SCHUNK®



CHANGE!

VERO-S

The modular Quick Change Pallet System
Pull-down forces of up to 40,000 N

THE ORIGINAL
WITH THE THREE RINGS

EXCEPTIONAL PRECISION FROM THE COMPETENCE LEADER.

Patented dual stroke actuation with turbo function for pull-down forces of up to 40,000 N



Costs from set-up times, change-over times and idle times.

90 %

Cost savings

Conventional clamping systems

VERO-S

The rationalization effect

Positioning and clamping in one operation – VERO-S gets to the heart of improved productivity and reduces set-up times by up to 90%. Setting up the workpieces outside the machine in parallel to the processing time minimizes downtimes enormously – a crucial factor when it comes to cost savings in the process chain. Especially in small batch quantities and a comprehensive range of workpieces, very significant cost advantages can be achieved with quick change pallet systems.

SCHUNK

VERO-S – the set-up time optimizer

Highest holding forces – high-precision repeat accuracy

More efficient, faster, more precise – the VERO-S quick change pallet system from SCHUNK is the new benchmark in precision and economy in machine tools.

VERO-S is the continued development of the SCHUNK UNILOCK, proven tens of thousands of times, and completely replaces the existing system.

The all-new way of reducing set-up time ensures higher machine running times and a more rational production from smaller batch size. SCHUNK thus supports the trend toward greater production variability.

VERO-S is fully compatible with the existing system and offers a whole package of additional features for the same price.

In order to increase life span and process reliability further, the base body and all functional components such as clamping pins and clamping slides are made of hardened stainless steel. Hermetically sealed against dirt, the modules are completely maintenance-free.

The extensive standard module program for both manual and automated palletizing is available from stock.

Profit from more precision, economy, process reliability and efficiency through the leading expert for clamping technology and gripping systems as well as from the innovation potential of the family-run company SCHUNK:

- Patented dual stroke actuation guarantees pull-down forces of 9,000 N
- Up to 400% more pull-down force thanks to turbo function for higher machining parameters – up to 40,000 N
- 90% less set-up costs for more efficient production
- High-precision pin centering mechanism – repeat accuracy < 0.005 mm for highest precision
- Permanent and safe clamping via the combination of self-locking and spring actuation
- Uniform interface for various machines and processes
- A consistent clamping pin size for all modules
- Complete compatibility with SCHUNK UNILOCK and all SCHUNK clamping devices
- Same price – more performance

Manual and automated loading – all in one

All in one: An air purge connection and a monitoring option of the clamping slides are integrated as standard equipment in every VERO-S module. Each module can thus also be used as needed for a process reliable, fully automated fitting. The manual and automated loading option provides high flexibility and significantly reduces investment costs. Because air connections are available on both the bottom and the side, the modules can be used quite flexibly in any installation position.







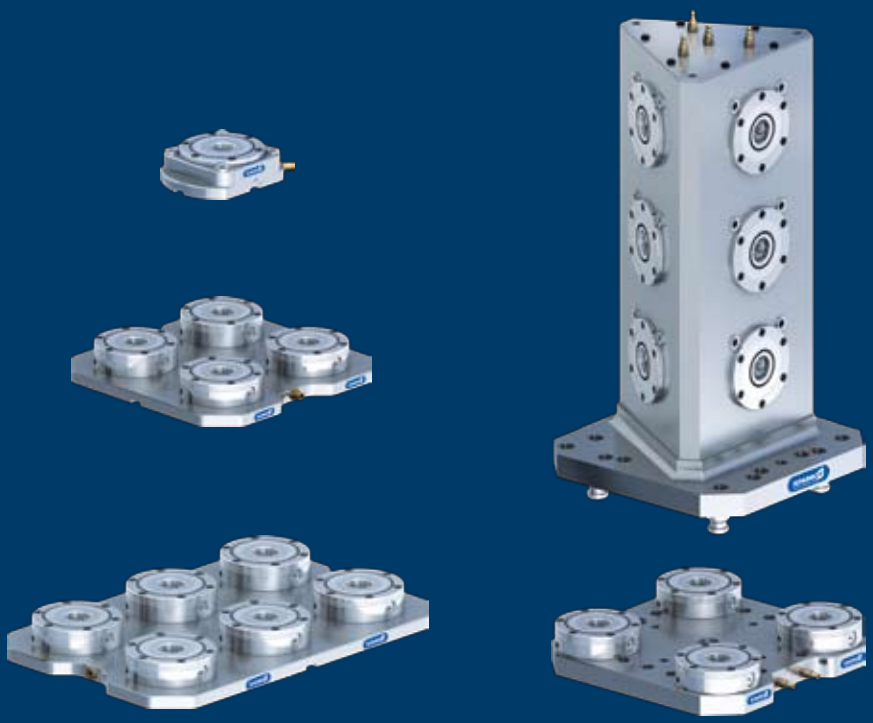
Pic.: DMG



The standard on VERO-S: Variety

Different module sizes with various holding forces from stock

There is space on the smallest machine table. And this is optimally used by the VERO-S quick change pallet system in an intelligent way. SCHUNK offers a comprehensive standard program directly from stock with guaranteed custom individuality: In addition to the standard individual modules, 4x and 6x pallets and tombstones, the modules can be customized with the VERO-S baseplate to suit your needs. For clamping tasks that cannot be generated from the program, SCHUNK develops and implements the best solution for you.







The uniform clamping pin size on all VERO-S modules allows workpiece change in production on the fly. From machine to machine. From module to module.

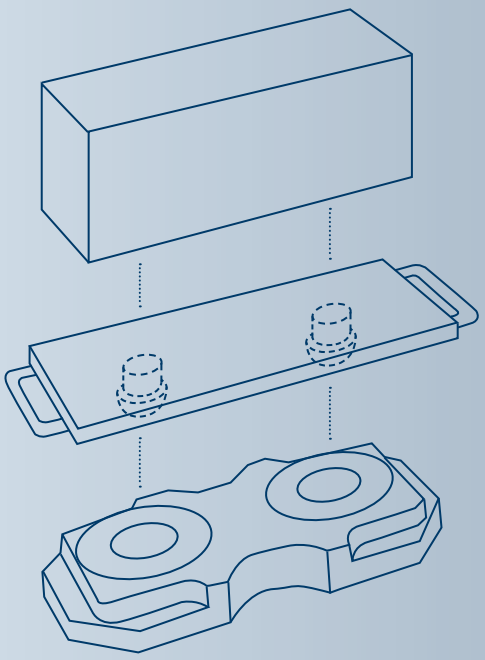
Modular design for individuals

Highly standardized – for maximum flexibility

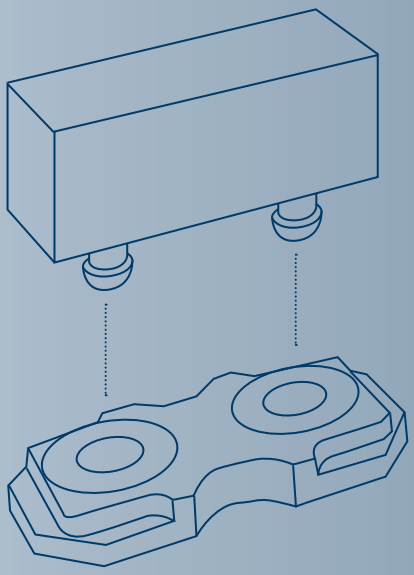
VERO-S clamps workpieces, pallets, modules for stationary use, and tombstones via one or more clamping pins. The uniform clamping pin size ensures the user maximum flexibility and universally fits all quick change pallet modules – regardless of whether it is a new system or an old one.

In combination with the other products and systems of the SCHUNK Stationary Workholding program, you profit from the most comprehensive, standardized complete range for efficient workpiece clamping.

Whether pneumatic, hydraulic, mechanical or magnetic – the SCHUNK range offers you one-stop flexible and diverse opportunities for machining different workpiece geometries in a variety of procedures. In short: With SCHUNK almost everything can be clamped – micron precise and according to your individual needs.



Application 1:
Pallet clamping



Application 2:
Direct workpiece clamping



SCHUNK Stationary Workholding

The comprehensive program for the micron precise connection between machine table and workpiece.
Order it today.

SCHUNK



VERO-S clamping towers
As a basis for numerous clamping possibilities with manual or automatic clamping devices – ideal for 4-axis horizontal machining centers.



TANDEM clamping block
Compact powerhouses for use in very restricted spaces. Pneumatic, manual, or hydraulic.



ROTA chuck
Universal with comprehensive accessories. For clamping round and customer-specific workpieces.



VERO-S baseplate
For fastening workpiece clamping devices. For quick and positionally accurate conversion.



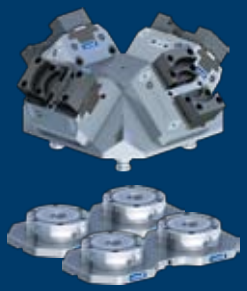
KONTEC – manual clamping systems
For quick and safe clamping. High clamping forces, simple presetting. Optimal for clamping rough and finished parts.



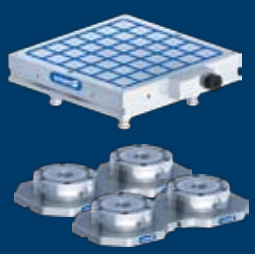
KONTEC double vise
For simultaneous clamping of two identical or non-identical workpieces.



Übersetzung fehlt



TANDEM – hydraulic and pneumatic clamping blocks
Compact solution. Pneumatically actuated supply with compressed air through-feed.



MAGNOS magnetic clamping technology
Electro-permanent magnetic clamping technology for maximum holding force and flexibility in the clamping range.

Simply exciting technology

- Stainless and hardened version is standard
- Enormous pull-down forces
- Completely sealed, maintenance-free system
- One clamping pin size for the entire series



SCHUNK



STAINLESS STEEL

Reproducible precision

Highest process reliability – best repeat accuracy

VERO-S is the quick change pallet system of the next generation. All functional components are made of hardened stainless steel. This significantly increases life span and process reliability compared to SCHUNK UNILOCK. In addition, the maintenance-free module is completely sealed and thus protected from chips, dust, and coolant.

To guarantee a repeat accuracy of < 0.005 mm, mounting or positioning is done via a short taper. Radially arranged clamping slides retract the bolts and lock them.



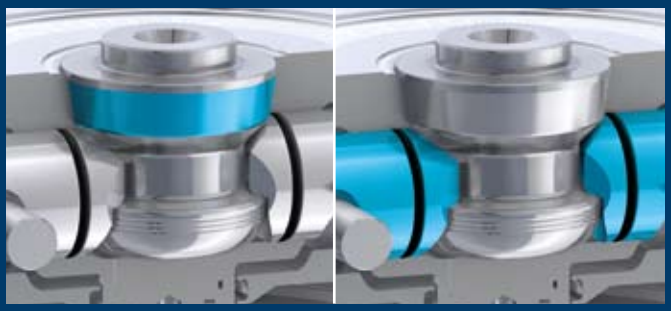
Maintenance-free. The cover plate on the lower piston chamber seals the system off completely.



Versatile in installation. The modules are actuated via lateral or bottom air connections.



Fixed securely. The bolt is mounted via an oversized screw with very high forces.

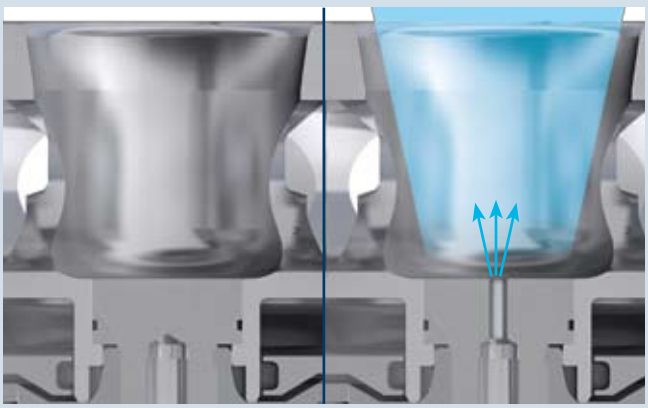


The precise short taper centering in conjunction with the self-locking and form-fitting locking produces a quick change pallet system with a repeat clamping accuracy < 0.005 mm at the highest pull-down and holding forces.

