



AMBIRAD

ENERGY EFFICIENT RADIANT TUBE HEATING SYSTEMS

Product Overview





Maintenance sheds



Warehouses



Sports facilities

AMBI RAD

Energy Efficient Radiant Tube Heating Systems

As one of the world's leading manufacturers of gas fired radiant heaters, AmbiRad's mission is to continue the development of its world class status in providing energy efficient heating solutions.

The company strategy is to meet the needs of industrial and commercial customers worldwide through a supply based service to contractors, specifiers and facilities managers.

AmbiRad solutions in practice

The selection of an appropriate heating design is dependent on the nature and requirements of the specific building concerned. Our expertise ensures that the ideal solution is found for each particular situation.

AmbiRad has successfully installed energy efficient heating systems in a multitude of applications, bringing the benefit of energy savings to thousands of businesses worldwide

For further information visit www.ambirad.com/us

Customer Service and Design

For your support, AmbiRad radiant heating systems are backed by in-house engineering and technical staff, along with a team of regional distributors. This comprehensive customer service package includes Computer-Aided Design (CAD), building heat loss/fuel cost calculations, on-site support, training and system start-up.

Solutions that take heating efficiency to a new level

AmbiRad Group develops and manufactures high quality, environmentally friendly, energy and cost-efficient heating systems, fuelled by natural gas, LPG. All products are certified to ISO 9001:2000 accreditation, tested and approved to the CSA standard.

Radiant Heating

Working in the same way as the sun, radiant heat warms all solid objects and surfaces in its path through electromagnetic waves. Being mounted overhead, AmbiRad radiant heaters produce infrared heat that is directed downwards to low level by a reflector.

Radiant heat:

- > Is emitted by a hot surface
- > Travels in straight lines
- > Passes through the air without heating it
- > Is absorbed by cooler solid objects on which it falls
- > Effective in extremely high ceiling applications

Reduced Environmental Impact

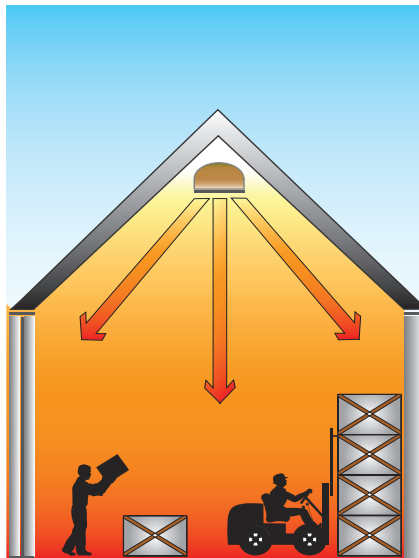
AmbiRad radiant heating is among the most environmentally friendly heating solutions on the market, greatly assisting industry and commerce in improving their overall energy performance and making a significant contribution to achieving compliance with the LEED (Leadership in Energy and Environmental Design) green building rating system, which encourages the adoption of green building practices:

- > Radiant heat achieves this because it:
- > Supplies heat to occupied levels
- > Heats the 'work zone' not the ceiling
- > Reduces transfer of heat from the building envelope
- > Speeds recovery when using open doors
- > Delivers savings of 30% - 70%
- > Often significant electrical savings
- > Lowers maintenance and service contract costs
- > Can be zone controlled
- > Lowest Nox emissions

Universal Application

The flexibility of design provided by AmbiRad products ensures their suitability and competitiveness in wide ranging applications, from traditional environments such as large, high bay, high air change industrial and commercial buildings, together with smaller scale facilities such as auto service bays and workshops.

Solutions that can reduce fuel costs by up to 70%



Military facilities



Factories



Auto dealerships



Product Selection Guide

| Model | | Radiant Efficiency | Thermal Efficiency | Type of Brackets | Reflector Materials | Tube Materials | Venting |
|---------|-------------|--------------------|--------------------|-----------------------|---|---|---------------------------|
| VPLUSHE | | High | Industry Std | SS Wire | Stainless Steel | Stainless Steel Cold rolled steel ThermaSteel Aluminized | 1 to 2 heaters |
| VPLUS | | High | Industry Std | Wire | Aluminum Alumusteel Stainless Steel | | 1 to 2 heaters |
| VS | Standard | High | Industry Std | Bolt in place | | | 1 to 2 heaters |
| | Herringbone | High | High | Bolt in place | | | Up to 10 heaters per vent |
| VSX | | Very High | Very High | Bolt in place | | | 1 to 2 heaters |
| ARC | Standard | Industry Std | High | Wire or Bolt in place | | As above, plus porcelain tubing and schedule 40 iron pipe | Up to 35 heaters per vent |
| | Modulating | Industry Std | Very High | | | | |

VISION RANGE

Vision Radiant Tube Heating Systems

Introduction

Renowned for its pioneering track record, AmbiRad, a leading supplier of radiant tube heating systems, has yet again raised the industry standard in terms of innovation and technical performance.

