

Mikron

# VCE Pro



## Technical data



Mikron VCE 600 Pro



Mikron VCE 800 Pro



Mikron VCE 800W Pro



Mikron VCE 1000 Pro

			Mikron VCE 600 Pro	Mikron VCE 800 Pro	Mikron VCE 800W Pro
<b>Travel ranges</b>					
Longitudinal	X	mm	600	800	860
Transverse	Y	mm	500	500	560
Vertical	Z	mm	540	540	600
Max. distance between spindle tip and worktable		mm	690	690	735
<b>Tool spindle</b>					
Drive type			Drive belt	Drive belt	Drive belt
Maximum speed up to			rpm	10'000	10'000
Tool 40% duty cycle/S6			kW @ rpm	18,5 @ 1188	18,5 @ 1188
Spindle torque 40% duty cycle/S6			Nm	149	149
Tool mount			ISO-B40	ISO-B40	ISO-B40
Optional working spindle			rpm	16'000 ISO-B40/HSK-A63	16'000 ISO-B40/HSK-A63
<b>Travel speed</b>					
Rapid traverse	X, Y	m/min.	40	40	40
Rapid traverse	Z	m/min	40	40	40
<b>Tool magazine</b>					
Magazine spaces		quantity	24/40 ISO-B40 40 HSK-A63	24/40 ISO-B40 40 HSK-A63	24/40/60 ISO-B40 40 HSK-A63
Tool magazine			Side-mounted	Side-mounted	Side-mounted
Max. tool length		mm	305	305	305
Max. tool diameter		mm	77/115	77/115	77/115
<b>Worktable</b>					
Table area		mm	700 x 500	910 x 500	1000 x 560
Maximum table load		kg	800	1100	1350
Number of T-grooves			5	5	5
T-groove spacing		mm	100	100	100
T-groove dimensions		mm	18 <sup>+0.006/ +0.024</sup>	18 <sup>+0.006/ +0.024</sup>	18 <sup>+0.006/ +0.024</sup>
<b>Cooling</b>					
Coolant tank capacity		l	300	300	300
<b>Controller</b>					
Type			Heidenhain TNC 620	Heidenhain TNC 620	Heidenhain TNC 620
<b>Machine weight</b>					
			kg	4'800	5'000
					6'500



Mikron VCE 1200 Pro



Mikron VCE 1400 Pro



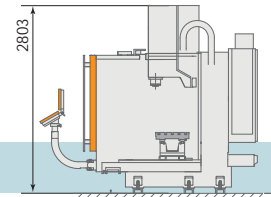
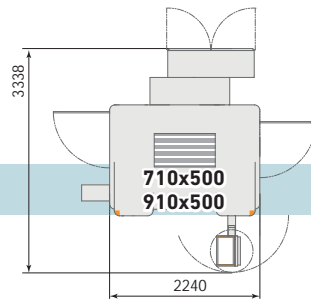
Mikron VCE 1600 Pro



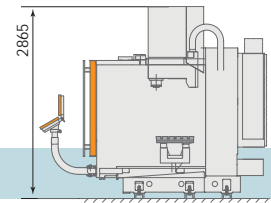
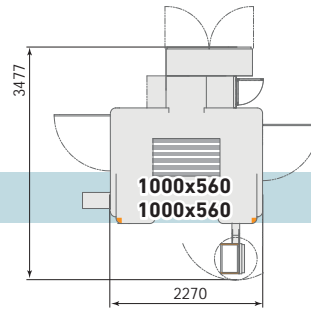
Mikron VCE 2000 Pro

