

Technical datasheet: TANDEM KSP plus, KSP-LH plus, KSP-F plus

Page 1 by 2

Functional description:

The force transfer in the vise is carried out by a wedge hook principle and guarantees a high force transmission. The cylinder piston is moved up or down by supplying air. The base jaws connect to the cylinder piston by a wedge hook to be moved in and out.

The double- acting cylinder ensures safe external or internal clamping of workpieces.



KSP plus

Characteristics	Description									
	KSP plus				KSP-LH plus			KSP-F plus		
	64	100	160	250	100	160	250	100	160	250
Max. actuation pressure	9 bar	9 bar	9 bar	6 bar	9 bar	9 bar	6 bar	9 bar	9 bar	6 bar
Clamping force*	4.5 kN	18 kN	45 kN	55 kN	8 kN	20 kN	20 kN	18 kN	45 kN	55 kN
Weight [kg]	1.5 kg	4 kg	11 kg	32 kg	4 kg	11 kg	32 kg	4 kg	11 kg	32 kg
Repeatability **	0.01 mm	0.01 mm	0.02 mm	0.03 mm	0.01 mm	0.02 mm	0.03 mm	0.01 mm	0.02 mm	0.03 mm
Stroke/jaw	2 mm	2 mm	3 mm	5 mm	6 mm	8 mm	15 mm	4 mm	6 mm	10 mm
Air consumption per double stroke	200 cm ³	700 cm ³	1600 cm ³	4000 cm ³	700 cm ³	1600 cm ³	4000 cm ³	700 cm ³	1600 cm ³	4000 cm ³
Closing-/opening time	0.1 s	0.2 s	0.4 s	1 s	0.2 s	0.4 s	1 s	0.2 s	0.4 s	1 s
Distance »H«*	10 mm	16 mm	25 mm	40 mm	16 mm	25 mm	40 mm	16 mm	25 mm	40 mm
Max. jaw height	60 mm	60 mm	60 mm	150 mm	150 mm	200 mm	500 mm	60 mm	60 mm	150 mm

* Clamping force is the arithmetic sum of the individual forces present at the vise jaws at a clearance of „H“ at maximum pressure and maximum torque. The clamping force is linear to the actuation pressure.

** The repeat accuracy is the result from the end position spreads after 100 consecutive strokes

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2 integrated jaws interfaces	Tongue and groove and fine serration or jaw quick- change (BWM)
Definition of the clamping force block in terms of MRL 2006/42/EG	Incomplete machine
Design	One- piece rectangular base body
Accuracy to the center	Z-variant: ± 0.01 mm Fitting screw: ± 0.02 mm Clamping sleeve: ± 0.04 mm

Control of the clamping modules	From the side or bottom as desired
Small clearance	Prevents the ingress of dust and chips into the tensioner
PL (Performance Level)	Not applicable because the module is no safety component
Application of proven and basic safety principles according to DIN 13849-2 attachment A	E.g. proven springs, application suitable materials and manufacturing processes, correct dimensioning etc.
Optional	Incl. inductive proximity switch

Maximum load on the tensioner

Size				
	M_x	M_y	M_z	F_a
64	75 Nm	75 Nm	75 Nm	2000 N
100, (BWM)	250 Nm, (on request)	250 Nm, (on request)	250 Nm, (on request)	5000 N, (on request)
160, (BWM)	500 Nm, (on request)	500 Nm, (on request)	500 Nm, (on request)	10000 N, (on request)
250, (BWM)	1200 Nm, (on request)	1200 Nm, (on request)	1200 Nm, (on request)	20000 N, (on request)