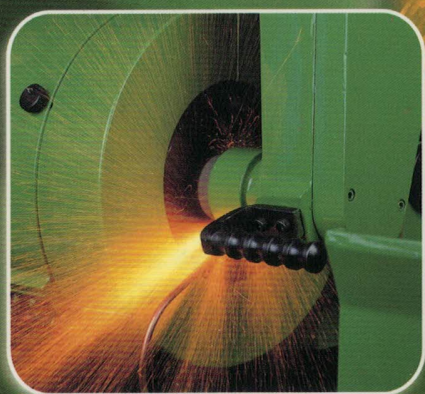


JIM

油壓自動定寸內徑研磨機

HYDRAULIC AUTO SIZING INTERNAL GRINDER



JIM-IG-150

油壓自動定寸內徑研磨機

HYDRAULIC AUTO SIZING INTERNAL GRINDER

JIM-IG-150

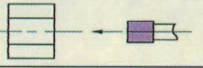
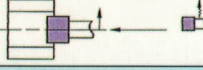
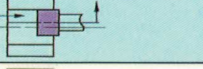
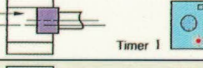
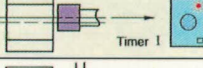
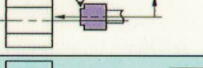
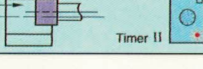
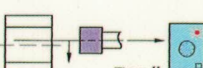


特點介紹：

1. 全自動研磨循環設計，精度高，生產能力大而且操作簡便。
2. 研磨軸之砂輪台係油壓驅動，進給及往復運動皆為無段變速，振動小而且安定性高。
3. 工作台軌道採強制給油潤滑，摩擦力小、傳動輕巧、耐磨性高。
4. 自動砥石補正：粗研磨及精研磨過程結束後，均設計有火花消失，粗研磨火花消失後自動執行砂輪砥石補正再進行精研磨，以確保加工精度。
5. 研磨軸採用三點式自動噴霧裝置進行研磨軸潤滑。當壓力過低，自動退出加工程序，停止運作，油量過低時將產生警示。
6. 主軸台旋轉角度大（前向 20° ，後向 10° ），無護蓋時前向 45° ，宜大斜度研磨。

Features :

1. Fully automatic grinding cycle design. High working precision, large producing capacity and easy set up and control.
2. Table motion is driven by hydraulic system with infinitely variable speed. The table is designed for making a very stable machine.
3. The rail of working table is lubricated with forced oil lubricating to minimize friction and lead light transmission and endurance.
4. Auto grinding wheel compenation: either rough and fine grinding is done, sparks abolish. Then grinding wheel compenation. Automatically works. This assures the precision of workpieces.
5. The grinding wheel spindle adopts the three-point auto oil mist sprayer device to operate the lubrication. While air pressure is below the standard or no oil mist generates, it will automatically stop working. It will be alarmed when the oil gauge is less than standard.
6. Headstock swing angle is front 20° and rear 10° (front angle could be 45° without cover) . It is fit for large oblique grinding.

全自動研磨循環 Automatic Grinding Cycle		油壓系統 Switch on for hydraulic oil pressure 研磨軸啟動 and grinding wheel spindle movement	
研磨階段 Grinding steps		操作 Operate	機械動作 Actions of machine
1. 啟動 Start		押下啟動按鈕 Press start button	
2. 快速前進 Rapid traverse			往復台快速前進，主軸、冷卻泵啟動，自動進給開始。 Table rapidly traverses. Headstock and coolant pump start. Commencement of automatic infeed.
3. 粗研磨 Rough grinding			自動進給，自動定寸。 Automatic infeed and sizing.
4. 粗研磨火花消失開始 Rough grinding spark out		計時器 I 動作。 Timer I actuates.	
5. 粗研磨結束 Rough grinding over		計時器 I 停止，砂輪退出工作。 Timer I stops, grinding stone retreats.	
6. 修整砂輪 Dressing			砥石台下降，砂輪進給自動補正 (0.01~0.05)，修整砂輪，砥石台上升。 Dresser automatically descends and feeds to compensate (0.01~0.05). Dressing, then dresser raises.
7. 精研磨火花消失 Fine grinding spark out		計時器 II 動作，往復台進入工作。 Timer II actuates. Table traverses.	
8. 快速後退 Rapid retreat		計時器 II 停止，研磨軸進給反轉。往復台快速後退。 主軸、切削泵浦停止。 Timer II stops. Grinding wheel spindle infeed reverses. Table rapidly retreats. Headstock and coolant pump stop.	

