



**PRODUCT CATALOGUE 2013** 

(Reduced for Africa and Middle East)

# THE JOSAB ECOLOGICAL WATER TREATMENT PLANT IS VERSATILE AND RELIABLE

The ecological water treatment plant has few moving parts, the result is less wear and low maintenance costs. The highly efficient filter media, Clinoptolite facilitates compact units with very high capacity/volume ratio. Staff without any previous technical knowledge can be trained to operate the system within a day.

Josab's ecological purification method is a mechanical water treatment in which particles and microorganisms larger than 1 micron are removed. Finally and as last step a UV filter disinfects the filtered water.

### **SWIFT AND EASY TO USE**

Josab's mobile units are designed for fast transportation to the point-of-need, and for immediate performance on the emergency site. The units are complete on-road, ecological water treatment plants either trailer- or truck mounted.

With a production capacity of 8–12 m3/h the ecological water treatment plant is able to supply as many as 30,000 people with potable water from ground-, well-, and river- or lake-water sources.

Depending on the operational requirements the units are either portable, mounted on trucks, containerized or stationery framed. All mobile Ecological Water Treatment Plants (EWTP) – regardless of the size – have the ability to be operational within 30 min after a suitable site has been selected.

For field (emergency) pperations the mobile units have a capacity ranging between 7 and 15 m3/h, equal to the needs of clean water for 5000-12,000 persons for 8-10 h7day or up to 20,000-25,000 persons for 20 h/day - that is 4 litres per person and day - all in compliance with the WHO's standards.

### JOSAB PRODUCT RANGE

Modell	Container	Production flow per day, m³/day	Power, kWh	Produced volume of safe potable water per kWh
SC3000	40f	1870m³ - 3000m³	35	4.00 m³/kWh
SC1100	20f	950m³ - 1430m³	16	4.06 m³/kWh
SC660	10f	480m³ - 725m³	9	3.67 m³/kWh
SC220	10f	200m³ - 295m³	7	1.93 m³/kWh
SC100	10f	88m³ - 132m³	3	2.00 m³/kWh

The Josab compact containerized ecological water treatment plants varies in production capacity from 88m³/day to 3000m³/day, all delivered as turnkey plug and play units.

The water production costs vary a bit depending on the size of the container. The ecological water treatment plant constructed inside 40f container can produce 4.00 cubic meters of safe water at a cost of 1 kWh. For the 10f and 20f solutions the results are 3.67m<sup>3</sup>/kWh and 4.06m<sup>3</sup>/kWh.

The raw water quality will determine the flow rate that the ecological water treatment plant can perform. Influencing factors on the flow are the particle density and the presence of heavy metals. In all cases the result of the water analyses will determine the recommended flow rate.

### **Specifications (3 series of 4 filter tanks)**

### Container

ISO class 40 feet sea container Quantity: 1pc

### **Pump**

Flow rate up to 800 L/min (48m³/h) with 45m head.

Dynamic head up to 75m

Suction lift up to 7 m

Fluid temperature up to +90°C

Maximum ambient temperature +40°C

Quantity: 3 pcs

### Cyclone filter

range 0,3-0,9 bar.
Material of construction is carbon steel as standard.
Pressure min 1 bar Max 12 bar
Ambient max temperature: 90°C
Quantity: 3 pcs

Flow range: 33,5 - 65 m<sup>3</sup>/h Pressure loss

### Filter housing

Filter tank in PA 1250mm x 2310mm with bottom and top nozzle system.

Alt.

Stainless steel 316L 1250mm x 1900mm with bottom and top nozzle system.

Quantity: 12 pcs

### Filter material

Fraction 0,63 – 2,0 mm Aqualite™ - Clinoptilolite.

Quantity: 10 000 kg

Fraction 5,0 – 10,0 mm Aqualite™ - Clinoptilolite.

Quantity: 2 000 kg

### **UV-Sterilizer**

UV-light having a light intensity of 300-500 Joule/m². Flow rate up to 850 L/m³ (51m³/h) Standard working hours: 10 000h Quantity: 3

### **Tubing and valves**

Diameter 3" / DN80 / 89 mm.



