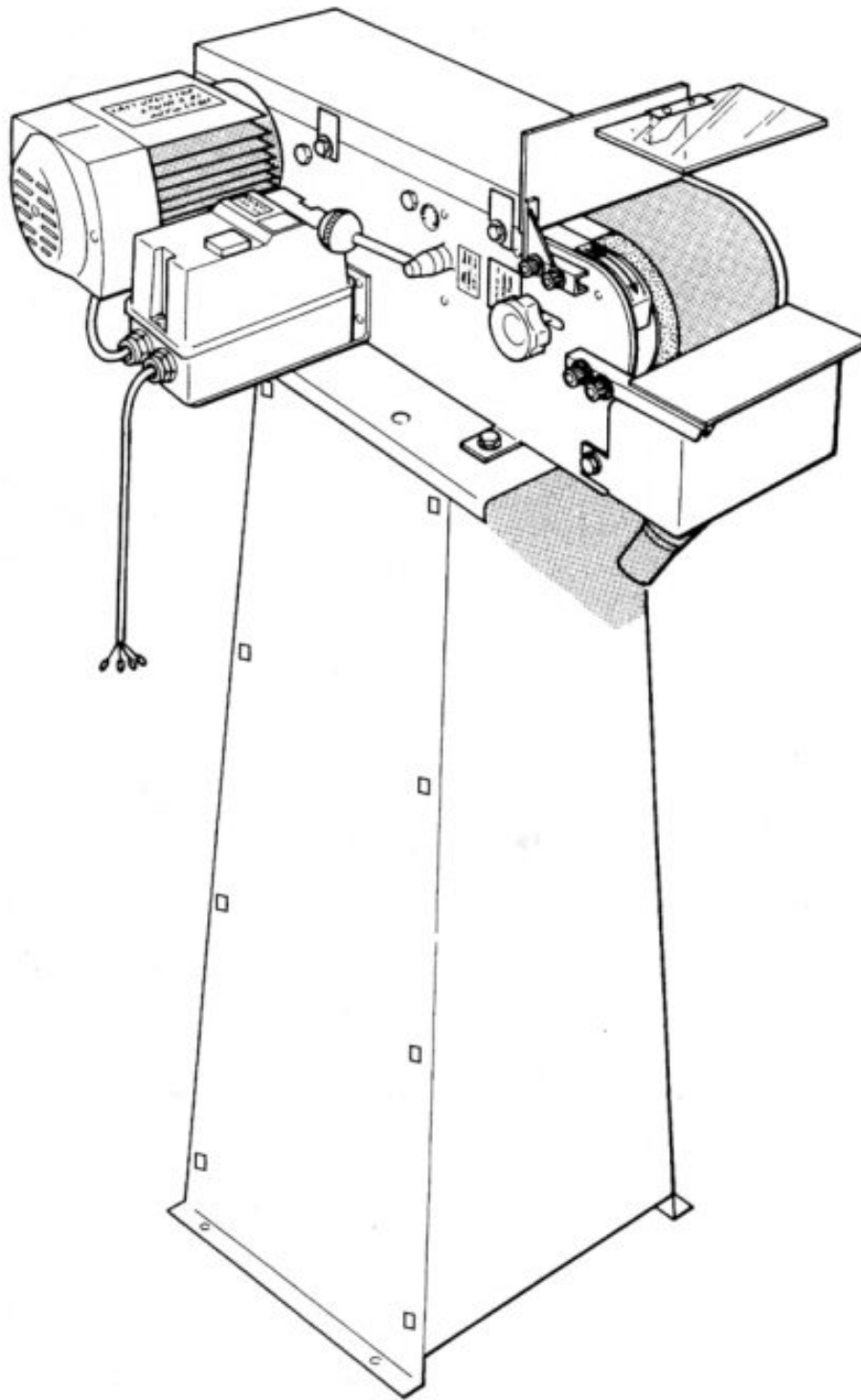


# SANDING MACHINE



**CE**

BEFORE USING BE SURE TO READ THIS MANUAL  
• INSTRUCTION MANUAL •

# INDEX

---

• TECHNICAL DATA.....	Page 1
GETTING TO KNOW YOUR MACHINE	
• UNPACKING AND CHECKING LIST.....	Page 2
• ASSEMBLY OF FITTINGS.....	Page 3
• ADJUSTMENT OF SANDING BELT.....	Page 4
Belt tracking adjustment & Belt tension adjustment	
• REPLACEMENT OF BELT .....	Page 5
• IMPORTANT NOTICE FOR CE .....	Page 5
• REPLACEMENT OF PRIME WHEEL .....	Page 6
• EXAMPLE OF OPERATING .....	Page 7
• DIAGRAM .....	Page 8
• PART LIST .....	Page 9
• CABINET WORKSTAND (Optional)	
Unpacking And Checking List .....	Page 10
Assembly Procedure .....	Page 11
• ELECTRICAL CONNECTION/DISCONNECTION & OPERATION .....	Page 12
• ELECTRICAL COMPONENT PART LIST & CIRCUIT DIAGRAM .....	Page 13