Mikron VCE 1000 Pro	Mikron VCE 1200 Pro	Mikron VCE 1400 Pro	Mikron VCE 1600 Pro	Mikron VCE 2000 Pro
1020	1200	1400	1600	2000
560	600	650	900	900
600	675	675	800	800
735	775	775	900	900
Drive belt	Drive belt	Drive belt	Drive belt	Drive belt
10'000	10'000	10'000	10'000	10'000
18,5 @ 1188	18 @ 823	18 @ 823	18 @ 823	18 @ 823
149	209	209	209	209
ISO-B40	ISO-B40	ISO-B40	ISO-B40 / ISO-B50	ISO-B40 / ISO-B50
16'000 ISO-B40/HSK-A63	-	-	6'000, ISO 50, 350 Nm	6'000, ISO 50, 350 Nm
40	32	32	24	20
40	24	24	20	15
24/40/60 ISO-B40	24/40/60 ISO-B40	24/40/60 ISO-B40	30/40/60 ISO-B40	30/40 ISO-B40
40 HSK-A63	-	-	24/40 ISO-B50	24/40 ISO-B50
Side-mounted	Side-mounted	Side-mounted	Side-mounted	Side-mounted
305	305	305	305 (350, ISO-B50)	305 (350, ISO-B50)
77/115	77/115	77/115	85/150 (125/240, ISO-B50)	85/150 (125/240, ISO-B50)
1000 x 560	1220 x 620	1400 x 620	1700 x 850	2100 x 850
1350	1700	1700	2000	3000
5	5	5	7	7
100	100	100	100	100
18 <sup>+0.006/ +0.024</sup>	18 <sup>+0.006/ +0.024</sup>	18 <sup>+0.006/ +0.024</sup>	18 <sup>+0.006/ +0.024</sup>	18 <sup>+0.006/ +0.024</sup>
300	380	380	540	540
Heidenhain TNC 620	Heidenhain TNC 620	Heidenhain TNC 620	Heidenhain TNC 620	Heidenhain TNC 620
6'500	8'000	8'700	18'600	18'600

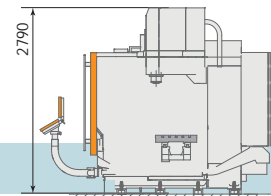
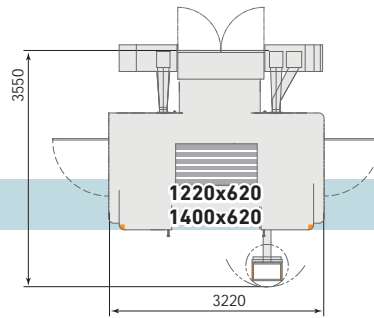
**Mikron VCE 600 Pro**    X   Y   Z  
 600 / 500 / 540  
**Mikron VCE 800 Pro**    800 / 500 / 540



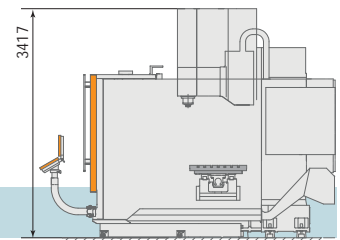
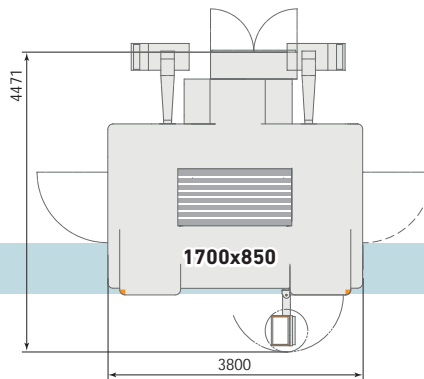
**Mikron VCE 800W Pro**    X   Y   Z  
 860 / 560 / 600  
**Mikron VCE 1000 Pro**    1020 / 560 / 600



