



# VERO-S

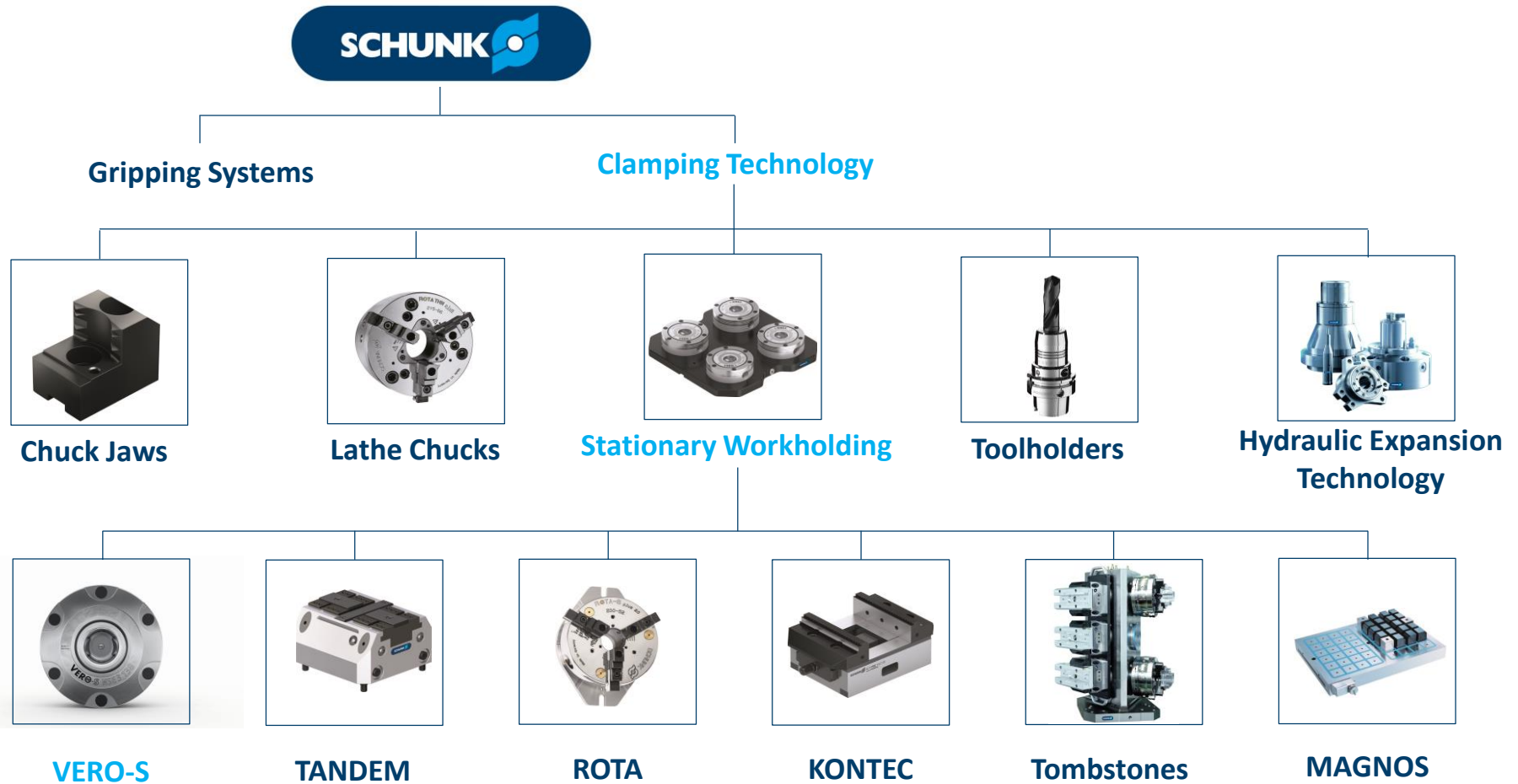
High-performance Quick-change Pallet Module

Superior Clamping and Gripping



# Product Overview

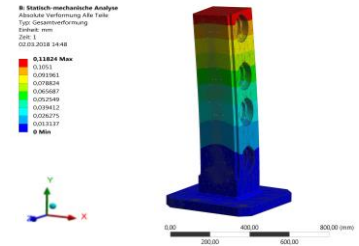
SCHUNK  
Synergy machine



# SCHUNK Services

## Engineering

- Dimensioning of special plates designed to the manufacturing specifications
- Development of special solutions together with the customer
- FEM analysis for critical components



## Testing

- Endurance tests with all new developments
- Abrasion checking
- Measurement of accuracy

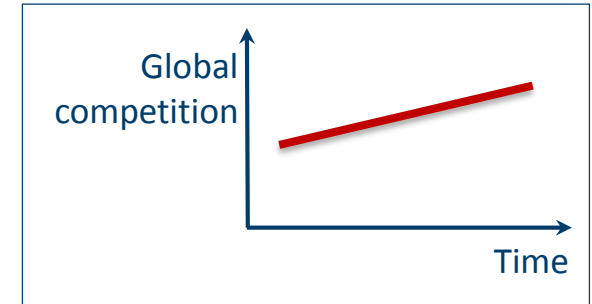
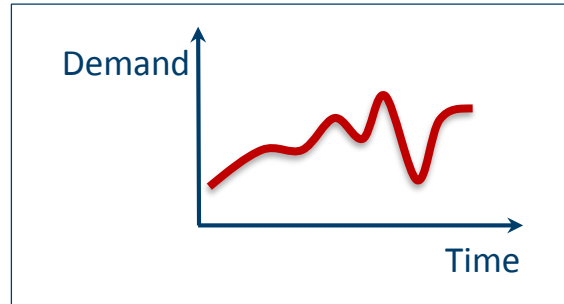
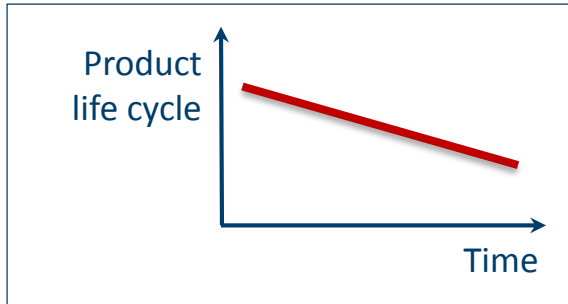
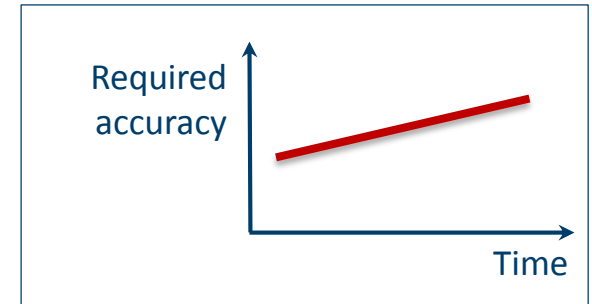
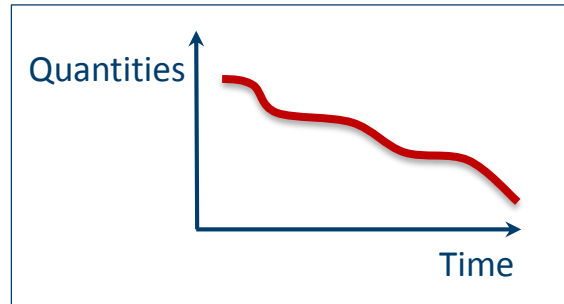
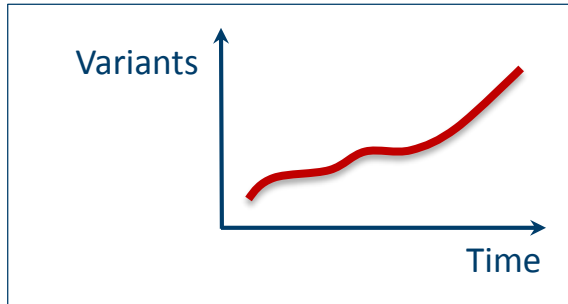


## Service

- Initial operation of customer's solution
- Inspection and maintenance
- Repairs



# Challenges



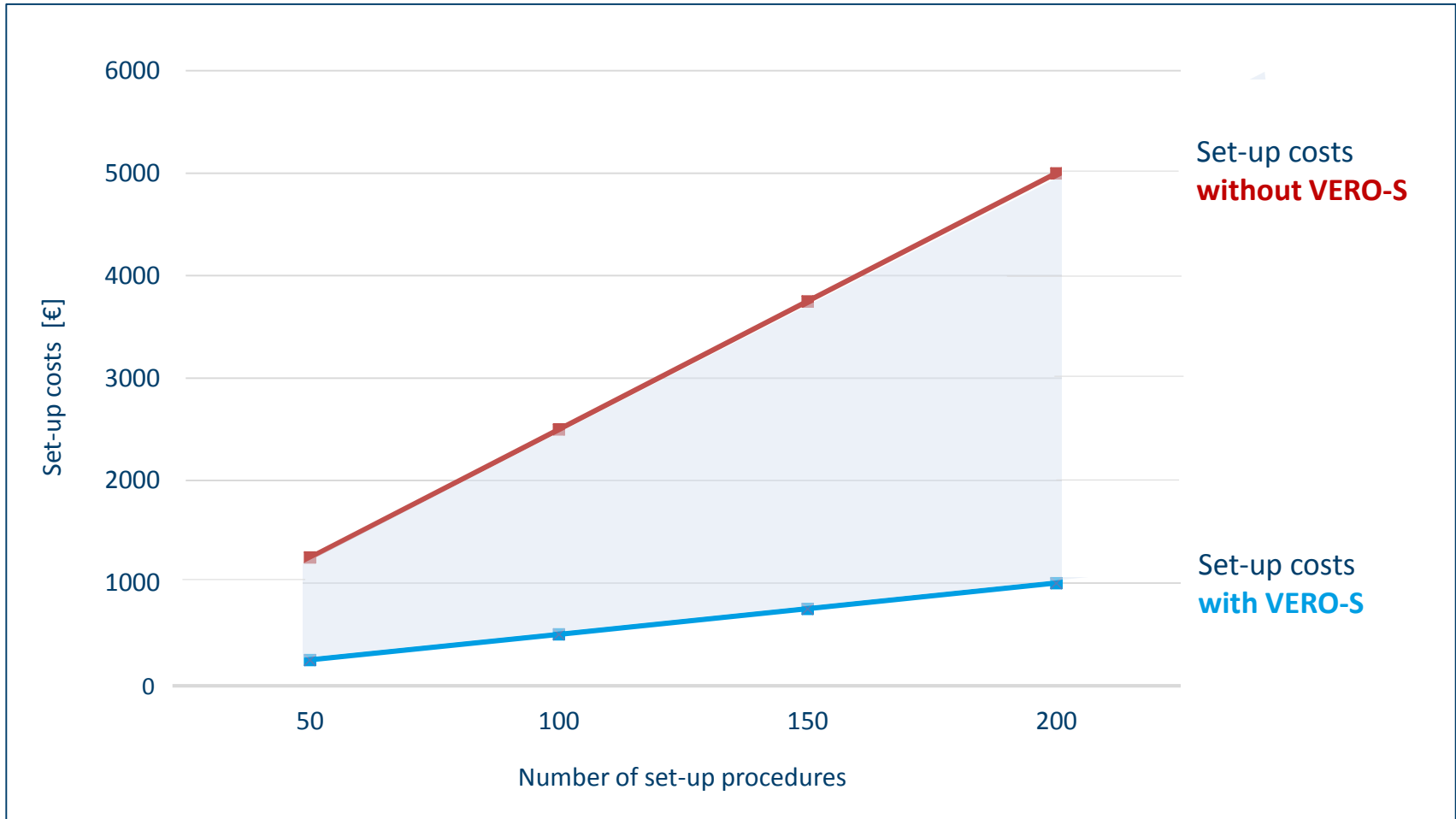
Increasing relevance of the set-up process



# VERO-S – the set-up time optimizer



# Potential for savings



# Amortisation

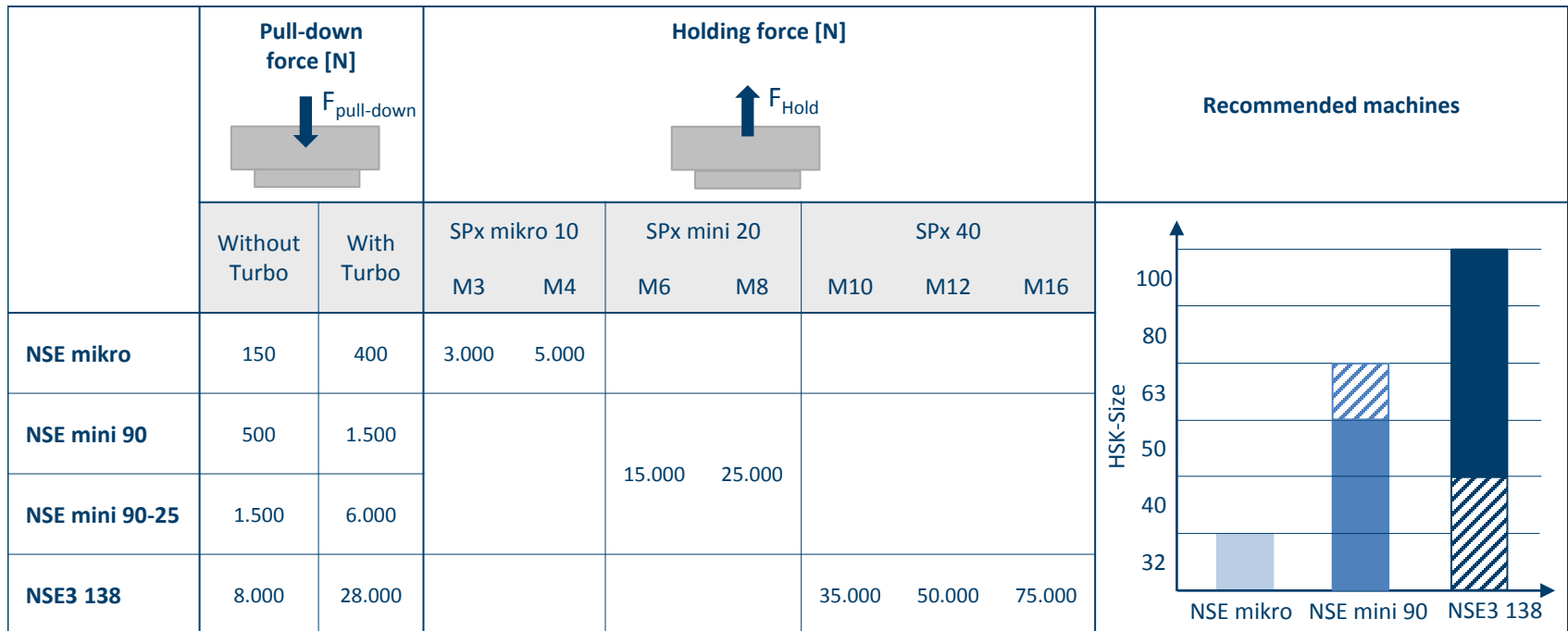


Even for older machines, the investment in SCHUNK VERO-S quick change pallet system amortizes within a minimum of time.

