

AXMINSTER
PROProfessional

APG700DP

Gyro Fine Dust Extractor



Cert No: G700

Axminster Tool Centre Ltd
Axminster Devon
EX13 5PH UK
axminstertools.com

declares that the machinery described:-

Type	Cyclone Fine Dust Extractor
Model	APG700DP

Signed



Andrew Parkhouse
Operations Director

Date: **20/03/2017**

EU Declaration of Conformity

This machine complies with the following directives:

2006/42/EC	EN 60335-1:2012+A11
06/42/EC - Annex I/05.2006	
EN 62233:2008	
EN 60335-2-69:2012	

conforms to the machinery example for which the
EC Type-Examination Certificate No AK 50337184
has been issued by **Harvey Industries Co., Ltd.**
at: 01 Building, No.68 Suyuan Road, Jiangning Economic & Technological Development Zone,
Nanjing 211100 China

and complies with the relevant essential health and safety requirements.

Index of Contents

Contents	2
1. Foreword.....	3
2. Machine Description.....	3
2.1 Feature Identification.....	3
2.2 Specification.....	4
2.3 Requirement of electrical power.....	5
3. Safety Regulations.....	7
3.1 General Safety Instructions.....	7
3.2 Specific Safety Instructions for Dust processor.....	8
4. Installation of the machine.....	9
4.1 Transportation of machines.....	9
4.2 Unpacking.....	10
4.3 Positioning the machine.....	11
4.4 Assembly.....	11
4.4.1 Moving & Placing Base Unit.....	11
4.4.2 Installation of dust extractor adaptor.....	15
5. Operations.....	16
5.1 The operating and instructions of electrical components.....	16
5.2 The operating of manometer.....	17
5.3 Clean the dust bin.....	17
5.4 General operation.....	17
6. Maintenance.....	18
7. Trouble shooting guide.....	19
8. Breakdown & Parts List.....	21

1. Foreword

This manual was developed as an integral part of this machine. It contains basic information for qualified operating staff. It also contains all necessary information for the correct and safe operation. These regulations, however, cannot cover all other safety aspects. Operator must peruse and make sense of this manual before starting to use the machine.

2. Machine Description

The G700 dust processor is a revolutionary dust extractor with the unique GYRO AIR technology. Unlike any existing dust extractors in the world, G700 directs dust flow into the Gyro Air system that generates powerful centrifugal force and efficiently separates dust from air. With this special technology, G700 delivers unprecedented performance, including a 99.9% separation efficiency before Filter and significantly reduces noise levels.

The dust processor G700 is used only for wood chip and dust collection, do not collect liquid, poisonous gas, explosive goods and viscous substances or other potentially dangerous substances

The G700 dust processor is designed to collect dust from one or two machines at the same time. This can be accomplished by either connecting it to multiple machines using blast gates to control which branch is active.

The dust processor is intended to be operated not far from the machine needing dust collection

Only a skilled operator or worker instructed and trained may operate the machine. While working on the machine the operator must be familiar with these instructions and comply with safety rules, regulations and provisions in force in the respective country.

2.1 Feature Identification (Fig.1)

A	Dust extractor adaptor
B	Control panel
C	Buzzer
D	Pressure Gage
E	Handle
F	Window
G	GYRO Air separate
H	Filter Cleaning Knob
I	Filter(inside)
J	Fine dust cleaning port
K	Dust bin(inside)
L	Door

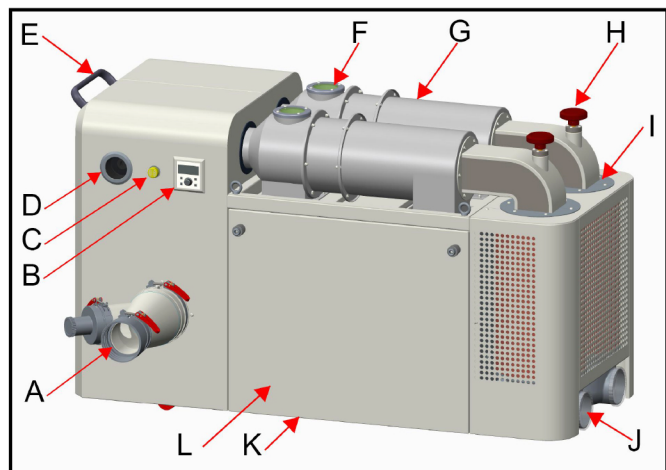


Fig.1

2.2 Specification

Model: G700	Imperial
Electrical	
Power Requirement:	230V,Single Phase,50Hz
Breaker Size:	20A
Inverter Type:	Siemens V20
Motor	
Type:	TEFC Induction
Power:	1.5Kw
Phase:	3Phase
Rated Amps:	5.8A
Speed:	2280-4275rpm Variable
Product Dimensions	
Overall Dimension:	1430 x 579 x 858mm
Packing Size:	1500 x 725 x 1072mm
Product Weight	
Net Weight:	195KG
Gross Weight :	222KG
Performance	
Max. Air Flow:	1885 m ³ /h
Max.Static Pressure:	4600Pa
Max.Air Flow @4 inch hose:	1190 m ³ /h
Static Pressure @ 4 inch hose:	1400Pa
Impeller Size:	Φ300mm
Main Inlet Size:	Φ150 mm
Adapter Inlet Size:	Φ100 mm x 2
Filter Emission Rating:	0.05mg/m ³
Filter Surface Area:	7 m ²
Noise Rating @3m	61-72 dBA
Max.Dust Bin Capacity:	120L
Manual Filter Cleaning:	Yes
Intelligent Dust-Full Monitoring system:	Yes
Pressure Gauge:	Yes

NOTICE

Every machine we produce is fitted with a name plate with its serial number. The number is also punched on the machine.

An exact description of the machine model and serial number will facilitate rapid and effective replies from our after-sales service.

Position of nameplate is on the side of the main base unit.

2.3 Requirement of electrical power

Power requirement: 230V AC/1PH/50Hz.

