



BC700 BC900

SIRUBA®
銀箭牌工業用縫紉機
INDUSTRIAL SEWING MACHINE

BC700 BC900

高林股份有限公司 KAULIN MFG. CO., LTD.

使用說明書與零件圖 INSTRUCTION AND PARTS LIST



The specification and/or appearances of the equipment described in this instruction book are subject to change because of modification without previous notice.



高林股份有限公司
KAULIN MFG. CO., LTD.

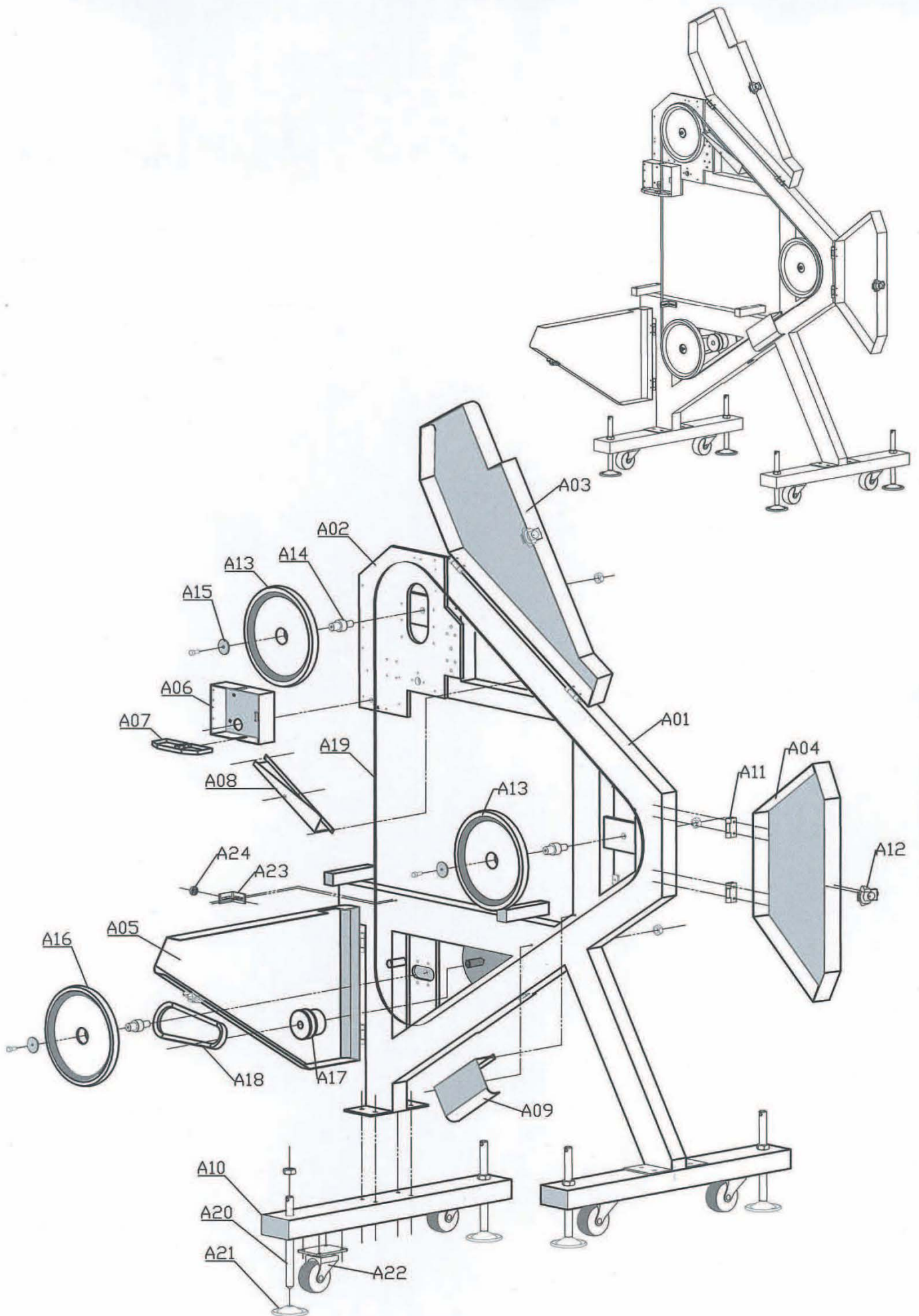
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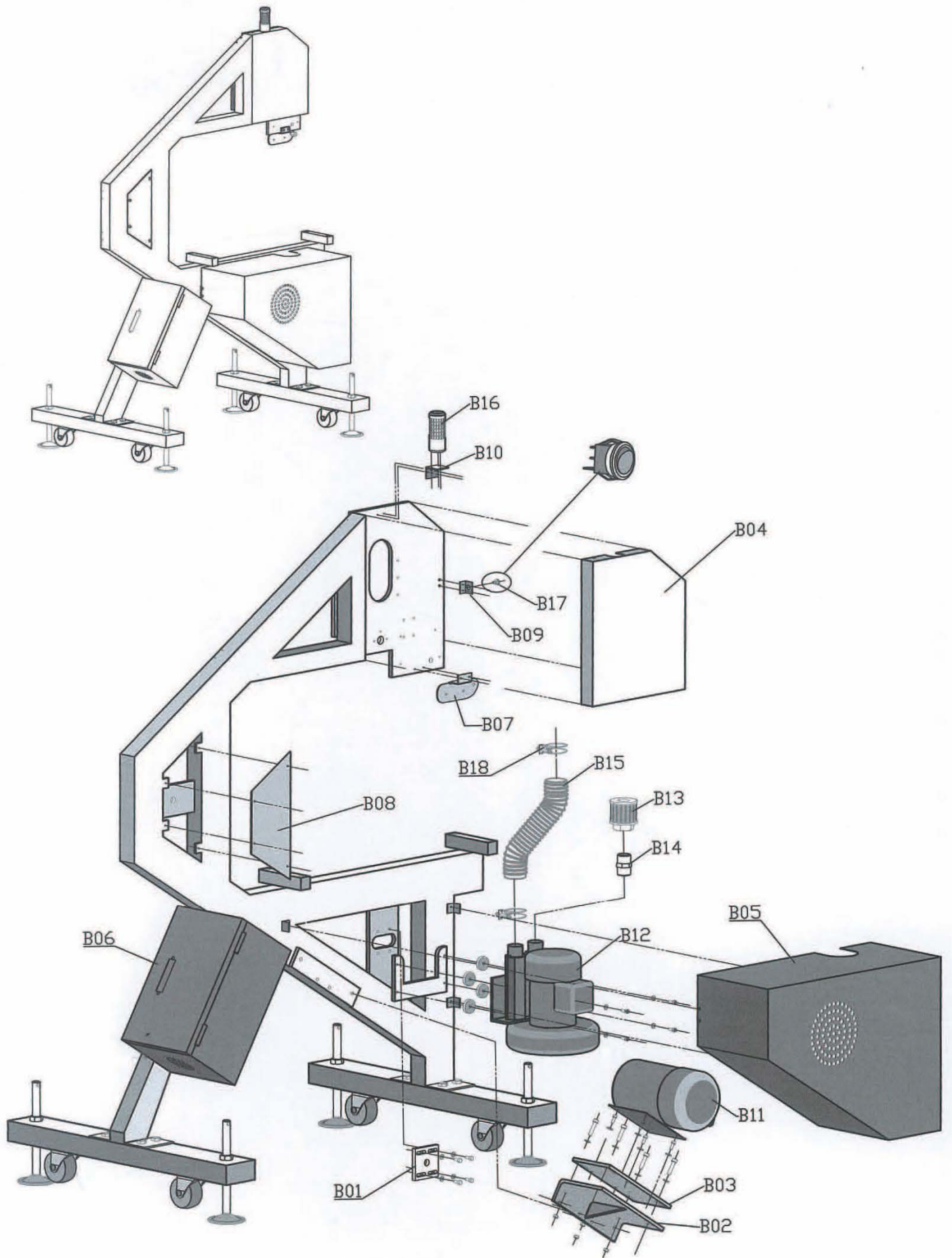
使用說明及零件圖

