



Integrated Engineering for Energy Saving

Gunze Engineering Company

Supporting customers pursuing functionality, convenience, and comfort with optimized proposals



Gunze Eco Cover (Detachable Insulation Cover)

[Details](#)

Major Applications: Insulating the heaters of plastic injection molding machines and extruders
 Heat Resistance of Major Materials: 1,000°C (Please contact us for 400°C or higher applications)
 Features: Easy attachment and detachment, and simple maintenance, providing significant energy saving (20% or higher) for making machines



Aerogel (High-Performance Nanotechnology Insulator)

[Details](#)

Major Applications: Insulating various pipe arrangements, flat surfaces, walls, and products
 Heat Resistance: -200 °C to 650 °C
 Features: "Thinnest" and "Most Durable" in the factory



Features of the energy saving proposals of Gunze Engineering:

- Customer-Oriented Energy Saving Proposals: We always make proposals from the viewpoint of the customer based on our rich experience in saving energy in factories and buildings.
- On-site Energy Saving Practices: We bring the latest technology to the customer's production site, and provide strong assistance to save energy from formulating an improvement plan to conducting works, researches, verification, and post-sales support.
- Providing an optimal system at an optimal price with the best service: We provide optimal equipment (e.g., an energy-saving top-runner) irrespective of the manufacturer at an optimal price and with the best service.

Overview

ESCO Project is a service project that comprehensively provides the "technology (know-how)," "equipment," "human resources," and "funds" required to save energy in factories, hospitals, and buildings. Different from energy-saving renovation works, this project guarantees the amount of effects in energy saving. It provides complete assistance to customers starting from the decision-making process.

Gunze Engineering Company
 Energy Solution Division

4-8-1 Tsukaguchi Honmachi, Amagasaki-shi, 661-0001 Hyogo, Japan

URL: <http://www.gunze.co.jp/engineering/>

E-mail shunji.takashima@gunze.co.jp

TEL: +81(0)6-6423-5000 FAX: +81(0)6-6423-0385



Team E-Kansai

ESCO Introduction

Molding Factory (Bronze Prize Example of in 2006 Superior ESCO Commendation)

<Issues in Introduction and Solution>

There were many cases of inefficient use of air throughout the factory including during air blowing for transporting paper rolls. In addition, the air compressors were old. The production process consumed cooling water all year around and old chillers hindered efficiency. During improvement, our staff visited the site and took thorough measures to reduce the air load leading to significant energy reduction. They also achieved significant energy saving (50% or more) throughout the year by improving the efficiency of the production cooling water chillers.

<Effects>

- Comprehensive energy saving at a molding factory
- Insulating heaters, rationalizing air usage, and improving the efficiency of the chillers, resulting in significant energy saving
- ESCO project renewal of the air compressors and chillers into higher efficiency equipment without initial investment

Textile Factory

<Issues in Introduction and Solution>

As the electricity consumption for air conditioning in summer determined the contract demand, energy saving was required. It was also necessary to maintain comfort in the working environment during summer. Various energy saving measures and improvements in the efficiency of air conditioning by adjusting air supply and exhaust realized both comfort in the working environment and energy saving.

<Effects>

- A wide range of improvements enabled switching contract demand from High Tension B to High Tension A.
- The improvement in the energy efficiency of the air equipment reduced electric power consumption by approximately 50%.
- The adjustment of air supply and exhaust ducts increased the efficiency of air conditioning, which resulted in a better working environment as well as energy saving.
- Measures were taken to save energy for the machines in the manufacturing process.

Insulator Installations (Many cases in molding factories in Japan)

- Gunze Eco Cover - Significant saving power for heaters
- Gunze Aerogel - Many applications in plant silos, industrial furnaces, drying furnaces, etc.



Effects

- Reduction in energy costs by decreasing energy total and peak consumption according to ESCO proposals.
- Reduction in energy and stabilization of quality by inhibiting thermal radiation with Eco Covers and Aerogel
- Highly effective in maintaining safety by insulating heat