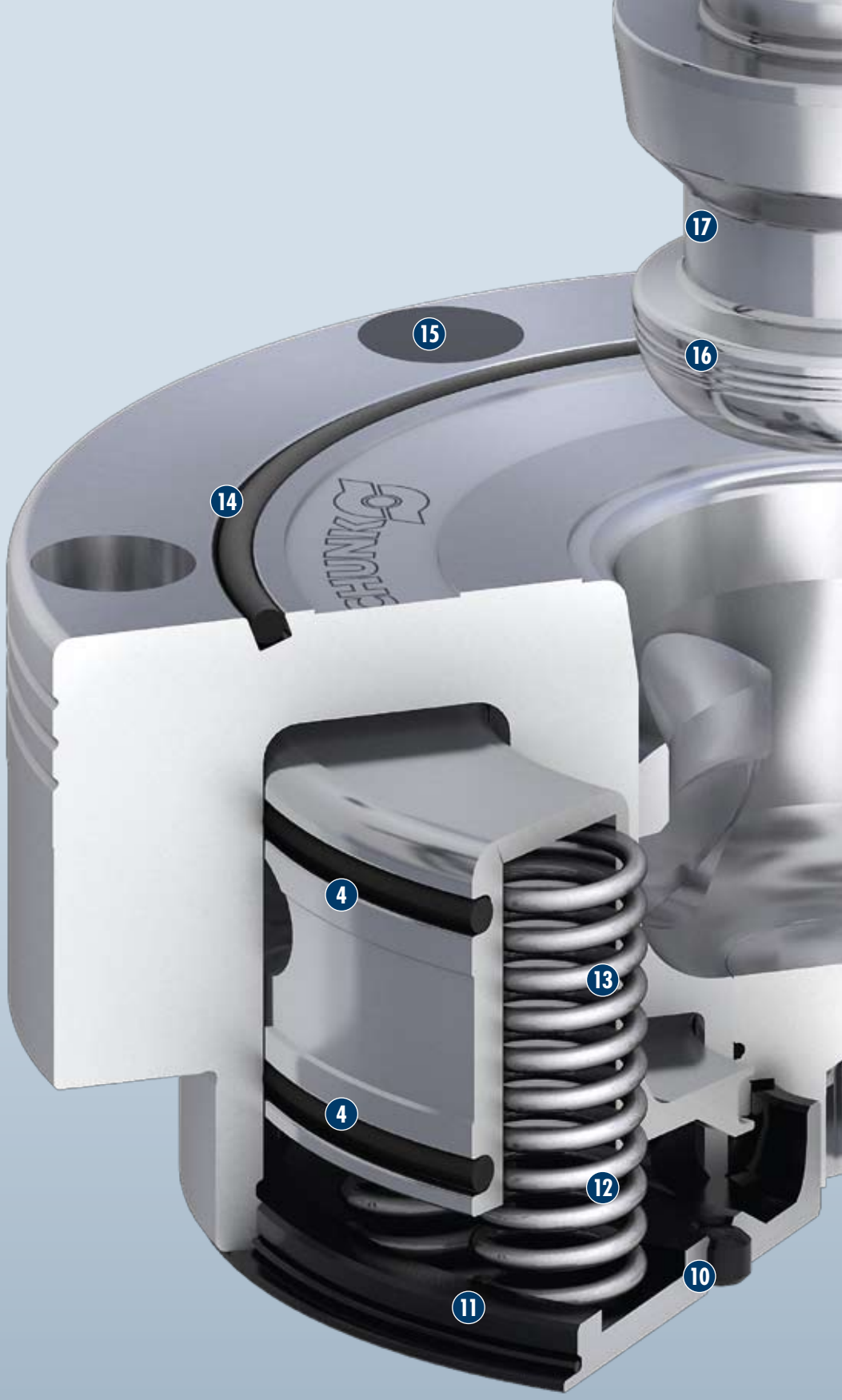
Simpler joining – more flexibility



Entry radii on the clamping slide enable quick and safe joining even with a tilt angle and eccentricity.



The central plug can be provided with a bore hole for a blow-out function.



1. High-precision short taper centering with very simple joining behavior
2. Large flat surface for best support and highest rigidity
3. Stainless and hardened version of all functional components is standard
4. High-quality sealing elements for long life span
5. Dynamic pressure monitoring of the clamping slide position possible
6. Patented quick stroke and power stroke on the clamping slide, therefore enormous pull-down forces
7. Pneumatic system. Actuation at 6 bar
8. Large surfaces to transmit the pull-down and holding forces
9. Centrally screwed in plug, can be provided with a bore hole to add a blow-out function

STAINLESS STEEL



10 Completely compatible with NSE 138

11 Cover plate, so system is completely sealed off

12 Turbo function for pull-down force amplification

13 Corrosion-free, fatigue-resistant compression springs

14 Flat seal to protect the interface during machining. Dampening when putting down a workpiece or pallet

15 Cover caps for mounting screws, so no dirt accumulation is possible

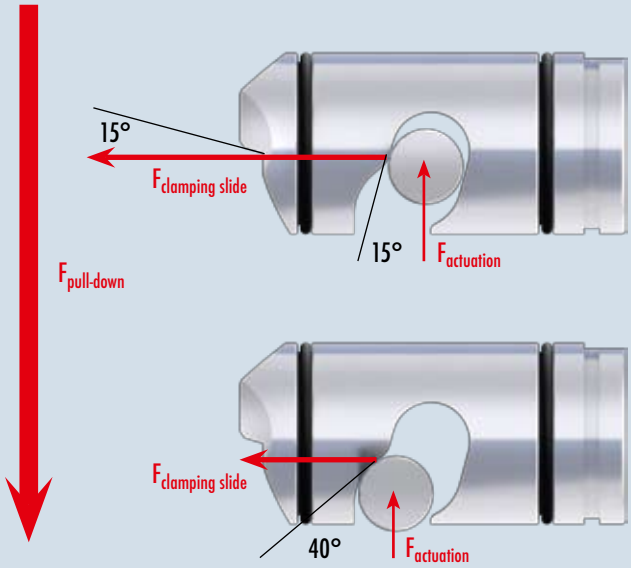
16 Entry radii on the clamping pin

17 One clamping pin for the entire series

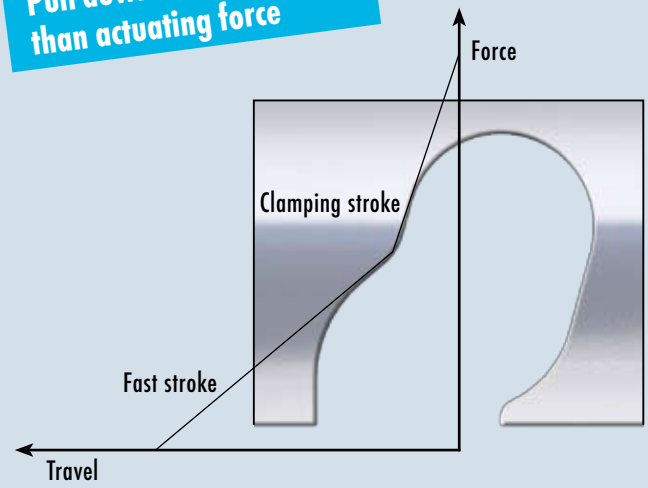
Maximum pull-down forces

Excellent rigidity – higher cutting parameters

Fast and clamping stroke – the patented force



Pull-down force 5x higher than actuating force



The patented fast and clamping stroke of the VERO-S provides the best transmission ratios and thus a maximum pull-down force of 9,000 N in clamping condition.



An air purge connection and the monitoring option of the clamping slide position via the dynamic pressure are integrated as standard.

OPENED condition

The compressed air cannot escape because the ring groove is not above the bore hole. There is dynamic pressure.

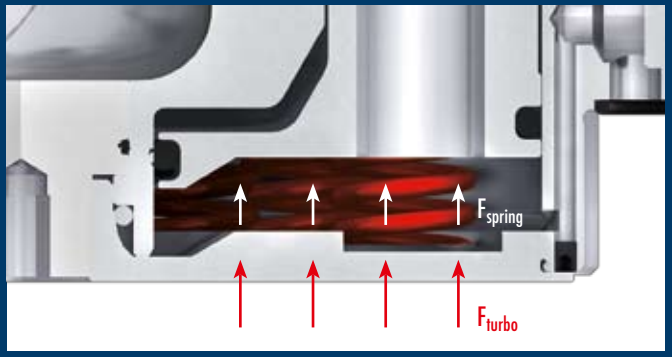


CLAMPED position

The compressed air can escape through the ring groove and a flat place on the clamping slide. The pressure drop can be monitored exactly.

Integrated turbo function – pull-down forces up to 40,000 N

The turbo function is integrated in each module and allows considerably higher cutting parameters. When activated, it also supports the spring force, thus ensuring extremely high pull-down forces up to 40,000 N. Mechanical locking is done via the spring assembly and is self-locking and uses form-fit clamping. Holding forces up to 75,000 N are achieved.



The turbo function (additional actuation with compressed air) also supports the spring force, thus ensuring extremely high pull-down forces



pull-down force with additional turbo function

pull-down force via spring force







Automatic loading of a milling machining center with the clamping pallet prepared on the assembly system. After the introduction of the clamping pin, the quick change pallet module positions and clamps the pallet.



The housing of a vane pump is machined using a toolholder by TRIBOS Polygonal Clamping Technology. The quick change pallet system is depressurized during machining.

Automated palletizing systems

Dependable and process-reliable: the NSA plus 120 module of the VERO-S quick change pallet system ensures maximum precision during automated machine loading.

The NSA plus 120 module has a very low installation height to give you plenty of space in the machine room. It is very sturdy and guarantees a secure hold, even during rough machining.

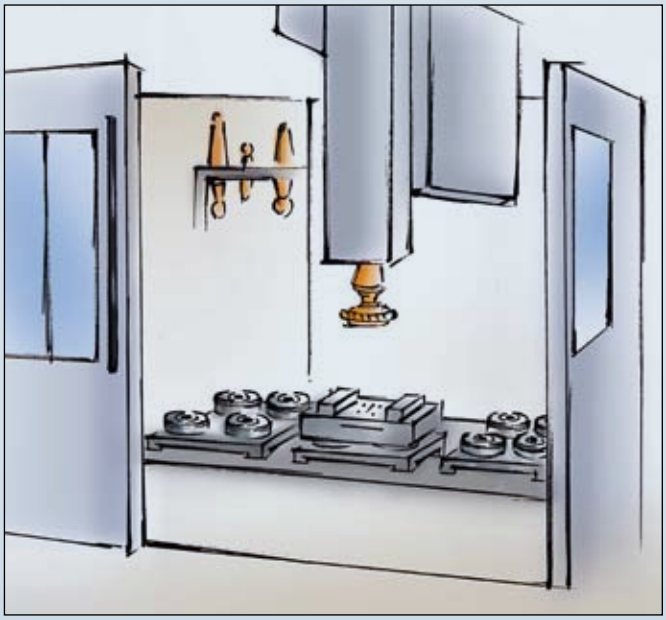
The module ensures a chip-free flat work surface for the workpieces, thanks to a forced air flow. Within seconds, they position and clamp with a high-precision repeat accuracy < 0.005 mm – completely reliably and also around the clock.

For maximum productivity:

- Precise centering thanks to the short taper with a flat work surface
- Pallet centering via a low-wear centering sleeve
- Form-fitting, self-locking clamping
- Short taper cleaning via forced air flow
- Sealed against dirt
- Pin for simple pallet removal
- Monitoring via air control
- Pull-down force:
  – without turbo: 5 kN
  – with turbo: 13 kN
- Holding force > 100 kN



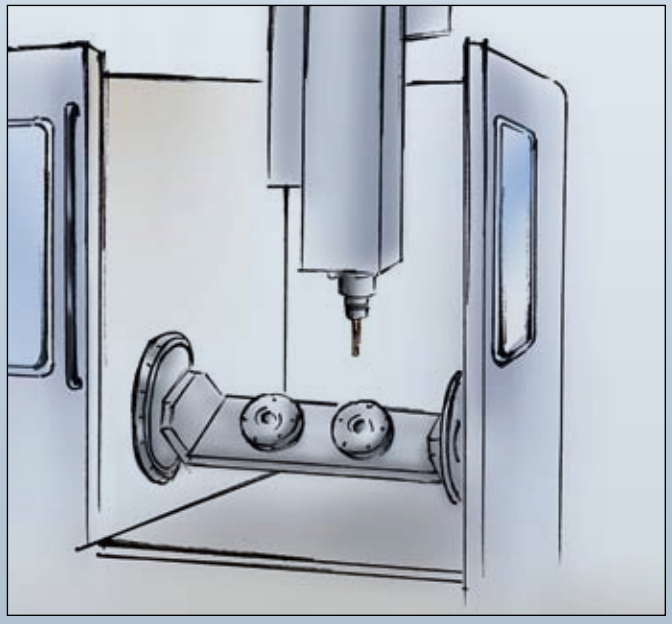
The optimal clamping solution for every machine



3-axis standard machining center

VERO-S standard module for stationary use with suitable clamping devices and magnetic clamping technology.

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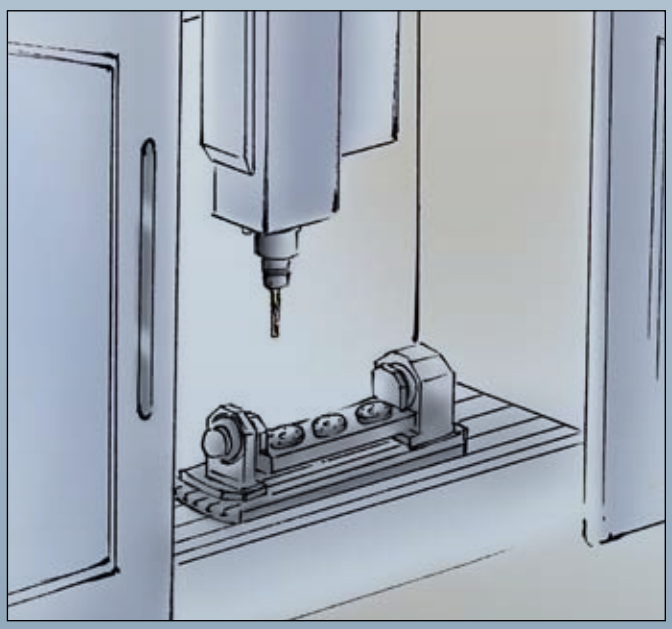


4-axis vertical machining center

Fully integral 4-axis machine.

VERO-S centrical base plates and suitable pneumatic, hydraulic, and manual clamping devices.

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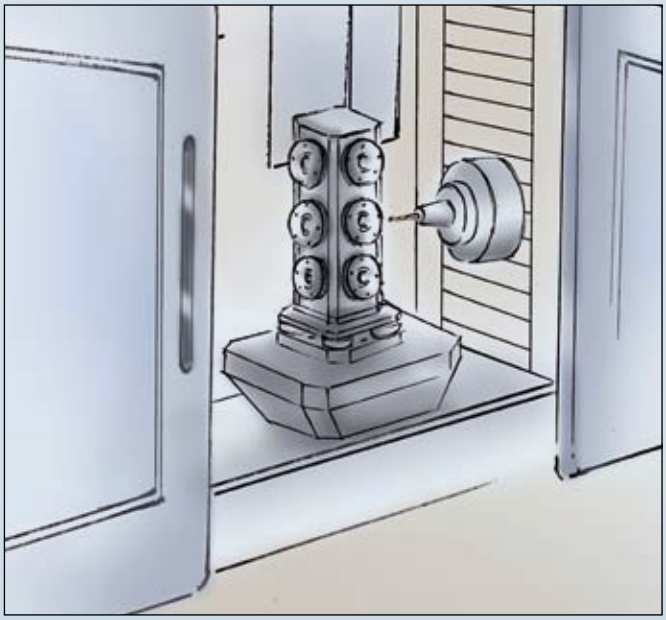


3-axis machine with additional fourth axis on machine table.

