

Specifications

	2-axis Hawk Range						Driven Tool Hawk Range		
	TC-150	TC-200C	TC-200CX	TC-200	TC-250	TC-300	TC-150M	TC-200M	TC-250M
Machine Ranges									
Max swing over bed	520 mm			620 mm	680 mm		520 mm	620 mm	680 mm
Max machining diameter	270 mm	290 mm	280 mm	308 mm	358 mm	421 mm	254 mm	324 mm	354 mm
Max machining length	438 mm	416 mm	422 mm	540 mm	690 mm	1016 mm	425 mm	520 mm	670 mm
Headstock / Spindle									
Chuck diameter (optional)	170 mm	210 mm	210 mm	210 (250) mm	250 (315) mm	315 mm	170 mm	210 mm	250 mm
Drive system continuous	5.5 kW		11 kW		15 kW	30 kW	5.5 kW	11 kW	15 kW
Drive system MTDR	7.5 kW		15 kW		18.5 kW	37 kW	7.5 kW	15 kW	18.5 kW
Range (1 rpm increments)	30-5500 rpm		30-4000 rpm	30-4500 rpm	30-3300 rpm	30-3000 rpm	30-5500 rpm	30-4500 rpm	30-3300 rpm
Spindle nose/bore	A2-5		A2-6		A2-8		A2-5	A2-6	A2-8
Bar capacity (recommended max)	51 mm		64 mm	65 mm	77 mm	90 mm	51 mm	65 mm	77 mm
Driven Tool Spindle									
Driven tool drive motor	Not Available						3.7 kW	5.5 kW	
Driven tool max speed	Not Available						6000 rpm	4000 rpm	
X-axis and Z-axis									
Programmable travel X-axis	215 mm			245 mm	270 mm	280 mm	205 mm	245 mm	270 mm
Programmable travel Z-axis	438 mm	416 mm	422 mm	540 mm	690 mm	1016 mm	425 mm	520 mm	670 mm
Rapid traverse rate X-axis	16 m/min						16 m/min		
Rapid traverse rate Z-axis	24 m/min						24 m/min		
Repeatability X-axis*	± 1 micron						± 1 micron		
Repeatability Z-axis*	± 1 micron						± 1 micron		
Positioning X-axis*	± 3 microns						± 3 microns		
Positioning Z-axis*	± 4 microns						± 4 microns		
CNC Control									
Acramatic 2100 from Siemens	✓	✓	×	✓	✓	×	×	×	×
GE Fanuc 21i-TA	✓	✓	✓	✓	✓	✓	✓	✓	✓
Turret									
Tool positions	12 tools	8 tools	12 tools			12 tools			
Driven positions	Not Available						12		
Rotation	Bi-directional						Bi-directional		
Toolholder	30 VDI	40 VDI			50 VDI		30 VDI	40 VDI	
Driven tool transmission	Not Available						DIN 1809		
Standard tool shank	20 x 20	25 x 25			32 x 32		20 x 20	25 x 25	
Max (std.) boring bar	30 mm	40 mm			50 mm		30 mm	40 mm	
Tool-to-tool index time	0.2 sec			0.3 sec		0.4 sec	0.25 sec	0.35 sec	



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Tailstock									
Standard/optional	optional			standard			optional	standard	
Quill diameter	65 mm			95 mm			65 mm	95 mm	
Quill stroke	102 mm			127 mm			102 mm	127 mm	
Tailstock centre taper	MT4			MT5			MT4	MT5	
Tailstock thrust	4.5 kN			7.8 kN			4.5 kN	7.8 kN	
Coolant System									
Tank capacity	117 ltr			158 ltr	180 ltr		117 ltr	158 ltr	180 ltr
Coolant pump motor (std.)	0.33 kW						0.33 kW		
Coolant pump delivery (std.)	55 ltr/min @ 5m head						55 ltr/min @ 5m head		
General									
Weight (approx)	3500 kg			4900 kg	5700 kg	6000 kg	3600 kg	5000 kg	5800 kg
Power requirement	25 KVA	30 KVA			40 KVA	60 KVA	25 KVA	30 KVA	40 KVA
Air supply pressure	5.5 bar ± 1						5.5 bar ± 1		
Air consumption	5dm ³ /sec						5dm ³ /sec		
Dimensions**									
Width	1495 mm			1660 mm		1791 mm	1600 mm	1660 mm	
Height	1615 mm			1775 mm		1875 mm	1615 mm	1775 mm	
Spindle centre line height	911 mm			965 mm			911 mm	965 mm	
Length	2375 mm			3000 mm	3350 mm	3395 mm	2375 mm	3000 mm	3350 mm

* as evaluated by Cincinnati Machine standard procedures at an ambient temperature of 20°C.

