

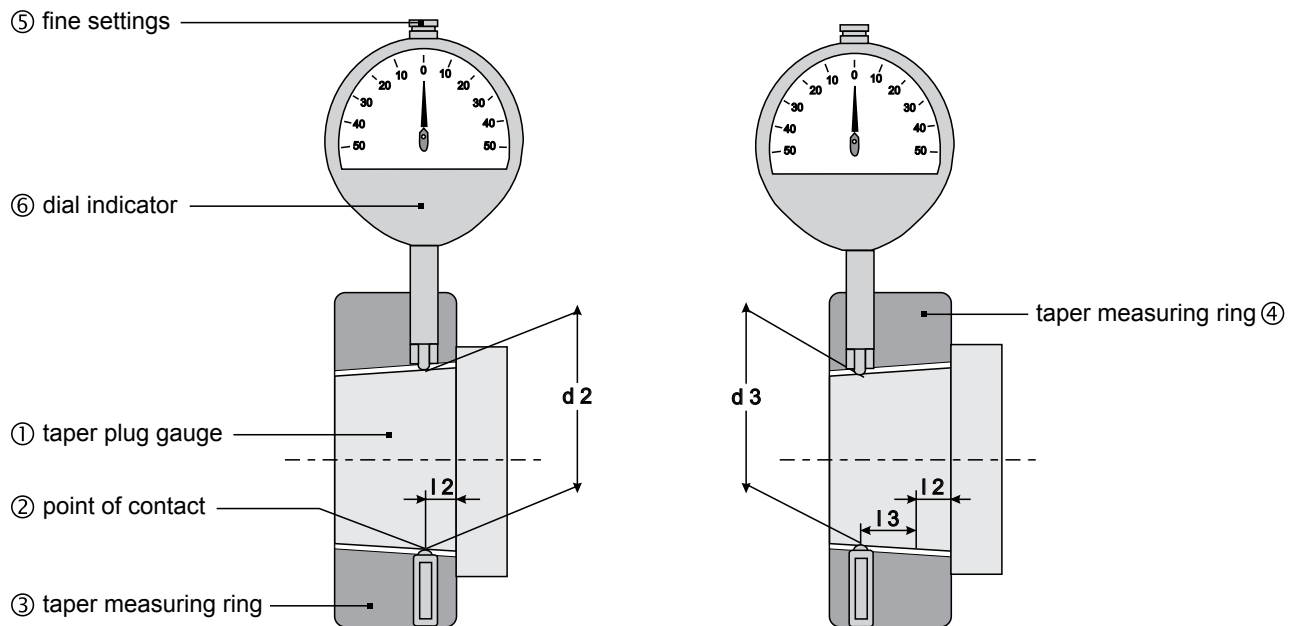
Zeroing the taper measuring ring

1. Clean the taper and flange contact surfaces of the taper plug gauge ① and measuring rings ③ and ④.
2. Insert the taper plug gauge ① into the appropriate taper measuring ring (③ for d_2 and ④ for d_3). Ensure the taper plug gauge is seated firmly against the stationary ball rests.
3. Offset the dial indicator zero in accordance with the deviation of the certified taper plug gauge. For example, with a deviation of +0.001mm, the indicator would be set to +0.001mm rather than zero. Be sure to observe the + or - sign. By using the offset, the measuring diameter is set to true zero per ISO 12164-1.

Measuring HSK tool holders

4. Clean the taper and flange contact surfaces of the tool holder.
5. Insert the tool holder into the appropriate taper measuring ring (③ for d_2 and ④ for d_3). The dial indicator will show the actual deviation from the nominal dimension.

Note: The taper plug gauge is marked with the HSK size, nominal diameter and serial number. The taper measuring rings are inscribed with the HSK size and nominal diameter with tolerance.



Part Number	Tool shank per ISO 12164-1 type A, C and DIN 69893 Form E	Tool shank per ISO 12164-1 per B, D, and F	d_2 match ISO 12164-1	d_3	l_2	l_3
410.210.125.000	HSK 25	HSK 32	19.000 ^{+0.006} / _{+0.004}	18.1500 ^{+0.004} / _{+0.002}	2.5	8.5
410.210.132.000	HSK 32	HSK 40	24.007 ^{+0.002} / _{-0.002}	23.2755 ^{+0.002} / _{-0.002}	3.2	7.3
410.210.140.000	HSK 40	HSK 50	30.007 ^{+0.002} / _{-0.002}	29.0551 ^{+0.002} / _{-0.002}	4.0	9.5
410.210.150.000	HSK 50	HSK 63	38.009 ^{+0.0025} / _{-0.0025}	36.9068 ^{+0.0025} / _{-0.0025}	5.0	11
410.210.163.000	HSK 63	HSK 80	48.010 ^{+0.003} / _{-0.003}	46.5370 ^{+0.003} / _{-0.003}	6.3	14.7
410.210.180.000	HSK 80	HSK 100	60.012 ^{+0.004} / _{-0.004}	58.1082 ^{+0.004} / _{-0.004}	8.0	19
410.210.190.000	HSK 100	HSK 125	75.013 ^{+0.004} / _{-0.004}	72.6082 ^{+0.004} / _{-0.004}	10	24
410.210.192.000	HSK 125	HSK 160	95.016 ^{+0.005} / _{-0.005}	91.9600 ^{+0.005} / _{-0.005}	12.5	30.5
410.210.196.000	HSK 160		120.016 ^{+0.005} / _{-0.005}	116.008 ^{+0.005} / _{-0.005}	16	40