



TANDEM KSA plus

Clamping Force Blocks | manually operated

Superior Clamping and Gripping



Product Overview



Gripping Systems

Clamping Technology



Chuck Jaws



Lathe Chucks



Stationary Workholding



Toolholders



Hydraulic Expansion Technology



VERO-S



TANDEM



ROTA



KONTEC

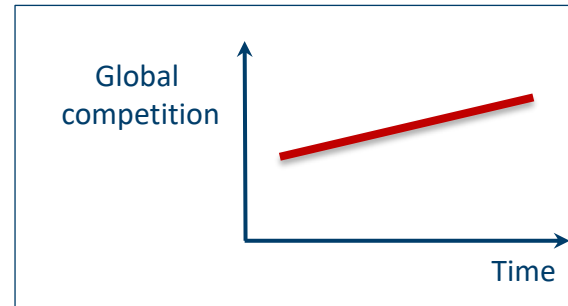
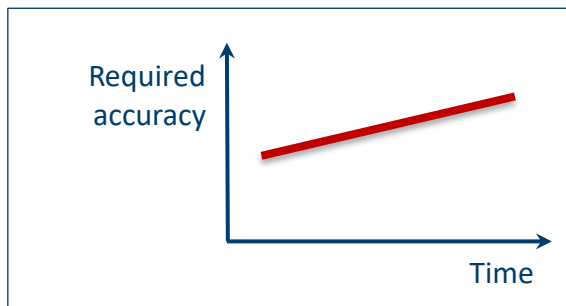
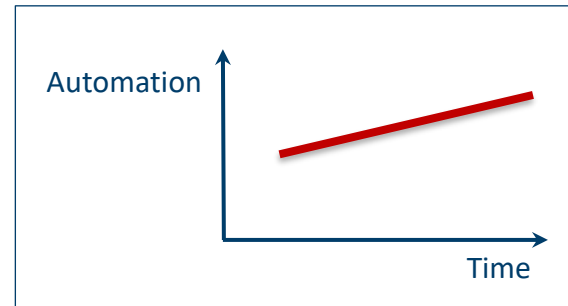
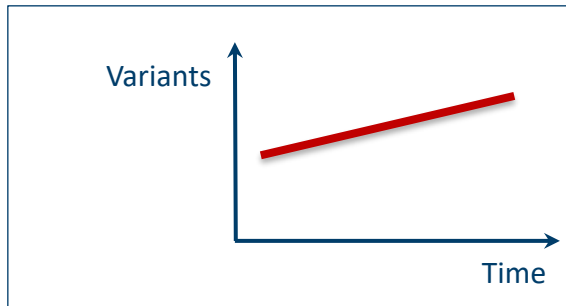


Tombstones



MAGNOS

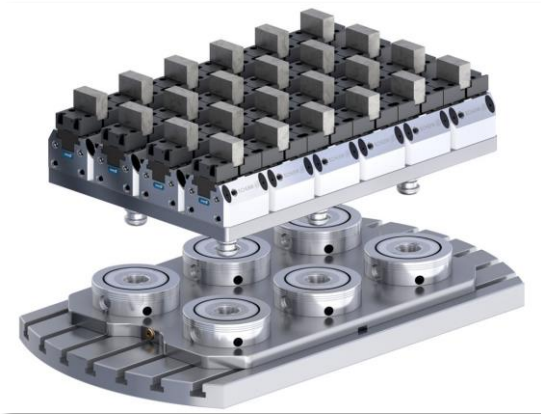
Challenges



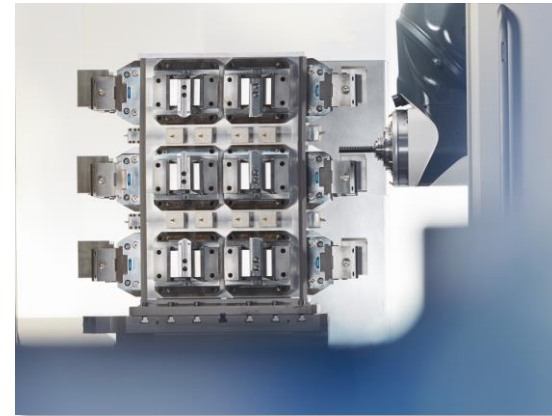
Increasing relevance of the set-up process

