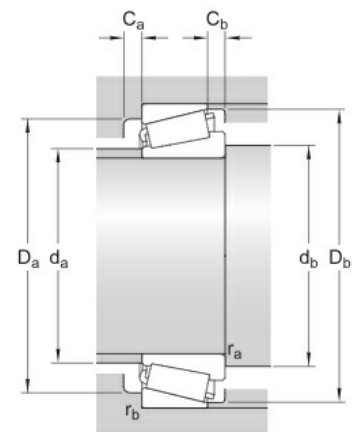
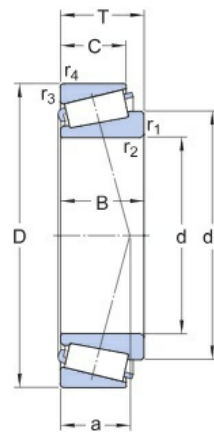


# 33210

Metric single row tapered roller bearings



## Technical sheet of 33210

### What are the Benefits of choosing 33210 bearings?

- **Separable Installation:** The inner ring assembly can be separated from the outer ring, making installation, disassembly, and maintenance very convenient.
- **Composite Load Bearing:** Capable of simultaneously withstanding radial and unidirectional axial loads, exhibiting strong versatility.
- **High Rigidity:** When installed in pairs, the system exhibits high rigidity, accurately guiding the shaft system.
- **Low Friction:** Designed for pure rolling, resulting in low operating friction and minimal heat generation.

Type :	Single row taper roller bearings	
Model :	<a href="#">33210</a>	
Old Code :	3007210E	
Main demensions :	50 mm × 90 mm × 32 mm	Bore Dia × Outside Dia × Width Dia
M kg:	0.851	Mass
HS Code :	8482200000	Bearing customs code
d mm:	50	inner ring diameter
D mm:	90	Outer ring diameter

<b>B(T) mm:</b>	32	Overall Width
<b>Cr kN:</b>	141.215	Radial dynamic load rating
<b>C0r kN:</b>	159.077	Radial static load rating
<b>Grease r/min:</b>	5263	Reference speed
<b>Oil r/min:</b>	6995	Limiting speed

#### Detailed parameters and installation dimensions:

Part Number	33210
Units	Metric
Series	33200
Speed ratings (grease) - $n_B$	5263 min <sup>-1</sup>
Speed ratings (oil) - $n_G$	6995 min <sup>-1</sup>
Contact angle - $\alpha$	15.417 °
Dimension series	3DE
Dimension Inside - d $\phi$	50 mm   1.969 inch
Ring Material	GCr15SiMn
Dimension Outside - D $\Phi$	90 mm   3.543 inch
Dimension Thickness - T	32 mm   1.260 inch
Dimension - $d_1$	70.8 mm   2.787 inch
Cage	Stamping steel cage
Dimension Cone - B	32 mm   1.260 inch
Dimension Cup - C	24.5 mm   0.965 inch
Fatigue load limit - $P_u$	17893 N   4022 lbf
Bearing Type	Metric single row tapered roller bearings
Mounting dimensions shaft - $d_b$ min.	59 mm   2.323 inch
Mounting dimensions housing - $D_b$ min.	87 mm   3.425 inch
Mounting dimensions Radius - $r_b$ max.	1.5 mm   0.059 inch
Limiting value - e	0.4
Matched arrangement	No
Dimension Chamfer - $r_{1,2}$ min.	1.5 mm   0.059 inch
Mounting dimensions - $C_b$ min.	7.5 mm   0.295 inch
Mounting dimensions shaft - $d_a$ max.	57 mm   2.244 inch
Mounting dimensions housing - $D_a$ min.	77 mm   3.031 inch
Flange	No
Calculation coefficient - Y	1.5
Bore	Cylindrical bore
Relubrication	No
Heat stabilized	120 °C (250 °F)
Row NO.	One
Bearing Mass - m	0.851 kg   1.876 lb
Manufacturer Part Code	33210

Dimension pressure points - a	22.975 mm   0.905 inch
Bearing part	Complete
Mounting dimensions housing - D <sub>a</sub> max.	82 mm   3.228 inch
Mounting dimensions - C <sub>a</sub> min.	5 mm   0.197 inch
Mounting dimensions Radius - r <sub>a</sub> max.	1.5 mm   0.059 inch
Dimension Chamfer - r <sub>3,4</sub> min.	1.5 mm   0.059 inch
Seal	Open
Roller Material	GCr15SiMn
Calculation coefficient - Y <sub>0</sub>	0.8
Radial Dynamic Capacity - C <sub>r</sub>	141215 N   31745 lbf
Radial Static Capacity - C <sub>0r</sub>	159077 N   35760 lbf
Coating	No
Lubricant	No

### What are the applications of the 33210 bearing?

- **Automotive Industry:** Transmissions, differentials, wheel hubs. Bearing complex loads, ensuring smooth and precise operation at high speeds.
- **Industrial Transmission:** Gearboxes, reducers, machine tool spindles. Providing high rigidity, reducing vibration, and ensuring transmission accuracy.
- **Railway/Roller Vehicles:** Wheel bearings. High load-bearing capacity, adaptable to frequent starts and stops and impacts.

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