規格 SPECIFICATIONS

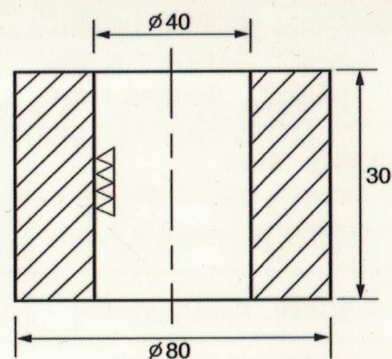
項目 ITEM	型式 MODEL JIM-IG150
能力、容量 Working capacity	研磨內徑範圍 / Range of hole diameters $\varnothing 6\text{mm} \sim \varnothing 150\text{mm}$
	研磨最大長度 / Max. grinding length 150mm
	床面上旋徑 / Swing over table 500mm (水蓋內旋徑 Swing within water proof cover 330mm)
	往復台之最大行程 / Max. table stroke 500mm
	往復台之速度 / Table speed 0~7.2m/min 油壓無段 / Hydraulic stepless
	研磨軸中心離地面高度 / Height of grinding wheel spindle center from floor 1060mm
	砂輪進給台可移動距離 (縱向) / Grinding wheel infeed table travel (Longitudinal) 最大150mm Max.150mm
主軸台 Work head	砂輪進給台進給方式 / Grinding wheel infeed table feeding method 自動進給，油壓無段 / Automatic, hydraulic & stepless
	主軸迴轉速度 / Work spindle speed 無段變頻及二段皮帶輪變速 A段 38~400 r.p.m B段 100~950 r.p.m. Non-step inverter and two-step pulley change Step A: 38~400 r.p.m. Step B: 100~950 r.p.m.
	主軸台旋轉調整角度 / Headstock swing angle 前 (Front) 20° 後 (Rear) 10° (Front 45°, without cover)
	主軸台可移動距離 (縱向) / Headstock travel (Longitudinal) 最大150mm Max.150mm
馬達 Motor	主軸用 / For work head 1/2Hp, 6P
	油壓用 / For hydraulic oil 2Hp, 4P
	研磨軸用 / For grinding wheel spindle 2Hp, 2P
	冷卻液用 / For coolant water 1/8Hp, 4P
	濾清器用 / For coolant filter 100W, 4P
作動油容量 Tank capacity	油壓箱容量 / Oil tank 60L
	冷卻液容量 / Coolant tank 45L
機械規格 Machine size	機械尺寸 (長×寬×高) / Machine dimension 2570×1350×1650 (Length×Width×Height)
	機械重量 / Nett weight (approx.) 1850kg

※ 規格及尺寸如有變更，恕不另行通知。 Specifications & dimensions subject to change, without prior notice.

加工實例 Working Example

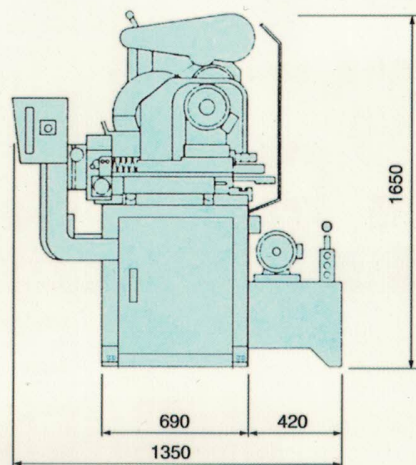
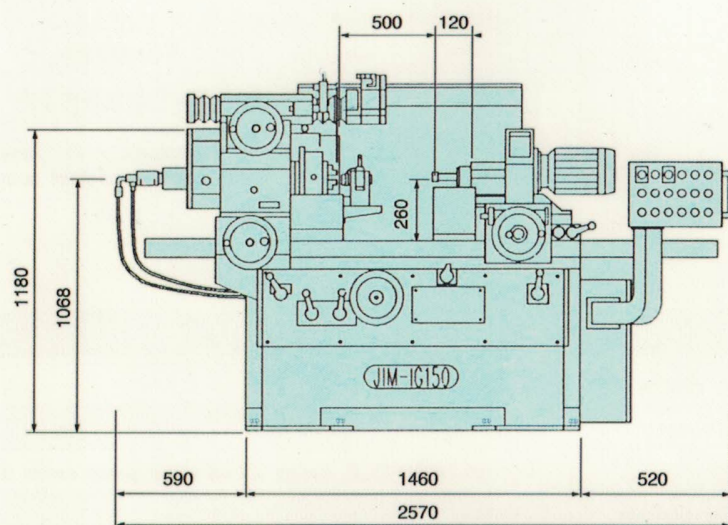
小型圓柱鋼 Small cylindrical steel

材質	Material	SCM21 (JIS)
加工尺寸	Dimensions	Ø 80 × Ø 40 × 30 mm
研磨尺寸	Stock removal	0.20 mm
硬度	Hardness	HRC 55 ± 2
累積公差	Dispersion of dimension	5 µm / 20 pcs
研磨軸轉速	Spindle speed	10000 r.p.m.
真圓度	Roundness	2 µm
圓筒度	Cylinder	3 µm



機械基礎圖 Machine Layout (Unit: mm)