The new range of high efficiency Vision radiant tube heaters delivers exceptional performance in terms of efficiency and the potential to reduce energy costs.

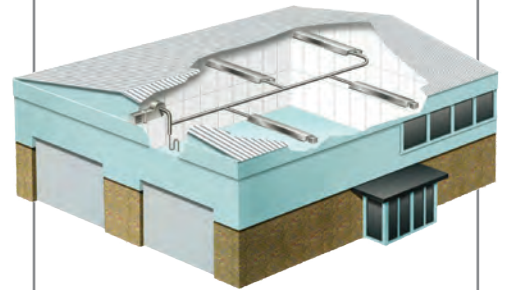
The cornerstone of this exciting new development has been the introduction of a new high efficiency advanced burner.

Features

- > Peak flame temperatures are reduced, resulting in 40% reduction in NOx levels (55ppm on certain models)
- > Virtually no combustion noise - 15dB(A) lower than typical standard tube heaters at 47dB(A)
- > New slim-line burner head provides a long evenly distributed flame that is 4 to 5 times longer than standard tube heaters
- > All units require minimal maintenance

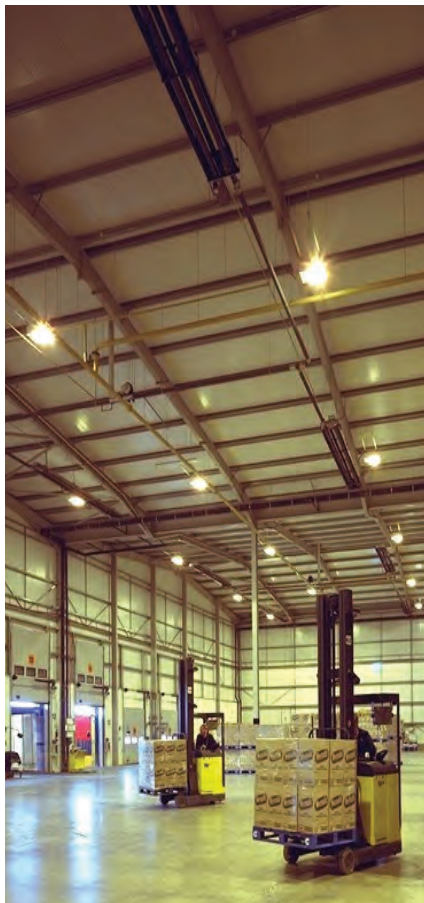
VS Range - Herringbone

Herringbone systems are specifically designed to suit individual building requirements; they can incorporate up to ten 'U' tube or linear heaters on one exhaust manifold. The exhaust manifold may be terminated through the roof or wall.



The particular benefits of herringbone systems are:

- > U-tube, straight or double straight models may be arranged in virtually any configuration
- > Optimized energy efficiencies
- > All units share a common internal vent thereby raising efficiency within the building
- > Common exhaust fan for 2-10 heaters
- > Aluminium or porcelain corrosion resistant manifold
- > Minimum vent penetrations
- > Zone control flexibility
- > Quieter operation



Distribution centers



Loading dock areas



VISION RANGE

Vision Radiant Tube Heating Systems

VPLUS Model Range

Powered burner / push type

Vision VPLUS heaters are available in straight line and u tube configurations, with burner ratings ranging from 40,000 to 200,000 BTUs.

