





HSK Toolholders

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DIN 69893/ISO12164

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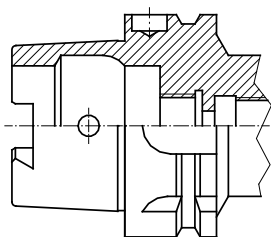


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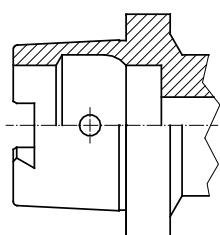
Forms | Characteristics



FORM A*

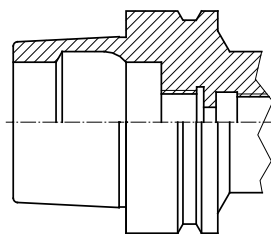
- Standard type for machining centers and milling machines
- For automatic tool change
- Coolant supply through center via coolant tube
- Drive keys at the end of HSK taper
- Hole for data carrier DIN STD 69873 in the flange

*also usable in Form C applications with side hole for manual tool change



FORM C

- For transfer lines, special machines and modular tooling systems
- For manual tool change
- Drive keys at the end of HSK taper



FORM E

- For high-speed applications
- For automatic tool change
- Without any drive keys for absolute symmetry

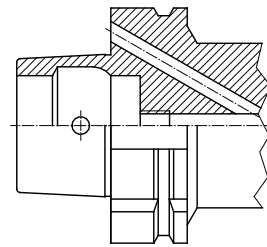
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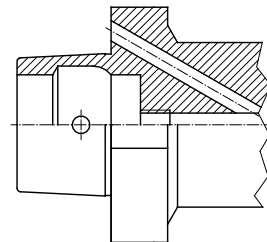
FORM B

- For machining centers, milling and turning machines
- With enlarged flange size for higher radial rigidity
- For automatic tool change
- Coolant supply through the flange
- Drive keys at the flange
- Hole for data carrier DIN STD 69873 at the flange



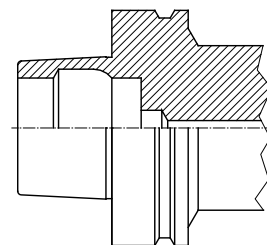
FORM D

- For special machines
- With enlarged flange size for higher radial rigidity
- For manual tool change
- Coolant supply through the flange
- Drive keys at the flange



FORM F

- For high-speed applications
- With enlarged flange size for higher radial rigidity
- For automatic tool change
- Without any drive keys for absolute symmetry



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Features | Benefits

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

Lot number marking on all products for traceability through the entire manufacturing process.

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. Original only with the REGO-FIX® quality seal Δ . Guarantee for best quality.

T.I.R. <3 μm

Inner diameter to outer diameter.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Q+® Balancing

100% balanced to G 2.5 @ 25'000 min⁻¹.

Hi-Q® Balancing System

Ready to accept Hi-Q® balancing rings which allow to offset the imbalance introduced by the cutting tool up to 80'000 min⁻¹.

Hi-Q® Clamping Nut Included

Guarantees highest clamping force and best balancing.

Vibration Dampening

For best machining results.

ID Chip Hole (only HSK Form A+B)

Per DIN 69873 with 10 mm diameter.



HSK/ER Toolholder

Applications

CNC-milling machines of the latest generation.

Coolant

For coolant through tools these colletholders can be equipped with a coolant tube (KSR) that leads the coolant directly to the cutting tool, hereby avoiding coolant to enter and soil the HSK taper area.

Matching coolant tubes (KSR) see page 12.10.

Balancing

REGO-FIX® Q+® System HSK/ER colletholders are balanced to G 2.5 @ 25'000 min⁻¹. Type H colletholders are ready to accept Hi-Q® balancing rings which allow precision balancing of the system including cutting tool up to 80'000 min⁻¹ depending on the balancing rings used.

Special Applications

When extra high clamping force is needed, e.g. when tapping with ER-GB or ET1*, we recommend to use of our friction bearing clamping nuts Hi-Q®/ERB and Hi-Q®/ERBC.

*Not for coolant through tools and not for applications with sealing disks.

Matched Tooling System for Best Fit

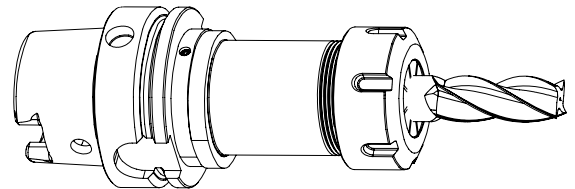
For highest precision and best results the whole system counts. Therefore REGO-FIX® components are carefully matched for optimum fit and accuracy. This guarantees the best run-out and balance.

For the influence of run-out on tool life see the graph page 2.3.



We recommend tightening the clamping nuts with a torque wrench. The maximum torque shall not be more than 25% above the recommended tightening torque.

Recommended tightening torque see page 13.3/13.4.





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Matching Products

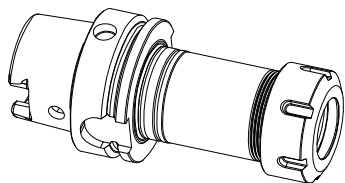
Clamping Nuts | Collets | Spanners

Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	3450.00000	4.4	■		■		■			
Hi-Q/ERC	3411.20300 - 3411.20700	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	-	4.6 4.8			■	■	■			
Hi-Q/ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	3450.30000	4.10		■	■		■			
Hi-Q/ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	-	4.10		■	■	■	■			
EP	7112.11010	7112.16010	7112.20010	-	-	-	-	12.1								■
E	-	-	-	7111.25000	7111.32000	7111.40000	7111.50000	12.1								■

Recommended tightening torque on page 13.3/13.4.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page
ER	0.5–7.0	2.8	0.5–10.0	2.10	0.5–13.0	2.12	0.5–16.0	2.14	1.0–20.0	2.16	2.0–30.0	2.18	4.0–34.0	2.18
ER-UP	0.5–7.0	2.8	0.5–10.0	2.10	0.5–13.0	2.12	0.5–16.0	2.14	1.0–20.0	2.16	2.0–30.0	2.18	4.0–34.0	2.18
ER-DM	2.75–7.0	2.22	3.0–10.0	2.24	3.0–10.0	2.26	6.0–16.0	2.28	6.0–20.0	2.30	6.0–26.0	2.32	–	–
ER-MB	0.2–0.9	2.8	0.2–0.9	2.10	–	–	–	–	–	–	–	–	–	–
ER-GB	2.8–6.0	3.4	4.0–9.0	3.4	4.0–11.2	3.4	4.0–16.0	3.4	4.0–20.0	3.4	6.0–22.0	3.4	22.0–32.0	3.4
ET 1*	1.4–3.55	3.8	1.4–6.3	3.8	2.2–7.0	3.8	2.5–10.0	3.8	4.5–12.5	3.8	6.0–17.0	3.8	–	–

*Not for coolant through tools and not for applications with sealing disks.



