



i...T|E|N|D|O²

Smart. Intelligent. Simple.

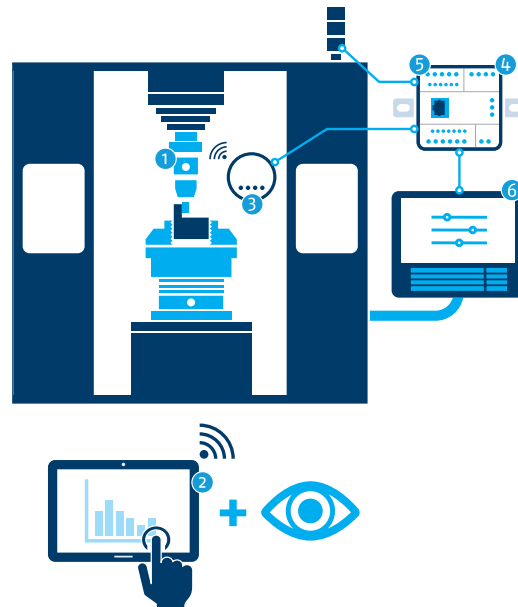
The iTENDO² is an intelligent toolholder, available in three variants, which uses an acceleration sensor close to the workpiece to provide precise stability values for process optimization. The basic version of iTENDO² pad wirelessly sends data to a tablet PC. iTENDO² easy connect enables integration into the machine with data transmission to a process monitoring system via an analog interface. The iTENDO² easy monitor version offers a software extension for easy process monitoring with machine integration.



Advantages – Your benefits

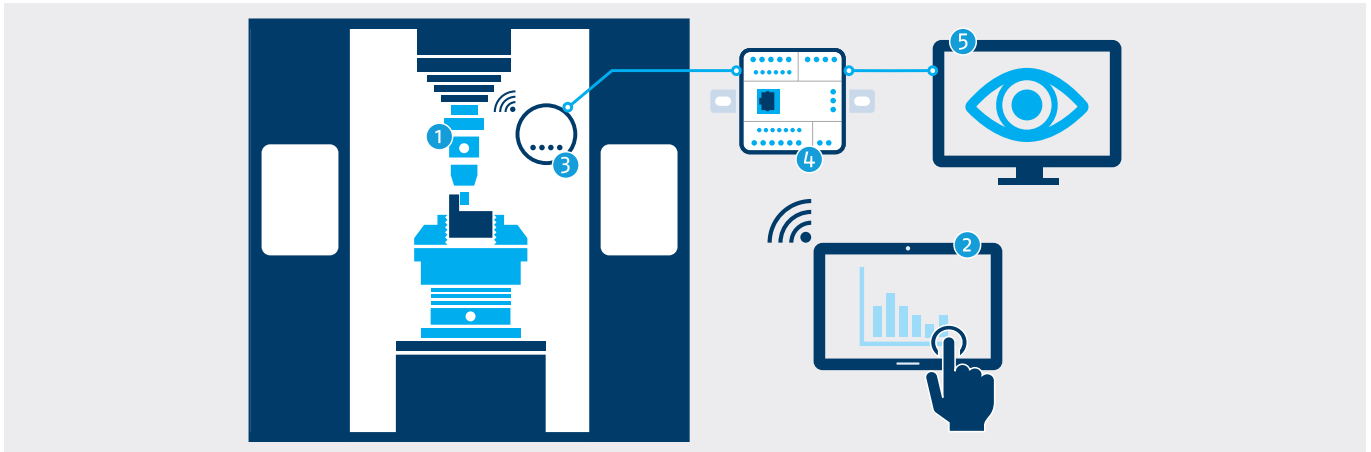
- + Intelligent real-time sensor system**
Easy process monitoring and maximized tool service lives
- + Speeds of rotation of up to 30,000 RPM**
Wide range of uses in many applications
- + 100% compatibility**
1:1 exchange with SCHUNK standard toolholders without time-consuming reprogramming of your system
- + Three customized product packages**
A suitable solution for any required task and complexity level
- + iTENDO² pad**
Higher process transparency, sustainable process optimization, sound process comparisons

