

Vision



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RADIANT TUBE HEATING SYSTEMS



REZNOR®

Vision

RADIANT TUBE HEATING SYSTEMS



Introduction

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 foundation of this exciting new development is a new high efficiency advanced burner.



Features

New advanced burner technology

- Choice of burner ratings from 15 to 50kW depending on model type
- All units are CE approved
- NO_x emissions as low as 55ppm on certain models – 40% lower than standard radiant heater
- Combustion occurs entirely within the firing tube. Not only does this reduce the size and weight of the traditional burner control housing but it also helps to reduce noise levels (as quiet as 47 dB(A) 3m free field)
- New slim-line burner head provides a long evenly distributed flame that dramatically improves temperature distribution along the entire length of the heater, delivering a more even floor coverage
- The inclusion of a recuperative heat exchanger on RVSXE models (patent P308150GB), mounted adjacent to the burner housing, significantly increases thermal efficiencies up to 90% and enhances radiant efficiency above 55%.

Model Range

There are two Vision ranges:

- The standard RVS range, which is available in U tube, single linear and double linear models
- The high efficiency RVSXE range, with recuperative heat exchanger, which is available as a U tube model

RVSA models are available on request (aluminised reflectors with no end caps).

All models can be roof or wall mounted.



Benefits

Easy to install and maintain

- On forced gas burner models all electrical wiring is contained at one end of the product, which is particularly time saving when installing single linear (RVSLF) heater models
- All units require straight forward annual maintenance

Optimum economy and fuel savings

- The elimination of both distribution and standby losses coupled with high operational efficiencies at the point of use enable fuel savings of up to 65% compared with conventional heating systems
- Excellent radiant performance. More of the available heat generated is distributed to floor level thereby improving efficiency and reducing energy consumption
- High efficiency models are included on the Government's Energy Technology List and may be eligible for Enhanced Capital Allowances (ECA)



Additional control at the touch of a button

All models are compatible with Reznor SmartCom control systems. SmartCom units incorporate a host of features such as self-learning optimised start-up to ensure increased comfort and energy savings.



SmartCom control panel

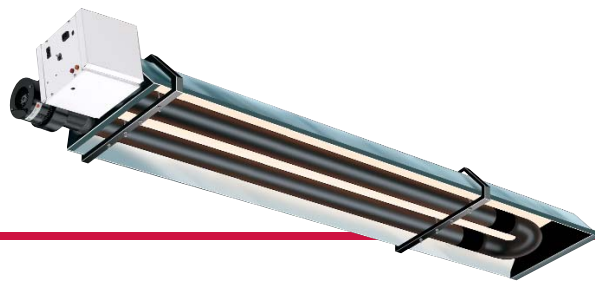
Radiant black bulb sensor

(Please refer to separate leaflet 'SmartCom Energy Management Control' for full details.)



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Specification

RVSXE model

Flueing

Units can be installed unflued or individually flued (including concentric flues to minimise building penetrations).

Fresh air intake

Fresh air can be ducted into the heat exchanger from outside the building to provide clean combustion air, required when there are contaminants in the atmosphere.

Burner

Burner ratings range between 20 and 50kW in 5kW increments. The new burner head located within the firing tube leg provides a very long flame with even heat distribution. NO_x emissions are very low – as low as 55ppm on certain models.

