

Technical data VHC

Technical data		VHC 2 - XTS	VHC 2 - XTS50	VHC 3 - XTS		VHC 3 - XTS50	VHC 50 - XTS
Working area							
X-traverse range vertical	[mm]	1760 - 9000	1760 - 9000	1760 - 9000	[mm]	1760 - 9000	2000 - 9000
Optional pendulum travel vertical	[mm]	(X-axis - 400) / 2	(X-axis - 500) / 2	(X-axis - 500) / 2	[mm]	(X-axis - 500) / 2	(X-axis - 600) / 2
Y-traverse range horizontal / vertical	[mm]	600	600	700 (900,1000) ²	[mm]	700 (900) ²	1000
Z-traverse range horizontal / vertical	[mm]	800 / 770	800 / 740	850 (950) ²	[mm]	850 / 790	1000 / 970
Distance table - spindle nozzle vert.	[mm]	0 - 770	0 - 740	40 - 890 (990) ²	[mm]	0 - 790	0 - 970
Distance table - spindle nozzle hor.	[mm]	180 - 980	250 - 1050	250 - 1100 (1200) ²	[mm]	250 - 1100	280 - 1280
Machine table							
Clamping surface, grinded, approx.	[mm]	(X-axis + 400) x Y-axis	(X-axis + 400) x Y-axis	(X-axis + 400) x Y-axis	[mm]	(X-axis + 400) x Y-axis	(X-axis + 400) x Y-axis
T-slots, reference slot H7	[mm]	14 H9	18 H9	14 H9	[mm]	18 H9	18 H9
T-slots indexing	[mm]	160	160	160	[mm]	160	160
Number of T-slots		4	4	5 (6) ²		5 (6) ²	6
Max. table load	[kg/m ²]	1000	1000	1200	[kg/m ²]	1200	1500
Feed drive							
Max. rapid traverse	[m/min]	40/40/30	40/40/30	40/40/30	[m/min]	40/40/30	30/30/25
Max. feed force	[N]	9000	9000	9000	[N]	9000	15000
Main spindle drive							
Standard drive no. ¹		110	131	110		131	161
Optional drive no. ¹		100, 111, 113	133	100, 111, 113		133	163, 182
Tool holding fixture							
DIN 69871 A / DIN 69872 A		SK 40	SK 50	SK 40		SK 50	SK 50
Optional		BT 40, HSK A63, C6	BT 50, HSK A100, C8	BT 40, HSK A63, C6		BT 50, HSK A100, C8	BT 50, HSK A100, C8
Tilting spindle head							
Swivelling range B-axis		± 90° (± 100°) ²	± 90° (± 100°) ²	± 90° (± 100°) ²		± 90° (± 100°) ²	± 90° (± 100°) ²
Indexing		2,5° (1°, 0,001°, fully interpolating) ²	2,5° (1°, 0,001°, fully interpolating) ²	2,5° (1°, 0,001°, fully interpolating) ²		2,5° (1°, 0,001°, fully interpolating) ²	2,5° (1°, 0,001°, fully interpolating) ²
Tool changer							
Number of tool pockets standard		22	26	22		26	30
Optional expandable up to		216 ³	156 ³	288 ³		180 ³	180 ³
Max. tool diameter	[mm]	85	110	85	[mm]	110	110
By free adjacent pockets	[mm]	135	180	135	[mm]	180	180
Max. tool length	[mm]	400	400	400	[mm]	400	400
Tool change time approx.	[s]	5	7	6	[s]	7	8
Accuracy							
Positioning accuracy ⁴	[mm]	± 0,015 (± 0,0075) ²	± 0,015 (± 0,0075) ²	± 0,015 (± 0,0075) ²	[mm]	± 0,015 (± 0,0075) ²	± 0,015
Repeating accuracy	[mm]	± 0,005	± 0,005	± 0,005	[mm]	± 0,005	± 0,005
Weight							
Standard version approx.	[kg]	14000	15000	17000	[kg]	18000	32000
Per meter X-stroke plus approx.	[kg]	2250	2500	2250	[kg]	3000	5000

¹ Main spindle drives

		100	110	111	113		131	133	161	163	182
Speed range	[rpm]	6000	6000	6000	6000	[rpm]	4000	4000	4000	4000	4000
Optional up to	[rpm]	15000	12000	12000	10000	[rpm]	9000	9000	7500	7500	-
Max. torque (40% DC)	[Nm]	95	143	191	255	[Nm]	286	355	540	540	820
Max. power (40% DC)	[kW]	20	30	40	40	[kW]	45	56	28	57	81

² Optional features

³ e.g. 3 fully equipped towers

⁴ Per 1000 mm per axis X/Y/Z with vertical spindle

	VHC 3 - XTS50	VHC 50 - XTS
[mm]	1760 - 9000	2000 - 9000
[mm]	(X-axis - 500) / 2	(X-axis - 600) / 2
[mm]	700 (900) ²	1000
[mm]	850 / 790	1000 / 970
[mm]	0 - 790	0 - 940
[mm]	250 - 1100	280 - 1280
[mm]	(X-axis + 400) x Y-axis	(X-axis + 400) x Y-axis
[mm]	18 H9	18 H9
[mm]	160	160
	5 (6) ²	6
[kg/m ²]	1200	1500
[m/min]	40/40/30	30/30/25
[N]	9000	15000
	131	161
	133	163, 182
	SK 50	SK 50
	BT 50, HSK A100, C8	BT 50, HSK A100, C8
	± 90° (± 100°) ²	± 90° (± 100°) ²
	2,5° (1°, 0,001°, fully interpolating) ²	2,5° (1°, 0,001°, fully interpolating) ²
	26	30
	180 ³	180 ³
[mm]	110	110
[mm]	180	180
[mm]	400	400
[s]	7	8
[mm]	± 0,015 (± 0,0075) ²	± 0,015
[mm]	± 0,005	± 0,005
[kg]	18000	32000
[kg]	3000	5000

	131	133	161	163	182
[rpm]	4000	4000	4000	4000	4000
[rpm]	9000	9000	7500	7500	-
[Nm]	286	355	540	540	820
[kW]	45	56	28	57	81