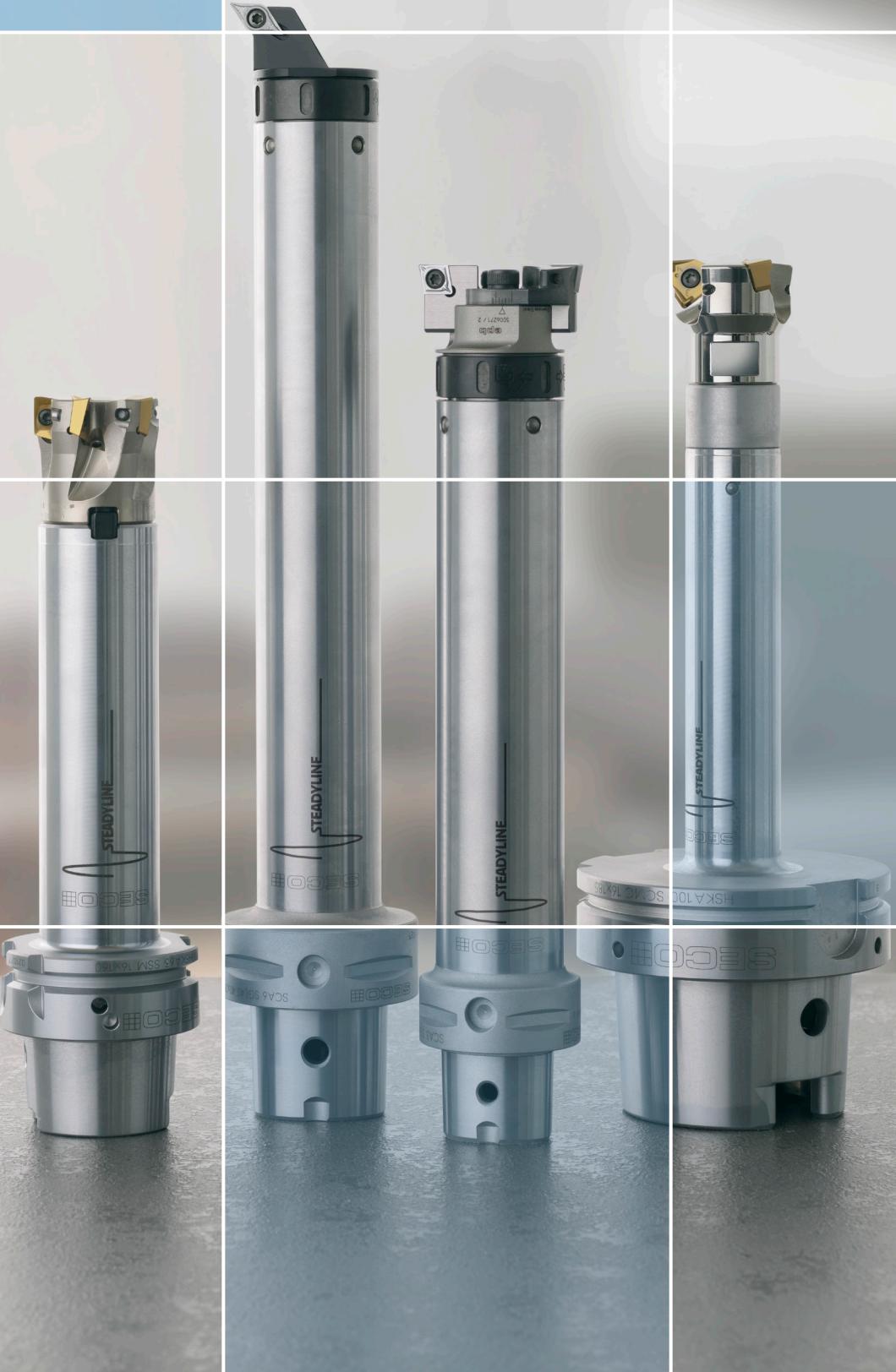


# STEADYLINE® FOR TURNING, BORING & MILLING



**REDUCE VIBRATIONS &  
INCREASE PRODUCTIVITY**

**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 [secotools.com](http://secotools.com) for all the latest information, machining data, manufacturing techniques and other developments on Steadyline® products.

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# VIBRATION CHALLENGES

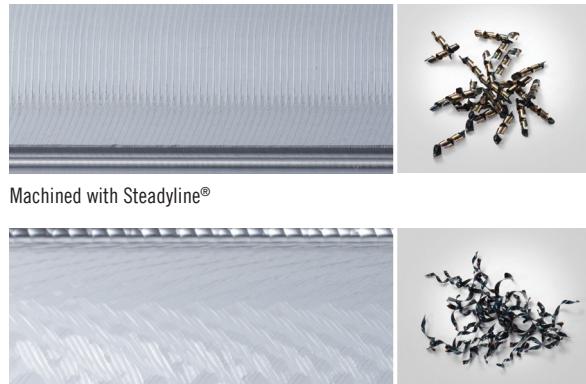


## IMPACT OF MACHINING VIBRATIONS UNDERSTANDING YOUR CHALLENGES

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



## 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.

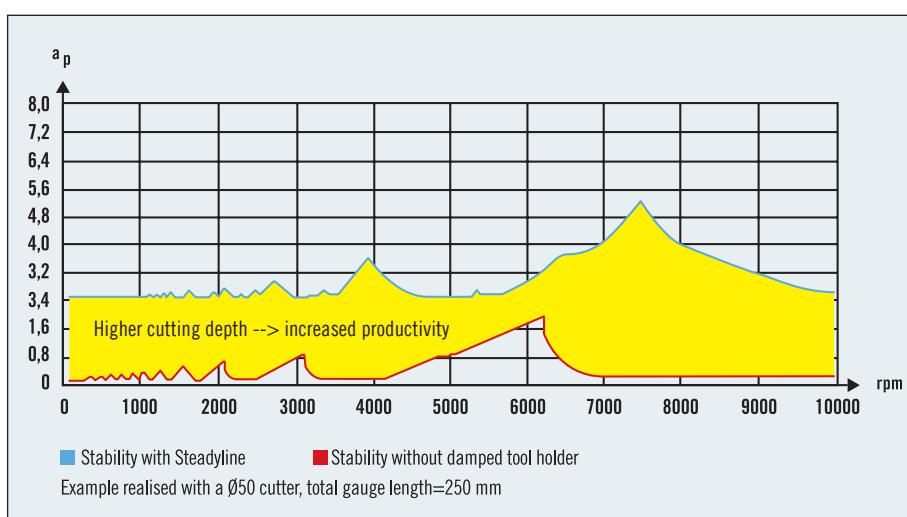


Conventional holder



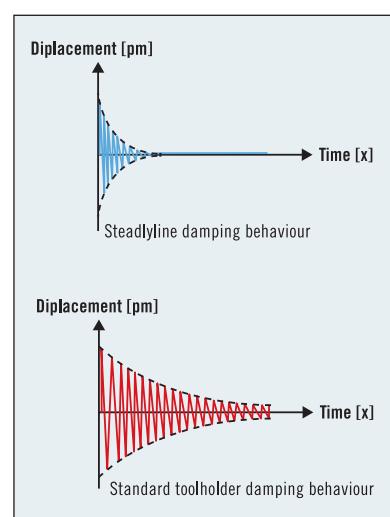
Holder with anti-vibration system

### COMPARISON BETWEEN A CLASSIC MODULAR SYSTEM AND A STEADYLINE® HOLDER

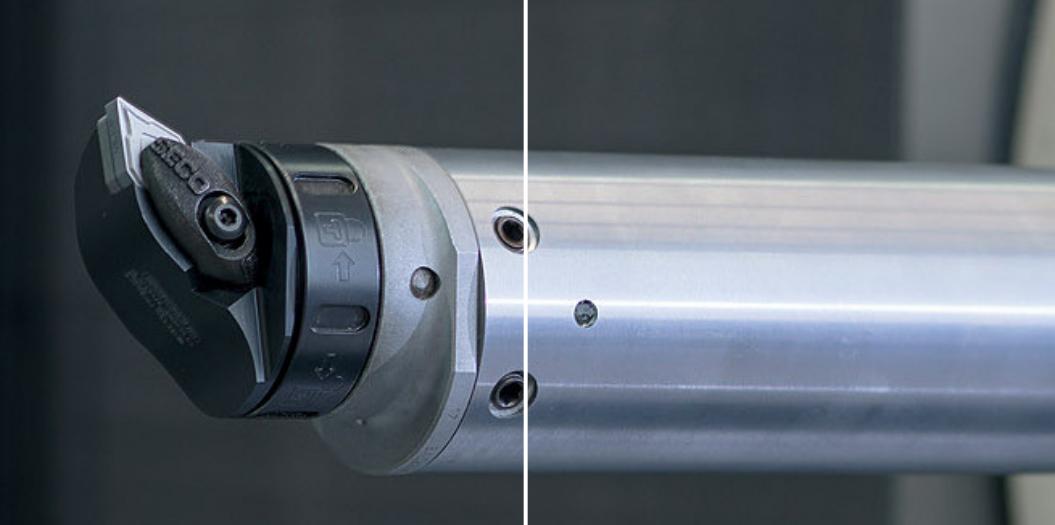


This data represents measurements of the maximum depth at which the holder is stable, at different speeds. At a given speed, the Steadyline® holder's optimal depth of cut ( $a_p$ ) can be 2 to 4 times higher than what would be used with a modular system, and the surface finish is improved dramatically. 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 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  $\pm 0.002$  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.

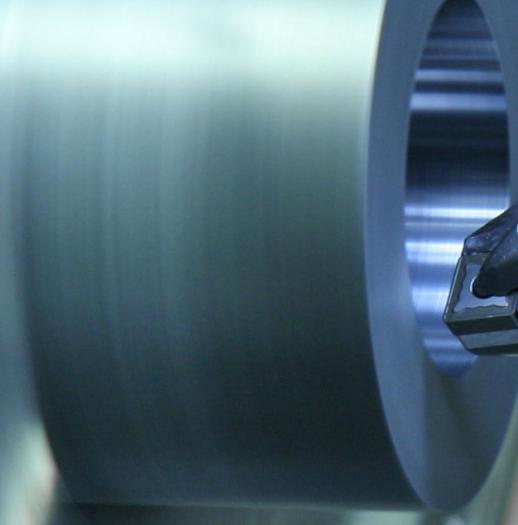
BA-to-GL adapters are available for bars  $\phi 60$  mm,  $\phi 80$  mm and  $\phi 100$  mm, with two offset sizes: a short one for lower bore sizes, and a wider one to create additional space between the bar and the wall of the bore to evacuate the chips.

- Available in two sizes:  $\phi 60$  mm and  $\phi 80$  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

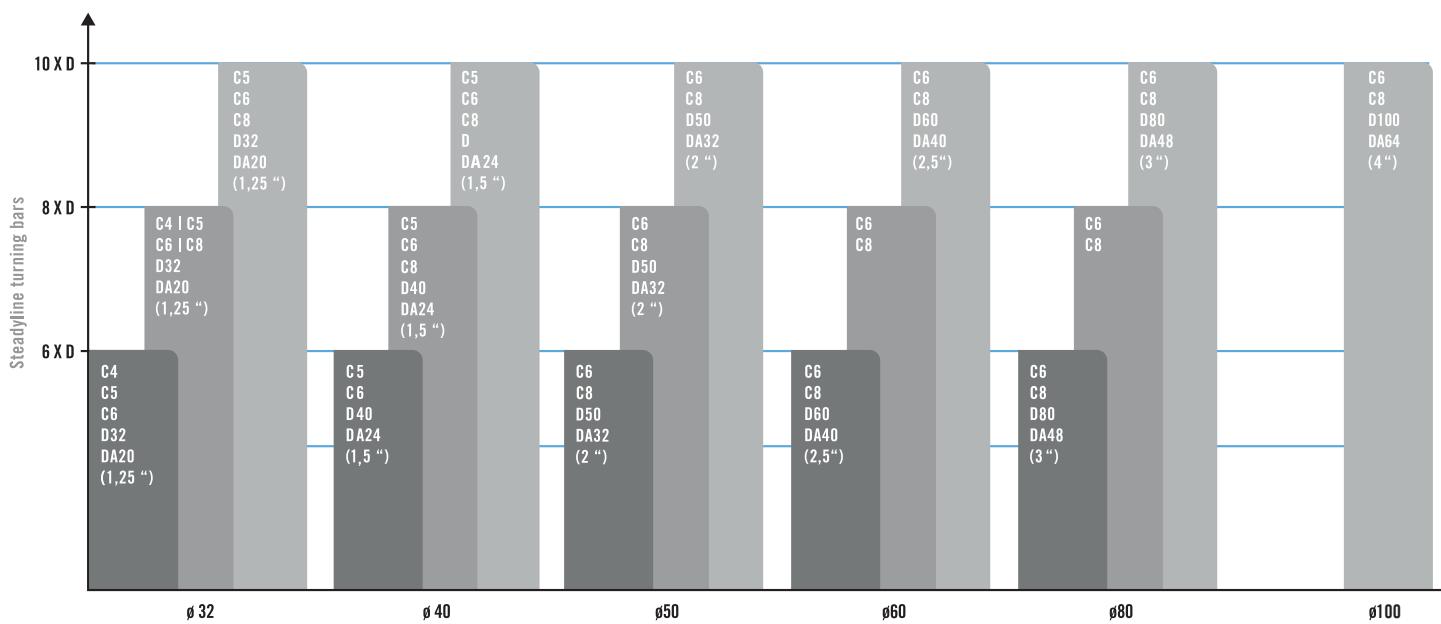


## OPTIMISING YOUR RETURN ON INVESTMENT TURNING RANGE SELECTION

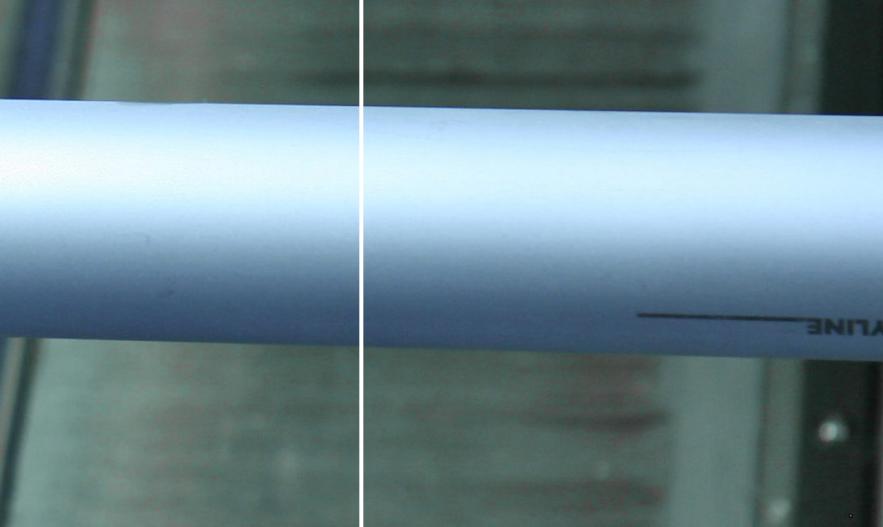
To achieve perfect application processes with Steadyline®, Seco® offers a wide range of inserts for turning, threading and grooving. Our inserts include adapted chip-breaker geometries and a selection of solid carbide grades and PCBN, ensuring a perfect match for every application. This versatility boosts 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



## MACHINE CLAMPING RECOMMENDATIONS

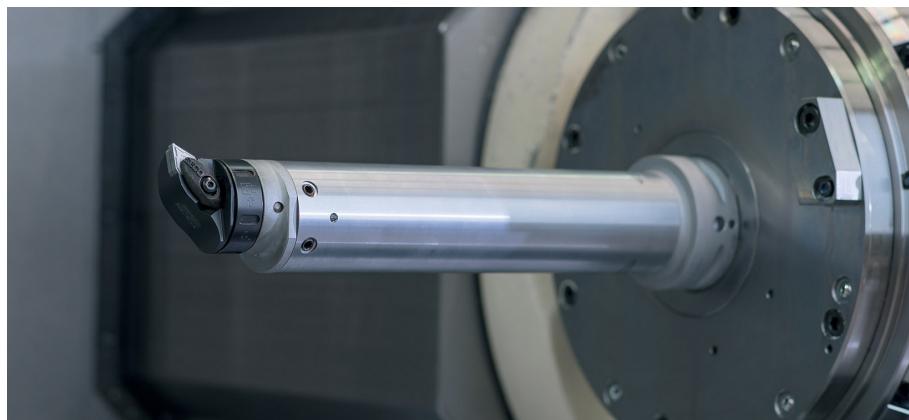
Our first recommendation for clamping the bars onto the machines is to use bars with Seco-Capto™ machine side connections.