Thanks to the consistent interface of the clamping pin, the existing clamping devices can easily be integrated in the new system.

| Calculation for set-up costs                   | Case 1 | Case 2 |
|------------------------------------------------|--------|--------|
| Investment in SCHUNK VERO-S [€]                | 5.000  | 10.000 |
| Time per set-up procedure without VERO-S [min] | 25     |        |
| Time per set-up procedure with VERO-S [min]    | 5      |        |
| Machine costs [€/h]                            | 60     |        |
| Number of set-up procedures per day            | 5      |        |
| Working days per month                         | 20     |        |
| Working days per year                          | 240    |        |
| Payback Time                                   |        |        |
| Set-up procedures                              | 250    | 500    |
| Working days                                   | 50     | 100    |
| Months                                         | 2,5    | 5      |
| Years                                          | 0,21   | 0,42   |

# Consistency of pull-down and holding forces





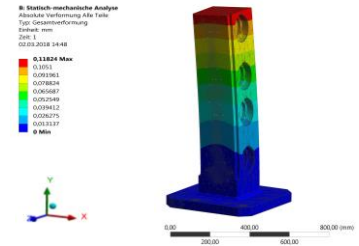
# VERO-S modular system



# SCHUNK Services

## Engineering

- Dimensioning of special plates designed to the manufacturing specifications
- Development of special solutions together with the customer
- FEM analysis for critical components



## Testing

- Endurance tests with all new developments
- Abrasion checking
- Measurement of accuracy



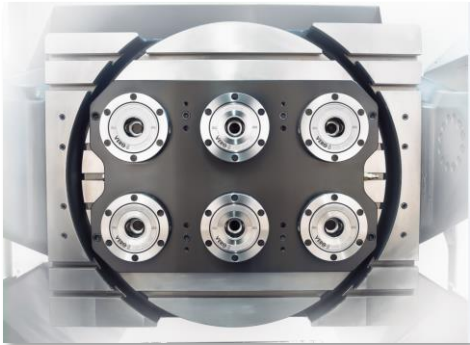
## Service

- Initial operation of customer's solution
- Inspection and maintenance
- Repairs



# VERO-S Overview

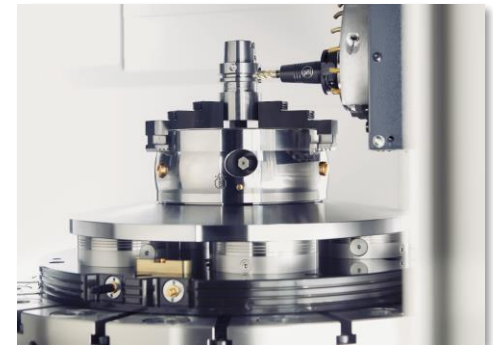
**General milling applications**



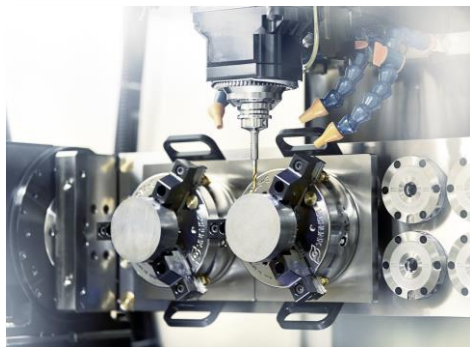
**Direct workpiece clamping**



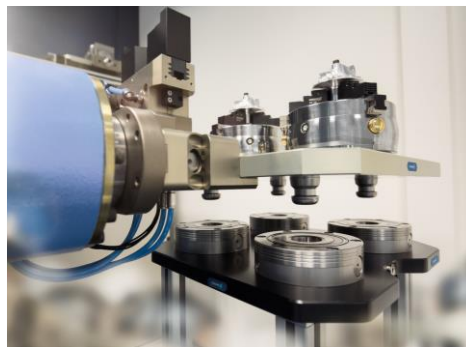
**Milling and turning applications**



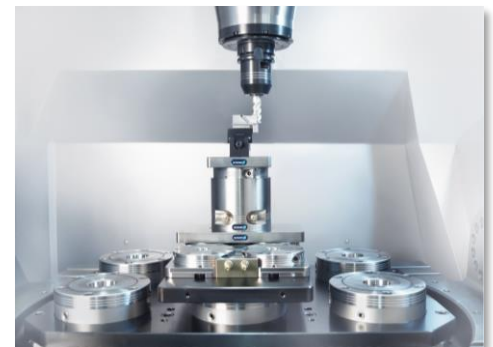
**Easy milling applications**



**Automated machine loading**



**Further applications**



# VERO-S NSE3

## Example of application



### VERO-S:

Standard 6-way clamping station with NSE plus 138 modules.

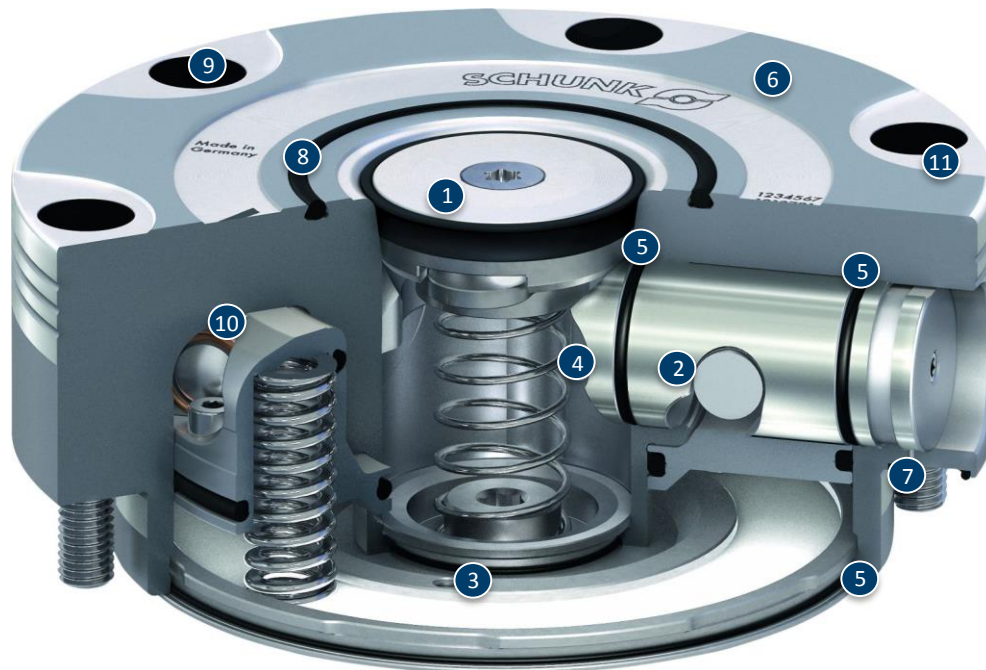
### Clamping device:

Manual chuck ROTA-S plus 2.0, KONTEC single-acting vise KSG.

### Features/Application:

High variety of processing thanks to large variances of clamping devices.

# VERO-S NSE3



- ① Optional cone seal
- ② Patented dual stroke system
- ③ Turbo function
- ④ Large surfaces
- ⑤ Completely sealed system
- ⑥ Large flat surfaces
- ⑦ Monitoring of the clamping slide position „open condition“ and „locked position“
- ⑧ Flat seal to protect the interface during machining
- ⑨ Cover caps for fastening screws
- ⑩ Sliding bearings in force flow
- ⑪ Lower-lying countersunk screws

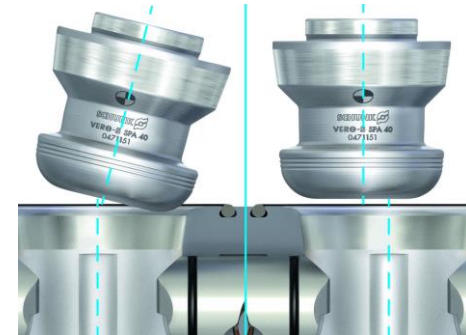


# VERO-S NSE3

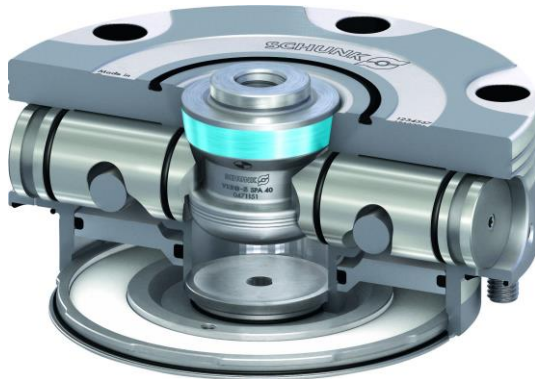
Exchangeability of the plug against a cone seal



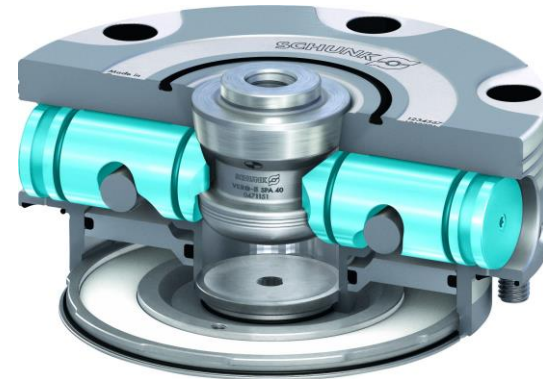
Easy positioning – more user-friendly



Centering via short taper



Locking via clamping slides



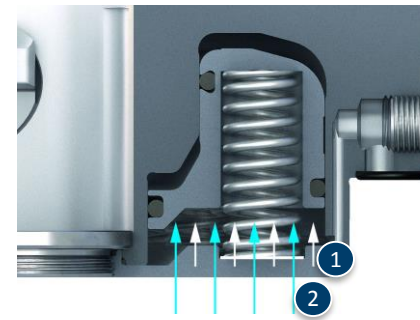


# VERO-S NSE3

Rolling friction between  
piston and clamping slide

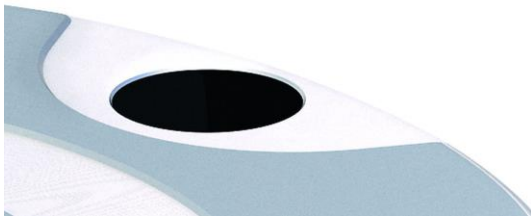


Integrated turbo function



- 1 Spring force
- 2 Additional force, resulting from the turbo function

Lower-lying countersunk screws



Control of the quick-change pallet system

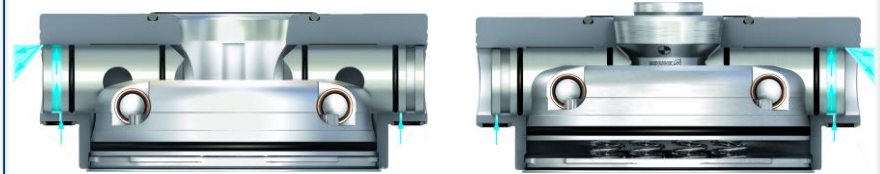


# VERO-S NSE3

**Hermetically sealed – maintenance-free**



**Monitoring of the clamping slide position  
via the dynamic pressure**



Opened condition

Locked condition

**NSE3 138-V1 – the quick-change pallet module  
with integrated anti-rotation protection**



**NSE-T3 – the tombstone module of  
the third generation**



# VERO-S NSE3

## Optional cone seal



## Optional sensor variants



### AFS3 138 PMI:

- Open condition
- Locked condition with clamping pin
- Error message at locked condition without clamping pin

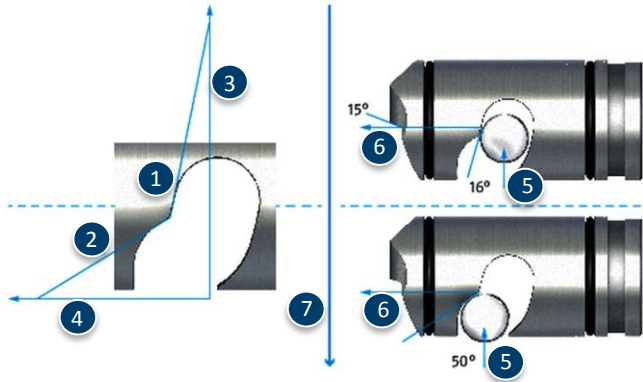


### AFS3 138 MMS:

- Open condition
- Locked condition with clamping pin

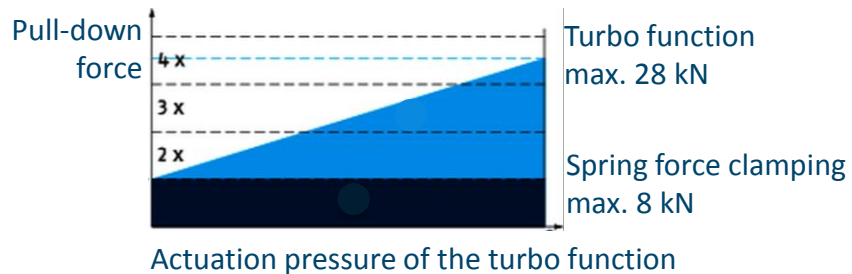
# VERO-S NSE3

## The patented fast and clamping stroke



- 1 Clamping stroke
- 2 Fast stroke
- 3 Force
- 4 Travel
- 5 Actuation force
- 6 Force on the clamping slide:
- 7 Pull-down force: 5x higher than the actuation force

