

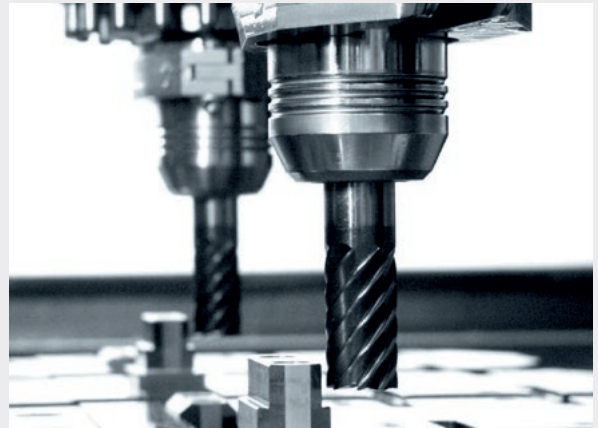


T|E|N|D|O[®] RLA

Compact. Robust. Durable.

When the sensitive set of gears is oriented, this set-up time minimizer gives you micron-precise positioning for the tool length. The length adjustment screw is equipped with a front and back stop.

For milling centers/multiple/twin spindle machines
– drilling, reaming, milling, thread tapping/ thread milling
and forming



Advantages – Your benefits

- + Compact adjustment gears**
This ensures micron-precise length adjustment of the metal-cutting tool.
- + No change of the position**
Due to the self-locking adjusting screw
- + No radial change of the adjustment screw**
The balancing grade is not affected
- + Micron precise length adjustment**
10 mm adjustment travel for all clamping diameters with a front and back stop of the adjustment screw
- + Micron-precise tool change within seconds without peripheral equipment**
Time saving through reduction of set-up time and no investment and energy costs due to additional clamping devices
- + Permanent run-out and repeat accuracy < 0.003 mm**
Even cutting action, increased tool service life, and reduced costs for regrinding or buying new tools
- + Fine-balanced by default**
Suitable for high speeds with a balancing grade of G2.5 at 25,000 RPM
- + Comprehensive compatibility**
Can be ideally combined with TRIBOS SVL tool extensions
- + Excellent vibration damping**
Micro-blowouts are prevented, optimal workpiece surfaces, machine spindle protection, increased tool service life resulting in a reduction of costs
- + Exact length preadjustment**
Can be actuated radially or axially for quick and easy tool presetting
- + High level of flexibility**
Clamping of different diameters due to the use of slotted or coolant-proof intermediate sleeves
- + All commercially available tool shank types can be clamped**
Form A: with smooth cylindrical shank, shank form A in accordance with DIN 1835 and DIN 6535 HA Form AB: with flat face and cylindrical shank with pulling face, shank form B in accordance with DIN 1835 and DIN 6535 HB Form B: with lateral pulling faces, shank form B in accordance with DIN 1835 Form E: with inclined clamping face, shank form E in accordance with DIN 1835 and DIN 6535 HE

**1 Drive worm (set screw)**

The radially actuated adjustment mechanism ensures micron-precise presetting of tool lengths.

2 Clamping screw

The clamping screw is used to actuate the clamping piston. Clamp the clamping screw to dead stop using an Allen key. A torque wrench is not needed.

3 Drive worm (adjustment screw)

10 mm adjustment travel for all clamping diameters with a front and back stop of the adjustment screw

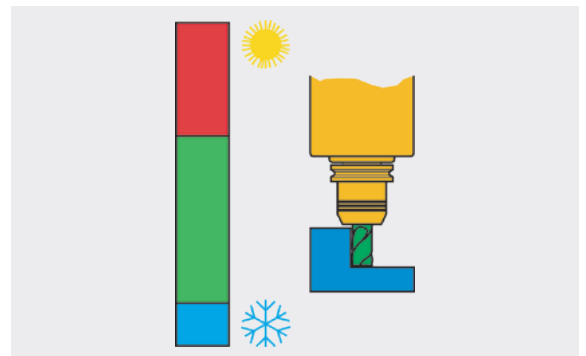
Clamping force test

The clamping force in the clamping system can be tested at any time in a matter of seconds by using a test shaft.



