





BT Steep Taper Toolholder

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MAS 403/JIS B 6339

ER_{SYSTEM}

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powRgrip_{SYSTEM}

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Tapping holders for use with appropriate Weldon toolholders
see page 9.14/9.16 for ER and 9.22/9.24 for powRgrip®.



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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.

Taper Accuracy AT3

Better spindle-to-holder fit and accuracy.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Q+® Balancing

100% balanced to G 2.5 @ 22'000 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.

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BT/ER Toolholder

Applications

These collets are designed for use on CNC-machining centers with automatic tool changer. They are universally suitable for drilling, machining, reaming, tapping and grinding. The vibration dampening of this system reduces spindle wear and extend tool life.

Balancing

REGO-FIX® Q+® System BT/ER collets are balanced to G 2.5 @ 22'000 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.

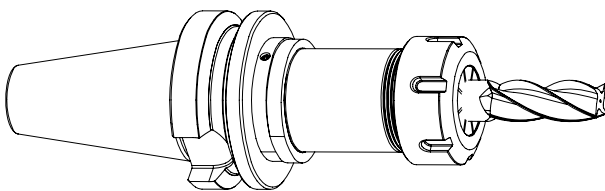
Special Applications

When extra high clamping force is needed, e.g. when tapping with ER-GB or ET1*, we recommend to use 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 to fit together. This guarantees best run-out and balancing.



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

BT/ERA Toolholder

Applications

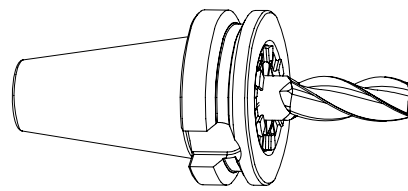
These collets are specially designed for mill-turning machines, multitasking machines and small vertical machining centers. They have the well known REGO-FIX® surface finish, precision and thanks to their shortness a superior stiffness. ERA Zero-Z® toolholders have the shortest possible projection to increase the Z-axis travel of the machine and to allow larger work-pieces to be machined.

Balancing

REGO-FIX® Q+® System BT/ERA collets are balanced to G 2.5 @ 22'000 min⁻¹.

Special Features

Thanks to the built in Hi-Q®/ERAX clamping nut the transferable torque is extremely high. This clamping nut has been specially designed for applications where space is at a premium. Slipping off of the wrench is prevented by a patented design.



! 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

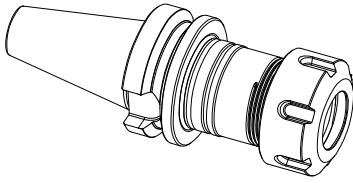
Clamping nuts | Collets | Spanners

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	-	4.8			■	■	■			
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								■
Hi-Q/ERAX	-	-	3320.60000	-	3332.60000	-	-	4.18			■		■		■	
Hi-Q/ERAXC	-	-	3320.70000	-	3332.70000	-	-	4.18			■	■	■		■	
EAX	-	-	7117.20000	-	7117.32000	-	-	12.2								■

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	-	-

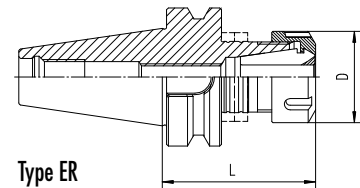
*Not for coolant through tools and not for applications with sealing disks.



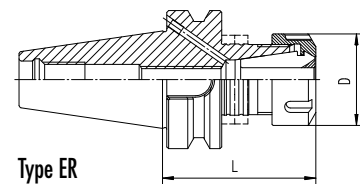
ER Colletholders | ERA Zero-Z® Colletholders | Balancing Rings

