

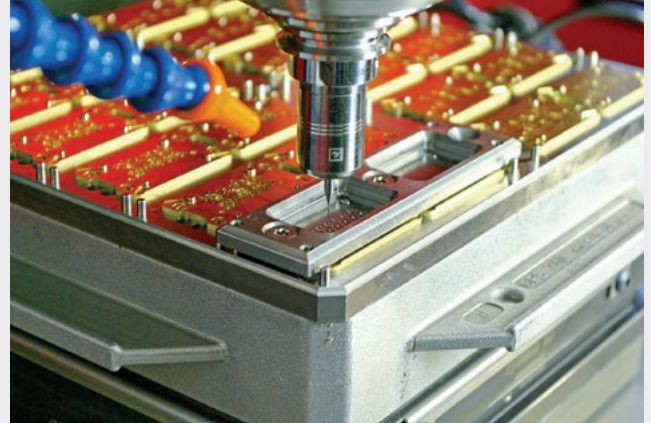


T|R|I|B|O|S[®]-RM

Compact. Powerful. Fast.

TRIBOS-RM is suitable for powerful HSC machining in micro-cutting up to 85,000 RPM and higher. The excellent run-out accuracy of ≤ 0.003 mm as well as a stability gained from the anchor structure form the basis of the extremely compact toolholder mountings, and in so doing ensures precise and process-reliable metal cutting. The different sizes are perfectly suitable for small, highly dynamic machining centers.

For maximum performance in micro-cutting, whether drilling, reaming or milling



Advantages – Your benefits

- + High radial rigidity**
Stability at high cutting forces, good metal cutting performance, and therefore faster machining time and higher productivity
- + Small and compact design**
Precise and reliable metal cutting
- + Excellent vibration damping**
Micro-blowouts are prevented, optimal workpiece surfaces, machine spindle protection, increased tool service life resulting in a reduction of costs
- + 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
- + Permanent run-out and repeat accuracy ≤ 0.003 mm**
Optimal surface results, high precision machining and safe processes due to a uniform cutting action and highest repeatability
- + Minimizing set-up times and costs**
Quick and easy tool change with the clamping device TRIBOS-RM SVP
- + Rotationally symmetrical design**
The rotationally symmetrical design minimizes the interfering contour and ensures high speed of rotation.



1 Anchor structure

The anchor structure ensures high stability

2 Base body

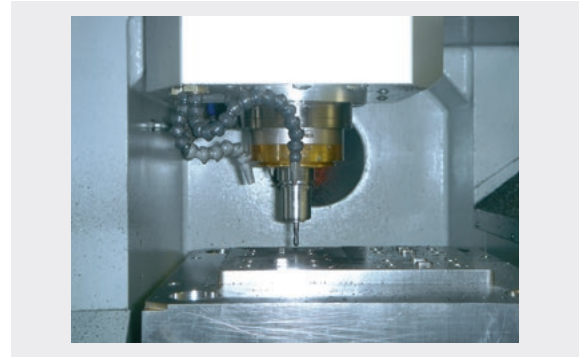
One-piece design, from the machine interface to the clamping diameter

3 Compact design

For high radial rigidity and high run-out accuracy.

Compact design for the highest demands in high-speed cutting

The compact and short design makes speeds of over 85,000 RPM possible. Due to the rotational symmetry, the residual imbalance is less than 1 gmm, which is itself very good. TRIBOS-RM is the solution for extreme and diverse requirements in HSC machining, e.g. in the tool and mold making industry for high-speed HSK-E 40 spindles!



