

# Advanced Industrial Services for the Israeli Industry

## **Chemical Cleaning**



**LAOR ENGINEERING LTD.**  
*Upgrading the Maintenance. Together.*

# Company Profile

**Laor Engineering was founded in 1979 and has established itself as one of the leading companies in the field of maintenance of industrial plants and factories in Israel.**



**Laor Engineering** provides solutions in a varied range of industrial areas such as:

- **Chemical and Hydrodynamic cleaning** with High water pressure for systems, structures, heat exchangers and steam boilers.
- **Polymeric protective coatings** against corrosion, chemical attack and wear, extending the life-time of the equipment
- **Import, sales and comprehensive service** of mechanical seals, couplings, water high pressure pumps up to 2800 bar, pumping equipment, coating materials, lubricants and synthetic oil products as well as technologies for dust suppression, Coating for heat exchanger tube sheets and various other technologies if required, with the supervision and assistance of International experts.



**LAOR ENGINEERING LTD.**

*Upgrading the Maintenance. Together.*



## Why work with us?

### ■ **Our Team**

**Laor Engineering** has experienced team of field engineers and technicians with equipment on hand to support its scope of services.

The company is under the management of Ori Or, Mech. Eng. (Technion), Marine Chief Engineer, Steam Boilers & Pressure Vessels Supervisor.

### ■ **Knowledge, Innovation and Experience**

**Laor Engineering** offers a successful combination of technological expertise, experience in the process engineering field and project management capabilities. We offer our customers full support from planning stage through implementation and after sale services

### ■ **High Standard Performance**

The quality management system ISO 9001:2008 of **Laor Engineering** was created and is audited by the Standards Institute of Israel

### ■ **Safety**

Our clients and workers safety is highly important. For that, we implement a strict safety policy, which includes safety trainings and high financial insurance for all types of jobs.



**LAOR ENGINEERING LTD.**

*Upgrading the Maintenance. Together.*

# Representation of leading manufacturers

**Laor Engineering** is proud to serve as the Israeli representative of the leading companies in the world:

The logo for Flowserve, featuring the word "FLOWSERVE" in red, bold, uppercase letters. The letters "O" and "E" are stylized with red curved lines above and below them, respectively.

Mechanical seals

The logo for Mourik, featuring a yellow background with a white stylized shape above the word "MOURIK" in black, bold, uppercase letters.

Industrial services

The logo for Duromar, featuring the word "DUROMAR" in red, bold, uppercase letters inside a red rectangular border.

Protective coating materials

The logo for NLB Corp., featuring a stylized orange and black shape to the left of the text "NLB Corp." in black, bold, uppercase letters.

Water high pressure pumps

The logo for Idrojet s.r.l., featuring the word "Idrojet" in red, bold, italicized lowercase letters, followed by "s.r.l." in black, bold, uppercase letters.

SINCE 1975

Heat exchangers cleaning systems

The logo for StoneAge, featuring a brown silhouette of a rock formation to the left of the word "STONEAGE" in black, bold, uppercase letters. Below it, the tagline "ENGINEERING THE POWER OF WATER" is written in smaller black uppercase letters.

Automated equipment for industrial cleaning

The logo for samiflex, featuring the word "samiflex" in blue, bold, lowercase letters with a registered trademark symbol.

Elastic Couplings

The logo for Royal Purple Synthetic Oil, featuring the words "ROYAL PURPLE" in yellow and blue, bold, uppercase letters with a checkered pattern, and "SYNTHETIC OIL" in smaller black uppercase letters below.

Synthetic oils



**LAOR ENGINEERING LTD.**

Upgrading the Maintenance. Together.

# Our Clients

ALSTOM



חברת החשמל  
Israel Electric



BAZAN בזן  
בתי זיקוק לנפט בע"מ



M+W GROUP

NILIT

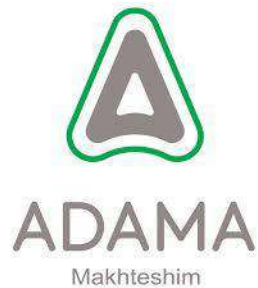


ISRAEL NATIONAL WATER CO.