TANDEM Clamping Force Blocks

High workpiece density at small space



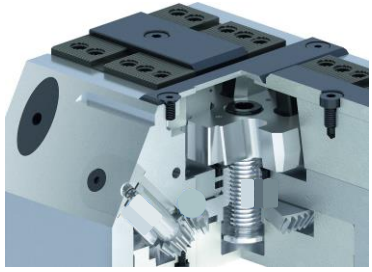



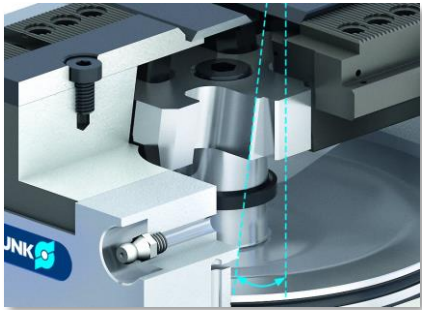


Optimum accessibility of the machine spindle to the workpiece



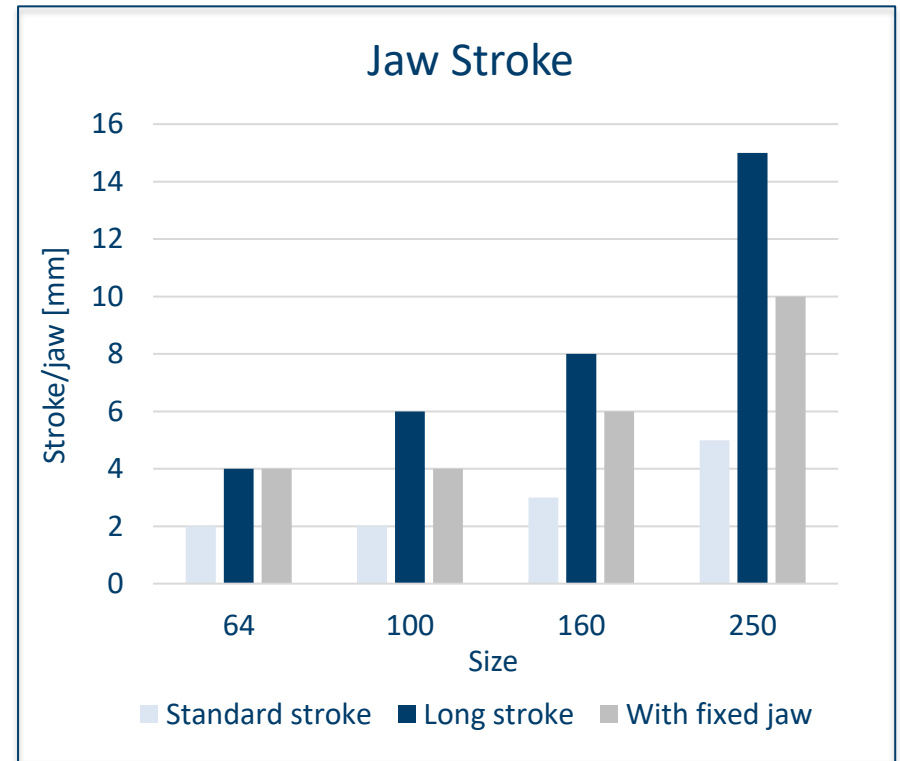
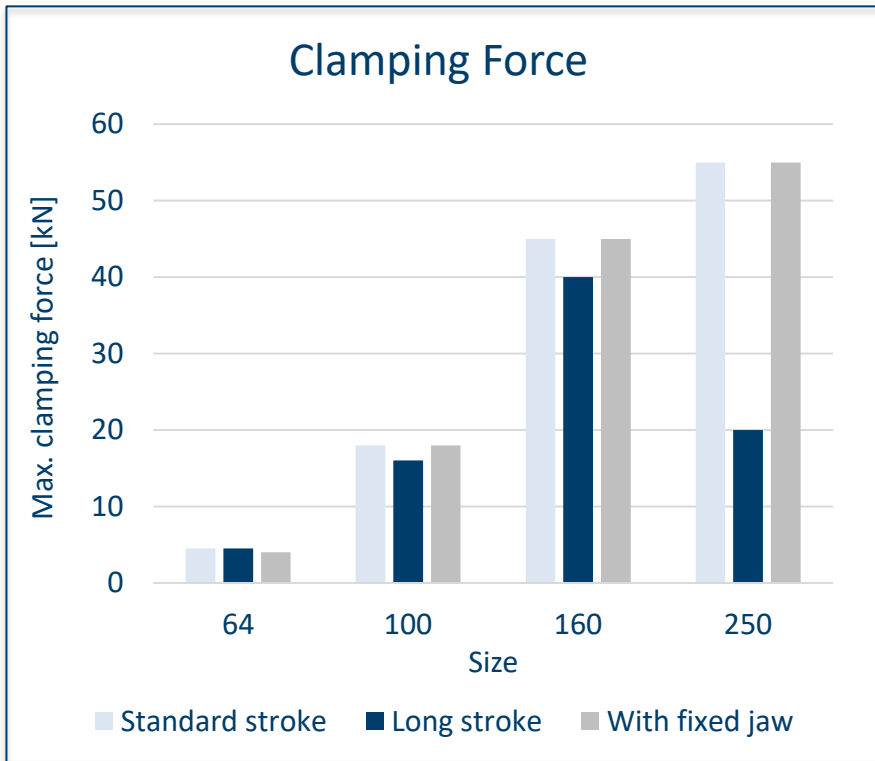
High duration at low non-productive times per workpiece

