

radiant heating systems

AMBI-RAD

**energy saving
heating for industry**

How your company can benefit from

AMBI-RAD

NEXT BEST THING TO THE SUN

AMBI-RAD is an energy saving heating system for industrial and commercial buildings. It heats by radiation in exactly the same way as the sun. The infra red heat rays are directed downwards by the AMBI-RAD on people working in the building and they feel an immediate sensation of warmth. At the same time the floor and surroundings absorb radiation and become secondary emitters producing an all-round radiant warmth.

LOWEST FUEL CONSUMPTION

The desired comfort level is achieved with an air temperature several degrees lower than would be necessary with an air heater system. Result is reduced heat losses from the building and lower heating bills. Savings of between 25–50% are usually possible. Ask us for actual case histories.

OVERHEAD MOUNTED

Takes up no valuable floor space permitting maximum productive use of the working area. Suspended at high level the heaters are less vulnerable to accidental damage.

ROOF HEAT LOSSES REDUCED

Warmth is concentrated where it is most needed, in the lower occupied levels of the building thereby eliminating the high roof temperatures normally associated with warm air systems and avoiding the need for costly roof insulation programmes.

LOW INSTALLATION COSTS

Capital cost is about half of the equivalent central boiler system and approximately equal to that of a ducted warm air system. Payback of under two years is frequently achievable.

UNIFORM WARMTH

Floors, walls, machinery and stock absorb heat, become secondary emitters, producing an all round radiant comfort level and sense of well being for the occupants of the building.

RAPID AIR MOVEMENT ELIMINATED

Ideal in dusty atmospheres such as the foundry or where a dust free environment is essential for example a printing works or showroom.

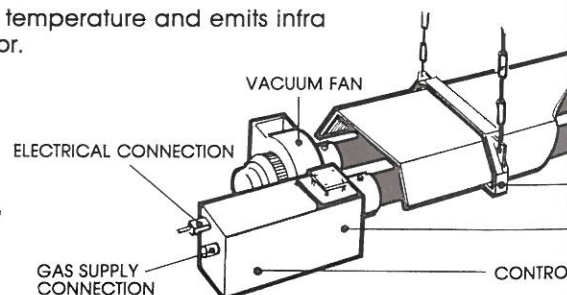
The AMBI-RAD heater consists of two parallel radiant tubes connected at one end by a return bend and positioned below a polished stainless steel reflector. An automatic gas burner fires into the mouth of one tube and the hot gases are drawn down through this and back along the second tube by a small suction fan mounted at the outlet end.

After switching on the heater the radiant tube quickly reaches operating temperature and emits infra red heat which is directed downwards into the working area by the reflector.

The burner incorporates full flame monitoring and safety interlocks to comply with British Gas requirements.

The AMBI-RAD heater may be suspended from the ceiling by chains or drop rods or may be inclined and mounted on the walls. Adjustable wall mounting brackets can be supplied on request.

The AMBI-RAD heating installation may be controlled by room thermostat, time switches, zone controls and manual controls etc to clients specific requirements.



AUTOMATIC IN OPERATION

Control systems are easily incorporated to provide total control of the heating installation. Separate zones with individual temperature and working period requirements can be arranged for maximum fuel economy and comfort.

FULL SAFETY INTERLOCKS

Programmed burner with pre-purge, electric ignition start up, and flame monitoring together with continuous air flow proving provide constant safety supervision of the heater units.

DURABILITY AND EASE OF SERVICING

AMBI-RAD radiant heaters are robustly constructed for industrial use. They incorporate polished stainless steel reflectors, easily detachable for cleaning when located in a dirty environment. The burner and fan are easily detached for servicing and all main electrical components are provided with plug-in connections. The return bend is similarly detachable.

FLEXIBILITY OF INSTALLATION

Integral suspension brackets may be adjusted to various mounting centres to align with roof trusses etc and variable angle wall mounting brackets can be supplied. A full range of heaters is available to match the individual requirements of every project without compromise.

ALTERNATIVE FLUEING ARRANGEMENTS

Heaters can be installed without flues, with individual flues or with a collective flue, depending on model. Unflued installations must be designed to comply with Building Regulations Section M9. Refer to AMBI-RAD installation instructions booklets. Fresh air inlet duct connections to burner can also be provided for use in fume laden atmospheres.

ER22

This mid-range heater satisfies the needs of most industrial and commercial heating projects. It has a floor coverage ability generally in the range 750 to 1100 sq. ft. per unit. Recognised as the leader in its field there are many thousands of ER22 heaters in use in Britain and Europe and applications range from a heavy press shop with heaters at 58 ft from the floor, through railway workshops, engineering works, garage premises to squash courts and community halls.

