



MAITEK SRL

Technological innovation and ease of application to service quality and convenience

MAITEK SRL was born in 1999 with the aim to develop new technologies in the field of quarries. The company's activity is run by a staff of engineers and experts with a thirty-year experience in industrial and mining sectors for aggregate production and specialised in ecological plants such as sludge treatment and dust suppression systems.

Our main office is located in the Marche, in the centre of Italy, a region rich in little and medium enterprises working in the field of aggregate production.

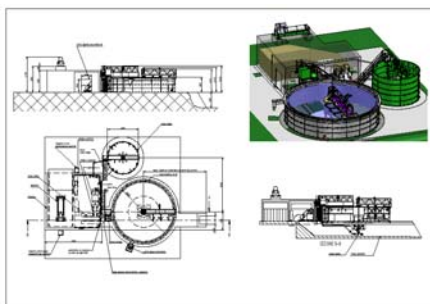
Our markets are: Italy, Europe, the Mediterranean Area the Middle East Area.



The raise of an environmental sensitivity leading the public administrations in Italy and in Europe to new restrictions in quarry exploitation and the environmental problems such as shortage of water, sludge treatment and dust emission in atmosphere have made MAITEK propose his customers a range of products wide and innovative to solve these problems and give new advanced answers to the new needs of the market.

These products include complete plants for sludge treatment, centrifugal extractor (decanters), plate filter press, polyelectrolyte preparation, sludge tank, water clarification plant, dust suppression system for mining and plants and machinery for crushing and selecting aggregates.

In addition to this, MAITEK provides its customers with the following services:
Consulting, Engineering, After-sale Technical Support, Import-Export facilitations.



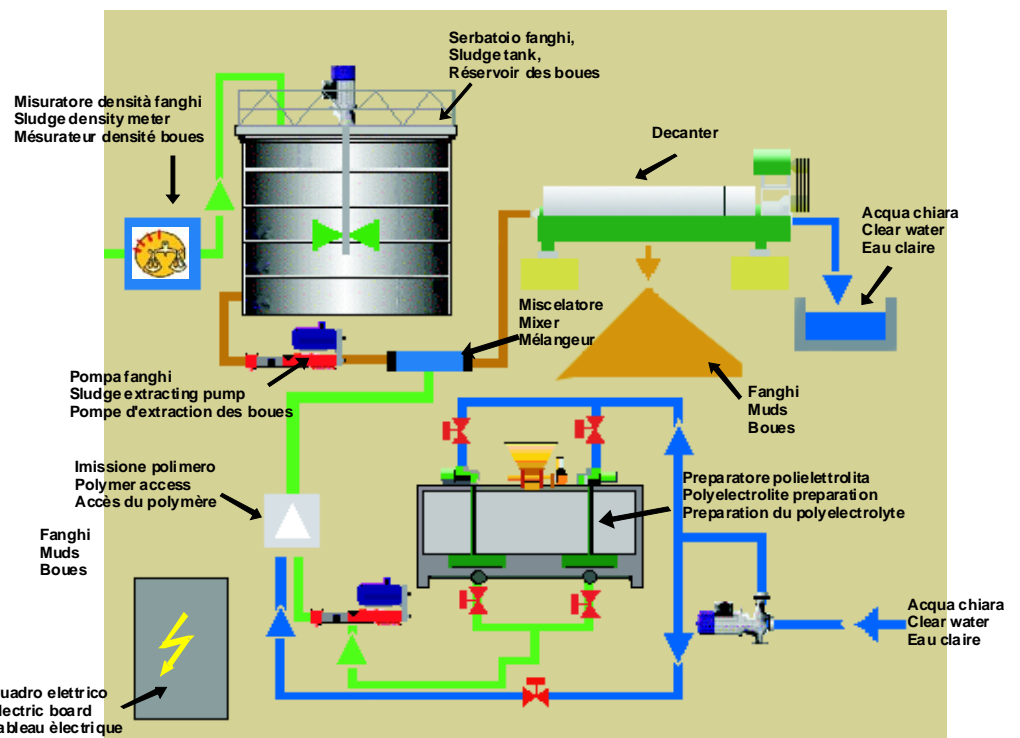
PLANTS FOR SLUDGE TREATMENT

The plants for sludge treatment have the function to further dehydrate the sludge collected through the clarifier in order to reduce the percentage of moisture from about 70% a to about 35%.

The principle of functioning consists in a decanter exploiting the centrifugal force to separate the two phases solid liquid; the process is made faster through the use of flocculants injected in the sludge before entering the machines.



The clean recovered water is conveyed in the clarifier, while the dehydrated sludge is stock-piled by means of belts conveyors.



CENTRIFUGAL EXTRACTOR

DECANTER OPERATION

The decanter separates the sludge components (phases) operating by centrifugation and exploiting their different densities.