Type	Form A+AD Part No.	Form AD+B Part No.	D [mm]	L [mm]	Balancing Rings
BT 30 / ER 11 x 050*	2130.11110	-	19	50	-
BT 30 / ER 11 x 100 H	4130.11150	-	19	100	FWR 225
BT 30 / ER 16 x 050*	2130.11610	-	28	50	-
BT 30 / ER 16 x 080 H	4130.11640	-	28	80	FWR 285
BT 30 / ER 16 x 100 H	4130.11650	-	28	100	FWR 285
BT 30 / ERA 20 x 022*	2130.12007	-	-	22	-
BT 30 / ER 20 x 050*	2130.12010	-	34	50	-
BT 30 / ER 20 x 070 H	4130.12030	-	34	70	FWR 325
BT 30 / ER 20 x 100 H	4130.12050	-	34	100	FWR 325
BT 30 / ER 25 x 060 H	4130.12520	-	42	62.5	FWR 325
BT 30 / ER 25 x 100 H	4130.12550	-	42	100	FWR 325
BT 30 / ER 32 x 060*	2130.13220	-	50	60	-
BT 30 / ER 32 x 100 H	4130.13250	-	50	100	FWR 405

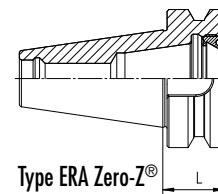
ERA



Type ER
Form A+AD



Type ER
Form AD+B



Type ERA Zero-Z®
Form A+AD

BT 40 / ER 11 x 100 H	4140.11150	-	19	100	FWR 285
BT 40 / ER 11 x 160 H	4140.11180	-	19	160	FWR 285
BT 40 / ER 16 x 070 H	4140.11630	4140.11633	28	70	FWR 285
BT 40 / ER 16 x 100 H	4140.11650	4140.11653	28	100	FWR 285
BT 40 / ER 16 x 160 H	4140.11680	4140.11683	28	160	FWR 285/225
BT 40 / ER 20 x 070 H	4140.12030	4140.12033	34	70	FWR 325
BT 40 / ER 20 x 100 H	4140.12050	4140.12053	34	100	FWR 285
BT 40 / ER 20 x 160 H	4140.12080	4140.12083	34	160	FWR 405/285
BT 40 / ER 25 x 070 H	4140.12530	4140.12533	42	70	FWR 405
BT 40 / ER 25 x 100 H	4140.12550	4140.12553	42	100	FWR 405
BT 40 / ER 25 x 160 H	4140.12580	4140.12583	42	160	FWR 405/325
BT 40 / ERA 32 x 027*	2140.13207	-	-	27	-
BT 40 / ER 32 x 070 H	4140.13230	4140.13233	50	70	FWR 405
BT 40 / ER 32 x 100 H	4140.13250	4140.13253	50	100	FWR 405
BT 40 / ER 32 x 160 H	4140.13280	4140.13283	50	160	FWR 405/325
BT 40 / ER 40 x 080*	2140.14040	2140.14043	63	80	-
BT 40 / ER 40 x 100 H	4140.14050	4140.14053	63	100	FWR 505
BT 40 / ER 40 x 160 H	4140.14080	4140.14083	63	160	FWR 505/505

ERA

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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Supplied with: ER colletholder with Hi-Q® clamping nut, ERA colletholder with Hi-Q® AX clamping nut.

*Not for use with balancing rings.



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Matching Products

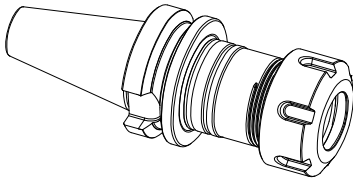
Clamping nuts | Collets | Spanners

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	-	4.8			■	■	■			
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								■
Hi-Q/ERAX	-	-	3320.60000	-	3332.60000	-	-	4.18			■		■		■	
Hi-Q/ERAXC	-	-	3320.70000	-	3332.70000	-	-	4.18			■	■	■		■	
EAX	-	-	7117.20000	-	7117.32000	-	-	12.2								■

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.

