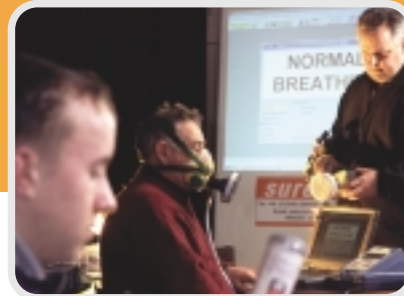


sureclean

ASBESTOS SURVEY AND REMOVAL



Asbestos survey and removal



Asbestos Removal

When removal is deemed the best option we use the most appropriate stripping technique or a combination of techniques to minimise asbestos fibre release, taking into account the type of material containing the asbestos, the conditions and control of the work area and the ultimate disposal of the debris.

The most advanced environmental monitoring equipment, wetting techniques and decontamination facilities are selected on a project-by-project basis to ensure that the asbestos is removed in a safe and efficient manner.

Asbestos surveying and removal are specialist services which demand the highest standards of operation and procedural control. Our philosophy is not only to comply with the onerous legislation pertaining to working with asbestos, but to exceed these requirements.

Since expanding our service range to include asbestos surveying and removal in 1999, Sureclean has built up a large team of operatives, supervisors and management, all trained by industry association specialists to provide asbestos management services.

Surveys and Bulk Sampling

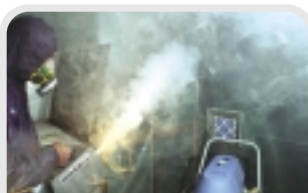
Our team is fully qualified to undertake building surveys and bulk sampling in order to locate asbestos still present within buildings, factories and installations. On a project-by-project basis the best course of action is determined, based on the condition and location of the asbestos and other local considerations. Dependent on the project there are several alternatives - it may be that the asbestos is safest left in place undisturbed, or it may be necessary to encapsulate the asbestos using non-asbestos material, or it may be determined that the best course of action is to carry out a controlled asbestos removal.



Carrier's Licence

In addition to our survey and removal capabilities, Sureclean holds a Carrier's Licence and Waste Management Licence which enables the stripped asbestos to be transported to our Alness Transfer Station or directly to the ultimate disposal site as appropriate.

Sureclean provides a turnkey asbestos management and handling service which can, in a single operation, solve the problem of locating asbestos and ensuring its safe management thereafter.



Technical Specification

Decontamination units are available in self-contained mobile and modular formats.

Type H Vacuum cleaners are used for cleaning up asbestos and heavy metal contaminants.

During asbestos removal operations, air extractors (NPU) with integral HEPA filters are used to create negative pressure within the enclosure thus preventing fibre release to the external environment.

Wet Strip Injection Systems are extremely effective in minimising fibre release during asbestos stripping operations.



Smoke Generators (illustrated bottom-centre overleaf)

Powerful hand-held smoke machines used to prove the integrity of enclosures prior to commencing asbestos removal activities. Proprietary chemicals held within a canister react when heated to emit a form of smoke that is non-toxic and non-hazardous. Electric powered (110v - 10amp - 60Hz - 1000w).

Output

Smoke output 10800 m³/hr (6120 cfm)

Dimensions

Width	315 mm	Height	215 mm
Depth	145 mm	Weight	6 kg

Hook-Up and Interface Requirements

Standard 110v socket

Other Features

Suitable for use remote from the power supply for periods up to 20 minutes before reheat is required.

Negative Pressure Units (NPU)

These units are used within an enclosure to extract air in a controlled manner such that negative pressure is created within the work area, thus preventing release of hazardous fumes, dust or fibres to adjacent areas. The extracted air passes through an integral High Efficiency Particle Absolute (HEPA) filter which removes contaminants with 99.997% efficiency. Electric powered (see technical data table).

Airflow

A wide selection of NPUs are available with airflow capacities ranging from 880 m³/hr (500 cfm) to 15,000 m³/hr (8500 cfm). These are chosen based on the volume of the enclosure and the necessary frequency of air changes. All have variable speed capability to enable optimum control of the airflow.

