



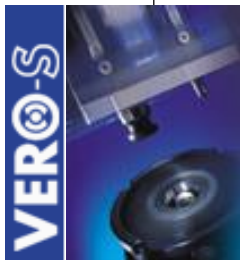
# VERO-S NSL Turn

Workholding Technology

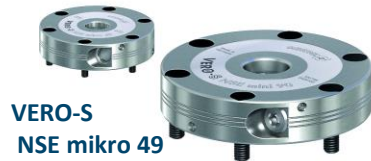
Superior Clamping and Gripping



# VERO-S NSL turn



# VERO-S overview



VERO-S  
NSE mikro 49



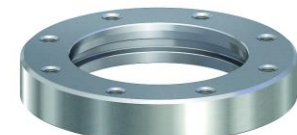
VERO-S  
NSE mini 90



VERO-S  
NSE plus 99  
NSE plus 138  
NSE plus 176  
NSE plus 100-75



VERO-S  
NSR 160  
NSR maxi 220



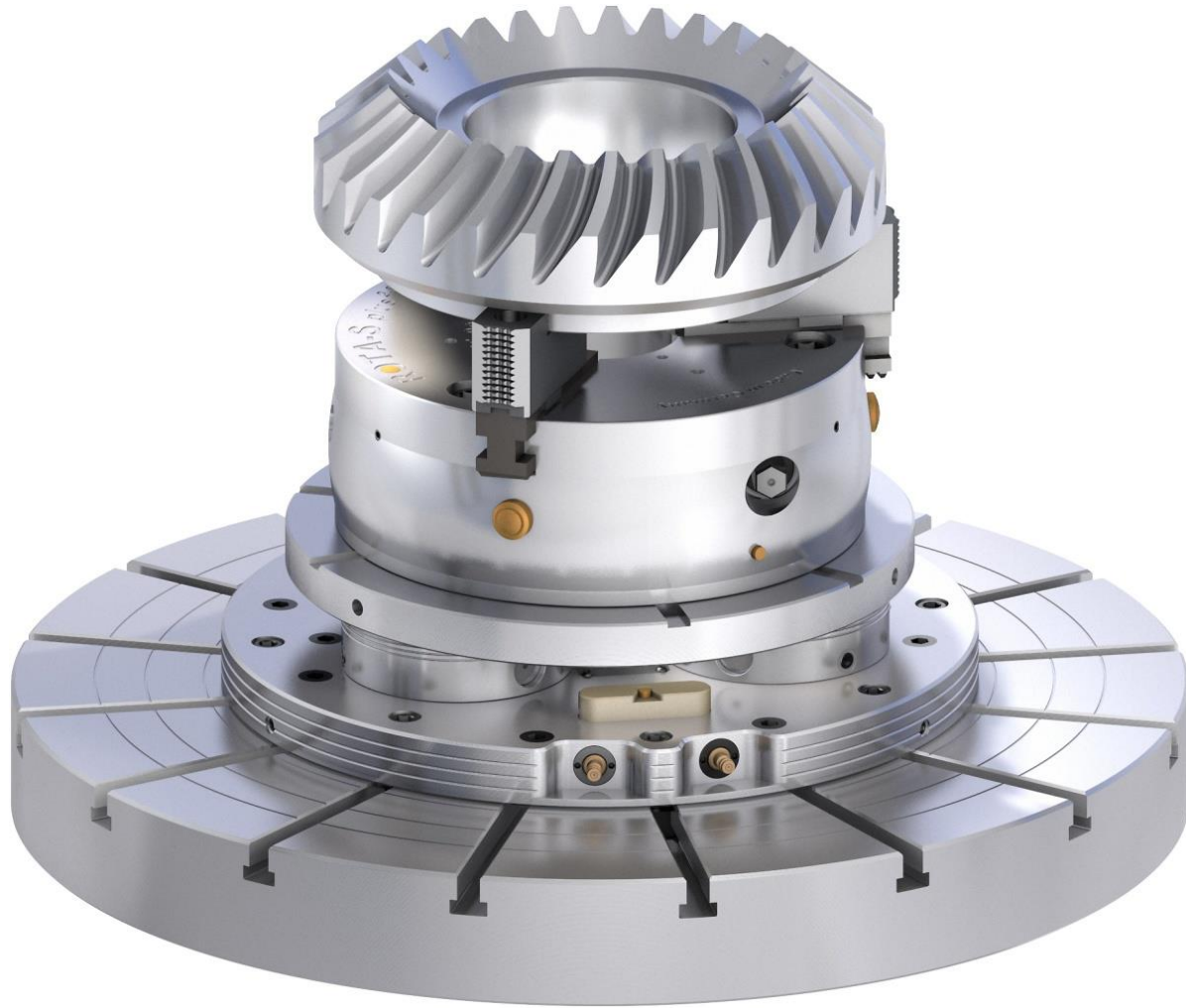
VERO-S  
NSA plus 120  
NSA plus 160



# VERO-S overview

Description	NSA plus 120	NSA plus 160	NSR mini 100	NSR 160	NSR maxi 220	NSE mikro 49	NSE mini 90	NSE plus 99	NSE plus 138	NSE plus 176
Pull-down force (kN)	3	5	1	4	12	0,15	0,5	4	7,5	9
Pull-down force with Turbo (kN)	9	15	4	15	50	0,4	1,5	15	25	40
Weight (Kg)	2,5	4	0,4	1,6	21	0,2	1	2,5	4,4	7,9
Lifting force (kN)	1	2	-	-	-	-	-	-	-	-
Module height (mm)	59	70	38	62	111	12	20	56	56	60
Clamping Pin type Ø	-	-	mini 10	SPA 40	SPA 80	mikro 10	mini 20	SPA 40	SPA 40	SPA 40
