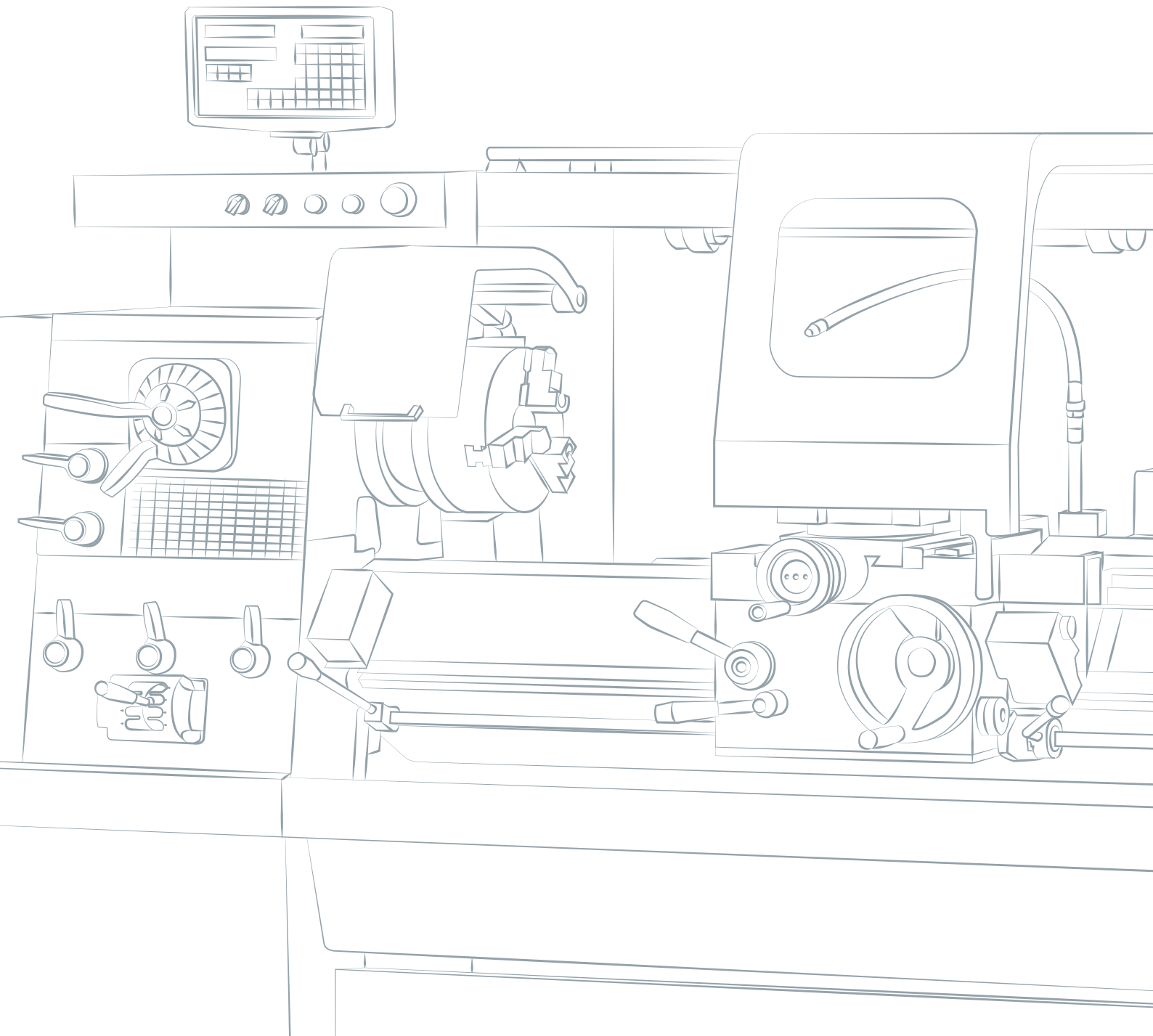
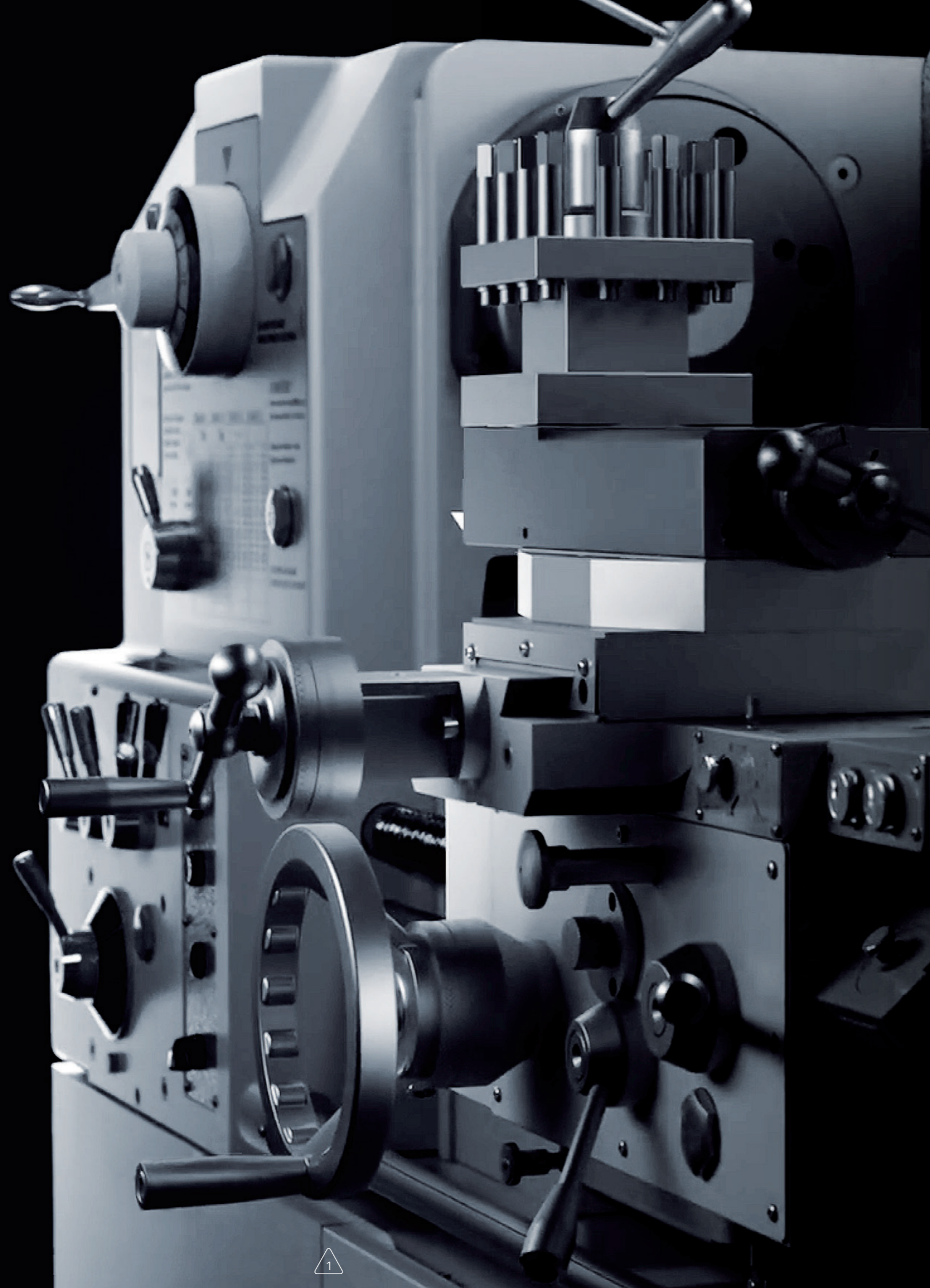




**SUN MASTER**  
ONE-STOP SOLUTION

# MANUAL LATHE





**SUN MASTER**

**BRAND**

SUN MASTER is internationally recognized for our high-quality precision lathes. We focus on providing precise and reliable machines designed to meet and exceed international standards. Our commitment to quality and expert workmanship has made us a leader in offering machines that fully meet our customers' strict performance requirements.

We maintain an excellent reputation for innovative design, superior R&D and broad manufacturing capabilities. By setting high goals, and upholding our core values of sustained growth and reliable performance, we have earned the trust of customers worldwide.

Let the SUN MASTER brand brings you the new vision and victories, and help you gain new heights in all your machining operations.



