

We Save Energy

Biomass Briquette Fired TFH



WHRS On D.G. Set Exhaust



Combustion Air Preheater



WHRS on Annealing Furnace



WHRS on Melting Furnaces



Heat recovery on RTD Exhaust



Generate 
ENERGY
at **NO COST!**

with Waste Heat Recovery
& Thermal Energy
Conservation
Projects.



Since - 2001
in Thermal Energy
Conservation Projects



Opel

**Energy Systems
Pvt. Ltd.**

About Opel Energy Systems

Opel Energy Systems Pvt. Ltd. BEE Empanelled Energy Service Company having 20 years of experience in the field of Thermal Energy Conservation, Waste Heat Recovery Systems, High efficiency Thermal Equipments

Our Motto is to SAVE ENERGY FOR NATION by providing very simple cost effective PROJECTS to the industry. OESPL have received many awards as a Energy Service Company from MEDA / CII

The Directors and team OESPL, is having experience in the field of Design Manufacturing, Erection and Commissioning of thermal Equipments, Energy Conservation Projects, Process Instrumentation and Non Conventional Energy Projects for 20 years.

Credentials

- Empanelled as ESCO with BEE
- Awarded first as ESCO by MEDA
- National winner as innovative Heat Recovery project by CII.
- National winner as Technology Provider in Energy Conservation by CII

Our Activities

- Energy Conservation Projects
- Waste heat recovery systems on D.G. Sets / Ovens / Furnaces / TFH / Boiler
- High Efficiency Thermal Equipments
- Biomass Briquette fired T.F. Oil Heaters
- Air / Water Source Heat Pumps
- Industrial fuel saving projects

Waste Heat Sources in Industries :

- Boiler / Oil heater Exhausts
- Burner Exhausts
- Baking Oven Exhausts
- Melting / Heat Treatment Furnances
- D.G. Sets / Turbine Exhausts
- Paint Shop Exhausts
- Air Compressors
- Chemical reaction Heat Exhausts

Heat Recovered can be used for :

- To Generate Hot water
- Process Hot Air
- Thermic Fluid oil heating
- Steam Generation
- Chilling Effect (Absorption / Adsorption)
- Electricity Generation (ORC)



OESPL is the Energy Service Company (ESCO) providing cost effective ENCON projects from concept to commissioning basis with performance guarantee

Waste Heat Recovery – Case Studies

> HWG on DG Set Exhaust : (2 Nos)



| | |
|-------------------------|-------------------------------------|
| Equipment Installed | - Hot Water Generator |
| Flue gas Exhaust from | - 500 Deg.C. D.G.SET |
| Heat recovered | - 4.7 Lac kcal/hr. |
| Heat recovery used form | - Hot water generation @ 120 Deg.C. |
| Simple payback | - 8 Months |

> Air Heater on Thermopack Exhaust :



| | |
|-----------------------|-------------------------|
| Fuel in use for TFH | - PNG |
| Equipment Installed | - Air Pre Heater |
| Heat Recovered | - 4 Lac kcal/hr x 3 Nos |
| Flue Gas Inlet Temp. | - 250 Deg.C. |
| Flue Gas Outlet Temp. | - 120 Deg.C. |
| Pay back period | - 4 months |

> Air Heater on Boiler Exhaust:



| | |
|--------------------------|------------------|
| Equipment Installed | - Air Pre Heater |
| Heat Recovered | - 1 Lac. kcal/hr |
| Exhaust Temp From Boiler | - 250 Deg C. |
| Fuel in Use - | - HSD |
| Pay back period | - 10 Months |

> Waste Heat Recovery Charge Preheater :



| | |
|-----------------------|---------------------------------------|
| Equipment Installed | - Charge Preheater on Melting Furnace |
| Heat recovered | - 78000 Kcal/hr |
| Stack Temp at Exhaust | - 500 Deg C. |
| Annual saving | - Rs. 15 Lac |
| Payback period | - 8 months |

