

**STEADYLINE®
FOR TURNING,
BORING &
MILLING**



**REDUCE VIBRATIONS &
INCREASE PRODUCTIVITY**

THIEME

SECO ■



OVERCOME TOOL OVERHANG CHALLENGES

When using long overhang tools to machine difficult-to-access areas, such as deep cavities or sections of large, complex monolithic workpieces, vibration often becomes an issue. Unless, you use the patented Steadyline® damped tooling from Seco®.

Steadyline® products, which include cost-effective milling holders as well as turning and boring bars, perform typical long overhang operations twice as fast as traditional tools. Plus, these highly productive vibration-damping solutions offer high metal-removal rates, smooth part surface finishes and long tool life – all while reducing machine tool stress.

In addition to using Steadyline® products to optimise your processes, you can also rely on our applications expertise – which encompasses all metal-working industry segments – to further strengthen your competitive advantage. Overall, when you work with Seco®, you experience a true partnership based on trust, respect and communication. With 4,100 team members in over 40 countries, we are a globally networked resource that is dedicated to solving your challenges and supporting your operations.

Visit www.secotools.com for all the latest information, machining data, manufacturing techniques and other developments on Steadyline® products.

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VIBRATION CHALLENGES



IMPACT OF MACHINING VIBRATIONS UNDERSTANDING YOUR CHALLENGES

As large, complex workpieces with deep cavities have become more common, manufacturers must contend with machining difficult-to-access features that require tools with long overhangs. Traditional approaches are not economically acceptable in these scenarios, as high levels of vibration impact the cutting process.

Negative effects of vibrations include:

- Poor surface quality
- Unacceptable inaccuracy
- Excessive noise
- Disproportionate tool wear
- Machine tool damage (e.g. spindle, etc.)
- Reduced material removal rate
- Increased costs from longer production time
- Waste of both scrap material and energy



Machined with Steadyline®



Machined with a conventional holder, equivalent dimension

ACHIEVING STABLE CONDITIONS OUR SOLUTION: STEADYLINE®

Steadyline® vibration damping holders drastically improve the dynamic rigidity of milling, turning and boring assemblies. This allows the use of much higher cutting data, with quieter operation and optimum stability.

Through a patented passive-dynamic damping system, Steadyline® increases productivity, improves surface finish and boosts both tool and spindle life. Incorporating Steadyline® into your operations will increase output and reduce operating cost.

PRINCIPLE OF STEADYLINE®



SIMPLE AND EFFICIENT STEADYLINE® OPERATING PRINCIPLE

In the Steadyline® system the vibration absorber is positioned where deflection is highest, at the front of the bar. The absorber damps vibrations as soon as they are transmitted from the cutting tool to the body of the bar. This prevents them from spreading along the bar, thus limiting the deflection of the tool. The result is greater rigidity that ensures high stability even with extreme cutting conditions that dramatically increase the chip removal rate.

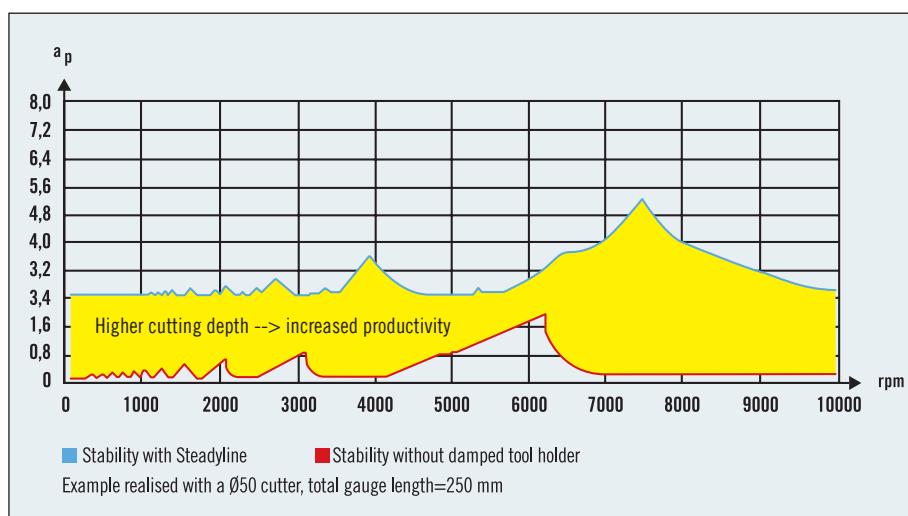


Conventional holder



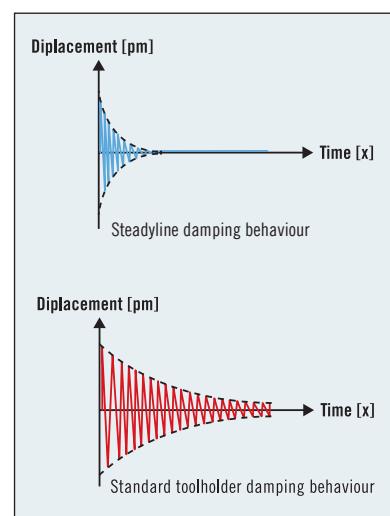
Holder with anti-vibration system

COMPARISON BETWEEN A CLASSIC MODULAR SYSTEM AND A STEADYLINE® HOLDER

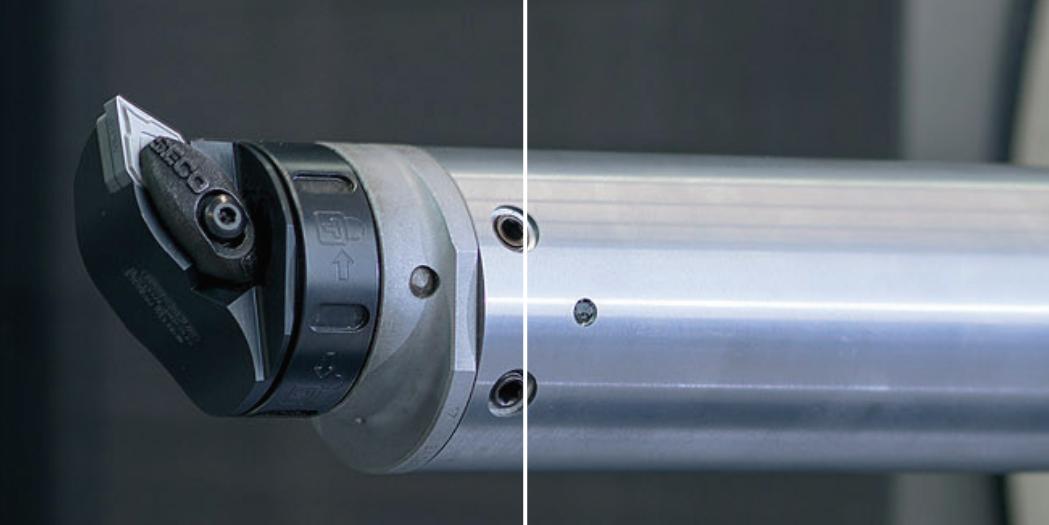


This data represents measurements of the maximum depth at which the holder is stable, at different speeds. At a given speed, the Steadyline® holder's optimal depth of cut (a_p) can be 2 to 4 times higher than what would be used with a modular system, and the surface finish is improved dramatically. Higher RPMs can also be reached in stable conditions.

DAMPING BEHAVIOUR



TURNING & BORING



FLEXIBLE & EFFICIENT TOOL CHANGE SYSTEM TURNING RANGE WITH A MODULAR CONNECTION (GL & BA)

STEADYLINE® BAR

- Available are over 75 standard Steadyline® bars
- Available in six sizes: ø32 mm, ø40 mm, ø50 mm, ø60 mm, ø80 mm and ø100 mm, metric and imperial
- Available in three lengths: 6xD, 8xD, 10xD
- Shank connection: Seco-Capto™, HSK-T/A and cylindrical

GL TURNING HEADS AND GL CONNECTION

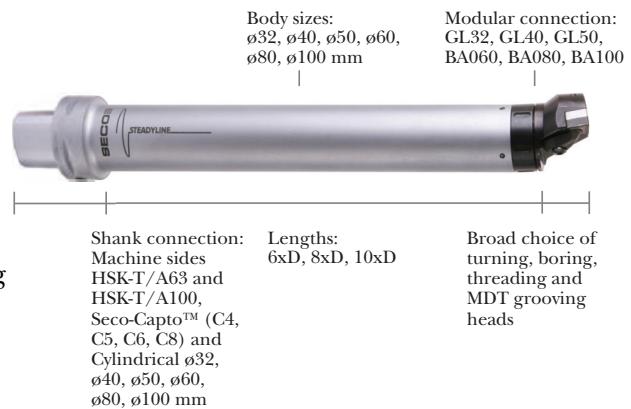
GL turning heads offer a compact, flexible and modular tool changing system for internal applications, especially for Steadyline® boring and turning. The GL connection is based on a precisely ground ‘tapered quadrilobe’ centering system, firmly locked with a fine pitched nut to the Steadyline® bar.

The compact GL turning head preserves the damping strength of the Steadyline® system, making it one of the most stable solutions on the market for tool overhang challenges by reducing vibrations and increasing productivity.

JET STREAM TOOLING® GL TURNING HEADS

The JET GL turning head provides the Steadyline® system with further flexibility and efficiency with its integrated Jetstream Tooling® within the GL turning head. JET GL turning heads use a multifunction coolant clamp for successful integration.

- More than 170 GL turning heads
- Available in three connection sizes: GL32, GL40, GL50
- Cutting directions: left and right
- Negative inserts for roughing: CN, DN, WN
- Positive inserts for finishing: CC, DC, TC, VB
- CBN inserts: RN, TN
- Heads for threading inserts
- Heads for MDT (2 to 4 mm) grooving with Jetstream Tooling
- 40 Jet GL turning heads



Coolant clamp



JET GL turning heads

TURNING & BORING



CUSTOMER BENEFITS

- **STABLE:** The compact and short GL turning heads enhance the damping function by remaining close to the Steadyline® damping mass.
- **MODULAR:** Inventory reduction can be achieved using different types and styles of Steadyline® bars equipped with suitable GL turning heads.
- **ACCURATE:** The taper quadrilobe coupling produces a strong self-centering connection with repeatability within ± 0.002 mm with identical conditions.
- **EFFICIENT:** Ensures a quick and firm connection, which drastically decreases head-changing time and increases productivity.
- **FLEXIBLE:** The quadrilobe design enables 180-degree orientation changes to the turning head, allowing left- and right-hand tools depending on the machining system.
- **LONGEVITY:** Jetstream Tooling provides enhanced chip breaking and higher tool life, especially when machining superalloys.

Boring heads with GL machine side connection HSK-T/A and Seco-Capto™ bars are also designed for rotating and boring applications. Rough and fine boring heads with GL machine side connections are available. For more details, please visit the chapter "Boring."



GL connection for Steadyline® bars $\phi 32$, $\phi 40$, $\phi 50$ mm

BA-CONNECTION

On larger sizes of Steadyline® bars (from $\phi 60$ mm), BA-to-GL adapters are used to mount GL50 turning heads. Therefore, tool inventory can be reduced as current GL50 turning heads can be mounted on larger size Steadyline® bars.

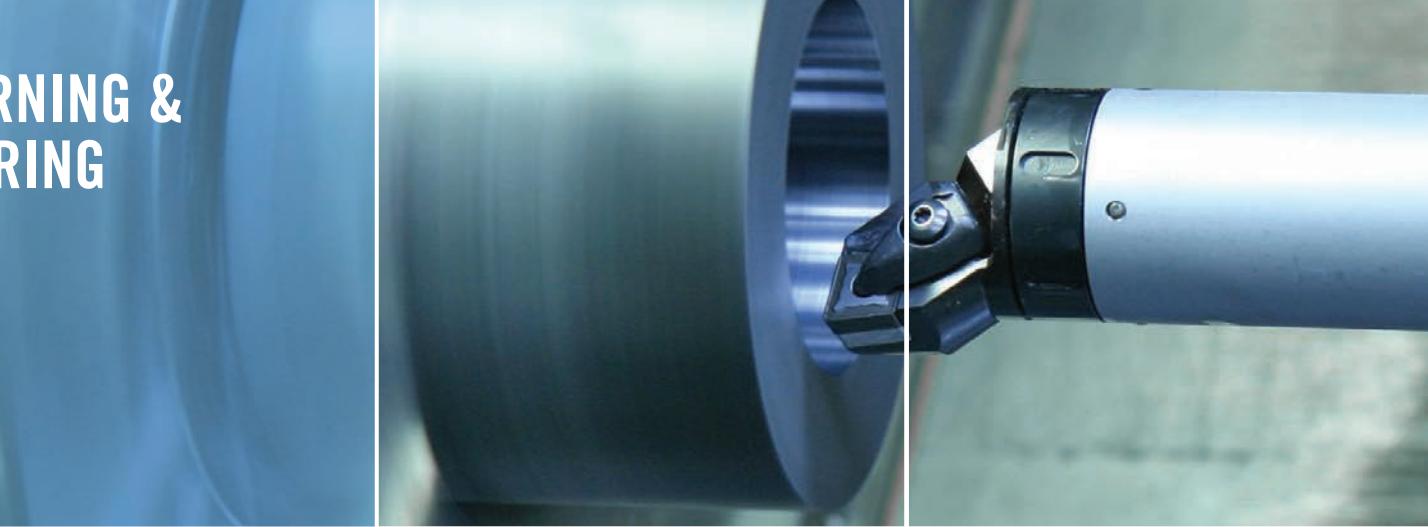
BA-to-GL adapters are available for bars $\phi 60$ mm, $\phi 80$ mm and $\phi 100$ mm, with two offset sizes: a short one for lower bore sizes, and a wider one to create additional space between the bar and the wall of the bore to evacuate the chips.

- Available in three sizes: $\phi 60$ mm, 80 mm and $\phi 100$ mm
- Each has two offset sizes for lower bore sizes and additional chip space
- Flexibility for chip space and minimum bore diameter
- Using existing GL50 turning heads for reduced tool inventory



BA connection for Steadyline® bars $\phi 60$, $\phi 80$, $\phi 100$ mm

TURNING & BORING

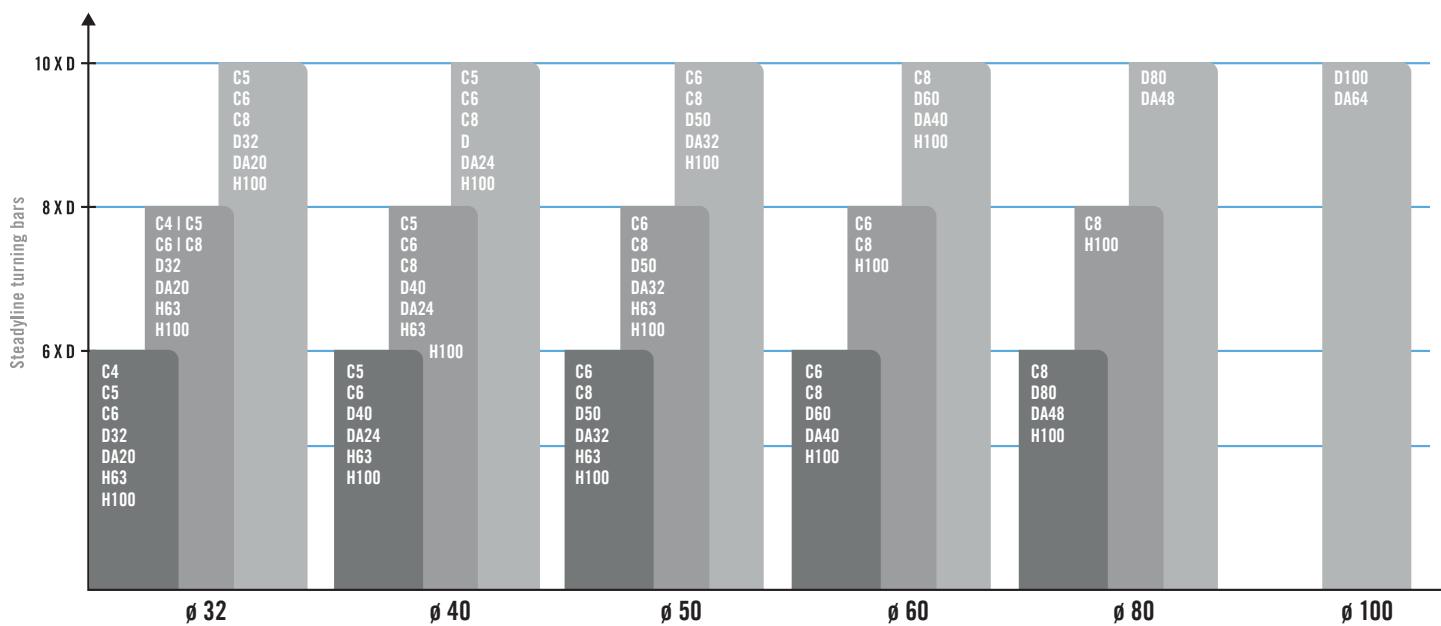


OPTIMISING YOUR RETURN ON INVESTMENT TURNING RANGE SELECTION

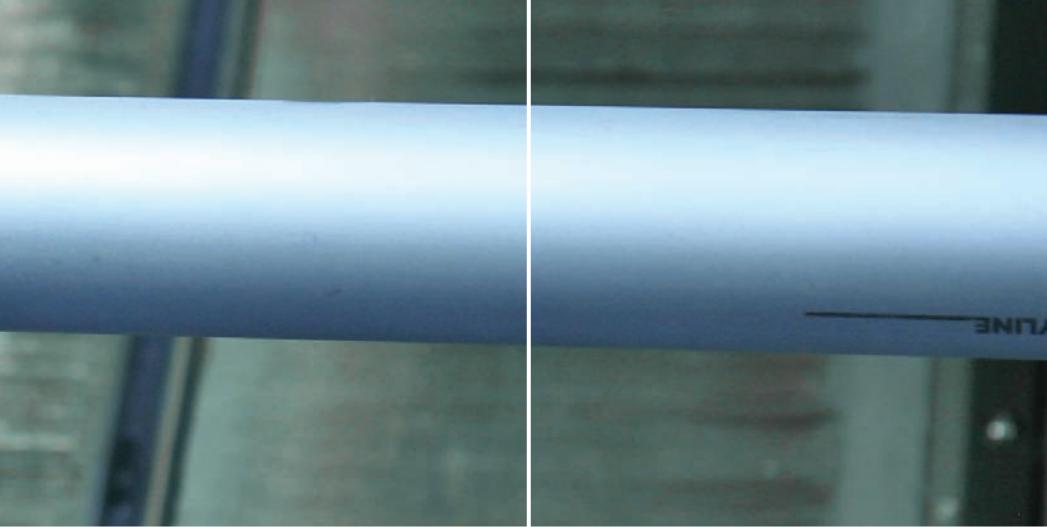
To achieve perfect application processes with Steadyline®, Seco® offers a wide range of inserts for turning, threading and grooving. Our inserts include adapted chip-breaker geometries and a selection of solid carbide grades and PCBN, ensuring a perfect match for every application. This versatility boosts productivity and allows manufacturers to adopt greater degrees of flexibility in their processes when machining materials ranging from aluminium to hardened steel.



RANGE SELECTION



D = Cylindrical, DA = Cylindrical inch, H = HSK



TURNING & BORING

MACHINE CLAMPING RECOMMENDATIONS

Our first recommendation for clamping the bars onto the machines is to use bars with Seco-Capto™ machine side connections.

