



## KONTEC GFD mini

**Mechanical set-up system for  
easy handling and short  
set-up times**

# Compact! Manual! Versatile! – The flat set-up system with four clamping pins in the pitches 52 x 52 mm and 96 x 96 mm

With KONTEC GFD mini, SCHUNK offers a very flat, manual set-up system that is optimally matched to the vises for small components. The vises are clamped quickly and easily using four clamping pins with a gauge of 52 x 52 mm or 96 x 96 mm with a pull-down force of 17 kN. The high pull-down force results in a very rigid system. It enables low-vibration clamping and, thanks to the self-locking mechanism, clamping in a reliable process. KONTEC GFD mini is available as set-up, combination, or 5-axis plates made of nitrided steel and as a multiple clamping system made of hard-anodized aluminum especially for pallet automation. Depending on customer requirements, the set-up system offers a cost-effective way of reducing set-up times and increasing machine running times.



## Advantages – Your benefits

- + Precise set-up system for SCHUNK vises for small components**  
Quick and easy conversion of the vises for small components of the KSC mini, KSC3 and KSC3-K series.
- + Extremely flat design**  
For maximum utilization of the machine room
- + High pull-down forces**  
Ensure process reliability during machining
- + Double support of the clamping pin**  
Dimensionally stable and low-vibration clamping of the clamping devices
- + Easy handling**  
Fast disassembly and cleaning
- + Form-fit, self-retained locking**  
The full pull-down force is maintained throughout
- + Excellent price-performance ratio**  
Optimal use of the pallet solution
- + Optimal accessibility**  
Ideally suited for 5-sided machining

## Technical data

| Description              | Version                           | Material               | Pull-down force [kN] | Max. torque [Nm] |
|--------------------------|-----------------------------------|------------------------|----------------------|------------------|
| GFD mini 80-27-1 52      | 1-way set-up station              | Nitrided steel         | 17                   | 30               |
| GFD mini 130-27-1 96     | 1-way set-up station              | Nitrided steel         | 17                   | 30               |
| GFD mini 130-27-1 52/96  | 1-way combination set-up station  | Nitrided steel         | 17                   | 30               |
| GFD mini 130-60-1 52/96  | 5-axis combination set-up station | Nitrided steel         | 17                   | 30               |
| GFD mini 130-100-1 52/96 | 5-axis combination set-up station | Nitrided steel         | 17                   | 30               |
| GFD mini 100-70-1 52     | 5-axis set-up station             | Hard-anodized aluminum | 17                   | 30               |
| GFD mini 264-75-3 52     | 3-way pyramid console             | Hard-anodized aluminum | 17                   | 30               |
| GFD mini 300-80-4 52     | 4-way pyramid console             | Hard-anodized aluminum | 17                   | 30               |
| GFD mini Ø150-171-3 52   | 3-way tombstone                   | Hard-anodized aluminum | 17                   | 30               |
| GFD mini Ø200-171-4 52   | 4-way tombstone                   | Hard-anodized aluminum | 17                   | 30               |

## Function GFD mini

SCHUNK KONTEC GFD mini are manually operated set-up systems based on four clamping pins with pitches 52 x 52 mm and 96 x 96 mm. By turning a hexagon screw, the clamping pins are pressed into the precisely fitting half-shells by the clamping slide and simultaneously pulled downwards with a total pull-down force of 17 kN. Due to the two gauges, the GFD mini is excellently prepared for accepting clamping devices of set-up systems from common competitors.



- 1 Actuation via hexagon connection**  
 This makes it easy to operate using standard hexagonal pin inserts
- 2 Spindle drive**  
 For highest pull-down forces
- 3 Clamping rod**  
 For transmitting the pull-down force to clamping pins
- 4 Clamping pin holes with pitches 52 x 52 mm or 96 x 96 mm**  
 Compatible with Quick Point, Solid Point and RockLock set-up systems
- 5 Nitrided steel**  
 Long life time and maximum process reliability

### 4-way clamping pins GFD-SP mini

With the GFD mini set-up system, vises for small components can be inserted and removed from the machine table with repeat accuracy within the shortest possible time using four clamping pins. Depending on the clamping device, clamping is carried out using the gauge 52 x 52 mm or 96 x 96 mm. In addition, these pitches ensure compatibility with other manufacturers.