## Comparison: Pull-down force spring clamping and turbo function



# VERO-S NSE3

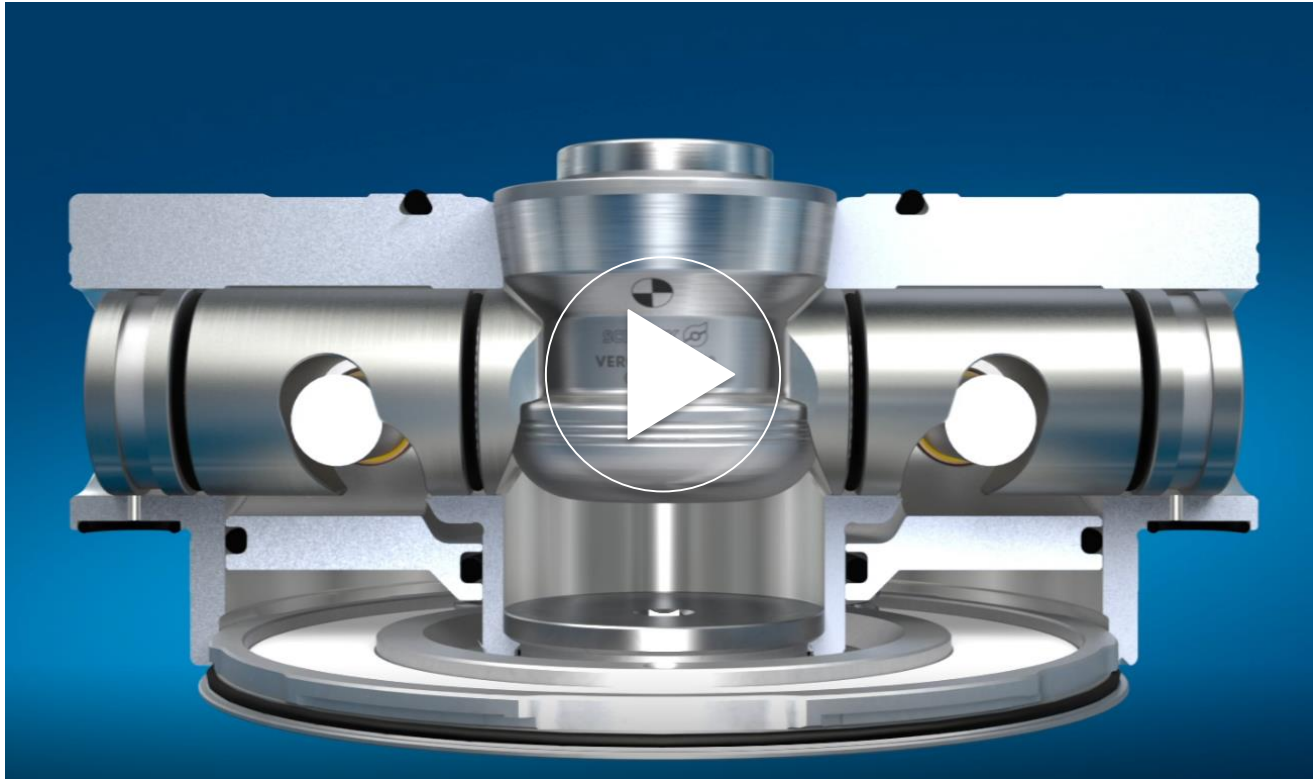
## Configuration of clamping pins type A, B and C



- ① Typ A fixed
- ② Typ B positioned
- ③ Typ C with a centering play

| Standard clamping pins                                                             |                                                                                     |                                                                                     | Compensation pins                                                                   | Accuracy pin                                                                        | Dove tail pins                                                                        | Clamping pins without centering collar                                                | Heavy duty pins                                                                       | Indexing pin IXB V1                                                                   |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| SPA                                                                                | SPB                                                                                 | SPC                                                                                 | SPA-X / SPA-XY                                                                      | SPG                                                                                 | SPx-S                                                                                 | SPx-OB                                                                                | SPA-F / SPC-F                                                                         | IXB V1                                                                                |
| Clamping pin                                                                       | Positioning pin                                                                     | Holding pin                                                                         | Compensation of pitch fluctuations +/- 1 mm                                         | Repeat accuracy < 0.002 mm                                                          | Fastening depth 3.5 mm                                                                | Mounting via fitting screw                                                            | Holding force of 75 kN                                                                | Position orientation of clamping pallets or devices                                   |
|  |  |  |  |  |  |  |  |  |

# VERO-S NSE3





# Variants of VERO-S NSE3



| Technical Data                  | NSE3    | NSE3 138-V1 | NSE3-T3 138 | NSE3-T3 138-V |
|---------------------------------|---------|-------------|-------------|---------------|
| Diameter [mm]                   | 138     | 138         | 138         | 138           |
| Pull-down force [kN]            | 8       | 8           | 7           | 7             |
| Pull-down force with turbo [kN] | 28      | 28          | 24          | 24            |
| Unlocking pressure [bar]        | 6       | 6           | 6           | 6             |
| Repeat accuracy [mm]            | < 0.005 | < 0.005     | < 0.005     | < 0.005       |
| Weight [kg]                     | 4.4     | 4.4         | 3.5         | 3.5           |

\* All Variants are available with cone seal

Superior Clamping and Gripping

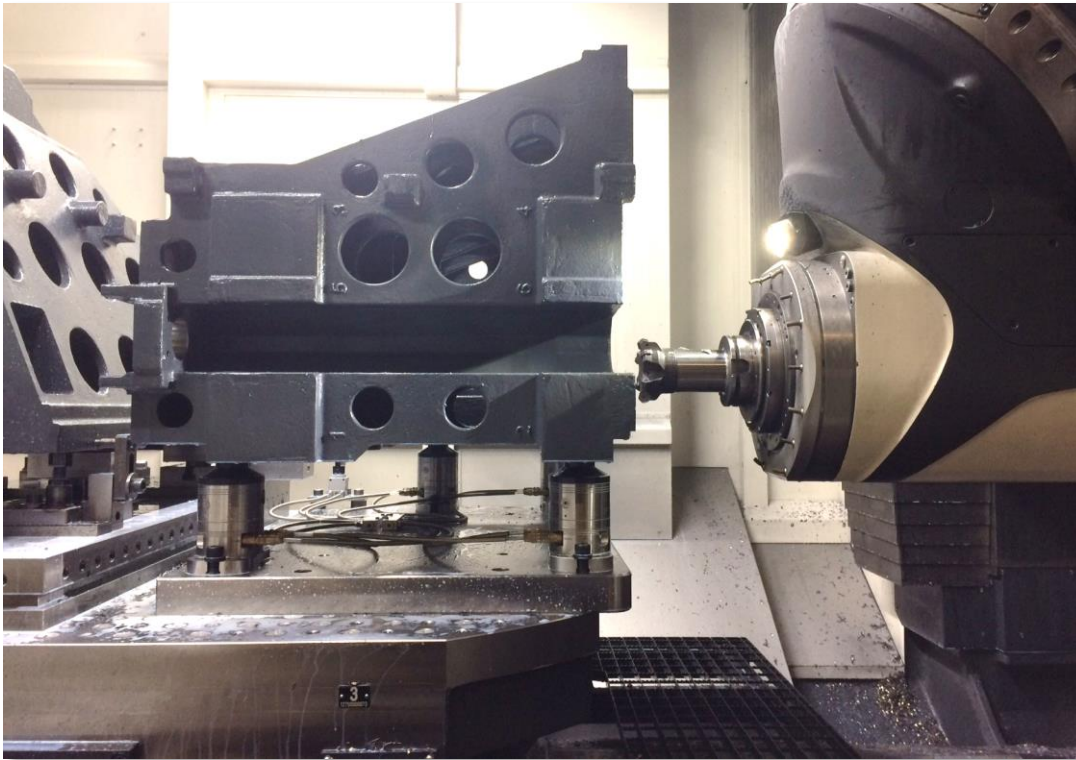


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# VERO-S WDB

## Example of application



### VERO-S:

Grid plate for installation of the basic modules via central fastening holes.

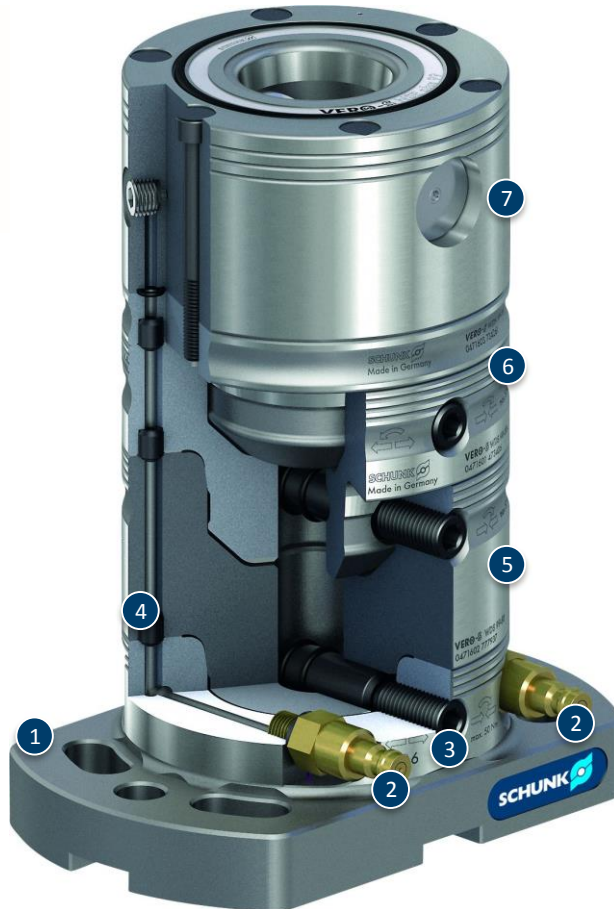
### Clamping device:

WDB 99-60 basic modules with  
WDN 99-70 direct clamping modules  
and clamping pin extensions.

### Features/Application:

Joint control via pneumatic junction  
box. Loading of recurring parts  
within seconds.

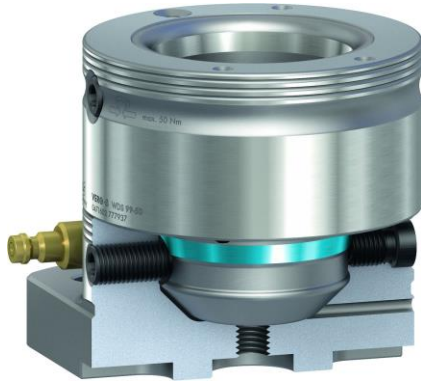
# VERO-S WDB



- ① Basic module VERO-S WDB
- ② Pneumatic connections on the basic module
- ③ Locking drive
- ④ Media transfer via stocking modules
- ⑤ WDS 99-50 stacking module
- ⑥ WDS 99-30 stacking module
- ⑦ WDN 99-70 stacking module

# VERO-S WDB

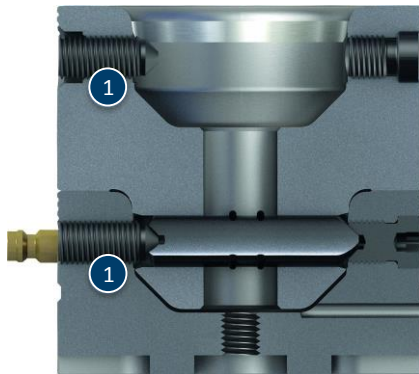
Centering via short taper



Locking via a clever clamping connection



Intelligent drive concept



1 Actuation screw

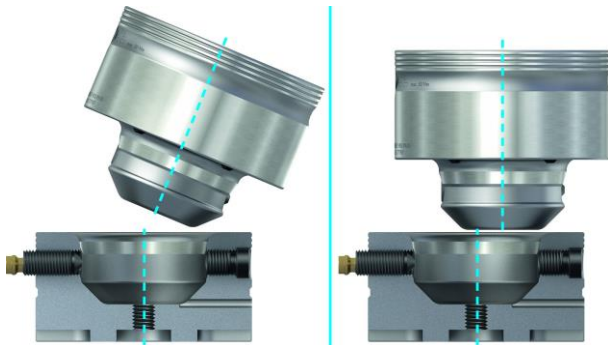
Integrated media transfer in standard



1 Air feed-through across modules

# VERO-S WDB

## Easy positioning



## Modular design

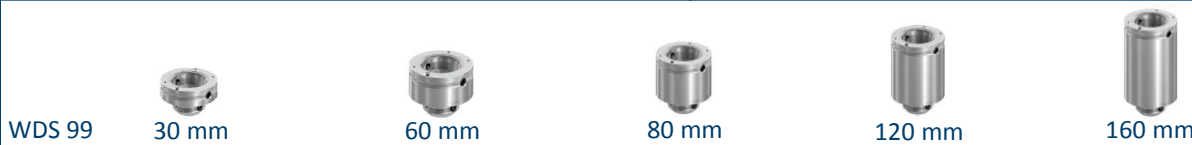
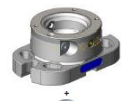


- 1 Clamping pin
- 2 Direct clamping module WDN 99-70
- 3 Stacking module WDS 99
- 4 Basic module WDB 99-60



