

Sampling Accessories

To support our range of sampling pumps we are able to offer a comprehensive selection of the required sampling media and accessories necessary to undertake a full analytical survey.

Should you require any item that is not listed, please contact the Casella CEL sales office for further assistance.

DUST & FUME SAMPLING ACCESSORIES

1. Asbestos cowl
2. 37mm Open Faced Filter Holder
3. 25mm Open Faced Filter Holder
4. Conical Inhalable Sampler (CIS)
5. IOM Head
6. Total Inhalable Head, (7HH)
7. A selection of cassettes for the IOM and the CIS Head
8. Dewell Higgins Plastic Cyclone



CONICAL INHALABLE SAMPLER (CIS)

The Conical Inhalable Sampler is a cassette type filter holder for Inhalable sampling of general dusts using a 37mm filter. For use at 3.5 litres/min.

PUF FILTERS

The PUF is a series of filters for use in the Conical Inhalable Sampler. These cassettes contain single or dual foam inserts (PUF filters) as well as the filter, which enables the sampler to be used for PM_{2.5}, PM₁₀ and Respirable sampling in addition to Inhalable sampling. The advantage of this approach to size-selective sampling is that all three fractions can be measured simultaneously, and personal sampling of PM₁₀ and PM_{2.5} can at last be carried out. The development of these cassettes and PUF inserts has been carried out by the Health and Safety Laboratory (HSL) and was presented at the Aerosol and British Occupational Hygiene Society's 1997 conferences. This work has since been validated enabling Casella CEL to offer these cassettes and foam 'plugs' for PM₁₀, Respirable and PM_{2.5}. The cassettes are supplied complete with a stainless steel filter grid and are manufactured from a conductive plastic. This plastic has very low moisture absorption qualities to ensure stability in varying sampling conditions.

IOM HEAD

The I.O.M. inhalable dust sampler is now firmly established both in Europe and America. Using a cassette system, which eliminates direct handling of the filter paper and closely simulates the particle collection behaviour of the nose and mouth, it is a true inhalable

TOTAL INHALABLE SAMPLER

Also known as the 7 Hole Head or Man Made Mineral Fiber (MMMMF) head, this is the most commonly used sampling head. The flow setting is 2 litres/min.

ASBESTOS HEAD

This sampling head is designed to hold a gridded filter for asbestos clearance or personal sampling.



sampler as specified in MDHS 14/3 and the ISO/CEN criteria.

The IOM Head allows the collection of many different dust fractions, either individually, or at the same time. By using the Polyurethane foam (PUF) plugs in the inlet of the IOM it is now possible to collect two different fractions of dust at the same time, therefore saving valuable time and money. By using the correct combination of foams it is possible to collect combinations of Inhalable, Thoracic or Respirable dust.

The IOM sampling head is to be run at 2 litres/min.



Sampling Accessories

RESPIRABLE CYCLONE

This unit is manufactured from conductive plastic. The air is drawn into the bottom of the unit where a cyclone is created, the larger particles are spun out into the base of the cyclone and the lighter respirable particles are drawn through the cassette onto the filter. The sampling pump is to be run at 2.2 litres/min. Plastic cassettes for use with this head are sold in packs of five.



FILTER MEDIA

We are able to supply a variety of filters, ranging from the standard GF/A and MCE Filters as well as a range of other specialist filters required for Occupational Health Sampling. These can be supplied pre-weighed if required. A full range of PUF filters for sampling different size fractions is also now available.



Ordering Information

Conical Inhalable Sampler (CIS)
Cassettes for CIS
Total inhalable sampler (7HH)
Asbestos sampling head with cowl
IOM sampling head
Plastic cassettes for IOM
Plastic cyclone
25mm Open faced head (metal)
37mm Open faced head (plastic)
Single hole head for lead
Filter head for welding fume

SAMPLING HEADS

P118200
P118201
B8254/Z
P110004
P109009A
P109010
116000B
B8255/Z
B7632/Z
B8221/Z
A8299/Z

Ordering Information

Filters, 25mm GFA
Filters, 37mm GFA
Filters, pre-weighed 25mm GFA
Filters, pre-weighed 37mm GFA
Filters, 25mm gridded membrane 0.8(m)
Filters, 25mm membrane 0.8(m) (MCE)
Filters 13mm dia for rosin head

SAMPLING MEDIA

P102005
P102006
P117000
P117001
P102002
P102009
P109045

Ordering Information

PUF PM_{2.5} filters for CIS
PM_{2.5} Cassette for CIS
PUF respirable filters for CIS
Respirable cassettes for CIS
PUF PM₁₀ filters for CIS
PM₁₀ cassettes for CIS
PUF thoracic filters for IOM
PUF respirable filters for IOM
PUF PM₁₀ filters for IOM

PUF FILTERS FOR CIS AND IOM HEADS

P118204
P118203
P118208
P118207
P118206
P118205
P109014
P109015
P109016

Contact Details

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Sampling Accessories

GAS AND VAPOUR SAMPLING

For gas and vapour monitoring we are able to supply a comprehensive range of Gas Adsorption Tubes and Gas Bags to fit all your Personal Occupational Health monitoring requirements.

