

## Infrared Oven Provides Bumper Results At Honda

An infrared oven, fitted with fast response, medium wave emitters, from Heraeus Noblelight is helping to increase the efficiency of the spray painting of vehicle bumpers at Honda of the UK Manufacturing Ltd.

Bumpers are painted with three coats. First a prime coat is applied, which is flashed off in a warm air oven before being cooled. A base coat, which includes the colour pigment, is then sprayed applied and dried before being cooled for the final stage, which is the application of a top clear coat. The bumper is then passed through a settling zone before being finally dried in a third hot air oven.

Honda decided to investigate the possibility of pre-drying the base coat before it entered the hot air drying oven. Tests demonstrated that fast response medium wave emitters would prove much more efficient and would allow Honda all the benefits of short wave. The results of these comprehensive tests were subsequently confirmed by Honda themselves. A tunnel oven was installed immediately before the base coat drying oven. The tunnel oven is fitted with 19, 3kW fast response medium wave emitters with a total power rating of 57kW. These are arranged within the tunnel to provide optimum heating density for fast and efficient drying. Specifically, seven emitters are arranged in the roof section, four emitters are arranged in each of the two vertical sections and one emitter is located in each of the two upper and lower angled sections. Three optical pyrometers measure the temperature at specified points on each bumper as it leaves the infrared tunnel.

Honda have found that the new installation has helped to increase the line efficiency, while saving space when compared to other methods of accelerating the drying rate. It has also proved very energy efficient, as the infrared emitters can be switched off virtually instantaneously.



### Features

- Drying of spray painting on vehicle bumpers
- Infrared pre-drying before hot air oven
- Increase of line efficiency
- Saving of space and energy

### Technical Data

- Fast response medium wave heaters with response times within seconds
- 19, 3kW emitters of 57kW total power
- arranged in a tunnel
- Controlled by three optical pyrometers

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