



KONTEC GFD

**Very flat, mechanical set-up
system with high pull-down
forces**

Low! Precise! Cost-effective! – The new mechanical set-up system from SCHUNK

The very flat and precise GFD set-up system is the manual addition to the extensive VERO-S modular system. The high pull-down forces of the set-up stations enable low-vibration clamping for general milling applications, especially in combination with clamping devices from the KONTEC family. The GFD set-up stations are made of stainless steel as standard and have anti-rotation protection, which makes them very durable and flexible to use. A self-locking mechanism guarantees that the clamping devices are reliably clamped for the process at all times.



Advantages – Your benefits

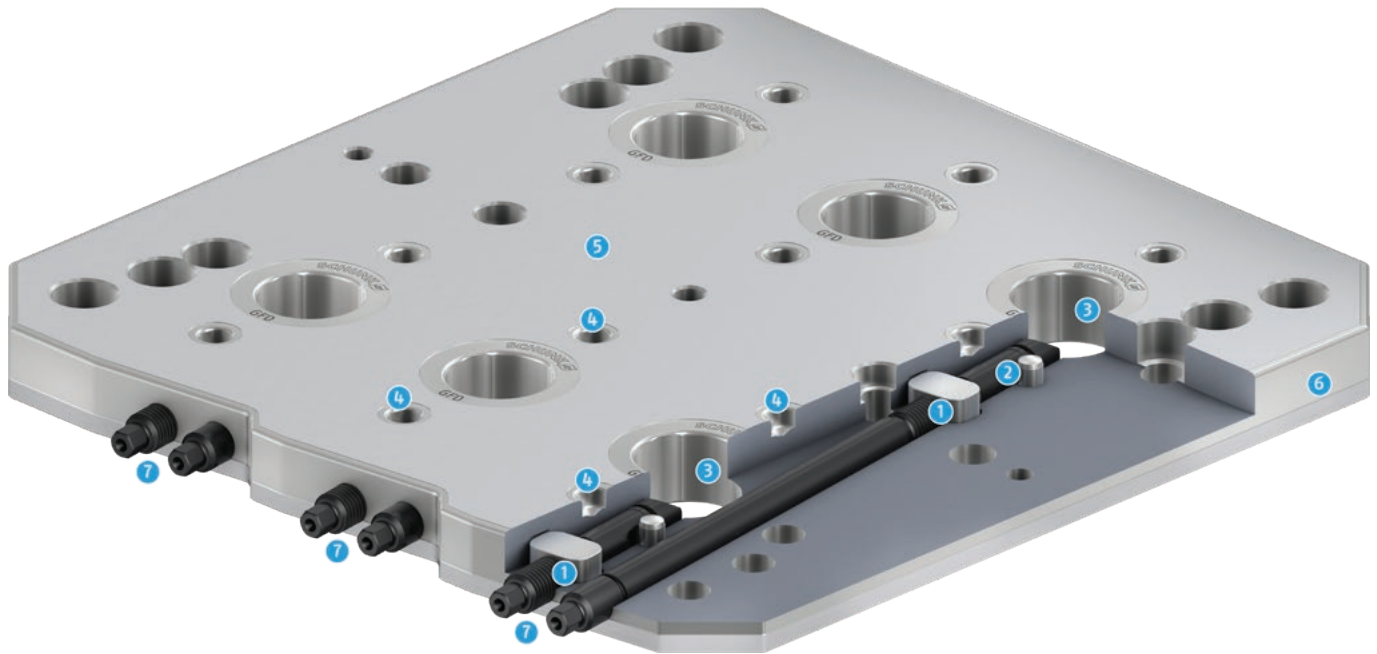
- + SCHUNK modular system**
Innumerable combinations of standard clamping devices to suit all different types of machines
- + Extremely flat design**
For maximum utilization of the machine room
- + High pull-down forces**
Ensure process reliability during machining
- + Positioning via polygonal mounting hole**
Very easy joining behavior with a repeat accuracy of <0.01 mm
- + 100% stainless**
Long life time and maximum process reliability
- + 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

