

MENA-Water Solutions

for Efficient Sludge Treatment



*All your sludge treatment needs
from one source*

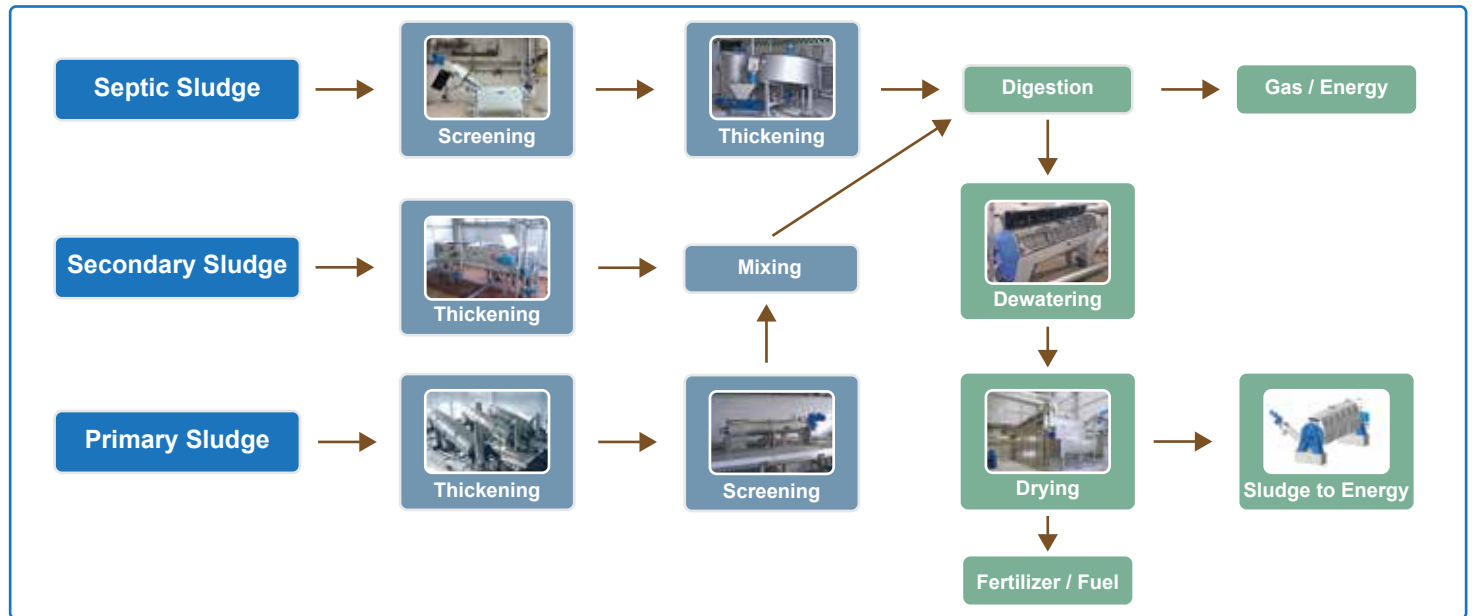
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Sludge Treatment

All wastewater treatment plants will create sludge that needs to be disposed, however when properly treated, sludge can become a value. For example, dry sludge can be used as a fuel for incineration plants and after further treatment such as digestion; sludge becomes a valuable fertilizer and producing biogas as renewable source for energy. By dewatering sludge you can also make enormous savings on sludge disposal transportation costs.

Sludge Treatment Flow Chart



Sludge Screening

Solids such as plastics, hair and fibers are removed with screens to prevent disruption of other sludge treatment processes and equipment downstream.

MENA-Water offer different types of screening to suite each project's needs.

Benefits

- Improve anaerobic digestion process
- Reduces operation costs
- Increases downstream equipment lifetime



MENA-Water Solution

MENA-Water offer a full range of sludge treatment solutions comprising of screening, thickening, digestion, dewatering and sludge drying.