> HWG on Paintshop Oven Exhaust:



| | |
|-----------------------|------------------------|
| Equipment Installed | - Hot Water Generator. |
| Heat recovered | - 2.5 Lac kcal/hr. |
| Exhaust Temp From RTO | - 225 Deg.C. |
| Annual savings | - 50 Lacs. |
| Payback Period | - 09 Months. |

> HWG on Anneling Furnace Exhaust:



| | |
|---------------------|--------------------|
| Equipment Installed | - Steam Boiler |
| Heat recovered | - 2.5 Lac kcal/hr. |
| Exhaust Temp | - |
| Annual savings | - 62 Lacs. |
| Simple payback | - 10 Months |

> Paintshop Oven Exhaust



| | |
|-----------------------|-----------------------|
| Equipment Installed | - Hot Water Generator |
| Heat Recovered | - 6 Lac. |
| Flue Gas Inlet Temp. | - 280 Deg.C. |
| Flue Gas Outlet Temp. | - 120 Deg. C. |
| Payback Period | - 9 Months. |

> HWG On Melting Furnace Exhaust:



| | |
|---------------------|-----------------------|
| Equipment Installed | - Hot Water Generator |
| Heat recovered | - 2 Lac. |
| Simple payback | - 9 Months |
| Flue Gas Temp. | - 350 Deg. C. |

> HWG on Paintshop Oven Exhaust:



| | |
|------------------------------|-----------------------|
| Equipment Installed | - Hot Water Generator |
| Heat recovered | - 3.5 Lac. |
| Total LPG saved from project | - 35 Kg/hr |
| Annual savings | - 100 Lacs. |
| Simple payback | - 6 Months |

> Biomass Briquette firing Conversion for Thermopack

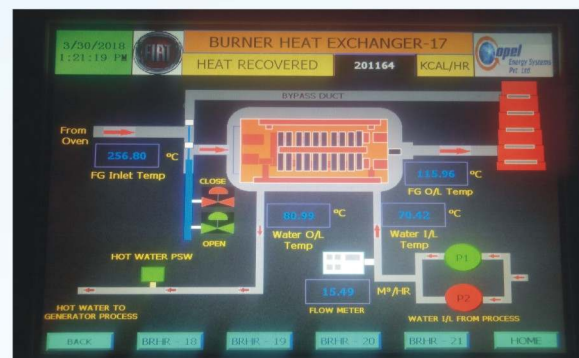


| | |
|------------------------------|------------------------------|
| Equipment Installed | - Briquette fired Thermopack |
| Equipments replaced | - LPG fired drying ovens. |
| Working Temperature | - 325 Deg C. / 300 Deg.C. |
| Total LPG saved from project | - 100 Kg/hr |
| Annual savings | - 150 Lacs. |
| Simple payback | - 6 Months |

WHRs on Melting Furnace Exhaust



WHRs on Burner Exhausts



Heat recovery from different sources at different temperatures and utilization for different applications / locations :

Waste Heat Recovered from -

- Melting furnace at 400°C
- Paint shop exhaust at 200°C
- Compressor oil heat at 95°C

Heat recovered in the form of hot water at 80°C to use for :

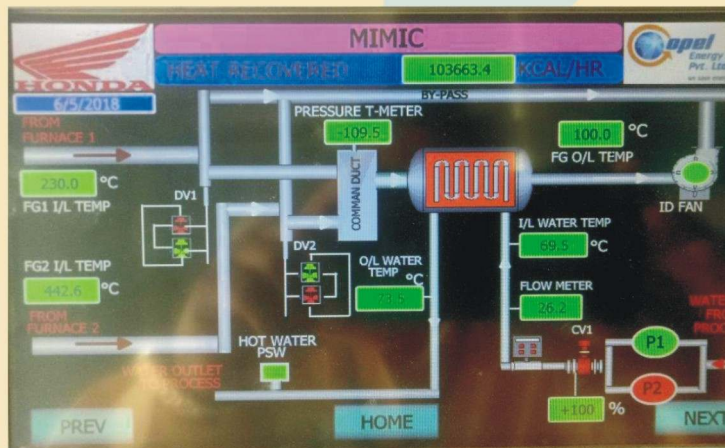
- Paint shop PT line
- Washing machine to replace electricity
- Adsorption system to replace chiller