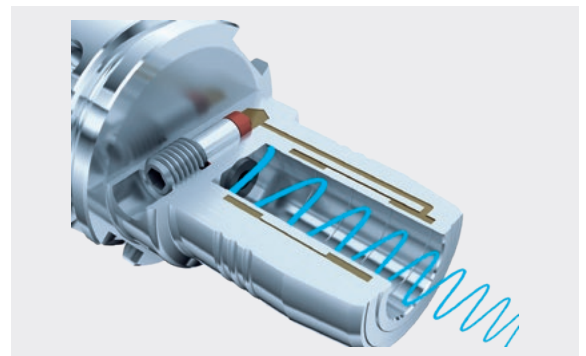
Optimum temperature range

All technical data in the catalog applies to a normal temperature range between 20 – 25°C. The optimum operating temperature range is between 20 and 50 °C. Higher temperature ranges are possible upon request.



Excellent vibration damping

Micro-blowouts on the cutting edge of the tool are prevented, thus achieving optimum workpiece surfaces. The spindle performance will be enhanced, the tool service life is considerably increased and costs reduced.



High flexibility due to the use of intermediate sleeves

The application of slotted or coolant-proof intermediate sleeves enables clamping of different tool diameters using the same toolholder. This is why a toolholder can be used flexibly within the clamping range.

The run-out accuracy of the intermediate sleeve is ≤ 0.003 mm.



Dirt grooves for reliable torque transmission

The enormous clamping pressure of the TENDO hydraulic expansion toolholder creates a displacement of oil, grease, or lubricant residues into the dirt groove. This results in the clamping face remaining dry and reliable torque transmission is guaranteed.



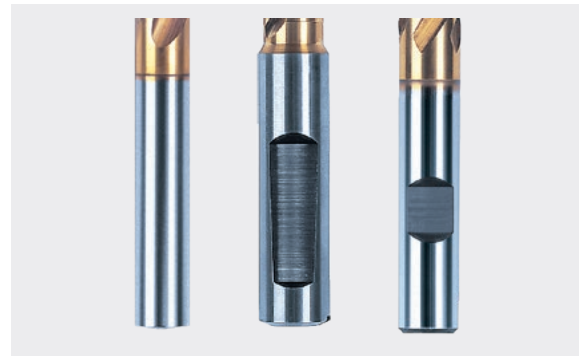
All commercially available tool shank types can be clamped

Form A: with smooth cylindrical shank, shank form A in accordance with DIN 1835 and DIN 6535 HA

Form AB: with flat face and cylindrical shank with pulling face, shank form B in accordance with DIN 1835 and DIN 6535 HB

Form B: with lateral pulling faces, shank form B in accordance with DIN 1835

Form E: with inclined clamping face, shank form E in accordance with DIN 1835 and DIN 6535 HE



Dirt resistance for a long-lasting functional reliability

The completely enclosed TENDO system prevents the penetration of dirt, chips, coolants, and grease. The clamping range is not damaged, functionality and perfect tool clamping system remain fully preserved. TENDO hydraulic expansion toolholders are low-maintenance and enjoy a long service life.



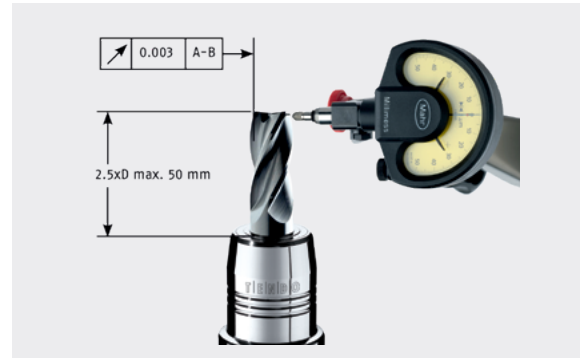
Micron-precise tool change within seconds without peripheral equipment

With a few simple actions, the tool can be changed quickly and process reliably. Time savings due to reduced set-up times and no investment costs for additional clamping devices.