Technical Data Negative Pressure Units (NPUs)

	NPU 500	NPU 1500	NPU 2000	NPU 3000	NPU 4000	NPU 6000-2	NPU 6000-3
Width (mm)	400	890	900	1850	1200	1200	1850
Depth (mm)	400	455	405	700	700	700	700
Height (mm)	308	700	405	700	700	1000	1000
Parts	1	1	2	2	2	2	2
Weight (kg)	30	40	50	90	80	120	140
Motors	1	1	1	2	2	1	1
Motor Power (Watt)	1000	1000	1000	2000	2000	3000	3000
Voltage (Volt)	110	110	110	110	110	220	220
Frequency (Hertz)	50	50	50	50	50	50	50
Current (Amp)	6	11	14	28	28	15	15
Airflow Free Air (cfm)	700	2200	2400	4200	4800	8500	8500
Airflow with Filters (cfm)	500	1750	1950	3000	3500	6000	5000
Pre-Filter (mm)	296x296x47	372x372x98	372x372x98	596x596x98	596x596x98	596x894x98	596x894x98
Intermediate Filter (mm)	N/A	N/A	N/A	592x592x292	N/A	592x592x292	592x592x292
HEPA Filter (mm)	305x305x150	381x381x292	381x381x292	610x610x292	610x610x292	610x914x292	610x914x292
Outlet Spigot Diameter (mm)	150	300	300	300	400	450	450
Inlet Spigot Diameter (mm)	200	300	300	300	400	450	450

HEPA Filters

Available with a choice of two or three stage filtration using high efficiency pre-filters, optional intermediate filters and HEPA final stage filters. All 'absolute' filters used have been sized according to the output of the motors to ensure that the filter's capacity is not exceeded and that optimum airflow and filtration is achieved by maintaining efficiency across the filters.

Hook-Up and Interface Requirements

Electricity supply (various, see technical data).

Other Features

The motor and filters are housed in a single polypropylene unit which is robust yet light and portable. NPUs are used in conjunction with appropriately sized, fire resistant, lightweight flexible ducting to achieve optimum air management. The ducting is made of a PVC coated glassfibre fabric permanently bonded to a corrosion resistant high-tensile spring steel helix. Negative pressure units are tested for Dispersal Oil Particulate (DOP) penetration on a regular basis to ensure that the filtration remains within specification (99.997% efficient).

Power Assisted Respirators

A high degree of protection against dusts and fibres is provided through the use of power-assisted respirators which maintain a positive pressure within the facemask throughout the breathing cycle. Each respirator comprises a full facemask with an integral blower, filter and battery.

Weight

Facemask complete with blower and filter 755 g, battery 745 g.

Facemask

The low-profile facemask produced in silicone rubber gives a panoramic field of view and the reverted edge seal provides an efficient sealing contact with the face. It is retained by an adjustable five-point harness which allows the wearing of a standard industrial safety helmet.

Blower

The compact and lightweight blower has a radial fan driven by a DC motor connected by coiled cable to a polarised bayonet plug. The airflow produced is directed by a contoured grille over the inside of the visor.



Operatives decontaminate and shower onsite in three-stage decontamination units which comprise a clean area, a shower area and a 'dirty area'



Filter

The filter has a deep pleated internal structure, giving a large surface area which minimises clogging and resistance to breathing.

Other Features

Wearers are able to decontaminate and shower after work, whilst still wearing the respirator. Nickel cadmium rechargeable battery provides minimum of 10 hours' operation. Respirators provided are complete with battery charger in a dedicated carry bag/case.

Face Fit Tester

(illustrated top right on front page)

Prior to mobilisation a Face Fit Test is completed for each operative to ensure that their respirator mask is a good fit and as such provides the specified level of protection. Quantitative respirator fit testing is carried out in-house using a Portacount® Plus Respirator Fit Test Unit. The Face Fit Certificates thus generated are displayed at the worksite during asbestos removal operations.

Dimensions (Portacount Plus)

Width	530 mm	Height	210 mm
Depth	360 mm	Weight	5.9 kg

Dimensions (Portacount Plus N95 Companion)

Width	480 mm	Height	120 mm
Depth	360 mm	Weight	6.4 kg

Hook-Up and Interface Requirements

None – self-contained (rechargeable batteries)

Technical Data

Power requirements	5v DC - 1amp peak
Fit Factor Range	1 to greater than 10,000
Concentration Range	0.01 to 5 x 10 ⁵ particles/cm ³
Particle Size Range	0.02 to greater than 1 micrometer
Typical Fit Factor Accuracy	+/-10% of reading up to fit factors of 10,000

Transportation Box

Both the Face Fit tester and its companion unit are provided in robust protective carry cases complete with accessories.

Other Features

The Portacount® Plus Face Fit unit comes complete with its own software to simplify the test process and associated documentation and record-keeping functions.

