



## BTW 110 CTN9/SPD double direction angular contact thrust ball bearing, super-precision, basic design

Double direction angular contact thrust ball bearing,  
super-precision, basic design

Double direction angular contact thrust ball bearings are designed to locate spindle shafts axially in both directions. These bearings are intended for mounting in combination with cylindrical roller bearings, and consist of two single row angular contact thrust ball bearings arranged back-to-back. The large number of balls enables these bearings to accommodate high axial loads in both directions and provides a high degree of system rigidity.

- Accommodate high axial loads in both directions
- Offer maximum load carrying capacity and maximum system rigidity
- Available for shaft diameters from 35 to 200 mm
- Available with either steel or ceramic balls
- Separable

# Technical Specification

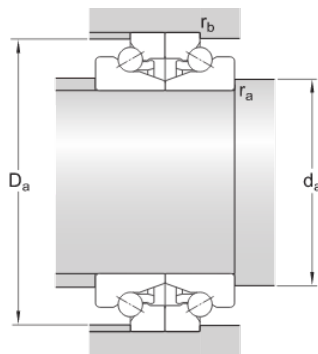


## Dimensions

d	110 mm	Bore diameter
D	170 mm	Outside diameter
H	72 mm	Height
d <sub>1</sub>	145 mm	Shoulder diameter shaft washer (high shoulder)
2C	36 mm	Height of both housing washers
r <sub>1,2</sub>	min. 2 mm	Shaft washer chamfer radius
r <sub>3,4</sub>	min. 1 mm	Housing washer small chamfer radius

## Abutment dimensions

d <sub>a</sub>	min. 132 mm	Abutment diameter shaft
D <sub>a</sub>	min. 159.8 mm	Abutment diameter shaft
D <sub>a</sub>	max. 161 mm	Abutment diameter housing
r <sub>a</sub>	max. 2 mm	Fillet radius
r <sub>b</sub>	max. 1 mm	Fillet radius



## Calculation data

Basic dynamic load rating	C	81.9 kN
Basic static load rating	C <sub>0</sub>	260 kN
Fatigue load limit	P <sub>u</sub>	10.4 kN
Attainable speed for grease lubrication		4 300 r/min
Attainable speed for oil-air lubrication		5 000 r/min
Contact angle	α	60 °
Preload		735 N

Static axial stiffness		893 N/ $\mu$ m
Reference grease quantity	$G_{ref}$	26.5 cm <sup>3</sup>

## Mass

Mass bearing		4.7 kg
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