



**SUN FIRM**



SFM CNC

**SUN FIRM MACHINERY IND.**

**三鋒機器工業股份有限公司**

**SUN FIRM MACHINERY IND.CO.,LTD.**

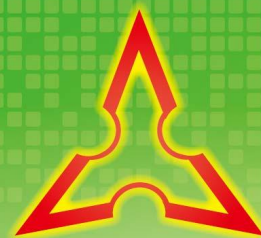
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(56 years experience of professional lathe manufacturing.)



**SUN FIRM**

**重切削強力巨型車床**



**HEAVY DUTY**

**PRECISION LATHE**

**三鋒機器工業股份有限公司**

[www.sunfirm.com](http://www.sunfirm.com)

## Main Features / 主要功能



SGT-51120 WITH 21" SPINDLE BORE



### HEADSTOCK

- The spindle is supported by high precision bearings suitable for both heavy and precision cutting.
- The speeds of spindle have 12 steps and designed on theoretical base. All gears and shafts are made of Ni-Cr-Mo steel and carbonize and ground.
- Control of main drive through electromagnetic brake, and automatic forced lubrication.
- 主軸為整體鑄造加工而成，並由三個精密軸承，分三點式支持，主軸速度變換有12段，可做廣泛之切削工作。
- 頭座內齒輪及齒輪軸，採用鍍鉻鋁合金鋼，並經滲碳熱處理和精密研磨而成。
- 採用電磁剎車裝置及強制給油潤滑裝置。



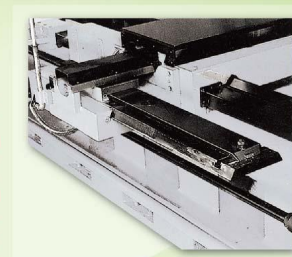
### GEAR BOX

- The gear box is entirely enclosed construction and provide a large of feedings or thread cuttings (inch, metric, module pitch and diametral pitch).
- Inch and Metric threading with out changing gear.
- Oil both lubrication and built in safety clutch safeguard the continuous and proper operation of the universal gear box.
- 全封閉式齒輪箱，不需更換任何配換齒輪，便可廣泛的車製公制、英制、模數和徑節牙。
- 旋轉式的十段變速，能快速並正確地變換車牙種類和自動進給速率。



