

# **ENERGY EFFICIENCY**

#### Shandilya Techno Plast

SHANDILYA TECHNO PLAST

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### **About Us**

Shandilya Techno Plast strives to help industries achieve sustainable energy goals through innovative products.

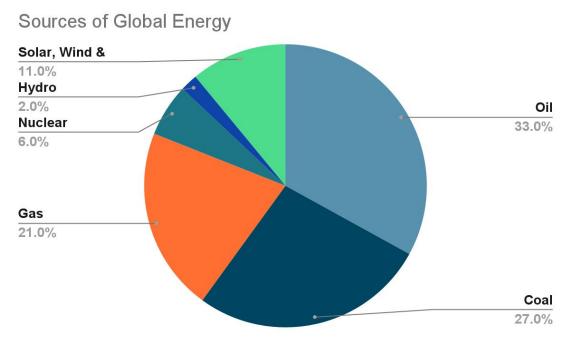
We actively participate in the global industrial community to raise awareness about the importance of energy-saving.

We constantly follow developments on evolving technology to connect industrial problems to novel solutions.

Strongly believe in promoting national interest.

**Energy saved is money earned for Our Nation.** 

# Energy



- Majority of energy obtained is crude-based.
- Global energy demand is expected to increase by 48% in the next 20 years.
- Natural resources are depleting faster

# Today's Challenges

- Rising global energy prices
- Disrupted supply chains
- Pollution & rising health-issues







# **Scope of Solutions**

• Invent new technologies to capture renewable energy - still long way to go

 Use existing technology to meet current energy demands and sustainability goals - *extremely underestimated option*



### What we do?

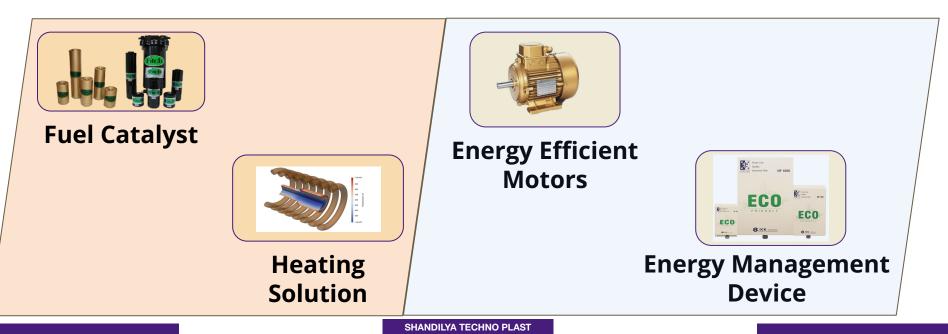
Shandilya Techno Plast was formed to bring innovative energy technology to the Industry. We believe energy holds the key to the future and all efforts should be guided to its efficient utilization and distribution.

We focus on the following key points to tackle issues discussed in earlier slides:

- Crude-based efficiency
- Electric power efficiency



Shandilya Techno Plast provides energy saving solutions. We have a varied range of products for different applications.



# **Fitch Fuel Catalyst**

- Fuel reformer for Oils, LPG & Natural Gas Heating systems
- Fit-and-forget model
- Long-term solution
- Improved thermal output
- Reduced emissions

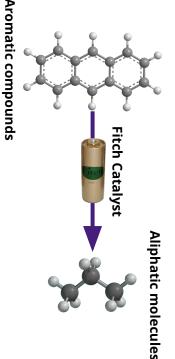


**Fitch Fuel Catalyst** 

# Working Principle

Fitch Fuel Catalyst is a Heterogenous Metallic Alloy Catalyst (HMAC) that when in use, transforms or reformulates the molecular composition of fuel at ambient temperatures and pressures.

It improves oxygenation by altering structure of aromatic compounds found in the fuel into branched aliphatic molecules. The freed up hydrogen allows the fuel to more readily combust and also reduce unwanted emissions.



# **Applications**

Fitch Fuel Catalyst can be used for all crude-oil based fuel type applications. Fuel type may be liquid or gaseous. Most common applications are:

- Furnaces
- Industrial Ovens
- Boilers
- Generators



**Fitch Fuel Catalyst** 

**Fitch Fuel Catalyst** 

#### **Advantages**

- Reduction in fuel consumption (3-12%)
- Easy installation
- Improved machinery life
- UL certified pollution control device
- Reliable patented product with 50,000 operational hours

COMPETITIVE ADVANTAGE onal hours

#### Fitch Fuel Catalyst Success Stories (5000+ Satisfied Customers)















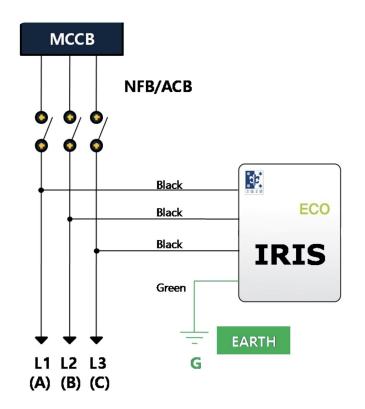


#### IRIS

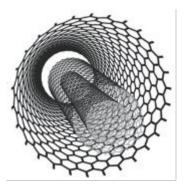
Uses specially synthesized polymers with optimized dielectric properties to react with electricity to generate Magnetic Force Energy.

This energy then allows to create a better environment for an improved energy density flow.

