

**NATIONAL DEVELOPMENT  
COMPANY**

**NADCO**

NADCO

**National  
Development  
Company  
(NADCO)**  
is investment &  
contracting  
company.

**We cover the following in  
water treatment:**

- Water treatment plant capacity: 22000-33000-44000-66000-88000-220000&325000m3/hr
- Waste water treatment plant from 50000PE to 500000 PE
- Compact unit for water treatment plant capacity up to 400m3/hr
- Reverse osmosis from 100m3/hr to 700 m3/hr
- Piping networks with diameter up to 1400mm
- Pump stations

P.O.Box: 113-5641, Beirut-Lebanon  
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nadevusa@yahoo.com

# Water Treatment

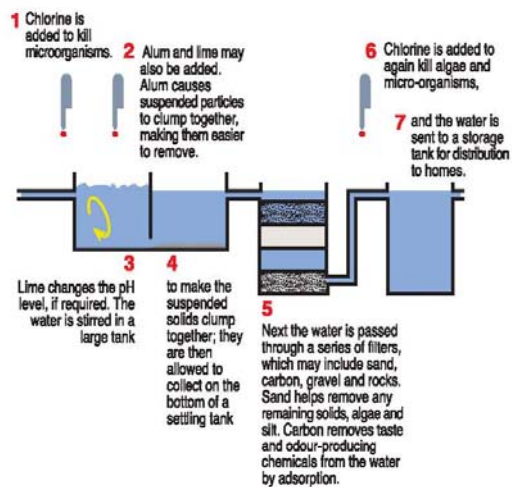
- Section 1:**  
Water Treatment Plant
- Section 2:**  
Compact Unit
- Section 3:**  
Waste Water Treatment Plant
- Section 4:**  
Reverse Osmosis

## NADCO

### Section 1: Water Treatment Plant

Water used by a town or city is drawn from a lake or river, but needs to be treated first to make sure it is safe to drink. The intake pipe extends far out into the lake or river, where it draws in a supply of water which is sent to a treatment plant.

#### Treating Drinking Water



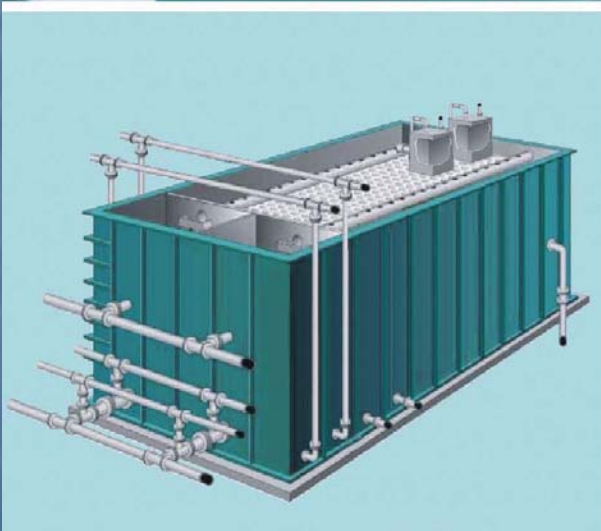
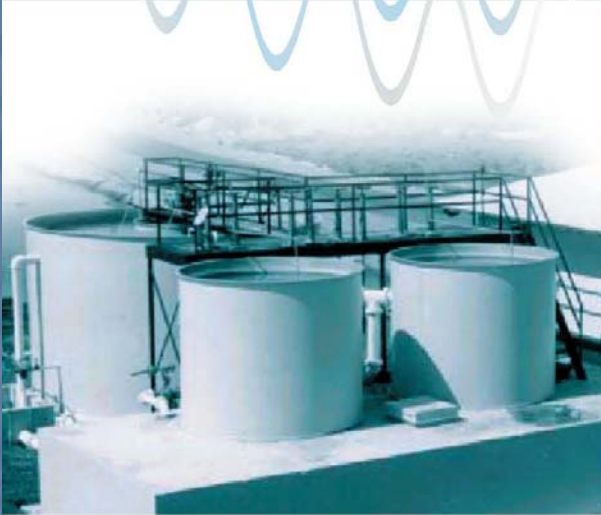
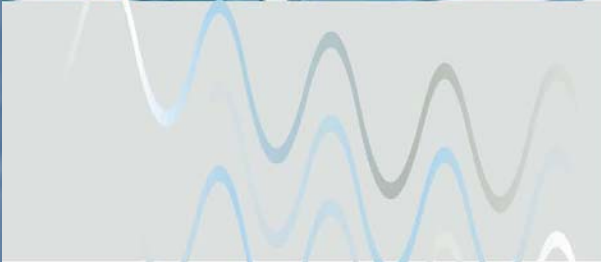


