

# TOOLING APPLICATION OUTSIDE DIAMETER TOLERANCES

## BARS FUNDAMENTAL ISO TOLERANCES TABLE

### Tolerance positioning

- h = minus tolerance
- js = half plus tolerance and half minus tolerance
- k = plus tolerance

		Quality	4	5	6	7	8	9	10	11	12	13
Tolerances microns (1 μ = 0.01mm) thousands of inches	diameters (millimeters/inches)	$\varnothing \leq 3$	3	4	6	10	14	25	40	60	100	140
		$\varnothing \leq 0.118$	0.11	0.15	0.23	0.39	0.55	0.98	1.57	2.36	3.93	5.51
		$3 \leq \varnothing \leq 6$	4	5	8	12	18	30	48	75	120	180
		$0.118 \leq \varnothing \leq 0.236$	0.15	0.19	0.31	0.47	0.70	1.18	1.88	2.95	4.7	7.08
		$6 \leq \varnothing \leq 10$	4	6	9	15	22	36	58	90	150	220
		$0.236 \leq \varnothing \leq 0.393$	0.15	0.23	0.35	0.59	0.86	1.41	2.28	3.54	5.90	8.66
		$10 \leq \varnothing \leq 18$	5	8	11	18	27	43	70	110	180	270
		$0.393 \leq \varnothing \leq 0.708$	0.19	0.31	0.43	0.70	1.06	1.69	2.75	4.33	7.08	10.62
		$18 \leq \varnothing \leq 30$	6	9	13	21	33	52	84	130	210	330
		$0.708 \leq \varnothing \leq 1.181$	0.23	0.35	0.51	0.82	1.29	2.04	3.30	5.11	8.26	12.99
		$30 \leq \varnothing \leq 50$	7	11	16	25	39	62	100	160	250	390
		$1.181 \leq \varnothing \leq 1.968$	0.27	0.43	0.62	0.98	1.53	2.44	3.93	6.29	9.84	15.35

## REMINDER

- For bars or coupling male parts, a small letter defines tolerances (ex. : h10).

	OD (mm)		
	7	13	22
<b>h6</b>	+ 0 μ - 9 μ	+ 0 μ - 11 μ	+ 0 μ - 13 μ
<b>js9</b>	+ 18 μ - 18 μ	+ 21 μ - 21 μ	+ 26 μ - 26 μ
<b>k11</b>	+ 90 μ - 0 μ	+110 μ - 0 μ	+ 130 μ - 0 μ