



COLTRACO
Ultrasonics | since 1987



Introducing **PORTASCANNER® COVID-19**

Reduce the spread of airborne disease by inspecting rooms for leaks



Designed as a result of British Government COVID-19 Emergency Response Grant



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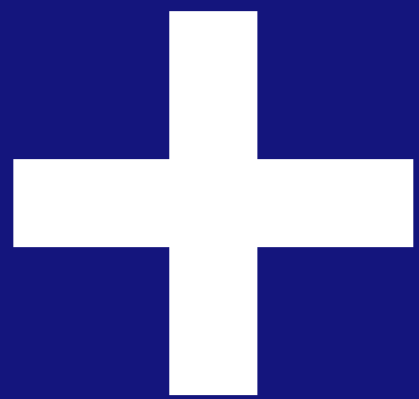
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AIR CONTAMINATION IN HOSPITAL SETTINGS

A December 2020 study on COVID-19 and air contamination indicates that 50% of air samples taken from hospital hallways and 20% from hospital bathrooms have high levels of coronavirus.



- Air samples from ICU rooms were more than twice as likely to be positive for genetic material of the virus at 25.2% compared to 10.7% for non-ICU rooms.
- More than one-fifth, 23.8%, of samples taken from bathrooms were positive for viral RNA.
- Samples from hospital hallways were the most likely to come back positive at 56.3%.
- Source: JAMA Network Open. [2020;3\(12\):e2033232. doi:10.1001/jamanetworkopen.2020.33232](https://doi.org/10.1001/jamanetworkopen.2020.33232) or email sales@coltraco.co.uk for access.

REDUCE THE SPREAD OF COVID-19 IN HEALTHCARE

01

To reduce the spread of airborne infectious diseases Hospital ICU wards rely on negative-pressurisation. Adequate ventilation needs a minimum airtightness.

02

Current practice involves measuring total air permeability but is unable to give meaningful value for leakage rate via individual leaks or locate them precisely.

03

Portascanner® COVID-19 measures individual leak sizes and leakage rates and use these to approximate total air permeability too.



The only alternative to Portascanner® COVID-19 is 3rd party contracted door fan testing which is more invasive, time consuming, and costly. It cannot be used with patients in the room. Our instrument can. Without this, “patch and hope” measures are often used i.e. taping obvious areas of leakage (pictured).



USE PORTASCANNER® TO HELP STOP COVID-19 SPREAD

For use in Healthcare: Hospital ICU Wards, Dental Surgeries, Clinics & Industry: HVAC areas, Isolation Areas, Quarantine Areas, Corridors e.g. shipping, offshore, cruise lines, and more

- Portascanner® COVID-19 locates leaks in hospital wards,
- quantifies the leaks in regard to their cross-sectional area and
- calculates the air flow rate through them.
- This generates an air permeability value for an entire ICU Ward which the user can compare against the required value for negative pressurisation.



SOLUTION

Choose Portascanner® COVID-19 to know where leaks are and their significance to take remedial measures quickly.



MEASUREABLE

Improve efficiency and quality of airtight room maintenance – locate leaks and accurately find the leak site size.
SOLUTION: seal the leaks that matter.

Record leaks by area and flow rate and include photographs within the test report, all in one hand-held instrument.
SOLUTION: Provide evidence of your maintenance programme.

EVIDENCE BASED

SAVES TIME

Be confident that the room/ward is appropriate prior to the installation of FPE (Fan Pressurisation Equipment).
SOLUTION: save time and resource and significantly reduce the risk of installing FPE in an unsuitable room.

PORTASCANNER® COVID-19 KEY FEATURES

INTUITIVE EASY-TO-USE 7" TABLET TO REDUCE INFECTION CONTAGION

Portascanner® COVID-19 identifies and quantifies leaks sites for pressurised rooms, without needing the room to be pressurised beforehand. It is a non-disruptive method to assess adequate airtightness.

Comply with healthcare standards by providing size of leak (cross-sectional area) and air flow-rate through it, relating each leak to air permeability requirements.



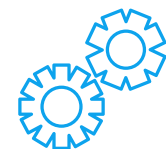
CAMERA 8 MEGAPIXELS

Capture images of the test area to allow leak positions to be recorded and exported, all within the same instrument and at the touch of a finger.



