

29420 E

Spherical roller thrust bearing with stamped steel cage

Spherical roller thrust bearings accommodate very heavy axial and considerable radial loads. They have the highest load rating of all thrust bearings, enabling compact, high power density bearing arrangements. By combining two or more spherical roller thrust bearings, it is possible to create a bearing arrangement that is either self-aligning, allowing misalignment of the shaft, or very stiff.

- High load carrying capacity
- Can accommodate combined loads
- Allow misalignment or create very stiff bearing arrangements
- Long service life and low friction
- Separable design



Overview

Dimensions

Bore diameter	3.937 in
Height	2.638 in
Outside diameter	8.268 in

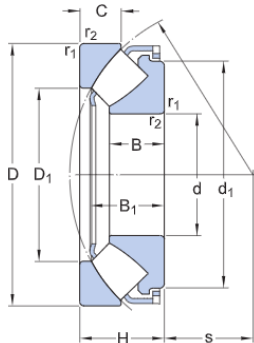
Performance

Basic dynamic load rating	220 313 lbf
Basic static load rating	562 022 lbf
Limiting speed	3 000 r/min
Reference speed	1 700 r/min
SKF performance class	SKF Explorer

Properties

Bore type	Cylindrical
Cage	Sheet metal
Locating feature, housing washer	None
Tolerance class	Normal

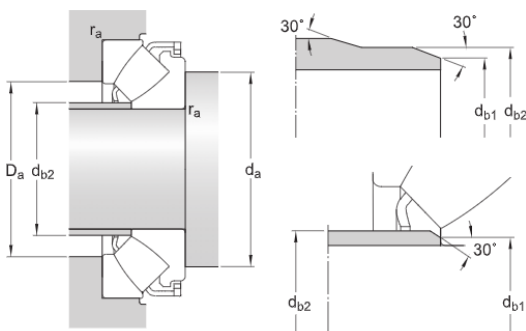
Technical Specification



Dimensions

d	3.937 in	Bore diameter
D	8.268 in	Outside diameter
H	2.638 in	Nominal Height
d ₁	≈ 7.165 in	Outside diameter of shaft washer end side face
D ₁	≈ 5.591 in	Shoulder diameter outer ring
B	1.693 in	Width shaft washer or length of shaft washer bore diameter that fits on shaft (bearings with a stamped steel cage)
B ₁	2.256 in	Height shaft washer + cage
C	1.26 in	Height housing washer
s	2.441 in	Distance from shaft washer end side face to pressure point
r _{1,2}	min. 0.118 in	Chamfer dimension shaft washer

Abutment dimensions



da	min. 5.906 in	Diameter of shaft abutment
db	max. 4.331 in	Abutment diameter of spacer ring
db ₂	max. 4.331 in	Outside diameter of spacer ring
Da	max. 6.89 in	Diameter of housing abutment
ra	max. 0.098 in	Fillet radius

Calculation data

Basic dynamic load rating	C	220 313 lbf
Basic static load rating	C ₀	562 022 lbf
Fatigue load limit	P _u	61 822 lbf
Reference speed		1 700 r/min
Limiting speed		3 000 r/min
Minimum axial load factor	A	0.59

Mass

Mass bearing		23.149 lb
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