MODEL : JIM-IG150



標準配件 STANDARD EQUIPMENT

1. 油壓系統組件	Hydraulic unit	1組 (set)
2. 冷卻液泵浦, 冷卻液箱	Coolant pump & tank	1組 (set)
3. 鑽石修刀 Ø10 × 35L	Dressing diamond	1支 (pc)
4. 防水護蓋	Splash guard	1只 (pc)
5. 基礎調整塊	Levelling block	8只 (pcs)
6. 皮帶張力自動調整裝置	Belt auto tension adjustment unit	1組 (set)
7. 工具箱	Tool box	1組 (set)
8. 滾珠導螺桿 (縱向進給傳動)	Ball screw cross traverse	1組 (set)
9. 研磨軸 R.M.P. 任選	Grinding wheel spindle R.P.M. on request	1支 (pc)
10. 高速平皮帶	Belt	1條 (pc)
11. 冷卻液磁性濾清器 (20公升)	Magnetic coolant separator	1組 (set)

特別附件 OPTIONAL EQUIPMENT

1. 三點噴霧裝置	Oil mist (lubrication)
2. 油壓三爪夾頭 6" 或 8"	6" or 8" hydraulic 3-Jaw
3. 7" 或 9" 三爪夾頭	7" or 9" 3-Jaw chuck
4. 工作燈 (石英燈)	Work lamp (Halogen)
5. 法蘭盤 (6", 7", 8", 9")	flange (6", 7", 8", 9")
6. 軟爪車刀架	Lathe tool saddle
7. 高速平皮帶 20 × 1016 / 30 × 913 / 40 × 950	Belt
8. 鋁平皮帶輪 Ø 190 / Ø 250	Al. Pulley
9. 研磨軸 10000 / 20000 / 30000 / 40000 / 50000 R.P.M.	Grinding wheel spindle
10. 排齒裝置	Manual feed
11. 端面裝置	Face grinding attachment

