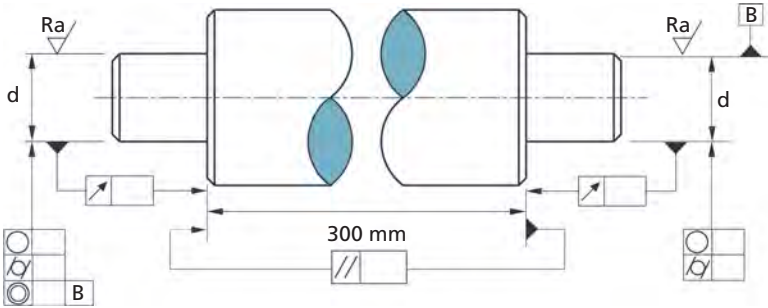
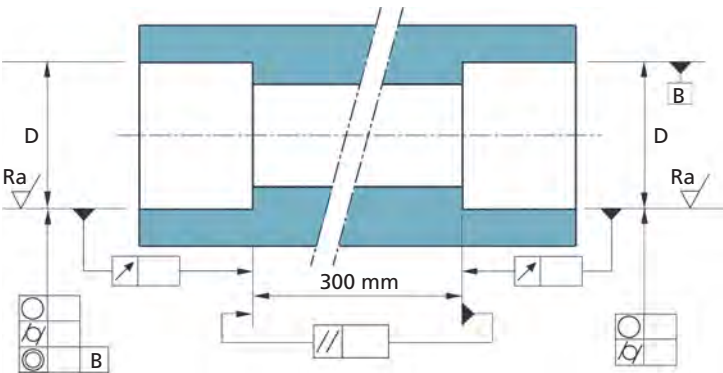


**Errors of Form:
Maximum Permissible Theoretical Tolerance**



	ISO 1101	ABEC 5	ABEC 7	ABEC 9
○	Circularity	$\frac{IT\ 3}{2}$	$\frac{IT\ 2}{2}$	$\frac{IT\ 1}{2}$
⊘	Cylindricity	$\frac{IT\ 3}{2}$	$\frac{IT\ 2}{2}$	$\frac{IT\ 1}{2}$
↗	Run-out	IT 3	IT 2	IT 1
//	Parallelism	IT 3	IT 2	IT 1
◎	Concentricity	IT 4	IT 3	IT 2
Ra	Roughness	0.4 μm	0.4 μm	0.2 μm



	ISO 1101	ABEC 5	ABEC 7	ABEC 9
○	Circularity	$\frac{IT\ 3}{2}$	$\frac{IT\ 2}{2}$	$\frac{IT\ 1}{2}$
⊘	Cylindricity	$\frac{IT\ 3}{2}$	$\frac{IT\ 2}{2}$	$\frac{IT\ 1}{2}$
↗	Run-out	IT 3	IT 2	IT 1
//	Parallelism	IT 3	IT 2	IT 1
◎	Concentricity	IT 4	IT 3	IT 2
Ra	Roughness	0.8 μm	0.4 μm	0.4 μm

Nominal Diameter in mm	≥	6	10	18	30	50	80	120	180	250	315
	<	10	18	30	50	80	120	180	250	315	400
Tolerance of form in μm	IT 0	0.6	0.8	1	1	1.2	1.5	2	3	--	--
	IT 1	1	1.2	1.5	1.5	2	2.5	3.5	4.5	6	7
	IT 2	1.5	2	2.5	2.5	3	4	5	7	8	9
	IT 3	2.5	3	4	4	5	6	8	10	12	13
	IT 4	4	5	6	7	8	10	12	14	16	18