



ER *SYSTEM*

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powRgrip *SYSTEM*

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Swiss
Precision
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.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Applications

The collet reductions are mainly used on Swiss Screw Machines with life tooling.

Quick Change System

Best suited for quick tool change as the cutting tools can be preinstalled.

Length Presetting

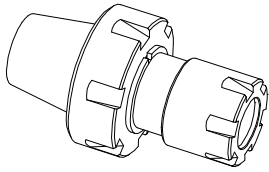
Tools can be preset outside of the machine.

Minimal External Dimensions

By use of Hi-Q®/ERM clamping nuts minimal external dimensions can be achieved.



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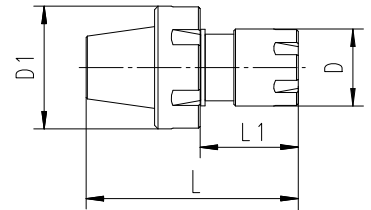


ER(M) | ERM

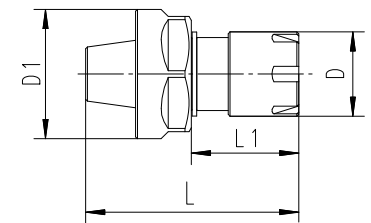
Collet Reductions

Type	Part No.	L [mm]	L1 [mm]	D1 [mm]	D [mm]	For Tornos
ER 11 M / ER 8 M	7161.11080	33	16.5	16	12	■
ER 16 M / ER 11 M	7161.16110	42.5	18.5	23	16	■
ER 20 M / ER 16 M	7161.20160	55.5	28	28	22	■
ER 25 M / ER 16 M	7161.25160	60.5	28	35	22	■
ER 25 M / ER 20 M	7161.25200	60.5	28	35	28	■
ER 11 / ER 8 M	7162.11080	33	16.5	19	12	■
ER 20 / ER 16 M	7162.20160	55.5	28	34	22	■
ER 25 / ER 16 M	7162.25160	60.5	28	42	22	■
ER 25 / ER 20 M	7162.25200	60.5	28	42	28	■

Type ERM/ERM with Mini-Thread



Type ER/ERM with Standard-Thread



Mini-Clamping Nuts | Spanners | Collets

Matching Products

Clamping Nut and Spanner	ER 8	ER 11	ER 16	ER 20	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System*	Mini-Nut	Nut with External Thread	Spanner
Hi-Q / ERM	3508.00000	3511.00000	3516.00000	3520.00000	4.12			■		■	■		
Hi-Q / ERM C	–	3511.20300 – 3511.20700	3516.20000	3520.20000	4.12 4.14			■	■	■	■		
EM	7113.08000	7113.11000	7113.16000	7113.20000	12.1								■
EP	–	7112.11010	7112.16010	7112.20010	12.1								■

Recommended tightening torque on page 13.3/13.4. *Not for Hi-Q®/ERM8.

Collet	ER 8		ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20	
	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page
ER	0.5 – 5.0	2.6	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12
ER-UP	0.5 – 5.0	2.6	0.5 – 7.0	2.8	0.5 – 10.0	2.10	0.5 – 13.0	2.12
ER-DM	–	–	–	–	3.0 – 10.0	2.22	3.0 – 10.0	2.24
ER-MB	0.2 – 0.9	2.6	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
ET 1*	–	–	1.4 – 3.55	3.8	1.4 – 6.3	3.8	2.2 – 7.0	3.8

*Not for coolant through tools – use with Hi-Q®/ERM clamping nut only.



Swiss
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ER

Toolholders

Features | Benefits

DIN 228-A

MK/ER Toolholder

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.

Applications

Morse taper collets are designed for drawbar thread application. They can be used on milling or combined drilling-milling machines as well as on boring machines. For drilling machines we supply the corresponding tangs (ATL) on request.

Special Applications

When extra high clamping force is needed, e.g. when tapping with ER-GB or ET1*, we recommend the 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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Features | Benefits

DIN 6327-C

SH/ER Toolholder

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 \triangle . Guarantee for best quality.