吉應機械工業股份有限公司
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代理商/Agent

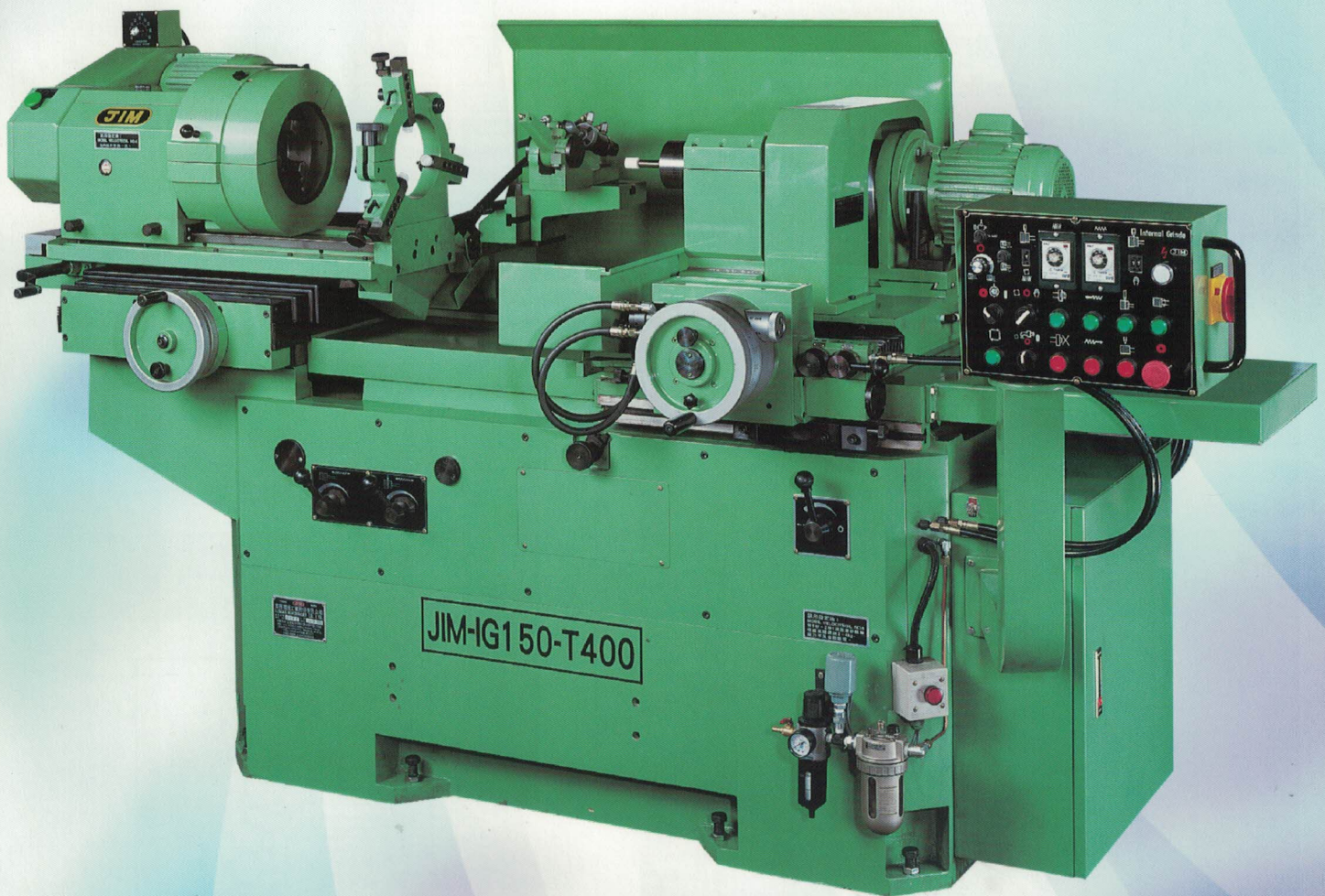


QUALITY & TECHNIQUE

油壓自動定寸內徑研磨機

HYDRAULIC AUTO SIZING INTERNAL GRINDER

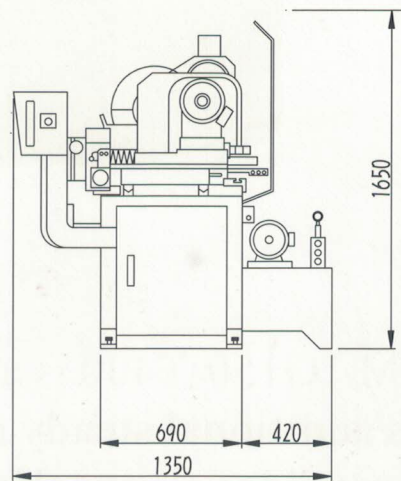
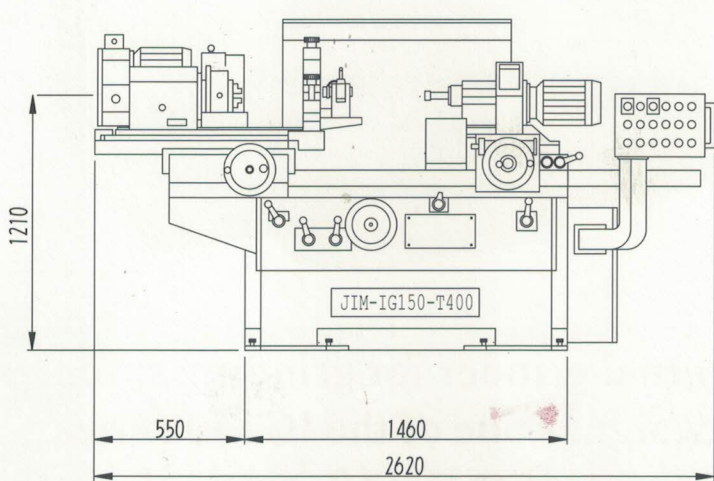
JIM-IG 150-T400 是研磨主軸之內徑研磨機，為IG150系列外加中心架之設計，秉持IG150之優越特性，操作簡單、精度高、效能佳。



JIM-IG150-T400 is an internal grinder for grinding spindles. Its additional steady rest design is one of the IG150 series. It provides all excellent characters of IG150, particularly easy to operate, high precision and well capacity.

規格 SPECIFICATIONS

項目 ITEM	型式 MODEL	JIM-IG150-T400
能力、容量 Working Capacity	研磨內徑範圍 / Range of hole diameters	φ 6mm~φ150mm
	研磨最大長度 / Max. Grinding length	150mm
	可夾持工件最大長度 / Max. Length of carrying workpiece	400mm
	床面上旋徑 / Swing over table	520mm
	往復台之最大行程 Max. Table stroke	500mm
	往復台之速度 / Table speed	0~7.2m/min 油壓無段 / Hydraulic stepless
	研磨軸中心離地面高度 / Height of grinding wheel spindle center from floor	1210mm
	砂輪進給台可移動距離(縱向) / Grinding wheel infeed table travel(Longitudinal)	最大150mm Max. 150mm
	砂輪進給台進給方式 / Grinding wheel infeed table feeding method	自動進給，油壓無段 / Automatic,hydraulic & stepless
主軸台 Headstock	主軸迴轉速度 / Work spindle speed	無段變頻及二段皮帶輪變速 A段 38~400r.p.m. B段 100~950r.p.m. Non-step inverter and two-step pully change Step A : 38~400r.p.m. Step B : 100~950r.p.m.
	主軸台旋轉調整角度 / Headstock swing angle	前(Front)25° 後(Rear)7°
馬達 Motor	主軸用 / For work spindle	1/2HP,6P
	油壓馬達用 / For hydraulic motor	2HP,4P
	研磨軸馬達用 / For grinding wheel spindle	2HP,2P
	冷卻液用 / For coolant pump motor	1/8HP,4P
	濾清器用 / For coolant filter	100W,4P
作動油容量 Tank capacity	油壓箱容量 Oil tank	60L
	冷卻液容量 Coolant tank	45L
機械規格 Machine size	機械尺寸(長X寬X高) / Machine dimension	2620x1650x1350(Length x Width x Height)
	機械重量 Nett weight(approx.)	2450kg

