



BTW 45 CTN9/SP

Angular contact thrust ball bearings,
double direction, super-precision

Bearing data

[Tolerances](#),
P4C, SP, UP

Principles of bearing

selection and application

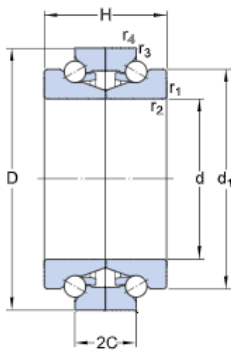
[Chamfer dimensions](#),

[Seat tolerances for standard conditions](#),

shafts, housings, shafts, housings,

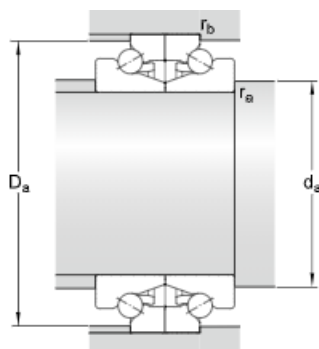
[Initial grease fill](#)

Technical specification



DIMENSIONS

d	45 mm
D	75 mm
H	38 mm
d_1	62.5 mm
2C	19 mm
$r_{1,2}$	min. 1 mm
$r_{3,4}$	min. 0.3 mm



ABUTMENT DIMENSIONS

d_a	min. 56 mm
D_a	min. 69.9 mm
D_a	max. 71 mm
r_a	max. 1 mm
r_b	max. 0.3 mm

CALCULATION DATA

Basic dynamic load rating	C	22.1 kN
Basic static load rating	C ₀	54 kN
Fatigue load limit	P _u	2.6 kN
Attainable speed for grease lubrication		9 500 r/min
Attainable speed for oil-air lubrication		12 000 r/min
Contact angle	α	60 °
Preload		390 N
Static axial stiffness		513 N/μm
Reference grease quantity	G _{ref}	3.1 cm

MASS

Mass bearing	0.53 kg
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More information

<p>Product details</p> <ul style="list-style-type: none"> Designs and variants Markings on bearings Bearing data Preload, clearance, and stiffness Loads Attainable speeds Mounting Designation system 	<p>Engineering information</p> <ul style="list-style-type: none"> Principles of bearing selection and application General bearing knowledge Bearing selection process Bearing failure and how to prevent it 	<p>Tools</p> <ul style="list-style-type: none"> SimPro Quick SimPro Spindle Engineering Calculator LubeSelect for SKF greases Heater selection tool
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