

CAK
CNC LATHE



QUANTUM MAKİNA ve TAKIM TEZGAHLARI SAN. TİC. LTD. STİ.

İkitelli Org. San. Bölgesi Biksan Sanayi Sitesi A-2 Blok No:3 Başakşehir/İstanbul

Tel: 0533 667 85 85 - 0212 485 60 02

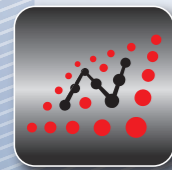
High Efficiency High Stability High Durability Great Value



HIGH EFFICIENCY



STABILITY



CONVENIENT OPERATION

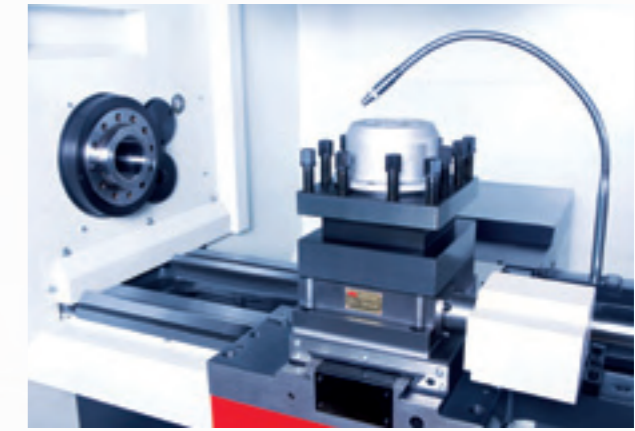


CAK series CNC lathes provide affordable semi-finishing and finishing machining. Their reliability, ease of operation, and practical design make them well-suited to applications in a great variety of industries from automotive to petroleum. CAK series lathes can be found running smoothly in more than 80 countries around the world.



Exterior

The clean lines and stylish finish accentuate a durable, waterproof design.



Reliability

The powered turret boasts high rigidity. The large diameter gear disk features precise positioning, rigidity, and minimal deformation during heavy cutting. Positioning accuracy is high and sealing very reliable.



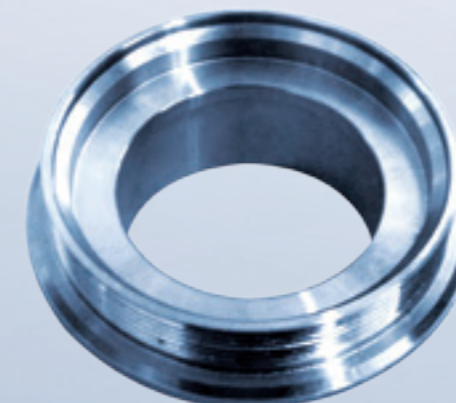
Ease of Operation

The spindle headstock utilizes electronic shifting. Spindle speed and gearing can be directly set by the program, reducing operator labor. The front head turret design is both more convenient and more stable.



Economy & Durability

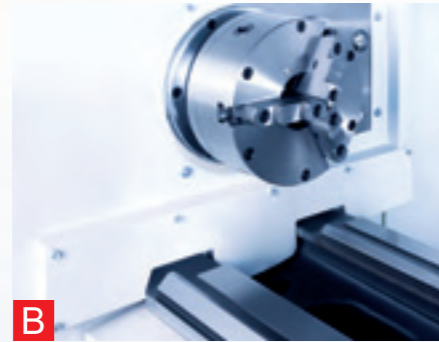
Large components such as the machine bed and saddle are age-treated. Guideway surfaces are hardened. Sliding surfaces are Rulon-coated to ensure smooth and stable long-term performance.



New Design New Experience



A
Shifting Headstock The spindle features high speed, high rigidity, and high accuracy. High torque machining is handled well, especially by the available powered spindle configurations. Operation is both easy and quiet.



B
Protection Internal design optimization yields excellent waterproofing and improved chip removal.



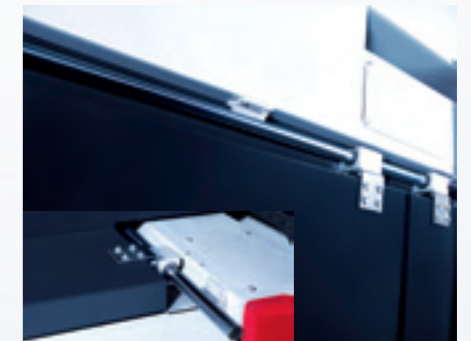
C
Turret High reliability, high stiffness, and excellent positioning accuracy.