**R&D**



**VICTORY**



**GOALS**



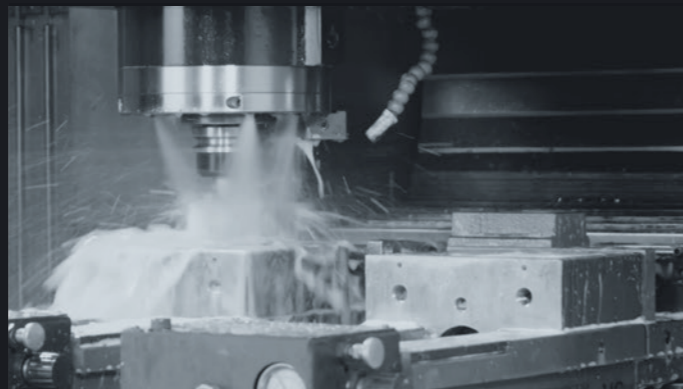
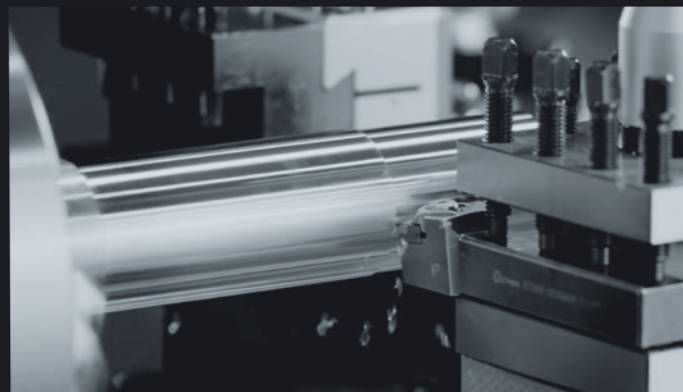
## COMPANY

Established in 1994, SHUN CHUAN brought together an engineering team with extensive experience and a deep understanding of machine tool manufacturing. Laying its foundation on the manufacturing of manual precision lathes, SHUN CHUAN soon gained an international reputation for high quality lathes.

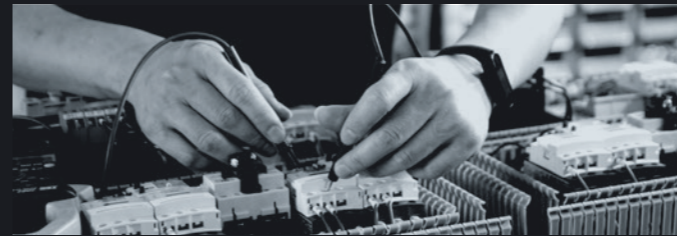
Understanding the critical importance of material properties in the design of quality machines, SHUN CHUAN does most of machining to guarantee that every lathe maintains dependable and consistent structural integrity.

SHUN CHUAN is a rising company, and by continuing to focus on the design and development of manual precision lathe designs, we will maintain the same quality you have come to expect from all our machining products.

SHUN CHUAN truly is your ONE-STOP SOLUTION provider for top quality, reliable, precision machinery lathes, offering you the finest in Innovation, Design, Casting, Processing, Surface Finishing, Assembly, Electronics, Quality Inspection, Delivery and Service.



## SUN MASTER CONTENTS



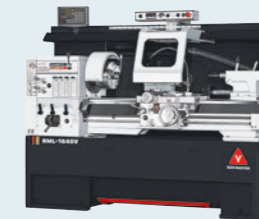
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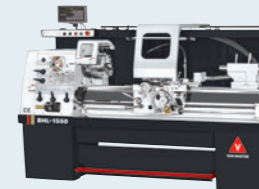
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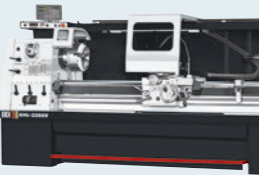
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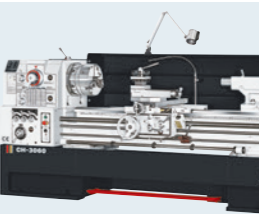
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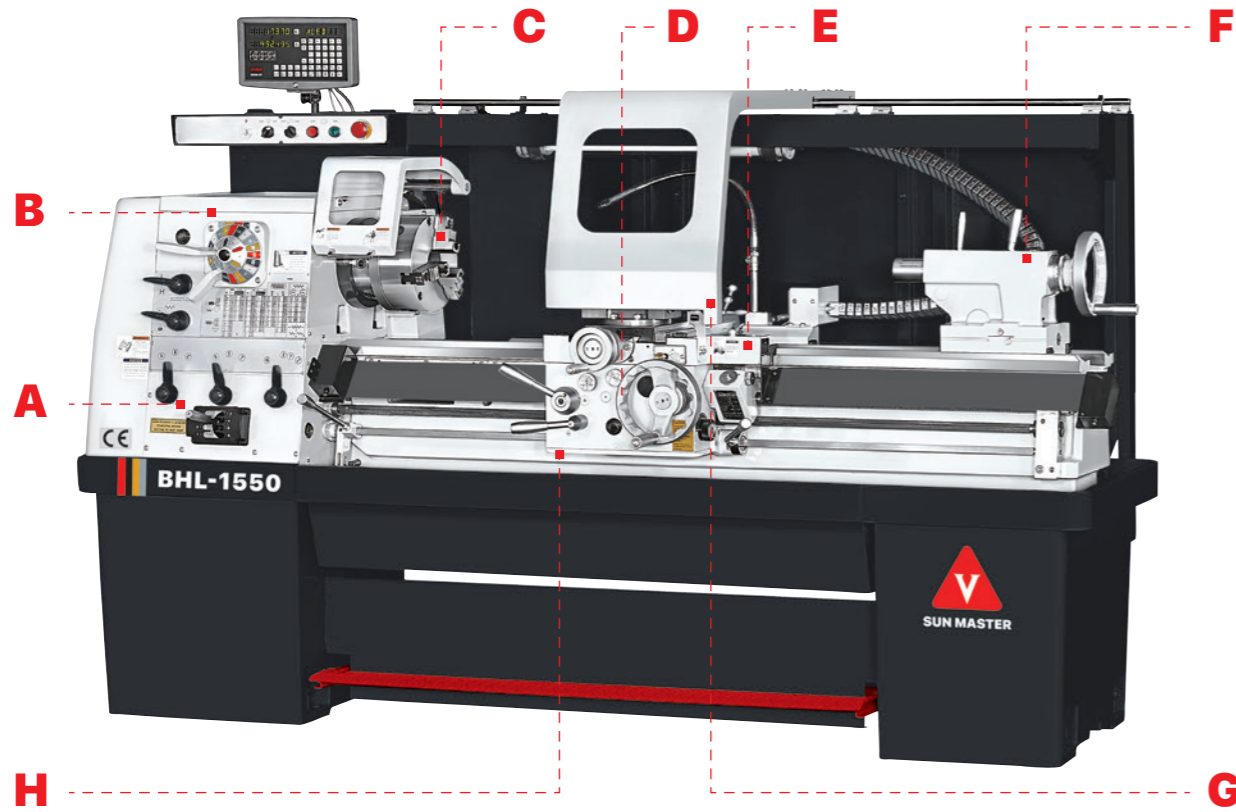
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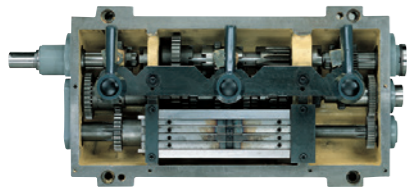
OPTIONAL ACCESSORIES

## SUN MASTER FEATURES

Nylon safety gears in end train. (For specified models.)  
Shear pin in lead screw.  
Low voltage control in electrical cabinet.



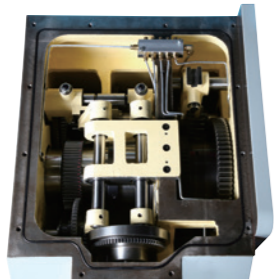
**A**



### GEAR BOX

- The universal type gear box provides a wide range of inch, metric, M.P. and D.P. threads (CH series does not offer M.P. & D.P. threads function) without changing any gear for increased convenience.
- Gears are hardened.
- Oil bath lubrication in gear box.

**B**



### RUGGED HEADSTOCK

- Head housing features outstanding vibration dampening and deformation free performance.
- Rugged head construction gives extra rigidity and heavy cutting.
- All gears and shafts are hardened and precision ground by high precision equipment.

**C**

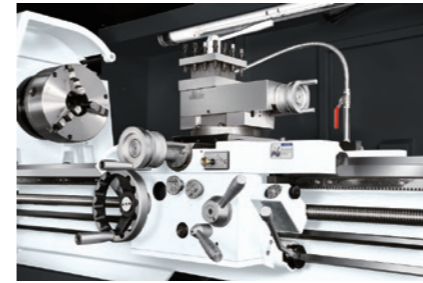


### HEAVY DUTY SPINDLE

- Camlock type spindle.
- Precision machined from forged alloy steel, hardened, precision ground and dynamically balanced.
- Three-Point support by high precision taper roller and ball bearings eliminates chatter when performing heavy duty cutting.