SIEMENS

ICL



ADAMA  
Makhteshim



משרד הביטחון  
MINISTRY OF DEFENSE



TOWER  
SEMICONDUCTOR LTD.

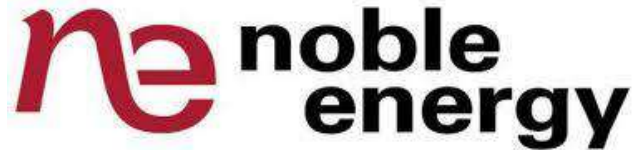


LAOR ENGINEERING LTD.  
Upgrading the Maintenance. Together.

# Our Clients



Tnuva



IMI

Israel Military Industries Ltd.



ROTEM AMFERT NEGEV LTD.



נשר מפעלי מלט ישראליים בע"מ  
NESHER ISRAEL CEMENT ENTERPRISES LTD.



LAOR ENGINEERING LTD.

Upgrading the Maintenance. Together.

# Chemical Cleaning



Over 38 years of **chemical cleaning** experience enables **Laor Engineering** to offer best-in-class technology for pre-operational and operational operations in the petrochemical, refining, utility and process industries



**LAOR ENGINEERING LTD.**  
*Upgrading the Maintenance. Together.*

# Chemical Cleaning

Chemical cleaning covers a wide range of services from new construction to ongoing maintenance activities

**Laor Engineering** provides the two major categories of chemical cleaning:

1. Pre-operational chemical cleaning
2. Post-operational /maintenance chemical cleaning

**Laor** has the most advanced equipment, including: circulation tanks, pumps, boilers and heat exchangers for all applications

**Laor** takes care for the safety, the quality control of the chemical reaction and its documentation



**LAOR ENGINEERING LTD.**  
*Upgrading the Maintenance. Together.*



# Pre-operational chemical cleaning

Pre-operational cleaning involves the chemical cleaning and steam blowing of a new plant before its first commissioning. Depending on the surface condition and start-up specifications, the selection of the appropriate pre-operational cleaning procedure depends on various individual factors:

- The steam boiler Design Pressure
- The required surface cleanliness
- The required protection level against corrosion
- The steam purity to be obtained within a certain time the economic efficiency



**LAOR ENGINEERING LTD.**

*Upgrading the Maintenance. Together.*

# operational chemical cleaning

## Operational cleaning

involves the removal of deposits formed during operation.

According to the thickness, composition, state of material and the operational needs the operator chooses to clean or renew the tubes.



Before Cleaning



After Cleaning



**LAOR ENGINEERING LTD.**

*Upgrading the Maintenance. Together.*

# Laor Engineering Chemical Cleaning

## Experience in Power Plants

Client	Plant	Type of plant / work	Month/Year
<b>Bazan Group</b>	Carmel Olefines	25 Cleanings of TLX steam boilers	1997-2018
<b>Paz Oil Refinery</b>	Ashdod	Pre-Operational Chemical Cleaning ( <b>Boil-Out Procedure</b> ) of a new BABCOCK & WILCOX steam boiler	2017
<b>M+W</b>	Makhteshim Agan Ashdod	HRSG	2015
<b>ISA Khoury Metal Industry</b>	Makhteshim Adama Ramat Hovav	HRSG	2015
<b>Nesher Israel Cement Enterprises</b>	Ramla	HRSG	2014
<b>Paz Ashdod Oil Refinery</b>	Ashdod	HRSG	2008, 2012
<b>BABCOCK BORSIG SERVICE GMBH</b>	Dead Sea Works	2 x Boilers	2005, 2006
<b>ALSTOM(AIPM)</b>	Power Station Hadera	Boiler No.3	2000
<b>DSW</b>	Dead Sea	3 x Boilers	1984, 1988
<b>ORL</b>	Haifa Refinery	2 CE Boilers	1984