Heat exchanger

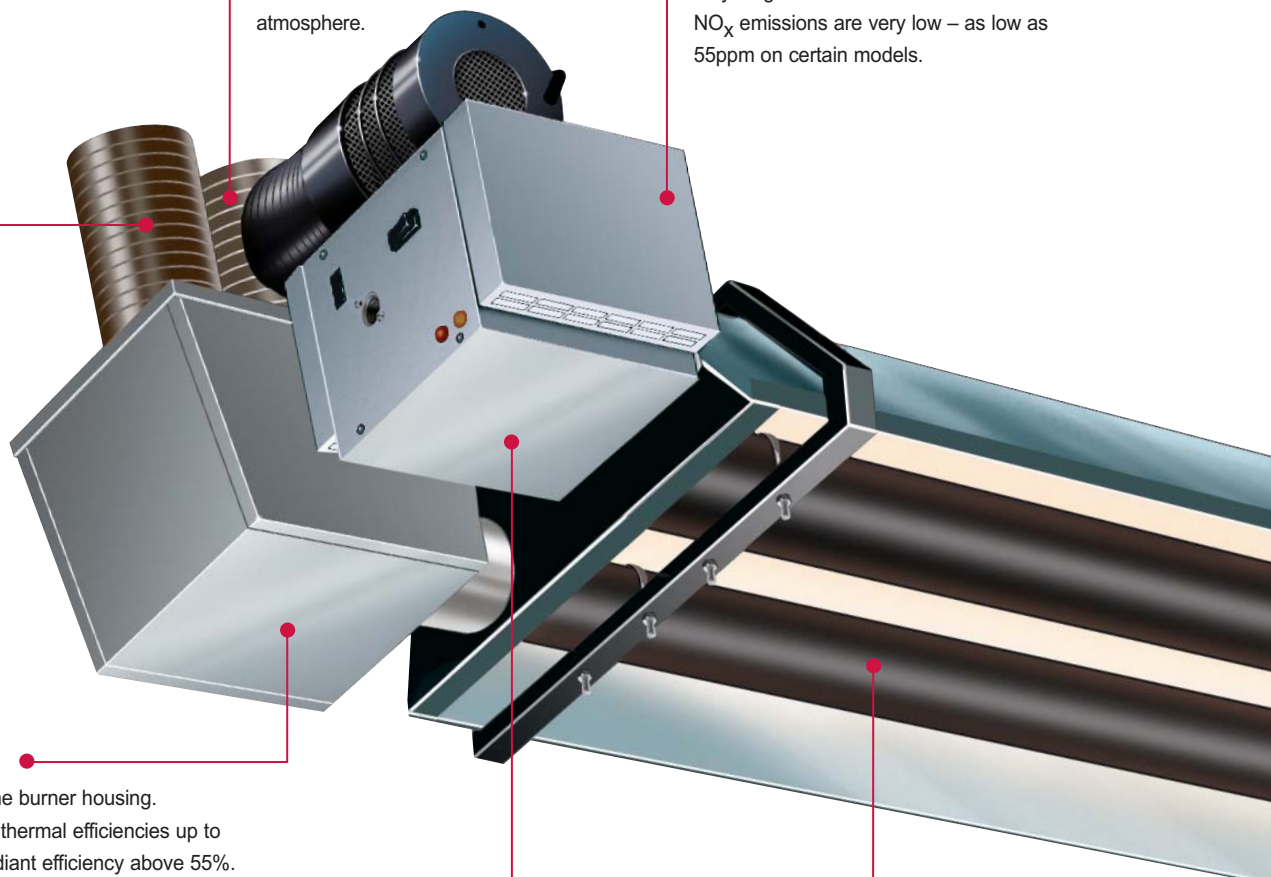
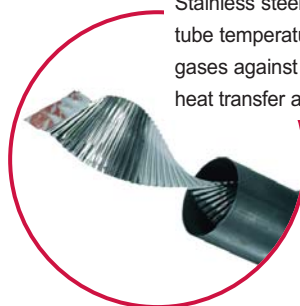
Mounted adjacent to the burner housing. Significantly increases thermal efficiencies up to 90% and enhances radiant efficiency above 55%. (Patent P308150GB).

Control housing

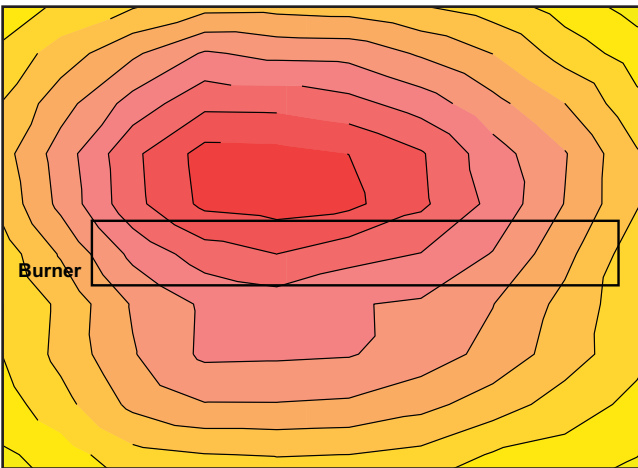
Burner controls are mounted within a chassis that incorporates hinged doors for ease of access for commissioning and maintenance.