TANDEM Overview




Actuation Types	Pneumatic (KSP plus)	Hydraulic (KSH plus)	Manually (KSA plus)	Spring-loaded (KSF plus)
				

Variants	Standard stroke	Long stroke (-LH)	With fixed jaw (-F)
			

TANDEM Portfolio



TANDEM Jaw Program

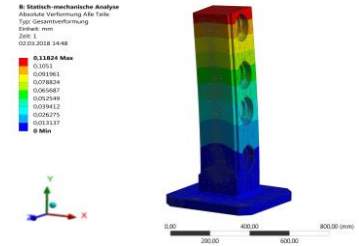
Top Jaws Blank		
Mounting: via tongue and groove	Mounting: via fine serrations 1,5 x 60°	
KTR / KTR-H	STR / STR-H	STR-S
		

Supporting Jaws + SCHUNK Jaw Program	
TBA-D	Chuck Jaws
	  

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



TANDEM Overview

Pneumatic



Hydraulic



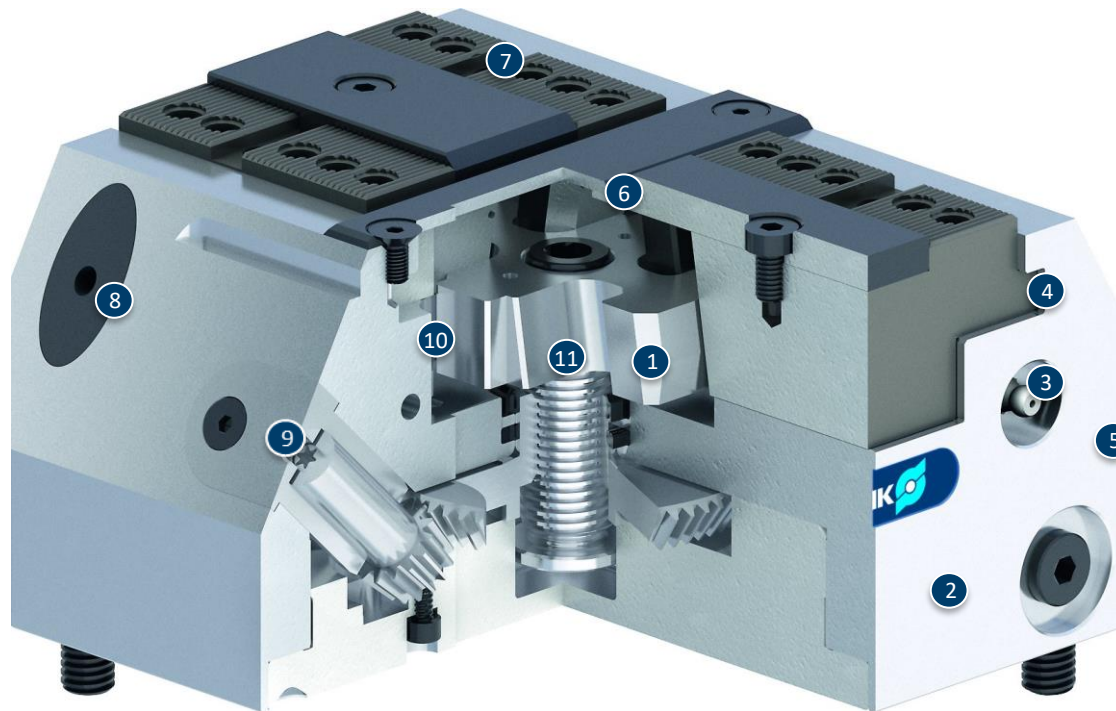
Manual



Spring force



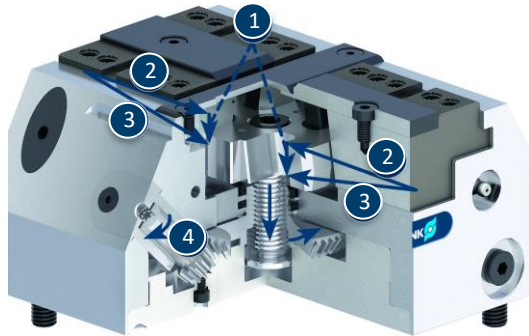
TANDEM KSA plus



- ① Wedge hook drive
- ② Hardened and extremely rigid base body
- ③ Optimized lubrication system
- ④ Long jaw guidance
- ⑤ Low height
- ⑥ Improved design which is insensitive to dirt
- ⑦ Standard chuck jaw interface
- ⑧ Optimized outside contour
- ⑨ Control of the clamping modules
- ⑩ Chuck pistons guided in the body
- ⑪ Manually actuated system with large gear ratio

