CLEANING THE AIR, SAVING ENERGY, INCREASING EFFICIENCY

Horizon International – commenced trading in 1969 and is firmly established as a major manufacturer of air pollution control plant and heating plant and systems. Our experience of all forms of air cleaning applications together with radiant heating applications is readily available to help solve your environmental problems.

Based in Bristol UK, centuries of engineering excellence contributing to fine Bristol products from Horizon International.

Your employee’s health and productivity depends on you to provide a clean temperature controlled working environment. A healthy work force is a happier and more productive work force. At our headquarters here in Bristol we design and build an extensive range of air cleaning and heating equipment, which will help you to help your work force.

We offer you free on site surveys, a computer aided design service, flexibility, reliability and a first class after sales back up. An Horizon specialist visit will ensure that the least expensive, high quality answer to your problem is the one that Horizon will offer.

Contact us today, and let us help you to improve your working environment. Whatever the environmental problem, Horizon International have a range of tailored products to control it.

QUALITY PRODUCTS – BUILT TO LAST

Horizon International, Willment Way, Avonmouth, Bristol BS11 8DJ. U.K.
Tel: +44 (0) 117 982 1415  Fax: +44 (0) 117 982 0630  E-mail: sales@horizon-int.com  Web site: www.horizon-int.com
CLEAN AIR  
Clean air is an essential requirement for a healthy existence. Throughout the world people are concerned with the quality of the environment i.e. the air we breathe, both internally and externally (within buildings occupied and outside buildings).

In most countries, stricter legislation has been enforced to ensure higher standards with respect to maintaining a clean, healthy atmosphere.

We must have clean air in order to live, there is no substitute.

ENERGY SAVINGS  
The majority of Horizon air cleaning products are designed to filter the applicable pollution from the air stream, allowing the return of the cleaned fresh air to the factory work place, without the necessity of external exhaust with the resultant loss of energy.

In instances where legislation prohibits the recycling of certain cleaned air streams, Horizon exhaust to atmosphere systems are available.

Horizon radiant heating systems, are designed with maximum energy conservation in mind.

HIGH EFFICIENCY  
Horizon plant efficiencies are matched to suit the project requirements. Units are available with a choice of electrostatic filtration or mechanical filtration or a combination of both.

Automatic cleaning can be provided where required. Efficiencies up to 99.998% are available.

Control your factory environment – specify HORIZON.

PROTECT YOUR STAFF  
Horizon air cleaning equipment correctly applied allows you to comply with the current COSHH regulations.

INCREASE PRODUCTION  
As technology in industry demands increased production, machine production speeds increase, with an associated increase in air pollution. Correctly applied Horizon equipment will solve your air pollution problems.

HORIZON – 1ST CHOICE FOR CLEAN AIR EQUIPMENT & RADIANT HEATING PLANT  
Leaders in today’s environmental control technology. If you cannot identify suitable equipment in this catalogue to solve your problem, contact Horizon. Horizon engineers will design a tailor made plant/system to match your needs.

QUALITY PRODUCTS  
The design of Horizon equipment, bears in mind the needs of industry, light, medium and heavy. The highest quality standards are employed producing products built to last.

WARRANTY  
All Horizon products are guaranteed for one year from date of purchase. Extended warranties are available where required – contact Horizon for further information.
SMOG-EATER MODEL SE.1.5M

Ideally suitable for the extraction/filtration of solder fumes from a single work station.

Three stage filtration – prefilter, sub micron HEPA filter, activated carbon gas filter.

Quiet in operation, suitable for laboratories, electronics industries, technical colleges, etc. Larger units available, for multi-point extract – contact Horizon.

PORTABLE (HAND-CARRY) SMOG-EATER MODEL SEV

The Horizon SEV portable dust and fume eliminators have been designed for light fume and dust problems. Not suitable for continuous production work.

The SEV is available for 110-1-50HZ or 220/240-1-50HZ.

Weight: 12Kg
Nominal airflow: 150 m³/hr
Dimensions: 280 x 280 x 540 mm H
950 watt motor single speed operation. The unit is complete with 3.75m length of 45mm diameter hose. Efficiency 99.998% DOP test. Optional activated carbon gas filter available.

PORTABLE (HAND-CARRY) SMOG-EATER MODEL SEH

The Horizon SEH portable dust and fume eliminators have been designed for light fume and dust problems. Not suitable for continuous production work.

The SEH is available for 110-1-50HZ or 220/240-1-50HZ.

Weight: 20Kg
Nominal airflow: 250 m³/hr
Dimensions: 690 x 240 x 360 mm H
Twin 950 watt motors two speed operation. The unit is complete with 5m length of 45mm diameter hose. Efficiency 99.998% DOP test. Optional activated carbon gas filter available.

OPTIONAL NOZZLES

There is a choice of inlet nozzle type mounted on a metallic tube, each type provided with a magnetic foot for ease of mounting.
MODEL SE.4M

The Model SE.4.M is a powerful compact extraction/filtration unit ideally suitable for the collection of dust from the smaller woodworking machines, grinding, finishing etc. Originally designed for use in Technical Colleges, also suitable for the smaller workshop.

Units are supplied with wall brackets for wall mounting, or can be provided with legs for floor standing. The unit is equipped with a high performance fan/motor assembly providing strong at source extraction.

Fitted with built-in spark arrester when required.

Nominal airflow: 1000 m³/hr
Dimensions: 580 x 580 x 1250mm H
Weight: 60Kg

Units are available for either 220/240 volts single phase 50 cycles or 380/440 volts three phase 50 cycles.

SMOG-EATER MODELS SE6 & SE6M

The Model SE.6 SMOG-EATER is the smallest electrostatic air filter in the Horizon range. The Model SE.6 M is a similar sized unit with mechanical filters.

Both units are provided with either brackets for wall mounting or can be provided on legs for floor standing. The SE.6 SMOG-EATER is ideally suited for linking together four/five Mini Rambler fume extraction arms e.g. solder fume extraction/filtration. The Model SE.6 M is fitted with a cartridge filter and is suitable for the removal of oil mist/smoke from the smaller machine tools.

Units are available for either 220/240 volts single phase 50 cycles or 380/440 volts three phase 50 cycles.

<table>
<thead>
<tr>
<th>Model</th>
<th>SE.6</th>
<th>SE.6 M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Air Flow</td>
<td>1000 m³/hr</td>
<td>1000 m³/hr</td>
</tr>
<tr>
<td>Dimensions of Main Cabinet</td>
<td>485 x 480 x 750mm H</td>
<td>485 x 480 x 860mm H</td>
</tr>
<tr>
<td>Weight</td>
<td>60Kg</td>
<td>58Kg</td>
</tr>
</tbody>
</table>

Optional pressure gauge available for Model SE.6 M to indicate when the filter requires cleaning/changing.
The SE.8 incorporates an industrial electrostatic filter ideally suitable for fumes such as oil mist/oil smoke, welding fumes, solder fume etc. The SE.8.M is fitted with a series of graded mechanical filters suitable for both fumes and dust.

These units are supplied with wall brackets for wall mounting or attaching to suitable steelwork or eye-bolts for suspension from above. The units can be provided on legs for floor standing or mounting above machine tools. Units are available for any electrical voltage.

