



EPS



PITCH STATEMENT

A full-fledged solution provider for industrial manufacturers with over a century of hands-on experience in cement operations, reinforced with strong network of professional partners and world class technologies, ready to bring our valued customers better performance

Who we are

Eco Plant Services Company (EPS) is one of the leading companies that provides professionally engineering services & solutions.

The company has been established since 2002 with a strong engineering background and collective experiences gaining from servicing many of heavy industrial projects, i.e. cement plants, steel plants.

"With our expertise and long term experiences, we ensure that our customers shall obtain the best solutions to fulfill their needs."

What we do

Having been established for nearly twenty years, we are now expanding our scope of services & solutions to cover these key areas: Engineering Solution, Maintenance Repair & Overhaul (MRO) , Project Execution, and Automation.

With a clear vision to be a leader and professional in Industrial Services & Solutions so as to create value to our customers and ecosystem, we are highly dedicated to providing the world class services & solutions excellence for our customers.

Our vision

We are committed to be a leader in industrial services & solutions by being a professional in terms of human capital, technology, and digitization so as to create value to our customers and ecosystem.

Maintenance Repair & Overhaul (MRO)

MRO services are indispensable for all of industrial plants. With our expert teams having collective and hands on experiences, we presently extend scope of services to cover :Predictive Maintenance (PdM) with Special and Advance Measurement Tools; Repair & Overhaul for Kiln, Large Gear, Large Fan, and Motor; Fabrication Work for steel/ stainless steel; and Systematic Integrated Maintenance software that will bring back standard operations to customer's processes and plants.

PdM

Kiln
Solution

Gear OH*

Fan OH*

Motor OH*

O&M**

Fabrication

SIMs***

Note: *Overhaul ** Operation & Maintenance *** Systematic Integrated Maintenance Software



KILN & GEAR OVERHAUL

Found a chronic vibration problem at Girth Gear. Thus, causing lower than design production capacity.

- Firstly, conducted Hot Kiln Inspection by using high precision tools & equipment, i.e. ovality sensor, measuring wheel, laser station, laser polar, IDM, inclination meter, etc., to investigate root causes
- Then, adjusted kiln axis alignment by the expert team

- After that, reversed Girth Gear and Pinion during shutdown

Results: Increasing both of kiln speed from 2.9 RPM to 4.25 RPM and capacity feed rate from 1,200 TPD to 1,900 TPD

Note: Scope of services covers Advanced Measurement & Analysis by tools (AMA), full maintenance service, replacement of various kinds of gears (medium to large size), surface grinding, and high precision reassembling.



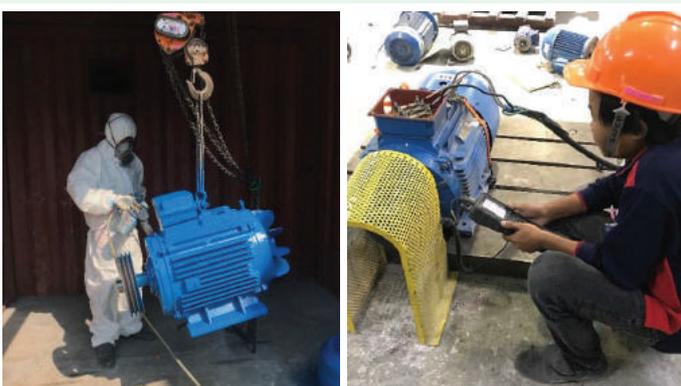
RESURFACING TYRE AND SUPPORT ROLLERS

The rotary kiln for cement plant and rotary drum for fertilizer drying process had serious operational problems, i.e. uncontrolled axial movement, more power consumption, vibration, etc. These symptoms resulted from the uneven profile of the contact surface between tyres and support rollers.

- Firstly, conducted a full inspection by the expert team, using special tools & equipment; finding out the profile of diameter difference had exceeded allowable tolerances.

- Then, resurfaced inlet tyre at site and support rollers at workshop in order to bring back to standard conditions

Results: Extending the service life of rotary kiln/ rotary drum, bringing back the standard of the surface condition defined by measuring the profile of diameter difference



MOTOR OVERHAUL

Scope of services:

- Inspection and clean motor, i.e. casing, cooling fan, filter, slip ring, carbon brush, etc.
- Inspection and clean stator, i.e. cover, move and fix contact, retighten bus bar, etc.
- Electrical Test (Insulation Resistance Test/ Winding Resistance Test)
- Rotor & Stator Rewinding
- Greasing Lubrication
- etc.