## NADCO

# Water Treatment

## Section 2: Compact Unit

- 1 Clarifying Tanks**  
Tanks  
Mixers  
Flocculates  
Inlet Valve  
Sludge Hopper  
Discharge Pipes  
Lamella Settler
- 2 Intermediate Tanks**
- 3 Filters**
- 4 Aluminum Dosing Pumps & Tanks**  
Tanks  
Stirrers
- 5 Chlorinators**  
Vacuum Chlorinators  
Chlorine Gas  
Detectors  
Piping  
Weighing Scale  
Chlorine Residual  
Indicator  
Gas Masks  
Ventilators  
Testing Equipment
- 6 Pumps**  
Low Lift Pumps  
High Lift Pumps
- 7 Pipes and Connections**
- 8 Vessel**
- 9 Electrical Equipment**
- 10 Cables**
- 11 Spare Parts**



# Water Treatment

## Section 3: Waste Water Treatment Plant

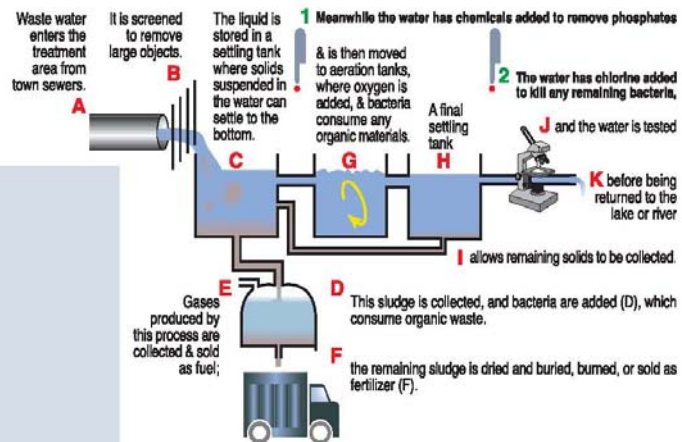
### Works Included In Waste Water Treatment Plant

- 1 inlet pumping station
- 2 Screen Chamber
- 3 grit removal
- 4 primary settling
- 5 Sedimentation Tanks
- 6 aeration tank
- 7 final settling
- 8 disinfection
- 9 filtration
- 10 Outlet Pumping Station
- 11 sludge thickening
- 12 digester
- 13 sludge dewatering
- 14 Sludge Pumping Station
- 15 "submersible pumping stations "
- 16 Site Services
- 17 Building Services
- 18 "Schedule of tools and spare parts"

## NADCO

Waste water is all the water that has been used by a city. Besides sewage, there is runoff from rainfall (water that flows down streets and into storm drains) which might also contain contaminants such as gasoline, oil, paint, heavy metals, pesticides, human and animal waste, and trash. Eventually it will end up in a river, lake, or the ocean, so it is usually sent to a sewage treatment plant first, to make it clean.

### Treating Waste Water



# Water Treatment

## Section 4: Reverse Osmosis

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### Works Included In Reverse Osmosis (up to 700M3/H)