Project Savings :

- CNG Saved - 1000 SCM / Day
- Electricity saved - 2000 KWH / Day
- Simple pay back - 15 Months

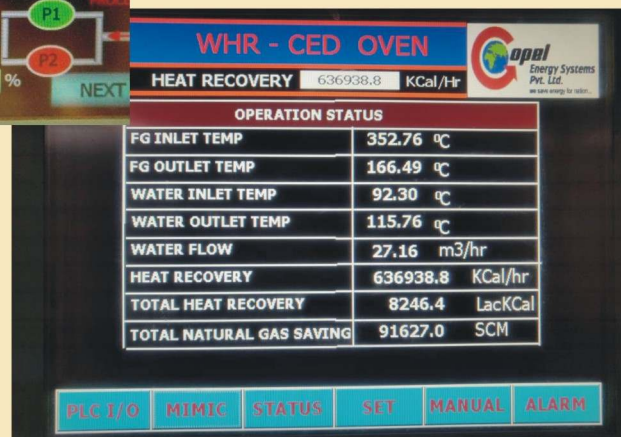


Heat Recovery Systems with Real time Monitoring



- Heat Recovered
- Heat Utilized
- Fuel Saved
- Cost Saved

- We monitor our Heat Recovery Systems from our office
- We provide operation & maintenance services for Heat Recovery Systems
- We Implement energy Conservation Projects on BOT basis



Fuel Saving Devices

Saving upto 15%



More than 3000 Installations

FLUX maxiox™
(β series)

An Ecofriendly
Magnetic Device for
Industrial Fuel Utility

Introduction

FLUX maxiox™ (β series)

The dynamics of combustion of hydrocarbon fuel has forever been a subject of intense research the world over; as also the problems associated with it such as decrease in equipment efficiency through incomplete combustion, consequent carbon deposits and high emission levels.

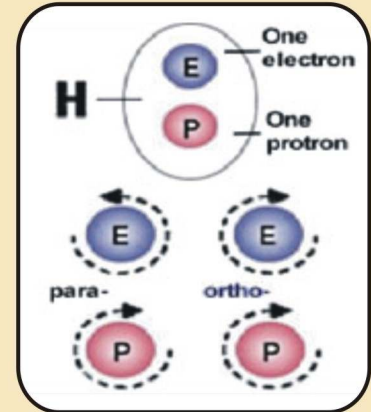
Flux Hi-Tech, Inc. has conducted exhaustive research into the utilization of permanent magnetic fields in alleviating these problems currently associated with hydrocarbon fuel combustion. These studies led to the invention of the FLUX maxiox™, with its rare earth metallurgy and the unique patented flux-collimator-pervader. The on-field success of this device and continuous research has now given way to the new FLUX maxiox™ (β-series) which, with its patented fusion technology and a better availability of magnetic field, promises to give rapid and effective results.

The FLUX Technology

The most important factors in the flux products are the magnetic field intensity and the collimation of the magnetic lines of flux. It is these two aspects that render the flux products different from any ordinary permanent magnets. The intensity of the magnetic field is far superior to that generated by regular permanent magnets and the collimation of the magnetic fields renders the magnetic lines of flux exactly parallel to each other at extremely high densities (to the order of millions of lines of flux per sq.cm.).

These devices are external online installations without cutting or modifying the fuel pipes and the magnetic energy generated through the FLUX maxiox™ (β-series) is rendered concentric and exactly perpendicular to the flow of the fuel.

