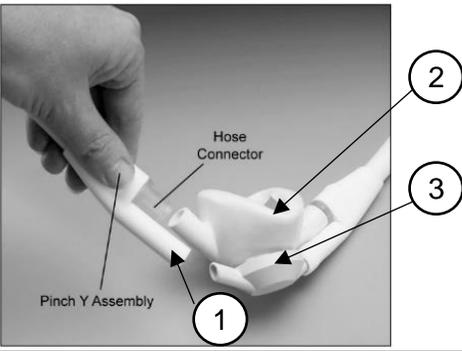


## Matrix Breathing Circuit System Quick Start Guide

### 1. Operating Instructions for the Matrix Breathing Circuit

|   |   |
|---|---|
| 1 | Before the procedure starts, if desired, adjust the flowmeter to 100% O <sub>2</sub> ensuring the patients first breaths are 100% O <sub>2</sub> .  |
| 2 | Place nasal hood assembly onto the patient securely to the patient's face to avoid leaks.   |
| 3 | Instruct the patient to inhale through the nasal hood. Patient should also be instructed to exhale through the nasal hood to achieve effective scavenging.  |
| 4 | Monitor the vacuum conditions during the procedure and adjust vacuum flow as necessary to maintain effective scavenging.<br><b>Note:</b> The American Dental Association recommends 45 LPM scavenging flow. Any adjustment above this level improves scavenging efficiency. |
| 5 | If patient shows signs or communicates conditions of over-sedation, adjust the flowmeter to 100% O <sub>2</sub> .   |
| 6 | At The completion of the procedure, administer 100% Oxygen for several minutes to remove excess N <sub>2</sub> O and prevent N <sub>2</sub> O exposure in the environment. Remove the breathing circuit from the patient and dispose of any disposable parts.               |

### 2. Operating Instructions for Installing Matrix Nasal Hood

|   |   |   |
|---|---|---|
| 1 | Disconnect the long sections of the <b>Y assembly</b> (1) from the nasal hood.  |   |
| 2 | Pinch the Y assembly just behind the hose connector and remove the Y assembly from the nasal hood and scavenging cone.  |   |
| 3 | Hold the <b>nasal hood</b> (2) in one hand. With your other hand, gently pull the <b>scavenging cone assembly</b> (3) from the nasal hood.  |  |
| 4 | Turn the replacement nasal hood upside down. Place your thumbs inside the nasal hood.   |   |
| 5 | Gently stretch the hole in the nasal hood over the retaining tabs on the scavenging cone. When the cone is seated in the nasal hood properly, <b>three segments of the cone base</b> (4) are visible inside the nasal hood. |   |
| 6 | Pinch the hose connector in the Y assembly, insert it into the nasal hood fully. Repeat on other side.  |   |
| 7 | Connect the long sections of the Y assembly to the two ports on the scavenging cone.  |   |

### 3. Cleaning

The Matrx Breathing Circuit is a reusable device that includes a disposable or reusable nasal hood. Disposable nasal hoods should not be cleaned. Reusable components of the device must be cleaned between each use in order to prevent the spread of infections. Cleaning of the Matrx Breathing Circuit and reusable components has been validated with the following instructions.



**WARNING:** When using single-use breathing circuit components, dispose of after the procedure to prevent patient cross-contamination. Do not attempt to clean, sterilize, sanitize, or reuse.



**WARNING:** To prevent potential patient harm, do not use dry heat or chemical sterilization methods.



**WARNING:** Do not use Isopropyl Alcohol; use of Isopropyl Alcohol to clean or disinfect may damage device.

#### **Disposal (No Cleaning or Sterilization)**

The following Disposable products are Single Use Only:

- Disposable Matrx Nasal Hood

#### **Cleaning**

##### **Option 1: Manual Cleaning Method (If Manual Cleaning Only)**

The following reusable components may be cleaned using Manual cleaning method #1:

- Vacuum Nipple
- Vacuum Adapter
- Vacuum Shutoff Valve
- Scavenger Control Valve
- Autoclavable Nasal Hoods
- Vacuum Tubing

Instruction: Using a Super Sani-Cloth™ or equivalent Germicidal wipe, thoroughly wipe down the device until all visible dirt and soil is removed. Avoid excess liquid. Take extra care to wipe the outside of the connection ports, but not internal surfaces of the device. A soft bristled brush may be used to loosen any soil that is difficult to remove. Dry product with clean, dry, lint free cloths.