Second choice is the bars with HSK-T/A machine side connections, as both these solutions provide several benefits:

- Maximum stability thanks to the taper-face system and higher bending resistance
- High positioning accuracy of cutting edge, etc.

While using the third choice, the cylindrical bars, Seco® strongly recommend to clamp on the marked cylindrical clamping area ensuring the full 4xD clamping lengths using split sleeves / boring holders.

While preparing your machine, ensure that your tool is correctly and safely clamped. Also note that it is important to never clamp directly onto the bar. For heavy, long bars used on machines with automatic tool changers, take the swining torque into consideration.

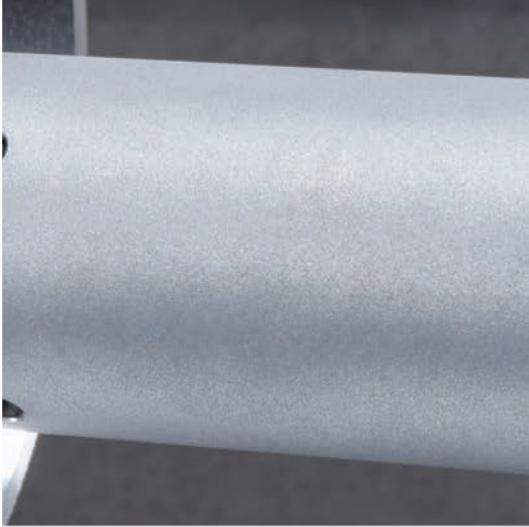


Seco-Capto™ clamping



Cylindrical clamping

CASE STUDIES TURNING



6xD - CASE 1

Operation:	Threading
Tooling:	C6-D40-208-GL40, GL40-CNR-27037-27AHD
Insert:	27NR5.5ISO, CP500
Coolant:	Internal
Material:	SS1672 - DIN: CK45

6xD - CASE 2

Operation:	Grooving + internal turning
Tooling:	C6-D32-160-GL32, GL32-CGHR-27032-1604JET
Insert:	LCMF1604M0-0400-MP, CP500
Coolant:	Internal

Results Reduction of number of passes

Results Process stability for 6 x D

8xD - CASE 1

Operation:	Roughing
Tooling:	C6-D50-368-GL450, GL50-DCLNR-32032-12
Insert:	CNMM120408-R4, TP2501
Coolant:	Internal
Material:	SS1672 - DIN: CK45

8xD - CASE 2

Operation:	Grooving + internal turning
Tooling:	C6-D32-224-GL32, GL32-CGHR-27032-1604JET
Insert:	LCMF1604M0-0400-MP, TGP25
Coolant:	Internal

Results Security for large cutting depths

Results Stability for 8 x D

10xD - CASE 1

Operation:	Roughing
Tooling:	C6-D50-468-GL50, GL50-DDUNR-32032-15
Insert:	DNMG150608-M5, TP2501
Coolant:	Internal
Material:	SS1672 - DIN: CK45

10xD - CASE 2

Operation:	Internal turning roughing
Tooling:	D60-541-BA060, BA060-05-27-GL50, GL50-DDUNR-32032-15
Insert:	DNMG150608-M3, TP1501
Coolant:	Internal

Results High chip removal rates for 10 x D

Results Process stability for 10 x D

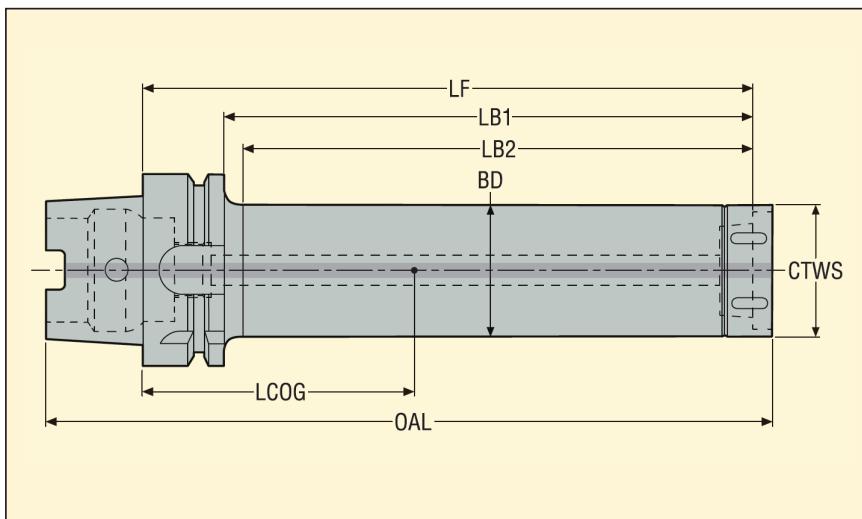




STEADYLINE® TURNING HSK

SECO EPB® GL – Steadyline®, GL holders, body diameters 32, 40, 50 mm

HSK-T/A



- With dynamic damping, ready to use
- With through coolant
- For GL turning and boring heads, see pages 20-45, 51, 53

Machine side Taper	Workpiece side GL size CTWS	Designation	Dimensions in mm						Max. RPM*	RFID hole	Balanc- cing	
			LF	LB1	LB2	BD	OAL	LCOG				
HSK-T/A 63	GL32	E9374-D32-160-GL32	160,0	118,0	112,0	32,0	197,4	58,9	10000	1	PB	1,60
	GL32	E9374-D32-224-GL32	224,0	182,0	176,0	32,0	261,4	90,2	8000	1	PB	2,00
	GL40	E9374-D40-208-GL40	208,0	166,0	160,0	40,0	246,4	92,8	8000	1	PB	2,70
	GL40	E9374-D40-288-GL40	288,0	246,0	240,0	40,0	326,4	134,4	6000	1	PB	3,50
	GL50	E9374-D50-268-GL50	268,0	226,0	224,5	50,0	307,4	131,8	6000	1	PB	4,80
	GL50	E9374-D50-368-GL50	368,0	326,0	324,5	50,0	407,4	184,8	4000	1	PB	6,40
HSK-T/A 100	GL32	E9376-D32-160-GL32	160,0	115,0	109,0	32,0	215,4	32,9	10000	1	PB	3,00
	GL32	E9376-D32-224-GL32	224,0	179,0	173,0	32,0	279,4	55,0	8000	1	PB	3,40
	GL32	E9376-D32-288-GL32	288,0	243,0	237,0	32,0	343,4	80,5	6000	1	PB	3,80
	GL40	E9376-D40-208-GL40	208,0	163,0	157,0	40,0	264,4	62,8	8000	1	PB	4,10
	GL40	E9376-D40-288-GL40	288,0	243,0	237,0	40,0	344,4	98,3	6000	1	PB	4,90
	GL40	E9376-D40-368-GL40	368,0	323,0	317,0	40,0	424,4	139,8	5000	1	PB	5,80
	GL50	E9376-D50-268-GL50	268,0	223,0	218,0	50,0	325,4	104,3	6000	1	PB	6,20
	GL50	E9376-D50-368-GL50	368,0	323,0	318,0	50,0	425,4	154,3	4000	1	PB	7,80
	GL50	E9376-D50-468-GL50	468,0	423,0	418,0	50,0	525,4	211,6	2500	1	PB	9,70

* Max. RPM only when used in rotating boring

Accessories to be ordered separately

For nut of GL bore size	Replaceable end	Torque key
GL32	SL00-32	SL00-32.250
GL40	SL00-40	SL00-40.350
GL50	SL00-50	SL00-50.550

Spare Parts included in delivery

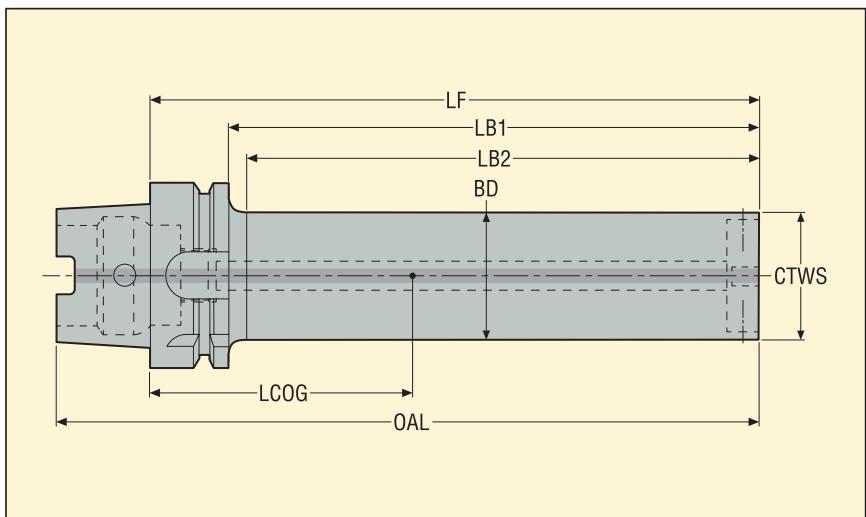
For nut of GL bore size	Locking key
GL32	SL32
GL40	SL40
GL50	SL50

Please check availability in current price and stock-list and on www.secotools.com

STEADYLINE® TURNING HSK

SECO EPB® BA – Steadyline®, BA holders, body diameters 60 and 80 mm

HSK-T/A



- With dynamic damping, ready to use
 - To hold BA to GL adapters with GL turning heads
 - With through coolant

* Max. RPM only when used in rotating boring (boring heads as custom made on request)

Accessories to be ordered separately

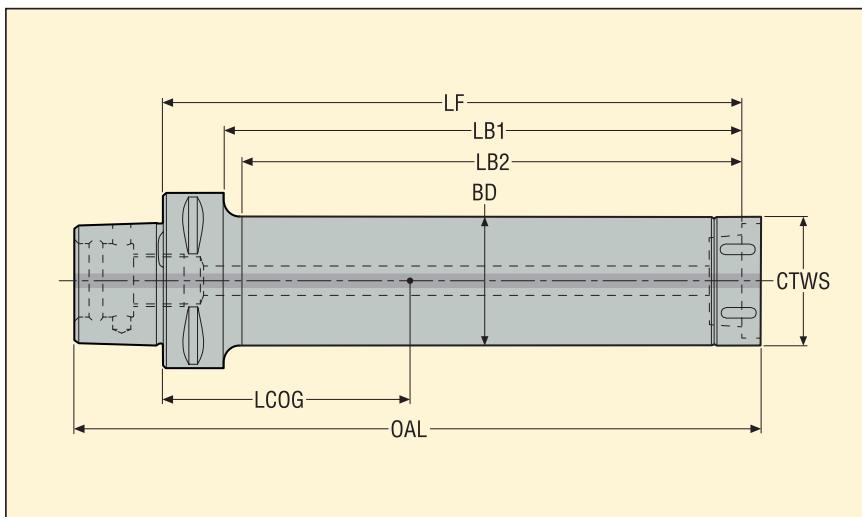
Spare Parts included in delivery

Please check availability in current price and stock-list and on www.secotools.com

STEADYLINE® TURNING CAPTO

SECO EPB® GL – Steadyline®, GL holders, body diameters 32, 40, 50 mm

Seco-Capto™



- With dynamic damping, ready to use
- With through coolant
- For GL turning and boring heads, see pages 20-45, 51, 53

Machine side Seco-Capto™ shank size	Workpiece side GL size CTWS	Designation	Dimensions in mm						Max. RPM*	RFID hole	Balancing	KG
			LF	LB1	LB2	BD	OAL	LCOG				
C4												
	GL32	C4-D32-160-GL32	160,0	137,0	134,0	32,0	189,4	74,7	10000	0	PB	1,20
C5	GL32	C4-D32-224-GL32	224,0	201,0	198,0	32,0	253,4	109,2	8000	0	PB	1,70
	GL32	C5-D32-160-GL32	160,0	137,0	133,0	32,0	195,4	65,2	10000	1	PB	1,40
	GL32	C5-D32-224-GL32	224,0	201,0	197,0	32,0	259,4	98,5	8000	1	PB	1,80
	GL32	C5-D32-288-GL32	288,0	265,0	261,0	32,0	323,4	133,6	6000	1	PB	2,20
	GL40	C5-D40-208-GL40	208,0	185,0	181,0	40,0	244,4	98,3	8000	1	PB	2,50
	GL40	C5-D40-288-GL40	288,0	265,0	261,0	40,0	324,4	140,9	6000	1	PB	3,30
C6	GL40	C5-D40-368-GL40	368,0	345,0	341,0	40,0	404,4	187,4	5000	1	PB	4,30
	GL32	C6-D32-160-GL32	160,0	135,0	129,0	32,0	203,4	52,1	10000	1	PB	1,80
	GL32	C6-D32-224-GL32	224,0	199,0	193,0	32,0	267,4	82,2	8000	1	PB	2,20
	GL32	C6-D32-288-GL32	288,0	263,0	257,0	32,0	331,4	114,9	6000	1	PB	2,60
	GL40	C6-D40-208-GL40	208,0	183,0	177,0	40,0	252,4	86,4	8000	1	PB	2,90
	GL40	C6-D40-288-GL40	288,0	263,0	257,0	40,0	332,4	127,5	6000	1	PB	3,70
	GL40	C6-D40-368-GL40	368,0	343,0	337,0	40,0	412,4	173,1	5000	1	PB	4,60
	GL50	C6-D50-268-GL50	268,0	243,0	238,0	50,0	313,4	126,6	6000	1	PB	5,00
	GL50	C6-D50-368-GL50	368,0	343,0	338,0	50,0	413,4	179,4	4000	1	PB	6,60
	GL50	C6-D50-468-GL50	468,0	443,0	438,0	50,0	513,4	238,5	2500	1	PB	8,50

* Max. RPM only when used in rotating boring

Accessories to be ordered separately

For nut of GL bore size	Replaceable end	Torque key
GL32	SL00-32	SL00-32.250
GL40	SL00-40	SL00-40.350
GL50	SL00-50	SL00-50.550

Spare Parts included in delivery

For nut of GL bore size	Locking key
GL32	SL32
GL40	SL40
GL50	SL50

Please check availability in current price and stock-list and on www.secotools.com

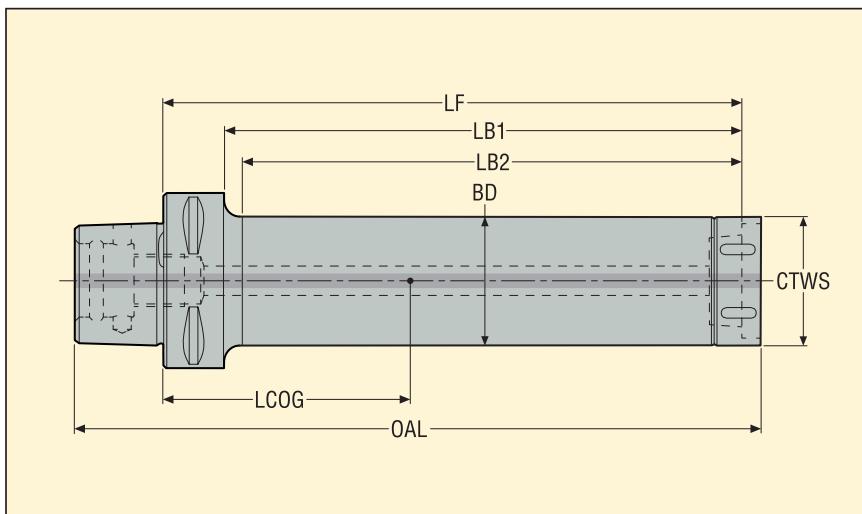
STEADYLINE® TURNING CAPTION

SECO EPB® GL – Steadyline®, GL holders, body diameters 32, 40, 50 mm

Seco-Capto™



- With dynamic damping, ready to use
 - With through coolant
 - For GL turning and boring heads, see pages 20-45, 51, 53



* Max. RPM only when used in rotating boring

Accessories to be ordered separately

Spare Parts included in delivery

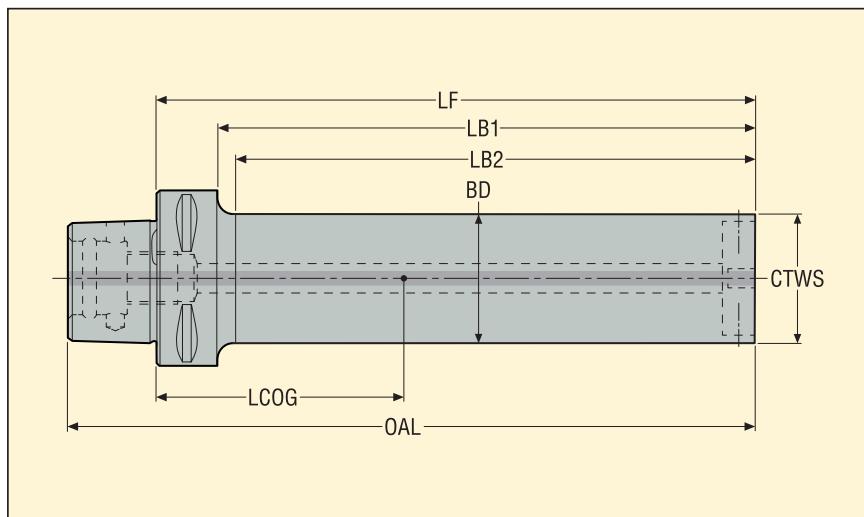
For nut of GL bore size	Locking key
	
GL32	SL32
GL40	SL40
GL50	SL50

Please check availability in current price and stock-list and on www.secotools.com

STEADYLINE® TURNING CAPTO

SECO EPB® BA – Steadyline®, BA holders, body diameters 60 and 80 mm

Seco-Capto™



- With dynamic damping, ready to use
- To hold BA to GL adapters with GL turning heads
- With through coolant

Machine side Seco-Capto™ shank size	Workpiece side BA size CTWS	Designation	Dimensions in mm						Max. RPM*	RFID hole	Balancing	
			LF	BD	LB1	LB2	OAL	LCOG				
C6												
	BA060	C6-D60-301-BA060	301,0	60,0	276,0	273,0	339,0	151,7	4000	1	PB	7,80
C8	BA060	C6-D60-421-BA060	421,0	60,0	396,0	393,0	459,0	218,6	3000	1	PB	10,60
	BA060	C8-D60-301-BA060	301,0	60,0	268,0	263,0	349,0	137,0	4000	1	PB	8,60
	BA060	C8-D60-421-BA060	421,0	60,0	388,0	383,0	469,0	202,5	3000	1	PB	11,40
	BA060	C8-D60-541-BA060	541,0	60,0	508,0	503,0	589,0	266,8	2000	1	PB	14,00
	BA080	C8-D80-421-BA080	421,0	80,0	388,0	383,0	469,0	213,9	3000	1	PB	18,80
	BA080	C8-D80-581-BA080	581,0	80,0	548,0	543,0	629,0	300,4	2000	1	PB	25,10

* Max. RPM only when used in rotating boring (boring heads as custom made on request)

Accessories to be ordered separately

For BA size	Locking key	
BA060	03H04	
BA080	03H05	

Spare Parts included in delivery

For	Locking screw	
BA060	90FQ4	
BA080	90FQ52	

Please check availability in current price and stock-list and on www.secotools.com

