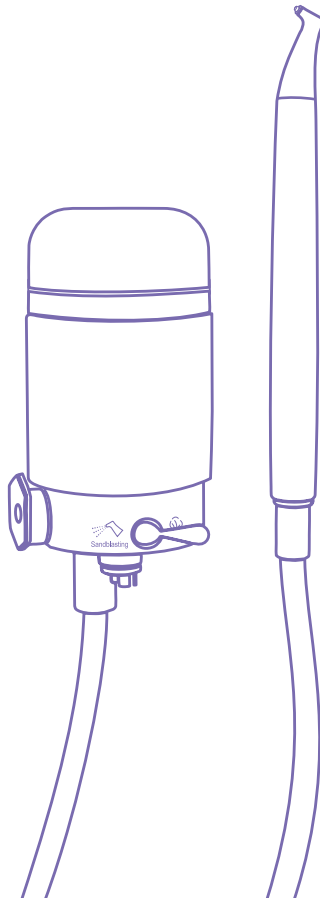




YKS-CB-H

# Dental-Chair Blaster Manual



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**【Product name】** Dental-Chair Blaster

**【Brand】** Xpedent

**【Model】** YKS-CB-H

**【Taboo/Suggestion】**

- 1、 It is prohibited for hemophiliacs
  - 2、 Patients with pacemakers are prohibited from using them
  - 3、 Doctors with pacemakers are prohibited from using them
  - 4、 Patients with heart disease, pregnant women and children should use with caution
  - 5、 It is forbidden for patients with respiratory diseases such as asthma chronic bronchitis embolism and emphysema
- During sandblasting treatment, the sandblasting gun should be moved in a roundabout way, and it is recommended that one site stay for no more than 5 seconds

**【Product description】**

Sand blasting is the use of high pressure air, special sodium bicarbonate and glycine dental cleaning powder on the surface of the teeth, to remove hard-to-scrape tooth surface adhesion, these particles in the mouth is dissolved by water。 Sand blasting can quickly and gently clean the tea scale, smoke scale and food soft scale attached to the teeth, and can clean the cavities and grooves of the tooth surface that cannot be reached by the ultrasonic tooth cleaning machine。 Sand blasted teeth are very clean, and not easy to redeposit calculus。 This sand-blasting tooth cleaning machine beside the chair has light handle and flexible operation。

**【Product use】**

Sand blasting teeth cleaning machine is used to remove tartar, stain or polish the surface of teeth。

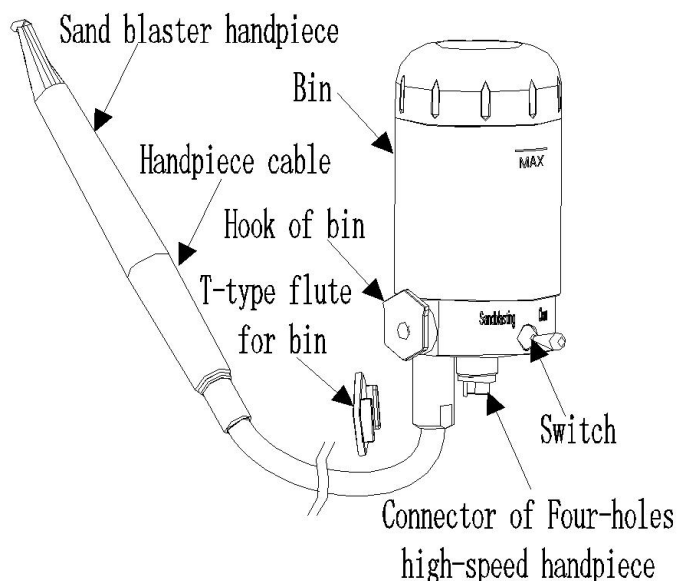
**【Product formation】**

Sand blasting tooth cleaning machine consists of bin assembly(Include Handpiece cable、 Hook of bin、 Connector of Four-holes high-speed

handpiece (It does not include atomizing gas and electrical connection) 、 Switch) , Sand blaster handpiece、 T-type flute for bin。