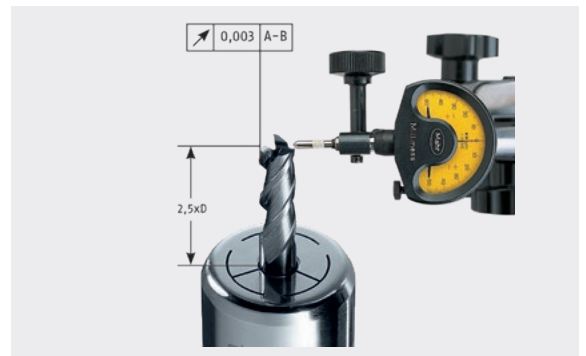
Stability through high radial rigidity

The anchor structure allows TRIBOS-RM to remain stable during loads caused by high cutting forces. The clamping forces suffice to reach the limits of the loads generated by high-speed machining centers. High machining performance paves the way for quicker machining times and thus increases the productivity.



High radial rigidity

The half-timbered structure allows TRIBOS-RM to remain stable under loads caused by high cutting forces. The clamping forces suffice to reach the limits of the loads generated by high-speed machining centers. High machining performance paves the way for quicker machining times and thus increases the productivity.



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.



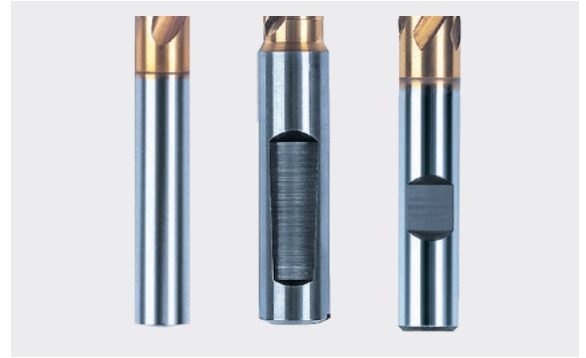
All commercially available tool shank types can be clamped

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

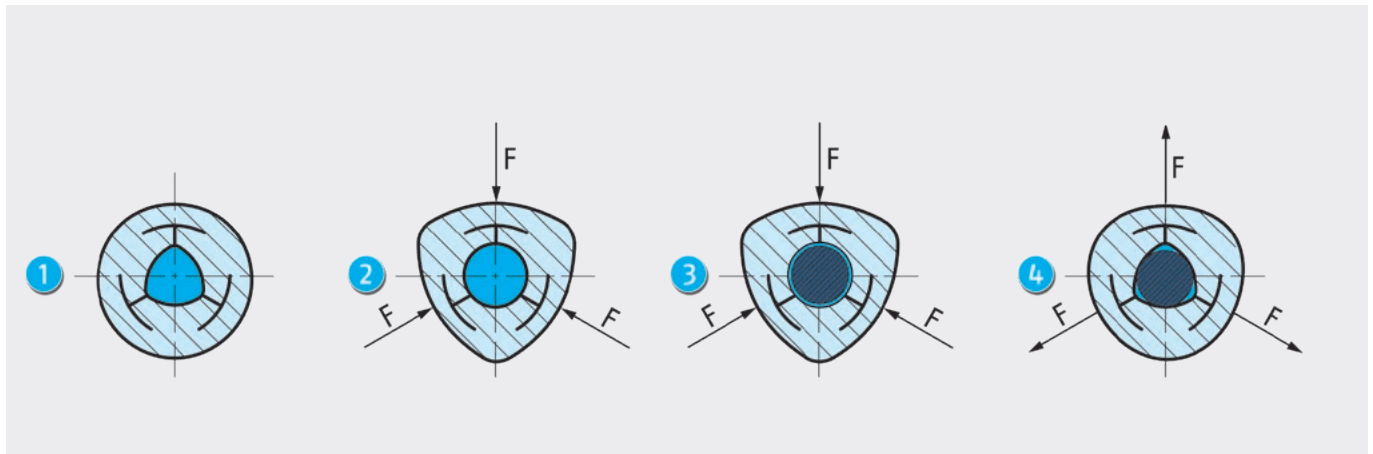
Form AB: with flat face and cylindrical shank with pulling face, shank form B in accordance with DIN 1835 and DIN 6535 HB

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



Functional principle of polygonal clamping technology



1 Clamping diameter polygonal

By using the TRIBOS SVP clamping devices and the matching pressure actuation, the polygonal clamping diameter of the toolholder becomes round.