ER Colletholders | Balancing Rings

Type	Part No.	D [mm]	L [mm]	Balancing Rings
HSK-A 32 / ER 11 x 050*	2532.11110	19	50	-
HSK-A 32 / ER 16 x 060*	2532.11620	28	60	-
HSK-A 32 / ER 20 x 060*	2532.12020	34	60	-
HSK-A 32 / ER 25 x 065*	2532.12520	42	65	-

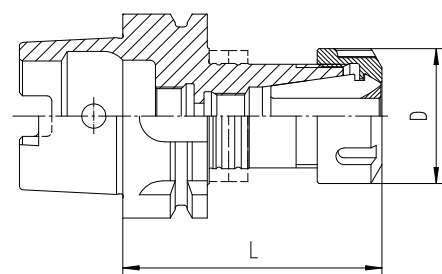
HSK-A 40 / ER 16 x 080 H	4540.11640	28	80	FWR 225
HSK-A 40 / ER 25 x 080 H	4540.12540	42	80	FWR 325

HSK-A 50 / ER 16 x 100 H	4550.11650	28	100	FWR 325
HSK-A 50 / ER 25 x 080 H	4550.12540	42	80	FWR 325
HSK-A 50 / ER 25 x 100 H	4550.12550	42	100	FWR 325
HSK-A 50 / ER 32 x 100 H	4550.13250	50	100	FWR 405

HSK-A 63 / ER 11 x 100 H	4563.11150	19	100	FWR 325
HSK-A 63 / ER 16 x 080 H	4563.11640	28	80	FWR 325
HSK-A 63 / ER 16 x 100 H	4563.11650	28	100	FWR 325
HSK-A 63 / ER 16 x 160 H	4563.11680	28	160	FWR 325/225
HSK-A 63 / ER 20 x 075*	2563.12030	34	75	-
HSK-A 63 / ER 25 x 080 H	4563.12540	42	80	FWR 325
HSK-A 63 / ER 25 x 100 H	4563.12550	42	100	FWR 325
HSK-A 63 / ER 25 x 160 H	4563.12580	42	160	FWR 325
HSK-A 63 / ER 25 x 200 H	4563.12590	42	200	FWR 325/325
HSK-A 63 / ER 32 x 080 H	4563.13240	50	80	FWR 405
HSK-A 63 / ER 32 x 160 H	4563.13280	50	160	FWR 405
HSK-A 63 / ER 32 x 100 H	4563.13250	50	100	FWR 405
HSK-A 63 / ER 32 x 200 H	4563.13290	50	200	FWR 405/405
HSK-A 63 / ER 40 x 080*	2563.14040	63	80	-
HSK-A 63 / ER 40 x 120 H	4563.14060	63	120	FWR 405
HSK-A 63 / ER 40 x 160 H	4563.14080	63	160	FWR 505

Supplied with: Colletholder with Hi-Q® clamping nut and back-up screw.
Matching coolant tubes (KSR) see page 12.10.

*Not for use with balancing rings.



Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see

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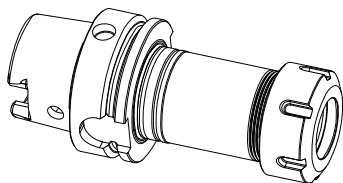
Clamping Nuts | Collets | Spanners

Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	3450.00000	4.4	■		■		■			
Hi-Q/ERC	3411.20300 - 3411.20700	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	-	4.6 4.8			■	■	■			
Hi-Q/ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	3450.30000	4.10		■	■		■			
Hi-Q/ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	-	4.10		■	■	■	■			
EP	7112.11010	7112.16010	7112.20010	-	-	-	-	12.1								■
E	-	-	-	7111.25000	7111.32000	7111.40000	7111.50000	12.1								■

Recommended tightening torque on page 13.3/13.4.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page
ER	0.5–7.0	2.8	0.5–10.0	2.10	0.5–13.0	2.12	0.5–16.0	2.14	1.0–20.0	2.16	2.0–30.0	2.18	4.0–34.0	2.18
ER-UP	0.5–7.0	2.8	0.5–10.0	2.10	0.5–13.0	2.12	0.5–16.0	2.14	1.0–20.0	2.16	2.0–30.0	2.18	4.0–34.0	2.18
ER-DM	2.75–7.0	2.22	3.0–10.0	2.24	3.0–10.0	2.26	6.0–16.0	2.28	6.0–20.0	2.30	6.0–26.0	2.32	-	-
ER-MB	0.2–0.9	2.8	0.2–0.9	2.10	-	-	-	-	-	-	-	-	-	-
ER-GB	2.8–6.0	3.4	4.0–9.0	3.4	4.0–11.2	3.4	4.0–16.0	3.4	4.0–20.0	3.4	6.0–22.0	3.4	22.0–32.0	3.4
ET 1*	1.4–3.55	3.8	1.4–6.3	3.8	2.2–7.0	3.8	2.5–10.0	3.8	4.5–12.5	3.8	6.0–17.0	3.8	-	-

*Not for coolant through tools and not for applications with sealing disks.



ER Colletholders | Balancing Rings

Type	Part No.	D [mm]	L [mm]	Balancing Rings
HSKA 80 / ER 16 x 100 H	4580.11650	28	100	FWR 325
HSKA 80 / ER 16 x 160 H	4580.11680	28	160	FWR 325/225
HSKA 80 / ER 32 x 100 H	4580.13250	50	100	FWR 405
HSKA 80 / ER 40 x 120 H	4580.14060	63	120	FWR 505

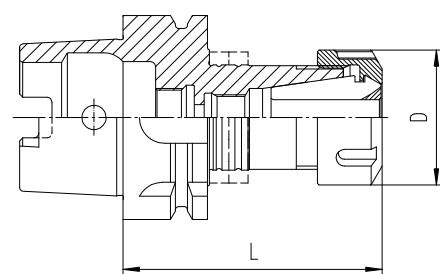
HSKA 100 / ER 16 x 100 H	4500.11650	28	100	FWR 405
HSKA 100 / ER 16 x 160 H	4500.11680	28	160	FWR 405/225
HSKA 100 / ER 16 x 200 H	4500.11690	28	200	FWR 405/225
HSKA 100 / ER 25 x 100 H	4500.12550	42	100	FWR 405
HSKA 100 / ER 25 x 160 H	4500.12580	42	160	FWR 405/325
HSKA 100 / ER 25 x 200 H	4500.12590	42	200	FWR 405/225
HSKA 100 / ER 32 x 100 H	4500.13250	50	100	FWR 405
HSKA 100 / ER 32 x 160 H	4500.13280	50	160	FWR 405
HSKA 100 / ER 40 x 120 H	4500.14060	63	120	FWR 505
HSKA 100 / ER 40 x 200 H	4500.14090	63	200	FWR 505/505

HSKA 125	On demand: sales@rego-fix.ch
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Supplied with: Colletholder with Hi-Q® clamping nut and back-up screw.

Matching coolant tubes (KSR) see page 12.10.

*Not for use with balancing rings.



Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see

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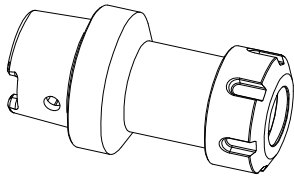
Clamping Nuts | Collets | Spanners

Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q/ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	3450.00000	4.4	■		■		■			
Hi-Q/ERC	3411.20300 - 3411.20700	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	-	4.6 4.8			■	■	■			
Hi-Q/ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	3450.30000	4.10		■	■		■			
Hi-Q/ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	-	4.10		■	■	■	■			
EP	7112.11010	7112.16010	7112.20010	-	-	-	-	12.1								■
E	-	-	-	7111.25000	7111.32000	7111.40000	7111.50000	12.1								■

Recommended tightening torque on page 13.3/13.4.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page
ER	0.5–7.0	2.8	0.5–10.0	2.10	0.5–13.0	2.12	0.5–16.0	2.14	1.0–20.0	2.16	2.0–30.0	2.18	4.0–34.0	2.18
ER-UP	0.5–7.0	2.8	0.5–10.0	2.10	0.5–13.0	2.12	0.5–16.0	2.14	1.0–20.0	2.16	2.0–30.0	2.18	4.0–34.0	2.18
ER-DM	2.75–7.0	2.22	3.0–10.0	2.24	3.0–10.0	2.26	6.0–16.0	2.28	6.0–20.0	2.30	6.0–26.0	2.32	–	–
ER-MB	0.2–0.9	2.8	0.2–0.9	2.10	–	–	–	–	–	–	–	–	–	–
ER-GB	2.8–6.0	3.4	4.0–9.0	3.4	4.0–11.2	3.4	4.0–16.0	3.4	4.0–20.0	3.4	6.0–22.0	3.4	22.0–32.0	3.4
ET 1*	1.4–3.55	3.8	1.4–6.3	3.8	2.2–7.0	3.8	2.5–10.0	3.8	4.5–12.5	3.8	6.0–17.0	3.8	–	–

*Not for coolant through tools and not for applications with sealing disks.