Applications

Automotive shank collets with trapezoidal thread are supplied with a setting nut. With this type of collet, ER, ER-GB and ET1 REGO-FIX® collets can be used.

Special Applications

A quick-change setting nut according to system BILZ is available as an option. This option must be ordered separately and is supplied at extra charge. When extra high clamping force is needed, e.g. when tapping with ER-GB or ET1*, we recommend the 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.





Swiss
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Matching Products

Clamping Nuts | Collets | Spanners | Tangs

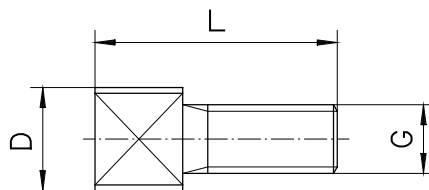
Collet and Spanner	ER 16	ER 20	ER 25	ER 32	ER 40	ER 50	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q / ER	3416.00000	3420.00000	3425.00000	3432.00000	3440.00000	3450.00000	4.4	■		■		■			
Hi-Q / ERC	3416.20000	3420.20000	3425.20000	3432.20000	3440.20000	–	4.6			■	■	■			
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	7112.16010	7112.20010	–	–	–	–	12.1								■
E	–	–	7111.25000	7111.32000	7111.40000	7111.50000	12.1								■

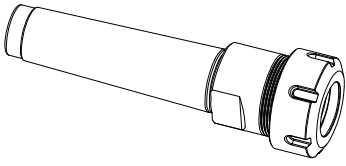
Recommended tightening torque on page 13.3.

Collet	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
ER	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	2.20
ER-UP	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	2.20
ER-DM	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	2.10	–	–	–	–	–	–	–	–	–	–
ER-GB	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*	1.4–6.3	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.

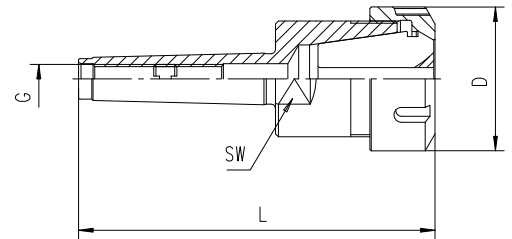
Tangs Type	Part No.	G	L [mm]	D [mm]
ATL 6 / MK 1	7221.01000	M 6	21.5	8.5
ATL 10 / MK 2	7221.02000	M 10	30.5	13.5
ATL 12 / MK 3	7221.03000	M 12	35.0	18.5
ATL 16 / MK 4	7221.04000	M 16	41.0	24.5
ATL 20 / MK 5	7221.05000	M 20	52.0	35.0





Morse Taper Colletheaders

Type	Part No.	D [mm]	L [mm]	G	SW [mm]
MK 1 / ER 16 x 041	2701.11600	28	93.5	M6	17
MK 2 / ER 20 x 049	2702.12000	34	111.5	M10	22
MK 2 / ER 25 x 052	2702.12500	42	115	M10	24
MK 2 / ER 32 x 060	2702.13200	50	123	M10	36
MK 3 / ER 25 x 052	2703.12500	42	132	M12	24
MK 3 / ER 32 x 070	2703.13200	50	150	M12	24
MK 4 / ER 32 x 060	2704.13200	50	163	M16	32
MK 4 / ER 40 x 082	2704.14000	63	183	M16	32
MK 5 / ER 40 x 064	2705.14000	63	192	M20	45
MK 5 / ER 50 x 086	2705.15900	78	214	M20	45



Drawings with detailed dimensions see

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Supplied with: Collethead, clamping nut and back-up screw.