The machine needs no further electrical installation. Equipment comes with 1.8 meters of cable with a plug. For longer runs, please use an appropriate extension cord meeting your local area codes.

The input power supply of the machine is 1PH, AC230V. The steady-state AC power supply is 0.9~1.1 times of the rated value.

2.3.1 Equipment grounding

This machine must be grounded, if it should malfunction or breakdown, grounding provide a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING

WARNING – Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

This appliance is for use on a circuit having a nominal rating 230V and is factory-equipped with a specific electric cord and plug to permit connection to a proper electric circuit recommend minimum 20A circuit breaker. Make sure that the appliance is connected to an outlet having the same configuration as the plug. No adaptor should be used with this appliance. If the appliance must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified service personnel.

2.3.2 Cable inspection and Extension

Before using, you need to check the power plug and cable to see if there is any damage. If any, should be immediately repaired or replaced.

We do not recommend using an extension cable with this machine. If you must use an extension cable, only use it if absolutely necessary and only on a temporary basis. Extension cable cause voltage drop, which may damage electrical components and shorten motor life. Voltage drop increases as the extension cable size gets longer and the cable size gets smaller. Any extension cord used with this machine must contain a ground wire, match the required plug and receptacle, Any extension cable used with this machine must contain a ground wire, match the required plug and receptacle

Minimum Gauge Size 2.5mm² (14 AWG)

Maximum Length (Shorter is Better).....15m (50 ft).

2.3.3 Electrical diagram(Fig.2)

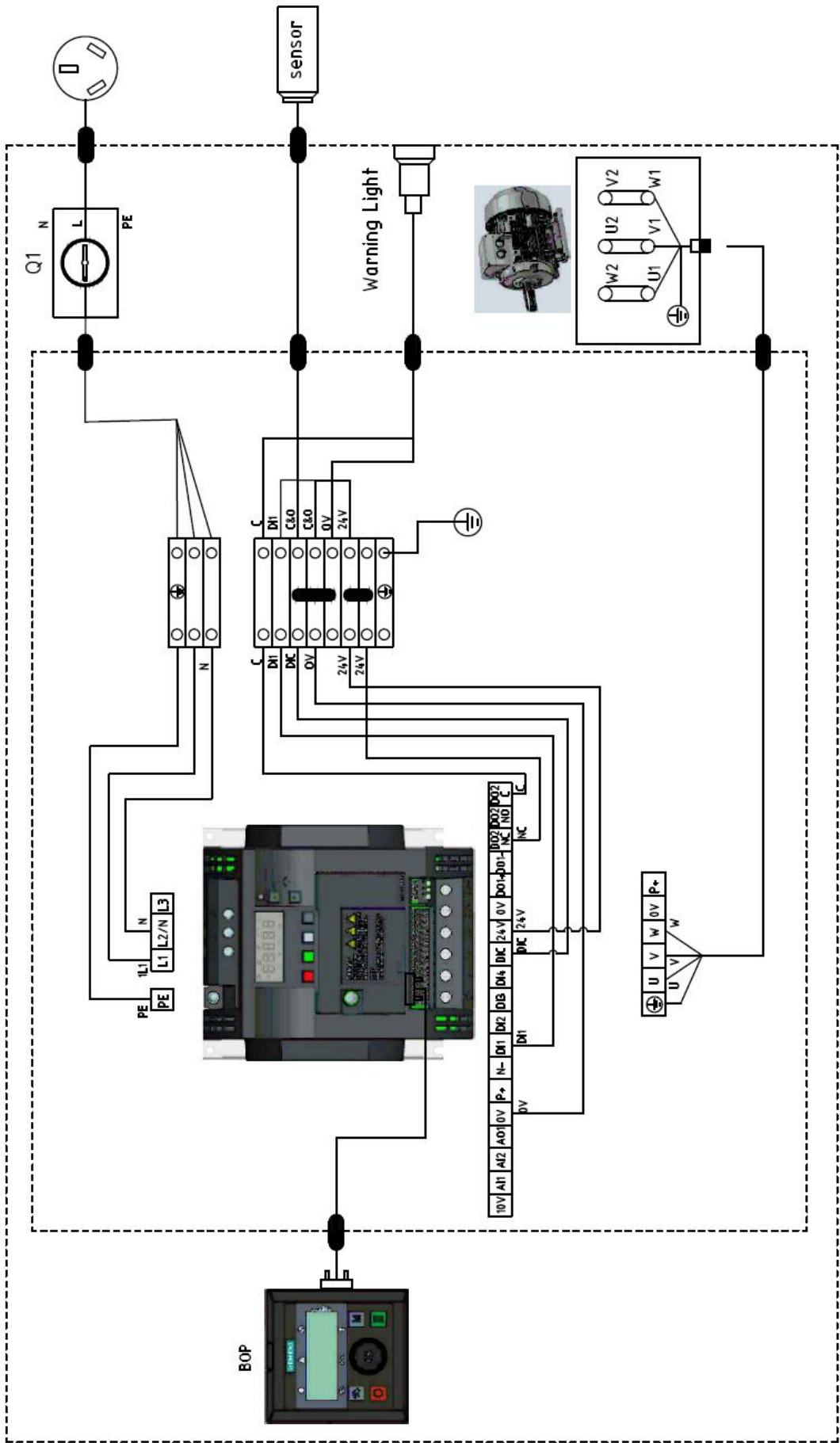


Fig.