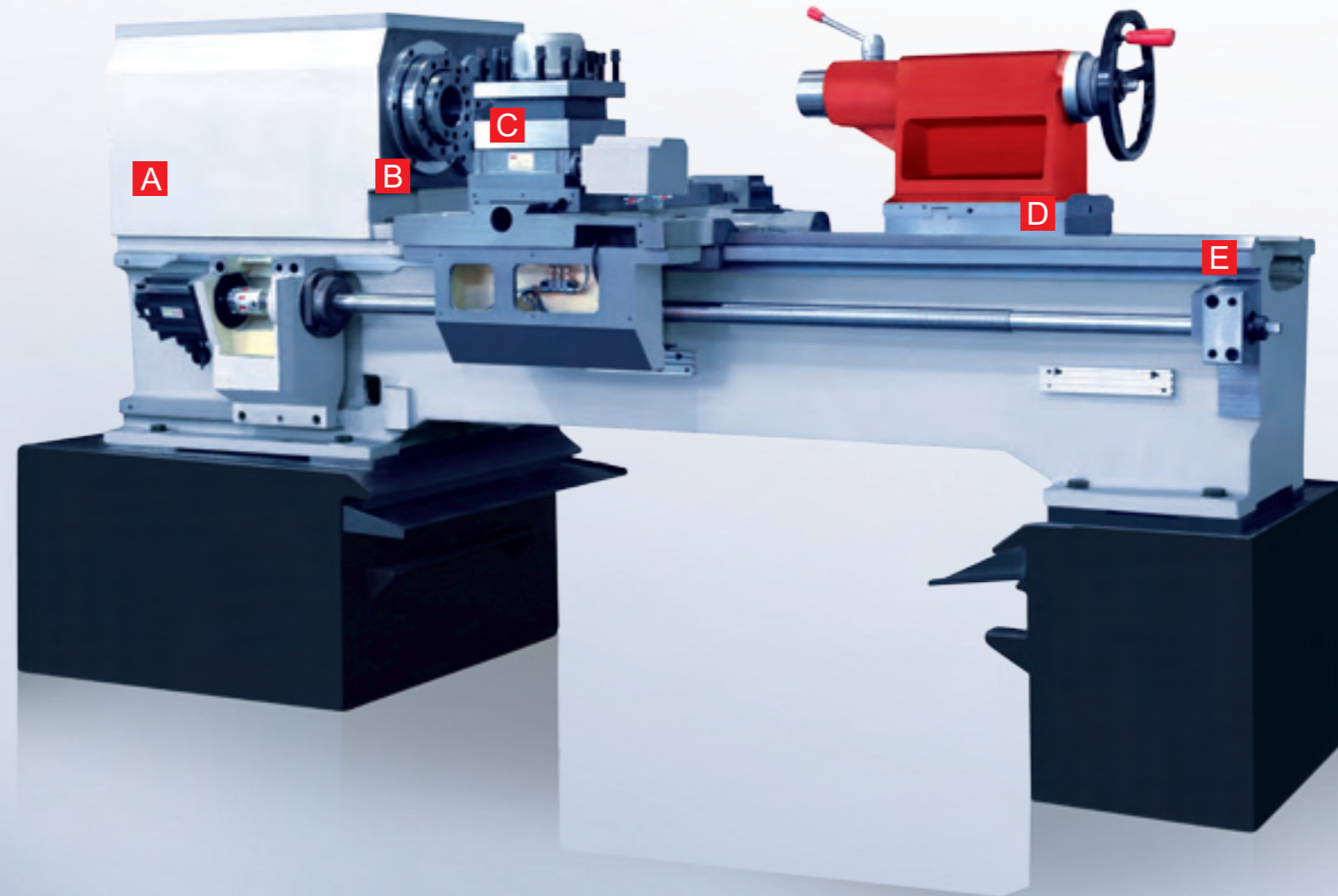
D
Tailstock Improved design increases rigidity.