ER13

The AMBI-RAD Compact is ideal for the modern well insulated factory with a heat requirement lower than in traditional industrial buildings. With a minimum mounting height of only 9 ft the Compact is also suitable for low roofed areas, small workshops, squash courts etc. It incorporates all the safety features of the above unit and is suspended or wall mounted from its two adjustable mounting brackets.

ER38

The AMBI-RAD HIGH-BAY largest in the range and intended for the higher industrial building or areas of high heat loss. Employing stainless steel for the first emitter tube, it combines high heat output with compact overall dimensions and light weight for ease of installation and minimal roof loadings. In common with all AMBI-RAD heaters the ER38 incorporates a totally enclosed housing for the burner controls which ensures reliability by keeping all control components factory fresh and dust free.

HB22

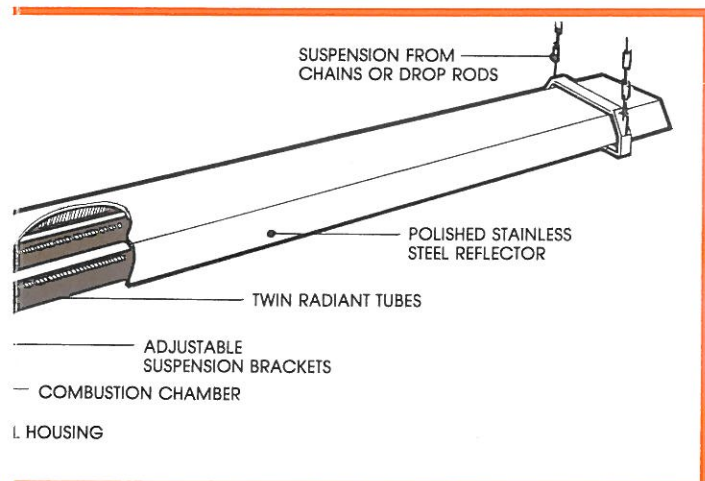
The AMBI-RAD Herringbone System incorporates up to ten linear heater units, each of 22 kW rating and just one vacuum fan all linked together by a lightweight easily erected manifold. Full flame protection and vacuum proving is provided at every burner. Specially useful in buildings where flueing is essential as only one flue is required for each ten heaters.

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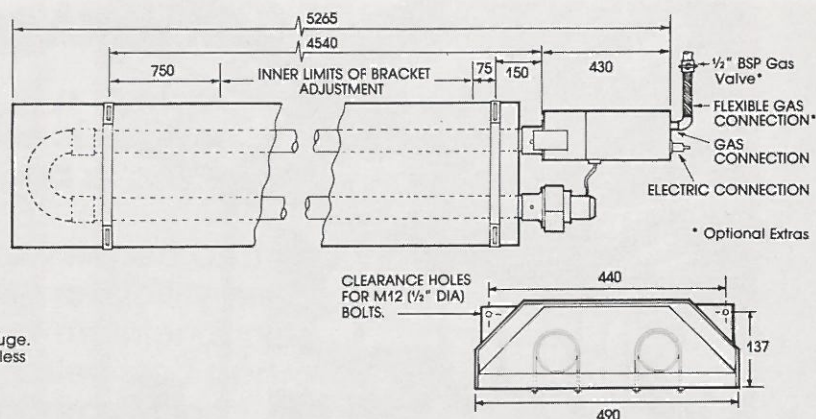
TECHNICAL DATA - MODEL ER22

Reference No	GC 36 229 01
Input	22 kW (75,000 BTU/Hr)
Combustion Efficiency	Range 80 - 84%
Supply Size	1/2" B.S.P. (Male)
Inlet Gas Pressure	Natural Gas 13 (5) Propane 30 (12)
M.Bar (in W.G.)	40 (16)

Electrical Supply	240v 1 phase 50 Hz
Current rating	0.33 amp max. (inductive)
Fuse rating	1 amp internal
Installed Weight	92 Kg (206 lb)
Just Flue (optional)	125mm (5") dia.