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: Yes

Material: SS1672 - DIN: CK45

|              |        |                    |                                     |
|--------------|--------|--------------------|-------------------------------------|
| Cutting data | Metric | $v_c$<br>130 m/min | Number of passes<br>16, 3.25 infeed |
|--------------|--------|--------------------|-------------------------------------|

## 6xD - CASE 2

Operation: Grooving + internal turning

Tooling: C6-D32-160-GL32, GL32-CGHR-27032-1604JET

Insert: LCMF1604M0-0400-MP, CP500

Coolant: Yes

Material: SS1672 - DIN: CK45

|                     |        |                    |                         |
|---------------------|--------|--------------------|-------------------------|
| Cutting data        | Metric | $v_c$<br>180 m/min | $a_r$<br>10 mm of depth |
| 1: grooving         | Metric | $a_p$<br>4 mm      | $f$<br>0.15 mm/rev      |
| 2: turning internal | Metric | $a_p$<br>1.5 mm    | $f$<br>0.25 mm/rev      |



## 8xD - CASE 1

Operation: Roughing

Tooling: C6-D50-368-GL450, GL50-DCLNR-32032-12

Insert: CNMG-120408-R4, TP2501

Coolant: Yes

Material: SS1672 - DIN: CK45

|              |        |                    |                   |
|--------------|--------|--------------------|-------------------|
| Cutting data | Metric | $v_c$<br>250 m/min | $f$<br>0.2 mm/rev |
|              | Metric | $a_p$<br>3.0 mm    |                   |

## 8xD - CASE 2

Operation: Grooving + internal turning

Tooling: C6-D32-224-GL32, GL32-CGHR-27032-1604JET

Insert: LCMF1604M0-0400-MP, TGP25

Coolant: Yes

Material: SS1672 - DIN: CK45

|                     |        |                                     |                    |
|---------------------|--------|-------------------------------------|--------------------|
| Cutting data        | Metric | $v_c$<br>180 m/min                  | $a_r$<br>10 mm     |
| 1: grooving         | Metric | $a_p$<br>4 mm                       | $f$<br>0.15 mm/rev |
| 2: turning internal | Metric | $v_c = 250$ m/min<br>$a_p = 1.5$ mm | $f$<br>0.25 mm/rev |



## 10xD - CASE 1

Operation: Roughing

Tooling: C6-D50-468-GL50, GL50-DDUNR-32032-15

Insert: DNMG150608-M5, TP2501

Coolant: Yes

Material: SS1672 - DIN: CK45

|              |        |                    |                    |
|--------------|--------|--------------------|--------------------|
| Cutting data | Metric | $v_c$<br>250 m/min | $f$<br>0.25 mm/rev |
|              | Metric | $a_p$<br>4.0 mm    |                    |

## 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

Material: 42CrMo4 SMG P5

|              |        |                    |                     |
|--------------|--------|--------------------|---------------------|
| Cutting data | Metric | $v_c$<br>185 m/min | $f_z$<br>0.3 mm/rev |
|              | Metric | $a_p$<br>2.5 mm    |                     |

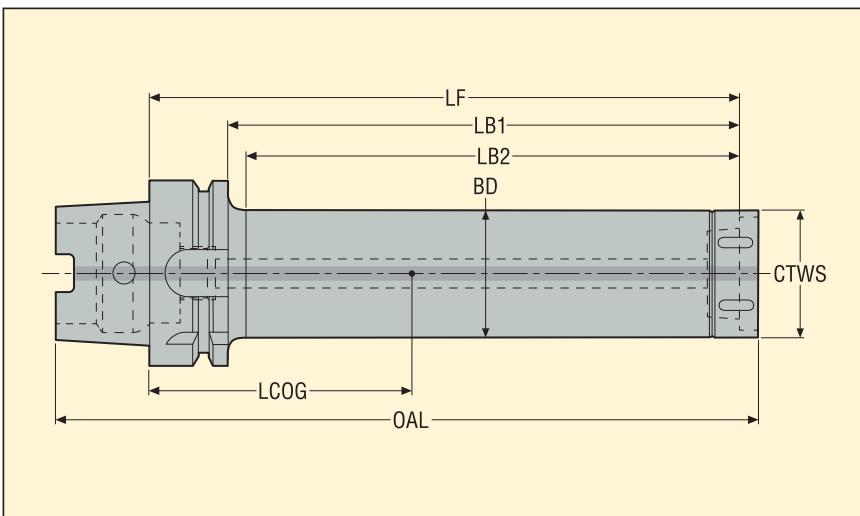




# STEADYLINE® TURNING

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

HSK-T/A



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

| Machine side<br>Taper | Workpiece side<br>GL size<br>CTWS | Designation        | Dimensions in mm |       |       |      |       |       | Max. RPM* | RFID hole | Balanc-<br>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

|                         |                 |             |
|-------------------------|-----------------|-------------|
| 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

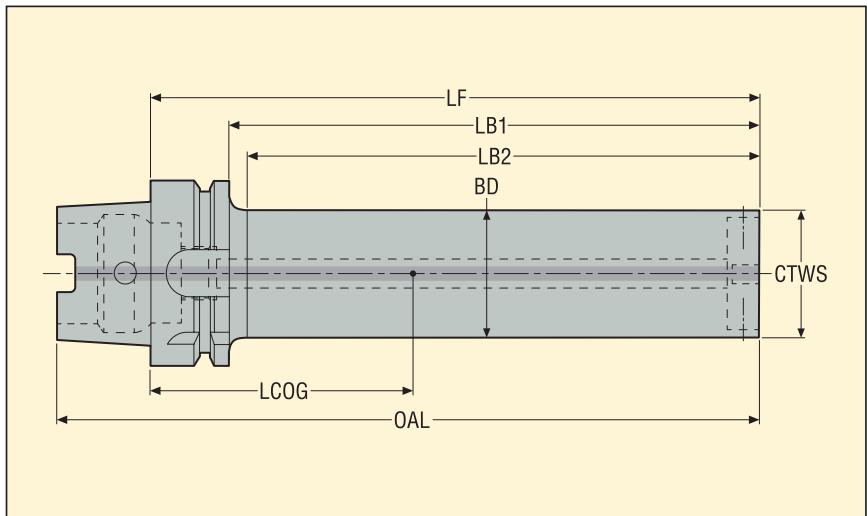
|                         |             |
|-------------------------|-------------|
| For nut of GL bore size | Locking key |
| GL32                    | SL32        |
| GL40                    | SL40        |
| GL50                    | SL50        |
|                         |             |
|     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

Please check availability in current price and stock-list

# STEADYLINE® TURNING

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

HSK-T/A



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

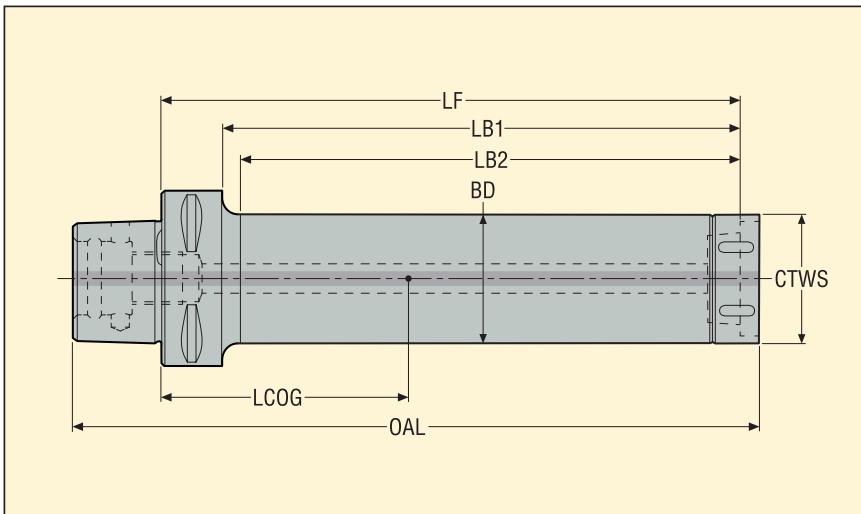
\* Max. RPM only when used in rotating boring (boring heads as custom made on request)

Please check availability in current price and stock-list

# STEADYLINE® TURNING

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

Seco-Capto™



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

| Machine side<br>Seco-Capto™ shank size | Workpiece side<br>GL size<br>CTWS | Designation     | Dimensions in mm |       |       |      |       |       | Max. RPM* | RFID hole | Balancing |      |
|--|-----------------------------------|-----------------|------------------|-------|-------|------|-------|-------|-----------|-----------|-----------|------|
|  |                                   |                 | 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 |
|  | GL32                              | C4-D32-224-GL32 | 224,0            | 201,0 | 198,0 | 32,0 | 253,4 | 109,2 | 8000      | 0         | PB        | 1,70 |
| C5                                     | 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 |
|  | GL40                              | C5-D40-368-GL40 | 368,0            | 345,0 | 341,0 | 40,0 | 404,4 | 187,4 | 5000      | 1         | PB        | 4,30 |
| C6                                     | 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

|                         |                 |             |
|-------------------------|-----------------|-------------|
| 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

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

Please check availability in current price and stock-list

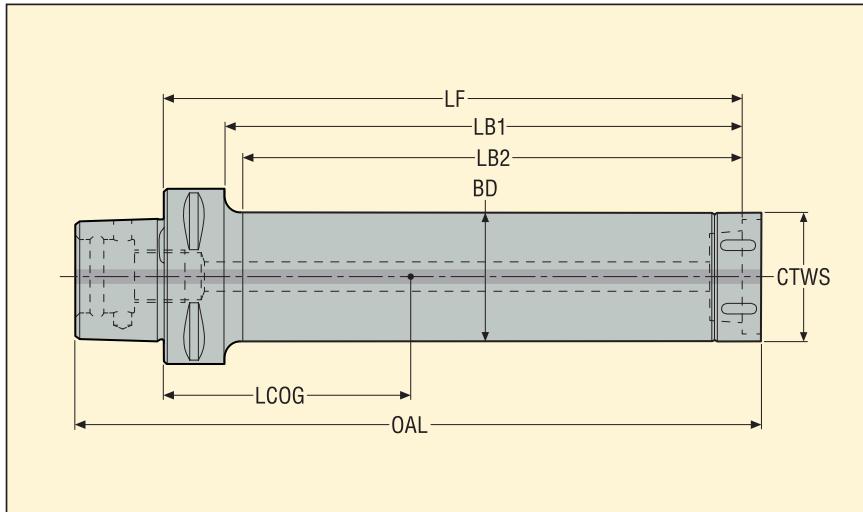
# STEADYLINE® TURNING

EPB® GL – Steady ine®, GL holders, body diameters 32, 40, 50

Seco-Capto™



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



\* Max. RPM only when used in rotating boring

## Accessories

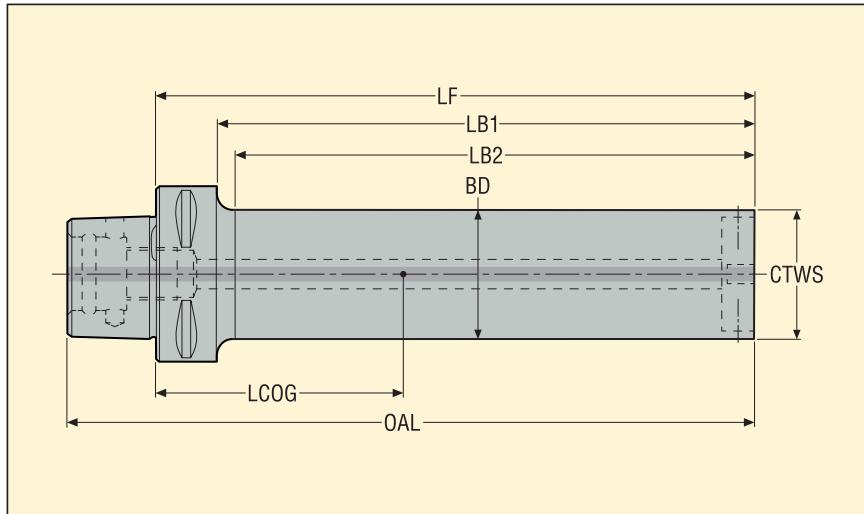
Spare Parts

Please check availability in current price and stock-list

# STEADYLINE® TURNING

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

Seco-Capto™



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

| Machine side<br>Seco-Capto™ shank size | Workpiece side<br>BA size<br>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

|       |             |
|-------|-------------|
| For   | Locking key |
|       |             |
| BA060 | 03H04       |
| BA080 | 03H05       |
|       |             |
|       |             |
|       |             |
|       |             |
|       |             |

## Spare Parts

|       |               |
|-------|---------------|
| For   | Locking screw |
|       |               |
| BA060 | 90FQ4         |
| BA080 | 90FQ52        |
|       |               |
|       |               |
|       |               |
|       |               |
|       |               |

Please check availability in current price and stock-list

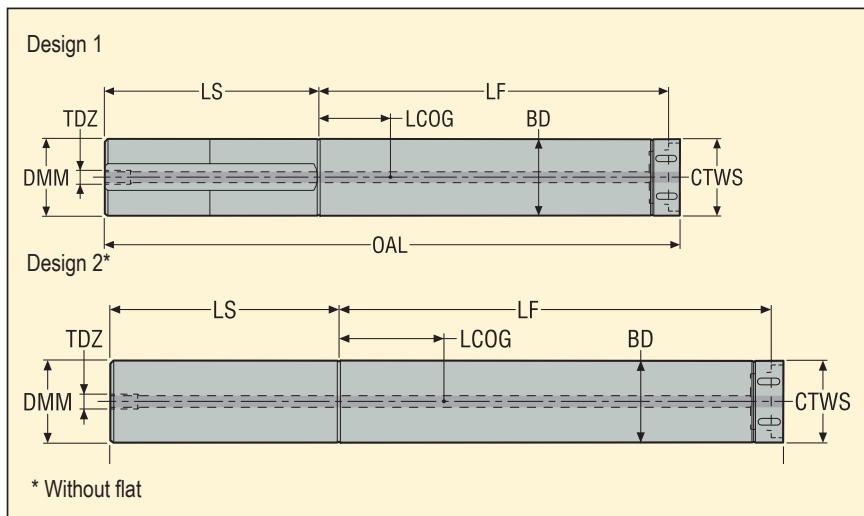
# STEADYLINE® TURNING

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

Cylindrical



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



| Machine side<br>DMM mm | Workpiece side<br>GL size<br>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

|                         |                 |             |
|-------------------------|-----------------|-------------|
| 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

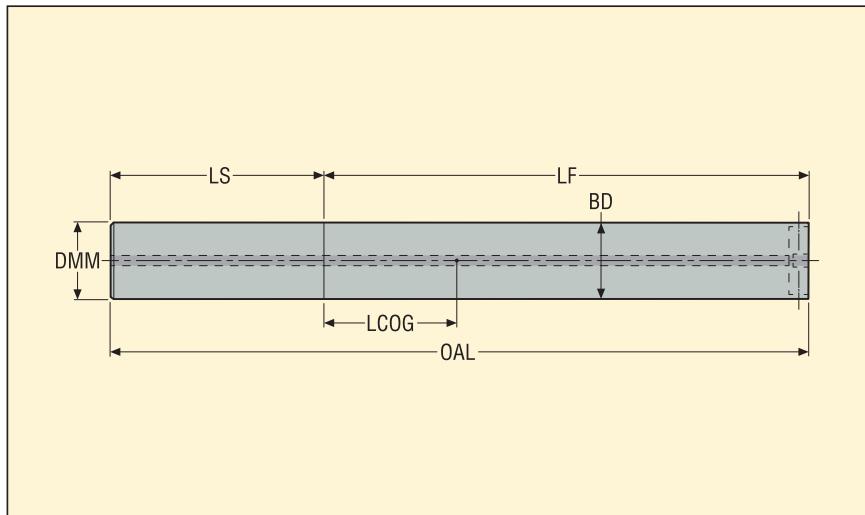
|                         |             |
|-------------------------|-------------|
| For nut of GL bore size | Locking key |
|                         |             |
| GL32                    | SL32        |
| GL40                    | SL40        |
| GL50                    | SL50        |
|     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