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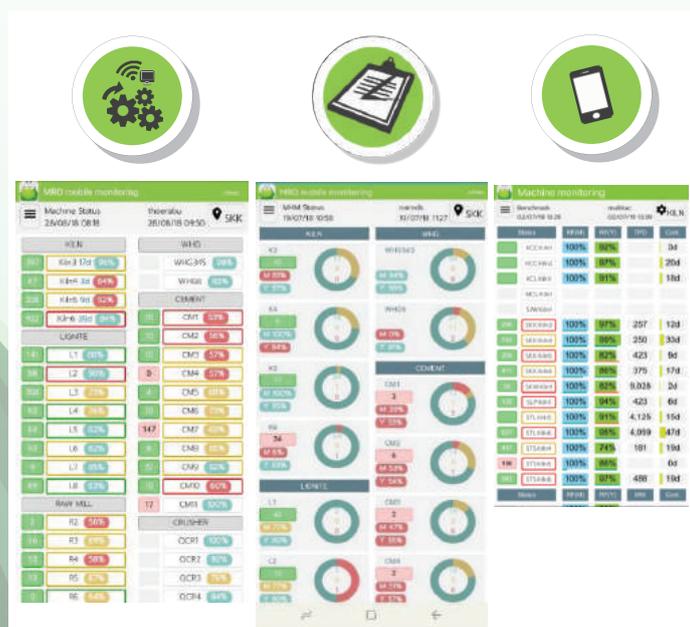
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PREDICTIVE MAINTENANCE (PdM)



Scope of services:

- Phased Array & Ultrasonic Test (UT)
- Laser Alignment
- Thermal Inspection
- PDC (Polarization & Depolarization Current)
- Bore Scope
- Oil Analysis
- Vibration
- Leak Air Test
- etc.



SIMs

Systematic Integrated Maintenance Software (SIMs) is the software for **Managing Preventive Maintenance Process**, having been continuously developed by the programmer team that are experts and specialized in Maintenance System that our team has had hands on and collective experiences from the previous maintenance programs since 1980. In addition, SIMs has been designed and updated to support the concept of Total Productive Management (TPM).

Key Feature & Benefit

- Web-based system design; easy to install and use
- Save cost from unplanned breakdown
- Maintain each machine record and easy for searching data/ info
- Streamline the process
- Auto generate report & plan maintenance

Note: SIMs has been widely used for cement plants and over 30 companies, i.e. Siam United Steel Co., Ltd., Siam Furukawa Co., Ltd., Thai Summit Auto parts Industry Co., Ltd., Nawaplastic Industries (Saraburi) Co., Ltd. and Fasco Motors Thailand Co., Ltd.

Engineering Solution

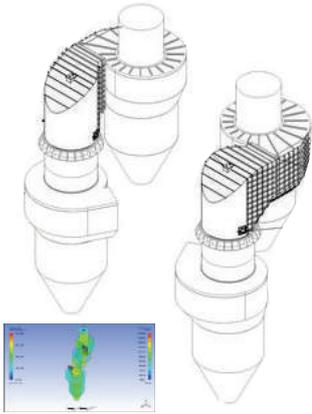
Optimization process is considered the first priority for maximizing production capacity of existing plant resources with a minimal investment. As one of the leading cement manufacturers in ASEAN, we have learned and developed intrinsic engineering knowledge and know how to deliver the best solution for operating cement plants located in both domestic and regional countries: Cambodia, Indonesia, Vietnam, Myanmar, and Laos. Our expert team specialized in cement process can deliver the best solutions for Pyro Process Optimization and Grinding Process Optimization to our customers. Key benefits gaining from these process optimizations are: 1) Maximizing capacity utilization 2) Reducing operating and maintenance cost 3) Improving overall operational efficiency.

Process Diagnosis

Design & Engineering

Mechanical & Electrical Erection

Test Run & Commissioning

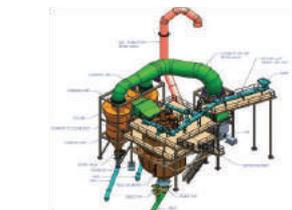


PRESSURE LOSS REDUCTION

To reduce a high power consumption resulting from a high pressure loss in cement production by:

- Modelling and simulating by using CFD.
- Rectifying duct arrangement;
- Increasing duct diameter to reduce inner gas speed;
- Modifying cyclone configuration;
- Enlarging cyclone inlet to reduce inlet gas speed;
- And Installing inner tube's guide vane for more uniform gas streamline.

Results: Decreasing 33% of pressure loss and saving over USD 250,000 per year from a lower electricity cost



SEPARATOR MODIFICATION

To reduce power consumption due to an efficiency drop at separator by:

- Tailoring the design of a new separator to match the conditions of existing machines and to balance heat and mass;
- Installing the new separator;
- Re-designing ducting system and cyclone inlet;
- And designing internal parts to control velocity of gas and material inside the mill.