VERO-S centrical base plates and suitable pneumatic, hydraulic, and manual clamping devices.

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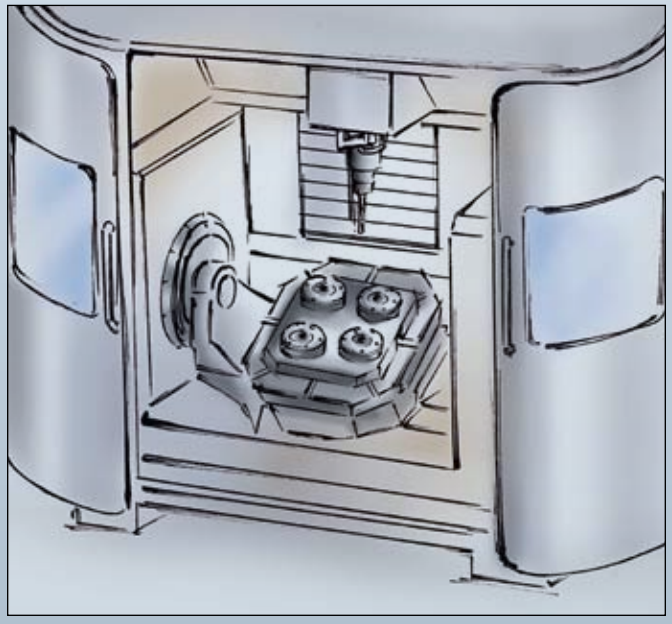
The VERO-S modular design from SCHUNK



4-axis horizontal machining center

VERO-S clamping tower and suitable clamping devices.

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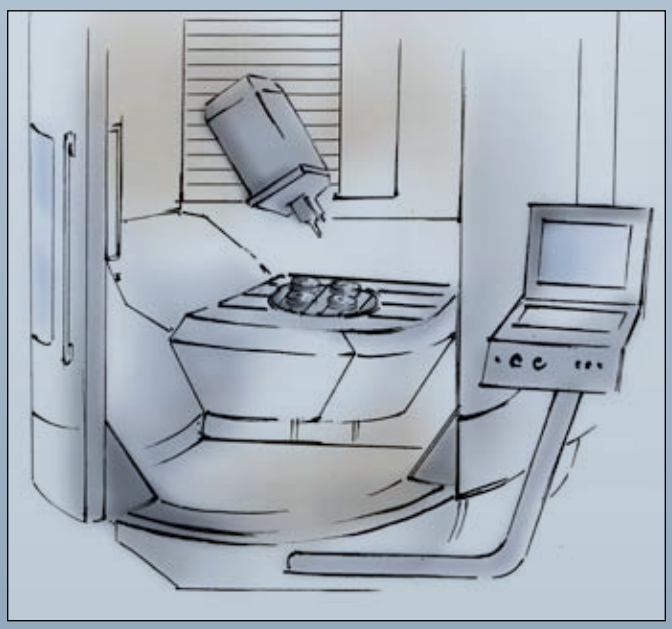


5-axis machining center

5-axis machine with rotating and swiveling motion in the machine table.

VERO-S standard modules for stationary use with optimal clamping devices and elevations for 5-side machining.

▶ Page 24



5-axis machine with fixed machine table, rotating and swiveling motion in the tool head.

VERO-S standard modules for stationary use with optimal clamping devices and elevations for 5-side machining.

▶ Page 24

3-axis standard machining center

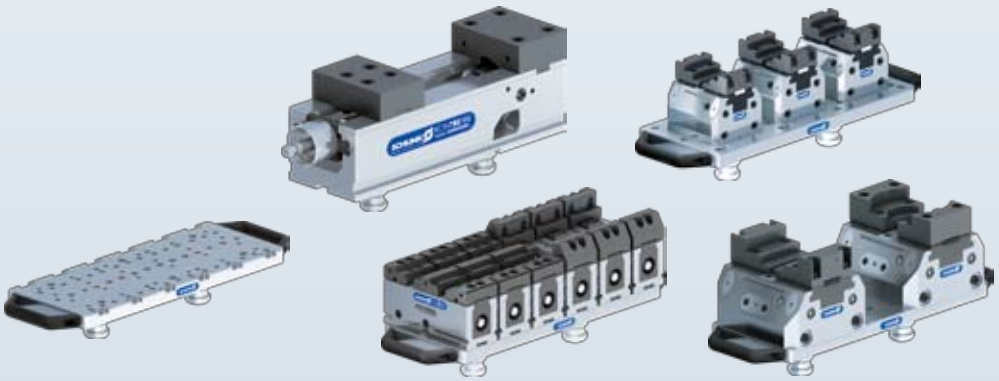


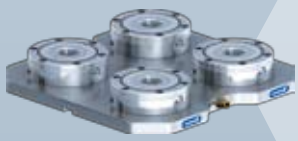
NSL 150
See page 34



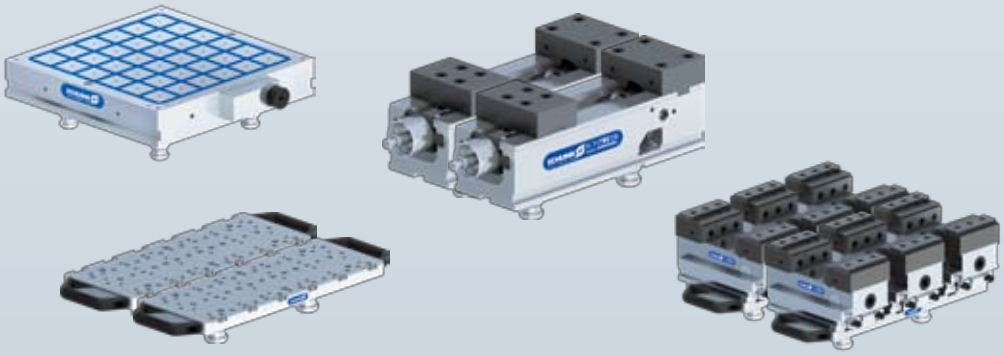


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NSL 400
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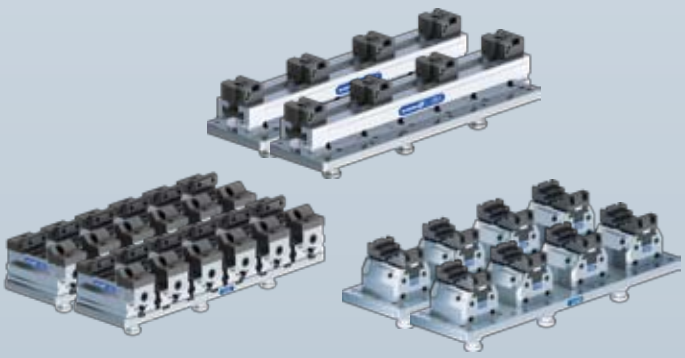
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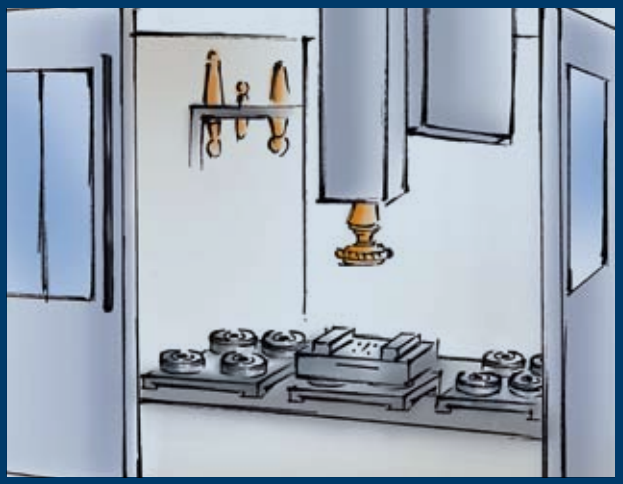








The standardized modular design offers greatest flexibility on 3-axis machining centers. Conversion in minutes for small batch sizes and high product variance – realized quickly and efficiently with VERO-S. A further advantage: even large quantities of workpieces can be economically clamped in the machining area with standard solutions.



4-axis vertical machining center



Centrical base plate with
2x module for stationary use



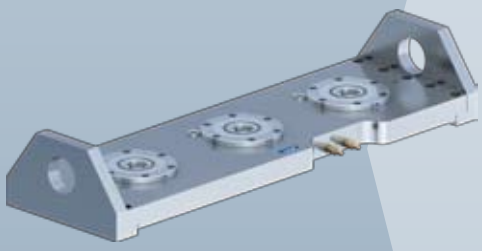








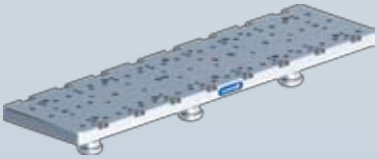


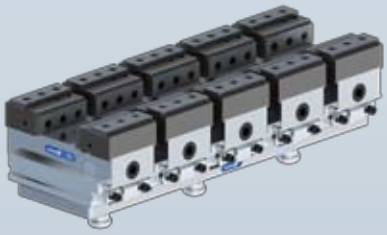


Centrical base plate with
3x module for stationary use



















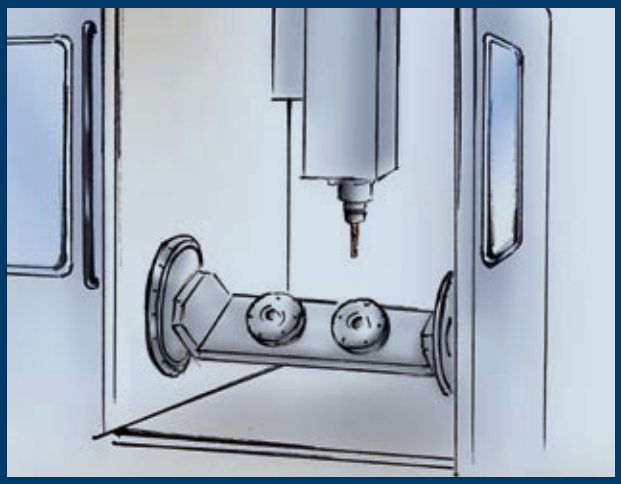


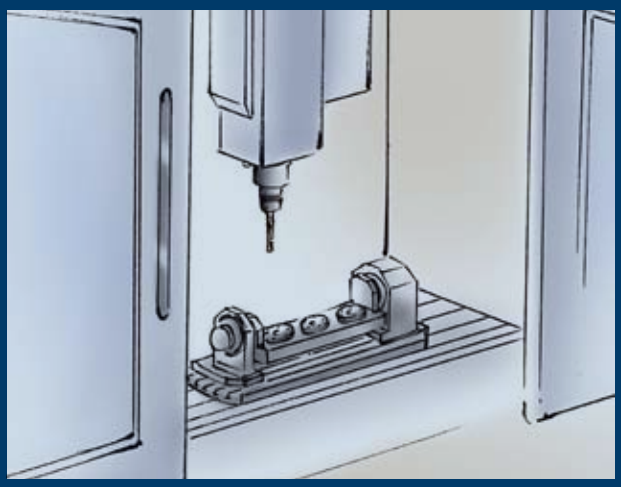






Also in series production, VERO-S guarantees greatest flexibility with set-up in a matter of minutes. With the quick change pallet system in the centrical base plate, both modules from the modular design and special devices can be changed within minutes and the production facilities converted quickly and securely.