Please check availability in current price and stock-list

# STEADYLINE® TURNING

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

Cylindrical



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

| Machine side<br>DMM<br>mm | Workpiece side<br>BA size | Designation    | Dimensions in mm |       |       |        |       | RFID<br>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

|       |             |
|-------|-------------|
| For   | Locking key |
|       |             |
| BA060 | 03H04       |
| BA080 | 03H05       |
| BA100 | 03H06       |
|       |             |
|       |             |
|       |             |
|       |             |
|       |             |
|       |             |

## Spare Parts

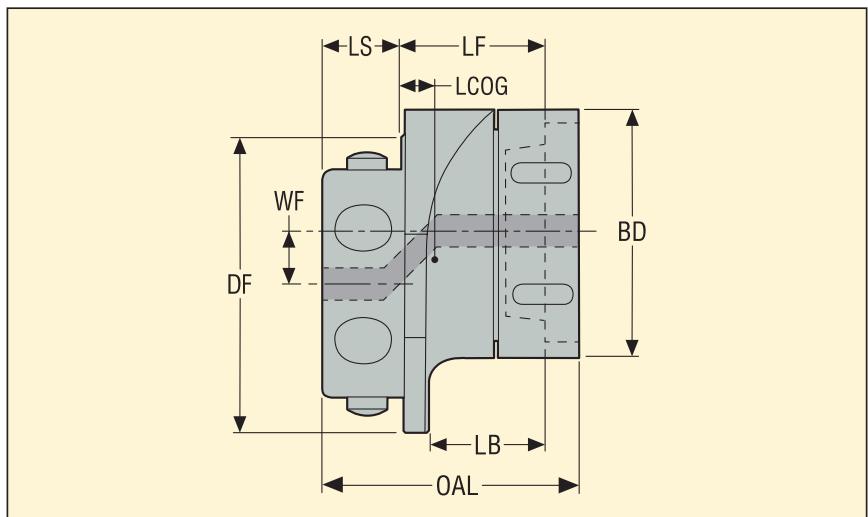
|       |               |
|-------|---------------|
| For   | Locking screw |
|       |               |
| BA060 | 90FQ4         |
| BA080 | 90FQ52        |
| BA100 | 90FQ6         |
|       |               |
|       |               |
|       |               |
|       |               |
|       |     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

Please check availability in current price and stock-list

# STEADYLINE® TURNING

EPB® BA – BA to GL adapters

BA



- 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 |
|              | GL50           | BA060-10-27-GL50 | 10,0             | 27,0 | 60,0  | 50,0 | 21,5 | 16,0 | 50,4 | 5,8  | 0         | 1,00 |
| BA080        |                |                  |                  |      |       |      |      |      |      |      |           |      |
|              | GL50           | BA080-15-27-GL50 | 15,0             | 27,0 | 80,0  | 50,0 | 21,5 | 22,0 | 56,4 | 1,4  | 0         | 0,90 |
|              | GL50           | BA080-23-27-GL50 | 23,0             | 27,0 | 80,0  | 50,0 | 21,5 | 22,0 | 56,4 | 1,4  | 0         | 0,90 |
| BA100        |                |                  |                  |      |       |      |      |      |      |      |           |      |
|              | GL50           | BA100-28-29-GL50 | 23,0             | 27,0 | 100,0 | 50,0 | 21,5 | 22,0 | 56,4 | 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

|      |                 |             |
|------|-----------------|-------------|
| For  | Replaceable end | Torque key  |
|      |                 |             |
| GL50 | SL00-50         | SL00-50.550 |
|      |                 |             |
|      |                 |             |
|      |                 |             |
|      |                 |             |
|      |                 |             |
|      |                 |             |

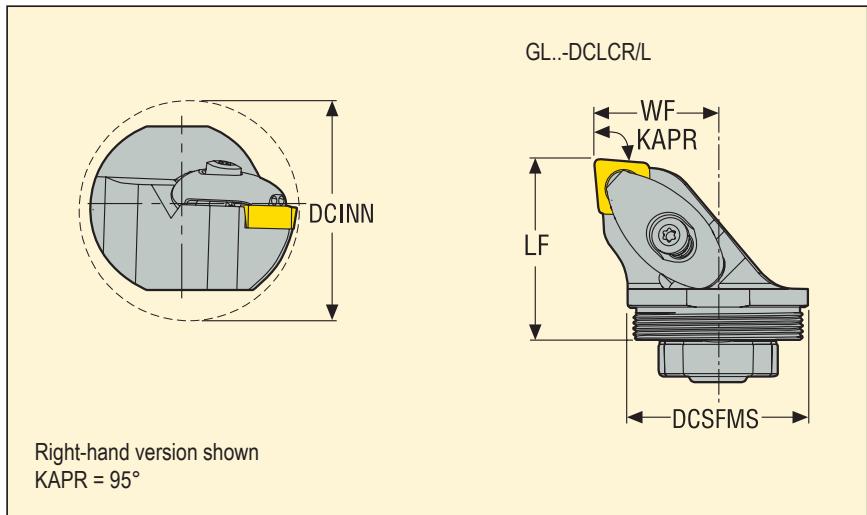
## Spare Parts

|      |             |
|------|-------------|
| For  | Locking key |
|      |             |
| GL50 | SL50        |
|      |             |
|      |             |
|      |             |
|      |             |
|      |             |
|      |             |

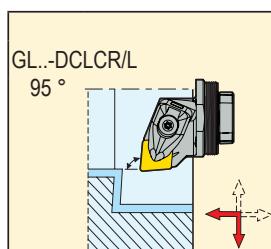
Please check availability in current price and stock-list

TURNING – STEADYLINE®, GL-HEADS, INT. JETSTREAM TOOLING®

Toolholders for inserts CCGT, CCGW, CCMT and CCMW



- For inserts programme, see Turning Catalog page(s) 396-400, 454, 482
  - GAMO° = Rake angle, LAMS° = Inclination angle
  - For holder code key, see page(s) 13, 13-14, 14
  - For coolant clamps code key, see page(s) 22, 22
  - For damping holders programme, see page(s) 297, 297-304



#### Spare Parts, Parts included in delivery

## Accessories\*

Please check availability in current price and stock-list

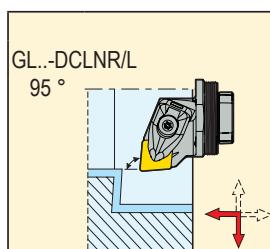
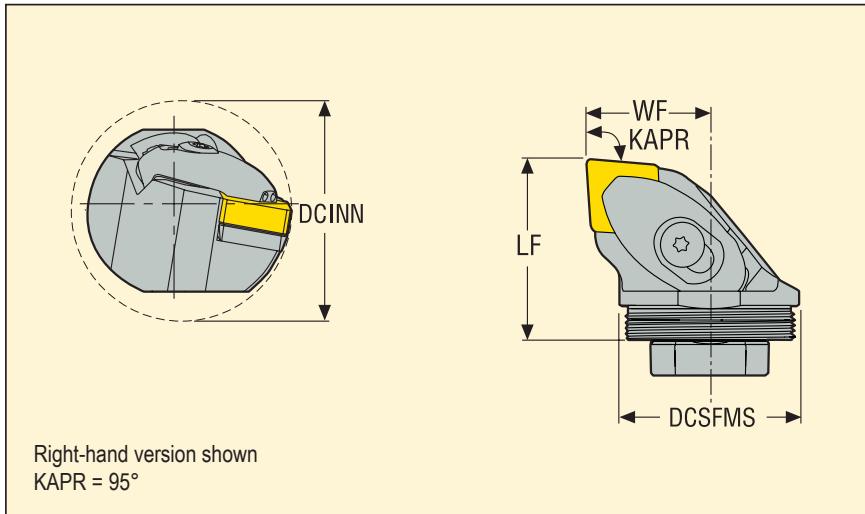
\* To be ordered separately

TURNING – STEADYLINE®, GL-HEADS, INT. JETSTREAM TOOLING®

## Toolholders for inserts CNGG, CNMA, CNMG and CNMM



- For inserts programme, see Turning Catalog page(s) 401-408, 455-456, 482
  - GAMO° = Rake angle, LAMS° = Inclination angle
  - For holder code key, see page(s) 13, 13-14, 14
  - For coolant clamps code key, see page(s) 22, 22
  - For damping holders programme, see page(s) 297, 297-304



#### Spare Parts, Parts included in delivery

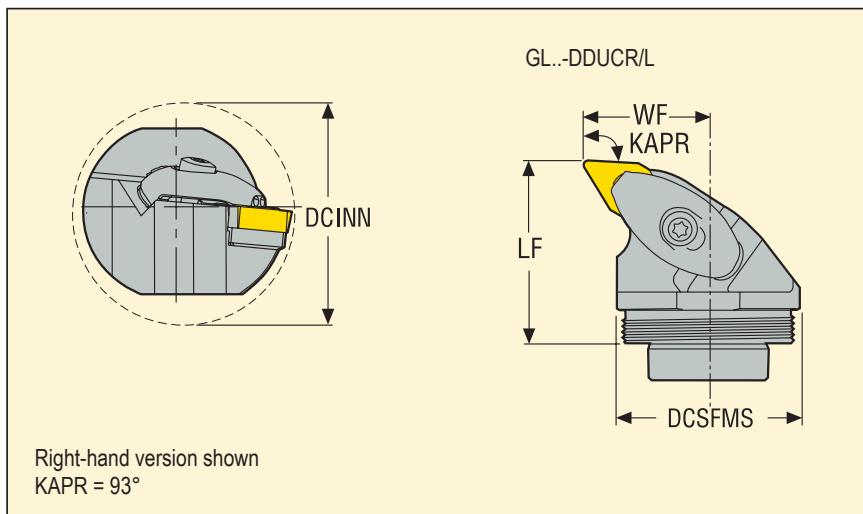
## Accessories\*

Please check availability in current price and stock-list

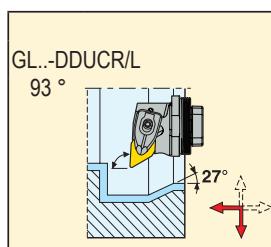
\* To be ordered separately

## **TURNING – STEADYLINE®, GL-HEADS, INT. JETSTREAM TOOLING®**

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



- For inserts programme, see Turning Catalog page(s) 409-412, 457, 484
  - GAMO° = Rake angle, LAMS° = Inclination angle
  - For holder code key, see page(s) 13, 13-14, 14
  - For coolant clamps code key, see page(s) 22, 22
  - For damping holders programme, see page(s) 297, 297-304



## Spare Parts, Parts included in delivery

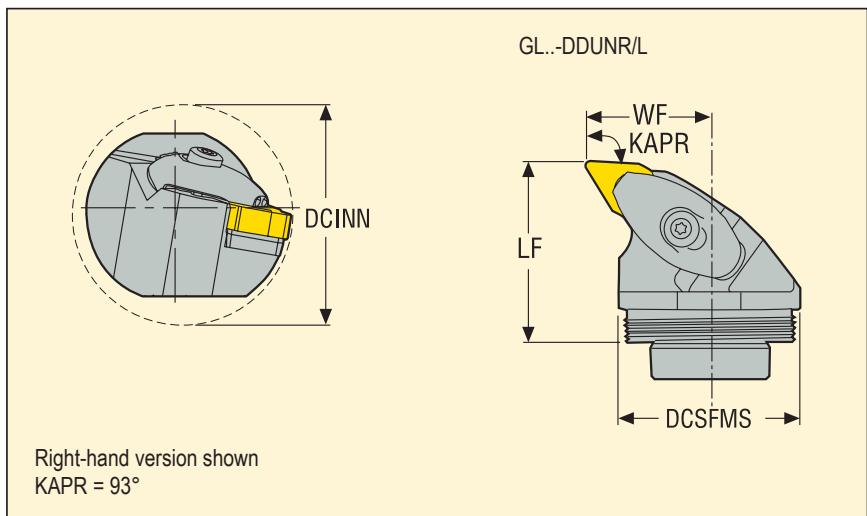
## Accessories\*

Please check availability in current price and stock-list

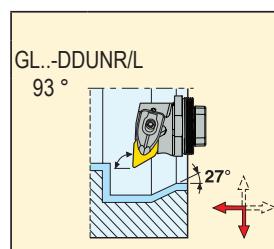
\* To be ordered separately

# TURNING – STEADYLINE®, GL-HEADS, INT. JETSTREAM TOOLING®

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



- For inserts programme, see Turning Catalog page(s) 412-418, 458-460
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 13, 13-14, 14
- For coolant clamps code key, see page(s) 22, 22
- For damping holders programme, see page(s) 297, 297-304



| Size |    | Designation            | Dimensions in mm |    |    |       | $\gamma_o$ ° | $\lambda_s$ ° |     |            |
|------|----|------------------------|------------------|----|----|-------|--------------|---------------|-----|------------|
|      |    |                        | DCSFMS           | LF | WF | DCINN |              |               |     |            |
| GL32 | 11 | GL32-DDUNR-22032-11JET | 32               | 32 | 22 | 40    | -6           | -10           | 0,2 | DN..1104.. |
|      |    | GL32-DDUNL-22032-11JET | 32               | 32 | 22 | 40    | -6           | -10           | 0,2 | DN..1104.. |
|      | 15 | GL32-DDUNR-22032-15JET | 32               | 32 | 22 | 40    | -6           | -14           | 0,2 | DN..1506.. |
|      |    | GL32-DDUNL-22032-15JET | 32               | 32 | 22 | 40    | -6           | -14           | 0,2 | DN..1506.. |
| GL40 | 11 | GL40-DDUNR-27032-11JET | 40               | 32 | 27 | 50    | -6           | -10           | 0,2 | DN..1104.. |
|      |    | GL40-DDUNL-27032-11JET | 40               | 32 | 27 | 50    | -6           | -10           | 0,2 | DN..1104.. |
|      | 15 | GL40-DDUNR-27032-15JET | 40               | 32 | 27 | 50    | -6           | -14           | 0,2 | DN..1506.. |
|      |    | GL40-DDUNL-27032-15JET | 40               | 32 | 27 | 50    | -6           | -14           | 0,2 | DN..1506.. |
| GL50 | 15 | GL50-DDUNR-32032-15JET | 50               | 32 | 32 | 63    | -6           | -14           | 0,4 | DN..1506.. |
|      |    | GL50-DDUNL-32032-15JET | 50               | 32 | 32 | 63    | -6           | -14           | 0,4 | DN..1506.. |
|      |    |                        |                  |    |    |       |              |               |     |            |
|      |    |                        |                  |    |    |       |              |               |     |            |
|      |    |                        |                  |    |    |       |              |               |     |            |
|      |    |                        |                  |    |    |       |              |               |     |            |
|      |    |                        |                  |    |    |       |              |               |     |            |
|      |    |                        |                  |    |    |       |              |               |     |            |

