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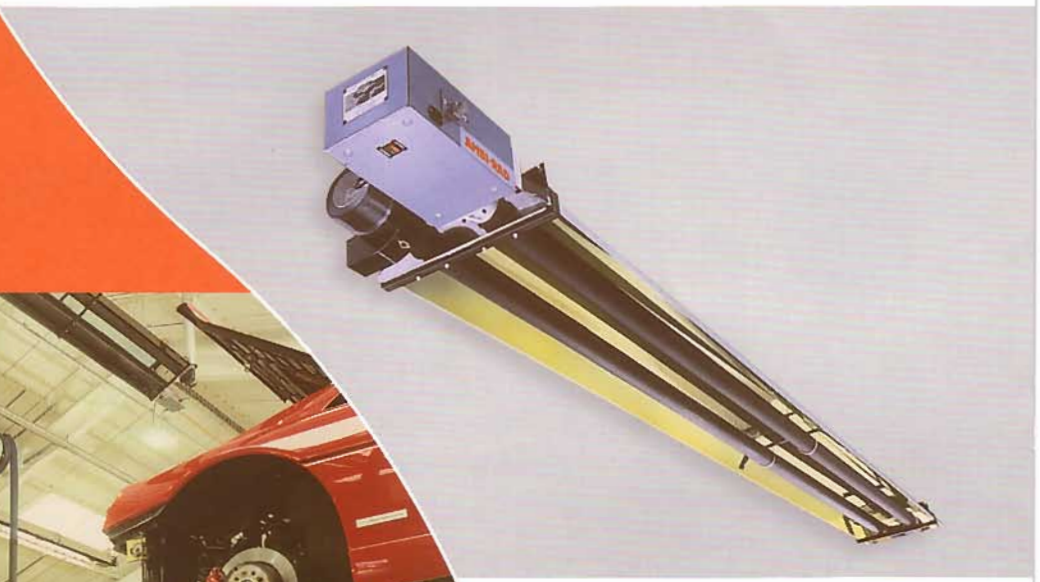
AMBIRAD

ENERGY EFFICIENT HEATING SYSTEMS



AR Series

Radiant
tube heaters

An Ambi-Rad Group company

Qualified for Energy Technology List

Introduction

AR Heaters are now considered the generic radiant tube heater within the market place. They offer an outstanding reputation for combining efficiency, economy and low noise operation. They are ideal for heating factories, warehouses and workshops - indeed any industrial or commercial premises whether old or new that requires effective, efficient heating with low running costs.

AR high efficiency radiant tube heaters (all models except AR13) meet the qualifying criteria for inclusion on the government's energy technology listing. This can entitle end users to claim 100% capital allowances (including the direct costs of installation) in the first year.