VPLUS two stage heaters have a totally enclosed burner and fan housing and are available in standard white paint finish or stainless steel with a turndown of 30%



The VPLUS (HE) range of heaters are also available for outdoor and harsh environments (HE); i.e. car washes and agricultural applications. These units include a water resistant SS burner housing

Technical Data

| Model | | VS40 | VS60 | VS80 | VS100 | VS125 | VS150 | VS170 | VS200 |
|---|-------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Nominal gross heat input | Btu/h | 40,000 | 60,000 | 80,000 | 100,000 | 123,500 | 150,000 | 170,000 | 200,000 |
| Two stage low fire heat input | Btu/h | 31,000 | 40,000 | 60,000 | 65,000 | 95,000 | 100,000 | 125,000 | 150,000 |
| Length - U tube, min/max | ft | 12 | 12 - 22 | 12 - 22 | 22 | 22 - 32 | 22 - 32 | 32 - 42 | 32 - 42 |
| Length - Two Stage U tube, min-max | ft | 12 | 12 - 22 | 22 | 22 | 22 | 22 - 32 | 32 | 32 |
| Length - Straight line, min-max | ft | 12 - 32 | 22 - 42 | 22 - 42 | 32 - 52 | 42 - 62 | 42 - 72 | 52 - 82 | 52 - 82 |
| Length - Two Stage straight line, min-max | ft | 12-22 | 22 - 42 | 32 - 42 | 32 - 42 | 32 - 52 | 42 - 62 | 52 - 72 | 52 - 72 |
| Total installed weight, min-max | lbs | 66 - 153 | 110 - 199 | 110 - 199 | 153 - 244 | 199 - 289 | 199 - 328 | 244 - 372 | 244 - 372 |

VS Model Range

Induced burner / vacuum type

The VS range is available in U tube and straight line models with burner ratings from 40,000 to 200,000 BTU's



Technical Data

| Model | | VS40 | VS60 | VS80 | VS100 | VS125 | VS150 | VS170 | VS200 |
|---------------------------------|-------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Nominal gross heat input | Btu/h | 40,000 | 60,000 | 80,000 | 100,000 | 125,000 | 150,000 | 170,000 | 200,000 |
| Length - U tube, min/max | ft | 12/18 | 18 | 18 | 20 | 20 | 25 | 25 | 25 |
| Length - Straight line, min-max | ft | 20 - 30 | 20 - 40 | 20 - 40 | 30 - 50 | 40 - 60 | 40 - 70 | 50 - 80 | 50 - 80 |
| Total installed weight, min-max | lbs | 110 - 154 | 110 - 199 | 110 - 199 | 153 - 244 | 199 - 289 | 199 - 328 | 244 - 372 | 244 - 372 |

VISION RANGE

VSX High Efficiency Radiant Tube Heating Systems

VSX Model Range

The high efficiency VSX range offers versatility and performance that will be the benchmark for the future of radiant heating. Ratings from 60,000 to 155,000 BTU's



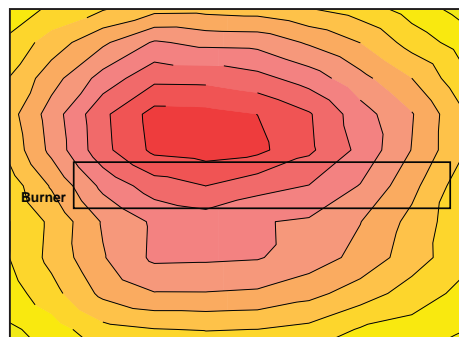
Manufacturing areas

Features

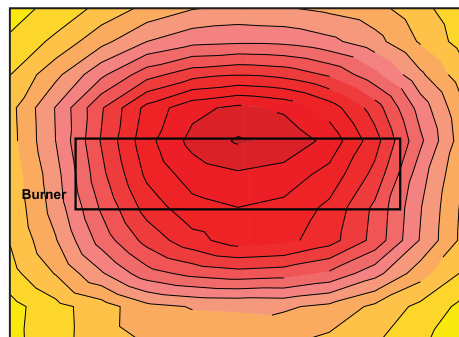
- > The inclusion of a recuperative heat exchanger and double skin reflector on VSX models (patent 11/882880), increases thermal efficiencies to 90%
- > Radiant efficiency 30% greater than standard radiant tube heaters
- > Additional fuel savings as great as 20% can be achieved when compared to two stage or standard radiant tube heaters



Standard Radiant Heater



AmbiRad Vision



Highest radiant efficiency

| Technical Data | | | | | |
|---------------------------------|-------|---------|-----------|-----------|---------|
| Model | | VSX90 | VSX115 | VSX140 | VSX165 |
| Nominal gross heat input | Btu/h | 90,000 | 115,000 | 140,000 | 165,000 |
| | | | | | |
| Length - U tube, min/max | ft | 14 - 20 | 20 - 26 | 20 - 26 | 26 |
| Total installed weight, min-max | lbs | 252 | 349 - 452 | 349 - 452 | 452 |

VISION RANGE

VSX High Efficiency Radiant Tube Heating Systems

Model Range

ARC is a gas fired continuous radiant tube heating system, designed specially for the building it is required to heat.

