



Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure Energy efficient agitators	SectorPharmaceuticals.....
Year to be filled by BEE		Technology ...Agitator.....
<p>Description of the energy conservation measure:</p> <p>Earlier the mixing vessels and reactors were installed with conventional anchor design agitators ,the hydrofoil agitators by virtue of their lower power numbers were better choice.A study of the mixing pattern was done and efficient agitator was designed with help of GMM Pfaudler India limited and based on trial results high volume high ppower dedicated reactor agitators were replaced ny hydrofoil agitators .This resulted in lower power requirement as well as better yields due to better mixing.</p>		
Picture/ sketch/ drawing before modification (if available)	Picture/ sketch/ drawing after modification	
		
<p>Agency that executed the project (with complete address and email):</p> <div style="background-color: #e0e0e0; padding: 5px; border: 1px solid #ccc;"> <p>GMM Pfaudler Karamsad, India Tel: (91 26) 9230367 Fax: (91 26) 9231935</p> </div>		

Saving Summary for the changed agitators

Sr.No.	Reactor No.	Capacity in KL	Conventional Agitator KW	New Agitator KW	Energy saved per hour	Total hrs run	Total Power saved	In Rupees
1	R-4101	8	22	4	18	864	15811	73838
2	R-4202	15	37	15	22	4800	105600	493152
3	R-4203	15	37	15	22	4800	105600	493152
4	R-4204	6	19	4	15	3960	58608	273699
5	R-4205-A	8	19	15	4	4560	15960	74533
6	R-4206	5	15	2	13	2160	27648	129116
7	R-4207	12	30	4	26	1728	45446	212235
8	R-4208	12	30	4	26	3000	78900	368463
Total in Rs Million							2.12	

Total investment, Rs.: 23 Lakhs

Year of implementation: 2005-2006

First year energy cost savings, Rs.: 21 Lacs

First year other savings, Rs.: 400

Company complete address:
Jubilant Organosys Limited
No 56-58 Industrial Area
Nanjangud 571302

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to use this information
for dissemination

Signature

Contact person who could be contacted for more information:
Suman Dev

Date

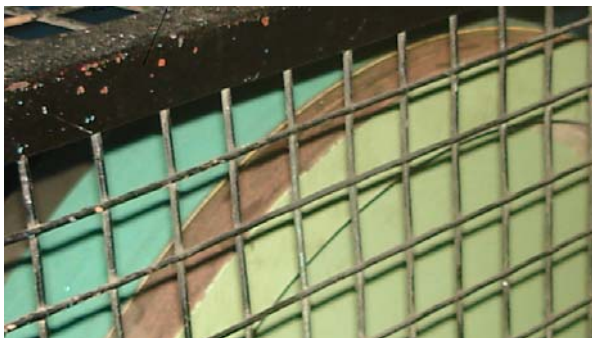
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ID to be filled by BEE	Title of the measure Installation of Flat belt system in reciprocating type Air compressors and refrigeration compressors	Sector Pharmaceutical
Year to be filled by BEE		Technology ...Flat belts

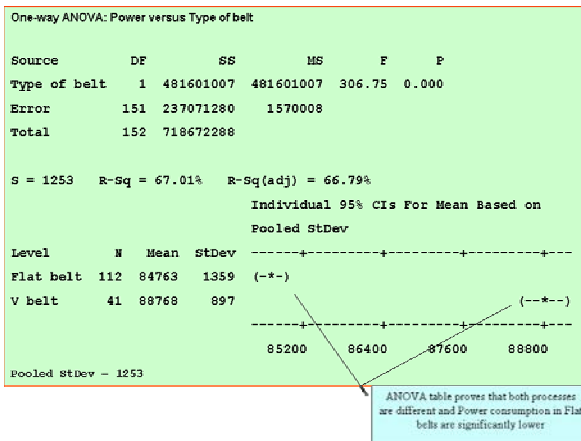
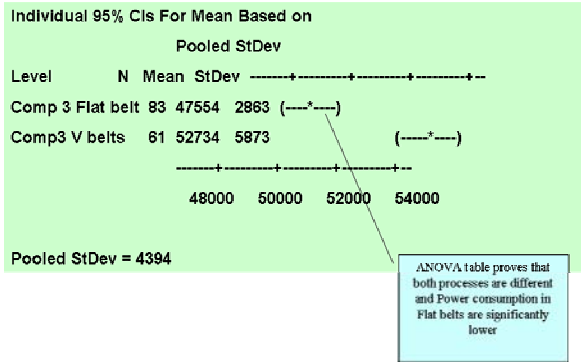
Description of the energy conservation measure:

Direct technology replacement in drive system ,by installation of flat belts was done to reduce the energy consumption by 3% to 7%.It was also ensured that the compressor rpm remains the same for the desired output.