Technical data

Description	Version	Material	Anti-rotation protection	Pull-down force	Max. torque
				[kN]	[Nm]
GFD-NSL-2 400 x 130	2-way set-up station	Stainless steel	●	40	30
GFD-NSL-3 600 x 130	3-way set-up station	Stainless steel	●	60	30
GFD-NSL-4 400 x 330	4-way set-up station	Stainless steel	●	80	30
GFD-NSL-6 400 x 400	6-way set-up station	Stainless steel	●	120	30
GFD-NSL-6 400 x 530	6-way set-up station	Stainless steel	●	120	30
GFD-NSL-10 497 x 532	10-way set-up station	Stainless steel	●	200	30

Function GFD

The clamping procedure of the clamping point is performed by manual actuation of a hexagon screw. The clamping slide presses the clamping pin into a precisely fitting half-shell (polygon) via a spindle. This process ensures that the clamping pin is positioned accurately in the x and y directions with a repeat accuracy of 0.01 mm. The force build-up is direct, linear and depends on the torque applied. The clamping slide is pulled into the clamping station with up to 20 kN and clamped reliably for the process as a result of the oblique pull-down surface on the clamping slide and clamping pin.



- 1 Spindle drive**
For transmitting the torque to the clamping slide
- 2 Clamping slide with large contact surfaces**
For transmitting the pull-down and holding forces
- 3 Polygonal mounting hole**
For precise positioning of the clamping devices
- 4 Indexing holes integrated by default**
Precise and backlash-free clamping of clamping devices with just one clamping pin interface
- 5 Corrosion-free stainless steel design**
For a long service life
- 6 Low height design**
For maximum utilization of the machine room
- 7 Actuation via hexagon connection**
For use of commercially available socket wrenches

Mechanical actuation

All GFD set-up stations are operated manually from the front. Each clamping point is driven individually via a standard hexagonal insert, and the clamping pin is clamped via a clamping slide.

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



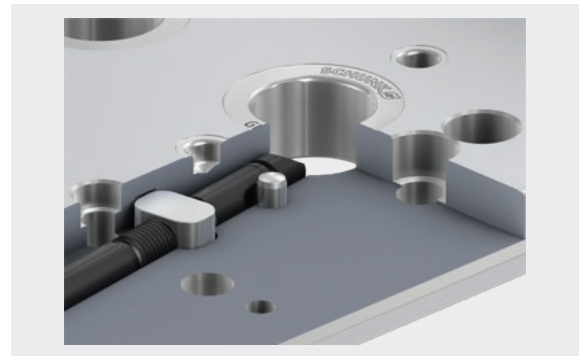
Flat set-up system

Thanks to the mechanical actuation, the GFD set-up stations are mounted very low above the machine table at just 30 mm. This maintains a maximum working range for the clamping device and workpiece in the machine tool.



Positioning via precisely fitting half-shell

A clamping slide presses the clamping pin into a precisely fitting half-shell with a ground short taper. The clamping pin is pulled downwards with 20 kN as a result of the oblique pull-down surface, and simultaneously clamped with repeat accuracy.



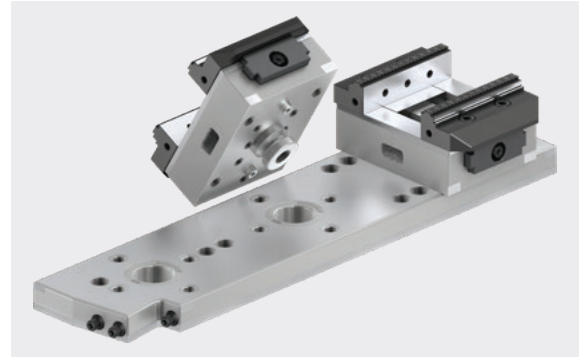
Unit pin

Compared to the pneumatic counterpart VERO-S, the clamping devices or fixtures are clamped via a standardized pin. Overdetermination is prevented by the clamping pins being pushed evenly and axially into the same precisely fitting half-shell position.