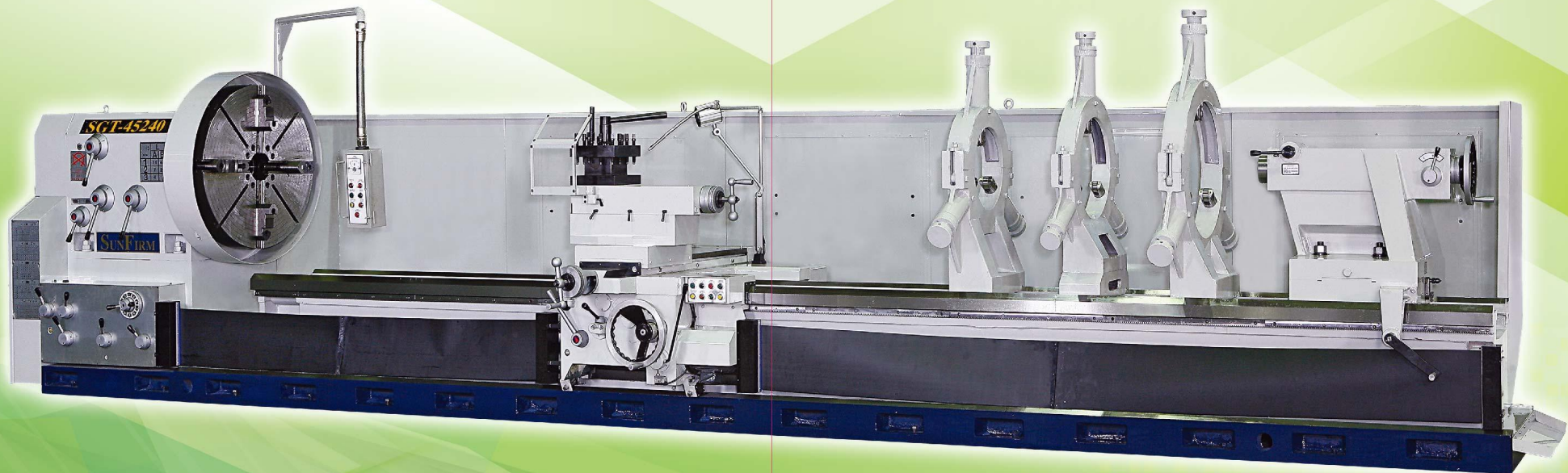
### CARRIAGE & APRON

- The compound rest can be fixed the cross-slide anywhere, convenient cutting work application.
- The apron gave automatic lubrication and locked-safe device protect threads and feeding same as operation.
- Rapid traverse drive for longitudinal-cross feeding and forward & reverse feed are operating very light and convenience.
- 刀架底座裝置在移動式滑板上，可任意調整位置，以利重切削工作地廣泛應用。
- 床護設有自動潤滑系統及內鎖安全裝置，防止車牙及進給同時操作，並設有快速縱橫移動裝置及正逆向自動進刀，操作輕鬆又方便。



### TAPER ATTACHMENT

- The taper attachment is designed for easily operate and rapid cut taper in high accuracy, the device can produce a  $\pm 10$  angles.
- Electric cable in steel cover to protect wire from chips and prevent trouble with electric wires.
- 斜度切削裝置，供車製管牙及斜度，快速及便利。
- 斜度切削範圍：正負 $0^{\circ}$ - $10^{\circ}$ 之間。
- 鋼製鍊條式電線保護裝置，隨著切削進給的縱向操作伸縮自如，保持電路暢通。



SGT-45240



SHT-59120



SGT-5160

重切削精密車床 HEAVY DUTY PRECISION LATHE

規格 SPECIFICATION

ITEM 項目	MODEL 類型	SGT Series						
		SGT 45			SGT 51			
<b>CAPACITY 工作範圍</b>								
Swing Over Bed 床面上最大旋徑		1160mm (45")			1310mm (51")			
Swing Over Slide 鞍面上最大旋徑		850mm (33")			1000mm (40")			
Swing over Gap 凹口上最大旋徑		1700mm (67")			1850mm (72")			
Width of Gap 凹口工作寬度		560mm (22")						
Distance Between Centers 兩心間距離		1500mm (60")	2000mm (80")	3000mm (120")	4000mm (160")	5000mm (200")	6000mm (240")	7000mm (275")
<b>HEAD STOCK 主軸箱</b>								
Spindle Bore 主軸孔徑		153mm (6") / *230mm (9"), 310mm (12")						
Spindle Nose 主軸鼻端		A2-11 / *A2-15, A2-20						
Number of Spindle Speeds 主軸變換段數		12 Changes						
Taper of Center 中心針斜度 (莫氏)		M.T. No.6						
Range of Spindle Speeds 主軸變速範圍		4-400 RPM / *3-300 RPM						
<b>FEEDS &amp; THREADS CUTTING 進給與車牙</b>								
Leadscrew 導螺桿直徑及螺距		57mm (2-1/4")						
Pitch of Leadscrew 導螺桿螺紋		2 T.P.I. / *P12mm (OPT.)						
Inch Threads 英制螺紋 (徑節螺紋)		1/4-30 TPI (70 kinds)						
Metric Threads 公制螺紋 (橫數螺紋)		1-120mm (62 kinds)						
D.P. Threads 徑節螺紋		1-120 D.P. (70 kinds)						
M.P. Threads 模數螺紋		0.25-30 M.P. (53 kinds)						
Longitudinal Feeds 縱向進刀量範圍		0.085-10.08 mm/rev (0.004-0.40 in/rev)						
Cross Feeds 橫向進刀量範圍		0.042-5.04 mm/rev (0.002-0.20 in/rev)						
<b>CARRIAGE 滑座</b>								
Cross Slide Travel 橫送台移動範圍		635mm (25")						
Compound Rest Travel 複式刀座移動範圍		420mm (16-1/2")						
Rapid Travel Speed to Carriage 滑座快速移動速度		2000mm/min (80"/min)						
<b>TAILSTOCK 尾座</b>								
Quill Diameter 心軸直徑		125mm (4-7/8")						
Quill Travel 心軸行程		340mm (13-3/8")						
Taper of Quill Center 頂心斜度		M.T. NO.6						
<b>BED 床體</b>								
Width of Bed 床面寬度		665mm (26")						
Main Motor 主馬達		20HP / *25HP (OPT.)						
Rapid Travel Motor 快速移動馬達		1HP						
Weight 重量 (約)		8200 kg	8800 kg	10000 kg	11200 kg	12400 kg	13600 kg	14800 kg
Packing Size 裝箱尺寸 (長x寬x高)		160"x80"x80"	180"x80"x80"	220"x80"x80"	260"x80"x80"	300"x80"x80"	340"x80"x80"	380"x80"x80"