Nominal airflow 1360 m3/hr  
Dimensions of the main cabinet 480 x 480 x 600mm high  
Weight 68Kg

These units are suitable for attaching to ductwork, hoods, canopies and Horizon SMOG-RAMBLER self supporting flexible dust and fume extraction arm/hood assemblies.
Models SE.10 and SE.10.M are larger versions of the SE.8/SE.8.M models illustrated on page 6. The SE.10 is provided with two sets of industrial electrostatic air filters in tandem for particularly high air cleansing efficiency, the SE.10.M is fitted with graded mechanical filters, the grades selected to suit the application.

Units can be supplied with brackets for wall mounting or attaching to suitable steelwork or designed to be suspended from roof steelwork or fitted with support legs for floor standing.

Nominal airflow 1700 m³/hr
Dimensions of the main cabinet 480 x 480 x 760mm H
Weight 84Kg

These units are also suitable for oil mist/oil smoke, welding fume, solder fumes and general dusts.

Units are suitable for attaching to ductwork, hoods, canopies and Horizon SMOG-RAMBLER self supporting flexible dust and fume extraction arm/hood assemblies.

Contact Horizon to request a technical sales engineer to visit to advise on the application/installation of these units to achieve maximum benefits.

TO ORDER:
Tel: +44 (0) 117 982 1415    Fax: +44 (0) 117 982 0630    Email: sales@horizon-int.com
These units are fitted as standard with an aluminium mesh prefilter, followed by two 50mm thick woven material intermediate filters mounted in tandem, followed by a 450mm deep pleated vee bag filter of the high efficiency high surface area type and where required followed by a final sub micron HEPA filter.

All filters are fitted on slides and easily removed for cleaning/replacement via hinged access doors.

Optional low voltage hood light

UNITS FITTED WITH MECHANICAL FILTERS

The SMOG-MOBILE is built for rigorous industrial use, captures pollution “at source” – filters and returns the valuable heated air to the workshop. SMOG-MOBILE fume/dust extraction units are easily wheeled to any factory location where fume/dust extraction is needed.

Units are available with electrostatic filtration elements for fume removal e.g. welding fume, oil mist/smoke, and units are available with mechanical filtration elements suitable for dust extraction.

The SMOG-RAMBLER arm/hood assembly, either one or two can be fitted, are completely flexible self-supporting and easily positioned. 2m, 3m and 4m lengths are available.

Units can be built for any electrical voltage.

Nominal airflow: 1700 m³/hr
Motor rating: 0.75kw
Overall dimensions: 780 x 770 x 780mm H
Weight: 96Kg

Optional final activated carbon gas/odour filters available for all models.
PANDA DUST & FUME CART

The PANDA dust/fume cart is designed for ease of mobility and is easily wheeled to any factory location where dust/fume extraction is needed. The articulated arm is self-supporting and quickly positioned at the source of fume/dust emission.

There is a choice of filter cartridge, the standard cartridge has a filtration efficiency of 99.9% with particle sizes ranging from 0.2 to 2.0 microns. The micro filter cartridge has an efficiency of 99.985% at 0.3 microns. The media area of both cartridges is 14.0m².

The unit can be provided with a 2m arm or 3m arm. There is a choice of hood shape i.e. standard flared hood, fish-tail hood or high velocity hood.

Units are available for any electrical voltage. The motor capacity is 0.75kw.

Optional low voltage spotlight for the hood.

Optional activated carbon gas filter for odour reduction.

Nominal air flow: 1700 m³/hr
Dimensions: 1040 x 800 x 1560mm H
Weight: 90Kg

Optional high velocity hoods

Standard cartridge
Micro cartridge
The HIPPO dust box is a high capacity self cleaning dust extraction unit, and is available in various configurations, namely:

- Mobile unit
- Floor mounted
- Wall mounted

Features:

- Self-cleaning air filter. During the cleaning cycle (energised by a switch) the cartridge filter is rotated and dust is dislodged by tensioned pads – dust is collected in a pull out drawer at the base.
- Returns cleaned air to the workshop (except hazardous materials subject to special restrictions).
- Silencers available for low noise level applications.
- Quick release bin for dust storage at the base available in lieu of pull out drawer.
- Designed to work in conjunction with the Horizon SMOG-RAMBLER flexible self supporting dust extraction arms or interconnecting ductwork/hoods and canopies.
- Powerful suction (2000 m3/hr maximum).
- Can be supplied with 2, 3 or 4m long SMOG-RAMBLER dust extraction arm
- Optional add-on activated carbon gas filter available for odour reduction
- The standard unit includes motorised fully automatic self cleaning. At a lower cost, the unit can be provided with a crank handle for manual rotation.

Options

- Air volume: Up to 2000 m3/hr
- Filtration efficiency: 99.9% with particle sizes ranging from 0.2 or 2.0 microns
- Weight: 118Kg
- Filter cartridge: High strength spun bonded polyester 20m2 media area
- Dimensions: Main casing 1000 x 650 x 1000mm H
- Power supply: Available for any electrical supply

TO ORDER:
Tel: +44 (0) 117 982 1415 Fax: +44 (0) 117 982 0630 Email: sales@horizon-int.com
DE10-MV & DE20-MV DUST EXTRACTION UNITS

The DE.10.MV and DE.20.MV, provide for low-cost dust extraction, with built-in vibration cleaning mechanism.

DE.10.MV and DE.20.MV dust extraction units are manufactured with a heavy gauge steel support frame and house the following equipment:

- High efficiency backward inclined centrifugal fan assembly
- Push button direct on-line starter with overload protection
- High surface area high efficiency main vee bag filter with auto-vibration mechanism for manual operation
- Dust storage drawer on slide rails for easy removal/disposal
- Units are built as standard for 380/440 volts three phase 50 cycles, units are available for other electrical voltages if required
- There is a choice in position and size of the foul air inlet.

DE.10.MV and DE.20.MV dust extraction units are compact, highly efficient extraction/filtration units, suitable for most light dust applications. The units are complete with a manually operated auto-vibration cleaning mechanism, with slide withdrawal dust storage drawer at the base.

<table>
<thead>
<tr>
<th></th>
<th>Model DE.10.MV</th>
<th>Model DE.20.MV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Volume</td>
<td>1700 m³/hr nominal</td>
<td>3400 m³/hr nominal</td>
</tr>
<tr>
<td>Motor</td>
<td>0.75kw</td>
<td>1.5kw</td>
</tr>
<tr>
<td>Weight</td>
<td>95Kg</td>
<td>182Kg</td>
</tr>
<tr>
<td>Filter</td>
<td>There is a choice of main filter bag, selected to suit the type of air pollution involved</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>610 x 610mm</td>
<td>1220 x 610mm</td>
</tr>
<tr>
<td>Height Dimension</td>
<td>1850mm</td>
<td>1850mm</td>
</tr>
<tr>
<td>Noise level</td>
<td>70dB(A)</td>
<td>72dB(A)</td>
</tr>
<tr>
<td>Main cabinet</td>
<td>Zintec finish painted</td>
<td>Zintec finish painted</td>
</tr>
</tbody>
</table>

DE.10.MV and DE.20.MV, provide for low-cost dust extraction, with built-in vibration cleaning mechanism.
FILTO-BENCH is the all in one combined workbench with built-in dust and fume extraction at source.

The compact design utilises minimum floor space, whilst providing for personnel a sturdy workbench, integral work area light, built in dust and fume extraction, and a choice of bench width, depth and height. Can be constructed for the operator to either stand or sit at the bench.

