



# TECHNOCHEM

THE INTELLIGENT FURNACE & BOILER CLEANING SOLUTION



A unique chemical cleaning system for furnaces and boilers

**Techno Chemical Asia Co., Ltd**  
**Safety, Service, Integrity**

[www.technochemasia.com](http://www.technochemasia.com)



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A unique chemical cleaning system for furnaces and boilers



### **TECHNOCHEM Asia**

The TECHNOCHEM 'online' chemical cleaning system replaces the need for conventional mechanical cleaning procedures i.e. zero downtime, no shut-downs required, and as such significantly reduces costs for your business.

Techno Chemical Asia Co. Ltd. launched the TECHNOCHEM system in Thailand and has developed a solid customer base with the principal companies in Thailand's petrochemical industry.

- Thai Oil Public Company Ltd.
- Thai Lube Base Public Company Ltd.
- Thai Paraxylene Public Company Ltd.
- IRPC Public Company Ltd.
- PTT Aromatics and Refining Public Company Ltd.

The TECHNOCHEM online cleaning system has been continuously developed over 15 years to meet and often exceed customer requirements. Our commitment to total customer satisfaction is ongoing and is reflected in the endorsements from the organizations listed above which are available to view upon request.

**Techno Chemical Asia Co., Ltd. is now in a position to extend and develop our customer base throughout Asia.**

#### **TECHNOCHEM**

- Optimizing furnace & boiler performance;
- Providing measurable cost benefits;
- Guaranteed Service.

### **TECHNOCHEM Technology**

- The TECHNOCHEM System is an online chemical cleaning process applied in the Radiant, Convection and Air Pre-heater elements of Refinery Furnaces.
- The chemical, TECHNOCHEM introduced into the furnace during the process is a mixture of nitrates, homogenizers, catalysts and solvents.
- The process chemically modifies all deposits removing moisture and allowing the deposits to be easily removed.
- TECHNOCHEM is carried out during normal furnace operation (zero downtime). The complete process is made through existing inspection doors (man holes, peepholes) in the furnace. No modifications to the equipment are required and no interruptions to operations are necessary.
- A Statement of Work is developed for each TECHNOCHEM application which takes into account the furnace configuration, age, condition, etc. to ensure the optimum performance of the TECHNOCHEM system and optimum results.

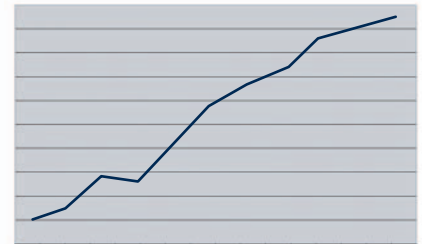
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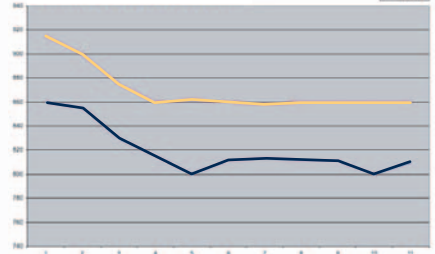
## TECHNOCHEM System Benefits

- **INCREASE INTERVALS BETWEEN SHUTDOWNS**  
Using the TECHNOCHEM system means shutdowns for cleaning are no longer necessary. Shutdowns are only necessary for equipment maintenance or repairs. In practice Techno Chemical Asia customers have been able to extend shutdown intervals from 1 year to 5 years plus!
- **AVOID UNPROGRAMMED SHUTDOWNS**  
Contracting with Techno Chemical Asia for planned TECHNOCHEM system application reduces the risk of unplanned equipment shut downs i.e. shutdowns due to equipment failure.
- **INCREASED THROUGHPUT**  
Significant increased throughput figures are achieved following the application of the TECHNOCHEM system.
- **REDUCED FUEL CONSUMPTION**  
The TECHNOCHEM process is a significant factor in restoring furnace / boiler efficiency.
- **REDUCED RADIANT AND CONVECTION TEMPERATURES**  
Data available indicating levels of reductions achievable.
- **REDUCED HARMFUL EMISSIONS INTO THE ATMOSPHERE**  
Regular applications improve furnace efficiency and less pollutants / emissions are released into the atmosphere.
- **SIMPLE & FLEXIBLE**  
The actual process employed is relatively simple and can be implemented with total flexibility to suit customer's operational working practices.

Throughput



Radiant A & B Temperature



Zero downtime +  
Optimized system  
efficiency

Application of the TECHNOCHEM system will improve equipment efficiency and provide significant, measurable cost benefits.



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