

## Technical datasheet: TANDEM KSF plus, KSF-LH plus, KSF-F plus

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### Functional description:

The force reversal in the vise is carried out by a wedge hook principle and guarantees a high force transmission. The cylinder piston is moved downwards using spring force. The base jaws connected to the chuck piston via an incline are therefore moved outwards or inwards.

Note: Use for O.D. clamping only!



KSF plus

Characteristics	Description								
	KSF plus			KSF-LH plus			KSF-F plus		
	100	160	250	100	160	250	100	160	250
Max. pressure	6 bar	6 bar	6 bar	6 bar	6 bar	6 bar	6 bar	6 bar	6 bar
Clamping force*	10 kN	25 kN	50 kN	4,5 kN	10 kN	16 kN	10 kN	25 kN	50 kN
Weight	5 kg	16 kg	32 kg	5 kg	16 kg	32 kg	5 kg	16 kg	32 kg
Repeatability **	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	3 mm	5 mm	6 mm	8 mm	15 mm	4 mm	6 mm	10 mm
Air consumption per double stroke at 6 bar	500 cm <sup>3</sup>	1700 cm <sup>3</sup>	4600 cm <sup>3</sup>	500 cm <sup>3</sup>	1700 cm <sup>3</sup>	4600 cm <sup>3</sup>	300 cm <sup>3</sup>	800 cm <sup>3</sup>	4600 cm <sup>3</sup>
Closing-/opening time	0,2 s	0,4 s	1 s	0,2 s	0,4 s	1 s	0,2 s	1,4 s	1 s
Distance »H«*	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	150	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 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

\*\*\* When used without turbo function

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

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

### Maximum load on the tensioner

Size				
	Mx	My	Mz	Fa
	75 Nm	75 Nm	75 Nm	2000 N
100	250 Nm	250 Nm	250 Nm	5000 N
60	500 Nm	500 Nm	500 Nm	10000 N
	1200 Nm	1200 Nm	1200 Nm	20000 N