INSTRUCTION MANUAL & PARTS LIST

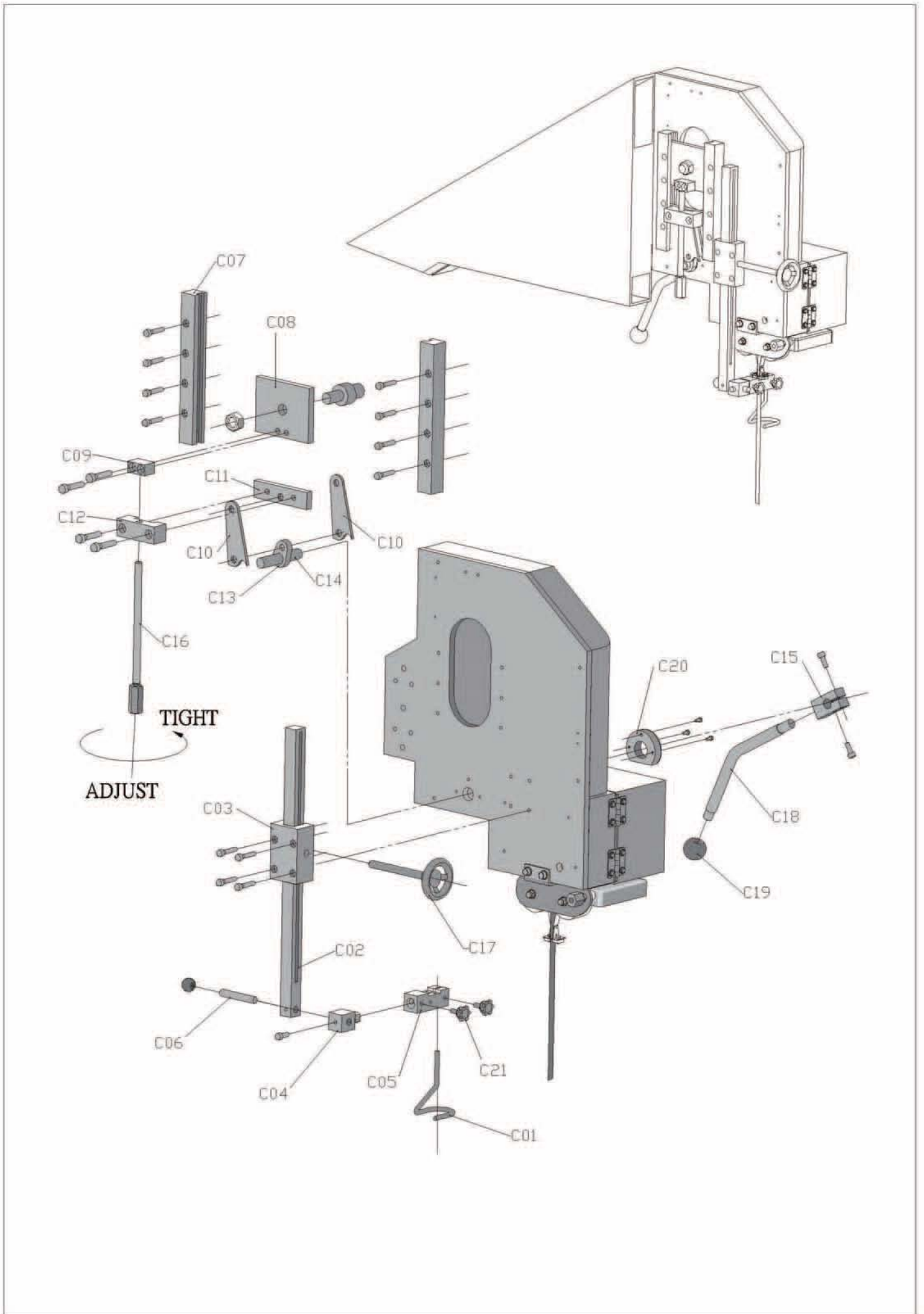
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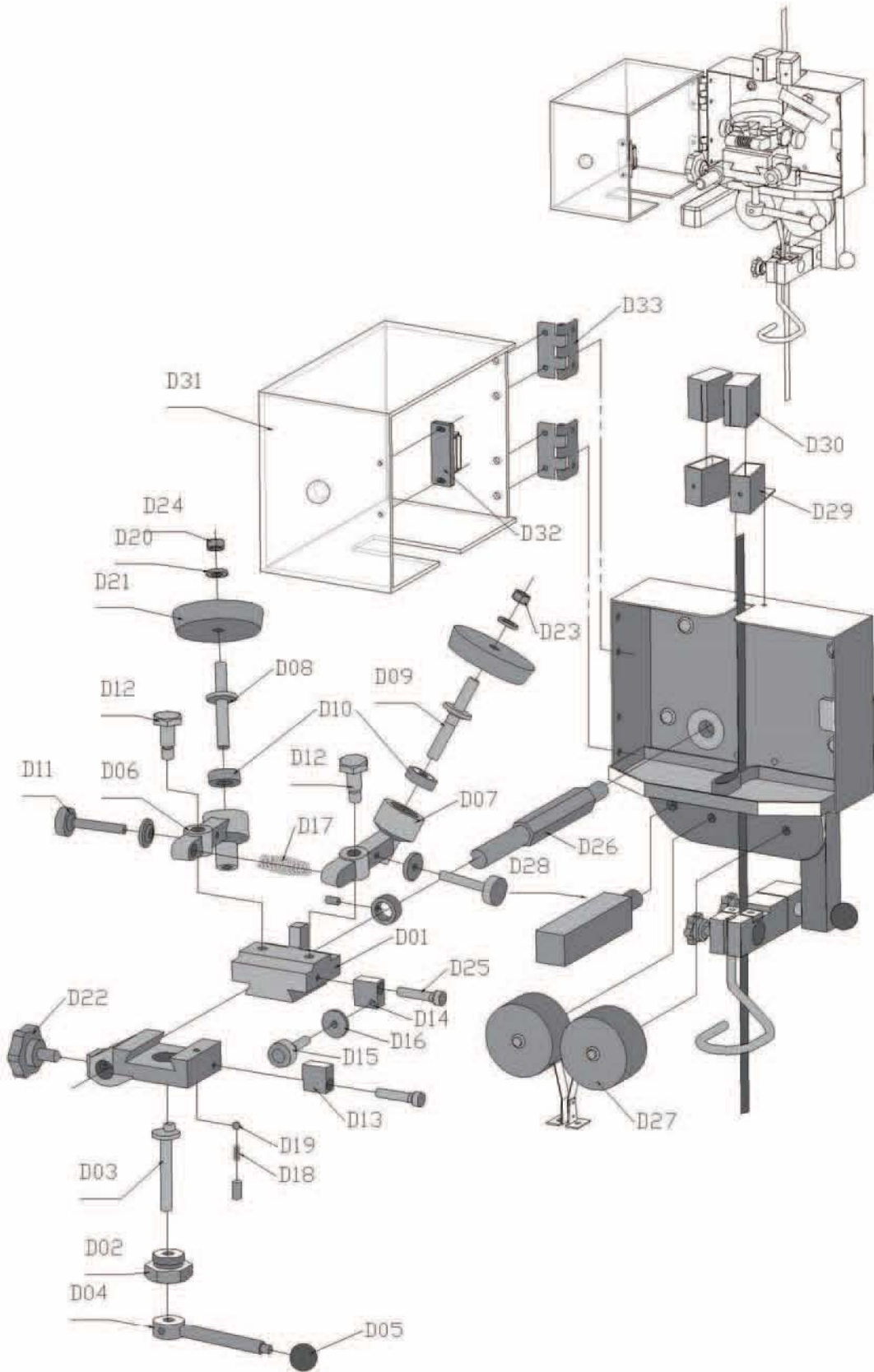
序號	NO	名稱	NAME
A01	SBK-01A	骨架	FRAME
A02	SBK-01A-01	上機板	UPPER FRAME
A03	SBK-01A-05	上風蓋	COVER(UP)
A04	SBK-01A-06	右風蓋	COVER(R)
A05	SBK-01A-07	下風蓋	COVER(DOWN)
A06	SBK-01A-11	磨刀石盒	GRINDING BOX
A07	SBK-01A-12	鐵屑板	GRIT TRAY
A08	SBK-01A-14	刀帶上護板	SAFETY PLATE
A09	SBK-01A-15	刀帶下護板	SAFETY PLATE
A10	SBK-01A-19	腳架	FOOT STAND
A11	SBK-01A-20	鉸鏈	HINGE
A12	SBK-01A-21	箱扣	DRAW LATCH
A13	SBK-20	刀帶輪	PULLEY
A14	SBK-20-1	輪軸	WHEEL AXLE
A15	SBK-20-2	軸承護蓋	BEAR CAP
A16	SBK-21	驅動刀帶輪	PULLEY
A17	SBK-22	皮帶輪	BELT WHEEL
A18	SBK-25	皮帶	BELT
A19	BK-04-3500	刀帶	BLADE
A19A	BK-04-3960	刀帶	BLADE
A20	BK-32L	腳架頂螺(長)	LONG SCREW
A21	BK-33	頂螺盤座	SOLE PLATE
A22	BK-34	移動輪	MOVING WHEEL
A23	BK-23	頂刀帶培林座	BEAR SEAT
A24	BR-11	608培林	BEAR