HSK-C | ER
DIN 69893 / ISO 12164

ER Colletholders

Type	Part No.	D [mm]	L [mm]
HSK-C 32 / ER 16 x 060	2532.11622	28	60
HSK-C 32 / ER 20 x 060	2532.12022	34	65
HSK-C 32 / ER 25 x 070	2532.12532	42	70

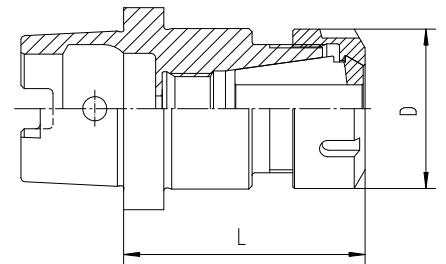
HSK-C 40 / ER 20 x 060	2540.12022	34	60
HSK-C 40 / ER 25 x 070	2540.12532	42	70
HSK-C 40 / ER 32 x 075	2540.13232	50	75

HSK-C 50 / ER 25 x 070	2550.12532	42	70
HSK-C 50 / ER 32 x 075	2550.13232	50	75
HSK-C 50 / ER 40 x 080	2550.14042	63	80

HSK-C 63 / ER 32 x 075	2563.13232	50	75
HSK-C 63 / ER 40 x 080	2563.14042	63	80

HSK-C 80	On demand: sales@rego-fix.ch
HSK-C 100	On demand: sales@rego-fix.ch
HSK-C 125	On demand: sales@rego-fix.ch

Supplied with:
Colletholder with Hi-Q® clamping nut and back-up screw.



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Drawings with detailed dimensions see

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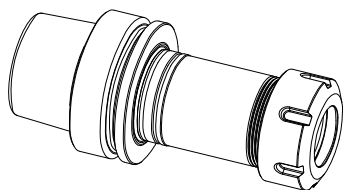
Clamping Nuts | Collets | Spanners

Clamping Nut for Mini-Thread and Spanner							Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
	ER 8	ER 11	ER 16	ER 20	ER 25										
Hi-Q / ERM	-	3511.00000	3516.00000	3520.00000	3525.00000	4.12			■		■	■			
Hi-Q / ERMC	-	3511.20300 - 3511.20700	3516.20000	3520.20000	3525.20000	4.12			■	■	■	■			
EM	-	7113.11000	7113.16000	7113.20000	7113.25000	12.1									■
ER MS	-	3211.50000	3216.50000	3220.50000	-	4.16			■				■		
EMS	-	7114.11000	7114.16000	7114.20000	-	12.2									■
Clamping Nut for Standard-Thread and Spanner							Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
	ER 11	ER 16	ER 20	ER 25	ER 32	ER 40									
Hi-Q / ER	3411.00000	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	-	4.4	■	■	■				
Hi-Q / ERC	3411.20300 - 3411.20700	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	-	4.8		■	■	■			
Hi-Q / ERB	-	3416.30000	3420.30000	3425.30000	3432.30000	3440.30000	-	4.10	■	■	■	■			
Hi-Q / ERBC	-	3416.40000	3420.40000	3425.40000	3432.40000	3440.40000	-	4.10	■	■	■	■			
EP	7112.11010	7112.16010	7112.20010	-	-	-	-	12.1							■
E	-	-	-	7111.25000	7111.32000	7111.40000	-	12.1							■

Recommended tightening torque on page 13.3/13.4.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25		ER 32/ET1-32		ER 40/ET1-40		ER 50	
	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page
ER	0.5-7.0	2.8	0.5-10.0	2.10	0.5-13.0	2.12	0.5-16.0	2.14	1.0-20.0	2.16	2.0-30.0	2.18	4.0-34.0	2.18
ER-UP	0.5-7.0	2.8	0.5-10.0	2.10	0.5-13.0	2.12	0.5-16.0	2.14	1.0-20.0	2.16	2.0-30.0	2.18	4.0-34.0	2.18
ER-DM	2.75-7.0	2.22	3.0-10.0	2.24	3.0-10.0	2.26	6.0-16.0	2.28	6.0-20.0	2.30	6.0-26.0	2.32	-	-
ER-MB	0.2-0.9	2.8	0.2-0.9	2.10	-	-	-	-	-	-	-	-	-	-
ER-GB	2.8-6.0	3.4	4.0-9.0	3.4	4.0-11.2	3.4	4.0-16.0	3.4	4.0-20.0	3.4	6.0-22.0	3.4	22.0-32.0	3.4
ET 1*	1.4-3.55	3.8	1.4-6.3	3.8	2.2-7.0	3.8	2.5-10.0	3.8	4.5-12.5	3.8	6.0-17.0	3.8	-	-

*Not for coolant through tools and not for applications with sealing disks.



ER Colletholders | Balancing Rings

Type	Part No.	D [mm]	L [mm]	Balancing Rings	
HSK-E 25 / ER 16 M x 048*	2525.11618	22	48	-	with mini-nut

HSK-E 32 / ER 16 M x 060*	2532.11628	22	60	-	with mini-nut
HSK-E 32 / ER 20 M x 060*	2532.12028	28	60	-	with mini-nut

HSK-E 40 / ER 11 x 060 H	4540.11124	19	60	FWR 225	
HSK-E 40 / ER 16 x 060 H	4540.11624	28	60	FWR 225	
HSK-E 40 / ER 16 x 080 H	4540.11644	28	80	FWR 225	
HSK-E 40 / ER 20 M x 075 H	4540.12038	28	75	FWR 285	with mini-nut
HSK-E 40 / ER 25 M x 080 H	4540.12548	35	80	FWR 325	with mini-nut

HSK-E 50 / ER 16 x 060*	2550.11624	28	60	-	
HSK-E 50 / ER 16 x 100 H	4550.11654	28	100	FWR 325	
HSK-E 50 / ER 16 x 160 H	4550.11684	28	160	FWR 325/225	
HSK-E 50 / ER 20 x 070 H	4550.12034	34	70	FWR 325	
HSK-E 50 / ER 25 x 080 H	4550.12544	42	80	FWR 325	
HSK-E 50 / ER 25 x 100 H	4550.12554	42	100	FWR 325	
HSK-E 50 / ER 32 x 100 H	4550.13254	50	100	FWR 405	
HSK-E 50 / ER 32 x 160 H	4550.13284	50	160	FWR 405	

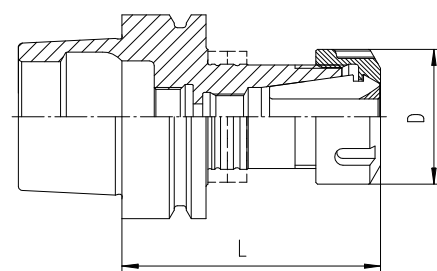
HSK-E 63 / ER 32 x 090 H	4563.13244	50	90	FWR 405	
HSK-E 63 / ER 40 x 080*	2563.14044	63	80	-	
HSK-E 63 / ER 40 x 120 H	4563.14064	63	120	FWR 505	

HSK-F 63 / ER 16 x 100 H	4563.11655	28	100	FWR 325	
HSK-F 63 / ER 32 x 100 H	4563.13255	50	100	FWR 405	

Supplied with: Colletholder with Hi-Q® clamping nut and back-up screw.

Matching coolant tubes (KSR) see page 12.10.

*Not for use with balancing rings.



Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see.

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Swiss
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Tools

ER

Toolholders

Features | Benefits

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

Lot number marking on all products for traceability through the entire manufacturing process.

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. Original only with the REGO-FIX® quality seal Δ . Guarantee for best quality.

T.I.R. 3 μ m

High T.I.R. of the whole Microsystem

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Q+® Balancing

100% balanced to G 2.5 @ 25'000 min⁻¹.
Max. RPM 80'000 min⁻¹.

ER MS Clamping Nut Included

Designed especially for highest RPM.

Vibration Dampening

For best machining results.



Matching Products

Clamping Diameter h9 [mm]	ER 11-ND Part No.	Page	Spanner	Page
3.0 mm	1111.03005	2.08	7114.11000	12.2
1/8"	1111.03185	2.08	7114.11000	12.2
4.0 mm	1111.04005	2.08	7114.11000	12.2
6.0 mm	1111.06005	2.08	7114.11000	12.2

HSK-E|ER MS

DIN 69893 / ISO 12164

HSK/ER MS Toolholder for Micromachining

Applications

For micromachining with highest RPM on CNC-milling machines of the latest generation.
Max. RPM 80'000 min⁻¹.

