

LINEAR MOTION

Precision Ballscrews

Table 9

Radial runout of the journal in respect to BB.

Unit : μm

Nominal Dia. d_0 (mm)			Radial Runout	
Over	Up to (incl.)	l (mm)	Cp3	Cp5 / Ct5
6	20	80	12	20
20	50	125	16	25

Table 10

Coaxial deviation of the journal diameter in respect to the bearing diameter (D). Ballscrew is placed at the points BB.

Unit : μm

Nominal Dia. d_0 (mm)			Coaxial Deviation	
Over	Up to (incl.)	l (mm)	Cp3	Cp5 / Ct5
6	20	80	6	8
20	50	125	8	10

Table 11

Axial runout of the bearing journal in respect to BB.

Unit : μm

Nominal Dia. d_0 (mm)			Axial Runout	
Over	Up to (incl.)		Cp3	Cp5 / Ct5
6	63		4	5

Table 12

Perpendicularity of the flange mounting surface in respect to AA.

Unit : μm

Flange Dia. D_2 (mm)		Perpendicularity	
Over	Up (to incl.)	Cp3	Cp5 / Ct5
16	32	12	16
32	63	16	20
63	125	20	25
125	200	25	32

Table 13

Radial runout of the outer diameter of the nut in respect to AA.

Unit : μm

Outer Dia. D_1 (mm)		Runout	
Over	Up (to incl.)	Cp3	Cp5 / Ct5
16	32	12	16
32	63	16	20
63	125	20	25
125	200	25	32

Table 14

Radial runout of the outer screw shaft diameter over the length 5 to determine the straightness in respect to BB.

Unit : μm

Screw Shaft Outer Dia. d_0 (mm)			Reference Length l_5 (mm)	Runout	
Over	Up to (incl.)			Cp3	Cp5 / Ct5
12	25	160		25	32
25	50	315		25	32

Table 15

Maximum radial runout of the outer nut diameter valid for $l_1 \geq 4 l_5$.

Unit : μm

$\frac{l_1}{d_0}$			Runout (max)	
Over	Up to (incl.)		Cp3	Cp5 / Ct5
-	40		50	64
40	60		75	96
60	80		125	160
80	100		200	256

l_1 = Effective screw shaft length (mm)

d_0 = Screw shaft outer diameter (mm)

l_5 = Reference length (mm)

For more detailed information and test instructions see DIN 69051, part 3.

