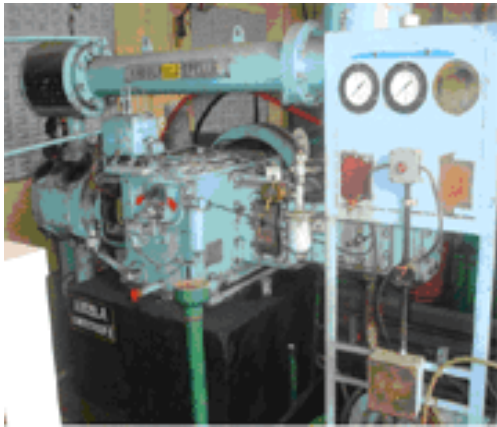







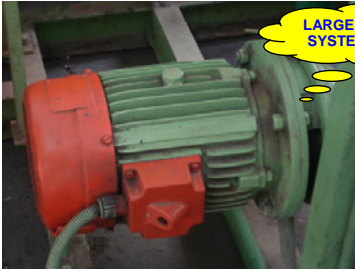
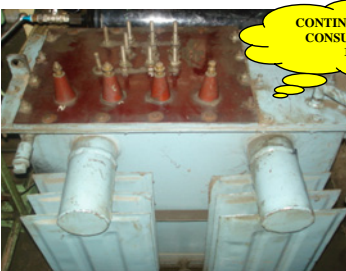
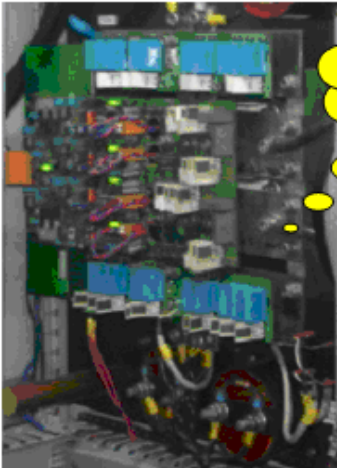
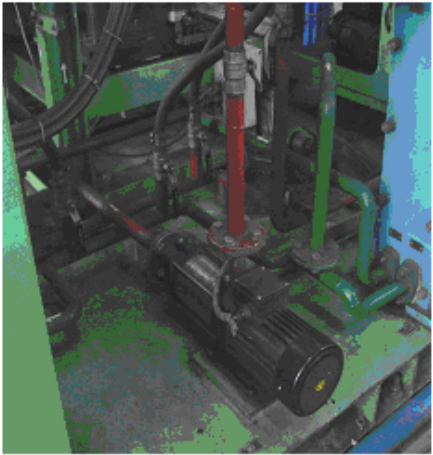
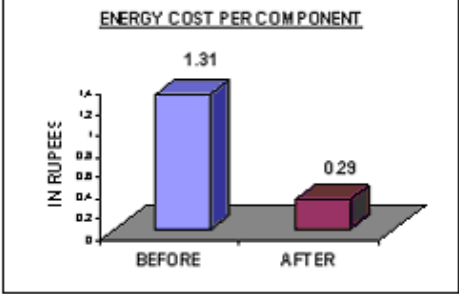
Energy Conservation Measure implemented in 2006-2007



ID to be filled by BEE	Title of the measure 1. Reciprocating Compressor to Screw Compressors. 2. Desiccant drier to Refrigerant drier		Sector : Automobile		
Year to be filled by BEE			Technology : Modernisation		
Description of the energy conservation measure: KHOSLA make 2 numbers of Reciprocating compressors (each 55 KW capacity), are replaced by 2 numbers of (each 30 KW capacity) INGERSOLL RAND make Screw compressors. Energy savings achieved because of 1.High volumetric efficiency 2.No External additional cooling tower required					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): In-house					
Total investment, Rs 8 Lacs			Year of implementation: 2006-07		
First year energy cost savings, Rs 4.84 Lacs					
First year other savings, NIL					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	638.58	NA	NA	NA	NA
Energy consumption after	500.36	NA	NA	NA	NA
Energy tariff, Rs/ kWh...	3.50	NA	NA	NA	NA
Company complete address: M/S Ingersoll Rand(India) Ltd, No: 8, Whites road, IInd Floor, Royapettah, Chennai – 14,				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr. Aravindan, Mobile: 9840199477 Ph: 044 – 28520900/3362/4862.				Signature Date	