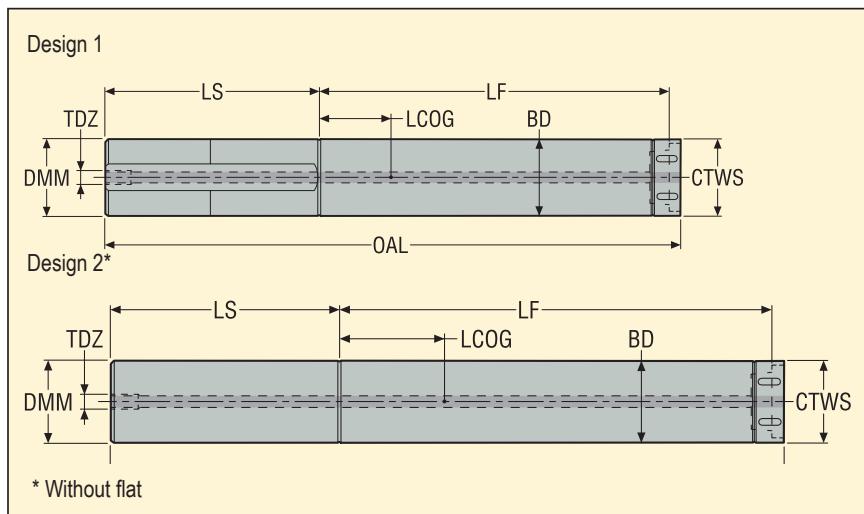
STEADYLINE® TURNING CYLINDRICAL

SECO EPB® GL – Steadyline®, GL holders, body diameters 32, 40, 50 mm

Cylindrical



- With dynamic damping, ready to use
- With through coolant channel and coolant supply connecting thread
- For GL turning and boring heads, see pages 20-45, 51, 53



Machine side DMM mm	Workpiece side GL size CTWS	Designation	Dimensions in mm					TDZ	Design	RFID hole	
			LS	LF	BD	OAL	LCOG				
32	GL32	D32-160-GL32	128,0	160,0	32,0	293,4	25,3	G 1/4	1	0	1,80
	GL32	D32-224-GL32	128,0	224,0	32,0	357,5	60,2	G 1/4	1	0	2,30
	GL32	D32-288-GL32	128,0	288,0	32,0	421,5	95,7	G 1/4	2	0	2,70
40	GL40	D40-208-GL40	160,0	208,0	40,0	374,5	35,6	G 1/4	1	0	3,80
	GL40	D40-288-GL40	160,0	288,0	40,0	454,5	78,3	G 1/4	1	0	4,60
	GL40	D40-368-GL40	160,0	368,0	40,0	534,5	124,3	G 1/4	2	0	5,50
50	GL50	D50-268-GL50	200,0	268,0	50,0	475,5	46,4	G 1/4	1	0	7,50
	GL50	D50-368-GL50	200,0	368,0	50,0	575,5	99,0	G 1/4	1	0	9,10
	GL50	D50-468-GL50	200,0	468,0	50,0	675,5	158,1	G 1/4	2	0	11,00

* Max. RPM only when used in rotating boring

Accessories to be ordered separately

For nut of GL bore size	Replaceable end	Torque key
GL32	SL00-32	SL00-32.250
GL40	SL00-40	SL00-40.350
GL50	SL00-50	SL00-50.550

Spare Parts included in delivery

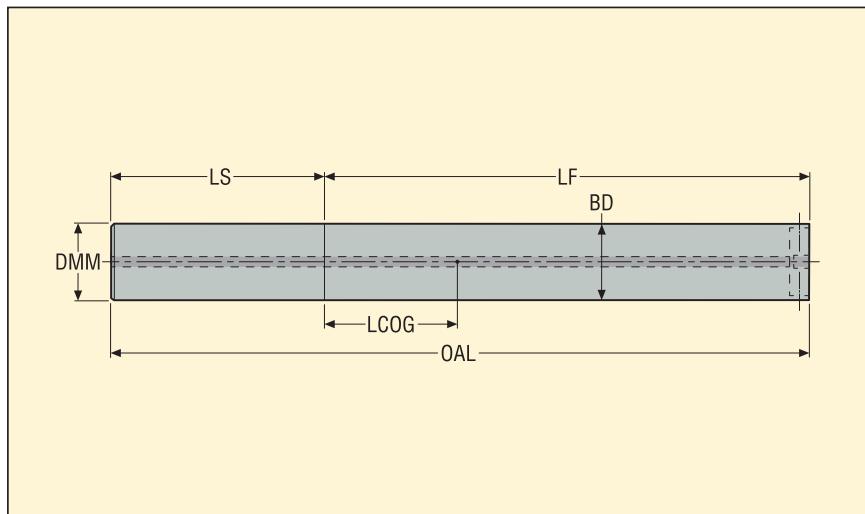
For nut of GL bore size	Locking key
GL32	SL32
GL40	SL40
GL50	SL50

Please check availability in current price and stock-list and on www.secotools.com

STEADYLINE® TURNING CYLINDRICAL

SECO EPB® BA – Steadyline®, BA holders, body diameters 60, 80 and 100 mm

Cylindrical



- With dynamic damping, ready to use
- To hold BA to GL adapters with GL turning heads
- With through coolant

Machine side DMM mm	Workpiece side BA size	Designation	Dimensions in mm					RFID hole	
			LF	BD	LS	OAL	LCOG		
60	BA060	D60-301-BA060	301,0	60,0	240,0	541,0	50,1	0	12,50
	BA060	D60-541-BA060	541,0	60,0	240,0	781,0	179,1	0	18,10
80	BA080	D80-421-BA080	421,0	80,0	320,0	741,0	71,0	0	30,20
	BA080	D80-741-BA080	741,0	80,0	320,0	1061,0	241,6	0	43,40
100	BA100	D100-939-BA100	939,0	100,0	500,0	1439,0	271,9	0	84,66

Accessories to be ordered separately

For BA size	Locking key
BA060	03H04
BA080	03H05
BA100	03H06

Spare Parts included in delivery

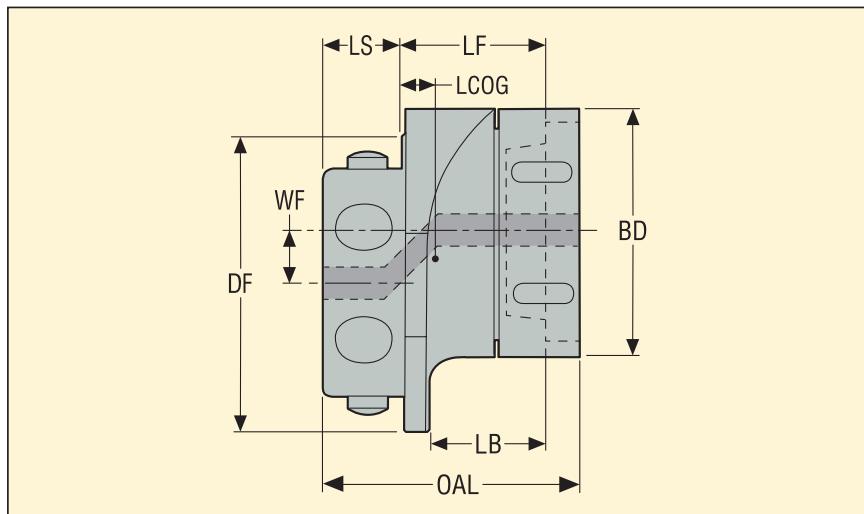
For	Locking screw
BA060	
BA080	90FQ4
BA100	90FQ52
	90FQ6

Please check availability in current price and stock-list and on www.secotools.com

STEADYLINE® TURNING CYLINDRICAL

SECO EPB® BA – BA to GL adapters

Cylindrical



- To hold GL50 turning heads on Steadyline® BA holders
- Each adapter size available with 2 radial offset sizes WF
- With through coolant

Machine side	Workpiece side	Designation	Dimensions in mm								RFID hole	
			WF	LF	DF	BD	LB	LS	OAL	LCOG		
BA060												
	GL50	BA060-05-27-GL50	5,0	27,0	60,0	50,0	21,5	16,0	50,4	5,8	0	0,60
BA080	GL50	BA080-10-27-GL50	10,0	27,0	60,0	50,0	21,5	16,0	50,4	5,8	0	1,00
	GL50	BA080-15-27-GL50	15,0	27,0	80,0	50,0	21,5	22,0	56,4	1,4	0	0,90
BA100	GL50	BA080-23-27-GL50	23,0	27,0	80,0	50,0	21,5	22,0	56,4	1,4	0	0,90
	GL50	BA100-28-29-GL50	28,0	29,0	100,0	50,0	21,5	25,0	61,4	1,4	0	1,5
	GL50	BA100-38-29-GL50	38,0	29,0	100,0	50,0	21,5	25,0	61,4	1,0	0	1,5

Accessories to be ordered separately

For GL size	Replaceable end	Torque key
GL50	SL00-50	SL00-50.550

Spare Parts included in delivery

For	Locking key
GL50	SL50

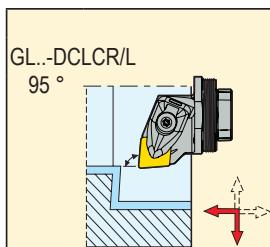
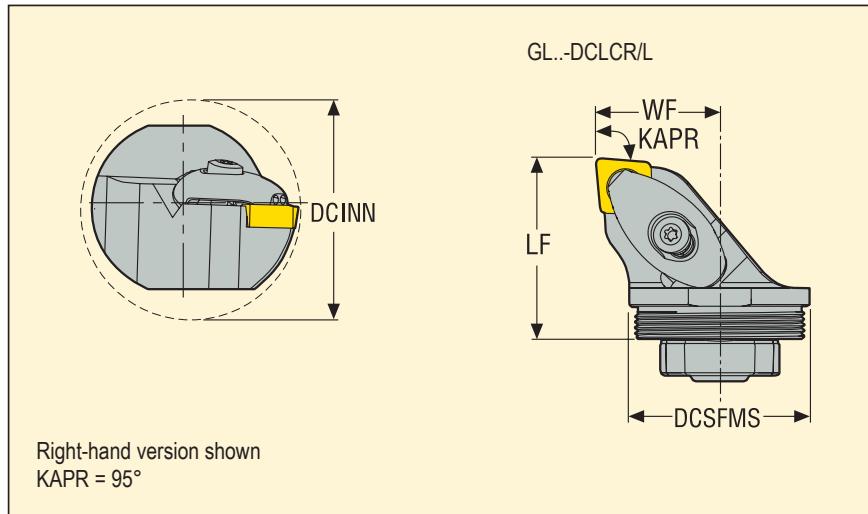
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE® , GL-HEADS, INTERNAL JETSTREAM TOOLING®

Toolholders for inserts CCGT, CCGW, CCMT and CCMW



- For inserts programme, see Turning Catalog pages 398, 452, 480-481
 - GAMO° = Rake angle, LAMS° = Inclination angle
 - For holder code key, see pages 13-14
 - For coolant clamps code key, see page 22



Spare Parts included in delivery

Accessories to be
ordered separately

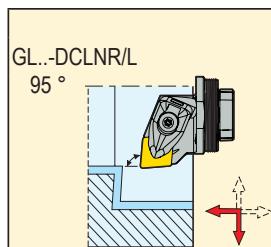
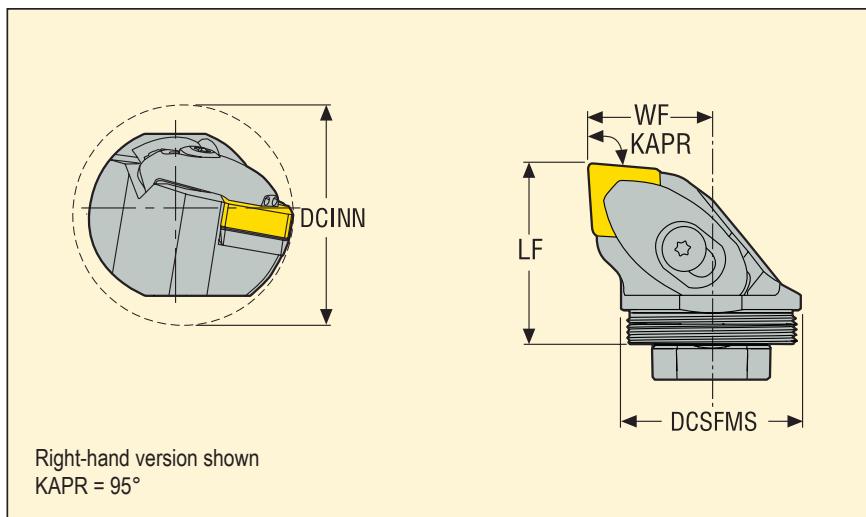
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE® , GL-HEADS, INTERNAL JETSTREAM TOOLING®

Toolholders for inserts CNGG, CNMA, CNMG and CNMM



- For inserts programme, see Turning Catalog pages 399-406, 453-454, 480-481
 - GAMO° = Rake angle, LAMS° = Inclination angle
 - For holder code key, see page(s) 13-14
 - For coolant clamps code key, see page 22



Spare Parts included in delivery

Accessories to be
ordered separately

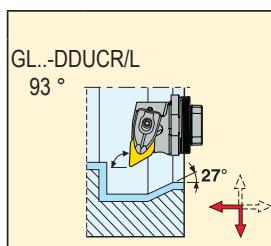
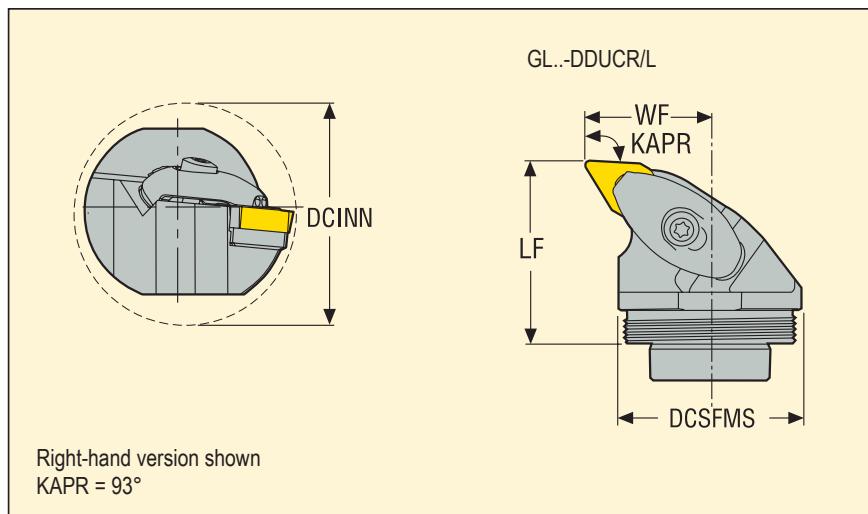
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE® , GL-HEADS, INTERNAL JETSTREAM TOOLING®

Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX



- For inserts programme, see Turning Catalog pages 407-410, 455, 482
 - GAMO° = Rake angle, LAMS° = Inclination angle
 - For holder code key, see pages 13-14
 - For coolant clamps code key, see page 22



Spare Parts included in delivery

Accessories to be
ordered separately

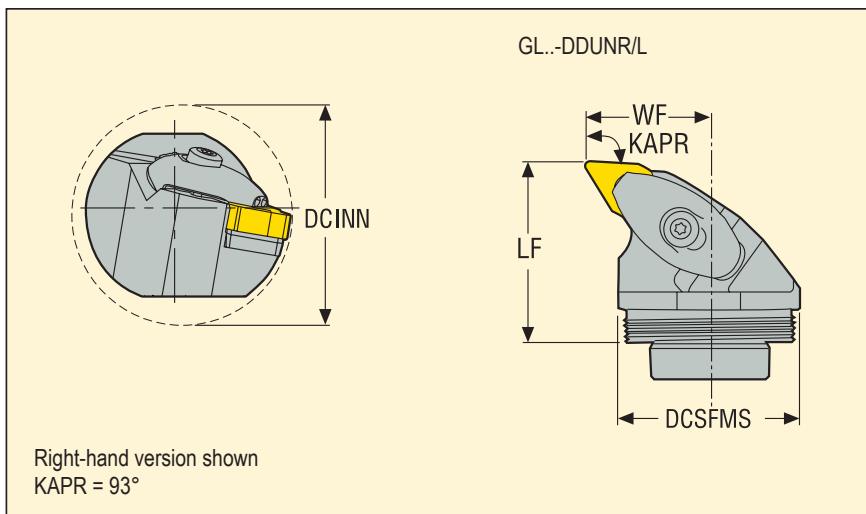
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE®, GL-HEADS, INTERNAL JETSTREAM TOOLING®

Toolholders for inserts DNGG, DNGN, DNMA, DNMG, DNMM, DNMU and DNMX



- For inserts programme, see Turning Catalog pages 410-416, 456-457
 - GAMO° = Rake angle, LAMS° = Inclination angle
 - For holder code key, see pages 13-14
 - For coolant clamps code key, see page 22



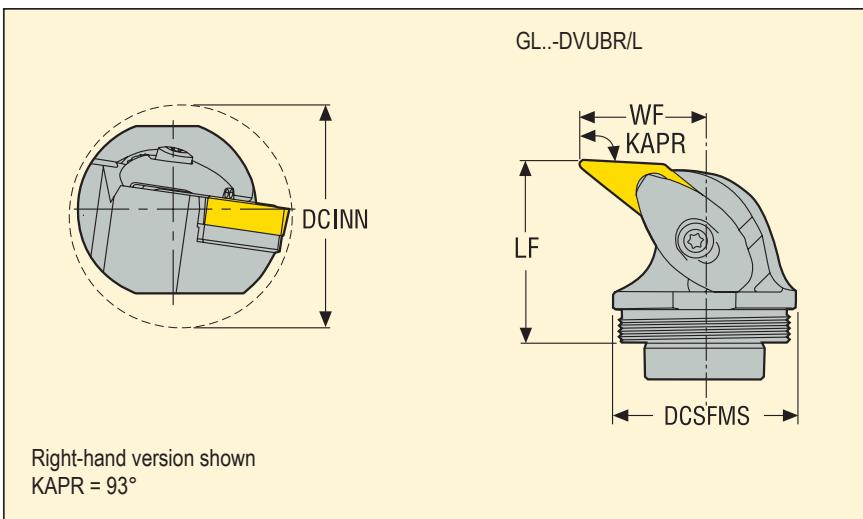
Spare Parts included in delivery

Accessories to be
ordered separately

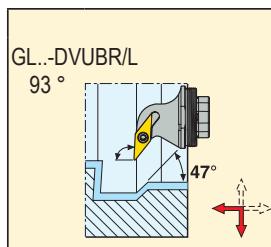
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE®, GL-HEADS, INTERNAL JETSTREAM TOOLING®

Toolholders for inserts VBGT, VBGW, VBMT and VBMW



- For inserts programme, see Turning Catalog pages 441-443, 475, 484
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see pages 13-14
- For coolant clamps code key, see page 22



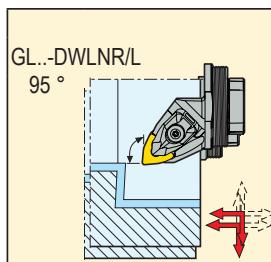
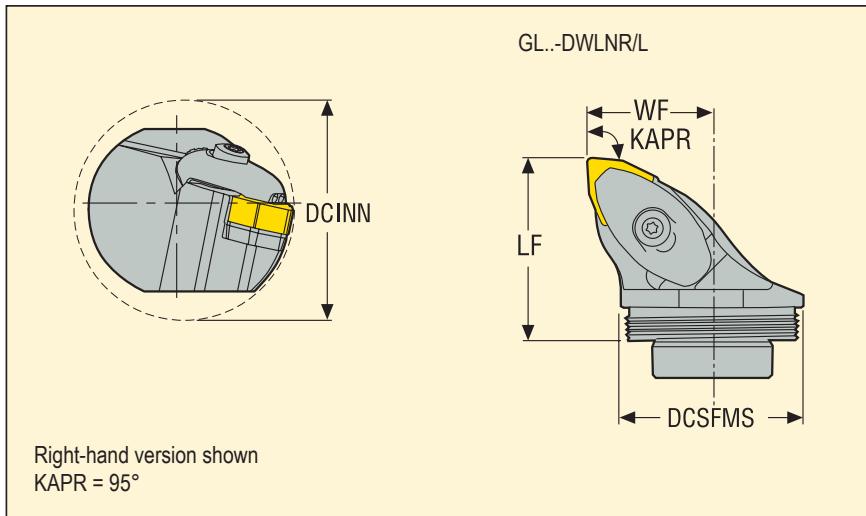
Size		Designation	Dimensions in mm				GAMO°	LAMS°			
			DCSFMS	LF	WF	DCINN					
GL32		GL32-DVUBR-22032-16JET	32	32	22	40	0	-8	0,2	VB..1604..	
		GL32-DVUBL-22032-16JET	32	32	22	40	0	-8	0,2	VB..1604..	
GL40		GL40-DVUBR-27032-16JET	40	32	27	50	0	-3	0,2	VB..1604..	
		GL40-DVUBL-27032-16JET	40	32	27	50	0	-3	0,2	VB..1604..	
GL50		GL50-DVUBR-32032-16JET	50	32	32	63	0	-3	0,3	VB..1604..	
		GL50-DVUBL-32032-16JET	50	32	32	63	0	-3	0,3	VB..1604..	