Connectors do not contain atomizing gas and electrical connection parts:

Meet requirements of ISO 9168:2009



### 【Sand powder requirement】

Dental cleaning powder consists of sodium bicarbonate and glycine. Dental cleaning powder should be dry, loose and uniform, without clumping. In addition, dental cleaning powder can not be mixed with other foreign bodies, otherwise it is easy to cause blockage of the sand blasting machine。

Note: This product is not supplied with dental cleaning powder before delivery. Please purchase and use it from the regular channels in the market. The particle size of dental cleaning powder is about 50 microns。

**【Technical parameters】**

Input pressure	2.5bar-6bar (250kPa-600kPa)
Input water pressure	1 bar-3 bar (100kPa-300kPa)
Diameter of nozzle	(0.60±0.05) mm
Sand blasting capacity	≤6g/min
Spray capacity	≥20ml/min

**【Environmental conditions for use and storage】**

Service ambient temperature	0~40℃
Ambient relative humidity	10%~85%RH
Atmospheric pressure	50kPa~106kPa
Storage ambient temperature	-10~50℃
Relative humidity of storage environment	≤85%RH
Avoid direct sunlight	
Keep away from heat source and fire source	

## 【Installation instructions】

### 一、Set up external dental devices

Water supply system:

pressure: 1 bar-3 bar (100kPa-300kPa)

temperature: Maximum 40℃

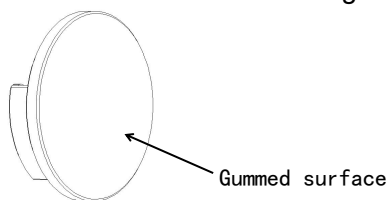
Air supply pressure:

Adjust the supply pressure of the external dental equipment to obtain a supply pressure of 2.5bar to 6bar (250 Kpa-600 kpa)。

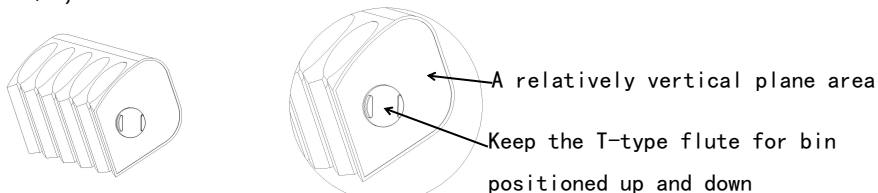
Note: Too high air pressure will lead to cracks or cracks in the sand bottles and caps of the sand blasting machine, and even lead to human injury。

### 二、Installation procedure

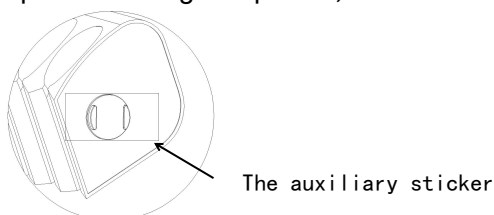
1、Apply an even coat of nail free glue to the back of the T-type flute for bin;



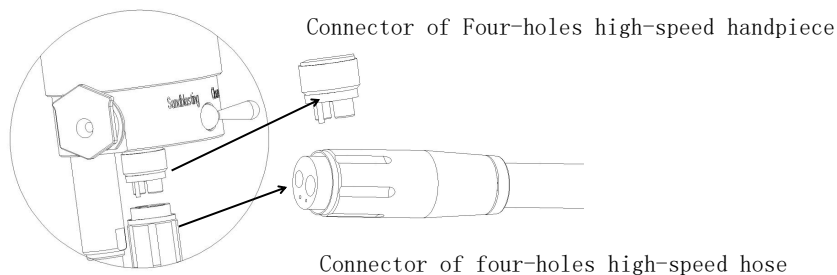
2、Paste T-type flute for bin on a relatively vertical plane near the tail line pendant of the dental chair (Note: Keep the T-type flute for bin positioned up and down) ;