Hazardous Dust Vacuum Cleaners (Type H)

A Type H cleaner is one which is suitable for collecting non-explodable dusts hazardous to health such as asbestos and 'heavy' metals. These vacuums are fitted with High Efficiency Particulate Absolute (HEPA) filters and are designed to achieve a maximum penetration of 0.003% at the maximum airflow of the appliance (i.e. 99.997% efficiency of dust/contaminant removal). The smaller Type H vacuums are used for 'shadow vacuuming'

Technical Data

Hazardous Dust Vacuum Cleaners (Type H)

	Small GM80H	Medium GSP80H/GS81H	Large 625H/GS82H
Voltage (Volt)	110	110	110
Frequency (Hertz)	50-60	50-60	50-60
Full Load Current (Amp)	5	3	8
Rated Power (Watt)	1200	800	1700
Airflow-without hose (litres/sec)	38	38	67
Vacuum (kPa)	20	17	15
Suction Power-without hose (Watt)	270	270	410
Main Filter Area (cm ²)	2100	1550	6600
HEPA Filter Area (cm ²)	3300	1560	2 x 1560
Sound Pressure Level [dB(A)]	61	61	64
Weight (kg)	5	9.3	54
Height (mm)	410	550	800
Depth (mm)	300	300	580
Width (mm)	390	390	920

and personnel cleaning with the large-

capacity appliances utilised for general area clean up. Electric powered (see technical data table).

Other Features

Sureclean's Type H vacuum cleaners are robust, lightweight and highly manoeuvrable which makes them ideal for use in areas where access is difficult, such as asbestos enclosures. Rounded design assists decontamination process. All Type H industrial vacuums are penetration tested as an assembled appliance and hold appropriate DOP certification.

Technical Specification



Modular Decontamination units are mobilised in flat pack form and are easily erected onsite

Wet Strip Injection Systems

It is an HSE requirement that all asbestos removal contracts are undertaken using dust suppression techniques that can reduce fibre release at source.

Wet Strip Injection Systems enable thorough wetting of asbestos materials to be achieved prior to stripping which is extremely effective in reducing dust levels. The equipment comprises a holding tank, variable circulation pump and injection system using either a distribution manifold, a spray gun or a 'hedgehog'. A wetting agent (surfactant) is mixed in the tank and injected via the appropriate accessory in a controlled manner to achieve the optimum absorption rate. This varies significantly depending on the type of Asbestos Containing Material (ACM). Electric powered (110v - 6amp - 50Hz - 660w).



An association of specialist contractors committed to the safe removal of asbestos and other hazardous materials.



Asbestos Control & Abatement Division
of the
Thermal Insulation Contractors Association

Sureclean Limited

10 River Drive
Teaninich Industrial Estate
Alness, Ross-shire IV17 0PG
Tel: 01349 884480 Fax: 01349 883612
E-mail:
sales.enquiries@sureclean.co.uk
Web: www.sureclean.co.uk

Dimensions (WSM50 Wet Strip Machine)

Width 420 mm Height 700 mm
Depth 760 mm Weight (empty) 20 kg
Tank Capacity 55 litres

Hook-Up and Interface Requirements

Standard 110v socket

Other Features

Sureclean's Wet Strip Injection Units are robust, lightweight and highly manoeuvrable which makes them ideal for use in areas where access is difficult such as asbestos enclosures.

Decontamination Units

Personnel decontamination units are available in self-contained mobile and self-contained modular formats. Their general design and construction complies fully with HSE Guidance Note EH47 'The provision, use and maintenance of hygiene facilities for work with asbestos insulation and coatings'. They are specifically designed for personal decontamination and the storage of protective equipment and comprise three separate compartments - a clean area, a shower area and a so-called 'dirty area'. An air extraction system is provided within the 'dirty area' which draws air through the facility, filters it and discharges it outside thus achieving an air flow from the clean to the 'dirty area'. A Water Management System is used to provide hot water for the showers and to filter effluent water prior to disposal. Electric powered (110v - 2 x 14amp - 50 or 60Hz - 3100w).

Modular Decontamination System

N.B. This unit is mobilised in flat pack form and is easily erected on site by two people (the details provided are for a single shower version).

Dimensions

Width 1200 mm Height 2060 mm
Overall Length when assembled 3600 mm
Weight (complete) 400 kg

Water Management Unit (part of modular system)

Dimensions

Width 600 mm Height 800 mm
Length 960 mm Weight (empty) 40 kg
Water tank capacity 125 litres

Negative Pressure Unit (part of modular system)

An NPU 500 forms an integral element of the Modular Decontamination System (see previous technical data).

Hook-Up and Interface Requirements

Standard 110v socket required.

Other Features

1. Clean ends have bench seat lockers, electric heaters, coat hooks and a mirror.
2. Single, twin and quad shower decontamination units are available.
3. Dirty ends also have bench seats, electric heaters, coat hooks, a mirror and a spigot to which the extractor (NPU) is fitted.
4. All areas have rounded corners for ease of decontamination.
5. Natural and electric light is available in each compartment.

Mobile Decontamination System

These units include all the components of the modular hygiene facilities mounted on a galvanised trailer and chassis for ease of transportation and manoeuvrability on site. Insulated GRP plastic panels have been used to form rigid caravan units which are lightweight and resistant to damage.

For further details on mobile decontamination systems contact a Sureclean Technical Specialist.

