

AKUMA-GRINDER

# 冠隈精密平面磨床

P R E C I S I O N   S U R F A C E   G R I N D E R



TSG-350III

TSG-350

TSG-3B



TSG-450II



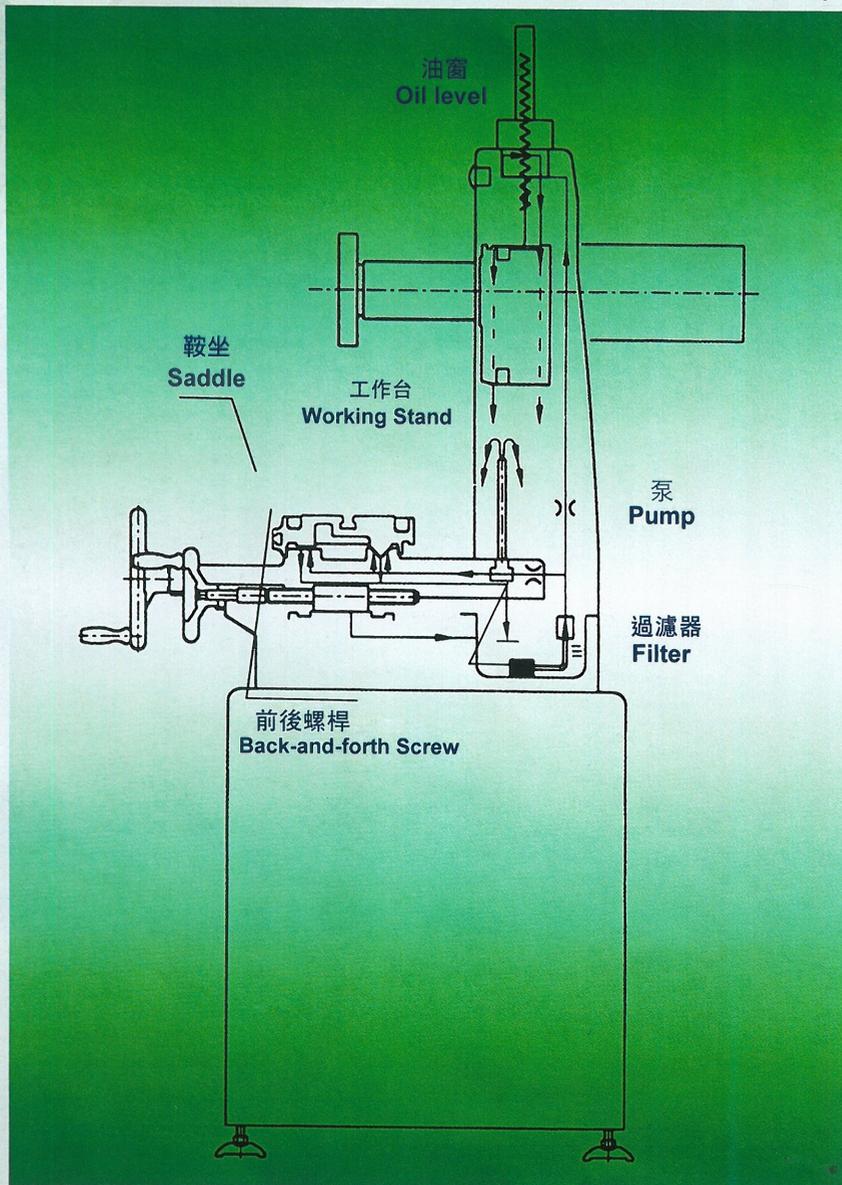
TSG-450A1S

高 鋼 性 、 高 性 能 、 高 精 度 、 高 經 濟 效 益  
C O M P A C T . F U N C T I O N A L . A C C U R A T E . C O S T E F F E C T I V E



# AKUMA-GRINDER

## 潤滑油迴路圖 Diagram of lubricant loop



彈筒式主軸：砂輪主軸與馬達一體設計  
Integrated design including spindle with cartridge type, spindle of grinding wheel, and motor.

### 工作高度 Working height

台面至砂輪軸中心距離為38.5mm, 大型夾具和修整器皆可使用。

The distance from surface to center of grinding wheel shaft is 38.5mm, can use large fixture and trimmer.

### 工作台滑軌 Slide rail of working stand

鞍座滑軌為V型及平型設計, TSG-450為V型雙軌, 並貼有鐵弗龍(TEFLON)薄片, 使工作台之運動輕快, 確保其精確性。

Slide rail of saddle is V and flat type design, TSG-450 is V type with double track, and with (TEFLON) flap, those makes movement of working stand light and fast to assure accuracy.

### 自動潤滑系統 Auto lubrication system

採用電磁泵控制潤滑油繼續不斷的循環, 潤滑所有滑軌、上下及前後螺桿。

Adapts electromagnetic pump to control continuous circulation of lubricant in order to lubricate all slide rails, up-and-down as well as back-and-forth screw.

