



# Engine lathe C-Turn 535 42x67" to 42x283"

It is our aim to offer the best possible lathes to our customers.

In order to fulfill this promise, we ourselves have set the very highest demands and apply strict quality control during the entire manufacturing process.

Before delivery, each machine is subjected to intensive inspections and tests with regard to accuracy, performance, and reliability.



**Optional with extra large spindle hole**

Up to 4", 6", 9" and 12" spindle diameter

**KAAST lathes meet the highest quality standards**

Specifications		C-Turn 535						
		1700	2200	3200	4200	5200	6200	7200
		42" x 67"	42" x 86"	42" x 126"	42" x 165"	42" x 205"	42" x 244"	42" x 283"
Swing over bed	mm	Ø1070 (42")						
Swing over gap	mm	Ø1520 (60")						
Swing over carriage	mm	Ø744 (29")						
Distance between centers	mm	1700 (67")	2200 (86")	3200 (126")	4200 (165")	5200 (205")	6200 (244")	7200 (283")
Chuck mount		A2-11[opt. A2-15]						
Spindle bore diameter	mm	Ø155 (6") [opt. Ø230 (9")]						
Speeds	18 steps	5~615 [opt. 4~430]						
	Variable Speeds (opt.)	7~710 [opt. 6~500]						
Bed width	mm	610 (24")						
Axis travel: X	mm	700 (28")						
Toolholder travel: Z <sup>1</sup>	mm	380 (15")						
Threading	Inches	TPI 30-1						
	Metric	mm/pitch 1-30						
	Diametral	P 60-2						
	Module	M 0.5-15 M						
Feed	Z	0.07-2.03 (0.002-0.08"/rev.)						
	X	0.028-0.81 (0.001-0.03"/rev.)						
Tailstock quill diameter	mm	165 (6.5")						
Tailstock quill travel	mm	300 (11.8")						
Tailstock quill taper		MT 6						
Main spindle motor	kW	15 (20 Hp) [opt. 18 (25 Hp), 22 (30 Hp)]						
Weight	kg	6600 (14,550 lbs)	7000 (15,400 lbs)	7800 (17,160 lbs)	8600 (18,920 lbs)	9200 (20,240 lbs)	10000 (22,000 lbs)	10800 (23,760 lbs)
Item No.		1610431	1610432	1610433	1610434	1610435	1610472	1610473
Item No. [V-Model]		1610312	1610313	1610314	1610315	1610316	1610317	1610318

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# Engine lathe C-Turn 385 • 420

30x62" to 33x240"



Each machine is subject to comprehensive accuracy inspection prior to shipping.

## Optimal Structure Design

- Wide bed and box constructed, bed ways are high frequency heat treated, precision ground which can avoid vibration and tool chattering during performing heavy duty machining
- The massive bed is a box type construction combined with extra wide bed ways, providing increased rigidity and stability
- The bed and stand are manufactured from high quality cast iron and annealed to relieve internal residual stress
- The entire structure is carefully designed for maximum stability when performing heavy cutting