Turbulators

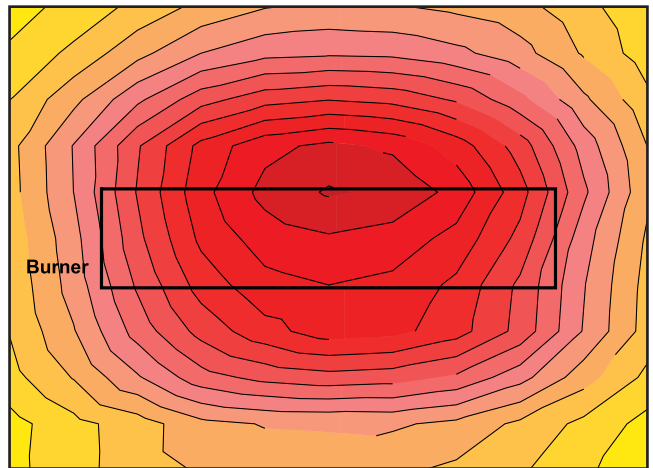
Stainless steel spiral turbulators optimise tube temperatures by 'scrubbing' the flue gases against the tube surface, maximising heat transfer and increasing radiant efficiency.



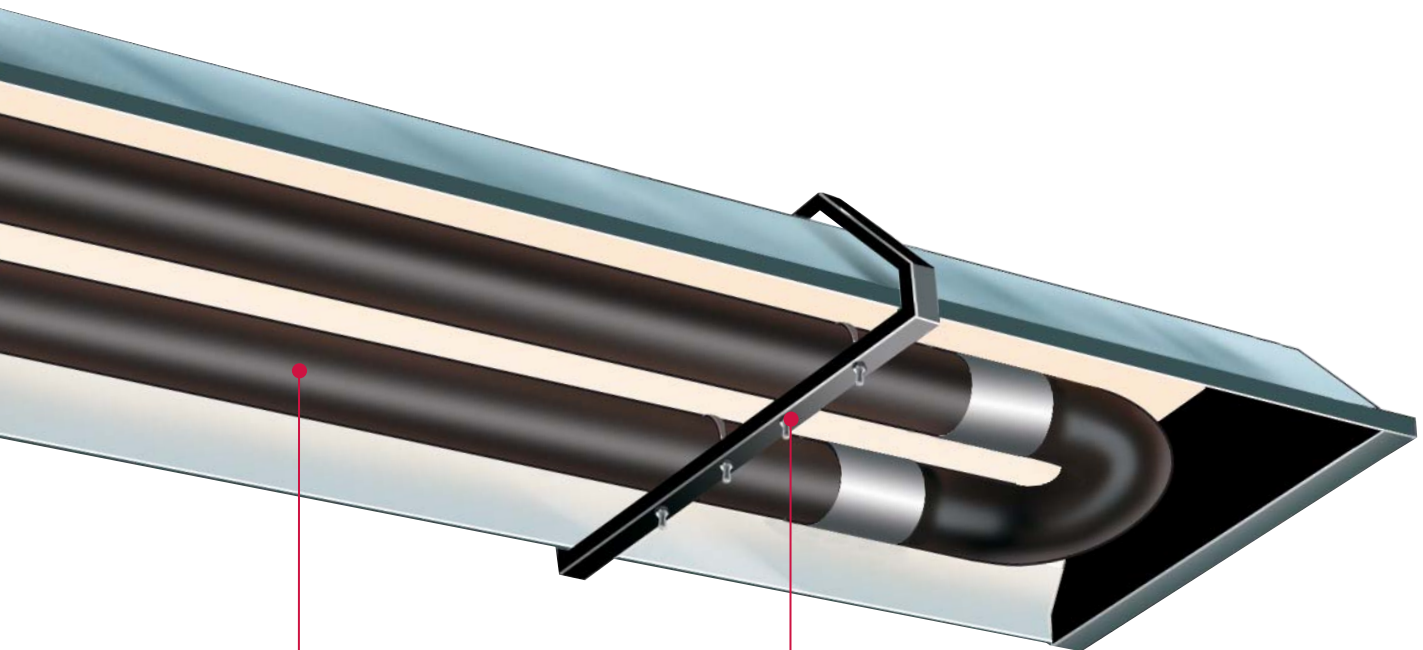
Standard U tube radiant heater



Vision (RVSXE)



