

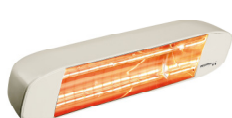
## CONSIDERATIONS IN CHOOSING AN OUTDOOR HEATING SOLUTIONS

Keeping outdoor hospitality areas comfortable for people can be a big problem. This article suggests some of the factors that should be considered, making the case for short-wave infra-red heaters to be put on your list of alternatives to explore:

1. Energy Efficiency
  - How well will the solution warm the area?
  - How quickly will it heat the area?
  - How much will this cost me?
  - Can I limit or confine the area to be heated?
2. Area coverage
  - How many heaters will I need to cover the area?
  - What configuration will I need to ensure maximum coverage?
3. Cost effectiveness
  - What are the overall costs of using the heater – not just the buy price, but the ongoing energy usage?
4. Weatherproofness
  - How will the heater be affected by wind, cold and rain?
  - How much will effectiveness be compromised by temperature or exposure to draughts?
5. Installation
  - How expensive will the installation be?
  - What options can be applied to the installation to assist with limiting the cost of operation?
  - How mobile is the solution, and how important is this for my space?
6. Maintenance
  - How reliable will the solution be?
  - What ongoing maintenance is required?
7. Customer Perception
  - What are the advantages and disadvantages of wall, ceiling or floor mounted installations from a user point of view?
  - What environmental factors need to be considered – odours, ambience of the heat, occupational health and safety hazards?



We believe that short-wave infrared heating is a serious option for consideration, in particular the Star Progetti Heliosa® range of stylish Italian designed heaters with their warm amber heating element.



### Energy Efficiency

Most heaters that are marketed as infra-red are from the medium and far range of the infrared spectrum. This means that they can take a few minutes to reach their full potential. Short-wave infrared is INSTANTLY at full power. This has two advantages: a heater can be placed on a proximity sensor or a timer button, and can be directed to heat a specific spot – directing the heat with torch like precision.

### Area Coverage

Most heaters that are used outdoors are broad spectrum radiant heaters, that is they heat the space but because of their emission spectrum they also heat the air in between. Have you noticed waves of radiated heat rising above a heater on a cold day? With short-wave infrared, much less of this heat is lost to the atmosphere - the waves are absorbed by objects and people and are not wasted heating the air. The manufacturer claims that a combination of the efficient lamp and patented reflectors results in 92% of the energy being transformed into heat. This means better coverage and comfort with less wattage.

## Cost Effectiveness

Short-wave infrared heaters tend to be more expensive to buy than other broad spectrum electric heaters. The reason mainly lies in the cost of the lamp. However, lamps are very robust and in the Heliosa® range's case have an industry leading life of up to 7000 hours. Because they heat up instantly, they only need to be on where and when needed, and as they are electric, this can be as simple as an on and off switch. They are therefore very cost effective to run, using relatively low wattage to heat good size areas, resulting in positive comparisons with gas heating as well.

## Weatherproofness

The Heliosa® range is designed for use outdoors, undercover or in the open. Unlike most of the alternatives, these heaters can be used even when it is raining. Short-wave infrared heaters are also less impacted by blustery days compared to other forms of gas heating or broader spectrum radiant heaters. This is because the energy is picked up by objects regardless of the temperature – the only consideration is that the person within the range of the heater will feel less comfortable due to a natural wind chill factor. In a very blustery space, the recommendation would be to set up the heaters at shorter distances apart.

## Installation

Some outdoor heating solutions, particularly unflued bottle gas heating, are ideally suited to being wheeled out to an area to provide localised comfort. Some of the Heliosa® range can be mounted on stands to allow for similar flexibility, but of course that requires careful management of trailing electric leads. Infra-red heaters are ideally mounted on walls at 45° angles, but can be mounted overhead, on columns, or under umbrellas, dependent upon the model. Contingent upon the sophistication required, they can be zoned, linked up to remote sensors, timers, or remote controls. So, there is cost in set up in most cases, not unlike any other form of electrical heating, but once this is done short-wave infrared heaters are out of the way taking up no floor space or storage space. The installation is best compared to setting up a reticulated gas heater mounted on a wall, and in this case the costs would be very favourable.

## Maintenance

Most radiant heaters, including short-wave infrared heaters, are relatively maintenance free when compared to unflued gas heaters of any sort. There is no cleaning to make sure that fumes aren't building up, and no gas bottle or piezo lighter to be changed when it runs out or wears out. In the case of the Heliosa® range, the heaters have up to 7000-hour lamp life compared to the industry standard for radiant emitters of up to 5000 hours. In effect, once mounted, the heaters are maintenance free, and if some dusting is required, can be washed down with a low-pressure hose-pipe.

## Customer Perception

Most radiant heaters have either a warm 'reddish' glow, or no glow at all (usually broad spectrum 'black' or 'white' ceramic surfaces). The Heliosa® range has an 'amber' light which is suggestive of the colour of a wood fire and offers a 'warmer' ambience to the location being heated. Unlike unflued gas, electric heaters have no carbon monoxide fumes to worry about, and in general, no opportunity to trip on a freestanding heater while negotiating a heater cluttered floor. Short-wave infrared heaters with their ability to reach further than other radiant heaters therefore offer an ambience enhanced experience to the customer without any occupational health and safety issues arising. For more information on short-wave infrared heating, please feel free to ask Mr Google or contact SBH Solutions, distributors of Star Progetti's world leading range of heaters.