## Spare Parts, Parts included in delivery

## Accessories\*

| For    | Clamp key | Clamp screw | Coolant clamp | Coolant seal | Insert shim | Key (T-handle) | O-ring         | Shim/clamp key | Shim key | Shim screw  | Spring | Clamp kit       |
|--------|-----------|-------------|---------------|--------------|-------------|----------------|----------------|----------------|----------|-------------|--------|-----------------|
| 32-11  | –         | L84017-T09P | CN14U00S-2    | 930RD13      | DDN110310   | DOUBLE-T       | O-RING-5.0X1.2 | H4B-T09P       | –        | C03007-T09P | S5608  | CN14U00S-2-SET  |
| 32R-15 | H4B-T09P  | L84017-T09P | CN14U10S-2R   | 930RD13      | DDN150416   | DOUBLE-T       | O-RING-5.0X1.2 | –              | H4B-T15P | C04008-T15P | S5608  | CN14U10S-2R-SET |
| 32L-15 | H4B-T09P  | L84017-T09P | CN14U10S-2L   | 930RD13      | DDN150416   | DOUBLE-T       | O-RING-5.0X1.2 | –              | H4B-T15P | C04008-T15P | S5608  | CN14U10S-2L-SET |
| 40-11  | –         | L84017-T09P | CN14U00S-2    | 930RD13      | DDN110310   | DOUBLE-T       | O-RING-5.0X1.2 | H4B-T09P       | –        | C03007-T09P | S5608  | CN14U00S-2-SET  |
| 40-15  | –         | L85021-T15P | CN17U00S-2    | 930RD13      | DDN150416   | DOUBLE-T       | O-RING-5.0X1.2 | H4B-T15P       | –        | C04008-T15P | S6912  | CN17U00S-2-SET  |
| 50-15  | –         | L85021-T15P | CN17U00S-2    | 930RD13      | DDN150416   | DOUBLE-T       | O-RING-5.0X1.2 | H4B-T15P       | –        | C04008-T15P | S6912  | CN17U00S-2-SET  |
|        |           |             |               |              |             |                |                |                |          |             |        |                 |
|        |           |             |               |              |             |                |                |                |          |             |        |                 |
|        |           |             |               |              |             |                |                |                |          |             |        |                 |

Please check availability in current price and stock-list

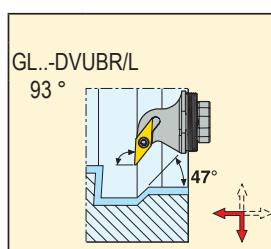
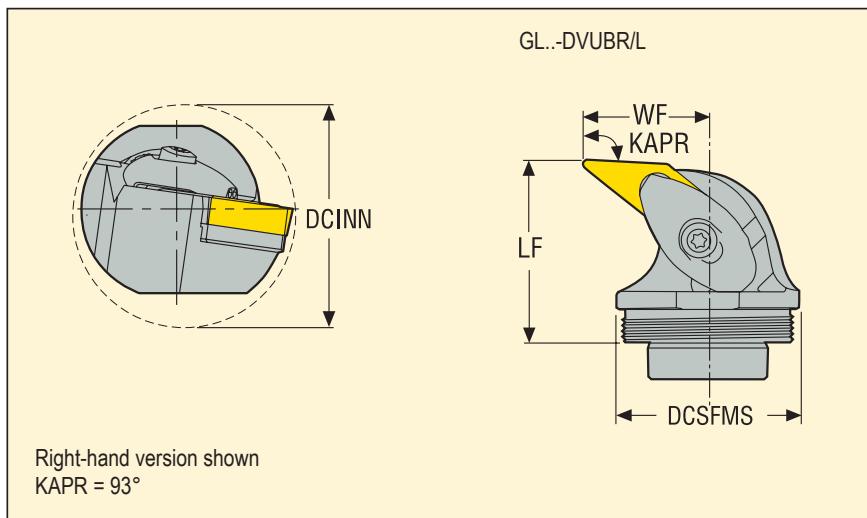
\* To be ordered separately

**TURNING – STEADYLINE® , GL-HEADS, INT. JETSTREAM TOOLING®**

## Toolholders for inserts VBGT, VBGW, VBMT and VBMW



- For inserts programme, see Turning Catalog page(s) 443-444, 477, 486
  - GAMO° = Rake angle, LAMS° = Inclination angle
  - For holder code key, see page(s) 13, 13-14, 14
  - For coolant clamps code key, see page(s) 22, 22
  - For damping holders programme, see page(s) 297, 297-304



#### Spare Parts, Parts included in delivery

## Accessories\*

Please check availability in current price and stock-list

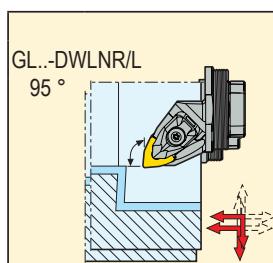
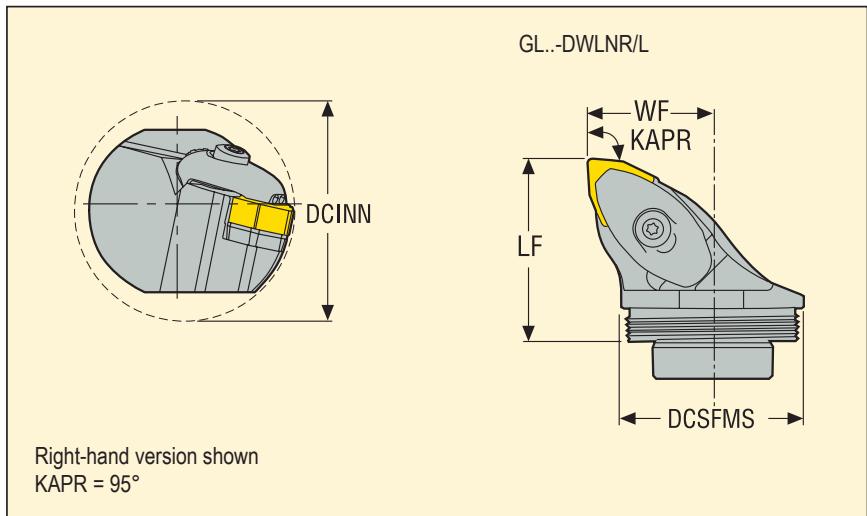
\* To be ordered separately

# TURNING – STEADYLINE®, GL-HEADS, INT. JETSTREAM TOOLING®

## Toolholders for inserts WNGG, WNMA, WNMG and WNMM



- For inserts programme, see Turning Catalog page(s) 449-453, 480-481
  - GAMO° = Rake angle, LAMS° = Inclination angle
  - For holder code key, see page(s) 13, 13-14, 14
  - For coolant clamps code key, see page(s) 22, 22
  - For damping holders programme, see page(s) 297, 297-304



#### Spare Parts, Parts included in delivery

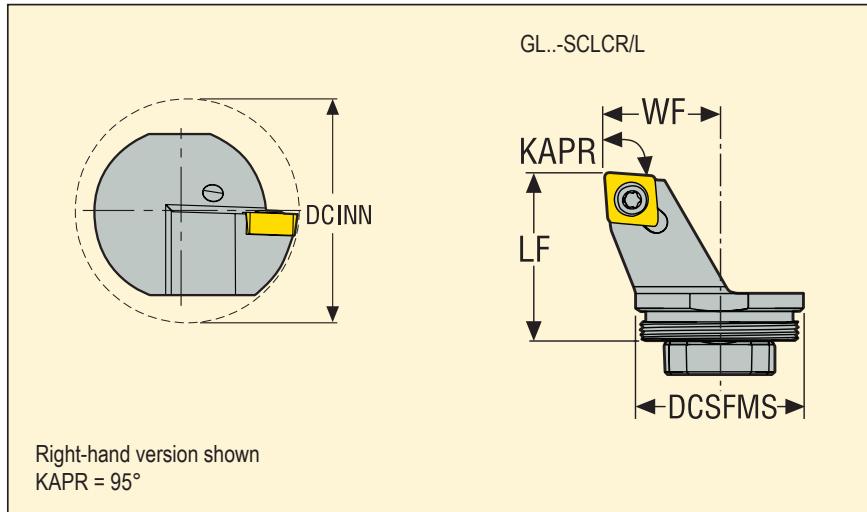
## Accessories\*

Please check availability in current price and stock-list

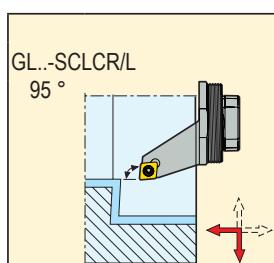
\* To be ordered separately

# TURNING – STEADYLINE®

Toolholders for inserts CCGT, CCGW, CCGX and CCMT



- For inserts programme, see Turning Catalog page(s) 396-400, 454, 482
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 13, 13-14, 14
- For damping holders programme, see page(s) 297, 297-304



| Size |    | Designation         | Dimensions in mm |    |      |       | GAMO° | LAMS° |     |            |
|------|----|---------------------|------------------|----|------|-------|-------|-------|-----|------------|
|      |    |                     | 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, Parts included in delivery

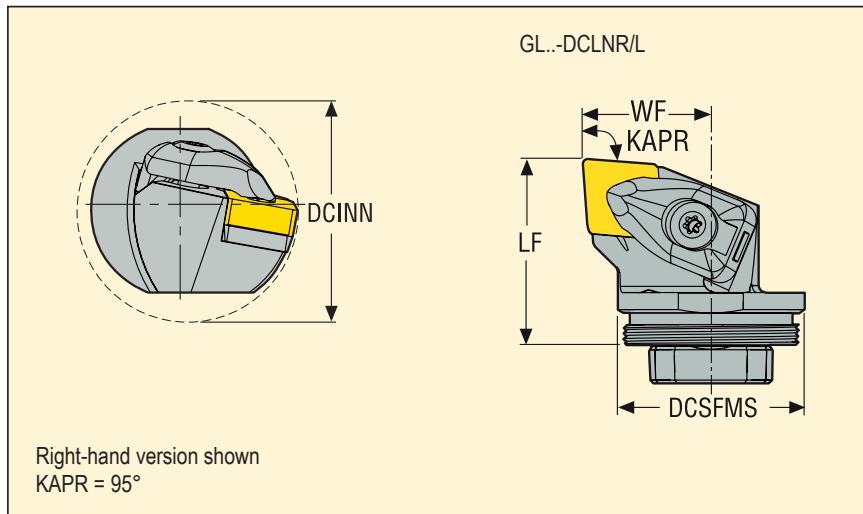
| For size | Insert key | Insert screw | Insert shim | Shim screw | Shim key |
|----------|------------|--------------|-------------|------------|----------|
| ..-06    | T07P-2     | C02506-T07P  | –           | –          | –        |
| ..-09    | T15P-2     | C04008-T15P  | –           | –          | –        |
| ..-12    | T15P-2     | C05012-T15P  | 123.19-621  | CA5008     | 5SMS795  |
|          |            |              |             |            |          |
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Please check availability in current price and stock-list

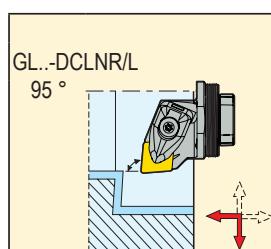
\* To be ordered separately

# TURNING – STEADYLINE® , GL-HEADS, INT.

Toolholders for inserts CNGG, CNMA, CNMG and CNMM



- For inserts programme, see Turning Catalog page(s) 401-408, 455-456, 482
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 13, 13-14, 14
- For damping holders programme, see page(s) 297, 297-304



| 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, Parts included in delivery

| For 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  |           |
|          |           |             |                      |             |                |             |        |           |
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Please check availability in current price and stock-list

Accessories\*

CD12-S12

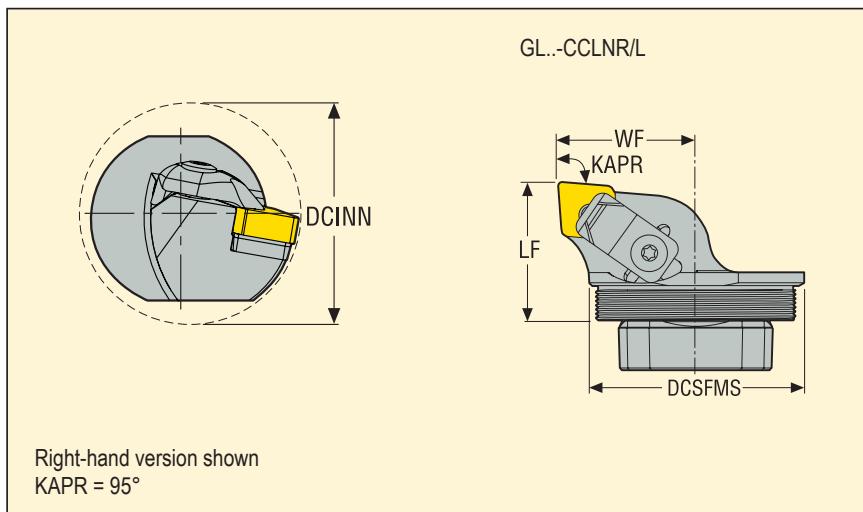
CD16-S16

CD19-S19

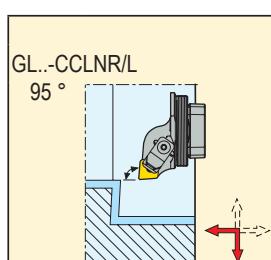
\* To be ordered separately

**TURNING – STEADYLINE®, GL-HEADS, INT.**

## Toolholders for PCBN inserts CNMN



- For inserts programme, see Turning Catalog page(s) 456
  - GAMO° = Rake angle, LAMS° = Inclination angle
  - For holder code key, see page(s) 13, 13-14, 14
  - For damping holders programme, see page(s) 297, 297-304

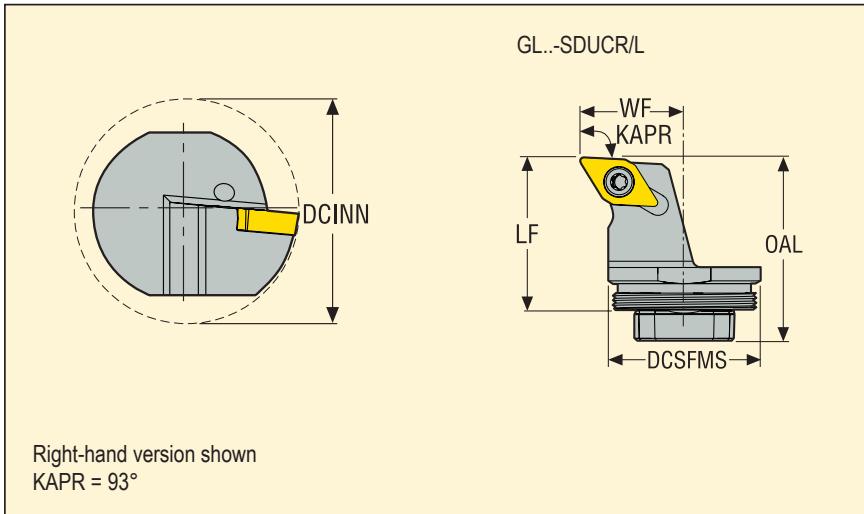


## Spare Parts, Parts included in delivery

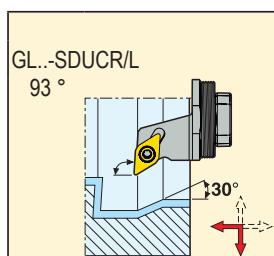
Please check availability in current price and stock-list

# TURNING – STEADYLINE®, GL-HEADS, INT.

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



- For inserts programme, see Turning Catalog page(s) 409-412, 457, 484
  - GAMO $^{\circ}$  = Rake angle, LAMS $^{\circ}$  = Inclination angle
  - For holder code key, see page(s) 13, 13-14, 14
  - For damping holders programme, see page(s) 297, 297-304

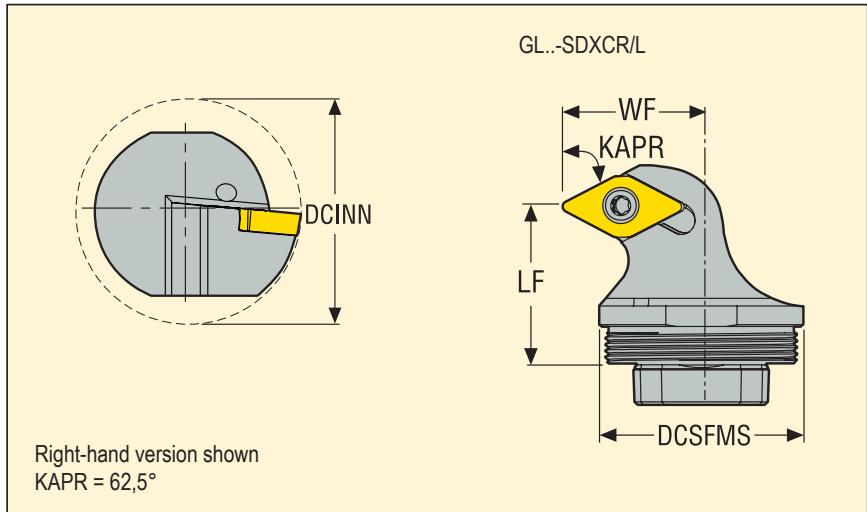


#### Spare Parts, Parts included in delivery

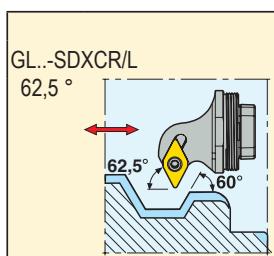
Please check availability in current price and stock-list