Functional diagram of iTENDO² easy monitor



- ① iTENDO²
- ② iTENDO² pad + easy monitor software extension
- ③ Wireless receiver
- ④ Connect Box
- ⑤ Monitoring trend limits and alarms
- ⑥ Integration into the machine control system

Functional diagram of iTENDO² easy connect



- ① iTENDO²
- ② iTENDO² pad
- ③ Wireless receiver

- ④ Connect Box
- ⑤ Connection to existing process monitoring system

Optimizing Processes



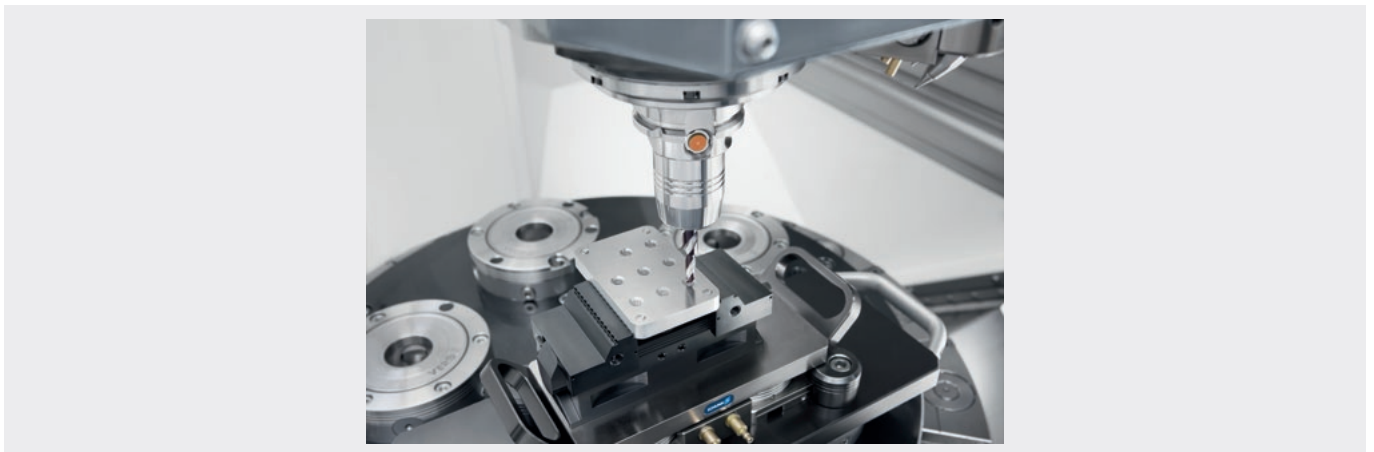
The optimum process settings can be determined by comparing the recorded vibration data. This allows the parameters to be set in the best possible way and the cutting process to be made even more precise and efficient, as can be seen in the example of thread milling.

Tool Monitoring



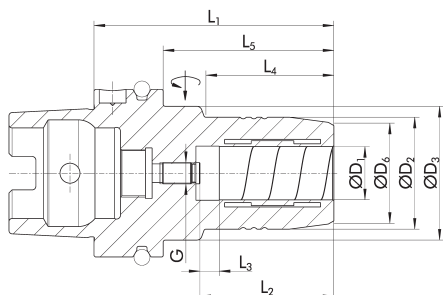
With the iTENDO², minimal vibrations can be detected in tools as small as $\varnothing 3$ mm in diameter, which can indicate tool breakage due to wear or a feed rate that is too high. This helps to avoid or minimize machine downtimes.

Monitoring Quality



When countersinking, the iTENDO² monitors compliance with the surface quality. In this application, monitoring of the countersinking process is used for quality and process control as well as for documenting features that are critical to functionality.