## SUN MASTER FEATURES

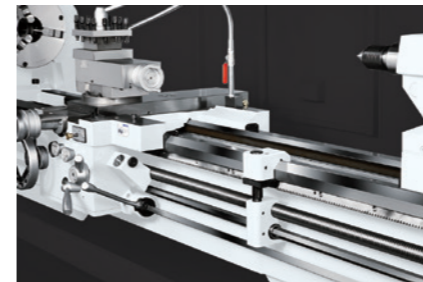
**D**



### APRON

- The apron is a double wall construction, provides a firm support for power feed shaft.
- Choice of right or left hand wheel.
- Integrated automatic control for longitudinal and cross feeds, forward and reverse feeds.
- An interlock design prevents simultaneous power feed and threading cutting.

**E**



### CARRIAGE & CROSS SLIDE

- Anti-float backlash eliminator is fitted in cross slide nut.
- Safety clutch is equipped to feed shaft.
- One shot lubrication for carriage and top slide.
- Designed with dual dials for inch system screw.
- Designed with metric dial for metric system screw.

**F**



### RUGGED TAILSTOCK

- Tailstock quill is graduated in inch/metric scales and has a tang slot for positive drive of tool.
- 2-step tailstock is available on request. (standard for CH series)

**G**

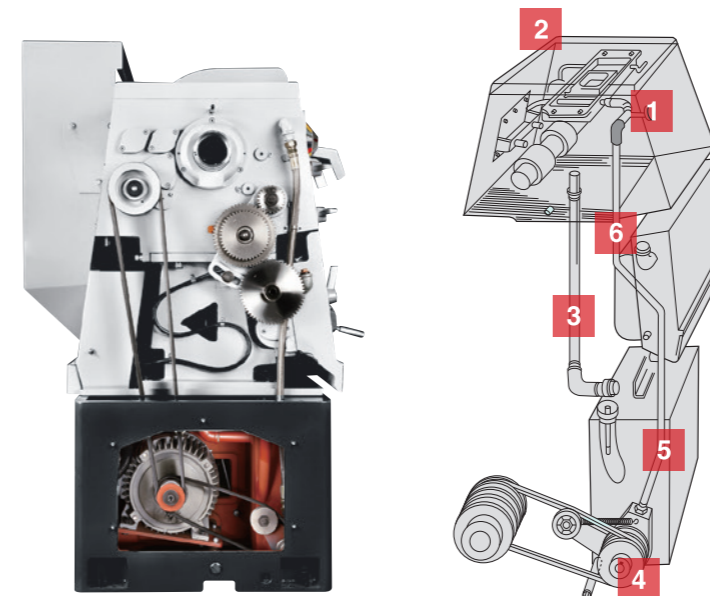
### COMPOUND REST

- The compound rest has T-slot for convenience mounting of tool holder. (imperial models only)
- Both the cross slide and the compound rest screws are equipped with inch/metric graduated dials.
- The bottom of the compound slide is graduated in degrees for quick reference when swiveling.

**H**

### BED

- The ruggedly constructed bed is manufactured from Meehanite cast iron and stress relieved.
- Bed ways are hardened and precision ground.



### FORCED LUBRICATION IN HEADSTOCK (for AHL & BHL)

- 1 Oil sight window for checking oil level.
- 2 Pressure lubrication system in headstock ensures better lubrication and cooling effect.
- 3 Hot oil return.
- 4 Oil pump.
- 5 Oil reservoir.
- 6 Cooling oil inlet.



**ERL-1330 / 1340**  
**ERL-1330V / 1340V**

- All models with oil bathed lubrication system to headstock.
- All models meet CE. (Upon request)
- All models with 40 mm (1.57") spindle bore, ASA D1-4.

**Features**

- All castings are properly stabilized and stress relieved.
- Bed ways are hardened & ground to min. HRC48-55
- Extremely low noise level.
- Foot brake pedal provided.
- Built-in coolant pump & fitting provided.
- CSS (constant surface speed control) on request for E.V.S. model.
- Wider bed way which give absorbs vibration.

**Standard Accessories**

- Backplate for 7" chuck
- Dead center MT. No. 3
- Dead center MT. No. 3 with carbide tip
- Spindle center sleeve MT. No. 5
- Level pads.....6 pcs
- Tool set & Box
- Operation manual & parts list
- Full length splash guard
- Working lamp

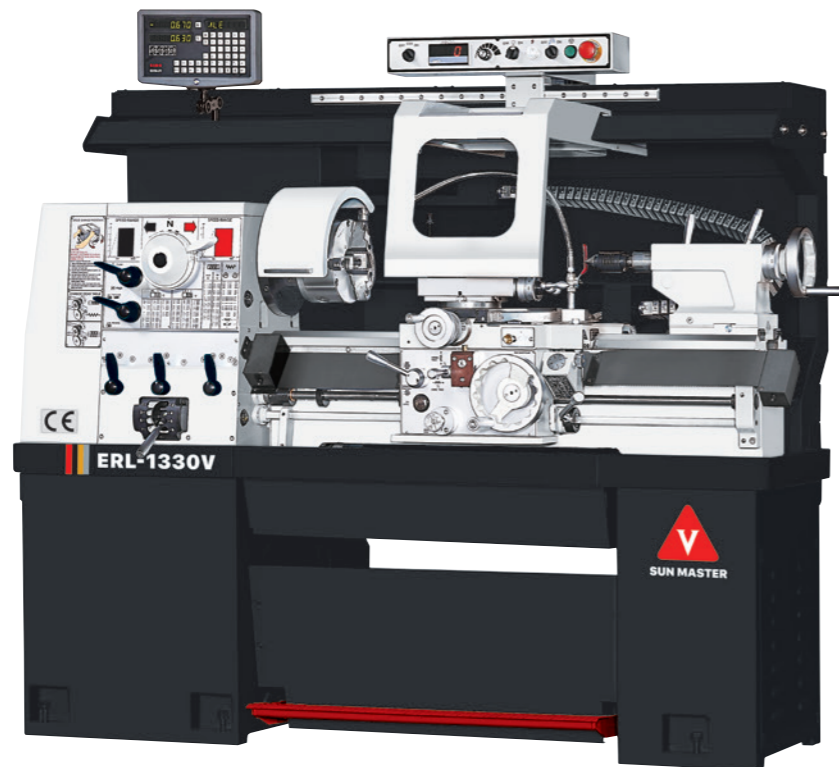


Photo shown ERL-1330V / G4

<b>ERL</b>	<b>1330</b>	<b>1340</b>	<b>1330V</b>	<b>1340V</b>
<b>Capacity</b>				
Height of centers	171 (6.73")			
Swing over bed	Ø342 (13.46")			
Swing in gap	--	Ø512 (20")	--	Ø512 (20")
Swing over cross slide	Ø205 (8.07")			
Distance between centers	760 (30")	1000 (40")	760 (30")	1000 (40")
Width of bed	230 (9")			
Gap width in front of faceplate	--	150 (5")	--	150 (5")
<b>Headstock and Main Spindle</b>				
Spindle nose, internal taper	D1-4, MT. No. 5			
Spindle center sleeve	MT. No. 5 x MT. No. 3			
Spindle bore	Ø40 (1.57")			
Spindle speed:	8 steps / 80 ~ 2000 R.P.M.		2 steps / L 100~500 R.P.M.	
Gear steps / Range	Opt. 16 steps / 4P 50 ~ 1305 R.P.M. 2P 100 ~ 2570 R.P.M.		H 500~3000 R.P.M.  Infinitely variable	
<b>Carriage</b>				
Length on bed / Width of carriage	400 (15.748") / 384 (15.118")			
Cross slide travel	180 (7")			
Top slide travel	95 (3.74")			
<b>Threads and Feeds</b>				
Whitworth threads: Kinds / Range	45 Kinds / 2 ~ 72 T.P.I.			
Metric threads: Kinds / Range	39 Kinds / 0.2 ~ 14 mm			
D.P. threads: Kinds / Range	21 Kinds / 8 ~ 44 D.P.			
M.P. threads: Kinds / Range	18 Kinds / 0.3 ~ 3.5 M.P.			
Longitudinal feeds	0.05 ~ 1.7 (0.002" ~ 0.067")			
Cross feeds	0.025 ~ 0.85 (0.001" ~ 0.034")			
<b>Tailstock</b>				
Quill diameter	Ø50 (1.968")			
Quill travel	112 (4.5")			
Taper of center	MT. No. 3			
<b>Motor</b>				
Main spindle	Std. 3HP (2.2kW)	Opt. 5 HP 2P / 2.5 HP 4P	3HP (2.2kW), Motor / Inverter	
Forced lubrication for headstock	--		1/4 HP	
Coolant pump	1/8 HP			
<b>Measurement</b>				
Weight (Net) approx	930 kgs	1000 kgs	930 kgs	1000 kgs
Weight (Gross) approx	1050 kgs	1120 kgs	1050 kgs	1120 kgs
Packing size (Length)	2000 (78.8")	2270 (89.4")	2000 (78.8")	2270 (89.4")
Packing size (Width x Height)	965 (38") x 1900 (74.8")			

Specifications subject to change without notice.