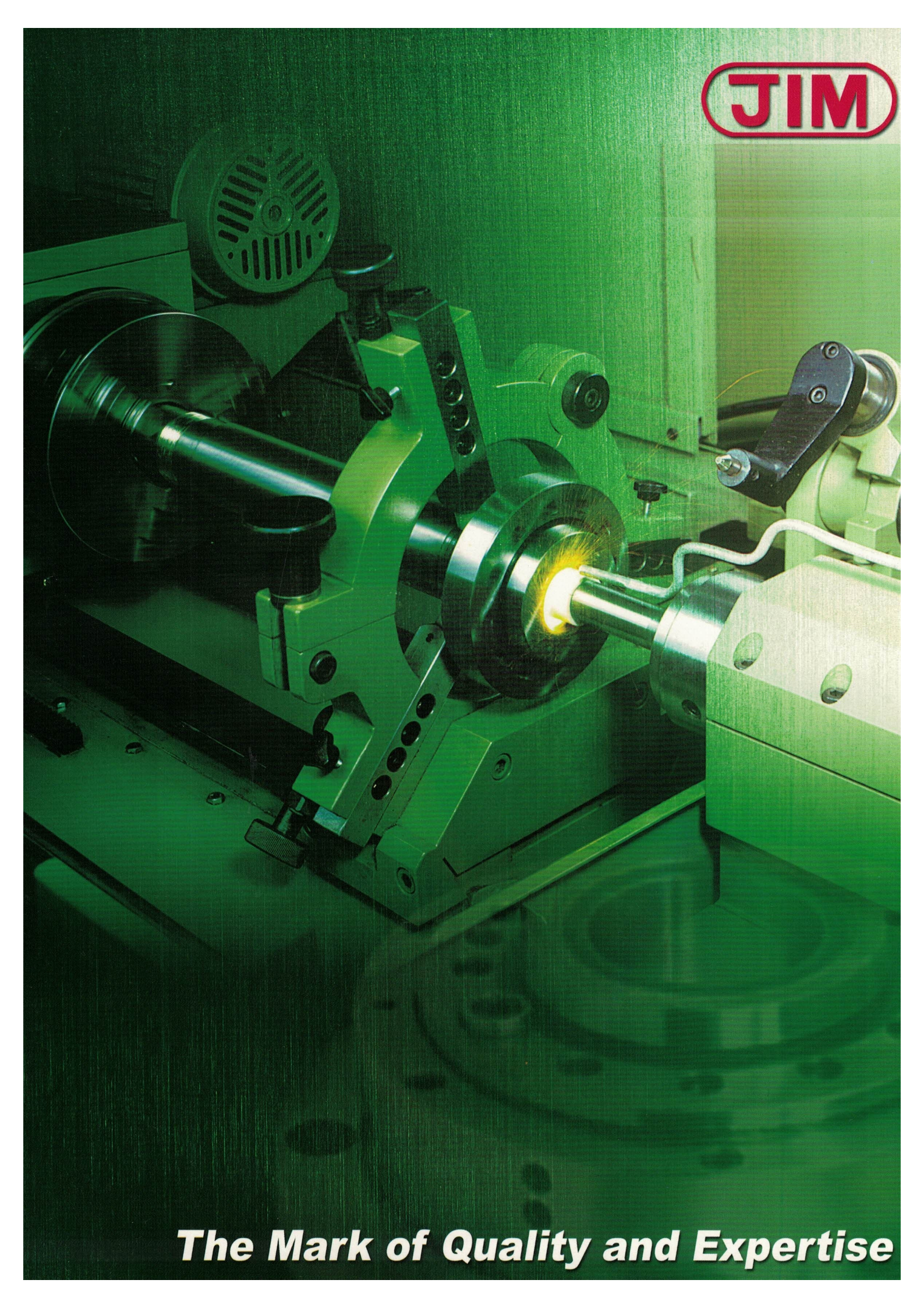


JIM-IG150-T400



向應機械工業股份有限公司
HSIANG YING MACHINERY CO., LTD.