### Mechanical actuation

All GFD mini set-up systems are manually operated. Each clamping point is driven individually via a standard hexagonal pin insert, and the four clamping pins are simultaneously clamped by a clamping slide.

Advantage: No additional pressure intensifier or hydraulic unit is required.



### Flat set-up system

Due to the mechanical actuation, the GFD mini set-up stations are mounted very low above the machine table at just 27 mm. This maintains a maximum working range for the clamping device and workpiece in the machine tool.



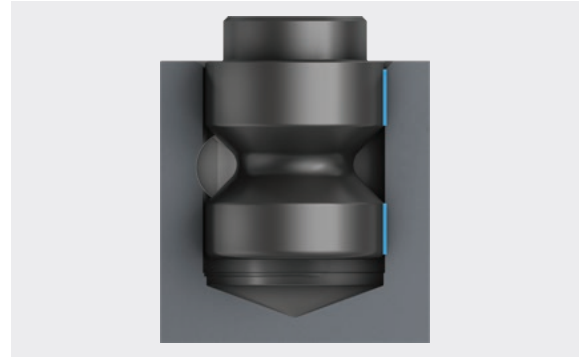
### Quick and easy conversion of clamping devices

The vises for small components of the KSC mini, KSC3 and KSC3-K series can be quickly and easily exchanged using the GFD mini set-up system. The set-up system is available as set-up, combination and 5-axis plates made of nitrided steel and as a multiple clamping system made of hard-anodized aluminum especially for pallet automation.



### Double support of the clamping pin

Compared to their market competitors, the GFD-SP mini clamping pins are mounted on two bearings, and are continuously supported at the top and bottom of the outer diameter. As a result, they remain dimensionally stable even with a relatively high pull-down force, and only undergo minimal elastic elongation. Additional yielding or lifting during processing is therefore absolutely excluded.



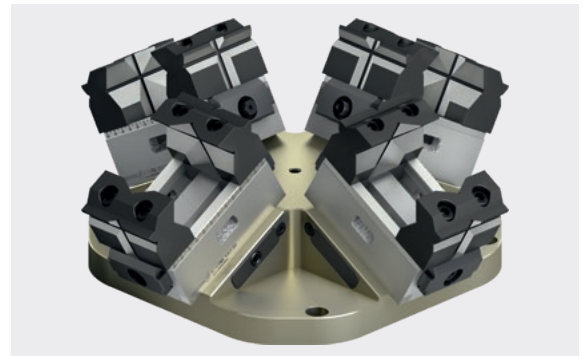
### GFD mini modular system

The GFD mini set-up stations can be used for directly clamping the clamping device, but also serve as the basis for the GFD mini 5-axis elevations as well as pyramids and tombstones. This can significantly increase machine running times.



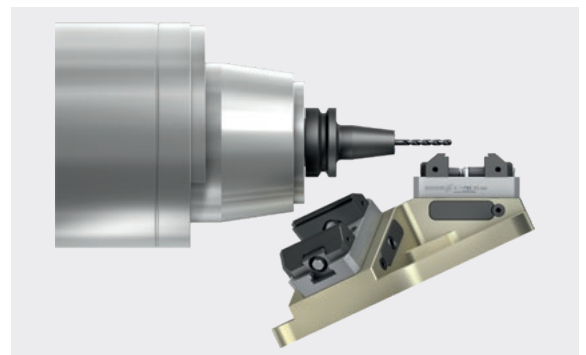
### Multiple clamping on 5-axis machines

Extending machine running times is becoming more and more important in today's world. By using pyramids and the tombstone, several clamping devices can be placed on the machine table. As a result, machine running time can be significantly increased, especially on 5-axis machines.