---

## SAFETY RULES FOR ALL POWER TOOLS

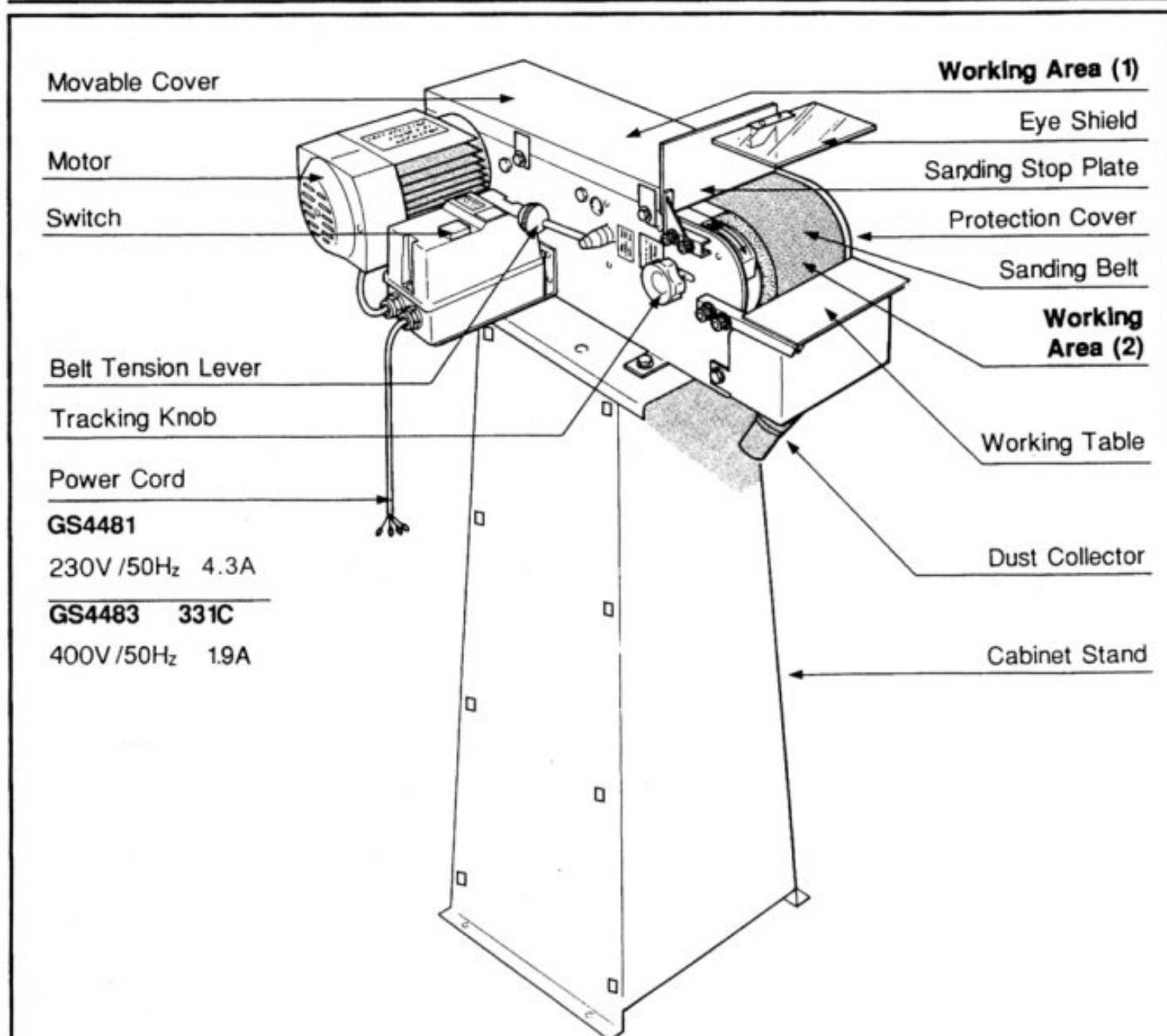
---

1. Read and become familiar with the entire instruction manual. Learn the tool's applications, limitations and possible hazards.
2. Earth all tools. If the tool is equipped with a three-prong plug, it must be plugged into a three-contact electric outlet. The third prong is a ground to provide protection against accidental electrical shock. If an adapter is used to accommodate a two-contact outlet, the adaptor's grounding lug must be connected to a known ground. Never remove the third prong on a three-prong plug.
3. Check damaged parts. A guard or any other part that is damaged should be checked to ensure that it will operate properly and perform its intended function before the tool is used further. Check for proper alignment of moving parts and for possible broken parts, loose mountings, or any other condition that could affect the tool's operation. A guard or other damaged part should be properly repaired or replaced.
4. Disconnect power before servicing and when changing accessories such as blades, cutters.
5. Keep guards in place and in working order.
6. Protect your eyes from being injured by objects thrown by a power tool. Always wear safety glasses or safety goggles.
7. Wear a face mask or dust mask if the cutting operation produces dust.
8. Don't force the tool. It will give a better and safer performance when used on jobs for which it was designed.
9. Avoid accidental starting. Ensure that the power switch is in the OFF position before plugging in the power cord. Remove the switch when the tool is not being used.
10. Remove adjusting keys and wrenches. Ensure that keys and adjusting wrenches are removed from the tool before turning it on.
11. Drugs, alcohol, and medication. Do not operate tool if you are under the influence of drugs, alcohol, or medication that could effect your ability to use the tool properly.
12. Use recommended accessories. Using improper accessories can be hazardous. If in doubt, check the instruction manual.
13. Never stand on a tool. Falls can result in injury.
14. Never leave a tool running unattended. Turn the power switch OFF. Don't leave the tool until it has come to a complete stop.
15. Always remove the power cord plug from the electric outlet when making adjustments, changing parts, cleaning, or working on the tool.
16. Avoid dangerous conditions. Don't use power tools in wet or damp areas or expose them to rain. Keep your work area clean and well-lighted. Do not use power tools in areas where fumes from paint, solvents, or flammable liquids pose a potential hazard.
17. Keep visitors and children away. Other people should keep a safe distance from the work area, especially when the tool is operating.
18. Use the proper tool. Don't force a tool to do a job for which it was not designed.
19. Keep tools in top condition. Keep them clean and sharp for the best and safest performance. Follow the instructions for changing accessories and lubricating.
20. Secure all work. When practical use clamps or a vise to hold work. It is safer than using your hands and prevents round or odd-shaped pieces from turning.
21. Don't overreach. Keep proper footing and balance at all times. Wear oil-resistant rubber-soled footwear. Keep the floor clear of oil, scrap wood, and other debris.
22. Wear proper clothing and, if necessary, protective hair covering. Loose clothing or jewelry can get caught in moving parts.
23. Make the workshop childproof with padlocks, master switches, or by removing starter keys.

# TECHNICAL DATA

MODEL	GS4481/GS4483/331C
Motor(kw output)	0.75
Phase	1Ph / 3Ph / 3Ph
Sanding Belt (mm)	100 x 1220
Belt Speed	19m / sec.
Driving Wheel (mm)	Ø126 x 105
Flat Grinding Surface (mm)	320 x 105
Dimension (mm L x W x H)	650 x 380 x 260
Machine Height (mm W / Stand)	1070
Net Weight (kgs)	26.5
Stand (mm L x W x H)	380 x 395 x 810

## GETTING TO KNOW YOUR MACHINE

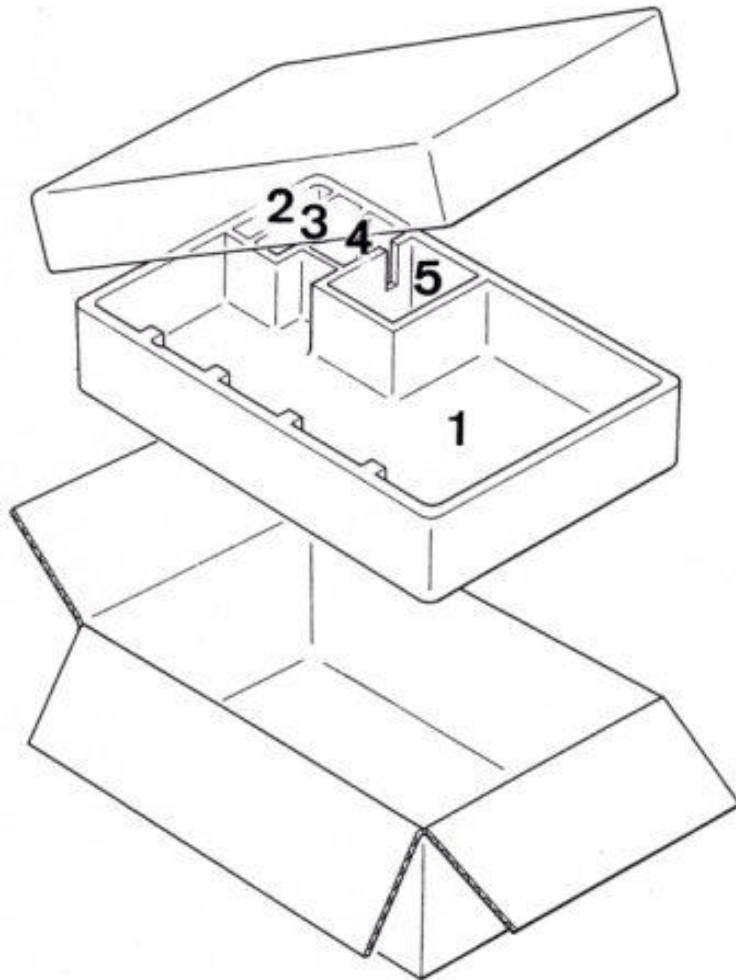


※GS4483 ,331C ,Power cord connect to hand-operated disconnecting device.

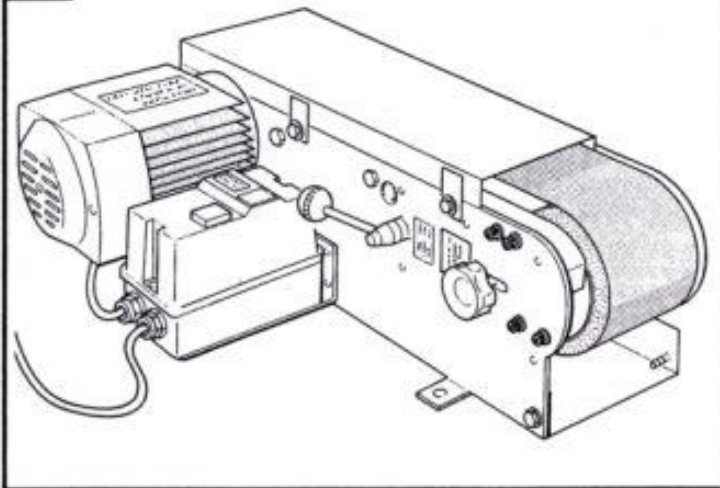
Noise Level:About 75 dB(A)

# UNPACKING AND CHECKING LIST

## Loose Parts in Rectangle Box



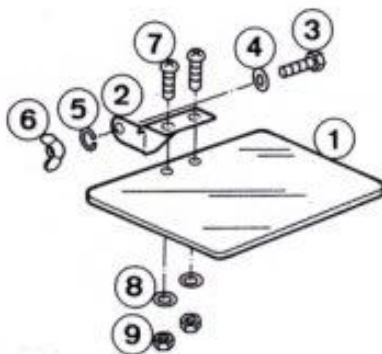
## 1 Main Body



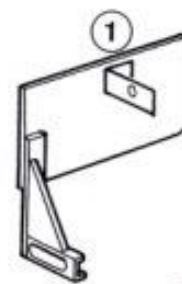
## 2 Working Table



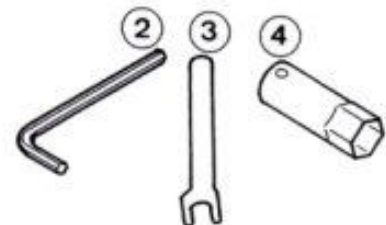
## 3 Eye Shield Assembly



## 4 Sanding Stop Plate & Tool

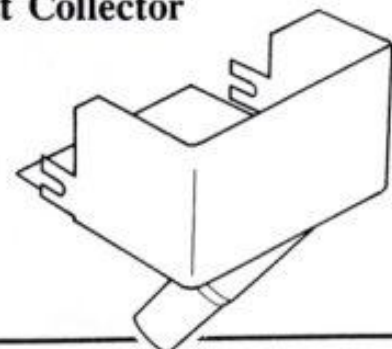


- ① Sanding Stop Plate
- ② 6mm Hex. Wrench
- ③ 12mm Open Spanner
- ④ Socket Wrench



Ref. No.	Parts Name /Description	Q'ty
1	Eye Shield	1
2	Support Plate	1
3	Hex. Bolt 1/4"×1/2"L	1
4	Washer M6×18×2	1
5	Spring Washer 1/4"	1
6	Wing Nut 1/4"	1
7	Screw 3/16"×7/16"L	2
8	Washer 3/16"×12×0.8	2
9	Hex. Nut 3/16"	2

