REVIEWED BY ATIP DIVISION
Correctional Service of Canada
RÉVISÉ PAR LA DIVISION AIPRP
Service correctionnel du Canada

Klachkova, Anastasiya (CSC/SCC)

From: Arseneault Bev (NHQ-AC)
Sent: March 2, 2021 4:16 PM
To: Fortnum Greg (PAC)
Cc: Butterworth Jeremy (PRA); Clement Chris (NHQ-AC)
Subject: FW: N95 Fit Testing - CORE COVID Team
Attachments: memo fit test roll out 2021 02 02.pdf; TSI App Note - Hygienic Security of PortaCount - ITI-034.pdf; TSI FAQ - Portacount Use During Pandemic - RFT-032B.pdf; fit testing cleaning tips FR.pdf; fit testing cleaning tips.pdf

Hi Greg,

Just sharing with you a message I had sent to Denis last week. Now that CSC has secured a sustainable supply of masks, you can proceed with fit testing given that you have received new models of the N 95 respirators.

The IRMF will remove the suspension of fit testing, this was presented to the Advisory Committee today – no concerns from any labour partners. It will also be shared with NHSPC and to steering committee for approval on Thursday. IRMF will be published on Friday.

All that being said, given that you have received the new models (at least I hope so) – your staff need to be fit tested for the new models. If you have any questions or concerns, let me know.

Bev Arseneault
Correctional Service Canada / Service correctionnel Canada
Government of Canada/ Gouvernement du Canada
Mail/courriel: Bev.Arseneault@csc-scc.gc.ca /Tel: 613-995-7807

From: Arseneault Bev (NHQ-AC)
Sent: February 26, 2021 8:21 AM
To: Boucher Denis (PAC-RDC) <Denis.J.Boucher@CSC-SCC.GC.CA>
Subject: FW: N95 Fit Testing - CORE COVID Team

As a follow-up to yesterday's call, I asked about the memo that the ACHS had mentioned in previous discussions and learned that each region received the attached regarding the need for the fit testing related to the new N95 models that have been secured through PHAC to provide CSC with a sustainable supply. Sharing in case you had not seen the memo. Content of the memo is pasted below for your convenience.

****

COVID-19 brought unprecedented challenges in supplying PPE worldwide. The high demand particularly for N95 masks/respirators strained supply chains and they were unable to meet the sudden increased demand. As a result PPE stewardship was put in place around the world to preserve N95 masks/respirators and ensure that they were available when required, while production increased to meet demand. Over the past number of months there has been increase in production improving N95 supply chains.

CSC in collaboration with the Public Health Agency Canada (PHAC) and NESS (National Emergency Strategic Stockpile), have identified a sustainable supply for N95's for use in CSC which is good news. As these models

REVIEWED BY ATIP DIVISION
Correctional Service of Canada
REVISÉ PAR LA DIVISION AIPRP
Service correctionnel du Canada

differ from what is currently kept at each site, we are unable to use past testing data. The other models are new and as such will require CSC to FIT test on the new models.

In consulting with personnel at PHAC who have expertise around both the N95 masks and our 'PortaCount Fit Testing Machines' as well as TSI (PortaCount manufacturer), procedures have been identified to ensure fit testing can be done safely. To that point, each institution will be provided with both manufacturer bulletins around the use of PortaCount machines during a pandemic and detailed cleaning instructions. Given the ongoing need for staff to have access to a properly fitted N95 mask it is critical that all sites undertake fit testing in a timely manner.

Each site across the country is being asked to provide the following:
- A contact person(s) to liaise with
- The number of health care staff and correctional staff who are currently FIT tested and will need to be tested on new models
- Facilitate fit testing of these staff using the new models of N95 (3M 8210, Fido F720, Guangzhou Harley L-188, Guangzhou Harley L-288 to be shipped to each site) with the objective of completing this testing in a four to six week period
- Report the quantity of each size mask required for your site
- Report any issues during fit testing (i.e. individuals unable to be successfully fit or concerns around these particular models of masks)

Jeremy Butterworth, from Drumheller Institution, has recently joined Health Services Core COVID Team and will be the contact person for each Institution should there be any questions or concerns that may arise during this project. Jeremy will be reaching out to the sites for updates and testing results. Please feel free to contact him at Jeremy.butterworth@csc-scc.gc.ca should you require any assistance.