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STANDARD	標準附件	OPTIONAL ACCESSORIES	特別附件
Steady Rest	1 PC 中心架	3-Jaw Scroll Chuck	1 PC 三爪夾頭
Center	2 PCS 中心頂針	4-Jaw Independent Chuck	1 PC 四爪夾頭
Tool Post Wrench	1 PC 刀架螺絲把手	Follow Rest	1 PC 跟刀架
Tool Box & Tool	1 SET 工具箱及調整工具	Taper Turning Attachment	1 SET 斜度附件
Anchor Bolt & Block	1 SET 基礎螺絲及墊塊	Coolant Pump	1 SET 冷卻泵浦

# 重切削精密車床 HEAVY DUTY PRECISION LATHE

## 規格 SPECIFICATION

MODEL 類型		SHT Series					
ITEM 項目		SHT 59			SHT 65		
<b>CAPACITY</b>	<b>工作範圍</b>						
Swing Over Bed	床面上最大旋徑	1500mm (59")			1650mm (65")		
Swing Over Slide	鞍面上最大旋徑	1200mm (47")			1350mm (53")		
Swing over Gap	凹口上最大旋徑	2050mm (80")			2200mm (86")		
Width of Gap	凹口工作寬度	560mm (22")					
Distance Between Centers	兩心間距離	2000mm (80")	3000mm (120")	4000mm (160")	5000mm (200")	6000mm (240")	7000mm (275")
<b>HEAD STOCK</b>	<b>主軸箱</b>						
Spindle Bore	主軸孔徑	Ø153mm (6") / *230mm (9"), 310mm (12")					
Spindle Nose	主軸鼻端	A2-15 / *A2-20					
Number of Spindle Speeds	主軸變換段數	12 Changes					
Taper of Center	中心針斜度 (莫氏)	M.T. No.6					
Range of Spindle Speeds	主軸變速範圍	4-400 RPM / *3-300 RPM					
<b>FEEDS &amp; THREADS CUTTING</b>	<b>進給與車牙</b>						
Leadscrew	導螺桿直徑及螺距	57mm (2-1/4") 2 T.P.I. / *P 12mm (OPT.)					
Inch Threads	英制螺紋 (徑節螺紋)	1/4-30 TPI (70 kinds)					
Metric Threads	公制螺紋 (橫數螺紋)	1-120mm (62 kinds)					
D.P Threads	徑節螺紋	1-120 D.P. (70 kinds)					
M.P Threads	模數螺紋	0.25-30 M.P (53 kinds)					
Longitudinal Feeds	縱向進刀量範圍	0.085-10.08 mm/rev (0.004-0.40 in/rev)					
Cross Feeds	橫向進刀量範圍	0.042-5.04 mm/rev (0.002-0.20 in/rev)					
<b>CARRIAGE</b>	<b>滑座</b>						
Cross Slide Travel	橫送台移動範圍	750mm			800mm		
Compound Rest Travel	複式刀座移動範圍	420mm (16-1/2")					
Rapid Travel Speed to Carriage (Long)	縱向快速移動速度	2000mm/min (80"/min)					
<b>TAILSTOCK</b>	<b>尾座</b>						
Quill Diameter	心軸直徑	155mm (6.1")					
Quill Travel	心軸行程	340mm (13-3/8")					
Taper of Quill Center	頂心斜度	M.T. NO.6					
<b>BED</b>	<b>床體</b>						
Width of Bed	床面寬度	850mm (33")					
Main Motor	主馬達	25HP / *30HP (OPT.)					
Rapid Travel Motor	快速移動馬達	1HP					
Weight	重量 (約)	12000 kg	13600 kg	15200 kg	16800 kg	18400 kg	20000 kg
Packing Size	裝箱尺寸 (長X寬X高)	188"x90"x95"	228"x90"x95"	268"x90"x95"	308"x90"x95"	348"x90"x95"	388"x90"x95"