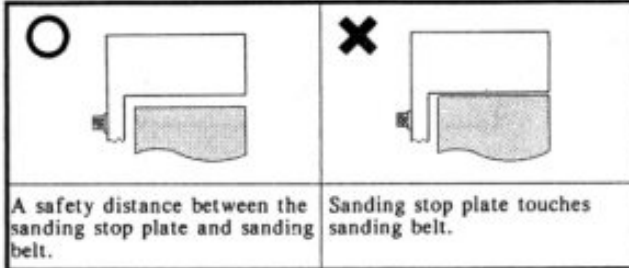
## 5 Dust Collector



# ASSEMBLY OF FITTINGS

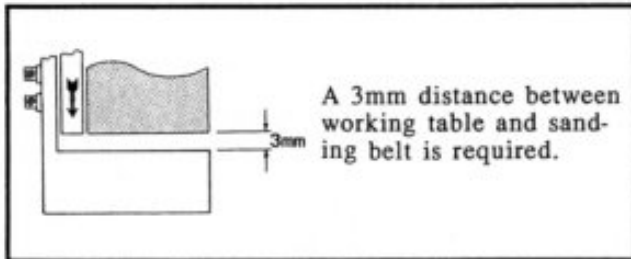
## 1 The Set Up of Sanding Stop Plate

- Push down the belt tension lever to gain tension. The belt tension was totally released before delivery ex works.
- Install the sanding stop plate and make sure it does not touch the sanding belt.



## 2 The Set Up of Working Table

Put working table at correct position and keep proper distance to the sanding belt.



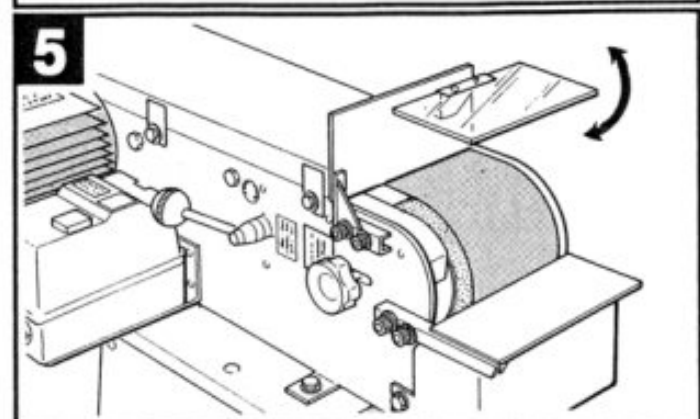
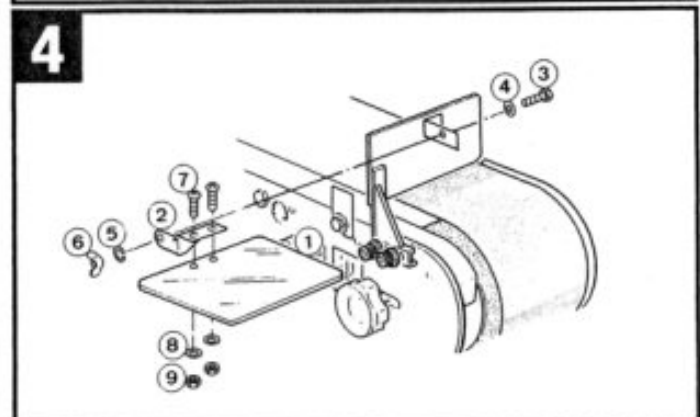
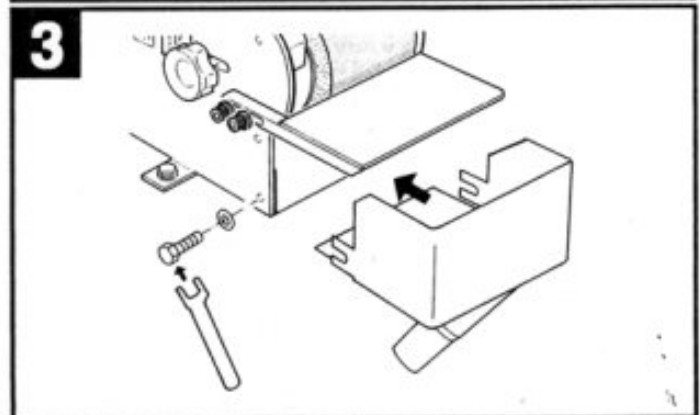
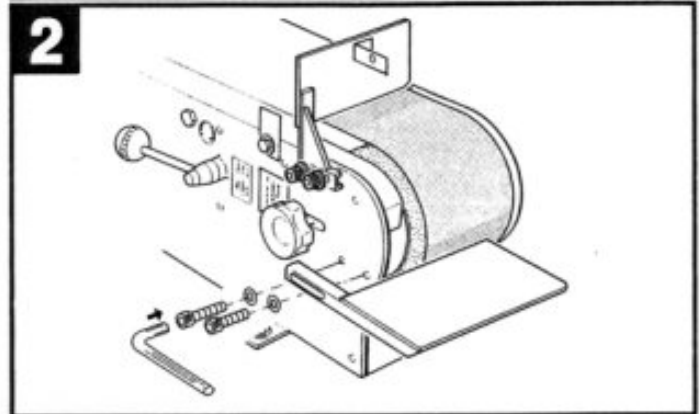
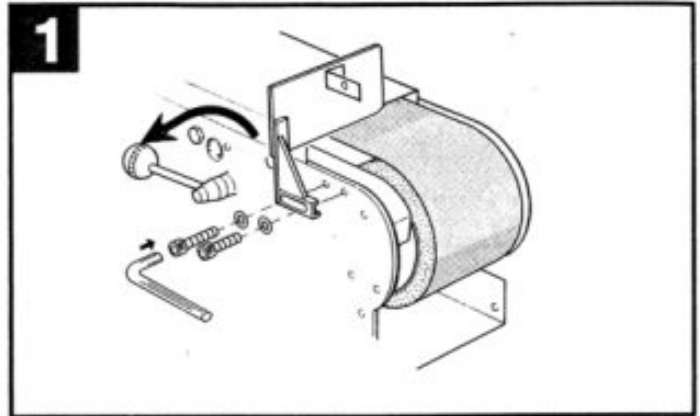
## 3 The Set Up of Dust Collector

Fix dust collector unit by using two screws on each side. Read page 8 for more information.

## 4 The Set Up of Eye Shield

Install the eyeshield to the machine and make necessary adjustment to gain the maximum protection. Read page 8 (exploded view) for more information.

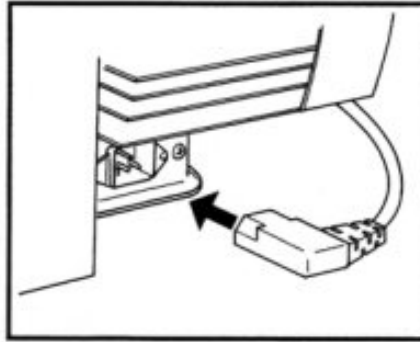
## 5 The Adjustment of Eye Shield



# ADJUSTMENT OF SANDING BELT

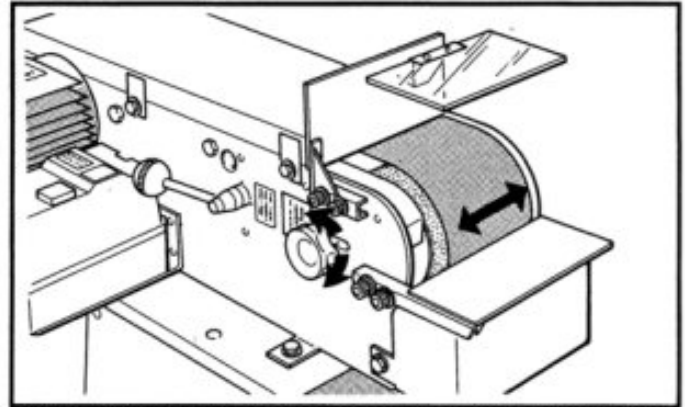
## Belt Tracking Adjustment

1. Plug into an electrical inlet on machine body before connect with power supply.



2. Turn tracking knob clockwise to make sanding belt toward left side

or turn counter-clockwise to make belt toward right side. Note: It is only allowed a tiny adjustment at each turn.



3. Rotate belt by hand, meanwhile adjust tracking knob.

4. Control the switch for a short on/off starting with left hand, meanwhile put right hand on tracking knob for clockwise or counter turning till the belt runs stably between the two rollers.

## Belt Tension Adjustment

Be sure the switch is on OFF position. Measure the belt tension from the bottom by thumb press. The tension was always well adjusted before delivery ex works. The adjustment is required when belt was used for a period of time and get loosed or when renewing the belt.

### The Procedure for Belt Tension Adjustment.

1. Open the steel cover.

2. Turn the belt tension lever clockwise about 120° to release the tension.

3. The hex. nut is designed to hold the adjusting rod in position against the vibration during operation. This nut needs to be loosened before making adjustment, and tightened after adjustment.