There are no installation costs, simply place in the desired location, wire in to the nearest electrical power source, and go to work!

The FILTO-BENCH is offered as a static unit or mobile, there is a choice of size, handing, optional attachments e.g. power sockets built-in, turntable, stainless steel or aluminium construction available. There is a choice of filters either electrostatic, mechanical, or a combination of both to suit the application.

Advantages include: No exterior exhaust required, no heat loss from your workshop, minimal maintenance, long life, high filtration efficiency at source and built to a high standard, for long vigorous industrial use.

- Standard range of sizes
- Built-in extraction/filtration, recirculates clean-air back to the workspace
- Static, or mobile units available
- Suitable for grinding, fettling, welding, solvent, adhesive vapours and many other bench operations
- Available for all electrical supplies
- Anti-spark arrestors included when applicable
- Custom built units available to any size, shape or handing – choice of filters
- Flameproof construction available
- Units available on wheels for mobility
- Down draught principle i.e. dust and fumes are pulled away from the operator’s breathing zone, complying with COSHH regulations
- The FILTO-BENCH is also available with a duct spigot outlet, for connection to a free standing separate fan, and free standing separate filter assembly with automatic cleaning where required, alternatively, exhaust to atmosphere.

WHEREVER YOU NEED A WORKBENCH, AND YOU NEED EXTRACTION/FILTRATION - SPECIFY FILTO-BENCH
There are three ranges of FILTO-BENCH available:-

- Type HD – suitable for heavy industrial applications
- Type ED – designed for light/medium engineering applications
- Type CD – intended for laboratory, University type applications

### STANDARD SIZES (NOMINAL)

<table>
<thead>
<tr>
<th>Type HD</th>
<th>Type ED</th>
<th>Type CD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5m long x 1.0m wide</td>
<td>1.3m long x 0.7m wide</td>
<td>0.7m long x 0.7m wide</td>
</tr>
<tr>
<td>2.0m long x 1.0m wide</td>
<td>1.3m long x 1.0m wide</td>
<td>1.3m long x 0.7m wide</td>
</tr>
<tr>
<td>2.5m long x 1.4m wide</td>
<td>1.9m long x 1.0m wide</td>
<td>1.9m long x 1.0m wide</td>
</tr>
<tr>
<td>Any size built to order</td>
<td>Any size built to order</td>
<td>Any size built to order</td>
</tr>
</tbody>
</table>

**TO ORDER:**
Tel: +44 (0) 117 982 1415   Fax: +44 (0) 117 982 0630   Email: sales@horizon-int.com
Where airborne dust is the problem, units are available with mechanical filters as illustrated on the page opposite. The SE.11 and SE.22 units are fitted with support bars, top and bottom, for easy connection to roof steelwork, alternatively they can be wall mounted or bracketed at high level on vertical stanchions. Each unit is provided with an indicating light to show when cleaning is required.

In some factories where air pollution is created, it is not possible for a variety of reasons to collect the pollution at source. In such circumstances a good alternative is to provide equipment at high level to provide a general clean-up of the workshop atmosphere. The Models SE.11 and SE.22 SMOG-EATER units illustrated on this page are self contained industrial electrostatic air cleaners. They are equipped with an integral sump and drain outlet, making them suitable for both dry and liquid contaminant collection.

The collecting cells are manufactured from aluminium and therefore require periodic cleaning only, not replacement i.e. no on-going filter replacement costs.

The SE.22 is ideal for the average sized factory, the SE.11 for the smaller factory, particularly large areas are best served by the larger models SE.44 and SE.44.SS illustrated on the opposite page.

The units are ideally suitable for the cleaning of welding fume, oil mist/oil smoke, brazing fume, PVC fume, rubber smoke and general airborne contaminants.

Where air borne dust is the problem, units are available with mechanical filters as illustrated on the page opposite. The SE.11 and SE.22 units are fitted with support bars, top and bottom, for easy connection to roof steelwork, alternatively they can be wall mounted or bracketed at high level on vertical stanchions. Each unit is provided with an indicating light to show when cleaning is required.

**SMOG-EATER – MODELS SE11 & SE22**

**ELECTROSTATIC AIR FILTERS**

**Designed for “free hanging” applications – to provide a general clean-up**

<table>
<thead>
<tr>
<th></th>
<th>SE.11</th>
<th>SE.22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Air Volume</td>
<td>1275-2550 m³/hr</td>
<td>2550-5100 m³/hr</td>
</tr>
<tr>
<td>Power Supply</td>
<td>220/240-1-50Hz</td>
<td>220/240-1-50Hz</td>
</tr>
<tr>
<td>Motor</td>
<td>300 watts</td>
<td>600 watts</td>
</tr>
<tr>
<td>Dimensions</td>
<td>1070 x 500 x 480mm H</td>
<td>1070 x 915 x 480mm H</td>
</tr>
<tr>
<td>Weight</td>
<td>86Kg</td>
<td>141Kg</td>
</tr>
</tbody>
</table>

SE.22 units welding fume removal

SE11 units welding fume removal
SMOG-EATER
MODELS SE11.HP, SE22.HP, SE44 & SE44.SS
ELECTROSTATIC AIR FILTERS

Models SE.11.HP and SE.22.HP are similar self contained industrial electrostatic air cleaners to the SE.11 and SE.22 units illustrated on the opposite page. The difference between the models are the high performance (HP) fan/motor assemblies fitted. These more powerful fans/motors allow the units to be connected to ductwork, hoods/canopies, and SMOG-RAMBLER dust/fume extraction arms.

The SE.44 and SE.44.SS units are larger units, fitted as standard with high performance fan/motor assemblies and can be used for either free hanging or for connection to ductwork, hoods/canopies and SMOG-RAMBLER arms.

All units are fitted with vee rope drive assemblies, allowing the duty of the fan assembly to be varied to suit the application.

MECHANICAL FILTER MODELS

All units on this page are fitted as standard with industrial electrostatic filters. However, for the collection of various dusts, where a mechanical filter is more suitable, all units are available with graded mechanical filters. These models are designed –M.

The mechanical filter versions usually include a washable aluminium mesh prefilter, intermediate filter, high efficiency high surface area vee bag filter, final sub micron HEPA filter. Also, where required heavy duty activated carbon filter assemblies can be added for odour reduction.

<table>
<thead>
<tr>
<th></th>
<th>SE.11.HP</th>
<th>SE.22.HP</th>
<th>SE.44</th>
<th>SE.44.SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Air Volume</td>
<td>1870 m³/hr</td>
<td>3750 m³/hr</td>
<td>7500 m³/hr</td>
<td>7500 m³/hr</td>
</tr>
<tr>
<td>Power Supply (std)</td>
<td>380/440-3-50Hz N</td>
<td>380/440-3-50Hz N</td>
<td>380/440-3-50Hz N</td>
<td>380/440-3-50Hz N</td>
</tr>
<tr>
<td>Units available for all power supplies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motor</td>
<td>1.1kw</td>
<td>1.5kw</td>
<td>2.2kw</td>
<td>2.2kw</td>
</tr>
<tr>
<td>Dimensions</td>
<td>1070x500x480mm H</td>
<td>1070x915x480mm H</td>
<td>1450x970x1010mm H</td>
<td>2300x1030x690mm H</td>
</tr>
<tr>
<td>Weight</td>
<td>92Kg</td>
<td>152Kg</td>
<td>290Kg</td>
<td>310Kg</td>
</tr>
</tbody>
</table>
The Horizon modular range of electrostatic air filters are flanged at each end ready for ductwork mounting, either new or existing. The dimensions detailed below are for single-pass construction, double-pass and triple-pass construction are available and there is no restriction on maximum size.