Mounting Heights (Minimum)	3.6m (12')
Horizontal	3m (10')
Inclined/Wall Mounted	

Ignition: Electronic
Programme start-up
with spark ignition.
Emitter tubes: 76mm (3")
Outside dia. 3.65mm gauge.
Reflector: 22 S.W.G. Stainless
Steel Type 430

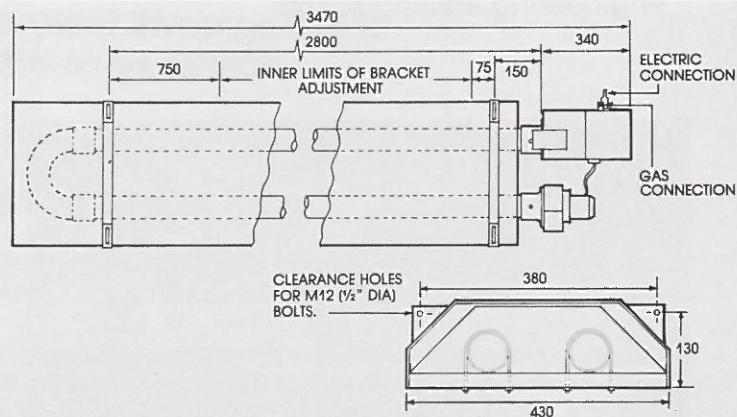


TECHNICAL DATA - MODEL ER13 Compact

Reference No	36 229 03
Input	13 kW (45,000 BTU/Hr)
Combustion Efficiency	Range 80 - 84%
Supply Size	3/8ths" B.S.P. (Male)
Inlet Gas Pressure	Natural Gas 13 (5) Propane 30 (12)
M.Bar (in W.G.)	40 (16)
Electrical Supply	240v 1 phase 50 Hz
Current rating	0.33 amp max. (inductive)
Fuse rating	1 amp internal
Installed Weight	56 Kg (126 lb)
Just Flue (optional)	100 mm (4") dia.

Mounting Heights (Minimum)	3m (10')
Horizontal	3m (10')
Inclined/Wall Mounted	2.7m (9')

Ignition: Electronic
Programme start-up
with spark ignition.
Emitter tubes: 60 mm (2 3/8")
Outside dia. 3.65mm gauge
Reflector: 22 S.W.G. Stainless
Steel Type 430



TECHNICAL DATA - MODEL ER 38 High-Bay

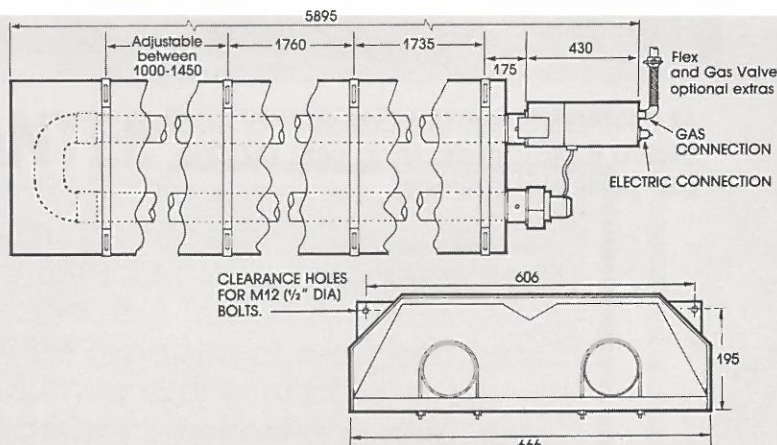
Input	38 kW (130,000 BTU/Hr)
Combustion Efficiency	Range 80 - 84%
Supply Size	1/2" B.S.P. Male
Inlet Gas Pressure	Natural Gas 16.5 (6.5) Propane 30 (12)
M.Bar (in W.G.)	50 (19.6)

Electrical Supply	240V 1 phase 50 Hz
Current rating	0.33 amp max (inductive)
Fuse rating	1 amp internal

Installed Weight	101 Kg (226 lbs)
Just Flue (optional)	125 mm (5") dia.

Mounting Heights (Minimum)	4.25m (14')
Horizontal	4.25m (14')
Inclined/Wall Mounted	3.6m (12')

Ignition: Electronic
Programme start-up
with spark ignition.
Emitter Tubes: 1st pass.
101.6mm (4") Outside dia.
Stainless Steel Type 304
2nd pass 101.6mm (4")
Outside dia. Mild Steel
Reflector: 22 S.W.G. Stainless
Steel Type 430