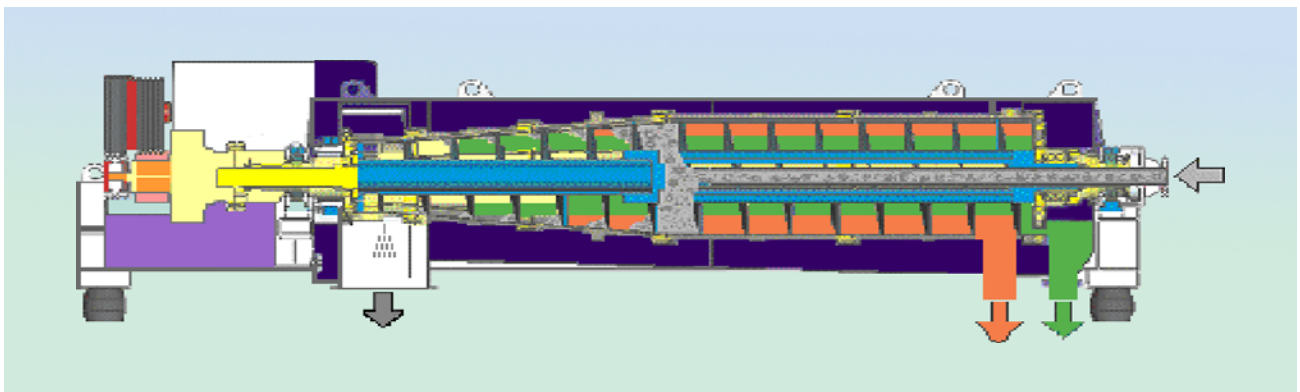
The sludge is fed into the drum (pipe with conical end) rotating at high speed and is drawn into rotation.

By centrifugal effect, the liquid mass is pushed against the inside wall of the drum and the phases are stratified: the phase with the greater density forms the outermost layer and vice versa.

In the case of two-phase solid/liquid separation, the heavy solid (grey) concentrates on the outer circular crown and is evacuated by the screw contained in the drum, while the lighter

liquid (green) spontaneously flows from the opposite side through a series of outlets.

In the case of three-phase separation, the third liquid phase (orange) is expelled through suitable draft tubes with which the machine can be equipped.



MAIN FEATURES:

Our decanter is composed of:

- Painted steel frame resting on 4 rubber vibration-damping pads
- AISI 304 stainless steel drum (on request materials more specific to the application can be used) with wear-proof coating in the abrasion areas
- AISI 304 stainless steel screw (on request materials more specific to the application can be used) of very robust construction with wear-proof coating in the abrasion areas
- Motor-driven scraper whose function is to prevent clogging in the outfeed area of the dry solid
- Openable covers to allow inspecting the rotating parts and clean them (particularly important for food and pharmaceutical use)
- Inverter-driven motors for accurate control and precise adjustment of the machine by the control panel
- Liquid outlets adjustable from the outside without having to open the machine

CENTRIFUGAL SEPARATORS FOR TREATMENT OF INDUSTRIAL SLUDGE

The sludge treatment system based on a centrifugal separator (decanter) is often the most suitable solution in the industrial and civil sector.

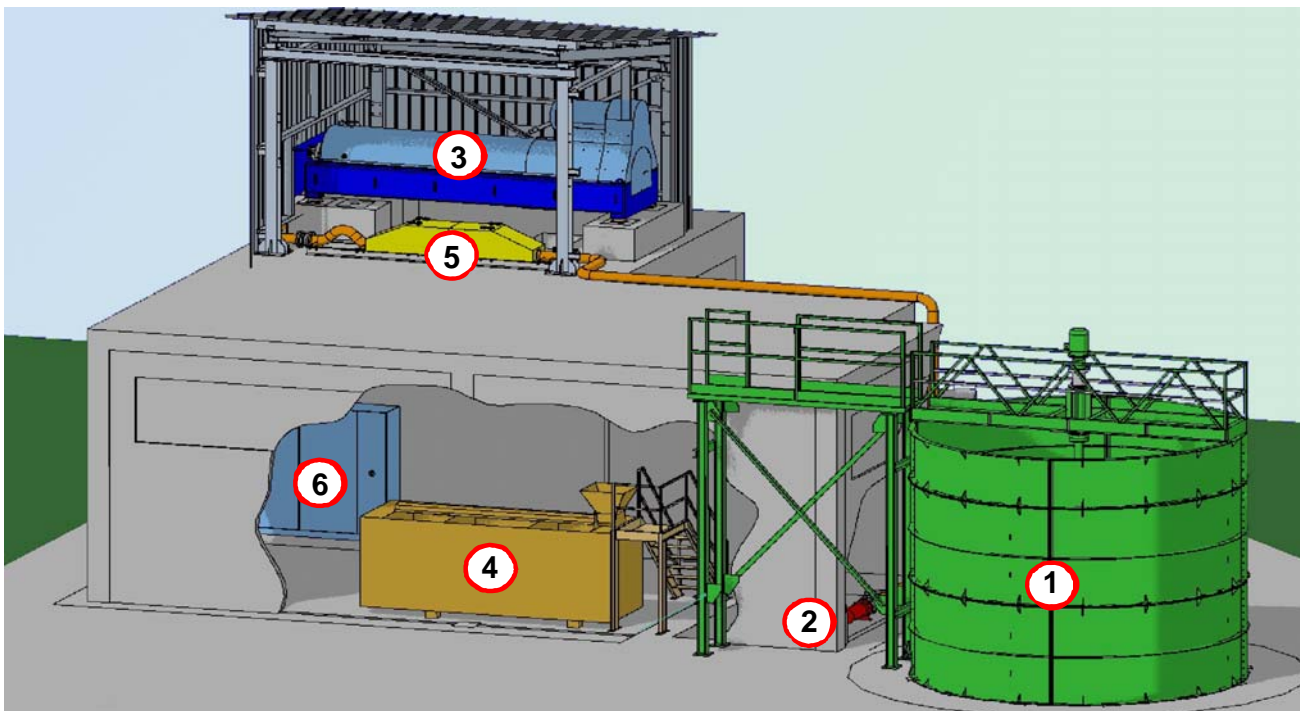
It allows combining the advantages of fully automated plant management with a very high phase separation capacity.