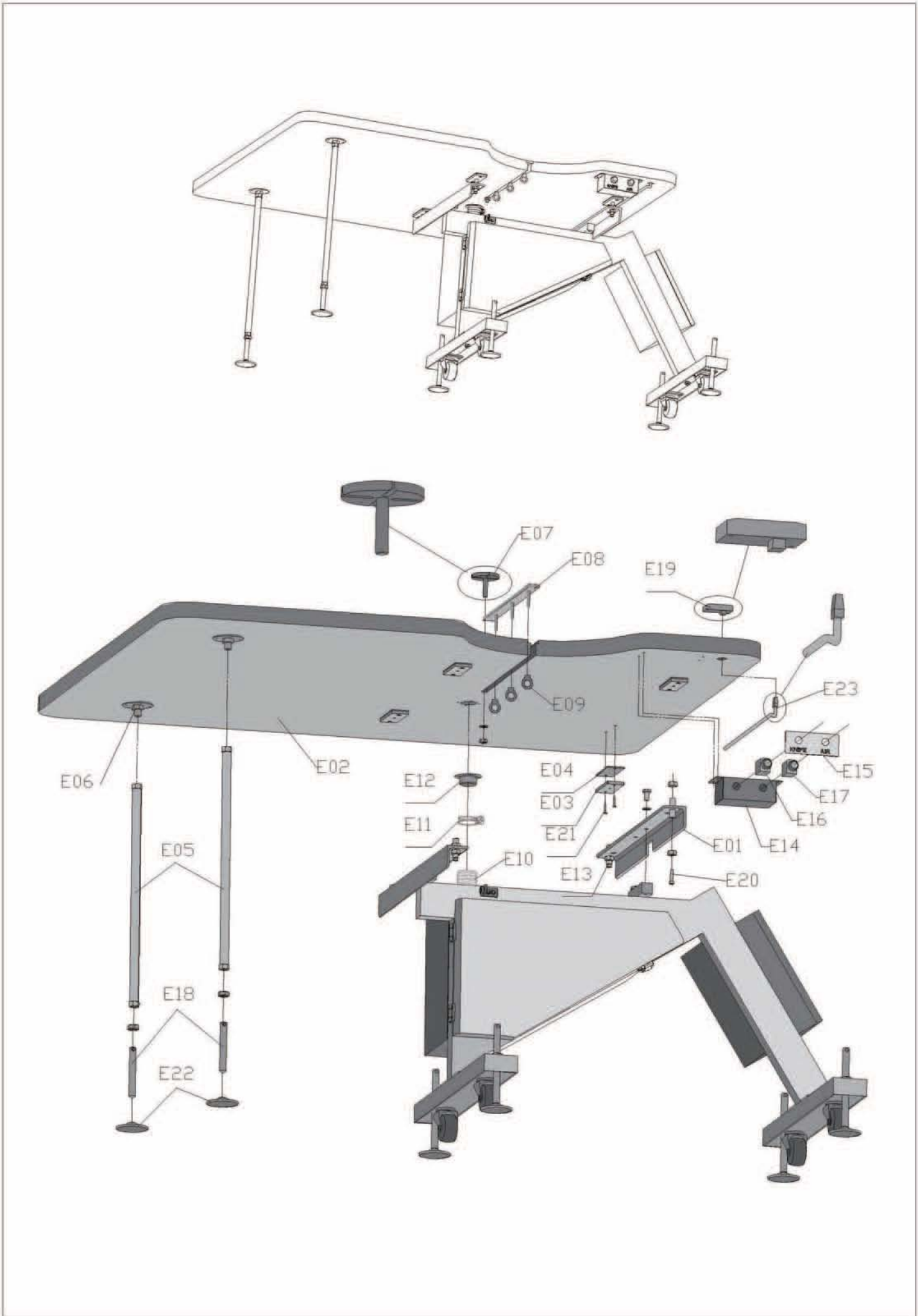
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B01	SBK-01A-02	皮帶輪移動板	PULLEY SEAT
B02	SBK-01A-03	馬達座板	MOTOR BASE
B03	SBK-01A-04	馬達移動板	MOTOR ADJUST PLATE
B04	SBK-01A-08	後風蓋	COVER
B05	SBK-01A-09	馬達風蓋	MOTOR COVER
B06	SBK-01A-10	電控箱	CONTROL BOX
B07	SBK-01A-13	護刀帶座	BLADE PROTECTOR SEAT
B08	SBK-01A-16	右輪後蓋	COVER
B09	SBK-01A-17	照明開關座	SWITCH SEAT
B10	SBK-01A-18	警示燈座	LIGHT SEAT
B11	BK-15-TE	主馬達	MOTOR
B12	BK-16A	鼓風機	BLOWER MOTOR
B13	SBK-16C	空氣濾淨器	FILTOR
B14	SBK-16D	管接頭	PIPE FITTING
B15	BK-17B	3"風管	PVC SOFT PIPE
B16	SBK-V03	警示燈	INDICATOR LIGHT
B17	SBK-V05	照明開關	SWITCH
B18	BK-17A	風管固定鐵圈	FIXED RING



序號	NO	名稱	NAME
C01	SBK-05	護刀鐵鉤	SAFETY HOOK
C02	SBK-06-01	昇降軌	SLIDE TRACK
C03	SBK-06-02	昇降座	GUIDE SEAT
C04	SBK-06-03	後調整座	FIXED SEAT
C05	SBK-06-04	前調整座	FIXED SEAT
C06	SBK-06-05	調整座軸	SHAFT
C07	SBK-11-01	滑軌	GUIDE TRACK
C08	SBK-11-02	滑塊	SLIDE SEAT
C09	SBK-11-02A	頂塊	SLIDE IRON
C10	SBK-11-03	昇降曲板	HOLDING PLATE
C11	SBK-11-04	昇降滑塊	SLIDE SEAT
C12	SBK-11-04A	螺絲座	SCREW SEAT
C13	SBK-11-05	曲塊	CAM
C14	SBK-11-06	把手軸心	SHAFT
C15	SBK-11-07	把手座	BAR SEAT
C16	SBK-11-08	調整螺絲	ADJUSTMENT SCREW
C17	BK-08	昇降調整轉螺	FIXED SPIGOT
C18	BK-11-1	刀帶鬆緊調整桿	LIFTING BAR
C19	BK-11-2	刀帶鬆緊調整丸珠	KNOB
C20	M-01B	軸承蓋	BEAR CAP
C21	BK-06-8	前後調整塑膠螺絲	ADJUST SCREW