3. Safety Regulations

3.1 General Safety Instructions

WARNING

1. Read and understand the owner's manual and labels affixed to the machine. Learn its application and limitations as well as its specific potential hazards.
2. The power supply socket or terminals need reliable grounding.
3. Keep in good working order, properly adjusted and aligned. Cluttered areas and benches invite accidents. Make sure the floor is clean and not slippery due to wax and sawdust build-up.
4. **WARNING !** – To reduce the risk of electric shock:
 - Do not expose the machine to water or moisture.
 - Do not use outdoors.
5. Do not use this machine within the designated safety areas of flammable liquid stores or in areas where there may be volatile gases. Keep work area clean, dry, and well-lighted.
6. Keep children from reaching this machine.
7. Don't force the machine or the attachment to do a job for which it was not designed.
8. Do not wear loose clothing, gloves, neckties or jewelry (rings, watch) because they could get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll up long sleeves above the elbows.
9. Do not use this machine if you are tired, your attention is wandering or you are being subjected to distraction.
10. If the work operation appears to be excessively noisy, wear ear protection.
11. Always wear safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are not approved safety glasses.
12. **WARNING !** – To reduce the risk of electric shock:
 - Always unplug the machine during servicing.
13. **WARNING !** – To reduce the risk of injury from moving parts :
 - Always unplug before servicing.
14. Make sure the power switch is on the "OFF" position before plugging in.
15. Turn power "OFF". Don't leave until it comes to a complete stop.
16. Regularly inspect machine for damaged parts, loose bolts or any other conditions that may affect safe operation. Always repair or replace damaged parts before operating machine.
17. Keep the machine clean; it will enable you to more easily see any damage that may have occurred. Clean the machine with a damp soapy cloth if needs be, do not use any solvents or cleaners, as these may cause damage to any plastic parts or to the electrical components.

3.2 Specific Safety Instructions for Dust Processor

WARNING

1. CLEAN ENVIRONMENT

Once you are ready to commence work, remove any tools, objects or items that could inadvertently get 'sucked up' by the machine and place safely out of the way.

2. INTENDED USE

Don't use this machine as a vacuum cleaner, avoid stones, nails, etc., as it may produce a spark and cause fire or explosion.

3. FIRE SUPPRESSION

Only operate the dust collector in locations that contain a fire suppression system or have a fire extinguisher nearby.

4. REGULAR CLEANING

Regular check/empty the collection bags to avoid the buildup of fine dust that can increase the risk of fire. Make sure to regularly clean the surrounding area where the machine is operated --excessive dust buildup on overhead lights, heaters, electrical panes, or other heat sources will increase the risk of fire.

5. STATIC ELECTRICITY

Plastic dust lines generate high amounts of static electricity as dust chips pass through them. Although rare, sparks caused by static electricity can cause explosions or fire. To reduce this risk, make sure all dust lines are thoroughly grounded by using a grounding wire.

6. HAZARDOUS DUST

Dust created while using machinery may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material, and always wear a NIOSH-approved respirator to reduce your risk.

7. DUST ALLERGIES

Dust from certain woods may cause an allergic reaction in people and animals. Make sure you know what type of wood dust you will be exposed to in case there is a possibility of an allergic reaction.

8. IMPELLER HAZARDS

Do not place your hands or tools near the open inlet during operation for any reason. The powerful suction could easily cause accidental contact with the impeller which will cause serious personal injury or damage to the machine. Always keep small animals and children away from open dust collection inlets.

4. Installation of the machine

This machine need a little assembly, almost can be used directly.

4.1 Transportation of machine

4.1.1 Transportation and store

Anti-rust and shockproofing measures have been taken during packing. The machine should be transported and stored in -25~55°C ambient temperature.

Take care not to allow the machine to be exposed to rain or damage to the packing during transportation and storage.

⚠WARNING

- While transporting or handling the machine, be careful and let the activity be done by qualified personnel especially trained for this kind of activity!
- While the machine is being loaded or unloaded, make sure that no person is too close to be subject to injury
- Select proper transportation device according to the weight of the machine.
- Make sure the lifting capacity of transportation device is capable for the weight of the machine.

4.1.2 Transportation before unpacking

As standard, the machine is packed in a robust wooden box. **Fig.3** shows the method can be used to transport the packing box.



Fig.3

4.1.3 Confirmation after unpacking

When open the packing box, please pay attention to the following items. If you have any questions, please contact directly with us.

- 1) Has the machine been damaged in transportation.
- 2) All accessories and documents are there.
- 3) The product is consistent with the contract.
- 4) The specifications on machine label are consistent with the contract.

4.1.4 Transportation after unpacking

When transporting the machine with a stacker truck, first find the center of gravity of the machine, insert the fork below the machine and then lift carefully.

4.2 Unpacking

This machine was carefully packaged for safe transportation, remove the package materials from your machine and inspect it. If you find the machine damaged, please immediately call Customer Service for advice.

Save the containers and all packing materials for possible inspection by the carrier or its agent. Otherwise, filing a freight claim can be difficult.

When you are completely satisfied with the condition of your shipment, inventory the contents.

Inventory:

The following is a description of the model components shipped, lay the components out to inventory them.

NOTICE

If you can't find an item on this list, check the mounting location on the machine or examine the packaging materials carefully. Occasionally we pre-install certain components for shipping purposes.

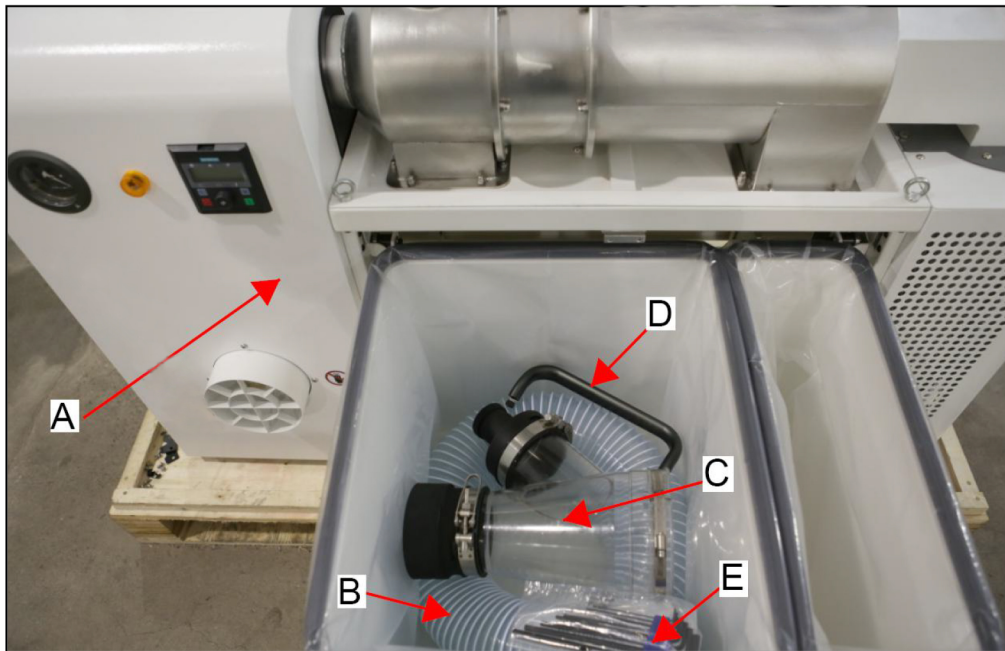


Fig.4

Box Contents(Fig.4):