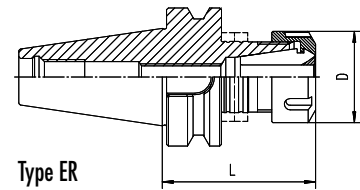


ER Colletholders | Balancing Rings

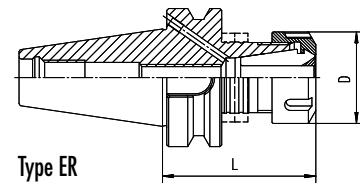
Type	Form A+AD Part No.	Form AD+B Part No.	D [mm]	L [mm]	Balancing Rings
BT 50 / ER 16 x 100 H	4150.11650	4150.11653	28	100	FWR 505
BT 50 / ER 16 x 160 H	4150.11680	4150.11683	28	160	FWR 505/225
BT 50 / ER 20 x 070*	2150.12030	2150.12033	34	70	-
BT 50 / ER 20 x 100 H	4150.12050	4150.12053	34	100	FWR 325
BT 50 / ER 25 x 070*	2150.12530	-	42	70	-
BT 50 / ER 25 x 100 H	4150.12550	4150.12553	42	100	FWR 405
BT 50 / ER 25 x 160 H	4150.12580	4150.12583	42	160	FWR 405/325
BT 50 / ER 32 x 100 H	4150.13250	4150.13253	50	100	FWR 505
BT 50 / ER 32 x 160 H	4150.13280	4150.13283	50	160	FWR 505/225
BT 50 / ER 40 x 100 H	4150.14050	4150.14053	63	100	FWR 505
BT 50 / ER 40 x 160 H	4150.14080	4150.14083	63	160	FWR 505
BT 50 / ER 50 x 100*	2150.15050	-	78	100	-

Supplied with: ER colletholder with Hi-Q® clamping nut.

*Not for use with balancing rings.



Type ER
Form A+AD



Type ER
Form AD+B

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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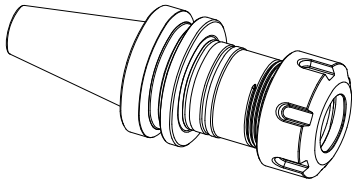
Clamping nuts | Collets | Spanners

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	-	4.8			■	■	■			
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								■
Hi-Q/ERAX	-	-	3320.60000	-	3332.60000	-	-	4.18			■		■		■	
Hi-Q/ERAXC	-	-	3320.70000	-	3332.70000	-	-	4.18			■	■	■		■	
EAX	-	-	7117.20000	-	7117.32000	-	-	12.2								■

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 Type OM | ERA Zero-Z® Colletholders Type OM | Balancing Rings

Type	Form A+AD Part No.	D [mm]	L [mm]	Balancing Rings	
BT-OM 30 / ER 16 x 080 H	4130.11648	28	80	FWR 285	
BT-OM 30 / ERA 20 x 022*	2130.12008	34	22	-	ERA
BT-OM 30 / ER 25 x 060 H	4130.12528	42	62.5	FWR 325	
BT-OM 30 / ER 32 x 060*	2130.13228	50	62.5	-	

Supplied with: Colletholder with Hi-Q® clamping nut.

*Not for use with balancing rings.

Applications

This special collet holder without drive slots is designed for use on HAAS and HURCO CNC-machining centers.

Balancing

REGO-FIX® Q+® System BT-OM/ER(A) collet holders are balanced to G 2.5 @ 22'000 min⁻¹. Type H collet holders 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 our friction bearing clamping nuts Hi-Q®/ERB** and Hi-Q®/ERBC**.

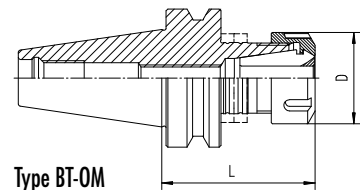
*Not for coolant through tools and not for applications with sealing disks.

**Not for use with ERA collet holders.

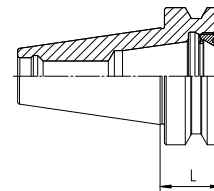
Matched Tooling System for Best Fit

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.

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



Type BT-OM
Without drive slots



Type BT-OM ERA Zero-Z®
Form A+AD

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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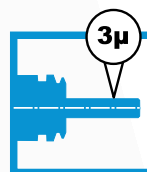
ER Toolholders

Features | Benefits

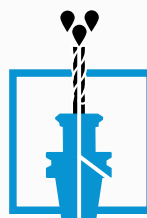
BIG PLUS SYSTEM - Licensed by **BIG Daishowa**
Manufactured in Switzerland under License
according to BIG-PLUS specifications.