Unit: mm



**RML-1430 / 1440 / 1460 / 1630 / 1640 / 1660**  
**RML-1430V / 1440V / 1460V / 1630V / 1640V / 1660V**

- E.V.S models with auto lubrication system to headstock & external tank for cooling the oil.
- All models with one piece solid stand.
- All models with universal feed gearbox & reversible apron.
- All models meet CE. (Upon request)
- All models with 52.5 mm (2.066") spindle bore, ASA D1-6.

**Features**

- All castings are properly stabilized and stress relieved.
- Bed ways are hardened & ground to min. HRC48-55
- Turcite B coating between the bed and carriage.
- Extremely low noise level.
- Foot brake pedal provided.
- Built-in coolant pump & fitting provided.
- CSS (constant surface speed control) on request for E.V.S. model.
- Wider bed way which give absorbs vibration.

**Standard Accessories**

- Backplate for 9" chuck
- Dead center MT. No. 4
- Dead center MT. No. 4 with carbide tip
- Spindle center sleeve MT. No. 6
- Level pads.....6 pcs
- Tool set & Box
- Operation manual & parts list
- Full length splash guard
- Working lamp

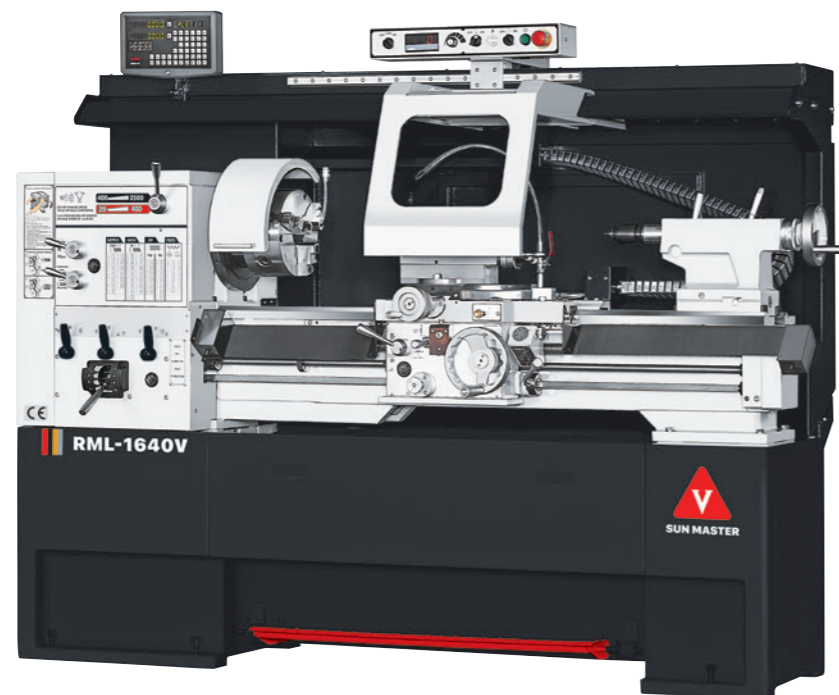


Photo shown RML-1640V / G4

RML	1430	1440	1460	1630	1640	1660
	1430V	1440V	1460V	1630V	1640V	1660V
<b>Capacity</b>						
Height of centers	180 (7.08")			205 (8.07")		
Swing over bed	Ø360 (14.17")			Ø410 (16.14")		
Swing in gap	--	Ø533 (20.98")		--	Ø583 (22.95")	
Swing over cross slide	Ø210 (8.35")			Ø262 (10.3")		
Distance between centers	800 (31.5")	1000 (40")	1500 (60")	800 (31.5")	1000 (40")	1500 (60")
Width of bed	260 (10.236")					
Gap width in front of faceplate	--	135 (5.31")	225 (8.85")	--	135 (5.31")	225 (8.85")
<b>Headstock and Main Spindle</b>	Std.			Opt.		
Spindle nose, internal taper	D1-6 / A1-6 (Opt.), MT. No. 6			D1-6		
Spindle center sleeve	MT. No. 6 x MT. No. 4			70 Taper 1/19.18 x MT No. 4		
Spindle bore	Ø52.5 (2.066")			Ø65 (2.55")		
Spindle speed:	Std. : 8 steps / 70 ~ 1800 R.P.M.			Opt. for Ø65 spindle bore		
Gear steps / Range	Opt. : 16 steps / 8P 40 ~ 1000 R.P.M. 4P 80 ~ 2000 R.P.M.			12 steps / 36 ~ 1800 R.P.M.		
	For Ø52.5 spindle bore 2 steps / L: 20~400 R.P.M. H: 400~2500 R.P.M. Opt. : 25~3000 R.P.M.			For Ø65 spindle bore 3 steps / L: 30~140 R.P.M. M: 100~500 R.P.M. H: 500~2500 R.P.M.		
	Infinitely variable					
<b>Carriage</b>						
Length on bed / Width of carriage	513 (20.19") / 412 (16.22")					
Cross slide travel	220 (8.6")					
Top slide travel	125 (4.92")					
<b>Threads and Feeds</b>						
Whitworth threads: Kinds / Range	45 Kinds / 2 ~ 72 T.P.I.					
Metric threads: Kinds / Range	39 Kinds / 0.2 ~ 14 mm					
D.P. threads: Kinds / Range	21 Kinds / 8 ~ 44 D.P.					
M.P. threads: Kinds / Range	18 Kinds / 0.3 ~ 3.5 M.P.					
Longitudinal feeds	0.05 ~ 1.7 (0.002" ~ 0.067")					
Cross feeds	0.025 ~ 0.85 (0.001" ~ 0.034")					
<b>Tailstock</b>						
Quill diameter	Ø52 (2.047")					
Quill travel	152 (6")					
Taper of center	MT. No. 4					
<b>Motor</b>	Std. : 5 HP (3.75kW) 4 P					
Main spindle	Opt. : 5 HP 4 P / 2.5 HP 8 P (for 52.5 spindle bore only)					
	Motor AC 3.75 kW (5 HP); Inverter 3.75 kW (5 HP) for 52.5 spindle bore, 5.625 kW (7.5HP) for 65 spindle bore					
Forced lubrication for headstock	--					
	1/4 HP					
Coolant pump	1/8 HP					
<b>Measurement</b>						
Weight (Net) approx	1300 kgs	1350 kgs	1450 kgs	1350 kgs	1400 kgs	1500 kgs
Weight (Gross) approx	1400 kgs	1470 kgs	1610 kgs	1450 kgs	1520 kgs	1660 kgs
Packing size (Length)	2070 (81.5")	2270 (89.4")	2785 (109.7")	2070 (81.5")	2270 (89.4")	2785 (109.7")
Packing size (Width x Height)	1120 (44.1") x 1900 (74.8")					

Specifications subject to change without notice.

Unit: mm



**BHL-1550 / 1550V**

- All models with mechanical clutch. (excluded E.V.S. model)
- All models with auto lubrication system to headstock & external tank for cooling the oil.
- All models meet CE. (Upon request)
- All models with 56 mm (2.2") spindle bore, ASA D1-6.

**Features**

- All castings are properly stabilized and stress relieved.
- Bed ways are hardened & ground to min. HRC 48-55.
- Turcite B coating between the bed and carriage.
- Extremely low noise level.
- Foot brake pedal provided.
- Built-in coolant pump & fitting provided.
- CSS (constant surface speed control) on request for E.V.S. model.
- Wider bed way which give absorbs vibration.