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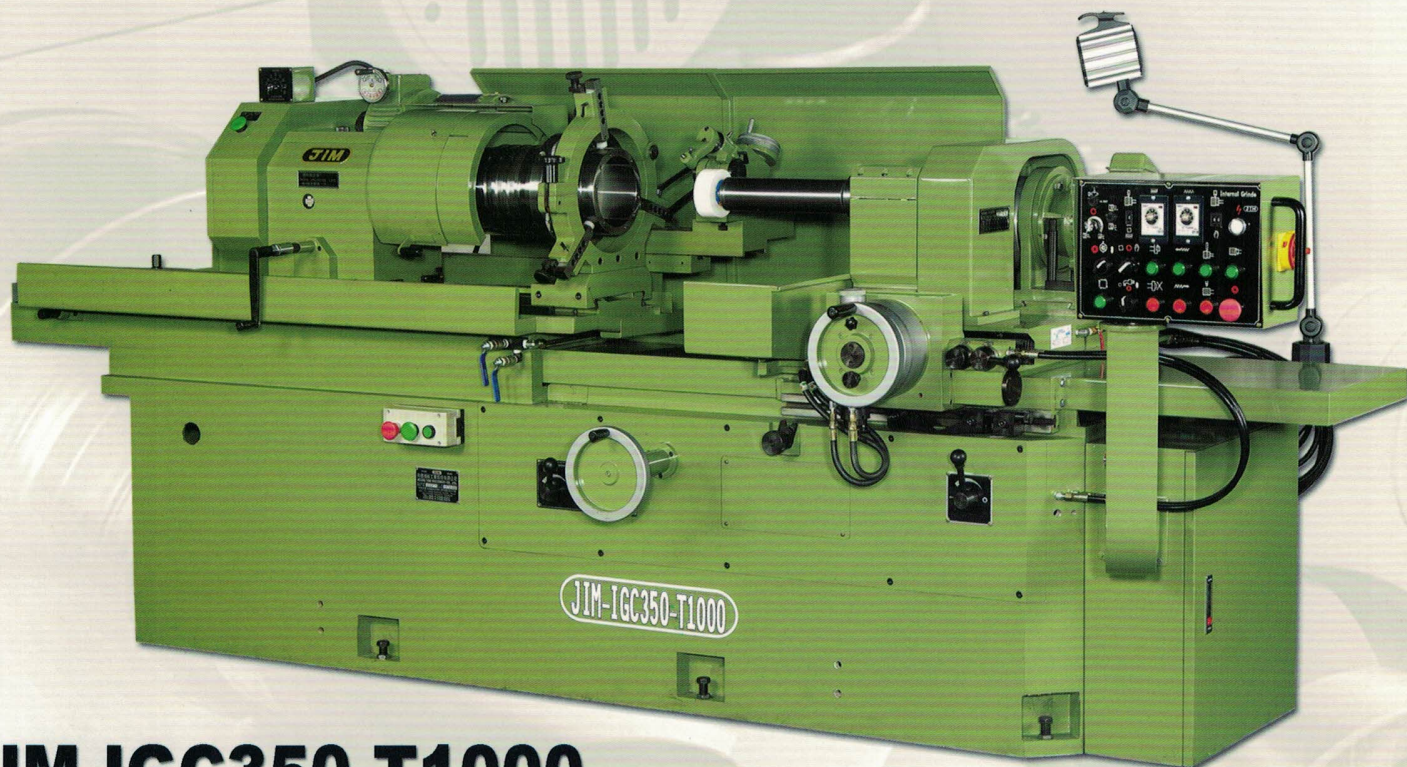
JIM

The Mark of Quality and Expertise

油壓自動定寸內徑研磨機

HYDRAULICA AUTO SIZING

INTERNAL GEINDER



JIM-IGC350-T1000

特點介紹：

1. 本機型適合各種主軸及其他長軸研磨。主軸工作台調整角度前向 12° ，後向 7° 。
2. 全自動研磨循環設計，精度高，生產能力大而且操作簡便。
3. 研磨軸之砂輪台係油壓驅動，進給及往復運動皆為無段變速，振動小而且安定性高。
4. 工作台軌道採強制給油潤滑，摩擦力小、傳動輕巧、耐磨性高。
5. 自動砥石補正：粗研磨及精研磨過程結束後，均設計有火花消失。火花消失後自動執行砂輪砥石補正，以確保加工精度。
6. 研磨軸採用三點式自動噴霧裝置進行研磨軸潤滑。當壓力過低或無油霧時，自動退出加工程序，停止運作。

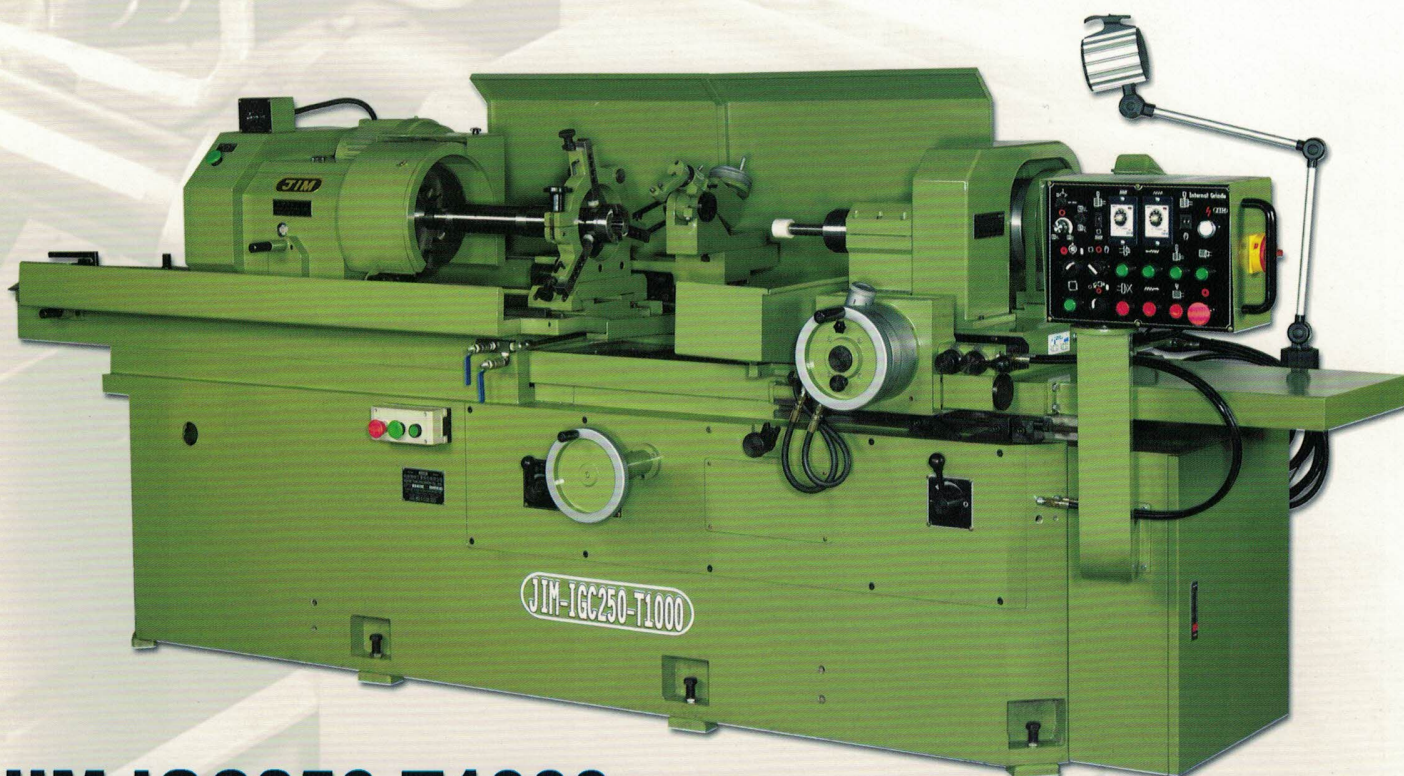
Feature :