Industry today demands air cleaning equipment built to exacting standards to provide high efficiency, trouble-free equipment. The modular range have been specifically designed with this in mind. There are a choice of models, designed for manual cleaning or provided with in-built automatic water wash cleaning as illustrated below.

The modular units are designed normally for horizontal mounting, but units are available for vertical mounting. The range has been designed to clean air streams of both wet and dry particulate e.g. welding fume, oil mist, soldering fume, quenching fume, rubber plastics fume etc. Access to the collecting elements i.e. ionizing assembly, collecting cells, pre and after filters, is gained via a large hinged access door. This can be specified on either side of the unit.

Modular units with built-in automatic water wash cleaning, are supplied complete with solenoid valve and drainage sump. These units require a water supply at the correct quantity, pressure and temperature, and a suitable drain connection to carry the foul wash water away from the unit. In some instances detergent is recommended to be added to the wash water. Horizon manufacture hot water pump/storage tank equipment. These units are designed to supply the correct quantity of water at the correct pressure and temperature and are sized to match the applicable modular filter. Detergent tank/pump assemblies are also available to inject into the water wash system a suitable quantity of detergent where necessary.

Horizon detergent is available in 5 litre containers, Health and Safety data sheet is available on request. Horizon detergent is a heavy duty liquid detergent which has been developed to efficiently remove deposits of grease, dust, tars etc

---

### SEM - INDUSTRIAL ELECTROSTATIC AIR FILTERS MODULAR UNITS – MANUAL CLEANING

(Where air flow is provided by other external sources)

Smaller, light duty i.e. tobacco smoke removal, units are available. These units are complete with spigot connections on each side for ductwork mounting.

---

### SEM.FW & SEM.TW MODULAR UNITS – AUTOMATIC CLEANING

Modular units with built-in automatic water wash cleaning are supplied complete with detergent pump/tank. These units require a water supply at the correct quantity, pressure and temperature, and a suitable drain connection to carry the foul wash water away from the unit. In some instances detergent is recommended to be added to the wash water. Horizon manufacture hot water pump/storage tank equipment. These units are designed to supply the correct quantity of water at the correct pressure and temperature and are sized to match the applicable modular filter. Detergent tank/pump assemblies are also available to inject into the water wash system a suitable quantity of detergent where necessary.

Horizon detergent is available in 5 litre containers, Health and Safety data sheet is available on request. Horizon detergent is a heavy duty liquid detergent which has been developed to efficiently remove deposits of grease, dust, tars etc.
The CE.M series are designed for the extraction/filtration of polluted air streams consisting of a mixture of both dry dusts and oil mist/smoke.

The units are manufactured from heavy gauge steel, continuously rated, and arranged for floor standing, or wall mounting.

- High efficiency backward inclined centrifugal fan assembly
- Built as standard for 380/440 volts three phase 50 cycles. Other electrical voltages available
- There is a choice in position and size of the foul air inlet
- Hinged access doors provide easy withdrawal of the internal filters
- Silencer – optional
- Overall efficiency – 99.99%

There are four standard sizes as detailed below. Larger units are available built to order.

**The heavy duty, dry/wet pollution collector.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Volume</strong></td>
<td>1700 m³/hr</td>
<td>3400 m³/hr</td>
<td>5100 m³/hr</td>
<td>6800 m³/hr</td>
</tr>
<tr>
<td><strong>Filter</strong></td>
<td>Graded mechanical filters – specification can vary to suit the application</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>600 x 700mm</td>
<td>1200 x 700mm</td>
<td>1800 x 700mm</td>
<td>2400 x 700mm</td>
</tr>
<tr>
<td><strong>Height Dimension</strong></td>
<td>2400mm</td>
<td>2400mm</td>
<td>2400mm</td>
<td>2400mm</td>
</tr>
<tr>
<td><strong>Motor</strong></td>
<td>2.2kw</td>
<td>3.0kw</td>
<td>4.0kw</td>
<td>5.5kw</td>
</tr>
<tr>
<td><strong>Main Cabinet</strong></td>
<td>Zintec, finish painted</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MINI-RAMBLER
Self-supporting, Flexible Dust/Fume Extraction Arm

The Horizon MINI-RAMBLER provides for at source dust and fume extraction. Initially, designed for the extraction of solder fume, it can be used for extracting many other sources of dust and fume emission. The unit has triple flexible joints, is 75mm diameter and is available in a radius of 1.0m and 1.5m.

The unit is light, compact with easy movement. Designed for bench top mounting, alternatively with the use of the universal bracket illustrated below, it can be clamped to the edge of a bench or wall mounted. Ideal for light industry, laboratories, universities, hospitals etc. There is a choice in hood shape, with hood light optional. Optional on/off air damper available.

SMOG-RAMBLER-MIDI
Self-supporting, Telescopic Dust/Fume Extraction Arm

The SMOG-RAMBLER-MIDI telescopic extraction arm is ideal for use where space is limited e.g. school/college training welding booths, small compact work spaces, areas with a low ceiling height.

The MIDI is 150mm diameter, and the telescopic radius can be adjusted between 0.85m to 1.65m long.

- Lightweight, compact, easy to move.
- Telescopic action, easy to use concertina-fashion.
- Choice of shape of extraction hood.
- Optional low voltage hood light.
- Optional volume control damper.
SMOG-RAMBLER – THE SENSIBLE WAY TO REMOVE DUST/FUMES AT SOURCE.

Designed for at source extraction of dust and fumes. The SMOG-RAMBLER is 150mm diameter and is available with a radius of 2, 3 or 4m. The unit operates throughout a 360 degree circle, and incorporates a “stay-put” feature enabling the extract hood to be positively located at the source of dust/fume emission.

The securing flange, once bolted in position forms the only support required. Units available for hanging or standing configuration.
The SMOG-RAMBLER – ES is designed for applications where a clear-thro’ air flow is required. All support mechanisms for the arm are mounted externally.

The SMOG-RAMBLER – ES is available in diameters of 75, 100, 150 and 200mm. All diameters are available with a radius of 2, 3 and 4m. There is a choice in hose material to suit the application, the supporting steelwork is manufactured as standard in mild steel finish painted, stainless steel is also available. There are a variety of hood shapes available together with material for manufacture, e.g. steel, aluminium, stainless steel.

The SWING-BOOM assembly is designed to work in conjunction with and extend the radius/reach of the Horizon SMOG-RAMBLER dust/fume extraction arm.

The SWING-BOOM is available in 2, 3, 4 and 5m radius, SMOG-RAMBLER arms attached to the SWING-BOOM can provide a reach up to 9m.

The SWING-BOOM provides for maximum flexibility, and allows dust/fume extraction into the tightest corners. Positioning is quick and simple.

As an optional attachment, a slide rail can be provided as an integral part of the SWING-BOOM to facilitate tool suspension kits up to 50Kg. The SWING-BOOM features double ball-bearing mountings with friction brake.