### 高剛性立柱 Compact and vertical pillar

採用H型構造, 強度大, 寬跨距滑軌, 主軸不生振動, 確保加工成品精度。

Adapts H type construction, high intensity, wide span of slide rail, spindle is vibration-free to assure accuracy of finished product during processing.

### 彈筒式主軸 Spindle with cartridge type

使用超精密(P4)級滾柱/滾珠軸承, 軸端偏擺 $3\mu$ 以下, 密封式油脂潤滑, 確保長期壽命, 主軸更換簡單容易。

Use super precision (P4) grade of roller/ball bearing, end of bearing is placed under  $3\mu$ , sealed type of grease lubrication to secure long life, and it is simple and easy to replace spindle.

### 左右驅動系統 Left-and-right driving system

由特殊鋼索傳動動作快, 精密度高, 不生震動。

Driven by special wire rope, its movement is light and fast, accurate, and no vibration occurred.

### 簡潔吸塵系統 Economical Dust Collecting System

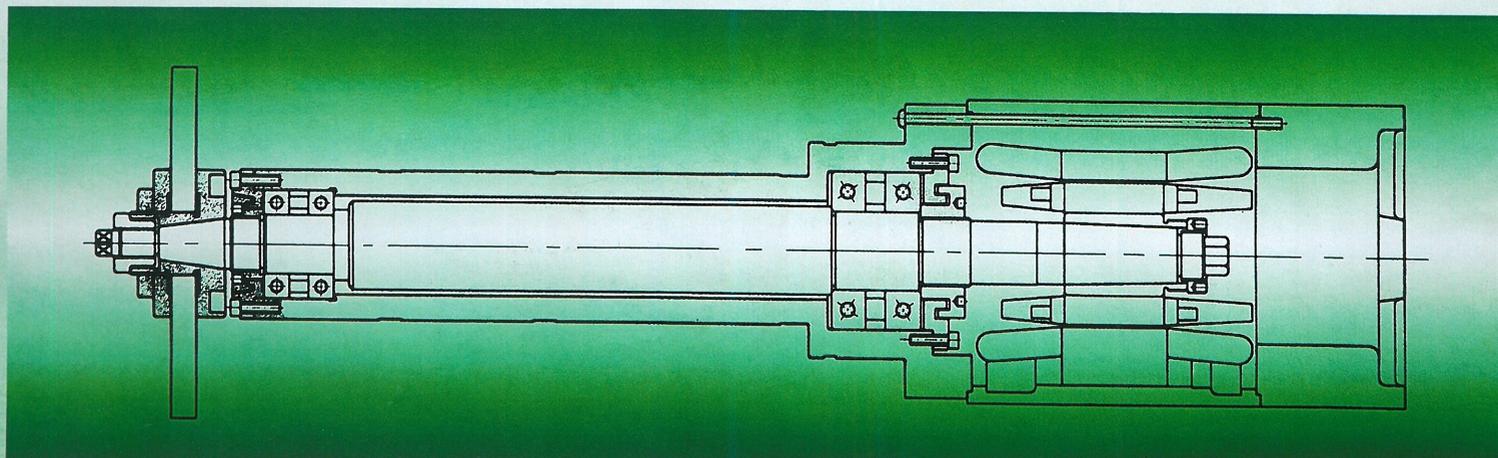
與本機一體(TSG-350), 節省空間, 切屑容易清除。

Integrate with main machine (TSG-350), can save space, and it is easy to remove chips.

### 附件齊全 Complete accessories

適合各種研磨作業, 充分發揮機械的性能。

Proper for various grinding operation, and fulfill mechanical functions completely.



# TSG-3B/350、TSG-350III、TSG-450、TSG-450II、TSG-450A1S

機器規格 Specification of machine

項 目 Item		機種Model No		機種Model No		
		TSG-3B/350	TSG-350III	TSG-450	TSG-450II	TSG-450A1S
研磨最大長度 The maximum grinding length		365mm		470mm		460mm
研磨最大寬度 The maximum grinding width		150mm		160mm		160mm
砂輪軸心至工作台距離 Distance from center of grinding wheel to working surface		400mm		400mm		400mm
砂輪尺寸(外徑x厚度x孔徑) Size of grinding wheel (O.DxThickness x Bore)		180x13x31.75mm		180x13x31.75mm		
砂輪轉速(50HZ/60HZ) Speed of grinding wheel (50HZ/60HZ)		2850rpm/3450rpm		2850rpm/3450rpm		
手輪每轉進給量 Feeding of hand wheel on each revolution	工作台左右移動 Left and Right movement of working stand	100mm		100mm		85mm
	鞍座前後移動量 front and behind movement of saddle	5mm(每刻度0.002mm) (each scale is 0.002mm)		5mm(每刻度0.002mm) (each scale is 0.002mm)		5mm(每刻度0.002mm) (each scale is 0.002mm)
	砂輪上下移動量 Up and down movement of grinding wheel	1mm(每刻度0.005mm) (each scale is 0.005mm)		1mm(每刻度0.005mm) (each scale is 0.005mm)		0.001X0.01X0.02mm
砂輪馬達(V3)Motor of grinding wheel		1.5HP2P		1.5HP2P		
前後感應馬達						AC 90W
上下伺服馬達						AC 0.4KW
吸塵馬達(V3)Motor of dust collection		(OP) 0.37KW2P		0.37KW2P		
機器大小(長x寬x高) Dimension of machine(LxWxH)		1030X1060X1951mm		1030X1000X1900mm		1960X1537X2035mm
機器重量(約) Weight of machine (Approx.)		400/450Kg	656Kg	750Kg	750Kg	920Kg