**Standard Accessories**

- Backplate for 9" chuck
- Dead center MT. No. 4
- Center MT. No. 4 with carbide tip
- Spindle center sleeve MT. No. 6
- Level pads.....8 pcs
- Tool set & Box
- Full length splash guard
- Operation manual & parts list



Photo shown BHL-1550 / G3

<b>BHL</b>	<b>1550</b>	<b>1550V</b>
<b>Capacity</b>		
Height of centers	190 (7.48")	
Swing over bed	Ø380 (14.96")	
Swing in gap	Ø610 (24")	
Swing over cross slide	Ø238 (9.37")	
Distance between centers	1250 (50")	
Width of bed	280 (11")	
Gap width in front of faceplate	265 (10.43")	
<b>Headstock and Main Spindle</b>		
Spindle nose, internal taper	D1-6, MT. No. 6	
Spindle center sleeve	MT. No. 6 x MT. No. 4	
Spindle bore	Ø56 (2.2")	
Spindle speed:	16 steps / 25 ~ 2000 R.P.M.	4 steps
Gear steps / Range	Silver 25 80 260 840	L 22 ~ 72 R.P.M.
	Golden 33 108 350 1120	M 70 ~ 235 R.P.M.
	Red 45 140 470 1500	MH 235 ~ 780 R.P.M.
	Black 60 190 625 2000	H 753 ~ 2500 R.P.M.
	Disc clutch for forward / Reverse	
<b>Carriage</b>		
Length on bed / Width of carriage	484 (19.05") / 450 (17.71")	
Cross slide travel	235 (9.25")	
Top slide travel	120 (4.72")	
<b>Threads and Feeds</b>		
Whitworth threads: Kinds / Range	45 Kinds / 2 ~ 72 T.P.I.	
Metric threads: Kinds / Range	39 Kinds / 0.2 ~ 14 mm	
D.P. threads: Kinds / Range	21 Kinds / 8 ~ 44 D.P.	
M.P. threads: Kinds / Range	18 Kinds / 0.3 ~ 3.5 M.P.	
Longitudinal feeds	0.04 ~ 1.0 (0.0015" ~ 0.04")	
Cross feeds	0.02 ~ 0.5 (0.00075" ~ 0.02")	
<b>Tailstock</b>		
Quill diameter	Ø59 (2.322")	
Quill travel	127 (5")	
Taper of center	MT. No. 4	
<b>Motor</b>		
Main spindle	7.5 HP	AC 5.5 kW (7.5 HP), Inverter
Forced lubrication for headstock	--	1/4 HP
Coolant pump	1/8 HP	
<b>Measurement</b>		
Weight (Net) approx	1450 kgs	
Weight (Gross) approx	1610 kgs	
Packing size (Length)	2580 (101.58")	
Packing size (Width x Height)	1120 (44.1") x 1900 (74.8")	

Specifications subject to change without notice.

Unit: mm



**TC-1640 / 1660 / 1840 / 1860**  
**TC-1640V / 1660V / 1840V / 1860V**

- All models with one piece stand.
- All models with universal feed gearbox & reversible apron.
- All models meet CE. (Upon request)
- All models with 65 mm (2.55") spindle bore, ASA D1-6.
- EVS models with auto lubrication system to headstock & external tank for cooling the oil.

**Features**

- All castings are properly stabilized and stress relieved.
- Bed ways are hardened & ground to min. HRC 48-55.
- Turcite B coating between the bed and carriage.
- Extremely low noise level.
- Foot brake pedal provided.
- Built-in coolant pump & fitting provided.
- Wider bed way which give absorbs vibration.

**Standard Accessories**

- Backplate for 9" chuck
- Dead center MT. No. 4
- Dead center MT. No. 4 with carbide tip
- Spindle center sleeve MT. No. 6
- Level pads.....6 pcs
- Tool set & Box
- Operation manual & parts list
- Full length splash guard
- Working lamp

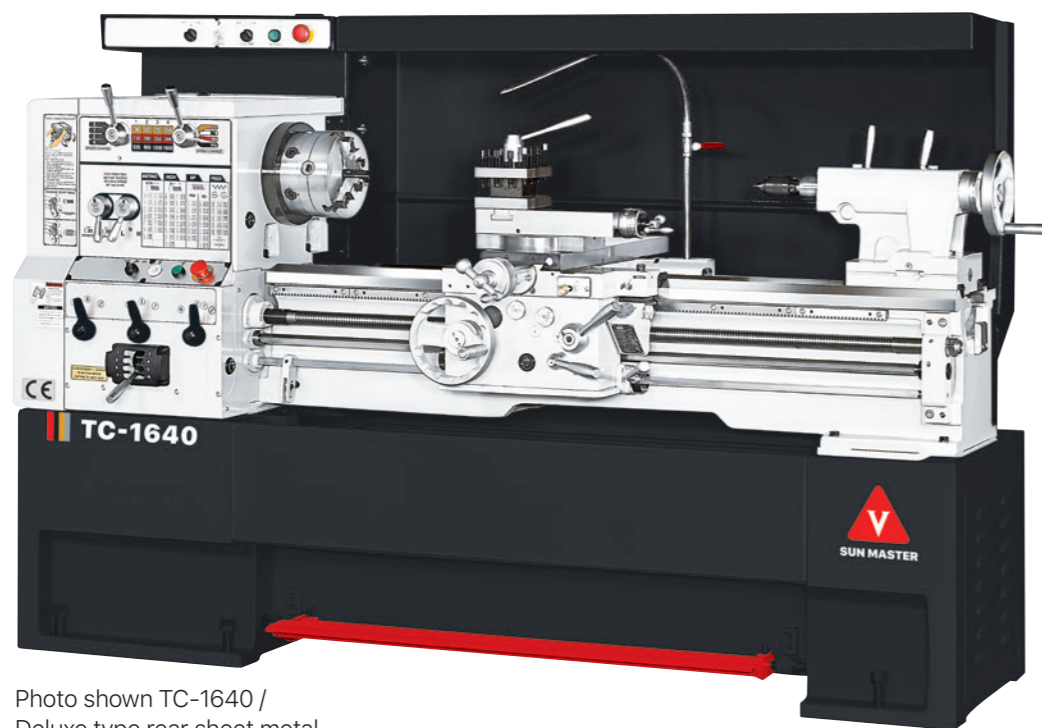


Photo shown TC-1640 / Deluxe type rear sheet metal.

TC	1640	1660	1840	1860
	1640V	1660V	1840V	1860V
<b>Capacity</b>				
Height of centers	205 (8.07")		231 (9.09")	
Swing over bed	Ø410 (16.14")		Ø462 (18.18")	
Swing in gap	Ø620 (24.4")		Ø652 (25.66")	
Swing over cross slide	Ø255 (10.04")		Ø305 (12")	
Distance between centers	1000 (40")	1500 (60")	1000 (40")	1500 (60")
Width of bed	305 (12")			
Gap width in front of faceplate	120 (4.72")			
<b>Headstock and Main Spindle</b>				
Spindle nose, internal taper	D1-6 (Std.) / A1-6 (Opt.)			
Spindle center sleeve	Ø70 (2.76") Taper 1/19.18 x MT. No. 4			
Spindle bore	Ø65 (2.55")			
Spindle speed:	12 steps / 36 ~ 1800 R.P.M.			
Gear steps / Range	A (36, 50, 70, 105 R.P.M.)	B (130, 180, 250, 380 R.P.M.)	C (620, 900, 1200, 1800 R.P.M.)	
	3 steps / 30 ~ 2500 R.P.M., Infinitely variable			
<b>Carriage</b>				
Cross slide travel	250 (9.84")	260 (10.23")	250 (9.84")	260 (10.23")
Top slide travel	155 (6.1")			
<b>Threads and Feeds</b>				
Whitworth threads: Kinds / Range	45 Kinds / 2 ~ 72 T.P.I.			
Metric threads: Kinds / Range	39 Kinds / 0.2 ~ 14 mm			
D.P. threads: Kinds / Range	21 Kinds / 8 ~ 44 D.P.			
M.P. threads: Kinds / Range	18 Kinds / 0.3 ~ 3.5 M.P.			
Longitudinal feeds	0.04 ~ 1.0 (0.0015" ~ 0.04")			
Cross feeds	0.02 ~ 0.5 (0.00075" ~ 0.02")			
<b>Tailstock</b>				
Quill diameter	Ø59 (2.322")			
Quill travel	127 (5")			
Taper of center	MT. No. 4			
<b>Motor</b>				
Main spindle	5 HP (3.75 kW)			
	Motor 3.75kW (5 HP), Inverter 5.625kW (7.5 HP)			
Forced lubrication for headstock	--			
	1/4 HP			
Coolant pump	1/8 HP			
<b>Measurement</b>				
Weight (Net) approx	1600 kgs	1750 kgs	1650 kgs	1800 kgs
Weight (Gross) approx	1800 kgs	2000 kgs	1850 kgs	2050 kgs
Packing size (Length)	2400	2900	2400	2900
Packing size (Width x Height)	1115 (43.9") x 1900 (74.8")			

Specifications subject to change without notice.

Unit: mm





**FC-1640 / 1660 / 1840 / 1860 / 1880  
FC-2140 / 2160 / 2180**

**FC-1640V / 1660V / 1840V / 1860V / 1880V  
FC-2140V / 2160V / 2180V**

- All models with one piece solid stand.
- All models with universal feed gearbox & reversible apron.
- All models meet CE. (Upon request)
- All models with 80 mm (3.149") spindle bore, ASA D1-8.
- All models cross slide is hardened and ground to prolong operation life.

**Features**

- All castings are properly stabilized and stress relieved.
- Bed ways are hardened & ground to min. HRC 48-55.
- Turcite B coating between the bed and carriage.
- Extremely low noise level.
- Foot brake pedal provided.
- Built-in coolant pump & fitting provided.
- Wider bed way which give absorbs vibration.
- Y-Δ type spindle motor equipped to make sure smooth start and operation.