Better flow means reduced losses and increased efficiency.



# **Working Principle**



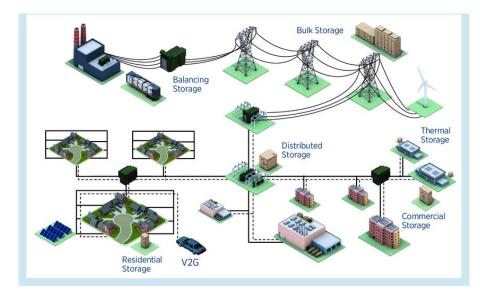
IRIS uses state-of-the-art multi-walled carbon nanotube and polymer synthesis technology to create a unique dielectric environment that chemically makes your electrical system efficient.



MWCNT

# Applications

IRIS Energy Management Device may be used for all electrical based applications.



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# Applications

Most common applications are:

- Manufacturing Industries with high electrical consumption
- Concert Halls/Stadium with heavy light requirements
- Theme parks/Amusement parks
- Buildings: Houses, Apartments, Offices, Restaurants, Hotels









### Not sure about IRIS? We are here to help

- We diagnose your equipment and examine electrical consumption
- We estimate your potential saving rate
- Calculate your ROI (Return On Investment)
- Suggest most suitable IRIS model
- Analyze electrical consumption post installation



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COMPETITIVE

ADVANTAGE

### Advantages

Guaranteed Electric Savings (up to 10%)
Based on type of load:

Resistive Load, Inductive or Complex

- Manufacturer Warranty
- No harmful effect on the installed system (Unique to this solution; Other energy saving devices use voltage drop which could affect the your equipment)

#### **IRIS Success Stories + Case Studies**



IRIS

IRIS INSTALLTION DETAIL AND ENERGY SAVING REPORT					
SR N	COMPANY NAME	ADDRESS	IRIS MODEL	AREA	SAVINGS
1	CLAD METALS INDIA PVT LTD.	F-14, WALUJ, MIDC, AURANGABAD	NF-200	PAINTSHOP	11.29%
2	ELEGANT COATINGS PVT LTD	FAROLA, AURANGABAD	NF-200	PAINTSHOP	9.12%
3	ENDURANCE LTD	CHAKAN, PUNE	NF-200	INDUCTIVE LOAD	15.65%
4	MINDA VAST ACCESS SYSTEM	CHAKAN,PUNE	NF-200	VFD COMPRESSOR	8.15%
5	SIMAKS PRODUCTS PRIVATE LIMITED	VILL -MAHAMDPUR, POST PAINAL ,PATNA	NF-200	ROTO MOLDING MACHINE	15.79%
					12.00%



NKE



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#### **More Solutions from Shandilya Techno Plast**

### EndoCube

- Easy to install.
- Fits on the thermostat sensor on commercial refrigeration units.
- Plug & Save Energy!



# **Elegant - Induction based Barrel Heating**

Induction heating is faster and efficient than conventional resistance heating.

Induction heating works on the Eddy current principle, provides faster reaction, better control and can fetch savings upto 45%







# **Smart Valve Water Solutions**

- Keeps the water line pressurized at the meter to avoid being charged for air volume
- Keeps your flow rate in the desired range for additional water meter accuracy
- Reduces excessively high water pressure
- Eliminates over consumption due to high pressure
- Conserves water, especially in facilities without pressure reducers or flow regulators
- Acts as a shock absorber against pressure surges and drops



# **ED - Kitchen Optimizer**

Over 50 installation in India

Maximum allowed temperature upto 150°C

It can sustain maximum pressure up to 24 bar

Negligible pressure drop



# **Installation Images**

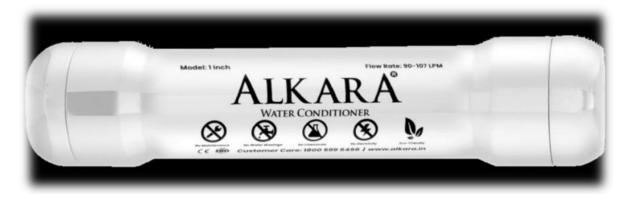




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### **ALKARA Water Conditioner**

Alkara soft water conditioner range employs state-of-the-art electrolysis mechanism to catapult your life out of hard water hassles. Made with unique technology combining 72 different kind of alloys like gold, silver, copper, brass, bronze, aluminium and iron etc. our conditioner never use any kind of salt resin to transform hard water into soft water. Alkara soft water conditioner prevents and neutralizes high level of calcium and magnesium in an eco-friendly way providing immaculate soft water to your residential commercial and industrial purpose.



# **ALKARA Super Five**

- No Maintenance
- No Water Wastage
- No Chemicals
- No Electricity
- Eco-friendly

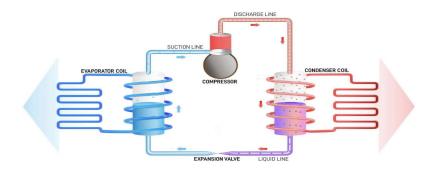


# Shandilya A/C Power Saver

Adds artificial intelligence to the AC. The dual sensor & microcontroller based operation of Shandilya makes the normal AC into a smart AC & reduces the compressor runtime, yielding almost 25% to 30% in savings (monetary).

Reduces the maintenance cost of the AC, as the compressor runs less.

Provides a password protected temperature lock feature - useful in large facility setting for corporates.





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#### Thank you!

