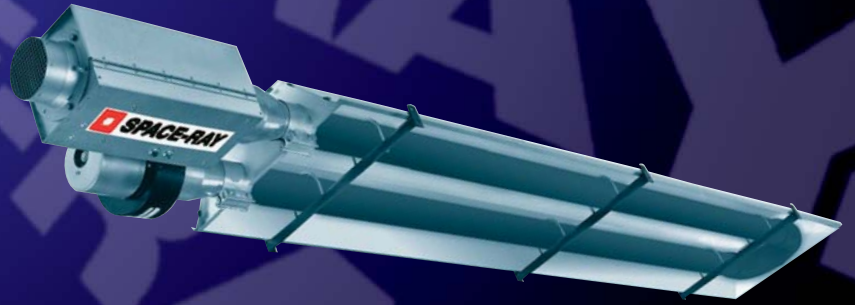




SPACE-RAY

RADIANT TUBE HEATING



www.spaceray.co.uk



GAS FIRED PRODUCTS GROUP
-infrared technology around the world



SPACE-RAY

"U" TUBE HEATING - FROM THE INVENTORS

The Organisation

The Gas Fired Products Group of Companies manufacture space and process heating systems in both the UK and North America. Space-Ray is a division of the Gas Fired Products Group.

Our Experience

Founded in the 1950's, at Space-Ray we have more than 40 years experience in the design, manufacture and application of radiant heating systems. Space-Ray radiant systems are today heating many 1000's of varied buildings from Alaska to Australia.

Our Innovation

In 1968 Space-Ray invented and developed the unitised low intensity radiant tube heater, better known now as the "U" tube. As part of our target to maximise radiant output, we combined calorised aluminised emitter tubes with highly efficient aluminium reflectors and began a revolution in the space heating industry.

Our Method

The best inventions develop from simple ideas, so we based our idea on the most reliable heater known - the Sun.

The Sun's heat energy radiates through space and our atmosphere, striking the Earth's surface and warming it. It is this warmed surface that then heats and raises the air temperature. We have all seen a heat haze rising from the ground on a summer's day. An easy way to experience that the Sun heats you first before the air is to move from the shade into the sunshine on a cold winter's day. You immediately feel several degrees warmer, though the air temperature is still very low. Equally in the summer, if you want to cool down, sit in the shade.

Compare Our Method

Take the two most convenient ways of heating any non domestic building - radiant and blown hot air. With a blown hot air system you must constantly spend money heating, circulating and re-heating the cold air. The warmed air rises so the blown air system heats the building from the top down, making the occupied floor area the last and most difficult place to keep warm.

The radiant system however, doesn't have to heat the air. The radiant energy first heats the people and all the objects around the people including the floor. This effectively surrounds the occupants in a warm blanket of heat. The

warmed floor and objects then act as secondary heaters raising the air temperature, just like the summer heat haze.

Better still, when the doors have been opened and the warm air lost, radiant heating wins again. The blown air heaters must start from the beginning to heat the cold air and the building from the top down, which can take a long time. With a radiant system however, the floor and objects around you maintain their blanket of warmth and the building quickly returns to operating temperature. Even while the doors are open you will feel the benefit of radiant heaters, again like the sun on a cold winter's day.

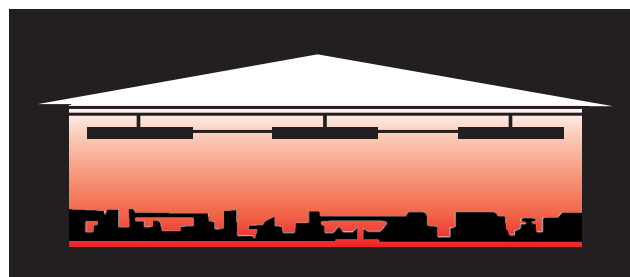
The Savings

Probably more satisfying than the superior comfort conditions you will experience with a Space-Ray radiant heating system is the knowledge that you are saving energy and money throughout the heating season.