Coolant

For coolant through tools these collets can be equipped with a coolant tube (KSR) that duct the coolant directly to the cutting tool, hereby avoiding coolant to enter and soil the HSK taper area.

Matching coolant tubes (KSR) see page 12.10.

Balancing

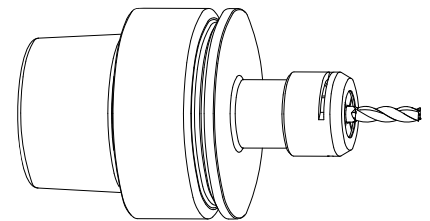
REGO-FIX® Q+® System HSK/ER collets are balanced to G 2.5 @ 25'000 min⁻¹.

Special Applications

The ER MS clamping nut is especially designed for highest RPM. It has minimal external diameter and does not have the extractor ring and all the contours are ground.

Matched Tooling System for Best Fit

For highest precision and best results the whole system counts. Therefore REGO-FIX® components are carefully matched for optimum fit and accuracy. This guarantees the best run-out and balance.



7

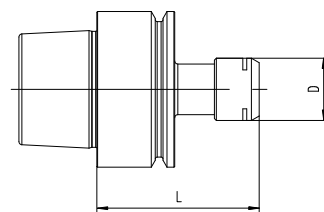
! We recommend tightening the clamping nuts with a torque wrench. The maximum torque shall not be more than 25% above the recommended tightening torque.

Recommended tightening torque see page 13.4.

HSK-E/ER Toolholders for Micromachining

Type	Part No.	D [mm]	L [mm]	
HSK-E 25/ER 11 MS x 035	2525.11109	16	35	with MS clamping nut
HSK-E 32/ER 11 MS x 038	2532.11109	16	38	with MS clamping nut
HSK-E 40/ER 11 MS x 040	2540.11119	16	40	with MS clamping nut

Supplied: Toolholder with ER MS clamping nut.





Swiss
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ER

Toolholders

Features | Benefits



Quality

Made to ISO 9001/ISO 14001 standards.

1 Marking

Type and part number.

2 Traceability

Lot number marking on all products for traceability through the entire manufacturing process.

3 Quality Seal

The REGO-FIX® seal Δ marked on the products guarantees for best quality.

T.I.R.

Best concentricity values – equal to rigid toolholders.

Absorbing Link

Acts as absorbing link between the synchronous spindle and the tap/cold forming tap and compensates pitch differences between threading tool and synchronous spindle.

Minimal Length Adjustment

In push- and pull direction.

Tool Shanks

All taps / cold forming taps with tool shanks in h9 tolerance can be clamped.

Secure Clamping

Secure clamping of the tap/cold forming tap by ER-GB tapping collets with internal square.

For Coolant Through Tools

Up to 50 bar coolant pressure.

Process Reliability

Increases process reliability of synchronous thread manufacturing.

HSK-A SSY/ERC Softsynchro® Tapping Holder

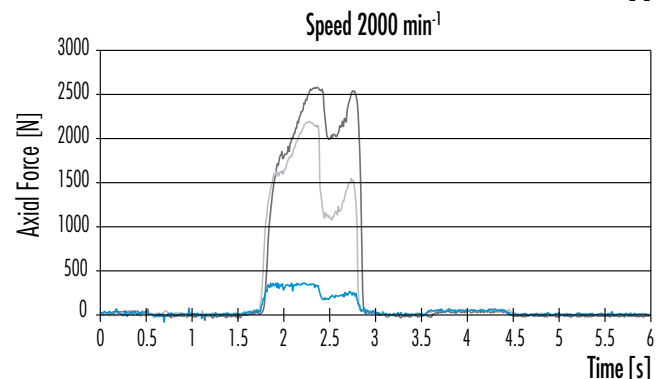
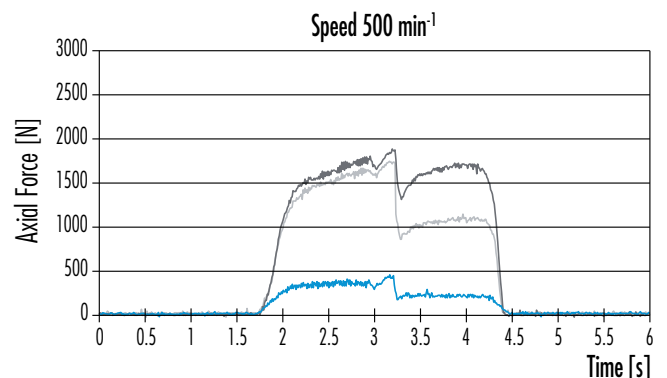
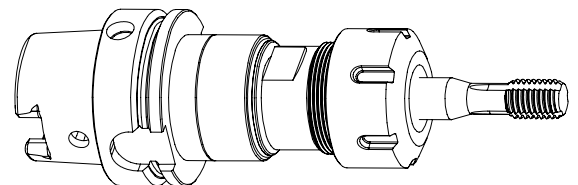
Applications

REGO-FIX® Softsynchro® tapping holders are used on machines that are designed for direct tapping. Many of the newer CNC machines feature synchronization between spindle turning and feed rate. This allows to use rigid tapping holders. However due to the dynamics of spindle and linear motors, synchronization errors occur. To compensate for these synchronization errors Softsynchro® tapping holders with minimal length adjustment are necessary. Depending on the application Softsynchro® tapping holders increase tool life up to 150%.

Comparison Tests

The two diagrams show the axial forces when cold-forming M10 threads in St37 steel.

Conclusion: Axial forces increase with increasing rpm. With REGO-FIX® Softsynchro® tapping holders the forces are considerably lower than when using rigid tapping toolholders. Therefore the surface quality and tool life are optimized when using Softsynchro® tapping holders on a synchronized machine spindle.

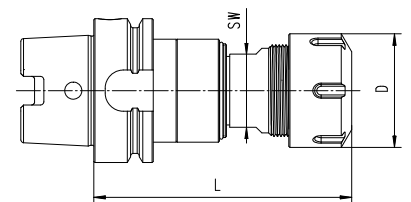


— REGO-FIX® Softsynchro®-Tapping holders
— Competitor synchronous collet holder
— Rigid synchronous collet holder

HSK-A SSY/ERC Softsynchro® Tapping Holder

Type	Part No.	D [mm]	L [mm]	Com- pression [mm]	Tension [mm]	SW [mm]
HSKA 63 SSY / ERC 20	2563.62000	34	95.5	0.5	0.5	19
HSKA 63 SSY / ERC 32	2563.63200	50	108.8	0.5	0.5	32

Supplied with: Tapping holder with Hi-Q®/ERC clamping nut.
Matching tapping collets see page 3.4.



! Please order the sealing disks separately.
See page 4.22/4.24.



Swiss
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Tools

PG

powRgrip® Toolholders

Features | Benefits

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number.

2 Traceability

Lot number marking on all products for traceability through the entire manufacturing process.

3 Original REGO-FIX®

Original only with the REGO-FIX® quality seal Δ . Guarantee for best quality.

T.I.R. of the Whole System <3 μ m

Highest clamping force and best runout in one.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Q+® Balancing

100% balanced to G 2.5 @ 25'000 min⁻¹.
Ideal for High Speed Cutting (HSC) and High Performance Cutting (HPC).

Hi-Q® Balancing System

Ready to accept Hi-Q® balancing rings which allow to offset the imbalance introduced by the cutting tool up to 80'000 min⁻¹.

Minimal Outside Dimensions

Slim design provides more processing flexibility.

Fast

Tool clamping with hydraulic press in less than 10 seconds.

Excellent at Small Diameters

Clamping of small diameter tools from \varnothing 0.2 mm.

Presetable Tooling System

Repeatability <10 μ m

ID Chip Hole

Per DIN 69873 with 10 mm diameter.



7

HSK/PG Toolholders

Applications

CNC-milling machines of the latest generation.