Specifications			C-Turn 385 • 420					
			1600	2100	3100	4100	5100	6100
			30/33" x 62"	30/33" x 82"	30/33" x 122"	30/33" x 161"	30/33" x 200"	30/33" x 240"
Swing over bed	385	mm	Ø770 (30")					
	420	mm	Ø840 (33")					
Swing over gap	385	mm	Ø980 (38")					
	420	mm	Ø1080 (43")					
Swing over carriage	385	mm	Ø500 (19")					
	420	mm	Ø590 (23")					
Distance between centers	mm	1600 (62")	2100 (82")	3100 (122")	4100 (161")	5100 (200")	6100 (240")	
Chuck mount	A1-11 [opt. A2-11, A2-15, A2-20]							
Spindle bore diameter	mm	Ø105 (4") [opt. Ø155 (6"), Ø230 (9"), Ø305 (12")]						
Speeds	18 steps	rpm	23-1293 [opt. 13-690, 5-440]					
	Variable Speeds [opt.]	rpm	20-1500 [opt. 10-800, 6-450, 5-350]					
Bed width	mm	450 (18")						
Axis travel: X	mm	450 (18")						
Toolholder travel: Z'	mm	250 (10")						
Threading	Inches	TPI	2-28					
	Metric	mm/pitch	0.08-14					
	Diametral	P	4-56					
	Module	M	0.5-7					
Feed	Z	mm/rev.	0.05-0.70 (0.002-0.03"/rev.)					
	X	mm/rev.	0.025-0.35 (0.001-0.014"/rev.)					
Tailstock quill diameter	mm	105 (4")						
Tailstock quill travel	mm	220 (8.6")						
Tailstock quill taper	MT 5							
Main spindle motor	kW	15 (20 Hp) [opt. 18 (25 Hp), 22 (30 Hp)]						
Weight	kg	3350 (7,370 lbs)	3600 (7,920 lbs)	4100 (9,020 lbs)	4600 (10,120 lbs)	5100 (11,220 lbs)	5700 (12,540 lbs)	
		3650 (8,030 lbs)	3900 (8,580 lbs)	4200 (9,240 lbs)	4700 (10,340 lbs)	5200 (11,440 lbs)	5800 (12,760 lbs)	
Item No. 385 Model		1610136	1610137	1610138	1610139	1610170	1610171	
Item No. 420 Model		1610131	1610132	1610133	1610134	1610135	1610172	
Item No. 385 Model [V-Model]		1610300	1610301	1610302	1610303	1610304	1610305	
Item No. 420 Model [V-Model]		1610306	1610307	1610308	1610309	1610310	1610311	

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# Engine lathe

## C-Turn 315 • 270

21x40" to 25x120"



**3-axis digital readout (DRO) is included**

- Guideways are hardened and precision-ground
- Exceptionally low noise
- Universal type gearbox allowing for cutting metric, Whitworth, module and diametral threads with no need to change gears
- The feed handwheel can be ordered (left or right) in accordance to the needs of the operator



Specifications		C-Turn 270				C-Turn 315			
		1000	1500	2000	3000	1000	1500	2000	3000
		21" x 40"	21" x 60"	21" x 80"	21" x 120"	25" x 40"	25" x 60"	25" x 80"	25" x 120"
Swing over bed	mm	Ø540 (21")				Ø630 (25")			
Swing over gap	mm	Ø720 (28")				Ø770 (32")			
Swing over carriage	mm	Ø360 (14")				Ø450 (18")			
Distance between centers	mm	1000 (39")	1500 (58")	2000 (78")	3000 (118")	1000 (39")	1500 (58")	2000 (78")	3000 (118")
Chuck mount		D1-8 [opt. D1-8, A1-11, A2-11]							
Spindle bore diameter	mm	Ø85 (3") [opt. Ø105 (4"), Ø155 (6")]							
Speeds	18 steps	25-1545 [opt. 23-1293, 13-690]							
	Variable Speeds (opt.)	27-2250 [opt. 20-1500, 10-800]							
Bed width	mm	350 (13.5")							
Axis travel: X	mm	330 (12.8")							
Toolholder travel: Z <sup>1</sup>	mm	150 (5.85")							
Threading	Inches	TPI (36) 4-56							
	Metric	mm/pitch (24) 0.5-7							
	Diametral	P (36) 8-112 D.P.							
	Module	M (16) 0.25-3.5 M.P							
Feed	Z	mm/rev. 0.06-0.88 (0.002-0.034"/rev)							
	X	mm/rev. 0.03-0.44 (0.001-0.017"/rev)							
Tailstock quill diameter	mm	Ø75 (2.9")							
Tailstock quill travel	mm	170 (6.6")							
Tailstock quill taper		MT 5							
Main spindle motor	kW	7.5 (10 Hp) [opt. 11 (15 Hp)]							
Weight	kg	2400 (5,280 lbs)	2700 (5,940 lbs)	3100 (6,820 lbs)	3200 (7,040 lbs)	2300 (5,060 lbs)	2550 (5,610 lbs)	2700 (5,940 lbs)	2800 (6,160 lbs)
Item No.		<b>1610081</b>	<b>1610082</b>	<b>1610083</b>	<b>1610084</b>	<b>1610089</b>	<b>1610090</b>	<b>1610091</b>	<b>1610092</b>
Item No. [V-Model]		<b>1610085</b>	<b>1610086</b>	<b>1610087</b>	<b>1610088</b>	<b>1610093</b>	<b>1610094</b>	<b>1610095</b>	<b>1610096</b>

