

# XINGYI

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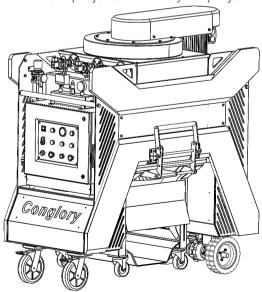
# Manual of CD-556B vacuum cleaner

CONGLORY a brand of XINGYI is a famous brand specializing in surface shot blasting cleaning and roughening, surface chipping, milling, grinding and polishing equipment for steel, concrete, asphalt, stone and other surfaces.

Products related to concrete industrial floor, epoxy floor coating, decorative landscape floor, surface cleaning of various PVC and stone floor paving; color pavement and road surface paving; concrete road and railway bridge waterproof layer Laying; pavement of tunnel pavement; recovery of friction coefficient of airport runway, cleaning of marking lines, anti-skidding of asphalt pavement; thin layer of asphalt and concrete pavement, base treatment before surface treatment; anti-corrosion of storage tanks in petrochemical industry and offshore platforms Coating, the cyclic sandblasting surface cleaning before heavy anti-corrosion coating on ship's side, deck and deck of ship repair.

The product range includes mobile self-circulating shot blasting equipment, small milling equipment, grinding and polishing equipment, cutting equipment, pneumatic tools, etc., as well as supporting vacuum cleaners and hand tools, etc.

Our professional sales personnel and technical service personnel are willing to provide you with the best construction equipment and technology for different projects to make your project more exciting.



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# 1. Introduction

All personnel who operate and maintain this equipment must read this manual carefully and fully understand its content.

This manual must be placed near the equipment so that it can be read at any time.

Only personnel trained and approved by Xingyi Polishing Machine Co., Ltd. can operate this equipment.

# 2. Description of the device

The CD-556B vacuum cleaner can only be used to clean dry surfaces, and the objects or dust to be cleaned are non-flammable.

Note that this machine should not be used to clean up carcinogenic substances or asbestos.

The designed use class of this equipment is M (see the table below).

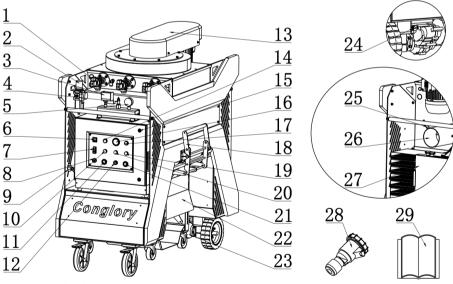
Use grade standard EN60335-2-69-Appendix AA				
Grade	Description			
L	(Low risk) Relying on suction to separate dust larger than 1mg/m3.			
M (CD-556B)	Medium risk) Relying on suction to separate dust larger than 0.1mg/m3 and less than 1mg/m3.			
н	(High risk) Relying on suction to separate dust less than 0.1mg/m3, including some carcinogens and disease-causing dust.			

Dust emission standards			
Grade	related data		
L	It can prevent at least 99.1% of dust particles larger than 3μm		
	in diameter.		
М	It can prevent at least 99.9% of dust particles larger than 3μm		
	in diameter.		
Н	Use H13 grade high efficiency particulate filter (standard		
	EN1822).		

#### **Application**

The CD-556B vacuum cleaner is a special purpose vacuum cleaner specially designed for Xingyi Polishing Machinery.

If you have any questions during use, please contact Xingyi Polishing Machine Co., Ltd.



#### 2.1 Description

- 1. Pulse solenoid valve
- 2. Filter regulator

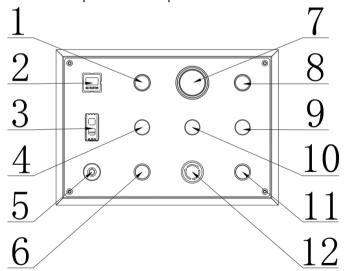
- 3. Pressure switch
- 4. Pressure relief valve

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- 5. Pressure gauge
- 6. Pressure sensor
- 7. Forward/Backward switch
- 8. Drive wheel governor
- 9. Drain valve
- 10. Vacuuming power indicator
- 11. Fan system stop button
- 12. Emergency stop switch
- 13. Fan system
- 14. Fan system start button
- 15. Lock
- 16. Timer
- 17. Air compressor start button
- 18. Lock buckle