Holding force (kN)	50	75	-	-	-	3(M3) 5(M4)	15(M6) 25(M8)	35(M10) 50(M12) 75(M16)	35(M10) 50(M12) 75(M16)	35(M10) 50(M12) 75(M16)
Automated Machine Loading	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Manual Machine Loading	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes

# VERO-S NSL turn



# VERO-S NSL turn

## BLUE SIGMA

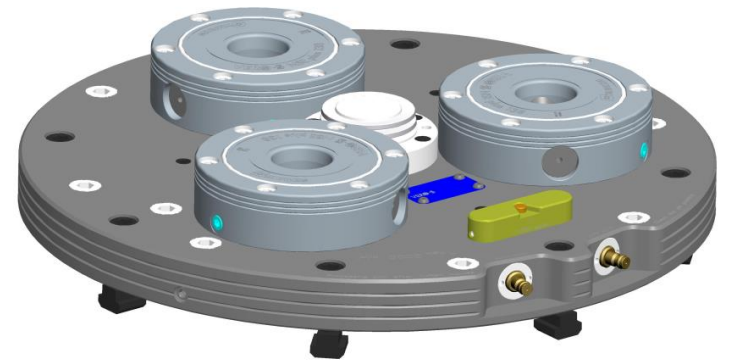
### IN SUMME EFFIZIENTER

#### Time efficiency

Optimizing processes – reducing of main time (machine runs and turns) / second time: (machine runs without turning) / setup time: (the setup time takes place while the machine is running)

Reducing the machine set-up time is a very important key to increase the machine power.

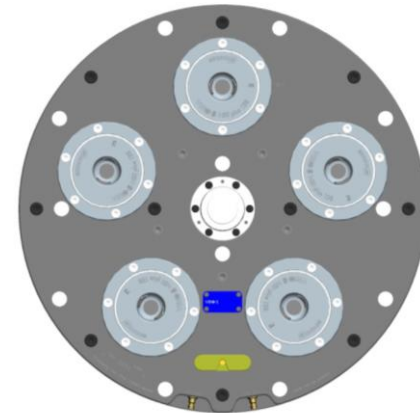
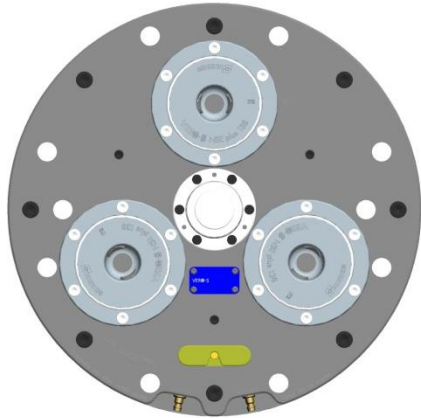
BLUE SIGMA solutions of SCHUNK are creating an unique productivity potential from batch size 1. That means for you: more efficiency by elimination of non-productive time.