SOLVENT DESORPTION TUBES

The sorbent tube follows original protocol set by NIOSH and other methods for sampling gas/vapour compounds from various emission and workplace sources.

Charcoal

1. LARGE 400/200MG PK/50:

Adsorbent: Activated coconut charcoal (20/40)

Dimensions (mm) OD x Length: 8 x 100

2. SMALL 100/50MG PK/50

Adsorbent: Activated coconut charcoal (20/40)

Dimensions (mm) OD x Length: 6 x 70



Silica Gel Tubes

3. LARGE Silica Gel with glass fibre filter (400/200), for acid mists
Length 7x100 (pk 50)

4. SMALL 150/75MG PK/50

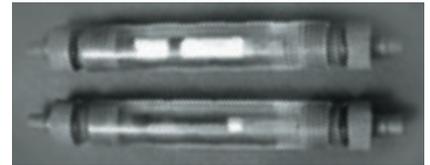
Adsorbent: Activated silica gel (20/40)
Dimensions (mm) OD x Length: 6 x 70

(Other tubes are available on request)

5. Tube holder small

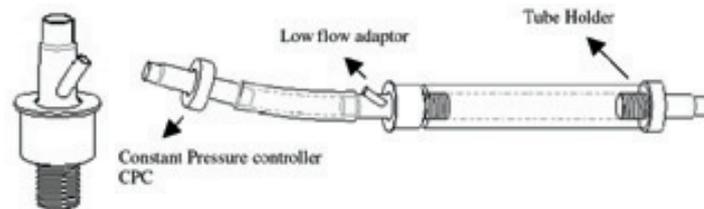
6. Tube holder large

7. Tube cutter



LO FLOW ADAPTOR

The Lo Flow adaptor enables the Casella CEL pumps to be transformed into a Lo Flow model enabling it to be used to sample for gases and vapours. Two of these can be linked together for dual tube sampling. Items sold individually, or as complete assembly.



Ordering Information

1. Large charcoal tubes	P109019	7. Tube cutter	P109025
2. Small charcoal tubes	P109020	8. Lo Flow adaptor	P109026
3. Small silica gel tubes	P109021	9. CPC	P109027
4. Large silica gel tubes	P109022	10. Lo Flow adaptor assembly (small)	P109031
5. Small tube holder	P109023	11. Lo Flow adaptor assembly (large)	P109032
6. Large tube holder	P109024		

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Bubblers and Impingers

These borosilicate glass impingers (for particles) and bubblers (for gases and vapours) are ideal for methods that require collection of airborne contaminants by drawing them into a solution.

Standard Midget Impinger and Bubbler

Reservoir Capacity: 25ml

Impinger: standard glass stem

Bubbler: fritted glass stem

Holder

Use this holder to conveniently wear the bubbler for personal sampling.



Threaded Midget Impingers and Bubblers

Make your sampling more convenient with these borosilicate glass apparatus. The vial can be capped after sampling, thus reducing sample handling in the field (no transferring of samples from reservoir to a separate vial).

1. Threaded Midget Impinger
Vial Capacity: 22ml
2. Threaded Midget Bubbler
Vial Capacity: 22ml
3. Spill-Resistant Midget Bubbler
Vial Capacity: 40ml



Sampling Accessories

IMPINGER TRAP

Trap is used with bubbler and impingers to prevent contaminants entering and damaging the sampling pumps.



In line impinger trap



ARNOLD BUBBLER

The Bubbler is used for wet chemistry methods of sampling airborne contaminants, such as acid mists. The unit is loaded with a suitable collection medium (e.g. de-ionised water) and connected to a pump unit. The contaminated air is drawn through the Bubbler and the pollutant is 'bubbled' out into the liquid for analysis.

Ordering Information

Threaded midjet: impinger	P109050
Threaded midjet bubbler	P109051
Spill resistant midjet bubbler	P109052
Standard bubbler	P109053
Standard impinger	P109054
Holder	P109055
In line impinger trap	P109018
Arnold bubbler	P100011

GAS SAMPLING BAGS

Gas sampling bags made of Tedlar are used for *grab sampling* of gases and vapours. They are used in various applications including stack emissions and landfill monitoring. Bags can be supplied with stainless steel valves or with additional septum rings.

Sizes available:

1.0/5.0 & 12LTRS (sold in batches of 10).

25L (5 off)

(bags may also be ordered singularly).



Bag with valve and septum

Ordering Information

1L	P109039	with Septum
5L	P109040	
12L	P109041	
25L	P109042 (Pk 5)	
Single 1L	P109043	
5L	P109044	

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3M Badges

The monitoring of exposure to organic vapours is an important function for health and safety personnel within a wide range of industries. Any process, which involves high levels of organic vapours (e.g. adhesive fumes), presents a potential exposure risk to personnel.

At the time of this catalogue going to print, Casella CEL are negotiating to become the only Approved 3M Occupational Health and Environmental Safety Analytical Service Provider.