The liquid to be treated is normally drawn from the homogenisation and storage tank (1) by means of a pump (2) and, after mixing with a flocculant, is sent to the decanter (3) for the separation process.

The decanter normally treats two phases of outgoing products, water and dehydrated solid, which are collected and stored for reuse or evacuation.

The unit (4) prepares the dosage of flocculant while an online measuring system (5) measures the properties of the incoming sludge.

The entire system is automatically managed by a control system based on PLC or industrial PC (6).



SECTORS OF APPLICATION:

Our machines can be equipped in different ways and find application in manifold industrial sectors:

- Petroleum and derivative refineries
- Sugar refineries and agro-food industry
- Paper-making industries
- Steelworks and foundries
- Pharmaceutical and cosmetic industries
- Chemical and galvanic industries
- Tanneries and textile industries
- Cement factories and marble working industries
- Quarries, mines and building sites

PLATE FILTER PRESSES

Our series of plate filter presses was developed for use in the mining, industrial and agro-food sectors.

Operation: the plates, lined with filter cloths, are pressed together by a hydraulic cylinder and chambers are formed between them where the sludge, fed by a



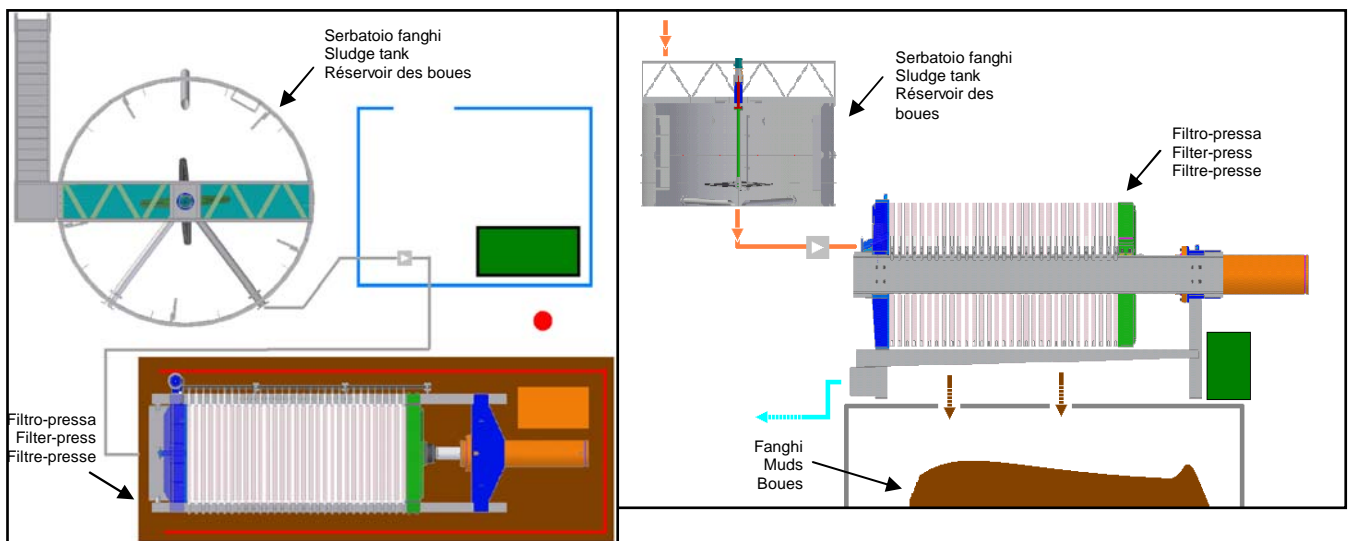
pump, is collected; following the feed phase, the sludge is kept under compression, thus pushing the water through the cloths. The separated water is sent to a collection tank along a system of ducts.

All our press filters are fitted with a system for shaking the plates at the end of the cycle to ensure detachment of the dry solid cake, as well as operator safety devices.

Furthermore, all versions can be fitted with an automatic washing system for keeping the plates and cloths constantly clean.

Our supply includes the electrical system with PLC for the automatic operation of the press filter.

We can supply turnkey sludge treatment plants on request.



Technological innovation and simplicity of application to bring you quality and value for money: for MAITEK value for money means advantages for the users and respect for society. The challenge of the present is indissolubly tied to the bet on the future.



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