**TURNING – STEADYLINE®, GL-HEADS, INT.**

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



- For inserts programme, see Turning Catalog page(s) 409-412, 457, 484
  - GAMO° = Rake angle, LAMS° = Inclination angle
  - For holder code key, see page(s) 13, 13-14, 14
  - For damping holders programme, see page(s) 297, 297-304



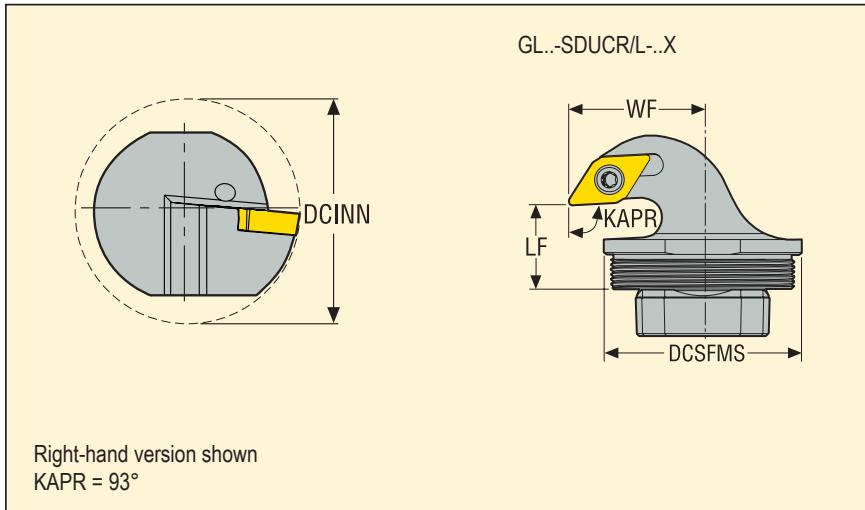
| Size |  | Designation         | Dimensions in mm |    |      |       | GAMO° | LAMS° |  |  |  |
|------|---|---------------------|------------------|----|------|-------|-------|-------|---|---|--|
|      |   |                     | DCSFMS           | LF | WF   | DCINN |       |       |   |   |  |
| GL32 | 11  | GL32-SDXCR-22025-11 | 32               | 25 | 21,9 | 40    | 0     | -5    | 0,2   | DC..11T3..  |  |
|      |   | GL32-SDXCL-22025-11 | 32               | 25 | 21,9 | 40    | 0     | -5    | 0,2   | DC..11T3..  |  |
| GL40 | 11  | GL40-SDXCR-27025-11 | 40               | 25 | 26,9 | 50    | 0     | -5    | 0,2   | DC..11T3..  |  |
|      |   | GL40-SDXCL-27025-11 | 40               | 25 | 26,9 | 50    | 0     | -5    | 0,2   | DC..11T3..  |  |
| GL50 | 11  | GL50-SDXCR-32025-11 | 50               | 25 | 31,9 | 63    | 0     | -5    | 0,3   | DC..11T3..  |  |
|      |   | GL50-SDXCL-32025-11 | 50               | 25 | 31,9 | 63    | 0     | -5    | 0,3   | DC..11T3..  |  |
|      |   |                     |                  |    |      |       |       |       |   |   |  |
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#### Spare Parts, Parts included in delivery

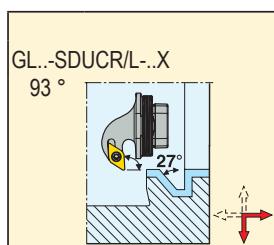
Please check availability in current price and stock-list

## TURNING – STEADYLINE®, GL-HEADS, INT.

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



- For inserts programme, see Turning Catalog page(s) 409-412, 457, 484
  - GAMO° = Rake angle, LAMS° = Inclination angle
  - For holder code key, see page(s) 13, 13-14, 14
  - For damping holders programme, see page(s) 297, 297-304

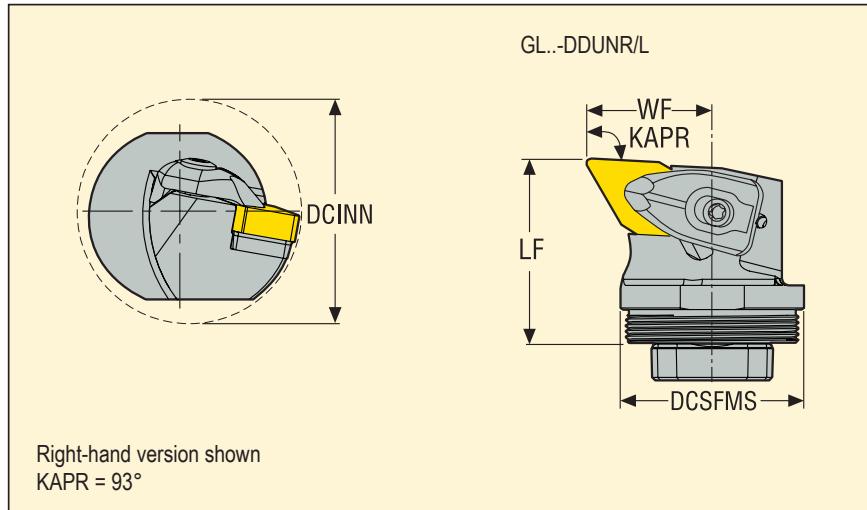


#### Spare Parts, Parts included in delivery

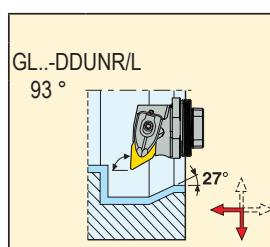
Please check availability in current price and stock-list

## TURNING – STEADYLINE®, GL-HEADS, INT.

## Toolholders for inserts DNGG, DNGM, DNMA, DNMG, DNMM, DNMU and DNMX



- For inserts programme, see Turning Catalog page(s) 412-418, 458-460
  - GAMO° = Rake angle, LAMS° = Inclination angle
  - For holder code key, see page(s) 13, 13-14, 14
  - For damping holders programme, see page(s) 297, 297-304



#### Spare Parts, Parts included in delivery

## Accessories\*

Please check availability in current price and stock-list

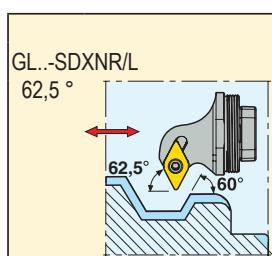
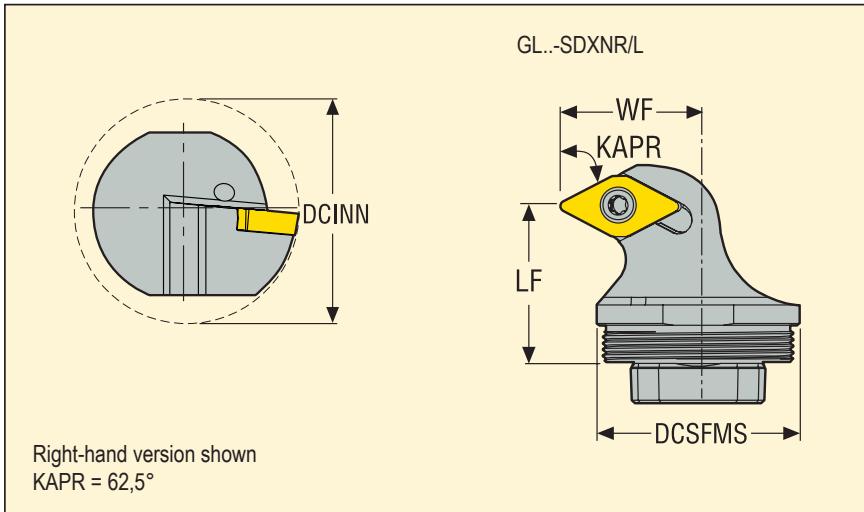
\* To be ordered separately

# TURNING – STEADYLINE®, GL-HEADS, INT.

## Toolholders for inserts DNMA, DNMU and DNMX



- For inserts programme, see Turning Catalog page(s) 417-418, 459
  - GAMO° = Rake angle, LAMS° = Inclination angle
  - For holder code key, see page(s) 13, 13-14, 14
  - For damping holders programme, see page(s) 297, 297-304

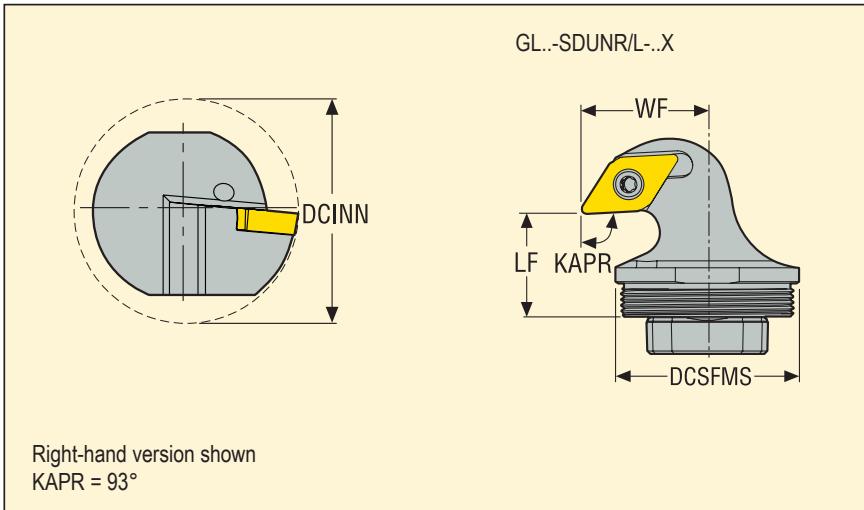


#### Spare Parts, Parts included in delivery

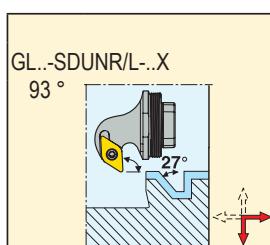
Please check availability in current price and stock-list

**TURNING – STEADYLINE®, GL-HEADS, INT.**

## Toolholders for inserts DNNU and DNMX



- For inserts programme, see Turning Catalog page(s) 417-418, 459
  - GAMO° = Rake angle, LAMS° = Inclination angle
  - For holder code key, see page(s) 13, 13-14, 14
  - For damping holders programme, see page(s) 297, 297-304



## Spare Parts, Parts included in delivery

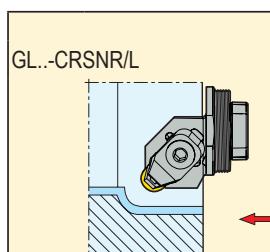
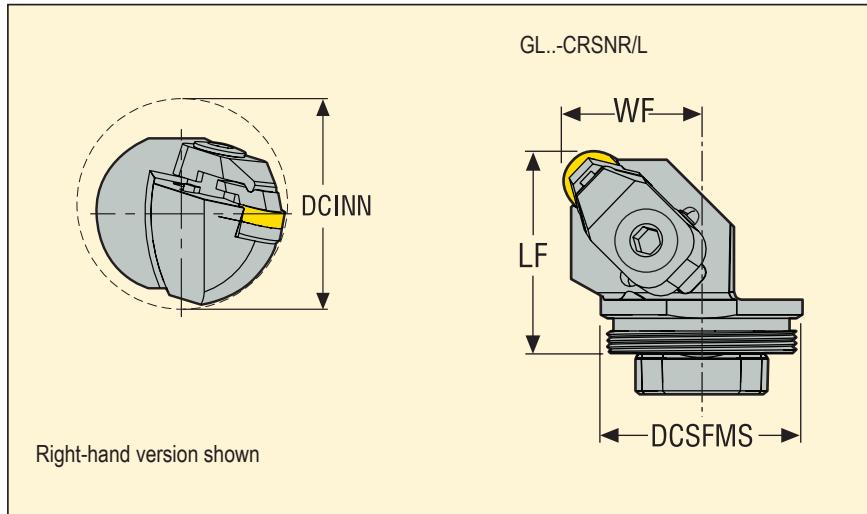
Please check availability in current price and stock-list

# TURNING – STEADYLINE®, GL-HEADS, INT.

## Toolholders for PCBN inserts RNGN-LF, RNGN and RNMN



- For inserts programme, see Turning Catalog page(s) 461-462, 485, 488
  - GAMO° = Rake angle, LAMS° = Inclination angle
  - For holder code key, see page(s) 13, 13-14, 14
  - For damping holders programme, see page(s) 297, 297-304



#### Spare Parts, Parts included in delivery

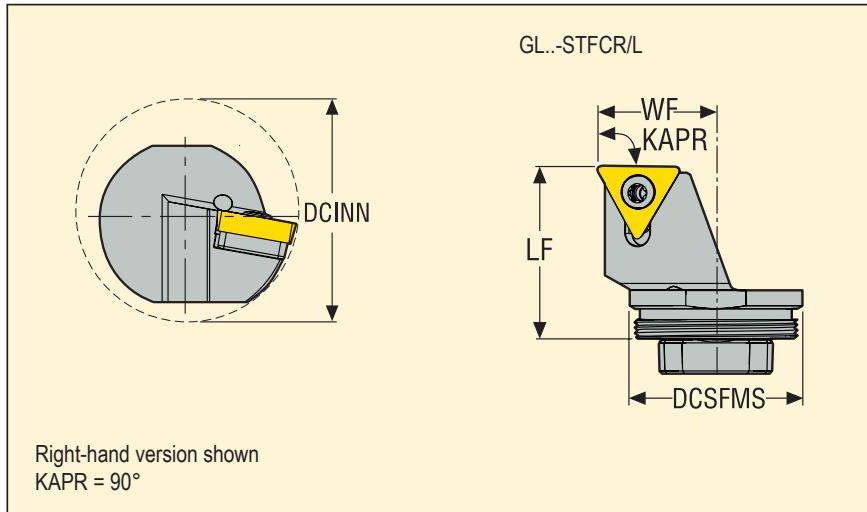
## Accessories\*

Please check availability in current price and stock-list

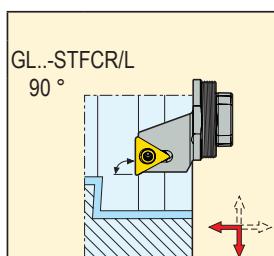
\* To be ordered separately

**TURNING – STEADYLINE®, GL-HEADS, INT.**

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



- For inserts programme, see Turning Catalog page(s) 433-436, 485
  - GAMO° = Rake angle, LAMS° = Inclination angle
  - For holder code key, see page(s) 13, 13-14, 14
  - For damping holders programme, see page(s) 297, 297-304



## Spare Parts, Parts included in delivery

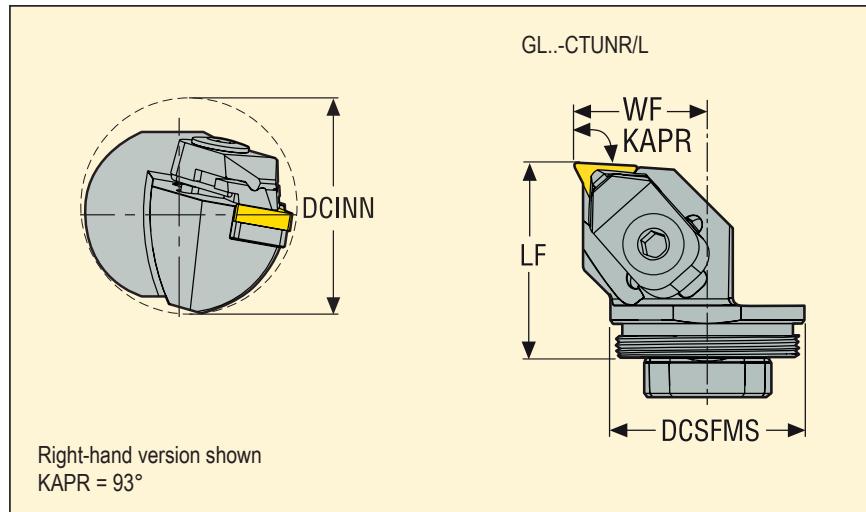
## Accessories\*

Please check availability in current price and stock-list

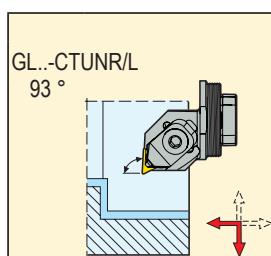
\* To be ordered separately

## TURNING – STEADYLINE®, GL-HEADS, INT.

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



- For inserts programme, see Turning Catalog page(s) 472-476
  - GAMO° = Rake angle, LAMS° = Inclination angle
  - For holder code key, see page(s) 13, 13-14, 14
  - For damping holders programme, see page(s) 297, 297-304