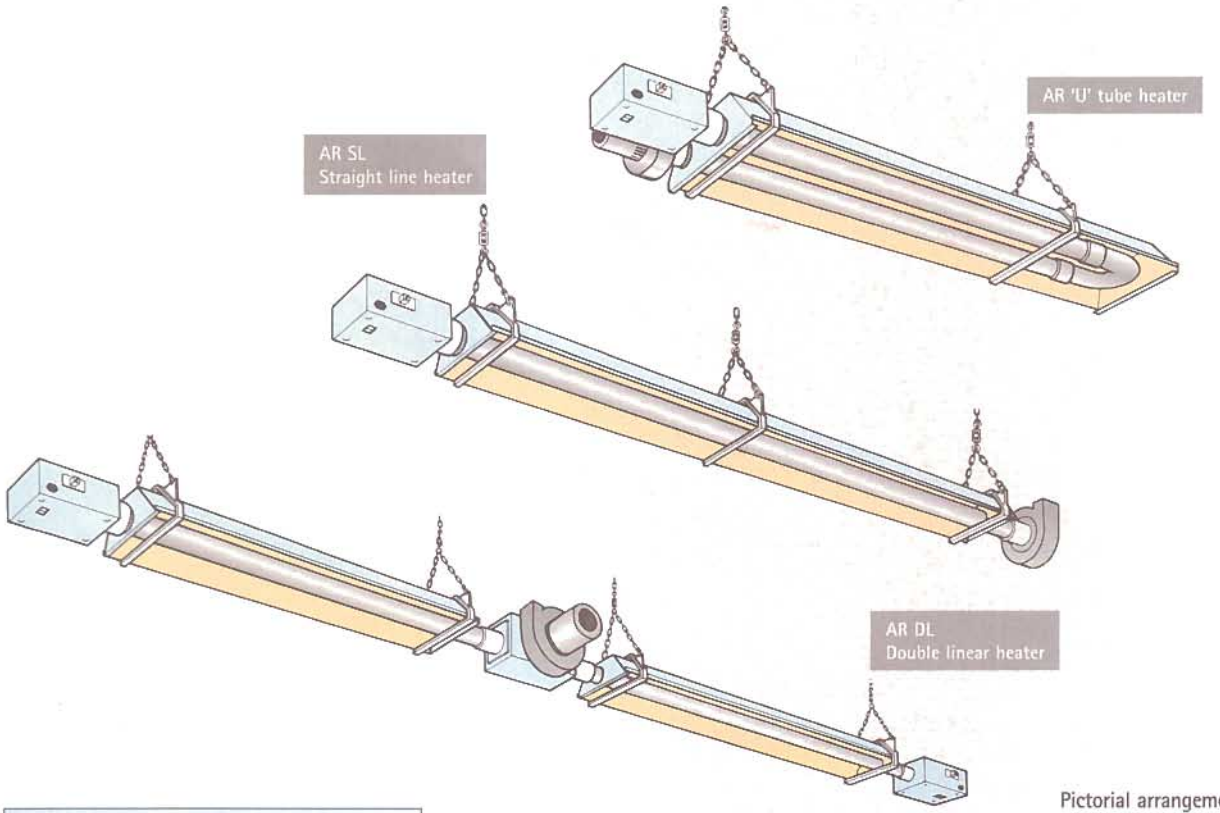
Qualified for Energy Technology List

AR Series benefits

- Reduces running costs. Savings of between 25-60% of fuel costs can be achieved.
- Provides even heat coverage at low level.
- Does not directly heat the air – ideal in areas of high air infiltration.
- Minimises roof heat losses – reduced stratification.
- Systems can be controlled easily to provide varying zoned temperatures and operating times.
- Provides rapid heating up times.
- Easy to install and maintain.

Applications

- Factories
- Foundries
- Engineering workshops
- Warehouses
- Retail outlets
- Aircraft hangars
- Vehicle distribution centres
- Vehicle workshops
- Glasshouses
- Sports arenas
- Museums



Pictorial arrangement only

Radiant heating

Radiant heat warms all solid objects and surfaces in its path through electromagnetic waves. Being mounted overhead, Ambi-Rad radiant heaters produce infra-red heat that is directed downwards to low level by a reflector. Infra-red 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.

Specification

The AR range is available in 'U' tube, linear, double linear and Herringbone manifold configurations. Manufactured from the finest materials including stainless steel reflectors, end caps, turbulators and guarded air inlet cover. Emitter tubes are CALCOAT® (heat treated aluminised steel) or stainless steel depending on the model.

System design

The AR series offers the consultant the widest range of heat inputs possible in designing the heating requirements of any industrial or commercial building.

It is recommended as a good practice guide that the large kW burners are not mounted at low level. Particular care should be taken to ensure adequate heat coverage is provided when specifying these higher rated burners.

Specification and technical data

Model		*AR13	AR22	AR35	AR40	AR45	AR50
Nominal heat input (natural gas only)	kW Min	9.75	16.6	28.0	-	-	-
	kW Max	13.0	22.0	35.0	40.0	45.0	50.0
Nominal gas rate per burner							
Natural gas	m^3/h Min	0.9	1.60	2.60	-	-	-
	m^3/h Max	1.21	2.06	3.28	3.73	4.20	4.76
(LPG) Propane	m^3/h Max	0.5	0.83	1.44	1.55	1.74	1.93
Gas supply		$\frac{1}{2}$ in BSP external thread : max pressure 25 mbar nat. gas (min 16.5 mbar) 55 mbar propane (min 37 mbar)					
Electrical supply		230 volt 1 phase 50Hz					
Current rating		0.55 amp max (inductive)					
External fuse rating		3 amp external					
Ignition		Electronic programme start up with spark ignition					
Dimensional data							
Overall length (m)	'U'	3.47	5.24	5.89	5.89	7.62	7.62
	SL	6.63	8.02	12.62 or 15.20	12.62 or 15.20	15.20 or 18.20	15.20 or 18.20
	DL†	13.26	15.80	25.00 or 30.00	25.00 or 30.00	-	-
Overall width (mm)	'U'	435	490	666	666	666	666
	SL	235	460	460	460	460	460
	DL†	235	460	460	460	-	-
Exhaust flue (diameter) twin wall	'U'	All exhaust flue 125mm (5in)					
	SL						
	DL†						
Total installed weight (kg)	'U'	51	63	95	95	144	144
	SL	56	72	117 or 140	117 or 140	130 or 156	130 or 156
	DL†	112	145	234 or 281	234 or 281	-	-

† DL heaters only rated at maximum input.
For building air supply and ventilation requirements please refer to BS6896: 1991 Installation of gas fired radiant heaters for industrial and commercial heating.
* AR13 models do not qualify for Enhanced Capital Allowances.

Note To qualify for Enhanced Capital Allowances AR radiant tube heaters must be operated at their maximum duty.

Mounting heights

Model	Mounting position	Minimum mounting height (m)	Recommended mounting height range (m)	When mounting over these heights contact Ambi-Rad (m)
AR13	Horizontal	3.0	3.3 to 4.2	over 4.2
AR13	Inclined/wall mounted	2.7	3.0 to 4.0	
AR22	Horizontal	3.6	4.8 to 7.0	over 7.0
AR22	Inclined/wall mounted	3.0	4.2 to 4.9	
AR35	Horizontal	4.3	4.9 to 11.0	over 11.0
AR35	Inclined/wall mounted	3.6	4.0 to 7.0	
AR40	Horizontal	4.3	4.9 to 11.0	over 11.0
AR40	Inclined/wall mounted	3.6	4.0 to 7.0	
AR45	Horizontal	5.0	5.9 to 12.0	over 12.0
AR45	Inclined/wall mounted	4.3	5.0 to 8.0	
AR50	Horizontal	5.7	6.9 to 13.0	over 13.0
AR50	Inclined/wall mounted	5.0	6.0 to 9.0	

For full technical heater information and details please refer to User Installation and Service Manual.

Clearance distances to combustible materials

Model	AR13	AR22	AR35	AR40	AR45	AR50
Above reflector	150	150	150	150	150	150
Above burner fan assembly flued	500	500	500	500	500	500
Beneath tubes	1250	1250	1500	2100	2100	2100
To the sides flued	600	600	600	600	600	600
From fan outlet unflued	1200	1200	1200	1200	1200	1200

All distances are in millimetres.

Patents EU 248629, 2193305.

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