Compared with a blown hot air system you can expect to save 30% to 50% in annual fuel costs. Some Space-Ray customers have experienced a payback of their capital investment after only one year.

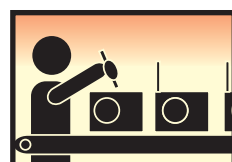
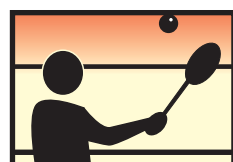


● BLOWN AIR SYSTEMS WASTE ENERGY IN THE ROOF SPACE AND HEAT YOUR WORKING AREA LAST.



● SPACE-RAY RADIANT SYSTEMS HEAT PEOPLE, SURROUNDING OBJECTS AND THE FLOOR FIRST. A BLANKET OF WARMTH IS MAINTAINED AT FLOOR LEVEL.

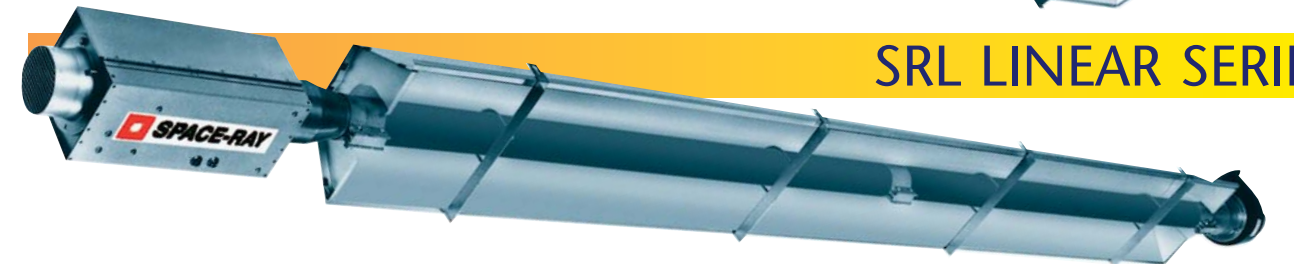
LEISURE ● MANUFACTURING ● WAREHOUSING ● HANGARS



GARAGES ● WORKSHOPS ● RETAILING ● HORTICULTURE



SRU & COLDBLOCKER SERIES



SRL LINEAR SERIES

- Invented by Space-Ray
- Made in the UK under our ISO 9002 quality assured system - all units test fired before despatch
- Heat treated Aluminised Calorised emitter tubes - highly radiant absorptive internally - highly radiant emissive externally for maximum radiant efficiency
- Flake free emitter tube surface - for safer and cleaner working environment
- 5 year emitter tube guarantee
- Aluminium reflectors - the tested and proven superior material - designed to maximise downward radiation
- Lightweight construction - easy to assemble and fit
- Suction operation for increased efficiency and ease of venting - vertical or horizontal.
- "U" tube or "Linear" tube for application flexibility
- Mounting heights from 2.1m to 15m