DUAL FUNCTION

Choose 'quick test' (for quickly locating leaks) or 'full test' (for quantifying them).



POWER SETTINGS

Choose power settings for accurate testing regardless of size & shape of the room.



RECORD DATA & EXPORT VIA USB

Easily transfer leak site results and photos via USB.



FILTER RECORDS

by date or location.



MAINTENANCE TOOL

This is for maintenance not for medical purposes so does not require medical certification.

BENEFITS

IMPROVE COVID-19 SAFETY: PROTECT STAFF, SAVE LIVES.

ACCURATE

Determine air leakage rates through walls, doors, seals.

RESULTS-BASED

Calculate number of leaks, leak area, total air flow rate and air permeability rate.

EASY TO USE

Quicker and less troublesome than existing "patch and hope" method.

SAVE TIME & MONEY

Save value, time and cost and thus improve safety.

www.coltraco.com/PSCOV19

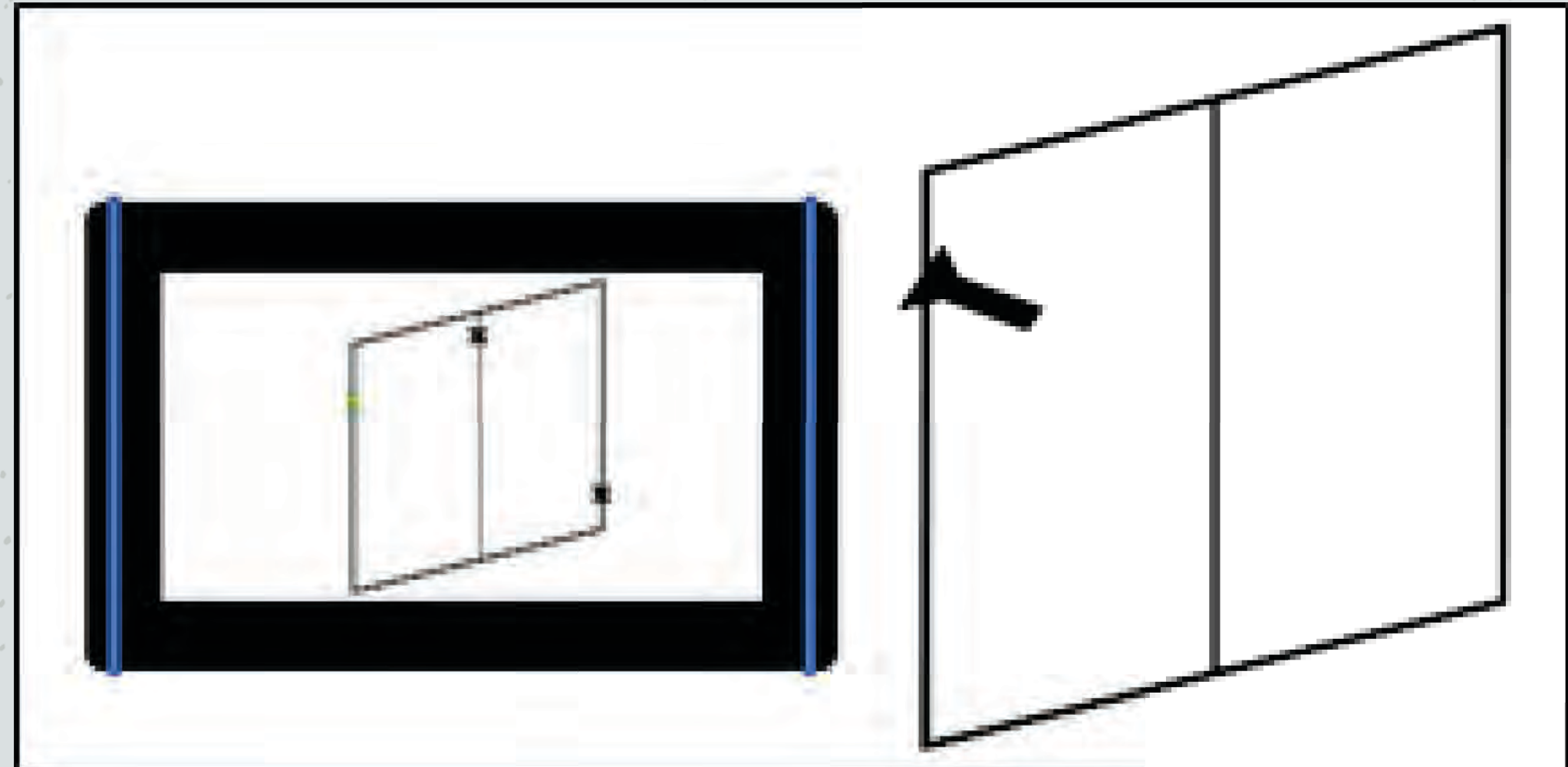
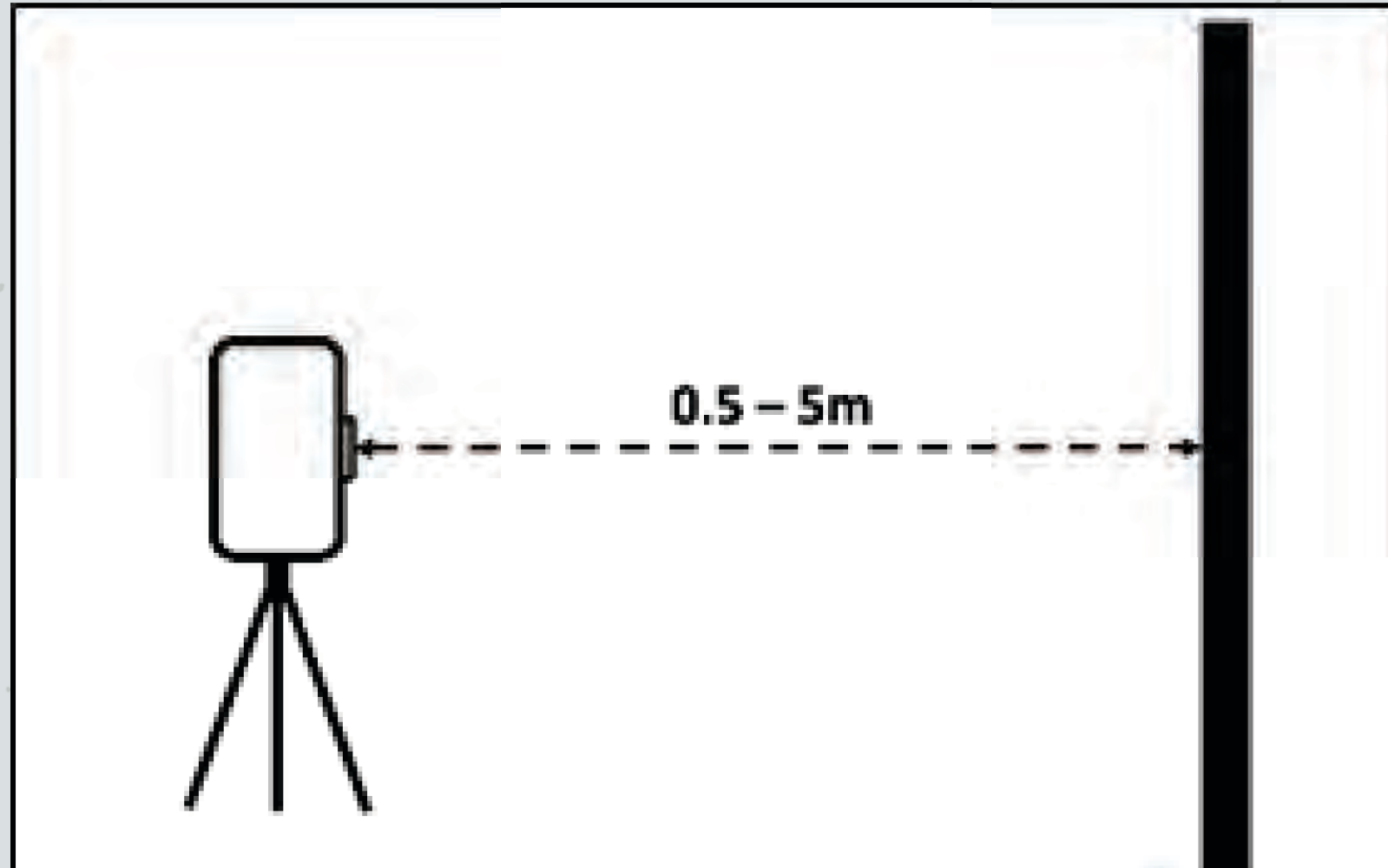
HOW TO USE IN 5 STEPS



