



Corrective Heating and Impulse Prediction System

# CHIPS

The energy saving technology

## Energy Saving Self Regulating Control for Air Curtains



user-friendly



energy saving



green



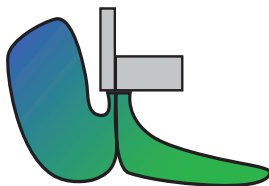
intelligent



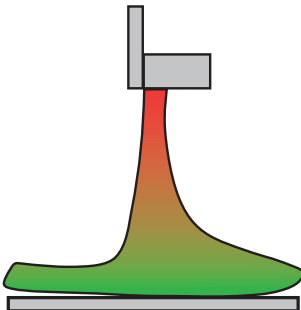
CHIPS Touchpad Controller



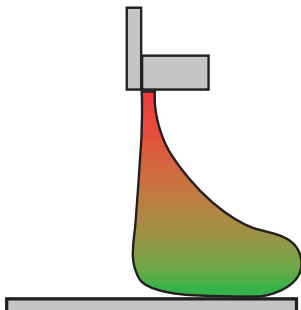
Insufficient Heating, Insufficient Air Volume



Too Much Heating, Too Much Air Volume



Optimum Heating, Optimum Air Volume



## Energy saving self regulating control for air curtains

Whilst air curtains have been proven and acknowledged to save energy and increase comfort the traditional method of manual control has its limitations.

Customer research has established that at the time of installation the air curtain is typically set to operate at a mid-speed setting and rarely adjusted. This results in the air curtain continually operating at a single air volume and temperature. However as internal and external conditions constantly vary this means the air curtain will only be operating at the optimum setting some of the time, and for the rest of the time will be on either too high or too low a setting.

Utilising the new CHIPS control prevents such inefficient operation. Outside and return air temperature sensors enable the difference between the external and inside temperature to be measured. The bespoke control algorithm then 'translates' this into the theoretical strength (a combination of air volume and velocity) required for optimum control in a no ventilation situation.

The difference between the actual inside temperature and the desired inside temperature then enables calculation of how much heat is required, and the air curtain's discharge temperature is adjusted as appropriate.

Thus by continuously monitoring conditions in and around the entrance environment, and controlling air volume, velocity and temperature independently of each other, optimal air curtain performance is guaranteed and energy consumption is minimized. Indeed, tests have shown energy savings of up to 75% when compared with a manual controlled air curtain.



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