#### Spare Parts, Parts included in delivery

## Accessories\*

Please check availability in current price and stock-list

\* To be ordered separately

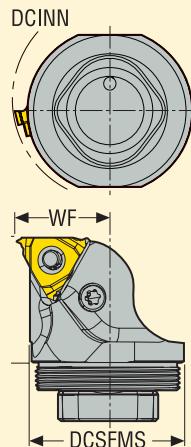
## THREAD TURNING – STEADYLINE®, GL-HEADS, JETSTREAM TOOLING®

## Toolholders for S-inserts

Snap-Tap®



- For inserts programme, see Turning Catalog page(s)  
85, 87, 90-91, 94-95, 98-99, 101-103, 105, 107, 109, 113



Right-hand version shown

| Application |                         | 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

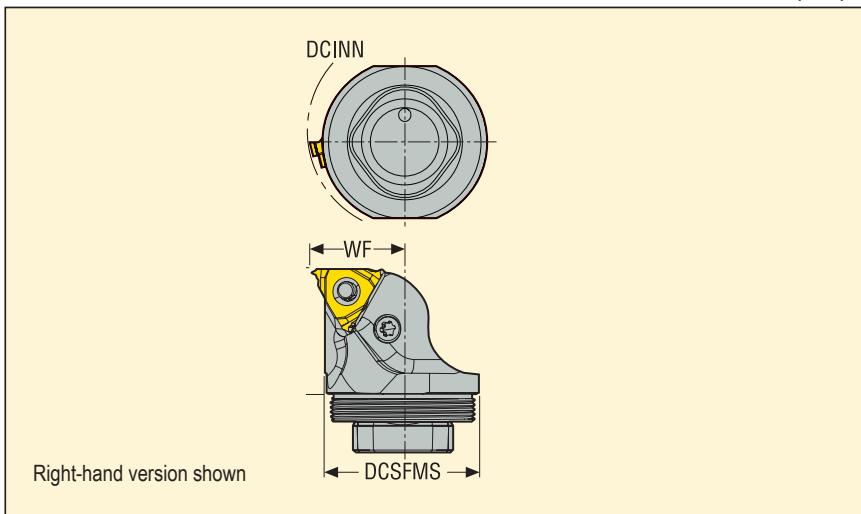
|            |                 |                 |
|------------|-----------------|-----------------|
| For holder | Insert shim (M) | Insert shim (S) |
|            |                 |                 |
| ..16..     | MXA16-1         | GXA16-0         |
|            |                 | GXA16-1     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

Please check availability in current price and stock-list

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

## Toolholders for S-inserts

Snap-Tap®



- For inserts programme, see Turning Catalog page(s)  
85, 87, 90-91, 94-95, 98, 101, 103, 105, 107, 109-110,  
112-115

| 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, 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 |  |
|            |                 |                 |           |         |           |         |         |         |            |          |            |          |            |  |
|            |                 |                 |           |         |           |         |         |         |            |          |            |          |            |  |

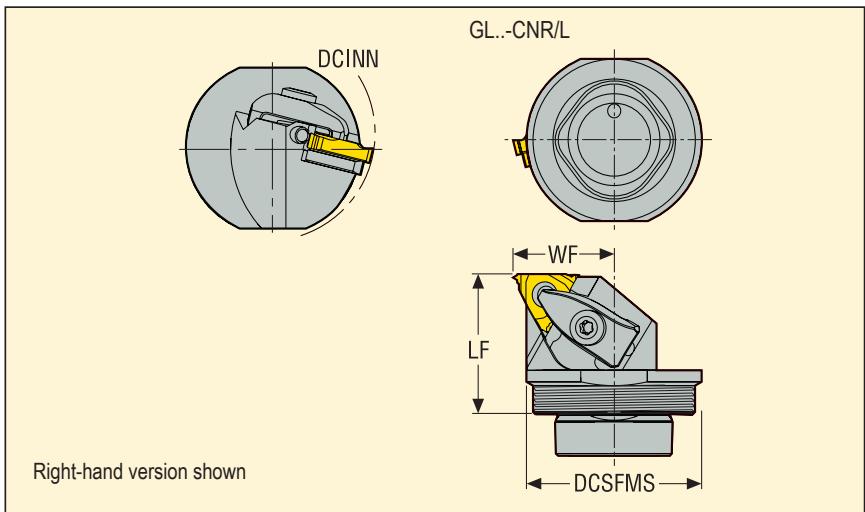
Please check availability in current price and stock-list

## **THREAD TURNING – STEADYLINE® , GL-HEADS**

## Toolholders with GL connection for S-inserts



- For inserts programme, see Turning Catalog page(s) 85, 87, 90-91, 94-95, 98-99, 101-103, 107, 109, 113



#### Spare Parts, Parts included in delivery

| For<br>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

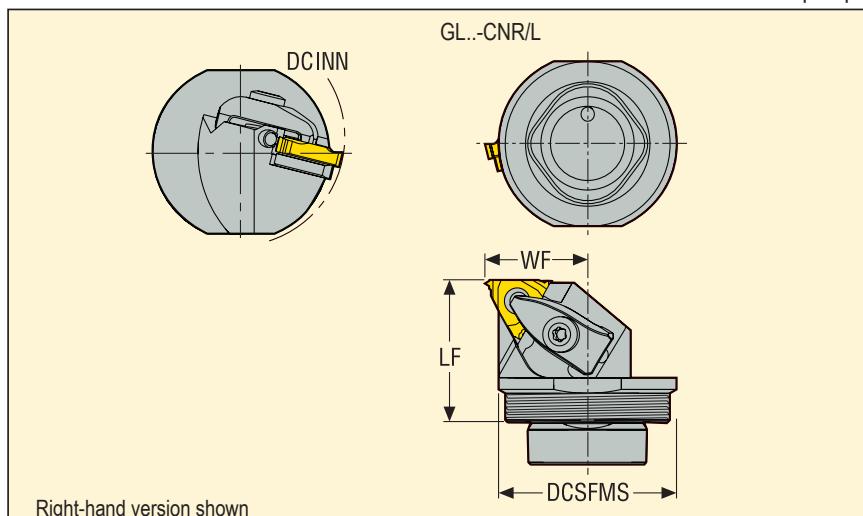
|               |                 |                 |
|---------------|-----------------|-----------------|
| For<br>holder | Insert shim (M) | Insert shim (S) |
|               |                 |                 |
| ..-16         | MX16-1          | GX16-0          |
|               |             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

Please check availability in current price and stock-list

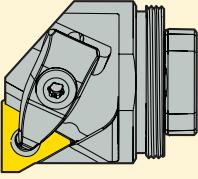
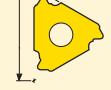
# THREAD TURNING – STEADYLINE® , GL-HEADS

Toolholders with GL connection for S-inserts

Snap-Tap®



- For inserts programme, see Turning Catalog page(s)  
84, 86, 88-89, 92-93, 97, 100, 103-104, 106, 108, 110-111,  
113-115

| Application<br> | 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, 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 | NX22-97.5 | 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

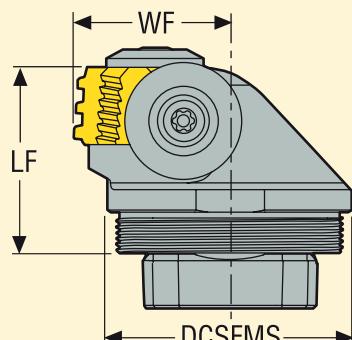
## THREAD TURNING – STEADYLINE®, GL-HEADS

## Toolholders for chasers, internal

Snap-Tap®



- For inserts programme, see Turning Catalog page(s) 116



Right-hand version shown

#### Spare Parts, Parts included in delivery

|                |                |               |                 |                |
|----------------|----------------|---------------|-----------------|----------------|
| For<br>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         |
|                |                |               |                 |                |

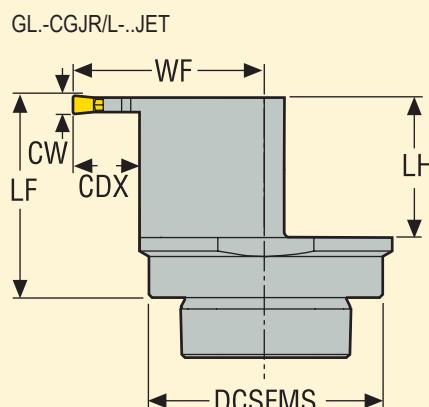
Please check availability in current price and stock-list

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

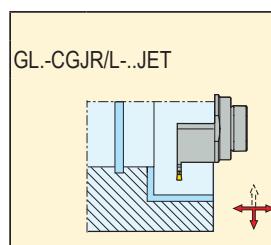
Toolholders for inserts LCGF, LCGN, LCMF and LCMR



- For inserts programme, see Turning Catalog page(s) 635-648, 650-651
  - For damping holders programme, see page(s) 297-304



Right-hand version shown



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

#### Spare Parts, Parts included in delivery

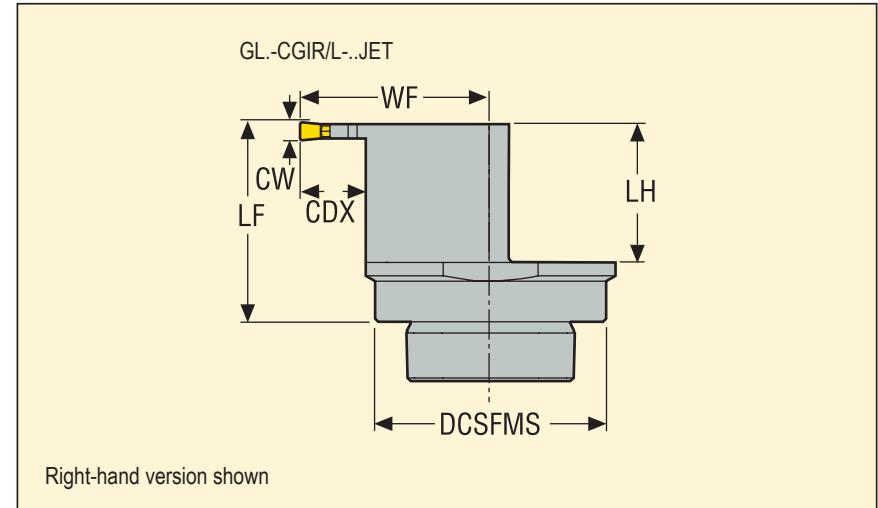
Please check availability in current price and stock-list

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

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



- For inserts programme, see Turning Catalog page(s) 635-648, 650-651
  - For damping holders programme, see page(s) 297-304



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

#### Spare Parts, Parts included in delivery

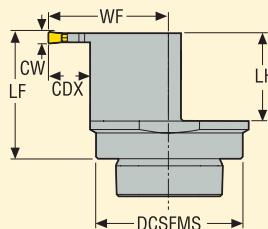
Please check availability in current price and stock-list

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

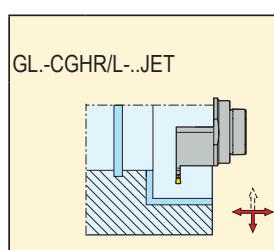
## Toolholders for inserts LCGF, LCGN, LCMF and LCMR



- For inserts programme, see Turning Catalog page(s) 635-648, 650-651
  - For damping holders programme, see page(s) 297-304



Right-hand version shown

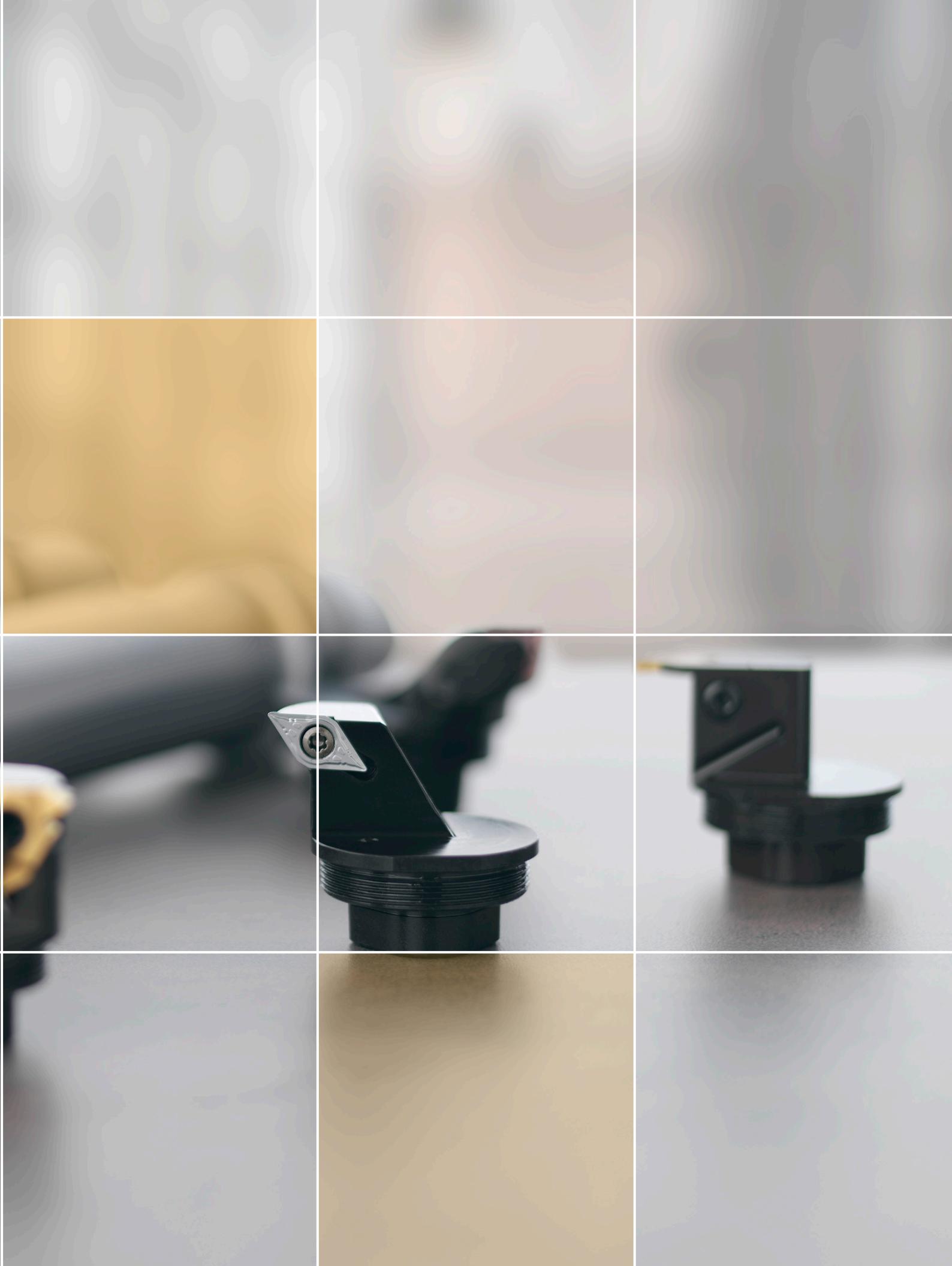


\* DCINN = minimum bore diameter, see page(s) 529

#### Spare Parts, Parts included in delivery

Please check availability in current price and stock-list





# BORING



## 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 8xD.

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 8xD





# ROUGH BORING



## EXCELLENT PERFORMANCE FOR DIAMETERS 36 MM - 69 MM

### 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

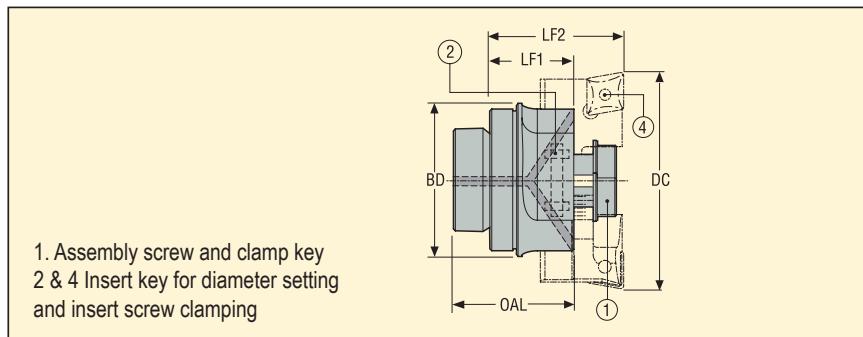
- High rigidity through a tight fit between the holders and body and large clamping screws
- Depth of cut of up to half the insert width maximises insert efficiency and metal removal rates
- Staggered boring using an included shim to offset one holder can increase or split the radial depth of cut
- Through-coolant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



