



Hykon[®]
Powering the Nation

SUN

**The Trusted Business Partner
to Multiply your profit**

Hykon Solar Thermal System

SAVE 40%
ON FUEL BILLS



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ON FUEL BILLS



Fuel cost: Wood Coal Furnace Oil LPG Diesel Electricity

Introduction

One of the critical challenges faced by both small and large scale industries is the escalating fuel expenses associated with their manufacturing processes. In industrial settings, steam production relies heavily on various fuels, including wood, coal, furnace oil, LPG, diesel, and electricity—each ranked by cost.

Hykon India Limited: Pioneering Green Energy Solutions

Hykon India Limited, a prominent player in power electronics and solar technology, has developed an advanced, cost-effective solution for Thermal process industries. This innovative system significantly reduces the fuel expenditure required to heat process water or boiler feedwater — achieving savings of 30% to 45%, depending on the industry type. Any industry utilizing steam or high-temperature water can benefit from Hykon's Solar Thermal Systems to optimize fuel costs.

Key Features of Hykon Solar Thermal Systems

Pre-Heating Boiler Feedwater

- Hykon Solar Thermal systems efficiently pre-heat boiler feedwater from an ambient temperature of 25°C up to 85°
- This pre-heating process translates to substantial fuel savings reducing boiler operating costs by 30% to 45%

Cutting-Edge Technology

- Drawing on over 15 years of experience in industrial process heating, Hykon has enhanced its Solar Thermal Systems
- Triple - layer Evacuated Tube Collectors (ETC) enable achieving an optimum feedwater temperature of 90°C

Intelligent Digital Temperature Control

- Hykon's own R&D developed, Intelligent Digital Temperature Controllers (i-DTC) ensure consistent high-temperature feedwater output.

Customized Capacities

- Hykon Solar Thermal systems are adaptable to industry-specific needs
- Capacities range from 500 LPD (Liters/day) to 1,00,000 LPD
 - Our skilled team of technical sales engineers conducts on-site assessments, tailoring the system to each industry's unique requirements
 - Once installed, we can increase the capacity of the system in case of expanding operations or needing more process feedwater.

Hykon Solar Thermal System

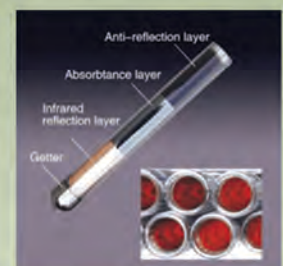
| | |
|-------------------|------------------------|
| Temperature Level | 85° C, +/- 5° C. |
| Design Pressure | 2Kg/ cm2 |
| Water Quality | TDS less than 150 PPM. |
| Cost saving | 35-40% |
| Pay back Period | < 10 months |

Specification - Collector

| | |
|----------------------------|-----------------|
| No: of tubes per collector | 50 nos |
| Collector orientation | Horizontal |
| Frames | Aluminium |
| Manifold | Stainless Steel |
| Pipe | 32 mm. |

Specification - ETC (Evacuated Glass tubes)

| | |
|-------------------------|------------------------------|
| Glass Material | High borosilicate 3.3 glass |
| Glass ID, OD | OD- 58 mm, ID- 48 mm |
| Length of tube | 2100 mm |
| Absorbing material | Aluminium |
| Absorbing Coating | Triple Layer - CU-SS-AL-N/AL |
| Dry Busting Temperature | 250 degrees (without Water) |
| Header Insulation | PUF - 50 mm |
| Tilt of Collector | 20/30 Degree |



Payback period of Hykon Solar Thermal System will be less than 1 year

Areas of Application

- Yarn/Textile manufacturing units • Dying units • Laundries • Hospitals sterilization units • Food industries
- Milk /Diary processing units• Hotels - steam cooking/ laundries • Industries where high temperature hot water or steam is used in the manufacturing process



Textile Unit



Laundry Unit



Steam Cooking



Milk Processing

Savings / Benefits

Apart from the direct savings of fuel, by using Solar Thermal systems, industries can get other benefits as follows

- Working time of boilers can be reduced, thereby reduce the work load of boiler technicians
- Savings in electricity cost-of Blowers /ID and OD fans which will be used in the boiler area
- Save labor charges and loading —unloading charges
- Save storage area charges, transportation charges — as the fuel quantity will be reduced.
- Tax benefits — The industry also profits from an accelerated depreciation, which allows companies to deduct 60% of the investment costs on the first year tax declaration after the investment

Case Study of Successful Installation

Factory: New Amutham Sizing Coimbatore, Tamilnadu

Product: Yarn Manufacturing unit

Installation: in 2009

- Input temperature : 25°C
- Output temperature achieved : 90°C
- Boiler capacity : 2 tons
- Boiler fuel : fire wood
- Fire wood/ day : 4.5 tons
- Cost of fuel/ton : Rs.3000
- Cost of fuel /day : Rs.13,500.00

Savings by using Hykon Solar Thermal System to Pre - heating cold water from 25°C to 80°C

Direct Saving Cost of Wood

- Savings in Wood / Month
- Savings in Wood / Year

Indirect saving - Electricity

- Savings on Electricity / month Rs. 6500/-
- Savings on Electricity / year Rs. 78,000

Total Savings

- Savings / Year
- Saving in 5 Years
- Payback period



ID-OD Fan (Indirect saving)

Additional Savings

- Cost storage of food
- 450 ton wood per year
- 2250 ton in 5 year
- Unloading / Loading charges
- 450 ton wood per year



What Customers Do?

Contact Hykon
Manager

Hykon team will conduct
feasibility Study

Our team will provide
Project Proposal



Hykon[®]
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Help Line
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UPS | Inverter | Solar Water Heater | Tubular Battery | Solar Power Plant
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