**Standard Accessories**

- Backplate for 10" chuck
- Dead center MT. No. 5
- Dead center MT. No. 4 with carbide tip
- Spindle center sleeve Ø85 mm Taper 1/19.18
- Level pads.....6~8 pcs
- Tool set & Box
- Operation manual & parts list
- Full length splash guard
- Working lamp

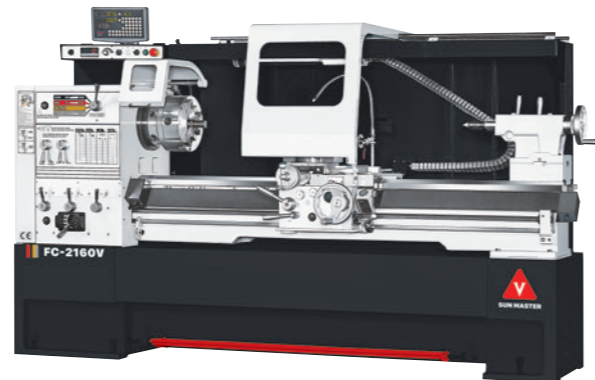


Photo shown FC-2160V / G3

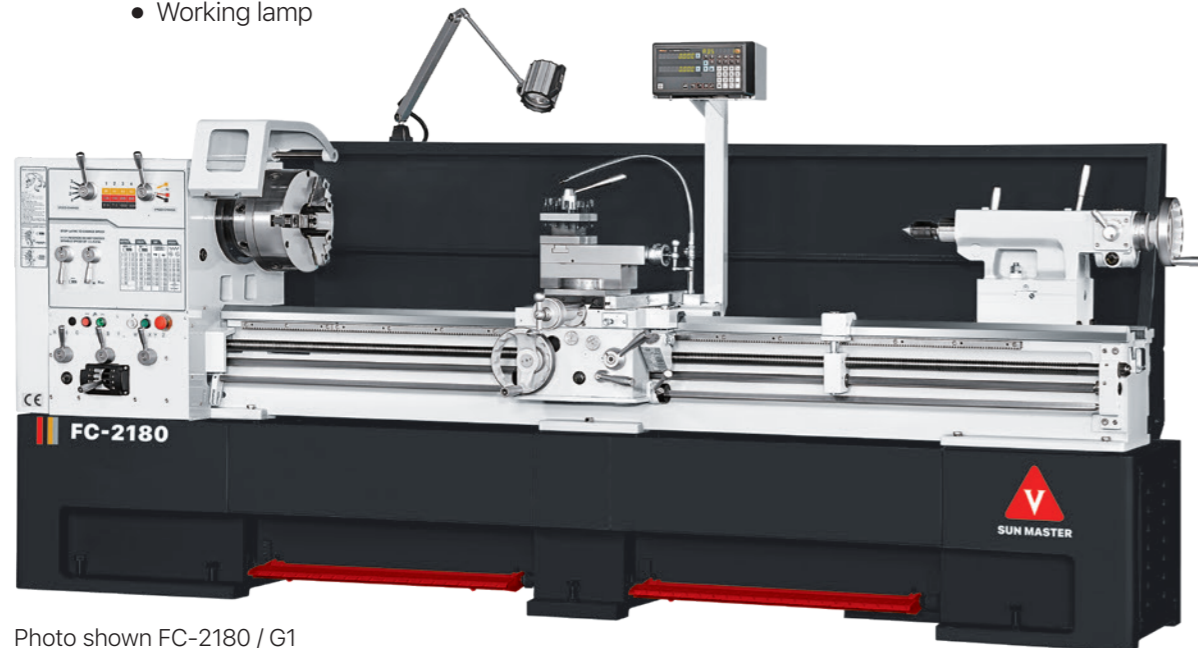


Photo shown FC-2180 / G1

FC	1640	1660	1840	1860	1880	2140	2160	2180
	1640V	1660V	1840V	1860V	1880V	2140V	2160V	2180V
<b>Capacity</b>								
Height of centers	205 (8.07")		231 (9.05")			271 (10.67")		
Swing over bed	Ø410 (16.14")		Ø462 (18.11")			Ø542 (21.34")		
Swing in gap	Ø583 (22.95")		Ø650 (25.59")			Ø730 (28.74")		
Swing over cross slide	Ø262 (10.3")		Ø305 (12")			Ø387 (15.23")		
Distance between centers	1000 (40")	1500 (60")	1000 (40")	1500 (60")	2120 (83.46")	1000 (40")	1500 (60")	2120 (83.46")
Width of bed	320 (12.5")							
<b>Headstock and Main Spindle</b>								
Spindle nose, internal taper	D1-8 / A1-8 (Opt.), Ø85 Taper 1/19.18							
Spindle center sleeve	Ø85 Taper 1/19.18 x MT. No. 5							
Spindle bore	Ø80 (3.149")							
Spindle speed:	12 steps /							
Gear steps / Range	A (26, 40, 60, 90 R.P.M.)		B (105, 145, 205, 305 R.P.M.)			C (510, 715, 1000, 1500 R.P.M.)		
	3 steps / Infinitely variable							
	L (25~100 R.P.M.)		M (75~370 R.P.M.)			H (360~1800 R.P.M.)		
<b>Carriage</b>								
Cross slide travel	250 (9.84")		300 (11.81")					
Top slide travel	150 (5.9")							
<b>Threads and Feeds</b>								
Whitworth threads: Kinds / Range	45 Kinds / 2 ~ 72 T.P.I.							
Metric threads: Kinds / Range	39 Kinds / 0.2 ~ 14 mm							
D.P. threads: Kinds / Range	21 Kinds / 8 ~ 44 D.P.							
M.P. threads: Kinds / Range	18 Kinds / 0.3 ~ 3.5 M.P.							
Longitudinal feeds	0.04 ~ 1.0 (0.0015" ~ 0.04")							
Cross feeds	0.02 ~ 0.5 (0.00075" ~ 0.02")							
<b>Tailstock</b>								
Quill diameter	Ø59 (2.322")			Ø68 (2.677")		Ø59 (2.322")		Ø68 (2.677")
Quill travel	127 (5")			153 (6")		127 (5")		153 (6")
Taper of center	MT. No. 4							
<b>Motor</b>								
Main spindle	Std. 10 HP (7.5 kW) Opt. 12.5 HP (9.375 kW)							
	Std. AC 7.5 kW (10 HP) Opt. AC 9.375 kW (12.5 HP), Inverter (15 HP / 11.25 kW)							
Forced lubrication for headstock	--							
	1/4 HP							
Coolant pump	1/8 HP							
<b>Measurement</b>								
Weight (Net) approx	1750 kgs	1900 kgs	1800 kgs	1950 kgs	2350 kgs	1850 kgs	2000 kgs	2400 kgs
Weight (Gross) approx	1950 kgs	2150 kgs	2000 kgs	2200 kgs	2650 kgs	2050 kgs	2250 kgs	2700 kgs
Packing size (Length)	2400	2900	2400	2900	3700	2400	2900	3700
Packing size (Width x Height)	1155 (45.5") x 1900 (74.8")							

Specifications subject to change without notice.

Unit: mm



**AHL-1840 / 1860 / 1880 / 18120**  
**AHL-2240 / 2260 / 2280 / 22120**

**AHL-1840V / 1860V / 1880V / 18120V**  
**AHL-2240V / 2260V / 2280V / 22120V**

- All models with mechanical clutch. (Excluded E.V.S. model)
- All models with auto lubrication system to headstock & external tank for cooling the oil.
- All models meet CE. (Upon request)
- All models with 80 mm (3.149") spindle bore, ASA D1-8.

**Features**

- All castings are properly stabilized and stress relieved.
- Bed ways are hardened & ground to min. HRC 48-55.
- Turcite B coating between the bed and carriage.
- Extremely low noise level.
- Foot brake pedal provided.
- Built-in coolant pump & fitting provided.
- CSS (Constant surface speed control) on request for E.V.S. model.
- Wider bed way which give absorbs vibration.