Energy Conservation Measure implemented in 2006-2007



ID to be filled by BEE	Title of the measure ENERGY CONSERVATION BY NEW EFFICIENT MACHINE – VTP10 SPARK AMS		Sector: Automobile		
Year to be filled by BEE			Technology: Replacement of existing inefficient equipment.		
Description of the energy conservation measure: Drilling & Tapping operations carried out in 3 nos of 4.5Kw drilling machines (performed by 3 operators). All the three operations are integrated and carried out in New single CNC Drill tap centre of 7.5Kw. Production quantity / shift increased from 70 to 95 Nos.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email):					
Total investment, Rs 11.75 Lacs			Year of implementation: 2006 - 07		
First year energy cost savings, Rs 1.29 Lacs (Effective months for this year = 12 Months)					
First year other savings, Productivity increased by 74% & Maintenance cost reduced.					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	40.32	NA	NA	NA	NA
Energy consumption after	3.32	NA	NA	NA	NA
Energy tariff, Rs/ kWh	3.5	NA	NA	NA	NA
Company complete address: ACE MANUFACTURING SYSTEMS, A153&154, IInd "C" Main road, IInd stage, Peenya Industrial Estate, Bangalore – 560 058.				We authorize Bureau to use this information for dissemination Signature: Date:	
Contact person who could be contacted for more information: Ph: 91-80-8360508/509/510.					

Energy Conservation Measure implemented in 2006-2007



ID to be filled by BEE	Title of the measure REPLACEMENT OF VALVE TYPE TO IGBT VERSION INDUCTION HEATER	Sector: Automobile																
Year to be filled by BEE		Technology: Replacement of inefficient existing equipment.																
<p>Description of the energy conservation measure: Maximum efficiency of valve type induction heater (IH) is 50 ~ 55 % only. In addition to that power loss is present due to the requirement of preheating, constant filament heating, & more cooling requirement. The efficiency can go as low as 25 % when the job impedance not matched with output impedance of the machine</p>																		
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>VERY LESS EFFICIENT MACHINE (ONLY 50%)</p> </div> <div style="text-align: center;">  <p>FILAMENT CONTINUOUS POWER CONSUMPTION 2.2 KW</p> <p>FILAMENT PRE-HEATING TIME - 15 min.</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  <p>LARGER COOLING SYSTEM - 3.7 KW</p> </div> <div style="text-align: center;">  <p>CONTINUOUS POWER CONSUMPTION OF 1.4 KW</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  <p>NO VALVE, NO FILAMENT, NO PRE-HEATING & HENCE VERY LESS NO LOAD LOSS</p> </div> <div style="text-align: center;">  </div> </div>																		
<p style="text-align: center;">POWER COST REDUCTION BY REPLACING VALVE TYPE TO IGBT TYPE INDUCTION HEATING</p> <p style="text-align: center;">ENERGY MEASURED FOR 100 COMPONENTS (35MM TUBE)</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 10%;">SL. NO.</th> <th style="width: 40%;">DESCRIPTION</th> <th style="width: 15%;">BEFORE</th> <th style="width: 15%;">AFTER</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>ENERGY FOR 100 COMPONENTS</td> <td>37.5 KWH</td> <td>8.333 KWH</td> </tr> <tr> <td>2</td> <td>ENERGY FOR 1 COMPONENT</td> <td>0.375 KWH</td> <td>0.083 KWH</td> </tr> <tr> <td>3</td> <td>ENERGY COST / COMPONENT (IN RS)</td> <td>1.3125</td> <td>0.2905</td> </tr> </tbody> </table> <p style="text-align: center;">ENERGY SAVNG PER COMPONENT - Rs 1.02/-</p>			SL. NO.	DESCRIPTION	BEFORE	AFTER	1	ENERGY FOR 100 COMPONENTS	37.5 KWH	8.333 KWH	2	ENERGY FOR 1 COMPONENT	0.375 KWH	0.083 KWH	3	ENERGY COST / COMPONENT (IN RS)	1.3125	0.2905
SL. NO.	DESCRIPTION	BEFORE	AFTER															
1	ENERGY FOR 100 COMPONENTS	37.5 KWH	8.333 KWH															
2	ENERGY FOR 1 COMPONENT	0.375 KWH	0.083 KWH															
3	ENERGY COST / COMPONENT (IN RS)	1.3125	0.2905															
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;">ENERGY COST PER COMPONENT</p>  </div>																		