- Vision improves temperature distribution along the entire length of the heater



Tube finish

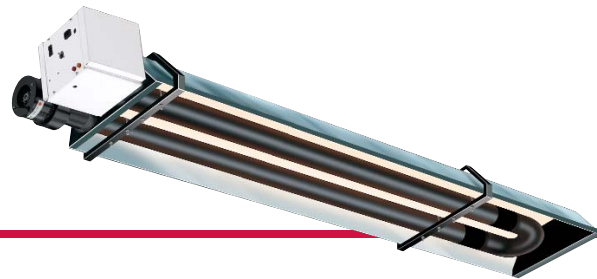
CALCOAT® tubes – a high technology process that applies a tough, dense, highly emissive surface both inside and out that eliminates the need for painting. As a result CALCOAT® ensures a long lasting surface that will not rust or flake, protects welds and maintains the highest of emissivity factors throughout the entire life of the heater.

U bolts

U bolt clamps for ease of installation and assembly

Vision

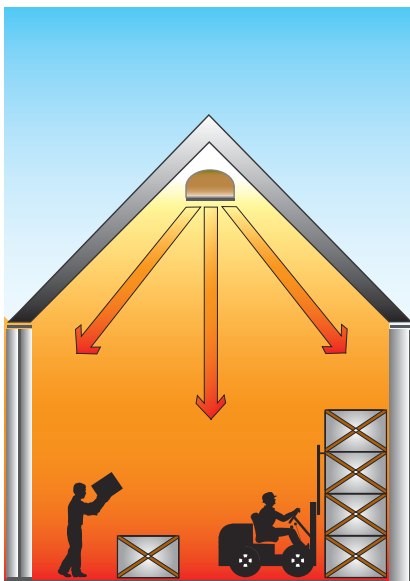
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Radiant Heating

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, Reznor radiant heaters produce infrared heat that is directed downwards to low level by a reflector.

Infrared energy passes inertly through the air, dissipating as heat upon contact with people and surfaces thus creating a comfortable, all-round radiant warmth at lower air temperature. This reduces wasteful heating of empty space and makes substantial energy savings over conventional boiler and air systems.



Universal Application

Radiant heating has traditionally been predominant in industrial and commercial buildings, especially where there are large, high bay areas or where there are a high number of air changes within the environment.

Vision has been developed with these markets in mind and with a view to making radiant heating truly competitive within new smaller industrial and commercial buildings.

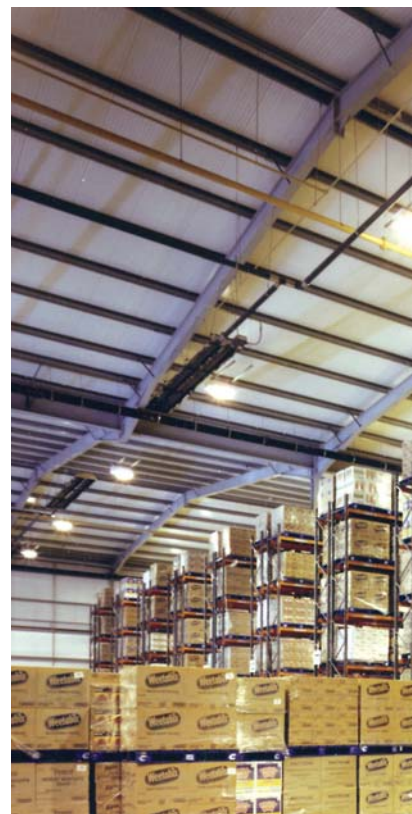
Its application is universal including environments with high air change, frequently opened doors, or where there is a need for zonal heating in very large premises.

The highly efficient performance of Vision provides greatly reduced running costs and improved capital payback, setting new industry standards.



Vision Applications

- Aircraft hangars
- Automotive workshops and showrooms
- Factories
- Retail outlets
- Sports arenas and halls
- Warehouses
- Workshops



Enhanced Capital Allowances (ECA)

The Government's Enhanced Capital Allowance scheme actively encourages industry and commerce to reduce energy consumption by promoting the use of energy efficient equipment. With radiant efficiencies of above 55% and thermal efficiencies of up to 90% (reducing fossil fuel consumption).