The unit is available in a single solid section, or can be hinged at the mid-point.
**HORIZON FAN UNITS – Heavy duty centrifugal. Powerful, yet quiet**

**HW–RANGE**

The HW range of centrifugal fans are of the direct drive pattern, single inlet backward inclined i.e. non-overloading characteristic. The range are constructed from heavy gauge steel plate for rigorous industrial use. The design features high efficiency, low energy consumption, long working life. Suitable for the extraction of gases, fume, dust and where volatile fume extraction is undertaken, anti spark proof features are embodied in the construction.

Flameproof motors available where required.

Units available for any electrical voltage. Stainless steel construction optional.

<table>
<thead>
<tr>
<th>Model</th>
<th>Air Volume Range m³/hr</th>
<th>Motor Kw</th>
<th>Inlet mm</th>
<th>Outlet mm</th>
<th>Mounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>HW.8</td>
<td>1800 – 2500</td>
<td>0.55</td>
<td>150 dia</td>
<td>150 dia</td>
<td>Wall bracket</td>
</tr>
<tr>
<td>HW.11</td>
<td>2500 – 3800</td>
<td>0.75</td>
<td>150 dia</td>
<td>150 dia</td>
<td>Wall bracket</td>
</tr>
<tr>
<td>HW.16</td>
<td>3800 – 5000</td>
<td>1.5</td>
<td>200 dia</td>
<td>200 dia</td>
<td>Foot/wall bracket</td>
</tr>
<tr>
<td>HW.30</td>
<td>5000 @ 150mm</td>
<td>4.0</td>
<td>400 dia</td>
<td>410 x 280</td>
<td>Foot/wall bracket</td>
</tr>
<tr>
<td>HW.50</td>
<td>5000 @ 250mm</td>
<td>7.5</td>
<td>450 dia</td>
<td>500 x 310</td>
<td>Foot/wall bracket</td>
</tr>
</tbody>
</table>

**CF–RANGE**

The CF range of fan units allow a wide variety of duties to be achieved. Each unit comprises a double inlet centrifugal fan assembly powered by a TEFC motor via a vee rope drive assembly. There is a choice of air inlet/air outlet size and position. Features include an adjustable motor base for ease of belt tensioning, anti vibration mountings and a large hinged access door for inspection/servicing.

Units available for wall mounting or stand/floor mounting.

The cabinet of the standard range is manufactured from steel plate, stainless steel cabinets available. Where required motors can be mounted outside the air stream, external to the main cabinet. Flameproof assemblies available.

<table>
<thead>
<tr>
<th>Model</th>
<th>Air Volume Range m³/hr</th>
<th>Motor Kw</th>
<th>Inlet/Outlet</th>
<th>Mounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF.20</td>
<td>2000-3000</td>
<td>1.5</td>
<td>To suit application</td>
<td>Variable</td>
</tr>
<tr>
<td>CF.30</td>
<td>3000-4500</td>
<td>2.2</td>
<td>To suit application</td>
<td>Variable</td>
</tr>
<tr>
<td>CF.45</td>
<td>4500-7500</td>
<td>4.0</td>
<td>To suit application</td>
<td>Variable</td>
</tr>
<tr>
<td>CF.75</td>
<td>7500-10000</td>
<td>5.5</td>
<td>To suit application</td>
<td>Variable</td>
</tr>
</tbody>
</table>

**PORTABLE FAN**

Models HW.8.P and HW.11.P. These two units have nominal air volume capacities of 1800 m³/hr and 2500 m³/hr respectively.

The units weigh 28Kg and 30Kg respectively. Units available for 110 volts single phase, 220/240 volts single phase and 415 volts three phase.

Ideally suitable for on-site construction work, building sites, tank air extraction, vehicle fume extraction etc.

The units can be used for blowing fresh air into a restricted space, in addition to extracting foul air out. Units available on swivel braked wheels, for additional mobility.

**The portable fan, with a large capacity.**

The Model HW.11.P is available on wheels, with push handle, and fitted with a 2m radius SMOG-RAMBLER, self supporting extraction arm/hood assembly – Model HW.11.P.12R.
HORIZON - EXHAUST TO ATMOSPHERE SYSTEMS

Exhaust to atmosphere systems are designed to suit client’s individual requirements. Systems range from a single extraction point to extensive systems covering any number of extraction points. Systems include for hoods/canopies as required, SMOG-RAMBLER extraction arms, and purpose made enclosures to suit site needs. Graded systems of both sheet metal and flexible ductwork link back to a suitably sized extraction fan, exhausting to atmosphere at a convenient point in the building structure.

Horizon design, manufacture, install and commission, together with on-going maintenance contracts.

HW.11.3 Extraction fans

CF.120 Fan Extraction system

HW.11.1 Fan with single 2m Smog-Rambler

HW.11.3 Fan, with twin 3m Smog-Rambler arms

CF.45 Fan Extraction system

CF.75 Fan Extraction system

CF.30 Fan Extraction system
HORIZON – FUTURE
Vehicle exhaust extraction systems

HORIZON-FUTURE vehicle exhaust extraction range starts with single station systems suitable for small/medium vehicles, wall or ceiling mounted, through to large multi-point collection systems suitable for both private cars and commercial vehicles. All systems are designed to exhaust to atmosphere.

Features available:

- 75, 100, 125, 150 & 200mm diameter hose systems.
- Self retracting spring recoil hose reels provide for hose free workshop floors by retracting hoses above head height when not in use.
- Remote control hose reels. Suitable for fitting high in the roof space, clear of overhead cranes, structural steelwork etc. Operated by cable/push button control, or infrared fingertip control from a range of up to 20m.
- End of hose extraction nozzles available in either steel, rubber or combination of both.
- Exhaust fume extract rails available, either straight or return configuration.

Horizon-Future vehicle exhaust extraction systems are carefully engineered to fit neatly into your premises. They provide high efficiency vehicle fume collection at source while discharging via the installed system to atmosphere. Horizon design, install, commission, and when required, maintain.
The Horizon-Future range of exhaust extraction hose reels are designed to be mounted at ceiling level or wall mounted, thus maintaining uncluttered floors and easy handling.

There are three options available, namely:

- Spring recoil hose reels- manually operated
- Motorised hose reels- cable/push button controlled
- Motorised hose reels- infrared remote controlled

Detailed below are standard hose reels available:

<table>
<thead>
<tr>
<th>REF. NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARN 75/7.5FT</td>
<td>Reel complete with hose 75mm diameter x 7.5m long, inclusive of hose stop</td>
</tr>
<tr>
<td>ARC 75/10FT</td>
<td>Reel complete with hose 75mm diameter x 10.0m long, inclusive of hose stop</td>
</tr>
<tr>
<td>ARC 75/12.5FT</td>
<td>Reel complete with hose 75mm diameter x 12.5m long, inclusive of hose stop</td>
</tr>
<tr>
<td>ARC 100/7.5T</td>
<td>Reel complete with hose 100mm diameter x 7.5m long, inclusive of hose stop</td>
</tr>
<tr>
<td>ARC 100/10FT</td>
<td>Reel complete with hose 100mm diameter x 10m long, inclusive of hose stop</td>
</tr>
<tr>
<td>ARC 125/7.5FT</td>
<td>Reel complete with hose 125mm diameter x 7.5m long, inclusive of hose stop</td>
</tr>
<tr>
<td>ARC 100/12.5FT</td>
<td>Reel complete with hose 100mm diameter x 12.5m long, inclusive of hose stop</td>
</tr>
<tr>
<td>ARC 125/10FT</td>
<td>Reel complete with hose 125mm diameter x 10.0m long, inclusive of hose stop</td>
</tr>
<tr>
<td>ARC 150/7.5FT</td>
<td>Reel complete with hose 150mm diameter x 7.5m long, inclusive of hose stop</td>
</tr>
<tr>
<td>MAX100/15FT</td>
<td>Reel complete with hose 100mm diameter x 15m long, inclusive of hose stop</td>
</tr>
<tr>
<td>MAX125/12.5FT</td>
<td>Reel complete with hose 125mm diameter x 12.5m long, inclusive of hose stop</td>
</tr>
<tr>
<td>MAX150/10FT</td>
<td>Reel complete with hose 150mm diameter x 10.0m long, inclusive of hose stop</td>
</tr>
</tbody>
</table>

The Horizon-Future mobile unit Model MK1 is simple to use and is supplied complete with mobile base, vertical support column with height adjustment, exhaust fan/motor assembly and Neoprene nozzle. The exhaust hose is determined by site conditions.