2 Clamping diameter becomes round

The tool shank is now easy to insert.

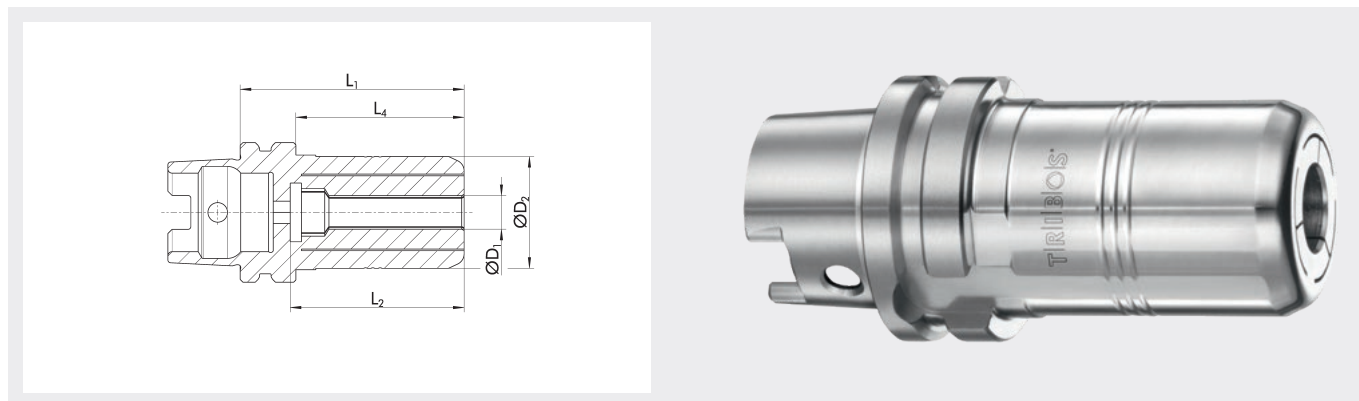
3 Inserting the tool shank

If the pressure on the clamping diameter eases off, then it will assume its polygonal shape again.

4 Tool clamped

The inserted tool shank is process-reliably clamped at a high repeat accuracy.

TRIBOS-RM HSK-A 25



Run-out accuracy
≤ 0.003 mm*



Balancing grade
G2.5 at 25,000 RPM*



Extra radial rigidity



Micro Maching



HSC

Technical data

ID	D1 [mm]	D2 [mm]	L1 [mm]	L2 [mm]	L4 [mm]	Mmin [Nm]	Weight [kg]	
0226030	3	20	40	31	30	3	0.12	0201892
0226031	4	20	40	31	30	4	0.12	0201892
0226032	6	20	40	31	30	10	0.12	0201892
0226033	8	20	40	31	30	15	0.12	0201892

*Run-out accuracy: at 2.5 x D

*Balancing grade: or Umax < 1 gmm

Additional sizes and customized designs are available upon request

TRIBOS-RM HSK-A 32



Technical data

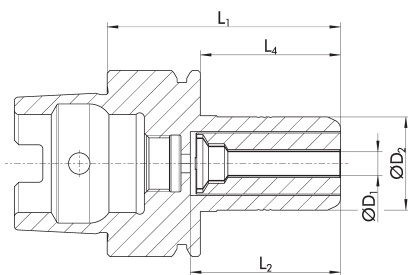
ID	D1 [mm/Inch]	D2 [mm]	L1 [mm]	L2 [mm]	L4 [mm]	Mmin [Nm]	Weight [kg]	
0225881	3	20	50	32	30	3	0.25	0201892
0225882	4	20	50	32	30	4	0.25	0201892
0225883	5	20	50	32	30	5	0.25	0201892
0225884	6	20	50	32	30	10	0.25	0201892
0225885	8	20	50	32	30	15	0.25	0201892
0225886	10	20	50	32	30	20	0.25	0201892
0225887	12	20	50	32	30	20	0.25	0201892
0225888	1/8"	20	50	32	30	3	0.25	0201892