# VERO-S NSL turn

**Minimum setup times! Maximum quality!**

VERO-S NSL *turn* – SCHUNK competence in workholding technology and stationary clamping combined in a new clamping station. The system for milling-turning centers reduces setup times and ensures highly rigid and safe clamping with extremely high pull-in forces of the modules. A visual monitor provides information on the current clamping state (turbo function).



# VERO-S NSL turn

## Suitable for use with all standard milling-turning centers

The intelligently designed hose connections between the modules ensure that there is sufficient space for holes in the base plate. The clamping station can therefore be used with all standard machine types.

## User-friendly and precise

Due to very simple joining properties and outstanding repeat accuracy, the VERO-S NSL *turn* provides for turbo productivity in milling-turning centers.

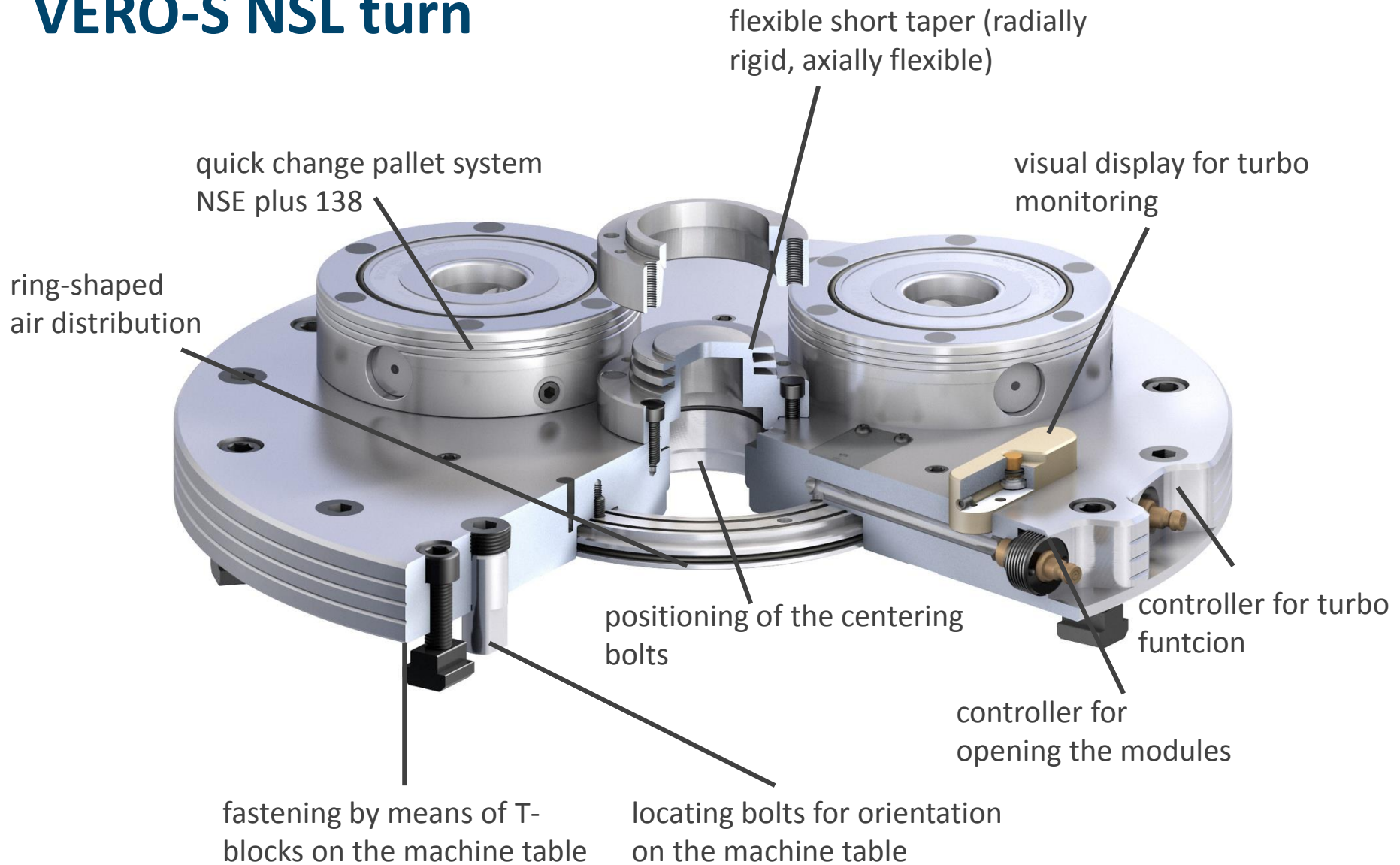


# VERO-S NSL turn

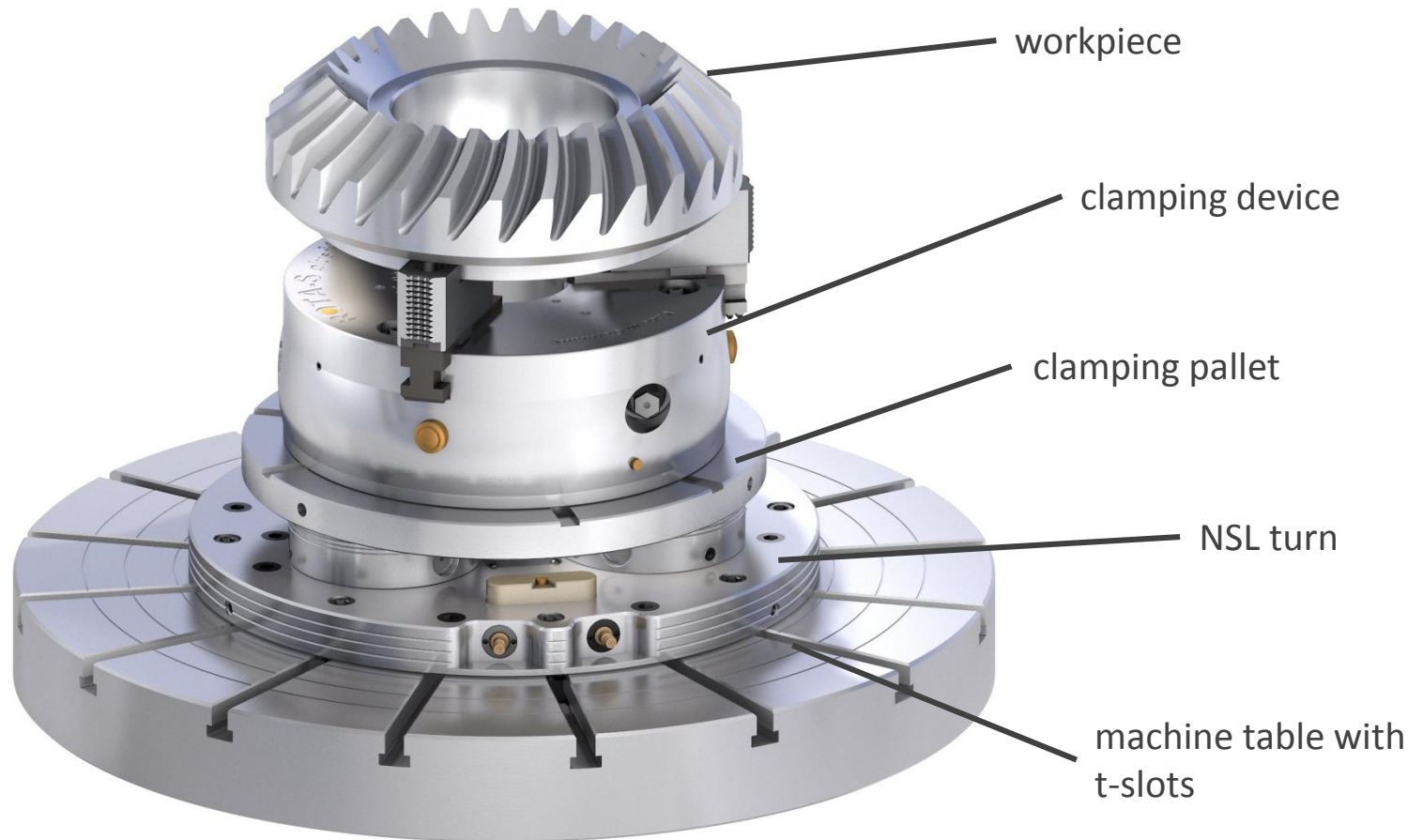
## Product features VERO-S NSL turn

- maximum pull-in speed: 75 kN for triple clamping station
- maximum holding force: 105 kN for triple clamping station
- repeat accuracy < 0,01 mm (with center cone)
- permissible speed up to 2000 rpm
- for-fit locking with self-locking function
- integrated turbo connection
- very easy joining properties