Simply wheel the unit into position over the vehicle exhaust and switch on. The unit is provided with a 0.55kw motor, the fan unit is rated at 1680 m³/hr.
Horizon design, manufacture, and install a wide variety of dust and fume extraction booths. The Horizon range of booths are designed to allow clients to comply with the current COSHH regulations and The Worker Protection Directive (Directive 1999/92/EC).

The range of booths include small bench mounted booths, machinery enclosure booths, through to large walk-in booths. Typical applications include GRP trimming, sanding, heavy foundry fettling, metal dust.

Low profile booths are available where required, filtered clean air can be recycled back to the workshop, or exhausted to atmosphere depending on the application. All booths are designed to ensure statutory exhaust rates are maintained.

Features include:
- EPA compliant
- Booths incorporate integral and/or free standing extraction/filtration units
- Filtration units incorporate filters selected for the application, to comply with COSHH regulations
- Optional integral lighting
- Flameproof build provided when required
- In-built work bench with down draft exhaust incorporated when required.
- Available for all electrical voltages
- Spark arrestors incorporated, when needed.
The Horizon Dry Filter Spray Booths are designed for rigorous industrial use. The booths can be constructed to any size according to client requirements. Standard design is open fronted, but booths with doors/air inlet filters are available. Standard filters comprise two sheets of heavy cardboard paper formed into double accordion folds, with staggered holes to provide a high efficiency, alternatively synthetic polyester media is available.

Extract fans are of the axial-flow type, only the fan blades being exposed to the air stream. The drive and motor are externally mounted. Flameproof motors available. Where required integral flameproof lighting, forms an integral part of the spray booth.

The Spray Booth construction is of heavy gauge steel plate, designed for on site assembly. The design allows for smooth internal surfaces, for easy cleaning.

All Spray Booths are complete with ductwork components to discharge through the nearest outside wall/roof, inclusive of weather plates and cowls, to suit client’s premises.
Horizon dust extraction units, Series AC-M, are designed for intermittent dust control problems. They are of rugged construction for vigorous industrial use, providing a high degree of reliability with consistent performance.

There are nine standard sizes to choose from, but units are offered built to special requirements/size.

To work in conjunction with the units, we offer a full site survey, design and construction of all necessary associated interconnecting ductwork, hoods, canopies etc to complete a dust control system.

Horizon AC-M dust control units are built as standard with needlefelt bag filter elements with tapered pockets of multi-vee configuration, however other materials are available to suit the individual application e.g. woven cotton.

The design allows for a choice of dust disposal method, and all maintenance e.g. filter element replacement are carried out on the clean side (collected dust is contained internally within the filter element).

The main fan/motor assembly is fitted on the clean side of the filter element, the motor for the cleaning mechanism is also fitted on the clean side of the filter element. A control panel is included incorporating a contactor/overload assembly for both the main fan/motor and the auto clean motor, the standard design allows the auto clean mechanism to function every time the unit as a whole is switched off.

Explosion relief vents are provided when necessary, and can be located on the rear of the main cabinet or on either side and are flanged for ductwork connection when necessary.

- Weatherproof construction available for external mounting
- Silencers available for low noise level applications
- Sub micron HEPA after filters available for secondary filtration
- Stainless steel construction and special finishes available
- Flameproof motors available
- Pre-separation sections / spark traps
- Dust bin liners can be fitted in connection with pressure equalising pipes
- Filter condition indicators available
- Filter elements available with flame retardant treatment, anti-static treatment etc
- Choice of bin size 75 or 150 litre capacity

**OPTIONAL FEATURES**

<table>
<thead>
<tr>
<th>Model</th>
<th>Approx Dimensions (mm)</th>
<th>Approx Weight Kg</th>
<th>Filter element area – m²</th>
<th>Approx air volume cfm</th>
<th>Approx air volume M³/hr</th>
<th>Total fan motor Kw</th>
<th>Assembly of body configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC5-M</td>
<td>820 740 1700 440 600</td>
<td>170</td>
<td>7.5</td>
<td>500</td>
<td>850</td>
<td>1.5</td>
<td>Single</td>
</tr>
<tr>
<td>AC10-M</td>
<td>820 740 2300 440 800</td>
<td>220</td>
<td>15</td>
<td>1000</td>
<td>1700</td>
<td>4.0</td>
<td>Single</td>
</tr>
<tr>
<td>AC15-M</td>
<td>1100 880 2600 480 800</td>
<td>330</td>
<td>22.5/30</td>
<td>1500</td>
<td>2550</td>
<td>7.5</td>
<td>Single</td>
</tr>
<tr>
<td>AC20-M</td>
<td>1100 1000 2600 550 800</td>
<td>360</td>
<td>30/45</td>
<td>2000</td>
<td>3400</td>
<td>11.0</td>
<td>Single</td>
</tr>
<tr>
<td>AC25-M</td>
<td>1700 1000 2600 550 800</td>
<td>470</td>
<td>37.5/60</td>
<td>2500</td>
<td>4250</td>
<td>15.0</td>
<td>Single</td>
</tr>
<tr>
<td>AC30-M</td>
<td>2280 1000 2600 650 800</td>
<td>540</td>
<td>45/80</td>
<td>3000</td>
<td>5100</td>
<td>15.0</td>
<td>Single/Double</td>
</tr>
<tr>
<td>AC35-M</td>
<td>2650 1000 2600 650 1000</td>
<td>660</td>
<td>50/90</td>
<td>3500</td>
<td>5950</td>
<td>18.5</td>
<td>Double</td>
</tr>
<tr>
<td>AC40-M</td>
<td>3050 1000 2600 750 1000</td>
<td>780</td>
<td>60/100</td>
<td>4000</td>
<td>6800</td>
<td>18.5</td>
<td>Double/Triple</td>
</tr>
<tr>
<td>AC45-M</td>
<td>3400 1000 2600 750 1000</td>
<td>880</td>
<td>70/100</td>
<td>4500</td>
<td>7650</td>
<td>18.5</td>
<td>Triple</td>
</tr>
</tbody>
</table>

All data is approximate only. Units are assembled to suit the project characteristics. Certified dimensioned drawings with detailed specification available on request.
Horizon design, manufacture and install a wide range of cyclones together with supporting steel structures. Cyclones usually form part of a complete dust extraction system providing the role of primary large particulate separator. Motorised rotary valves are available for collected dust disposal.

