

# Technical data VHC

Technical data		VHC 2 - XTS	VHC 2 - XTS50	VHC 3 - XTS		VHC 3 - XTS50	VHC 50 - XTS
<b>Working area</b>							
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) <sup>2</sup>	[mm]	700 (900) <sup>2</sup>	1000
Z-traverse range horizontal / vertical	[mm]	800 / 770	800 / 740	850 (950) <sup>2</sup>	[mm]	850 / 790	1000 / 970
Distance table - spindle nozzle vert.	[mm]	0 - 770	0 - 740	40 - 890 (990) <sup>2</sup>	[mm]	0 - 790	0 - 970
Distance table - spindle nozzle hor.	[mm]	180 - 980	250 - 1050	250 - 1100 (1200) <sup>2</sup>	[mm]	250 - 1100	280 - 1280
<b>Machine table</b>							
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) <sup>2</sup>		5 (6) <sup>2</sup>	6
Max. table load	[kg/m <sup>2</sup> ]	1000	1000	1200	[kg/m <sup>2</sup> ]	1200	1500
<b>Feed drive</b>							
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
<b>Main spindle drive</b>							
Standard drive no. <sup>1</sup>		110	131	110		131	161
Optional drive no. <sup>1</sup>		100, 111, 113	133	100, 111, 113		133	163, 182
<b>Tool holding fixture</b>							
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
<b>Tilting spindle head</b>							
Swivelling range B-axis		± 90° (± 100°) <sup>2</sup>	± 90° (± 100°) <sup>2</sup>	± 90° (± 100°) <sup>2</sup>		± 90° (± 100°) <sup>2</sup>	± 90° (± 100°) <sup>2</sup>
Indexing		2,5° (1°, 0,001°, fully interpolating) <sup>2</sup>	2,5° (1°, 0,001°, fully interpolating) <sup>2</sup>	2,5° (1°, 0,001°, fully interpolating) <sup>2</sup>		2,5° (1°, 0,001°, fully interpolating) <sup>2</sup>	2,5° (1°, 0,001°, fully interpolating) <sup>2</sup>
<b>Tool changer</b>							
Number of tool pockets standard		22	26	22		26	30
Optional expandable up to		216 <sup>3</sup>	156 <sup>3</sup>	288 <sup>3</sup>		180 <sup>3</sup>	180 <sup>3</sup>
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
<b>Accuracy</b>							
Positioning accuracy <sup>4</sup>	[mm]	± 0,015 (± 0,0075) <sup>2</sup>	± 0,015 (± 0,0075) <sup>2</sup>	± 0,015 (± 0,0075) <sup>2</sup>	[mm]	± 0,015 (± 0,0075) <sup>2</sup>	± 0,015
Repeating accuracy	[mm]	± 0,005	± 0,005	± 0,005	[mm]	± 0,005	± 0,005
<b>Weight</b>							
Standard version approx.	[kg]	14000	15000	17000	[kg]	18000	32000
Per meter X-stroke plus approx.	[kg]	2250	2500	2250	[kg]	3000	5000

## <sup>1</sup> 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

<sup>2</sup> Optional features

<sup>3</sup> e.g. 3 fully equipped towers

<sup>4</sup> 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) <sup>2</sup>	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) <sup>2</sup>	6
[kg/m <sup>2</sup> ]	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°) <sup>2</sup>	± 90° (± 100°) <sup>2</sup>
	2,5° (1°, 0,001°, fully interpolating) <sup>2</sup>	2,5° (1°, 0,001°, fully interpolating) <sup>2</sup>
	26	30
	180 <sup>3</sup>	180 <sup>3</sup>
[mm]	110	110
[mm]	180	180
[mm]	400	400
[s]	7	8
[mm]	± 0,015 (± 0,0075) <sup>2</sup>	± 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