itENDO² HSK-A 63



Run-out accuracy
< 0.003 mm*



Balancing grade
G2.5 at 25,000 RPM*



**External cooling/
internal cooling**
up to 80 bar



Battery service life
10

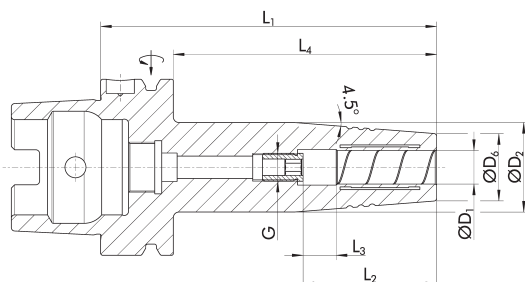
Technical data

Description	ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	Max. rotational speed
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]	[kg]	[min ⁻¹]
itENDO ² HSK-A 63 Ø20x90	1484050	20	42	50	38	90			48	64		330	1.2	30000
itENDO ² HSK-A 63 Ø32x125	1519203	32	62		58	125	61	8	99		M16x1	650	2.4	25000

*Run-out accuracy: at 2.5 x D

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

Additional sizes and customized designs are available upon request

iTENDO² Slim 4ax HSK-A 63


Run-out accuracy
< 0.003 mm*



Balancing grade
G2.5 at 25,000 RPM*



**External cooling/
internal cooling**
up to 80 bar



Battery service life
10

Technical data

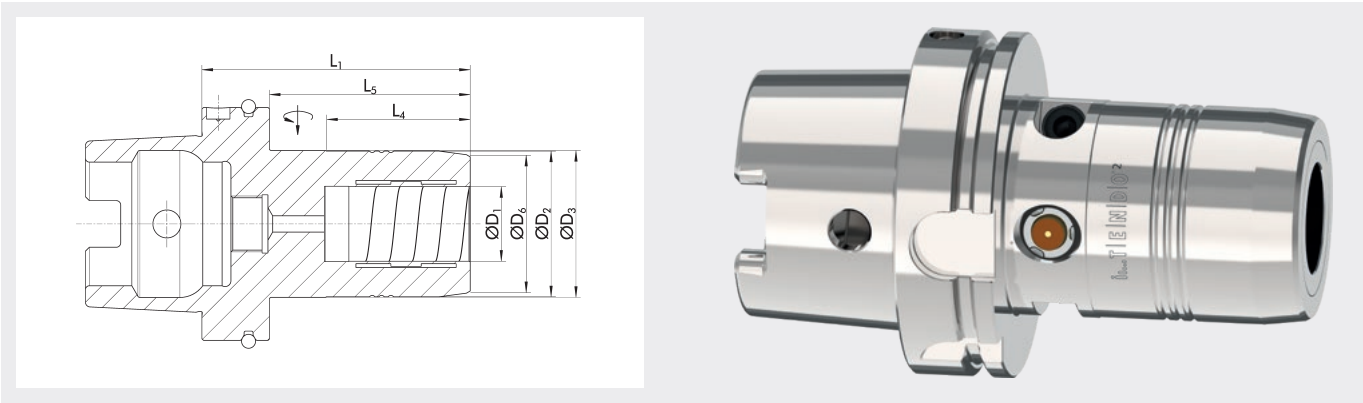
Description	ID	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight	Max. rotational speed
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iTENDO ² Slim 4ax HSK-A 63 Ø12x120	1517499	12	32	24	120	47.7	10	94	M10x1	90	1.1	30000

*Run-out accuracy: at 2.5 x D

*Balancing grade: or Umax < 1 gmm

Additional sizes and customized designs are available upon request

iTENDO² HSK-A 100



Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

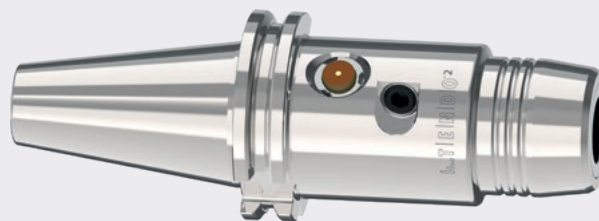
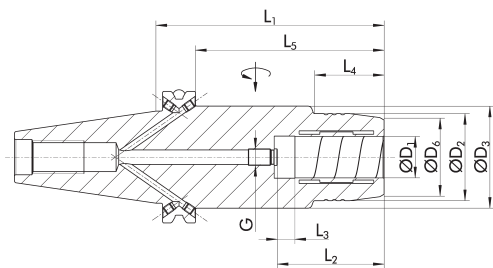
**External cooling/
internal cooling**
up to 80 bar