4-axis horizontal machining center



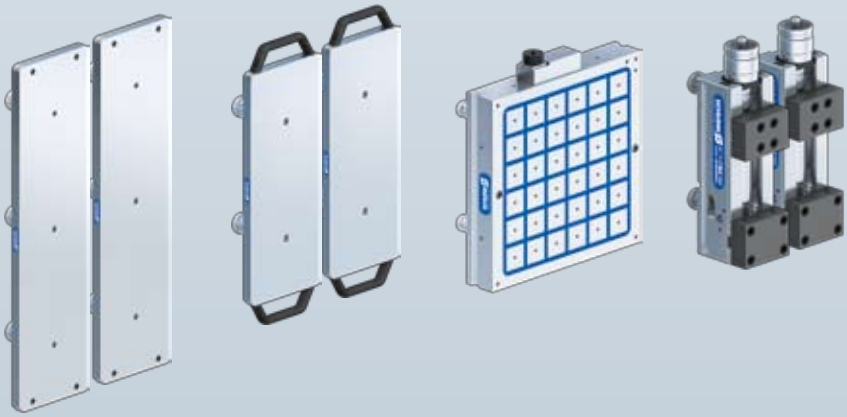
VERO-S octagonal
clamping tower

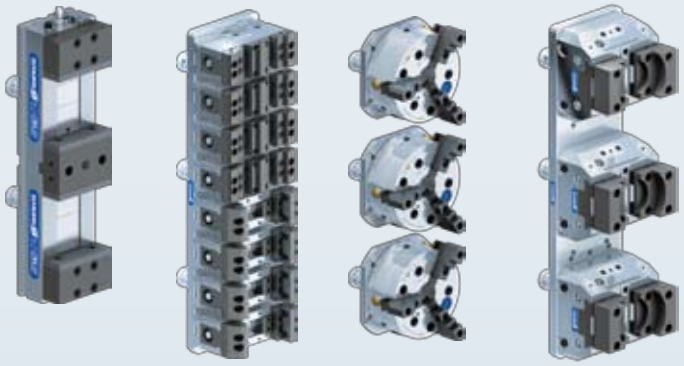
VERO-S triangular
clamping tower

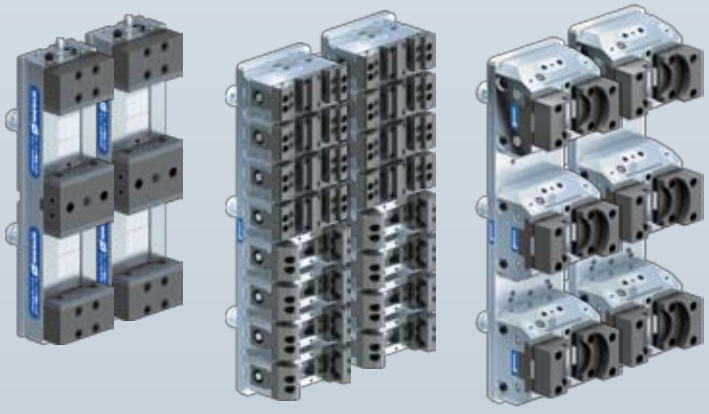




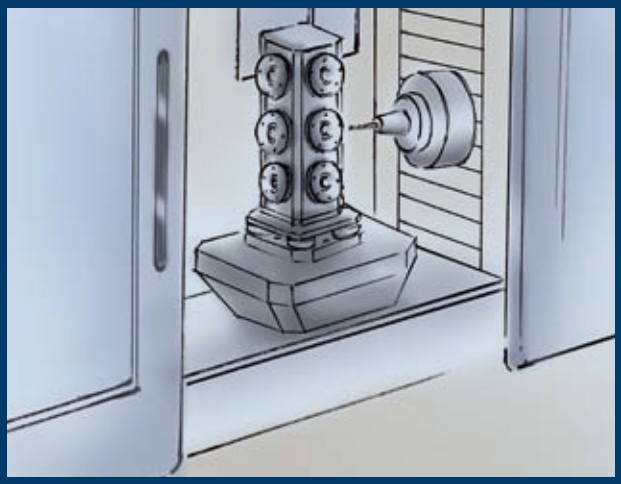
VERO-S double-bracket
clamping tower







Users in horizontal machining also profit from much more flexibility. Here too, VERO-S's fast conversion with small batch sizes and high product variance is convincing. Economical clamping of many workpieces in the machining area is guaranteed here with standard solutions as well as the best accessibility for lateral machining because of the sophisticated geometries of all elements.



5-axis machining center



NSL 150
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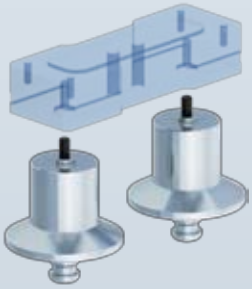


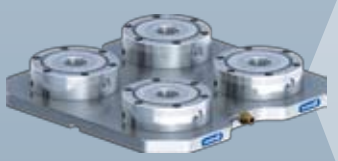


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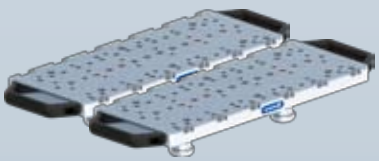






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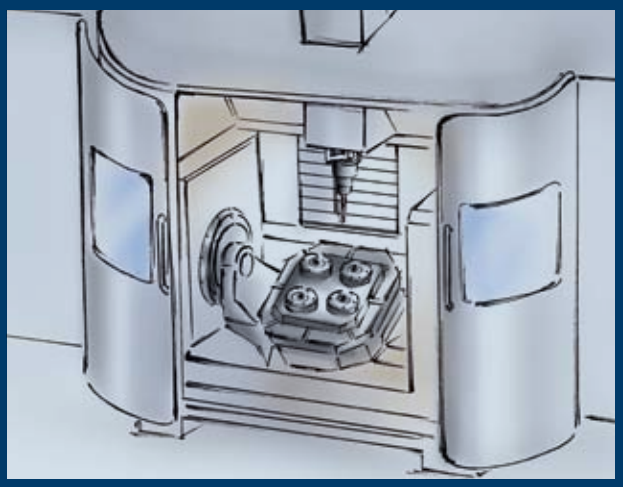








In 5-axis machines, it depends mainly on optimal accessibility to the workpiece. Often, the workpieces are lifted off the table to allow optimal 5-sided machining. VERO-S offers many options for an optimal combination of quick change with optimized clamping devices for 5-sided machining.



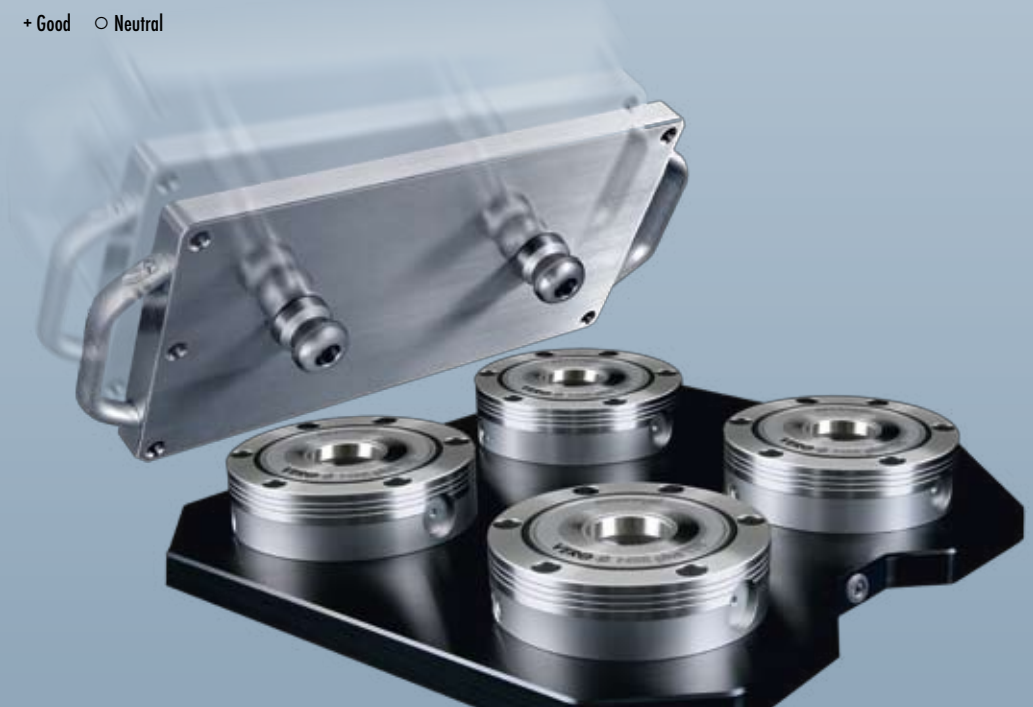


VERO-S In comparison

VERO-S is the quick change pallet system of the next generation and completely replaces the proven SCHUNK UNILOCK. It's worth it to compare. You'll profit from the additional performance without extra charge. Take advantage of VERO-S with its standard features, its compatibility and the standardized SCHUNK complete range for workpiece clamping in your production for increased process reliability and efficiency.

Characteristics	VERO-S NSE-plus 138	SCHUNK UNILOCK NSE 138
Highest pull-down force due to patented dual stroke actuation	+++	○
Pull-down force (standard)	7.5 kN	5 kN
Pull-down force (turbo)	25 kN	12.5 kN
Installation-compatible	+	+
Designed completely in stainless steel	++	○
Module completely sealed	++	+
Turbo connection integrated in the standard	++	○
Clamping pin in stainless steel	++	○
Slide monitoring in the standard	++	○
Central plug for air purge connection or sequence for KSS	++	○
NEW Optional: no oiled air required for actuation	++	○
Connections for air at the side and base	++	+
Repeat clamping accuracy < 0.005	+	+
Large surfaces for force transmission	+	+
Form-fitting locking with self-locking	++	+

+++ Excellent ++ Very Good + Good ○ Neutral



QUICK CHANGE PALLET SYSTEM

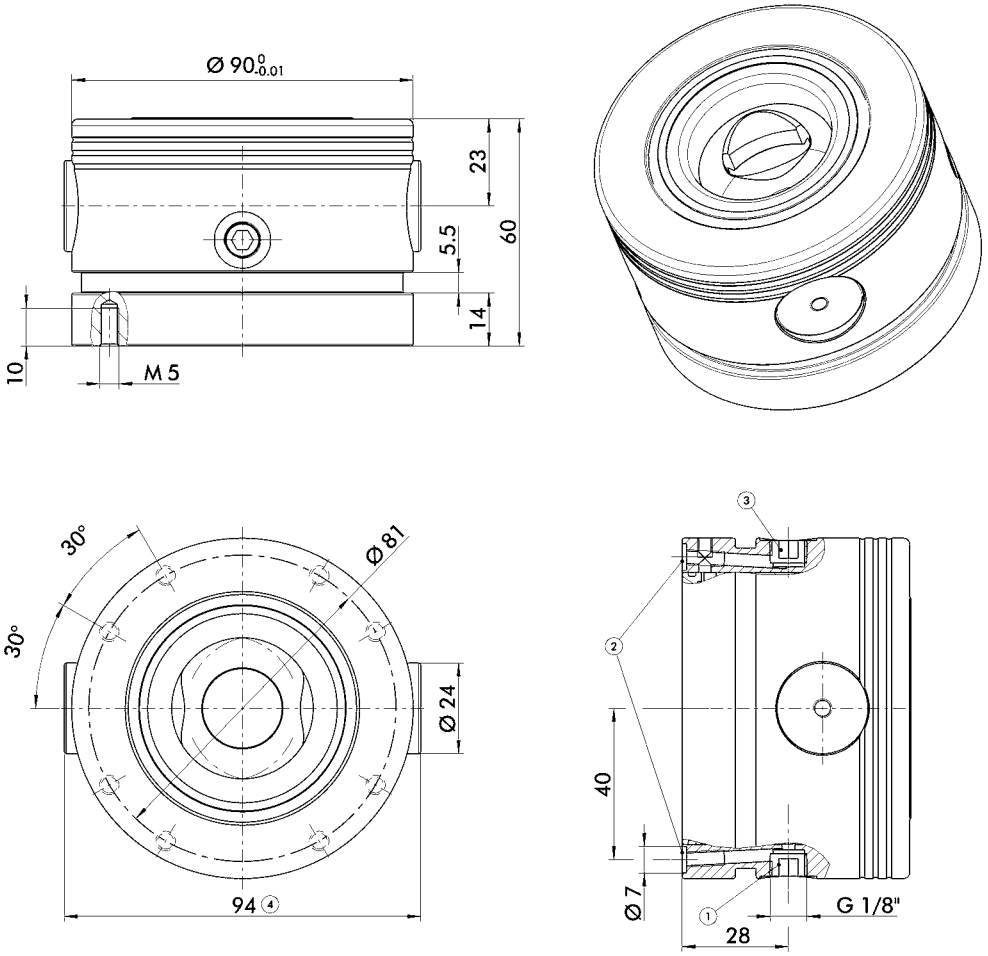
Series	Page
Clamping modules	
NSE PLUS 90	28
NSE PLUS 138	29
NSE-T PLUS 138	30
NSE PLUS 176	31
Clamping pin	
SPA, SPB, SPC	32
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NSL plus 600	37
Clamping pallets	
PAL 159 x 159	38
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PAL 599 x 159	40
VERO-S clamping towers	
VERO-S double-bracket clamping tower	42
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VERO-S octagonal clamping tower	44

NSE plus 90 quick change pallet module

Scope of delivery
1x NSE plus 90 quick change pallet module without mounting screws

Type	ID	Retraction force [kN]	Holding force (M10)* [kN]	Weight [kg]	Unlocking pressure [bar]	Repeat clamping accuracy [mm]
NSE plus 90	**0471059**	2.5 / 11 with turbo	35	2.4	6.0	0.005

* Holding force with mounting screw



① Unlocking connection via screw connection G1/8 (6 bar)
② Hose-free direct connection (6 bar) (Seal Ø 4x1.5)
③ Turbo connection via screw connection G1/8 (6 bar)
④ Interfering contour in open condition

Technical changes reserved.

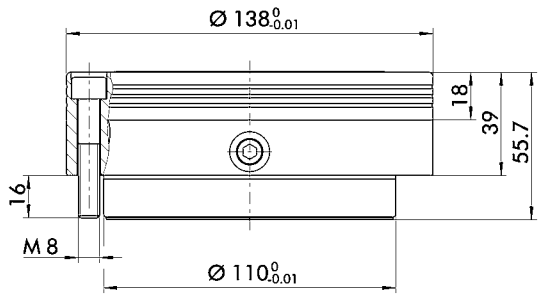
All advantages at a glance on page 26

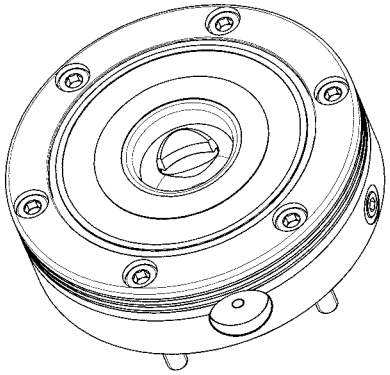
NSE plus 138 quick change pallet module

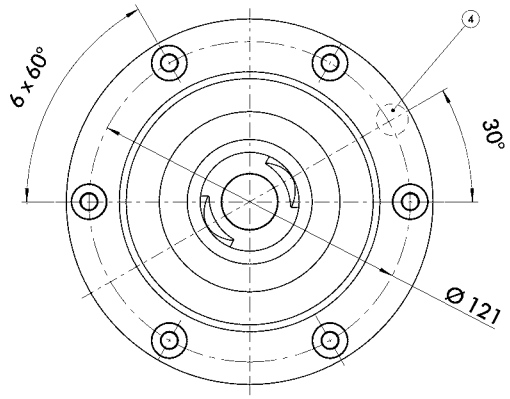
Scope of delivery
1x NSE plus 138 quick change pallet module
including 6x ISO 4762 - M8 x 45 - 10.9 mounting screws

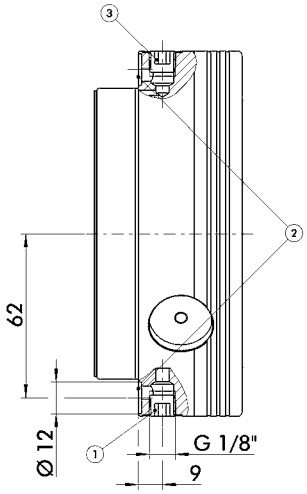
Type	ID	Retraction force [kN]	Holding force (M10/M12/M16)* [kN]	Weight [kg]	Unlocking pressure [bar]	Repeat clamping accuracy [mm]
NSE plus 138	**0471150**	7.5 / 25 with turbo	35 / 50 / 75	4.4	6.0	0.005

* Holding force with mounting screw









① Unlocking connection via screw connection G1/8 (6 bar)
② Hose-free direct connection (6 bar) (Seal Ø 9x1.5)
③ Turbo connection via screw connection G1/8 (6 bar)
④ Clamping slide monitoring (Seal Ø 9x1.5)

Technical changes reserved.

