

# Form-fit for 100% pullout protection

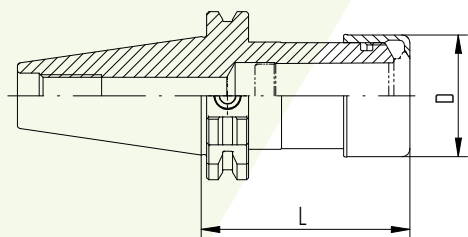
**Form and force-fitting clamping system** Tools and collets are 100% secured against tool pull-out, making secuRgrip® your safety net for successful machining. In high performance cutting (HPC), the tool can pull out of the clamping system during the milling operation and damage the workpiece. We developed the secuRgrip® locking system for operators who want to avoid any pull-out.

**Process security** Optimize your machining productivity by securing your processes.

Our secuRgrip® solution fits all standard tools with endmill flat according to DIN 6535-HB (metric). This means that no special tool shank form is required.

## secuRgrip® system elements

- // secuRgrip® threaded insert  
For all shanks with Weldon surface
- // secuRgrip® toolholder with thread
- // secuRgrip® PG 15-SG, PG 25-SG or PG 32-SG collet  
*For all secuRgrip® collet part numbers, please refer to page 61.*
- // secuRgrip® safety nut



PG-SG

## Expert advice

Freewheel wrench head, grip bar or torque wrench are required to safely fasten the nut.

*For all secuRgrip® accessories part numbers, please refer to page 258.*

| Type                       | Part no.   | Dimensions [mm] |     | Accessory |
|----------------------------|------------|-----------------|-----|-----------|
|                            |            | D               | L   | FWR*      |
| SK / PG-SG                 |            |                 |     |           |
| SK 40/PG 25-SG x 080 H     | 5240.72540 | 46              | 80  | 405       |
| SK 40/PG 25-SG x 120 H     | 5240.72560 | 46              | 120 | 405       |
| SK 40/PG 25-SG x 160 H     | 5240.72580 | 46              | 160 | 405 / 405 |
| SK 40/PG 32-SG x 080       | 5240.73240 | 55              | 80  |           |
| SK 50/PG 32-SG x 080       | 5250.73240 | 55              | 80  | –         |
| BT / PG-SG                 |            |                 |     |           |
| BT 40/PG 25-SG x 080 H     | 5140.72540 | 46              | 80  | 405       |
| BT 40/PG 25-SG x 120 H     | 5140.72560 | 46              | 120 | 405       |
| BT 40/PG 32-SG x 086       | 5140.73240 | 55              | 86  | –         |
| BT 50/PG 25-SG x 100       | 5150.72550 | 46              | 100 | –         |
| BT 50/PG 25-SG x 120 H     | 5150.72560 | 46              | 120 | 505       |
| BT 50/PG 32-SG x 100       | 5150.73250 | 55              | 100 | –         |
| BT+ / PG-SG                |            |                 |     |           |
| BT+ 50/PG 25-SG x 120 H    | 5150.72566 | 46              | 120 | 505       |
| HSK / PG-SG                |            |                 |     |           |
| HSK-A 63/PG 25-SG x 100 H  | 5563.72550 | 46              | 100 | 405       |
| HSK-A 63/PG 25-SG x 120 H  | 5563.72560 | 46              | 120 | 405       |
| HSK-A 63/PG 25-SG x 160 H  | 5563.72580 | 46              | 160 | 405 / 405 |
| HSK-A 63/PG 25-SG x 200 H  | 5563.72590 | 46              | 200 | 405 / 405 |
| HSK-A 63/PG 32-SG x 100    | 5563.73250 | 55              | 100 | –         |
| HSK-A 63/PG 32-SG x 120 H  | 5563.73260 | 55              | 120 | 505       |
| HSK-A 80/PG 32-SG x 105 H  | 5580.73250 | 55              | 105 | 505       |
| HSK-A 100/PG 25-SG x 100 H | 5500.72550 | 46              | 100 | 505       |
| HSK-A 100/PG 25-SG x 160 H | 5500.72580 | 46              | 160 | 505 / 405 |
| HSK-A 100/PG 25-SG x 200 H | 5500.72590 | 46              | 200 | 505 / 405 |
| HSK-A 100/PG 32-SG x 106 H | 5500.73250 | 55              | 106 | 505       |
| HSK-A 100/PG 32-SG x 160 H | 5500.73280 | 55              | 160 | 505       |
| HSK-A 100/PG 32-SG x 200 H | 5500.73290 | 55              | 200 | 505 / 505 |
| C / PG-SG                  |            |                 |     |           |
| C6/PG 25-SG x 100          | 5806.72550 | 46              | 100 | –         |
| C6/PG 32-SG x 090          | 5806.73240 | 55              | 90  | –         |
| C8/PG 25-SG x 092          | 5808.72540 | 46              | 92  | –         |
| C8/PG 32-SG x 090          | 5808.73240 | 55              | 90  |           |