### **Specifications (2 series of 3 filter tanks)**

### **Container**

ISO class 20 feet sea container Quantity: 1pc

### **Pump**

Flow rate up to 800 L/min (48m³/h) with 45m head.

Dynamic head up to 75m

Suction lift up to 7 m

Fluid temperature up to +90°C

Maximum ambient temperature +40°C

Quantity: 2 pcs

### Cyclone filter

Flow range: 21,5 – 34,5 m³/h Pressure loss range 0,3-0,9 bar.

Material of construction is carbon steel as standard.

Pressure min 1 bar Max 12 bar

Ambient max temperature: 90°C

Quantity: 2 pcs

### Filter housing

Filter tank in PA 1250mm x 2310mm with bottom and top nozzle system. *Alt.*Stainless steel 316L 1250mm x 1900mm with bottom and top nozzle system.
Quantity: 6 pcs

#### Filter material

Fraction 0,63 – 2,0 mm Aqualite™ - Clinoptilolite.

Quantity: 5 000 kg

Fraction 5,0 – 10,0 mm Aqualite™ - Clinoptilolite.

Quantity: 1 000 kg

#### **UV-Sterilizer**

UV-light having a light intensity of 300-500 Joule/m². Flow rate up to 580 L/min (35m³/h) Standard working hours: 10 000h Quantity: 2

### **Tubing and valves**

Diameter 3" / DN80 / 89 mm



### **Specifications (single series of 3 filter tanks)**

### Container

10 feet sea container Quantity: 1pc

### **Pump**

Flow rate up to 800 L/min (48m³/h) with 45m head.

Dynamic head up to 75m

Suction lift up to 7 m

Fluid temperature up to +90°C

Maximum ambient temperature +40°C

Quantity: 1 pcs

### **Cyclone filter**

Flow range: 21,5 – 34,5 m<sup>3</sup>/h Pressure loss range 0,3-0,9 bar.
Material of construction is carbon steel as standard.

Pressure min 1 bar Max 12 bar Ambient max temperature: 90°C Quantity: 1 pcs

### Filter housing

Filter tank in PA 1250mm x 2310mm with bottom and top nozzle system.

Alt.

Stainless steel 316L 1250mm x 1900mm with bottom and top nozzle system. Quantity: 3 pcs

### Filter material

Fraction 0,63 – 2,0 mm Aqualite™ - Clinoptilolite.

Quantity: 2 500 kg

Fraction 5,0 – 10,0 mm Aqualite™ - Clinoptilolite.

Quantity: 500 kg

#### **UV-Sterilizer**

UV-light having a light intensity of 300-500 Joule/m<sup>2</sup>. Flow rate up to 580 L/min (35m<sup>3</sup>/h) Standard working hours: 10 000h Quantity: 1

### **Tubing and valves**

Diameter 3" / DN80 / 89 mm

### Filter material

Fraction 0,63 – 2,0 mm Aqualite™ - Clinoptilolite Quantity: 1 800 kg Fraction 5,0 – 10,0 mm Aqualite™ - Clinoptilolite Quantity: 200 kg

### **UV-Sterilizer**

UV-light having a light intensity of 300-500 Joule/m<sup>2</sup>. Flow rate up to 415 L/min (25m<sup>3</sup>/h) Standard working hours: 10 000h Quantity: 1



### **Specifications (single series of 4 filter tanks)**

### Container

10 feet sea container Quantity: 1pc

### **Pump**

Flow rate up to 250 L/min (15m<sup>3</sup>/h) with 45m head Dynamic head up to 75m Suction lift up to 7 m Fluid temperature up to +90°C Maximum ambient temperature +40°C Quantity: 1 pcs

### **Cyclone filter**

Flow range: 10,5 – 16,2 m<sup>3</sup>/h Pressure loss range 0,3-0,9 bar. Material of construction is carbon steel as standard.

Pressure min 1 bar Max 12 bar Ambient max temperature: 90°C

Quantity: 1 pcs

### Filter housing

Filter tank in PA 595mm x 2121mm with bottom and top nozzle system.