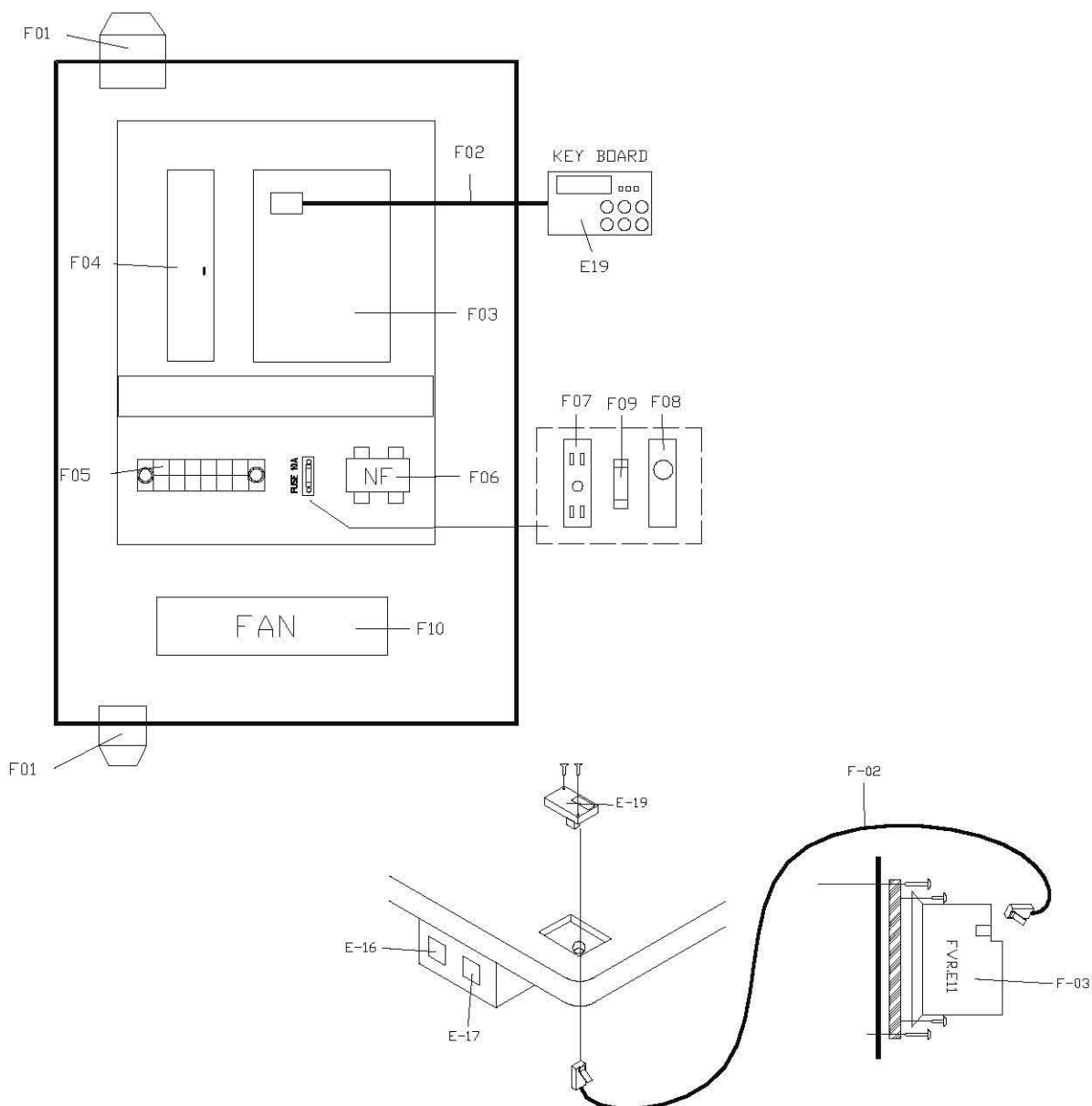


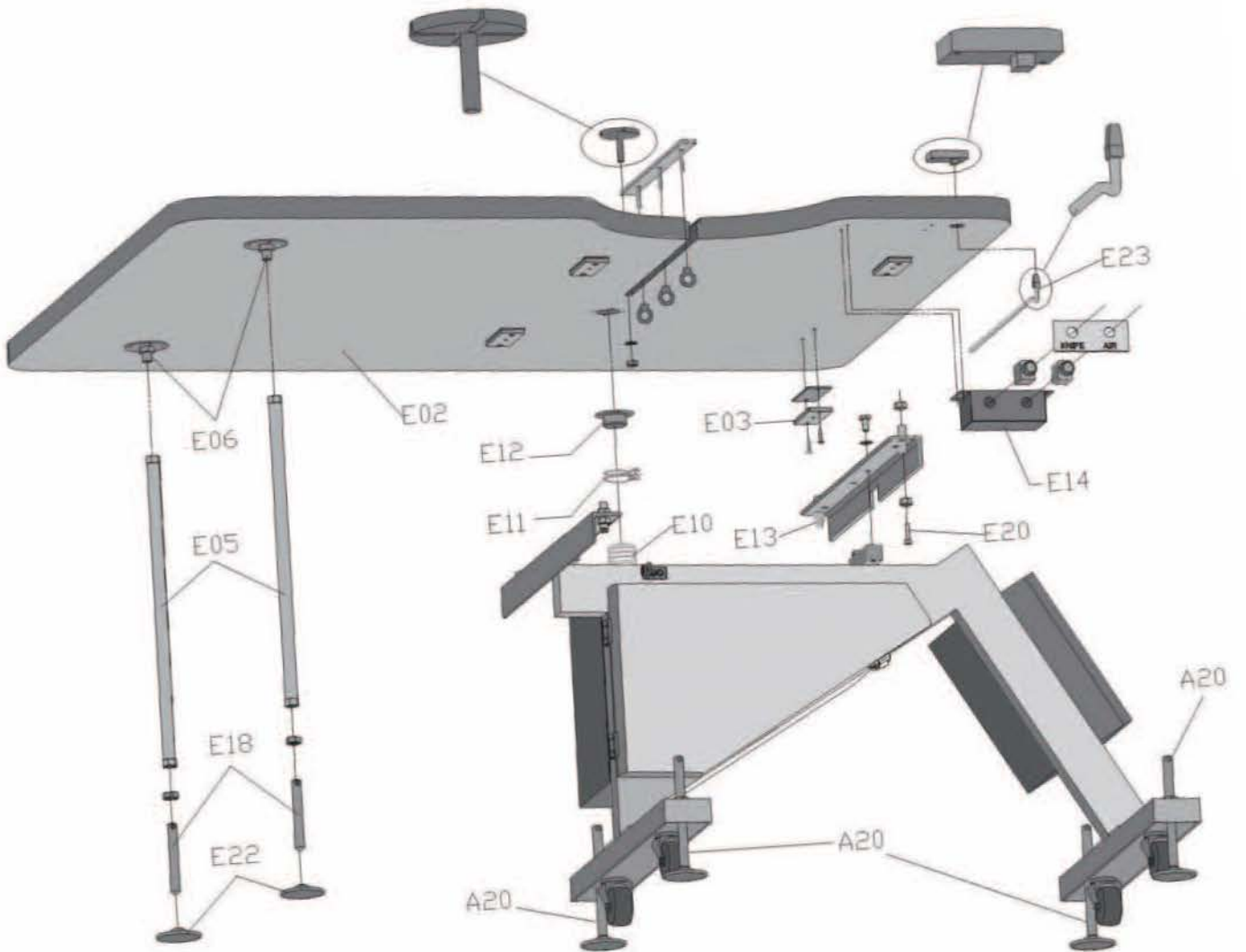
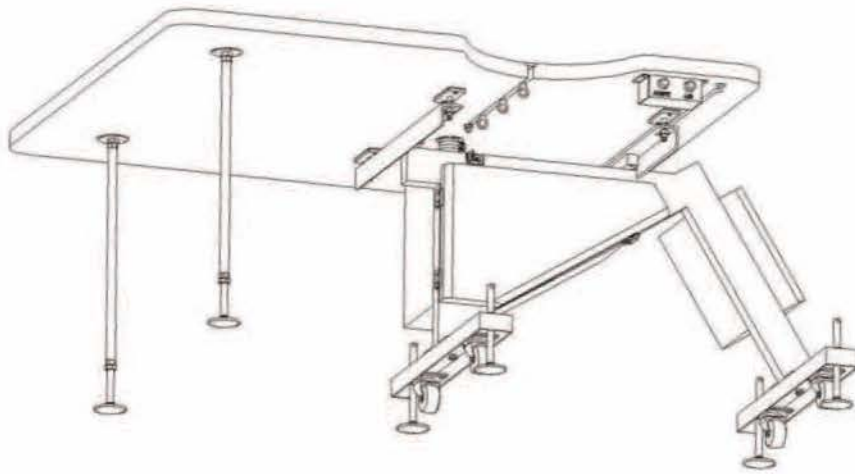
序號	NO	名稱	NAME
D01	BK-28-1	磨刀石座	GRINDING SET
D02	BK-28-2	偏心六角螺母	SHAFT CAP
D03	BK-28-3	偏心軸	GRINDING SHAFT
D04	BK-28-4	偏心調整桿	GRINDING BAR
D05	BK-28-5	偏心調整桿丸珠	BAR KNOB
D06	BK-28-6	左調桿(鋁)	ALUMINUM FIXER(L)
D07	BK-28-7	右調桿(鋁)	ALUMINUM FIXER(R)
D08	BK-28-8	左軸心(反牙)	SHAFT(L)
D09	BK-28-9	右軸心(正牙)	SHAFT(R)
D10	BK-28-10	日製608培林	BALL BEARING
D11	BK-28-11A	調整螺絲	ADJUSTMENT BOLT
D12	BK-28-12	調桿螺栓	FIXED SCREW
D13	BK-28-13A	前調整固定塊	ADJUSTMENT IRON SEAT
D14	BK-28-13B	後調整固定塊	ADJUSTMENT IRON SEAT
D15	BK-28-14	前後調整螺絲	ADJUSTMANT SCREW
D16	BK-28-15	調整螺帽	ADJUSTMENT NUT
D17	BK-28-16	調桿用彈簧	SPRING
D18	BK-28-17	鬆緊彈簧	SPRING
D19	BK-28-18	鬆緊鋼珠	STEEL BALL
D20	BK-28-19	橡膠墊圈	RUBBER RING
D21	BK-28-J05-GE	中磨刀石	GRINDSTONE
D22	BK-06-8	調整塑膠螺絲	GRINDING SPIGOT
D23	NUT-M8-13	M8螺帽	COUNTERSUNK
D24	NUT-M8-13L	M8螺帽	COUNTERSUNK
D25	IH-M6-30	M6螺絲	SCREW
D26	K-27	磨刀石組支桿	HOLDING BOLT
D27	BK-07	護刀帶組	BLADE PROTECTOR
D28	SBK-V06	LED照明燈	LED LIGHT
D29	SBK-48	毛氈座	FELT SEAT
D30	BK-37	毛氈	FELT
D31	SBK-10	壓克力盒	GRINDING BOX
D32	BK-10A	塑膠磁鐵	MAGNET
D33	BK-10B	絞鏈	HINGE