Coolant

For coolant through tools these collets can be equipped with a coolant tube (KSR) that duct the coolant directly to the cutting tool, hereby avoiding coolant to enter and soil the HSK taper area.

Matching coolant tubes (KSR) see page 12.10.

Balancing

REGO-FIX® Q+® System HSK/PG collets are balanced to G 2.5 @ 25'000 min⁻¹. Type H collets are ready to accept Hi-Q® balancing rings which allow precision balancing of the system including cutting tool up to 80'000 min⁻¹ depending on the balancing rings used.

Coolant Through

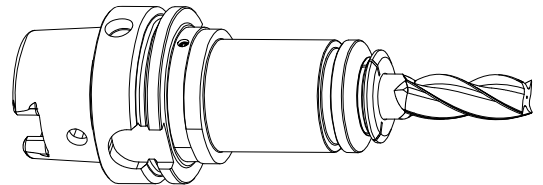
For use with coolant through tools.

Peripheral Cooling

PG-CF collets for peripheral cooling with non-coolant through tools.

Matched Tooling System for Best Fit

For highest precision and best results the whole system counts. Therefore REGO-FIX® components are carefully matched to fit together. This guarantees best run-out and balancing.





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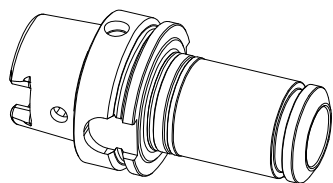
Matching Products

powRgrip® Collets

0.200 - 1.5875 mm powRgrip® collets with microbore (PG 10-MB) see page 2.36.

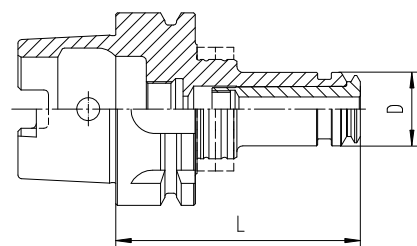
Ø [mm]	Ø [Inch]	Ø [Inch]	PG 10 Part No.	PG 10-CF Part No.	PG 15 Part No.	PG 15-CF Part No.	PG 25 Part No.	PG 25-CF Part No.	PG 32 Part No.	PG 32-CF Part No.
2.000	0.0787	-	1710.02000	-	-	-	-	-	-	-
2.500	0.0984	-	1710.02500	-	-	-	-	-	-	-
3.000	0.1181	-	1710.03000	1710.03002	1715.03000	1715.03002	1725.03000	1725.03002	-	-
3.175	0.1250	1/8"	1710.03181	1710.03183	1715.03181	1715.03183	1725.03181	1725.03183	-	-
3.500	0.1378	-	1710.03500	-	1715.03500	-	1725.03500	-	-	-
4.000	0.1575	-	1710.04000	1710.04002	1715.04000	1715.04002	1725.04000	1725.04002	-	-
4.500	0.1969	-	1710.04500	-	1715.04500	-	1725.04500	-	-	-
4.763	0.1875	3/16"	1710.04761	1710.04763	1715.04761	1715.04763	1725.04761	1725.04763	-	-
5.000	0.1969	-	1710.05000	1710.05002	1715.05000	1715.05002	1725.05000	1725.05002	-	-
5.500	0.2165	-	1710.05500	-	1715.05500	-	1725.05500	-	-	-
6.000	0.2362	-	1710.06000	1710.06002	1715.06000	1715.06002	1725.06000	1725.06002	1732.06000	1732.06002
6.350	0.2500	1/4"	1710.06351	1710.06353	1715.06351	1715.06353	1725.06351	1725.06353	1732.06351	1732.06353
7.000	0.2756	-	-	-	1715.07000	1715.07002	1725.07000	1725.07002	1732.07000	1732.07002
7.938	0.3125	5/16"	-	-	1715.07941	1715.07943	1725.07941	1725.07943	1732.07941	1732.07943
8.000	0.3150	-	-	-	1715.08000	1715.08002	1725.08000	1725.08002	1732.08000	1732.08002
9.000	0.3543	-	-	-	1715.09000	1715.09002	1725.09000	1725.09002	1732.09000	1732.09002
9.525	0.3750	3/8"	-	-	1715.09521	1715.09523	1725.09521	1725.09523	1732.09521	1732.09523
10.000	0.3937	-	-	-	1715.10000	1715.10002	1725.10000	1725.10002	1732.10000	1732.10002
11.000	0.4331	-	-	-	-	-	1725.11000	1725.11002	1732.11000	1732.11002
11.113	0.4375	7/16"	-	-	-	-	1725.11111	1725.11113	1732.11111	1732.11113
12.000	0.4724	-	-	-	-	-	1725.12000	1725.12002	1732.12000	1732.12002
12.700	0.5000	1/2"	-	-	-	-	1725.12701	1725.12703	1732.12701	1732.12703
13.000	0.5112	-	-	-	-	-	1725.13000	1725.13002	-	-
14.000	0.5512	-	-	-	-	-	1725.14000	1725.14002	1732.14000	1732.14002
14.288	0.5625	9/16"	-	-	-	-	1725.14291	1725.14293	1732.14291	1732.14293
15.000	0.5906	-	-	-	-	-	1725.15000	1725.15002	-	-
15.875	0.6250	5/8"	-	-	-	-	1725.15881	1725.15883	1732.15881	1732.15883
16.000	0.6300	-	-	-	-	-	1725.16000	1725.16002	1732.16000	1732.16002
18.000	0.7087	-	-	-	-	-	1725.18000	1725.18002	1732.18000	1732.18002
19.050	0.7500	3/4"	-	-	-	-	1725.19051	1725.19053	1732.19051	1732.19053
20.000	0.7874	-	-	-	-	-	1725.20000	1725.20002	1732.20000	1732.20002
22.000	0.8661	-	-	-	-	-	-	-	1732.22000	1732.22002
22.225	0.8750	7/8"	-	-	-	-	-	-	1732.22231	1732.22233
25.000	0.9843	-	-	-	-	-	-	-	1732.25000	1732.25002
25.400	1.0000	1"	-	-	-	-	-	-	1732.25401	1732.25403

powRgrip® clamping units and powRgrip® accessories see page 12.7/12.8.



powRgrip® Colletholders | Balancing Rings

Type	Part No.	D [mm]	L [mm]	Balancing Rings
HSK-A 32 / PG 10 x 060*	2532.71020	16	60	-
HSK-A 32 / PG 15 x 075*	2532.71530	24	75	-
HSK-A 40 / PG 10 x 062*	2540.71020	16	62	-
HSK-A 40 / PG 15 x 080 H	4540.71540	24	80	FWR 285
HSK-A 40 / PG 25 x 100 H	4540.72550	40	100	FWR 405
HSK-A 50 / PG 10 x 080 H	4550.71040	16	80	FWR 285
HSK-A 50 / PG 15 x 080 H	4550.71540	24	80	FWR 285
HSK-A 50 / PG 25 x 100 H	4550.72550	40	100	FWR 405
HSK-A 63 / PG 10 x 080 H	4563.71040	16	80	FWR 325
HSK-A 63 / PG 10 x 120 H	4563.71060	16	120	FWR 325
HSK-A 63 / PG 10 x 160 H	4563.71080	16	160	FWR 325
HSK-A 63 / PG 10 x 200 H	4563.71090	16	200	FWR 325
HSK-A 63 / PG 15 x 080 H	4563.71540	24	80	FWR 325
HSK-A 63 / PG 15 x 120 H	4563.71560	24	120	FWR 325
HSK-A 63 / PG 15 x 160 H	4563.71580	24	160	FWR 325/285
HSK-A 63 / PG 25 x 100 H	4563.72550	40	100	FWR 405
HSK-A 63 / PG 25 x 120 H	4563.72560	40	120	FWR 405
HSK-A 63 / PG 25 x 160 H	4563.72580	40	160	FWR 405/405
HSK-A 63 / PG 25 x 200 H	4563.72590	40	200	FWR 405/405
HSK-A 63 / PG 32 x 100*	2563.73250	50	100	-
HSK-A 63 / PG 32 x 120 H	4563.73260	50	120	FWR 505
HSK-A 80 / PG 15 x 085 H	4580.71540	24	85	FWR 325
HSK-A 80 / PG 25 x 100 H	4580.72550	40	100	FWR 505
HSK-A 80 / PG 32 x 105 H	4580.73250	50	105	FWR 505