- 19. Air compressor power indicator
- 20. Power indicator
- 21. Air compressor stop button
- 22. Reprint, guide for dust collection in dust bag
- 23. Electric rear axle
- 24.Clutch lock
- 25. Air inlet valve port handle
- 26.Air inlet
- 27.Muffler
- 28. Power plug
- 29.Manual

#### 2.2 Control panel description



1. Fan system start button: Press the fan system start button to start the vacuuming action of the equipment.

- 2. Pressure sensor: Display the current vacuum pressure in the filter barrel. When the value of the pressure gauge (regardless of the symbol) is getting bigger and bigger, it means that there is dust in the vacuum hose or too much dust on the filter element, and it should be shaken at this time. Vacuum the hose to unclog the pipe or press the cleaning button several times (the interval between jogging is more than 15 seconds).
- 3. Forward/Backward switch: Control the forward and backward movement of the device.
- 4. Vacuuming power indicator: When the power supply of the equipment fan is normal, the power indicator will light up.
  - 5. Drive wheel governor: adjust the walking speed of the drive wheel.
- 6. Vacuuming stop button: Press the vacuuming stop button to stop the vacuuming action of the equipment.
  - 7. Timer: Displays the accumulated running time of the device.
- 8. Air compressor start button: Press the air compressor start switch to start the internal air compressor of the equipment.
- 9. Air compressor power indicator: When the air compressor power supply of the equipment is normal, the power indicator will light up.
- 10. Power indicator: When the device is plugged in, the power indicator will light up.
- 11. Air compressor stop button: Press the air compressor stop button to stop the operation of the equipment air compressor.
- 12. Emergency stop switch: When the machine is in a dangerous state or to stop, cut off the power supply through the emergency stop switch to stop the operation of the equipment to protect the safety of people and equipment.

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# 3. Safety instructions

Before operating the machine, the operator must be familiar with the contents of the safety operation regulations in this manual.

Only personnel trained and approved by Xingyi Polishing Machine Co., Ltd. can operate this equipment.

This manual must be placed near the equipment so that it can be read at any time.

#### 3.1 Safety measures-general

This equipment can only be used to clean up non-flammable dust and objects.

Do not use this equipment around flammable gases and objects.

The CD556-B vacuum cleaner cannot be used to treat carcinogens or asbestos.

The voltage used by the equipment must comply with the power supply requirements in the operation manual.

Don't use it when the device fails.

Do not use damaged cables.

Do not pull the cable at the edge of sharp objects, or curl or jam the cable for use.

Do not use the machine to absorb water or other liquids.

 $\label{lem:condition} A cids, ace to ne and organic solvents can damage the equipment.$ 

When the device is not in use, pull out the power plug.

Do not connect the power supply directly to the equipment, use a circuit breaker as protection.

Please use the original spare parts of Xingyi.

The vacuum cleaner needs to be overhauled once a year, and this work should be done by personnel familiar with the equipment.

#### 3.2 Safety measures-about transportation

When transporting the vacuum cleaner, avoid damage to the equipment due to incorrect loading and unloading methods.

Before moving the vacuum cleaner from a dangerous place, take precautions to prevent the device from disengaging. Please plug the inlet and outlet of the vacuum cleaner with a suitable plug.

#### 3.3 Safety measures-about maintenance

During maintenance of the vacuum cleaner, the vacuum cleaner must be completely disconnected from the power supply, and all parts that may cause injury to maintenance personnel or other personnel should be removed.

These appropriate measures include: cleaning up contaminants before disassembling the equipment, a well-ventilated maintenance environment and wearing appropriate personal protective equipment.

The external parts of the vacuum cleaner must be clean to prevent the spread and pollution of dust.

During maintenance, all pollutants must be destroyed in time.

These contaminants must be sealed in bags for disposal in accordance with local regulations on waste disposal.

Please also follow this procedure when the filter element is to be processed.

The dust-tight equipment compartment should also be opened with a suitable tool for thorough cleaning.

#### 3.4 Safety Rules

The following warning signs are pasted on the machine:



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The meaning of the logo:

Wear earmuffs when operating the machine.

To operate the machine, wear glasses with lateral protection.

**CE Mark** 

Wear insulated shoes to operate the machine.

Read the operation manual before starting up.

When operating the machine, the operator must tie up the long hair tightly, do not wear loose clothes, do not wear ornaments including rings, and need to wear gloves and dust masks.

People who do not operate the machine should not stay around the machine, especially children who are not allowed to enter the work area.