序號	NO	名稱	NAME
E01	BK-01A-403	固定角鐵	TABLE SETTING IRON
E02	BK-02A	桌板	TABLE
E03	BK-02-1	固定鐵板	PLATE
E04	BK-02-5	橡膠墊	RUBBER PAD
E05	BK-03	桌腳	TABLE LEG
E06	BK-03-1	桌腳固定座	LEG PLATE
E07	BK-12	桌縫圓鐵座	ROUND PLATE
E08	BK-13	安全長護條	TABLE PLATE
E09	BK-14	護條螺絲	SCROW FOR TABLE PLATE
E10	BK-17B	3"風管	PVC SOFT PIPE
E11	BK-17C	風管固定鐵圈	FIXED RING
E12	BK-18A	入風嘴	BLOWING MOUTHPIECE
E13	BK-24	桌板固定螺	SCREW FOR TABLE HOLDING
E14	BK-30	電氣盒	SWITCH BOX
E15	BK-30A	銘牌	NAME PLATE
E16	BK-31B	主電源開關	KNIFE POWER SWITCH
E17	BK-31Y	鼓風機開關	AIR SWITCH
E18	BK-32S	腳架頂螺(短)	LEG SCREW
E19	BK-25A-1	變頻器操作板	CONTROL PANEL
E20	IH-M8-65-F	固定螺絲	SCREW
E21	NUT-3/4	外六角螺帽	WOOD SCREW
E22	BK-33	頂螺盤座	SOLE PLATE
E23	BK-25-2	電纜連接線	TRANS MISSION CABLE

序號	NO	名稱	NAME
F01	BK-19	外迫式電纜固定頭KSS AG-20(黑色)	
F02	BK-25-2	電纜連接線CAT-5E 2米	TRANSMISSION CABLE
F03	BK-25A	變頻器富士INV FVR1.5E1S-2J	INVERTER
F04	BK-26	剎車電阻富士TK80W120	RESISTER
F05	BK-38	固定式端子盤6P 天得TB25-6	TERMINAL BLOCK
F06	P-71A	電源濾波器 125-250VAC 10A(220V)	EMI FILTER COMBINATION
F07	V-03	臥式保險絲座 TFB-101 10A 1P	FUSE BLOCK
F08	V-03A	臥式保險絲上蓋附燈 TFB-101 10A	FUSE BLOCK COVER
F09	V-03D	保險絲 10A	FUSE 10A
F10	SBK-V04	8*8CM風扇AC220V	FAN





桌板安裝步驟說明

Table assembly procedure

- 1 將裁桌(E02)下方的裁板固定鐵(E03)中心孔位對準鎖緊固定螺絲(E13)，並取出配件包內螺絲(E20)鎖緊。

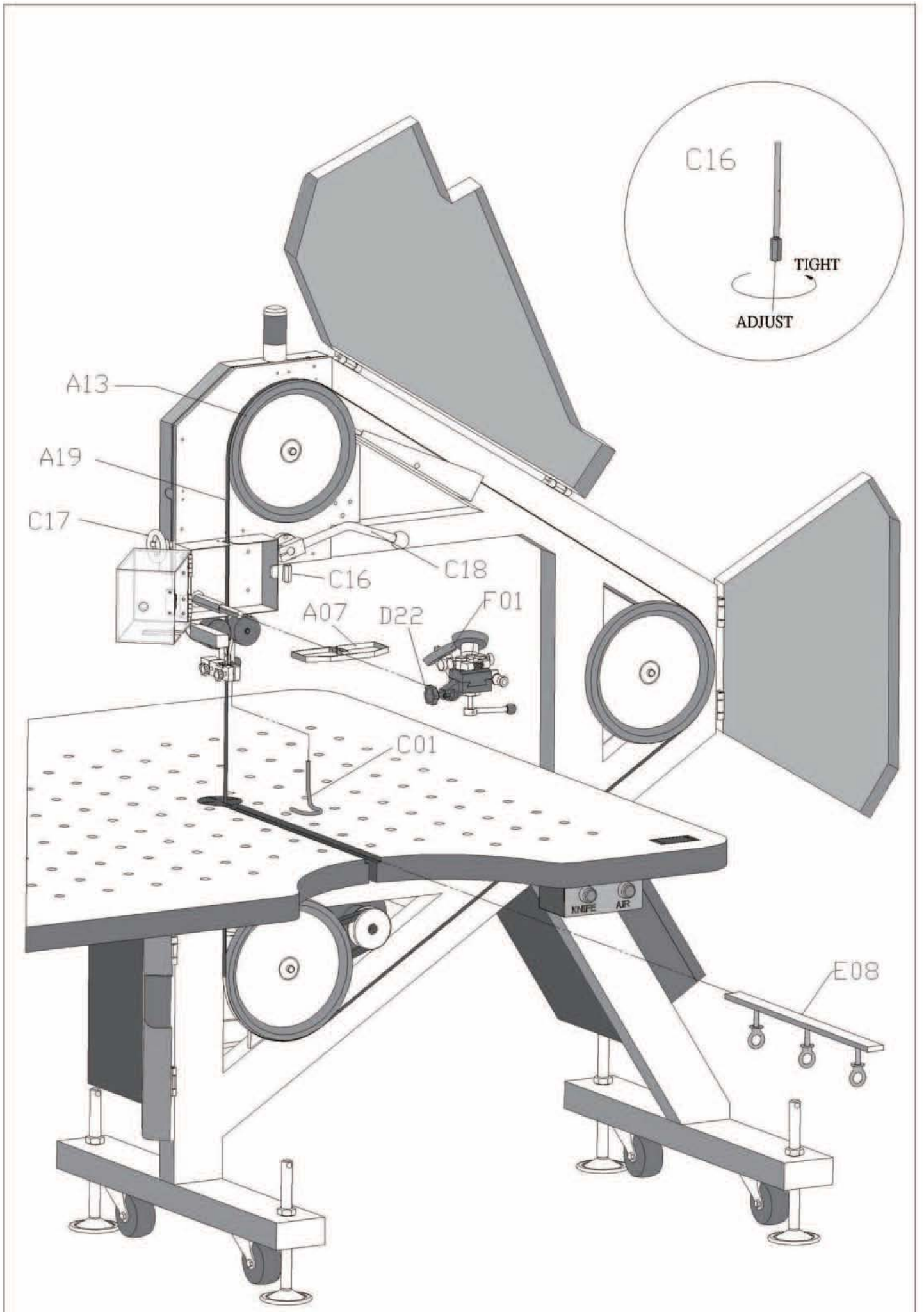
Mount the cutting table by aligning the tapped holes of the table liners (E03). Fasten the table with bolts (E20).
- 2 將桌腳(E05)鎖緊桌腳固定座(E06)，再將腳架頂螺(E18)放入頂螺盤座(E22)。

Mount two table legs (E05) fixed beneath the table by screws. Then put frame holding screws (E18) into sole plate (E22).
- 3 將風管(E10)連接環型鼓風機(B12)及桌板入風嘴(E12)並鎖緊風管固定圈(E11)。

Slip the blower hose (E10) onto the air mouthpiece (E12) and fasten the hose with a hose clamp (E11).
- 4 依照所需高度調整腳架頂螺(A20及E18)使桌板平整。

Adjust long and short screw (A20&E18) to proper tight.
- 5 將開關盒(E14)固定在裁桌右下緣並將變頻器連接線(E23)接上。

Attach the switch box (E14) to the cutting table, and plug the connector of control cable(E23) into control panel (E19).



刀帶安裝及調整步驟說明

Installment or adjustment for new knife

- 1 將安全長護條(E08)取下。
Remove the table plate (E08).

- 2 將磨刀石組固定螺絲放鬆(D22)，並將磨刀石組(F01)取下。
Unscrew the plastics screw(D22) and take off the grinder assembly(F01).

- 3 將昇降調整轉螺(C17)放鬆，將護刀帶組升到最高後再轉緊固定。
Unscrew the bolt (C17) and rise up the knife guide to highest position.