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STANDARD		標準附件		OPTIONAL ACCESSORIES		特別附件	
Steady Rest	1 PC	中心架	1 個	3-Jaw Scroll Chuck	1 PC	三爪夾頭	1 個
Center	2 PCS	中心頂針	2 個	4-Jaw Independent Chuck	1 PC	四爪夾頭	1 個
Tool Post Wrench	1 PC	刀架螺絲把手	1 個	Follow Rest	1 PC	跟刀架	1 個
Tool Box & Tool	1 SET	工具箱及調整工具	1 組	Taper Turning Attachment	1 SET	斜度附件	1 組
Anchor Bolt & Block	1 SET	基礎螺絲及墊塊	1 組	Coolant Pump	1 SET	冷卻泵浦	1 組

# 重切削精密車床 HEAVY DUTY PRECISION LATHE

## 規格 SPECIFICATION

MODEL 類型		SFT Series					
ITEM 項目		SFT 61			SFT 73		
<b>CAPACITY</b>	<b>工作範圍</b>						
Swing Over Bed	床面上最大旋徑	1550mm (61")			1850mm (73")		
Swing Over Slide	鞍面上最大旋徑	1220mm (48")			1520mm (60")		
Swing over Gap	凹口上最大旋徑	2100mm (82")			2400mm (94")		
Width of Gap	凹口工作寬度	610mm (24")					
Distance Between Centers	兩心間距離	2000mm (80")	3000mm (120")	4000mm (160")	5000mm (200")	6000mm (240")	7000mm (275")
<b>HEAD STOCK</b>	<b>主軸箱</b>						
Spindle Bore	主軸孔徑	153mm (6") / *230mm (9"), 310mm (12")					
Spindle Nose	主軸鼻端	A2-15 / *A2-20					
Number of Spindle Speeds	主軸變換段數	12 Changes					
Taper of Center	中心針斜度 (莫氏)	M.T. No.6					
Range of Spindle Speeds	主軸變速範圍	3-300 RPM / *2-200 RPM					
<b>FEEDS &amp; THREADS CUTTING</b>	<b>進給與車牙</b>						
Leadscrew	導螺桿直徑及螺距	57mm (2-1/4")					
Pitch of Leadscrew	導螺桿螺紋	2 T.P.I. / *P12mm (OPT.)					
Inch Threads	英制螺紋 (徑節螺紋)	1/4-30 TPI (70 kinds)					
Metric Threads	公制螺紋 (橫數螺紋)	1-120mm (62 kinds)					
D.P Threads	徑節螺紋	1-120 D.P. (70 kinds)					
M.P Threads	模數螺紋	0.25-30 M.P (53 kinds)					
Longitudinal Feeds	縱向進刀量範圍	0.085-10.08 mm/rev (0.004-0.40 in/rev)					
Cross Feeds	橫向進刀量範圍	0.042-5.04 mm/rev (0.002-0.20 in/rev)					
<b>CARRIAGE</b>	<b>滑座</b>						
Cross Slide Travel	橫送台移動範圍	950mm			1000mm		
Compound Rest Travel	複式刀座移動範圍	420mm (16-1/2")					
Rapid Travel Speed to Carriage	滑座快速移動速度	2000mm/min (80"/min)					
<b>TAILSTOCK</b>	<b>尾座</b>						
Quill Diameter	心軸直徑	180mm (7")					
Quill Travel	心軸行程	340mm (13-3/8")					
Taper of Quill Center	頂心斜度	M.T. NO.7					
<b>BED</b>	<b>床體</b>						
Width of Bed	床面寬度	1120mm (44")					
Main Motor	主馬達	30HP / *40HP (OPT.)					
Rapid Travel Motor	快速移動馬達	2HP					
Weight	重量 (約)	14600 kg	16400 kg	18200 kg	20000 kg	21800 kg	23600 kg
Packing Size	裝箱尺寸 (長X寬X高)	190"x95"x100"	230"x95"x100"	270"x95"x100"	310"x95"x100"	350"x95"x100"	390"x95"x100"

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Center	2 PCS	中心頂針	2 個	4-Jaw Independent Chuck	1 PC	四爪夾頭	1 個
Tool Post Wrench	1 PC	刀架螺絲把手	1 個	Follow Rest	1 PC	跟刀架	1 個
Tool Box & Tool	1 SET	工具箱及調整工具	1 組	Taper Turning Attachment	1 SET	斜度附件	1 組
Anchor Bolt & Block	1 SET	基礎螺絲及墊塊	1 組	Coolant Pump	1 SET	冷卻泵浦	1 組