TURNING – STEADYLINE® , GL-HEADS, INTERNAL JETSTREAM TOOLING®

Toolholders for inserts WNMG, WNMA, WNMG and WNMM



- For inserts programme, see Turning Catalog pages 447-451, 478
 - GAMO° = Rake angle, LAMS° = Inclination angle
 - For holder code key, see pages 13-14
 - For coolant clamps code key, see page 22



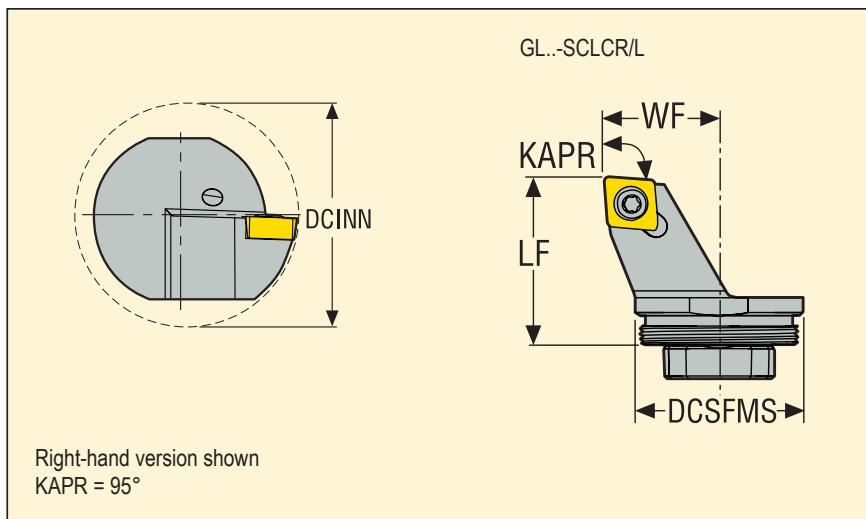
Spare Parts included in delivery

Accessories to be
ordered separately

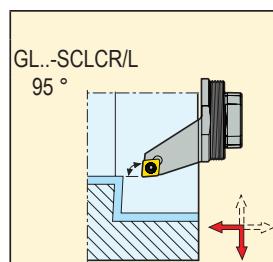
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE®, GL-HEADS, INTERNAL

Toolholders for inserts CCGT, CCGW, CCGX and CCMT



- For inserts programme, see Turning Catalog pages 398, 452, 480-481
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see pages 13-14



Size		Designation	Dimensions in mm				GAMO°	LAMS°		KG
			DCSFMS	LF	WF	DCINN				
GL32	06	GL32-SCLCR-22032-06	32	32	22,0	40	0	-2	0,1	CC..0602..
		GL32-SCLCL-22032-06	32	32	22,0	40	0	-2	0,1	CC..0602..
	09	GL32-SCLCR-22032-09	32	32	22,0	40	0	-2	0,1	CC..09T3..
		GL32-SCLCL-22032-09	32	32	22,0	40	0	-2	0,1	CC..09T3..
	12	GL32-SCLCR-22032-12	32	32	22,0	40	0	-8	0,1	CC..1204..
		GL32-SCLCL-22032-12	32	32	22,0	40	0	-8	0,1	CC..1204..
GL40	06	GL40-SCLCR-27032-06	40	32	27,0	50	0	-2	0,2	CC..0602..
		GL40-SCLCL-27032-06	40	32	27,0	50	0	-2	0,2	CC..0602..
	09	GL40-SCLCR-27032-09	40	32	27,0	50	0	-2	0,2	CC..09T3..
		GL40-SCLCL-27032-09	40	32	27,0	50	0	-2	0,2	CC..09T3..
	12	GL40-SCLCR-27032-12	40	32	27,0	50	0	-8	0,2	CC..1204..
		GL40-SCLCL-27032-12	40	32	27,0	50	0	-8	0,2	CC..1204..
GL50	06	GL50-SCLCR-32032-06	50	32	32,0	63	0	-2	0,3	CC..0602..
		GL50-SCLCL-32032-06	50	32	32,0	63	0	-2	0,3	CC..0602..
	09	GL50-SCLCR-32032-09	50	32	32,0	63	0	-2	0,3	CC..09T3..
		GL50-SCLCL-32032-09	50	32	32,0	63	0	-2	0,3	CC..09T3..
	12	GL50-SCLCR-32032-12	50	32	32,0	63	0	-5	0,3	CC..1204..
		GL50-SCLCL-32032-12	50	32	32,0	63	0	-5	0,3	CC..1204..

Spare Parts included in delivery

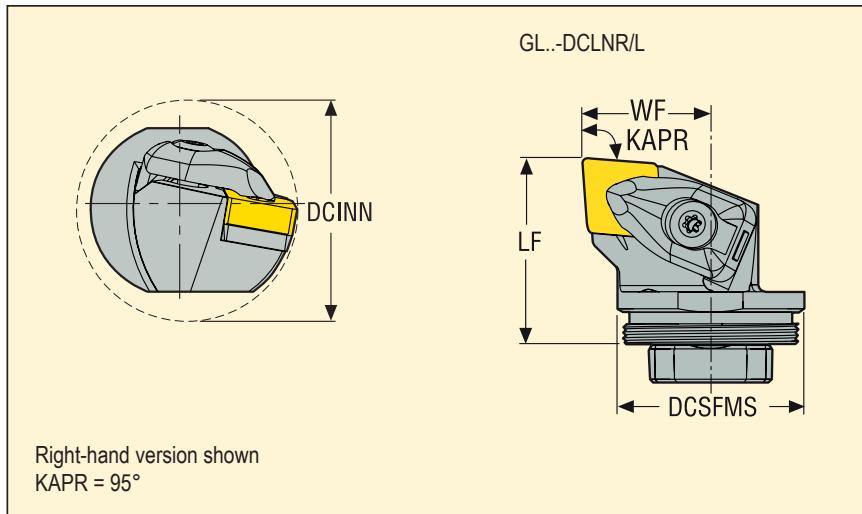
For GL size	Insert key	Insert screw	Insert shim	Shim screw	Shim key
..06	T07P-2	C02506-T07P	-	-	-
..09	T15P-2	C04008-T15P	-	-	-
..12	T15P-2	C05012-T15P	123.19-621	CA5008	5SMS795

Accessories to be ordered separately

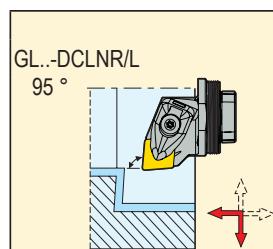
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE®, GL-HEADS, INTERNAL

Toolholders for inserts CNGG, CNMA, CNMG and CNMM



- For inserts programme, see Turning Catalog pages 399-406, 453-454, 480-481
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see pages 13-14



Size		Designation	Dimensions in mm				GAMO°	LAMS°		
			DCSFMS	LF	WF	DCINN				
GL32	12	GL32-DCLNR-22032-12	32	32	22,0	40	-6	-10	0,2	CN..1204..
		GL32-DCLNL-22032-12	32	32	22,0	40	-6	-10	0,2	CN..1204..
GL40	12	GL40-DCLNR-27032-12	40	32	27,0	50	-6	-10	0,2	CN..1204..
		GL40-DCLNL-27032-12	40	32	27,0	50	-6	-10	0,2	CN..1204..
GL50	12	GL50-DCLNR-32032-12	50	32	32,0	63	-6	-8	0,3	CN..1204..
		GL50-DCLNL-32032-12	50	32	32,0	63	-6	-8	0,3	CN..1204..
	16	GL50-DCLNR-32037-16	50	37	32,0	63	-5	-14	0,4	CN..1606..
		GL50-DCLNL-32037-16	50	37	32,0	63	-5	-14	0,4	CN..1606..
	19	GL50-DCLNR-32040-19	50	40	32,0	63	-5	-14	0,4	CN..1906..
		GL50-DCLNL-32040-19	50	40	32,0	63	-5	-14	0,4	CN..1906..

Spare Parts included in delivery

For GL size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
..-12	FP2012	L85021-T15P	CD12-S	DCO120310	T15P-7	C04008-T15P	S6912	
..-16	FP2012	L86026-T20P	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010	
..-19	FP2012	L86026-T20P	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010	

Please check availability in current price and stock-list and on www.secotools.com

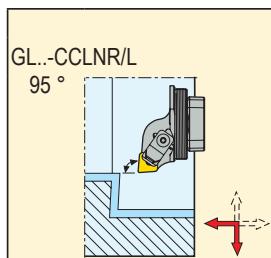
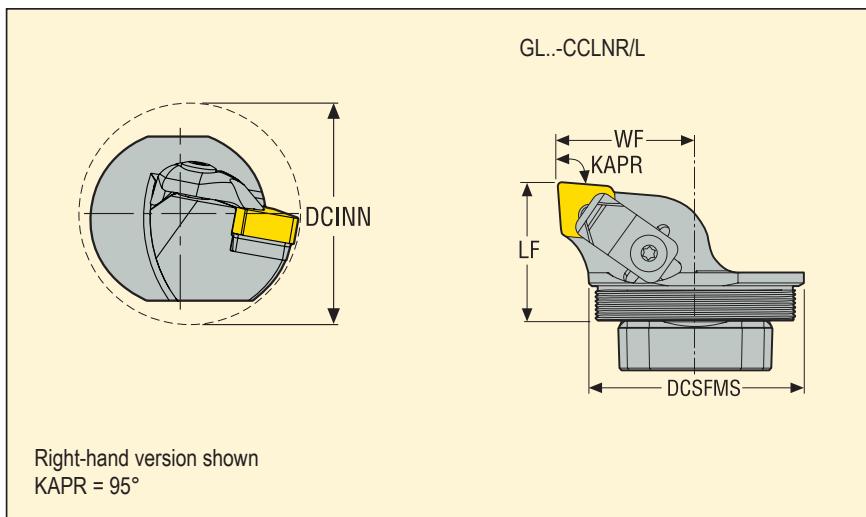
Accessories to be ordered separately

TURNING – STEADYLINE®, GL-HEADS, INTERNAL

Toolholders for PCBN inserts CNMN



- For inserts programme, see Turning Catalog page 454
 - GAMO° = Rake angle, LAMS° = Inclination angle
 - For holder code key, see pages 13-14



Spare Parts included in delivery

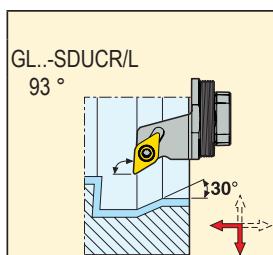
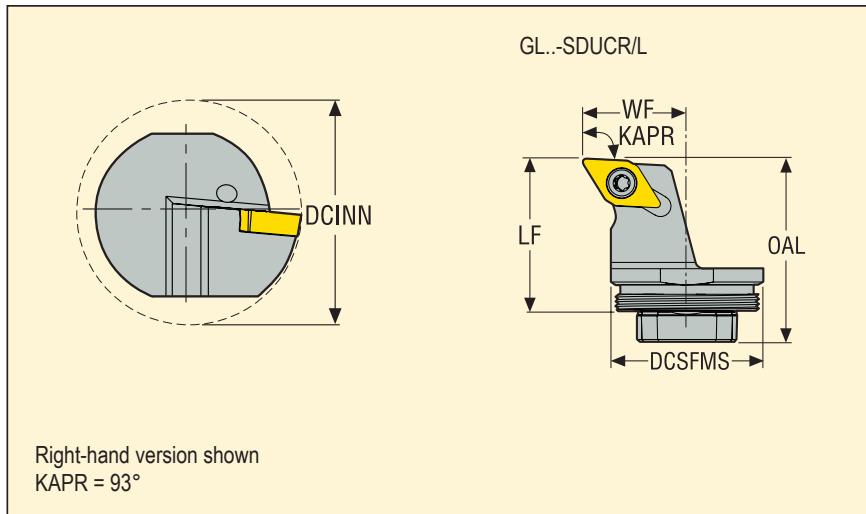
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE®, GL-HEADS, INTERNAL

Toolholders for inserts DCGT, DCGW, DCMT and DCMX



- For inserts programme, see Turning Catalog pages 407-410, 455, 482
 - GAMO° = Rake angle, LAMS° = Inclination angle
 - For holder code key, see pages 13-14



Spare Parts included in delivery

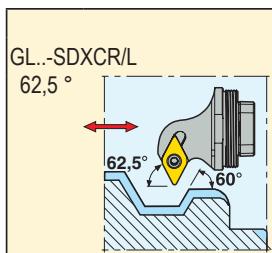
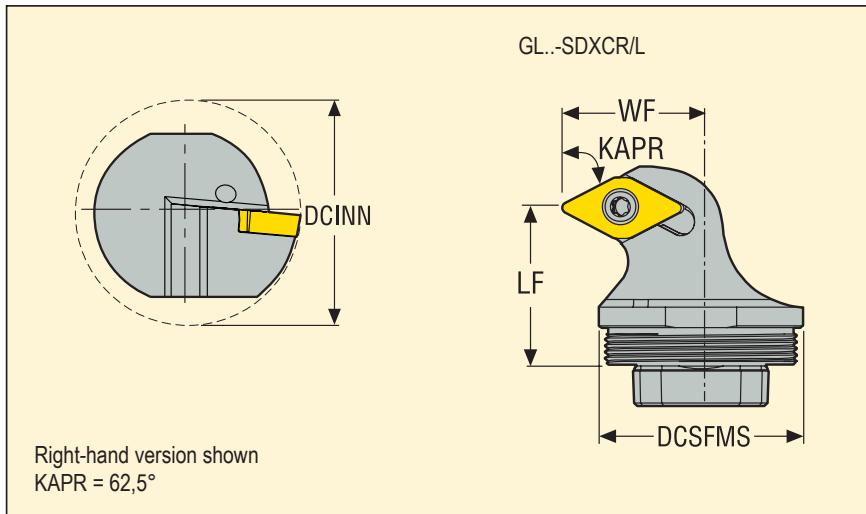
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE®, GL-HEADS, INTERNAL

Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX



- For inserts programme, see Turning Catalog pages 407-410, 455, 482
 - GAMO° = Rake angle, LAMS° = Inclination angle
 - For holder code key, see pages 13-14



Spare Parts included in delivery

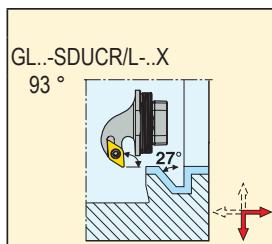
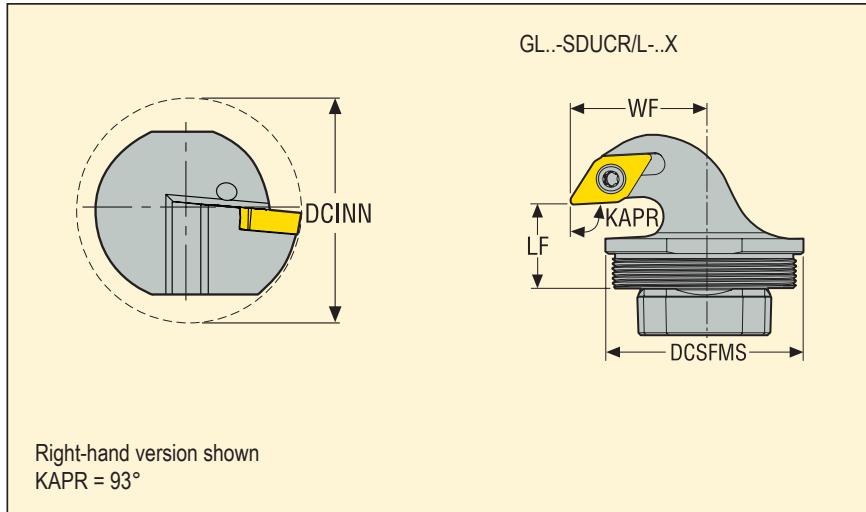
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE®, GL-HEADS, INTERNAL

Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX



- For inserts programme, see Turning Catalog pages 407-410, 455, 482
 - GAMO° = Rake angle, LAMS° = Inclination angle
 - For holder code key, see pages 13-14



Spare Parts included in delivery

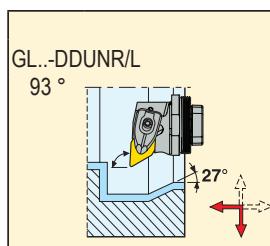
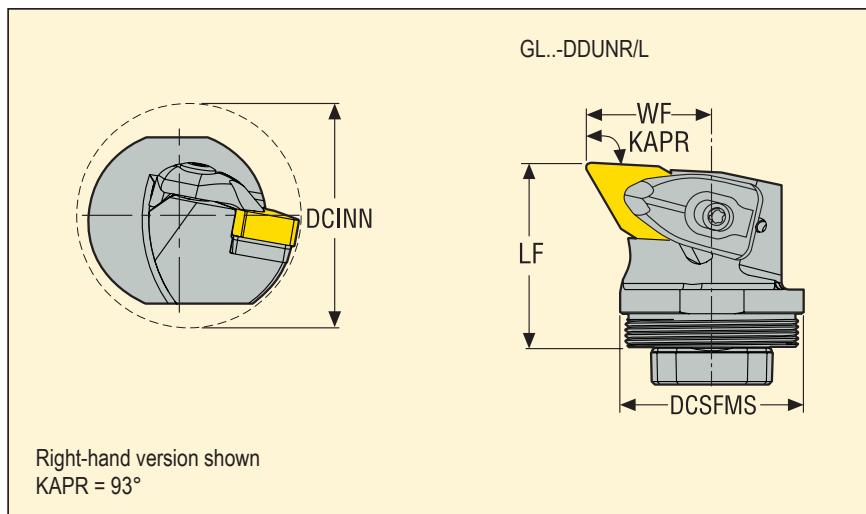
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE® , GL-HEADS, INTERNAL