Picture/ sketch/ drawing before modification (if available)	Picture/ sketch/ drawing after modification				
					
Agency that executed the project (with complete address and email):					
Total investment, Rs 12 Lacs			Year of implementation:2006-07		
First year energy cost savings, Rs 4.55 Lacs					
First year other savings, Rs.: 2 LACS (MAINTENANCE COST REDUCTION)					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	167.29	NA	NA	NA	NA
Energy consumption after	37.18	NA	NA	NA	NA
Energy tariff, Rs/ kWh	3.5	NA	NA	NA	NA
Company complete address: M/S GH INDUCTION INDIA LIMITED, No: 36 & 37, SIDCO Industrial Estate, Thirumudivakkam, Chennai – 44. Contact person who could be contacted for more information: Mr.RAMANATHAN Mobile: 09444035393				We authorise Bureau to use this information for dissemination Signature Date	

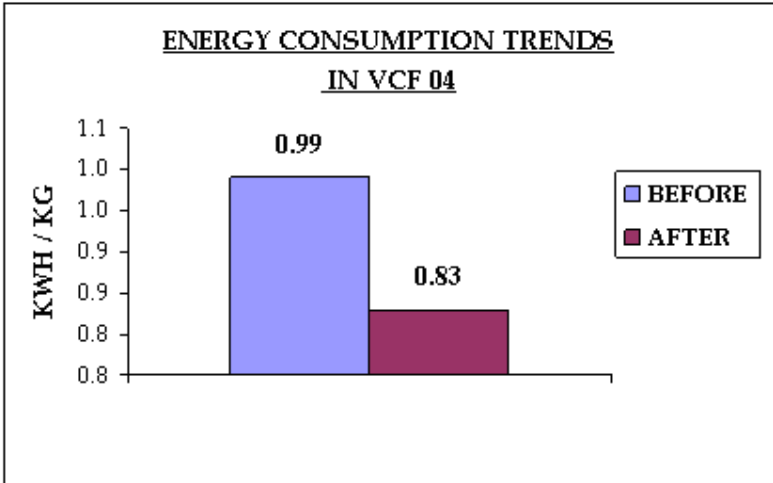


Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure ENERGY CONSERVATION BY NEW EFFICIENT MACHINE – TAL VMC09	Sector: Automobile			
Year to be filled by BEE		Technology: Replacement of inefficient existing equipment.			
Description of the energy conservation measure:					
Since old Vertical Machining centre is less efficient due to lesser rapid rate & older technology. We have procured an efficient Vertical Machining center with higher operating parameter, resulted in more productivity, higher Energy saving & increase in Capacity.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email):					
Total investment, Rs 35 Lacs			Year of implementation: 2006 - 07		
First year energy cost savings, Rs 1.83 Lacs (Effective months for this year = 7 Months)					
First year other savings, Old machine sold for Rs. 5 Lacs.					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	230.58	NA	NA	NA	NA
Energy consumption after	178.58	NA	NA	NA	NA
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.5/Kwh	NA	NA	NA	NA
Company complete address: TAL Manufacturing Solutions Limited, TATA Motors campus, Chinchwad, Pune – 411033. Ph: 91-20-413 5509, 5630, 5480				We authorize Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr. Ravi, Mobile: 9444076600.				Signature:	
				Date:	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure ENERGY CONSERVATION BY NEW EFFICIENT MACHINE – VTB03 BTBM		Sector: Automobile		
Year to be filled by BEE			Technology: Replacement of inefficient existing equipment.		
Description of the energy conservation measure:					
Operations were carried out in copying Lathe (20KW) & Centreless grinder (30KW) by 2 operators, for Ball pin grinding operation. New machine of 7.5HP with integrated Turning & Burnishing operation was procured & installed. The grinding finish is achieved in the burnishing operation itself.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email):					
Total investment, Rs.: 17 Lacs			Year of implementation: 2006 - 07		
First year energy cost savings, Rs.: 2.77 Lacs (Effective months for this year = 10 Months)					
First year other savings, 2.4 Lacs saved (One manpower saving/shift) since we have eliminated the grinding operation.					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	10.23	NA	NA	NA	NA
Energy consumption after	2.31	NA	NA	NA	NA
Energy tariff, Rs/ kWh	3.5	NA	NA	NA	NA
Company complete address: ETA Technology Pvt. Ltd, Peenya, Bangalore – 58.				We authorize Bureau to use this information for dissemination	
Contact person who could be contacted for more information:				Signature:	
				Date:	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure Reduction of thermal loss in gas carburising furnace (By Re-insulation)	Sector Automobile						
Year to be filled by BEE		Technology Upgrading insulation of furnace						
<p>Description of the energy conservation measure:</p> <p>Gas Carburizing Furnace – VCF04 lining re-insulated. Entire panel revamped. All the ON/ OFF temperature controllers (Locally made) are replaced by standard AUTONICS make PID controller. This results in reduction in Thermal loss & excess heating of furnace.</p> <div style="text-align: center;">  <table border="1" style="margin: auto;"> <caption>ENERGY CONSUMPTION TRENDS IN VCF 04</caption> <thead> <tr> <th>Category</th> <th>Value (KWH / KG)</th> </tr> </thead> <tbody> <tr> <td>BEFORE</td> <td>0.99</td> </tr> <tr> <td>AFTER</td> <td>0.83</td> </tr> </tbody> </table> </div>			Category	Value (KWH / KG)	BEFORE	0.99	AFTER	0.83
Category	Value (KWH / KG)							
BEFORE	0.99							
AFTER	0.83							
Picture/ sketch/ drawing before modification (if available)	Picture/ sketch/ drawing after modification							
								