Battery service life
10

Technical data

Description	ID	D1	D2	D3	D6	L1	L4	L5	Mmin	Weight	Max. rotational speed [min ⁻¹]
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[Nm]	[kg]	
iTENDO ² HSK-A 100 Ø32x115	1509955	32	62.5	63	59	115	61.5	86.05	650	3.5	25000

*Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request

iTENDO² SK 40


Run-out accuracy
< 0.003 mm*



Balancing grade
G2.5 at 25,000 RPM*



**External cooling/
internal cooling**
up to 80 bar



Battery service life
10

Technical data

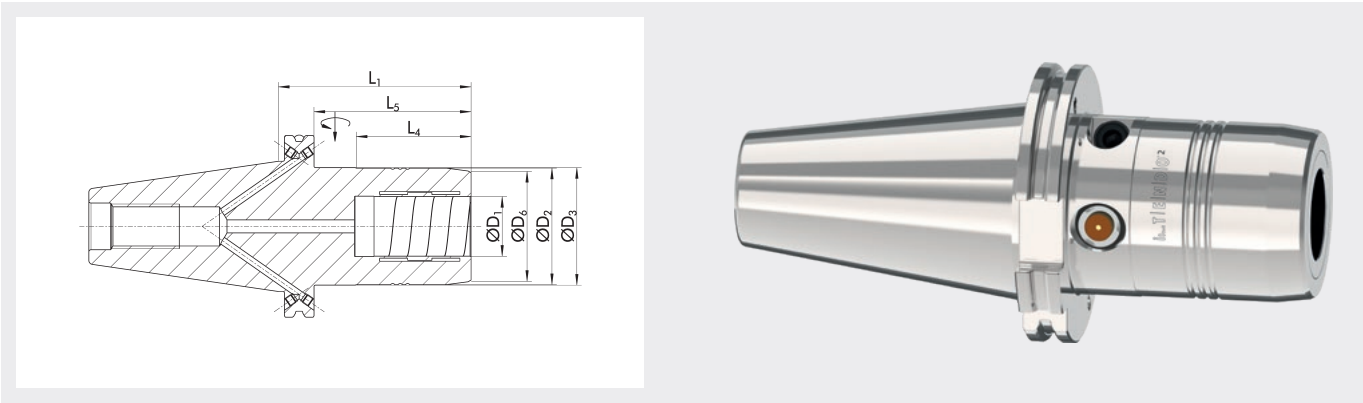
Description	ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	Max. rotational speed
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]	[kg]	[min ⁻¹]
iTENDO ² SK 40 Ø20x110	1484710	20	42.05	49.25	37.65	110	51	8	33.5	91	M8x1	330	1.85	30000

*Run-out accuracy: at 2.5 x D

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

Additional sizes and customized designs are available upon request

iTENDO² SK 50



Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

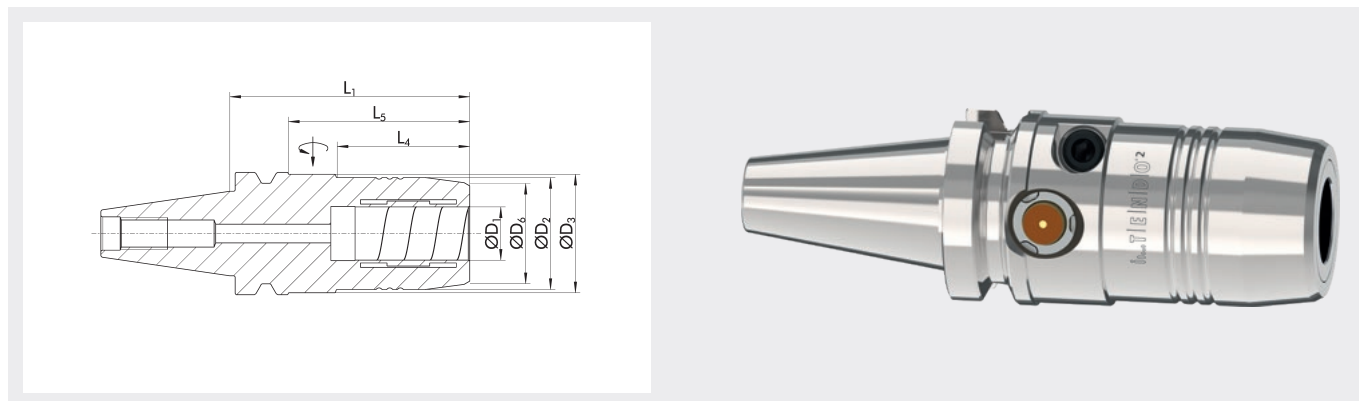
**External cooling/
ininternal cooling**
up to 80 bar