E
Guideway The flat bed guideways are heat treated and hardened to a depth of 3mm and rating of HRC52. The saddle and sliding guideway surfaces are Rulon-coated for smoothness and durability.



Door Guideway Linear bearings provide strong guidance and smoother operation.



1.78m



MAIN TECHNICAL SPECIFICATIONS

Item	Unit	CAK1626	
Max. swing diameter over bed	mm	∅160	
Max. swing diameter over gang tool	mm	∅80	
Max. cutting diameter	mm	∅160	
Max. machining length	mm	260	
Diameter of spindle bore	mm	∅43	
Spindle nose type		A2-4	
Spindle motor power (frequency conversion)	kW (hp)	4 (5.4)	
Spindle speed	r/min	500-5000 (Manual chuck 4000)	
Tailstock quill diameter (optional)	mm	60	
Tailstock quill travel (optional)	mm	120	
Bore taper of tailstock		Morse 4#	
X-axis max. travel	mm	180/Gang tool	
Z-axis max. travel	mm	260/Gang tool	
Rapid speed (X/Z axis)		60cm/min 23.6in/min	
Gang tool	Boring hole cutter holder	1 set	∅25
	Ex-circle cutter holder	1 set	16 × 16
	End face cutter holder	1 set	16 × 16
X/Z axis repeatability	mm	0.008/0.013	
Machining accuracy		IT6-IT7	
Electrical total capacity	KVA	15	
Overall dimension (Length×Width×Height)	mm	1820 × 1400 × 1600	
Net weight/Gross weight	kg	1555/1790	
Packing size (Length×Width×Height)	mm	2150 × 1660 × 2050	

★ X-axis is linear guide for CAK1626

Item	Unit	CAK3665i	CAK3665j	CAK4085j	CAK4085i
Max. swing diameter over bed	mm	∅360	∅360	∅400	∅400
Max. swing diameter over slide	mm	∅180	∅180	∅200	∅200
Max. cutting diameter over slide	mm	∅180	∅180	∅200	∅200
Max. machining length	mm	4-station 650/ 6-station 550	4-station 650/ 6-station 550	4-station 850/ 6-station 750	4-station 850/ 6-station 750
Diameter of spindle bore	mm	∅53	∅53	∅53	∅53
Spindle nose type		A6	A6	A6	A6
Spindle motor power	kW (hp)	5.5 (7.4)	5.5 (7.4)	5.5 (7.4)	7.5 (10)
Spindle speed	r/min	200-3000 (Manual chuck 2000)	200-3000 (Manual chuck 2000)	150-520; 440-1153; 770-2000(Manual chuck1600)	200-2400 (Manual chuck 1600)
Tailstock quill diameter (optional)	mm	∅60	∅60	∅60	∅60
Tailstock quill travel (optional)	mm	140	140	140	140
Bore taper of tailstock		Morse 4#	Morse 4#	Morse 4#	Morse 4#
X-axis max. travel	mm	220	220	220	220
Z-axis max. travel	mm	4-station 650/ 6-station 550	4-station 650/ 6-station 550	4-station 850/ 6-station 750	4-station 850/ 6-station 750
Rapid speed (X/Z axis)		60cm/min 23.6in/min	60cm/min 23.6in/min	60cm/min 23.6in/min	60cm/min 23.6in/min
Turret station number		4	4	4	4
Size of tool shank	mm	20×20	20×20	20×20	20×20
X/Z axis repeatability		0.012/0.016	0.012/0.016	0.012/0.016	0.012/0.016
Machining accuracy		IT6-IT7	IT6-IT7	IT6-IT7	IT6-IT7
Steady rest	mm	∅30 - ∅80 ★	∅30 - ∅80 ★	∅30 - ∅80 ★	∅30 - ∅80 ★
Following rest		/	/	∅20 - ∅80 ★	∅20 - ∅80 ★
Electrical total capacity	KVA	15	15	15	15
Overall dimension (Length×Width×Height)	mm	2220×1400×1600	2220×1400×1600	2470×1400×1600	2470×1400×1600
Net weight/Gross weight	kg	1860/2110	1860/2110	1990/2290	1990/2290
Packing size (Length×Width×Height)	mm	2520×1660×2050	2520×1660×2050	2770×1660×2300	2770×1660×2300