Agency that executed the project (with complete address and email):								
Total investment, Rs.:1 LAC	Year of implementation: 2006-07							

First year energy cost savings, Rs.: 95376					
First year other savings, NIL					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	177.96	NA	NA	NA	NA
Energy consumption after	150.56	NA	NA	NA	NA
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.5	NA	NA	NA	NA
Company complete address: Control Scientific Works, No:16, Pasumarathi street, Kodambakkam, Chennai - 24.				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr. Devanathan, Ph: 044 - 24728102				Signature	
				Date	

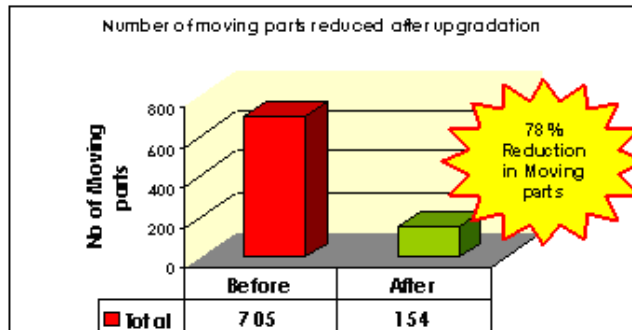
Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure Up-gradation of heavy duty copy lathe into CNC turning centre	Sector Automobile
Year to be filled by BEE		Technology Modernization

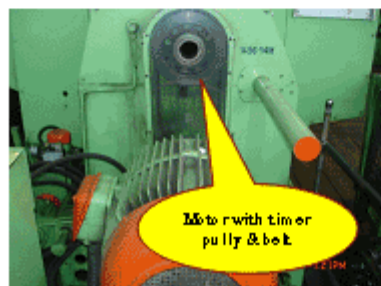
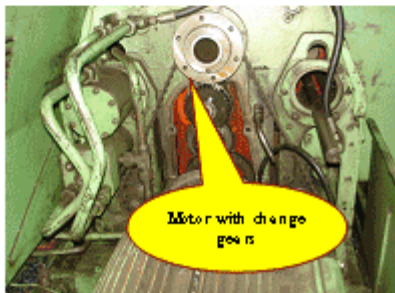
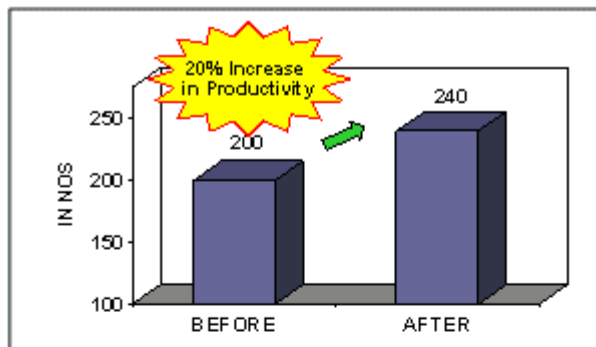
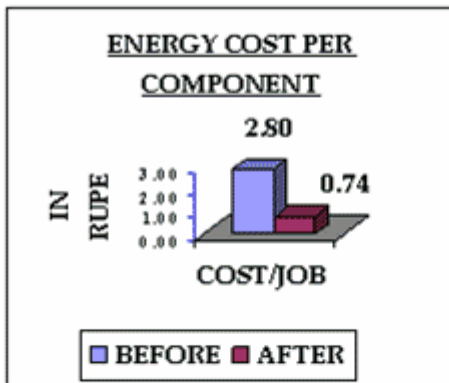
Description of the energy conservation measure:



Existing machine is less efficient because of slow hydraulic function, large number of clutches, gear train both in feed & spindle module, more cycle time.