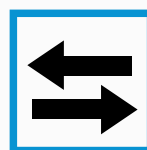
Higher toolholder stiffness
due to taper (AT1)
and face contact



Improved machining
accuracy and
better surface finish



Form AD+B coolant
supplied as standard



Compatible with BIG-PLUS
spindles and
standard spindles

1 Taper (AT1) and face contact

2 Coolant supply through the flange
(form B)

3 Coolant supply through the taper (form AD)

BT+ REGO PLUS Dual Contact Toolholders

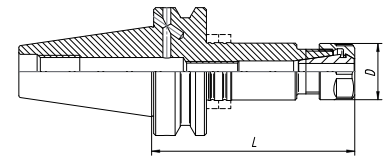
BIG PLUS SYSTEM - Licensed by BIG Daishowa

Type	Form AD+B Part No.	D [mm]	L [mm]	Balancing Rings
BT+ 30 / ER 11 x 100 H	4130.11156	19	100	FWR 285
BT+ 30 / ER 16 x 050*	2130.11616	28	50	–
BT+ 30 / ER 16 x 080 H	4130.11646	28	80	FWR 285
BT+ 30 / ER 20 x 050*	2130.12016	34	50	–
BT+ 30 / ER 20 x 070 H	4130.12036	34	70	FWR 285
BT+ 30 / ER 25 x 060 H	4130.12526	42	60	FWR 325
BT+ 30 / ER 32 x 060*	2130.13226	50	60	–

BT+ 40 / ER 16 x 070 H	4140.11636	28	70	FWR 285
BT+ 40 / ER 16 x 100 H	4140.11656	28	100	FWR 285
BT+ 40 / ER 20 x 070 H	4140.12036	34	70	FWR 325
BT+ 40 / ER 25 x 070 H	4140.12536	42	70	FWR 325
BT+ 40 / ER 32 x 070 H	4140.13236	50	70	FWR 405
BT+ 40 / ER 32 x 100 H	4140.13256	50	100	FWR 405
BT+ 40 / ER 32 x 160 H	4140.13286	50	160	FWR 405/405

BT+ 50 / ER 32 x 100 H	4150.13256	50	100	FWR 505
BT+ 50 / ER 32 x 160 H	4150.13286	50	160	FWR 505/405

*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
Precision
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 \triangle . Guarantee for best quality.

T.I.R. of the Whole System <3 μ m

Highest clamping force and best runout in one.

Taper Accuracy AT3

Better spindle-to-holder fit and accuracy.

Surface Finish max. Ra 0.25

Higher clamping force and higher transferable torque.

Q+® Balancing

100% balanced to G 2.5 @ 22'000 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



Information

MAS 403/JIS B 6339

BT/PG Toolholders

Applications

These collets are designed for use on CNC-machining centers with automatic tool changers. They are especially suited for HSC and HPC operations where processing reaches the machine limits. The vibration dampening of BT/PG collets reduce spindle wear and extend tool life.

Balancing

REGO-FIX® Q+® System BT/PG collets are balanced to G 2.5 @ 22'000 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

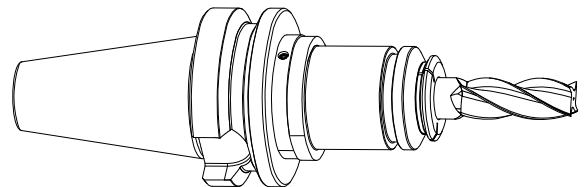
For use with coolant through tools.

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.



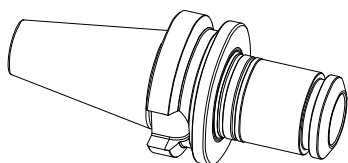
Matching Products

powRgrip® Collets

0.200 – 1.5875 mm powRgrip® microbore collets (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 further powRgrip® accessories see page 12.7/12.8.



