IMPORTANT USER GUIDANCE

ENVIROGARD VENTSAFE DUST FILTRATION UNITS (DFU)

VENTSAFE DFU 600 / 1800 / 2300 / 5000 Models

READ ALL THE INSTRUCTIONS BEFORE USING THE EQUIPMENT

General Specification: portable dust filtration units for capture of airborne particulate dusts down to 0.3 micron diameter. Ventsafe Dust Filtration Units (DFU's) are individually tested for filtration efficiency to ensure they achieve at least 99.995% capture of airborne particulates down to 0.3 micron particle size.

Filtration: 3-stages of filtration in standard configuration - comprising: pre-filter EU4 (user-changeable), long-life intermediate filter M5/F6 (not user changeable), and final stage absolute HEPA Filter (not user-changeable).

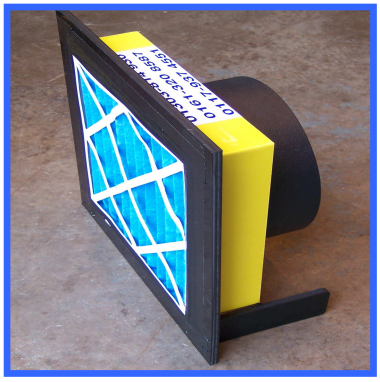
For applications with high dust loadings four-stage filtration is optional where user-changeable multi-pocket bag filters capture coarse and medium size dust particles before they reach the intermediate filter; these bag filters are available in a range of filtration grades and pocket sizes to suit diverse applications (please enquire).

Power: all machines have 110v single phase electric motor(s), connected via trailing 110v 16 plug(s), with operating power loads as detailed overleaf. This product range is for air extraction, ventilation and particulate filtration applications in the range: 0 – 5000 M3/Hr (0 – 3000 CFM), and the machines are suitable for providing negative pressure enclosures as well as localised spot extraction.

1. **Installation:** this equipment can be used both for spot extraction at a localised point, or to ventilate an enclosed area.

   When used for spot extraction the pre-filter housing should be located close to the source of dust; if you are unable to get the DFU close to the source of dust then flexible ducting may be used – this allows the pre-filter housing (image right) to "rove" to the localised area you wish to extract from.

   When used to ventilate a larger dust-contaminated area it is recommended that the main body of the machine is installed outside an enclosure (commonly a polythene sheeted area, or polythene sheeted door to a room) with the DFU inlet (suction) spigot protruding into the enclosure (image left and schematic below).



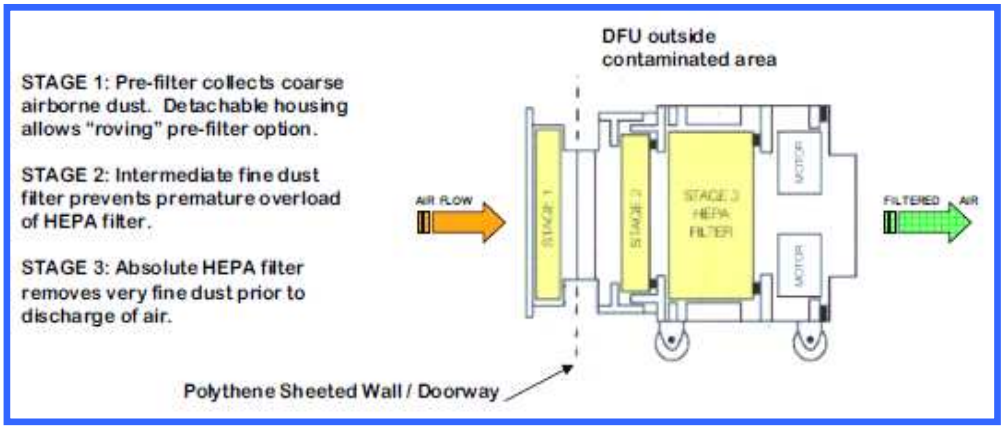
   Once in place lock the castors to stop the DFU from moving, connect the machine to a power supply, switch on and then immediately remove the circular transit cover from the machine inlet.

   The pre-filter housing may be coupled either direct to the inlet spigot, or using intervening flexible ducting to allow the head to "rove" to different locations within the work enclosure.

   The filtered air must be allowed to freely discharge from the exhaust spigot (the exhaust spigot is fitted with non-return flaps to reduce air backflow when the machine is turned off); filtered air may also be ducted away if your application requires this - but remember that long runs of ducting will reduce the achieved air-movement capacity of the equipment. Ensure there is no obstruction within the suction or discharge ducting.

Operation: insert filters into the pre-filter housing (good quality EU4 grade pleated pre-filters are recommended ; where the 4-stage filtration option is used fit good quality multi-pocket bag filters).

The pre-filters remove coarse & medium dust particles; it is advisable that pre-filters are changed daily, or more frequently where dust levels are high.