Authorised User No. 00182

This symbol verifies that the product has been independently assessed and qualifies for the ECA scheme, an upfront tax relief enabling businesses that invest in energy-saving equipment to claim 100% first-year capital allowances against their taxable profits.



TECHNICAL DATA - All Models	
Gas Supply	Connection 1/2 BSP internal thread
Electrical Supply	230 volt 1 phase 50Hz
Current rating	1.0 amp max (inductive)
External fuse rating	3 amp external
Ignition	Electronic programme start up with spark ignition
Exhaust flue – twin wall diameter	127 mm (5")

Vision Standard U Tube Models (induced burner) RVSUT & RVSAUT

Note: All technical details shown relate to both the RVSUT & RVSAUT models except for clearance distances as indicated

SPECIFICATION											
Model		RVS15UT4	RVS15UT	RVS20UT	RVS25UT	RVS30UT	RVS35UT	RVS40UT	RVS45UT	RVS50UT	
Nominal gross heat input	kW	15.8	15.0	19.5	23.5	29.5	36.0	40.0	44.0	48.0	
Nominal gas rate per burner	m ³ /h	1.5	1.4	1.9	2.3	2.8	3.4	3.8	4.2	4.6	
Dimensional & weight data											
Length	mm	2219	3417	4142	5066	6029	5709	5709	7471	7471	
Bracket height	mm	260	240	240	240	240	260	260	260	260	
Bracket width	mm	675	500	500	500	500	675	675	675	675	
Total installed weight	kg	41	43	50	60	70	92	92	121	121	
Recommended mounting height range											
For mounting heights above or below those specified contact Reznor Design Office											
Horizontal	m	4 to 5	4 to 5	4.5 to 7	5 to 8	5.5 to 9	6 to 10	6.5 to 11	7 to 12	7.5 to 13	
Inclined / wall mounted	m	3.5 to 4.5	3.5 to 4.5	3.5 to 5	4 to 5	4 to 6	4.5 to 6.5	5 to 7	5.5 to 8	6 to 9	
Minimum clearance distance to combustible surfaces											
Model		RVS15UT4	RVS15UT	RVS20UT	RVS25UT	RVS30UT	RVS35UT	RVS40UT	RVS45UT	RVS50UT	
Above reflector VS models with end caps	mm	All models 180									
Above reflector VSA models no end caps	mm	All models 280									
Above burner & fan assembly flued	mm	All models 500									
Beneath tubes	mm	1500			1700			2100			
To the sides	mm	900			1000			1100			
Horizontally from fan outlet unflued	mm	All models 1200									
End of the heater to the wall	mm	All models 500									

Vision Recuperative Heat Exchanger U Tube Models (forced burner) RVSXE

Model		RVSXE20UT	RVSXE25UT	RVSXE30UT	RVSXE35UT	RVSXE40UT	RVSXE45UT	RVSXE50UT
Nominal gross heat input	kW	20.0	25.0	32.0	36.0	40.0	44.0	49.5
Nominal gas rate per burner	m ³ /h	1.9	2.4	3.1	3.4	3.8	4.2	4.7
Dimensional & weight data								
Length	mm	4100			5900			7660
Bracket height	mm	All models 420						
Bracket width	mm	All models 670						
Total installed weight	kg	75			102			130
Recommended mounting height range								
For mounting heights above or below those specified contact Reznor Design Office								
Horizontal	m	5.5 to 8	6 to 9	6.5 to 10	7 to 11	7.5 to 12	8 to 13	8.5 to 14
Inclined / wall mounted	m	4.5 to 6	5 to 6	5 to 7	5.5 to 7.5	6 to 8	6.5 to 9	7 to 10
Minimum clearance distance to combustible surfaces								
Model		RVSXE20UT	RVSXE25UT	RVSXE30UT	RVSXE35UT	RVSXE40UT	RVSXE45UT	RVSXE50UT
Above reflector	mm	All models 180						
Above burner & heat exchanger assembly	mm	All models 500						
Beneath tubes	mm	2300			2500			
To the sides	mm	All models 1300						
Horizontally from heat exchanger outlet unflued	mm	All models 1200						
End of the heater to the wall	mm	All models 700						