# VERO-S WDB modular system



|                            |           |                                                                                                                         |                                                                                                   |                                                                                                             |                                                                                                     |                                                                                                     |  |
|----------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--|
| Interface to the workpiece |           |                                       |                                                                                                   | <br>WDA-SPA 32WDA-SPC 36 |                                                                                                     |                                                                                                     |  |
| Direct clamping module     | pneumatic | <br>WDN 99-70                          |                                                                                                   | <br>WDA 99-70-36         |                                                                                                     |                                                                                                     |  |
|                            | manual    | <br>WDN-M 99-70                        |                                                                                                   |                                                                                                             |                                                                                                     |                                                                                                     |  |
| Stacking modules           | manual    | <br>WDS 9930 mm60 mm80 mm120 mm160 mm |                                                                                                   |                                                                                                             |                                                                                                     |                                                                                                     |  |
| Basic modules              | pneumatic | <br>WDR 99-60                          | <br>WDB 99-60    | <br>WDB 99-60            | <br>WDG 99-60    | <br>WDB 99-60    |  |
|                            | manual    | <br>WDR-M 99-60                       | <br>WDB-M 99-60 | <br>WDB-M 99-60         | <br>WDG-M 99-60 | <br>WDB-M 99-60 |  |
| Machine table interface    |           |                                      |                                                                                                   |                        |                                                                                                     |                |  |

Superior Clamping and Gripping

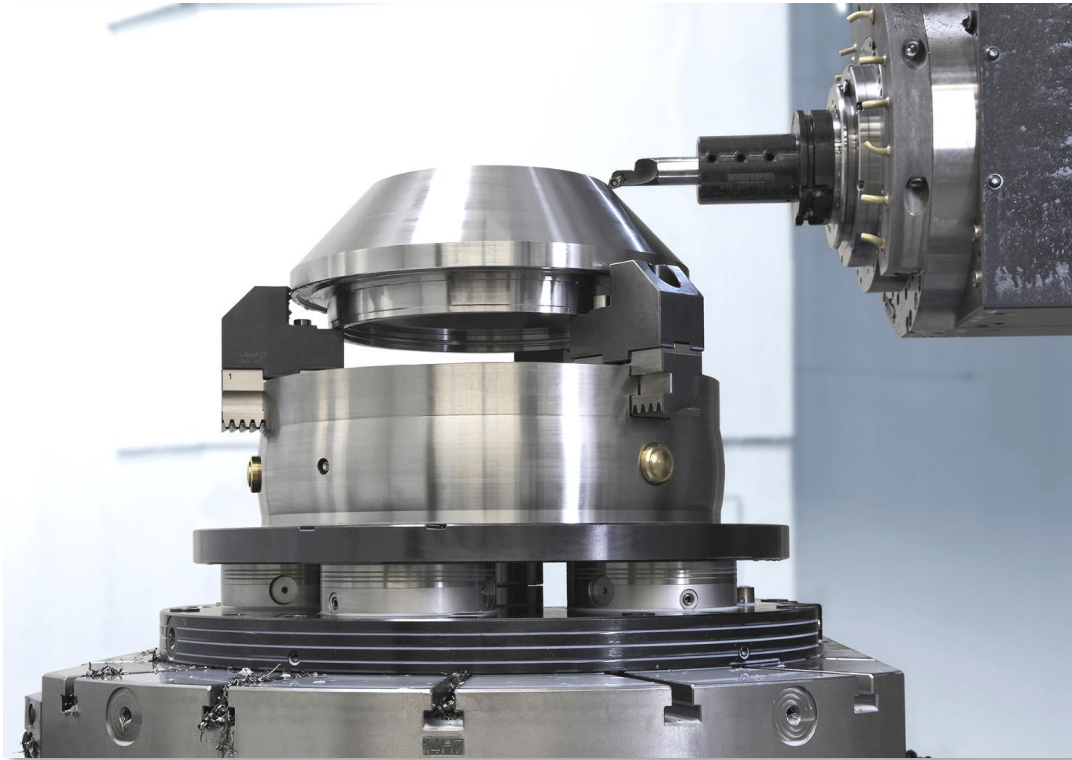


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# VERO-S NSL3 turn

## Example of application



### VERO-S:

Standard NSL turn 5-way clamping station.

### Clamping device:

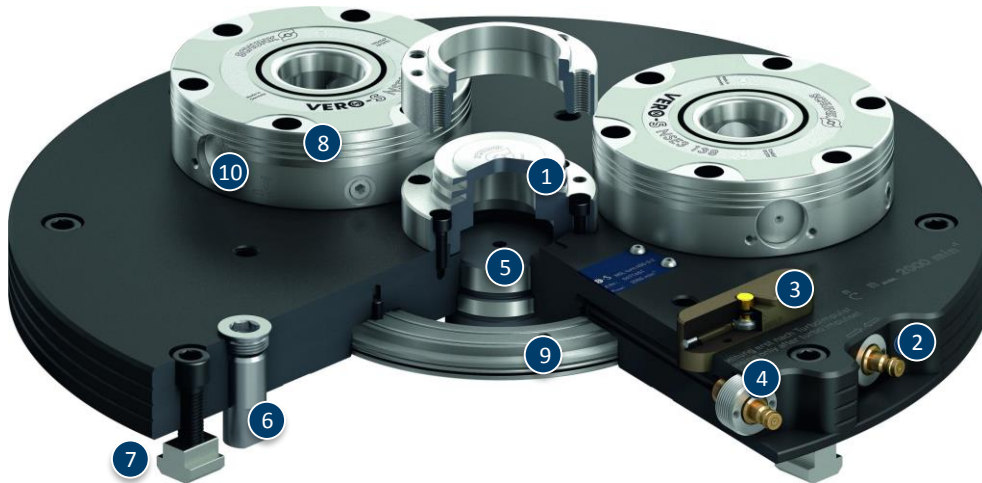
Manual chuck ROTA-S plus 2.0.

### Features/Application:

The clamping device resp. the workpiece is centered via the highly precise flex cone in the center of the clamping station. The flex cone offers radial rigidity and axial flexibility.

The pull-down force is increased by the Turbo function that is integrated in the standard version. Rotational speed of up to 2000/min is possible.

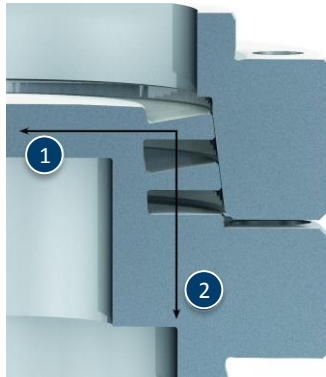
# VERO-S NSL3 turn



- ① Highly precise flex taper centering
- ② Turbo function
- ③ Indicator pin
- ④ Pneumatic system
- ⑤ Alignment with centering bolts
- ⑥ Mounting using alignment bolts
- ⑦ Mounting via T-nuts
- ⑧ NSE3 138 quick-change pallet system
- ⑨ Ring-shaped air distribution
- ⑩ Orientation of the clamping slides always tangential

# VERO-S NSL3 turn

## Flex taper



- 1 Radially rigid
- 2 Axially flexible

## Visual display of the turbo function



## Clamping slide arrangement



# Variants VERO-S NSL3 turn



| Technical Data                  | NSL3 turn 450-3 | NSL3 turn 450-3-Z | NSL3 turn 570-5 | NSL3 turn 570-5-Z |
|---------------------------------|-----------------|-------------------|-----------------|-------------------|
| Diameter [mm]                   | 450             | 450               | 570             | 570               |
| Pull-down force with turbo [kN] | 75              | 75                | 125             | 125               |
| Unlocking pressure [bar]        | 6               | 6                 | 6               | 6                 |
| Run-out accuracy [mm]           | < 0.02          | < 0.01            | < 0.02          | < 0.01            |
| Max. rotational speed [1/min]   | 2000            | 2000              | 1400            | 1400              |
| Weight [kg]                     | 50              | 51                | 90              | 91                |



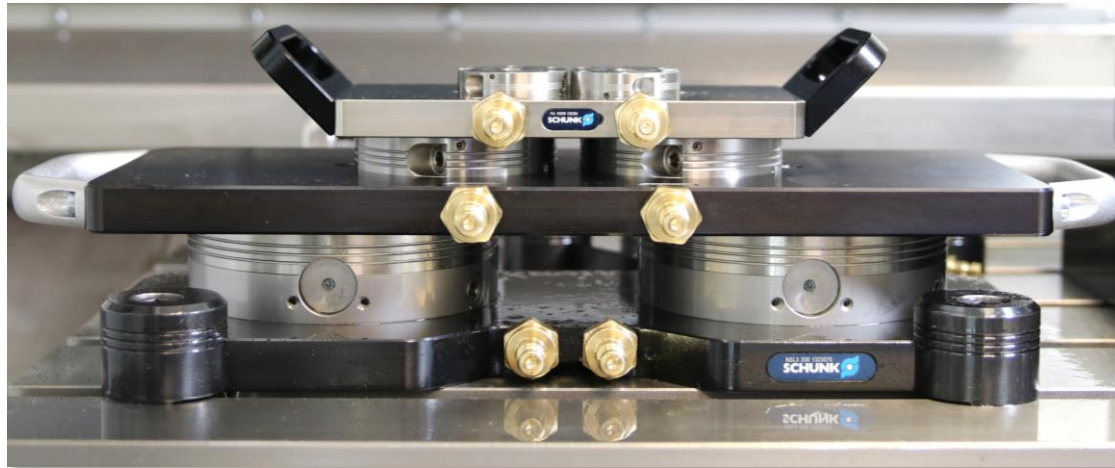
Superior Clamping and Gripping



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# Easy milling applications



**Quick-change pallet system  
VERO-S NSE mini**

**Quick-change pallet system  
VERO-S NSE mikro**

# VERO-S NSE mini

## Example of application



### VERO-S:

Special 12-way clamping station with NSE mini 90 modules.

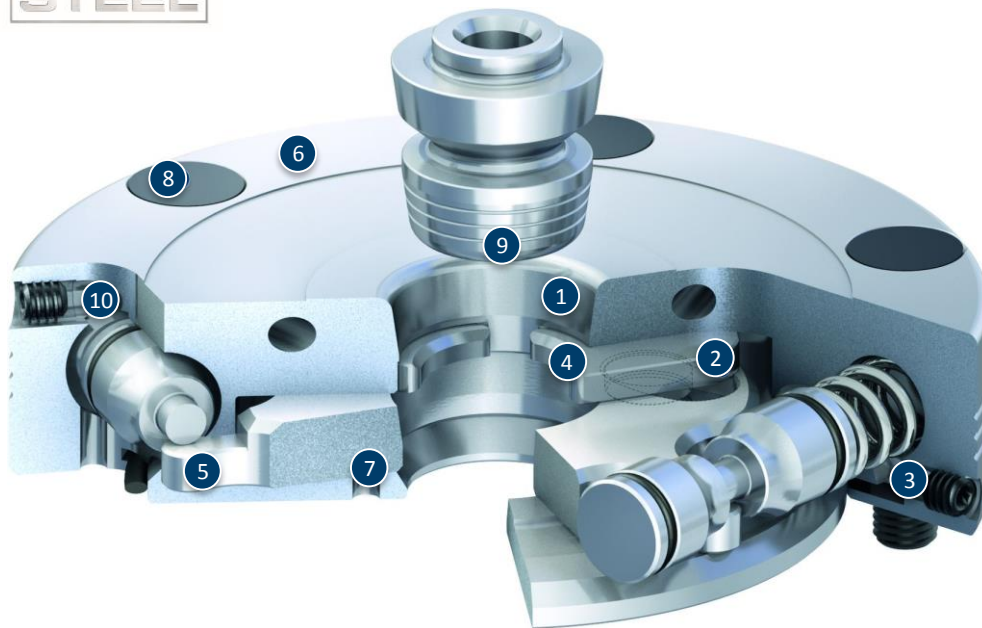
### Features/Application:

Extrem flat buildup of the clamping station allows a higher utilization of the machining area.

# VERO-S NSE mini



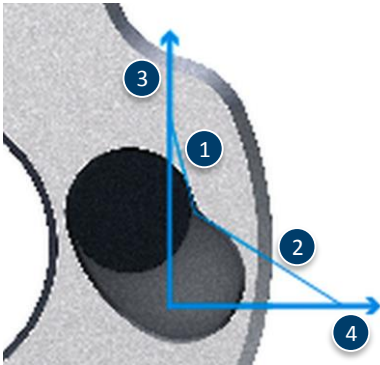
STAINLESS  
STEEL



- ① High-precision short taper centering
- ② Patented dual stroke system
- ③ Turbo function
- ④ Large surfaces
- ⑤ Patented drive concept
- ⑥ Large flat surface
- ⑦ Monitoring of the clamping slide position
- ⑧ Cover caps for mounting screws
- ⑨ Entry radii on the clamping pin
- ⑩ Pneumatic system

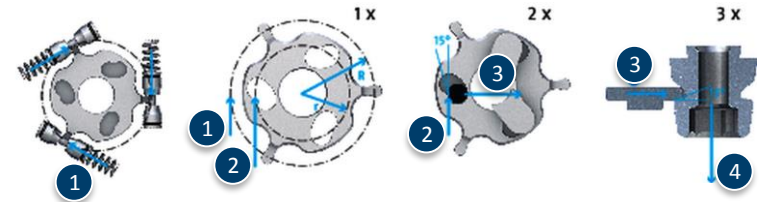
# VERO-S NSE mini

## Patented drive concept in confined spaces



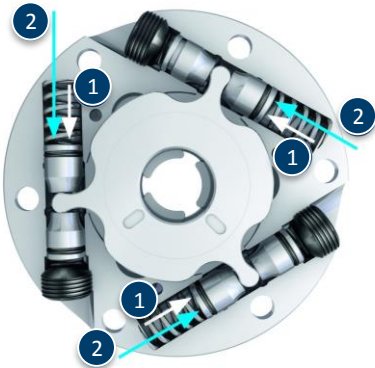
- 1 Clamping stroke
- 2 Fast stroke
- 3 Force
- 4 Travel