Type	Part No.	D [mm]	L [mm]	Balancing Rings
HSK-A 100 / PG 10 x 085 H	4500.71040	16	85	FWR 405
HSK-A 100 / PG 10 x 160 H	4500.71080	16	160	FWR 405
HSK-A 100 / PG 15 x 085 H	4500.71540	24	85	FWR 405
HSK-A 100 / PG 15 x 160 H	4500.71580	24	160	FWR 405/285
HSK-A 100 / PG 25 x 100 H	4500.72550	40	100	FWR 505
HSK-A 100 / PG 25 x 160 H	4500.72580	40	160	FWR 505/405
HSK-A 100 / PG 25 x 200 H	4500.72590	40	200	FWR 505/405
HSK-A 100 / PG 32 x 106 H	4500.73250	50	106	FWR 505
HSK-A 100 / PG 32 x 160 H	4500.73280	50	160	FWR 505
HSK-A 100 / PG 32 x 200 H	4500.73290	50	200	FWR 505/505

HSK-A 125 On demand: sales@rego-fix.ch

*Not for use with balancing rings.

Matching coolant tubes (KSR) see page 12.10.

Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q balancing rings see page 12.9.

Drawings with detailed dimensions see

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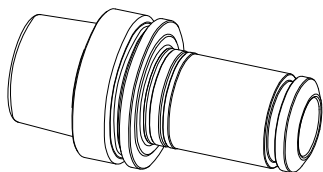
Matching Products

powRgrip® Collets

0.200 - 1.5875 mm powRgrip® collets with microbore (PG 10-MB) see page 2.36.

Ø [mm]	Ø [Inch]	Ø [Inch]	PG 10 Part No.	PG 10-CF Part No.	PG 15 Part No.	PG 15-CF Part No.	PG 25 Part No.	PG 25-CF Part No.	PG 32 Part No.	PG 32-CF Part No.
2.000	0.0787	-	1710.02000	-	-	-	-	-	-	-
2.500	0.0984	-	1710.02500	-	-	-	-	-	-	-
3.000	0.1181	-	1710.03000	1710.03002	1715.03000	1715.03002	1725.03000	1725.03002	-	-
3.175	0.1250	1/8"	1710.03181	1710.03183	1715.03181	1715.03183	1725.03181	1725.03183	-	-
3.500	0.1378	-	1710.03500	-	1715.03500	-	1725.03500	-	-	-
4.000	0.1575	-	1710.04000	1710.04002	1715.04000	1715.04002	1725.04000	1725.04002	-	-
4.500	0.1969	-	1710.04500	-	1715.04500	-	1725.04500	-	-	-
4.763	0.1875	3/16"	1710.04761	1710.04763	1715.04761	1715.04763	1725.04761	1725.04763	-	-
5.000	0.1969	-	1710.05000	1710.05002	1715.05000	1715.05002	1725.05000	1725.05002	-	-
5.500	0.2165	-	1710.05500	-	1715.05500	-	1725.05500	-	-	-
6.000	0.2362	-	1710.06000	1710.06002	1715.06000	1715.06002	1725.06000	1725.06002	1732.06000	1732.06002
6.350	0.2500	1/4"	1710.06351	1710.06353	1715.06351	1715.06353	1725.06351	1725.06353	1732.06351	1732.06353
7.000	0.2756	-	-	-	1715.07000	1715.07002	1725.07000	1725.07002	1732.07000	1732.07002
7.938	0.3125	5/16"	-	-	1715.07941	1715.07943	1725.07941	1725.07943	1732.07941	1732.07943
8.000	0.3150	-	-	-	1715.08000	1715.08002	1725.08000	1725.08002	1732.08000	1732.08002
9.000	0.3543	-	-	-	1715.09000	1715.09002	1725.09000	1725.09002	1732.09000	1732.09002
9.525	0.3750	3/8"	-	-	1715.09521	1715.09523	1725.09521	1725.09523	1732.09521	1732.09523
10.000	0.3937	-	-	-	1715.10000	1715.10002	1725.10000	1725.10002	1732.10000	1732.10002
11.000	0.4331	-	-	-	-	-	1725.11000	1725.11002	1732.11000	1732.11002
11.113	0.4375	7/16"	-	-	-	-	1725.11111	1725.11113	1732.11111	1732.11113
12.000	0.4724	-	-	-	-	-	1725.12000	1725.12002	1732.12000	1732.12002
12.700	0.5000	1/2"	-	-	-	-	1725.12701	1725.12703	1732.12701	1732.12703
13.000	0.5112	-	-	-	-	-	1725.13000	1725.13002	-	-
14.000	0.5512	-	-	-	-	-	1725.14000	1725.14002	1732.14000	1732.14002
14.288	0.5625	9/16"	-	-	-	-	1725.14291	1725.14293	1732.14291	1732.14293
15.000	0.5906	-	-	-	-	-	1725.15000	1725.15002	-	-
15.875	0.6250	5/8"	-	-	-	-	1725.15881	1725.15883	1732.15881	1732.15883
16.000	0.6300	-	-	-	-	-	1725.16000	1725.16002	1732.16000	1732.16002
18.000	0.7087	-	-	-	-	-	1725.18000	1725.18002	1732.18000	1732.18002
19.050	0.7500	3/4"	-	-	-	-	1725.19051	1725.19053	1732.19051	1732.19053
20.000	0.7874	-	-	-	-	-	1725.20000	1725.20002	1732.20000	1732.20002
22.000	0.8661	-	-	-	-	-	-	-	1732.22000	1732.22002
22.225	0.8750	7/8"	-	-	-	-	-	-	1732.22231	1732.22233
25.000	0.9843	-	-	-	-	-	-	-	1732.25000	1732.25002
25.400	1.0000	1"	-	-	-	-	-	-	1732.25401	1732.25403

powRgrip® clamping units and powRgrip® accessories see page 12.7/12.8.

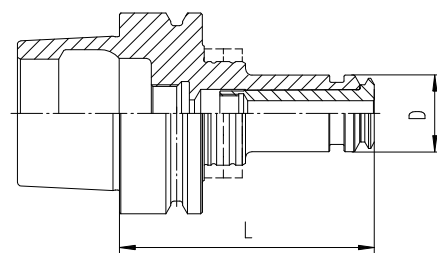


powRgrip® Colletholders | Balancing Rings

Type	Part No.	D [mm]	L [mm]	Balancing Rings
HSK-E 25 / PG 10 x 055*	2525.71014	16	55	–
HSK-E 32 / PG 10 x 060*	2532.71024	16	60	–
HSK-E 32 / PG 10 x 080 H	4532.71044	16	80	FWR 225
HSK-E 32 / PG 15 x 075*	2532.71534	24	75	–
HSK-E 40 / PG 10 x 062*	2540.71024	16	62	–
HSK-E 40 / PG 10 x 080 H	4540.71044	16	80	FWR 225
HSK-E 40 / PG 10 x 120 H	4540.71064	16	120	FWR 225
HSK-E 40 / PG 10 x 160 H	4540.71084	16	160	FWR 285
HSK-E 40 / PG 15 x 080 H	4540.71544	24	80	FWR 285
HSK-E 40 / PG 15 x 120 H	4540.71564	24	120	FWR 285
HSK-E 40 / PG 25 x 090*	2540.72544	40	90	–
HSK-E 40 / PG 25 x 100 H	4540.72554	40	100	FWR 405
HSK-E 50 / PG 10 x 080 H	4550.71044	16	80	FWR 285
HSK-E 50 / PG 10 x 120 H	4550.71064	16	120	FWR 285
HSK-E 50 / PG 10 x 160 H	4550.71084	16	160	FWR 285
HSK-E 50 / PG 15 x 080 H	4550.71544	24	80	FWR 285
HSK-E 50 / PG 15 x 120 H	4550.71564	24	120	FWR 285
HSK-E 50 / PG 25 x 100 H	4550.72554	40	100	FWR 405
HSK-E 63 / PG 15 x 080 H	4563.71544	24	80	FWR 325
HSK-E 63 / PG 25 x 100 H	4563.72554	40	100	FWR 405
HSK-F 63 / PG 10 x 080 H	4563.71045	16	80	FWR 325
HSK-F 63 / PG 15 x 080 H	4563.71545	24	80	FWR 325
HSK-F 63 / PG 25 x 100 H	4563.72555	40	100	FWR 405
HSK-F 63 / PG 25 x 160 H	4563.72585	40	160	FWR 405/405
HSK-F 63 / PG 32 x 100*	2563.73255	50	100	–

*Not for use with balancing rings.

