

Spindle ball bearing S 6210 E TXM P4+

16.07.2024



Components

Bearing designation:	S 6210 E TXM
Bearing design:	S
Series / size:	6210
Ball material:	Steel 100Cr6
Cage:	TXM
Precision:	P4+ (UP+ Upon request)

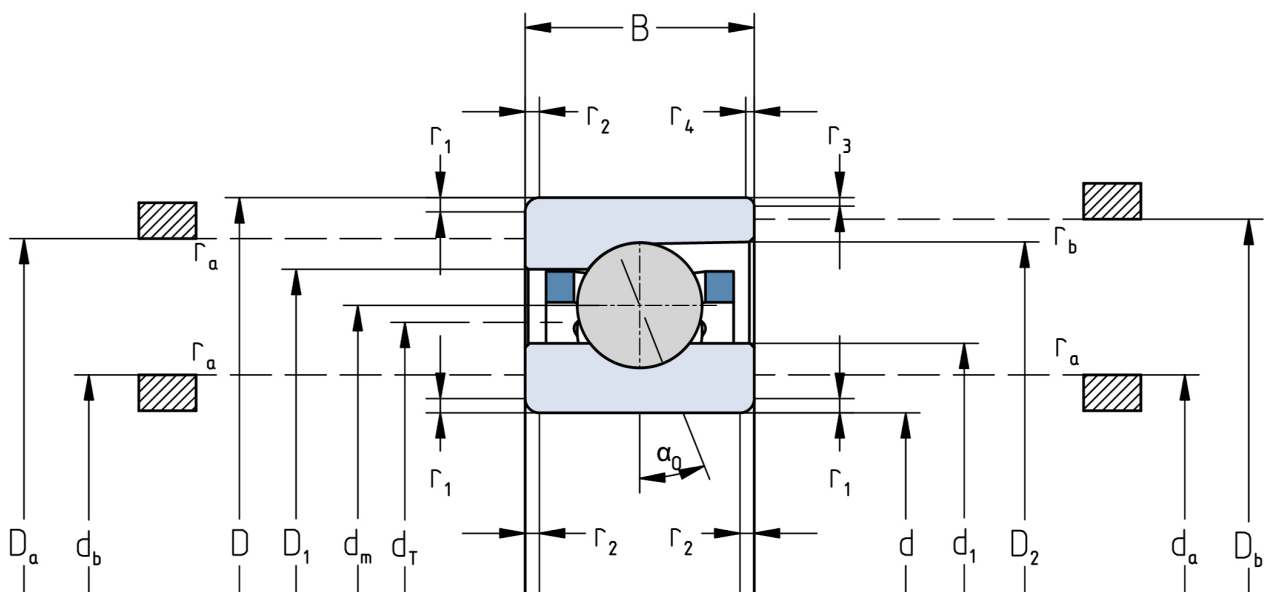
Main dimensions [d x D x B]: 50 x 90 x 20 mm

Load data

Static load capacity	C_{0r} : 35500 N
Dynamic load capacity	C_r : 45000 N
Fatigue load limit	C_U : 1846 N
Speed limit	n_{grease} : 15375 1/min
Speed limit	n_{oil} : 20500 1/min
Light preload	L: 380 N
Axial rigidity	C_{ax} : 177 N/ μ m
Medium preload	M: 1140 N
Axial rigidity	C_{ax} : 271 N/ μ m
Heavy preload	S: 2280 N
Axial rigidity	C_{ax} : 362 N/ μ m
Spring preload	Ff: 3500 N (for n_{max})

Geometrical Data

Bore diameter	d: 50 mm	Oiling nozzle position	d_T : 66.7 mm
Outer diameter	D: 90 mm	Pitch circle diameter	d_m : 70 mm
Width of single bearing	B: 20 mm	Inner diameter of outer ring	D_1 : 76.9 mm
Ball diameter	D_w : 12.7 mm	Undercut of associated component	$r_{a max}$: 1 mm
Number of balls	Z: 15	Undercut of associated component (open side)	$r_{b max}$: 0.6 mm
Chamfer (min)	$r_{1,2 min}$: 1.1 mm	Abutment diameter inner ring	$d_{a,b min}$: 57.4 mm
Chamfer (min), open side	$r_{3,4 min}$: 0.6 mm	Abutment diameter outer ring	$D_{a,b max}$: 84.1 mm
Outer diameter of inner ring	d_1 : 62.5 mm	Inner diameter of outer ring (open side)	D_2 : 82.9 mm
Outer diameter of inner ring (open side)	d_2 : -	Bearing weight	m: 0.465 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.