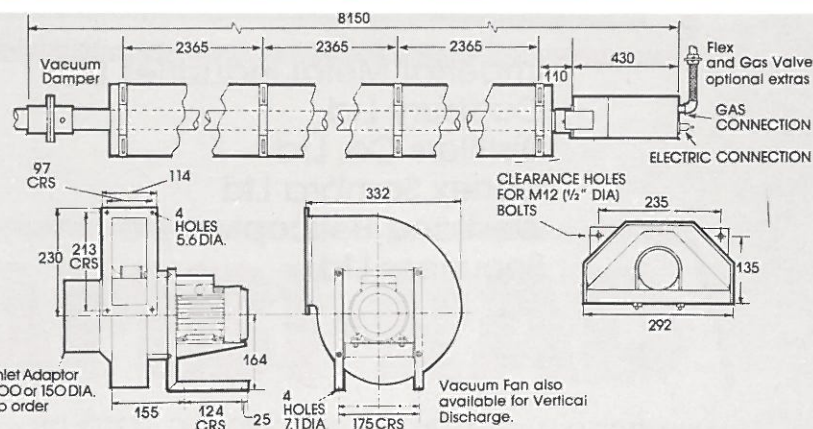
TECHNICAL DATA MODEL HB-22 HERRINGBONE

Reference No.	36 229 02
Input per unit	22 kW 75,000 BTU/Hr
Combustion Efficiency	Range 84 - 90%
Supply Size	1/2" B.S.P. Male
Inlet Gas Pressure	Natural Gas 13(5) Propane 30 (12)
M.Bar (in W.G.)	40 (16)

Electrical Supply	440V 3 phase 50 Hz or 240V 1 phase 50 Hz optional
Current rating per burner	0.33 amp max (inductive) 0.8 amp. 3 phase or 1.4 amp. 1 phase.

Installed Weight	89 Kg (200lb)
Heater Unit	10.5 Kg (23 lbs)
Just Flue	150 mm (6")
Mounting Heights (Minimum)	3.6m (12')
Horizontal	3m (10')
Inclined/Wall Mounted	

Ignition/Controls: Electronic
Programme start-up to
each burner after
individual automatic
vacuum proving
Emitter tube:
76mm (3") outside dia.
4.0mm gauge.
Reflector: 22 S.W.G.
Stainless Steel type 430
Manifold tube:
Pure aluminium.

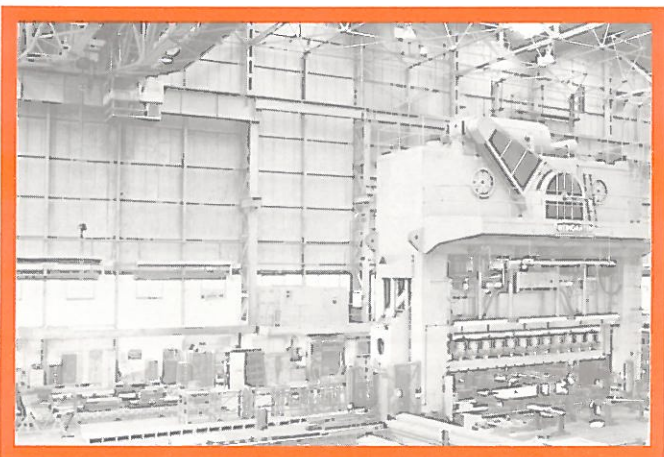




An application of AMBI-RAD heaters in an engineering training school.



Earlier cropping and reduced heating costs were among the advantages reported from this Glasshouse application.



AMBI-RAD solved the problem of heating this 70 ft high press shop with £50,000 per year fuel savings.



The AMBI-RAD HERRINGBONE system installed in a multi-story factory complex.

Our many satisfied customers include the following

Imperial Metal Industries Ltd.
Cadbury Ltd
Distillers Co. Ltd
Conex Samba Ltd
Westland Helicopters Ltd
Securicor Ltd.

Unigate Ltd
Rediffusion Ltd.
Hawker Siddley Group
British Rail
British Telecom
Cambridge University.

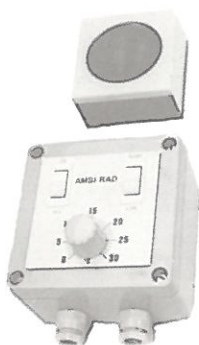
Why choose AMBI-RAD?

AMBI-RAD is the product of a team of engineers with an in-depth experience of this type of heating, of the market needs and of gas engineering.

The product range has been developed and expanded to offer optimum efficiency with reliability and ease of installation and maintenance

All safety controls are tested and approved by British Gas Corporation.

Our clients may be assured that a personal service will be provided from preliminary project investigation to completion and full after-sales service.



THE AMBI-RAD BLACK BULB THERMOSTAT

Air temperature has long been used as a convenient measure of warmth but there are many cases where it is unsatisfactory and misleading.

The AMBI-RAD Black Bulb Thermostat monitors the combined effects of air temperature, mean radiant temperature and air velocity and controls the heating installation so as to provide the selected constant level of environmental warmth. Ask for data sheet.

GUARANTEE

All AMBI-RAD radiant heaters are guaranteed for a period of 12 months from the date of delivery by AMBI-RAD LTD. Any component or sub-assembly which fails due to defective materials or workmanship during this period will be repaired or replaced free of charge by the manufacturer if returned carriage paid to our works. This guarantee is offered as an extra benefit and does not affect the client's legal rights.

AMBI-RAD

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