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# Engine lathe

## C-Turn 230 • 220

17x30" to 18x80"

### Standard configuration

- 3-axis digital readout
- 4-post toolholder
- 3-jaw chuck
- Work light
- Coolant system
- Backsplash guard
- Chuck guard
- Footbrake
- Tool kit
- Operation manual



### Optional configuration

- Larger bore
- Spindle motor with extra power
- 3-jaw chuck (various sizes)
- 4-jaw chuck (various sizes)
- Faceplate (various sizes)
- Follow or steady rest
- Taper attachment
- Quick-change toolholder
- 5-position travel stop
- Micrometer stop
- Rapid traverse
- Infinitely variable speed control and constant cutting speed

Available with stepless spindle speed & Constant Surface Speed (CSS) feature up to 3,100 rpm

Specifications		C-Turn 220			C-Turn 230	
		750 17" x 30"	1000 17" x 40"	1000 18" x 40"	1500 18" x 60"	2000 18" x 80"
Swing over bed	mm	Ø440 (17.3")			Ø460 (17.9")	
Swing over gap	mm	Ø630 (24.8")			Ø640 (25")	
Swing over carriage	mm	Ø285 (11.22")			Ø290 (11.4")	
Distance between centers	mm	750 (29.5")	1000 (39")	1000 (39")	1500 (58.5")	2000 (78")
Chuck mount		A1-6			D1-6	
Spindle bore diameter	mm				Ø56 (2.2")	
Speeds	18 steps	rpm			rpm	
	Variable	20~2000 (12 steps)			39~2800	
	Speeds (opt.)	215~2500			33~3100	
Bed width	mm	300 (11.8")			350 (13.5")	
Axis travel: X	mm	250 (9.8")			280 (11")	
Toolholder travel: Z <sup>1</sup>	mm				120 (4.72")	
Threading	Inches	TPI			(36) 4-56	
	Metric	mm/pitch			(24) 0.5-7	
	Diametral	P			(36) 8-112 D.P.	
	Module	M			(16) 0.25-3.5 M.P.	
Feed	Z	mm/rev.			0.06-0.88 (0.002-0.034"/rev)	
	X	mm/rev.			0.03-0.44 (0.001-0.017"/rev)	
Tailstock quill diameter	mm	Ø58 (2.28")			Ø75 (2.9")	
Tailstock quill travel	mm	150 (5.9")			170 (6.6")	
Tailstock quill taper		MT 4			MT 5	
Main spindle motor	kW	5 (7.5 Hp)			5.5 (7.5 Hp) [opt. 7.5 (10 Hp)]	
Weight	kg	1650 (3630 lbs)	1800 (3960 lbs)	2000 (4,400 lbs)	2300 (5,060 lbs)	2600 (5,720 lbs)
Item No.		<b>1610075-1</b>	<b>1610075-2</b>	<b>1610075</b>	<b>1610076</b>	<b>1610077</b>
Item No. [V-Model]		<b>16100275-1</b>	<b>16100275-2</b>	<b>1610078</b>	<b>1610079</b>	<b>1610080</b>

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