Bev Arseneault
Correctional Service Canada / Service correctionnel Canada
Government of Canada/ Gouvernement du Canada
Mail/courriel: Bev.Arseneault@csc-scc.gc.ca /Tel: 613-995-7807

From: Butterworth Jeremy (PRA)
Sent: February 3, 2021 2:15 PM
To: Boucher Denis (PAC-RDC) <Denis.J.Boucher@CSC-SCC.GC.CA>; Boileau Michael (PAC) <Michael.Boileau@CSC-SCC.GC.CA>; Fortnum Greg (PAC) <Greg.Fortnum@csc-scc.gc.ca>; Bains Sav (PAC) <Sav.Bains@CSC-SCC.GC.CA>
Subject: N95 Fit Testing - CORE COVID Team

Good Afternoon Pacific Region Team,

My name is Jeremy Butterworth, I am substantively a Correctional Manager at Drumheller Institution and currently attached to NHQ Health Services as a member of the 'CORE Covid Team'.

Further to a National conference call where many of these details were shared with you all - CSC in collaboration with the Public Health Agency Canada (PHAC) and NESS (National Emergency Strategic Stockpile), have identified a sustainable supply for N95's for use in CSC. As these models differ from what is currently kept at each site, we are unable to use past testing data; as such we will require CSC to FIT test on the new models.

In consulting with personnel at PHAC who have expertise around both the N95 masks and our 'PortaCount Fit Testing Machines' as well as TSI (PortaCount manufacturer), procedures have been identified to ensure fit testing can be done safely and within the current risk management framework. To that point, each institution will be provided with both manufacturer bulletins around the use of PortaCount machines during a pandemic as well as cleaning instructions.

To that end, I respectfully request you forward this message and attachments to the Institutional Heads at each site and request they provide a contact person and a shipping instructions to me for these new models of masks. Please let them know should they wish to contact me, I am happy to provide any support or advise as needed.

REVIEWED BY ATIP DIVISION
Correctional Service of Canada
RÉVISÉ PAR LA DIVISION AIPRP
Service correctionnel du Canada

Thank you for your time,

B. Jeremy Butterworth
Correctional Manager (CX-4)
CORE COVID Team
Telephone | Téléphone 403-823-5101 x 6130
Telephone | Téléphone 705-796-0807
Government of Canada | Gouvernement du Canada

REVIEWED BY ATIP DIVISION
Correctional Service of Canada
RÉVISÉ PAR LA DIVISION AIPRP
Service correctionnel du Canada

Government of Canada / Gouvernement du Canada

MEMORANDUM NOTE DE SERVICE

To / À
RDC
ADCCO
ADCIS
Wardens

From / De
NHQ Health Services
CORE Covid Team

Security Classification - Classification de sécurité	
Unclassified - Non classifié	
Our File - Notre référence	
Your File - Votre référence	
Date: 2021-02-02	Tel. No. - Nº de tél.

Subject / Objet

PPE – N95 Mask Fit Testing of Institutional Staff

COVID-19 brought unprecedented challenges in supplying PPE worldwide. The high demand particularly for N95 masks/respirators strained supply chains and they were unable to meet the sudden increased demand. As a result PPE stewardship was put in place around the world to preserve N95 masks/respirators and ensure that they were available when required, while production increased to meet demand. Over the past number of months there has been increase in production improving N95 supply chains.

CSC in collaboration with the Public Health Agency Canada (PHAC) and NESS (National Emergency Strategic Stockpile), have identified a sustainable supply for N95's for use in CSC which is good news. As these models differ from what is currently kept at each site, we are unable to use past testing data. The other models are new and as such will require CSC to FIT test on the new models.

In consulting with personnel at PHAC who have expertise around both the N95 masks and our 'PortaCount Fit Testing Machines' as well as TSI (PortaCount manufacturer), procedures have been identified to ensure fit testing can be done safely. To that point, each institution will be provided with both manufacturer bulletins around the use of PortaCount machines during a pandemic and detailed cleaning instructions. Given the ongoing need for staff to have access to a properly fitted N95 mask it is critical that all sites undertake fit testing in a timely manner.