- A. Machine(1)
- B. ϕ 100mm x 2m long flexible hose (1)
- C. Dust extractor adaptor (1)
- D. Handel(1)
- E. Tools(1 set)

All other parts except main unit are positioned in the dust collection box. Open the front door and get them.

4.3 Positioning the machine (Fig.5)

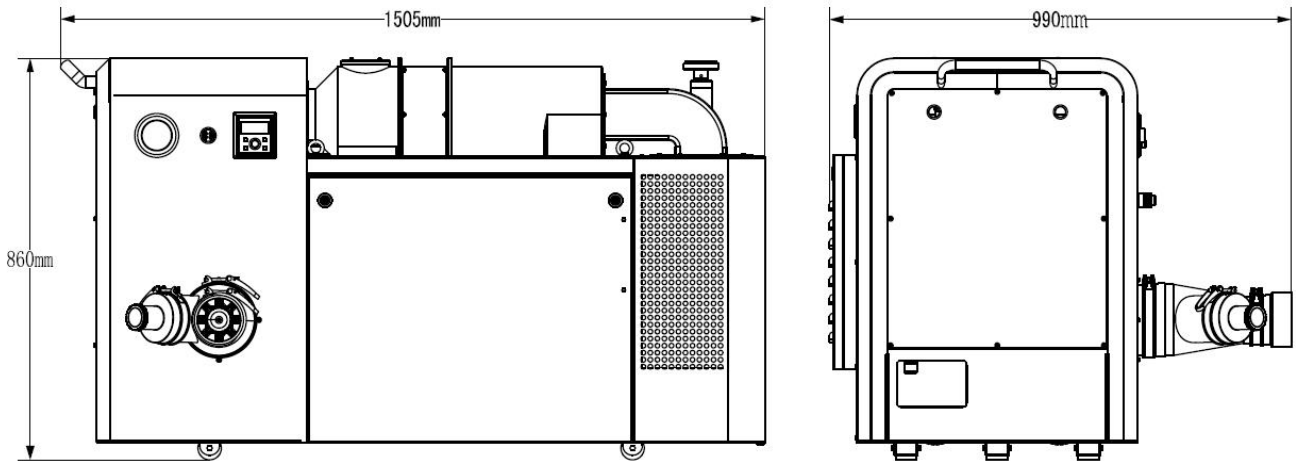


Fig.5

The machine should be placed at least 0.5 meter (18 inches) away from the wall to ensure that the motor heat dissipation is good.

4.4 Assembly

4.4.1 Moving & Placing Base Unit

⚠WARNING

This machine is very heavy, serious personal injury will happen if safe moving methods are not followed! To be safe, you will need assistance and power equipment when moving the shipping crate and removing the machine from the pallet!

1. Remove the package box, keep the base unit on the pallet. As **Fig.6**

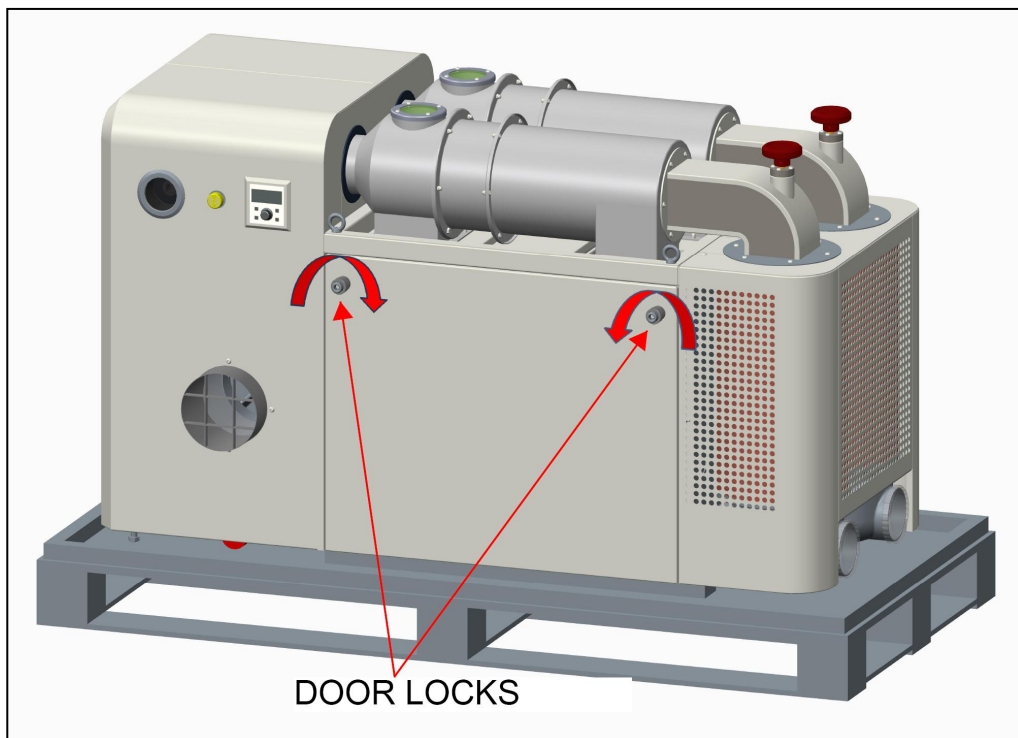


Fig.6

2. Rotating the knobs as arrow indicated (**see Fig.6**) to open the door. Then release the dust bin (**see Fig.7**) , you can slide the dust bin out.

