

Infrared keeps Tires hot

An infrared heating system, developed by Tyre Technology, of Holmfirth, and using infrared emitters from Heraeus Noblelight, is helping to ensure that the tyres of some of the cars taking part in the new A1 Grand Prix are at their optimum operating temperature at the start of every race. The system has already been used successfully by various race car and tyre manufacturers throughout Europe.

The correct tyre temperature is an important parameter in the operating performance of a modern race car, as it is the tyres which transmit the power to the track and the tyres which provide the frictional force to keep the car on the track. The high specification tyres, specially developed for racing, are designed to perform at their best when they reach an optimum temperature. Conventionally, they are heated to this temperature by means of tyre blankets while in the pits garage. However, conventional tyre blankets feature considerable heat-up times and need to be switched on well in advance of their expected use. They are also extremely energy-intensive and can take up to 2 hours to heat up a typical racing tyre

In contrast, the new heating system can heat a tyre to 85°C from cold in less than ten minutes and heated tyres can be held, energy-efficiently at this temperature for up to 2 hours.

Essentially, the new Franc 11 system consists of an easily assembled and dismantled aluminium framework which contains ten, 2.5kW carbon infrared emitters. Up to four wheels at a time can be placed within the framework and the operator simply sets the required temperature, presses the start button and draws an insulating blanket into position. The new system offers significant advantages over conventional heating blankets. It provides deeper heat, so that heat is retained for longer and it delivers even heat so that there are no hot spots. Warm-up times have been drastically reduced and the system is particularly energy-efficient. Moreover, it saves valuable garage space, as one Franc 11 system can replace up to 16 sets of conventional tyre blankets.



Features

- Fast and uniform heating
- Elimination of hot spots
- Reduction of heat-up times

Technical Data

- medium wave Carbon Infrared heaters
- System of 10 emitters, 2.5kW each
- Heating up in 10min to 85°C

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