4. If the belt tension is too low.

Turn adjusting rod (part No. 14) upward to gain tension.

If the belt tension is too high.

Turn adjusting rod (parts No. 14) downward to release tension.

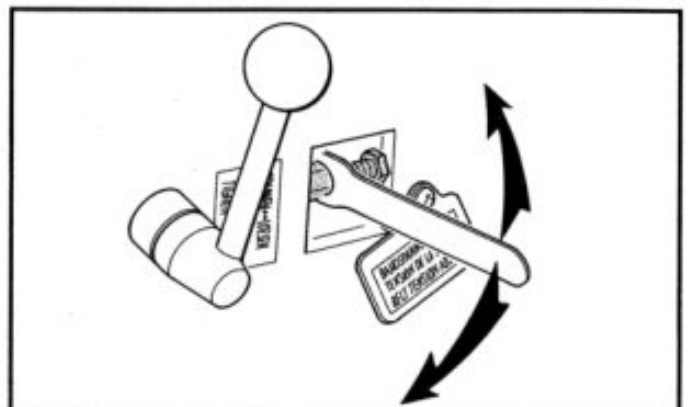
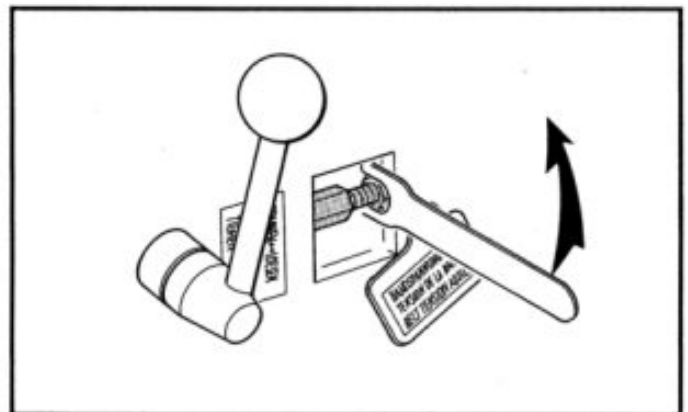
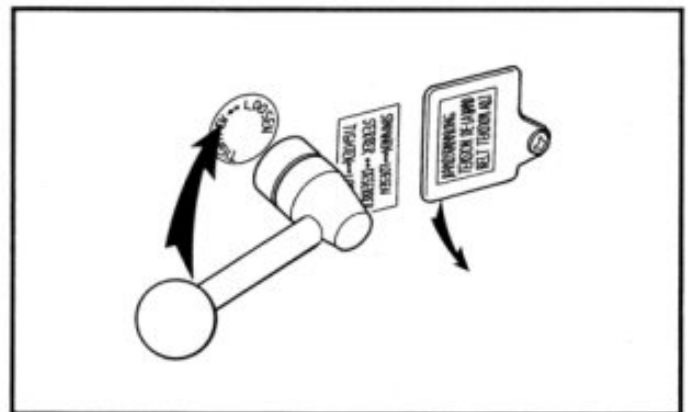
5. Tips for adjustment.

Each turning of adjusting rod makes rubber roller outward (of inward) about 2.5mm.

A micro adjustment, 0.42mm for each phase turning of adjusting rod, is recommended.

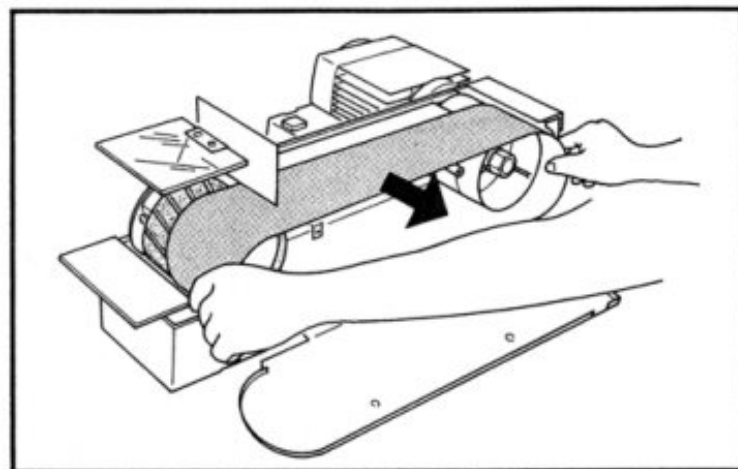
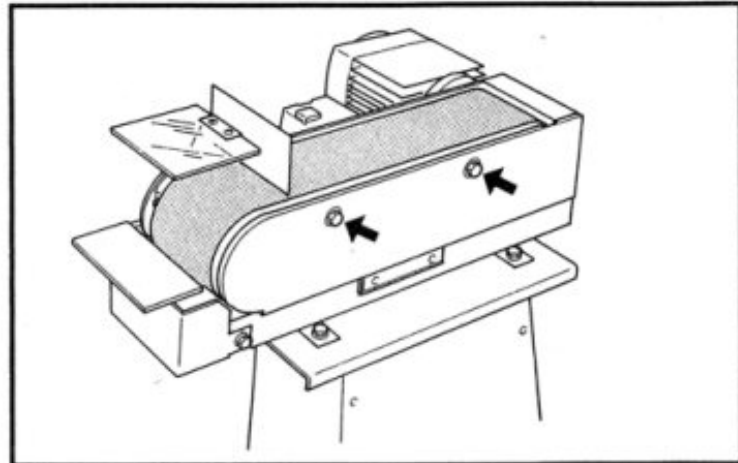
6. Close the steel cover and push down the belt tension lever.

7. After this adjustment, try with Tracking Adjustment.



# REPLACEMENT OF BELT

1. Pull belt tension lever upward.
2. Remove two screws, open the protection cover and remove the used belt.
3. Locate the new belt on two rollers.
4. Push belt tension lever downward.
5. Rotate belt by hand, meanwhile adjust tracking knob as a pretest before power test.
6. Locate protection cover then use left hand to control the switch with a short on/off starting, meanwhile put right hand on tracking knob for clockwise or counter turning till the belt runs stably between the two rollers.
7. Check belt tension. If the tension is improper for working, then begin the adjustment procedures (see page 4) until the tension is satisfactory.
8. Repeat the procedures of hand test and power test for belt runs stably between the two rollers.



## IMPORTANT NOTICE FOR CE

### Handling of Machine

1. The total weight of this machine must be ensured before handling.
2. It is better to handle this machine with the help of lifting tools.

### Environment Requirements for Installation.

1. Be sure to provide sufficient light for operation according to the codes or regulations published for local area. If you do not get the information about lighting, a light intensity of 300 Lux is the least value to be supplied.
2. The place where machine install must be flat and big enough for the operation.

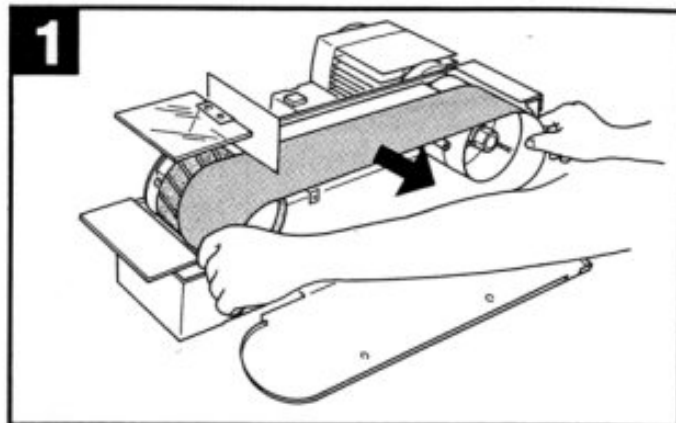
### Noise Level

1. The noise level of this machine is about 75 db(A) during operation.
2. While taking provisions for the risk of noise, the noise level of working environment should be taken into consideration also.

# REPLACEMENT OF PRIME WHEEL

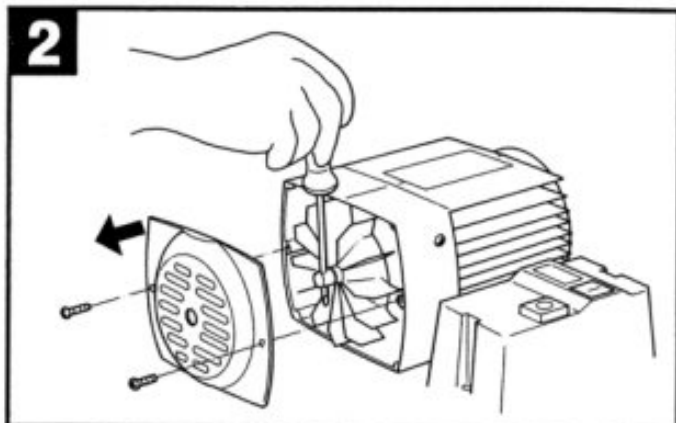
## 1 Pull belt tension lever upward.