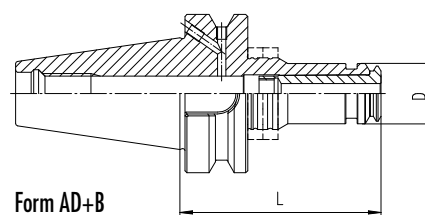
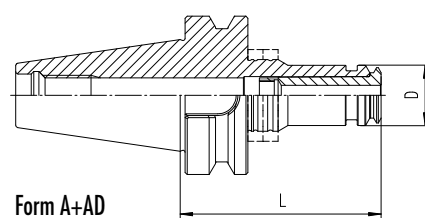
powRgrip® Colletholder | Balancing Rings

Type	Form A+AD Part No.	Form AD+B Part No.	D [mm]	L [mm]	Balancing Rings
BT 30 / PG 10 x 062*	2130.71020	-	16	62	-
BT 30 / PG 10 x 080 H	4130.71040	-	16	80	FWR 285
BT 30 / PG 10 x 120 H	4130.71060	-	16	120	FWR 285
BT 30 / PG 10 x 160 H	4130.71080	-	16	160	FWR 285
BT 30 / PG 15 x 070 H	4130.71530	-	24	70	FWR 285
BT 30 / PG 15 x 120 H	4130.71560	-	24	120	FWR 285
BT 30 / PG 25 x 080 H	4130.72540	-	40	80	FWR 405
BT 30 / PG 25 x 120 H	4130.72560	-	40	120	FWR 405
BT 30 / PG 25 x 160 H	4130.72580	-	40	160	FWR 405/405

BT 40 / PG 10 x 080 H	4140.71040	4140.71043	16	80	FWR 285
BT 40 / PG 10 x 120 H	4140.71060	4140.71063	16	120	FWR 325
BT 40 / PG 10 x 160 H	4140.71080	4140.71083	16	160	FWR 325
BT 40 / PG 15 x 080 H	4140.71540	4140.71543	24	80	FWR 285
BT 40 / PG 15 x 120 H	4140.71560	4140.71563	24	120	FWR 325
BT 40 / PG 15 x 160 H	4140.71580	4140.71583	24	160	FWR 325/285
BT 40 / PG 25 x 080 H	4140.72540	4140.72543	40	80	FWR 405
BT 40 / PG 25 x 120 H	4140.72560	4140.72563	40	120	FWR 405
BT 40 / PG 25 x 160 H	4140.72580	4140.72583	40	160	FWR 405/405
BT 40 / PG 32 x 086*	2140.73240	2140.73243	50	86	-

BT 50 / PG 10 x 120 H	4150.71060	-	16	120	FWR 405
BT 50 / PG 10 x 160 H	4150.71080	-	16	160	FWR 405
BT 50 / PG 15 x 120 H	4150.71560	-	24	120	FWR 325
BT 50 / PG 15 x 160 H	4150.71580	-	24	160	FWR 325
BT 50 / PG 25 x 100*	2150.72550	-	40	100	-
BT 50 / PG 25 x 120 H	4150.72560	-	40	120	FWR 505
BT 50 / PG 25 x 160 H	4150.72580	-	40	160	FWR 505/405
BT 50 / PG 25 x 200 H	4150.72590	-	40	200	FWR 505/405
BT 50 / PG 32 x 100*	2150.73250	-	50	100	-

*Not for use with balancing rings.



6

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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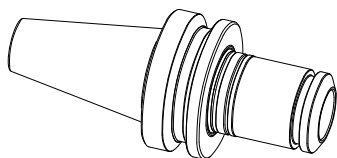
Matching Products

