

Swiss Line





MAS 403

ER SYSTEM

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- 7.05 BT/ER and BT/ERA Zero-Z®

powRgrip SYSTEM

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Features Benefits

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number (reduces selection error).

2 Traceability

Lot numbers are marked on all products for traceability throughout the entire manufacturing process.

3 Original REGO-FIX®

Our extensive experience results in a well-engineered system. Original only with the REGO-FIX® quality symbol \triangle . Guarantees the best quality.

T.I.R. < 0.0001" (3 μm)

I.D. to O.D.

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 will allow for the offset of 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 by design

Vibration Dampening

For best machining results.



Information

BT/ER Toolholder

Applications

These toolholders 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 toolholders are balanced by design to G 2.5 @ 22'000 min-1. Type H toolholders are ready to accept Hi-Q® balancing rings which allow precision balancing of the system up to 80'000 min⁻¹ depending on the balancing rings used.

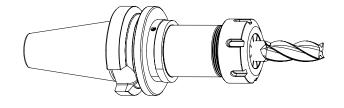
Special Applications

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

Matched Tooling System for Best Fit

For highest precision and best results the whole system counts. For that reason 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 2.03



BT/Zero-Z Toolholder

Applications

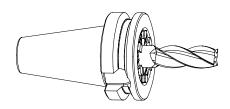
These toolholders are specially designed for mill-turning machines, multitasking machines and small vertical machining centers. They have the well known REGO-FIX® surface finish, precision and due to their short projection and superior rigidity, Zero-Z® toolholders have the shortest possible projection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

Balancing

REGO-FIX® Q+® System BT/Zero-Z toolholders are balanced by design to G 2.5 @ 22'000 min-1.

Special Features

The use of the Hi-Q/ERAX clamping nut offers the highest transferable torque. This clamping nut has been specially designed for applications where space is at a premium. Slippage of the wrench is prevented by a patented locking design.



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



Features Benefits

PGU or PGC required for toolholder assembly. See page 13.07 for machine details.

Swiss Quality

Made in Switzerland to ISO 9001/ISO 14001.

1 Marking

Type and part number (reduces selection error).

2 Traceability

Lot numbers are marked on all products for traceability throughout the entire manufacturing process.

3 Original REGO-FIX®

Original only with the REGO-FIX® quality symbol \triangle . Guarantees the best quality.

T.I.R. of the Whole System < 0.0001" (3 μ m)

Highest clamping force and lowest runout.

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 will allow for the offset of 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 Ø 0.2 mm.

Presetable Tooling System

Repeatability < 0.0004" (10 µm)



REGO-FIX®

Information

BT/PG Toolholders

Applications

These toolholders are designed for use on CNC machining centers with automatic tool changers. They are especially suited for High Speed Cutting (HSC) and High Performance Cutting (HPC) operations where processing reaches the machine limits. The vibration dampening of BT/PG colletholders reduce spindle wear and extend tool life.



REGO-FIX® Q+® System BT/PG toolholders are balanced by design to G 2.5 @ 22'000 min⁻¹. Type H toolholders are ready to accept Hi-Q® balancing rings which allow precision balancing of the system up to 80'000 min⁻¹ depending on the balancing rings used.

Coolant Through

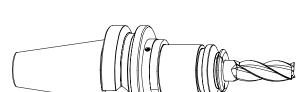
For use with coolant through tools.

Peripheral Cooling

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

Matched Tooling System for Best Fit

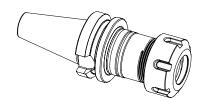
For highest precision and best results the whole system counts. For that reason REGO-FIX® components are carefully matched to fit together. This guarantees best run-out and balancing.



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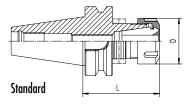