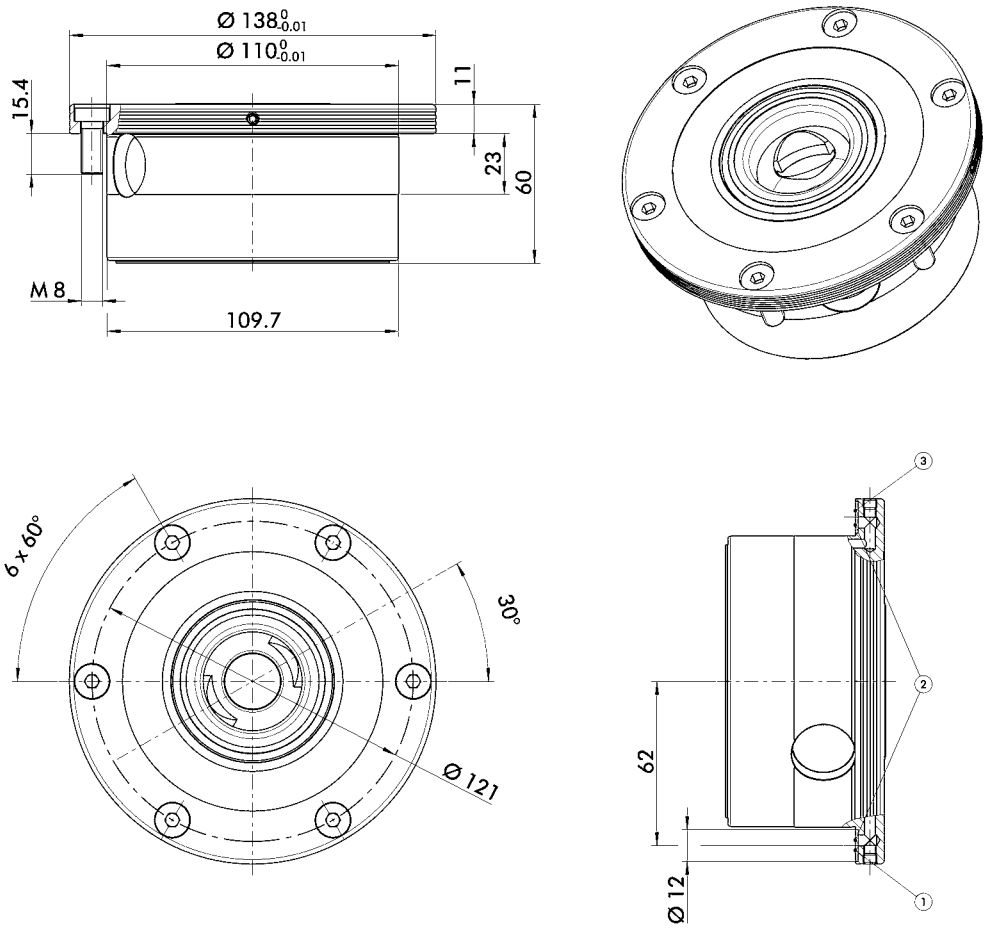
All advantages at a glance on page 26

NSE-T plus 138 tower clamping module

Scope of delivery
1x NSE-T plus 138 tower clamping module
including 6x DIN 7984 - M8 x 20 - 10.9 mounting screws

Type	ID	Retraction force [kN]	Holding force (M10/M12/M16)* [kN]	Weight [kg]	Unlocking pressure [bar]	Repeat clamping accuracy [mm]
NSE-T plus 138	**0471076**	7.5 / 25 with turbo	35 / 50 / 75	3.7	6.0	0.005

* Holding force with mounting screw



① Unlocking connection via screw connection G1/8 (6 bar)
② Hose-free direct connection (6 bar) (Seal Ø 9x1.5)
③ Turbo connection via screw connection G1/8 (6 bar)

Technical changes reserved.

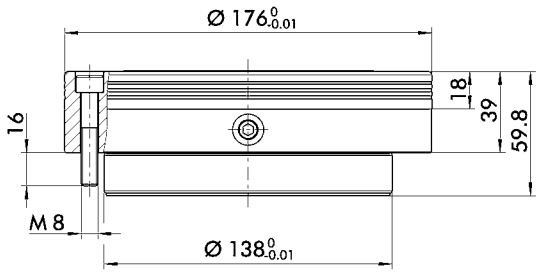
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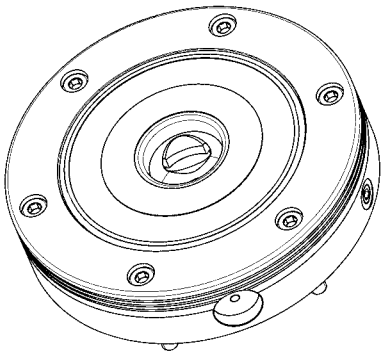
NSE plus 176 quick change pallet module

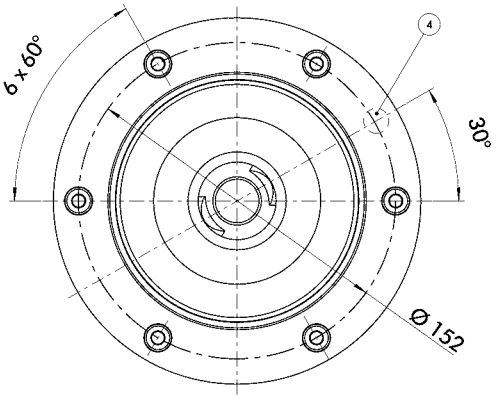
Scope of delivery
1x NSE plus 176 quick change pallet module
including 6x ISO 4762 - M8 x 45 - 10.9 mounting screws

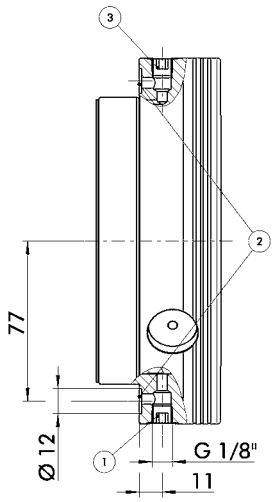
Type	ID	Retraction force [kN]	Holding force (M10/M12/M16)* [kN]	Weight [kg]	Unlocking pressure [bar]	Repeat clamping accuracy [mm]
NSE plus 176	**0471060**	9 / 40 with turbo	35 / 50 / 75	7.9	6.0	0.005

* Holding force with mounting screw









① Unlocking connection via screw connection G1/8 (6 bar)
② Hose-free direct connection (6 bar) (Seal Ø 9x1.5)
③ Turbo connection via screw connection G1/8 (6 bar)
④ Clamping slide monitoring (Seal Ø 9x1.5)

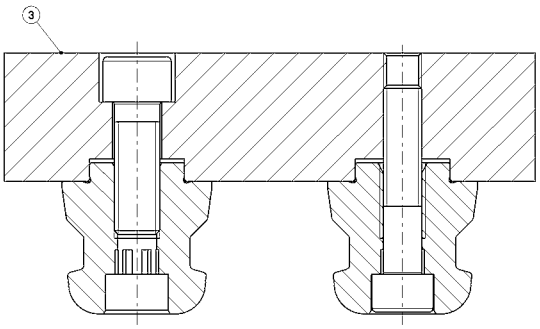
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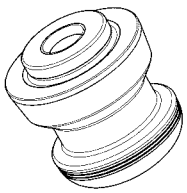
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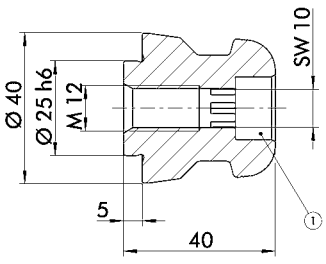
SPA, SPB, SPC clamping pins

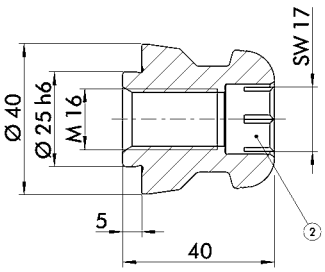
Type	ID	Material	Weight [kg]	Holding force* [kN]	Holding force* [kN]	Version
SPA 40-RF	**0471151**	Stainless steel	0.3	35 (M10)	50 (M12)	Solid bolt, standard
SPB 40-RF	**0471152**	Stainless steel	0.3	35 (M10)	50 (M12)	Mounting stud, one-sided positioning
SPC 40-RF	**0471153**	Stainless steel	0.3	35 (M10)	50 (M12)	Semi-cylindrical shaft with centering pin 0.1 mm
SPA 40-16-RF	**0471064**	Stainless steel	0.3	50 (M12)	75 (M16)	Solid bolt, standard
SPB 40-16-RF	**0471065**	Stainless steel	0.3	50 (M12)	75 (M16)	Mounting stud, one-sided positioning
SPC 40-16-RF	**0471066**	Stainless steel	0.3	50 (M12)	75 (M16)	Semi-cylindrical shaft with centering pin 0.1 mm

* Holding force with cylindrical screw – DIN 912/12.9









① Through hole and countersink on head for DIN EN ISO M10 screw
② Through hole and countersink on head for DIN EN ISO 4762 M12 screw
③ Mounting options

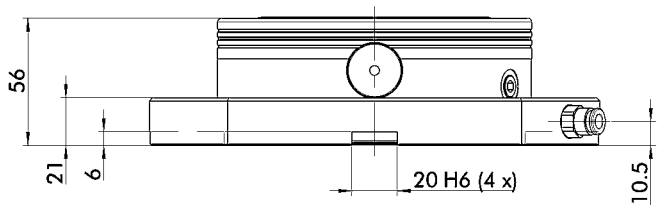
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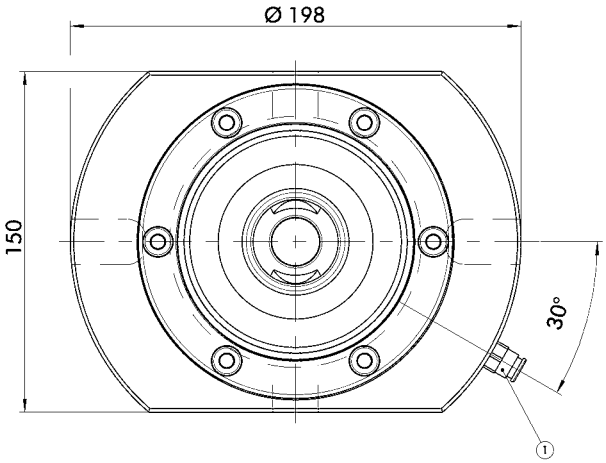
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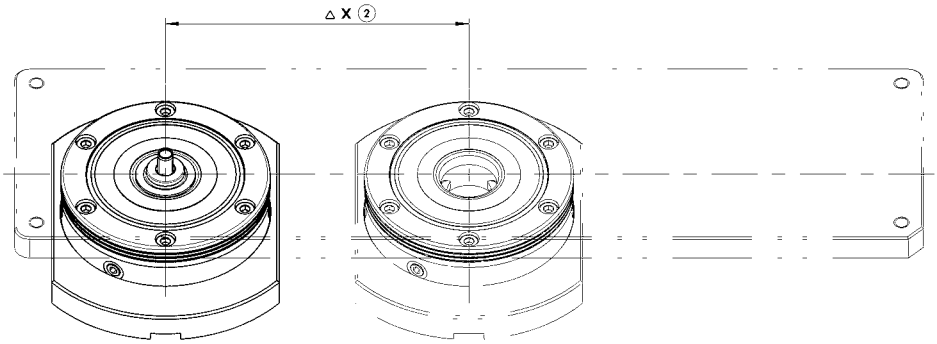
Single module for stationary use NSL plus 150

Scope of delivery
Single module for stationary use NSL plus 150
including 1 quick change pallet module type NSE plus 138, pre-installed
2x type BRR 50 fixing garnitures