powRgrip® Collets

0.200 – 1.5875 mm powRgrip® microbore collets (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.
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
6.350	0.2500	1/4"	1710.06351	1710.06353	1715.06351	1715.06353	1725.06351	1725.06353
7.000	0.2756	-	-	-	1715.07000	1715.07002	1725.07000	1725.07002
7.938	0.3125	5/16"	-	-	1715.07941	1715.07943	1725.07941	1725.07943
8.000	0.3150	-	-	-	1715.08000	1715.08002	1725.08000	1725.08002
9.000	0.3543	-	-	-	1715.09000	1715.09002	1725.09000	1725.09002
9.525	0.3750	3/8"	-	-	1715.09521	1715.09523	1725.09521	1725.09523
10.000	0.3937	-	-	-	1715.10000	1715.10002	1725.10000	1725.10002
11.000	0.4331	-	-	-	-	-	1725.11000	1725.11002
11.113	0.4375	7/16"	-	-	-	-	1725.11111	1725.11113
12.000	0.4724	-	-	-	-	-	1725.12000	1725.12002
12.700	0.5000	1/2"	-	-	-	-	1725.12701	1725.12703
13.000	0.5112	-	-	-	-	-	1725.13000	1725.13002
14.000	0.5512	-	-	-	-	-	1725.14000	1725.14002
14.288	0.5625	9/16"	-	-	-	-	1725.14291	1725.14293
15.000	0.5906	-	-	-	-	-	1725.15000	1725.15002
15.875	0.6250	5/8"	-	-	-	-	1725.15881	1725.15883
16.000	0.6300	-	-	-	-	-	1725.16000	1725.16002
18.000	0.7087	-	-	-	-	-	1725.18000	1725.18002
19.050	0.7500	3/4"	-	-	-	-	1725.19051	1725.19053
20.000	0.7874	-	-	-	-	-	1725.20000	1725.20002
22.000	0.8661	-	-	-	-	-	-	-
22.225	0.8750	7/8"	-	-	-	-	-	-
25.000	0.9843	-	-	-	-	-	-	-
25.400	1.0000	1"	-	-	-	-	-	-

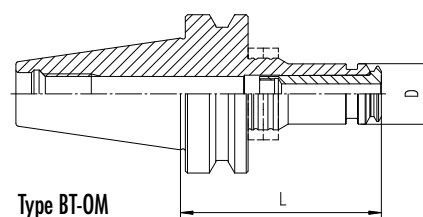
powRgrip® clamping units and further powRgrip® accessories see page 12.7/12.8 .



powRgrip® Colletholders Type OM without Drive Slots | Balancing Rings

Type	Form A+AD Part No.	D [mm]	L [mm]	Balancing Rings
BT-OM 30 / PG 10 x 062*	2130.71028	16	62	-
BT-OM 30 / PG 15 x 070 H	4130.71538	24	70	FWR 285
BT-OM 30 / PG 25 x 080 H	4130.72548	40	80	FWR405

*Not for use with balancing rings.



Type BT-OM
without drive slots

Applications

This special colletcher without drive slots is designed for use on HAAS and HURCO CNC-machining centers for High Speed Cutting (HSC) and High Performance Cutting (HPC). Employment up to the max. power limit of the processing machine. The anti-vibration characteristics of the BT-OM/PG toolholder reduce the wear of spindle and tool.

Balancing

REGO-FIX® Q+® System BT-OM/PG colletcholders are balanced to G 2.5 @ 22'000 min⁻¹. Type H colletcholders 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.

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

BIG PLUS SYSTEM - Licensed by BIG Daishowa
Manufactured in Switzerland under License
according to BIG-PLUS specifications.



Higher toolholder stiffness
due to taper (AT1)
and face contact



Improved machining
accuracy and
better surface finish



Form AD+B coolant
supplied as standard



Compatible with BIG-PLUS
spindles and standard spindles



Taper (AT1) and face contact



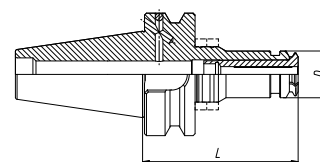
Coolant supply through the flange
(form B)



Coolant supply through the taper (form AD)

BT+ REGO PLUS Dual Contact Toolholders BIG PLUS SYSTEM - Licensed by BIG Daishowa

Type	Form AD+B Part No.	D [mm]	L [mm]	Balancing Rings
BT+ 30 / PG 10 x 080 H	4130.71046	16	80	FWR 285
BT+ 30 / PG 15 x 070 H	4130.71536	24	70	FWR 285
BT+ 30 / PG 25 x 080 H	4130.72546	40	80	FWR 405
BT+ 30 / PG 25 x 160 H	4130.72586	40	160	FWR 405/405
BT+ 40 / PG 10 x 080 H	4140.71046	16	80	FWR 285
BT+ 40 / PG 10 x 120 H	4140.71066	16	120	FWR 325
BT+ 40 / PG 15 x 080 H	4140.71546	24	80	FWR 285
BT+ 40 / PG 15 x 120 H	4140.71566	24	120	FWR 325
BT+ 40 / PG 25 x 080 H	4140.72546	40	80	FWR 405
BT+ 40 / PG 25 x 120 H	4140.72566	40	120	FWR 405
BT+ 40 / PG 25 x 160 H	4140.72586	40	160	FWR 405/405
BT+ 50 / PG 25 x 120 H	4150.72566	40	120	FWR 505
BT+ 50 / PG 25 x 160 H	4150.72586	40	160	FWR 505/405



6

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.