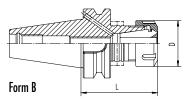




ER Toolholders

Туре	Standard Part No.	Form B Part No.	D [mm]	L [mm]	Balancing Rings	Wrenches
BT 30 / ER 8M x 100	2130.10855	_	12	100	_	7113.08000
BT 30 / ER 11M x 100 H	4130.11155		16	100	FWR 225	7113.11000
BT 30 / ER 16 x 080 H	4130.11640	_	28	80	FWR 285	7112.16010
BT 30 / ER 16 x 080 H**	8020.25000	_	28	80	FWR 285	7112.16010
BT 30 / ER 16 x 100 H	4130.11650	-	28	100	FWR 285	7112.16010
BT 30 / ERA 20 x 022*	2130.12007	_	_	22	-	7117.20000
BT 30 / ERA 20 x 022**	8020.27000	-	_	22	-	7117.20000
BT 30 / ER 25 x 060 H	4130.12520	-	42	62.5	FWR 325	7111.25000
BT 30 / ER 25 x 060 H**	8020.24000	-	42	62.5	FWR 325	7111.25000
BT 30 / ER 25 x 100 H	4130.12550	_	42	100	FWR 325	7111.25000
BT 30 / ER 32 x 060*	2130.13220	-	50	60	-	7111.32000
BT 30 / ER 32 x 100 H	4130.13250	-	50	100	FWR 405	7111.32000
BT 30 / ER 32 x 100 H**	2130.13228	-	50	100	FWR 405	7111.32000
BT 40 / ER 11 x 100 H	4140.11150	-	19	100	FWR 285	7112.11010
BT 40 / ER 16 x 070 H	4140.11630	4140.11633	28	70	FWR 285	7112.16010
BT 40 / ER 16 x 100 H	4140.11650	4140.11653	28	100	FWR 285	7112.16010
BT 40 / ER 16 x 160 H	4140.11680	4140.11683	28	160	FWR 285/225	7112.16010
BT 40 / ER 25 x 070 H	4140.12530	4140.12533	42	70	FWR 405	7111.25000
BT 40 / ER 25 x 100 H	4140.12550	4140.12553	42	100	FWR 405	7111.25000
BT 40 / ER 25 x 160 H	4140.12580	4140.12583	42	160	FWR 405/325	7111.25000
BT 40 / ERA 32 x 027*	2140.13207	-	-	27	-	7117.32000
BT 40 / ER 32 x 070 H	4140.13230	4140.13233	50	70	FWR 405	7111.32000
BT 40 / ER 32 x 100 H	4140.13250	4140.13253	50	100	FWR 405	7111.32000
BT 40 / ER 32 x 160 H	4140.13280	4140.13283	50	160	FWR 405/325	7111.32000
BT 40 / ER 40 x 080*	2140.14040	2140.14043	63	80	-	7111.40000
BT 40 / ER 40 x 100 H	4140.14050	4140.14053	63	100	FWR 505	7111.40000
BT 40 / ER 40 x 160 H	4140.14080	4140.14083	63	160	FWR 505/505	7111.40000
BT 50 / ER 16 x 100 H	4150.11650	4150.11653	28	100	FWR 505	7112.16010
BT 50 / ER 16 x 160 H	4150.11680	4150.11683	28	160	FWR 505/225	7112.16010
BT 50 / ER 32 x 100 H	4150.13250	4150.13253	50	100	FWR 505	7111.32000
BT 50 / ER 32 x 160 H	4150.13280	4150.13283	50	160	FWR 505/225	7111.32000
BT 50 / ER 40 x 100 H	4150.14050	4150.14053	63	100	FWR 505	7111.40000
BT 50 / ER 40 x 160 H	4150.14080	4150.14083	63	160	FWR 505	7111.40000
BT 50 / ER 50 x 100*	2150.15050	_	78	100	_	7111.50000







- *Not for use with balancing rings
- **No Drive Keyways

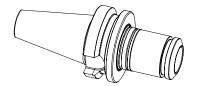
Supplied with: clamping nut

Related Items				
Collets (Std & UP)	See Section 2.00			
Collets (Tapping)	See Section 3.00			
Nuts	See Section 4.00			
Torque Wrench	See Section 13.00			

For drawings with detailed dimensions see:

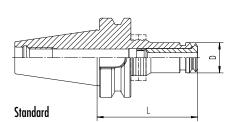
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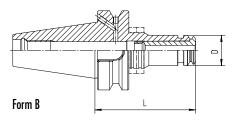




powRgrip® Toolholder

	Standard	Form B	D	L	
Туре	Standard Part No.	Part No.	[mm]	[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 070 H**	8020.20000	-	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 080 H**	8020.21000	-	40	80	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	_





Related Items	
Collets (Std & CF)	See Section 2.00
Collets (Tapping)	See Section 3.00
Extensions (PG)	See Section 10.00
Accessories	See Section 13.00

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^{*}Not for use with balancing rings

^{**}No Drive Keyways