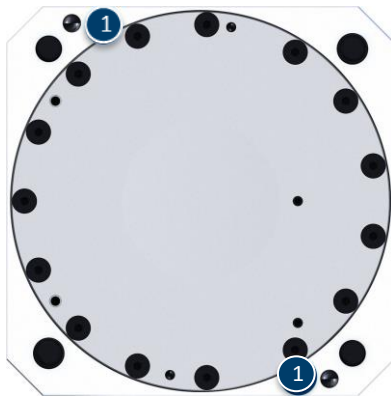
TANDEM KSA plus

Force Flow in the KSA plus



- 1 Actuating force depending on the applied torque
- 2 Clamping force depending on the actuating force and the transmission ratio
- 3 Normal force between the base jaw and chuck body
- 4 Torque on the pinion

Z-version (optional)



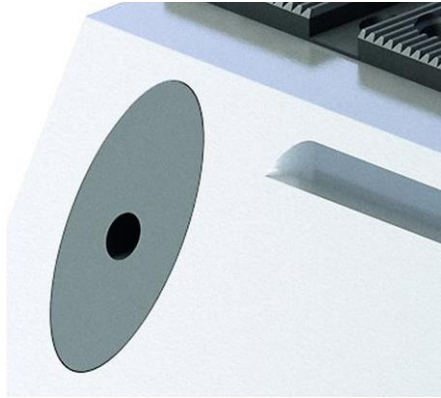
- 1 Positioning bore

Chip-repellent design



TANDEM KSA plus

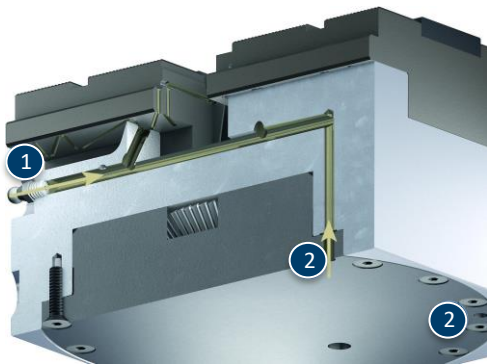
Cover plugs for the mounting screws



Alignment edge



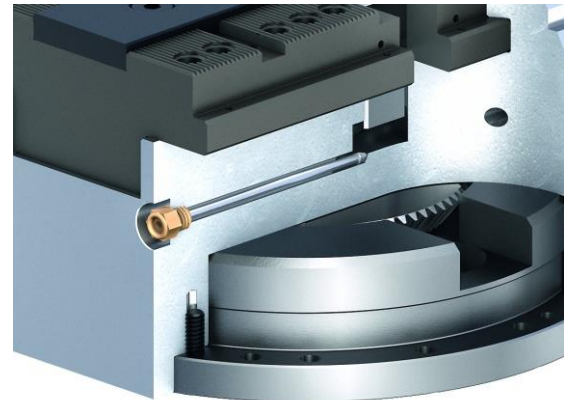
Lubrication system



① Manual lubrication

② Central lubrication

Coolant drain hole



Variants of TANDEM KSA plus

Technical data	KSA plus 100			KSA plus 160		
	KSA	KSA-LH	KSA-F	KSA	KSA-LH	KSA-F
Stroke/jaw [mm]	2	6	4	3	8	6
Clamping force [kN]	18	8	18	45	20	45
Max. torque [Nm]	8	8	8	15	15	15
Repeat accuracy vise [mm]	0.01	0.01	0.01	0.02	0.02	0.02
Max. jaw height [mm]	60	60	60	60	60	60
Weight [kg]	5	5	5	14	14	14

Superior Clamping and Gripping



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