

Case Study: **Insulation**

SENERGY Consultants (P) Ltd

Background:

While conducting energy audit for a heat treatment industry; the quality of insulation was observed to be quite poor for many of the furnaces.

Operating Scenario:

The losses through insulating surfaces were computed by noting down all the operating parameters including

- Profile of the temperature of entire furnace surfaces with the help of thermal imager camera
- Surface area with the help of ultrasonic distance meter.

It was observed that heat loss through surface area was contributing substantially to overall energy loss.

The thickness of insulation was observed to be inadequate for the present operating temperatures.

Energy Conservation Measures:

The above concerns and issues were addressed by taking the following measures.

- The damaged insulation was replaced as an immediate measure
- The better quality insulation of requisite thickness was provided as a long term measure

Outcome:

- The energy consumption of these furnaces reduced by around 10%; leading to 5.0% saving in the overall energy costs.

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Helping You to Conserve Resources

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