Working Principles



Suitable for
all type of burners

Fuel :
HSD, LDO, F.O., LPG,
Propane, PNG



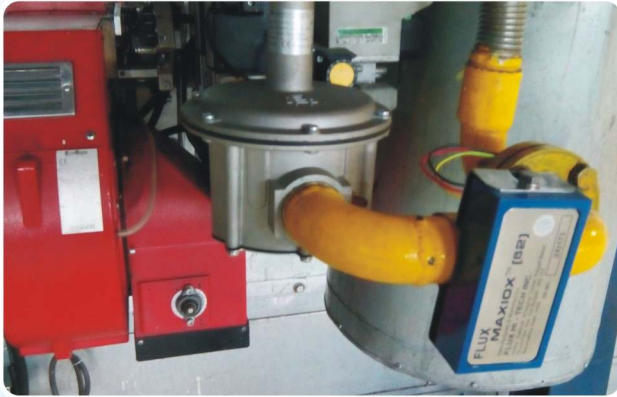
Flux Maxiox
Fuel saving System



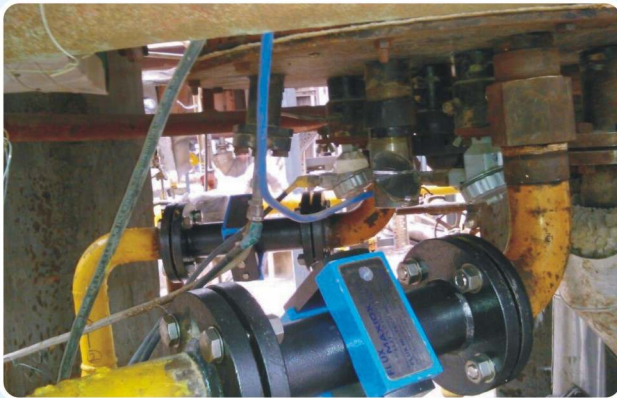
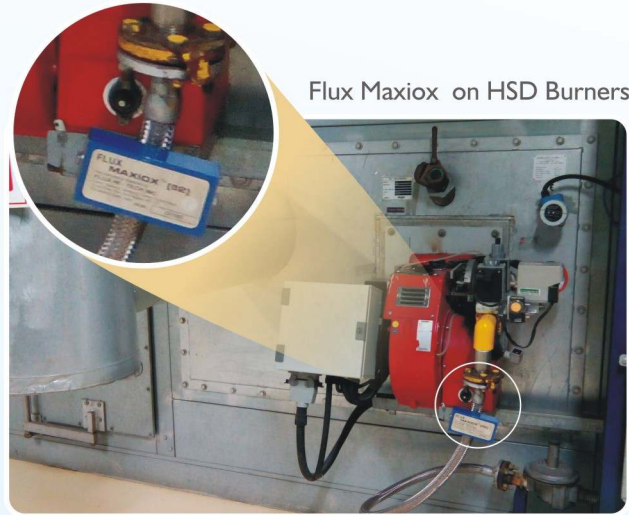
We Save Energy

www.wasteheatrecovery.co.in

Flux Maxiox ON Propane Burners



Flux Maxiox on HSD Burners



Flux Maxiox Fuel saving System



Flux Maxiox On NG Burner

Case Studies

Water Source Heat Pump Project @ Automobile Plant



- Chilled Water Source inlet Temp - 15 Deg C
- Chilled water outlet Temp - 10 Deg C
- Hot water Inlet temp to Heat Pump - 70 Deg C
- Hot water Output from Heat Pump - 80 Deg C
- Heat load reduction due to Hot water output - 500 Kw
- Chilling load reduction due to chilled water - 300 kw
- Total Power input to heat pumps - 180 kw
- Overall COP of the System - 4.5

We Save Energy

Our Prestigious Clients



and many more...



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OUR ASSOCIATE

