

# Spindle ball bearing SM 61900 C TA P4+

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## Components

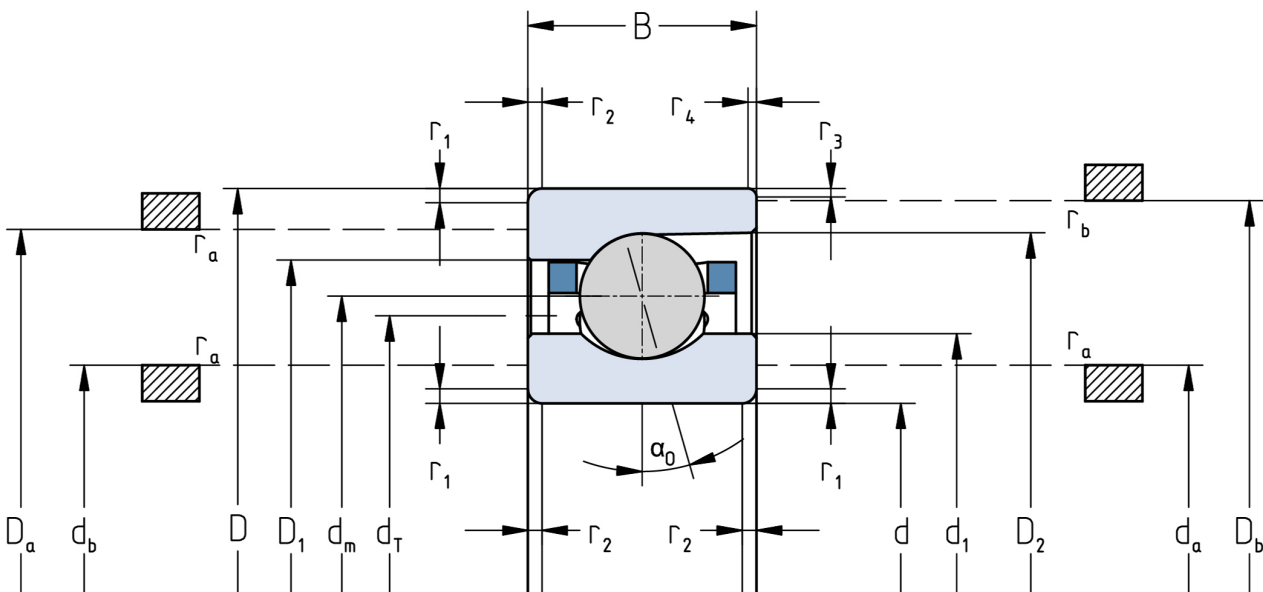
Bearing designation:	SM 61900 C TA
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Series / size:	61900
Ball material:	Steel 100Cr6
Cage:	TA
Precision:	P4+
Main dimensions [d x D x B]:	10 x 22 x 6 mm

## Load data

Static load capacity	$C_{0r}$ : 810 N
Dynamic load capacity	$C_r$ : 2080 N
Fatigue load limit	$C_U$ : 42 N
Speed limit	$n_{grease}$ : 93750 1/min
Speed limit	$n_{oil}$ : 125000 1/min
Light preload	L: 11 N
Axial rigidity	$C_{ax}$ : 11 N/ $\mu$ m
Medium preload	M: 30 N
Axial rigidity	$C_{ax}$ : 16 N/ $\mu$ m
Heavy preload	S: 65 N
Axial rigidity	$C_{ax}$ : 23 N/ $\mu$ m
Spring preload	Ff: 45 N (for $n_{max}$ )

## Geometrical Data

Bore diameter	d: 10 mm	Oiling nozzle position	$d_T$ : 14.7 mm
Outer diameter	D: 22 mm	Pitch circle diameter	$d_m$ : 15.7 mm
Width of single bearing	B: 6 mm	Inner diameter of outer ring	$D_1$ : 17.8 mm
Ball diameter	$D_w$ : 3.175 mm	Undercut of associated component	$r_{a max}$ : 0.3 mm
Number of balls	Z: 11	Undercut of associated component (open side)	$r_{b max}$ : 0.3 mm
Chamfer (min)	$r_{1,2 min}$ : 0.3 mm	Abutment diameter inner ring	$d_{a,b min}$ : 11.8 mm
Chamfer (min), open side	$r_{3,4 min}$ : 0.3 mm	Abutment diameter outer ring	$D_{a,b max}$ : 20.6 mm
Outer diameter of inner ring	$d_1$ : 13.6 mm	Inner diameter of outer ring (open side)	$D_2$ : 18.9 mm
Outer diameter of inner ring (open side)	$d_2$ : -	Bearing weight	m: 0.009 kg
		Contact angle	Alpha 0: 15°



The given speed limits apply to individual bearings with spring preload. Correction factors must be considered for all properties which deviate from this.