#### 1. Raw water

Raw water transfer pump  
Raw water transfer line  
Raw water tank

#### 2. Pretreatment

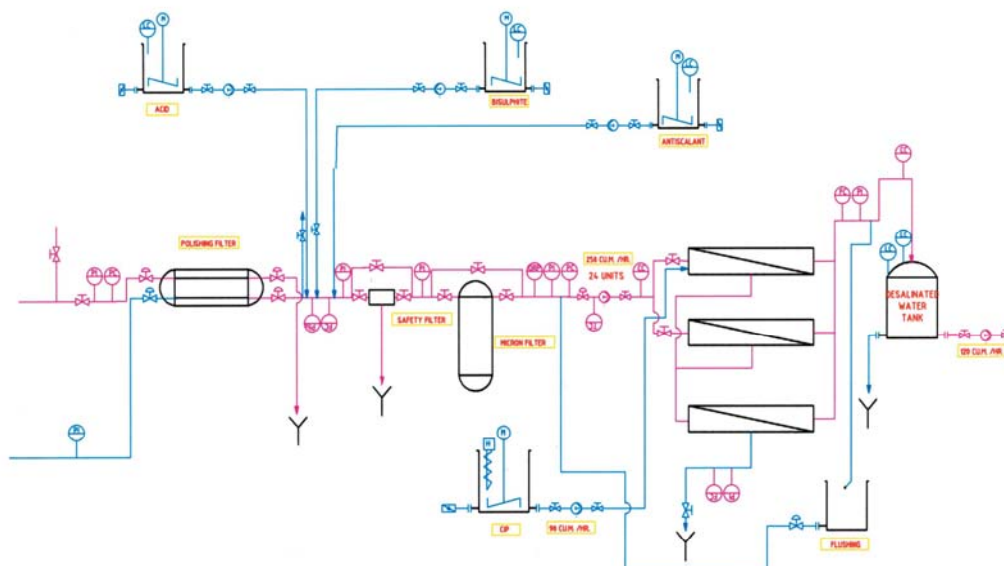
Filter feed pump  
Multi media filter  
Scour air blower  
Filter back wash pump  
Waste wash water basin  
Waste wash water pump  
Filtered water tank

#### 3. R.O. Plant

RO booster pumps  
Micron filter  
RO high pressure pumps  
Reverse osmosis unit (to remove from 95 to 98% heavy metals, to from 90 to 95% of total mineral salts, to raise the PH value up to 7.4)  
Membrane flushing chemical treating system  
RO transfer pumps  
Product water transfer line  
Brine transfer line  
Complete degasifiers (to remove Co2 gas from the osmotized water)  
Portable membrane cleaning system

#### 4. Chemical pretreatment

Chlorination system (to keep a residual chlorine in the osmotized water around 0.3 ppm)  
Feric chloride dosing acid dosing system  
SMBS dechlorination system  
Antiscalant dosing system  
Soda ashe dosing system



## Small combination system







## GENERAL EFFECTIVENESS OF WATER TREATMENT

Here below the list of Bacteria eliminated by REDO as example but not limited to:

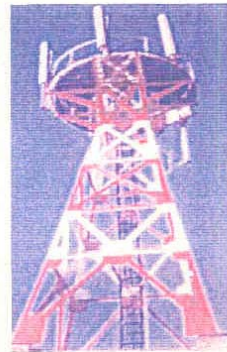
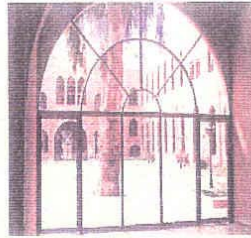
Escherichia  
Coli  
Coliform  
Bacteria  
Pseudomonas  
Aeruginosa  
Enterokokken  
Faucal  
Streptococci  
Salmonella  
Typhi  
Shigella  
Vibrio  
Cholerae  
Cyanobacteria  
Geruginosa  
Anabaena  
Torulosa  
Giardia  
Lamblia

REDO Water Systems GmbH  
(OFFSHORE)