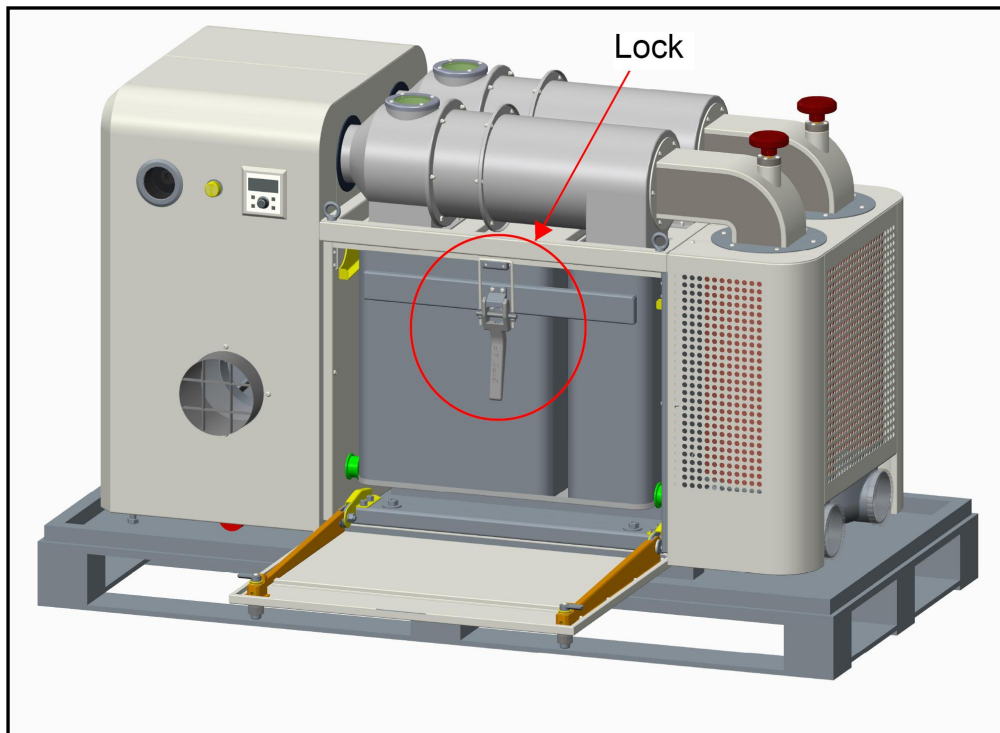


Fig.7

3. After you sliding out the bin, you need to remove transportation screws.

Step 1: As **Fig.8** indicated, you can find four Hex head screws at the bottom, remove these screws.

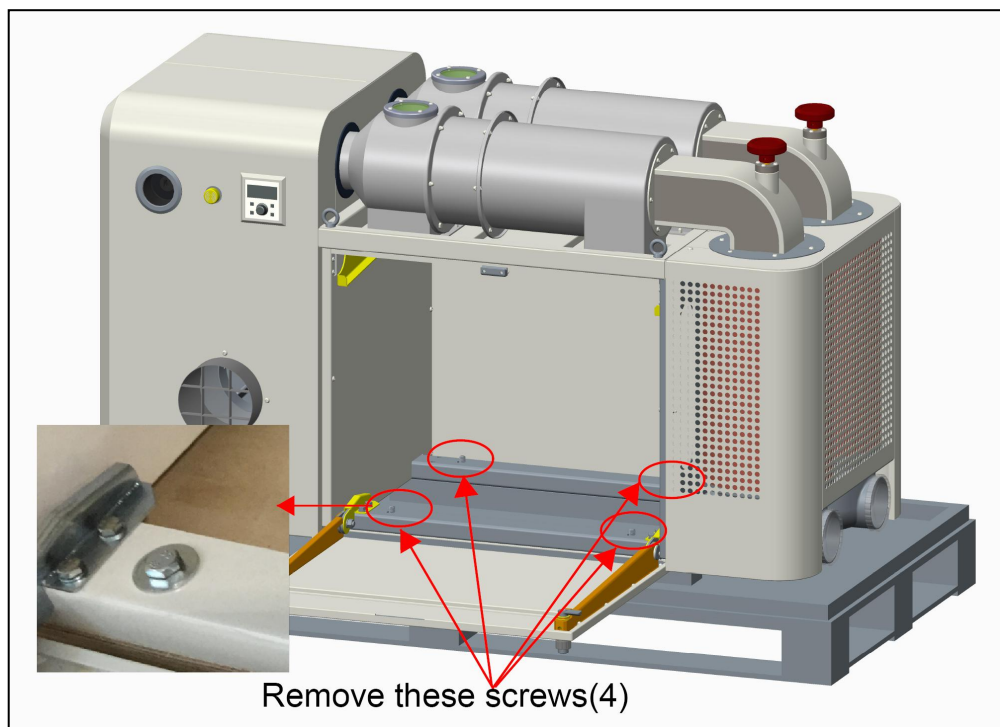


Fig.8

Step 2: As **Fig.9** indicated, at the bottom, you can find two support legs, turn the red handles to raise legs up about 25mm (1 inch).

