

⚠ Caution before use

- The Patterson airmotor is intended for use by dental professionals only.
- Read this operation manual carefully before using the airmotor.
- Be sure to follow all the operating instructions, including all cautions and warnings.
- Keep this Operation Manual for future reference.
- Keep in mind the safety of the patient and the operator when using the airmotor.

1. Specifications

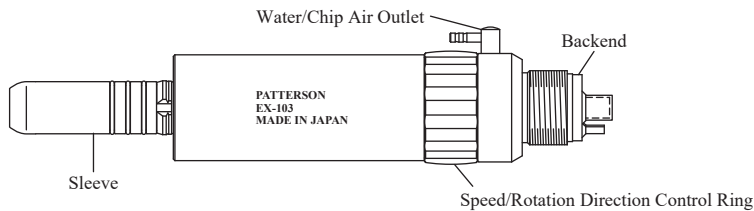
Product number	043-2328 EX-103 043-2302 EX-203
Backend configuration	ISO standard 4-hole (ISO standard 2-hole is available.)
Nose configuration	ISO E-type

043-2328 EX-103			
Speed ratio	4:1 speed reduction		
Maximum speed	Speed (rpm)	Air pressure (psi)	Air consumption (NL/Min)
	5,500 6,250	36 42	42 51
Weight	3.7oz		

043-2302 EX-203			
Speed ratio	1:1 drive		
Maximum speed	Speed (rpm)	Air pressure (psi)	Air consumption (NL/Min)
	22,000 25,000	36 42	42 51
Weight	3.17oz		

Note: The maximum speed may vary slightly depending on a rotating direction of the airmotor and the type of the tubing connected to the airmotor.

2. Part Descriptions



3. Installation of Airmotor onto Tubing Connector

- Make sure that tubing connector is ISO standard 4-hole or 2-hole.
- Align the pipes at the backend of the airmotor with the corresponding holes of the tubing connector, and then tighten the nut situated on the tubing connector by turning it clockwise.

⚠ Caution

- Never use the airmotor, if the airmotor cannot be smoothly installed onto or removed from the tubing connector. **In this case, consult the Patterson Service Center.**

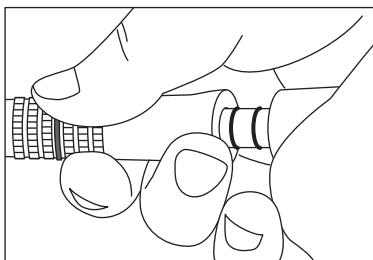
4. Installation/Removal of Attachment onto/from Airmotor

Installation

- The Patterson airmotor accepts external water system E-type attachments. Insert the sleeve of the airmotor into the backend of the E-type attachment until it is securely locked with a snap.
- Make sure that the attachment is securely installed onto the airmotor, pulling it gently with fingers before use.

Removal

- Hold the airmotor with one hand and the attachment with the other hand as illustrated.
- Pull the attachment out from the airmotor. Then, do not separate the overlapped hands until the lock is released.

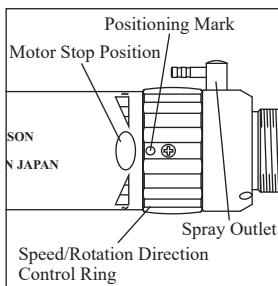


⚠ Caution

- Never use the airmotor, if the attachment cannot be smoothly installed onto or removed from the airmotor. **In this, consult the Patterson Service Center.**

5. Operation

- Set the air pressure gauge below 42 PSI.
- Before use, make a trial run, making sure that:
 - The drive air is not leaking from between the connecting part of the airmotor's backend and tubing connector.
 - Changes in the rotating direction and the rotating speed can be affected with the control ring as shown.
 - When the ring is turned in an "F" direction, the attachment installed onto the airmotor rotates clockwise.
 - When the ring is turned in an "R" direction, the attachment installed onto the airmotor rotates counterclockwise.
 - The rotation is stopped at the center position between "F" and "R".
 - Select the rotating direction and the speed by manipulating the ring.



⚠ Warning

- When abnormal vibration, noise, overheating, etc. occurs while the airmotor is in the test run or in use, stop using the airmotor immediately. **In this case, consult the Patterson Service Center.**
- Never dismantle or alter the airmotor in any way.
- Never remove the airmotor from the tubing connector when the motor is rotating.
- Never install/remove the attachment onto/from the airmotor when the motor is rotating.
- Never apply air pressure above 42 PSI to the airmotor.