Alt.

Stainless steel 316L 595mm x 1900mm with bottom and top nozzle system.

Quantity: 4 pcs

### Filter material

Fraction 0,63 - 2,0 mm Agualite™ -Clinoptilolite. Quantity: 1 000 kg Fraction 5,0 - 10,0 mm Aqualite™ -Clinoptilolite. Quantity: 200 kg

### **UV-Sterilizer**

UV-light having a light intensity of 300-500 Joule/m<sup>2</sup>. Flow rate up to 333 L/min (20m³/h)

Standard working hours: 10 000h

Quantity: 1

### **Tubing and valves**

Diameter 2" / DN50 / 60 mm

#### Filter material

Fraction 0,63 - 2,0 mm Aqualite™ -Clinoptilolite. Quantity: 500 kg Fraction 5,0 - 10,0 mm Aqualite™ -

Clinoptilolite.

Quantity: 70 kg

### **UV-Sterilizer**

UV-light having a light intensity of 300-500 Joule/m<sup>2</sup>.

Flow rate up to 115 L/min (6,8m<sup>3</sup>/h) Standard working hours: 10 000h

Quantity: 1

### **Tubing and valves**



### **Specifications (single series of 4 filter tanks)**

### Container

10 feet container Quantity: 1pc

### **Pump**

Flow rate up to 100 L/min (6m³/h) with 42m head.

Dynamic head up to 75m

Suction lift up to 9 m

Fluid temperature up to +90°C

Maximum ambient temperature +40°C

Quantity: 1 pcs

### **Cyclone filter**

Flow range: 4,7 – 7,6 m<sup>3</sup>/h Pressure loss range 0,3-0,9 bar.
Material of construction is carbon steel as standard.

Pressure min 1 bar Max 12 bar Ambient max temperature: 90°C

Quantity: 1 pcs

### Filter housing

Filter tank in PA 465mm x 2121mm with bottom and top nozzle system. *Alt.* 

Stainless steel 316L 400mm x 1900mm with bottom and top nozzle system. Quantity: 4 pcs

### Filter material

Fraction 0,63 – 2,0 mm Aqualite™ - Clinoptilolite.

Quantity: 450 kg

Fraction 5,0 – 10,0 mm Aqualite™ - Clinoptilolite.

Quantity: 50 kg

### **UV-Sterilizer**

UV-light having a light intensity of 300-500 Joule/m<sup>2</sup>. Flow rate up to 115 L/min (6,8m<sup>3</sup>/h) Standard working hours: 10 000h Quantity: 1

### **Tubing and valves**

Diameter 2" / DN50 / 60 mm



# **APPLICATIONS**

Josab ecological water treatment plant can be used in a variety of applications such as;

- Drinking water
- Industrial parks
- Maritime systems
- Irrigation systems
- Ground water purification
- Fish farming
- Swimming pools
- Process water etc.



### REFERENCES

- Josab International AB is preferred supplier to the Swedish Civil Contingencies Agency.
- The United Nations Global Market (UNGM) have approved and registered JOSAB as an approved supplier of Water Treatment
- The International Federation of The Red Cross and Red Crescent Societies (IFRC) recommends JOSAB Ecological Water Treatment Plant for production of potable drinking water.
- Official, national agencies in Ghana and Nigeria have certified and approved the JOSAB Ecological Water Treatment Plant as recommendable for purification of drinking water
- The National Institute of Hygiene in Poland has approved JOSAB Ecological Water Treatment Plant for production of potable water in municipalities.
- In Denmark, Roskilde Amt has approved JOSAB Ecological Water Treatment Plant to purify water used to irrigate products intended for public consumption.
- The Environmental Board in Helsingborg, Sweden has approved the use of JOSAB Ecological Water Treatment Plant for purification of groundwater at construction sites.



Josab International AB (Publ), founded in 1986, is a listed company with headquarters in Stockholm, Sweden. The company has subsidiaries in India, Africa and Hungary and has installed water purification plants in Asia, Africa and Europe. Josab ecological water purification plants are recommended by several international bodies.

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