1. JIM-IGC250-T1000 is fit for various spindles and long spindles grinding. The adjustable angle of the headstock is front 12° and rear 7° .
2. Fully automatic grinding cycle design. High working precision, large producing capacity and simple set up and control.
3. Table motion is driven by hydraulic system with infinitely variable speed. The table is designed for making a very stable machine.
4. The rail of working table is lubricated with forced oil lubricating to minimize friction and lead light transmission and endurance.
5. Auto grinding wheel compensation : either rough and fine grinding is done, sparks abolish. Then grinding wheel compensation automatically works. This assures the precision of workpieces.
6. The grinding wheel spindle adopts the three-point auto oil mist sprayer device to operate the lubrication. While air pressure is below the standard or on oil mist generates, it will automatically stop working.

規格 SPECIFICATIONS

項 目	ITEM	型 式	MODEL	JIM-IG250-T1000	JIM-IG350-T1000
能力、容量 Working Capacity	研磨內徑範圍 / Range of hole diameters	Ø6mm~Ø150mm		Ø50mm~Ø250mm	
	研磨最大長度 / Max. grinding length	200mm		200mm	
	可夾持工件最大長度 / Max. length of carrying workpiece	1000mm		1000mm	
	床面上旋徑 / Swing over table	290mm		450mm	
	往復台之最大行程 / Max. table stroke	500mm		500mm	
	往復台之速度 / Table speed	0~7.2m/min 油壓無段 / Hydraulic stepless			
	研磨軸中心離地面高度 / Height of grinding wheel spindle center from floor	980mm		1060mm	
	砂輪進給台可移動距離(縱向) / Grinding wheel infeed table travel (Longitudinal)	最大 150mm Max. 150mm			
主軸台 Headstock	主軸迴轉速度 / Work spindle speed	無段變頻(Non-step inverter) 60~400 R.P.M.		無段變速機(DISCO) 10~400 R.P.M.	
	主軸台旋轉調整角度 / Headstock swing angle	前(Front) 12° 後(Rear) 7°		前(Front) 12° 後(Rear) 7°	
馬達 Motor	主軸用 / For work spindle	1HP, 6P		1HP, 4P 無段變速機(DISCO)	
	油壓馬達用 / For hydraulic motor	2HP, 4P		2HP, 4P	
	研磨軸馬達用 / For grinding wheel spindle	2HP, 2P		2HP, 2P	
	冷卻液用 / For coolant pump motor	1/8HP, 4P		1/8HP, 4P	
	濾清器用 / For coolant filter	100W, 4P		100W, 4P	
作動油容量 Tank Capacity	油壓箱容量 / Oil tank	60L		60L	
	冷卻液容量 / Coolant tank	40L		40L	
機械規格 Machine size	機械尺寸(長x寬x高) / Machine dimension	3340X1410X1330mm (Length X Width X Height)			
	機械重量 / Nett weight (approx.)	2650kg		2950kg	

* 規格及尺寸如有變更，恕不另行通知。 / Specifications & dimensions subject to change, without prior notice.