# ROUGH BORING HEADS, EPB® 610

EPB® 610 GL – Rough boring heads, compact

GL

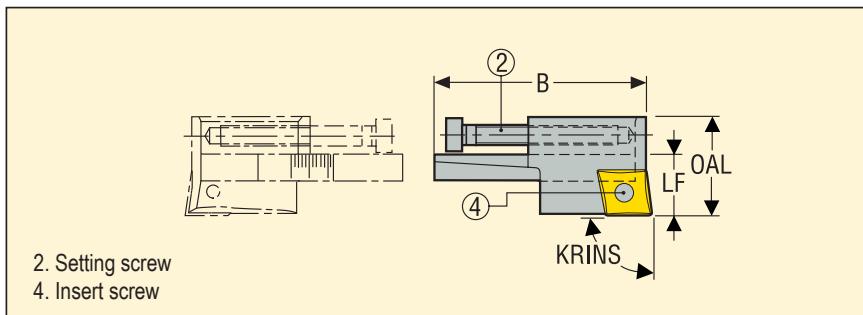
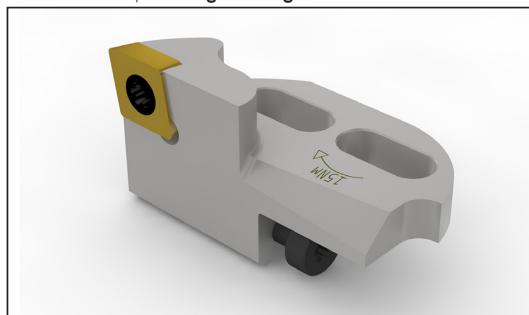


- Compact design and GL connection for best damping performance when used on Steadyline® turning and boring bar GL
- Symmetrical and staggered boring modes are possible
- Individual insert holder adjusting driving mechanism
- Internal coolant supply against cutting edges

| Machine side<br>GL size | Workpiece side<br>Capacity DC Ø mm | Ordering and<br>Product No. | Designation  | Dimensions in mm |      |      |      | Max.<br>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 EPB® 610



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

| For boring head | Capacity DC<br>Ø mm | Ordering and<br>Product No. | Designation  | KRINS° | Dimensions in mm |      |      | Suitable insert<br>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

|              |                |           |            |                        |
|--------------|----------------|-----------|------------|------------------------|
| 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

|                 |              |               |
|-----------------|--------------|---------------|
| 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

### EPB® 620 FINE BORING HEADS

The 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.

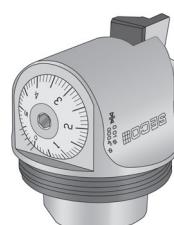


EPB® 620 heads include a clamping screw for the insert holder, key for the insert holder clamping screw, diameter setting, barrel locking screw and operating instructions.

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

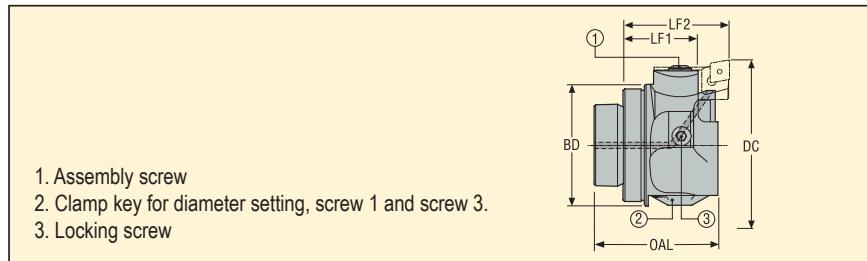
- Angular orientation of the cutting edge according to DIN 6987/ISO 7388 for SA and ISO 12164 for HSK
- Heads with insert holders pre-balanced on median diameter setting
- Insert holder setting mechanism features micrometric adjusting screw (1 increment = 0,01 mm on diameter) and a vernier scale (resolution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



# FINE BORING HEADS, EPB® 620

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

GL

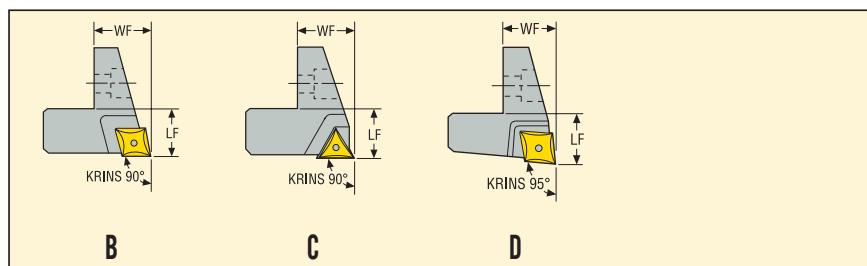


- Compact design and GL connection for best damping performance when used on Steadyline® turning and boring bar GL
- Adjusting increment 0.01mm and vernier 2.5µm, on the diameter
- Internal coolant supply against cutting edge

| Machine side<br>GL size | Workpiece side<br>Capacity DC Ø mm | Ordering and<br>Product No. | Designation  | Dimensions in mm |      |      |      | Max.<br>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 EPB® 620



- Suitable for radial boring heads EPB® 620

| Insert holders<br>type | For boring head | Insert<br>holder<br>size | Capacity DC<br>Ø mm | Ordering and<br>Product No. | Designation | Dimensions in mm |      | Suitable insert<br>size | Design<br> |
|------------------------|-----------------|--------------------------|---------------------|-----------------------------|-------------|------------------|------|-------------------------|------------|
|                        |                 |                          |                     |                             |             | WF               | LF   |                         |            |
| 90° for CC<br>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<br>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<br>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

| 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

| 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

# MILLING



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

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

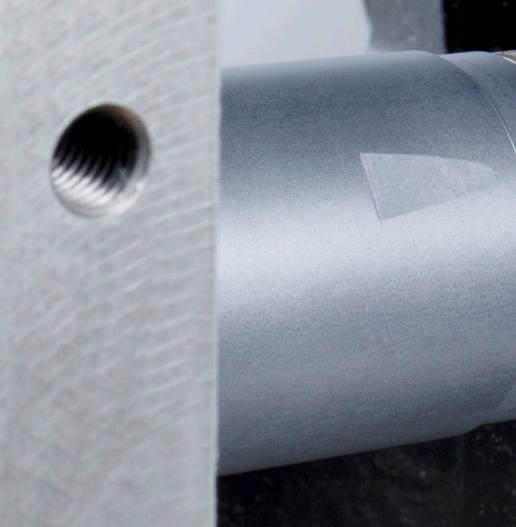


### FLEXIBLE SYSTEM: COMBIMASTER™

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: C6391552522210  
 Insert: VPGX220640ER-E10, H25  
 Material: AlZnMgCu1.5

|              |        |                    |                        |
|--------------|--------|--------------------|------------------------|
| Cutting data | Metric | $v_c$<br>1180m/min | $f_z$<br>0.25 mm/tooth |
|              | Metric | $a_p$<br>3.5 mm    | $a_e$<br>25 mm         |

## CASE 1: SHELL MILL AV SYSTEM

Operation: Pocket milling  
 Cutter: R220.97-0050-V22.2A  
 Tooling: C6391555522210  
 Insert: VPGX220640ER-E10, H25  
 Material: AlZnMgCu1.5

|              |        |                    |                        |
|--------------|--------|--------------------|------------------------|
| Cutting data | Metric | $v_c$<br>1270m/min | $f_z$<br>0.25 mm/tooth |
|              | Metric | $a_p$<br>7.0 mm    | $a_e$<br>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 ( $\phi$ 20 mm)  
 Tooling: E9304582010185  
 Material: 1.1206 CK50

|              |        |                   |                       |
|--------------|--------|-------------------|-----------------------|
| Cutting data | Metric | $v_c$<br>312m/min | $f_z$<br>0.3 mm/tooth |
|              | Metric | $a_p$<br>0.9 mm   | $a_e$<br>4.0 mm       |

## CASE 2: COMBIMASTER™ AV SYSTEM

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

|              |        |                    |                       |
|--------------|--------|--------------------|-----------------------|
| Cutting data | Metric | $v_c$<br>312 m/min | $f_z$<br>0.3 mm/tooth |
|              | Metric | $a_p$<br>2.2 mm    | $a_e$<br>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 ( $\phi$ 20 mm)  
 Tooling: E9304582010185  
 Material: 1.1206 CK50

|              |        |                    |                  |
|--------------|--------|--------------------|------------------|
| Cutting data | Metric | $v_c$<br>200 m/min | $f_z$<br>0.16 mm |
|              | Metric | $a_p$<br>0.25 mm   | $a_e$<br>20 mm   |

## CASE 3: COMBIMASTER™ AV SYSTEM

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

|              |        |                     |                  |
|--------------|--------|---------------------|------------------|
| Cutting data | Metric | $v_c$<br>200 mm/min | $f_z$<br>0.16 mm |
|              | Metric | $a_p$<br>0.8 mm     | $a_e$<br>20 mm   |

Results • 3 times higher cutting depth

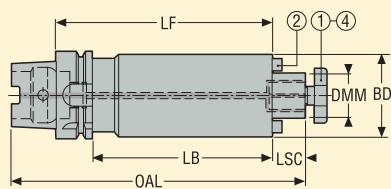
# HSK-A TOOL HOLDERS

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

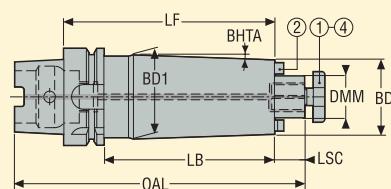
HSK-A/ISO12164-1-HSK-A



Design 1 (5555)



Design 2 (5556)



- 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

| Machine side<br>Taper | Workpiece side<br>DMM<br>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

## Spare Parts\*

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

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

Please check availability in current price and stock-list

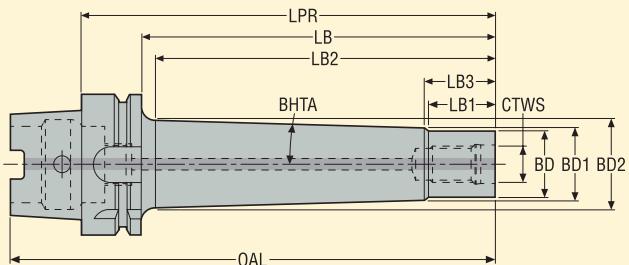
\* These centre bolts are similar to the original delivered ones: check if lengths are suitable for the milling cutters used, therefore see in the Operating instructions sheet delivered with the holders. For HSK sealing plugs, coolant tubes and tube spanners, see Machining Navigator Tooling Catalogue.

## **HSK-A TO COMBIMASTER™ ADAPTERS**

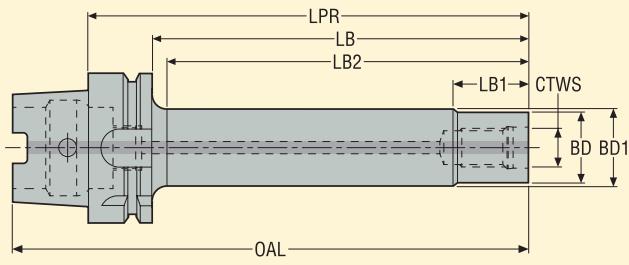
EPB® K820-K821 – Steadyline® vibration damping Combimaster™ arbors

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

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

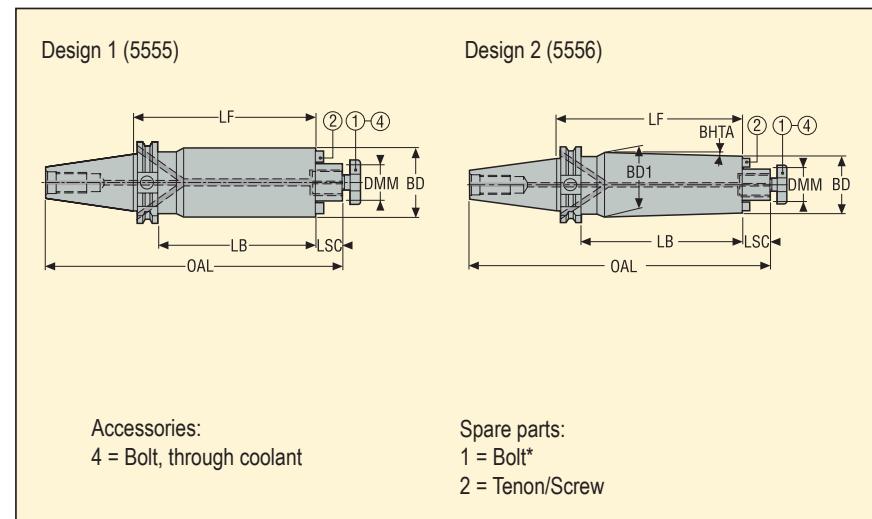
# DIN 69871 TOOL HOLDERS

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

DIN 69871-ADB



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



| Machine side<br>Taper | Workpiece side<br>DMM<br>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

## Spare Parts\*

| For Taper/<br>DMM | Bolt, through coolant | Spanner | For Taper/<br>DMM | Bolt    | Plug     | Screw    | Tenon       |
|-------------------|-----------------------|---------|-------------------|---------|----------|----------|-------------|
|                   |                       |         |                   |         |          |          |             |
| DIN40/ 16         | 5801608L              | 5811608 | DIN40/ 16         | 5801608 | 950A0406 | 950D0312 | 16C2080810A |
| DIN40/ 22         | 5802210L              | 5812210 | DIN40/ 22         | 5802210 | 950A0406 | 950D0416 | 16C2101111  |
| DIN50/ 22         | 5802210L              | 5812210 | DIN50/ 22         | 5802210 | 950A0606 | 950D0416 | 16C2101111  |
| DIN50/ 27         | 5802712L              | 5812712 | DIN50/ 27         | 5802712 | 950A0606 | 950D0516 | 16C2121214A |
| DIN50/ 32         | 5803216L              | 5813216 | DIN50/ 32         | 5803216 | 950A0606 | 950D0516 | 16C2141421A |
| DIN50/ 40         | 5804020L              | 5814020 | DIN50/ 40         | 5804020 | 950A0606 | 950D0616 | 16C2161621A |
|                   |                       |         |                   |         |          |          |             |
|                   |                       |         |                   |         |          |          |             |
|                   |                       |         |                   |         |          |          |             |

Please check availability in current price and stock-list

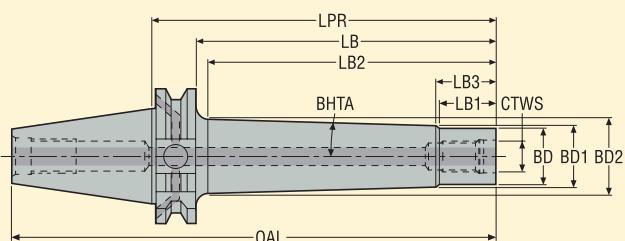
\* These centre bolts are similar to the original delivered ones: check if lengths are suitable for the milling cutters used, therefore see in the Operating instructions sheet delivered with the holders.