Each site across the country is being asked to provide the following:

- A contact person(s) to liaise with
- The number of health care staff and correctional staff who are currently FIT tested and will need to be tested on new models
- Facilitate fit testing of these staff using the new models of N95 (3M 8210, Fido F720, Guangzhou Harley L-188, Guangzhou Harley L-288 to be shipped to each site) with the objective of completing this testing in a four to six week period
- Report the quantity of each size mask required for your site
- Report any issues during fit testing (i.e. individuals unable to be successfully fit or concerns around these particular models of masks)

Jeremy Butterworth, from Drumheller Institution, has recently joined Health Services Core COVID Team and will be the contact person for each Institution should there be any questions or concerns that may arise during this project. Jeremy will be reaching out to the sites for updates and testing results. Please feel free to contact him at Jeremy.butterworth@csc-scc.gc.ca should you require any assistance.

Canada

REVIEWED BY ATIP DIVISION
Correctional Service of Canada
RÉVISÉ PAR LA DIVISION AIPRP
Service correctionnel du Canada

TSI® INCORPORATED OFFICIAL RESPONSE TO QUESTIONS RELATED TO USE OF THE PORTACOUNT® RESPIRATOR FIT TESTER DURING A PATHOGENIC OUTBREAK

APPLICATION NOTE RFT-032 (US)

Contents

Introduction

The PortaCount® Respirator Fit Tester is being used extensively to fit test Healthcare Professionals and First Responders as part of respiratory protection programs. Numerous customers have asked TSI Incorporated about the best practices for operation of the PortaCount® Respirator Fit Tester during the pandemic. Frequently asked questions are reviewed below.

TSI does not have expertise on pathogens such as viruses or the transmission of them. Therefore, we cannot assess and provide much in the way of recommendations on the risk(s) of your unique situation. Please follow the CDC guidelines and your facilities policies for using the equipment.

TSI, the TSI logo, and PortaCount are registered trademarks of TSI Incorporated.

REVIEWED BY ATIP DIVISION
Correctional Service of Canada
RÉVISÉ PAR LA DIVISION AIPRP
Service correctionnel du Canada

Frequently Asked Questions

1. How do you clean and sanitize the PortaCount® Respirator Fit Tester?

TSI advises customers to follow their company's policies on cleaning/sanitizing the PortaCount® Respirator Fit Tester and associated twin-tubing from your written Respiratory Protection Program. Or, alternatively TSI recommends following your company's upgraded standard operating procedure for sanitizing equipment in your COVID-19 response plan. The surface of the PortaCount® Respirator Fit Tester and the twin tube assembly can be disinfected using a disinfectant from the list of products that meet EPA or CDC criteria for use against SARS-CoV-2 (see links).

https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2.

https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/cleaning-disinfection.html

Please note that TSI has not tested the materials in the list and cannot state if they will affect the lifespan of the PortaCount® Respirator Fit Tester.

2. Can exhaled air from a person being fit tested expose the next person being tested? Could COVID-19 stay in the twin tube and get pulled back into the respirator when the next person is fit tested?

The twin tubes are under negative pressure or sealed during the operation of the PortaCount® Respirator Fit Tester. The air is either flowing into the tube to the PortaCount® Respirator Fit Tester or a valve has blocked the air flow in the tube during the fit test. Additional information can be found in TSI Application Note ITI-034 describing testing TSI performed on the air flow on the Twin Tubes during fit testing. The newer 8048 and 8038 units have a higher flow rate than the 8020 described in this application note; therefore, TSI engineers have determined that the conclusions in this application note apply to all models.