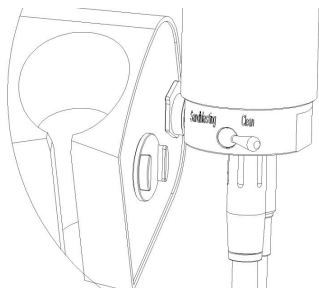
3、The auxiliary sticker should be removed after 24-72 hours. Please do not move the position during this period;



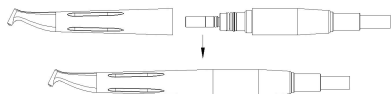
4、Connect the Connector of four-holes high-speed hose to the Connector of Four-holes high-speed handpiece and tighten it to ensure no air leakage;



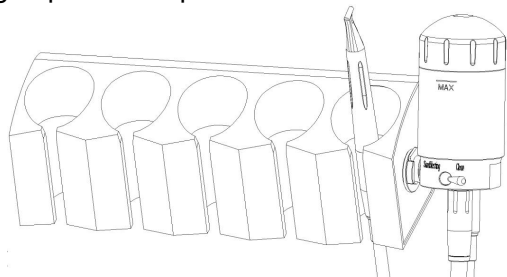
5、Secure the Hook of bin to the T-type flute for bin (Align and lower from the top) ;



6、Connect the Sand blaster handpiece to the Handpiece cable;

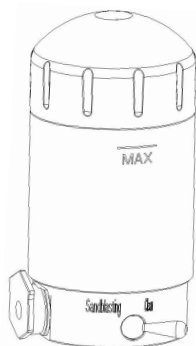


7、Place the Sand blaster handpiece over the Connector of Four-holes high-speed handpiece.



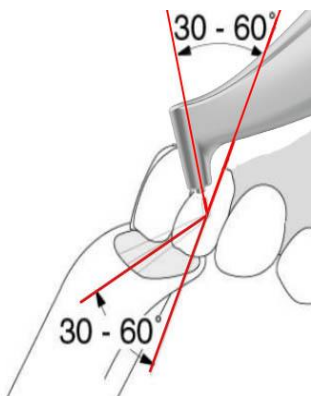
### 【Use method】

1、Twist off the dental cleaning powder in the sand bottle cap, and the maximum amount of dental cleaning powder into the sand bottle MAX scale line, and make sure that the sand bottle cap twisted to the end, to ensure tight air leakage;



2、Adjust the air pressure and water pressure to the required range, switch the function selection to "clean", step on the foot switch for sand blasting treatment; In actual treatment, appropriate air pressure or water pressure should be adjusted;

3、Recommended sandblasting Angle/distance. Use strong extraction of dental cleaning powder and weak inhalation during treatment;





- 4、The sandblasting treatment must be used in conjunction with the aspirator. Dissolved dental cleaning powder and water must be discharged during the sandblasting treatment;
- 5、 When the foot switch of the sand blasting machine is released, the sand blasting stops;
- 6、 Function Select switch to "clean", step on the foot switch for pipeline cleaning operation;
- 7、 After sand blasting treatment, if it is not used for a long time, the sand powder in the sand bottle and the air path must be cleaned to prevent the residual sand powder from getting damp and blocking the pipeline。

## 【Clogging treatment】

Fault phenomenon	Possible fault causes	solution
After stepping on the foot, the sandblasting nozzle is blocked, and no air or powder comes out of the sandblasting mouth	Connector of Four-holes high-speed handpiece is not properly connected	Check that the Connector of Four-holes high-speed handpiece is properly connected
	The air source is not open or the pressure is too low	Open the air source and inject 2.5 bar ~ 6bar compressed air
	Sand blaster handpiece water air blocking race	Soak Sand blaster handpiece in hot water for a few minutes, rinse the nozzle with water, blow dry and reconnect to use, or use a needle to dredge
Step on the foot switch Sand blaster handpiece and spray water but not air	Sand blaster handpiece or nozzle blocked or sand bottle blocked	Use Three-use gun to blow or through the needle dredge
	The function switch is set to "Clean"	The function switch is set to "Sandblasting"
	The Handpiece cable is blocked	Use the cleaning function to clean the line
Step on the foot switch Sand blaster handpiece to air but not water	Sand blaster handpiece waterway blocked	Use Three-use gun to blow or through the needle dredge
The efficiency of sand blasting is low	Lack of sand	Add plenty of sand powder
	The Sand blaster handpiece or sand blasting head has a slight blockage	Use Three-use gun to blow or through the needle dredge
Air leakage or water leakage	Sand blaster handpiece joint sealing O-ring is damaged	Replace the seal O ring

If the problem cannot be solved through the above troubleshooting guidelines, please contact the company for further after-sales technical service support.

