

## Manual particle extraction made easy

### Features

- Fast and efficient extraction from "electret" filters
- Extraction efficiencies are typically in the range of 70 to 80%

### Application Areas

- Pharmaceutical
- Medical facilities
- Public health
- Clean rooms
- Military
- Food processing
- Agriculture
- Indoor air quality
- Environmental
- National security



**The SASS<sup>®</sup> 3010** is used to extract and transfer to a small fluid volume, aerosols captured by CBRN International's electret filters. Captured particulates can be difficult to remove because induced dipole fields create a strong holding force and must be neutralized. Once particulates have been released, they must then be removed from within the fibrous filter matrix and collected in a small amount of sample fluid. These processes are efficiently performed in a matter of 1 to 2 minutes using the SASS 3010 Particle Extractor.

Extraction efficiencies have been found to be in the range of 70 to 80%. To test extraction efficiency several electret filters were used to collect airborne fluorescent polystyrene beads of 1.8 microns diameter. Each filter

was operated for a period of 10 minutes. After the collection phase was completed, the filters were mounted in the SASS 3010 and captured beads transferred to 5 ml of extraction buffer. Extraction efficiencies were then determined using fluorometric assay methods.

It was found that an average recovery of 77% was achieved. A second extraction with an additional 5 ml of extraction fluid resulted in recovery of another 17% of the embedded beads, while two more 5 ml extractions resulted in small 4.5% and 1.5% additions to the total number of beads recovered, respectively.

## SASS 3010 Specifications

<b>Filter compatibility</b>	For use with SASS 3100 and SASS 4100 filters.
<b>Extraction method</b>	Acoustic vibration of the fluid-saturated filter is followed by counter-flow discharge of the suspended aerosol particles.
<b>Extraction efficiency</b>	70-80%, typ.
<b>Carry-over</b>	1.1% with dry wiping, and 0.01% to 0.1% with a 5 ml flush. Additional flushes will reduce carry-over further.
<b>Extraction time</b>	1 to 2 minutes, typical, with a flush cycle.
<b>Extraction fluid</b>	A pre-filled dropper bottle provides enough buffered extraction fluid to make a 5 ml sample. Other fill levels to 10ml on user request.
<b>Sample fluid storage</b>	The extraction fluid bottle is also used for fluid sample storage upon extraction completion.
<b>Physical size</b>	<ul style="list-style-type: none"><li>• Body: 10.2 cm (W) x 13.4 cm (D) x 14.5 cm (H)</li><li>• Height with plunger: 22.3 cm</li></ul>
<b>Weight</b>	800 grams.
<b>Electrical power</b>	Two size "D" primary batteries.
<b>Operating temperature range</b>	0°C to 70°C.

*CBRN International reserves the right to change specifications without prior notice.*



Snap-on electret filter