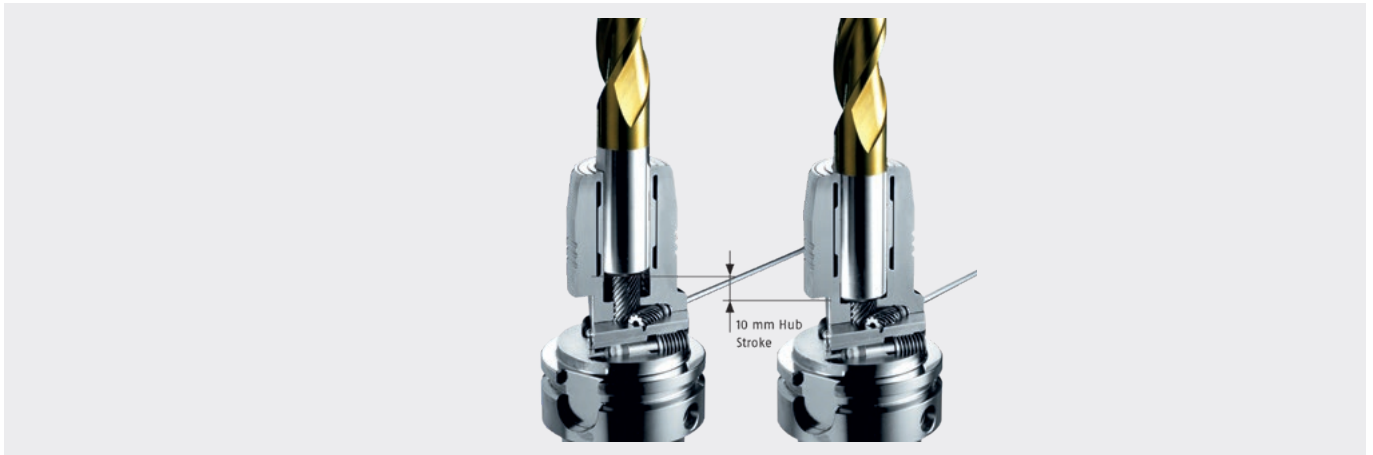


Run-out and repeat accuracy

Highest, permanent run-out and repeat accuracy of < 0.003 mm ensure an even cutting action. This minimizes wear to the cutting edges of the tool, increases tool service life considerably, and reduces the costs incurred for regrinding or buying new tools.