\*Balancing rings H: Ready to accept balancing rings

Included in delivery: secuRgrip® toolholder with secuRgrip® safety nut

Additional lengths and interfaces available on request

| Type                        | Part no.   | Dimensions [mm] |       | Accessory |
|-----------------------------|------------|-----------------|-------|-----------|
|                             |            | D               | L     | FWR*      |
| CAT/PG-SG**                 |            |                 |       |           |
| CAT 40/PG 25-SG x 2.8"      | 5340.72531 | 46              | 2.8"  | –         |
| CAT 40/PG 25-SG x 3.15" H   | 5340.72541 | 46              | 3.15" | 405       |
| CAT 40/PG 25-SG x 4" H      | 5340.72551 | 46              | 4"    | 405       |
| CAT 40/PG 25-SG x 6" H      | 5340.72571 | 46              | 6"    | 405/405   |
| CAT 40/PG 32-SG x 3.5"      | 5340.73201 | 55              | 3.5"  | –         |
| CAT 40/PG 32-SG x 4.3" H    | 5340.73251 | 55              | 4.3"  | 505       |
| CAT 40/PG 32-SG x 6" H      | 5340.73271 | 55              | 6"    | 505/505   |
| CAT 50/PG 25-SG x 4" H      | 5350.72551 | 46              | 4"    | 405       |
| CAT 50/PG 25-SG x 6" H      | 5350.72571 | 46              | 6"    | 405/405   |
| CAT 50/PG 32-SG x 3.1" H    | 5350.73231 | 55              | 3.1"  | 505       |
| CAT 50/PG 32-SG x 4.3" H    | 5350.73251 | 55              | 4.3"  | 505       |
| CAT 50/PG 32-SG x 6" H      | 5350.73271 | 55              | 6"    | 505/505   |
| CAT-B/PG-SG**               |            |                 |       |           |
| CAT-B 40/PG 25-SG x 3.15" H | 5340.72544 | 46              | 3.15" | 405       |
| CAT-B 40/PG 25-SG x 4" H    | 5340.72554 | 46              | 4"    | 405       |
| CAT-B 40/PG 25-SG x 6" H    | 5340.72574 | 46              | 6"    | 405/405   |
| CAT-B 40/PG 32-SG x 4.3" H  | 5340.73254 | 55              | 4.3"  | 505       |
| CAT-B 40/PG 32-SG x 6" H    | 5340.73274 | 55              | 6"    | 505/505   |
| CAT-B 50/PG 25-SG x 4" H    | 5350.72554 | 46              | 4"    | 405       |
| CAT-B 50/PG 25-SG x 6" H    | 5350.72574 | 46              | 6"    | 405/405   |
| CAT-B 50/PG 32-SG x 4.3" H  | 5350.73254 | 55              | 4.3"  | 505       |
| CAT-B 50/PG 32-SG x 6" H    | 5350.73274 | 55              | 6"    | 505/505   |
| CAT+/PG-SG**                |            |                 |       |           |
| CAT+ 40/PG 25-SG x 3.15" H  | 5340.72546 | 46              | 3.15" | 405       |
| CAT+ 40/PG 25-SG x 6" H     | 5340.72576 | 46              | 6"    | 405/405   |
| CAT+ 40/PG 32-SG x 3.5"     | 5340.73206 | 55              | 3.5"  | –         |
| CAT+ 40/PG 32-SG x 6" H     | 5340.73276 | 55              | 6"    | 505/505   |
| CAT+ 50/PG 25-SG x 4" H     | 5350.72556 | 46              | 4"    | 405       |
| CAT+ 50/PG 25-SG x 6" H     | 5350.72576 | 46              | 6"    | 405/405   |
| CAT+ 50/PG 32-SG x 4.3" H   | 5350.73256 | 55              | 4.3"  | 505       |
| CAT+ 50/PG 32-SG x 6" H     | 5350.73276 | 55              | 6"    | 505/505   |

\*Balancing rings H: Ready to accept balancing rings

\*\*USA only

Included in delivery: secuRgrip® toolholder with secuRgrip® safety nut

Additional lengths and interfaces available on request

# Heavy Duty secuRgrip® Toolholders

PG-HD-SG

powRgrip®

**PG HD-SG Holders** Heavy Duty secuRgrip® toolholders are up to two times more rigid than standard holders. They include secuRgrip® safety nut for 100% protection against tool pullout.