# VERO-S NSL turn



# VERO-S NSL turn

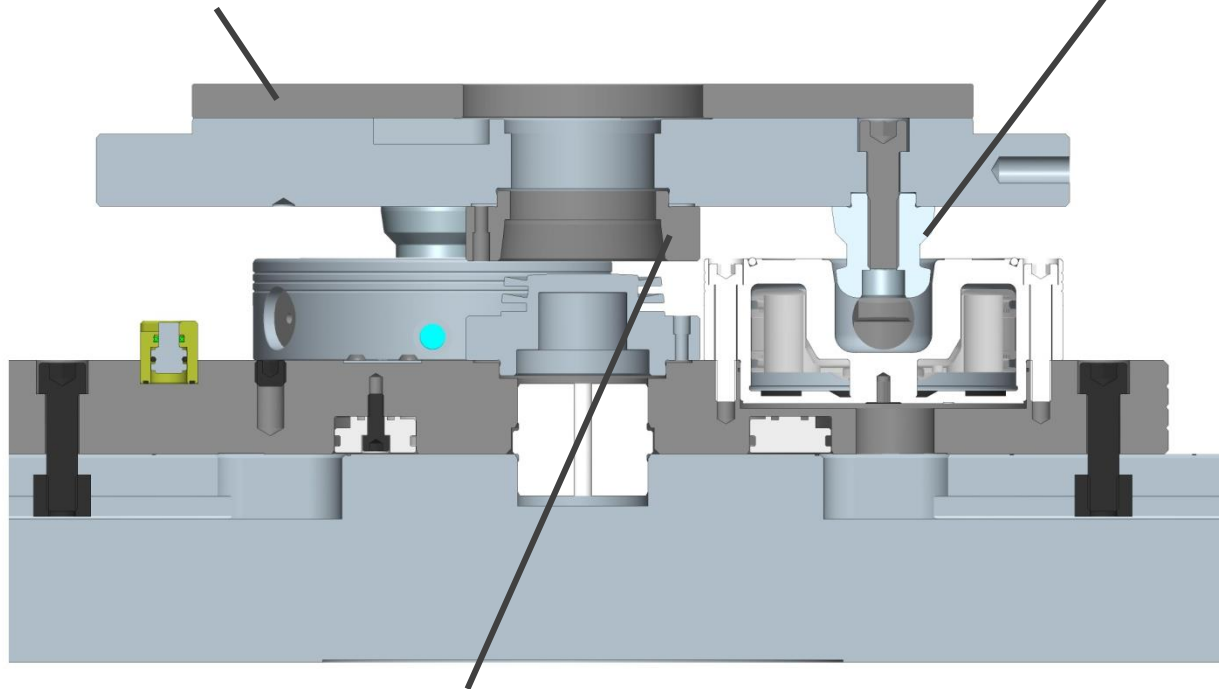


# VERO-S NSL turn

## Installation of clamping pallet

Cover with water drain bores  
(manual chuck for stationary operations)

Safe joining of the pallets  
through the clamping bolts



No touch of centering taper to centering ring while entry

# VERO-S NSL turn

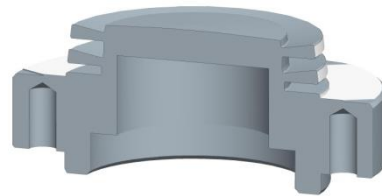
## Functionality of matchable cone



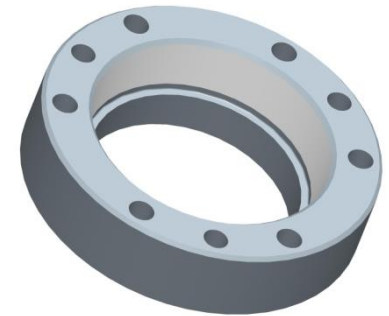
It is possible to pull down the centering ring through the pull-in force to the flat work surface up to 0,08 mm



the matchable cone (frame size A4) is used in z-type clamping devices and suitable for 3-way and 5-way module