NADCO

# NADCO & SOUBRA CO.

## STEEL WORKS



# NADCO & ASSOCIATE



**STEEL WORKS**

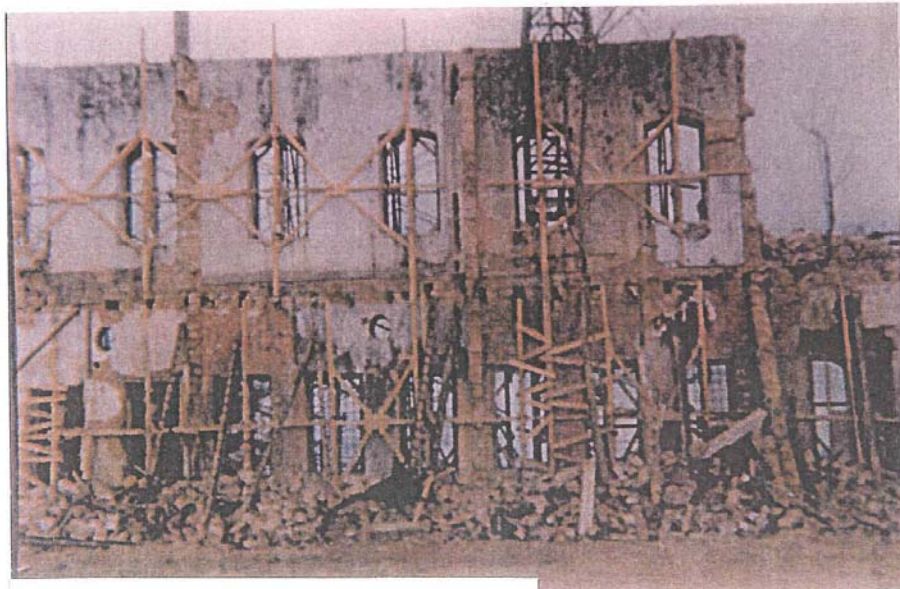
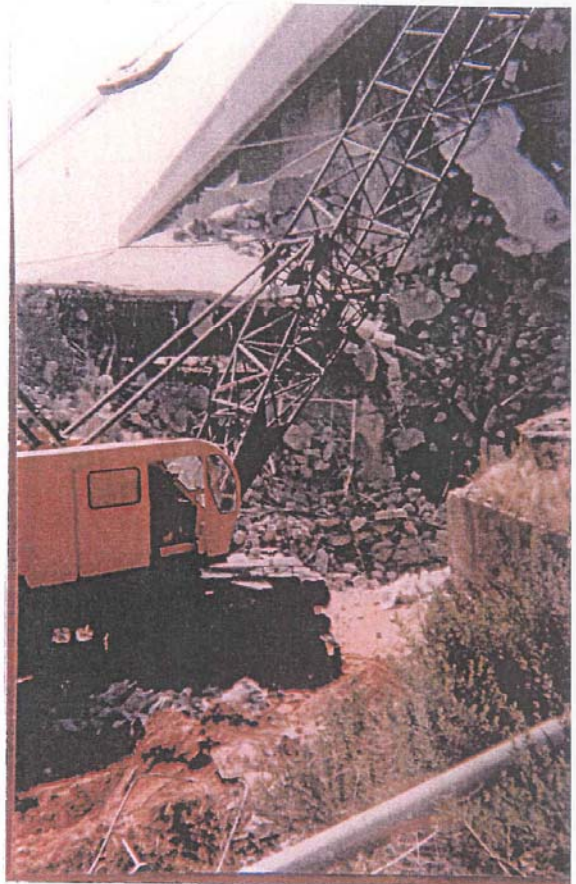