Please do not change the original factory settings of the machine without authorization. Use qualified cables and ensure that the cables are not damaged. Do not remove the ground wire on the machine, and make sure to connect the ground wire every time.

Please connect the main power cord to a device with a leakage protector.

Check and test the electrical components in the machine frequently. These electrical components must meet the requirements of the standard EN60204-1.

When you suspect that there is a problem with the safety of electrical components, please contact a professional electrician for inspection.

Only trained and qualified electricians can use tools and materials related to electricity; or perform related operations under the guidance of professional electricians.

Please cut off the power when checking or repairing the machine.

Do not use the machine when the ground is wet.

Do not use the machine in the rain.

# 4. Preparation Before Construction

The operator is obliged to conduct routine inspections of the machine before construction.

If the safety of the machine does not meet the requirements of the following safety inspections, the machine cannot be used.

#### Check electricity safety

Please use cables that are consistent with the total power requirements of the machine.

The cable must be fully unrolled, not coiled or bunched together.

The cable must not be damaged.

The power supply must be connected to the earth wire.

Please set the main power switch to the "off" position before connecting the power source.

# 5. Operation

#### 5.1 Turn on/off the machine

Connect the vacuum tube to the supporting equipment.

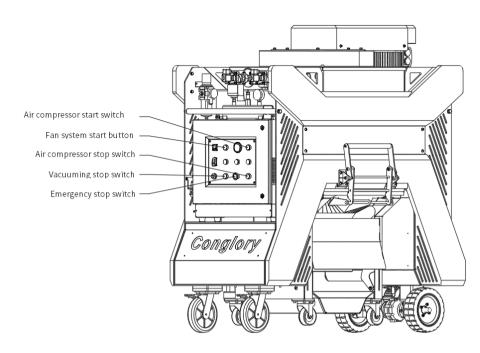
Connect the vacuum cleaner to the power supply.

Loosen the emergency stop switch of the air compressor and fan successively.

Turn on the air compressor switch first.

Turn on the fan switch again.

When shutting down, press the emergency stop switch of the air compressor and the fan successively.



#### 5.2 Operation

Check the ash hopper regularly.

Open the drain valve regularly to release the water in the air tank.

Open the drain valve of the water-gas separator regularly.

#### 5.3 Interruption of Work

When you need to temporarily stop work (0.5 hour-1 hour), you can just turn off the fan system. Continued work of the blowback system will increase the service life of the filter element.

If the vacuum cleaner will not be used for a long time, turn off the fan system first, let the blowback system run for about 5 minutes, and then turn off the air compressor and main power supply.

Remove the power cable.

Personnel who have not been trained by Xingyi Machinery are not allowed to operate or repair this equipment.

## 6. Maintenance

#### 6.1 Introduction and Maintenance Items

Observe the safety instructions in Chapter 3 when performing maintenance.

Insufficient experience or incorrect maintenance will increase maintenance costs. If the vacuum cleaner is not used for a long time, regular maintenance of the equipment is very necessary.

Correct maintenance work is the guarantee of safe and reliable equipment operation and prolonging its service life.

The following table lists the recommended time for standard maintenance of vacuum cleaner related parts for reference:

Operating time/overhaul interval	Check points, maintenance items
12 hours after repair	Check whether all visible screws are loose
Daily and <u>pre-work</u> inspection items	Check whether all safety protection devices
	are working properly.
	Check whether the circuit breaker operating
	device is normal.
	Check whether the dust removal pipe is well
	sealed.
	Check whether the dust removal tube is
	damaged.
	Check if the vacuum cleaner hopper is
	empty.
	Check the power connection for debris or
	dirt.
	Check whether there are dirt and other
	debris on the surface of the motor.
Per year	Carry out an overhaul and thorough
Per year	cleaning

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The maintenance interval depends on the continuous working time of the vacuum cleaner. If the working time does not meet the corresponding maintenance items, the maintenance time can be postponed. However, the equipment must be thoroughly inspected and repaired once a year.

According to different working conditions, it is unforeseeable how long it will be necessary to check the wear and tear of accessories. Maintenance work can be arranged flexibly according to the use time, use conditions and use experience of the equipment.

Our experts would be happy to provide more help on equipment maintenance.

Note: Before servicing the vacuum cleaner, make sure that the vacuum cleaner will not be started unconsciously. Place the vacuum cleaner in a completely closed position and make sure that there is no compressed air in the blowback system.