JIM-IGC250-T1000

標準附件 Standard Equipment

1. 油壓系統組件	Hydraulic unit	1組(set)
2. 冷卻液泵浦, 冷卻液箱	Coolant pump & tank	1組(set)
3. 鑽石修刀 Ø10 X 35L	Dressing diamond	1支(pc)
4. 防水護蓋	Splash guard	1只(pc)
5. 基礎調整塊	Levelling block	8只(pcs)
6. 皮帶張力自動調整裝置	Belt auto tension adjustment unit	1組(set)
7. 工具箱	Tool box	1組(set)
8. 滾珠導螺桿(縱向進給傳動)	Ball screw cross traverse	1組(set)
9. 銘平皮帶 Ø190	Al. pulley (Ø190)	1支(pc)
10. 高速平皮帶	Belt	1條(pc)
11. 排齒裝置	Manual feed	1組(set)
12. 中心架 IGC250(Ø250X1) IGC350(Ø250X1, Ø350X1)	Steady rest IGC250(Ø250X1) IGC350(Ø250X1, Ø350X1)	1只(pc) 2只(pc)
13. 冷卻液磁性濾清器	Magnetic coolant separator	20立公升(L)

特別附件 Optional Equipment

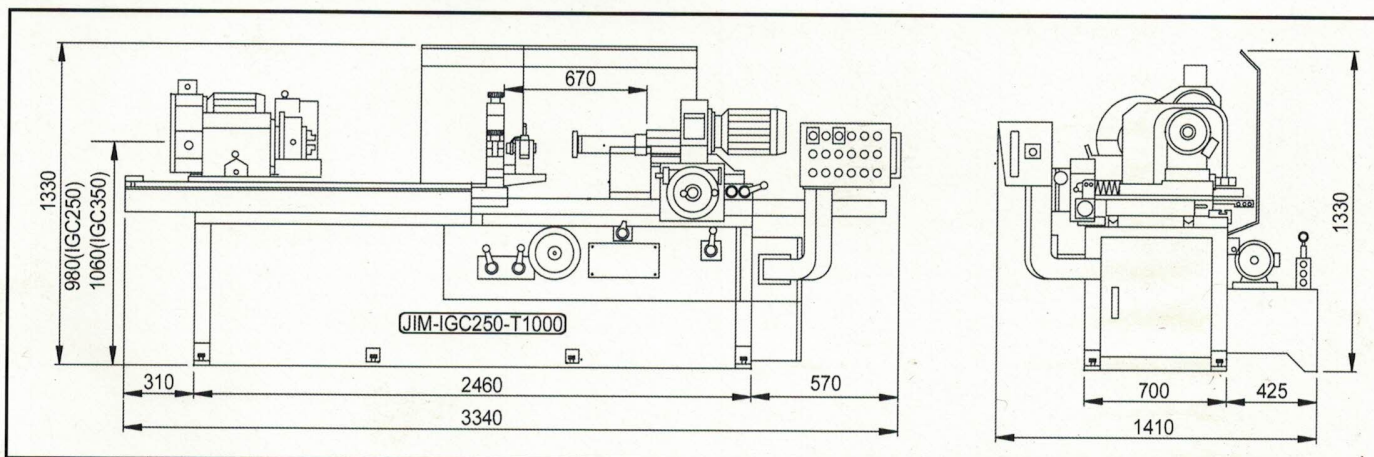
1. 紙帶過濾器 (40ℓ)	Paper Filter (40ℓ)
2. 9" 三爪夾頭	9" 3-Jaw chuck
3. 工作燈 (石英燈)	Work lamp (Halogen)
4. 9" 法蘭盤	9" Flange
5. 高速平皮帶 20X1016 / 30X913 / 40X950	Belt
6. 銘平皮帶 Ø190 / Ø250	All Pulley Ø190 / Ø250
7. 研磨軸 (10000 / 20000 / 30000 / 40000 / 50000)PRA	Grinding wheel spindle
8. 研磨軸 Ø75~300L (6000) PRA	Grinding wheel spindle
9. 中心出水裝置	Rotary Center Water System
10. 中心架 Ø150 / Ø250	Steady rest Ø150 / Ø250

全自動研磨循環 Automatic Grinding Cycle

油壓系統 研磨軸啟動 Switch on for hydraulic oil pressure and grinding wheel spindle movement

研磨階段 Grinding steps	操作 Operation	機械動作 Actions of machine
1. 啟動 Start	按下啟動按鈕 Press start button	
2. 快速前進 Rapid traverse		往復台快速前進, 主軸、冷卻泵浦啟動, 自進給開始。(進給燈亮) Table rapidly traverse. Headstock and coolant pump start. Commencement of automatic infeed. (Infeed light is aglow.)
3. 粗研磨 Rough grinding		自動進給, 自動定寸。 Automatic infeed and sizing.
4. 粗研磨火花消失開始 Rough grinding spark out		計時器I動作 Timer I actuates.
5. 粗研磨結束 Rough grinding over		計時器I停止, 砂輪退出工作。 Timer I stop, grinding stone retreats.
6. 修整砂輪 Dressing		砥石台下降, 砂輪進給自動補正(0.01~0.05), 整砂砂輪, 砥石台上升。 Dresser automatically descends and feeds to compensate (0.01~0.05). Dressing, then dresser raises.
7. 精研磨火花消失 Fine grinding spark out		計時器II動作, 往復台進入工作。 Timer II actuates. Table traverses.
8. 快速後退 Rapid retreat		計時器II停止, 研磨軸進給反轉。往復台快速後退。 主軸、切削泵浦停止。 Timer II stops, grinding wheel spindle infeed reverses. Table rapidly retreats. Headstock and coolant pump stop.

機械基礎圖 Machine Layout (Unit:mm)



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