Type	ID	Weight [kg]
NSL plus 150	**0471045**	6.7







① Air connection G1/8
② Variable gauge for bore holes

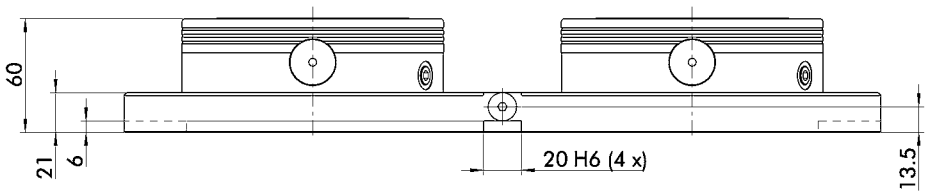
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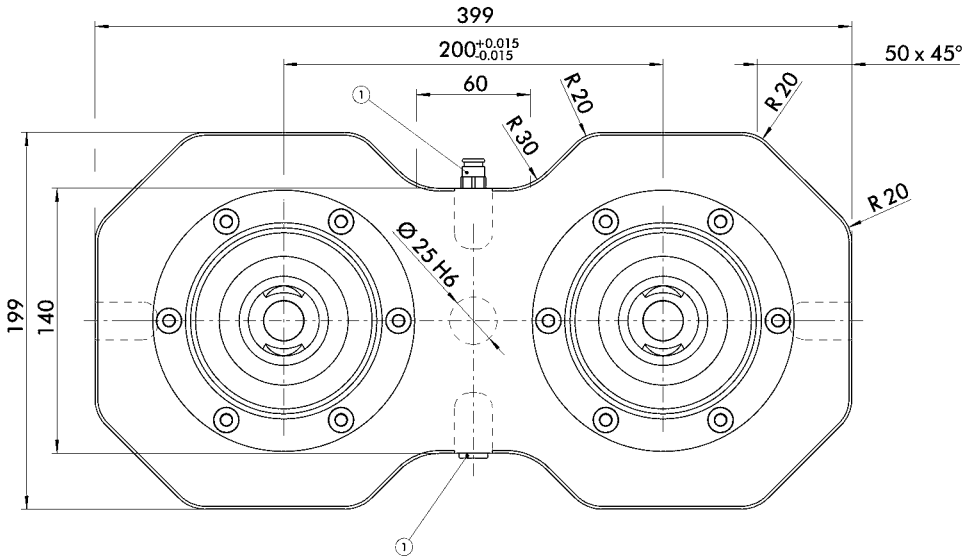
All advantages at a glance on page 26

Double module for stationary use NSL plus 200

Scope of delivery
Double module for stationary use NSL plus 200
including 2 quick change pallet modules type NSE plus 138, pre-installed
4x type BRR 50 fixing garnitures

Type	ID	Weight [kg]
NSL plus 200	**0471003**	16.5





① Air connection G1/8

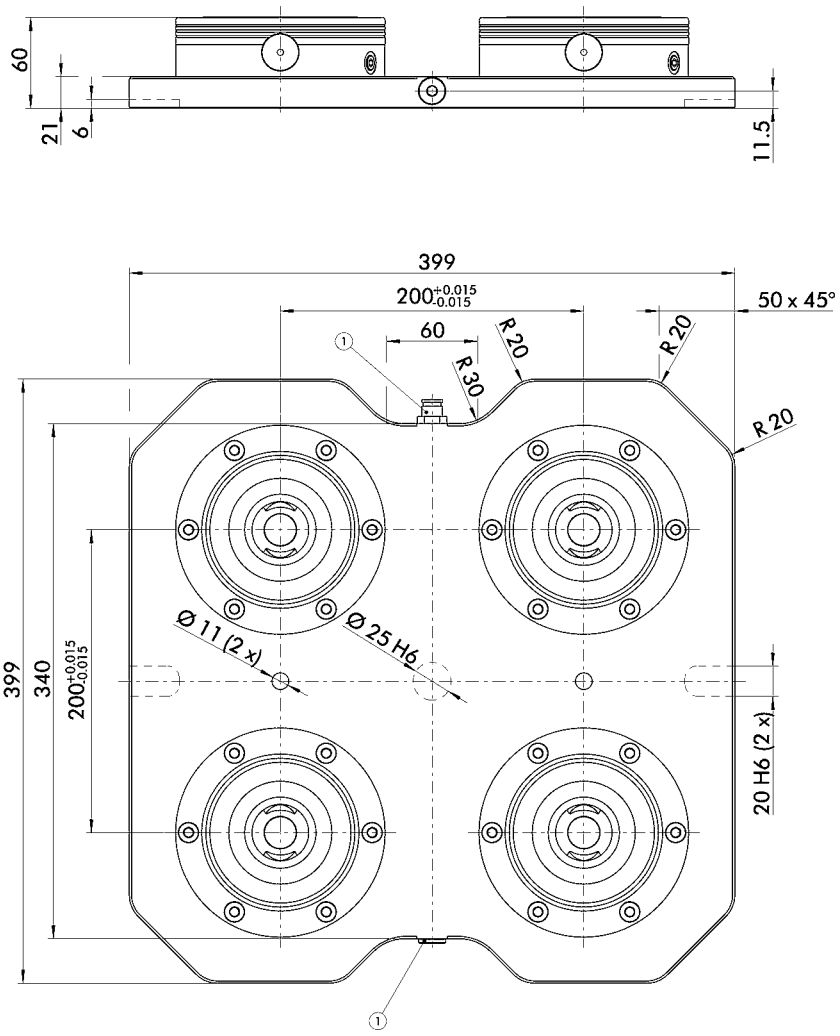
Technical changes reserved.

All advantages at a glance on page 26

Quadruple module for stationary use NSL plus 400

Scope of delivery
Quadruple module for stationary use NSL plus 400
including 4 quick change pallet modules type NSE plus 138, pre-installed
4x type BRR 50 fixing garnitures

Type	ID	Weight [kg]
NSL plus 400	**0471048**	34.8



① Air connection G1/4

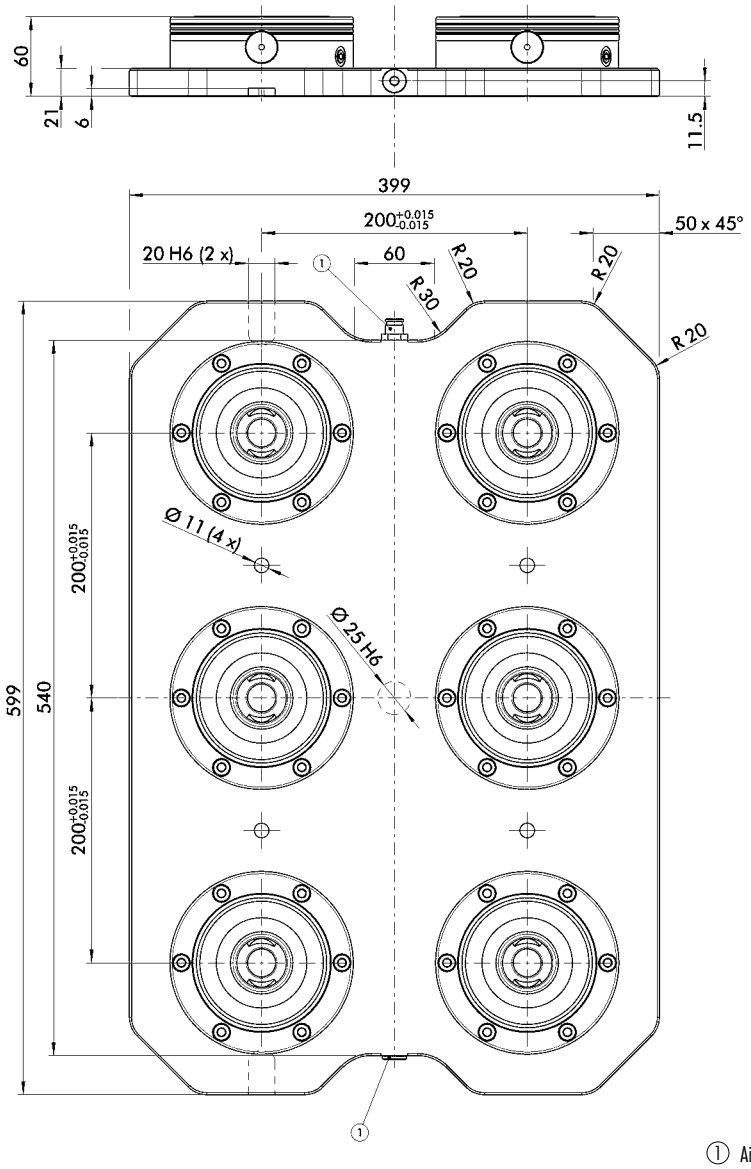
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All advantages at a glance on page 26

Double module for stationary use NSL plus 600

Scope of delivery
Six-fold module for stationary use NSL plus 600
including 6 quick change pallet modules type NSE plus 138, pre-installed
6x type BRR 50 fixing garnitures

Type	ID	Weight [kg]
NSL plus 600	**0471082**	53.0



① Air connection G1/4

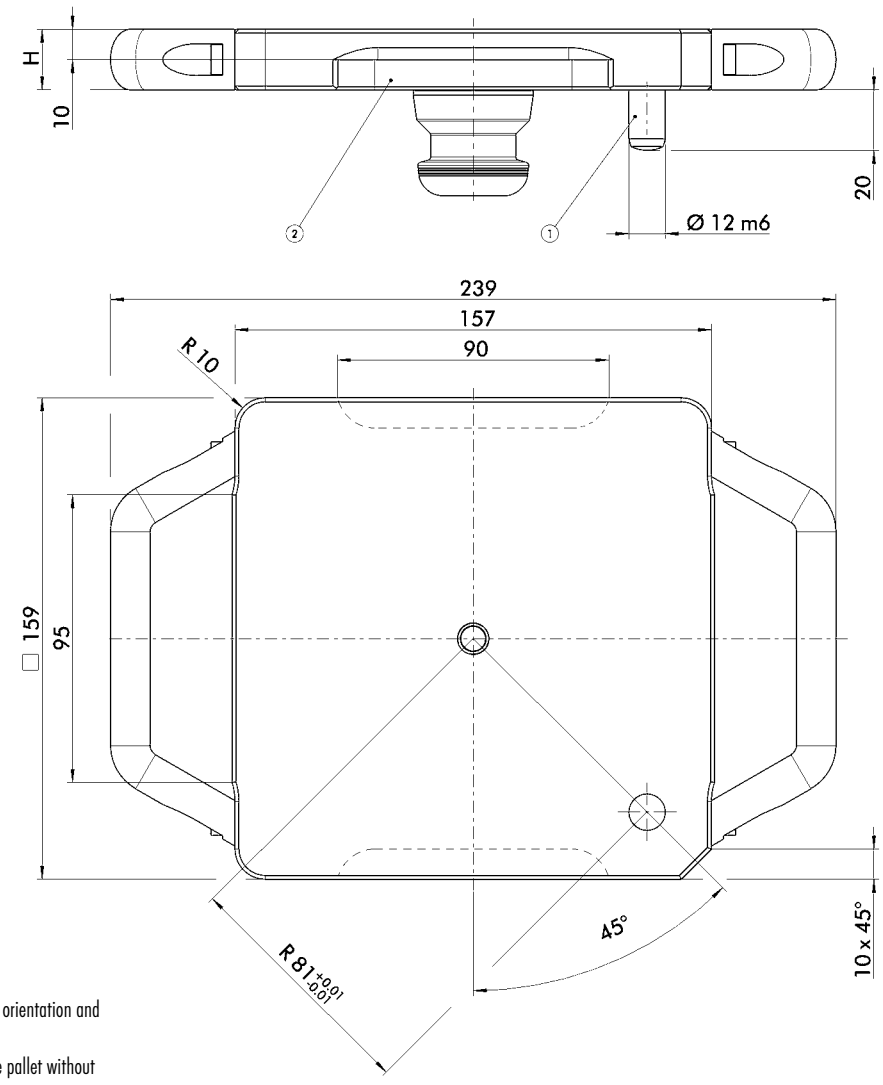
Technical changes reserved.

All advantages at a glance on page 26

PAL S/PAL A 159 x 159 clamping pallet

Scope of delivery
1x PAL S or PAL A clamping pallet
1x type SPA-40-RF clamping pin (Id-No. 0471151)
1x aluminum hand grip

Type	ID	Material	Weight [kg]	Plane parallelism [mm]	Plate thickness H [mm]	Suitable for modules for stationary use
PAL S 159 x 159	**0471010**	Steel	4.2	0.02	20	NSM 170 / NSD plus 150 NSD plus 200
PAL A 159 x 159		Aluminum	2.2	0.05	25	



① Cylindrical pin for position orientation and recording torques
② Grip plate for handling the pallet without hand grips

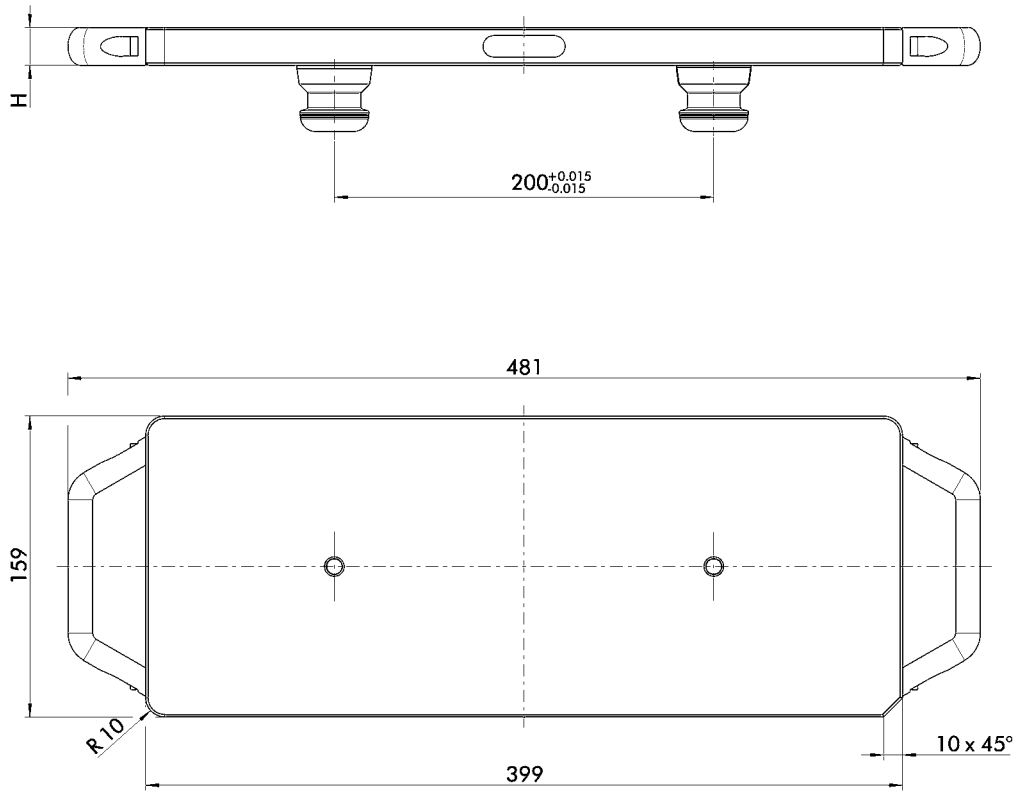
Technical changes reserved.