3M passive samplers are simple and effective devices ideally suited to personal monitoring. They collect organic, airborne contaminants using the scientific principle of diffusion and meet or exceed 25% accuracy (at a 95% confidence level) for a wide range of chemical compounds found in the workplace. They are convenient to use, with no batteries, hoses, pumps or equipment to calibrate. Their ease of use makes monitoring a simple process; just

clip the badge to clothing near to the breathing zone (e.g. shirt lapel, collar or pocket) for a period of time; typically an 8-hour shift and then after exposure, return the badge for analysis. Exposure can be calculated for a number of contaminants from a single badge if required. The shelf life of all 3M passive sampling badges is 18 months.

The 3M badges come in four variations:

The 3M 3500 series

A charcoal sorbent wafer for easy collection of over 125 organic vapours. Analysis may be performed by gas chromatography either in-house, or by using a pre-paid analysis service from us.

The 3M 3520 series

An organic vapour monitor with back-up section containing primary and back-up pads for sampling organic vapours which are difficult to collect or are in high humidity conditions. Especially suited for monitoring compounds like vinyl chloride, acrylonitrile, butadiene and methylene chloride, for which activated carbon shows limited capacity.



The 3M 3550 series

An ethylene oxide badge designed for monitoring personnel or work areas in the pharmaceutical, health care and chemical industries where ethylene oxide is a major concern.

The 3M 3720 series

A formaldehyde monitor designed for health care, laboratory, chemical, pulp/paper, foundry and textile industries where formaldehyde is a major concern.

+* Acetone (1.5)	Carbon Tetrachloride (8)	n-Heptane (8)	Perchloroethylene (8)
* Acetonitrile (2)	Cellosolve Acetate (8)	n-Hexane (8)	Phenyl Ether (8)
Acrylonitrile (8)	Chlorobenzene (8)	iso-Amyl Acetate (8)	n-Propyl Acetate (8)
Allyl Alcohol (8)	o-Chlorostyrene (8)	iso-Butyl Alcohol (8)	n-Propyl Alcohol (7)
Amyl Acetone (8)	o-chlorotolulene (8)	Isopropyl Acetate (8)	Propylene Dichloride (8)
n-Amyl Alcohol (8)	Chloroform (8)	*Isopropyl Alcohol (4)	Propylene Glycol Mono Methyl Ether (8)
s-Amyl Alcohol (8)	Cumene (8)	Methyl Acrylate (8)	Propylene Glycol Mono Methyl Ether Acetate (8)
Benzene (8)	n-Decane (8)	Methyl t-Butyl Ether (MTBE) (8)	Stryene (8)
Benzyl Chloride (8)	Diacetone Alcohol	Methyl Butyl Ketone (MBK) (8)	1,1,2,2-Tetrachloroethane (8)
Bromoform (8)	o-Dichlorobenzene (8)	Methyl Cellosolve (8)	Toluene (8)
t-Butyl Acetate (8)	p-Dichlorobenzene (8)	Methyl Cellosolve Acetate (8)	1,1,1-Trichloroethane (Methyl Chloroform) (6)
n-Butyl Acetate (8)	Diisobutyl Ketone (DIBK) (8)	* Methyl Chloride (3520 only) (4)	Trichloroethylene (8)
s-Butyl Acetate (8)	Epichlorohydrin (8)	+ Methyl Ethyl Ketone (MEK) (8)	* 1,1,2-Trichloro-1,2,2-Trifluoroethane (1)
Butyl Acrylate (8)	Ethyl Acetate (6)	Methyl Isobutyl Ketone (MIBK) (8)	+ Vinyl Acetate (8)
n-Butyl Alcohol (8)	Ethyl Acrylate (8)	Methyl Methacrylate (8)	Vinyl Toluene (8)
s-Butyl Alcohol (8)	Ethyl Benzene (8)	Methol Propyl Ketone (8)	Xylene (8)
t-Butyl Alcohol (8)	Ethylene Dichloride (EDC) (8)	Naphtha (VM&P) (8)	Total Hydrocarbons as n-Hexane
Butyl Glycidyl Ether (8)	* Ethyl Ether (4)	n-Octane (8)	

- The number enclosed in brackets is the recommended sampling period in hours. This time has been estimated using the capacity of the 3500 organic vapour monitor, a relative humidity of <70% and the 1995 ACGIH TLV's. (Use of the 3520 allows the sampling time to increase).
- This table shows only a selection of the compounds available, should you require additional information, please contact the Casella CEL sales office.

KEY:

- * Because of their high vapour pressures (low boiling points), the starred (*) compounds are best sampled initially with the 3520 monitor (with back up section). Subsequent sampling may be done with the 3500 monitor if demanded by 3520 results.
- + Certain compounds (e.g. acetone, methyl ethyl ketone, vinyl acetate, etc.) may show a decreased recovery when sampled in relative humidity. Refrigerate and/or expedite for analysis to help ensure accurate results.

Ordering Information

Organic vapour monitor 3500 (pack of 10)	3M3500
Organic vapour monitor with back up section 3520 (pack of 5)	3M3520
Ethylene oxide monitor 3551 (pack of 5)	3M3551
Formaldehyde monitor 3721 (pack of 5)	3M3721
Pre-paid analysis for 3500 monitors	P109008

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