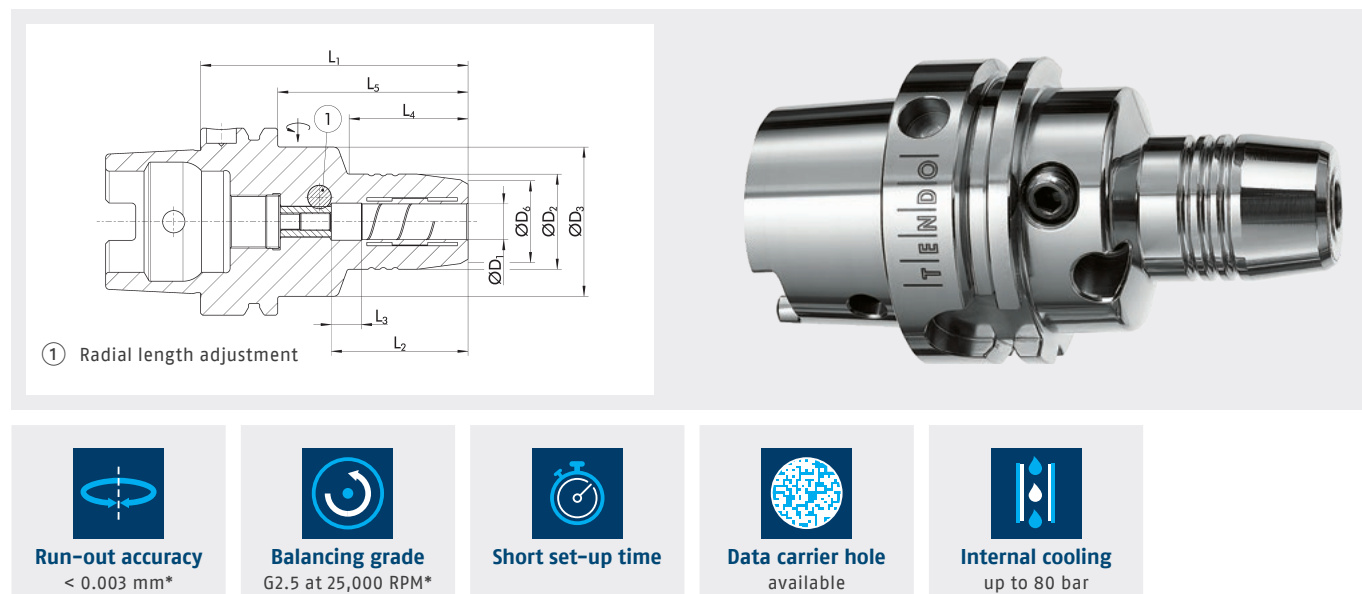


Axial and radial Length Specification



Radially operated adjustment mechanism for presetting the tool length micron precise in seconds.

TENDO RLA HSK-A 50



Technical data

ID	D1 [mm]	D2 [mm]	D3 [mm]	D6 [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	Mmin [Nm]	Weight [kg]	
0208401	6	26	40	22	80	37.2	10	35	54	16	0.8	9205640
0208402	8	28	40	24	80	37.2	10	36	54	23	0.8	9205640
0208403	10	30	40	26	85	41	10	38	59	45	0.8	9205640
0208404	12	32	40	28	90	46	10	40	64	90	0.8	9205640
0208405	16	38	53	34	95	48.7	10	36.5	69	185	1.2	9205650
0208406	20	42	60	38	100	51	10	39	74	330	1.2	9205650