#### Further suggestions:

The machine should be placed in a dry room. Prevent moisture from entering the motor, the motor should be protected from heat, dust, and vibration.

All maintenance work must be completed by trained personnel approved by Baritech to ensure the reliable operation of the machine.

If the following situations occur, the machine will no longer enjoy the warranty rights:

Original spare parts and steel shots of Xingyi are not used.

Maintenance work is not done by personnel approved by Xingyi.

Any machine modification without the written permission of Xingyi.

#### 6.2 Replacing the filter element

Before installing a new filter element, pay attention to the firm and reliable sealing gasket on the upper part of the filter tank that is in contact with the steel plate. If the filter element is installed obliquely, it will cause dust leakage from the exhaust port of the vacuum cleaner and contaminate clean parts.

#### 6.3 Back Blow System

The vacuum cleaner provides a set of blow-back system, thereby prolonging the service life of the filter element.

The system uses compressed air generated by an air compressor, filtered through a water-gas separator, and led to the back-blowing system.

The pressure of the back-blowing compressed air can be adjusted through the control valve. In order to maintain a constant pressure, an air storage tank is also equipped.

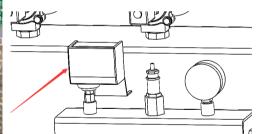
The normal back-blow pressure is between 6 and 7 bar, and the safety valve on the air compressor will open when the pressure is close to 10 bar.

This is to prevent the control valve from malfunctioning. The compressed air in the air storage tank can be kept at a safe value.

If the pressure cannot reach 7 bar, the possible cause is that the filter element in the water-gas separator or the air compressor intake filter element is dirty.

If the pressure is sufficient but the blow-back system does not work, the possible cause is a problem with the blow-back control system. Please check the solenoid and PLC settings.





It is recommended to contact the service personnel of Xingyi to prevent other problems caused by non standard operation.

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#### 6.4 Water-gas Separator

Check the level indicator of the water-gas separator regularly.

When the water level rises quickly to the baffle, drain the water, or drain the condensate regularly, manually drain it, and not use tools to drain it. (See the figure below), then press or unscrew the nut of the drain (see the figure below). If you forget to drain the condensate, once the condensate reaches the filter element, the separated condensate will flow out from the secondary side, contaminating downstream pneumatic components, causing damage, and problems such as the filter element's failure to work normally.

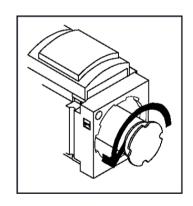


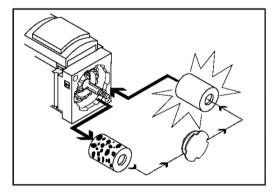
If there is a small amount of air leakage, the water-gas separator filter element can be replaced. The replacement steps are as follows.



Loosen the fixing nut of the filter element, remove the old filter element as shown in the figure below, and replace with the new one. Pay attention to holding the position of the new filter element, tighten the filter element fixing nut and reset the housing, and make sure that the position of the locking pin faces the large groove.

When you hear a crisp "click" sound, it proves that the separator housing has been locked in place.

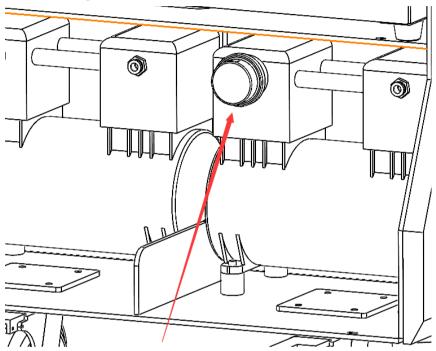




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#### 6.5 Air Compressor

The frequency of replacing or cleaning the air compressor inlet filter is related to the operating environment of the vacuum cleaner. The dirtier the environment, the more frequently the filter element is replaced or cleaned. The figure shows the position of the intake filter element.



# 7. Technical Data

Model	CD-556B
	Back blow vacuum cleaner
Name	
	1100m³/h
Flow	
Weight	647kg
Negative pressure	4kpa
Voltage	3P 380 16A/3P 220V 30A
Horsepower	5.5HP fan + 4HP air compressor
Dust removal pipe connection port size	1 4 8
length	1550mm
Width	943mm
Height	1710mm

Xingyi Polishing Machinery Co., Ltd. reserves the right to change the technical parameters and design without notice.

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