*Run-out accuracy: at $2.5 \times D$

*Balancing grade: or $U_{\max} < 1 \text{ gmm}$

Additional sizes and customized designs are available upon request

TRIBOS-RM HSK-A 40



Run-out accuracy
≤ 0.003 mm*



Balancing grade
G2.5 at 25,000 RPM*



Extra radial rigidity



Micro Maching



HSC



Data carrier hole
available

Technical data

ID	D1 [mm]	D2 [mm]	L1 [mm]	L2 [mm]	L4 [mm]	Mmin [Nm]	Weight [kg]	
0225971	3	20	50		30	3	0.41	0201892
0225972	4	20	50	32	30	4	0.41	0201892
0225974	6	20	50	32	30	10	0.41	0201892
0225975	8	20	50	32	30	15	0.41	0201892
0225976	10	20	50	32	30	20	0.41	0201892
0225977	12	20	50	32	30	20	0.41	0201892

*Run-out accuracy: at 2.5 x D

*Balancing grade: or Umax < 1 gmm

Additional sizes and customized designs are available upon request

TRIBOS-RM HSK-E 25



Technical data

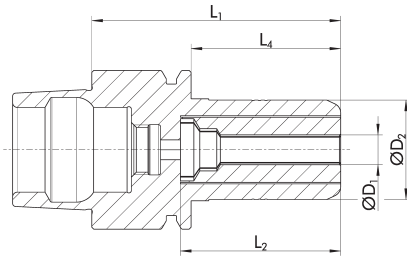
ID	D1 [mm/Inch]	D2 [mm]	L1 [mm]	L2 [mm]	L4 [mm]	Mmin [Nm]	Weight [kg]	
0205082	3	20	40	31	30	3	0.12	0201892
0205083	4	20	40	31	30	4	0.12	0201892
0205084	5	20	40	31	30	6	0.12	0201892
0205085	6	20	40	31	30	10	0.12	0201892
0205086	8	20	40	31	30	15	0.12	0201892
0205087	10	20	40	31	30	20	0.12	0201892
0215000	1/8"	20	40	31	30	3	0.12	0201892

*Run-out accuracy: at 2.5 x D

*Balancing grade: or Umax < 1 gmm

Additional sizes and customized designs are available upon request

TRIBOS-RM HSK-E 32



Run-out accuracy
≤ 0.003 mm*



Balancing grade
G2.5 at 25,000 RPM*



Extra radial rigidity



Micro Maching



HSC



Data carrier hole
optionally possible

Technical data

ID	D1 [mm/Inch]	D2 [mm]	L1 [mm]	L2 [mm]	L4 [mm]	Mmin [Nm]	Weight [kg]	
0226000	3	20	50	32	30	3	0.25	0201892
0226001	4	20	50	32	30	4	0.25	0201892
0226002	5	20	50	32	30	6	0.25	0201892
0226003	6	20	50	32	30	10	0.25	0201892
0226004	8	20	50	32	30	15	0.25	0201892
0226005	10	20	50	32	30	20	0.25	0201892
0226006	12	20	50	32	30	20	0.25	0201892
0215015	1/8"	20	50	32	30	3	0.25	0201892