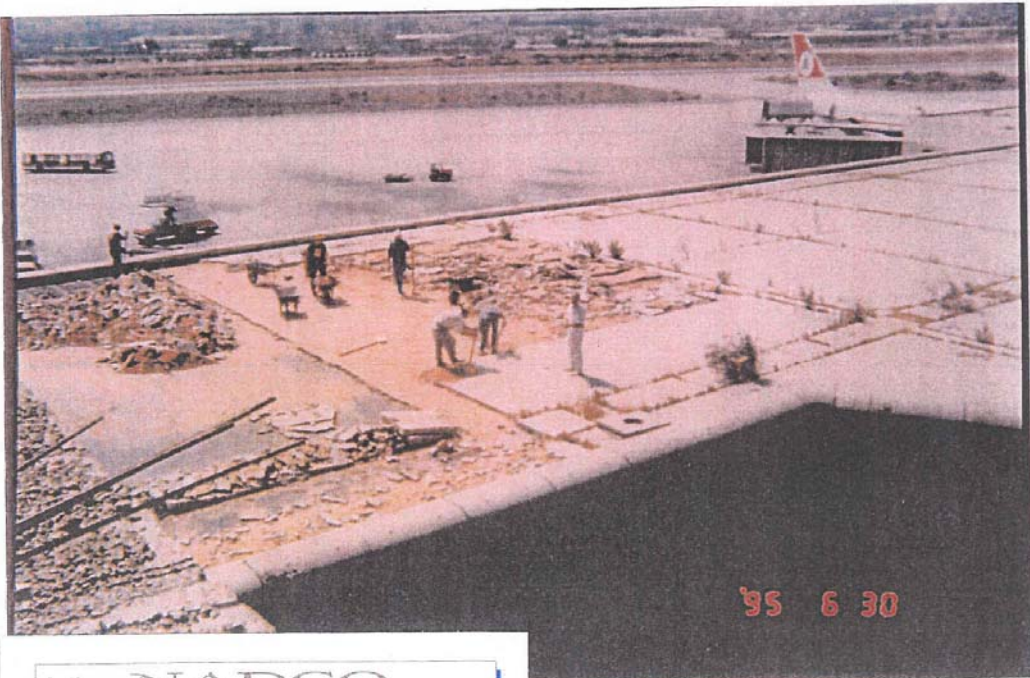
NADCO  
NATIONAL DEVELOPMENT CO

DEMOLITION



20 YEARS OF ACHIEVEMENTS

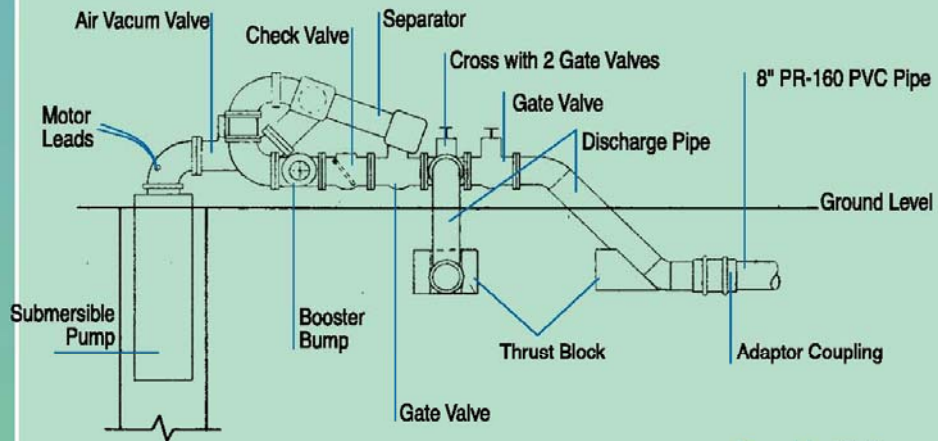
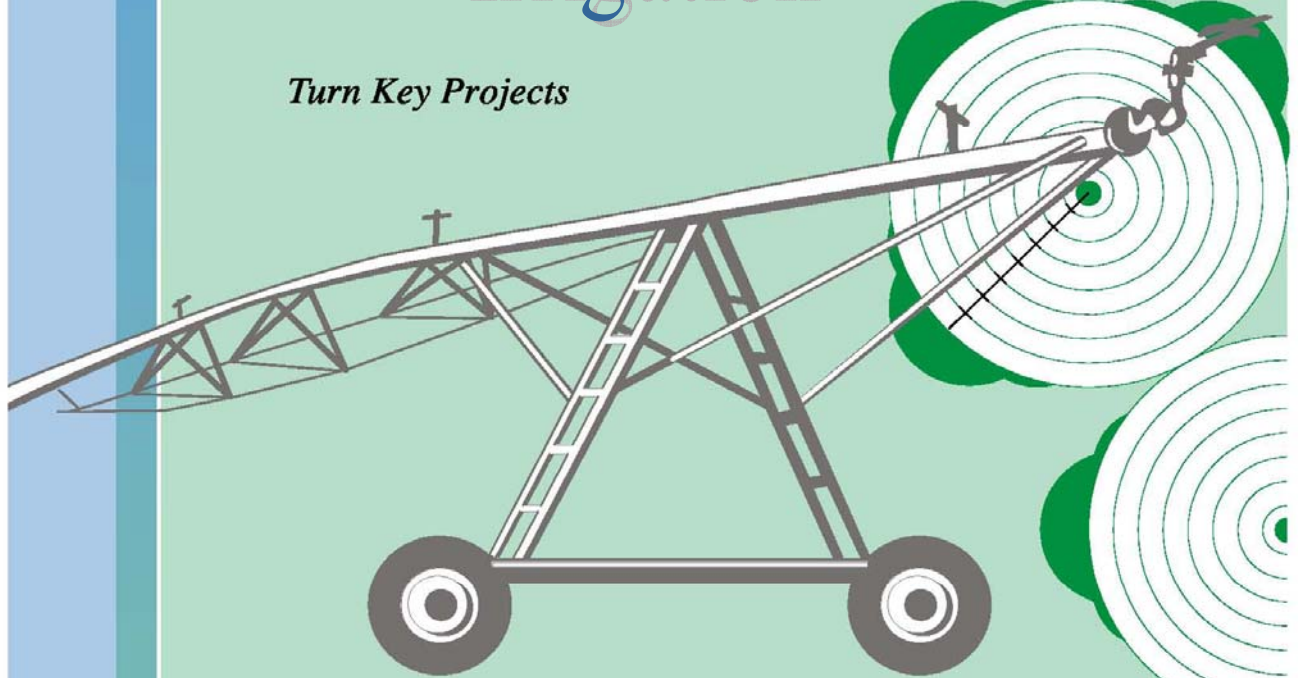