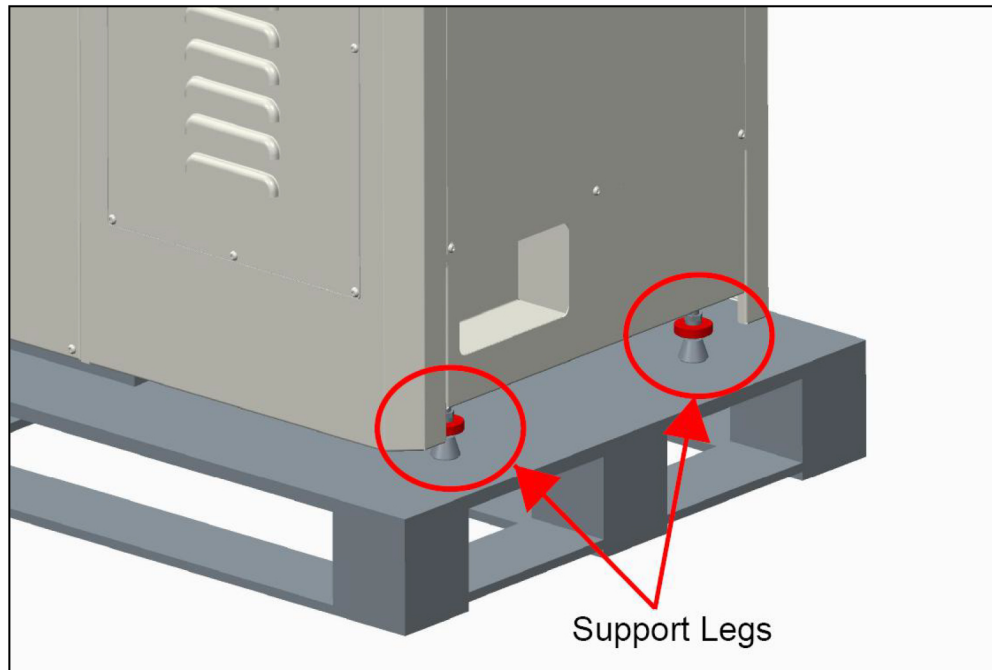


Fig.9

4. Use four eyebolts (**see Fig.10**) to lift this machine and remove the pallet.



Fig.10

5. Install the handle as Fig.11. (Side cover plate need to be removed.).
Reinstall the dust bin.

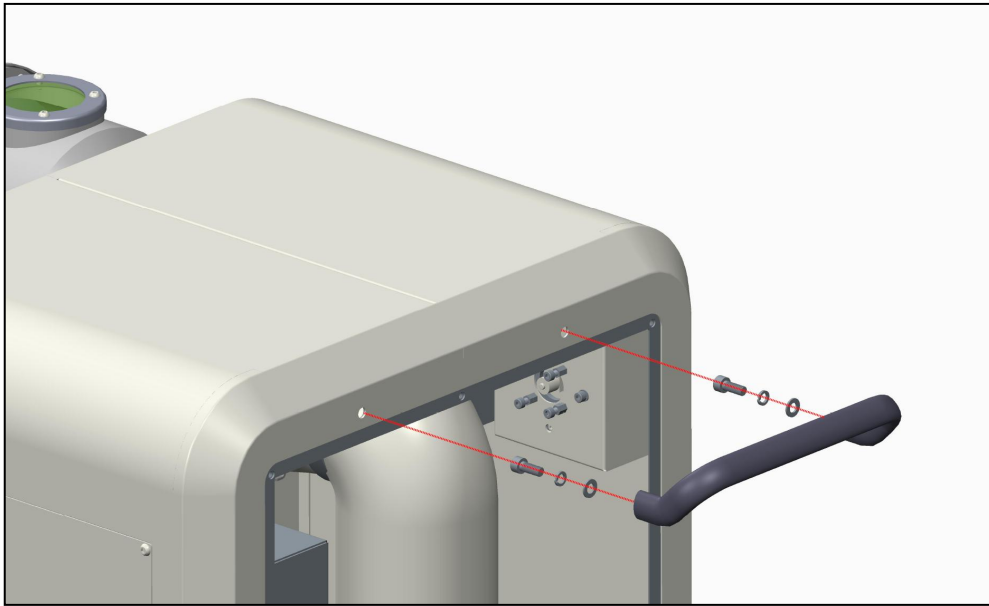


Fig.11

6. When the equipment is in place, turn the red handles (see Fig.9) to make the support legs touch the ground.

4.4.2 Installation of dust extractor adaptor

Open the front door and pull out the dust bin, take out the dust extractor adaptor and fix the dust extractor adaptor to the main unit. as **Fig.12**.

2"(50mm), 4"(100mm) and 6" (150mm) hoses can be used, see **Fig.12**.

When you choose 6"(150mm) hose, connect hose to the main unit directly.

When you choose 4" (100mm) hose and 2" (50mm) hose, install dust extractor adaptor to the main unit first. Then connect hose to the dust extractor adaptor. If you need to connect two 4" (100mm) hoses, you should add a 4" (100) port, which needs additional purchase.

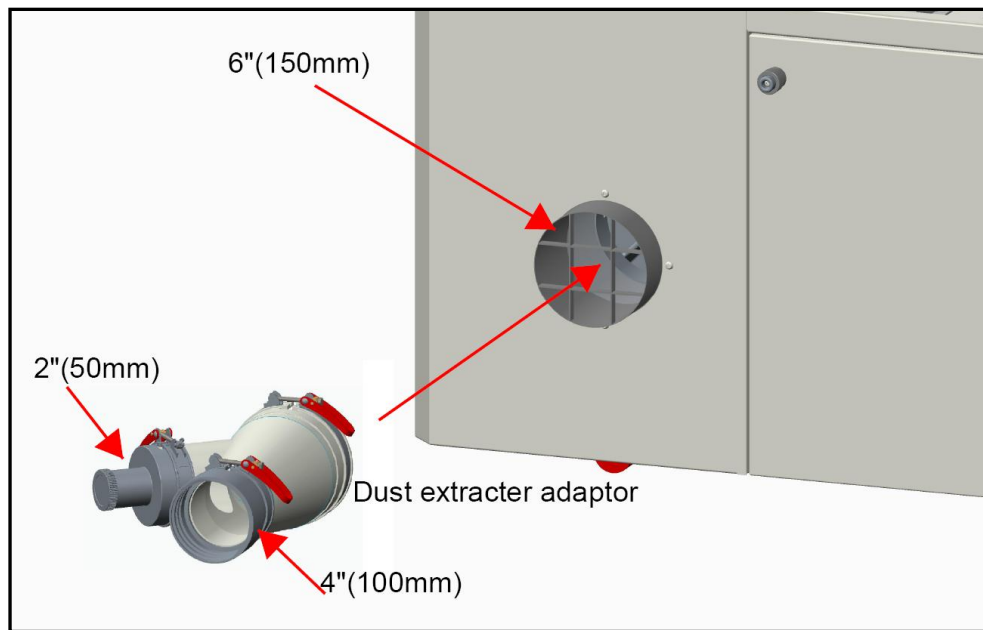


Fig.12

Grounding:

Since plastic hose is abundant, relatively inexpensive, easily assembled and air tight, it is a very popular material for conveying dust. However, plastic flex-hose and plastic duct is an insulator, and dust particles moving against the walls of the plastic hose create a static electricity build up. This charge will build until it discharges to a ground. If a grounding medium is not available to prevent static electrical build up, the electrical charge will arc to the nearest grounded source. This electrical discharge may cause an explosion and subsequent fire inside the system.

To against static electrical build up as next:

- 1, Wrap the outside of hose with a bare copper wire and attach both end of wire to each grounded machine and Gyro Air.
- 2, Insert a bare copper ground wire inside the entire hose and attach the wire to each grounded machine and Gyro Air.

⚠WARNING

Ensure each machine is continuously grounded to the grounding terminal in your electric service panel.

5. Operations

5.1 The operating and instructions of electrical components (Fig.13)

A: **Power Switch:** Connect or disconnect the power.

B: **Control panel:** Press the green button to start this machine, Press the red button to stop this machine, turn the knob to adjust the frequency from 40Hz-75Hz.

NOTE:

1. Do not use the circled button as Fig.13. If you have operated the circled button, you must power off this machine 10x's, then power this machine again to restore the initial setup.

2. The panel may appear fault and alarm.

Failure code: dust processor will stop, after troubleshooting, press the button "OK" to cancel the fault code display.

Alarm code: dust processor can run properly, you must power off and check it.

In majority cases, restart can eliminate the fault code and alarm code.

The common faults and alarm code as shown in the table below:

Code type	Code	Name
Failure code	F1	Over-current
	F2	Over-voltage
	F3	under-voltage
	F4	Inverter over temperature
	F11	Motor over temperature
	F85	Dust bin is full
Alarm code	A501	Current limit
	A502	Over-voltage limit
	A503	under-voltage limit
	A504	Inverter over temperature
	A511	motor over temperature

C. **Buzzer:** When the dust bin is full, the buzzer will sound

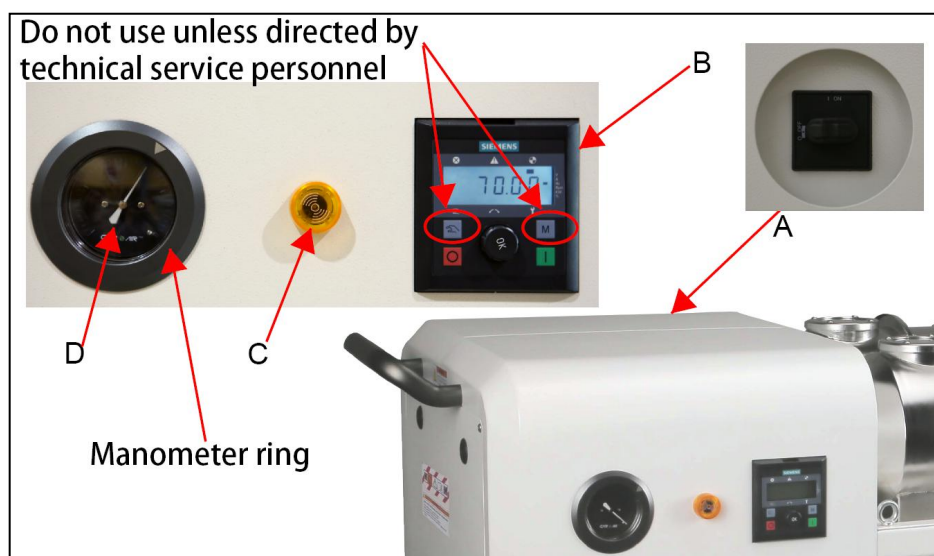


Fig.13

5.2 The operating of manometer (Fig.13)

D. Manometer:

This manometer is not used to measure the pressure, is mainly used to observe whether there is abnormal pressure fluctuations.

Every time, when you power this machine and adjust to the frequency that you needed, turn the manometer ring, make the “arrow mark” match pointer.

If you find the reading has increased, there could be a blockage in the ducting system or extractor unit, check the following:

Check the hoses for blockages.

If you find the reading has decreased, check the following:

Check the hoses are secure, “NOT LOOSE”, which will lead to air leakages.

Check hoses for splits and cracks.

Usually you need to remove dust extractor adaptor to check whether it is blockage.

5.3 Clean the dust bin.

When the buzzer sounds, you should clean up the dust bin.

Rotate the knobs as the arrow indicates (**see Fig.6**) to open the door. Release the dust bin (**see Fig.7**), you can slide the dust bin out.

You should clear the dust bin every day.

5.4 General operation

Please follow these steps each time you start operating the machine:

1. Check the machine, make sure the dust bin is locked.
2. Connect the machine to the power 220V/1PH/60Hz.
3. Turn on power switch, the buzzer will sound and the screen of the control panel will be lighted.
4. Press the green button to start this machine, the initial frequency is 40Hz, you can adjust the frequency from 40Hz-75Hz. Press the red button to stop this machine.
5. When the collection box is full, the buzzer will sound, you can open the front door, pull out the dust bin and empty it.

6. Maintenance

⚠️WARNING

Always disconnect power to the machine before doing maintenance. Failure to do this may result in serious personal injury.

Cleaning filter:

Turn two “handles” (see **Fig.14**) right or left for several turns to clean the filter.
Once a week.