*Run-out accuracy: at 2.5 x D

*Balancing grade: or U_{max} < 1 gmm

Additional sizes and customized designs are available upon request

TRIBOS-RM HSK-E 32 L₁ = 78



Technical data

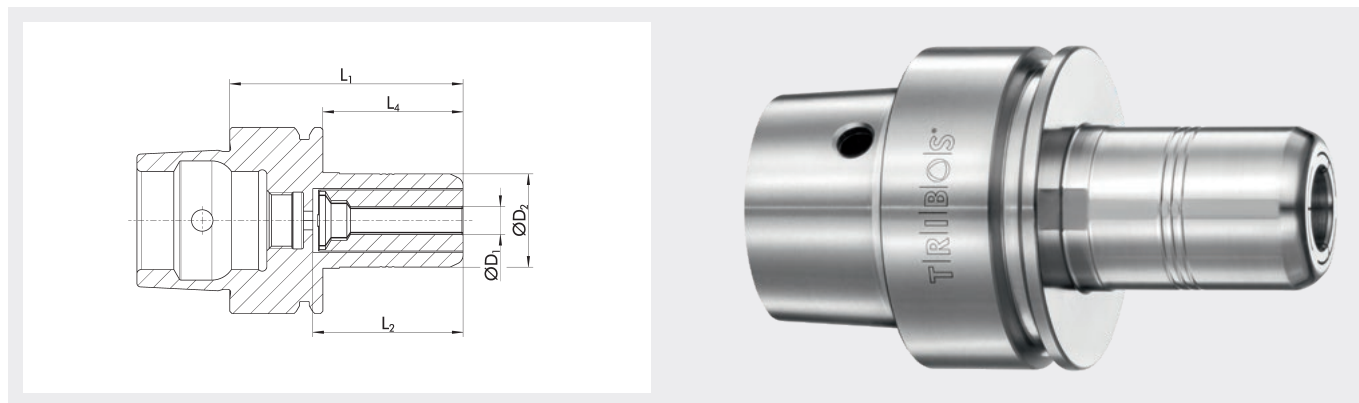
ID	D1 [mm]	D2 [mm]	D3 [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	Mmin [Nm]	Weight [kg]	
0226007	12	20	21.5	78	60.2	30	58	20	0.35	0201892

*Run-out accuracy: at 2.5 x D

*Balancing grade: or U_{max} < 1 gmm

Additional sizes and customized designs are available upon request

TRIBOS-RM HSK-E 40



Run-out accuracy
≤ 0.003 mm*



Balancing grade
G2.5 at 25,000 RPM*



Extra radial rigidity



Micro Maching



HSC



Data carrier hole
optionally possible

Technical data

ID	D1 [mm/Inch]	D2 [mm]	L1 [mm]	L2 [mm]	L4 [mm]	Mmin [Nm]	Weight [kg]	
0225770	3	20	50	32	30	3	0.41	0201892
0225771	4	20	50	32	30	4	0.41	0201892
0225772	5	20	50	32	30	6	0.41	0201892
0225773	6	20	50	32	30	10	0.41	0201892
0225774	8	20	50	32	30	15	0.41	0201892
0225775	10	20	50	32	30	20	0.41	0201892
0225776	12	20	50	32	30	20	0.41	0201892
0215025	1/8"	20	50	32	30	3	0.41	0201892

*Run-out accuracy: at 2.5 x D

*Balancing grade: or Umax < 1 gmm

Additional sizes and customized designs are available upon request

TRIBOS-RM HSK-E 40 L₁ = 78



Technical data

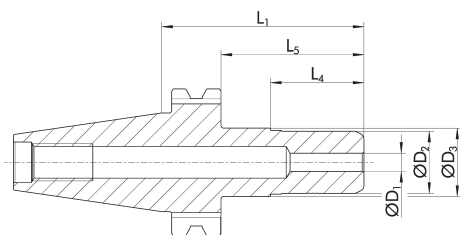
ID	D1 [mm]	D2 [mm]	D3 [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	Mmin [Nm]	Weight [kg]	
0225777	12	20	21.5	78	60.2	30	58	20	0.65	0201892