FLOW INDICATOR: each machine is fitted with a flow indicator - this is a manometer guage; the normal operating range for each machine type is listed in the table below; as the filter system progressively blocks, causing a reduction in air-flow, the dial reading will increase. Always check manometer reading with machine at full flow. If the manometer reading is outside the normal range listed in the table (below) then check the following:

READING TOO HIGH - POSSIBLE CAUSE	SOLUTION
Transit cap not removed ?	Remove cap
Roving ducting obstructed/collapsed/too long?	Re-align ducting, reduce length
Pre-filter blocked or wet ?	Replace with a new one, avoid spraying liquids
Intermediate or HEPA filter wet or blocked ?	Refer to supplier for service

READING TOO LOW - POSSIBLE CAUSE	SOLUTION
Slow running motor	Turn up variable flow (if fitted)
Only one motor running (where two fitted)	Check power supply / switch
Low Supply Voltage	Reduce cable run distance; use as a minimum 2.5mm2 cables Review Transformer load
Exhaust Discharge Restricted	Use large(r) diameter ducting; reduce ducting length.

2. **On Completion**: of work re-fix the circular transit cap to the inlet spigot and then immediately turn off the machine and disconnect the power supply. Dispose of used pre-filters as waste. Pre-filter housings may be supplied *either* as a non-returnable, single-use, disposable component [in which case this is clearly identified on their labelling - dispose of these responsibly as waste) *or may be supplied as a re-usable component* [in this case they will carry clear alternative directions (red on white) and the user must thoroughly clean & fully decontaminate the housing prior to return].

   Consider any ducting used for a roving pre-filter as dust-contaminated and treat accordingly. Finally, thoroughly vacuum off and wipe down all remaining external parts of the machine before return.

MODEL:	DFU 600 Nos. 6731-40	DFU600HS Nos. 6741-50	DFU 1800	DFU 2300	DFU 5000
CAPACITY M3/HR [CLEAN] (EQUIVALENT CUBIC FEET / MIN)	600 (350)	600 (350)	1800 (1050)	2300 (1350)	5000 (3000)
SIZE H * W * D mm APPROX. WEIGHT KGS	440x450x500 17	440x450x500 17	700x580x845 40	610x485x995 30	800x685x995 70
POWER – CONNECTION RUNNING – VOLTS / AMPS	1 x 16A 110 / 3	1 x 16A 110 / 3	1 x 16A 110 / 6	1 x 16A 110 / 14	2 x 16A 110 / 2 x 16
STANDARD PRE-FILTER SIZE mm	305x305x50	305x305x50	380x380x50	380x380x50	610x610x100
ROVING HEAD DUCTING DIA. mm	200	200	305	305	410
DISCHARGE – DUCTING DIA. mm	150	150	305	305	410
FAN CAPABILITY Pa	420	625	800	1100	1100
NORMAL MANOMETER RANGE Pa [IF READING IS OUTSIDE NORMAL RANGE SEE CHECK-LIST OF CAUSES / SOLUTIONS ABOVE. THEREAFTER REFER TO SUPPLIER IF STILL NOT RESTORED TO NORMAL RANGE]	250 - 380	250 - 550	250 - 700	350 – 900	250 - 900
SOUND LEVEL dBA @ 3m	53.8 – 55.1	53.8 – 55.1	54.9 – 58.9	65.2 – 70.1	66.2 – 69.9

NOTE: E-VAC 600 HS DENOTES A HIGHER-SUCTION FAN DERIVATIVE

WARNING - THE FOLLOWING MUST BE OBSERVED AT ALL TIMES

USERS MUST:

- familiarise themselves with the instructions for using this equipment, and inform themselves about the substance(s) being filtered (see your COSHH / risk assessment). Use PPE, including RPE, appropriate for the dust being collected.
- make arrangements to ensure that pre-filters are changed without unnecessary risk to operatives or others. Spent pre-filters **MUST BE** removed from equipment prior to its return to the supplier, and disposed of in accordance with regulations appropriate to the material collected. You must inform the supplying hire depot, prior to return of hire goods, if the equipment contains material residues which might reasonably be considered hazardous to health.
- ensure that the equipment is NOT used in areas where explosive gases, vapours or dusts are present, that the equipment is NOT used in a wet environment, and if placed outside the equipment is protected from the weather. Please note that this equipment is NOT permitted for use offshore, on offshore support vessels or structures.
- refer to local safety regulations applicable to the materials being collected by the equipment [for example, in the U.K. if collecting dusts containing lead please observe the requirements of the Control of Lead at Work Regulations and supporting guidance L132]. Please note that this equipment must not be used for the collection of asbestos, or dusts containing asbestos; if your application involves asbestos, even in trace amounts, please enquire for alternative equipment options.
- ensure that upon conclusion of work the outside of the appliance is thoroughly vacuumed and wiped down, and the transit cover secured. Equipment returned in a dirty condition may be refused, &/or subject to supplementary charge.

FOR MORE INFORMATION ABOUT OUR RANGE OF SPECIALIST AIR FILTRATION AND VACUUM EQUIPMENT PLEASE SEE OUR WEBSITE www.envirogard.co.uk OR CONTACT OUR HIRE DEPOTS

Envirogard Hires
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