All advantages at a glance on page 26

PAL S/PAL A 399 x 159 clamping pallet

Scope of delivery
1x PAL S or PAL A clamping pallet
1x type SPA-40-RF clamping pin (Id-No. 0471151)
1x type SPB-40-RF clamping pin (Id-No. 0471152)
1x aluminum hand grip

Type	ID	Material	Weight [kg]	Plane parallelism [mm]	Plate thickness H [mm]	Suitable for modules for stationary use
PAL S 399 x 159	**0471020**	Steel	10.6	0.02	20	NSL plus 200 / NSD plus 200 NSL plus 400
PAL A 399 x 159		Aluminum	5.1	0.05	25	

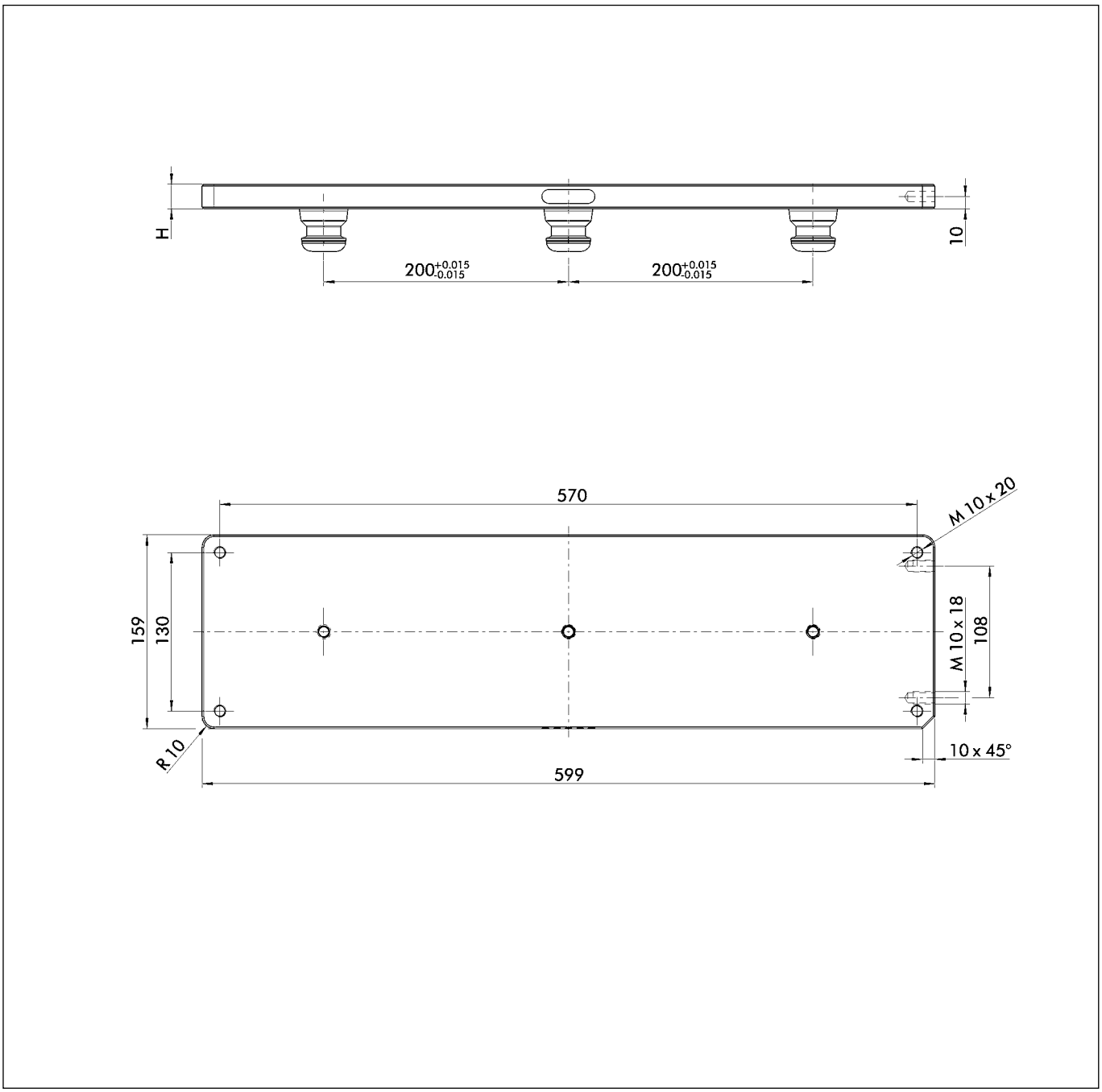


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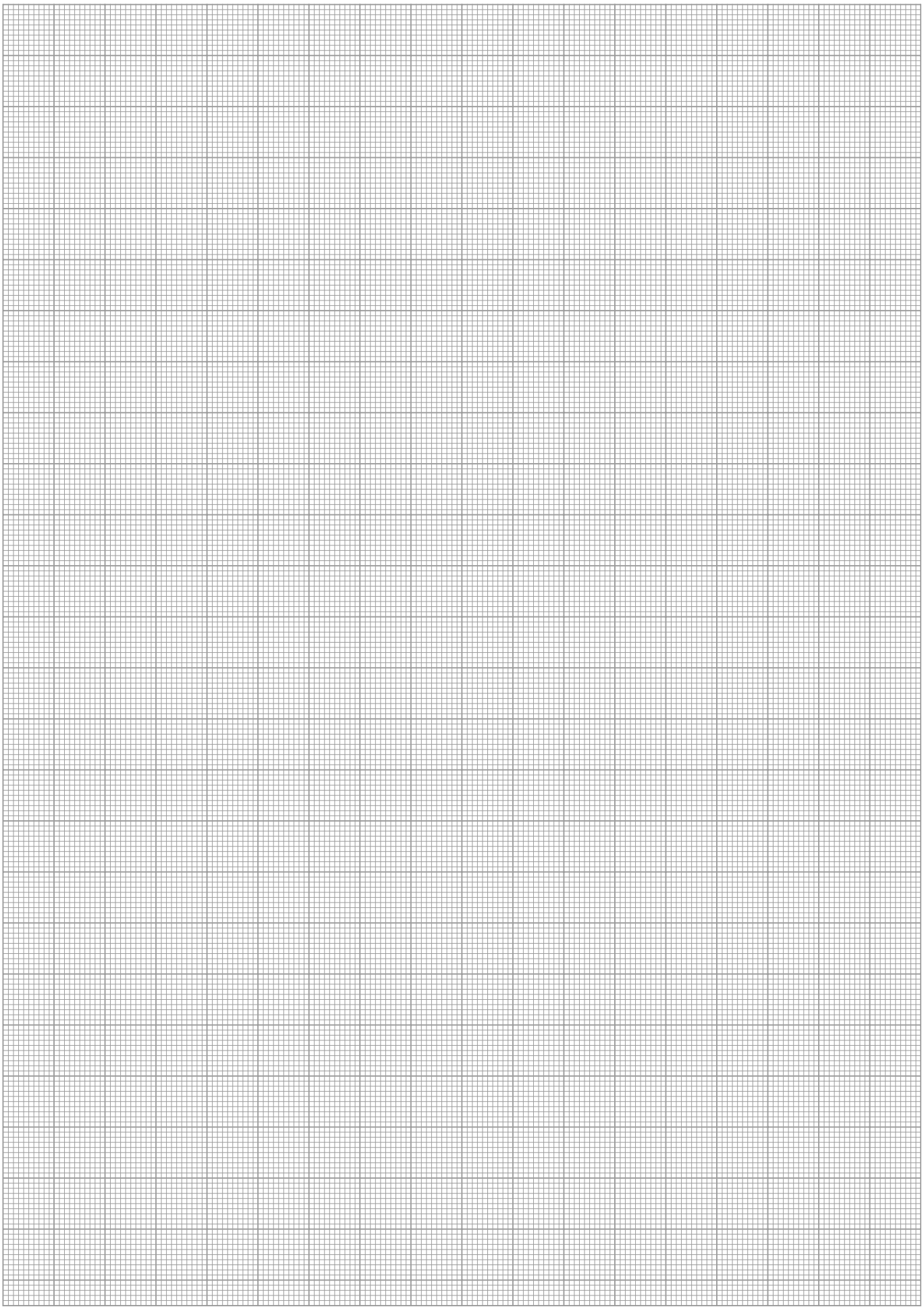
PAL S/PAL A 599 x 159 clamping pallet

Scope of delivery
1x PAL S or PAL A clamping pallet
1x type SPA-40-RF clamping pin (Id-No. 0471151)
1x type SPB-40-RF clamping pin (Id-No. 0471152)
1x type SPC-40-RF clamping pin (Id-No. 0471153)
1x aluminum hand grip

Type	ID	Material	Weight [kg]	Plane parallelism [mm]	Plate thickness H [mm]	Suitable for modules for stationary use
PAL S 599 x 159	**0471030**	Steel	15.6	0.02	20	NSL plus 600 NSL plus 800
PAL A 599 x 159		Aluminum	7.4	0.05	25	



All advantages at a glance on page 26



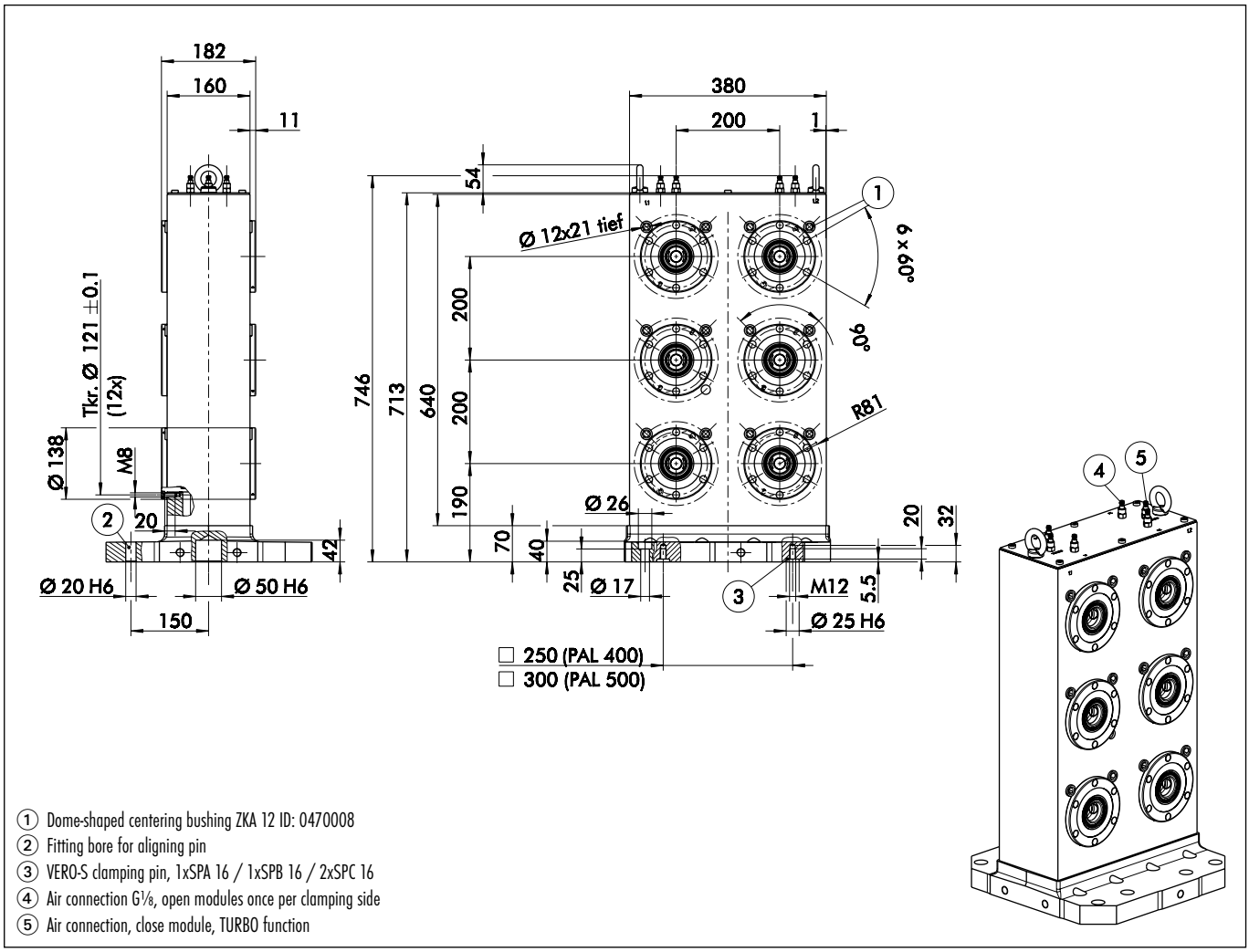


VERO-S double-bracket clamping tower

Tombstones with SCHUNK VERO-S quick change pallet system for horizontal machining centers