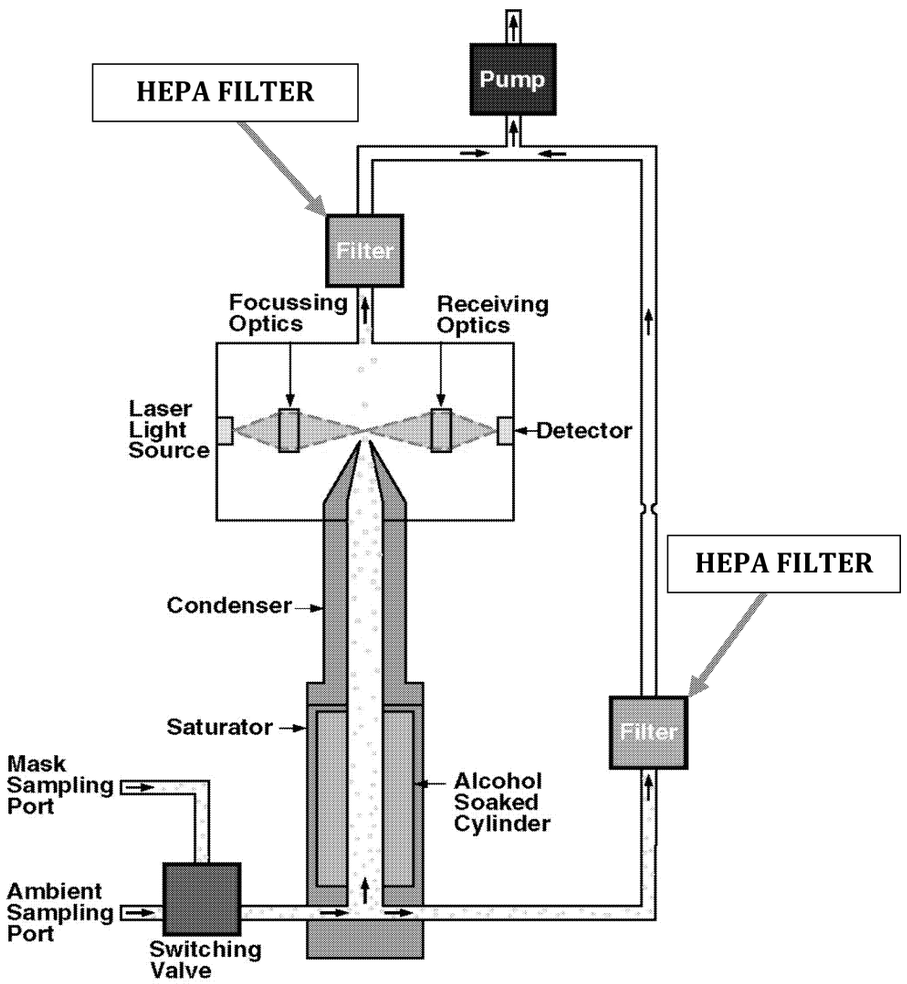
TSI does not recommend disinfecting the interior of the tubes between use; however, this can be done at the user's discretion. If you choose to disinfect the tubing, please disconnect the twin tubes from the PortaCount® Respirator Fit Tester before disinfecting the interior of the tubes. The interior of the twin tubes may be disinfected between use using a disinfectant from the list referenced above. Further, if you disinfect the interior of the twin tubes, TSI recommends that the tubes be rinsed with distilled water after disinfecting to prevent damage to the PortaCount® Respirator Fit Tester. TSI's testing has shown no need to clean or disinfect the inside of the twin tubes, as such the details of the cleaning procedure are determined by the user based on their requirements. Alternatively, additional spare Twin Tube Assemblies can be purchased for use (800197 - Twin-tube for PortaCount Respirator Fit Tester, blue/clear, 5-foot, pkg. of 1). Please consult your company procedures for the proper disposal of any used tubing.

00331

REVIEWED BY ATIP DIVISION
Correctional Service of Canada
RÉVISÉ PAR LA DIVISION AIPRP
Service correctionnel du Canada

3. Does the PortaCount® Respirator Fit Tester filter the air sample exhausted from the instrument?

The PortaCount® Respirator Fit Tester has two internal HEPA filters that filter the air sample inside the instrument before being exhausted to the ambient air (See figure below). HEPA filters are 99.97% efficient for the most penetrating particle size of 0.3 microns. Based on current understanding, Coronavirus particles, the smallest of which are believed to be 0.06 microns, are anticipated to be filtered out by NIOSH Series-95/99/100 rated filter medias at >99.97% efficiency.



4. Can the PortaCount® Respirator Fit Tester be used to test efficiency of N95 Respirators?

The PortaCount® Respirator Fit Tester is designed to test the fit of respirators to a respirator wearers face. The PortaCount® Respirator Fit Tester cannot be used to verify the filter efficiency of respirator being tested. Respirator filter efficiency is based on filter penetration measurements and pressure drop across the filter media with a filter tester as described in 42 CFR Part 84.

00332

REVIEWED BY ATIP DIVISION
Correctional Service of Canada
RÉVISÉ PAR LA DIVISION AIPRP
Service correctionnel du Canada

UNDERSTANDING, ACCELERATED

TSI Incorporated – Visit our website **www.tsi.com** for more information.