# DIN 69871 TO COMBIMASTER™ ADAPTERS

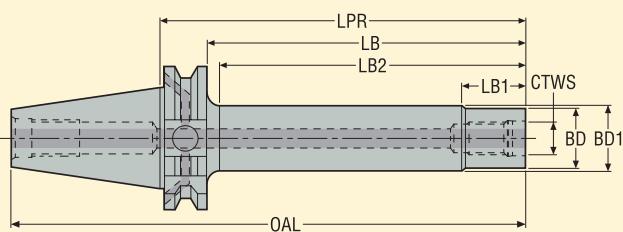
EPB® K820-K821 – Steadyline® vibration damping Combimaster™ arbors

DIN

Design 1 (K820)



Design 2 (K821)



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

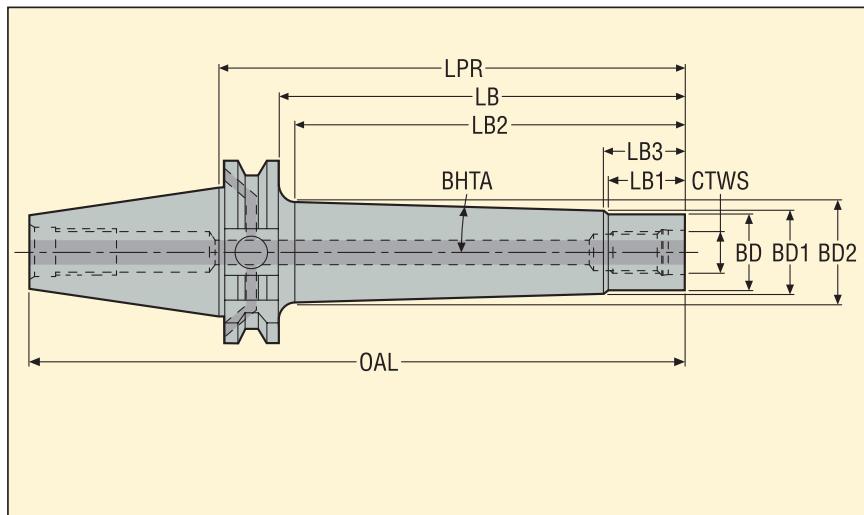
## Spare Parts

Please check availability in current price and stock-list

## DIN 69871 TAPER-FACE TOOL HOLDERS

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

## DIN Taper-Face



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

## Spare Parts

|           |          |   |
|-----------|----------|---|
| For Taper | Plug     |  |
| DIN TF40  | 950A0406 |   |
| DIN TF50  | 950A0606 |   |
|           |          |   |
|           |          |   |
|           |          |   |
|           |          |   |
|           |          |   |

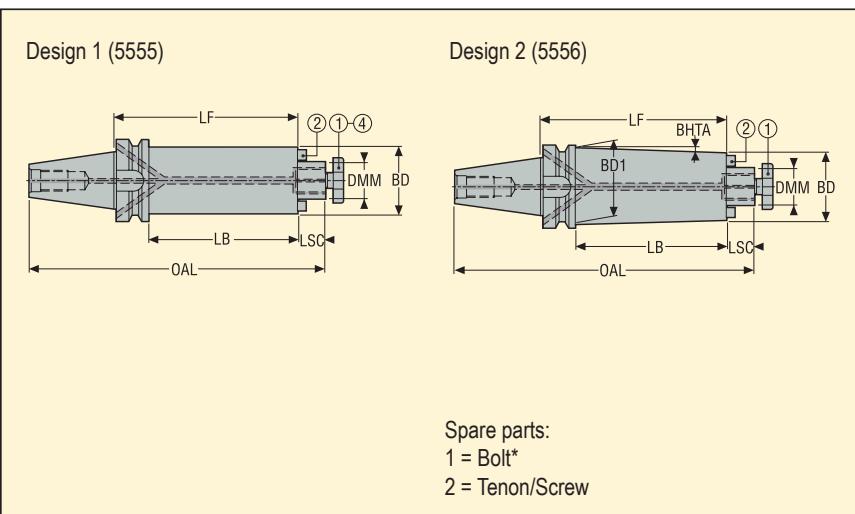
Please check availability in current price and stock-list

Note: Other Steadyline® CombiMaster™ sizes exist in non Taper-Face DIN types. see page 63.

# BT JIS TOOL HOLDERS

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

BT JIS B 6339-ADB



| Machine side<br>Taper | Workpiece side<br>DMM<br>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

## Spare Parts\*

| For Taper/<br>DMM | Bolt, through coolant | Spanner | For Taper/<br>DMM | Bolt    | Plug     | Screw    | Tenon       |
|-------------------|-----------------------|---------|-------------------|---------|----------|----------|-------------|
|                   |                       |         |                   |         |          |          |             |
| BT40/ 16          | 5801608L              | 5811608 | BT40/ 16          | 5801608 | 950A0406 | 950D0312 | 16C2080810A |
| BT40/ 22          | 5802210L              | 5812210 | BT40/ 22          | 5802210 | 950A0406 | 950D0416 | 16C2101111  |
| BT40/ 27          | 5802712L              | 5812712 | BT40/ 27          | 5802712 | 950A0406 | 950D0516 | 16C2121214A |
| BT50/ 22          | 5802210L              | 5812210 | BT50/ 22          | 5802210 | 950A0606 | 950D0416 | 16C2101111  |
| BT50/ 27          | 5802712L              | 5812712 | BT50/ 27          | 5802712 | 950A0606 | 950D0516 | 16C2121214A |
| BT50/ 32          | 5803216L              | 5813216 | BT50/ 32          | 5803216 | 950A0606 | 950D0516 | 16C2141421A |
| BT50/ 40          | 5804020L              | 5814020 | BT50/ 40          | 5804020 | 950A0606 | 950D0616 | 16C2161621A |

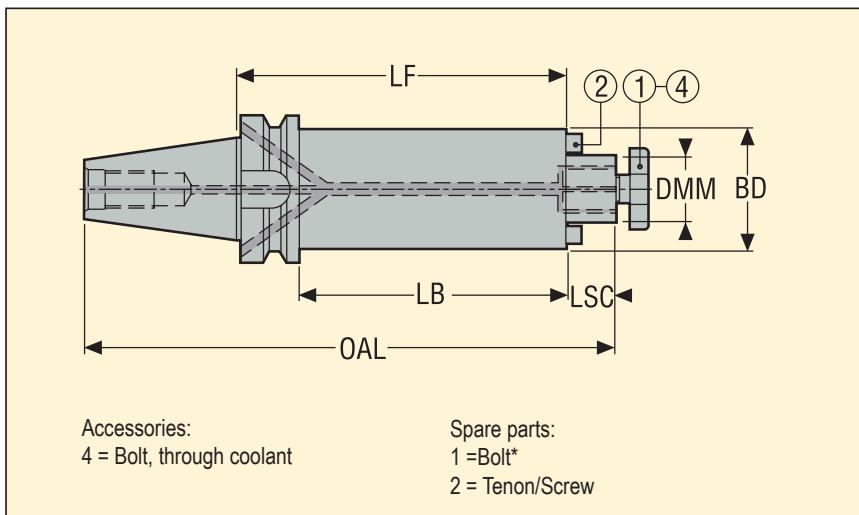
Please check availability in current price and stock-list

\* These centre bolts are similar to the original delivered ones: check if lengths are suitable for the milling cutters used, therefore see in the Operating instructions sheet delivered with the holders.

## **BT JIS TAPER-FACE TOOL HOLDERS**

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

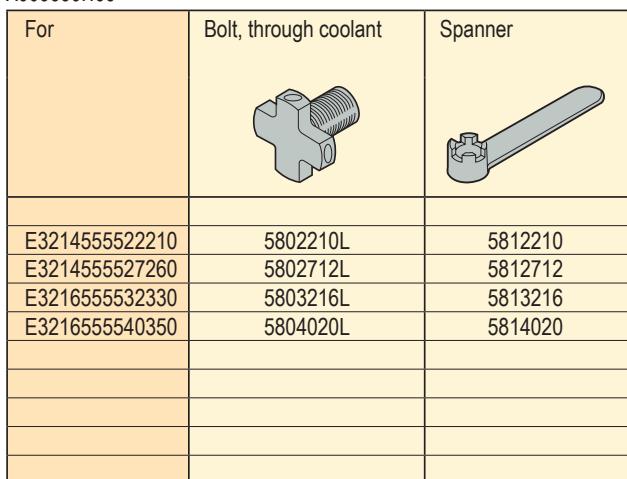
## BT Taper-Face



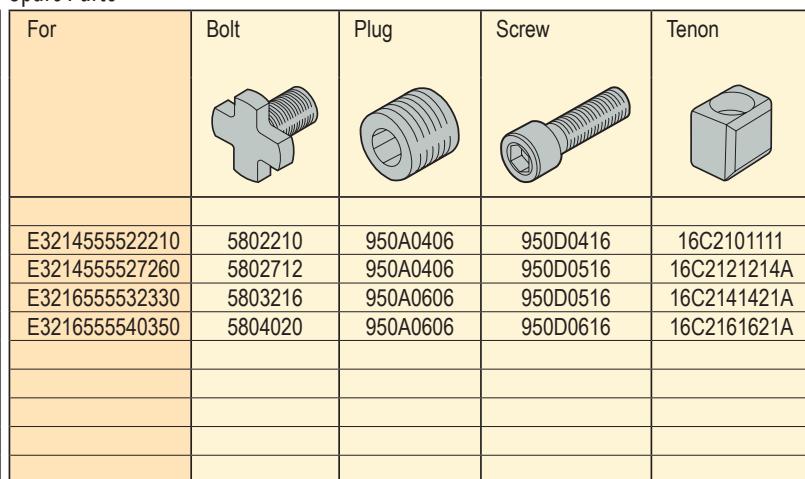
- With dynamic damping, ready to use
  - Direct run-out 5 µm maximum
  - With coolant supply channels through the spigot

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

## Accessories



## Spare Parts\*



Please check availability in current price and stock-list

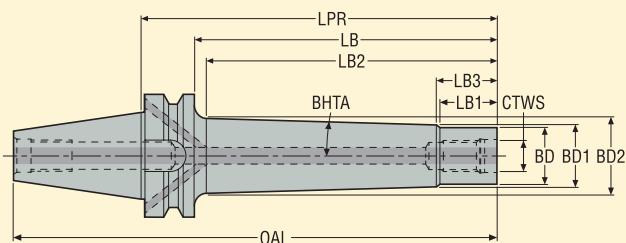
\* These centre bolts are similar to the original delivered ones: check if lengths are suitable for the milling cutters used, therefore see in the Operating instructions sheet delivered with the holders.

# BT JIS TO COMBIMASTER™ ADAPTERS

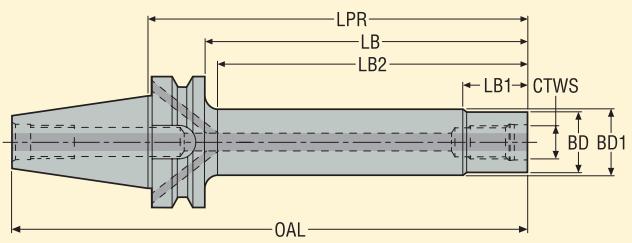
## EPB® K820-K821 – Steadyline® vibration damping Combimaster™ arbors

BT

Design 1 (K820)



## Design 2 (K821)



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

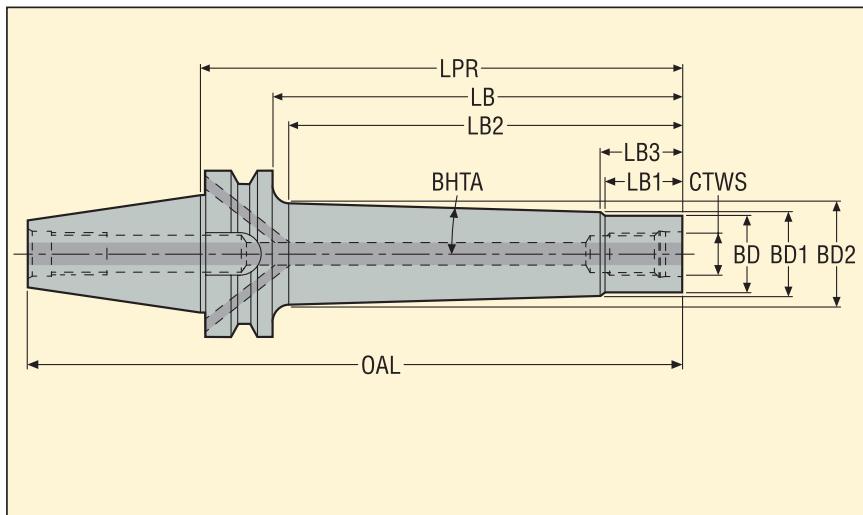
## Spare Parts

Please check availability in current price and stock-list

# BT JIS TAPER-FACE TO COMBIMASTER™ ADAPTERS

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

## BT Taper-Face



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

## Spare Parts

Please check availability in current price and stock-list

Note: Other Steadyline® Combimaster™ sizes exist in non Taper-Face BT types. see page 64.

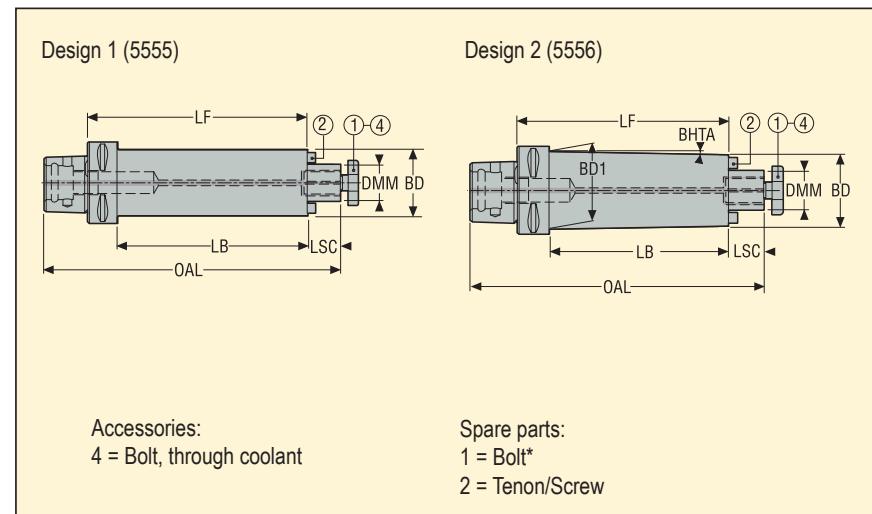
# SECO-CAPTO™ TOOL HOLDERS

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

Seco-Capto™



- With dynamic damping, ready to use



| Machine side<br>Seco-Capto™ shank | Workpiece side<br>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

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

## Spare Parts\*

| 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 |
|         |         |          |             |
|         |         |          |             |
|         |         |          |             |
|         |         |          |             |

Please check availability in current price and stock-list

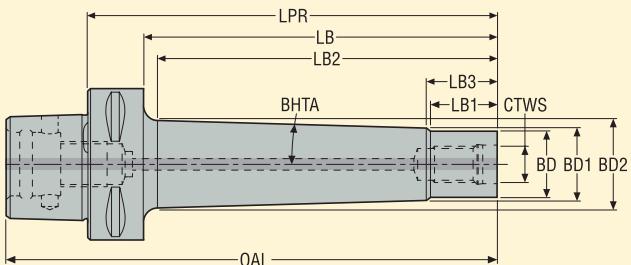
\* These centre bolts are similar to the original delivered ones: check if lengths are suitable for the milling cutters used, therefore see in the Operating instructions sheet delivered with the holders.

# SECO-CAPTO™ TOOL HOLDERS

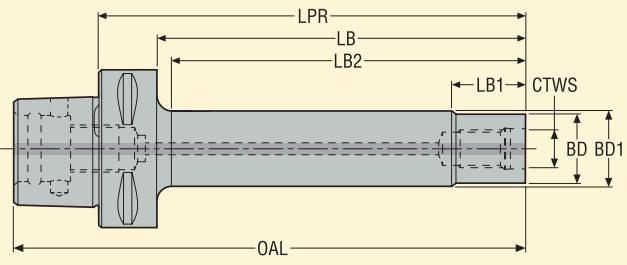
## EPB® K820-K821 – Steadyline®, vibration damping Combimaster™ holders

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.

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**SECO** ■■■■■