6	1 1/8 in	2 1/8 in	1/2 in	729	276 lbs	240 lbs
SSR20-6	1 1/4 in	2 1/4 in	1/2 in	729	276 lbs	240 lbs

- Some bearings listed on data sheets may not be in inventory. Some may require minimum order, and delivery could range from 6 to 8 weeks. Check with KMS for item availability and delivery.
- Load & Speed calculations are for reference only. KMS recommends testing in actual environment to be encountered.
- Information presented is believed to be accurate at the time of publication but is subject to change without notice.

VARIATIONS & CUSTOM SIZES MADE EASILY FOR LOW AND HIGH QUANTITIES
Corrosion Resistant • Lube Free • Hygienic • Non-Metallic • Non-Magnetic • Light Weight • Design Flexibility

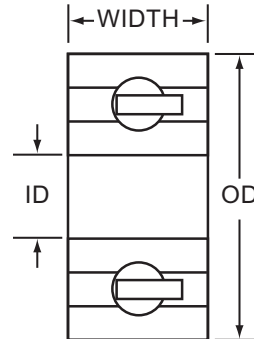
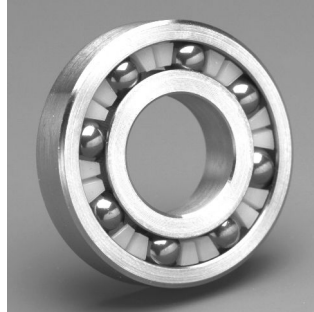


KMS Bearings, Inc. • 1560 Harmony Circle, Anaheim, CA 92807 • (714) 970-0280 • FAX (714) 970-0560
Toll Free (800) 448-2412 • www.KMSBearings.com

RADIAL BALL BEARINGS - 316 STAINLESS

Single Row 316 Stainless Raceways

Metric Sizes



600 Series

Standard Plastic is Acetal

PART NUMBER	ID	OD	WIDTH	MAX. RPM WITH NO LOAD	DYNAMIC LOAD CAPACITY	STATIC LOAD CAPACITY
SS624-6	4 mm	13 mm	5 mm	2352	78 lbs	51 lbs
SS634-6	4 mm	16 mm	5 mm	2352	78 lbs	51 lbs
SS625-6	5 mm	16 mm	5 mm	2352	78 lbs	51 lbs
SS635-6	5 mm	19 mm	6 mm	2352	78 lbs	51 lbs
SS606-6	6 mm	17 mm	6 mm	2352	78 lbs	51 lbs
SS626-6	6 mm	19 mm	6 mm	2352	78 lbs	51 lbs
SS636-6	6 mm	22 mm	7 mm	1600	126 lbs	99 lbs
SS607-6	7 mm	19 mm	6 mm	1600	126 lbs	99 lbs
SS627-6	7 mm	22 mm	7 mm	1600	126 lbs	99 lbs
SS637-6	7 mm	26 mm	9 mm	1600	126 lbs	99 lbs
SS608-6	8 mm	22 mm	7 mm	1600	126 lbs	99 lbs
SS628-6	8 mm	24 mm	8 mm	1600	126 lbs	99 lbs
SS638-6	8 mm	28 mm	9 mm	1142	165 lbs	129 lbs
SS609-6	9 mm	24 mm	7 mm	1600	126 lbs	99 lbs
SS629-6	9 mm	26 mm	7 mm	1600	126 lbs	99 lbs
SS639-6	9 mm	30 mm	10 mm	1142	165 lbs	129 lbs

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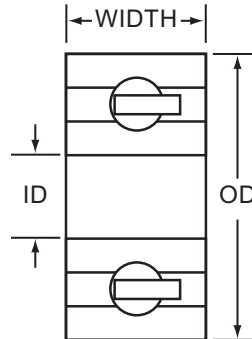
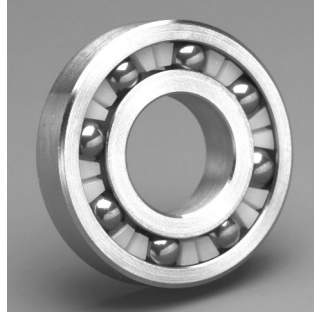


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Single Row 316 Stainless Raceways

Metric Sizes



6000 Series

Standard Plastic is Acetal

PART NUMBER	ID	OD	WIDTH	MAX. RPM WITH NO LOAD	DYNAMIC LOAD CAPACITY	STATIC LOAD CAPACITY
SS6000-6	10 mm	26 mm	8 mm	1600	126 lbs	99 lbs
SS6001-6	12 mm	28 mm	8 mm	1142	165 lbs	129 lbs
SS6002-6	15 mm	32 mm	9 mm	1142	165 lbs	129 lbs
SS6003-6	17 mm	35 mm	10 mm	1069	207 lbs	138 lbs
SS6004-6	20 mm	42 mm	12 mm	840	234 lbs	156 lbs
SS6005-6	25 mm	47 mm	12 mm	729	276 lbs	183 lbs
SS6006-6	30 mm	55 mm	13 mm	729	276 lbs	183 lbs
SS6007-6	35 mm	62 mm	14 mm	630	295 lbs	196 lbs