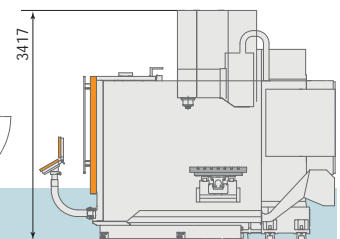
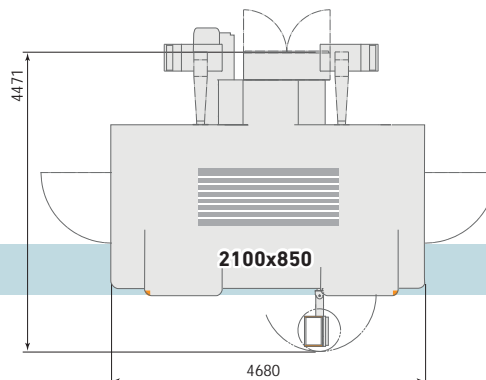
**Mikron VCE 1200 Pro**    X   Y   Z  
 1200 / 600 / 675  
**Mikron VCE 1400 Pro**    1400 / 650 / 675



**Mikron VCE 1600 Pro**    X   Y   Z  
 1600 / 900 / 800



**Mikron VCE 2000 Pro**    X   Y   Z  
 2000 / 900 / 800



**Standard equipment for all Mikron VCE 600 Pro to 2000 Pro vertical machining centers**

- + Protective enclosure
- + Two side windows, large front doors
- + Powerful fluorescent lights in the working space
- + Telescopic covers on X-, Y-, and Z-axis
- + Spiral chip conveyor with mechanical double filter
- + Automatic central lubrication
- + Side-mounted tool changer
- + Spray gun
- + Compressed-air gun
- + Operating status display
- + Working spindle 10,000 rpm
- + Spindle head cooled using cooling water
- + Regulated cooling for main spindle
- + Side-mounted flushing system  
(Mikron VCE 600 Pro to Mikron VCE 1400 Pro)
- + Coolant nozzles and air nozzles on spindle head
- + Roll out coolant tank
- + Thread cutting without compensating chuck
- + Heidenhain TNC 620 track controller
- + USB 3.0 port
- + Compatible with optional extras
- + Ethernet port
- + Mobile handwheel
- + Additional protective screen

**Accessories for all vertical machining centers**

**Mikron VCE 600 Pro to 2000 Pro**

- + Cooling through spindle (IKZ), 18 or 42 bar
- + Belt filter unit to IKZ
- + Regulated cooling for main spindle (6,000/10,000 rpm)
- + Compatible with fourth axis
- + NC indexer as fourth axis
- + Spray ring to spindle
- + Controllable coolant nozzle
- + Spray mist extraction
- + Infrared measurement and setup probe, type OMP 40-2
- + Tool touch measuring system type TS27
- + Integrated belt filter
- + BT tool version
- + Mechanical oil/coolant separator
- + Chip trolley
- + Minimum quantity lubrication
- + Compatible with angled head
- + Additional protective screen

**Cutting data for CK 45 1.1191  
(approx. 800 N/mm<sup>2</sup>)**

		<b>Mikron VCE 600 Pro to VCE 1000 Pro</b>	<b>Mikron VCE 1200 Pro to VCE 2000 Pro</b>
<b>Milling:</b>			
<b>HM blade head / five blades</b>			
		10'000 rpm	10'000 rpm
HM tool		Flat-face mill 45°	Flat-face mill 45°
Tool diameter	mm	63	63
Cutting speed	m/min.	160	160
Speed	rpm	809	809
Feed rate	mm/min.	809	809
Plunging depth	mm	5,5	6
Plunging width	mm	63	63
Chip volume	cm <sup>3</sup> /min.	281	305
Spindle load	%	120	120
<b>Drilling:</b>			
<b>Insert drill / two blades/ Ø 38 mm</b>			
		10'000 rpm	10'000 rpm
Cutting speed	m/min.	220	220
Speed	rpm	1843	1843
Feed rate	mm/min.	221	221
Spindle load	%	80	65
<b>Thread cutting:</b>			
<b>HSS tap / M24</b>			
		10'000 rpm	10'000 rpm
Cutting speed	m/min.	10	10
Speed	rpm	133	133
Feed rate	mm/min.	398	398
Plunge depth	mm	36	36
Spindle load	%	45	40