

CONTAINERIZED  
**STABILIZATION /  
SOLIDIFICATION**  
PLANT



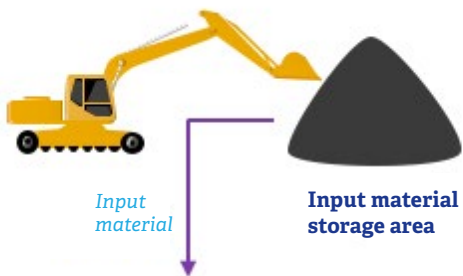
**CONVERTING**

**HAZARDOUS WASTE  
TO NON-TOXIC PRODUCT**

**SLUDGE, PASTY OR WATERY  
MATERIAL TO SOLID PRODUCT**

*/ Contaminated soil  
/ Hazardous waste  
/ Sludge / Sediment*

# PROCESS FLOW DIAGRAM



# STABILIZATION / SOLIDIFICATION PROCESS

Stabilization / solidification (S/S) is a treatment method based on mixing contaminated soil, sludge, sediment and similar waste streams with suitable additives. As new physical-chemical bonds are created in treated material contamination cannot be washed out of the stabilized waste hence it does not represent risk for the environment anymore.

The method is also used for reprocessing of sludge, slurry and other pasty or watery materials to solid products by mixing them with solidifying additives.

The most common additives are cement, lime, fly ash, bentonite, kiln dust, sulfur cement, thermoplastic polymers etc.

A certain period of time is necessary for maturation of the material treated by S/S to achieve desired properties of the final product.



# PLANT DESCRIPTION

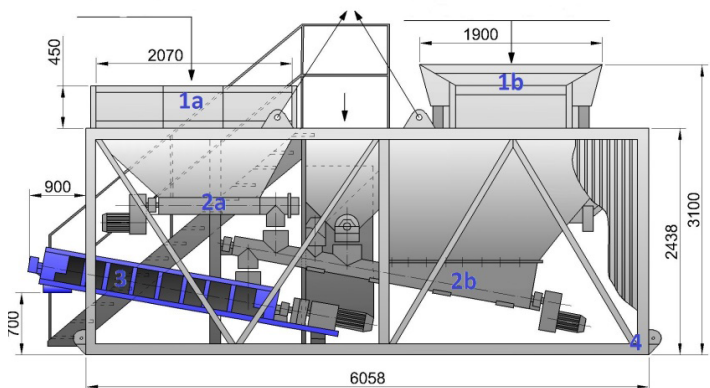
Containerized S/S plant consists of the following main parts:

- Two feeder bins with vibrating scalping screen (**1a, 1b**)
- Two screw feeders (**2a, 2b**) for controlled dosing of treated material to a continuous mixer
- Continuous mixer - horizontal, double-screw, pug-mill homogenizer (**3**)
- Steel supporting frame (**4**)

Continuous mixer is used for blending treated waste with additives to produce stabilized product. Different kinds of liners and coatings are available for various applications.

Two feeder bins are available for two various kinds of treated waste. Bin walls are constructed to prevent material bridging. Large rocks, metal scrap and other impurities are removed from treated waste by a vibrating scalping screen.

The quantity of material fed to the mixer is controlled by two screw feeders.



# TECHNICAL PARAMETERS

- Capacity: ranging from 1 to 50 tons of treated waste per hour
- Dimensions:
  - ♦ Plants with capacity up to 20 t/h:  
20" container (2,4 x 6,0 x 2,6 m)
  - ♦ Plants with the capacity 20 -50 t/h:  
40" container (2,4 x 12,0 x 2,6 m)
- Electric input power: 0,5-30 kW  
(depending on the designed capacity)

## ***Client support services***

- Laboratory testing (suitable additives determination, physical-chemical analyses of treated material)
- Pilot-scale verification
- Designing and permitting
- Renting of S/S plants
- Installation and start-up operation of S/S plant
- Staff training
- Maintenance



# Services and equipment for a better environment

## SERVICES

- # Site investigation & monitoring
- # Drilling
- # Soil & groundwater remediation
- # Waste treatment & disposal
- # Environmental emergency response
- # Technological cleaning
- # Demolition & decommissioning
- # Environmental laboratory
- # Air emission monitoring
- # Research & development
- # Pilot scale testing
- # Environmental consulting

## EQUIPMENT

- # Thermal desorption plants
- # Stabilization / solidification plants
- # Soil washing plants
- # Oil sludge extraction & processing equipment
- # Bioremediation plants
- # Soil vapor extraction plants
- # Pelletizers
- # Homogenizers
- # Air scrubbers
- # Biofilters
- # Catalytic oxidizers
- # Groundwater and wastewater treatment plants
- # Constructed wetlands



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