6200 Series

Standard Plastic is Acetal

PART NUMBER	ID	OD	WIDTH	MAX. RPM WITH NO LOAD	DYNAMIC LOAD CAPACITY	STATIC LOAD CAPACITY
SS6200-6	10 mm	30 mm	9 mm	1142	165 lbs	129 lbs
SS6201-6	12 mm	32 mm	10 mm	1142	165 lbs	129 lbs
SS6202-6	15 mm	35 mm	11 mm	1069	207 lbs	165 lbs
SS6203-6	17 mm	40 mm	12 mm	1069	207 lbs	165 lbs
SS6204-6	20 mm	47 mm	14 mm	840	234 lbs	198 lbs
SS6205-6	25 mm	52 mm	15 mm	729	276 lbs	240 lbs
SS6206-6	30 mm	62 mm	16 mm	729	276 lbs	240 lbs

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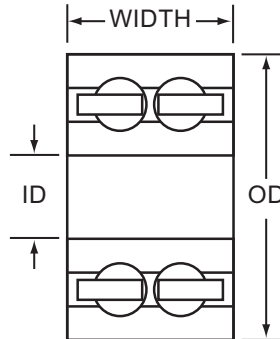
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Double Row 316 Stainless Raceways Inch Sizes



Standard Plastic is Acetal

PART NUMBER	ID	OD	WIDTH	MAX. RPM WITH NO LOAD	DYNAMIC LOAD CAPACITY	STATIC LOAD CAPACITY
SSR4DR-6	1/4 in	5/8 in	3/8 in	1881	117 lbs	76 lbs
SSR4ADR-6	1/4 in	3/4 in	3/8 in	1881	117 lbs	76 lbs
SSR6DR-6	3/8 in	7/8 in	7/16 in	1280	189 lbs	148 lbs
SSR8DR-3/8-6	3/8 in	1 1/8 in	7/16 in	913	247 lbs	193 lbs
SSR8DR-1/2-6	1/2 in	1 1/8 in	7/16 in	913	247 lbs	193 lbs
SSR10BDR-3/8-6	3/8 in	1 3/8 in	7/16 in	855	310 lbs	247 lbs
SSR10BDR-1/2-6	1/2 in	1 3/8 in	7/16 in	855	310 lbs	247 lbs
SSR10BDR-5/8-6	5/8 in	1 3/8 in	7/16 in	855	310 lbs	247 lbs
SSR12DR	3/4 in	1 5/8 in	5/8 in	672	351 lbs	298 lbs
SSR16DR-1-6	1 in	2 in	3/4 in	583	414 lbs	360 lbs
SSR16DR-1-1/4-6	1 1/4 in	2 in	3/4 in	583	414 lbs	360 lbs
SSR18DR-6	1 1/8 in	2 1/8 in	3/4 in	583	414 lbs	360 lbs
SSR20DR-6	1 1/4 in	2 1/4 in	3/4 in	583	414 lbs	360 lbs

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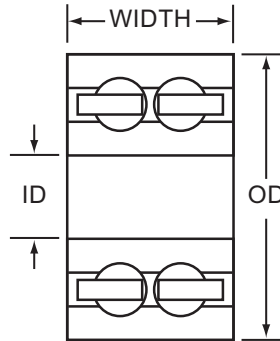


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Double Row 316 Stainless Raceways

Metric Sizes



Standard Plastic is Acetal

PART NUMBER	ID	OD	WIDTH	MAX. RPM WITH NO LOAD	DYNAMIC LOAD CAPACITY	STATIC LOAD CAPACITY
SS5200-6	10 mm	30 mm	14.28 mm	913	247 lbs	193 lbs
SS5201-6	12 mm	32 mm	15.87 mm	913	247 lbs	193 lbs
SS5202-6	15 mm	35 mm	15.87 mm	855	310 lbs	247 lbs
SS5203-6	10 mm	40 mm	17.46 mm	855	310 lbs	247 lbs
SS5204-6	20 mm	47 mm	20.63 mm	672	351 lbs	298 lbs
SS5205-6	25 mm	52 mm	20.63 mm	583	414 lbs	360 lbs
SS5206-6	30 mm	62 mm	23.81 mm	583	414 lbs	360 lbs

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RADIAL BALL BEARINGS - 316 STAINLESS

316 Stainless Raceways Availability and Material Selection

Availability

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Material Selection

KMS Stainless bearings are produced with a type AISI 316 grade stainless for raceways and balls. 316 Stainless has superior corrosion resistance. 316 Stainless is used extensively in food, medical and hostile chemical environments. 316 Stainless provides superior corrosion resistance when compared to conventional standard 440 Stainless.

General Information

A KMS 316 Stainless ball bearing should only be used when a conventional 440 Stainless or a KMS Plastic ball bearing are unsuitable.

Reasons for use are:

- | | |
|---|---|
| <ul style="list-style-type: none">• Environment corrodes 440 SS.• Needs to be non-magnetic.• Can run without lube (slow speeds).• Hygienic | <ul style="list-style-type: none">• Excessive load for Plastic ball bearing• Can run in liquids.• FDA & NSF approved materials• Can run in high temperature (without cage or with high temperature polymer cage) |
|---|---|

Value Engineering = Less Cost

Only a KMS 316 Stainless ball bearing can offer you value that far exceeds its steel or 440 SS counterpart. True value is achieved by extending bearing life and offering qualities of being non-magnetic and non-contaminating in food, medical and photo environment. Evolve from your standard steel bearing to a KMS Plastic or 316 Stainless Bearing by giving us a call. We will analyze your application and find your true value solution.

Special Bearings & Sizes - Variations - Engineering & Prototyping Plastic Ball Bearings "Ten Good Reasons To Use," ETC...

For additional information on the above topics see directory.

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