

Informational Bulletin

IMPORTANT INFORMATION – PLEASE READ AND KEEP

Mechanical ventilation cleaning, disinfecting and sterilization recommendations

Date: March 20, 2020

Background

With the heightened awareness and concern of the recent Coronavirus disease (COVID-19) outbreaks, we have been requested to reinforce our cleaning, disinfecting and sterilization recommendations for Vyairé Medical ventilation products. These recommendations are distilled from the product literature (e.g. operator's manuals) and are aligned with the Center for Disease Control (CDC) guidelines.

Centers for Disease Control (CDC) Recommendation

With increasing concerns over the recent Coronavirus disease (COVID-19) outbreaks, Vyairé Medical is reinforcing the Centers for Disease Control (CDC) recommendation of following the manufacturer's guidelines for cleaning, disinfecting and sterilization of medical equipment. To that end, this serves as an abbreviated summary of cleaning guidelines (the complete cleaning guidelines can be found in the operator manuals) for Vyairé Medical mechanical ventilation products. *Personnel should always refer to the appropriate Vyairé Operator's Manual for a complete description of the cleaning and disinfection process for ventilators and accessories.*

Implement Environmental Infection Control of Dedicated Medical Equipment

- Dedicated medical equipment should be used when caring for patients with known or suspected COVID-19
 - ***All non-dedicated, non-disposable medical equipment used for patient care should be cleaned and disinfected according to manufacturer's instructions and facility policies.***
 - **DO NOT Sterilize Disposables or re-use devices designated as Single Use as these may lead to infection or cross-contamination.**
- Ensure that environmental cleaning and disinfection procedures are followed consistently and correctly
- Routine cleaning and disinfection procedures (e.g., using cleaners and water to pre-clean surfaces prior to applying an EPA-registered, hospital-grade disinfectant to frequently touched surfaces or objects for appropriate contact times as indicated on the

product's label) are appropriate for SARS-CoV-2 in healthcare settings, including those patient-care areas in which aerosol-generating procedures are performed

- Refer to [List Nexternal icon](#) on the EPA website for EPA-registered disinfectants that have qualified under EPA's emerging viral pathogens program for use against SARS-CoV-2 (COVID-19)
- Management of laundry, food service utensils, and medical waste should also be performed in accordance with routine procedures
- Additional information about recommended practices for terminal cleaning of rooms and PPE to be worn by environmental services personnel is available in the [Healthcare Infection Prevention and Control FAQs for COVID-19](#)

The following tables contains recommended cleaning methods of Vyaire ventilation products. Please refer to the appropriate Operator's Manual or contact Vyaire Technical Support for more information.

Technical Product Support: 800-231-2466

Europe, Middle East, Africa, LATAM:

Email: support.cc.eu@vyaire.com

Hotline: +49-931-4972-393

Asia Pacific, Japan, ANZ:

Email: gmb-apac-ventilation-support@vyaire.com

China:

Email: dl-cn-gcs@vyaire.com

Hotline: +86-400-878-8885

- Avea™, Bird™, VELA™, bellavista™, fabian™ ventilators*
support.vent.us@vyaire.com
- EnVe® and ReVe™ ventilators*
GMB-ReveService@vyaire.com
- HFOV 3100A/B and Infant Flow™ SiPAP ventilators*
support.SMCVent.US@vyaire.com
- LTV ventilators*
LTVService@vyaire.com

*Not all products may be available in all regions.