### Optimal accessibility

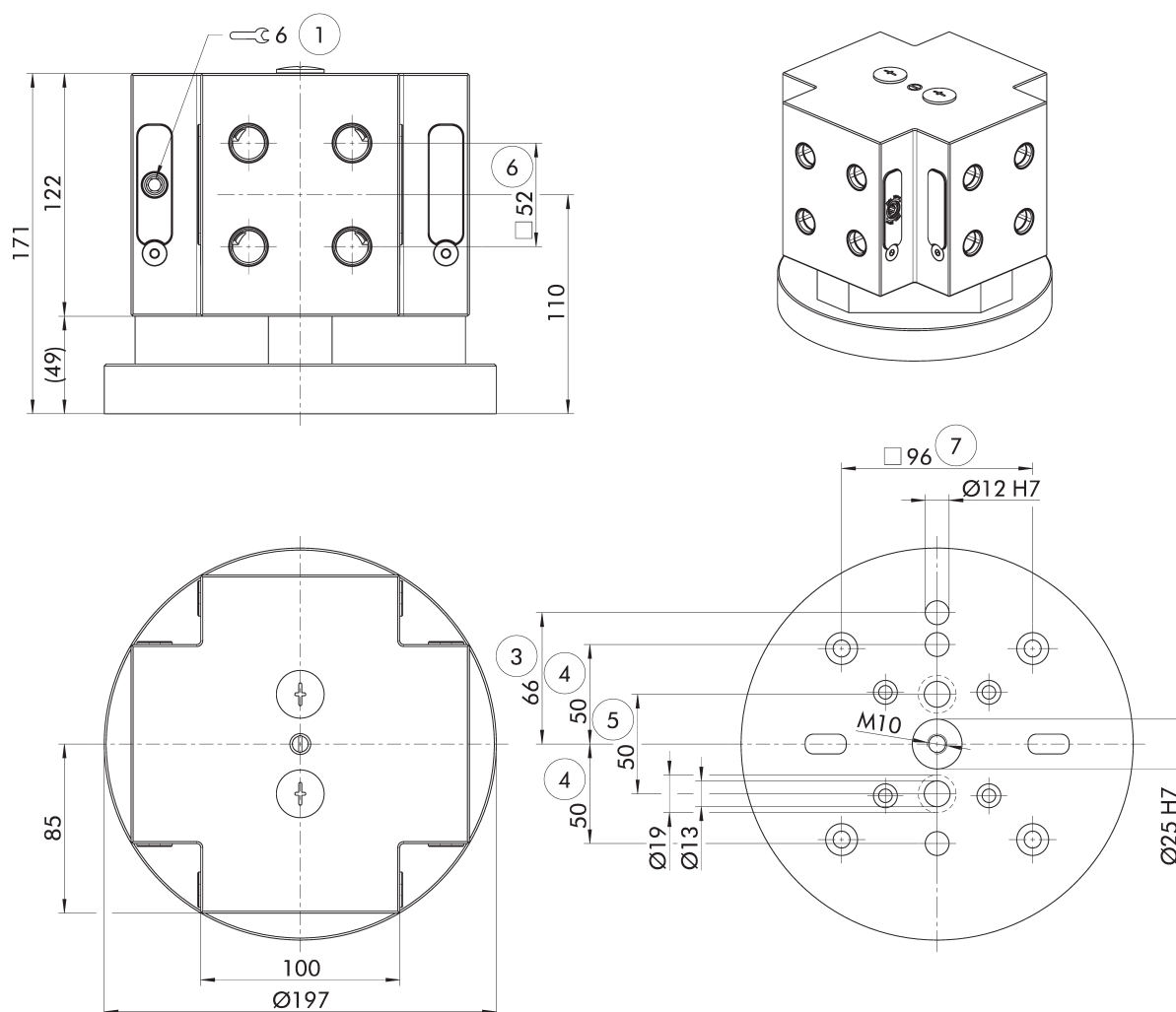
The compact design of the consoles, pyramids and tombstones ensures optimum accessibility of the tool from all five sides. This makes them ideally suited for 5-sided machining.



