for 25 years • AmbiRad • reducing carbon emissions

Product Overview

AMBIRAD

ENERGY EFFICIENT HEATING SYSTEMS

About us

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

Maintenance sheds

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 develops and manufactures high quality, environmentally friendly, energy and cost-efficient heating systems, operating on either natural or LP gas. All products are certified to ISO 9001:2000 accreditation, tested and approved to the CSA standard.

Warehouses

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

Solutions that can reduce fuel costs by up to 70%
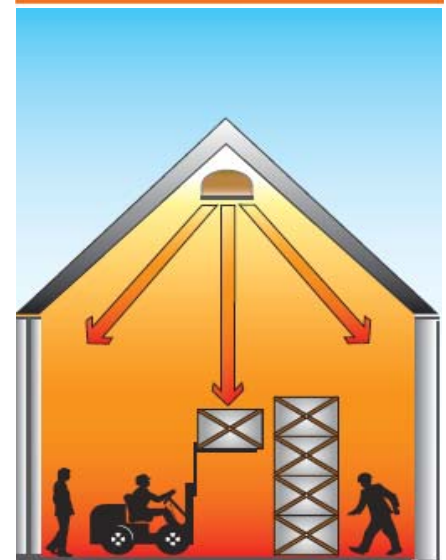
Reduced Environmental Impact

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.

Railway sheds

Factories

Sports facilities

Greenhouses

PRODUCT SELECTION GUIDE							
Model		Radiant Efficiency	Thermal Efficiency	Type of Brackets	Reflector Materials	Tube Materials	Venting
VPLUS		High	Industry Std	Wire	Aluminium Alumsteel Stainless Steel	Stainless Steel Cold rolled steel ThermaSteel Aluminized As above, plus porcelain tubing and schedule 40 iron pipe	One to two heaters
VS	Standard	High	Industry Std	Bolt in place			One to two heaters
	Herringbone	High	Industry Std	Bolt in place			Up to 10 heaters per vent
VSX		Very High	Very High	Bolt in place			One to two heaters
ARC	Standard	Industry Std	High	Wire or Bolt in place			Up to 35 heaters per vent
	Modulating	Industry Std	Very High				

Note: Ball guards available fore all models

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.

Distribution centres

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

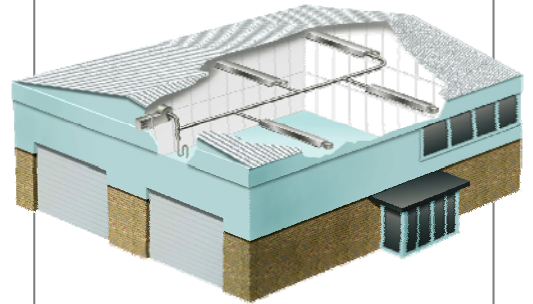• All units require minimal maintenance

Loading dock areas

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

• Aluminum or porcelain corrosion resistant manifold

• Minimum vent penetration

• Zone control flexibility

• Quieter operation

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 ratio of 70%
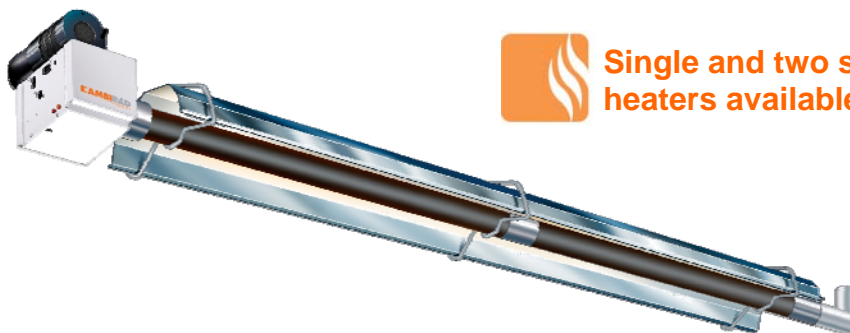
Single and two stage heaters available

TECHNICAL DATA

Model		VPLUS40	VPLUS60	VPLUS80	VPLUS100	VPLUS125	VPLUS150	VPLUS170	VPLUS200
Nominal gross heat input	Btu/h	40,000	60,000	80,000	100,000	125,000	150,000	170,000	200,000
Two stage low fire heat input	Btu/h	n/a	n/a	n/a	70,000	90,000	100,000	125,000	150,000
Dimensional & weight data									
Length – U tube, min/max	ft	12	12 / 22	12 / 22	22	22 / 32	22 / 32	32 / 42	32 / 42
Length - straight line, min - max	ft	12 -32	22 - 42	22 - 42	32 - 52	42 - 62	42 - 72	52 - 82	52 - 82
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 ranging from 40,000 to 200,000 BTU's
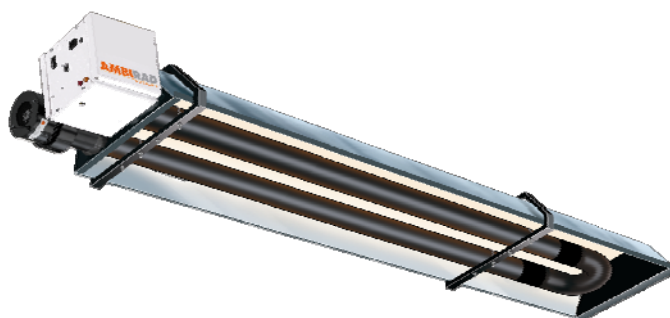
TECHNICAL DATA