Matching coolant tubes (KSR) see page 12.10.



7

Hi-Q® Balancing Rings	Part No.	Page
Set FWR 225	7490.22500	12.9
Set FWR 285	7490.28500	12.9
Set FWR 325	7490.32500	12.9
Set FWR 405	7490.40500	12.9
Set FWR 505	7490.50500	12.9
Torque screwdriver (TSD)	7159.09000	12.9

Maximum rpm for Hi-Q® balancing rings see page 12.9.

Drawings with detailed dimensions see

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Swiss
Precision
Tools

PG

powRgrip® Toolholders

Features | Benefits



Quality

Made to ISO 9001/ISO 14001 standards.

1 Marking

Type and part number.

2 Traceability

Lot number marking on all products for traceability through the entire manufacturing process.

3 Quality Seal

The REGO-FIX® seal \triangle marked on the products guarantees for best quality.

T.I.R.

Best concentricity values – equal to rigid toolholders.

Absorbing Link

Acts as absorbing link between the synchronous spindle and the tap/cold forming tap and compensates pitch differences between threading tool and synchronous spindle.

Minimal Length Adjustment

In push- and pull direction.

Tool Shanks

All taps / cold forming taps with tool shanks in h9 tolerance can be clamped.

Secure Clamping

Secure clamping of the tap/cold forming tap by PG-TAP tapping collets with internal square.

For Coolant Through Tools

Up to 50 bar coolant pressure.

Process Reliability

Increases process reliability of synchronous thread manufacturing.

HSK-A SSY/PG Softsynchro® Tapping Holder

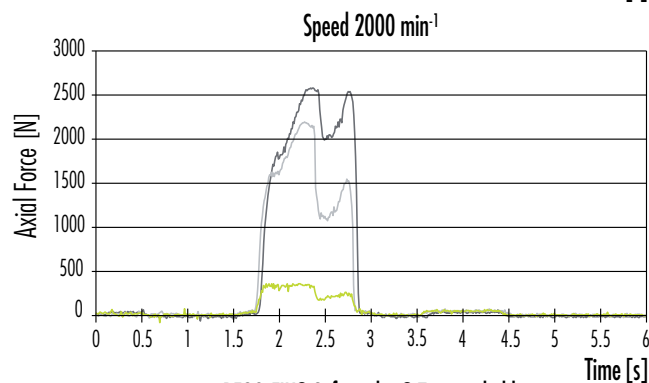
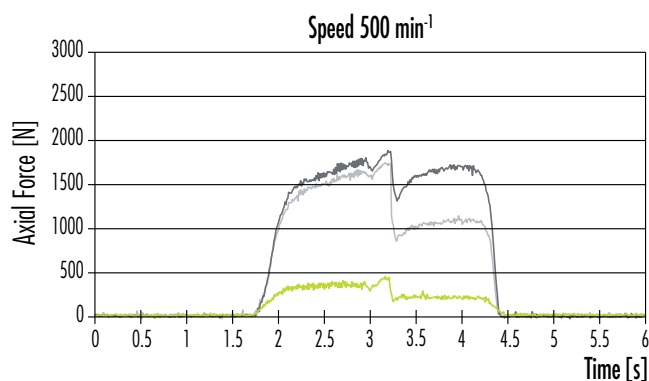
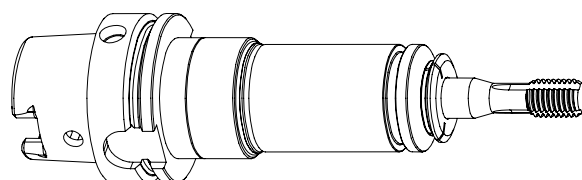
Applications

REGO-FIX® Softsynchro® tapping holders are used on machines that are designed for direct tapping. Many of the newer CNC machines feature synchronization between spindle turning and feed rate. This allows to use rigid tapping holders. However due to the dynamics of spindle and linear motors, synchronization errors occur. To compensate for these synchronization errors Softsynchro® tapping holders with minimal length adjustment are necessary. Depending on the application Softsynchro® tapping holders increase tool life up to 150%.

Comparison Tests

The two diagrams show the axial forces when cold-forming M10 threads in St37 steel.

Conclusion: Axial forces increase with increasing rpm. With REGO-FIX® Softsynchro® tapping holders the forces are considerably lower than when using rigid tapping toolholders. Therefore the surface quality and tool life are optimized when using Softsynchro® tapping holders on a synchronized machine spindle.



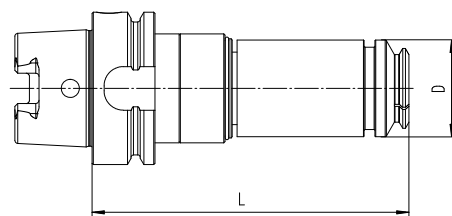
— REGO-FIX® Softsynchro®-Tapping holders
— Competitor synchronous collet holder
— Rigid synchronous collet holder

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HSK-A SSY/PG Softsynchro® Tapping Holders

Type	Part No.	D [mm]	L [mm]	Com-pression [mm]	Tension [mm]
HSKA 63 SSY / PG 15	2563.61507	24	114.5	0.5	0.5
HSKA 63 SSY / PG 25	2563.62507	40	131	0.5	0.5

Matching powRgrip® tapping collets see page 3.12.





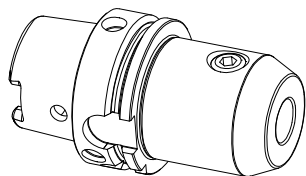
Swiss
Precision
Tools

WD

Toolholders

HSK-A | HSK-E | WD

DIN 69893 / ISO12164



End Mill Holders (WELDON)

Type	Part No.	D [mm]	L [mm]	Drawing
HSK-A 32 / WD 6 x 055*	2532.30620	25	55	1
HSK-A 32 / WD 8 x 055*	2532.30820	28	55	1
HSK-A 32 / WD 10 x 060*	2532.31030	35	60	1
HSK-A 32 / WD 12 x 065*	2532.31230	42	65	1

HSK-A 40 / WD 6 x 060	2540.30630	25	60	1
HSK-A 40 / WD 8 x 060	2540.30830	28	60	1
HSK-A 40 / WD 10 x 060	2540.31030	35	60	1
HSK-A 40 / WD 12 x 070	2540.31240	42	70	1
HSK-A 40 / WD 14 x 075	2540.31440	44	75	1
HSK-A 40 / WD 16 x 075	2540.31640	48	75	1

HSK-A 50 / WD 6 x 065	2550.30630	25	65	1
HSK-A 50 / WD 8 x 065	2550.30830	28	65	1
HSK-A 50 / WD 10 x 065	2550.31030	35	65	1
HSK-A 50 / WD 12 x 080	2550.31250	42	80	1
HSK-A 50 / WD 14 x 080	2550.31450	44	80	1
HSK-A 50 / WD 16 x 080	2550.31650	48	80	1
HSK-A 50 / WD 18 x 080	2550.31850	50	80	1
HSK-A 50 / WD 20 x 080	2550.32050	52	80	1

