

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

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 hydraulic oil. The base jaws connect to the cylinder piston by a wedge hook to be moved in and out.

The double- acting cylinders ensures safe external or internal clamping on workpieces.



KSH plus

Characteristics	Description							
	KSH plus			KSH-LH plus			KSH-F plus	
	64	100	160	100	160	250	100	160
Max. pressure	60 bar	60 bar	60 bar	120 bar	120 bar	45 bar	60 bar	60 bar
Clamping force*	4,5 kN	18 kN	45 kN	16 kN	40 kN	50 kN	18 kN	45 kN
Weight [kg]	1,5 kg	5 kg	14 kg	5 kg	14 kg	35 kg	5 kg	14 kg
Repeatability **	0,01 mm	0,01 mm	0,02 mm	0,01 mm	0,02 mm	0,03 mm	0,01 mm	0,02 mm
Stroke/jaw	2 mm	2 mm	3 mm	6 mm	8 mm	15 mm	4 mm	6 mm
Oil consumption per double stroke	10 cm ³	30 cm ³	100 cm ³	30 cm ³	100 cm ³	440 cm ³	30 cm ³	100 cm ³
Closing-/opening time	0,5 s	1 s	1,5 s	1 s	1,5 s	3 s	1 s	1,5 s
Distance »H«*	10 mm	16 mm	25 mm	16 mm	25 mm	40 mm	16 mm	25 mm
Max. jaw height	60 mm	60 mm	60 mm	60 mm	60 mm	150 mm	60 mm	60 mm

* Clamping force is the arithmetic sum of the individual forces present at the chuck jaws at a clearance of „H“ at maximum pressure and maximum torque

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

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

2 integrated jaws interfaces	Tongue and groove or fine serration
Definition of the clamping module in terms of MRL Directive 2006/42/EC	Incomplete machine
Design	One- piece rectangular base body
Accuracy to the center	Z-variant: ± 0.01 Fitting screw: $\pm 0,02$ Clamping sleeve: ± 0.04

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.

Maximum load on the tensioner

Size				
	Mx	My	Mz	Fa
64	75 Nm	75 Nm	75 Nm	2000 N
100	250 Nm	250 Nm	250 Nm	5000 N
160	500 Nm	500 Nm	500 Nm	10000 N
250	1200 Nm	1200 Nm	1200 Nm	20000 N