## 標準附件 Standard accessories

- |   |   |
|---|---|
| 1.吸塵系統(TSG-350).....1組/st<br>Dust collection system (TSG-350)                       | 7.水平調整螺絲及基礎盤.....各4個/each 4pcs<br>Horizontal adjusting screw and base plate |
| 2.砂輪(直徑x厚度x孔徑).....1個/pcs<br>Grinding wheel(Dia.x thickness x Bore<br>180x13x31.75) | 8.工具及手提式工具箱.....1組/set<br>Tools and hand carrying tool case                 |
| 3.砂輪凸緣及拔取具.....1組/set<br>Flange and plucking tools                                  | 9.吊勾.....4支/pc<br>Hook  |
| 4.砂輪平衡棒.....1支/pc<br>Blancing bar of grinder wheel                                  | 10.栓塞.....4個/pcs<br>Psston  |
| 5.台式鑽石修整器.....1組/set<br>Stand type of trimmer                                       | 11.潤滑油.....4公升/liters<br>Lubricant  |
| 6.工作燈.....1組/set<br>Working light   | 12.使用說明書.....1冊/set<br>Operation manual                                     |

## 特殊附件(依需要另行購買) Special accessories (Options)

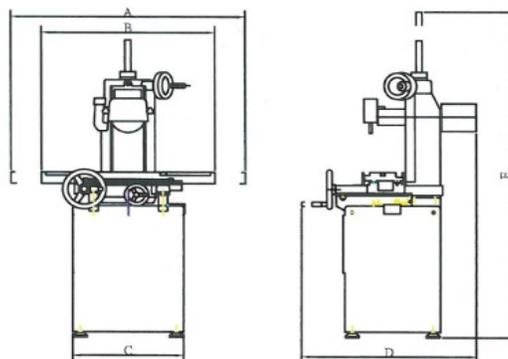
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|--|---|
| 1.永久吸磁盤<br>Permanent magnet pan                  | 5.脫磁盤<br>Demagnetizer   |
| 2.傾斜式永久磁吸盤<br>Bevel type of permanent magnet pan | 6.注水裝置(附防水罩)<br>Water filling device (with water-proof cover) |
| 3.砂輪平衡台<br>Balancing stand of grinding wheel     | 7.光學尺<br>Optical rule   |
| 4.砂輪凸緣<br>Flange of grinding wheel               | 8.吸塵系統<br>Dust collection system                              |

# 外形尺寸 Outline dimensions

TSG-	A	B	C	D	E
3B/350	1400	1000	562	1160	1923
350III	1450	1060	630	1160	1923
450	1775	1350	700	1100	1923
450II	1730	1270	750	1200	1923
450A1S	1960	1500	700	1537	1910

單位:mm

外形尺寸



## 特殊附件



砂輪平衡台



永久磁盤



砂輪凸緣



傾斜式永久磁盤

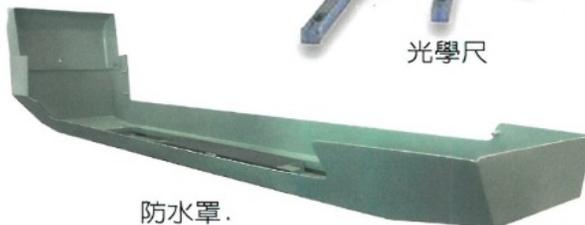
脫磁器



注水箱



光學尺

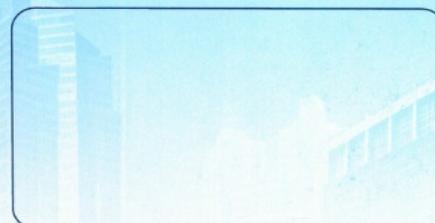


防水罩



吸塵機

經銷商：



AKUMA-GRINDER

# 冠隈精密平面磨床

PRECISION SURFACE GRINDER



TSG-450



TSG-200H



TSG-400H



TSG-500



TSG-10



TSG-450A10

高鋼性 . 高性能 . 高精度 . 高經濟效益

COMPACT . FUNCTIONAL . ACCURATE . COST EFFECTIVE