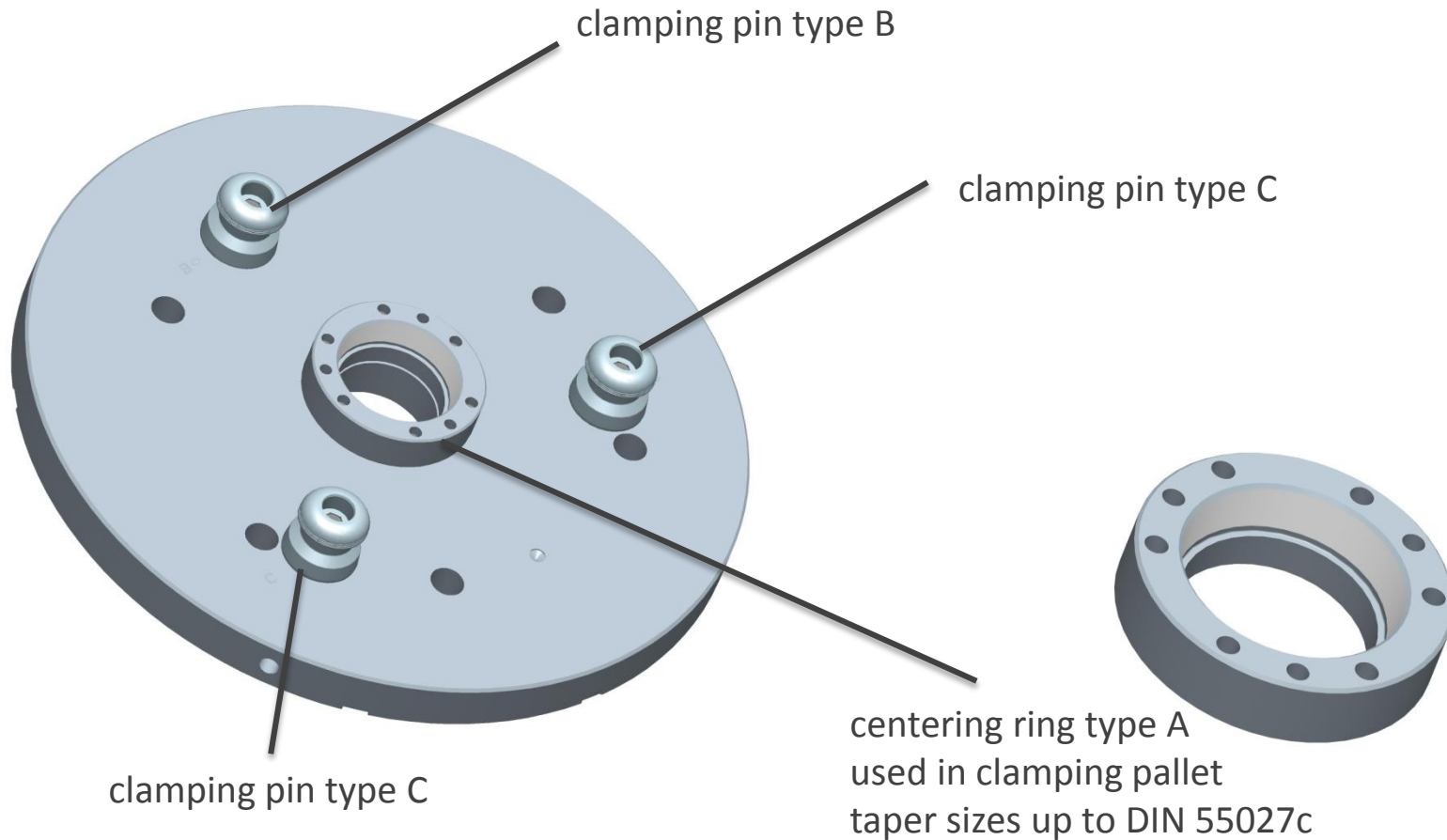
the taper surface is axial compressible and radial in highest precision and stable