 **NADCO**  
NATIONAL DEVELOPMENT CO. S.A.R.L.

# Irrigation

## Turn Key Projects



**Stand by Well**  
Not to scale

*Farms Management, Harvesting and storage*

Nadco supplies and install silos for grain storage.

Silos are manufactured in all sizes and dimensions of high tensile steel strength.





## *Pipe Line Irrigation*



# COMMODITIES

**UREA, GRAINS (SUGAR.WHEAT...), MILK,  
CEMENT**

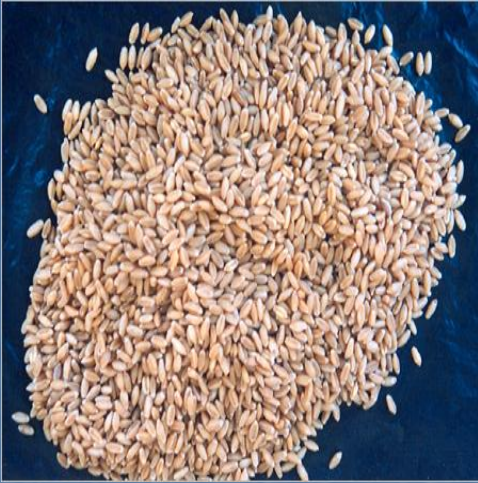


**UREA**

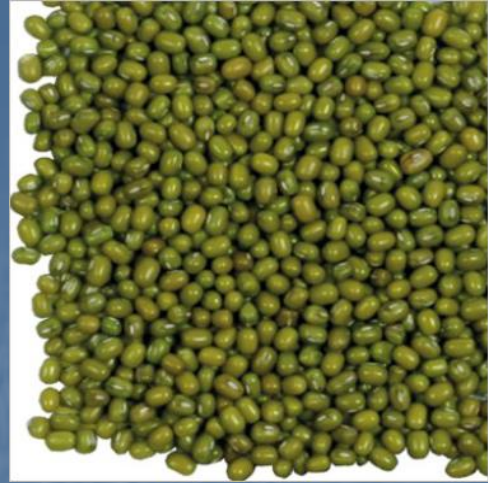


**WE CAN ARRANGE  
DIFFERENT TYPE  
OF SHIPPING AND  
PACKING IN BULK,  
ON PALLETS, BY  
CONTAINERS,  
SPECIAL BAGS**

**ALL SHIPMENTS  
WILL BE INSPECTED  
BY INTERNATIONAL  
SURVEY COMPANIES  
TO ENSURE THE  
CONFORMITY OF  
THE SPECIFICATION.**