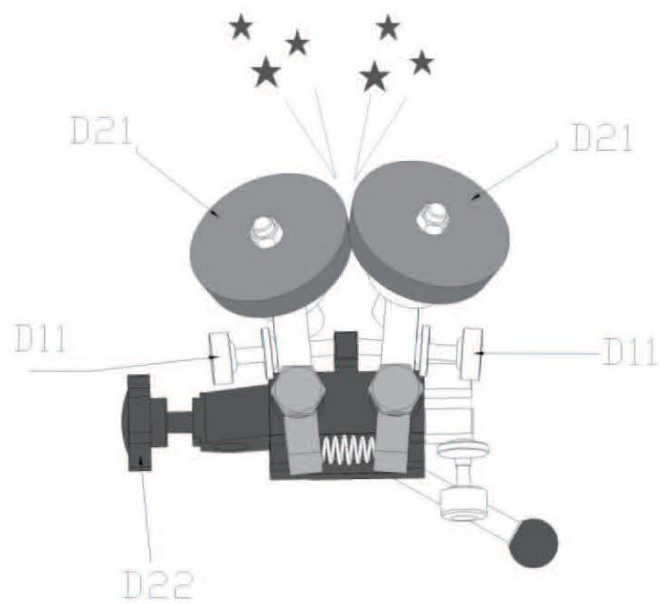
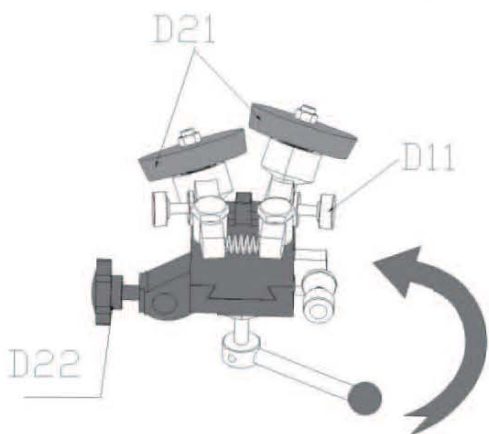
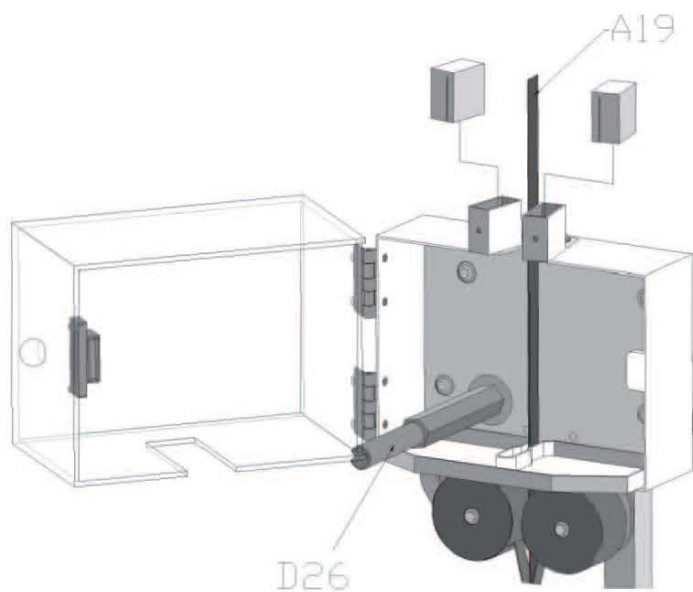
- 4 將鐵屑盒(A07)及刀帶護鐵勾(C01)取出。
Take out the grit tray (A07) and safety wire (C01).

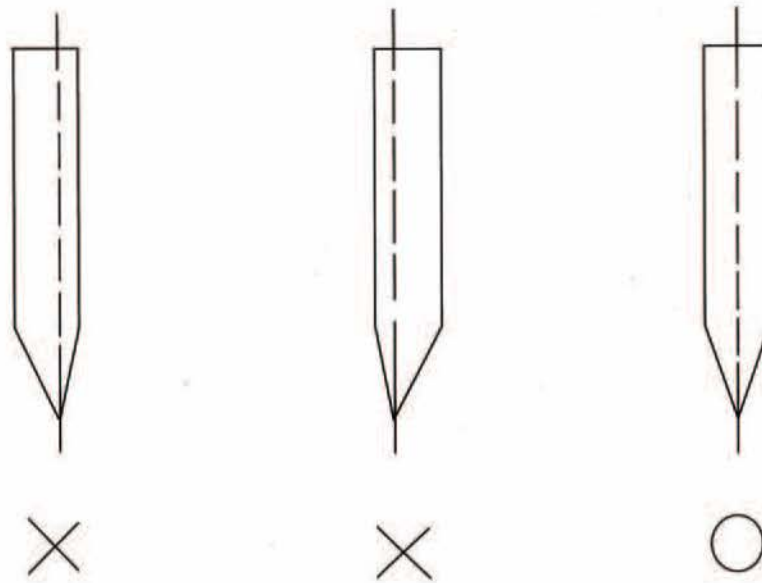
- 5 將刀帶鬆緊調整桿(C18)向下壓，使刀帶輪(A13)降下。
Press down the adjustable driver of knife tension (C18) to lower the knife wheel (A13).

- 6 將新刀帶(A19或A19A)放在三顆滑輪外圓中間，並將刀帶鬆緊桿(C18)向上拉。
Mount a new knife (A19 or A19A) ride on three pulleys and pull up the driver (C18).

- 7 檢查刀帶(A19或A19A)鬆緊，並適度旋轉刀帶調整螺絲(C16)。
Test the knife (A19 or A19A) tension.

- 8 依照第1~4項步驟將各項零件依順序裝回。
Install by step 1 ~ step 4.





磨刀石組安裝調整步驟說明 Grinder Wheel

- 1 磨刀石組固定螺絲(D22)放鬆，放入磨刀石組支桿(D26)後並鎖緊。
Mount the grinder system holding (D26) and screw it tight.

- 2 適度調整二側及前後磨刀石調整螺絲(D11)，使磨刀石(D21)能同時接觸到刀帶(A19或A19A)。
Adjust the screws of grinder (D11) to correct position to let the grinder stone (D21) touch the knife (A19 or A19A).

- 3 正確調整研磨刀帶(A19或A19A)方式請看附圖。
See attached for adjusting the knife.

操作步驟說明 Instruction

- 1 請先確定來源電為AC220V，並將電源線接到無熔絲開關，務必將接地線接上。
Make sure the voltage is AC220V, connect the power wire to NFB and connect the ground wire.

按壓桌板側邊的『KNIFE』按鈕(E-16)，使其電源進入變頻器，再按壓變頻器操作板上的『RUN』可使刀帶運轉，按壓『STOP』可使刀帶停止運轉。

- 2 KNIFE key: Connect the power.
RUN key: Start the knife.
STOP key: Stop the knife.

按壓變頻器操作面板上的『Λ』鍵可增加刀帶速度，最高頻率 60 HZ。

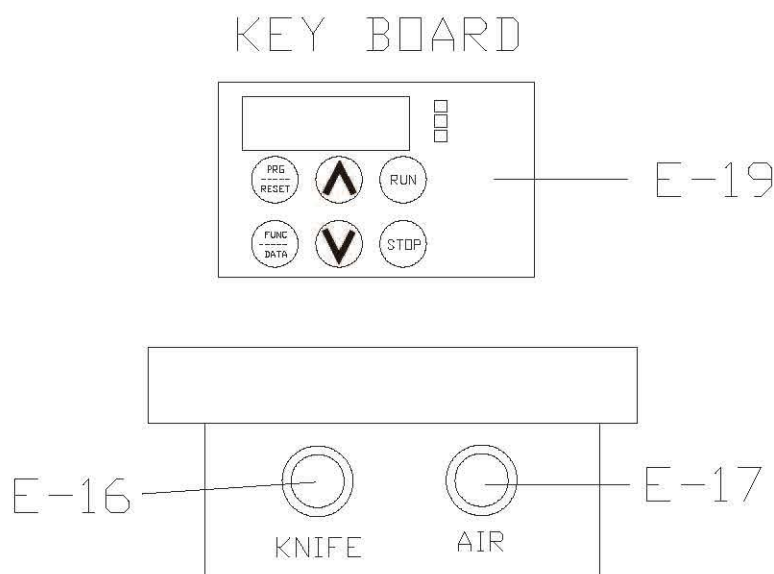
- 3 按壓『V』可減低刀帶速度，最低頻率 0 HZ。
Λ key: Increase the speed, maximum to 60HZ.
V key: Lower the speed, minimum to 0HZ.

- 4 操作面板上『FUNC/DATA』功能鍵可切換顯示項目，例如：安培、功率、電壓...等。
FUNC/DATA key: Select ampere, power, or voltage.

- 5 LED照明必須先按壓『KNIFE』按鈕(E-16)使其電源進入，再按壓LED照明控制開關(B-17)控制燈光。
Press KNIFE(E-16) first, and press LED lighting control switch (B-17) to control the light.