Toolholders for PCBN inserts DNGA, DNGN, DNMA, DNMM



- For inserts programme, see Turning Catalog pages 410-416, 456-457
 - GAMO° = Rake angle, LAMS° = Inclination angle
 - For holder code key, see pages 13-14



Spare Parts included in delivery

Accessories to be
ordered separately

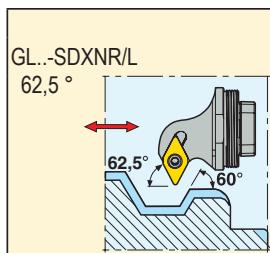
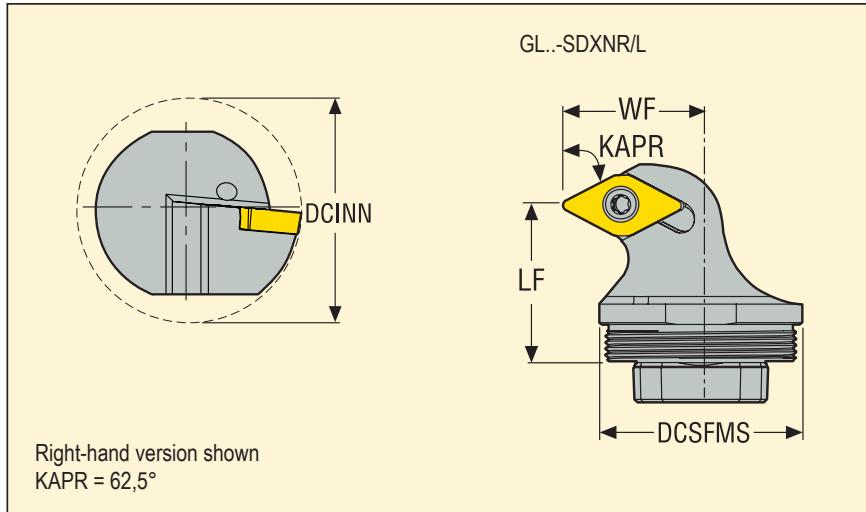
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE®, GL-HEADS, INTERNAL

Toolholders for inserts DNMA, DNMU and DNMX



- For inserts programme, see Turning Catalog pages 415-416, 457
 - GAMO° = Rake angle, LAMS° = Inclination angle
 - For holder code key, see pages 13-14

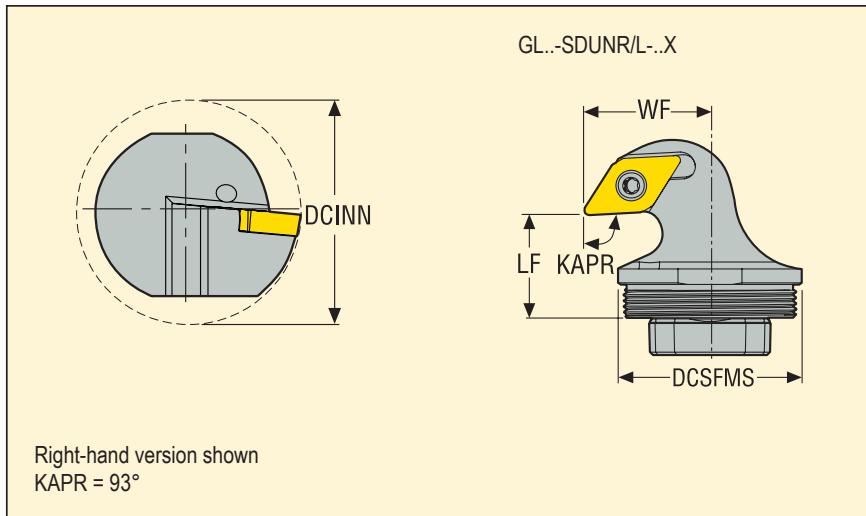


Spare Parts included in delivery

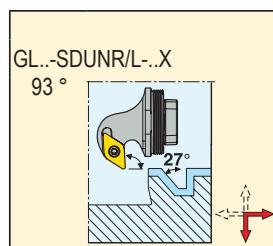
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE®, GL-HEADS, INTERNAL

Toolholders for inserts DNMU and DNMX



- For inserts programme, see Turning Catalog pages 415-416, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see pages 13-14



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL32	11	GL32-SDUNR-22018-11X	32	18	21,9	40	0	-10	0,2	DN..1104..
		GL32-SDUNL-22018-11X	32	18	21,9	40	0	-10	0,2	DN..1104..

Spare Parts included in delivery

For GL size	Insert screw	Key
..-11	C03511-T09P	T09P-2

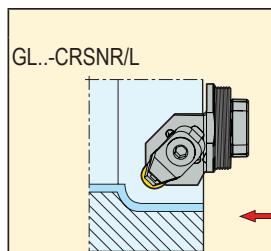
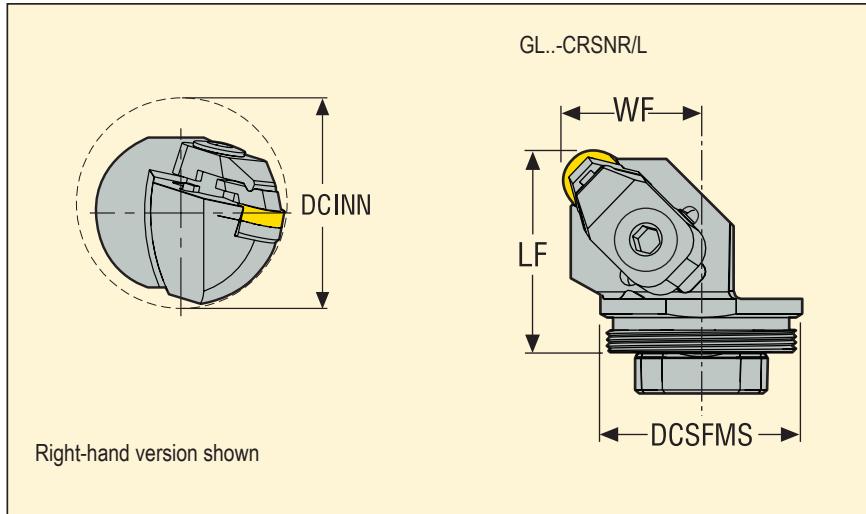
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE®, GL-HEADS, INTERNAL

Toolholders for PCBN inserts RNGN-LF, RNGN and RNMN



- For inserts programme, see Turning Catalog pages 459-461, 482-483
 - GAMO° = Rake angle, LAMS° = Inclination angle
 - For holder code key, see page 13-14



Spare Parts included in delivery

Accessories to be
ordered separately

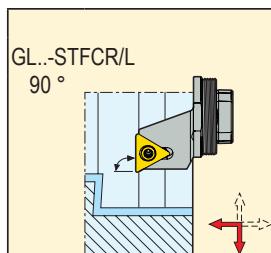
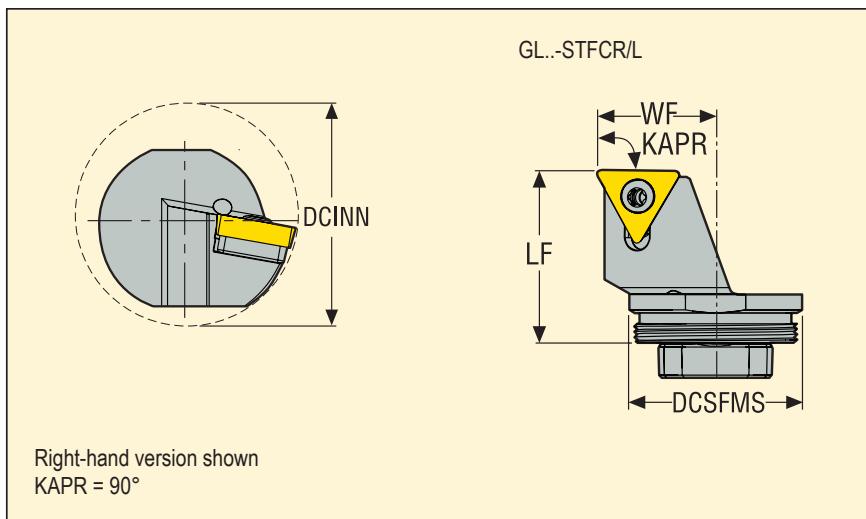
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE®, GL-HEADS, INTERNAL

Toolholders for inserts TCGT, TCGX, TCMT, TCMW and TCMX



- For inserts programme, see Turning Catalog pages 431-434, 483
 - GAMO° = Rake angle, LAMS° = Inclination angle
 - For holder code key, see pages 13-14



Spare Parts included in delivery

Accessories to be
ordered separately

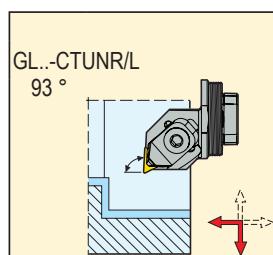
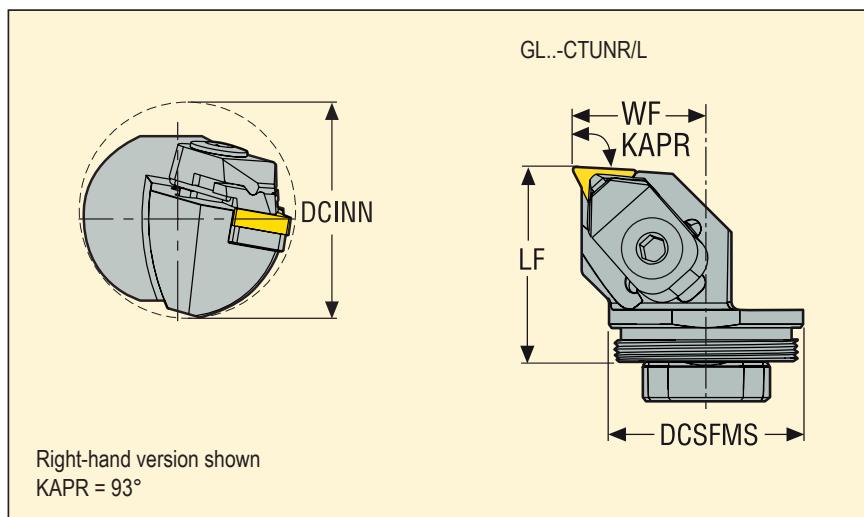
Please check availability in current price and stock-list and on www.secotools.com

TURNING – STEADYLINE®, GL-HEADS, INTERNAL

Toolholders for PCBN inserts TNGN-LF, TNGN, TNGX, TNMN and TNMX



- For inserts programme, see Turning Catalog pages 470-474
 - GAMO° = Rake angle, LAMS° = Inclination angle
 - For holder code key, see pages 13-14



Spare Parts included in delivery

Accessories to be
ordered separately

Please check availability in current price and stock-list and on www.secotools.com

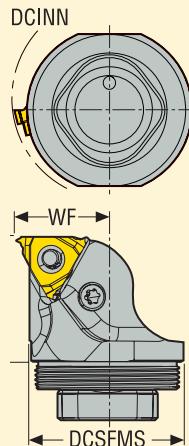
THREAD TURNING – STEADYLINE®, GL-HEADS, INTERNAL JETSTREAM TOOLING®

Toolholders for S-inserts

Snap-Tap®



- For inserts programme, see Threading Catalog pages 85, 87, 90-91, 94-95, 98-99, 101-103, 105, 107, 109, 113



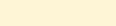
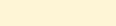
Right-hand version shown

Application	Designation	Dimensions in mm					
		DCSFMS	LF	WF	DCINN		
	GL32-PNR-20032-16AHDJET	32,0	32,0	19,8	40,0	0,2	16
	GL32-PNL-20032-16AHDJET	32,0	32,0	19,8	40,0	0,2	16
	GL40-PNR-24032-16AHDJET	40,0	32,0	23,8	50,0	0,2	16
	GL40-PNL-24032-16AHDJET	40,0	32,0	23,8	50,0	0,2	16
	GL50-PNR-29032-16AHDJET	50,0	32,0	28,8	60,0	0,3	16
	GL50-PNL-29032-16AHDJET	50,0	32,0	28,8	60,0	0,3	16

Spare Parts included in delivery

For holder	Insert lever	Insert shim (S)	Lever screw	Locking key	Shim pin
					
..16..	PP3712	GXA16-1	LS0612-T15P	T15P-7	AC4625

Accessories to be ordered separately

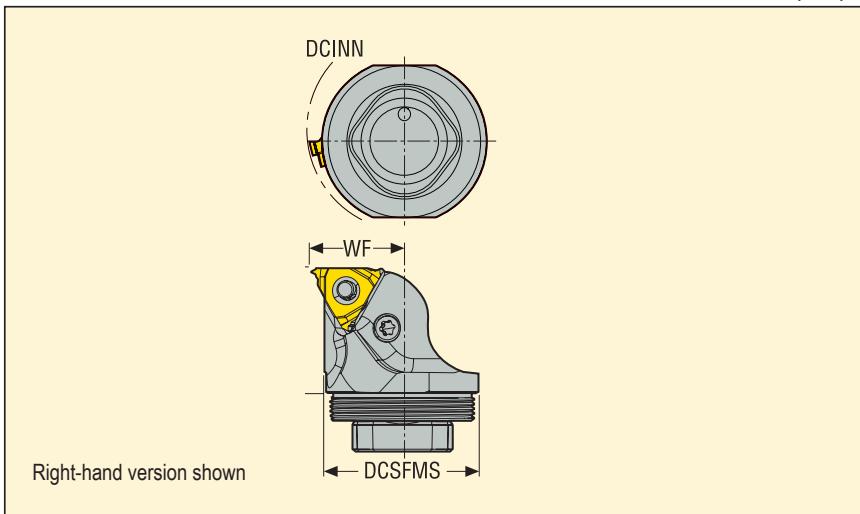
For holder	Insert shim (M) 	Insert shim (S) 
..16..	MXA16-1	GXA16-0
		GXA16-1
		GXA16-2
		GXA16-3
		GXA16-4
		GXA16-98
		GXA16-99

Please check availability in current price and stock-list and on www.secotools.com

THREAD TURNING – STEADYLINE®, GL-HEADS, INTERNAL JETSTREAM TOOLING®

Toolholders for S-inserts

Snap-Tap®



- For inserts programme, see Threading Catalog pages 85, 87, 90-91, 94-95, 98, 101, 103, 105, 107, 109-110, 111-115

Application	Designation	Dimensions in mm					
		DCSFMS	LF	WF	DCINN		
	GL32-PNR-22032-22AHDJET	32,0	32,0	21,3	40,0	0,2	22
	GL32-PNL-22032-22AHDJET	32,0	32,0	21,3	40,0	0,2	22
	GL40-PNR-26032-22AHDJET	40,0	32,0	25,3	50,0	0,3	22
	GL40-PNL-26032-22AHDJET	40,0	32,0	25,3	50,0	0,3	22
	GL50-PNR-31032-22AHDJET	50,0	32,0	30,3	60,0	0,4	22
	GL50-PNL-31032-22AHDJET	50,0	32,0	30,3	60,0	0,4	22
	GL40-PNR-27037-27AHDJET	40,0	37,0	26,8	50,0	0,3	27
	GL50-PNR-32037-27AHDJET	50,0	37,0	31,8	60,0	0,4	27

Spare Parts included in delivery

For holder	Insert lever	Insert shim (S)	Lever screw	Locking key	Shim pin
.22A..	PP4816	NXA22-1	LS0815-T25P	T25P-7	AC5035
.27A..	PP6019	VXA27-1	LS0820-T25P	T25P-7	AC6050

Accessories to be ordered separately

For holder	Insert shim (M)	Insert shim (S)											
.22A..	MXA22-1	NXA22-0	NXA22-0.5	NXA22-1	NXA22-1.5	NXA22-2	NXA22-3	NXA22-4	NXA22-97.5	NXA22-98	NXA22-98.5	NXA22-99	NXA22-99.5
.27A..	MXA27-1	VXA27-0	VXA27-0.5	VXA27-1	VXA27-1.5	VXA27-2	VXA27-3	VXA27-4	-	VXA27-98	VXA27-98.5	VXA27-99	VXA27-99.5

Please check availability in current price and stock-list and on www.secotools.com

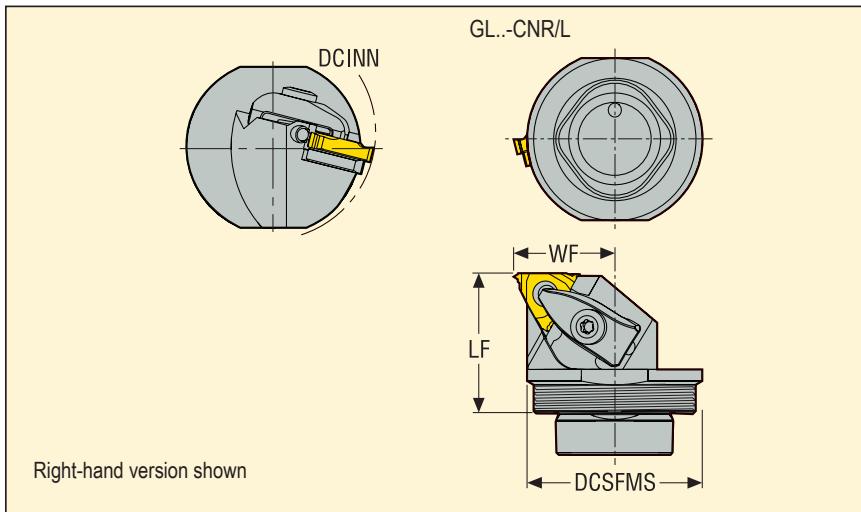
THREAD TURNING – STEADYLINE® , GL-HEADS, INTERNAL

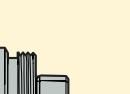
Toolholders with GL connection for S-inserts

Snap-Tap®



- For inserts programme, see Threading Catalog pages 85, 87, 90-91, 94-95, 98-99, 101-103, 105, 107, 109, 113

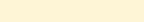


Application 		Dimensions in mm					
		DCSFMS	LF	WF	DCINN		
	GL32-CNR-20032-16AHD	32,0	32	19,8	40	0,2	16..
	GL32-CNL-20032-16AHD	32,0	32	19,8	40	0,2	16..
	GL40-CNR-24032-16AHD	40,0	32	24,0	50	0,3	16..
	GL40-CNL-24032-16AHD	40,0	32	24,0	50	0,3	16..
	GL50-CNR-29032-16AHD	50,0	32	29,0	63	0,4	16..
	GL50-CNL-29032-16AHD	50,0	32	29,0	63	0,4	16..