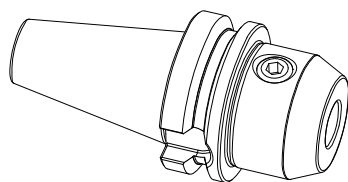
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Tools

WD

Toolholders



BT | WD

MAS 403/JIS B 6339

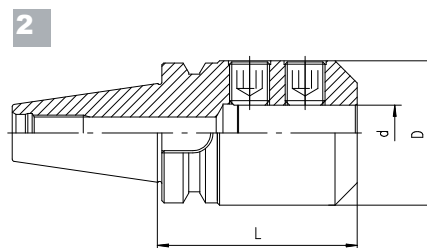
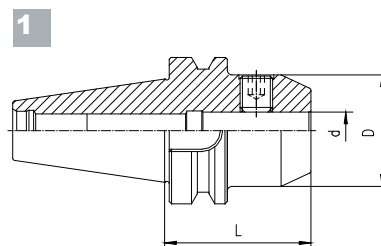
End Mill Holders (WELDON)

Type	Form Part No.	d [mm]	D1 [mm]	L [mm]	Drawing
BT 30 / WD 6 x 050	2130.30620	6	25	50	1
BT 30 / WD 8 x 050	2130.30820	8	28	50	1
BT 30 / WD 10 x 050	2130.31020	10	35	50	1
BT 30 / WD 12 x 050	2130.31220	12	42	50	1
BT 30 / WD 14 x 050	2130.31420	14	44	50	1
BT 30 / WD 16 x 063	2130.31630	16	48	63	1
BT 30 / WD 18 x 063	2130.31830	18	50	63	1
BT 30 / WD 20 x 063	2130.32030	20	52	63	1

BT 40 / WD 6 x 050	2140.30620	6	25	50	1
BT 40 / WD 8 x 050	2140.30820	8	28	50	1
BT 40 / WD 10 x 063	2140.31030	10	35	63	1
BT 40 / WD 12 x 063	2140.31230	12	42	63	1
BT 40 / WD 14 x 063	2140.31430	14	44	63	1
BT 40 / WD 16 x 063	2140.31630	16	48	63	1
BT 40 / WD 18 x 063	2140.31830	18	50	63	1
BT 40 / WD 20 x 063	2140.32030	20	52	63	1
BT 40 / WD 25 x 090	2140.32550	25	65	90	2
BT 40 / WD 32 x 100	2140.33260	32	72	100	2

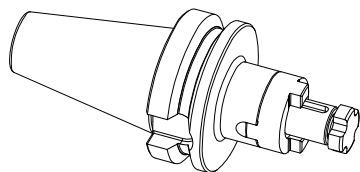
Type	Form Part No.	d [mm]	D1 [mm]	L [mm]	Drawing
BT 50 / WD 6 x 063	2150.30630	6	25	63	1
BT 50 / WD 8 x 063	2150.30830	8	28	63	1
BT 50 / WD 10 x 063	2150.31030	10	35	63	1
BT 50 / WD 12 x 080	2150.31250	12	42	80	1
BT 50 / WD 14 x 080	2150.31450	14	44	80	1
BT 50 / WD 16 x 080	2150.31650	16	48	80	1
BT 50 / WD 18 x 080	2150.31850	18	50	80	1
BT 50 / WD 20 x 080	2150.32050	20	52	80	1
BT 50 / WD 25 x 100	2150.32560	25	65	100	2
BT 50 / WD 32 x 105	2150.33260	32	72	105	2
BT 50 / WD 40 x 110	2150.34060	40	90	110	2

Supplied with: End mill holder and lock screw.