Indexing

For manual single palletizing, all GFD set-up stations are equipped with indexing holes at each clamping pin position. With the help of indexing pins, the clamping devices or the clamping pallet can be fixed in two positions with high precision and free from play.



100 mm grid dimension

A particular highlight of the GFD 4-way and 10-way set-up station is the grid dimension of 100 mm. Standard set-up and clamping stations only ever have distances of 200 mm. Thanks to the smaller grid size, several clamping devices can be placed on the one hand, and one clamping device directly in the middle of the set-up station on the other hand.



Made of stainless steel – long service life

All functional components are made of hardened stainless steel.



Set-up station

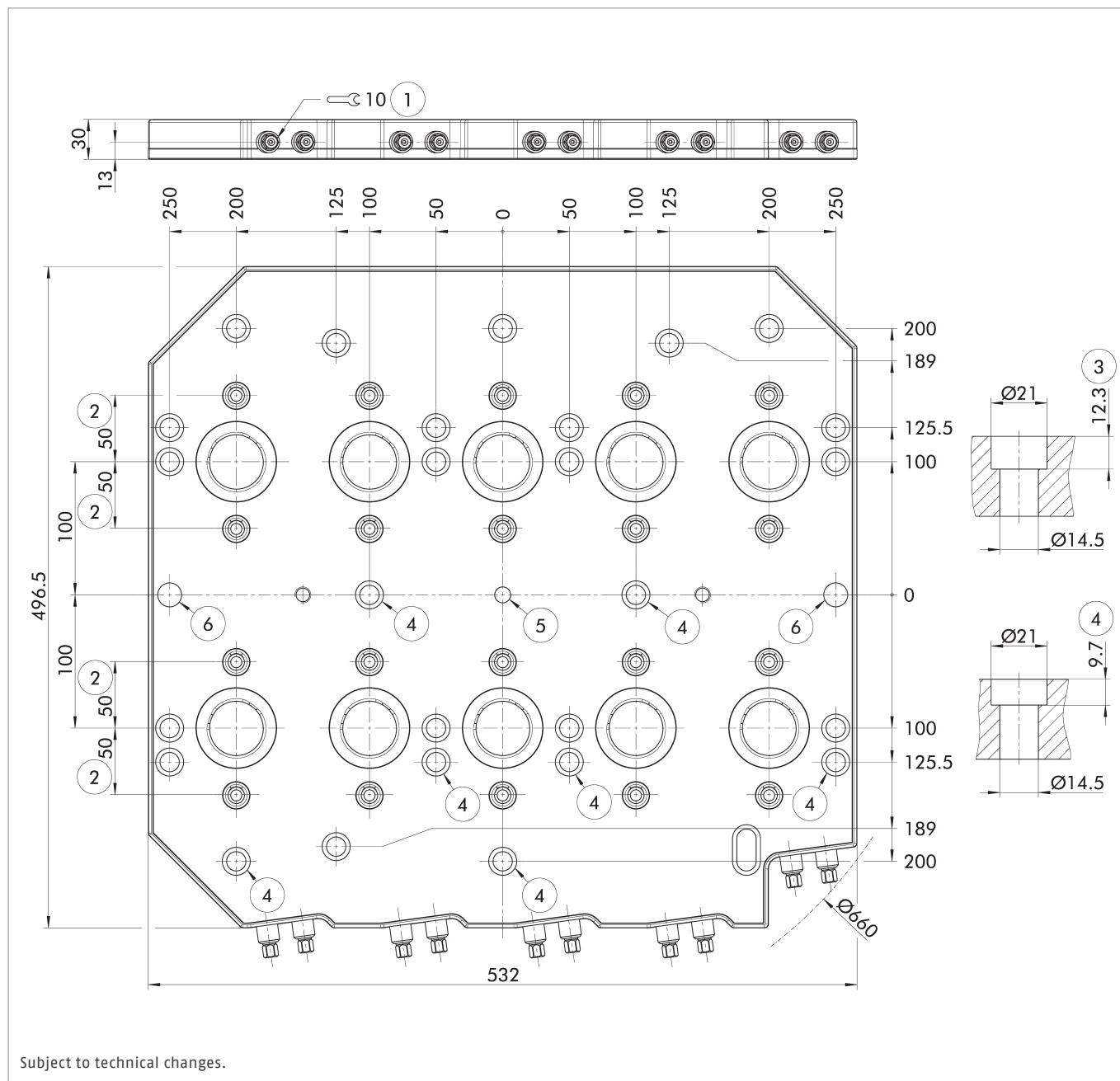
10-way set-up station with 2 x 180° GFD indexing each