Canopies/hoods designed, manufactured, and installed to suit all applications. The design of a suitable hood/canopy to provide at source dust/fume collection, is a vital part of an integrated dust/ fume removal system. Hoods/canopies manufactured from steel, aluminium, stainless steel, etc to suit the application.

Supporting steelwork, bracketing, forms part of the hood/canopy design.

Most central station high-level dust/fume extraction plants require a maintenance platform. Horizon design, manufacture and install access/maintenance platforms, complete with access ladders/stairs, safety handrails etc, to comply with all current legislation.

Horizon undertakes the design, manufacture and installation of all associated ductwork required for associated dust/fume removal systems. Ductwork, either round or rectangular, manufactured from galvanised steel, heavy gauge steel plate, aluminium, stainless steel, are all supplied to suit the particular needs of the project. Computerised design facilities promote the most efficient ductwork sizing coupled with minimum fan power requirements. Site surveys carried out together with proposal drawings submitted.
What is Radiant Heat?
Radiated heat is similar to light, it does not warm the air through which it passes, but directly heats objects such as men or machines. Like light, radiated heat can be reflected to concentrate the heat where it is needed i.e. at the working level.

How does it work?
HEAT-RAD provides warmth via radiated heat, assisted by the polished reflectors forming an integral part of the units. Unlike other systems e.g. warm air systems, HEAT-RAD does not waste fuel by heating the roof space before the benefit reaches the shop floor. HEAT-RAD does not create convection but warms walls, floors and machinery to form a heat reservoir. This means that the system is switched on only a short time before work begins, with no wasted energy by the system having to warm the building prior to occupation.

What is HEAT-RAD?
HEAT-RAD is a highly efficient gas-fired tubular heating unit. An automatically controlled burner unit is connected into one end of a wide bore steel tube, at the other end a suction fan ensures that after ignition, hot gases and air are drawn through the tube which gets hot and radiates heat to the area below.

Why choose HEAT-RAD?
HEAT-RAD is manufactured in Bristol by Horizon, and is backed by a team of engineers to advise on technical surveys, sales and after sales service.

The HEAT-RAD radiant heating system provides a fast and controllable heat, they occupy no floor space and provide for substantial fuel savings over other systems, by avoiding long warm-up periods or round-the-clock heating. They can also be used to heat occasional work areas, bringing them up to adequate comfort levels without the need for permanent background heating.

HEAT-RAD radiant heating systems have been tested and examined by British Gas and found to comply with the essential requirements detailed in Annex 1 of the European Gas Supplier’s Directive (90/396/EEC), Certificate No. BG/EC-87/96/212. The manufacture of HEAT-RAD units is monitored by British Gas, Certificate of Registration No.ECS-00134 and Horizon International are authorised to place the CE mark and the British Gas Notified Body identification symbol (0087) on HEAT-RAD products.
The resources of HORIZON provide for a continuous programme of investment in research and development.

BUY DIRECT FROM THE MANUFACTURER, FOR INSTALLATION BY YOURSELVES OR OTHERS:

ALTERNATIVELY ASK HORIZON FOR A QUOTATION FOR A FULLY INSTALLED SYSTEM

- FREE SURVEY & SYSTEM DESIGN
- FULLY GUARANTEED
Four standard control panels for zone control i.e. single, two, three and four zone are manufactured. Each panel incorporates a digital time clock, mode switches, indicating lights, on/off switches and the appropriate number of MAX-ECON black bulb sensors.

A wide variety of control panels built to order, are available from Horizon - built to customer/project specification.

---

**U-TUBE UNITS**

There are three sizes available:

<table>
<thead>
<tr>
<th>MODEL</th>
<th>RATING</th>
<th>AREA SERVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR.45/HR.45.FD</td>
<td>13kw (45,000 Btus/hr)</td>
<td>37 - 68 Sq.m (400 - 700 sq.ft) when mounted at 3.0 - 4.5m (10'0&quot; - 14'6&quot;)</td>
</tr>
<tr>
<td>HR.75/HR.75.FD</td>
<td>22kw (75,000 Btus/hr)</td>
<td>68 - 102 Sq.m (700 - 1100 sq.ft) when mounted at 3.6 - 6.0m (12'0&quot; - 19'6&quot;)</td>
</tr>
<tr>
<td>HR.130/HR.130.FD</td>
<td>38kw (130,000 Btus/hr)</td>
<td>102 - 186 Sq.m (1100 - 2000 sq.ft) when mounted at 4.25 - 15.0m (14'0&quot; - 50'0&quot;)</td>
</tr>
</tbody>
</table>

**STRAIGHT-TUBE UNITS**

There are three sizes available:

<table>
<thead>
<tr>
<th>MODEL</th>
<th>RATING</th>
<th>AREA SERVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL HR.45.S</td>
<td>45,000 Btu/hr (13kw)</td>
<td>6320</td>
</tr>
<tr>
<td>MODEL HR.75.S</td>
<td>75,000 Btu/hr (22kw)</td>
<td>8290</td>
</tr>
<tr>
<td>MODEL HR.130.S</td>
<td>130,000 Btu/hr (38kw)</td>
<td>10,940</td>
</tr>
</tbody>
</table>

**HORIZON RADIANT HEATING CONTROLS**

- Radiant heating for industrial and commercial buildings.
- Save energy, heat your working area, not your roof space!
- No floor space needed, wall mounted or suspended overhead.
- Gas fired, fully automatic, high efficiency.
- Suitable for Natural Gas, Propane, L.P.G. Easily converted from one gas to another.

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**FD MODELS**

All units listed below can be provided with FD Burner Boxes, which are designed to accept a ducted supply of fresh air to the burner box, rather than take air for combustion from the heated space.

**‘OCTOPUS’ SYSTEM**

Available for models HR45 and HR75.

The ‘Octopus’ system is a number of either ‘U’ tube units, or straight tube units, collectively flued to outside. Suitable for buildings where total flueing is required. Up to a maximum of 10 heaters per system.

**MAX-ECON**

Black bulb temperature controllers

The Horizon MAX-ECON comprises a remote mounted sensor, for locating within the heated space, and an electronic thermostat, which can be mounted where convenient e.g. Manager’s office, Plant Room, etc. The MAX-ECON provides extremely accurate comfort control by continuous monitoring of air velocity, mean radiant temperature and air temperature, resulting in maximum energy conservation.

The sensor has no adjustment, therefore preventing unauthorised interference. The temperature setting is adjusted on the electronic thermostat. The unit incorporates a night set-back facility, to provide a reduced temperature for night operation, controlled by an optional time clock.

Suitable for controlling a single HEAT-RAD or a group of HEAT-RAD units. Sensor can be mounted up to 250 meters from the thermostat unit.
Lower Temperature Gradients (Lower heat loss through roof)
Most forms of heating maintain a considerable temperature gradient between working level and roof level - Heat-Saver units are designed to substantially overcome this gradient and maintain a low temperature differential.

No Maintenance
Once installed, the units require no maintenance and the power consumption of the units themselves is insignificant.

Fully automatic Control
This is available to allow the units to come into operation as soon as useful heating is available, without waiting for excess temperature.

Summer Ventilation
During hot periods the Heat-Saver may be used as a ventilator, to guarantee a certain movement of air and therefore providing a sense of freshness.