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Toolholder

Matching Products

Clamping Nuts | Collets | Spanners | Quick-Change Setting Nuts

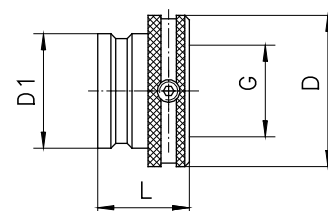
Clamping Nut and Spanner	ER 11	ER 16	ER 20	ER 25	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q / ER	3411.00000	3416.00000	3420.00000	3425.00000	4.4	■		■		■			
Hi-Q / ERC	3511.20300 – 3511.20700	3416.20000	3420.20000	3425.20000	4.6 4.8			■	■	■			
Hi-Q / ERB	–	3416.30000	3420.30000	3425.30000	4.10		■	■		■			
Hi-Q / ERBC	–	3416.40000	3420.40000	3425.40000	4.10		■	■	■	■			
EP	7112.11010	7112.16010	7112.20010	–	12.01								■
E	–	–	–	7111.25000	12.01								■

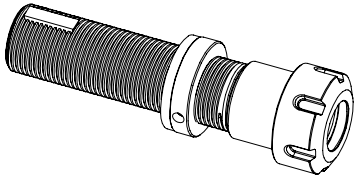
Recommended tightening torque on page 13.3.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20		ER 25/ET1-25	
	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
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
ER-DM	2.75–7.00	2.22	3.0–10.0	2.24	3.0–10.0	2.26	6.0–16.0	2.28
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
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

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

Quick-Change Setting Nut (System Bilz) Type	Part No.	G	D [mm]	D1 [mm]	L [mm]
SSM 12	7238.12000	Tr 12 x 1.5	22	16.4	18.0
SSM 16	7238.16000	Tr 16 x 1.5	26	19.9	18.5
SSM 20	7238.20000	Tr 20 x 2.0	33	25.4	20.0
SSM 28	7238.28000	Tr 28 x 2.0	42	33.9	22.0

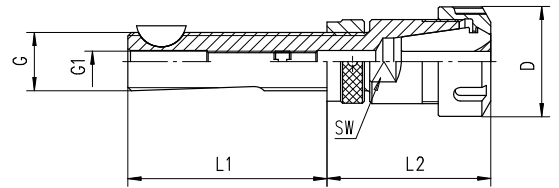




Automotive Colletholders

Type	Part No.	D [mm]	G	G1	L1 [mm]	L2 [mm]	SW [mm]
SH 12 x 050 / ER 11	2612.11104	19.0	Tr 12x1.5	M5	50.0	46.6	12
SH 16 x 073 / ER 16	2616.11604	28.0	Tr 16x1.5	M6	73.0	53.5	19
SH 20 x 076 / ER 20	2620.12004	34.0	Tr 20x2.0	M8	76.0	59.5	22
SH 28 x 083 / ER 25	2628.12504	42.0	Tr 28x2.0	M18x1.5	83.0	57.0	28

Supplied with: Colletholder, clamping nut, back-up screw, setting nut and Woodruff-key.



Drawings with detailed dimensions see

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Swiss
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Tools

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Toolholders

Features | Benefits

ISO/ERM Toolholder

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Type and part number.

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Q+® Balancing

100% balanced to G 2.5 @ 40'000 min⁻¹.

Applications

The REGO-FIX® ISO 20 toolholders are designed to work with the HAAS Office Mill. To utilize your machine to its full potential, use the REGO-FIX® brand of holders and collets to see the difference quality can make in your machining operations.

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.

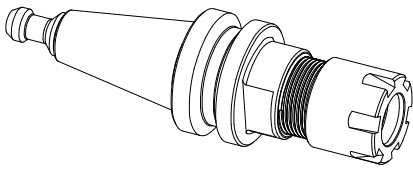
For the influence of run-out on tool life see the graph page 2.3.



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 13.4.

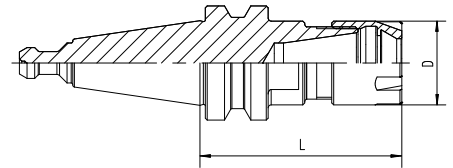
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ISO Colletholder

Type	Form A+AD Part No.	D [mm]	L [mm]
ISO 20 / ERM 11 x 048 HAAS	2420.11116	16	46
ISO 20 / ERM 16 x 053 HAAS	2420.11616	22	53
ISO 20 / ERM 20 x 055 HAAS	2420.12016	28	55

Supplied: ISO colletholder with ERM clamping nut and integral pull stud.