Module	No of Moving parts	
	Before	After
Spindle	182	44
Copy	344	42
Tailstock	5	4
In feed	97	31
Hydraulic	76	32
Control pannel	1	1
Total	705	154



CNC eliminated all the above said draw backs & made the machine highly efficient





Picture/ sketch/ drawing before modification (if available)	Picture/ sketch/ drawing after modification				
					
Agency that executed the project (with complete address and email):					
Total investment, Rs 10 Lacs			Year of implementation: 2006-07		
First year energy cost savings, Rs 92267					
First year other savings: (Rejection, Outsourcing cost reduction, 50 Lacs investment saved)					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	40.49	NA	NA	NA	NA
Energy consumption after	14.14	NA	NA	NA	NA
Energy tariff, Rs/ kWh ...	3.5	NA	NA	NA	NA
Company complete address: Rane (Madras) Limited, Ganapathy Buildings, 154, Velachery road, Velachery - 600042. Tel: 044 - 22452344, Fax: 044 – 22451435.				We authorise Bureau to use this information for dissemination Signature Date	
Contact person who could be contacted for more information: M. Rathinavelu, Mobile No: 9840066585					

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure WINDMILL GENERATION			Sector Automobile	
Year to be filled by BEE				Technology Non conventional	
Description of the energy conservation measure: On behalf of Rane (Madras) Ltd, the third party M/S Khivraj Motors Ltd is generating the windmill units.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
EB CHARGES			WIND MILL CHARGES		
DESCRIPTION			DESCRIPTION		
In Rs			In Rs		
Normal unit rate			Normal unit rate		
3.5			3.372		
Peak hour rate (Additional Charge)			Peak hour rate (Additional Charge)		
0.7			0.315		
Night Hour rate (Benefits)			Night Hour rate (Benefits)		
0.175			0		
Additional Taxation (Loss)			Additional Taxation (Loss)		
			0.100		
Net savings / Unit - Normal			Net savings / Unit - Normal		
			0.128		
Net savings / Unit - Peak Hour			Net savings / Unit - Peak Hour		
			0.385		
Net Loss / Unit - Night Hour			Net Loss / Unit - Night Hour		
			-0.175		
Agency that executed the project (with complete address and email):					
Total investment, Rs.: NIL			Year of implementation: 2006 - 07		
First year energy cost savings, Rs.: 1.41 Lacs.					
First year other savings, NIL					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	NA	NA	NA	NA	NA
Energy consumption after	NA	NA	NA	NA	NA
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	NA	NA	NA	NA	NA
Company complete address: Rane (Madras) Limited, Ganapathy Buildings, 154, Velachery road, Velachery - 600042. Tel: 044 - 22452344, Fax: 044 – 22451435.				We authorize Bureau to use this information for dissemination Signature Date	
Contact person who could be contacted for more information: M. Rathinavelu, Mobile No: 9840066585					

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure ENERGY EFFICIENT LIGHTING	Sector Automobile			
Year to be filled by BEE		Technology Conventional			
Description of the energy conservation measure: Machines with Individual lamps are fitted with 100 Watts lamp. The 100 Watts lamps were replaced by 11 Watts CFL lamps.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email):					
Total investment, Rs.: 50000			Year of implementation: 2006 - 07		
First year energy cost savings, Rs.: 0.32 Lacs.					
First year other savings, NIL					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	2.8	NA	NA	NA	NA
Energy consumption after	0.059	NA	NA	NA	NA
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.5	NA	NA	NA	NA
Company complete address: Rane (Madras) Limited, Ganapathy Buildings, 154, Velachery road, Velachery - 600042. Tel: 044 - 22452344, Fax: 044 - 22451435.				We authorize Bureau to use this information for dissemination	
Contact person who could be contacted for more information: M. Rathinavelu, Mobile No: 9840066585				Signature	
				Date	