Government of **Western Australia**
Department of **Health**

PortaCount® twin tube assembly

What is the twin tube assembly?

The twin tube assembly consists a pair of tubes which allow the PortaCount® to compare the particles in the ambient air to the particles inside the respirator. The blue tube samples the ambient air and the clear tube samples the air inside the particulate filter respirator (PFR, or P2 and N95 respirator).

Occasionally condensation can appear on the inner surface of the clear tubing, due to warm moist exhaled air cooling in the tubing.

How is the twin tube assembly cleaned?

After each health worker's fit tests, the external surfaces of the twin tube assembly are wiped down with a dual-purpose detergent and disinfectant, or two step process using neutral detergent and alcohol wipe.

The Portacount® manufacturer's guidance does not recommend cleaning and disinfection of the inside of the twin tube assembly and the machine's design is such that this is not required for infection prevention and control purposes.

WA Health Infectious Disease and Infection Prevention and Control professionals have considered the manufacturer's recommendation, additional technical documents on airflow through the twin tubing PortaCount® and adherence to manufacturer guidance by other jurisdiction fit testing programs to determine an alternative process is not required.

Additional infection prevention practices

The following general infection prevention practices are applied during the fit test process:

- A respirator connected to the twin tube assembly must only be donned if the PortaCount® is turned on. This means the pump inside the PortaCount® ensures the air is only drawn away from the person being tested toward PortaCount® or is stopped (such as when the ambient air is being sampled). Even with sharp inhalation, the wearer cannot reverse the flow of air or be exposed to moisture inside the twin tube assembly.
- The fit test should not be conducted if the fit test operator or person to be tested are ill
- Hand hygiene is conducted in line with the 5 Moments for Hand Hygiene, including:
  - Before and after a fit test
  - Before inserting the probe into the PFR.

References:

- Cleaning and Disinfection of Respirator Fit Test Equipment and Accessories. Clinical Excellence Commission, NSW Government.
- PortaCount® Model 8040 and PortaCount® Model 8048 Respirator Fit Testers Operation/User Manual. P/N 6010633, Revision B, October 2017. TSI Incorporated.
- Australian Guidelines for the Prevention and Control of Infection in Healthcare (2019). National Health and Medical Research Council.
- ECO Environmental. Personal Comms.
- Hygienic Security and the PortaCount® Respirator Fit Tester. Application Note ITI-034 REV. D (US). TSI Incorporated.

Produced by CDCD, IPPSU

SHICC-013942 MAY'21