Take off the movable cover and open the protection cover by remove five screws, then remove the belt.

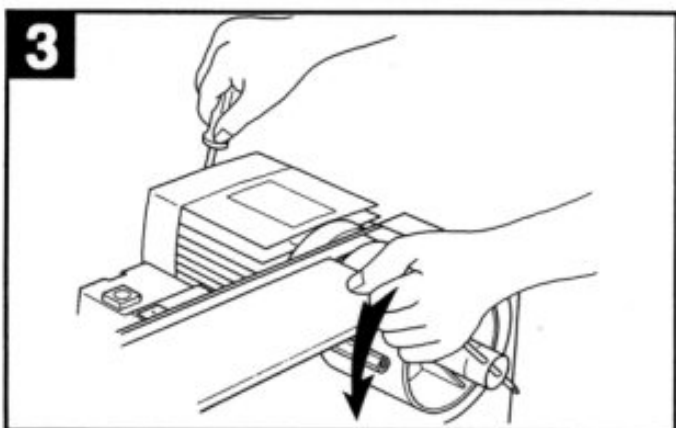


## 2 Remove the motor rear cover by remove two screws.

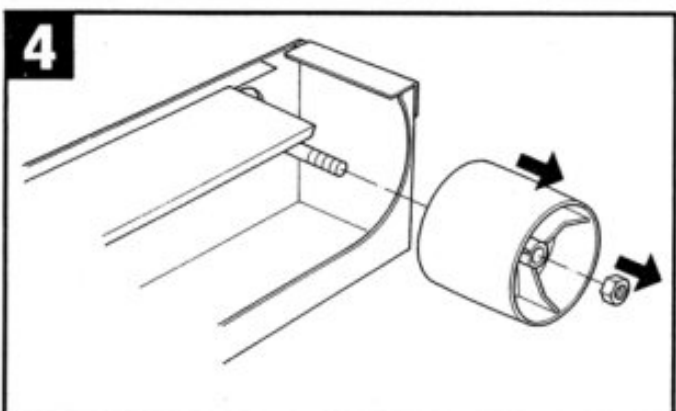
Use screwdriver or steel bar to insert the hole at the end of motor shaft, then hold the bar tight and keep motor shaft steady.



## 3 Use provided deep socket to plug into the nut at the other end of motor shaft. Turn screwdriver and socket wrench at reversed direction, this will loosen the nut of roller.



## 4 Take off the nut, used prime (aluminium) roller is removed. Reload new prime roller.



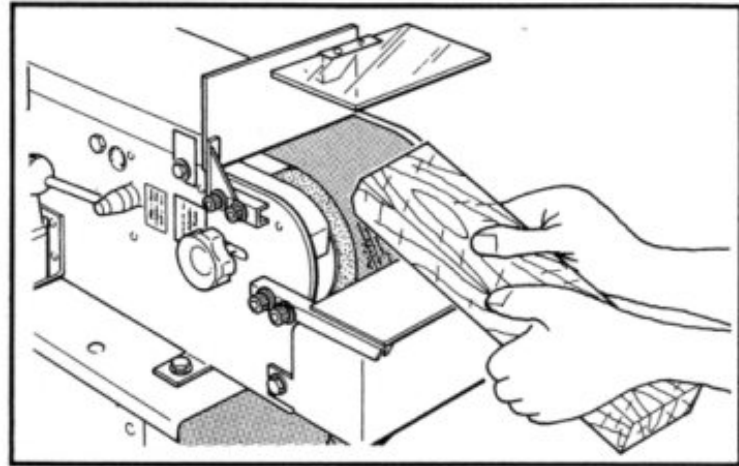


# EXAMPLE OF OPERATING

## Example 1:

Roller sanding

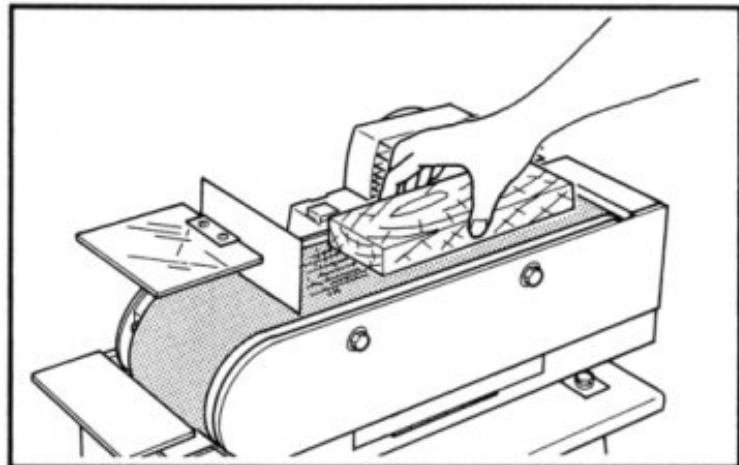
Hold workpiece firmly by hand and use working table as support for roller sanding.



## Example 2:

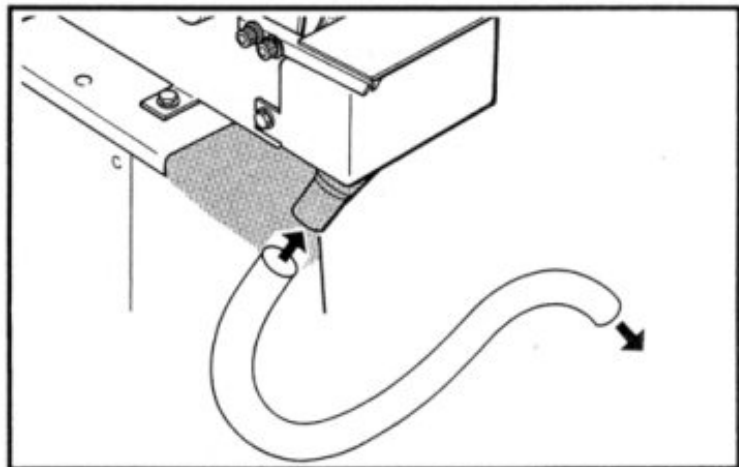
Surface sanding

Take off movable cover. Place workpiece on the top of belt for sanding of large surface.

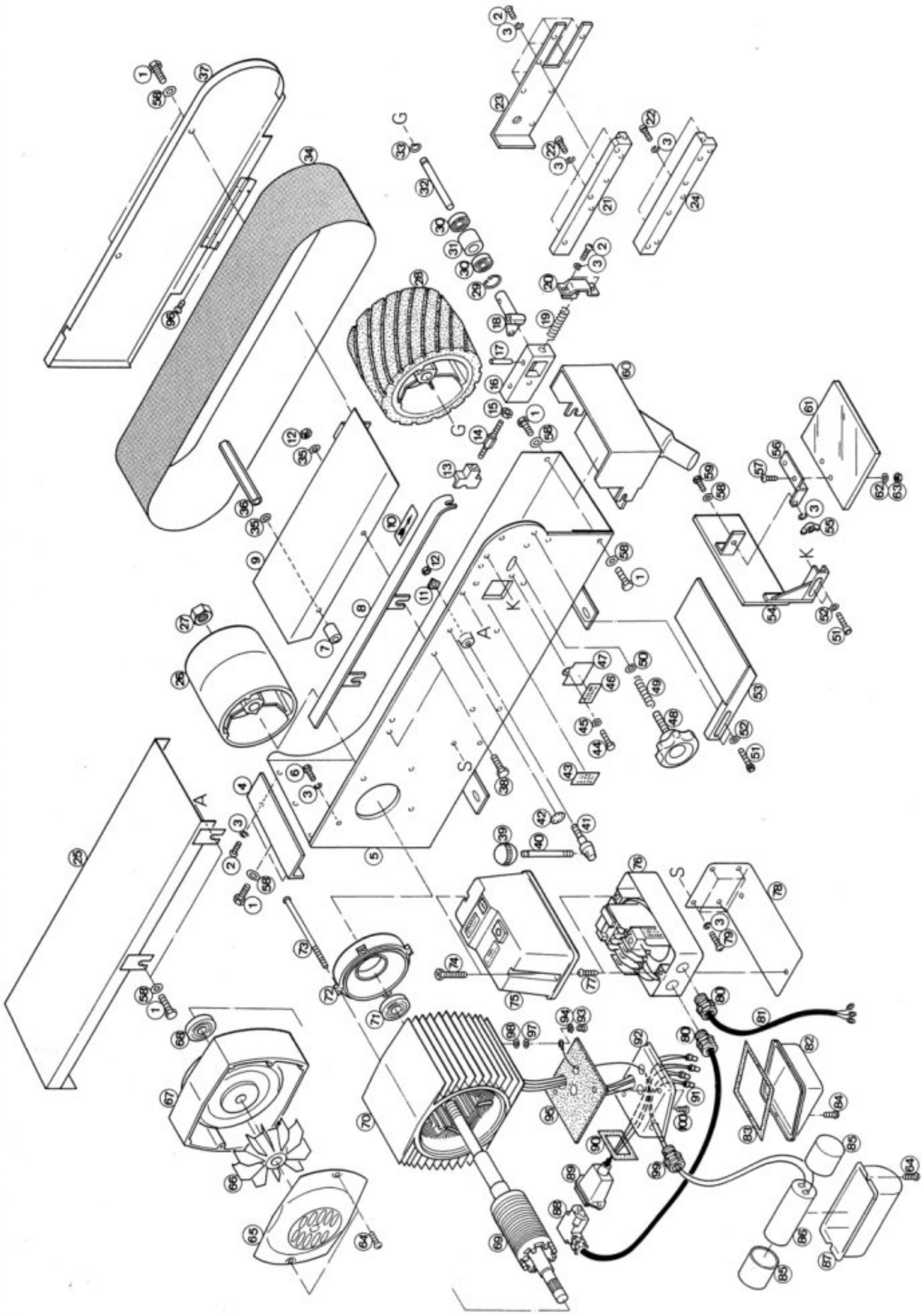


## Example 3:

Sanding job is creating dust of all kinds which pollutes your working room. This machine provides a dust collector and chute of  $\phi 35\text{mm}$ . Use your own connector and hose to link with dust collecting system to ensure the best comfortable working environment.