**consult machine data sheets for detailed installation dimensions.

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Cincinnati Machine's commitment to Total Quality Leadership is underlined by ISO 9001 registration. We are amongst the first machine tool manufacturers in the world to be registered as a firm of Assessed Capability. Safety equipment may have been removed or opened to clearly show the product and must be in place prior to operation. Specifications are subject to change without notice in line with our policy of continuous improvement.

IMPORTANT NOTE

We quote all power, thrust and torque values either as 50% machine tool duty rating (MTDR – performance sustainable for 30 minutes per hour) or continuous rating. These qualified performance ratings are both meaningful and usable.

N.B. our 50% duty rated performance must not be compared with 'maximum' or 'peak' performance ratings as quoted by some manufacturers. Maximum or peak rated performance values are not meaningful and can be very misleading, since in practice they are sustainable only for very short periods of time. Therefore, it is in your interests to make sure you are comparing 'like for like' when evaluating specifications.

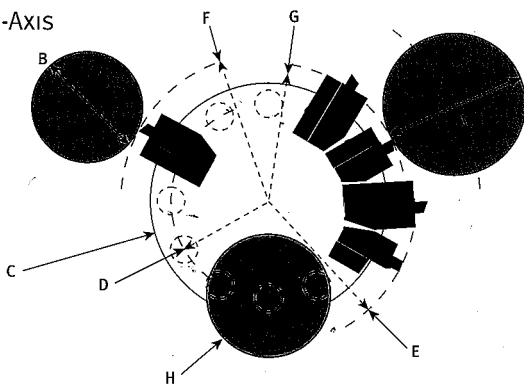
2-axis Hawk Range

Driven Tool Hawk Range

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	TC-150	TC-200C	TC-200CX	TC-200	TC-250	TC-300	TC-150M	TC-200M	TC-250M
A. Max turned diameter (short tool)	270	290	280	308	358	421	254	324	354
B. Max turned diameter (long toolholder)	210	224	214	242	292	358	194	258	288
C. Turret disc diameter	340	314	410	410	470	480	340	410	470
D. VDI pitch circle radius	135	122	170	170	200	200	135	170	200
E. Standard part off tool radius	202	214	262	262	292	290	202	262	292
F. Standard long toolholder radius	218	211	259	267	297	290	216	259	289
G. Standard short toolholder radius	187	178	226	234	264	260	186	226	256
H. Standard chuck diameter	170	210	210	210	250	315	170	210	250
I. Tailstock quill stroke	102	102	102	129	127	127	102	127	127
J. Tailstock travel	476	476	476	665	897	878	476	665	897
K. Max recommended component length	876	824	844	1080	1380	1380	850	1040	1340
L. X-axis travel	215	215	215	245	270	271	205	245	260
M. Turret width	56	65	65	65	65	84	56	65	65
N. Max recommended tool length	189	202	194	204	234	243	189	204	234
O. Max spindle to turret (centrelines)	323	323	366	388	443	469	313	388	433
P. Min turret to spindle nose distance	150	157	157	157	167	186	150	157	167
Q. Z-axis travel	438	412	422	540	690	1016	425	520	670
'M' Series Driven Tool Machines									
R. Max diameter standard radial tool	-	-	-	-	-	-	82	156	186
S. Max diameter standard offset radial tool	-	-	-	-	-	-	202	272	302
T. Standard radial tool radius	-	-	-	-	-	-	272	310	340
U. Standard offset radial tool radius	-	-	-	-	-	-	212	252	282
V. Max recommended driven tool length	-	-	-	-	-	-	131	150	150
W. Turret width (inc drive)	-	-	-	-	-	-	75	84	84
X. Restricted stroke area (X-axis)	-	-	-	-	-	-	145	-	234
Z. Restricted stroke area (Z-axis)	-	-	-	-	-	-	307	-	507

All dimensions are in millimetres

2-AXIS



DRIVEN TOOLING