**Standard Accessories**

- Backplate for 12" chuck
- Dead center MT. No. 5
- Dead center MT. No. 5 with carbide tip
- Spindle center sleeve MT. No. 7
- Level pads.....8 ~ 10 pcs
- Tool set & Box
- Operation manual & parts list
- Working lamp
- Full length splash guard

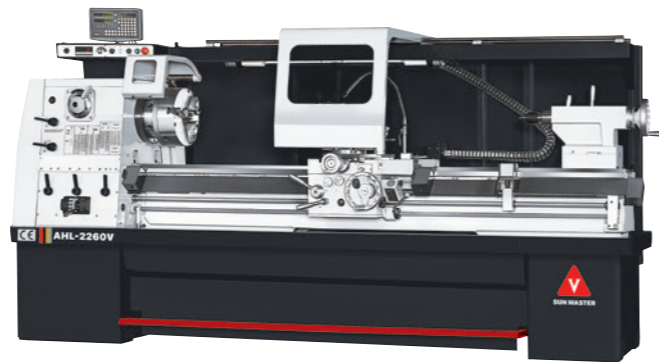


Photo shown AHL-2260V / G3



Photo shown AHL-22120 / G1

AHL	1840	1860	1880	18120	2240	2260	2280	22120
	1840V	1860V	1880V	18120V	2240V	2260V	2280V	22120V
<b>Capacity</b>								
Height of centers	230 (9.055")				280 (11.02")			
Swing over bed	Ø460 (18.11")				Ø560 (22.04")			
Swing in gap	Ø710 (27.95")				Ø808 (31.81")			
Swing over cross slide	Ø298 (11.73")				Ø390 (15.35")			
Distance between centers	1000 (40")	1500 (60")	2000 (80")	3000 (120")	1000 (40")	1500 (60")	2000 (80")	3000 (120")
Width of bed	345 (13.58")							
Gap width in front of faceplate	250 (9.84")							
<b>Headstock and Main Spindle</b>								
Spindle nose, internal taper	D1-8, MT. No. 7							
Spindle center sleeve	MT. No. 7 x MT. No. 5							
Spindle bore	Ø80 (3.149")							
Spindle speed:	16 steps / 20 ~ 1600 R.P.M.			Silver (20, 65, 210, 670)		Golden (25, 85, 280, 900)		
Gear steps / Range	Disc clutch for forward / Reverse			Red (35, 115, 380, 1200)		Black (50, 150, 500, 1600)		
	4 steps			L (18~55 R.P.M.)		M (55~180 R.P.M.)		
	Infinitely variable			MH (180~600 R.P.M.)		H (600~1800 R.P.M.)		
<b>Carriage</b>								
Length on bed / Width of carriage	543 (21.37") / 542 (21.33")							
Cross slide travel	272 (10.7")							
Top slide travel	135 (5.31")							
<b>Threads and Feeds</b>								
Whitworth threads: Kinds / Range	38 Kinds / 2 ~ 72 T.P.I.							
Metric threads: Kinds / Range	40 Kinds / 0.4 ~ 14 mm							
D.P. threads: Kinds / Range	21 Kinds / 8 ~ 44 D.P.							
M.P. threads: Kinds / Range	18 Kinds / 0.3 ~ 3.5 M.P.							
Longitudinal feeds	0.04 ~ 1.0 (0.0015" ~ 0.04")							
Cross feeds	0.02 ~ 0.5 (0.00075" ~ 0.02")							
<b>Tailstock</b>								
Quill diameter	Ø76 (3")							
Quill travel	165 (6.5")							
Taper of center	MT. No. 5							
<b>Motor</b>								
Main spindle	10 HP				12.5 HP			
	Motor AC 7.5kW (10HP), Inverter 11.25kW (15 HP)				Motor AC 9.4kW (12.5 HP), Inverter 11.25kW (15 HP)			
Forced lubrication for headstock	--				--			
	1/4 HP				1/4 HP			
Coolant pump	1/8 HP							
<b>Measurement</b>								
Weight (Net) approx	2000 kgs	2200 kgs	2500 kgs	3000 kgs	2150 kgs	2350 kgs	2650 kgs	3150 kgs
Weight (Gross) approx	2140 kgs	2360 kgs	2700 kgs	3260 kgs	2290 kgs	2510 kgs	2850 kgs	3410 kgs
Packing size (Length)	2535 (99.8")	3035 (119.5")	3535 (139.2")	4624 (182")	2535 (99.8")	3035 (119.5")	3535 (139.2")	4624 (182")
Packing size (Width x Height)	1120 (44.1") x 1900 (74.8")							

Specifications subject to change without notice.

Unit: mm



**CH-2260 / 2290 / 22120 / 22160 / 22200**  
**CH-2660 / 2690 / 26120 / 26160 / 26200**  
**CH-3060 / 3090 / 30120 / 30160 / 30200**

**CH-2260V / 2290V / 22120V 22160V / 22200V**  
**CH-2660V / 2690V / 26120V 26160V / 26200V**  
**CH-3060V / 3090V / 30120V 30160V / 30200V**

- All models meet CE. (Upon request)
- All models with 104 mm (4.094") spindle bore, ASA D1-11.

**Features**

- All castings are properly stabilized and stress relieved.
- Bed ways are hardened & ground to min. HRC 48-55.
- Extremely low noise level.
- Foot brake pedal provided.
- Wider bed way which give absorbs vibration.
- Y-Δ type spindle motor equipped to make sure smooth start and operation.
- Oil distributor may be adjusted to lubricate bedways, cross slide, or both.
- Automatic and manual forced lubrication pump offered oil to bed ways and cross slide.
- 3V sliding ways provide more stable displacement and processing smoothness.

**Standard Accessories**

- Dead center MT. No. 5
- Dead center MT. No. 5 with carbide tip
- Spindle center sleeve MT. No. 7 x MT. No. 5
- Level pads.....6 ~ 10 pcs
- Tool set & Box
- Operation manual & parts list
- Full length splash guard
- Working lamp

