



**MACHINE
ASSESSMENT**

**FULL INSPECTION
AND ADJUSTMENT**

**MAINTENANCE
REPAIR AND OVERHAUL**

**SPARE PARTS
SOLUTION**

LARGE ROTATING MACHINE SOLUTION

Inspection, Predictive Maintenance services
and Consultation on Large Rotating Machine.

Inspection, Predictive Maintenance services and Consultation on Large Rotating Machine.

Rotary Kiln



Lime Kiln



Rotary Drum



Tube Mill

LARGE ROTATING MACHINE SOLUTION

EPS provides machine inspection, adjustment and maintenance services aiming to increase the readiness of large rotating machine and reduce losses from machine downtime without advanced planning by an expert engineers with extensive experience in large horizontal rotating machine in industries such as cement, paper, fertilizers, chemicals, petrochemicals, and others for over 20 years.



Improve reliability of the machine

to run continuously according to the production plan with full capacity



Reduce repair costs

from unplanned downtime



Quality spare parts

at a reasonable price

Our Services



MACHINE ASSESSMENT

On-site preliminary machine inspection and evaluation services, including advice and planning for inspection using special tools, in the event that abnormalities are detected that could potentially cause damage to the machine.



FULL INSPECTION AND ADJUSTMENT

Full inspection machine with special tools and specialist, analyzing the condition and adjusting to meet standard operating values.



MAINTENANCE, REPAIR AND OVERHAUL

Maintenance service for machines according to regular repair schedule and major repairs or replacement of large parts.



SPARE PARTS SOLUTION

Sourcing and replacing machinery parts, including warranty and after-sales services

Solution Package

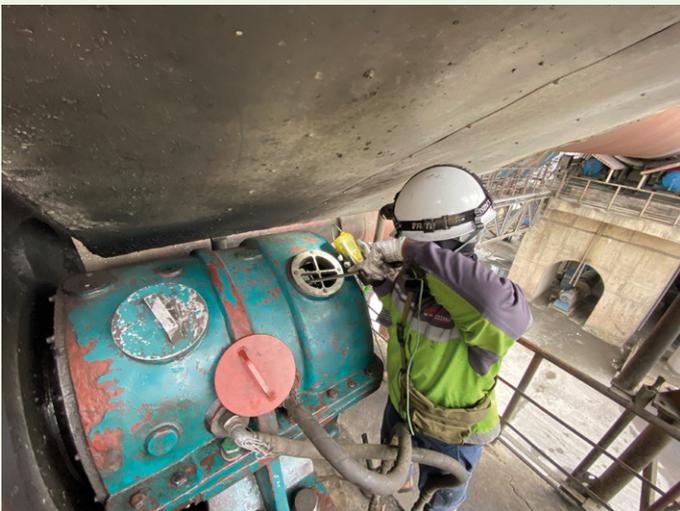
► **Machine Assessment** : Basic inspection the abnormalities by assessing machine's condition

Scope of Work

- Basic inspection and assessment of machinery condition
- Inspect and measure machine vibration, temperature and the overall condition of the machine's operation
- Analyze and identify the preliminary causes of abnormalities found in the inspected machine
- Provide recommendations for basic improvement and a plan for inspection and measurement with special tools

Description	Starting Price (USD)
Machine inspection and evaluation	260

*Note : Exclude travel expenses and depends on the number of days worked
Can use the fee as a discount for other packages in the future*



Solution Package

► **Full Inspection and Adjustment** : Enhance the long-term operational readiness of the machine with the specialized machine condition monitoring service

Scope of Work

1. Axis and Inclination: Inspect the axis alignment of the machine's vertical and horizontal axes, and measure the inclination of the machine, using a high-precision Laser station, analyze and adjusting the machine's condition to return to standard values.



2. Shell Deformation: Check for deformation and shell center displacement using a high-precision Shell Laser, and check the roller shaft bending using IDM Tools



3. Shell Ovality and Migration: Check deflection and changes in curvature of shell using Ovality Sensor to prevent cracking and damage to fire bricks inside the machine. Also, check for migration between tyre and shell.