How many units required
Calculate the volume of unused roof space (buildings with flat roofs, allow 600mm height). Multiply by 5, divide by 60, divide by 2000 - this gives you the number of Heat-Savers required. We recommend however contact with our technical department for further advice as other factors often affect the correct selection, e.g. type of factory heating installed.

ADVANTAGES

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Fan Unit</th>
<th>Double inlet forward curved centrifugal. Speed 900 rpm, for exceptionally low noise level.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Volume</td>
<td>3400 M³/hr</td>
</tr>
<tr>
<td>Weight</td>
<td>32 Kg</td>
</tr>
<tr>
<td>Length of throw</td>
<td>Adjustable between 4.6m - 18.3m</td>
</tr>
<tr>
<td>Main Casing</td>
<td>18 gauge zintec coated steel sheet, primed and finished painted</td>
</tr>
<tr>
<td>Dimensions</td>
<td>500 x 480 x 530mm high</td>
</tr>
<tr>
<td>Air inlet</td>
<td>Combination Air Inlet Grille/ Protection Guard fitted</td>
</tr>
<tr>
<td>Outlet grille</td>
<td>Four way, fully adjustable warm air outlet grille</td>
</tr>
<tr>
<td>Control</td>
<td>On/off adjustable thermostat mounted on unit casing</td>
</tr>
</tbody>
</table>

saves money by redirecting warmed air from roof to floor - automatically
SOME USERS OF HORIZON EQUIPMENT

ABB Daimler Benz
ABRO - MOD
Accustafom
Acoustat
ACR Heat Transfer
Advanced Handling
AEA Technology
AEI Cables
AES Engineering
AFOS
Air Products
AJT Engineering
Albright & Wilson
Alcan Rolled Products UK
Aldridge Fabrications
Alfred Herbert
Alfred MacAlpine Plant
Alloy Wheels
Alstom
Alumasc
ANCA
Applied Rubber Linings
Ascari Cars
ASG (Accessories)
Associated Dental
Aston Price
Averon Engineering
ASW
A W Plume
Baker & Finnemore
Baker Oil Tools
Barlow Handling
Bassett & Findley
Beldray
Bendix
Benjamin R Vickers
Benson Signs
Bernard Matthews Foods
BOC Edwards
BOCM
Boscarroll
Boots
Bosal Industries
Brandt Varco
Britannia Zinc
British Aerospace
British Airways
British Mids
British Midland Tool
British Pipe Coaters
British Steel
British Airways
Britvic
Brush Electrical Machines
BSS Steel Service
Caburn-MDC
Caledonian Alloys
Campbell Scientific
Castrol
Centrovac UK
Ceramic Engineering
Chase Polythene
Chasix Developments
Chesire Vehicle Windows
Chubb
Classics Mantels
Compair Maxam
Conway Engineering
Co-Steel Sheerness
County Enterprises
Courages
CPS Flexible
Crazy International
Cutting & Wear
D C Thomson
DAC Plant
Daimler-Benz
Daniel Industries
DARA - MOD
David Bowler & Sons
Daiya
De Beers
De La Rue
Denso Marston
Devon Council County
Dowding & Mills
DSND Subsea
Ductile Wesson
Dun-Fab
Dupont
Econ Engineering
Edbro Scotland
Egypt Air
Ellison Metal Products
Eurocarb Products
Facet International
Federal Mogul
Fitzgerald Lighting
Ford Motor
Foseco
Fox's Marina
F W Talbot & Co
Galtec
G Bopp & Co
GEC
General Motors
George Fischer Castings
Giddings & Lewis
Gold Star
Greenway Lubricants
Grindwell
Hatlen Unirust
Halifax Fan
Han Jin Industries
Hardtech Precision
Harris Springs
Hardy Spicer
Hattersley Newman
Hayward Tyler
Healy Bearings
Heights Design
Hopworth Building
Hewden Stuart
Highland Engineering
H & H Celcon
Hi-Tech Sheet Metal
HM Naval Base
H M Prison Service
Hoebicht Trespaham
Holden Surface Coatings
Holroyd Components
Honda UK
Howden Buffalo
Howden Calidair
H S Simons & Co
Hunting Park Engineering
Hyundai
ICI
ICM Plastic Mouldings
ICR
Illford
IMI Refineries
IMI Yorkshire Fittings
Inco Alloys
IP Technology
James White & Sons
J & R C Wood
JLT Engineering
John Cran (UK)
Johnson Controls
Jones & Wright
Kenton Engineering
KIA Motors
Knorr-Bremse
Kodak
Landis Lund
Lansing Linde
 Lockheed
Lionel Kennedy
Linn Products
Lisher Petter
Loma Systems
London Northern
London Underground
Lowery & Fletcher
Macduff Shipyards
Marley Building Systems
Marley Roof Tiles
Marshalls Mono
Marshspace
McLaren Cars
McLaren Composites
Martin Aircraft
Metal Castings
Michell Bearings
Midland Pneumatics
Ministry of Defence
Mitsui-Babcock
Monarch Airways
Morito Smurag
NARO Almondbank
NBS Cryo Research
NEI
Nelson-Burgess
Newmont Engineering
Niagara LaSalle

Nippert-Dawson
OK UK
Paddy Hopkirk Ltd
Pantec Engineering
Parker Hannin
Parker Storage Systems
Pegler
Pennine Windows
Penny Hydraulics
Phillips
Phoenix Engineering
Pilkington Technical
Plessey
Polyform Plastic
Polyvirs
Portakabin
President Furniture
Prestige Group
Presto Tools
Proctor Bros
Q-Peanuts
Radleigh Engineering
Record Industrial Brushes
R E Bowers Freeman
Redman Fisher
Renold Chain
Richard Irvin & Sons
Ricoh UK Products
R McIvor & Sons
Rolls Royce
Ronco
Ro-Rand Industries
Rowntree Mackintosh
Strathclyde Broadcast
Russell Finex
Ruston Gas Turbines
Ryeford Engineering
Saint Gobain Pipelines
Samas Roneo
Samuel Heath & Sons
Schenck
Sealey Quality Machinery
Selwood
Severn Glycon
Sharkie & Huntbach
Sheffield County Council
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St James Univ Hospital
Standard Manufacturing
Stevens & Carlotti
St Martins Property Corp
Sun Valley Foods
Technicusat
Teconex

Tenmat
Thermal Design
Thermos Ltd
Thompson Marconi
Thysjen Garfield
Tinsley Wire
Titman Tip Tools
Tilton Hardware
Tornos Technologies
Trane (UK)
T Saverker
TTI Group
Tungsten Manufacturing
UK Fire International
Ultralite Batteries
UMIST
Unicorn Abrasives
Unipart Industries
Unistrut
United Distillers
United Springs
Vauxhall Motors
VAV Foundries
Venture Oilfield Services
Vesuvius
Vickers Aerospace
Vickers Precision
VIP-Heinke
Voith Sulzer
VSEL
Wafer Technology
Wagon Automotive
Walker & Holmes
Wales Electrical
WAP Watson
Wastechern
W B Maching
WCF Potatoes
Weir Engineering
Welsh Boxes
Weston Joinery
Wessex Water
Westley Brothers
Westover Technology
W H Allen
Whitbread & Co
W H Newson
Widney Enclosures
Wiggin Special Metals
Wilkinson Sword
Willenhall Tube
Wilton Bradley
Wix Filtration Products
Wolesley Centers
Wood Group Aero
Wrayram Engineers
Wrekin Fabrications
Wyko
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