# DIAGRAM



# PARTS LIST

REF. NO.	PARTS NAME
1	Hex. Bolt
2	Screw
3	Spring Washer
4	Dust Proof Cover
5	Base
6	Hex. Bolt
7	Bush
8	Dust Proof Plate
9	Belt Support
10	Arrow Mark
11	Cam
12	Hex. Nut-Looseproof
13	Press Block
14	Adjusting Rod
15	Hex. Nut
16	Sliding Block
17	Pin
18	Adjusting Block
19	Spring
20	Spring Stop Plate
21	Upper Support
22	Cap Screw
23	Block Stop. Plate
24	Lower Support
25	Movable Cover
26	Aluminum Roller
27	Hex. Nut
28	Rubber Roller
29	Snap Ring
30	Ball Bearing Art. no. 650933
31	Bush
32	Shaft

REF. NO.	PARTS NAME
33	Snap Ring
34	Sanding Belt
35	Washer
36	Hex. Shaft
37	Protection Cover
38	Hex. Bolt
39	Ball Knob
40	Screw Shaft
41	Cam Shaft
42	Loosen-Tighten Plate
43	Adjusting Plate
44	Cover Screw
45	Wave Washer
46	Cover Plate
47	Cover
48	Tracking Knob
49	Spring
50	Washer
51	Cap Screw
52	Washer
53	Working Table
54	Sanding Stop Plate
55	Wing Nut
56	Support Plate
57	Screw
58	Washer
59	Hex. Bolt
60	Dust Collector
61	Eye Shield
62	Washer
63	Hex. Nut
64	Screw

REF. NO.	PARTS NAME
65	Rear Protector
66	Fan
67	Rear Support
68	Ball Bearing Art. no. 650922
69	Rotor
70	Stator Housing
71	Ball Bearing Art. no. 650923
72	Front Support
73	Screw
74	Screw
75	Switch Box Cover
76	Switch Box
77	Screw
78	Supporting Plate
79	Screw
80	Strain Relief
81	Power Cord
82	Wiring Box Cover
83	Packing
84	Screw
*85	Capacitor Sleeve
*86	Running Capacitor
*87	Capacitor Cover
88	Plug
89	Plug Socket
90	Packing
91	Wire Connector
92	Wiring Box
93	Screw
94	Int. Washer
95	Packing
96	Screw
97	Copper Set
98	Ext. Washer
*99	Strain Relief
100	Screw

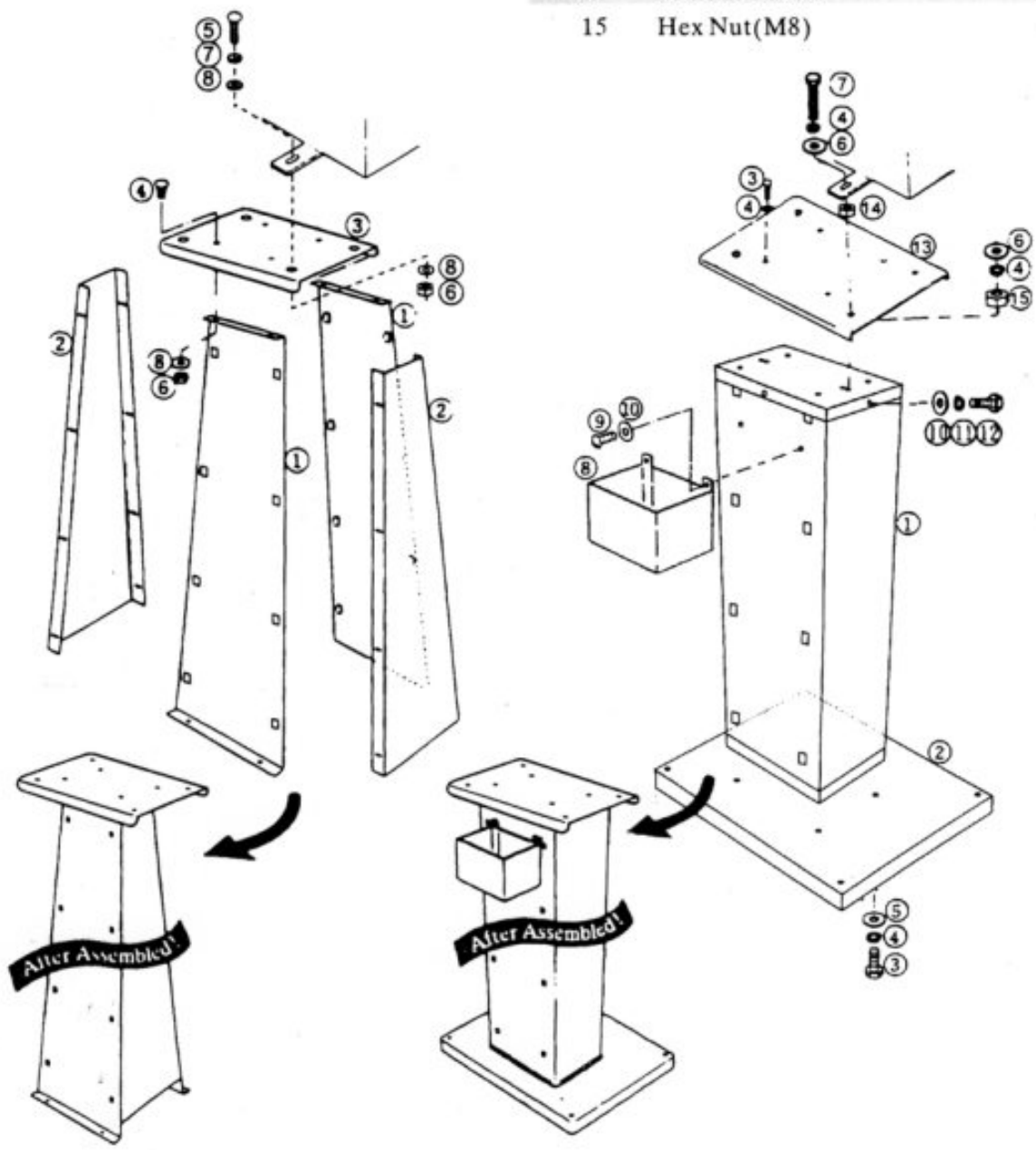
\*Parts No.85,86,87,99 for 1 phase electricity only.

## Unpacking and checking list \*Universal Workstand

Ref. No.	Parts Name /Description	Q'ty
1	Stand Leg (front & rear)	2
2	Stand Leg (left & right)	2
3	Stand Top	1
4	Square Neck Bolt (5/16"-18NCx5/8")	4
5	Hex. Bolt (5/16"-18NCx2"...DS305)	4
	Hex. Bolt (5/16"-18NCx3/4"-GS448)	4
6	Hex Nut (5/16")	8
7	Spring Washer (M8)	8
8	Washer (M8x18X2t)	12

## \*Cabinet Workstand

Ref. No.	Parts Name /Description	Q'ty
1	Stand	1
2	Bottom Plate (L-GR12) (S-DS305/GS448)	1
3	Hex Bolt(M8X20L)	8
4	Spring Washer(M8)	12
5	Washer(M8x30x3t)	4
6	Washer(M8x18x2t)	8
7	Hex Bolt(M8x65L-DS305) (M8x40L-GR12/GS448)	4
8	Cooler Boxer	1
9	Screw(M6x16)	2
10	Washer(M6x16x2t)	6
11	Spring Washer(M6)	4
12	Hex Bolt(M6x12L)	4
13	Stand Top	1
14	Pad for GS448	4
15	Hex Nut(M8)	4



# ELECTRICAL CONNECTION/DISCONNECTION & OPERATION

## FOR THREE PHASE

### 1. **Electrical connection:**

1.1. A cable with four wires is equipped to connect your machine into the 3 phase power supply.

#### **Please**

**connect your machine into the power supply with hand-operated disconnecting device**, which is in compliance with subclause 5.3 of EN60204-1, such as no fuse breaker or plug/socket combination.