★ Optional accessories

MAIN TECHNICAL SPECIFICATIONS

Item	Unit	CAK4085A
Max. swing diameter over bed	mm	400
Max. length of workpiece(L)	mm	890
Max. cutting diameter	mm	400
Max. cutting length	mm	850
Max. swing diameter over slide	mm	210
Spindle nose type		A ₂ 8
Bore taper of spindle nose		1:20
Spindle bore diameter	mm	80
Spindle speed range	r/min	three grades variable frequency 35-400; 300-1000; 900-2500rpm
Main motor power	kW	7.5
Center height from ground	mm	1085
Rapid speed X	m/min	8
Rapid speed Z	m/min	10
X-axis travel(standard)	mm	210
Z-axis travel(standard)	mm	850
Min. unit for X-axis	mm	0.001
Min. unit for Z-axis	mm	0.001
Taillstock quill diameter	mm	75
Taillstock quill travel	mm	150
Bore taper of tailstock		Morse 5#
Turret type		Auto vertical 4-station
Size of tool shank	mm	25×25
X/Z axis accuracy	mm	0.03/0.04
X/Z axis repeatability	mm	0.012/0.016
Machining accuracy		IT6
Workpiece surface roughness	μm	Ra1.6
Machine weight(net weight)	kg	2300
Overall dimensions(L×W×H)	mm	2650×1450×1600

Item	Unit	CAK50j series	CAK50i series	CAK61j series	CAK61i series	
Max. swing diameter over bed	mm	500	500	610	610	
Guide span	mm	400	400	400	400	
Max. length of workpiece	mm	640 890 1390 1900	640 890 1390 1900	640 890 1390 1900	640 890 1390 1900	
Max. cutting length (with vertical 4-station turret)	mm	600 850 1350 1860	600 850 1350 1860	600 850 1350 1860	600 850 1350 1860	
Max. cutting diameter	mm	500(Vertical 4-station) 360(Vertical 6-station)	500(Vertical 4-station) 360(Vertical 6-station)	610(Vertical 4-station) 480(Vertical 6-station)	610(Vertical 4-station) 480(Vertical 6-station)	
Max. swing diameter over slide						
Max. cutting diameter	mm	400	400	500	500	
Max. swing diameter over sliding plate						
Spindle nose type and code	mm	A8	A8	A8	A8	
Chuck	Manual	∅ 250 ●	∅ 250 ●	∅ 250 ●	∅ 250 ●	
	Pneumatic	∅ 250 ★	∅ 250 ★	∅ 250 ★	∅ 250 ★	
	Hydraulic	∅ 250 ★	∅ 250 ★	∅ 250 ★	∅ 250 ★	
Spindle front bore-hole taper		1:20	1:20	1:20	1:20	
Spindle inner diameter	mm	70(82 ★)	70(82 ★)	70(82 ★)	70(82 ★)	
Spindle speed grade	Dual-speed motor	n	12 steps ●	/	12 steps ●	
	Variable frequency motor	n	Automatic three grades and stepless within each grade ★	Automatic three grades and stepless within each grade ●	Automatic three grades and stepless within each grade ★	
Spindle speed range	Dual-speed motor	r/min	40-1800 ●	/	40-1800 ●	
	Variable frequency motor	r/min	22-220 71-710 215-2200 ★	22-220 71-710 215-2200 ●	22-220 71-710 215-2200 ★	
Main motor power	Dual-speed motor	kW (hp)	6.5 / 8 (8.7 / 10.7)			
	Variable frequency motor	kW (hp)	7.5(10) ★	7.5(10) ●	7.5(10) ★	7.5(10) ●
Center height	From bed	mm	250	250	305	
	From ground	mm	1130	1130	1185	
Fast speed X/Z		50cm/min 19.7in/min (60cm/min 23.6in/min if Z = 1900mm)				
Turret indexing time (Per station)	s	2.4(Vertical 4-station) 2.2(Vertical 6-station) 1.6(Horizontal 6-station)				
Turret indexing repeatability precision	"	±1.5(Vertical 4-station Vertical 6-station) ±2(Horizontal 6-station)				
X-axis travel	mm	250	250	305	305	
Z-axis travel (with vertical 4-station turret)	mm	600 850 1350 1860	600 850 1350 1860	600 850 1350 1860	600 850 1350 1860	
Workpiece precision		IT6-IT7	IT6-IT7	IT6-IT7	IT6-IT7	
Workpiece surface roughness	μm	Ra1.6	Ra1.6	Ra1.6	Ra1.6	
Taillstock quill diameter/travel	mm	75/150(85/150 ★)	75/150(85/150 ★)	75/150(85/150 ★)	75/150(85/150 ★)	
Bore taper of tailstock	mm	Morse 5#(Morse 4# Hydraulic)	Morse 5#(Morse 4# Hydraulic)	Morse 5#(Morse 4# Hydraulic)	Morse 5#(Morse 4# Hydraulic)	
Turret type	Vertical 4-station	●	●	●	●	
	Vertical 6-station	★	★	★	★	
	Horizontal 6-station	★	★	★	★	
Size of tool shank	Ex-circle	mm	□ 25×25	□ 25×25	□ 25×25	
	Inner hole	mm	∅ 25	∅ 25	∅ 25	
Main supply power	kW	15	15	15	15	
Center rest	mm	(∅ 120 - ∅ 190, ∅ 20 - ∅ 125, ∅ 140 - ∅ 210, ∅ 180 - ∅ 250) ★, For 1900 is standard configuration ∅ 20 - ∅ 125 center rest				
Following rest		∅ 20 - ∅ 90 ★, For 1900 is standard configuration (Not for CAK50 series horizontal 6-station turret)				
Machine weight (net weight/gross weight)	640	kg	2100/2800	2100/2800	2200/2900	
	890	kg	2300/3100	2300/3100	2400/3200	
	1390	kg	2600/3400	2600/3400	2700/3500	
	1900	kg	2900/3800	2900/3800	3000/3900	
Packing size	640	mm	3300×2178×2149	3300×2178×2149	3300×2178×2149	
	890	mm	3550×2178×2149	3550×2178×2149	3550×2178×2149	
	1390	mm	4050×2178×2149	4050×2178×2149	4050×2178×2149	
	1900	mm	4550×2178×2149	4550×2178×2149	4550×2178×2149	