Spare Parts included in delivery

For holder	Cantilever clamp	Clamp key	Clamp screw	Insert shim (S)	Shim key	Shim screw	Spring
							
..-16	CHD16	T15P-2	L85020-T15P	GX16-1	T09P-2	CS3507-T09P	S6912

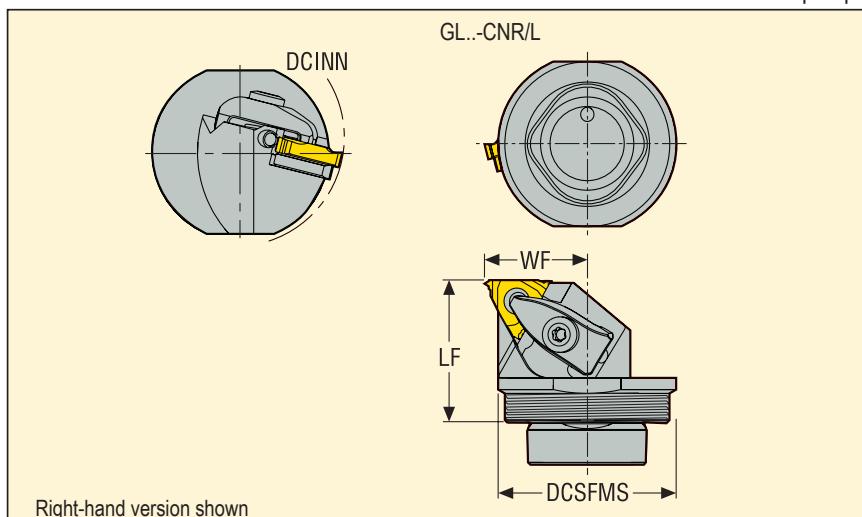
Accessories to be ordered separately

For holder	Insert shim (M) 	Insert shim (S) 
..-16	MX16-1	GX16-0
		GX16-2
		GX16-3
		GX16-4
		GX16-98
		GX16-99

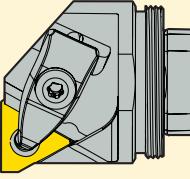
THREAD TURNING – STEADYLINE®, GL-HEADS, INTERNAL

Toolholders with GL connection for S-inserts

Snap-Tap®



- For inserts programme, see Threading Catalog pages 85, 87, 90-91, 94-95, 98, 101, 103, 105, 107, 109-110, 111-115

Application 	Designation	Dimensions in mm					
		DCSFMS	LF	WF	DCINN		
	GL32-CNR-22032-22AHD	32,0	32	21,3	38	0,2	22..
	GL32-CNL-22032-22AHD	32,0	32	21,3	38	0,2	22..
	GL40-CNR-26032-22AHD	40,0	32	26,0	50	0,3	22..
	GL40-CNL-26032-22AHD	40,0	32	26,0	50	0,3	22..
	GL50-CNR-31032-22AHD	50,0	32	31,0	63	0,4	22..
	GL50-CNL-31032-22AHD	50,0	32	31,0	63	0,4	22..
	GL40-CNR-27037-27AHD	40,0	37	27,0	50	0,3	27..
	GL50-CNR-32037-27AHD	50,0	37	32,0	58	0,4	27..

Spare Parts included in delivery

For holder	Cantilever clamp	Clamp key	Clamp screw	Insert shim (S)	Shim/clamp key	Shim screw	Spring
..-22	CSP22HD-T15P	T15P-2	–	NX22-1	–	CS4009-T15P	–
..-27	CHD27	T15P-2	L86025-T20P	VX27-1	T20P-7L	C05012-T15P	S7616

Accessories to be ordered separately

For holder	Shim key	Insert shim (M)	Insert shim (S)											
..-22	T15P-2	MX22-1	NX22-0	NX22-0.5	NX22-1.5	NX22-2	NX22-3	NX22-4	NX22-9.5	NX22-98	NX22-98.5	NX22-99	NX22-99.5	
..-27	T15P-2	MX27-1	VX27-0	VX27-0.5	VX27-1.5	VX27-2	VX27-3	VX27-4	–	VX27-98	VX27-98.5	VX27-99	VX27-99.5	

Please check availability in current price and stock-list and on www.secotools.com

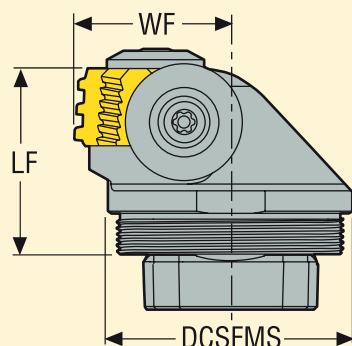
THREAD TURNING – STEADYLINE® , GL-HEADS, INTERNAL

Toolholders for chasers, internal

Snap-Tap®



For inserts programme, see Threading Catalog page 116



Right-hand version shown

Spare Parts included in delivery

For holder	Clamp kit side	Clamp kit top	Key, side clamp	Key, top clamp
...9-1	W200613-T20P	W200613-T20P	T20P-7	T20P-7
...1-X, ...5-X	W200613-T20P	W240618-T25P	T20P-7	T25P-7

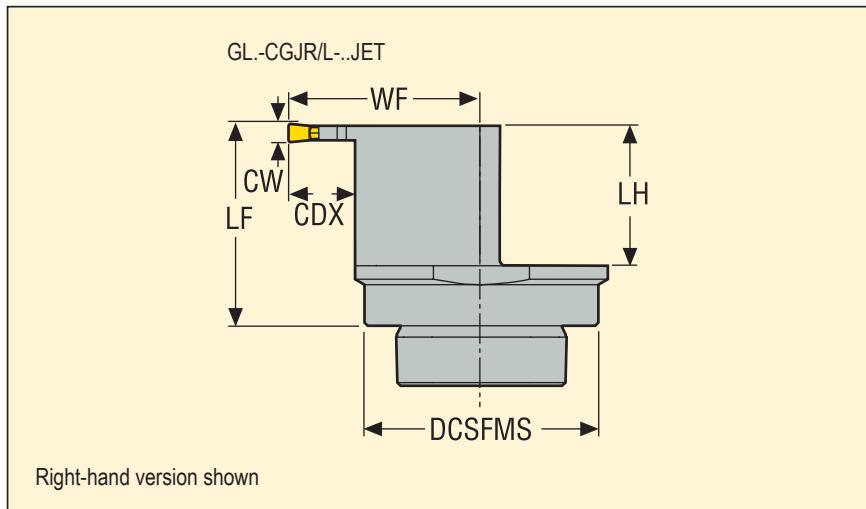
Please check availability in current price and stock-list and on www.secotools.com

MDT – STEADYLINE®, GL-HEADS, INTERNAL JETSTREAM TOOLING®

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



- For inserts programme, see Turning Catalog pages 632-649



* DCINN = minimum bore diameter, see page(s) 529

Spare Parts included in delivery

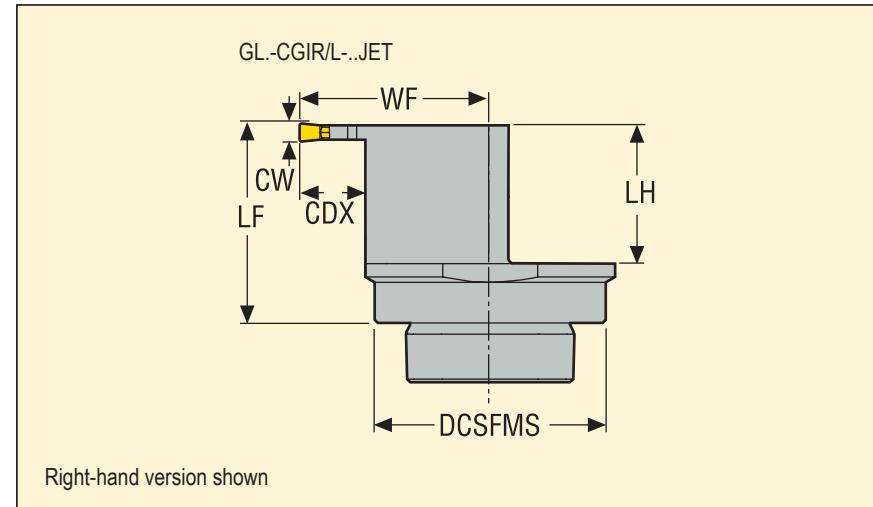
Please check availability in current price and stock-list and on www.secotools.com

MDT – STEADYLINE® , GL-HEADS, INTERNAL JETSTREAM TOOLING®

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



- For inserts programme, see Turning Catalog pages 632-649



* DCINN = minimum bore diameter, see page(s) 529

Spare Parts included in delivery

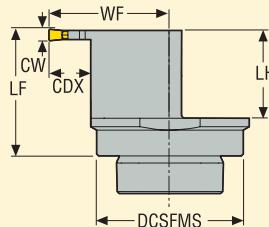
Please check availability in current price and stock-list and on www.secotools.com

MDT – STEADYLINE®, GL-HEADS, INTERNAL JETSTREAM TOOLING®

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



- For inserts programme, see Turning Catalog pages 632-649



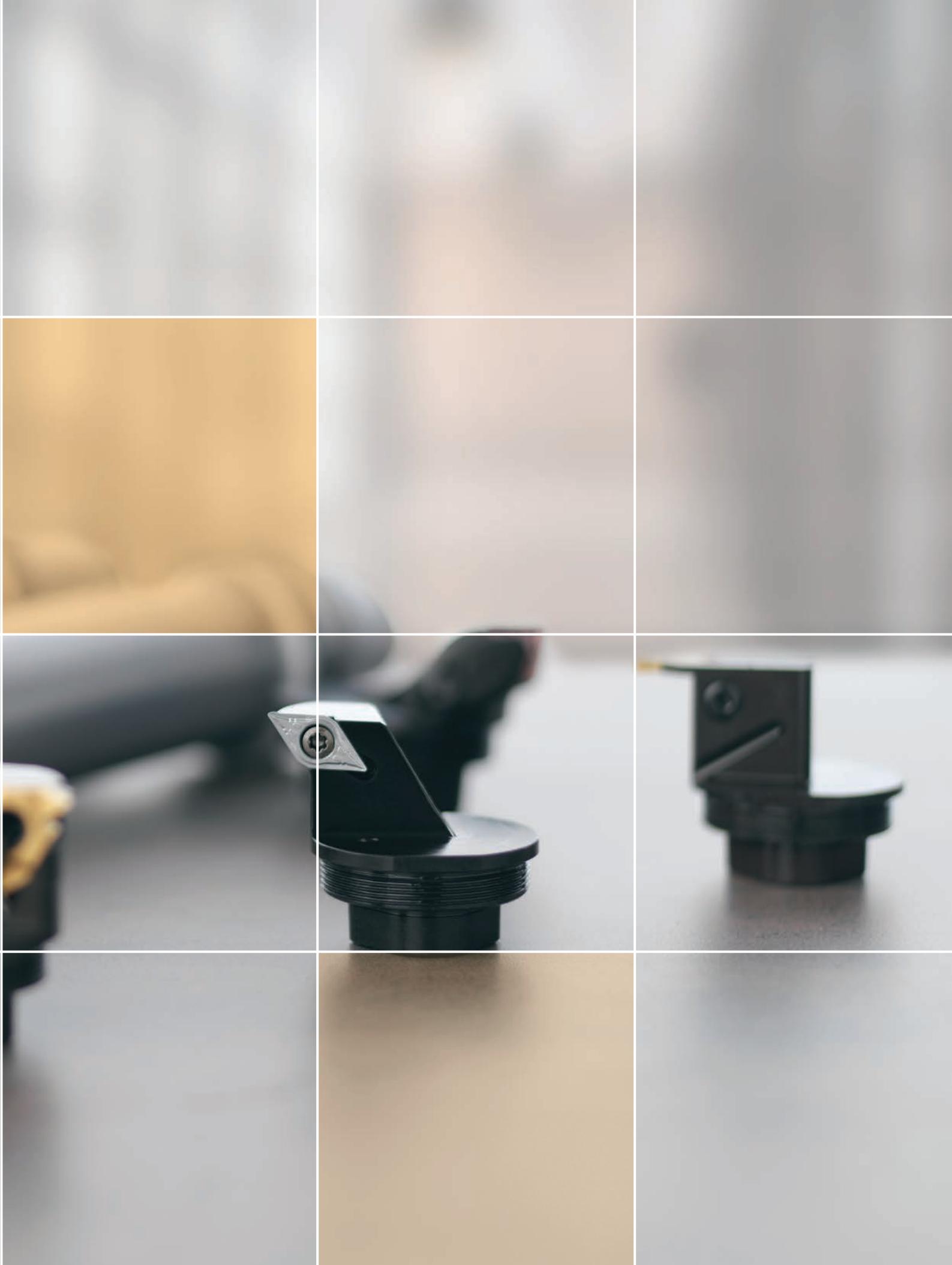
Right-hand version shown

* DCINN – minimum bore diameter, see page(s) 529

Spare Parts included in delivery

Please check availability in current price and stock-list and on www.secotools.com





BORING HEADS



EXPANDING THE BENEFITS OF VIBRATION DAMPING FOR HIGHER DEPTHS

Steadyline® bars with Seco-Capto™ and HSK-T/A machine side connection are equally suitable for static turning operations and for rotating boring operations.

By incorporating the advanced damping capabilities of Steadyline®, these boring solutions eliminate vibration, achieve higher productivity, boost surface quality and enable depths of up to 10xD.

Steadyline® bars with Seco-Capto™ machine side connection can be mounted on steep angle spindles (DIN, BT, CAT) using the shortest Seco-Capto™ adapters to maintain the efficiency of the Steadyline® damper.

**ROUGH BORING HEAD - EPB® 610
(GL CONNECTION)**



**FINE BORING HEAD - EPB® 620
(GL CONNECTION)**



- Available in three sizes:
ø32 mm, ø40 mm, ø50 mm
- Suitable for boring
applications up to 10xD





ROUGH BORING HEADS



EXCELLENT PERFORMANCE FOR DIAMETERS 36 MM - 69 MM

SECO EPB® 610 ROUGH BORING HEADS

Featuring a compact design and GL connection, EPB® 610 boring heads provide the best possible damping performance when used with Steadyline® GL turning and boring bars. The advanced capabilities of Steadyline® allow bars of up to 10xD to achieve the same results as shorter, non-damped assemblies.

The insert holders achieve a 90° lead angle for rhombic inserts, 0° rake angle and 0° inclination angle. A push-pull setting mechanism makes it fast and easy to set the diameter using a presetter.

The rough boring head assembly combines a body (head) with two insert holders to optimise geometrical hole precision starting from cast, flame cut or drilled holes. The symmetrical design ensures the best possible balance.



OPTIMISED PERFORMANCE

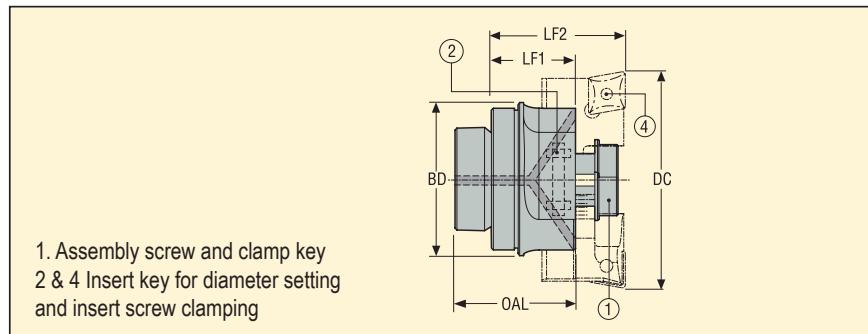
- High rigidity through a tight fit between the holders and body and large clamping screws
- Depth of cut of up to half the insert width maximises insert efficiency and metal removal rates
- Staggered boring using an included shim to offset one holder can increase or split the radial depth of cut
- Through-coolant delivery to increase insert life, performance and chip flow



ROUGH BORING HEADS, SECO EPB® 610

SECO EPB® 610 GL – Rough boring heads, compact

GL

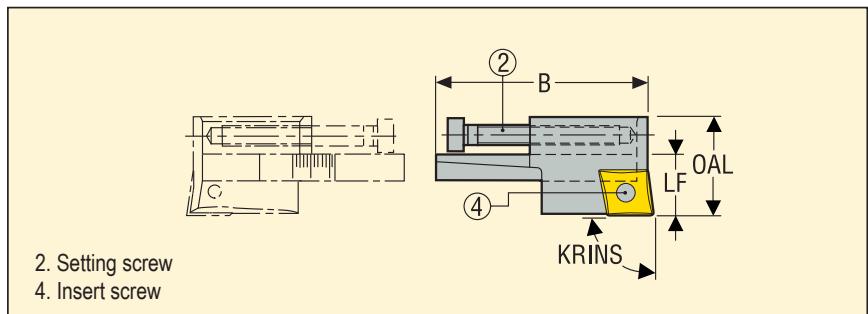


- Compact design and GL connection for best damping performance when used on Steadyline® turning and boring bar GL
- Symmetrical and staggered boring modes are possible
- Individual insert holder adjusting driving mechanism
- Internal coolant supply against cutting edges

Machine side GL size	Workpiece side Capacity DC Ø mm	Ordering and Product No.	Designation	Dimensions in mm				Max. RPM	
				OAL	LF1	LF2	BD		
GL32	36,0-46,0	02904458	GL32-0610-20	27,6	21,1	32,0	32,0	7500	0,10
GL40	45,0-56,0	02904459	GL40-0610-30	31,6	22,1	35,0	40,0	5700	0,20
GL50	55,0-69,0	02904460	GL50-0610-40	33,7	22,2	36,0	50,0	4500	0,30

*Without insert holder.

Insert holders, for rough boring heads SECO EPB® 610



Suitable for boring heads SECO EPB® 610 with Graflex or GL connection

For boring head	Capacity DC Ø mm	Ordering and Product No.	Designation	KRINS°	Dimensions in mm			Suitable insert size	
					OAL	LF	B		
EPB® 61020	36,0-46,0	02971268	A61020CC0690	90,0	17,6	10,9	26,0	CC...0602...	0,1
EPB® 61030	39,0-56,0	02904461	A61030CC0990	90,0	21,6	12,9	33,0	CC...09T3...	0,1
EPB® 61040	50,0-69,0	02904462	A61040CC0990	90,0	22,5	13,8	43,8	CC...09T3...	0,1

Spare Parts included in delivery

For head	Assembly screw	Clamp key	Insert key	Shim, staggered boring
GL32-0610-20	950DC0412	03HL03	T07P-3	AU6102003
GL40-0610-30	950DC0616	03HL05	T15P-3	AU6103003
GL50-0610-40	950D0616	03HL05	T15P-3	AU6104003

Please check availability in current price and stock-list and on www.secotools.com

Accessories to be ordered separately

For insert size	Insert screw	Setting screw
A61020CC0690	C02504-T07P	19A61020
A61030CC0990	C04008-T15P	19A61030
A61040CC0990	C04008-T15P	19A61040
A61050CC1290	C05012-T15P	19A61050
A61060CC1290	C05012-T15P	19A61060

FINE BORING



SUPERB FINISHING PERFORMANCE FOR DIAMETERS 34 MM TO 69 MM

SECO EPB® 620 FINE BORING HEADS

The Seco EPB® 620 fine boring head assembly features a body (head) and radially fitted insert holder that incorporates a common front end design to accommodate the existing range of insert holders. Micrometric adjustment allows for maximum precision while a wide range of fine boring, chamfering and back boring holders can be used with the heads to ensure flexibility.



Seco EPB® 620 heads include a clamping screw for the insert holder, key for the insert holder clamping screw, diameter setting, barrel locking screw and operating instructions.

Seco EPB® 620 insert holders include the insert screw and key for the insert screw clamping. Additionally, chamfering insert holders also include a specific insert holder clamp screw, which is used instead of the standard clamp screw.