centering ring typ: A used in clamping pallet taper sizes up to DIN 55027

# VERO-S NSL turn

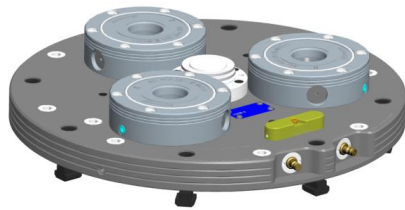
## Clamping pallet



# VERO-S NSL turn

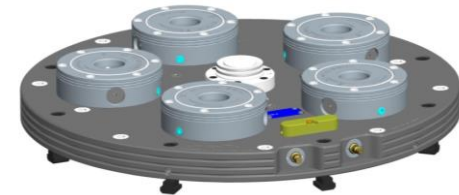
## Technical data NSL turn 450-3

- actuating pressure: 6 bar
- pull-in speed (Turbo): 75 kN
- tightening force: 105 kN
- speed: 2000 min<sup>-1</sup>
- repeat accuracy : < 0,01 mm



## Technical data NSL turn 570-5

- actuating pressure: 6 bar
- pull-in speed (Turbo): 125 kN
- tightening force: 175 kN
- speed: 1400 min<sup>-1</sup>
- repeat accuracy: < 0,01 mm



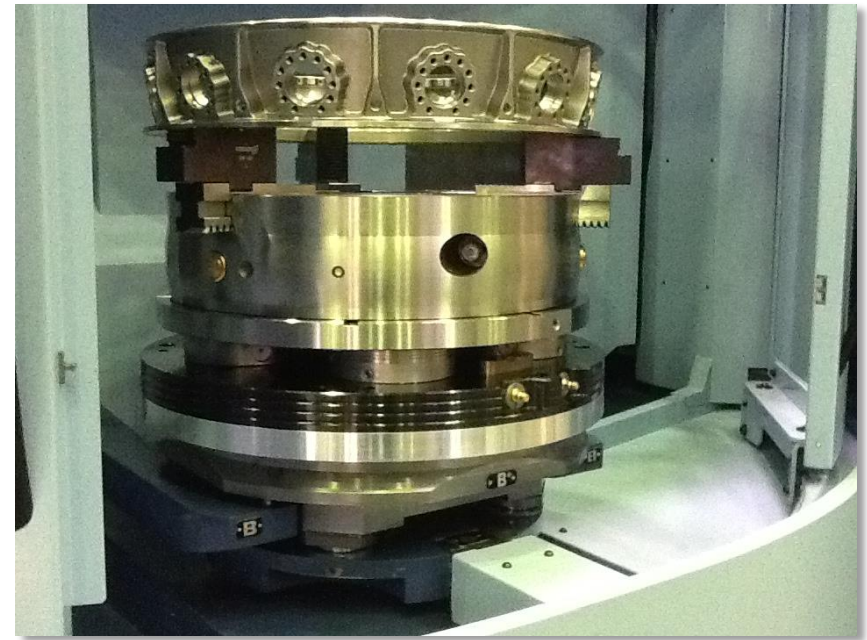
# applications



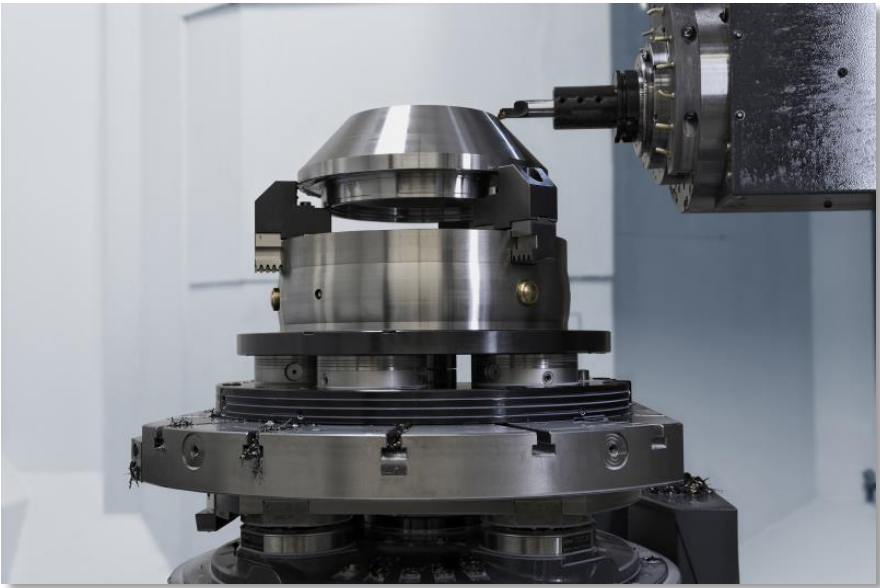
For high-precision 5-axis processing of complex workpiece geometry:

- optimal accessibility
- fast and flexible – suitable for each clamping task

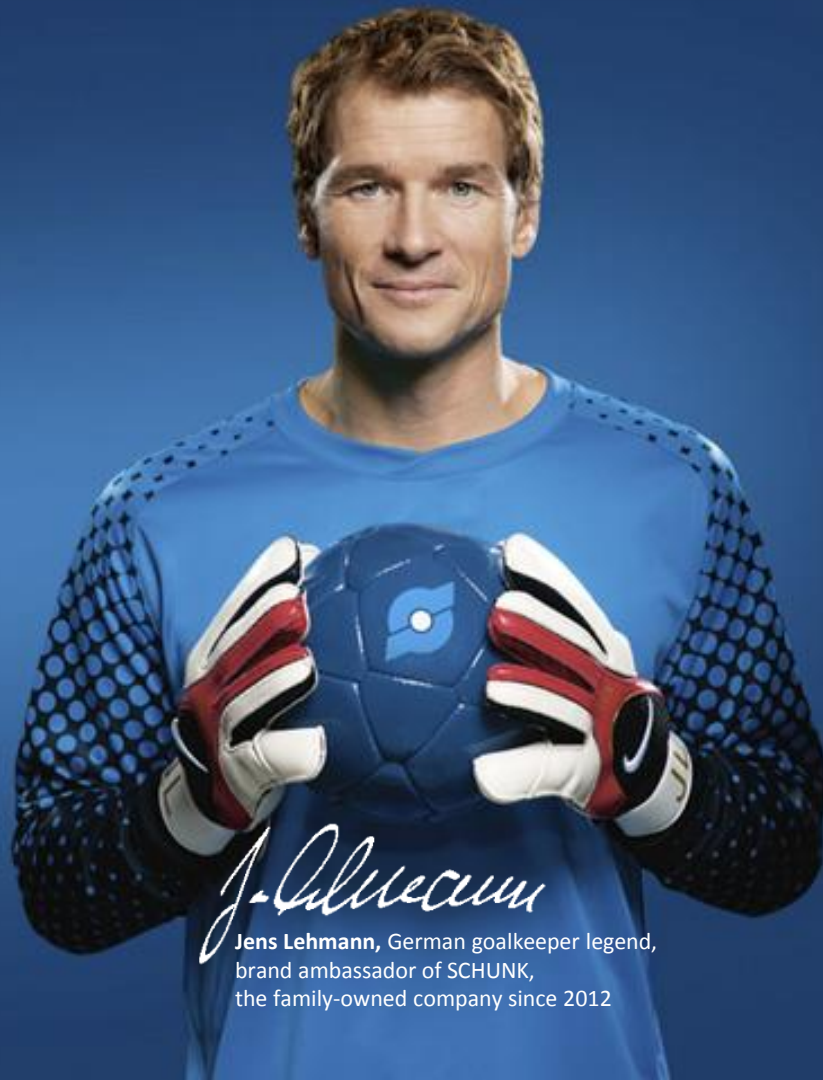
VERO-S NSL turn 570 with manual chuck ROTA-S plus 500:  
The ideal pairing for modern milling-turning machines.  
For speed till 1.400 min<sup>-1</sup>



# applications



Superior Clamping and Gripping



*J. Lehmann*

Jens Lehmann, German goalkeeper legend,  
brand ambassador of SCHUNK,  
the family-owned company since 2012



[www.schunk.com](http://www.schunk.com)