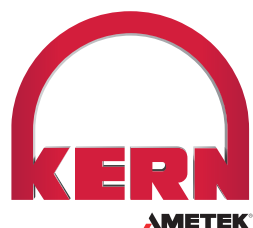


MACHINE COMPARISON

Kern CNC machining centers



Kern Fortis HD



Kern Micro HD+



Kern Micro HD



Kern Micro Vario



max. travel X-axis	[mm]	780	350	350	350
max. travel Y-axis	[mm]	420	220	220	220
max. travel Z-axis	[mm]	450	250	250	250
max. feed/fast movement X-axis	[m/min]	60	60	60	30
max. feed/fast movement Y-axis	[m/min]	60	60	60	30
max. feed/fast movement Z-axis	[m/min]	60	60	60	30
max. acceleration X-axis	[m/s ²]	10	10 (9,6)	10 (9,6)	10
max. acceleration Y-axis	[m/s ²]	10	12	12	10
max. acceleration Z-axis	[m/s ²]	15	20	20	10
Spindle option 1		CSC HSK-E 40	CSC HSK-E 40	HSK-E 25	HSK-E 25
max. spindle speed	[min ⁻¹]	45,000	45,000	80,000	80,000
Spindle option 2		CSC HSK-A 63	---	HSK-E 40	HSK-E 40
max. spindle speed	[min ⁻¹]	24,000	---	42,000	42,000
Amount of max. tools		154	210	210	210
Spindle power S1	[kW]	29	15	15	15
Rated torque S1	[Nm]	69.2	6	6	6
max. table load	[kg]	on request	50	50	50
max. workpiece size	[Ø x mm]	565 x 350	350 x 200	350 x 200	350 x 200
4th und 5th axis		rolling bearing	hydrostatic	rolling bearing	rolling bearing
Control		Heidenhain TNC7	Heidenhain TNC7	Heidenhain TNC7	Heidenhain TNC7
L x W x H (without aspiration)	[mm]	4,063 x 3,140 x 3,500	2,800 x 1,640 x 3,140	2,800 x 1,640 x 2,740	2,800 x 1,640 x 2,740
Weight	[kg]	16,400	5,500	5,500	5,200
Automation tool changer		internal	internal	internal	internal
Automation workpiece changer		external	internal/external	internal/external	internal/external
Drives/guidance systems		linear motor/ hydrostatic guide	linear motor/ hydrostatic guide	linear motor/ hydrostatic guide	ball screw/ bearing guide