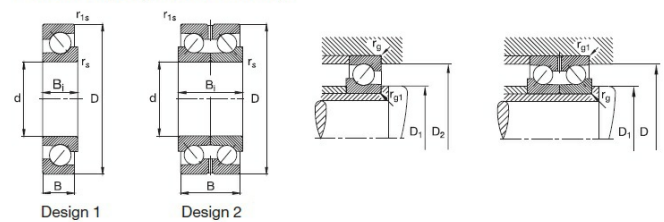


# 510289A

Angular Contact Ball Thrust Bearings, single row non-separable for oil film bearings



Thrust bearings, e. g. for oil film bearings



## Technical sheet of 510289A

### What are the Benefits of choosing 510289A bearings?

- **Motor bearings (deep groove ball/cylindrical):** Ultra-high speed, insulated against electrolytic corrosion, ensuring efficient and reliable main drive.
- **Work roll bearings (double row tapered/self-aligning):** High axial rigidity and strong radial load capacity, resisting rolling impact and movement.
- **Axial positioning bearings (thrust tapered/angular contact):** Extremely high pure axial load capacity, precisely withstanding enormous rolling thrust.
- **Auxiliary system bearings (split type):** Quick replacement without disassembling peripheral equipment, significantly reducing downtime.

<b>Type :</b>	Thrust Angular Contact Ball Bearings	
<b>Model :</b>	<a href="https://en.tradebearings.com/510289A">510289A</a>	
<b>Main demensions :</b>	465 mm × 635 mm × 76 mm	Bore Dia × Outside Dia × Width Dia
<b>M kg:</b>	68.4	Mass
<b>d mm:</b>	465	inner ring diameter
<b>D mm:</b>	635	Outer ring diameter
<b>B(T) mm:</b>	76	Overall Width
<b>Cr kN:</b>	450	Radial dynamic load rating
<b>CO<sub>r</sub> kN:</b>	900	Radial static load rating

## Detailed parameters and installation dimensions:

Part Number	510289A
Bore Type	Cylindrical
Rolling element type	balls
Design Figure	1
Dimension Inside - $d \phi$	465 mm   18.307 inch
Dimension Outside - $D \Phi$	635 mm   25.000 inch
Dimension Width - B	76 mm   2.992 inch
Dimension Width - $B_i$	76 mm   2.992 inch
Rows NO.	One
Units	metric
Cage	machined brass cages
Dimension Chamfer - $r_s$ min	3.5 mm
Dimension Chamfer - $r_{1s}$ min	3.5 mm
Seal	Open
Load	Radial and axial loads
Inner/Outer Ring Material	Bearing steel
Rolling Element Material	Bearing steel
Bearing Mass - m	68.4 kg   150.795 lb
Radial Dynamic Capacity - $C_r$	450000 N   101160 lbf
Radial Static Capacity - $C_{0r}$	900000 N   202320 lbf
Interchangeable	FAG 510289A
Bearing Type	Angular Contact Ball Thrust Bearings, single row non-separable for oil film bearings
Abutment - $D_1$ min	478 mm   18.819 inch
Abutment - $D_2$ max	622 mm   24.488 inch
Fillet radius - $r_g$ max	3.5 mm   0.138 inch
Fillet radius - $r_{g1}$ max	3.5 mm   0.138 inch
Factor - Y	0.57
Factor - $Y_0$	0.26

### What are the applications of the 510289A bearing?

- **Main drive motor:** Used for rotor support. Requires ultra-high speed, low friction, and insulation against electrolytic corrosion.
- **Work rolls/support rolls:** Used for work roll necks. Requires high rigidity to resist radial rolling forces and axial movement.
- **Axial positioning system:** Used in the rolling mill's reduction mechanism. Used to withstand enormous unidirectional or bidirectional rolling thrust.
- **Auxiliary and conveyor systems:** Used in roller conveyors, coilers, and crank shears. Requires quick-change (split bearings) to accommodate long shafts or locations requiring frequent maintenance.

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**Tradebearing(TBS): <https://en.tradebearings.com/>**

Email: [admin@tradebearings.com](mailto:admin@tradebearings.com)

Whatsapp/Mob.: +86 15906428604