USA	**Tel:** +1 800 680 1220	**India**	**Tel:** +91 80 67877200
UK	**Tel:** +44 149 4 459200	**China**	**Tel:** +86 10 8219 7688
France	**Tel:** +33 1 41 19 21 99	**Singapore**	**Tel:** +65 6595 6388
Germany	**Tel:** +49 241 523030		

RFT-032 Rev. B (5/20/2020) US ©2020 TSI Incorporated Printed in U.S.A.

REVIEWED BY ATIP DIVISION
Correctional Service of Canada
RÉVISÉ PAR LA DIVISION AIPRP
Service correctionnel du Canada

Cleaning guidelines and tips for PortaCount Fit Testing

- Operator and employee should always wear appropriate PPE relative to the outbreak level of their site and the risk management framework. It is recommended both the operator and employee both use disposable gloves and observe social distancing measures where possible for the duration of the testing procedure
- Operator should take care to allow the employee to handle their own N95 mask where possible
- Operator should use clean and disinfect the surfaces of the Porta Count machine in between each employee test
- In between each employee test, the Operator should removed the 'twin plastic tube assembly', place a few drops of isopropyl alcohol in each tube and then either use a short burst of compressed air to dry it or allow the alcohol to dry on its own. The 'alcohol wick', HEPA filter and negative pressure ensure the internal components of the Porta Count machine remain sanitary

00334

REVIEWED BY ATIP DIVISION
Correctional Service of Canada
RÉVISÉ PAR LA DIVISION AIPRP
Service correctionnel du Canada

HYGIENIC SECURITY AND THE PORTACOUNT® RESPIRATOR FIT TESTER

APPLICATION NOTE ITI-034 REV. D (US)

Can a person being fit tested with a PortaCount® Respirator Fit Tester be exposed to exhaled moisture from a previous test subject?

Introduction

On occasion, TSI receives an inquiry regarding the potential exposure of fit test subjects to moisture exhaled during earlier fit tests. Obviously, respirator masks used for fit testing must be sanitized in-between fit tests, but what about the PortaCount® Respirator Fit Test twin-tube? The first several inches of the twin-tube typically becomes fogged with moisture during a fit test. This occurs because moisture in the test subject's warm breath condenses when it contacts the cold walls of the tube. The concern is that a momentary flow reversal, perhaps caused by inhaling sharply, could expose the test subject to moisture left over from a previous test.

Discussion and Test Results

One way to alleviate concern would be to change the twin-tube assembly for each fit test. This would certainly work, but the cost may be prohibitive. Alternately, you could have an inventory of twin-tubes and a method for cleaning and drying the tubes prior to re-use. See the end of this document for information on obtaining spare twin-tubes.

Fortunately, discarding or cleaning the PortaCount twin-tube assembly after each fit test is not necessary. TSI has tested the PortaCount Respirator Fit Tester and determined that air inside the mask sample tube travels from the mask to the PortaCount Respirator Fit Tester, or is prevented from moving at all (such as when the ambient tube is in use). This test was done using a PortaCount Plus Respirator Fit Tester Model 8020, however, the results will be identical when the N95-Companion™ accessory is attached since the pump in the PortaCount Respirator Fit Tester still does all the work.

To determine how much vacuum is required to reverse the air flow through the mask sample tube, TSI connected a sensitive flow meter in-line with the PortaCount Respirator Fit Tester. A vacuum pump and HEPA filter were attached to the end of the mask sample tube to simulate a person wearing a respirator (see diagram on last page). The vacuum level was adjusted using a needle valve located between the pump and the sample line. The small HEPA filter served the purpose of providing a flow restriction similar to that of a respirator cartridge. There was no need to filter the air for this experiment.

An adult male respirator wearer can generate a peak in-mask vacuum level of approximately 2.0 inches of water while breathing deeply. TSI wanted to know if 2.0 inches of water could cause flow to stop or reverse. For test purposes, TSI challenged the PortaCount Respirator Fit Tester at higher and higher vacuum levels until the flow was forced to stop. The table below shows the results.

TSI, TSI logo, and PortaCount are registered trademarks of TSI Incorporated.
N95-Companion is a trademark of TSI Incorporated.