## Patented drive concept: Triple force transmission



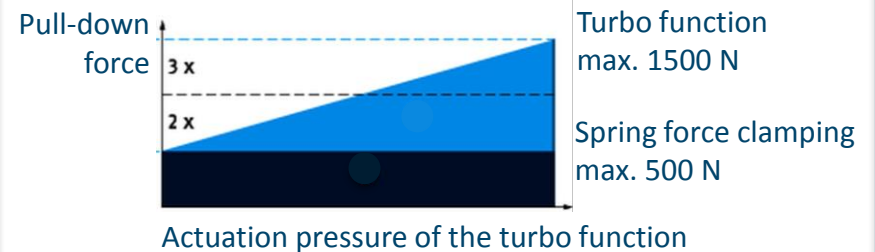
- 1 Actuation force
- 2 Force on the drive ring
- 3 Force on the clamping slide
- 4 Pull-down force

## Integrated Turbo function



- 1 Spring force
- 2 Additional force, resulting from the turbo function

## Comparison: Pull-down force spring clamping and turbo function





# VERO-S NSE mini

Centering via short taper



Locking via clamping slide



Monitoring of the clamping slide position  
via dynamic pressure

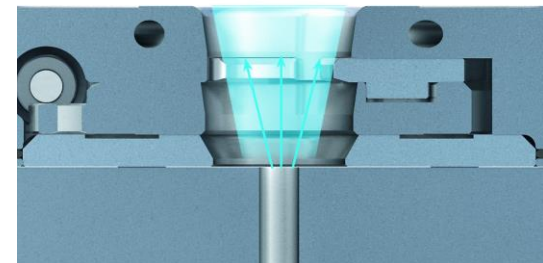


Opened condition



Locked condition

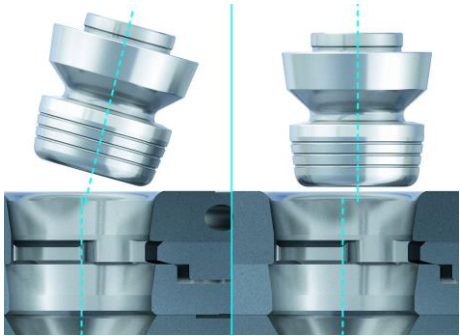
Air purge connection



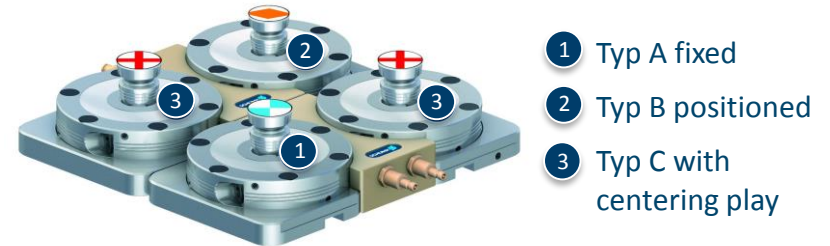


# VERO-S NSE mini

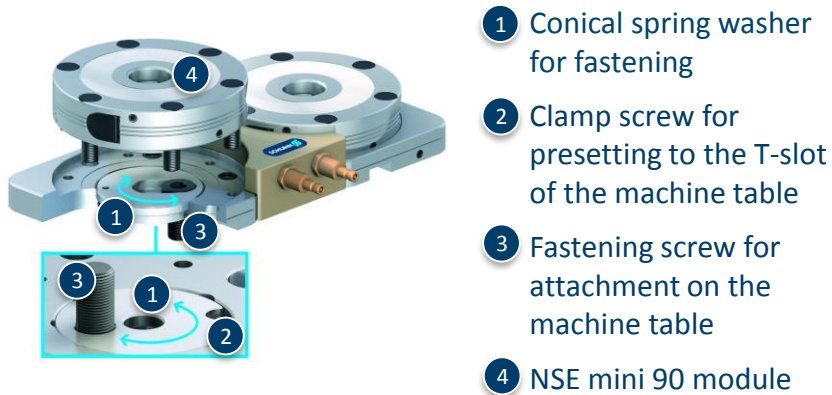
Easy positioning – more user friendly



Configuration of clamping pins type A, B and C



Saves space through compact design



Variability due to the modular system



# Variants VERO-S NSE mini

| Technical Data                 | NSE mini | NSE-M mini<br>90 | NSE mini<br>90-V1 | NSE-M mini<br>90-V1 | NSE mini<br>90-25 | NSE mini<br>90-25-V10 |
|--------------------------------|----------|------------------|-------------------|---------------------|-------------------|-----------------------|
| Diameter [mm]                  | 90       | 90               | 90                | 90                  | 90                | 90                    |
| Pull-down force [N]            | 500      | 1000             | 500               | 1000                | 1500              | 1500                  |
| Pull-down force with turbo [N] | 1500     |                  | 1500              |                     | 6000              | 6000                  |
| Unlocking pressure [bar]       | 6        |                  | 6                 |                     | 6                 | 6                     |
| Unlocking torque [Nm]          |          | 10               |                   | 10                  |                   |                       |
| Repeat accuracy [mm]           | < 0.005  | < 0.005          | < 0.005           | < 0.005             | < 0.005           | < 0.005               |
| Weight [kg]                    | 1        | 1                | 1                 | 1                   | 1.3               | 1.3                   |

# Variants VERO-S NSL mini



| Technical Data                 | NSL mini<br>100-1 V1 | NSL mini<br>100-2 | NSL mini<br>100-3 | NSL mini<br>100-4 |
|--------------------------------|----------------------|-------------------|-------------------|-------------------|
| Length [mm]                    | 100                  | 200               | Durchmesser: 230  | 200               |
| Width [mm]                     | 100                  | 100               |                   | 200               |
| Pull-down force [N]            | 500                  | 1000              | 1500              | 2000              |
| Pull-down force with turbo [N] | 1500                 | 3000              | 4500              | 6000              |
| Unlocking pressure [bar]       | 6                    | 6                 | 6                 | 6                 |
| Weight [kg]                    | 1.7                  | 3.5               | 6                 | 7                 |

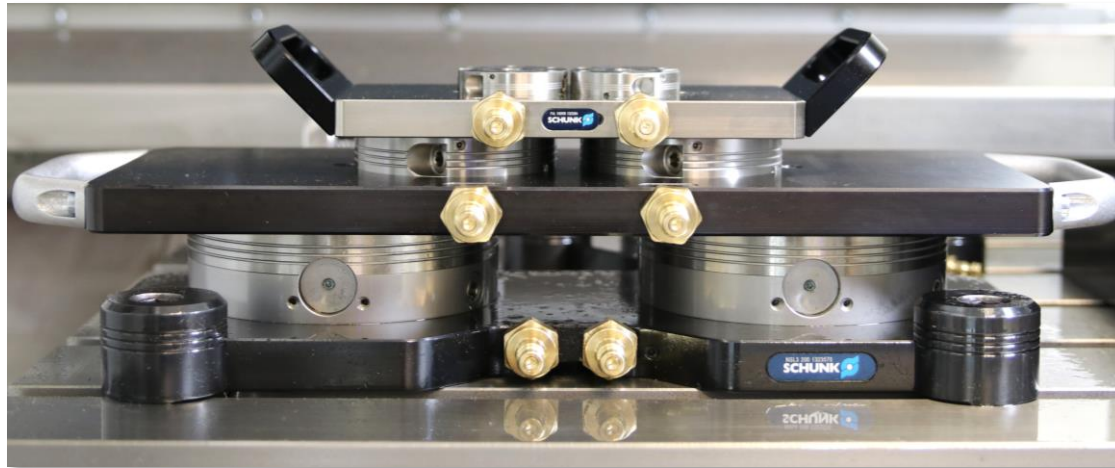
Superior Clamping and Gripping



Jens Lehmann, deutsche Torwartlegende,  
seit 2012 SCHUNK-Markenbotschafter  
für sicheres, präzises Greifen und Halten.  
[schunk.com/Lehmann](http://schunk.com/Lehmann)



# Easy milling applications



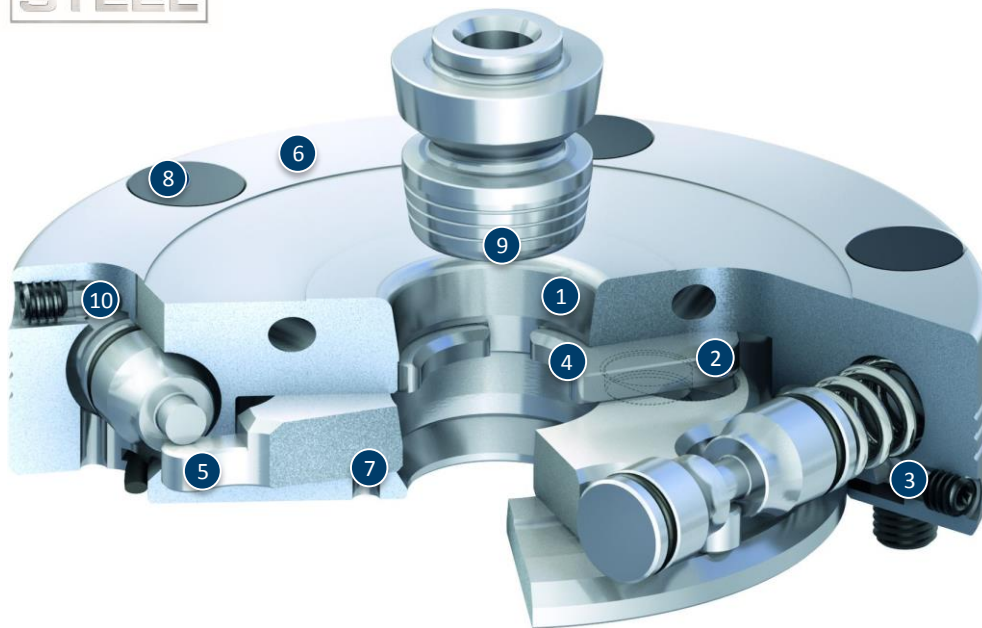
**Quick-change pallet system  
VERO-S NSE mini**

**Quick-change pallet system  
VERO-S NSE mikro**

# VERO-S NSE mikro



STAINLESS  
STEEL

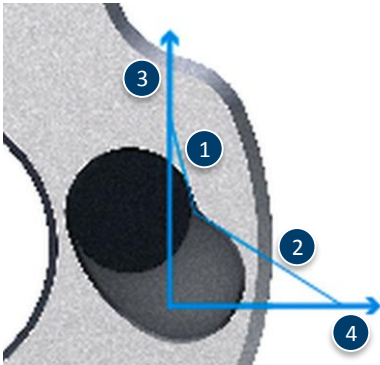


- ① High-precision short taper centering
- ② Patented dual stroke system
- ③ Turbo function
- ④ Large surfaces
- ⑤ Patented drive concept
- ⑥ Large flat surface
- ⑦ Monitoring of the clamping slide position
- ⑧ Cover caps for mounting screws
- ⑨ Entry radii on the clamping pin
- ⑩ Pneumatic system



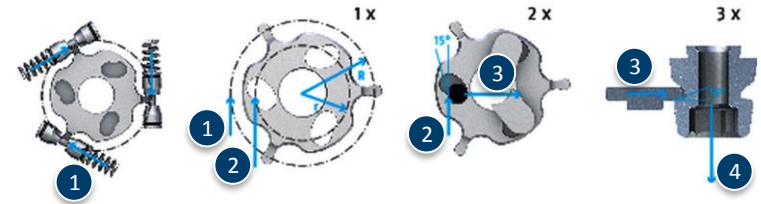
# VERO-S NSE mikro

## Patented drive concept in confined spaces



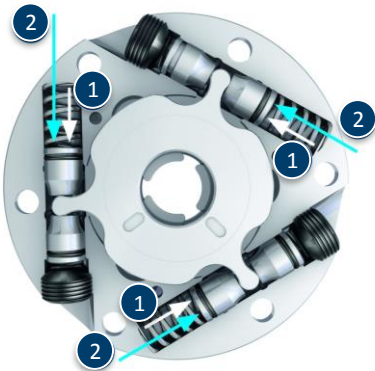
- 1 Clamping stroke
- 2 Fast stroke
- 3 Force
- 4 Travel

## Patented drive concept: Triple force transmission



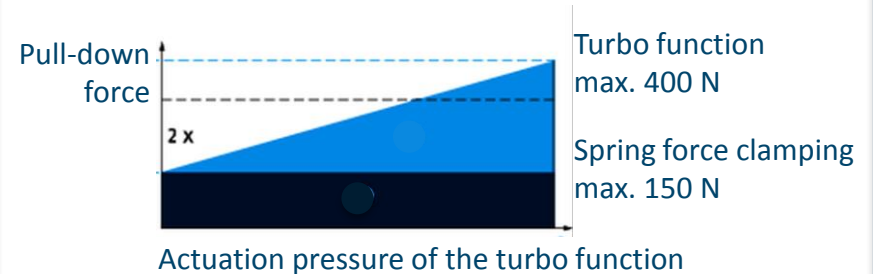
- 1 Actuation force
- 2 Force on the drive ring
- 3 Force on the clamping slide
- 4 Pull-down force