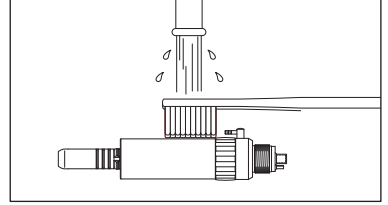
External Spray System: 7.8" spray tubing with a clamp for the Patterson attachments is supplied separately. If spray, water or chip air is needed, the tubing can be connected to the airmotor.

6. Cleaning and Drying

Cleaning and Drying the Exterior

The use of automated cleaning devices is not recommended for the cleaning of the E-Type Low-speed Airmotor.

- Remove the airmotor from the tubing connector. Remove attachment from the airmotor.
 - Wash the airmotor under running water following the procedures below. (Water condition: $\leq 100^{\circ}\text{F}$, $\geq 3.5\text{L}/\text{min}$; water should be of the same quality as drinking water)
 - Clean the external surfaces of the airmotor with a soft bristled toothbrush for 15 seconds or more.
- Under appropriate lighting (natural office lighting, 500 lx or higher), inspect the airmotor for blood or other debris. If any visible debris remains, repeat the process until the airmotor is visually clean.



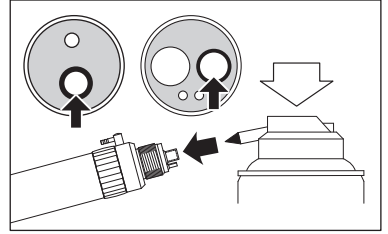
After cleaning, if the residual moisture is present, wipe off with dry cloth or blow it off with compressed air ($\leq 50.75\text{psi}$) until there is no moisture in the interior and exterior.

When blowing off with compressed air, cover the airmotor with cloth to prevent scattering of water. Proceed to 7: Cleaning and Lubrication.

7. Cleaning and Lubrication

Cleaning and Lubricating the Interior

- Attach a Tip Nozzle to the nozzle of the PANA SPRAY Plus.
- Shake the can 3 or 4 times and insert the Tip Nozzle into the drive air port of the airmotor while holding the head of the airmotor with a cloth etc.
- Hold the airmotor and spray for 2 or 3 seconds until oil comes out of the exhaust air part. Repeat lubrication until foreign material stops coming out of the tip.



Caution

- Do not use sprays other than PANA SPRAY Plus. Using sprays other than PANA SPRAY Plus may cause the airmotor to overheat.
- Hold the spray can upright.
- Firmly hold the airmotor to prevent it slipping when spray pressure is applied.
- Spray lubricant until it expels from the drive air port of the motor.

8. Sterilization

An Autoclave is recommended for sterilization.

- Before sterilization, clean the surface of the airmotor and lubricate the attachment. Refer to the instructions in 5: Cleaning and Drying and 6: Cleaning and Lubrication.
- Put the airmotor into a sterilization pouch by itself.
- Place the airmotor in the center or upper shelf of the autoclave chamber.
- Autoclave the airmotor at 275°F or 135°C for 15 minutes.



Caution

- Never use dry heat sterilization, cold sterilization, etc.
- Never autoclave the airmotor with other instruments in the sterilization pouch.
- Never place the airmotor at the bottom of the autoclave chamber, as the temperature at the bottom may rise above the actual temperature setting.

9. Guarantee

Patterson guarantees the Patterson airmotor for 10 months subject to the observance of maintenance instructions, cautions, warnings and normal use.

Note

- Patterson reserves the right to analyze and determine the cause of any failure.
- Guarantee is void if the breakage, accident or any other issues are caused by neglecting the daily maintenance, cautions, warnings and common sense in use.
- Dismantling or reassembling by any third parties other than the Patterson Service Center voids guarantee.

10. Symbol



This product can be sterilized in a steam sterilizer at 135°C .



HIBCC DataMatrix for Unique Device Identifier.

Pour une version en français du manuel d'utilisation, veuillez vous rendre sur le site Web de Patterson: <https://www.pattersondental.com/fr-CA>

Manufactured for:

Fabriqué pour :

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