

Heating Silicon Wafers with Model 4554 High Density Pyropanels

Application

A manufacturer heating silicon wafers between processing stations.

Problem

Limited Space - The production line contained a limited amount of space to hold heating equipment.

Existing Resources - The heating equipment had to be compatible with the existing production line machinery and robotic handling equipment.

Line Speed - Existing resistance heaters did not produce enough watt density to heat up the silicon wafer in the desired amount of time.

Solution

Heat - Two Model 4554 High Density Pyropanels were mounted on each side of the production line to heat the wafers.

Instant On/Off - The High Density Pyropanels heated up and cooled down instantly.

Power Control - Model 664F Phase Angle SCR Power Controllers controlled the power to the High Density Pyropanels.

Benefits

Well-Utilized Space - The Model 4554 High Density Pyropanels mounted in the available space on the production line.

Utilized Existing Resources - The manufacturer was able to use the High Density Pyropanels with existing machinery and equipment.

Increased Speed - The high density heat provided by the High Density Pyropanels enabled the manufacturer to increase line speed beyond the original requirement.

Limited Power Consumption - The instant on/off capabilities of the High Density Pyropanels enabled the manufacturer to turn them back to an idle condition when wafers were not being heated, keeping energy consumption to the minimum required.