## Features

- // Includes secuRgrip® design to prevent pullout
- // Most designs retain the use of balance rings
- // Fits existing powRgrip® clamping units

## Key Advantages

- // Up to 2 times more rigid than standard holders
- // Increases feed rates to maximize tooling efficiency
- // Better surface finish with less deflection



| Type                            | Part no.   | Dimensions [mm] |      | Accessory |
|---------------------------------|------------|-----------------|------|-----------|
|                                 |            | D               | L    | FWR*      |
| HSK-A/PG HD-SG                  |            |                 |      |           |
| HSK-A 63/PG 25 HD-SG x 100 H    | 5563.82550 | 46              | 100  | 405       |
| HSK-A 100/PG 25 HD-SG x 100 H   | 5500.82550 | 46              | 100  | 405       |
| HSK-A 100/PG 32 HD-SG x 106 H   | 5500.83250 | 55              | 106  | 505       |
| HSK-A 125/PG 25 HD-SG x 105 H   | 5502.82550 | 46              | 105  | 405       |
| HSK-A 125/PG 32 HD-SG x 112 H   | 5502.83250 | 55              | 112  | 505       |
| HSK-FP 80                       |            |                 |      |           |
| HSK-FP 80/PG 25 HD-SG x 085 H K | 8070.80250 | 40              | 85   | 405       |
| HSK-FP 80/PG 32 HD-SG x 095 H   | 8070.80320 | 50              | 95   | 505       |
| CAT/PG HD-SG**                  |            |                 |      |           |
| CAT 50/PG 25 HD-SG x 6" H       | 5350.82571 | 46              | 6"   | 405       |
| CAT 50/PG 32 HD-SG x 4.3" H     | 5350.83251 | 55              | 4.3" | 505       |
| CAT 50/PG 32 HD-SG x 6" H       | 5350.83271 | 55              | 6"   | 505       |

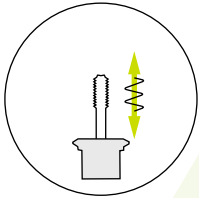
\*Balancing rings H: Ready to accept balancing rings

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# PG thread-cutting solutions

## CYL SSY/HSK-A SSY Softsynchro® tapping holder

- // With **minimum length compensation**
- // Eliminates small synchronization errors of machines (Rigid Tapping)

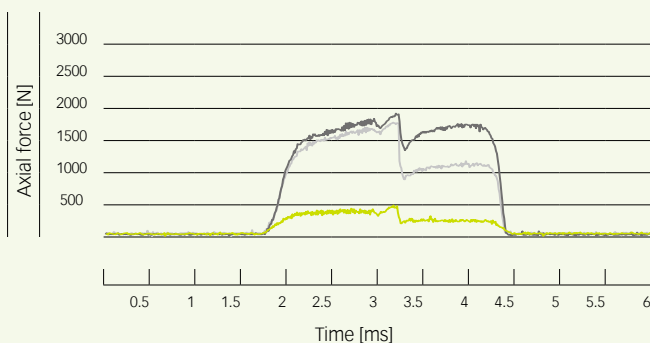


### Applications

- // Machines for direct thread cutting
- // For all tapping tools with h9 shanks
- // The turning movement of the spindles can be offset with the feed axis and thus synchronized
- // Synchronization errors are created by the dynamics of the spindle and linear drives. The tapping holder is equipped with the minimum length compensation and compensates the synchronization errors
- // Depending on the application, the service life for the customer can be increased by up to 150%
- // Guides coolant with up to 50 bar / 725 PSI of pressure to the tap, without compromising length compensation

### Comparative axial force testing

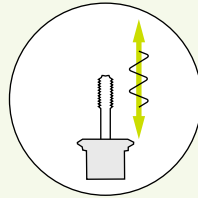
Occurring axial forces with thread forms M10 in St37, Speed 500 rpm.  
Source: In-house testing



**Summary** The axial forces increase with increasing speed. With a rigid toolholder, the forces occurring when forming threads are considerably higher than with the Softsynchro® tapping holder. This allows for the optimum use of the synchronous spindle with the best possible service life and thread surface quality.

## CYL GSF tapping holder

- // With **length compensation**
- // Used on machines in which the feed movement is not synchronized with the thread pitch during processing

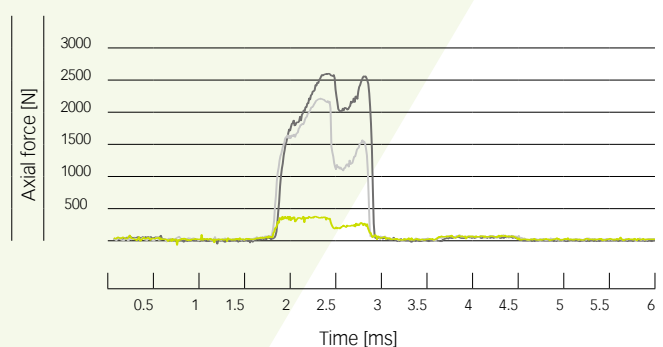


### Applications

- // For machines without a tapping option
- // Ensures the compensation of differences between the thread pitch and spindle feed
- // Features a pressure-point mechanism
- // Safe tap cutting
- // Uniform, reproducible thread depths
- // Guides coolant with up to 50 bar / 725 PSI of pressure to the tap, without compromising length compensation
- // Universal use thanks to its compact design and low gauge length

### Comparative axial force testing

Occurring axial forces with thread forms M10 in St37, Speed 2.000 rpm.  
Source: In-house testing



- REGO-FIX Softsynchro® tapping holders
- Competitor synchronous toolholder
- Rigid synchronous toolholder