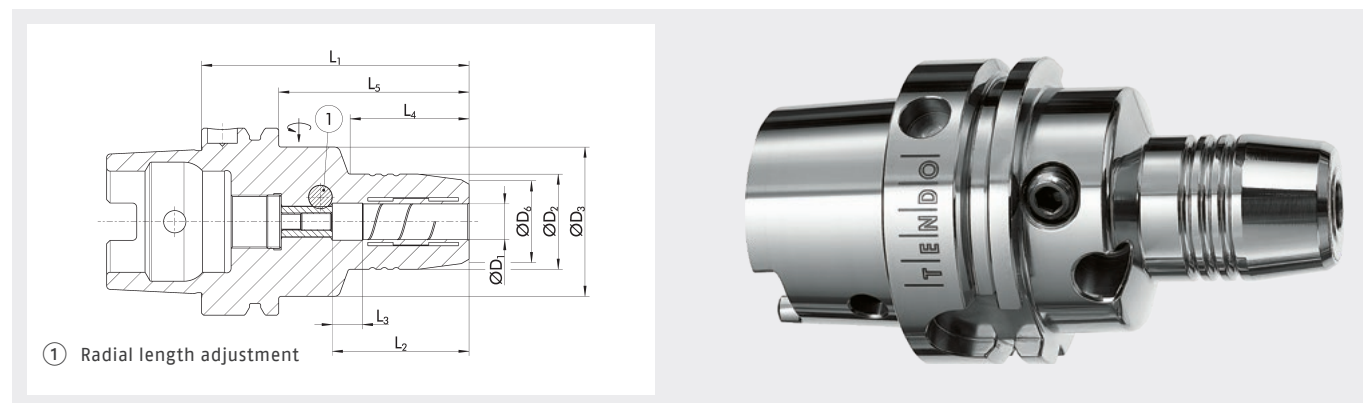
*Run-out accuracy: at 2.5 x D

*Balancing grade: or Umax < 1 gmm

Additional sizes and customized designs are available upon request

Additional shank diameters can be clamped using intermediate sleeves

TENDO RLA HSK-A 63



Run-out accuracy
< 0.003 mm*



Balancing grade
G2.5 at 25,000 RPM*



Short set-up time



Data carrier hole
available



Internal cooling
up to 80 bar

Technical data

ID	D1 [mm]	D2 [mm]	D3 [mm]	D6 [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	Mmin [Nm]	Weight [kg]	
0205281	6	26	50	22	80	37	10	33	54	16	1.1	9205650
0205282	8	28	50	24	80	37	10	33	54	23	1.1	9205650
0205283	10	30	50	26	85	41	10	38	59	45	1.1	9205650
0205284	12	32	50	28	90	46	10	40	64	90	1.2	9205650
0205289	14	34	50	30	90	46	10	46	64	110	1.2	9205650
0205285	16	38	50	34	95	49	10	51	69	185	1.3	9205650
0205280	18	40	50	36	95	49	10	52	69	240	1.3	9205650
0205286	20	42	50	38	100	51	10	51	74	330	1.4	9205650
0205287	25	57	63	53	120	57	10	54.5	94	400	2.2	9205660
0205288	32	64	75	60	125	61	10	57.5	99	650	2.7	9205660

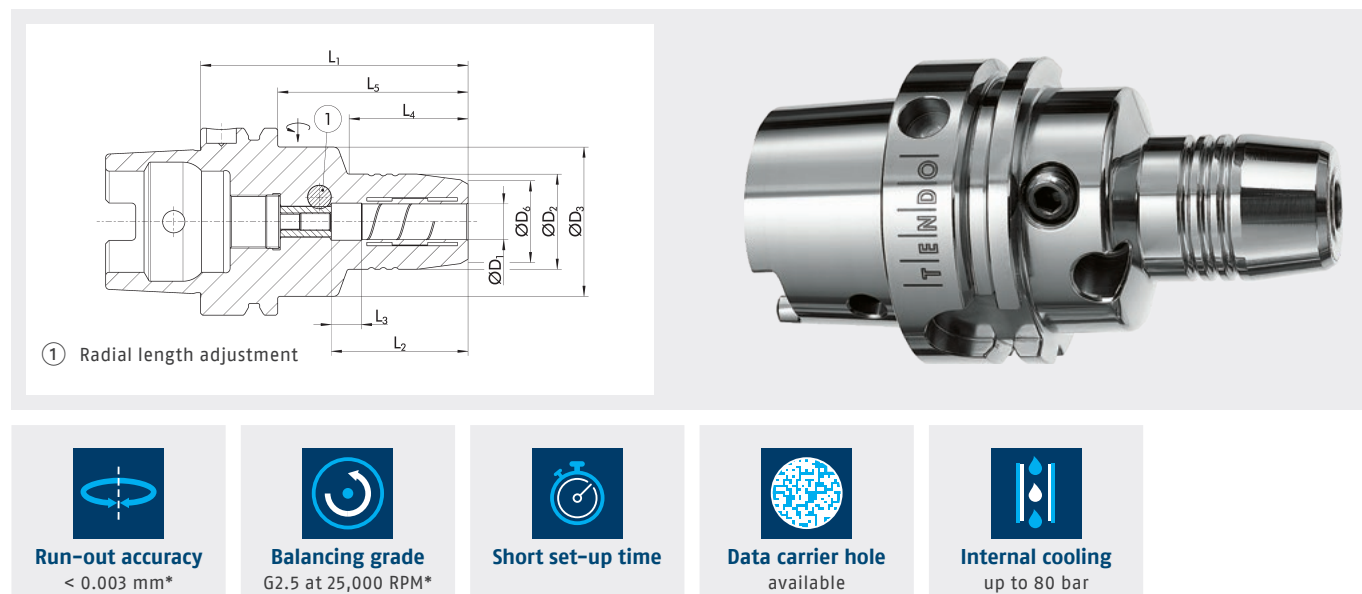
*Run-out accuracy: at 2.5 x D

*Balancing grade: or Umax < 1 gmm

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Additional shank diameters can be clamped using intermediate sleeves