Receiver & Sensor (left) Generator (right)

1. Position generator between 0.5 – 5m from the structure to be measured.

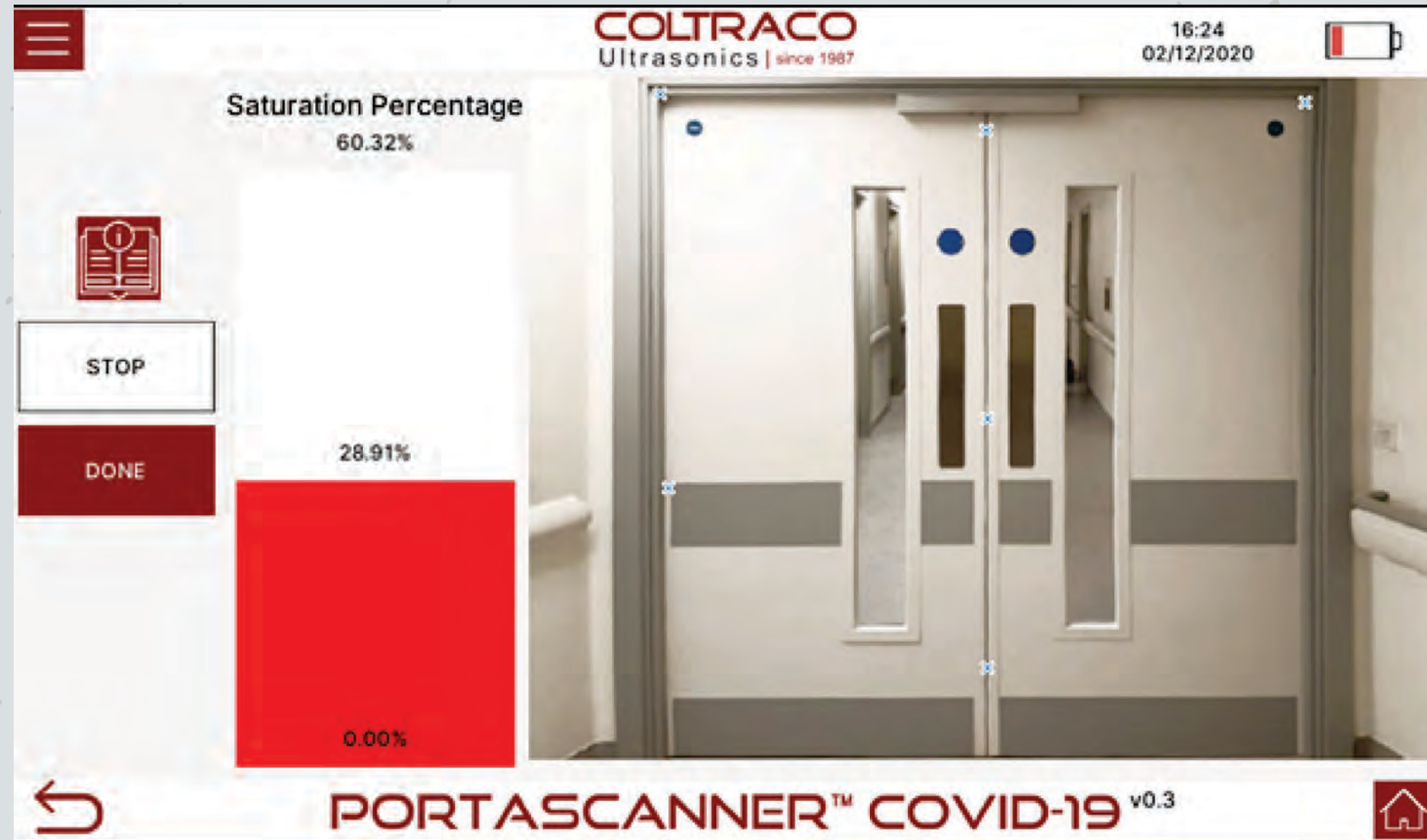
2. Find leaks by moving the wand around the area being tested. Look for spikes in the signal bar and mark them on the photo.