Battery service life
10

Technical data

Description	ID	D1	D2	D3	D6	L1	L4	L5	Mmin	Weight	Max. rotational speed
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[Nm]	[kg]	[min ⁻¹]
iTENDO ² SK 50 Ø32x103.2	1509960	32	62.5	63	59	103.2	61.5	84.15	650	4.5	25000

*Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request

iTENDO² JIS-BT 30


Run-out accuracy
< 0.003 mm*



Balancing grade
G2.5 at 25,000 RPM*



**External cooling/
internal cooling**
up to 80 bar



Battery service life
10

Technical data

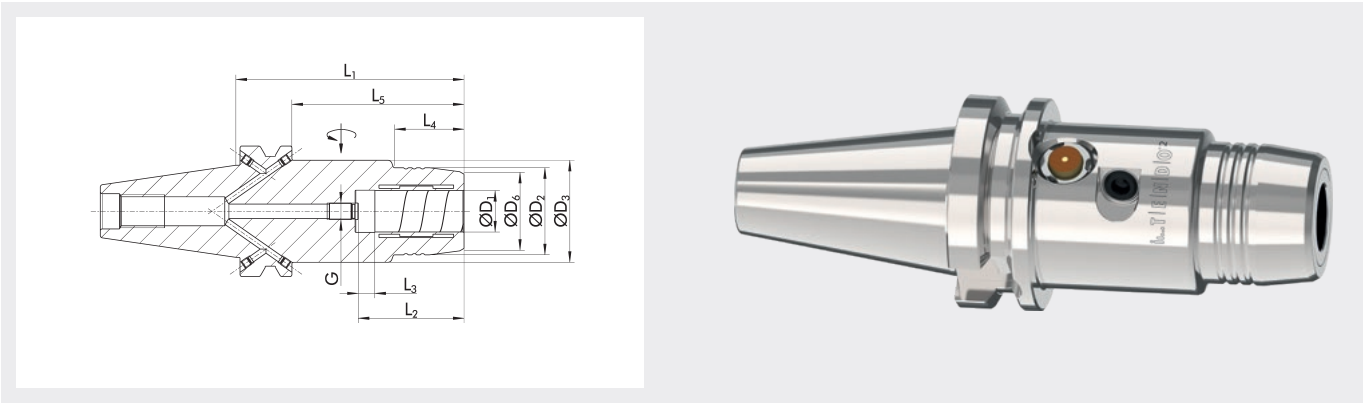
Description	ID	D1	D2	D3	D6	L1	L4	L5	Mmin	Weight	Max. rotational speed
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[Nm]	[kg]	[min ⁻¹]
iTENDO ² JIS-BT 30 Ø20x90	1495389	20	42.05	44.5	37.65	90	49.7	68	330	0.95	30000

*Run-out accuracy: at 2.5 x D

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

Additional sizes and customized designs are available upon request

iTENDO² JIS-BT 40





Run-out accuracy
< 0.003 mm*



Balancing grade
G2.5 at 25,000 RPM*



**External cooling/
ininternal cooling**
up to 80 bar

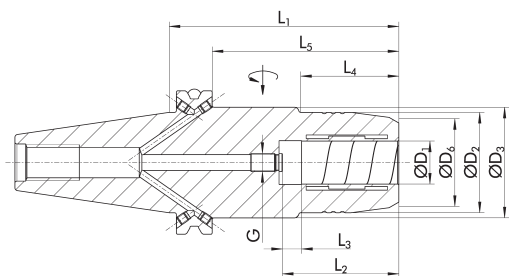


Battery service life
10

Technical data

Description	ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	Max. rotational speed [min ⁻¹]
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]	[kg]	
iTENDO ² JIS-BT 40 Ø20x110	1509899	20	42.05	49.25	37.65	110	51	8	34	83	M8x1	330	1.85	30000

*Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request

iTENDO² CAT 40


Run-out accuracy
< 0.003 mm*



Balancing grade
G2.5 at 25,000 RPM*



**External cooling/
internal cooling**
up to 80 bar



Battery service life
10

Technical data

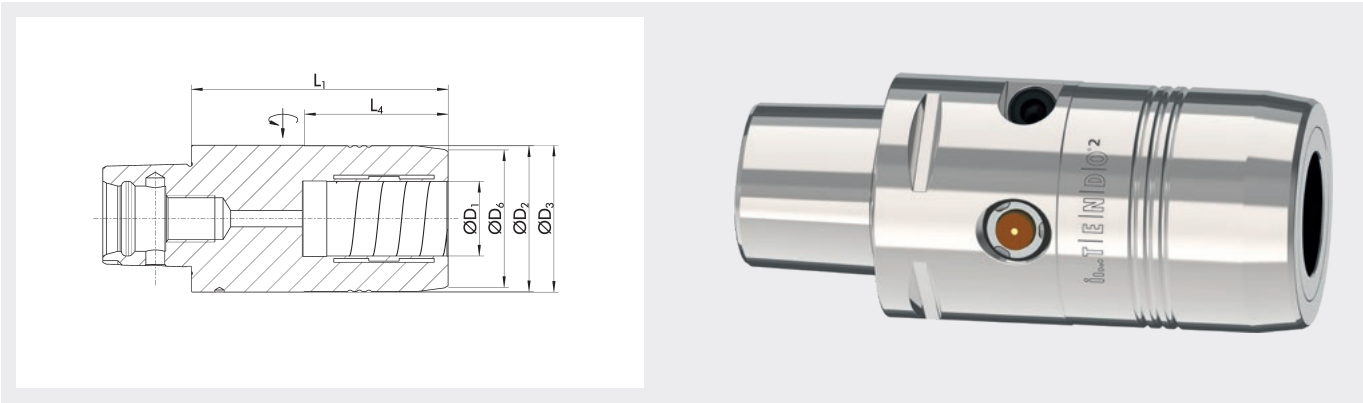
Description	ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	Max. rotational speed
		[Inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[Nm]	[kg]	[min ⁻¹]
iTENDO ² CAT 40 Ø3/4x4"	1495390	3/4"	44.45	49	38.9	101.6	51	8	43.4	82.5	M8x1	310	1.7	30000