4-way tombstone made of hard-anodized aluminum  
Integrated pitch gauges 52 x 52 mm  
Suitable clamping devices:  
KSC mini 70-80, KSC mini 70-100, KSC3(-K) 80-130

Tombstone, operating manual; without clamping pins, without clamping device

| Description            | ID      | Pull-down force<br>[kN] | Max. torque<br>[Nm] | Weight<br>[kg] |
|------------------------|---------|-------------------------|---------------------|----------------|
| GFD mini Ø200-171-4 52 | 1589816 | 17                      | 30                  | 12             |



Subject to technical changes.

- |                                                 |                                                                                |
|-------------------------------------------------|--------------------------------------------------------------------------------|
| ① Locking mechanism AF 6                        | ⑤ Prepared for M12 screws                                                      |
| ② Prepared for clamping pin SPA 40 or GFD-SP 40 | ⑥ Clearance $52 \pm 0.015$ mm for clamping pin GFD-SP mini $\varnothing 16$ h6 |
| ③ Prepared for indexing pin IXB V1              | ⑦ Clearance $96 \pm 0.015$ mm for clamping pin GFD-SP mini $\varnothing 20$ h6 |
| ④ Prepared for indexing pin GFD-IXB             |                                                                                |

## Accessories

### Clamping pin GFD-SP mini

Clamping pin for form-fit connection of GFD mini set-up systems with clamping devices from SCHUNK.

1 set = 4 pieces.



| Suitable for           | Description        | ID      |
|------------------------|--------------------|---------|
| GFD mini Ø200-171-4 52 | GFD-SP mini Ø16 h6 | 1561291 |
| GFD mini Ø200-171-4 52 | GFD-SP mini Ø20-h6 | 1602023 |

### Clamping pin GFD-SP-L mini

Clamping pin for form-fit connection of GFD mini set-up systems with clamping devices from LANG/HWR.

1 set = 4 pieces.



| Suitable for           | Description          | ID      |
|------------------------|----------------------|---------|
| GFD mini Ø200-171-4 52 | GFD-SP-L mini Ø16-h6 | 1597470 |

### Clamping pins SPx

Clamping pin for positive connection with NSE3 clamping modules.



| Suitable for           | Description | ID      |
|------------------------|-------------|---------|
| GFD mini Ø200-171-4 52 | SPA 40      | 0471151 |

### Indexing pin

Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V1.



| Suitable for           | Description | ID      |
|------------------------|-------------|---------|
| GFD mini Ø200-171-4 52 | IXB V1      | 0471980 |

### Clamping pin GFD-SP

Clamping pin for positive connection with GFD set-up stations.



| Suitable for           | Description | ID      |
|------------------------|-------------|---------|
| GFD mini Ø200-171-4 52 | GFD-SP 40   | 0433600 |

### Indexing pin GFD

Indexing pins for position orientation of clamping pallets and clamping devices on GFD set-up stations.



| Suitable for           | Description | ID      |
|------------------------|-------------|---------|
| GFD mini Ø200-171-4 52 | GFD-IXB     | 1367937 |

### Torque wrench 5 – 50 Nm

Serves for applying a defined torque. With 3/8" square drive.



| Suitable for           | Description | ID      |
|------------------------|-------------|---------|
| GFD mini Ø200-171-4 52 | GSH-D 5-50  | 0432355 |

### Hexagon pin insert SW 6

Suitable for square drive 3/8".



| Suitable for           | Description    | ID      |
|------------------------|----------------|---------|
| GFD mini Ø200-171-4 52 | GSK-A SW6-3/8" | 1561290 |

### Cylinder pin set

For easier assembly of the clamping device on the machine table.



| Suitable for           | Description | ID      |
|------------------------|-------------|---------|
| GFD mini Ø200-171-4 52 | GZS Ø12m6   | 1373755 |

### Sealing plug

Used for closing the GFD mini interchangeable interface.



| Suitable for           | Description | ID      |
|------------------------|-------------|---------|
| GFD mini Ø200-171-4 52 | GVSS-SP 52  | 1589815 |

### Removal aid

Removal aid for GFD mini center plugs.



| Suitable for           | Description | ID      |
|------------------------|-------------|---------|
| GFD mini Ø200-171-4 52 | GVSS-AH     | 1602025 |



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