## Integrated turbo function



- 1 Spring force
- 2 Additional force, resulting from the turbo function

## Comparison: Pull-down force spring clamping and turbo function



# VERO-S NSE mikro

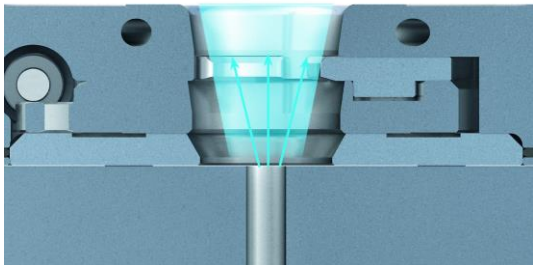
Centering via short taper



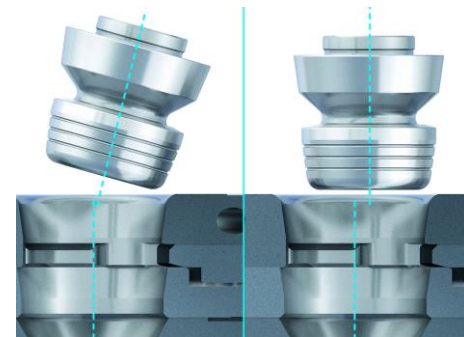
Locking via clamping slide



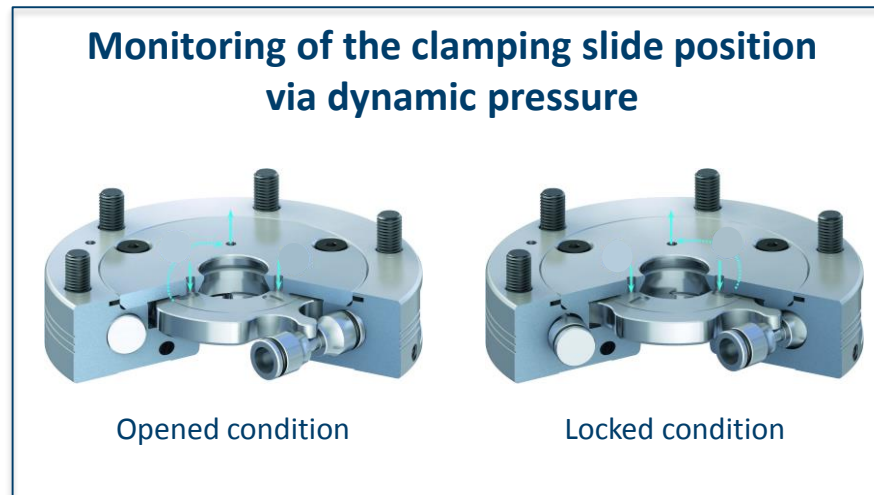
Air purge connection



Easy positioning – more user friendly



# VERO-S NSE mikro



# Variants VERO-S NSE mikro



| Technical Data                 | NSE mikro | NSE mikro 49-V10 |
|--------------------------------|-----------|------------------|
| Diameter [mm]                  | 49        | 49               |
| Pull-down force [N]            | 150       | 150              |
| Pull-down force with turbo [N] | 400       | 400              |
| Unlocking bar [bar]            | 6         | 6                |
| Repeat accuracy [mm]           | < 0.005   | < 0.005          |
| Weight [kg]                    | 0.2       | 0.2              |

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# Automated machine loading



**Quick-change pallet system  
VERO-S NSA plus**

**Robot coupling  
VERO-S NSR**



# VERO-S NSA plus

## Example of application



### VERO-S:

Special 4-way clamping station with  
NSA plus 120 clamping modules,  
Robot coupling NSR maxi,  
Pallet coupling PKL maxi.

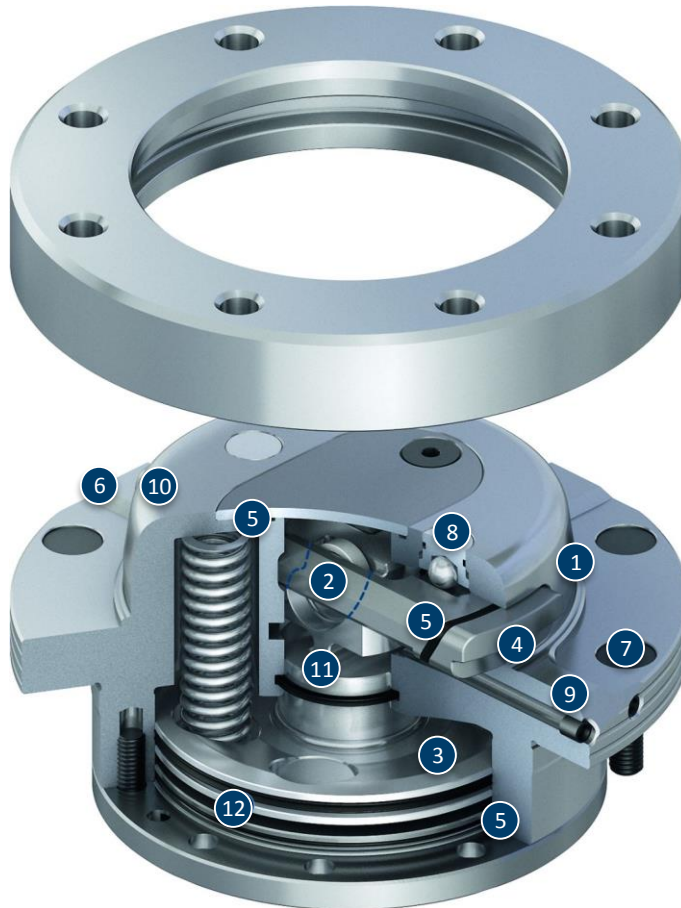
### Clamping device:

Clamping pallet with  
KONTEC KSC 125-160.

### Features/Application:

Thanks to the monitoring systems of  
the clamping station, VERO-S is best  
suited for automated loading and  
unloading.

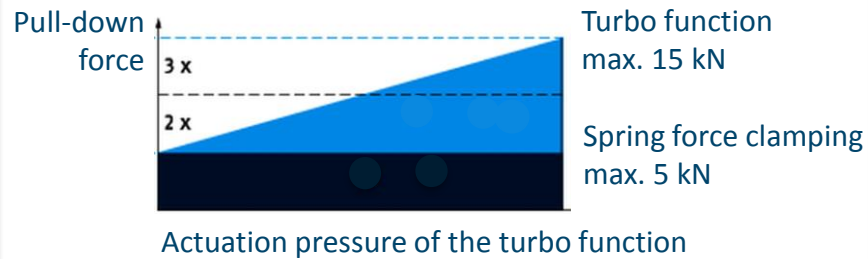
# VERO-S NSA plus



- 1 High-precision short taper centering
- 2 Patented dual stroke system
- 3 Turbo function
- 4 Large surfaces
- 5 Completely sealed system
- 6 Flat work surface at outer diameter
- 7 Cover caps for mounting screws
- 8 Lifting function when opening the modules
- 9 Contact monitoring
- 10 Entry radii on the module
- 11 Flexible piston
- 12 Pneumatic system

# VERO-S NSA plus

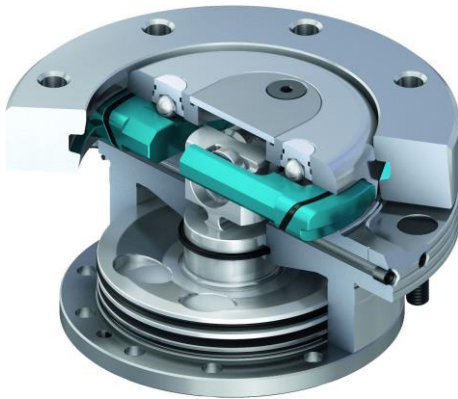
## Comparison: Pull-down force spring clamping and turbo function



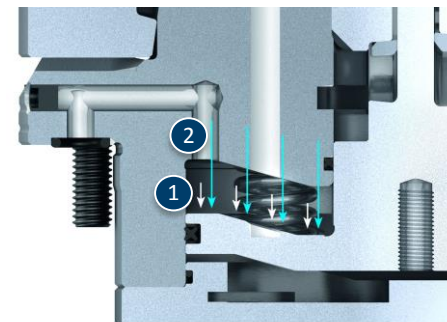
## Centering via short taper



## Locking via clamping slide



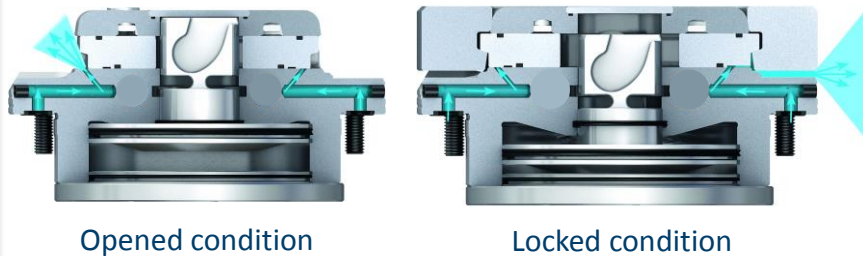
## Integrated turbo function



- ① Spring force
- ② Additional force, resulting from the turbo function

# VERO-S NSA plus

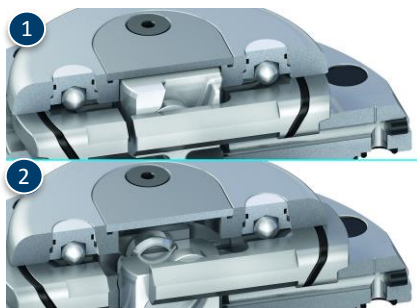
## Monitoring of the clamping slide position via the dynamic pressure



## Cleaning and monitoring the flat work surface

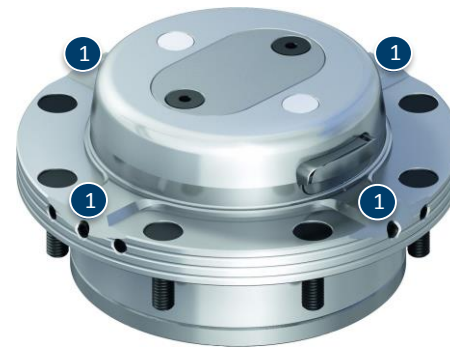


## Lifting function



- 1 Clamping module opened – the lifting function lifts the pallet.
- 2 Clamping module closed – the lifting function is pushed back by the weight of the pallet.

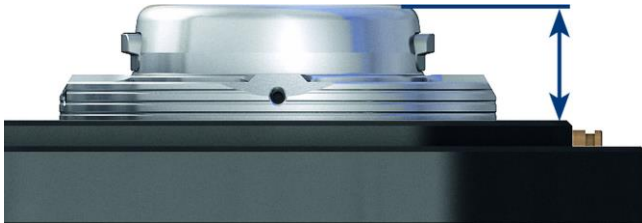
## Flat work surface at outer diameter



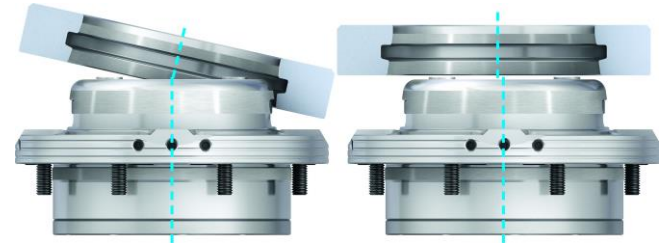
- 1 Contact surfaces

# VERO-S NSA plus

Extremely flat design



Easy positioning – more user friendly



Configuration of clamping rings type A, B und C



- ① Typ A fixed
- ② Typ B positioned
- ③ Typ C with centering play

# Variants VERO-S NSA plus



| Technical Data                  | NSA plus 120 | NSA plus 160 |
|---------------------------------|--------------|--------------|
| Diameter [mm]                   | 118          | 158          |
| Pull-down force [kN]            | 3            | 5            |
| Pull-down force with turbo [kN] | 9            | 15           |
| Unlocking pressure [bar]        | 6            | 6            |
| Repeat accuracy [mm]            | < 0.005      | < 0.005      |
| Lifting force [kN]              | 1            | 2            |
| Weight [kg]                     | 2.5          | 5.8          |



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# Automated machine loading

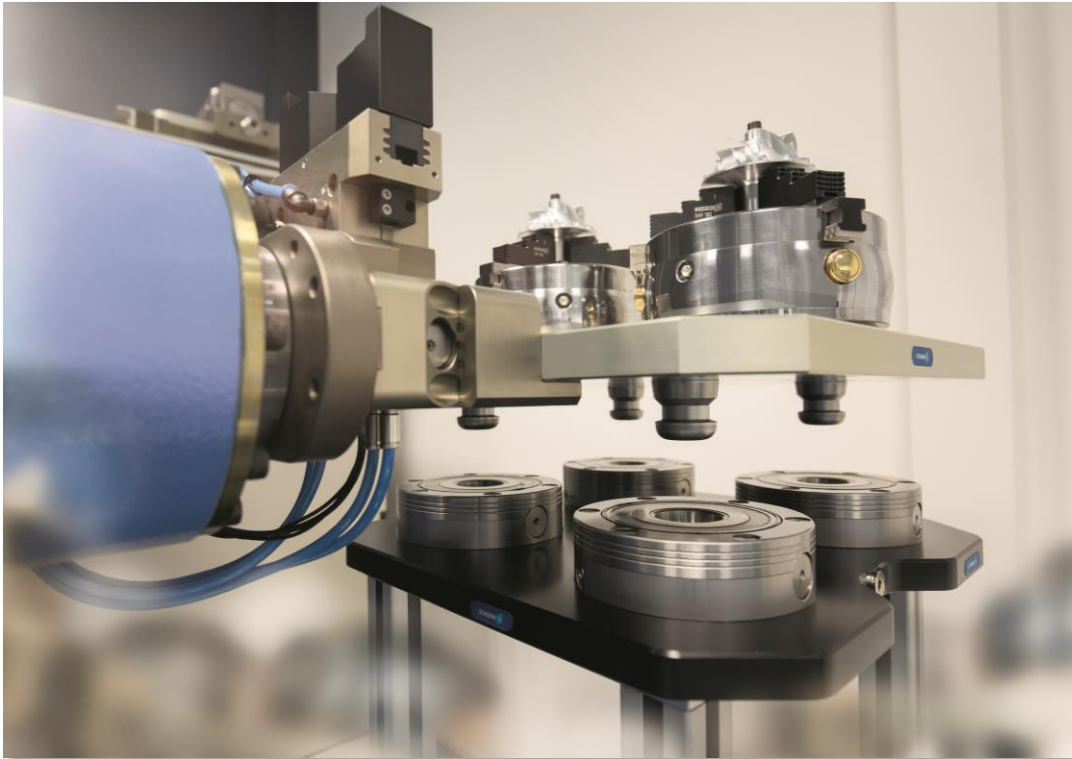


**Quick-change pallet system  
VERO-S NSA plus**

**Robot coupling  
VERO-S NSR**

# VERO-S NSR

## Example of application



### VERO-S:

Clamping module NSE plus 138,  
Robot coupling NSR,  
Palett coupling PKL.