| Vyair Products | | | | |
|---|--|---|---|---|
| | AVEA | ReVel | LTV | VELA |
| Exterior (including cables) | 10% chlorine bleach ⁵ | Control III ⁴ 1% chlorine bleach ^{1,5} | 2% glutaraldehyde ^{1,4} 1% chlorine bleach ^{1,5} | 1% chlorine bleach ^{1,5} |
| Infant hot wire flow sensors | Autoclave ³ Cidex ⁴ | n/a | n/a | n/a |
| Capnostat[®] | 10% chlorine bleach ⁵ | n/a | n/a | 10% chlorine bleach ⁵ |
| Reusable Capnostat Adaptors (see #2 below) | Autoclave ³ (adult adaptor only) 10% chlorine bleach | n/a | n/a | Autoclave ³ (adult adaptor only) 10% chlorine bleach ⁵ |
| Reusable water trap (see #2 below) | Autoclave | n/a | n/a | n/a |
| Reusable patient circuit (see #2 below) | Autoclave ³ Cidex ⁴ | n/a | Autoclave ³ Cidex ⁴ ETO | Autoclave ³ Cidex ⁴ |
| Reusable filters (see #2 below) | Use disposable filtered water trap | Follow Mfg recommendations for cleaning | Follow Mfg recommendations for cleaning | Autoclave ³ Do not soak; limit temperature to 275°F (135°C) |
| Exhalation valve body (see #2 below) | n/a | n/a | n/a | Autoclave ³ |
| Exhalation flow sensor (see #2 below) | n/a | n/a | n/a | Autoclave ³ |
| Exhalation diaphragm (see #2 below) | n/a | n/a | n/a | Autoclave ³ |

| Vyair Products, continued | | | | | |
|---|---|------------------------------------|--|--------------------------------------|--------------------------------------|
| | 3100 A & B | SiPAP | bellavista | fabian | Blenders |
| Exterior (including cables) | 1% chlorine bleach ^{1, 5} Do not allow chemicals to come into contact with driver diaphragm | 1% chlorine bleach ^{1, 5} | CaviWipes surface disinfecting wipes, 10% chlorine bleach and 5% hydrogen peroxide | CaviWipes surface disinfecting wipes | 10% chlorine bleach ⁵ ETO |
| Infant hot wire flow sensors | n/a | n/a | n/a | Autoclave ³ | n/a |
| Capnography cable | n/a | n/a | Wipe with ethanol or isopropyl alcohol (<70%) | n/a | n/a |
| Reusable Capnostat Adaptors (see #2 below) | n/a | n/a | n/a | n/a | n/a |
| Reusable water trap (see #2 below) | n/a | n/a | n/a | n/a | n/a |
| Reusable patient circuit (see #2 below) | n/a | n/a | n/a | n/a | n/a |
| Reusable filters (see #2 below) | n/a | n/a | n/a | n/a | n/a |
| Exhalation valve body (see #2 below) | n/a | n/a | Autoclave ³ | Autoclave ³ | n/a |
| Exhalation flow sensor (see #2 below) | n/a | n/a | n/a | n/a | n/a |

| | | | | | |
|-------------------------------------|-----|-----|------------------------|-----|-----|
| Exhalation diaphragm (see #2 below) | n/a | n/a | Autoclave ³ | n/a | n/a |
|-------------------------------------|-----|-----|------------------------|-----|-----|

Notes:

1. Although not stated in the Operator's Manual, this method may be used when no other options are available. The weaker bleach solutions (1%) will require more time to disinfect (see note #5).
2. CDC recommends using disposable components when possible.
3. General autoclave guidelines (follow instruction in device Operators, or the exhalation valve IFU).
 - a. Steam Autoclave: maximum temperature 138°C (280°F), minimum temperature 132°C (270°F) for a maximum of 18 minutes and a minimum of 15 minutes.
 - b. Vacuum Steam Autoclave: Three pre-condition pulses (vacuum pulses). Sterilizer vacuum target set to 10- 26 psig. Dwell at 132 - 138°C (270 to 280°F) for 4 to 8 minutes.
 - c. Reusable circuits: 20 psig, 135°C (275°F), moist heat for seven minutes (or) 0 PSIG (gravity) 135°C (275°F), moist heat for 15 minutes.
4. Glutaraldehyde (Cidex products): Follow device Operator's Manual and disinfectant instructions for use.
5. Allow all surfaces to air-dry thoroughly after disinfecting (to increase the contact time with the chlorine, surfaces should remain damp for at least 10 minutes).
6. **General considerations for cleaning medical devices:**
 Consult the equipment's Operator's Manual for specific cleaning instructions.
 Never: spray liquids in or on the device; immerse the device in liquids; or use abrasive cleaners.