

# Spindle ball bearing S 61919 E TA P4+

16.07.2024



## Components

Bearing designation:	S 61919 E TA
Bearing design:	S
Series / size:	61919
Ball material:	Steel 100Cr6
Cage:	TA
Seal:	2RZ upon request
Precision:	P4+
Main dimensions [d x D x B]:	95 x 130 x 18 mm

## Load data

Static load capacity	$C_{0r}$ : 45000 N
Dynamic load capacity	$C_r$ : 39000 N
Fatigue load limit	$C_U$ : 2193 N
Speed limit	$n_{grease}$ : 9750 1/min
Speed limit	$n_{oil}$ : 13000 1/min
Light preload	L: 330 N
Axial rigidity	$C_{ax}$ : 222 N/ $\mu$ m
Medium preload	M: 980 N
Axial rigidity	$C_{ax}$ : 334 N/ $\mu$ m
Heavy preload	S: 1970 N
Axial rigidity	$C_{ax}$ : 442 N/ $\mu$ m
Spring preload	Ff: 4160 N (for $n_{max}$ )

## Geometrical Data

Bore diameter	d: 95 mm	Oiling nozzle position	$d_f$ : 109.4 mm
Outer diameter	D: 130 mm	Pitch circle diameter	$d_m$ : 112.5 mm
Width of single bearing	B: 18 mm	Inner diameter of outer ring	$D_1$ : 118.8 mm
Ball diameter	$D_w$ : 10.319 mm	Undercut of associated component	$r_{a \max}$ : 0.6 mm
Number of balls	Z: 27	Undercut of associated component (open side)	$r_{b \max}$ : 0.6 mm
Chamfer (min)	$r_{1,2 \min}$ : 0.6 mm	Abutment diameter inner ring	$d_{a,b \min}$ : 100.1 mm
Chamfer (min), open side	$r_{3,4 \min}$ : 0.6 mm	Abutment diameter outer ring	$D_{a,b \max}$ : 125.6 mm
Outer diameter of inner ring	$d_1$ : 106.2 mm	Inner diameter of outer ring (open side)	$D_2$ : 123 mm
Outer diameter of inner ring (open side)	$d_2$ : -	Bearing weight	m: 0.58 kg
		Contact angle	Alpha 0: 25°



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