### Clamping device:

Manual chuck ROTA-S plus 2.0.

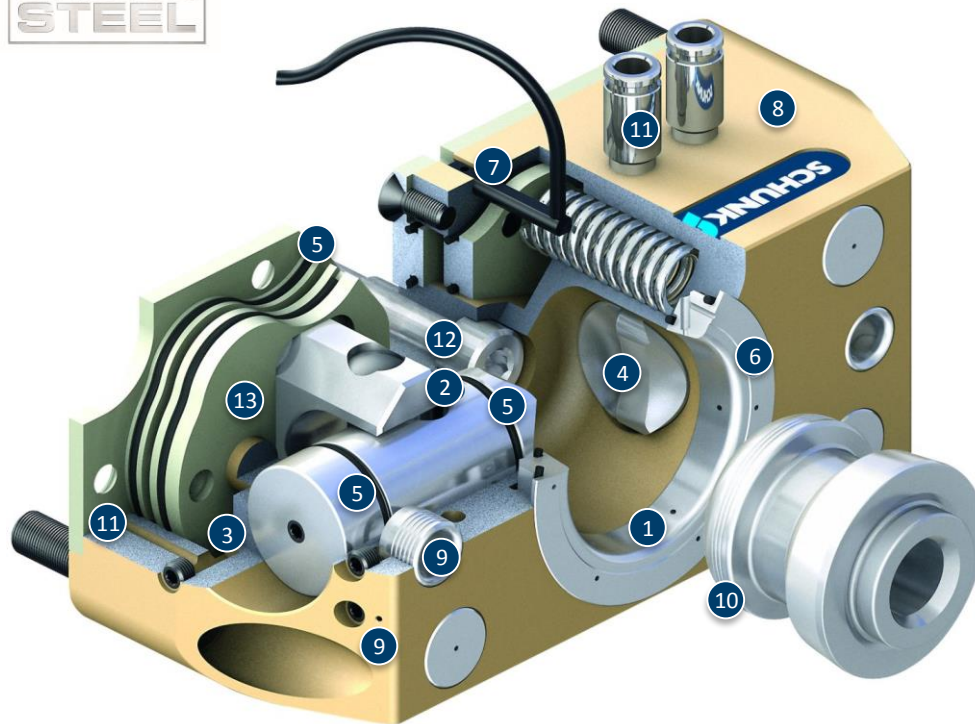
### Features/Application:

The high pull-down force of the NSR robot coupling enables the handling of extremely heavy pallets (up to 1000 kg with dimensions 800 x 800 mm). The slim construction of the PKL allows a low design of clamping station and clamping pallet.

# VERO-S NSR



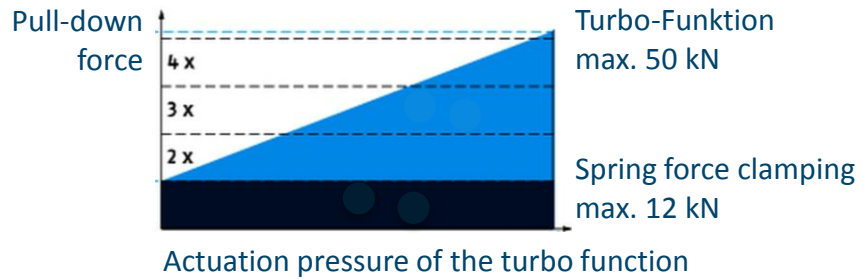
STAINLESS  
STEEL



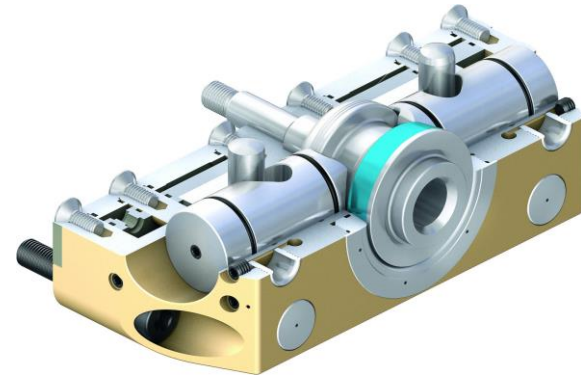
- ① High-precision short taper centering
- ② Patented dual stroke system
- ③ Turbo function
- ④ Large surfaces
- ⑤ Completely sealed system
- ⑥ Steel inlays with integrated cleaning function
- ⑦ Monitoring of the clamping slide position module opened and module closed
- ⑧ Weight-optimized design
- ⑨ Anti-twist protection
- ⑩ Entry radii on the clamping pin
- ⑪ Actuation of the module
- ⑫ Fitting screws
- ⑬ Pneumatic system

# VERO-S NSR

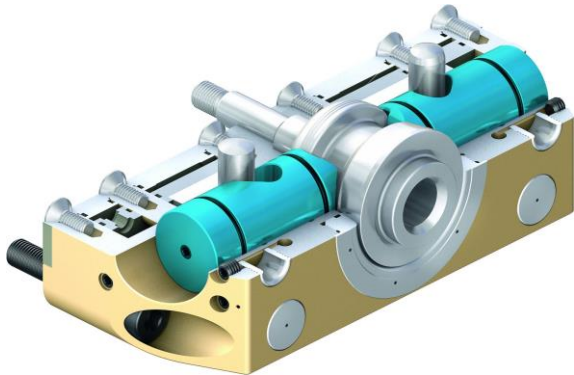
## Comparison: Pull-down force spring clamping and turbo function



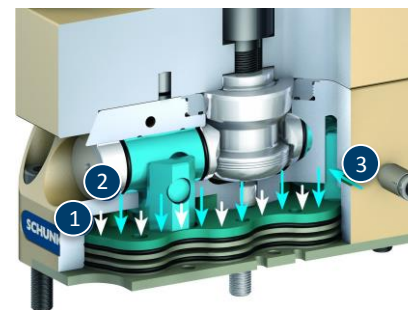
## Centering via short taper



## Locking via clamping slide



## Integrated turbo function

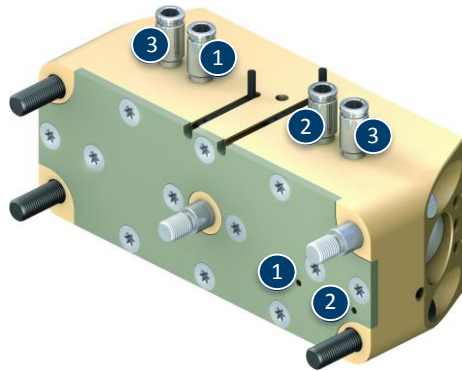


- 1 Spring force
- 2 Additional force, resulting from the turbo function
- 3 Turbo function connection



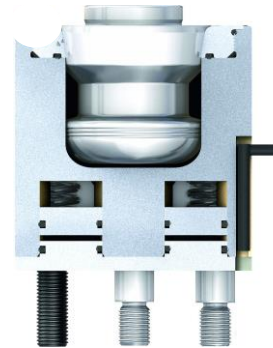
# VERO-S NSR

## Control of the robot coupling

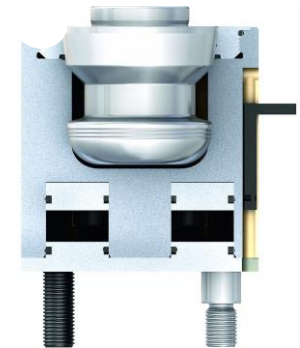


- 1 Open
- 2 Turbo function
- 3 Air purge

## Monitoring opened or clamped (optional)

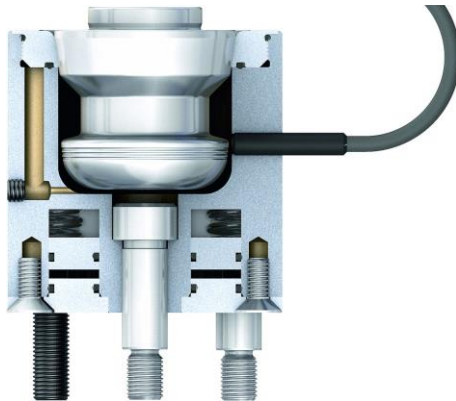


Robot coupling opened

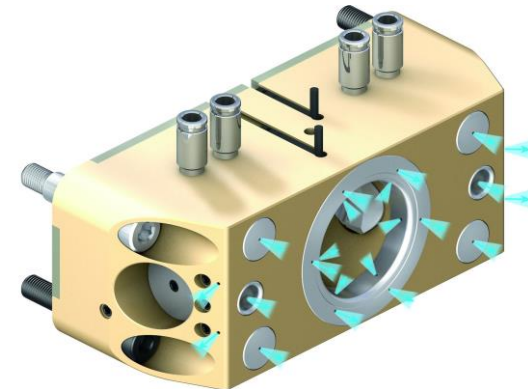


Robot coupling closed

## Monitoring of pallet presence (optional)



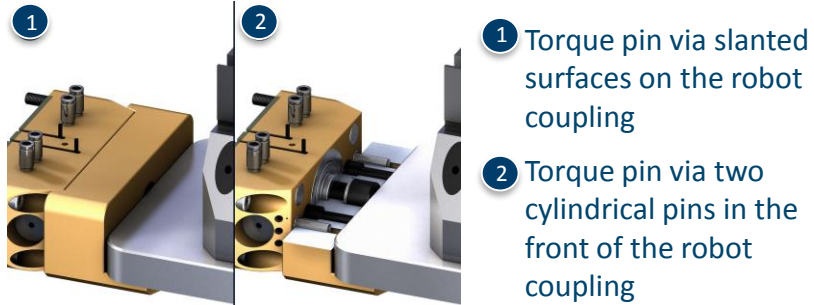
## Cleaning based on air purge



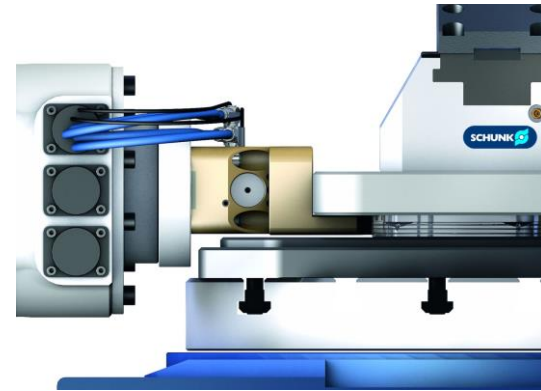


# VERO-S NSR

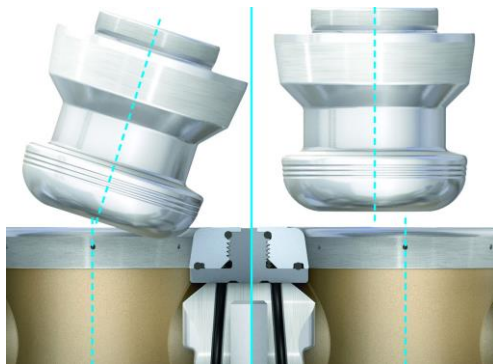
## Torque pin for pallets



## Slim design



## Easy positioning – more user friendly



# Variants VERO-S NSR



| Technical Data                  | NSR mini 100 | NSR 160 | NSR maxi 220 |
|---------------------------------|--------------|---------|--------------|
| Length [mm]                     | 100          | 159     | 220          |
| Width [mm]                      | 40           | 60      | 176          |
| Pull-down force [kN]            | 1            | 4       | 12           |
| Pull-down force with turbo [kN] | 4            | 15      | 50           |
| Unlocking pressure [bar]        | 6            | 6       | 6            |
| Repeat accuracy [mm]            | < 0.02       | < 0.02  | < 0.02       |
| Moment Mx max. [Nm]             | 75           | 600     | 4000         |
| Moment Mz max. [Nm]             | 200          | 1600    | 4000         |
| Weight [kg]                     | 0,4          | 1,6     | 21           |

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# VERO-S Application



## VERO-S:

Special 4-Way clamping station with NSE plus 138 clamping modules.

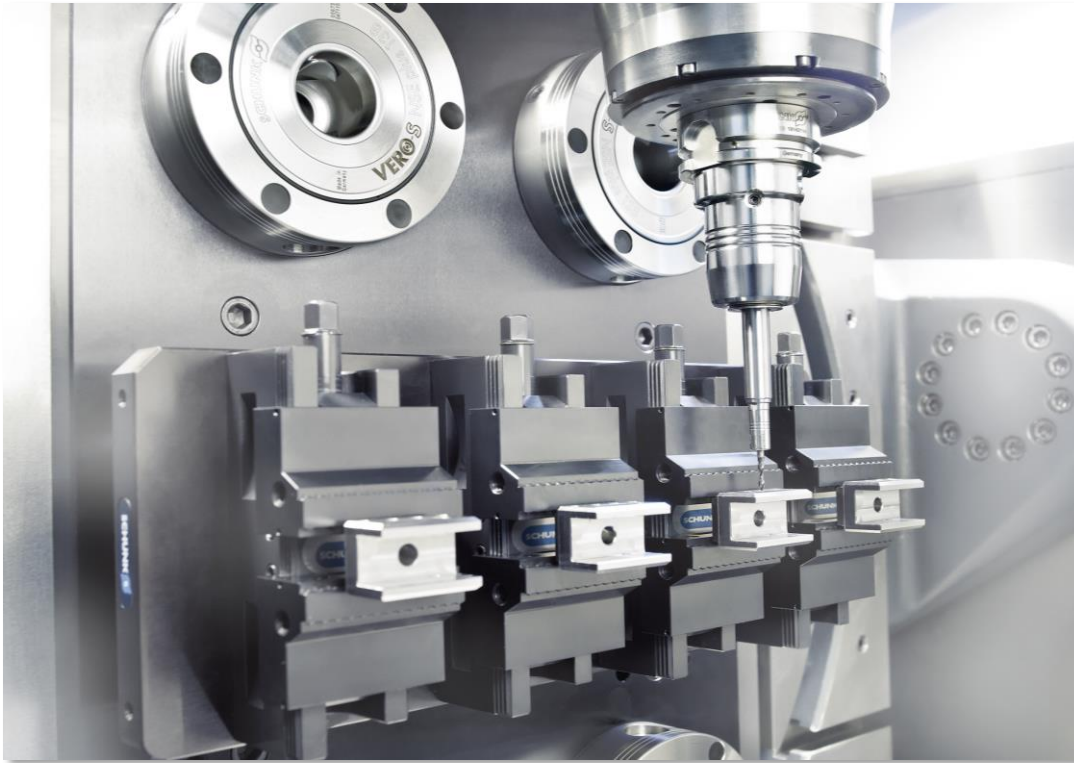
## Clamping device:

TANDEM clamping force blocks.