| 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
Dimensional & weight data									
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 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
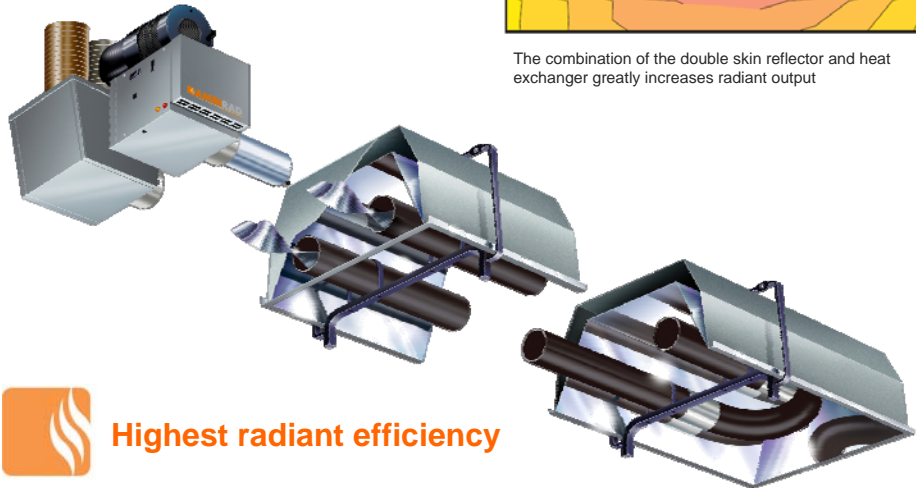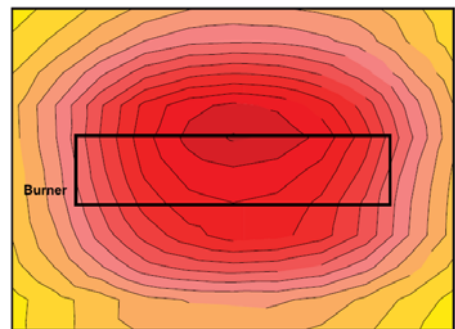
Highest radiant efficiency

Standard radiant heater
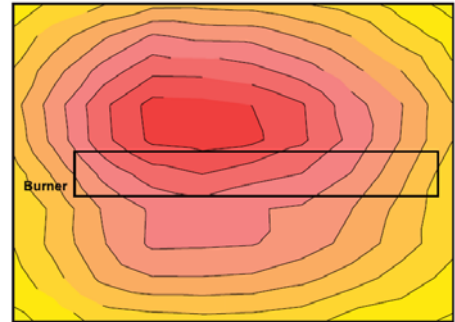
AmbiRad Vision

The combination of the double skin reflector and heat exchanger greatly increases radiant output

TECHNICAL DATA						
Model		VSX60	VSX90	VSX115	VSX140	VSX155
Nominal gross heat input	Btu/h	60,000	90,000	115,000	140,000	155,000
Dimensional & weight data						
Length – U tube	ft	14	14	20	20	26
Total installed weight	lbs	252	252	349	349	452

ARC Series

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 ARC 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
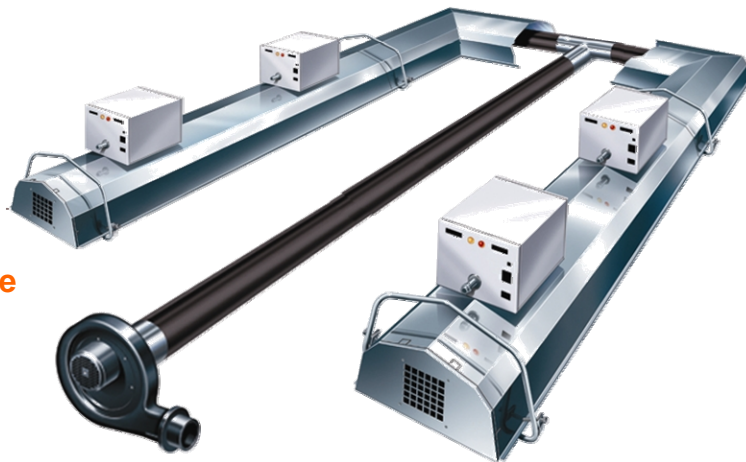
Fully modulating available

TECHNICAL DATA

Burner Model		ARC12LR	ARC18LR	ARC24LR	ARC32LR	ARC38LR	ARC46LR
Input rating	Btu/h	41,000	61,000	82,000	109,000	130,000	157,000
Gas consumption Natural gas	ft³/h	40.5	60.8	81.1	106.4	126.4	153.0

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 (41^0F) temperature settings
- Three on/off periods per day
- Easy set overtime and holiday periods
- Remote burner reset facility
- Password protection to prevent unauthorised adjustment
- Hours run and service data logging
- Battery back up in the event of mains failure
- High Low or modulating burner control (SmartCom Advanced required)

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.

Model Range

SmartCom Standard

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

- Single stage heating/cooling
- Self adapting optimised start
- Volt free remote on/off

SmartCom Advanced

Designed for applications requiring more sophisticated management control, this controller contains all the features of SmartCom standard plus:

- Hi/lo heat (two) stage heating
- Three stage cooling or ventilation
- Fully modulating heating and cooling

SmartCom Network

Includes all the features of SmartCom advanced plus the ability to communicate with 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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