*Run-out accuracy: at 2.5 x D

*Balancing grade: or Umax < 1 gmm

Additional sizes and customized designs are available upon request

iTENDO² SCHUNK CAPTO C6



Run-out accuracy
 < 0.003 mm*

Balancing grade
 G2.5 at 25,000 RPM*

**External cooling/
 internal cooling**
 up to 80 bar

Battery service life
 10

Technical data

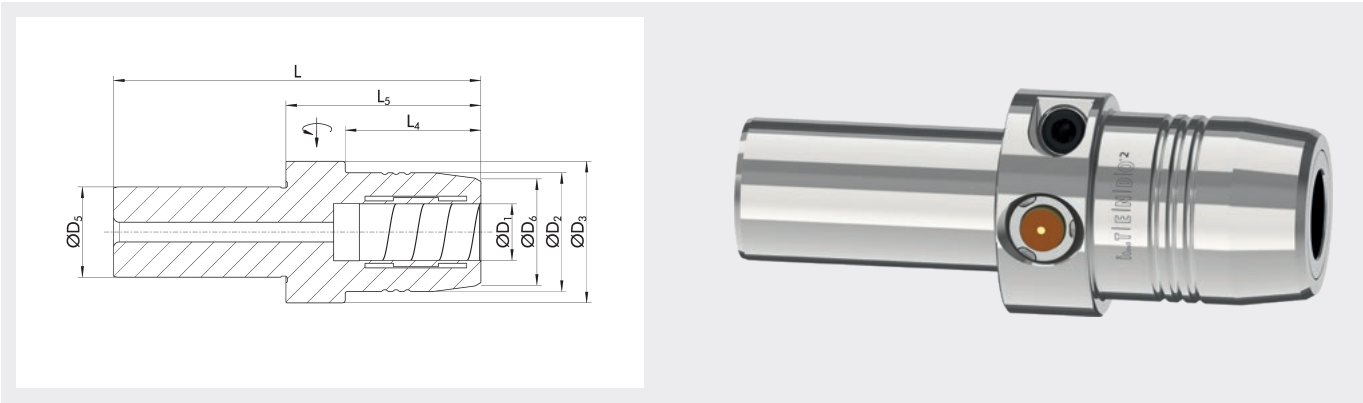
Description	ID	D1	D2	D3	D6	L1	L4	Mmin	Weight	Max. rotational speed
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[Nm]	[kg]	[min ⁻¹]
iTENDO ² SCHUNK CAPTO C6 Ø32x110	1509962	32	62.5	63	59	110	61.5	650	2.4	25000

*Run-out accuracy: at 2.5 x D

*Balancing grade: or Umax < 1 gmm

Additional sizes and customized designs are available upon request

iTENDO² Adapter Ø32-Ø20



Run-out accuracy
< 0.003 mm*



Balancing grade
G2.5 at 25,000 RPM*



**External cooling/
internal cooling**
up to 80 bar

Technical data

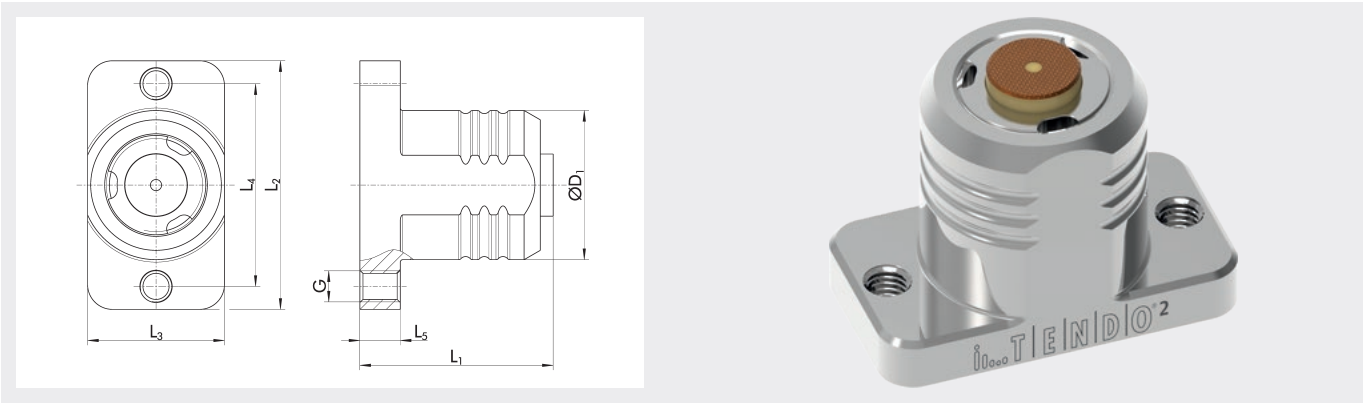
Description	ID	D1	D2	D3	D5	D6	L	L4	L5	Mmin	Weight	Max. rotational speed
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[Nm]	[kg]	[min ⁻¹]
iTENDO ² adapter Ø32-Ø20x69	1484703	20	42.05	50.15	32	37.65	130	48	69	330	0.95	30000

*Run-out accuracy: at 2.5 x D

*Balancing grade: or Umax < 1 gmm

Additional sizes and customized designs are available upon request

iTENDO² seismo



Technical data

Description	ID	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	G	Weight [kg]	max. coolant pressure [bar]
iTENDO ² seismo	1511806	31.07	40	22	32.6	6.5	M5	0.094	20

Additional sizes and customized designs are available upon request



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