Drawings with detailed dimensions see.

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BT | KFD
MAS 403/JIS B 6339

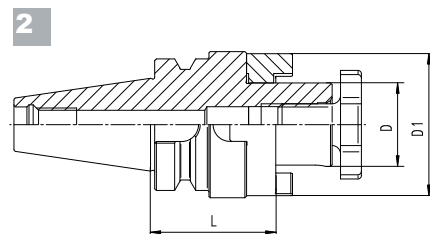
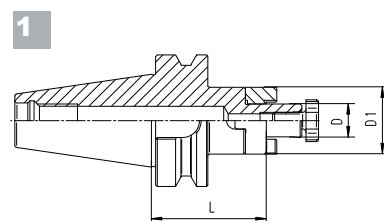
Universal Shell Mill | Face Mill Holders | Matching Spanners

Type	Form A Part No.	D [mm]	D1 [mm]	L [mm]	Drawing
BT 30 / KFD 16 x 045	2130.41620	16	32	45	1
BT 30 / KFD 22 x 047	2130.42220	22	40	47	1
BT 30 / KFD 27 x 049	2130.42720	27	48	49	2
BT 30 / KFD 32 x 053	2130.43230	32	58	53	2

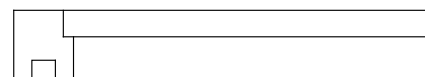
BT 40 / KFD 16 x 055	2140.41630	16	32	55	1
BT 40 / KFD 22 x 055	2140.42230	22	40	55	1
BT 40 / KFD 27 x 055	2140.42730	27	48	55	1
BT 40 / KFD 32 x 060	2140.43240	32	58	60	1
BT 40 / KFD 40 x 060	2140.44040	40	70	60	2

BT 50 / KFD 16 x 070	2150.41630	16	32	70	1
BT 50 / KFD 22 x 070	2150.42230	22	40	70	1
BT 50 / KFD 27 x 070	2150.42750	27	48	70	1
BT 50 / KFD 32 x 070	2150.43250	32	58	70	1
BT 50 / KFD 40 x 070	2150.44050	40	70	70	1
BT 50 / KFD 50 x 070	2150.45050	50	90	70	1

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



6



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.

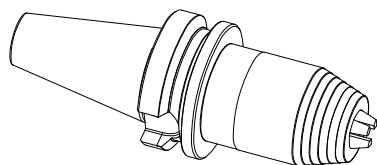
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Swiss
Precision
Tools

KBF

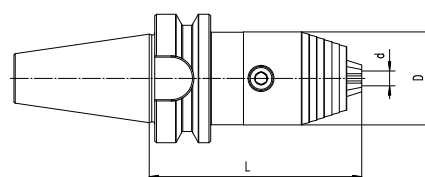
Toolholders



Drill Chucks

Type	Form A Part No.	Form AD+B Part No.	d [mm]	D [mm]	L [mm]
BT 30 / KBF 1-13 mm	2130.50100	-	1-13	50	95
BT 40 / KBF 1-13 mm	-	2140.50103	1-13	50	98
BT 50 / KBF 1-13 mm	-	2150.50103	1-13	50	100

Supplied with: Drill chuck and allen-key.



BT | KBF

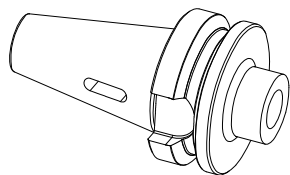
MAS 403/JIS B 6339

6

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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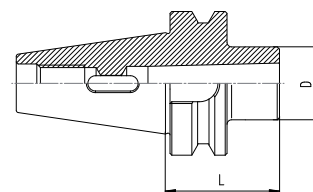


Morse Taper Holder

BT | MK
MAS 403/JIS B 6339

Type	Form A+AD Part No.	D [mm]	L [mm]
BT 40 / MK 1 x 050	2140.80110	25	50
BT 40 / MK 2 x 050	2140.80210	32	50
BT 40 / MK 3 x 070	2140.80320	40	70
BT 40 / MK 4 x 095	2140.80430	48	95

Supplied with: Morse taper holder.



6

Drawings with detailed dimensions see.

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