HSK-A 63 / WD 6 x 065	2563.30630	25	65	1
HSK-A 63 / WD 8 x 065	2563.30830	28	65	1
HSK-A 63 / WD 10 x 065	2563.31030	35	65	1
HSK-A 63 / WD 12 x 080	2563.31250	42	80	1
HSK-A 63 / WD 14 x 080	2563.31450	44	80	1
HSK-A 63 / WD 16 x 080	2563.31650	48	80	1
HSK-A 63 / WD 18 x 080	2563.31850	50	80	1
HSK-A 63 / WD 20 x 080	2563.32050	52	80	1
HSK-A 63 / WD 25 x 110	2563.32560	65	110	2
HSK-A 63 / WD 32 x 110	2563.33260	72	110	2

Type	Part No.	D [mm]	L [mm]	Drawing
HSK-A 100 / WD 6 x 080	2500.30650	25	80	1
HSK-A 100 / WD 8 x 080	2500.30850	28	80	1
HSK-A 100 / WD 10 x 080	2500.31050	35	80	1
HSK-A 100 / WD 12 x 080	2500.31250	42	80	1
HSK-A 100 / WD 14 x 080	2500.31450	44	80	1
HSK-A 100 / WD 16 x 100	2500.31660	48	100	1
HSK-A 100 / WD 18 x 100	2500.31860	50	100	1
HSK-A 100 / WD 20 x 100	2500.32060	52	100	1
HSK-A 100 / WD 25 x 100	2500.32560	65	100	2
HSK-A 100 / WD 32 x 100	2500.33260	72	100	2
HSK-A 100 / WD 40 x 110	2500.34060	90	110	2

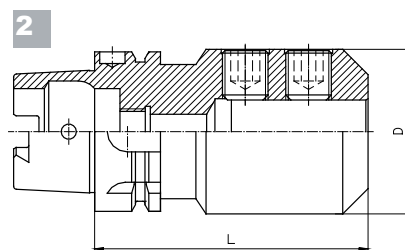
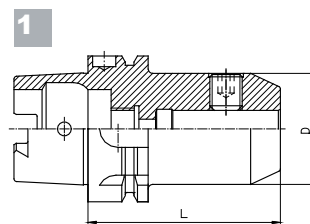
HSK-E 40 / WD 6 x 060**	2540.30634	25	60	1
HSK-E 40 / WD 8 x 060**	2540.30834	28	60	1
HSK-E 40 / WD 10 x 060**	2540.31034	35	60	1
HSK-E 40 / WD 12 x 070**	2540.31244	42	70	1
HSK-E 40 / WD 16 x 070**	2540.31644	48	70	1

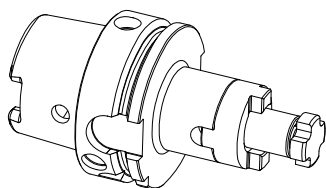
*Without side hole in HSK taper.

**Without side hole and without drive keys in HSK taper.

Supplied with: End mill holder and lock screw.

Matching coolant tubes (KSR) see page 12.10.





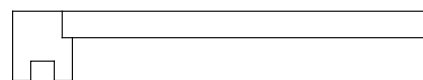
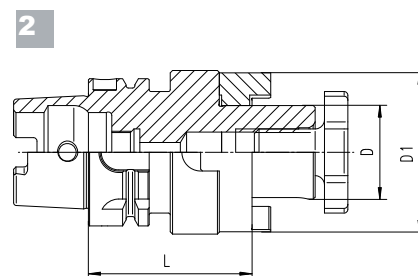
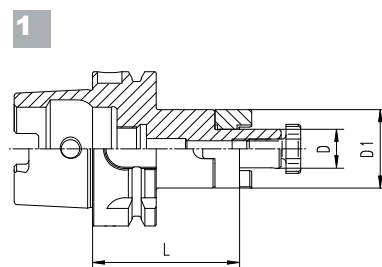
HSK-A | HSK-E | KFD
DIN 69893 / ISO12164

Universal Shell Mill | Face Mill Holders | Matching Spanners

Type	Part No.	D [mm]	D1 [mm]	L [mm]	Drawing
HSK-A 32 / KFD 16 x 045	2532.41620	16	32	45	1
HSK-A 32 / KFD 22 x 050	2532.42230	22	40	40	1
HSK-A 40 / KFD 16 x 030	2540.41600	16	32	30	1
HSK-A 40 / KFD 22 x 050	2540.42230	22	40	50	1
HSK-A 50 / KFD 16 x 050	2550.41630	16	32	50	1
HSK-A 50 / KFD 22 x 050	2550.42230	22	40	50	1
HSK-A 50 / KFD 27 x 065	2550.42740	27	48	65	2
HSK-A 50 / KFD 32 x 065	2550.43240	32	58	65	2
HSK-A 63 / KFD 16 x 060	2563.41640	16	32	60	1
HSK-A 63 / KFD 22 x 060	2563.42240	22	40	60	1
HSK-A 63 / KFD 27 x 060	2563.42740	27	48	60	1
HSK-A 63 / KFD 32 x 060	2563.43240	32	58	60	1
HSK-A 63 / KFD 40 x 070	2563.44050	40	70	70	2
HSK-A 100 / KFD 16 x 060	2500.41640	16	32	60	1
HSK-A 100 / KFD 22 x 060	2500.42240	22	40	60	1
HSK-A 100 / KFD 27 x 060	2500.42740	27	48	60	1
HSK-A 100 / KFD 32 x 060	2500.43240	32	58	60	1
HSK-A 100 / KFD 40 x 070	2500.44050	40	70	70	1
HSK-A 100 / KFD 50 x 080	2500.45060	50	90	80	2
HSK-E 40 / KFD 16 x 045*	2540.41624	16	32	45	1

*Without side hole and without drive keys in HSK taper.

Supplied with: Universal shell mill/face mill holder, lock screw, feather key and drive ring.



Matching Spanners Type	Part No.
FDS 16	7711.16000
FDS 22	7711.22000
FDS 27	7711.27000
FDS 32	7711.32000
FDS 40	7711.40000
FDS 50	7711.50000

Drawings with detailed dimensions see

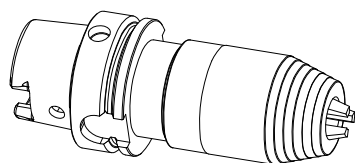
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Swiss
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Tools

KBF

Toolholders



HSK-A | KBF

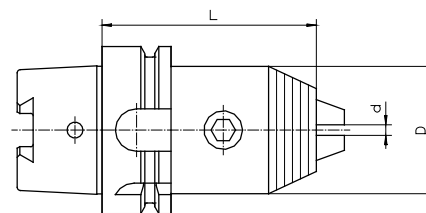
DIN 69893/ISO 12164

Drill Chucks

Type	Part No.	d [mm]	D [mm]	L [mm]
HSK-A 63 / KBF 1–13 mm	2563.50100	1–13	50	104

Supplied with: Drill chuck and allen-key.

Matching coolant tubes (KSR) see page 12.10.

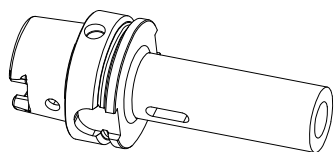


Clamping range	1-13 mm
Maximum runout difference	0.03 mm
Maximum tightening torque	20 Nm
Clamping force (@ 20 Nm tightening torque)	80 Nm
Maximum rpm	up to 35'000 min ⁻¹

Drawings with detailed dimensions see

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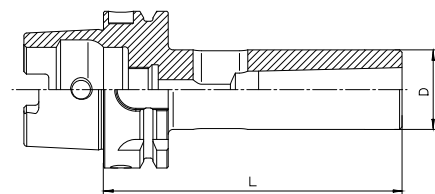
7



Morse Taper Holder

Type	Part No.	D [mm]	L [mm]
HSK-A 63 / MK 1 x 100 mm	2563.80140	25	100
HSK-A 63 / MK 2 x 120 mm	2563.80250	32	120
HSK-A 63 / MK 3 x 140 mm	2563.80360	40	140
HSK-A 63 / MK 4 x 160 mm	2563.80470	48	160

HSK-A | MK
DIN 69893 / ISO 12164



Drawings with detailed dimensions see

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