Scope of delivery

Set-up station, operating manual; without clamping pins, without indexing pin

Technical data

Description	ID	Pull-down force [kN]	Max. torque [Nm]	Weight [kg]
GFD-NSL-10 497 x 532	1598324	200	30	54



- ① SW 10 locking mechanism
- ② Clearance 50 ±0.01 mm for indexing pin GFD-IXB
- ③ Prepared for 20x cylindrical screw M12
- ④ Prepared for 7x cylindrical screws M12, low head
- ⑤ Fitting bore Ø 12F7, prepared for centering pin
- ⑥ Fitting bore Ø 18G7, prepared for positioning pin

Accessories

Clamping pin GFD-SP

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



Suitable for	Description	ID
GFD-NSL-10 497 x 532	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-NSL-10 497 x 532	GFD-IXB	1367937

Torque wrench 5 – 50 Nm

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



Suitable for	Description	ID
GFD-NSL-10 497 x 532	GSH-D 5-50	0432355

Hexagonal insert AF 10

Suitable for square drive 3/8".



Suitable for	Description	ID
GFD-NSL-10 497 x 532	GSK-I SW10-3/8"	1537874

Clamping set with cylindrical screw, low head

For direct fastening of clamping devices including T-nut.



Suitable for	Description	T-slot	ID
GFD-NSL-10 497 x 532	GSC-GN-1 M12-T14	14 mm/M12	1426244
GFD-NSL-10 497 x 532	GSC-GN-1 M12-T16	16 mm/M12	1394831
GFD-NSL-10 497 x 532	GSC-GN-1 M12-T18	18 mm/M12	1399453

Cylindrical screw

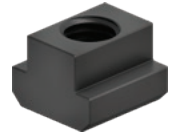
For fastening GFD set-up stations in combination with T-nuts.



Suitable for	Description	ID
GFD-NSL-10 497 x 532	GZSC M12x40	1308121
GFD-NSL-10 497 x 532	GZSC M12x45	40107481

T-nuts

For fastening GFD set-up stations in combination with cylindrical screws.



Suitable for	Description	T-slot	ID
GFD-NSL-10 497 x 532	GTN M12-T14	14 mm/M12	1303127
GFD-NSL-10 497 x 532	GTN M12-T18	18 mm/M12	1356662

Centering pin

For high-precision centering of KONTEC clamping devices on the machine table.



Suitable for	Description	ID
GFD-NSL-10 497 x 532	GCP Ø12n6-Ø30h6	1430741
GFD-NSL-10 497 x 532	GCP Ø12n6-Ø32h6	1426237
GFD-NSL-10 497 x 532	GCP Ø12n6-Ø50h6	1417596

Positioning pin

For position orientation of KONTEC clamping devices on T-slot tables.



Suitable for	Description	ID
GFD-NSL-10 497 x 532	GPP Ø18n6-Ø14h6	1303129
GFD-NSL-10 497 x 532	GPP Ø18n6-Ø16h6	1464316
GFD-NSL-10 497 x 532	GPP Ø18n6-Ø18h6	1343539
GFD-NSL-10 497 x 532	GPP Ø18n6-Ø20h6	1405843
GFD-NSL-10 497 x 532	GPP Ø18n6-Ø22h6	1579400



**H.-D. SCHUNK GmbH & Co.
Spanntechnik KG**

Lothringer Str. 23
D-88512 Mengen
Tel. +49-7572-7614-1300
Fax +49-7572-7614-1039
CMM@de.schunk.com
schunk.com