WHEAT



GREEN BEANS



GREEN PEAS



LONG- GRAIN RICE



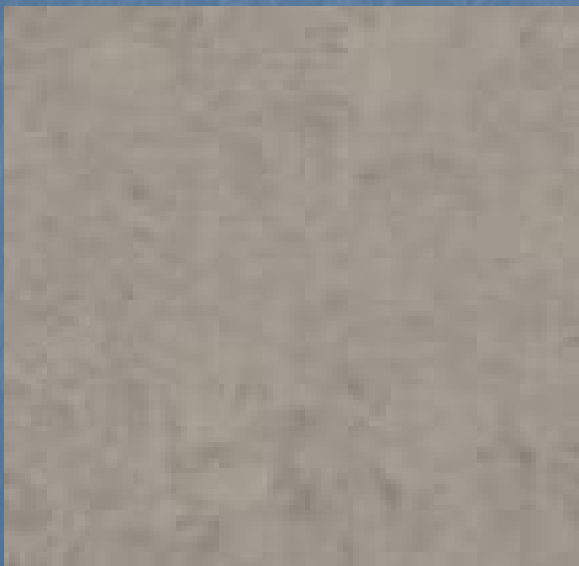
RED LENTIL



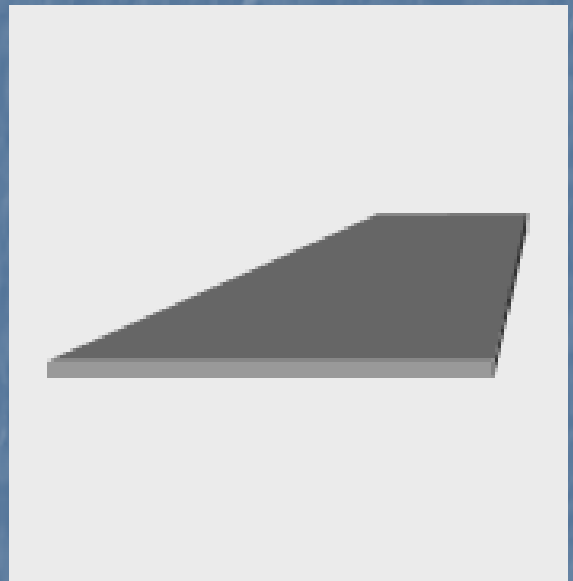
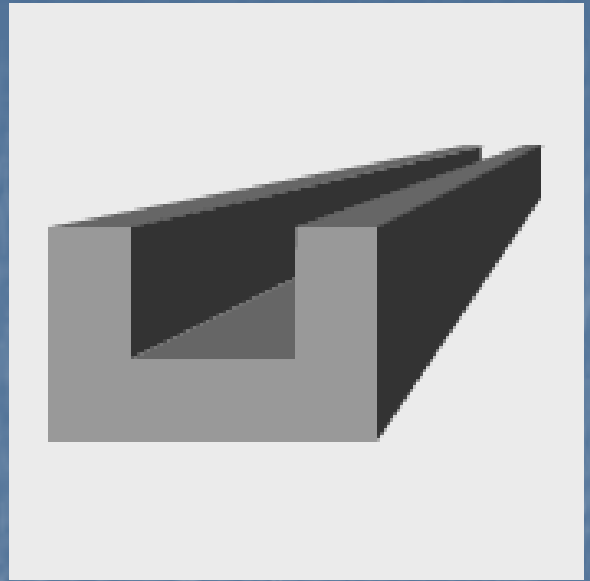
SUGAR



# CEMENT



# STEEL



**FOR BOTH CONSTRUCTION AND  
MANUFACTURING USE**

# COMPUTERS

## ACER PRODUCTS



Acer's product range includes PC notebooks and Desktops, Servers and storage systems, Monitors, peripheral devices, Digital devices, LCD TVs and E-business solutions for business, Government, Education and home users.

**National  
Development  
Company**

**NADCO**  
El-Kalaf Group



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