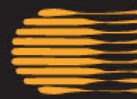


**LAOR ENGINEERING LTD.**

*Upgrading the Maintenance. Together.*

# Laor Engineering Chemical Cleaning Experience with International Companies

Client	Plant	Type of work	Year
<b>M+W</b>	Makhteshim Agan Ramat Hovav	Chemical Cleaning	2015
<b>M+W</b>	Soreq power station	leakage tracing in a turbine's condenser	2016-7
<b>ALSTOM</b>	Eshkol Power station in Ashdod	coating of water boxes of condensers	2012
<b>BABCOCK BORSIG SERVICE GMBH</b>	Dead Sea Works	Chemical Cleaning	2005, 2006
<b>Noble Energy Ltd</b>	Noble Energy plant, Ashdod	High pressure and Hydrodynamic cleaning	2015



**LAOR ENGINEERING LTD.**

*Upgrading the Maintenance. Together.*

# Laor Engineering – Experience with **SIEMENS**

<b>Project Name</b>	<b>Contact</b>	<b>Description</b>	<b>Date</b>
<b>Adom Desalination site</b>	Yoram Zadok	chemical cleaning of the steam bypass lines	2007
<b>Ashkelon CAPP</b>	Ariel Ring	coating of condenser covers	2008
<b>power plant at Adom Desalination site</b>	Gordover Yaacov	Repairs of the internal coating of the Steam Condenser	2014
<b>power plant at Adom Desalination site</b>	Gordover Yaacov	Hydrodynamic cleaning with High water pressure	2014
<b>power plant at Adom Desalination site</b>	Henry Kor	Repairs of the internal coating of the Steam Condenser	2015,2016,2017



**LAOR ENGINEERING LTD.**

*Upgrading the Maintenance. Together.*



# Contact Details

Give us a call : +972-4-9833566

Our Email : [Laoreng@Laoreng.com](mailto:Laoreng@Laoreng.com)

Our Website : [www.Laoreng.co.il](http://www.Laoreng.co.il)

Our [YouTube Channel](#)



**LAOR ENGINEERING LTD.**



**COMPANY PROFILE**

Laor Engineering was founded in 1979 and has established itself as one of the leading companies in the field of maintenance of industrial plants and factories in Israel.

<p><b>SOLUTIONS &amp; PRODUCTS</b></p> <p>3D CAD and 3D simulation services with high-end precision. 3D visualization services for clients. 3D models and drawings for design, with the ability to create and edit models. 3D models and drawings for design. 3D models and drawings for design.</p> <p><b>MANUFACTURING</b></p> <p>High precision metal fabrication. Precision metal fabrication. Precision metal fabrication.</p>	<p><b>INDUSTRIAL REPRESENTATION OF LEADERSHIP</b></p> <ul style="list-style-type: none"> <li>• <b>DEFENSE</b> - Defense products and services</li> <li>• <b>PLASTICS</b> - Plastic processing and equipment</li> <li>• <b>TEXTILES</b> - Textile processing and equipment</li> <li>• <b>FOOD</b> - Food processing and equipment</li> <li>• <b>PHARMACEUTICALS</b> - Pharmaceutical processing and equipment</li> <li>• <b>AGRICULTURE</b> - Agricultural processing and equipment</li> </ul>	<p><b>KEY SERVICE AREAS</b></p> <ul style="list-style-type: none"> <li>• The company has extensive experience in the maintenance of O.G. (Old) Machines (Refrigeration, Compressors, Pumps, etc.) and is known for its high quality and timely service.</li> <li>• The company has a successful combination of technological expertise, experience in manufacturing, strong technical and project management capabilities.</li> <li>• The company provides cost-effective solutions for long-term maintenance.</li> <li>• The company provides full support from planning to implementation and follow-up.</li> <li>• Our experienced customer service team is available to assist you with any questions or concerns.</li> </ul>
---	---	---

Estimated Supplier of Leading Customers: IEC | Bezon | ICL | Ministry of Defense | Aretel | Lohman | Tova | HPI | Heter | Tera | Paz | Helinet | Nitel | Alatom

4 Hama Giv'at Olam, Kiryat Tivon, ISRAEL  
Tel: +972-4-9833566 | Fax: +972-4-9830705 | [Laor@Laoreng.com](mailto:Laor@Laoreng.com)  
[www.laoreng.co.il](http://www.laoreng.co.il)

Upgrading the Maintenance. Together.



**LAOR ENGINEERING LTD.**  
Upgrading the Maintenance. Together.