## 【Maintenance】

After sand blasting or before replacing sand powder, you are advised to use the cleaning function to clean and maintain the system pipes to prevent residual sand powder from being accumulated in the pipes:

1、In the case of connected air source, first unscrew the cap of the sand bottle from the sand blasting machine to empty the dental cleaning powder in the sand bottle, and then twist the empty sand bottle on, then switch to "Sandblasting" and run the sand blasting machine empty for several times, and then switch to "cleaning" and run the sand blasting machine empty for several times. Remove the residual dental cleaning powder and water in the internal pipe of the sandblasting machine to avoid blockage of the internal pipe.

2、Remove the sand blasting machine from the tooth chair, and blow away the residual water on the outer surface with Three-use gun.

3、Store the sandblaster in a dry place.

4、The sandblasting nozzle is a consumable. With the longer the sandblasting gun is used, the diameter of the sandblasting nozzle will wear to a certain extent, and the sandblasting force will decrease accordingly. When the sandblasting force cannot meet the clinical requirements, it is recommended to replace the nozzle.

5、The backflow barrier only works in the sandblasting working state, and the cleaning mode is the maintenance step after the completion of the sandblasting work.

## 【Cleaning、Disinfection、Sterilization】

### warning:

Use of ultrasonic cleaning equipment and strong cleaning sanitizers (alkaline pH > 9 or acidic pH < 5) will shorten the service life of the product; In this case, the manufacturer is not liable. Do not expose the device to high temperature above 138℃.

Processing limitation:

(1) Only the Sand blaster handpiece part can be disinfected, other parts can not be disinfected.

(2) The product is designed to be used in a large number of sterilization

cycles and the materials used for manufacturing are selected accordingly. But each time the product is reused, thermal and chemical stresses will cause aging; The maximum number of sterilizations allowed for sandblasting handles is 1000.

## Pretreatment

### 1、 Handling principle

Effective sterilization can only be carried out after effective cleaning and disinfection is completed. Please ensure that as part of the sterility of the product during use, only fully verified equipment and product-specific procedures are used for cleaning, sanitizing and sterilizing, and that verified parameters are followed during each cycle.

Please also comply with the applicable legal requirements of your country (territory) and the health regulations of your hospital or clinic, especially other requirements regarding virus inactivation.

### 2、 Pre-cleaning preparation

Tools: Three-use gun, tray, soft brush, clean and dry soft cloth, must be handled immediately after surgery, no later than 30 minutes after completion of surgery. The steps are as follows:

(1) Remove the Sand blaster handpiece from the sand blaster and place it in a tray.

(2) Use a clean soft brush to carefully brush the surface of the bottle and lid, as well as the attached screw, until surface dirt is no longer visible, then place it in a clean tray.

(3) Rinse the dirt off the surface of the Sand blaster handpiece with pure (or distilled/deionized) water, then dry it with a clean soft cloth and place it in a clean tray.

### **Pay attention:**

It is not recommended to directly clean the inside of the sand bottle with water, because the pipe inside the sand bottle is small and tortuous, it is difficult to dry after cleaning with water, but affect the next use; The water used here must be pure, distilled or deionized.

### 3、Clean

#### Automatic cleaning

- (1) The cleaner is CE certified as effective in accordance with EN ISO 15883.
- (2) Cleaning procedure is used for bin assembly and Sand blaster handpiece, rinse time is adequate, and ultrasonic cleaning is prohibited.
- (3) Cleaning sterilizers conforming to EN ISO 15883 are recommended. For detailed steps, see the Automatic disinfection section in the next section, "Disinfection".