PREDICTABLE AND REPEATABLE PRECISION

- Angular orientation of the cutting edge according to DIN 6987/ISO 7388 for SA and ISO 12164 for HSK
- Heads with insert holders pre-balanced on median diameter setting
- Insert holder setting mechanism features micrometric adjusting screw (1 increment = 0,01 mm on diameter) and a vernier scale (resolution of 2,5 µm on diameter)
- Through-coolant delivery to increase insert life, performance and chip flow



FINE BORING HEADS, SECO EPB® 620

SECO EPB® 620 GL – Fine boring heads, compact, with GL connection

GL

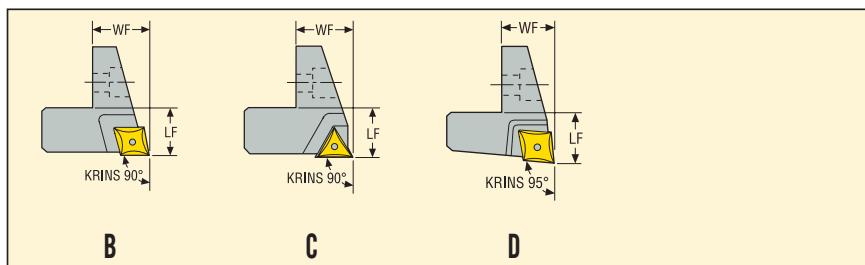


- Compact design and GL connection for best damping performance when used on Steadyline® turning and boring bar GL
- Adjusting increment 0.01mm and vernier 2.5µm, on the diameter
- Internal coolant supply against cutting edge

Machine side GL size	Workpiece side Capacity DC Ø mm	Ordering and Product No.	Designation	Dimensions in mm				Max. RPM	
				OAL	BD	LF1	LF2		
GL32	34,0-46,0	02904469	GL32-0620-20	35,2	32,0	23,8	32,1	7000	0,13
GL40	42,0-56,0	02904470	GL40-0620-30	40,7	40,0	24,8	35,1	5600	0,22
GL50	52,0-69,0	02904471	GL50-0620-40	43,7	50,0	25,8	36,1	4800	0,32

*Without insert holder.

Insert holders, for fine boring heads SECO EPB® 620



Suitable for radial boring heads SECO EPB® 620

Insert holders type	For boring head	Insert holder size	Capacity DC Ø mm	Ordering and Product No.	Designation	Dimensions in mm		Suitable insert size	Design
						WF	LF		
90° for CC inserts	EPB® 62020	20	30,0-46,0	00056581	A72520	5,0	8,3	CC...0602...	B 0,02
	EPB® 62030	30	39,0-56,0	00056582	A72530	8,0	10,3	CC...0602...	B 0,02
	EPB® 62040	40	50,0-69,0	00056583	A72540	9,5	10,3	CC...0602...	B 0,02
90° for TC inserts	EPB® 62030	30	39,0-56,0	00056572	A72430	7,9	10,3	TC...1102...	C 0,01
	EPB® 62040	40	50,0-69,0	00056573	A72440	9,4	10,3	TC...1102...	C 0,02
95° for CC inserts	GL32-0520-20	20	30-40/-34-45	00056591	A72620	8,3	5	CC...0602...	D 0,01
	GL40-0520-30	30	39-51/-42-55	00056592	A72630	10,3	8	CC...0602...	D 0,01
	GL50-0520-40	40	50-65/-52-69	00056593	A72640	10,3	9,5	CC...0602...	D 0,02

Spare Parts included in delivery

For head	Assembly screw	Clamp key	Locking screw
GL32-0620-20	19TB0305	H2.0-2D	950L0406
GL40-0620-30	19TB04075	03M03C	950L0608
GL50-0620-50	19TB04075	03M03C	950L0608

Spare Parts included in delivery

For insert size	Insert key	Insert screw
CC...0602...	T07P-3	C02504-T07P
CC...09T3...	T15P-3	C04008-T15P
TC...1102...	T07P-3	C02504-T07P
WB...0301...	T06P-2	C02035-T06P

Please check availability in current price and stock-list and on www.secotools.com

MILLING



VERSATILE SOLUTIONS FOR ALL YOUR MILLING APPLICATIONS WIDE MILLING RANGE OF SECO STEADYLINE®

With configuration for Combimaster™ and shell-mill holders, Steadyline® covers a broad range of milling applications from Ø20 mm to over Ø160 mm. Introduced in 2009, the shell-mill holders are already providing highly efficient performance in thousands of applications worldwide. All Steadyline® products maximise rigidity through a conical-reinforced cylindrical shape that achieves high static and dynamic stability in heavy machining applications. Additionally, the holders feature a chrome-coated surface that increases resistance to wear and corrosion.



SHELL-MILL HOLDERS - TYPE 5555-5556

Providing an ideal solution across a range of applications, shell-mill holders excel for slot milling, square shoulder milling, contouring, face milling, helical interpolation ramping and copy milling.

- Arbor: Ø16 mm to Ø40 mm
- Enhanced bearing surface
- Coolant channels through pilot

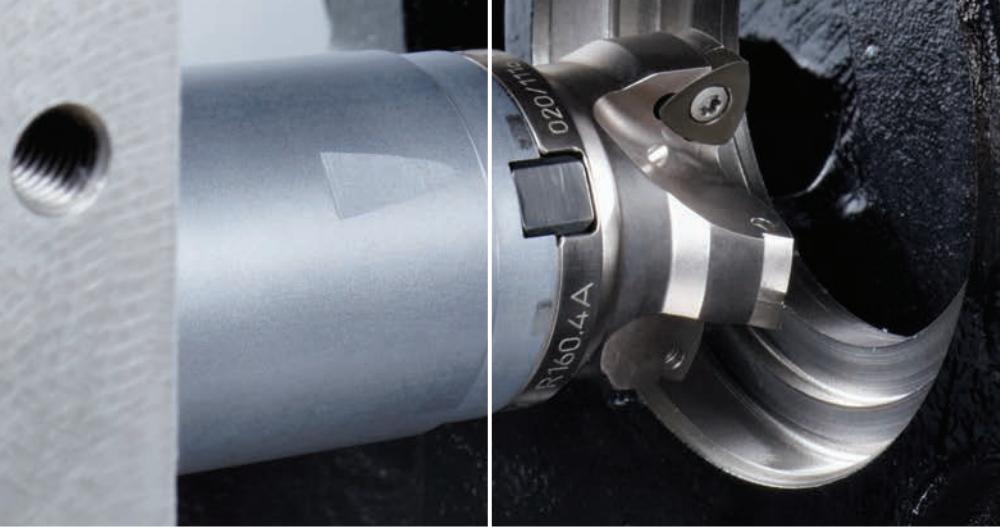
FLEXIBLE SYSTEM: COMBIMASTER™

A versatile option with high levels of interchangeability, the Combimaster™ system features replaceable head milling cutters for all kinds of applications (e.g. square shoulder milling, end milling, copy milling, face milling, plunge milling, disc milling, etc.) and many insert styles.

- Connection size: M10 to M20
- Different pitch versions
- Rigid clamping



CASE STUDIES MILLING



CASE 1: SHELL MILL CONVENTIONAL MILLING TOOL

Operation: Pocket milling
Cutter: R220.97-0050-V22.2A
Tooling: C6-391.5525-22210
Insert: VPGX220640ER-E10, H25
Material: AlZnMgCu1.5

Cutting data	Metric	v_c 1180m/min	f_z 0.25 mm/tooth
	Metric	a_p 3.5 mm	a_e 25 mm

CASE 1: SHELL MILL AV SYSTEM

Operation: Pocket milling
Cutter: R220.97-0050-V22.2A
Tooling: C6-391.5555-22210
Insert: VPGX220640ER-E10, H25
Material: AlZnMgCu1.5

Cutting data	Metric	v_c 1270m/min	f_z 0.25 mm/tooth
	Metric	a_p 7.0 mm	a_e 25 mm

Results • Increased feed rate
• Doubled cutting depth

CASE 2: COMBIMASTER™ CONVENTIONAL MILLING TOOL

Operation: Side milling
Cutter: R217.69-1020.RE-10-3A (\varnothing 20 mm)
Tooling: E9304582010185
Material: 1.1206 CK50

Cutting data	Metric	v_c 312m/min	f_z 0.3 mm/tooth
	Metric	a_p 0.9 mm	a_e 4.0 mm

CASE 2: COMBIMASTER™ AV SYSTEM

Operation: Side milling
Cutter: R217.69-1020.RE-10-3A (\varnothing 20 mm)
Tooling: E9304K82010185
Material: 1.1206 CK50

Cutting data	Metric	v_c 312 m/min	f_z 0.3 mm/tooth
	Metric	a_p 2.2 mm	a_e 4.0 mm

Results Increased cutting depth: $a_p \times 2,3$

CASE 3: COMBIMASTER™ CONVENTIONAL MILLING TOOL

Operation: Slitting
Cutter: R217.69-1020.RE-10-3A (\varnothing 20 mm)
Tooling: E9304582010185
Material: 1.1206 CK50

Cutting data	Metric	v_c 200 m/min	f_z 0.16 mm
	Metric	a_p 0.25 mm	a_e 20 mm

CASE 3: COMBIMASTER™ AV SYSTEM

Operation: Slitting
Cutter: R217.69-1020.RE-10-3A (\varnothing 20 mm)
Tooling: E9304K82010185
Material: 1.1206 CK50

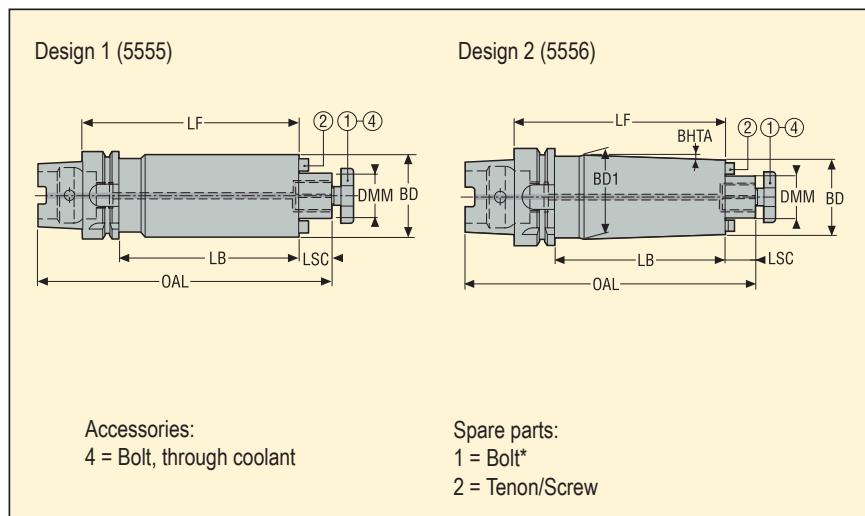
Cutting data	Metric	v_c 200 mm/min	f_z 0.16 mm
	Metric	a_p 0.8 mm	a_e 20 mm

Results 3 times higher cutting depth

HSK-A TOOL HOLDERS

SECO EPB® 5555/5556 – Steadyline®, vibration damping shell mill holders

HSK-A/IS012164-1-HSK-A



Machine side Taper	Workpiece side DMM mm	Designation	Dimensions in mm						Design	BHTA°	RFID hole	Balanc-	
			LF	BD	BD1	OAL	LB	LSC					
HSK-A63	16	E9304555516160	160,0	38,0	38,0	209,0	134,0	17,0	1	–	1	PB	2,40
	22	E9304555522210	210,0	48,0	48,0	261,0	184,0	19,0	1	–	1	PB	3,54
	22	E9304555622260	260,0	48,0	63,3	311,0	234,0	19,0	2	1,9	1	PB	5,38
	27	E9304555527260	260,0	60,0	60,0	313,0	234,0	21,0	1	–	1	PB	6,56
HSK-A100	22	E9306555522210	210,0	48,0	48,0	279,0	181,0	19,0	1	–	1	PB	4,80
	22	E9306555622260	260,0	48,0	65,0	329,0	231,0	19,0	2	1,9	1	PB	6,78
	27	E9306555527260	260,0	60,0	60,0	331,0	231,0	21,0	1	–	1	PB	7,92
	32	E9306555532330	330,0	78,0	78,0	404,0	301,0	24,0	1	–	1	PB	14,42

Accessories to be ordered separately

For DMM	Bolt, through coolant	Spanner
16	5801608L	5811608
22	5802210L	5812210
27	5802712L	5812712
32	5803216L	5813216

Spare Parts included in delivery

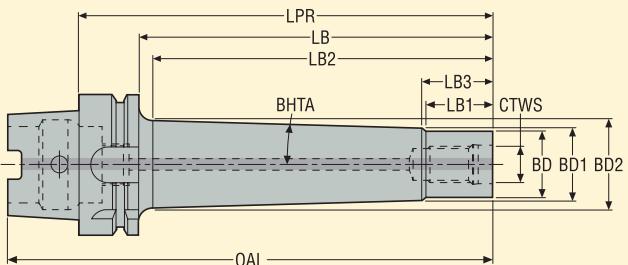
For DMM	Bolt	Screw	Tenon
16	5801608	951D0312	16C2080810A
22	5802210	951D0416	16C2101111
27	5802712	951D0516	16C2121214A
32	5803216	951D0516	16C2141421A

HSK-A TO COMBIMASTER™ ADAPTERS

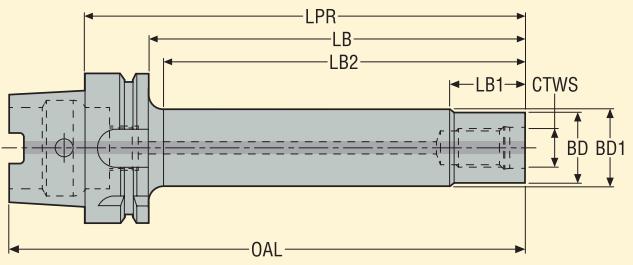
SECO EPB® K820-K821 – Steadyline® vibration damping Combimaster™ arbors

HSK-A/ISO12164-1-HSK-A

Design 1 (K820)



Design 2 (K821)



- With dynamic damping, ready to use
 - With through coolant

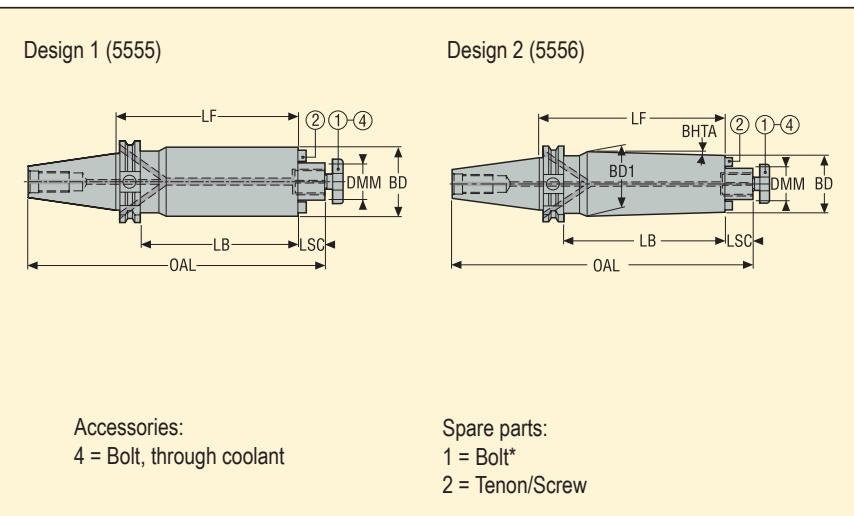
Please check availability in current price and stock-list and on www.secotools.com

For HSK sealing plugs, coolant tubes and tube spanners, see Machining Navigator Tooling Catalogue, page 294

DIN 69871 TOOL HOLDERS

SECO EPB® 5555/5556 – Steadyline®, vibration damping shell mill holders

DIN 69871-ADB



Machine side Taper	Workpiece side DMM mm	Designation	Dimensions in mm						Design	BHTA°	RFID hole	Balanc-	
			LF	BD	BD1	OAL	LB	LSC					
DIN40 ADB	16	E3469555516160	160,0	38,0	38,0	245,4	141,0	17,0	1	–	1	PB	2,12
	22	E3469555522210	210,0	48,0	48,0	297,4	191,0	19,0	1	–	1	PB	3,74
	22	E3469555622260	260,0	48,0	63,2	347,4	241,0	19,0	2	1,9	1	PB	5,56
DIN50 ADB	22	E3471555522210	210,0	48,0	48,0	330,7	191,0	19,0	1	–	1	PB	5,36
	22	E3471555622260	260,0	48,0	66,0	380,7	241,0	19,0	2	2,0	1	PB	7,52
	27	E3471555527260	260,0	60,0	60,0	382,7	241,0	21,0	1	–	1	PB	8,52
	27	E3471555627320	320,0	60,0	79,5	442,7	301,0	21,0	2	1,7	1	PB	12,26
	32	E3471555532330	330,0	78,0	78,0	455,7	311,0	24,0	1	–	1	PB	14,96
	40	E3471555540350	350,0	89,0	89,0	475,7	331,0	27,0	1	–	1	PB	20,40

DMM 40, includes 4 threaded holes on the bearing face according to DIN 6357

Accessories to be ordered separately

For Taper/ DMM	Bolt, through coolant	Spanner
DIN40/ 16	5801608L	5811608
DIN40/ 22	5802210L	5812210
DIN50/ 22	5802210L	5812210
DIN50/ 27	5802712L	5812712
DIN50/ 32	5803216L	5813216
DIN50/ 40	5804020L	5814020

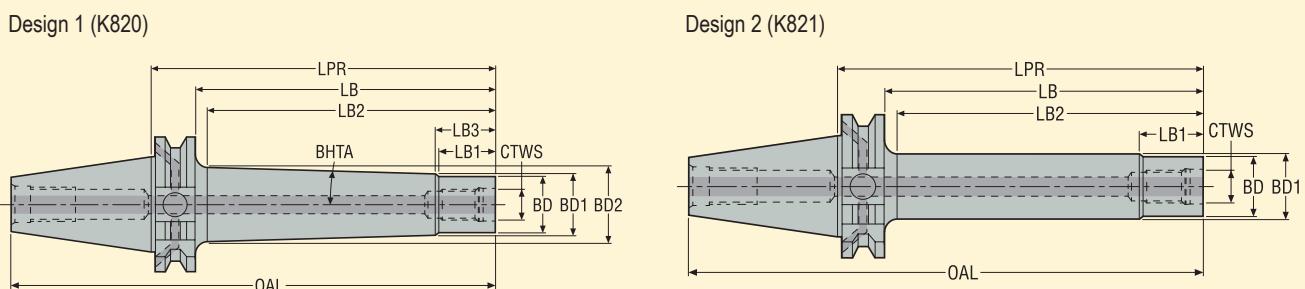
Spare Parts included in delivery

For Taper/ DMM	Bolt	Plug	Screw	Tenon
DIN40/ 16	5801608	950A0406	950D0312	16C2080810A
DIN40/ 22	5802210	950A0406	950D0416	16C2101111
DIN50/ 22	5802210	950A0606	950D0416	16C2101111
DIN50/ 27	5802712	950A0606	950D0516	16C2121214A
DIN50/ 32	5803216	950A0606	950D0516	16C2141421A
DIN50/ 40	5804020	950A0606	950D0616	16C2161621A

DIN 69871 TO COMBIMASTER™ ADAPTERS

SECO EPB® K820-K821 – Steadyline® vibration damping Combimaster™ arbors

DIN 69871-ADB



- With dynamic damping, ready to use
 - With through coolant

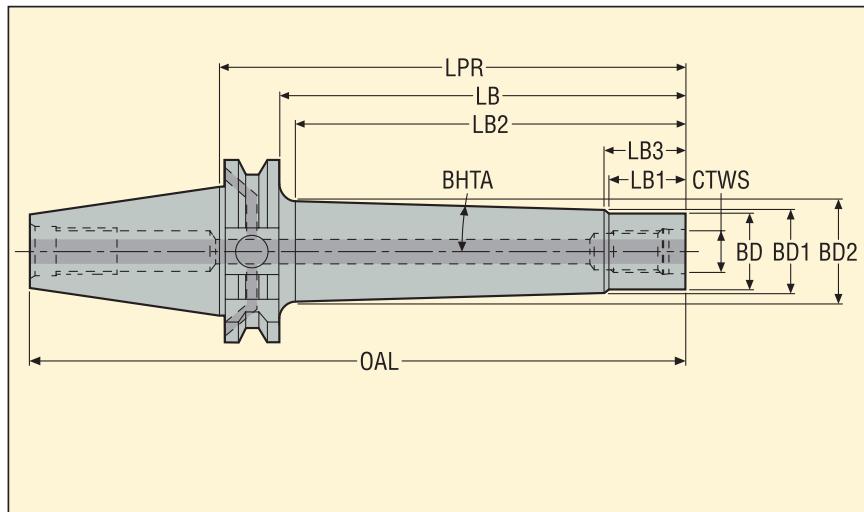
Spare Parts included in delivery

Please check availability in current price and stock-list and on www.secotools.com

DIN 69871 TAPER-FACE TOOL HOLDERS

SECO EPB® K820 – Steadyline®, vibration damping Combimaster™ holders

DIN Taper-Face



- With dynamic damping, ready to use
 - With through coolant

Spare Parts included in delivery

For Taper	Plug	
DIN TF40	950A0406	
DIN TF50	950A0606	

Please check availability in current price and stock-list and on www.secotools.com

Note: Other Steadyline® Combimaster™ sizes exist in non Taper-Face DIN types, see page 59.