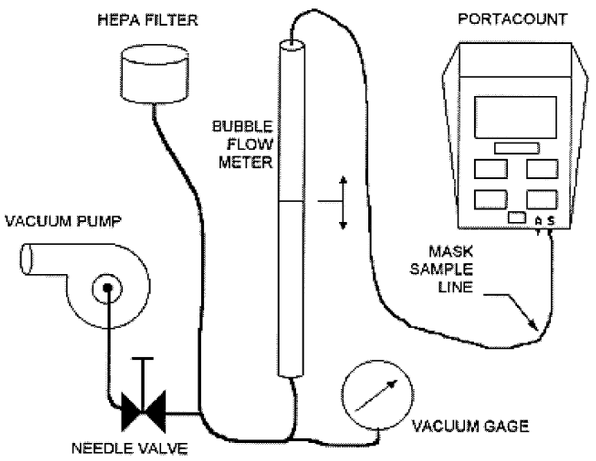
REVIEWED BY ATIP DIVISION
Correctional Service of Canada
RÉVISÉ PAR LA DIVISION AIPRP
Service correctionnel du Canada

Test No.	In-Mask Vacuum (inches H_2O)	Flow Rate (liters/min)	Flow Direction Inside Mask Sample Tube
1	0	0.74	into PortaCount fit tester
2	2*	0.71	into PortaCount fit tester
3	7	0.70	into PortaCount fit tester
4	14	0.63	into PortaCount fit tester
5	21	0.55	into PortaCount fit tester
6	28	0.48	into PortaCount fit tester
7	55	0	No Flow

* Peak in-mask vacuum for adult male = 2.0 inches of water

As can be seen from the data above, an in-mask vacuum level that is over 27 times higher (55 in. H_2O) than can be created by a respirator wearer (2.0 in. H_2O) is needed to stop the air flow through the PortaCount® Respirator Fit Tester sample line.

The PortaCount® Respirator Fit Tester uses a solenoid valve to switch between the ambient and the mask sample line of the twin-tube assembly. During an ambient measurement, the valve holds the mask sample line tightly closed. Using the same apparatus as above, TSI was unable to draw air out of the mask sample line while the valve held that line closed, regardless of the vacuum level applied. This was true even during the moment when the valve was in the process of switching.



Conclusion

Air drawn into the PortaCount® Respirator Fit Tester twin-tube travels from the test respirator towards the PortaCount Respirator Fit Tester or is stopped.

If you need replacement twin-tubes, the following item is available:

Part No.	Description
800197	Twin-tube for PortaCount fit tester, blue/clear, 5-foot, pkg. of 1

UNDERSTANDING, ACCELERATED

TSI Incorporated – Visit our website **www.tsi.com** for more information.

USA	**Tel:** +1 800 680 1220	**India**	**Tel:** +91 80 67877200
UK	**Tel:** +44 149 4 459200	**China**	**Tel:** +86 10 8219 7688
France	**Tel:** +33 1 41 19 21 99	**Singapore**	**Tel:** +65 6595 6388
Germany	**Tel:** +49 241 523030		

ITI-034 Rev D (3/25/2020) US ©2020 TSI Incorporated Printed in U.S.A.

REVIEWED BY ATIP DIVISION
Correctional Service of Canada
RÉVISÉ PAR LA DIVISION AIPRP
Service correctionnel du Canada

Directives et conseils de nettoyage pour l'appareil PortaCount

- L'opérateur et l'employé doivent toujours porter un EPI approprié en fonction du niveau d'épidémie de leur site et du cadre de gestion des risques. Il est recommandé à l'opérateur et à l'employé d'utiliser des gants jetables et d'observer des mesures de distanciation sociale si possible pendant la durée de la procédure de test
- - L'opérateur doit veiller à permettre à l'employé de manipuler son propre masque N95 dans la mesure du possible
- - L'opérateur doit nettoyer et désinfecter les surfaces de la machine Porta Count entre chaque test des employés
- Entre chaque test effectué par un employé, l'opérateur doit retirer l'ensemble de deux tubes en plastique, placer quelques gouttes d'alcool isopropylique dans chaque tube et utiliser un court jet d'air comprimé pour le sécher ou laisser l'alcool sécher tout seul. La "mèche à alcool", le filtre HEPA et la pression négative garantissent que les composants internes de la machine Porta Count restent hygiéniques.

00337