

Successful Implementation – Energy Conservation Measure

Measure
Energy saving
Equipment
Laboratory water bath without electrical coil but with partial usage of hot plate energy source.
Industry / Sector
All analytical and research laboratories of Petrochemical, Agrochemical, Pharmaceutical etc.,
Year of Implementation
2006
Cost Benefit Analysis
<input type="checkbox"/> Type of Measure: Energy saving by placing fabricated water bath without electrical coil but with partial usage of hot plate energy source which is also being used in testing Laboratory.
<input type="checkbox"/> Annual energy Savings : 35040kW
<input type="checkbox"/> Actual cost savings : Rs.1,61,184.00
<input type="checkbox"/> Actual investment : Rs.5000/=
<input type="checkbox"/> Payback: one month
Implementation Highlights
<input type="checkbox"/> We are using hot plate and water bath round the clock to cater the need of Integrated Petrochemical complex and this is common in most of the testing laboratories and existing practice in our India and other part of world. Most of the time normally we use to experiences the failure of water bath once in a month or even twice due to coil damages. We have successfully implemented fabricated water bath without coil with partial usage of hot plate energy source.

Summary

Energy saving by placing fabricated water bath without electrical coil with partial usage of hot plate energy source. Our project was successfully implemented on Jan'2006 and is working satisfactorily. The details of benefit as shown in the cost benefit analysis.

Background Often we use to experience water bath failure due to coil damages on or two times in a month which leads to delay in reporting result to process department or our customer.

Principle Laboratory water bath fabrication without electrical coil but partial usage of hot plate energy source.

Details of techno-economics:

Particulars	Actual energy savings
Contract Demand	-
Earlier MD	-
MD after installation of controller	-
Demand savings per month @ Rs. 150/ kVA	
Annual Cost savings, Rs. lakh	1.61
Cost of implementation, Rs. lakh	0.05
Simple payback period, Year	0.033

Implementation issues Successfully implemented on 28.01.2006 and now working well with energy saving as said in the cost benefit analysis.

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