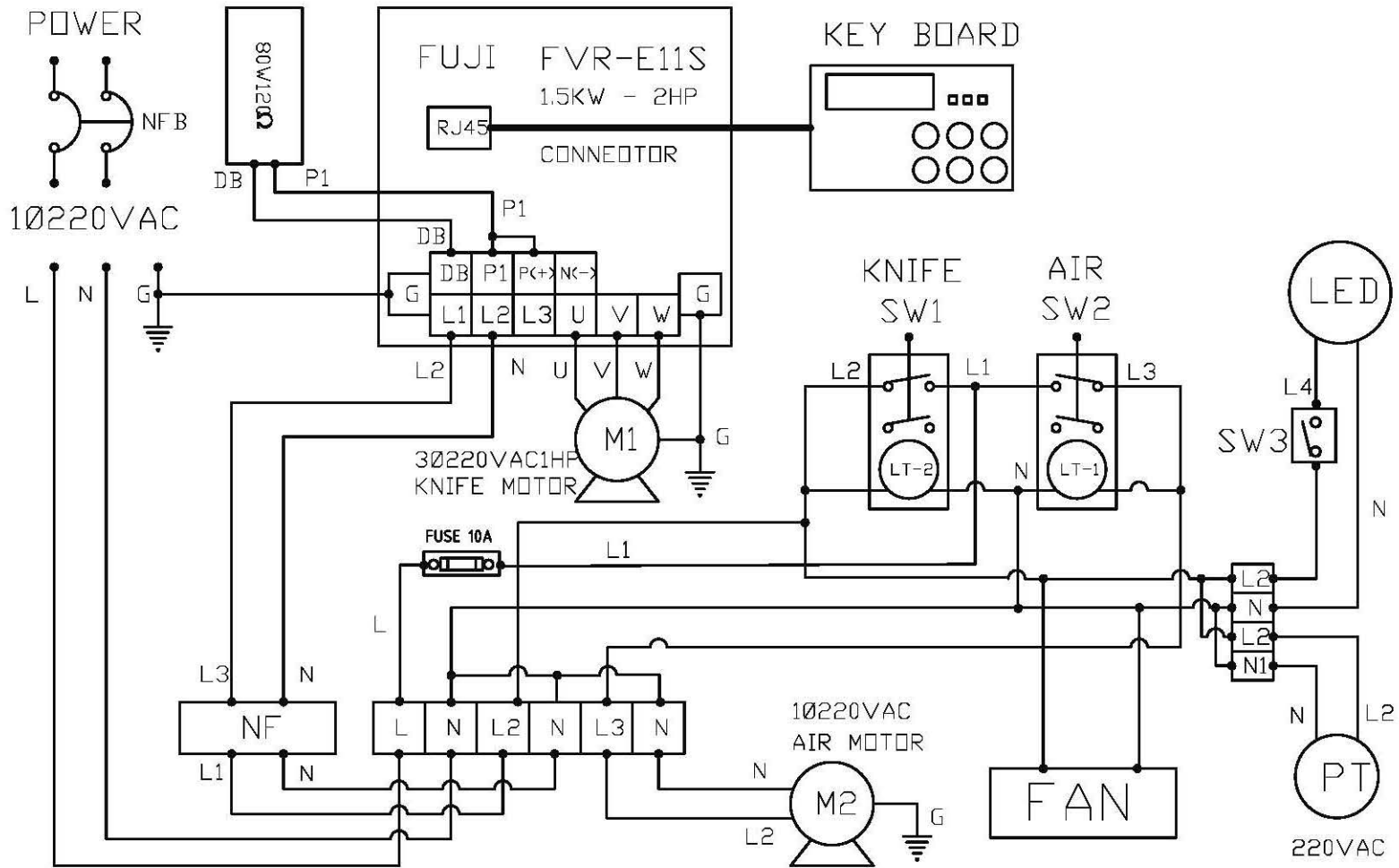
按壓桌板側邊的『AIR』按鈕(E-17)可啟動鼓風馬達，將氣浮珠昇起使布料移動順暢。

- 6 AIR key (E-17): Turn on the blower and air layer is formed between fabric and table surface so that the fabric can be moved lightly on the table.
- 7 進行切割布料時，請將護刀帶組放置在被切割布面上。
Put the knife guide on the fabric when cutting.



電路圖

CIRCUIT DIAGRAM



Specification of Band Knife Cutter

機型 Model	BC-700	BC-900
工作檯面積 Table Size (mm)	1800×1500	2100×1500
工作檯高度 (可調) Table Height (Adjustable) (mm)	850~950	
臂長 Arm Size (mm)	700	900
機器淨重 Machine Net Weight	240kg	260kg
機器毛重 Machine Gross Weight	381kg	428kg
整機尺寸 Complete Set Dimensions (mm)	2210(L)×1500(W)×1720(H)	2490(L)×1500(W)×1720(H)
包裝尺寸 Packing Dimensions (mm)	1670(L)×970(W)×2080(H)	2270(L)×970(W)×1940(H)
刀帶尺寸 Knife Size (mm)	3500×10×0.45	3960×10×0.45
刀帶使用最小寬度 Minimum Width of the Knife (mm)	2.5	
使用高度 Available Height	8"	
電壓 Voltage	單相 Single Phase 220VAC±10%	
頻率 Frequency	50Hz~60Hz	
最大切割厚度 Max. cutting thickness (mm)	180	
速度控制 (可調) Speed Control (Variable)	0~1060 m/min (0~60 Hz)	
傳動馬達 (變頻) Drive Motor (Frequency Conversion)	三相 Three Phases 220V / 750W	
吹風馬達 Blower Motor	單相 Single Phase 220V / 180W	
適切布料 Available Fabric	一般針織、軟性平織布料 General Knitted, Woven Fabrics	
特殊布料適切限制 The applicable restriction of the special fabrics	① 硬性牛仔布2" 以下。Rigid Jean below 2" . ② 硬性膠皮不織布2" 以下。Rigid rubberized non-woven fabric below 2" . ③ 硬塑膠皮1" 以下。Rigid Plastic leather below 1" . ④ 硬PVC皮1" 以下。Rigid PVC leather below 1" . ⑤ 硬合成皮1" 以下。Rigid synthetic leather below 1" . 註：以上轉彎均有限制。Note: All of the above has turning restriction.	
操作方式 Operation Mode	BC-700/ 900系列操作模式為精細切割小型裁片為主，並附有裁剪區照明設備。裁切布料下方須墊一張紙，啟動氣浮馬達後，使切割布料易於在桌面上移動及旋轉。布料上方須以模具或硬式模板定位後裁切，再以手動移動布料順著模板形狀切割。此機型也可做細小布料修正的微修切割，此外還可調整刀帶轉速以適切各種布料。 The major operation mode of BC-700/ 900 series, attaching LED light in cutting area, is to fine cut small cutting pieces. First of all, put a paper under the fabric to make the fabric move and turn easily on the desk after air flotation motor started. By the way, a mold or rigid template is needed on the fabric to well locate it and then move the fabric along the template shape by hands to cut. This model can also do micro trimming for small fabric; moreover, it can adjust the knife rotation speed to fit for cutting various fabrics.	

注意事項 Caution

- 1 停止使用裁斷機時，請將護刀帶組放到底緊貼桌面，避免人員誤觸刀帶造成傷害。
Lower the knife guide down to the table surface for safety.
- 2 長時間停止使用裁斷機，請將機械與電源分離。
Disconnect the power supply cable from the outlet if the cutter is not being operated for a long period of time.
- 3 使用中若有停電狀況，請將電源開關按鈕關閉。
Press the power supply button off if the power supply is interrupted during operation.
- 4 工作人員使用裁斷機時，請務必配帶鐵網安全手套。
It is recommended to put on stainless steel mesh gloves for safety.

清潔與保養 Cleaning

- 1 定期清潔裁桌面板布屑避免氣浮珠無法升降，建議每日工作完畢後清潔。
Remove cloth waste on the table at regular intervals.
- 2 定期清潔鐵屑盒(A-07)避免過多鐵屑掉落布面，建議一星期清潔一次。
Remove grit from the grit tray once a week.
定期檢查羊毛氈(D-30)、清潔污垢及添加線油，嚴重污垢時請更換，建議一星期清潔一次。
Clean the felt (D-30) and fill silicon oil once a week.
Change it if extremely dirty.
- 4 定期清潔空氣濾淨器(B-13)及風蓋內屑，空氣濾淨器嚴重污損時請更換，建議一個月清潔一次。
Clean the air filter and cloth waste inside the case which is under the table once a month.
Change it if extremely dirty.