4. Axial Load Balance: Check and verify the axial load balance of the machine. And adjust balancing between roller skew load and thrust roller load.



5. Mechanic Parts: Check physical condition and measure the dimension, thickness, and deformation of critical components.



6. Girth Gear and Pinion: Check Girth Gear radial and axial alignment, including measure gear tooth temperature profile to verify load distribution.



7. Drive Condition: Inspect, measure, analyze vibration and measure temperature of the drive system.



Scope of work	Rotary Kiln	Lime Kiln	Rotary Steam Dryer	Rotary Drum	Tube Mill / Rod Mill
1. Axis and Inclination	✓	✓	✓	✓	✓
2. Shell Deformation	✓	✓	✓	✓	✓
3. Shell Ovality /Migration	✓	✓	✓	✓	
4. Axial Load Balance	✓	✓	✓	✓	
5. Mechanic Parts	✓	✓	✓	✓	
6. Girth Gear and Pinion	✓	✓	✓	✓	✓
7. Drive Condition	✓	✓	✓	✓	✓
Starting price (USD)	15,000	12,000	6,000	4,300	3,000

Solution Package

► **LRM Maintenance, Repair and Overhaul** : Enhance the long-term operational readiness of machine with LRM maintenance, repair and overhaul

Scope of Work

- Machine Plan Maintenance. Bring back condition to standard
- Machine overhaul (Shell replacement, Girth gear and pinion reverse/replacement)
- Tyre replacement and supporting roller surface grinding (Trunnion Turbine overhaul and others)

Service
1. Shell replacement.
2. Tyre realignment.
3. Tyre replacement.
4. Girth gear and Pinion realignment.
5. Girth gear and Pinion reverse.
6. Girth gear and Pinion replacement.
7. Supporting roller replacement.
8. Supporting roller bearing replacement.
9. Supporting roller journal bearing scraping.
10. Thrust roller overhaul and replacement.
11. Tyre and roller surface grinding.
12. Slide shoe shim/replacement
13. Tube Mill trunnion grinding.
14. Tube Mill trunnion surface repair.
15. Tube Mill bearing replacement.
16. Tube Mill journal bearing scraping.



*Note: Price is subjected to the survey on worksite areas and machine condition

Solution Package

- ▶ **Spare Parts Solution :** Enhance the long-term operational readiness of machine and manage maintenance costs accurately with quality spare parts at a reasonable price

Scope of Work

- Sourcing and supply Shell, Tyre, Girth Gear and Pinion
- Replace machinery parts and adjust to meet standard of operating values
- Inspect and check physical condition including after-sales services

**Note: Price is subjected to size of machinery parts*



Service Level Agreement

This is an estimated offering price, for accuracy it is essential to

- Survey on worksite areas
- Estimate volume of machinery

► Project Reference



Full inspection and alignment (Rotary Kiln, Lime Kiln, Rotary Drum and Tube Mill)



-  Size : Dia. up to 6 m. x
-  Length up to 95 m.
-  Capacity : Up to 10,000 tpd



Bearing scraping



-  Size : Kiln dia. Up to 6 m.
-  Capacity : Up to 10,000 tpd



Girth Gear Reversal



-  Size : Dia. up to 8.5 m.
-  Capacity : Up to 10,000 tpd
-  Speed : Up to 4.0 rpm



Girth gear and Pinion Replacement



-  Size : Dia. up to 8.5 m.
-  Capacity : Up to 10,000 tpd
-  Speed : Up to 4.0 rpm



Shell Replacement



Size : Dia. up to 6 m.



Capacity : Up to 10,000 tpd



Speed : Up to 4.0 rpm



Roller and bearing replacement



Size : Kiln dia. Up to 6 m.



Capacity : Up to 10,000 tpd



Tyre & Roller Grinding



Size : Tyre dia. up to 7.5 m.



Capacity : Up to 10,000 tpd (Kiln)



Speed : Up to 4.0 rpm



Trunnion grinding



Size : Dia. up to 6 m.



Capacity : Up to 280 t/h (Tube Mill)



Speed : Up to 4.0 rpm



Contact Information



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