TENDO RLA HSK-A 63



Technical data

ID	D1 [Inch]	D2 [mm]	D3 [mm]	D6 [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	Mmin [Nm]	Weight [kg]	
0205064	3/4"	42	50	38	100	51	10	51	74	330	1.4	9205650

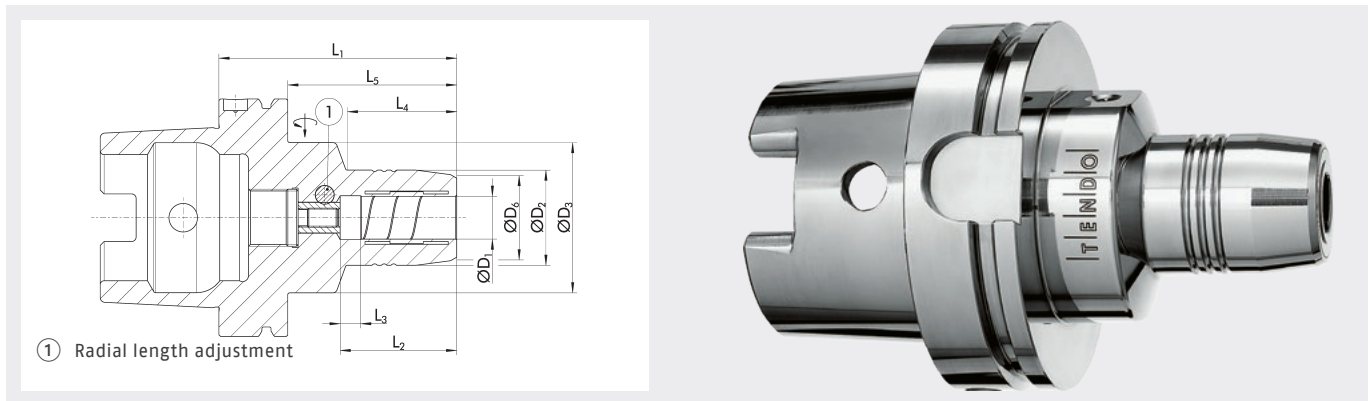
*Run-out accuracy: at 2.5 x D

*Balancing grade: or Umax < 1 gmm

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Additional shank diameters can be clamped using intermediate sleeves

TENDO RLA HSK-A 100



Run-out accuracy
< 0.003 mm*



Balancing grade
G2.5 at 25,000 RPM*



Short set-up time



Data carrier hole
available



Internal cooling
up to 80 bar

Technical data

ID	D1 [mm]	D2 [mm]	D3 [mm]	D6 [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	Mmin [Nm]	Weight [kg]	
0207061	6	26	63	22	85	37	10	33	56	16	2.7	9205650
0207062	8	28	63	24	85	37	10	33	56	23	2.7	9205650
0207063	10	30	63	26	90	41	10	36	61	45	2.8	9205650
0207064	12	32	63	28	95	46	10	40	66	90	2.8	9205650
0207065	16	38	63	34	100	49	10	46	71	185	2.9	9205650
0207066	20	42	75	38	105	51	10	51	76	330	3.2	9205650
0207067	25	57	75	53	115	57.3	10	55.5	86	400	3.9	9205660
0207068	32	64	75	60	120	61	10	63.5	91	650	4.1	9205660

*Run-out accuracy: at 2.5 x D

*Balancing grade: or Umax < 1 gmm

Additional sizes and customized designs are available upon request

Additional shank diameters can be clamped using intermediate sleeves



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