The ARC system is designed to provide uniform heat coverage over the entire floor area. Alternatively, the system can also cater for distinct zones providing a varied degree of comfort levels within the overall layout of the building.

The ARC Series continuous radiant tube burner range includes six natural gas or 3 propane burner models from 41,000 to 157,000 Btu/h.



Air Hangars

Features & Benefits

- > In-line fuel efficient burners (inputs between 41,000 - 157,000 Btu/h)
- > Common vacuum fan operation
- > Up to 92% combustion efficiency
- > Modulation option available
- > Rapid heat-up times
- > Low running costs. Savings of up to 70% of fuel costs can be achieved
- > Good aesthetic integration with building
- > Minimal vent penetrations - single vent system. Up to 1,500,000 Btu/h per single discharge
- > Capable of running five burners in one radiant branch
- > Widest range of burner inputs for any continuous system
- > Uniform distribution of heat
- > Mild steel, stainless steel or porcelain tail pipes available

Fully modulating customized ARC radiant tube system

The standard ARC radiant heating system operates with on/off control. As an option it is now possible to control the ARC system using modulation. Any heating system utilizing on/off control uses the maximum capacity of the heating system to heat the building at all times, even when only a small proportion of the system capacity is required to maintain temperature. This can result in building temperature 'overshoot', lower comfort conditions and higher fuel usage with frequent burner cycling. Utilizing modulation control with burner outputs varying between 60% - 100% of the maximum burner rating will reduce heater cycling, maintain tight temperature control and give improved comfort and lower heating bills.

- > Zone control
- > Simplified wiring
- > Lower costs
- > Improved reliability



Fully modulating available



| Technical Data | | | | | | | |
|--|--------------------|---------|---------------|----------------|----------------|-----------------|---------|
| Burner Model | | ARC12LR | ARC18LR | ARC24LR | ARC32LR | ARC38LR | ARC46LR |
| Input rating non modulating | | 41,000 | 61,000 | 82,000 | 109,000 | 130,000 | 157,000 |
| Input rating modulating high fire/low fire | Btu/h | n/a | 82,000-61,000 | 109,000-61,000 | 130,000-82,000 | 157,000-109,000 | n/a |
| Maximum gas consumption | | | | | | | |
| Natura gas | ft ³ /h | 40.5 | 60.8 | 81.1 | 106.4 | 126.4 | 153.0 |

SMARTCOM

Energy Management Control

Introduction

AmbiRad has introduced SmartCom, the intelligent energy management controller, in order to satisfy the growing need for higher efficiencies and to complement the development of efficient heating systems. Simple to program and operate, SmartCom provides cost-effective energy management for small single heater installations through to large multi-zone applications requiring centralized control.



Additional Control at the Touch of a button

- > Self adapting optimum start and stop
- > Simple user friendly programming
- > Individual seven day programming
- > Day, night and frost (41°) temperature settings
- > Three on/off periods per day
- > Easy set overtime and holiday periods
- > Remote burner reset facility
- > Password protection to prevent unauthorized adjustment
- > Hours run and service data logging
- > Battery back up in the event of mains failure
- > High low or modulating burner control

Remote Sensor Options

Essential for efficient radiant heating systems, black bulb sensors enhance the energy saving capability by measuring the effective radiant temperature within the space being heated.



Key Features

Suitable for use with all radiant tube heaters. Functions include:

- > Single stage heating/cooling
- > Self adapting optimised start
- > Volt free remote on/off
- > High/Low heat (two) stage heating
- > Three stage cooling or ventilation
- > Fully modulating heating and cooling

SmartCom Networking

Up to 15 additional units which may be centrally controlled by one master control. Functions accessed by the master control include:

- > Clock update, temperature functions and program settings
- > Zone lock out indication and reset functions
- > Multi-zone or split zone (radiant applications)



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 The AmbiRad Group


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