1.2. For the protection of control device, we recommend the operator to supply **a fuse with 6 amp. current rating of fuse**, and the total length between fuse and connection terminal shall not exceed 1.5 m.

1.3. **The exact power source voltage, frequency, and number of phase** shall be checked according to the installation diagram and circuit diagram.

1.4. **The correct direction of sander should be checked after connecting.**

### 2. **Electrical disconnection:**

2.1. The disconnection is carried out by hand-operated disconnecting device.

2.2. Be sure to disconnect this machine from power source, when you want to stop the job, maintenance, and adjustment.

### 3. **Grounding.**

The grounding of the sander is carried out **by connecting the Yellow/green terminal of supply cable** to the grounding terminal of power source. Be sure to ground your machine before connecting machine to power source in any situation.

#### **WARNING!**

**Do not disconnect grounding terminal before disconnecting power source.**

## FOR SINGLE PHASE.

1. The connection, disconnection, and grounding is carried out **through the plug**, equipped on the sander. For the safety reason, **Do not change this plug into any the other type in any situation.**

2. For the protection of control device, we recommend the operator to supply **a fuse with 10A current rating of fuse**, and the total length between fuse and connection terminal shall not exceed 1.5 m.

3. The **exact power source voltage, frequency, and number of phase** shall be checked according to the installation diagram and circuit diagram.

#### **WARNING!**

**Ensure that the power switch is in OFF position before electrical connection and disconnection.**

## OPERATION.

1. **"START"** : Push the button marked with " I ".

2. **"STOP"** : Push the button marked with " O ".

## MAINTENANCE:

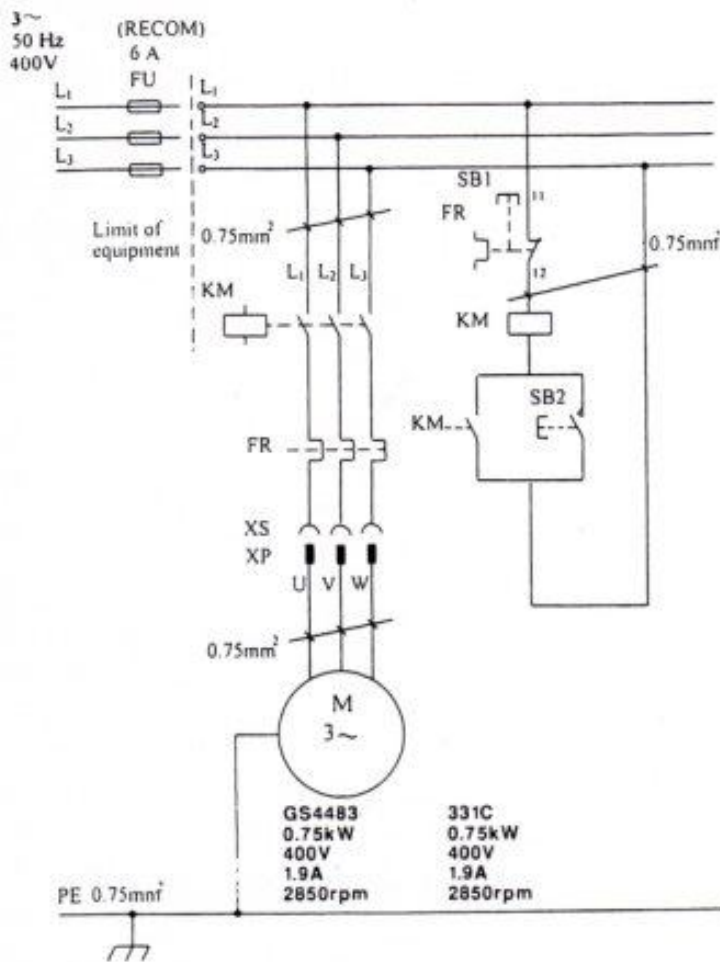
1. Be sure to disconnect the sander from power source.

2. If motor being overload, the overload relay will be active.

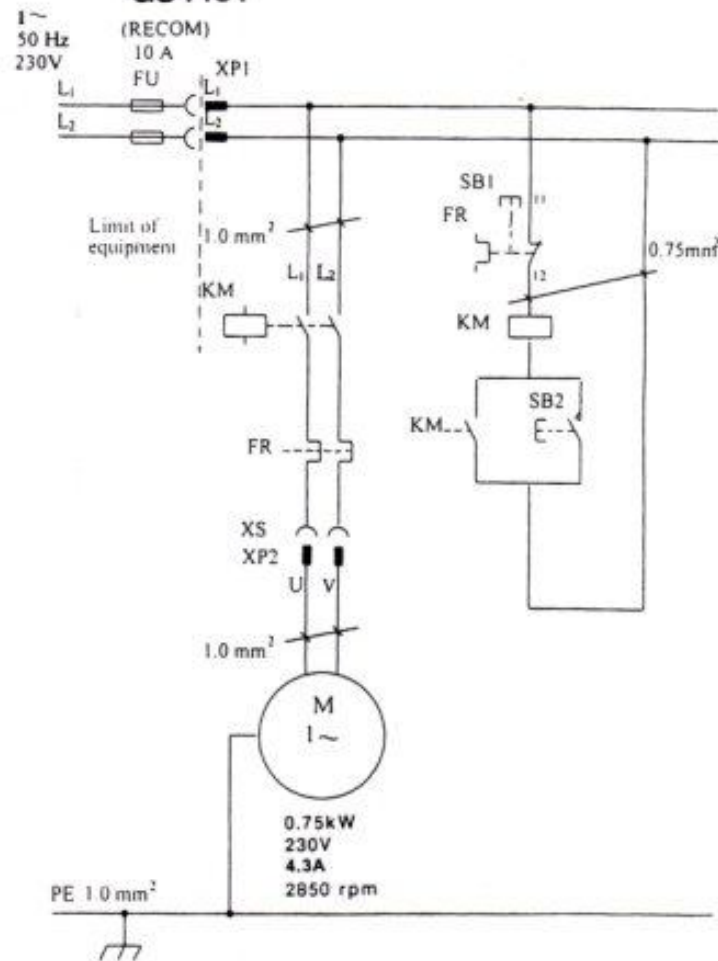
If you want to reset sander, open control enclosure and then push the reset button of overload relay.

# Electrical circuit diagram.

## GS4483,331C



## GS4481



## Electrical components Parts List.

Item Designation	Description & Function	Technical Data	Remark
	D.O.L. starter	IP 54	VDE 0660 IEC 947
KM	Magnetic contactor	600 Vac, 20A	
FR	Overload relay for three phase	$\frac{1.4 \sim 2.2}{1.8}$ A	
FR	Overload relay for single phase	$\frac{4 \sim 6}{5}$ A	
SB1	push button for OFF		
SB2	push button for ON		
XS	Socket for three phase Socket for single phase	500 Vac, 10A 250 Vac, 15A	CSA UL
XP	Plug for three phase	500 Vac, 10A	
XP1 XP2	Plug for single phase	250Vac, 16A 250Vac, 10A	
	Cable for 3~ Cable for 1~	VCTF, 4×0.75mm <sup>2</sup> H05VV-F, 3×1.0mm <sup>2</sup>	

# EC DECLARATION OF CONFORMITY

According to the following EC Directive

-Machinery Directive: 98/37/EEC

-EMC Directive : 89/336/EEC, as amended by 92/31/EEC, and 93/68/EEC

-Low-Voltage Directive: 73/23/EEC, as amended by 93/68/EEC

The undersigned, Morgan Liu, representing Shine Tool Electric Co., Ltd., No.182, Sec.3, Ming Sheng Rd, Ta Ya, Taichung, Taiwan, R.O.C. manufacturer, declares that the machine described hereafter:

**Belt Sander;**

**Model: GS4481, 4483; GS4591, 4593;**

Provided that it is used and maintained in accordance with the generally accepted codes of good practice and the recommendations of the instructions manual, meets the essential safety and health requirements of the Machinery Directive, EMC Directive and Low Voltage Directive.

For the most specific risks of this machine, safety and compliance with the essential requirements of the Directive has been based on elements of:

-the European Standard EN292-1: 1991-Safety of Machinery-Basic concepts, general principles for design.

Part 1:Basic terminology, methodology.

-the European Standard EN292-2: 1991-Safety of Machinery-Basic concepts, general principles for design.

Part 2:Technical principles and specifications.

-the European Standard EN60204-1: 1994-Safety of machinery-Electrical equipment of machines.

Part 1:General requirements.

-the European Standard EN55014: 1992- limits and methods of measurement of radio disturbance characteristics of household electrical appliances, portable tools and similar apparatus.

-the European Standard EN55104: 1994- immunity requirements for household appliances tools and similar apparatus.

-the European Standard EN50081-1: 1994-Generic emission standard.

Part 1: Residual, commercial and light industry.

-the European Standard EN50082-1: 1994-Generic immunity standard.