Picture/ sketch/ drawing after modification
(if available)



One-way ANOVA: stacked versus group



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Agency that executed the project (with complete address and email):
 Elgi Ultra Industries Limited
 Trichy house
 Coimbatore 0422-2304141,polytexmktg@elgiultra.com

Total investment, Rs.:0.90 Lacs	Year of implementation: 2006
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First year energy cost savings, Rs.: 2.93 Lacs

First year other savings, Rs.:

On running load basis	Comp system-1 KW	Comp system -2			
Energy consumption before	88.7	58.7			
Energy consumption after	84.7	52.7			
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	4.7				

Company complete address:
 Jubilant Organosys limited
 No 56-58 industrial area Nanjangud
 Mysore 571302


Contact person who could be contacted for more information:
 Suman Dev
 Suman_dev@jubl.com

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Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure	Sector ...Pharma.....
Year to be filled by BEE	Installation of Variable frequency drives ,with temperature feed back for Cooling tower fan speed control.	Technology ...VFD.....
Description of the energy conservation measure It was observed that the temperature difference of CT water Basin and return water was approx 2 to 3 deg C ,against design of 6 deg C.To modulate the cooling fans temperature feed back was taken and fan speeds were controlled using VFD ,On _OFF control was avoided to maintain uniform air flow through out the tower.		
Picture/ sketch/ drawing before modification (if available)		Picture/ sketch/ drawing after modification
Not available		 <p style="text-align: center;">Panel for 4 fans</p>
Agency that executed the project (with complete address and email): Inhouse installation ,Components supplied by ,Rosemount ,and Schnider Electric.		
Total investment, Rs.: Lacs 5.0		Year of implementation: 2006

First year energy cost savings, Rs.: 13 Lacs					
First year other savings, Rs.:					
On running load basis	kW	Coal (Tons)	Gas Nm³	Oil (kL)	Other
Energy consumption before	20.9				
Energy consumption after	4.5				
Energy tariff, Rs/ kWh / Ton/ Nm ³ / kL ...	4.57				
Company complete address: Jubilant Organosys Limited No 56-58 industrial Area ,Nanjangud ,Mysore 571302 Contact person who could be contacted for more information: Suman Dev				We authorise Bureau to use this information for dissemination Signature Date	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure	Sector ...Pharma.....
Year to be filled by BEE	Installation of Variable frequency drives ,with header pressure feedback loop for Modulating Cooling water pumps	Technology ...VFD.....
<p>Description of the energy conservation measure: The cooling water pumps are supplying cooling water to two different plants where the usage was staggered,it was observed that during non operation of different users in plants the header pressure used to increase and to avoid this the bypass line valves at the end of the headers were being kept open,this used to create excess flow conditions for the pumps and they used to get overloaded,134 KW pumps drew 136- 139 KW loads. No of pumps 2</p> <p>To modulate the pumps pressure transducers were installed and based on the feed back of the transducer VFD modulates the pump between its min and max head and flow requirements.</p>		
Picture/ sketch/ drawing before modification (if available)	Picture/ sketch/ drawing after modification	
<div style="text-align: center;">  </div> <p>CT water pumps /PT</p>	<div style="text-align: center;">  </div> <p>VFD installed in panel for Panel</p>	
Agency that executed the project (with complete address and email):In house installation		

,Components supplied by ,Yokogawa ,and Schnider Electric.					
Total investment, Rs.: 8.0 Lacs			Year of implementation: 2006		
First year energy cost savings, Rs.: 45 Lacs					
First year other savings, Rs.:					
On running load basis	KW/hr	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	139				
Energy consumption after	76				
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	4.57				
Company complete address: Jubilant Organosys Limited No 56-58 industrial Area ,Nanjangud ,Mysore 571302				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Suman Dev				Signature	
				Date	