#### **Pay attention:**

- a、Cleaners used here must be compatible with Sand blaster handpiece and only freshly configured solutions should be used.
- b、During the washing phase, the water temperature should not exceed 45°C, otherwise the proteins will solidify and be difficult to remove. After cleaning, chemical residues should comply with cytotoxicity tests. Note: Write the selected cleaning equipment, process parameters, cleaning agent.

#### 4、Disinfection

- (1) Carefully place the Sand blaster handpiece in a sterilized basket.
- (2) Use a suitable flush adapter and connect the internal water line to the wash sterilizer.
- (3) Starting program.
- (4) After the procedure is complete, remove the Sand blaster handpiece from the cleaning sterilizer for inspection and packaging. Dry the Sand blaster handpiece repeatedly if necessary.

#### **Pay attention:**

- a、Disinfection must take place within 2 hours of the cleaning phase. If conditions permit, automatic disinfection is preferred.
- b、Clean Sterilizer has been CE certified to be effective.  
Use the high-temperature disinfection function, the temperature does not exceed 134℃, and disinfection at this temperature should not exceed 20 minutes.
- c、The disinfection cycle complies with EN ISO 15883.

#### 5、Drying

If you do not have an automatic drying function during cleaning and sanitizing, dry it after cleaning and sanitizing.

(1) Lay a clean white cloth on your work table and aim the Sand blaster handpiece at the white cloth, then dry by blowing the inside of the Sand blaster handpiece with filtered dry compressed air (maximum pressure 3 bar). If no liquid is sprayed onto the white cloth, it is finished drying.

(2) It can also be dried directly in a medical drying oven (or oven). The recommended drying temperature is 80 ° C to 120 ° C and the drying time should be 15 to 40 minutes.

(3) After drying, remove the Sand blaster handpiece from the drying oven for testing.

#### **Pay attention:**

- a、Product drying must be done in a clean place.
- b、Drying temperature should not exceed 138℃.
- c、Equipment in use should be inspected and maintained regularly.

## 6、Packing

The sterilized and dried Sand blaster handpiece and other accessories are assembled together and promptly packed in medical bag (or special holder, sterile box)。

### **Pay attention:**

- a、The packaging used complies with ISO 11607.
- b、Can withstand the high temperature of 138℃, and has enough steam permeability。

The packaging environment and related tools must be cleaned regularly to ensure cleanliness and prevent the entry of contaminants。

- c、Avoid touching parts of different metals when packing。

## 7、Sterilization

Only the following steam sterilization procedures (partial vacuum pre-sterilization procedures) can be used for sterilization, and other sterilization procedures are prohibited。

(1) The steam sterilizer complies with EN 13060 or is certified EN 285 in compliance with EN ISO 17665。

(2) The maximum sterilization temperature is 138℃。

(3) At 134℃, sterilization time is at least 4 minutes。

(4) At 134℃, the maximum sterilization time is 20 minutes。

**【Shipping list】**















Serial number	Designation	Quantity	Note
1	Bin assembly	1	
2	Sand blaster handpiece、	1	
3	T-type flute for bin	1	
4	O-ring seal	1	6.5*1.5mm
5	O-ring seal	1	11.0*1.5mm
6	Through the needle	1	
7	Nail-free adhesive	1	
8	The auxiliary sticker	1	
9	Certificate of approval	1	
10	Instruction book	1	
11	Warranty card	1	
12	Packing list	1	



### 【Recycling and disposal】

The instrument does not contain harmful ingredients and can be disposed of and destroyed according to relevant local regulations.

### 【Symbol description】

	Please read the instructions		Products comply with WEEE directive
	High temperature disinfection at 134°C		Serial number
	Storage temperature -10°C ~ +50°C		Registered trademark
	Date of manufacture		Manufacturers
	Recycling		Storage conditions, humidity range 10%-85%
	Pay attention! Please refer to the document		Storage conditions, atmospheric range 50 kpa-106 kpa
	Keep dry		Fragile

Date of production: see label

Product validity: five years

Revision date:2022. 11.12



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