- For quick set-up – positioning, mounting, and clamping in one operation
- For highest flexibility – uniform interface for all machines
- For multi-side machining and individual pallet clamping
- For precise centering – repeat accuracy < 0.005 mm
- For secure clamping – holding force of 75 kN

Type	ID	Description	Weight [kg]
DOUBLE BRACKET tombstone	**0470115**	For pallet size 400	220
DOUBLE BRACKET tombstone	**0470125**	For pallet size 500	248



① Dome-shaped centering bushing ZKA 12 ID: 0470008
② Fitting bore for aligning pin
③ VERO-S clamping pin, 1xSPA 16 / 1xSPB 16 / 2xSPC 16
④ Air connection G⅛, open modules once per clamping side
⑤ Air connection, close module, TURBO function

All advantages at a glance on page 26

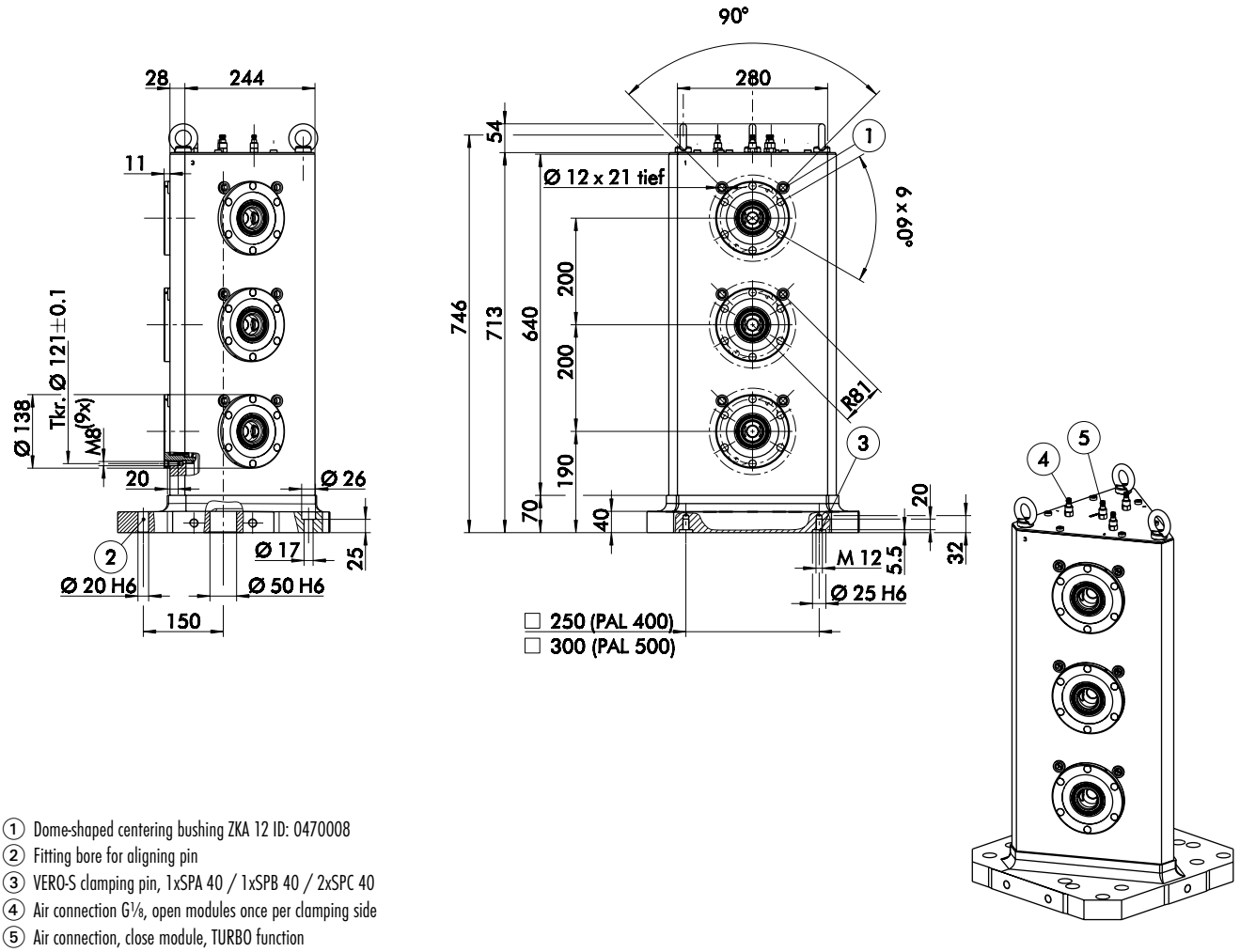


VERO-S triangular clamping tower

Tombstones with SCHUNK VERO-S quick change pallet system for horizontal machining centers

- For quick set-up – positioning, mounting, and clamping in one operation
- For highest flexibility – uniform interface for all machines
- For multi-side machining and individual pallet clamping
- For precise centering – repeat accuracy < 0.005 mm
- For secure clamping – holding force of 75 kN

Type	ID	Description	Weight [kg]
TRIANGLE tombstone	0470114	For pallet size 400	196
TRIANGLE tombstone	0470124	For pallet size 500	223



① Dome-shaped centering bushing ZKA 12 ID: 0470008
② Fitting bore for aligning pin
③ VERO-S clamping pin, 1xSPA 40 / 1xSPB 40 / 2xSPC 40
④ Air connection G⅛, open modules once per clamping side
⑤ Air connection, close module, TURBO function

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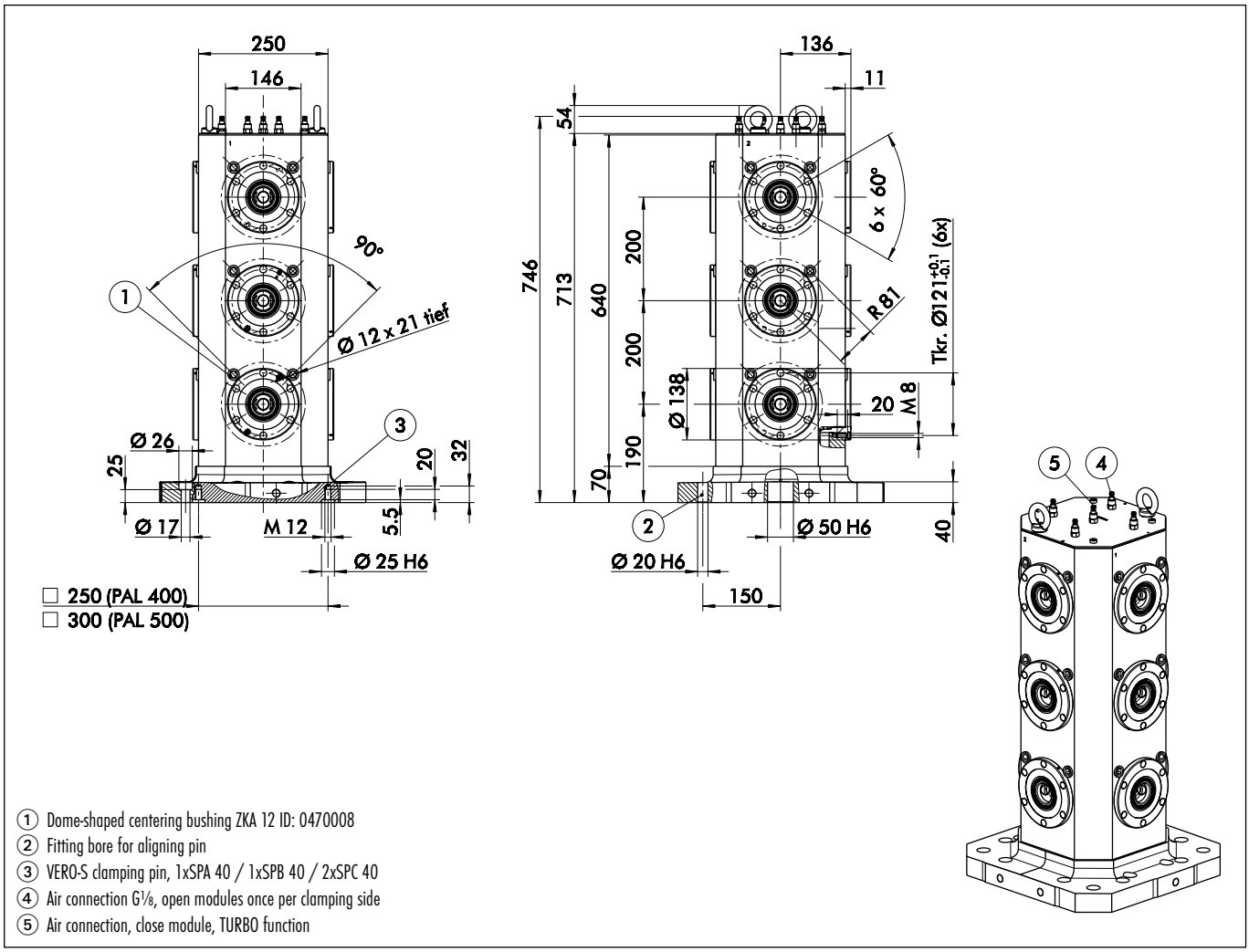


VERO-S octagonal clamping tower

Tombstones with SCHUNK VERO-S quick change pallet system for horizontal machining centers

- For quick set-up – positioning, mounting, and clamping in one operation
- For highest flexibility – uniform interface for all machines
- For multi-side machining and individual pallet clamping
- For precise centering – repeat accuracy < 0.005 mm
- For secure clamping – holding force of 75 kN

Type	ID	Description	Weight [kg]
OCTAGON tombstone	**0470113**	For pallet size 400	197
OCTAGON tombstone	**0470123**	For pallet size 500	224



① Dome-shaped centering bushing ZKA 12 ID: 0470008
② Fitting bore for aligning pin
③ VERO-S clamping pin, 1xSPA 40 / 1xSPB 40 / 2xSPC 40
④ Air connection G⅛, open modules once per clamping side
⑤ Air connection, close module, TURBO function

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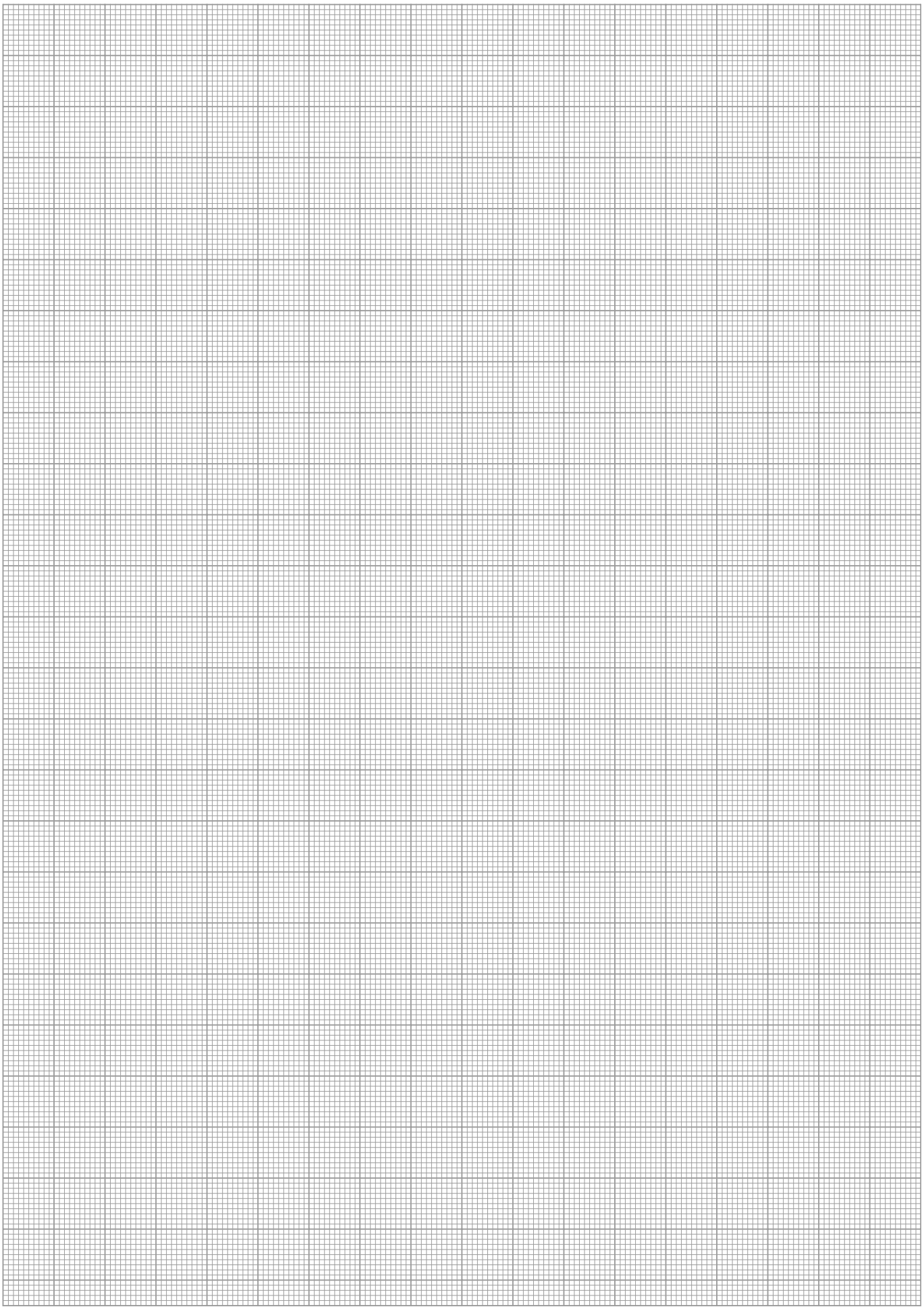
All information in digital form, clearly structured and up-to-date on our website at www.schunk.com

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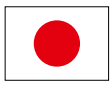




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