Deep clean:

Connect inlet port and cleaning port via 100mm flexible hose as **Fig. 14**. Run machine at 75Hz, and keep turning handle H for 5-10 seconds. Repeat same process for another cleaning port.
Once 3 weeks.



Fig.14

Cleaning the gasket:

There is a sealing strip at the top of the dust bin, in order to maintain the seal and extend the life of the sealing strip, you must keep it clean.

Wipe down each time after emptying dust bin

7. Trouble shooting guide

7.1 Electrical and motor problems

Trouble	Possible Cause	Correction
Machine will not start.	1. Cord unplugged from the power source. 2. Cord damaged. 3. Machine circuit breaker has tripped. 4. Motor is at fault. 5. The dust bin is full. 6. Inverter error. 7. Low voltage.	1. Plug in power cord. 2. Replace cord. 3. Let motor cool and improve ventilation. 4. Test/ repair /replace. 5. Clean the dust bin. 6. Cut off the power and repower. 7. Check power line for proper voltage.
Motor will not start: fuse blows or circuit breaker trips	1. Too many machines on shared circuit. 2. Short circuit in line cord or plug. 3. Short circuit in motor or loose connections. 4. Incorrect fuse or circuit breaker in power line.	1. Connect dust collector to dedicated circuit. 2. Inspect cord or plug for damaged insulation and shorted wires. 3. Inspect all connections on motor for loose or shorted terminals or worn insulation. 4. Install correct fuse or circuit breaker at power source.
Motor overheats	1. Motor overloaded. 2. Air circulation through motor is restricted.	1. Reduce load on motor. 2. Clean motor fan with compressed air to restore normal air circulation.
Motor stalls, resulting in blown fuses or tripped circuit	1. Motor overloaded. 2. Short circuit in motor or loose connections. 3. Low voltage. 4. Incorrect fuse or circuit breaker in power line.	1. Reduce load on motor. 2. Inspect connections on motor for loose or shorted terminals or worn insulation. 3. Correct low voltage conditions. 4. Install correct fuse or circuit breaker.
Loud noise or vibrations coming from machine	1. Loose fasteners. 2. Motor fan is hitting the cover. 3. Impeller is damaged.	1. Inspect machine and tighten all fasteners. 2. Tighten fan or shim cover. Replace fan cover if damaged. 3. Replace impeller.

7.2 Performance problems

Poor performance; lack of suction.	1. Filters are dirty. 2. There is a restriction in the duct line. 3. The machine is too far away from the point of section, or there are too many sharp bends in the ducting. 4. The lumber is wet, and the dust is not flowing smoothly. 5. There is a leak in the ducting, or a series of small leaks, or too many open ports. 6. The ducting and ports are incorrectly sized. 7. Too many open branch lines at one time may cause a velocity drop in the main line.	1. Clean filters. 2. Remove dust line from collector inlet and unblock the restriction in the duct line. A plumbing snake may be necessary. 3. Relocate the machine closer to the suction, and rework ducting without sharp bends. 4. Process lumber with less than 20% moisture content. 5. Rework the ducting to eliminate all leaks. Close dust ports for lines not being used. 6. Reinstall correctly sized ducts and fittings. 7. Close dust ports for lines not being used.
Dust blows into the air from the machine.	1. Duct clamps or dust collection bags are not properly clamped and secured. 2. Sealing strips are loose or damaged.	1. Re-secure ducts and dust collection bag, making sure duct and bag clamp are tight. 2. Retighten all mounting and sealing points, replace damaged sealing strips.

[illegible]

Part list of G700

REF	DESCRIPTION	REF	DESCRIPTION	REF	DESCRIPTION
1	Main base	33	Wheel	65	Cap screw M5X16
2	Back cover	34	Clamp 5"	66	Spring washer 5
3	Front cover (Assy)	35	Duct 5"	67	Flat washer 5
4	Dust bin (Assy)	36	Adjust ring	68	Cap screw M5X20
5	Separator system (Assy)	37	Adjust bracket	69	Nut M5
6	Filter (Assy)	38	Y separator	70	Button head screw M5X30
7	Electrical box (Assy)	39	Rubber cushion ϕ 110mm	71	Cap screw M6X16
8	Extractor adaptor (Assy)	40	Eyebolt	72	Stud 4#x5+5
9	Electrical box bracket	41	Lock block	73	Nut M10
10		42	Cable guard	74	Spring washer 10
11	Left housing	43	Fixed block	75	Flat washer 10
12	Handle	44	O- ring 23.5mm	76	Button head screw M6X16
13	Left cover	45	Photoelectric switch	77	Acorn nut M6
14	Retainer	46	Locking hook	78	Button head screw M5X10
15	PG16	47	Filter cover	79	Hex head screw M12X40
16	Manometer cover	48	Right housing	80	Spring washer 12
17	Manometer	49	Line buckle	81	Flat washer 12
18	O- ring 69mm	50	Plate	82	
19	Manometer block	51	Rubber cushion	83	Hex head screw M6X20
20	Manometer plate	52	Button box cover	84	Hex head screw M8X20
21	Buzzer	53	PG13.5	85	Set screw M4X6
22	Control panel	54	Pan head screw with cross recess M3x10	86	Ground wire
23	Motor cover	55	Spring washer 3	87	
24	Fast interface M14x1.5	56	Flat washer 3	88	Cushioning
25	Pneumatic hose ϕ 6mm	57	Button head screw M6X35	89	Lock nut M12
26	Guard	58	Flat washer 6	90	Adjust leg piece
27	PG7	59	Spring washer 6	91	Leg
28	Inlet 6"	60	Nut M6	92	Washer 6
29	Clamp 6"	61	Cap screw M8X20	93	Washer 5
30	Duct 6"	62	Spring washer 8	94	
31	Cushioning	63	Flat washer 8	95	Grounding washer 6
32	Motor	64	Button head screw M6X12		

The Axminster guarantee

Buy with confidence from Axminster!

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The packaging is suitable for recycling.
Please dispose of it in a responsible manner.



EU Countries Only

Do not dispose of electric tools together with household waste material.
By law they must be collected and recycled separately.



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