● Standard configuration ★ Optional configuration

MAIN TECHNICAL SPECIFICATIONS

Item	Unit	CAK63 Series	CAK80 Series
Max. swing diameter over bed	mm	630	800
Guide span	mm	550	600
Max. length of workpiece	mm	750 1000 1500 2000 3000	1500 3000 5000
Max. cutting length	mm	600 850 1350 1850 2850 (Vertical 4-station)	1350 2850 4850 (Vertical 4-station)
Max. cutting diameter	mm	630	800
Max. swing diameter over slide			
Max. cutting diameter	mm	Horizontal 6-staion 500 Horizontal 8-staion 410	Horizontal 6-staion600
Max. cutting diameter over slide			
Spindle nose type and code	mm	D11	D11
Chuck	Manual	∅ 325 ●	∅ 325 ●
	Hydraulic	inch 12 ★	inch 12 or 15 ★
Bore taper of spindle nose		1:20	1:20
Spindle bore diameter	mm	104	104
Spindle speed grade	Variable frequency motor	n	Auto 4 gearshift, stepless
Spindle speed range	Variable frequency motor	r/min	17-128; 38-278; 75-570; 170-1000
Main motor power	Variable frequency motor	kW (hp)	11 (14.8)
Center height	From bed	mm	315
	From ground	mm	1110
Rapid speed X/Z		50cm/min 19.7in/min	
Index time of turret (1 station)	s	3.9(vertical 4-station) 3.6(vertical 6-station) 1.5(horizontal 6-station) 0.6(horizontal 8-station)	3.9(vertical 4-station) 3.6(vertical 6-station) 1.5(horizontal 6-station)
Repeatability of turret index	"	±2	±2
X-axis travel (Standard)	mm	320	420
Z-axis trave (Standard)	mm	600/850/1350/1850/2850	1350/2850/4850
Accuracy of workpiece		IT7	IT7
Workpiece surface roughness	µm	Ra1.6	Ra1.6
Tailstock quill diameter/travel	mm	100/250	100/250
Bore taper of tailstock	mm	Morse 5#	Morse 5#
Turret type	Vertical 4-station	●	●
	Vertical 6-station	★ (Without tailstock)	★ (Without tailstock)
	Horizontal 6-station	★	★
	Horizontal 8-station	★	/
Size of tool shank	Ex-circle tool	mm	□ 32×32
	Boring hole tool	mm	∅ 32
Steady rest	mm	∅ 20 - ∅ 170 ●/3m ∅ 80 - ∅ 250 ★	∅ 120 - ∅ 350 ●/3m, 5m
Following rest		∅ 20 - ∅ 110 ●/3m ∅ 100 - ∅ 150 ★	∅ 20 - ∅ 140 ●/3m, 5m
Electrical total capacity	KVA	30	30
Machine weight (net weight/gross weight)	kg	3900/4550 (CAK6360)	5500/6500 (CAK80135)
	kg	4300/4800 (CAK6385)	6500/8400 (CAK80285)
	kg	4000/4800 (CAK63135)	8000/10500 (CAK80485)
	kg	5500/6000(CAK63185)	/
	kg	6000/7100 (CAK63285)	/
Packing size (Length×Width×Height) (Size different for optionals)	mm	3250×2060×2340 (CAK6360)	3950×2270×2410 (CAK80135)
	mm	3450×2260×2340 (CAK6385)	5590×2270×2410 (CAK80285)
	mm	4800×2260×2340 (CAK63135)	7950×2270×2410 (CAK80485)
	mm	4600×2260×2340 (CAK63185)	/
	mm	6000×2060×2340 (CAK63285)	/