簡易維護 Maintenance

- 1 裁斷機刀帶無法啟動時，請依照下列各項逐項檢查。
If the knife is damaged, check by steps:
 - 1.檢查電源是否為AC220V。
Check the voltage.
 - 2.檢查保險絲是否斷開。
Check the fuse.
 - 3.檢查濾波器(F-06)是否損壞。
Check the wave filter.
 - 4.檢查變頻器(F-03)包含操作面板(E-19)是否故障。
Check the inverter and control panel.
 - 5.檢查變頻器是否有故障代碼，若有請依照附錄對應並排除。
Check the error code of inverter.
 - 6.檢查KNIFE按鈕開關(E-16)是否故障。
Check the switch for knife power.
 - 7.檢查刀帶馬達(B-11)是否故障。
Check the knife motor.
- 2 鼓風馬達無法動作時，請依照下列各項逐項檢查。
If the blower motor is not working, check by steps:
 - 1.檢查電源是否為AC220V。
Check the voltage.
 - 2.檢查保險絲是否斷開。
Check the fuse.
 - 3.檢查AIR按鈕開關(E-17)是否故障。
Check the switch for blowing.
 - 4.檢查鼓風馬達(B-12)是否故障。
Check the blowing motor.

變 頻 器 故 障 代 碼 表

故障碼 Error code	保護功能 Description	內容說明 Detail
OC1	過電流保護 Overcurrent protection	因過載而引起過電流保護動作，停止變頻器。 Stop the inverter output to protect the inverter from an overcurrent due to overload.
OC2	短路保護 Short-circuit protection	因輸出電路的短路引起過電流保護動作，停止變頻器。 Stop the inverter output to protect the inverter from overcurrent due to a short-circuiting in the output circuit.
C3	對地短路保護 Ground fault protection	只在啓動時保護輸出電路的對地短路引起的過電流，停止變頻器。在對地短路狀態下接通電源，可能不進行保護。 Stop the inverter output to protect the inverter from overcurrent due to a ground fault in the output circuit. This protection is effective only during startup of the inverter. If you turn ON the inverter without removing the ground fault, this protection may not work.
OU1 OU2 OU3	過電壓保護 Overvoltage protection	檢測出直流中間電路的過大電壓（3相200V：DC400V，3相400V：DC800V），停止變頻器。如果錯誤地施加明顯過大的電壓時，則不能保護。 Stop the inverter output upon detection of an overvoltage condition (400 VDC for three-phase 200 V, 800 VDC for three-phase 400 V class series) in the DC link bus. This protection is not assured if extremely large AC line voltage is applied inadvertently.
LU	欠電壓保護 Undervoltage protection	檢查出直流中間電路電壓過低（3相200V：DC200V，3相400V：DC400V），停止變頻器。但是，選擇「F14=4或5」時，即使直流中間電路電壓下降，也不輸出警報。 Stop the inverter output when the DC link bus voltage drops below the undervoltage level (200 VDC for three-phase 200V, 400 VDC for three-phase 400 V class series). However, if data "4 or 5" is selected for F14, no alarm is output even if the DC link bus voltage drops.
Lin	輸入缺相保護 Input phase loss protection	檢測到輸入缺相，停止變頻器。該功能可以防止由於電源缺相或相之間不平衡，引起變頻器上施加極端的應力引起損壞。 即使在輸入缺相的情況下，當連接的負載較輕時以及連接直流電抗器時，也不會檢測出缺相。 Detect input phase loss, and stop the inverter output. This function prevents the inverter from undergoing heavy stress that may be caused by input phase loss or inter-phase voltage unbalance and may damage the inverter. If connected load is light or a DC reactor is connected to the inverter, this function will not detect input phase loss if any.
OPL	輸出缺相保護 Output phase loss protection	檢查出啓動時以及運轉中的輸出配線的斷線，停止變頻器。 Detect breaks in inverter output wiring at the start of running and during running, stop the inverter output.

0HL		對於冷卻風扇的故障和過載，檢查出散熱片的溫度，停止變頻器。 Stop the inverter output upon detecting excess heat sink temperature in case of cooling fan failure or overload.
dbH	過熱保護 Overheat protection	如果外部制動電阻器過熱，將停止放電動作和變頻器動作。 ※必須根據使用的制動電阻器，設定功能碼。 Discharging and inverter operation are stopped due to overheating of an external braking resistor. * Function codes must be set corresponding to the braking resistor.
0LU	過載保護 Overload protection	通過輸出電流和內部溫度檢查，計算IGBT 內部的溫度，超出保護值時，停止變頻器。 Stop the inverter output if the Insulated Gate Bipolar Transistor (IGBT) internal temperature calculated from the output current and temperature of inside the inverter is over the preset value.
0H2	外部警報 輸入 External alarm input	通過接點輸入信號（THR），停止變頻器的警報。 Place the inverter in alarm-stop state upon receiving digital input signal THR.
0L1 0L2	電子熱繼電器 Electronic thermal overload	通過電子熱繼電器功能的設定停止變頻器，保護馬達。 ▪ 在全頻率範圍內保護通用馬達。 ▪ 在全頻率範圍內保護變頻專用馬達。 ※可以設定動作值以及熱時間常數。 In the following cases, the inverter stops running the motor to protect the motor in accordance with the electronic thermal overload protection setting. - Protect general-purpose motors over the entire frequency range (F10 = 1.) - Protect inverter motors over the entire frequency range (F10 = 2.) The operation level and thermal time constant can be set by F11 and F12.
0H4	PTC熱敏電阻 PTC thermistor	可以通過PTC 熱敏電阻，停止變頻器，保護馬達。 端子【C1】 - 【11】之間連接PTC 熱敏電阻，設定控制基板上的開關及功能碼。 A PTC thermistor input stops the inverter output for motor protection. Connect a PTC thermistor between terminals [C1] and [11] and set the function codes and slide switch on the interface PCB accordingly.
Er1	記憶體異常 Memory error detection	接通電源時和寫入數據時檢查數據，檢查出記憶體的異常，停止變頻器。 The inverter checks memory data after power-on and when the data is written. If a memory error is detected, the inverter stops.
Er2	操作面板 通信異常 Keypad communications error detection	通過操作面板（本體標準）或多功能操作面板（選配件）運轉時，檢測操作面板與變頻器本體間的通信異常，停止變頻器。 The inverter stops by detecting a communications error between the inverter and the keypad during operation using the standard keypad or multi-function keypad (optional).
Er3	CPU 異常 CPU error detection	檢查出干擾等引起的CPU 異常，停止變頻器。 If the inverter detects a CPU error or LSI error caused by noise or some other factors, this function stops the inverter.

Er4	選配體 通信異常 Option communications error detection	使用各種任選插體時，檢測與變頻器本體的通信異常，停止變頻器 Upon detection of an error in the communication between the inverter and an optional card, stop the inverter output.
Er5	選配體異常 Option error detection	使用各種任選插體時，在選配件側檢測異常，停止變頻器。 When an option card has detected an error, this function stops the inverter output.
Er6	運轉動作異常 Operation protection	即使通過端子台或通信發出運轉指令時，按下操作面板的STOP 鍵後，強制性減速停止。（停止後顯示Er6。） Pressing the key on the keypad forces the inverter to decelerate and stop the motor even if the inverter is running by any run commands given via the terminals or communications (link operation). After the motor stops, the inverter issues alarm er6.
Er7	整定異常 Tuning error detection	整定馬達常數中，檢測整定失敗、中斷、整定結果的異常時， 停止變頻器。 During tuning of motor parameters, if the tuning has failed or has aborted, or an abnormal condition has been detected in the tuning result, the inverter stops its output.
Er8	RS-485 通信異常 RS-485 communications error detection	操作面板的連接口通過RS-485 通信連接到網絡，檢測通信異常時，停止變頻器，顯示異常。 When the inverter is connected to a communications network via the RS-485 port designed for the keypad, detecting a communications error stops the inverter output and displays an error code er8 .
ErF	欠電壓時 數據保存 異常 Data save error during undervoltage	欠電壓保護動作時，如果不能保存數據，則顯示異常。 If the data could not be saved during activation of the undervoltage protection function, the inverter displays the alarm code.
ErP	RS-485 通信異常 (選配件) RS-485 communications error detection (optional)	使用選配件RS-485 通信卡構成網絡的情況下，檢測通信異常時，停止變頻器，顯示異常。 When the inverter is connected to a communications network via an optional RS-485 communications card, detecting a communications error stops the inverter output and displays an error code erp .
ErH	硬體 異常 Hardware error	控制印刷電路與電源基板或界面卡的連接不良，或檢測出端子【13】-【11】間的短路時，停止變頻器，顯示異常。 The inverter is stopped when poor connection between the control printed circuit board (control PCB) and power printed circuit board (power PCB), interface printed circuit board (interface PCB) or option card, or short-circuit between terminals [13] and [11] is detected.
Err	模擬故障 Mock alarm	為確認故障模式，而模擬輸出警報。 Simulated alarm is output to check the fault sequence.