## Features/Application:

The actuation of the modules via the machine table allows a high level of automation.

# VERO-S Application



## VERO-S:

Standard 6-Way clamping station with NSE plus 138 clamping modules.

## Clamping device:

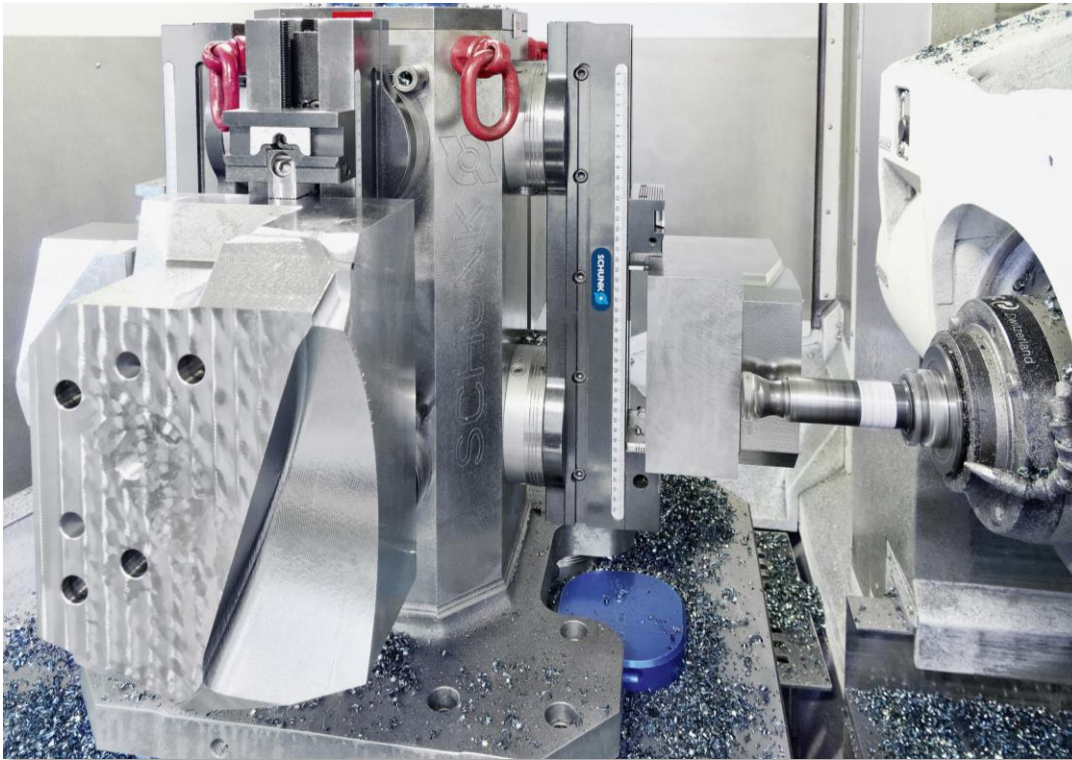
Clamping pallet with 4 KSC2 centric clamping vises.

## Features/Application:

The application of clamping pallets allows a high arrangement of clamping devices and workpieces.



# VERO-S Application



## VERO-S:

Special 10-Way tombstone with NSE plus 138 clamping modules.

## Clamping device:

KSM clamping rail.

## Features/Applications:

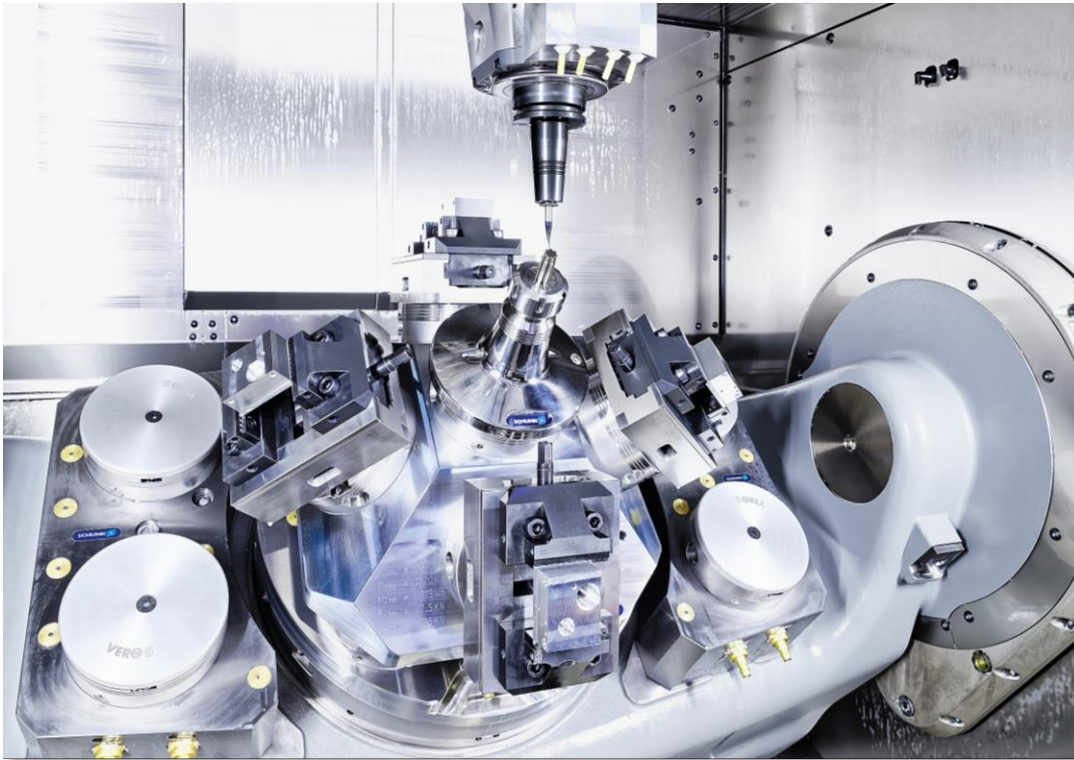
The vibration-damping construction of the tombstones enables the machining of highly complex setups.



# VERO-S Application



[Back to  
the overview](#)



## VERO-S:

Special 8-Way clamping station with NSE plus 138 clamping modules.

## Clamping device:

Clamping pyramid with NSE plus 138 clamping modules, KSC centric clamping vise and colle chuck mounting.

## Features/Application:

Maximum utilization of the processing space of the machine.

# VERO-S Application



## VERO-S:

Special 8-Way clamping station with NSE plus 138 clamping modules.

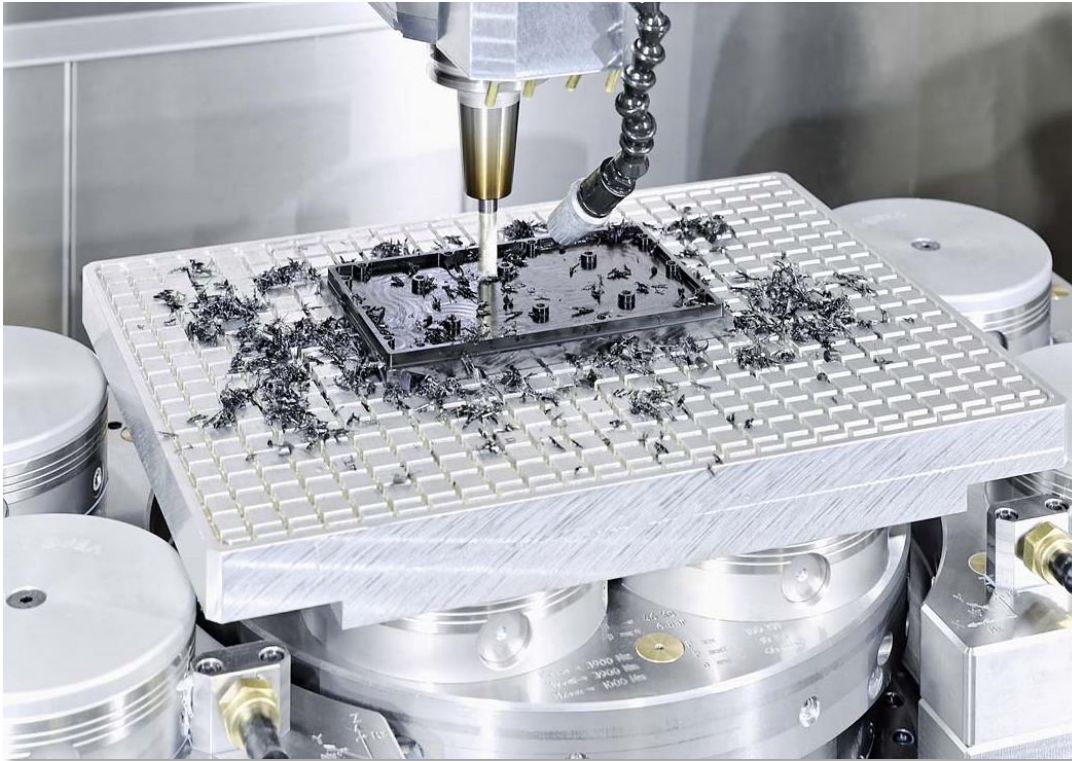
## Clamping device:

KSG clamping vise.

## Features/Application:

Integration of the modules in the machine table by the machine manufacturer.

# VERO-S Application



## VERO-S:

Special 8-Way clamping station with NSE plus 138 clamping modules.

## Clamping device:

PLANOS vacuum matrix plates.

## Features/Application:

Clamping of non-ferromagnetic materials by PLANOS modular system.



# VERO-S Application



## VERO-S:

Special 8-Way clamping station with NSE plus 138 clamping modules.

## Clamping device:

KSX 5-Axis clamping vise.

## Features/Application:

Height alignment of the multi-parted clamping station.

# VERO-S Application



## VERO-S:

Special 6-Way clamping station with NSE plus 138 clamping modules.

## Clamping device:

Direct workpiece clamping combined with clamping pin extension.

## Features/Application:

Increased accessibility to the workpiece.

# VERO-S Application



## VERO-S:

Special 24-Way clamping station with NSE plus 138 clamping modules

## Clamping device:

Clamping jaw boxes  
Direct workpiece clamping

## Features/Application:

OP10 Clamping jaw boxes  
OP20 Direct workpiece clamping



# VERO-S Application



## VERO-S:

Direct workpiece clamping 2-Way NSE plus 138 clamping modules.

## Clamping device:

Direct workpiece clamping MAGNOS magnetic chuck

## Features/Application:

Flexibility and position accuracy thanks to the combination of VERO-S and MAGNOS.

# VERO-S Application



## VERO-S:

Direct workpiece clamping 2-Way NSE plus 138 clamping modules.

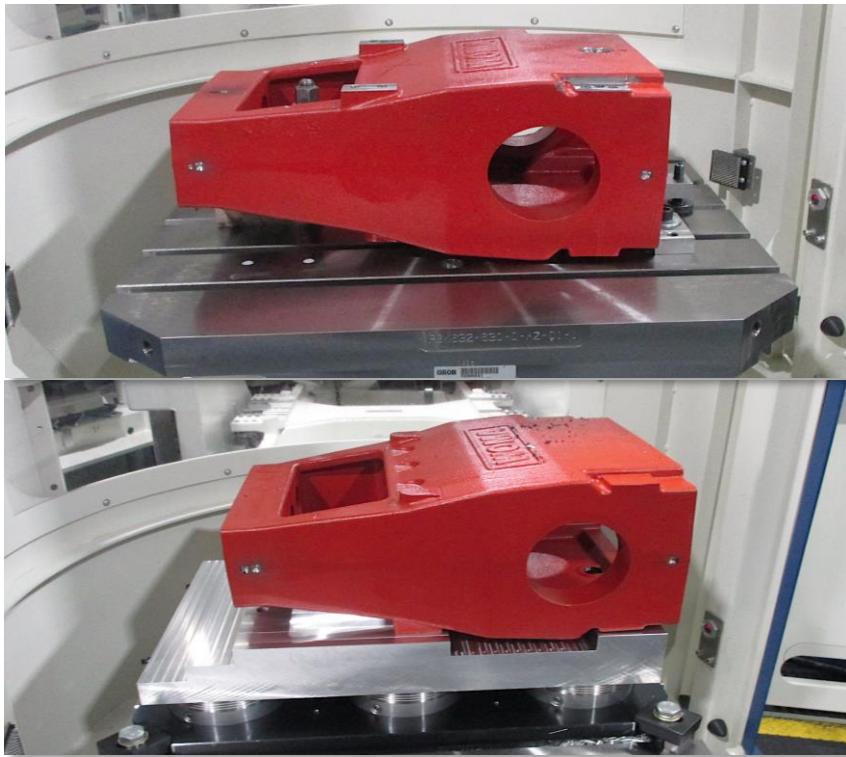
## Clamping device:

Direct workpiece clamping.

## Features/Application:

Flexible adjustment of the height and position of the modules. Very good accessibility of all sides.

# VERO-S Application



## VERO-S:

Clamping station NSL3 600.

## Clamping device:

VERO-S NSE3.

## Features/Application:

Set-up without VERO-S: time-consuming set-up on the machine

Set-up with VERO-S: External set-up, exchange of the palette via clamping pins.

Amortization of the investment within a minimum of time.

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