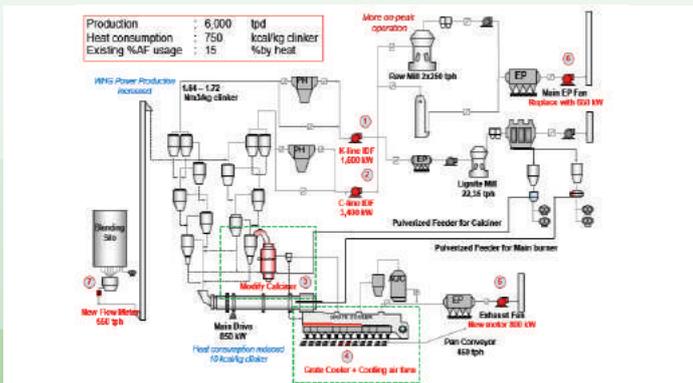
Results: Increasing production capacity by 15 tph and decreasing power consumption by 1.8 kWh/t

PROCESS OPTIMIZATION

To increase an overall efficiency of cement production line by:

- Investigating the entire process, using advanced measurement and analysis (AMA), to probe the performance gap of each unit compared to an ideal value;
- Upgrading kiln capacity;
- Improving Separator;
- Reconditioning deteriorative parts of machine;
- And converting dust trap system from ESP to Bag Filter.

Results: Increasing 10% of efficiency and saving over USD 1.7 Million per year



Project Execution

With many years of experiences in project execution in terms of EPC (Engineering / Procurement / Construction) for cement industry, we are now expanding into other industries such as renewable energy and power plant. As for project execution, we have the professional staffs specialized in civil / mechanical/electrical engineering with hands on experiences. In addition, we also have the professional site management system that will help support the project execution to meet its goals in terms of safety, quality, on time & on budget, vertical start up, and good appearance.

Project
Consultancy

Professional Site
Management

Professional Site
Safety

Engineering
(Civil/Mechanical/Electrical)

Test Run &
Commissioning



CEMENT PLANT : SEMEN JAWA (Indonesia)

- Completed integrated cement plant project with kiln capacity at 5,000 ton per day



POWER PLANT : VCM AND SG (Vietnam)

- 10 MW and 7.5 MW power plant



SOLAR FACILITIES

- 10 MWp Solar Farm at SKK
- 1.5 MWp Solar Roof at SRIC

Automation

To modernize a conventional production line with the state of the art of technology, we have been furthering toward automation system; starting from conceptual engineering design, procurement & installation; to test run and commissioning before handing over to customers. Therefore, our customers will eventually gain benefits from less labor use, improved productivity, reduced production cost, and safety.

Smart Dispatching

Smart Warehouse Solution

Customized Automation



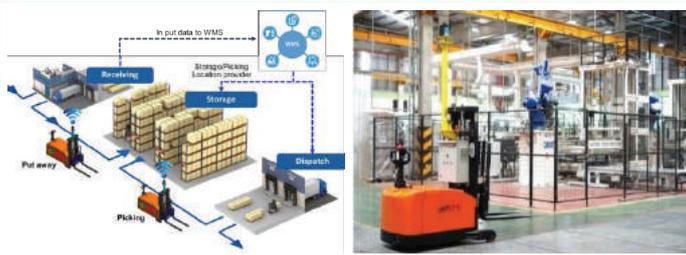
SMART DISPATCHING - PALLETIZER

- Capacity up to 2,400-3,600 bag/h
- 25 kg/bag
- 50 kg/bag
- Turnkey solutions
- Design to be compatible with existing process
- Key benefits:
 - Increased productivity
 - Reduced operating cost



SMART DISPATCHING - BIG BAG LOADER

- Loading capacity up to 50 ton/h
- Loading accuracy +/- 1.5 kg (+/- 0.1%)
- De-dusting bag filter 20 m³/min
- Vibrating system to settle bulk materials
- Clamp and lifting conveyor to ease bag movement
- Fully electrical control system
- Footprint 4.3 x 5.5 m
- Minimum clear height 11 m



SMART WAREHOUSE SOLUTION (WMS+LGV)

- Maximize warehouse space utilization
- Increase warehouse visibility on mobile device
- Enhance order fulfillment and service level
- Easy for traceability
- Design to be compatible with existing WMS



CUSTOMIZED AUTOMATION

- Capacity up to 600 pack/h/robot
- Turnkey solutions
- Design to be compatible with existing process
- Key benefits:
 - Increased productivity
 - Reduced operating cost

Customer Reference



Our Partners

EPS has officially partnered with UBE and has been working in concert with many expert individuals and institutes to bring better efficiency to the industries.



Visit Our Website at <http://ecoplantservices.com>

EPS





EPS



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