##### **Option 2: Manual Cleaning Method (Manual Cleaning Only or Prep for Sterilization)**

The following reusable components may be cleaned using Manual cleaning method #2:

- Reusable Nasal Hood
- Fresh Gas Tubing

Instruction: Rinse the product under running water to remove soil and/or contaminants. Ensure lumens are rinsed. Use a syringe to flush all lumens and hard to reach places. Prepare detergent bath using Valsure enzymatic solution (or equivalent) of 1/2 oz per gallon using water and immerse the product for two minutes. While immersed scrub the articles using a soft bristled nylon brush until visible soil and/or contaminants are removed. Use an appropriately sized lumen brush to clean the tubing openings. (minimum 8 mm diameter brush for smaller diameter tubing and minimum 12 mm diameter brush for larger diameter tubing). Flush all lumens to ensure contact with prepared detergent throughout. Hold the product upright to allow water to drain from the product. Rinse under running water for three minutes per component. Thoroughly rinse all lumens and internal surfaces.

**Note:** Pay particularly close attention to crevices, lumens, connectors, and other hard to clean areas.

##### **Option 3: Automated Cleaning (Automated Cleaning Only or as Prep for Sterilization)**

The following reusable components may be cleaned using the Automated cleaning method:

- Reusable Nasal Hood
- Fresh Gas Tubing

Instructions: Follow steps found in section 3 above (Manual Cleaning Method #2), then place the components onto the Automated washer rack system and run the washer.

##### **Visual Inspection of components following Manual or Automated Cleaning**

Visually inspect the components under normal lighting to confirm removal of soil and/or contaminants.

- If visual inspection failure occurs, repeat the entire cleaning process, be sure to pay particular attention to the region that failed.
- If visual inspection failure occurs again, do not re-use, dispose of the product, and replace the product immediately.

## Sterilization

For **Steam Sterilization** - Sterilize items that are in direct contact with the patient.

The following reusable components may be sterilized:

- Fresh Gas Tubing

The following reusable components should be sterilized:

- Reusable Nasal Hood

**Note:** Prior to sterilization, components must first go through Manual Cleaning Method #2 or Automated cleaning process as noted above.

Option A: Sterilizer type: Prevacuum

- Full Cycle: Minimum of 4 minutes at 132°C (270°F), dry time 30 minutes.
- Full Cycle: Minimum of 3 minutes at 134°C (273°F), dry time 40 minutes.
- Configuration: Individually wrapped in two layers of 1-ply polypropylene wrap (sequential envelope folding)

Option B: Sterilizer type: Gravity Displacement

- Full Cycle: Minimum of 15 minutes at 132°C (270°F), dry time 40 minutes or until fully dry.
- Configuration: Individually single pouched in a 13" x 18" pouch.

## 4. Safety Information



**WARNING:** This product can expose you to chemicals, including lead and formaldehyde, which are known to the State of California to cause cancer, birth defects, or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).



**WARNING:** Do not use this device for the administration of general anesthesia or as part of, or in conjunction with, a general anesthesia administration system.



**WARNING:** Workers exposed to excessive N<sub>2</sub>O may suffer harmful effects. The healthcare professional is responsible for employing proper techniques, such as scavenging, room ventilation, system maintenance, and patient compliance to reduce exposure. (ACGIH recommends a Threshold Limit Value of 50 parts per million over an 8-hour time-weighted average).



**WARNING:** Always use clean, dry, medical grade gases and never oil or grease any part of the device.



**WARNING:** The user should observe the patient to prevent over sedation in the event of an O<sub>2</sub> failsafe malfunction or a crossed lines situation. If a patient becomes overly sedated when being delivered 100% O<sub>2</sub>, immediately remove the mask and encourage mouth breathing. This is an indication of a failsafe malfunction or crossed lines. In this case, only deliver pure O<sub>2</sub> from an independent source.



**WARNING:** Do not use or replace any components or accessories, except those specified in these instructions for use and installation guide.



**WARNING:** Do not modify this equipment without authorization of the manufacturer.



Visit our website: <https://www.porterinstrument.com/> for additional information. To download Full Instructions for Use: visit <https://www.porterinstrument.com/dental-support> Choose "Flowmeters" from the dropdown within the "Product Download" section.

**Refer to 10489600 for complete instructions and safety information**

**MD**

Rx Only