*Run-out accuracy: at 2.5 x D

*Balancing grade: or U_{max} < 1 gmm

Additional sizes and customized designs are available upon request

TRIBOS-RM SK 30



Run-out accuracy
≤ 0.003 mm*



Balancing grade
G2.5 at 25,000 RPM*



Extra radial rigidity



Micro Maching



HSC



Data carrier hole
optionally possible

Technical data

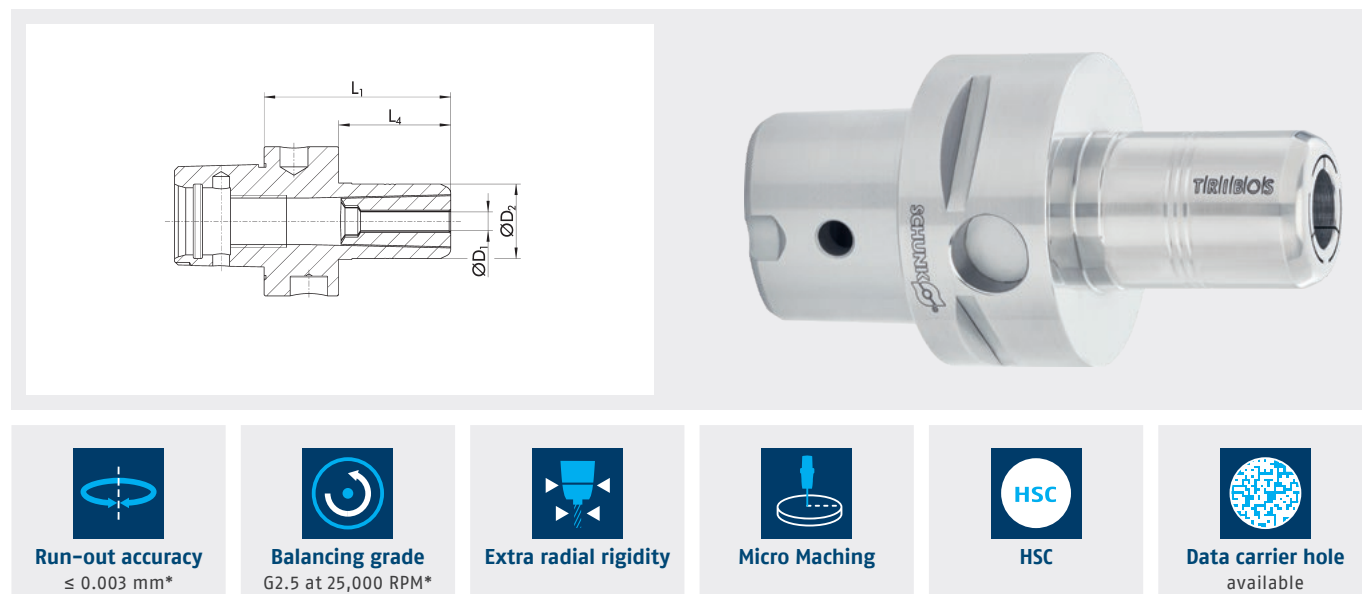
ID	D1 [mm]	D2 [mm]	D3 [mm]	L1 [mm]	L4 [mm]	L5 [mm]	Mmin [Nm]	Weight [kg]	
0225790	6	20	22	65	30	45.9	10	0.35	0201892
0225791	8	20	22	65	30	45.9	13	0.35	0201892
0225792	10	20	22	65	30	45.9	17	0.35	0201892
0225793	12	20	22	65	30	45.9	20	0.35	0201892

*Run-out accuracy: at 2.5 x D

*Balancing grade: or Umax < 1 gmm

Additional sizes and customized designs are available upon request

TRIBOS-RM SCHUNK CAPTO C4



Technical data

ID	D1 [mm/Inch]	D2 [mm]	L1 [mm]	L4 [mm]	Mmin [Nm]	Weight [kg]	
25005556	3	20	50	30	3	0.41	0201892
25005558	4	20	50	30	4	0.41	0201892
25005559	5	20	50	30	8.5	0.41	0201892
25005560	6	20	50	30	10	0.41	0201892
25005561	8	20	50	30	15	0.41	0201892
25005562	10	20	50	30	20	0.41	0201892
25005563	12	20	50	30	20	0.41	0201892
25005557	1/8"	20	50	30	3	0.41	0201892

*Run-out accuracy: at 2.5 x D

*Balancing grade: or Umax < 1 gmm

Additional sizes and customized designs are available upon request



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