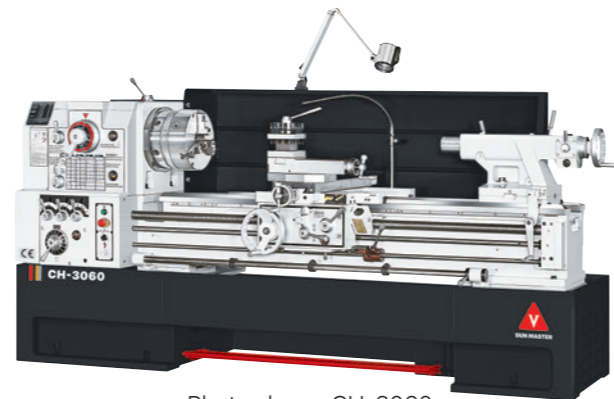


Photo shown CH-3060

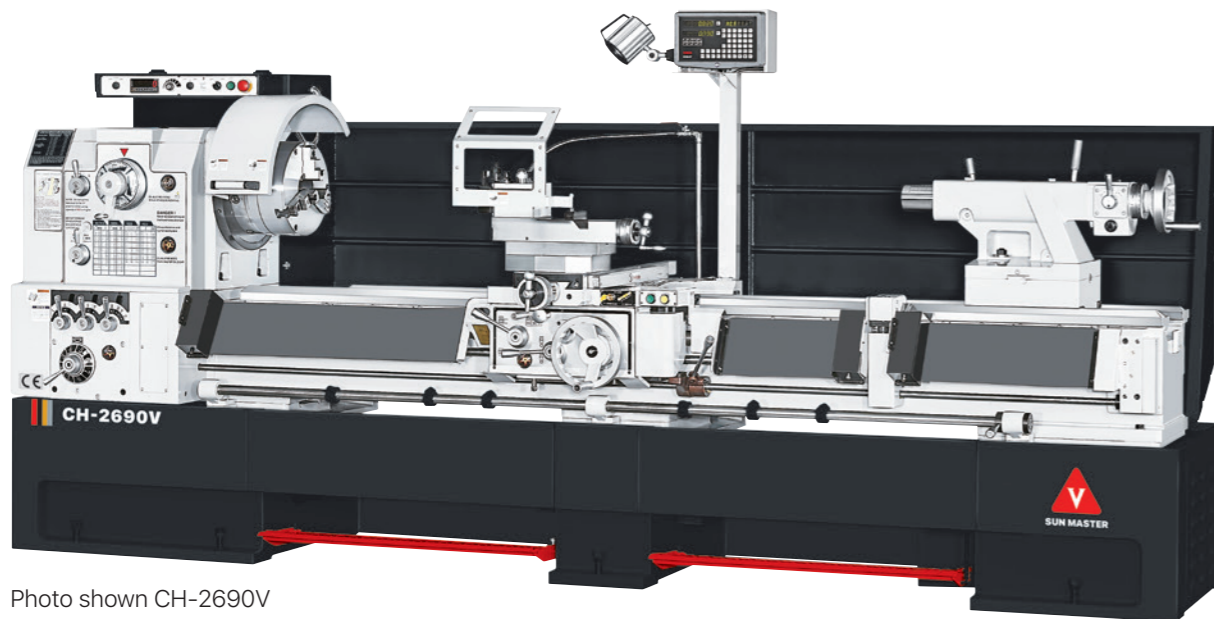


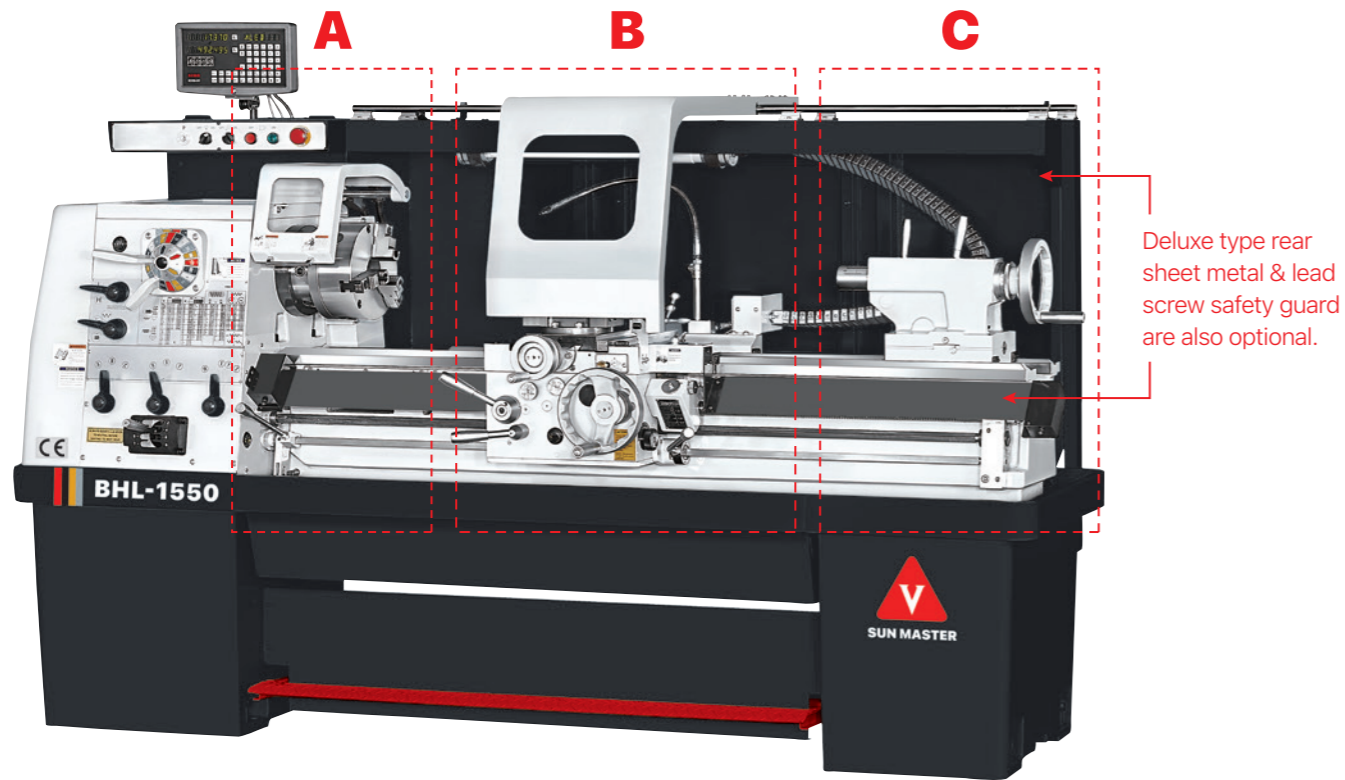
Photo shown CH-2690V

CH	2260 / 2290 / 22120 / 22160 / 22200		2660 / 2690 / 26120 / 26160 / 26200		3060 / 3090 / 30120 / 30160 / 30200	
	2260V / 2290V / 22120V / 22160V / 22200V		2660V / 2690V / 26120V / 26160V / 26200V		3060V / 3090V / 30120V / 30160V / 30200V	
<b>Capacity</b>						
Swing over bed	560 (22")		660 (26")		760 (30")	
Swing in gap	Ø797 (31.37")		Ø892 (35.11")		Ø990 (38.97")	
Swing over cross slide	Ø340 (13.38")		Ø445 (17.51")		Ø548 (21.57")	
Gap width in front of faceplate			270 (10.63")			
Distance between centers			1500 (60"), 2300 (90"), 3000 (120"), 4000 (160"), 5000 (200")			
Width of bed			400 (15.75")			
Top slide travel			228 (8.98")			
Cross slide travel			400 (15.75")			
<b>Headstock and Main Spindle</b>						
Spindle nose type			D1-11			
Spindle center sleeve			MT. No. 7 x MT. No. 5			
Spindle bore			Ø104 (4.094")			
Spindle speed			12 steps			
			4 steps			
Speed range (60 hz)			4P: 13, 20, 30, 47, 70, 105, 150, 230, 340, 530, 800, 1200 R.P.M.			
			N1: 20 ~ 109 R.P.M.; N2: 45 ~ 240 R.P.M.; N3: 140 ~ 740 R.P.M.; N4: 310 ~ 1600 R.P.M.			
			Infinitely variable			
<b>Threads and Feeds</b>						
Whitworth threads: Kinds / Range			44 Kinds / 2 ~ 72 T.P.I.			
Metric threads: Kinds / Range			39 Kinds / 0.2 ~ 14 mm			
Diameter of leadscrew			Ø45 (1.77")			
Pitch of leadscrew			4 T.P.I., P = 6 mm			
Longitudinal feeds			Metric: 0.035 ~ 0.98 / rev; inch: 0.0012 ~ 0.039 / rev			
Cross feeds			Metric: 0.011 ~ 0.296 / rev; inch: 0.0004 ~ 0.0117 / rev			
<b>Tailstock</b>						
Quill diameter			Ø80 (3.15")			
Quill travel			250 (10")			
Taper of center			MT. No. 5			
<b>Motor</b>						
Main spindle			Std. : 15 HP (11.25 kW) Opt. : 20 HP (15 kW)			
			15 HP (11.25 kW) Motor + 20 HP (15 kW) Inverter			
Coolant pump			1/6 HP			
<b>Measurement</b>						
Weight (Net) approx	60"	2860 kgs	2950 kgs	3040 kgs		
	90"	3310 kgs	3400 kgs	3490 kgs		
	120"	3545 kgs	3635 kgs	3725 kgs		
	160"	4150 kgs	4240 kgs	4330 kgs		
	200"	4600 kgs	4690 kgs	4780 kgs		
Packing size length			3255 (128.14") / 4055 (159.64") / 4755 (187.2") / 5755 (226.57") / 6755 (265.94")			
Width x Height			1150 (45.27") x 1700 (66.9")			

Specifications subject to change without notice.

Unit: mm

## SUN MASTER OPTIONAL ACCESSORIES



**A**



**Faceplate**  
Slotted. For all models.



**4 & 3 Jaws Chuck**



**Chuck Safety Guards**  
Solid and clear acrylic material for safety.



**Micrometer Carriage Stop**



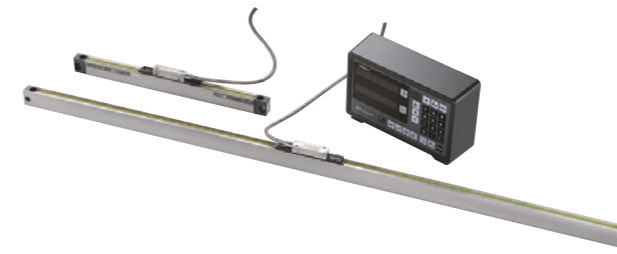
**5-Step Carriage Stop**



**5C Lever Type Collet Closer**

## SUN MASTER OPTIONAL ACCESSORIES

**B**



### Digital Readout System (DRO)

Operator friendly readout systems reduce setup time and increase productivity.

Features available:

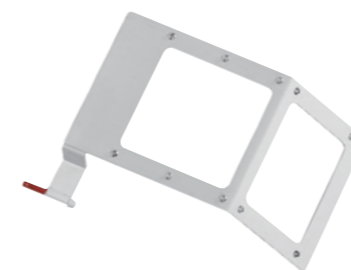
- Tool offsets for easy compensation of different tool sizes.
- Instant radius / diameter conversion reduces math errors and allows you to machine to print dimensions.
- 2 or 3 axes display.
- Preset and zero rest.
- Instant inch/mm conversion.
- Near-zero warning.
- Most popular brands.



**Steady Rest**  
For all models with roller tips.



**Follow Rest**  
For all models. With bronze or roller tips.



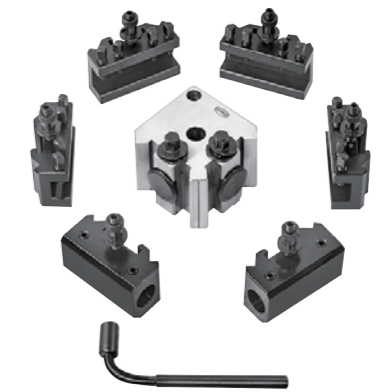
**Tool Post Safety Guard**



**Hand Wheel Cover**



**LED Light**



**Quick Change Tool Post Set**



**Power Feed**



**Telescopic Taper Attachment**  
Available for all models.

**C**



**Drill Chucks**  
Keyless and key type.  
All sizes available.  
**Live Centers**



**SUN MASTER**  
SHUN CHUAN PRECISION MACHINERY CO., LTD.

# MANUAL LATHE

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