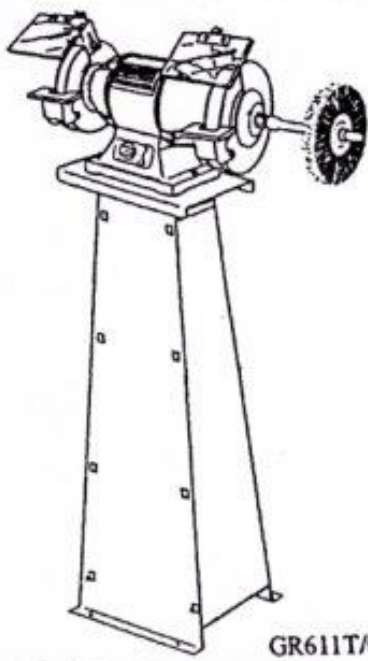
Part 1: Residual, commercial and light industry.

Date: \_\_\_\_\_

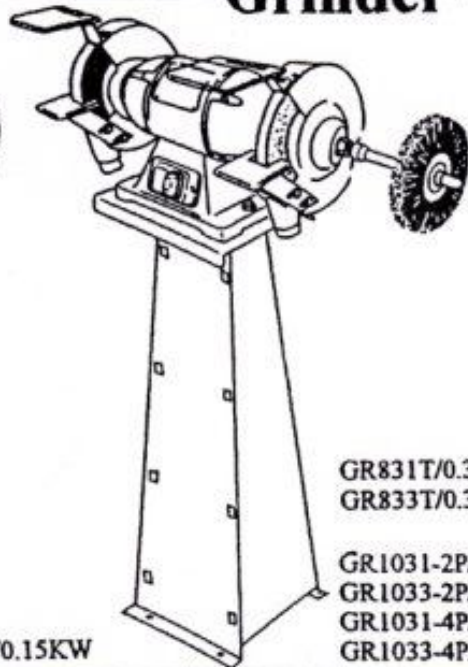
Signature: Morgan Liu

Qualification: \_\_\_\_\_ Directeur

## Grinder

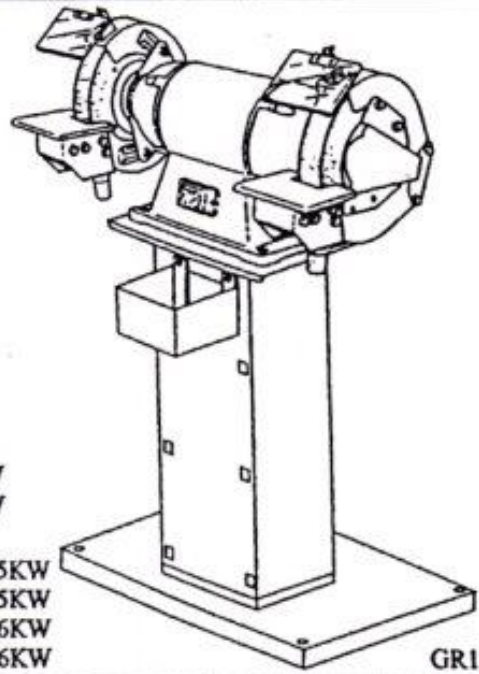


GR611T/0.15KW



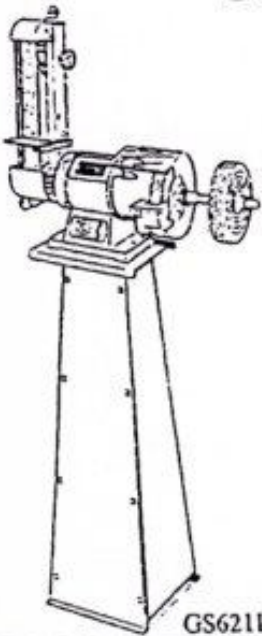
GR831T/0.3KW  
GR833T/0.3KW

GR1031-2P/0.75KW  
GR1033-2P/0.75KW  
GR1031-4P/0.56KW  
GR1033-4P/0.56KW

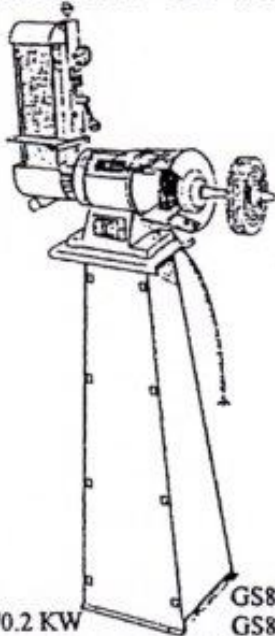


GR1223/1.5KW

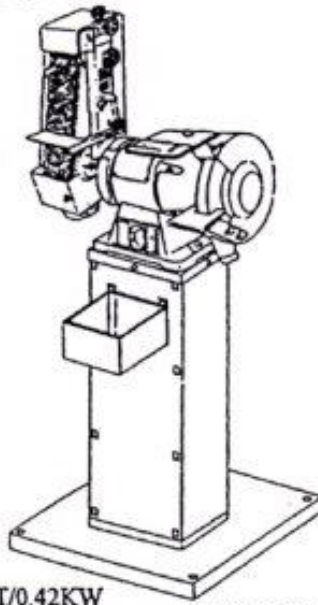
## Grinder & Sander



GS6211T/0.2 KW

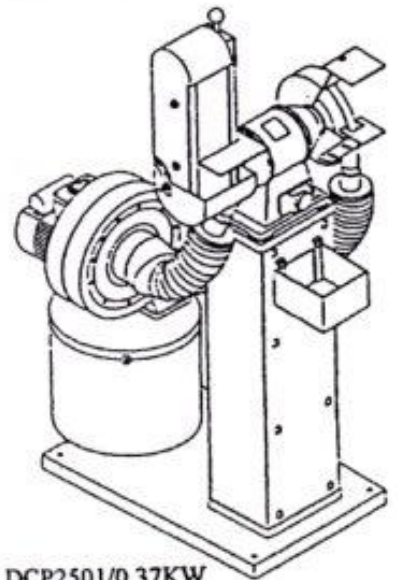


GS8431T/0.42KW  
GS8433T/0.52KW



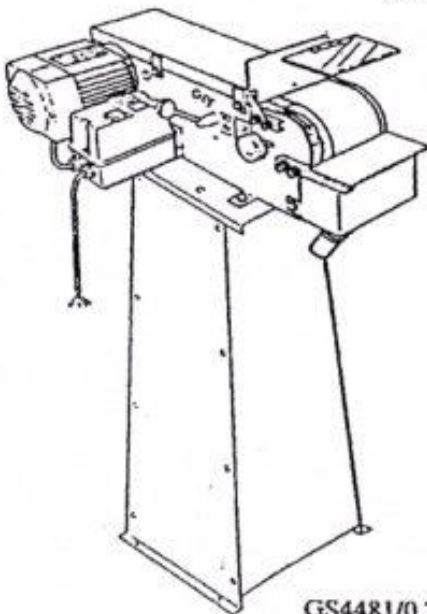
GS1043/1.12KW

## Dust Collector

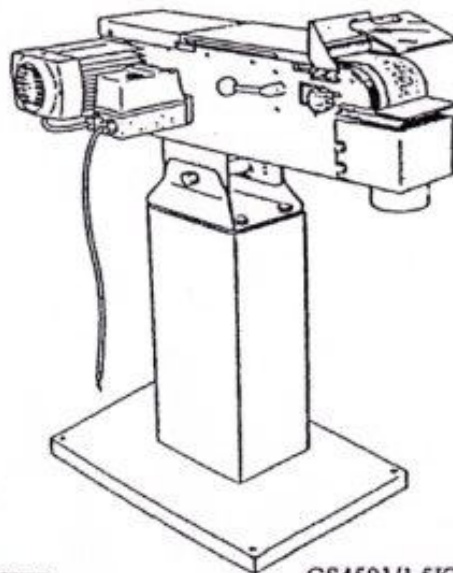


DCP2501/0.37KW  
DCP2503/0.37KW

## Sanding Machine

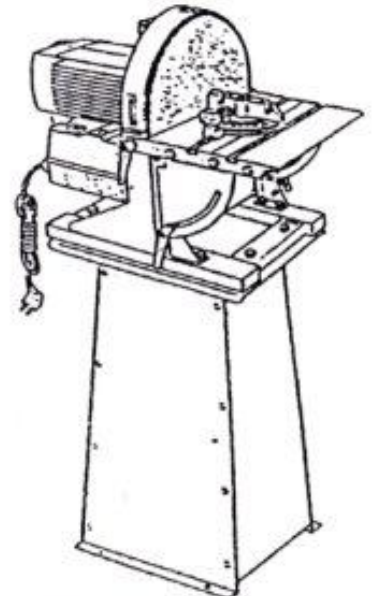


GS4481/0.75KW  
GS4483/0.75KW



GS4591/1.5KW  
GS4593/1.5KW

## DISC SANDER



DS3051-2P/1.12KW  
DS3053-2P/1.12KW

DS3051-4P/0.6 KW  
DS3053-4P/0.6 KW