HOW TO USE (2)

3. Now, open the structure and measure the “Open Air Value” (OAV) associated with each leak.

4. Close the structure and measure the size of each leak by pointing the wand at it and observe increase in bar graph.



5. Once all leaks are measured, press ‘Save’.

The measurement will be presented in a number of formats such as leak area, flow rate and total flow rate.

EXAMPLE TEST

This is what the tablet will look like once you have identified leaks in your door. The circles highlighted the leak area.

The screenshot shows the COLTRACO PORTASCANNER COVID-19 v0.3 tablet interface. At the top, it displays the COLTRACO logo, the text 'Ultrasonics | since 1987', the time '16:26', the date '02/12/2020', and a battery icon. The main display area shows a camera view of a double door with several red circles highlighting detected leak areas. On the left side, there is a 'Selected Leak' panel with the following data:

Selected Leak	1
Leak Area (mm ²)	7.42
Flow Rate (m ³ /h)	0.16901

On the right side, there is a summary panel:

Total Number of Leaks	6
Total Leaks Measured	1/6
Total Flow Rate (m ³ /h)	0.16901

At the bottom, there are navigation buttons: 'Remove', 'OAV', 'Measure', and a home button. The text 'PORTASCANNER™ COVID-19 v0.3' is displayed at the very bottom.



Portascanner COVID-19 - Receiver & Sensor



Portascanner COVID-19 - Generator

MARITIME COVID-19

Air intakes must be set to ensure that the atmospheric pressure inside the accommodation is greater than that of the external atmosphere. In engine and boiler rooms, ignition sources such as those arising from boiler operations and electrical equipment cannot be avoided (see also Section 4.2.4). It is essential therefore to prevent the entry of flammable gases into such compartments. Residual fuel oils and gas oils may present a flammability hazard (see Section 2.7) and the routine checking of bunker spaces for flammability by tanker and terminal personnel is to be encouraged.

Source: OCIMF

https://www.isgintt.org/files/documents/Chapter_04en_isgintt_062010.pdf

USE AT SEA

Shipping, Gas Carriers
Tankers, Chemical Tankers
Offshore Oil & Gas & Wind Installations
Yachts, Cruise Lines

APPLICATIONS

HVAC Areas
Isolation Rooms
Quarantine Areas Corridors

SAFETY

Safety is at the core of all we do. Safety of lives at sea drives our mission to make instrumentation to protect crew, cargo, offshore infrastructure & vessels.

TECHNICAL SPECIFICATIONS

DIMENSIONS **Main Unit:** Height: 225mm (8.86 inches)
Width: 135mm (5.31 inches) Depth: 35mm (1.38 inches)
Weight: 1051g (37.07 ounces)
Generator: Height: 112mm (4.41 inches)
Width: 67mm (2.64 inches) Depth: 25mm (0.98 inches)
Weight: 137g (4.83 ounces)

GENERATOR Single transducer (40kHz). Variable power settings. Mounting method – tripod (optional)

RECEIVER WAND Total Length: 230mm Rod Diameter: 25mm. Extension parts available for longer length. Connected by BNC connector to 1m length co-ax cable

PACKAGE CONTENTS 1 Portascanner® COVID-19 Main Unit,
1 Portascanner® COVID-19 Generator,
1 Receiver Wand, 1 BNC Cable, 1 Headphones,
1 Hard Wearing Carrying Case, 1 Charger,
1 USB stick, 1 Calibration Certificate,
1 Generator tripod mount (optional)

OPERATING TEMPERATURE -20°C to +70°C (68°F to 158°F)

DISPLAY 7-inch capacitive touchscreen, LCD back-lit, 1024x600 resolution display

READINGS Visual via User Interface Display. Metric or Imperial Units available. Measures cross-sectional area of leak sites. Audible via external headphones

POWER SUPPLY Both generator and main unit are LiPo battery operated. Rechargeable via micro USB. No replacement required. Battery life: 6+ hours continuous use (TBC)

RESOLUTION 0.5mm leak diameter

CAMERA 8 Megapixel camera on rear of device



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SOLVE YOUR AIR PERMEABILITY NOW

For healthcare settings like hospitals and dental practices and for all isolation rooms. Get in touch to reduce the risk of COVID-19: +44 207 629 8475 sales@coltraco.co.uk www.coltraco.com

COLTRACO

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