Add value to your waste and save on operational costs by cooperating with **MENA-Water** and let us successfully develop and implement customized solutions for your specific sludge requirements by designing quality, compact, reliable, energy efficient, and simple to operate plants.

Sludge Thickening

Thickening is the first step for reducing the sludge volume by removal of free water. As a consequence the downstream equipment digestion-process, dewatering machines and sludge dryers can be sized much smaller which reduces overall investment and operation costs. Primary and Secondary sludge can be treated differently to achieve the best thickening results.

MENA-Water offer various kinds of highly effective machines for sludge thickening. They are all made of stainless steel and come in various sizes based on requirements.

Benefits

- Reduction of investment and operational costs for downstream equipment and disposal costs
- Highly efficient



Anaerobic Digestion

Anaerobic Digestion is an integral part of the sludge treatment to stabilize the sludge and generate biogas. Sludge is held in the absence of air over a period of time under certain temperatures, so anaerobic bacteria transforming organics from the sludge to methane gas.

MENA-Water offer process design, engineering and equipment for anaerobic digestion including gas treatment handling, gas holder, gas flare, filter and desulphurization.

Some of the many advantages of digestion:

- Conversion of bio-solids into biogas, produces heat and electricity
- Sludge stabilization and odor reduction
- Improved sludge dewatering and less polymers costs
- Up to 30% sludge reduction, leads to:
 - Smaller dewatering equipment and dryer size,
 - Less energy demand for drying
 - Less transportation and polymer costs
- Carbon trade opportunity

Sludge Dewatering

Mechanical sludge dewatering serves for further reduction of sludge volume. Once dewatered, a firm sludge cake is produced for easier disposal or further treatment.

MENA-Water supply a wide range of dewatering solutions for various applications. They are all made of stainless steel with different design & sizes depending on project specific criteria.

Benefits

- Less investment and transportation costs for further treatment or disposal

Sludge Drying

Wastewater sludge is dried to minimize its mass and to save sludge hauling and disposal costs. Handling and storage of dried sludge is easy and further disposal and utilization methods are possible. The dried product can be used as fertilizer and as well as fuel - its caloric value is similar to that of brown coal.

Benefits

- Class A sludge with thermal dryer
- Valued utilization of sludge as fertilizer or as fuel
- ATEX free drying and odor free drying

Sludge to Energy

MENA-Water offer sludge incineration options to generate energy plus recover phosphors from the sludge.

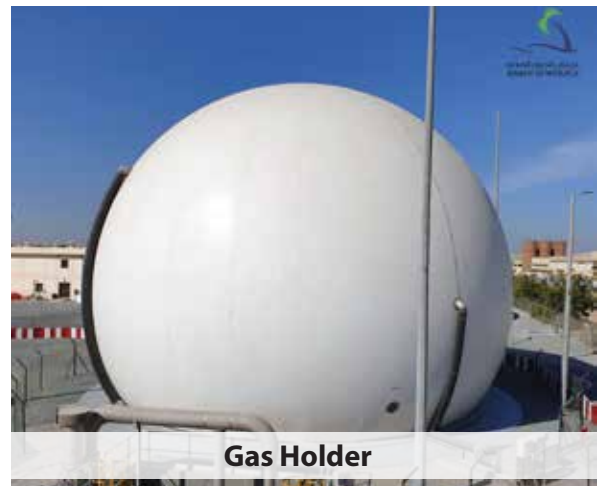
Containerized Sludge Treatment

MENA-Water is manufacturer of pre-assembled, plug & play mobile or stationary containerized sludge treatment & handling Plants.

All process equipment is arranged inside standard ISO sized containers. This enables to achieve very short realization time and providing you with reliable and tested plants.

Benefits

- Quality equipment in stainless steel
- High packing density
- Fast delivery and start-up due to the mobile concept compact design
- Minimum construction work on site and easy to relocate



Gas Holder



Q-PRESS®



Belt Dryer BT



Containerized Sludge Dewatering Plant

MENA WATER



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