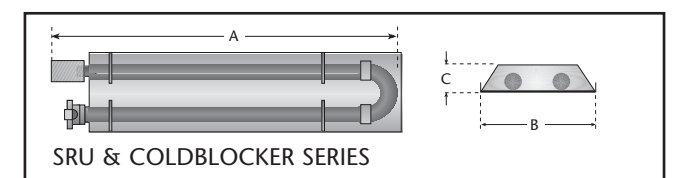
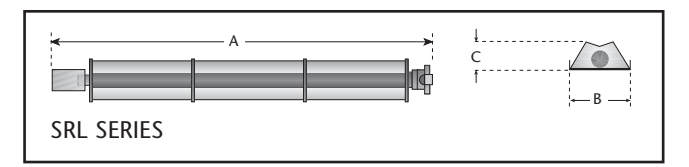
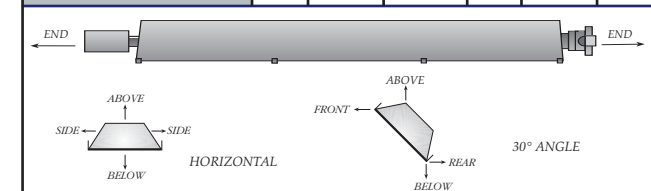
HEATER TYPE	COLDBLOCKER			"U" TUBES					"LINEAR" TUBES							
MODEL	CBU 09	CBU 12	CBU 15	SRU 25	SRU 30	SRU 35	SRU 40	SRU 45	SRL 09	SRL 12	SRL 15	SRL 25	SRL 30	SRL 35	SRL 40	SRL 45
INPUT RATING -kW	9.0	11.40	15.0	23.0	29.20	34.50	42.20	47.0	9.0	11.40	15.0	23.0	29.20	34.50	42.20	47.0
LENGTH mm - A	3100mm			5385mm	5510mm		6970mm		5495mm		10065mm	9955mm		13000mm		
WIDTH mm - B	460mm			715mm			340mm									
HEIGHT mm - C	175mm			210mm			180mm									
WEIGHT Kg	31kg		47kg	66kg	81kg		27kg	46kg	62kg	79kg						
GAS CONNECTION	All Models R - 1/2															
SUPPLY PRESSURE	Natural Gas - Min 17mbar, Max 25mbar					Propane - Min 25mbar, Max 45mbar					Butane - Min 20mbar, Max 35mbar					
ELECTRICAL SUPPLY	230v~50Hz 125W, Current rating 0.55A, Fuse externally 3A															
FLUE DIAMETER	All Models - ø127mm															
AIR INLET CONNECTION	All Models - ø101.6mm															

RECOMMENDED MOUNTING HEIGHT RANGE (General guidance only)

Model	CBU09-15	SRL09-15	SRU/SRL25	SRU/SRL30	SRU/SRL35	SRU/SRL40	SRU/SRL45
Horizontal	2.4m - 6.0m		3.0m - 8.0m	3.8m - 10.0m	4.0m - 12.5m	4.8m - 13.5m	5.6m - 15m
Angled > 30°	2.1m - 4.5m		2.7m - 5.0m	3.3m - 7.0m	3.7m - 8.0m	4.0m - 9.0m	4.8m - 11m

MINIMUM CLEARANCE TO COMBUSTIBLE MATERIAL - mm

MODEL	SIDE	ABOVE	BELOW	END	FRONT	REAR
CBU09-15 SRL09-15	450	450	1220	450	575	305
SRU25 SRL25	510	450	1220	510	610	305
SRU30-45 SRL30-45	760	610	2285	610	760	380



SPACE-RAY Radiant Systems - Extended Range

SRDL 'Double Linear'



- 2 linear models
- 1 central flue

Reduces outlets by 50% for fully flued systems

8 models from 18kW to 94kW (Range brochure and data sheet available)

HB 'Herringbone' System

- Purpose designed fully vented system
- Multiple heaters connected and flued via a single exhaust fan
- Roof or side wall venting
- All 'U' and 'Linear' models can be 'Herringbone' flued

(Range brochure and data sheet available)



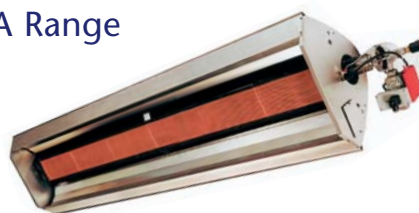
SPACE-RAY Radiant Plaque Heating

SRP Range



- High efficiency
- Powerful 'ceramic' heat emitter
- 4 models from 7kW to 30kW

ULTRA Range



- 'Ultra' high efficiency
- 5 models from 7kW to 40kW
- Hi/Lo control throughout the range



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For more information contact:

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