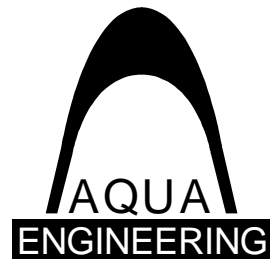


**QUESTIONNAIRE:  
WATER TREATMENT PLANT**



**WATER IS OUR LIFE**

**1. GENERAL INFORMATION**

Project name \_\_\_\_\_

Client: \_\_\_\_\_

Responsible Person \_\_\_\_\_

Address \_\_\_\_\_

Tel./Fax/E-mail \_\_\_\_\_

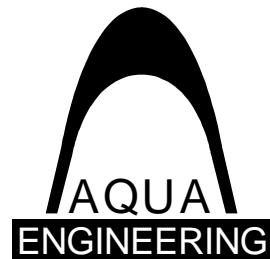
**Requested:**

Further information / Plant description

Budget Quote

Detailed Offer

# QUESTIONNAIRE: WATER TREATMENT PLANT



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## TECHNICAL INFORMATION

1.1 Plant location ( Town / District / Country )

\_\_\_\_\_

Level above sea (m)	_____	Ambient temperature min./ max. (°C);	_____
Relative humidity (%)	_____	Max. wind speed (km/h)	_____
Plant area (in m x m)	_____	( please add sketch or layout )	_____

1.2 Plant capacity in m<sup>3</sup>/d \_\_\_\_\_ in m<sup>3</sup>/h \_\_\_\_\_

continuous

emergency

1.3 Required treated water quality:

Drinking Water ( WHO )

Drinking Water ( other Requirement )

Process Water

Cooling Water

Boiler Feed Water

Pure / Ultrapure Water

other ( please indicate ) \_\_\_\_\_

*(If other than drinking water WHO please add specification for required treated water quality!)*

1.4 Available Raw Water source:

Well Water

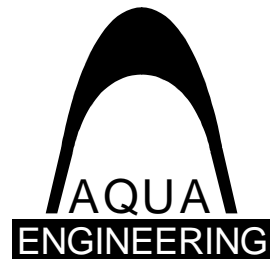
Surface Water ( River or Lake )

other ( please indicate ) \_\_\_\_\_

Available raw water quantity ( Minimum / Maximum) \_\_\_\_\_m<sup>3</sup>/h

*(Please add specification for raw water quality according to analysis data sheet!)*

**QUESTIONNAIRE:  
WATER TREATMENT PLANT**



**WATER IS OUR LIFE**

**2. SCOPE OF SUPPLY**

2.1 Type of plant:

- containerized (open air installation)       skid mounted (indoor installation)  
 conventional       other \_\_\_\_\_

2.2 Raw water pump station (*please indicate*):

- yes  
pipeline length \_\_\_\_\_ m      geodetic height \_\_\_\_\_ m  
 no  
available feed water pressure (min. / max.): \_\_\_\_\_ bar

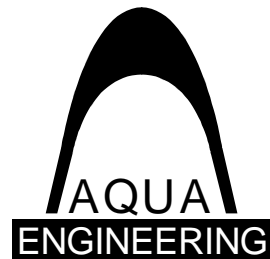
2.3 Treated water delivery to:

- existing storage tank  
distance from plant \_\_\_\_\_ m      geodetic height \_\_\_\_\_ m  
 existing network  
distance from plant \_\_\_\_\_ m      geodetic height \_\_\_\_\_ m  
working pressure \_\_\_\_\_ bar

2.4 Storage tanks required:

	Capacity in m <sup>3</sup>	Type of construction (Concrete, stainless steel, ...)
<input type="checkbox"/> raw water	_____	_____
<input type="checkbox"/> treated water	_____	_____

# QUESTIONNAIRE: WATER TREATMENT PLANT



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## 3. Design requirements: Electrical and Control System

### 3.1 Power supply

Voltage ( V ) \_\_\_\_\_

Frequency (Hz) \_\_\_\_\_

Available Power (kW) \_\_\_\_\_

max. current (A) \_\_\_\_\_

Power Generator Set required:

yes

no

### 3.2 Process Control / Plant Automation

automatic (local)

automatic (Remote control, MODEM)

manual

## 4. Other Components / Auxiliaries

Spare Parts for \_\_\_\_\_ month of operation

Operation chemicals for \_\_\_\_\_ month of operation

Electrical and Mechanical Tools ( *please specify* )

Laboratory Equipment / Test-Kits and Laboratory Chemicals for \_\_\_\_\_ month

## 5. Commercial

Offer for financing requested:

yes

no

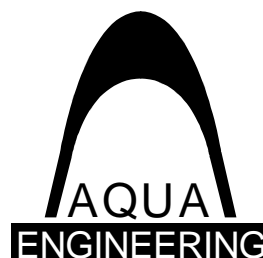
## 6. Special, Preferences

Please, describe any special requirements not mentioned in the questionnaire.

## Attachments:

Available Data: Raw water analysis, Treated water requirements, ... .

# QUESTIONNAIRE: WATER TREATMENT PLANT



**WATER IS OUR LIFE**

## 7. Water Analysis Data Sheet:

*The following is a form for a full analysis of raw water. If less information is available please insert available data or attach copy of available information.*

**Note:** \*) Parameters required in any case      \*\*) Additional parameters required for well water

### General Parameters:

Location				Sample date	
Type of water (surface, well, other)					
Color			Taste / Odor		

pH-Value *)	-		Electrical conductivity *)	µS/cm	
Temperature *)	°C		Dissolved Oxygen **)	mg/l	

### Alcalinity and Hardness: ( use convenient unit:mg/l, ppm, meq /l or ppmCaCO3)

	Unit	Value		Unit	Value
p-Alcalinity			Total Hardness **)		
m-Alcalinity			Carbonate Hardness		
Carbon Dioxide CO <sub>2</sub>					

### Individual ions: ( use convenient unit:mg/l, ppm, meq /l or ppmCaCO3)

Cations		Unit	Value	meq / l		Unit	Value
Calcium *)	Ca <sup>++</sup>			Bicarbonate *)	HCO <sub>3</sub> <sup>-</sup>		
Magnesium *)	Mg <sup>++</sup>			Chloride *)	Cl <sup>-</sup>		
Sodium *)	Na <sup>+</sup>			Sulfate *)	SO <sub>4</sub> <sup>--</sup>		
Potassium *)	K <sup>+</sup>			Nitrate *)	NO <sub>3</sub> <sup>-</sup>		
Ammonium *)	NH <sub>4</sub> <sup>+</sup>			Nitrite	NO <sub>2</sub> <sup>-</sup>		
Total cations	c(eq)	-----		Total anions	c(eq)		

Total Dissolved solids *) (TDS)		
---------------------------------	--	--

### Iron, Manganese, Silica etc. :

Iron **)	Fe	mg/l		Silica	SiO <sub>2</sub>	mg/l	
Manganese **)	Mn <sup>++</sup>	mg/l		Hydrogen Sulfide **)	H <sub>2</sub> S	mg/l	

### Solids:

Total Suspended Solids	mg/l		or Turbidity *)	NTU	
------------------------	------	--	-----------------	-----	--

### Organics:

Permanganate - Index	mg/l O <sub>2</sub>		Chemical Oxygen Demand COD	mg/l	
Org. Carbon (TOC/DOC)	mg C /l				

### Other: ( Any harmful / toxic substance present in raw water: Oil, detergents, pesticides, heavy metals, cyanide ... )