● Standard configuration ★ Optional configuration

Item	Unit	CAK100 Series	CAK100Q Series
Max. swing diameter over bed	mm	1000	1000
Guide span	mm	755	600
Max. length of workpiece	mm	1500 3000	1500 3000 5000
Max. cutting length	mm	1400 2900	1300 2800 4800 (Vertical 4-station)
Max. cutting diameter	mm	1000(recommended disc 800; shaft 600)	1000
Max. swing diameter over slide			
Max. cutting diameter	mm	/	/
Max. cutting diameter over slide			
Spindle nose type and code	mm	A2-15	D11
Chuck	Manual	∅ 1000 ●	∅ 500 ●
	Hydraulic	inch /	inch 12 or 15 ★
Bore taper of spindle nose		1:20	1:20
Spindle bore diameter	mm	130	104
Spindle speed grade	Variable frequency motor	n	Hydraulic 4 gearshift, stepless
Spindle speed range	Variable frequency motor	r/min	50-60; 10-123; 20-245; 41-500
Main motor power	Variable frequency motor	kW (hp)	22 (29.5)
Center height	From bed	mm	500
	From ground	mm	1150
Rapid speed X/Z		75cm/min 29.5in/min	50cm/min 19.7in/min
Index time of turret (1 station)	s	6(vertical 4-station)	5.6(vertical 4-station)
Repeatability of turret index	"	±2	±2
X-axis travel (Standard)	mm	530	505
Z-axis trave (Standard)	mm	1500 3000	1300/2800/4800
Accuracy of workpiece		IT7	IT7
Workpiece surface roughness	µm	Ra1.6	Ra1.6
Tailstock quill diameter/travel	mm	160/300	125/250
Bore taper of tailstock	mm	Morse 6#	Morse 5#
Turret type	Vertical 4-station	●	●
	Vertical 6-station	/	/
	Horizontal 6-station	/	/
	Horizontal 8-station	/	/
Size of tool shank	Ex-circle tool	mm	□ 40×40
	Boring hole tool	mm	∅ 40
Steady rest	mm	∅ 50 - ∅ 400 ●/3m	∅ 50 - ∅ 400 ●/3m, 5m
Following rest		∅ 50 - ∅ 220 ●/3m	/
Electrical total capacity	KVA	50	30
Machine weight (net weight/gross weight)	kg	12000(1500mm)	6100/8000 (CAK100130Q)
	kg	14000(3000mm)	7200/9400 (CAK100280Q)
	kg		8600/11000 (CAK100480Q)
	kg		/
	kg		/
Packing size (Length×Width×Height) (Size different for optionals)	mm	6560×2900×2630 (3000mm)	5550×2280×2670 (CAK100130Q)
	mm		5670×2590×2670 (CAK100280Q)
	mm		/
	mm		/
	mm		/

● Standard configuration ★ Optional configuration