Clamping Nuts | Collets | Spanners

Matching Products

Clamping Nut and Spanner	ER 11	ER 16	ER 20	Page	Standard	With Friction Bearing	Balanced	For Coolant Through Tools	Collet Locking System	Mini-Nut	Nut with External Thread	Spanner
Hi-Q / ERM	3511.00000	3516.00000	3520.00000	4.12			■		■	■		
Hi-Q / ERM C	3511.20300	3516.20000	3520.20000	4.12			■	■	■	■		
	3511.20700			4.14								
EM	7113.08000	7113.11000	7113.16000	12.01								■

Recommended tightening torque on page 13.4.

Collet	ER 11/ET1-12		ER 16/ET1-16		ER 20/ET1-20	
	Clamping Range [mm]	Page	Clamping Range [mm]	Page	Clamping Range [mm]	Page
ER	0.5 – 7.0	2.08	0.5 – 10.0	2.10	0.5 – 13.0	2.12
ER-UP	0.5 – 7.0	2.08	0.5 – 10.0	2.10	0.5 – 13.0	2.12
ER-DM	–	–	3.0 – 10.0	2.22	3.0 – 10.0	2.24
ER-MB	0.2 – 0.9	2.08	0.2 – 0.9	2.10	–	–
ER-GB	2.8 – 6.0	3.04	4.0 – 9.0	3.04	4.0 – 11.2	3.04
ET 1*	1.4 – 3.55	3.08	1.4 – 6.3	3.08	2.2 – 7.0	3.08

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

Drawings with detailed dimensions see

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Swiss
Precision
Tools

PG

powRgrip® Toolholders

Features | Benefits

ISO/PG Toolholder

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

- 1** **Marking**
Type and part number.
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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.

Q+® Balancing

100% balanced to G 2.5 @ 40'000 min⁻¹.

Applications

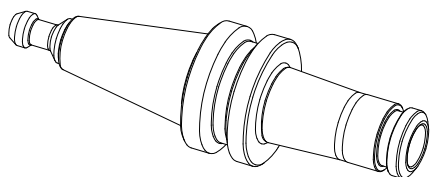
The REGO-FIX® ISO 20 Toolholders are designed to work with the HAAS Office Mill. To utilize your machine to its full potential, use the REGO-FIX® brand of holders and collets to see the difference quality can make in your machining operations.

Matched Tooling System for Best Fit

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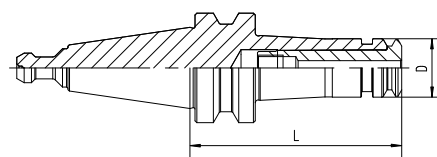


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ISO Colletholder

Type	Form A+AD Part No.	D [mm]	L [mm]
ISO 20 / PG 10 x 058 HAAS	2420.71015	16	58



powRgrip® Collets

Ø [mm]	Ø [Inch]	Ø [Inch]	PG 10 Part No.	PG 10-CF Part No.
0.200 – 1.5875 mm powRgrip® microbore collets (PG 10-MB) see page 2.36.				
2.000	0.0787	–	1710.02000	–
2.500	0.0984	–	1710.02500	–
3.000	0.1181	–	1710.03000	1710.03002
3.175	0.1250	1/8"	1710.03181	1710.03183
3.500	0.1378	–	1710.03500	–
4.000	0.1575	–	1710.04000	1710.04002
4.500	0.1969	–	1710.04500	–
4.763	0.1875	3/16"	1710.04761	1710.04763
5.000	0.1969	–	1710.05000	1710.05002
5.500	0.2165	–	1710.05500	–
6.000	0.2362	–	1710.06000	1710.06002
6.350	0.2500	1/4"	1710.06351	1710.06353

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

Matching Products

10

Drawings with detailed dimensions see

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