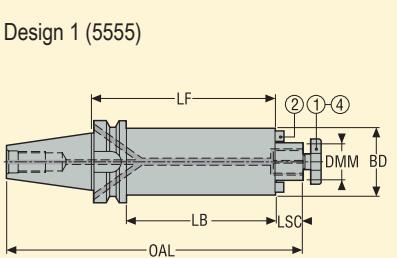
BT JIS TOOL HOLDERS

SECO EPB® 5555/5556 – Steadyline®, vibration damping shell mill holders

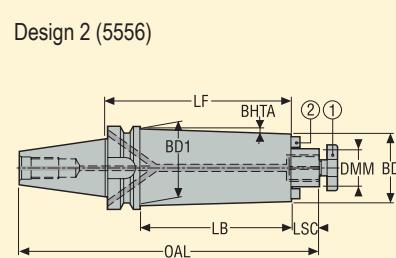
BT JIS B 6339-ADB



Design 1 (5555)



Design 2 (5556)



Spare parts:

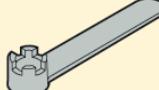
1 = Bolt*

2 = Tenon/Screw

Machine side Taper	Workpiece side DMM mm	Designation	Dimensions in mm						Design	BHTA°	RFID hole	Balanc-	
			LF	BD	BD1	OAL	LB	LSC					
BT40 ADB	16	E3414555516160	160,0	38,0	38,0	242,4	133,0	17,0	1	–	1	PB	2,23
	22	E3414555522210	210,0	48,0	48,0	294,4	183,0	19,0	1	–	1	PB	3,78
	22	E3414555622260	260,0	48,0	60,0	344,4	233,0	19,0	2	1,3	1	PB	5,40
	27	E3414555527260	260,0	60,0	60,0	346,4	233,0	21,0	1	–	1	PB	6,86
BT50 ADB	22	E3416555522210	210,0	48,0	48,0	330,8	172,0	19,0	1	–	1	PB	6,08
	22	E3416555622260	260,0	48,0	64,0	380,8	222,0	19,0	2	1,9	1	PB	7,90
	27	E3416555527260	260,0	60,0	60,0	382,8	222,0	21,0	1	–	1	PB	9,06
	27	E3416555627320	320,0	60,0	80,0	442,8	282,0	21,0	2	1,9	1	PB	12,64
	32	E3416555532330	330,0	78,0	78,0	455,8	292,0	24,0	1	–	1	PB	15,34
	40	E3416555540350	350,0	89,0	89,0	475,8	312,0	27,0	1	–	1	PB	20,70

DMM 40, includes 4 threaded holes on the bearing face according to DIN 6357

Accessories to be ordered separately

For Taper/ DMM	Bolt, through coolant	Spanner
		
BT40/ 16	5801608L	5811608
BT40/ 22	5802210L	5812210
BT40/ 27	5802712L	5812712
BT50/ 22	5802210L	5812210
BT50/ 27	5802712L	5812712
BT50/ 32	5803216L	5813216
BT50/ 40	5804020L	5814020

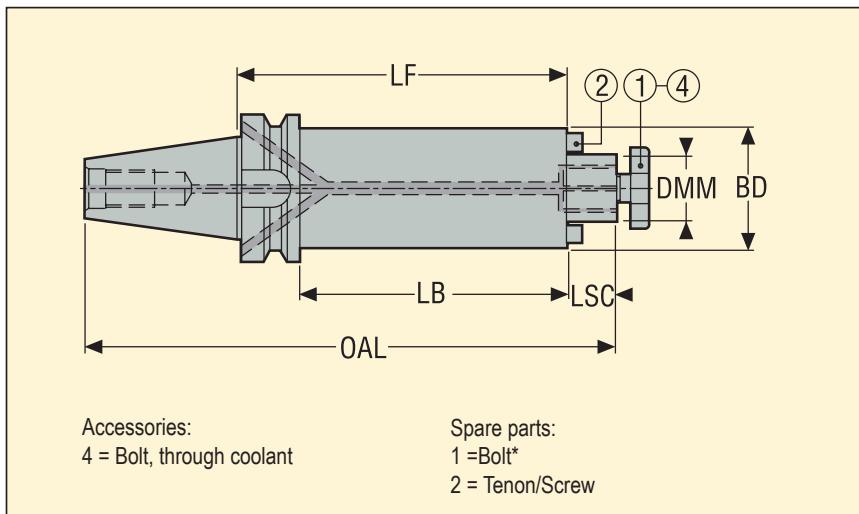
Spare Parts included in delivery

For Taper/ DMM	Bolt	Plug	Screw	Tenon
BT40/ 16	5801608	950A0406	950D0312	16C2080810A
BT40/ 22	5802210	950A0406	950D0416	16C2101111
BT40/ 27	5802712	950A0406	950D0516	16C2121214A
BT50/ 22	5802210	950A0606	950D0416	16C2101111
BT50/ 27	5802712	950A0606	950D0516	16C2121214A
BT50/ 32	5803216	950A0606	950D0516	16C2141421A
BT50/ 40	5804020	950A0606	950D0616	16C2161621A

BT JIS TAPER-FACE TOOL HOLDERS

SECO EPB® 5555 – Steadyline®, vibration damping shell mill holders

BT Taper-Face



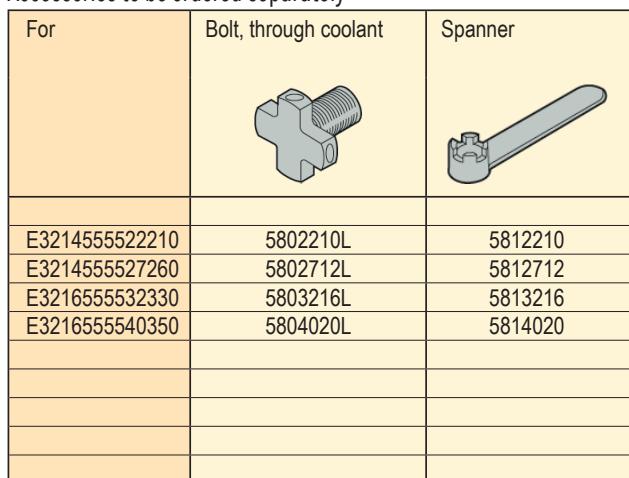
- With dynamic damping, ready to use
 - Direct run-out 5 µm maximum
 - With coolant supply channels through the spigot

Accessories:
4 = Bolt, through coolant

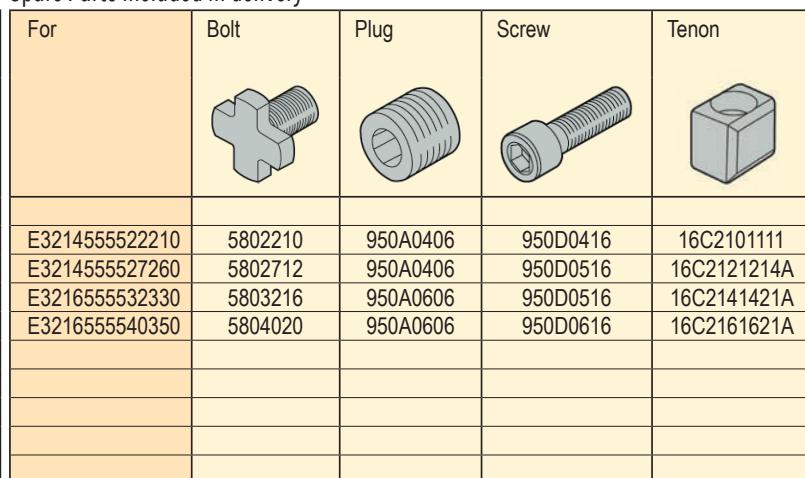
Spare parts:
1 = Bolt*
2 = Tenon/Screw

DMM 40, includes 4 threaded holes on the bearing face according to DIN 6357

Accessories to be ordered separately



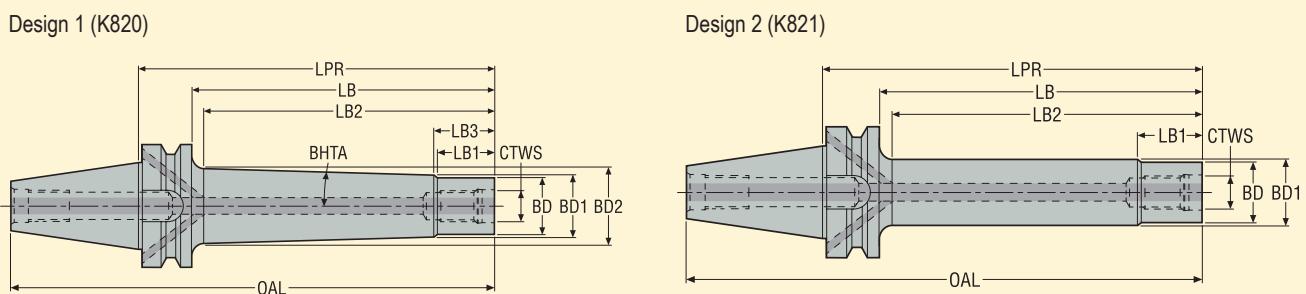
Spare Parts included in delivery



BT JIS TO COMBIMASTER™ ADAPTERS

SECO EPB® K820-K821 – Steadyline® vibration damping Combimaster™ arbors

BT JIS B 6339-ADB



- With dynamic damping, ready to use
 - With through coolant

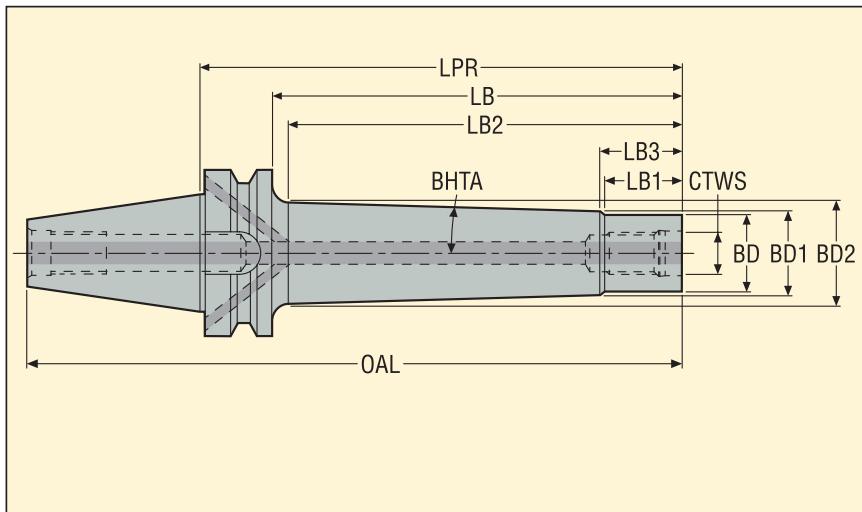
Spare Parts included in delivery

Please check availability in current price and stock-list and on www.secotools.com

BT JIS TAPER-FACE TO COMBIMASTER™ ADAPTERS

SECO EPB® K820 – Steadyline®, vibration damping Combimaster™ holders

BT Taper-Face



- With dynamic damping, ready to use
 - With through coolant

Spare Parts included in delivery

Please check availability in current price and stock-list and on www.secotools.com
Note: Other Steadyliner® CombiMaster™ sizes exist in non Taper-Face BT types, see page 63

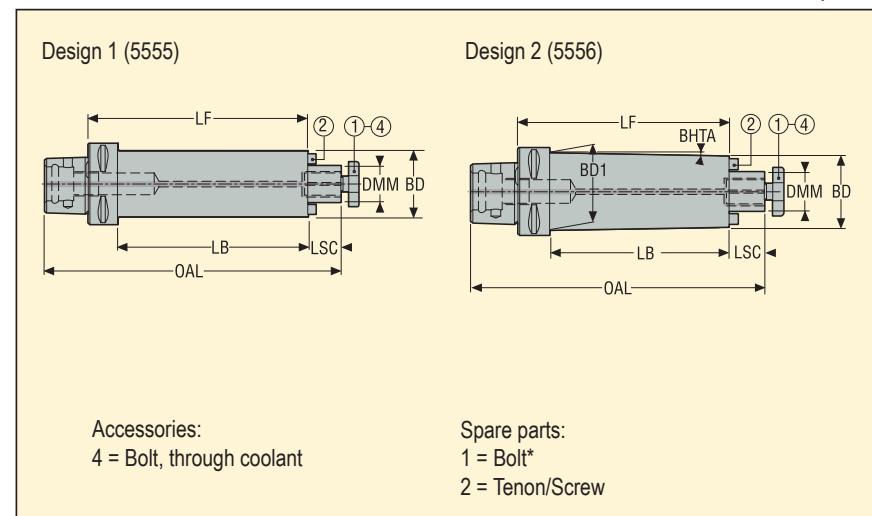
SECO-CAPTO™ TOOL HOLDERS

SECO EPB® 5555/5556 – Steadyline®, vibration damping shell mill holders

Seco-Capto™



- With dynamic damping, ready to use



Machine side Seco-Capto™ shank	Workpiece side DMM mm	Designation	Dimensions in mm						Design	BHTA°	RFID hole	Balancing	
			LF	BD	BD1	OAL	LB	LSC					
C6	16	C6-391.5555-16160	160,0	38,0	38,0	215,0	135,0	17,0	1	-	1	PB	2,1
	22	C6-391.5555-22210	210,0	48,0	48,0	267,0	185,0	19,0	1	-	1	PB	3,6
	22	C6-391.5556-22260	260,0	48,0	60,0	317,0	235,0	19,0	2	1,3	1	PB	4,0
	27	C6-391.5555-27260	260,0	60,0	60,0	319,0	235,0	21,0	1	-	1	PB	6,8
C8	22	C8-391.5555-22210	210,0	48,0	48,0	277,0	177,0	19,0	1	-	1	PB	4,5
	22	C8-391.5556-22260	260,0	48,0	64,0	327,0	227,0	19,0	2	1,8	1	PB	6,4
	27	C8-391.5555-27260	260,0	60,0	60,0	329,0	227,0	21,0	1	-	1	PB	7,6
	27	C8-391.5556-27320	320,0	60,0	75,0	389,0	287,0	21,0	2	1,3	1	PB	10,6
	32	C8-391.5555-32330	330,0	78,0	78,0	402,0	297,0	24,0	1	-	1	PB	20,0
	40	C8-391.5555-40350	350,0	89,0	89,0	422,0	317,0	27,0	1	-	1	PB	19,0

DMM 40, includes 4 threaded holes on the bearing face according to DIN 6357

Accessories to be ordered separately

For DMM	Bolt, through coolant	Spanner
16	5801608L	5811608
22	5802210L	5812210
27	5802712L	5812712
32	5803216L	5813216
40	5804020L	5814020

Spare Parts included in delivery

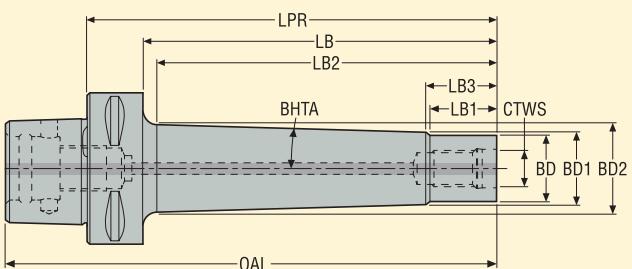
For DMM	Bolt	Screw	Tenon
16	5801608	951D0312	16C2080810A
22	5802210	951D0416	16C2101111
27	5802712	951D0516	16C2121214A
32	5803216	951D0516	16C2141421A
40	5804020	951D0616	16C2161621A

SECO-CAPTO™ TOOL HOLDERS

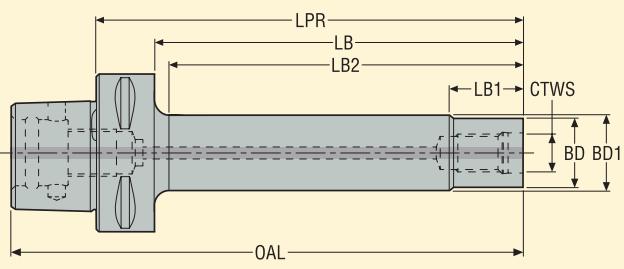
SECO EPB® K820-K821 – Steadyline®, vibration damping CombiMaster™ holders

Seco-Capto™

Design 1 (K820)



Design 2 (K821)



- With dynamic damping, ready to use
 - With through coolant

CUSTOM TOOLING



INDIVIDUAL SOLUTIONS ENGINEERED FOR YOU **SECO® CUSTOM TOOLING**

While most operations can be optimised through the enormous range of standard products of Seco®, the rapid rate of change in today's industry sometimes results in applications that demand more. Seco® Custom Tooling offers strategic support backed by global expertise across all industry segments.

Working closely with your engineers and operators, our team analyses your application, develops a complete understanding of your challenges, and then creates the perfect solution for them. From proposal to product delivery, Seco® Custom Tooling brings increased productivity and profitability to the most difficult manufacturing scenarios.

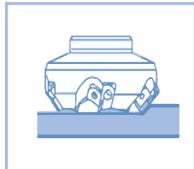
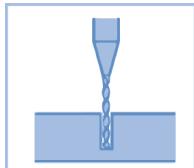
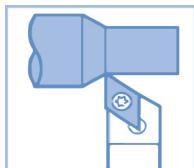




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SECO ■■■