

The background features a large, abstract graphic on the left side composed of overlapping, semi-transparent squares and rectangles in various shades of green and blue. These shapes are arranged in a way that creates a sense of depth and movement, resembling a stylized, modern landscape or a cluster of crystals. The right side of the image is plain white, providing a clean space for the text.

# Teknofanghi

EXPERIENCE AND PASSION IN SLUDGE AND WATER TREATMENT

**RANGE OF PRODUCTS**



**SINCE IT WAS FOUNDED IN 1987, TEKNOFANGHI HAS SPECIALISED IN THE DESIGN, MANUFACTURE AND SUPPLY OF EQUIPMENT FOR MUNICIPAL AND INDUSTRIAL SLUDGE AND WASTEWATER TREATMENT PLANTS**

Thanks to its technical know-how and expertise gained over the years, TEKNOFANGHI is able to offer innovative and sustainable solutions to customers all over the world.

In addition to its internal technical and sales staff, TEKNOFANGHI operates through an international network of Agents and Distributors, enabling a widespread presence in the local markets and providing customers with pre and after-sales services.

TEKNOFANGHI solutions are intended for both the public sector, primarily municipal and civil wastewater treatment plants, and for the private sector, covering several industries, including chemical and pharmaceutical, food, fish farming, hotels and resorts, textile, paper mills, wineries and breweries.

## DEWATERING



## THICKENING







As a result of continuous investments in R&D and a constant attention to environmental issues, TEKNOFANGHI is an international leading player recognised for quality, eco-friendly and long-lasting solutions for water and wastewater treatment.

TEKNOFANGHI has its Headquarter in Italy, where R&D and production activities, together with the internal sales team (which coordinates the network of Agents and Distributors) and the technical team are all based.

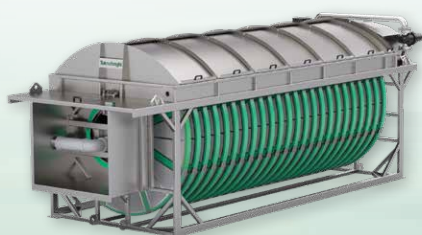
From Italy, TEKNOFANGHI supplies the European market and the rest of the world except for India, where a new branch has been established: TEKNOFANGHI WATER TREATMENT ASIA.

In addition to its range of standard models, TEKNOFANGHI offers solutions tailored to local markets demand or to individual customer requirements.

In order to satisfy specific needs, TEKNOFANGHI has a mobile unit placed into a container to carry out tests on site and to determine the best possible option in the product range.

## TEKNOFANGHI: OUR EXPERIENCE... YOUR SOLUTION

### MICROFILTRATION



### MIXING





**OUR NEW HEADQUARTER IN INDIA IS FULLY DEDICATED TO THE INDIAN MARKET.  
IT HAS BEEN ESTABLISHED TO MEET WITH GREATER EFFECTIVENESS THE  
INCREASING DEMAND OF THE LOCAL MARKET.**

After more than 20 years of commercial activity in India, in 2023 TEKNOFANGHI decided to strengthen its presence in the market through a new company, TEKNOFANGHI WATER TREATMENT ASIA, with headquarter in Pune, one of India's leading industrial hubs.

The range of machines produced and distributed in India is equivalent to the product offering in all Countries, with the advantage of a higher proximity to Customers, which allows TEKNOFANGHI to better meet the market demand and to offer more competitive conditions.

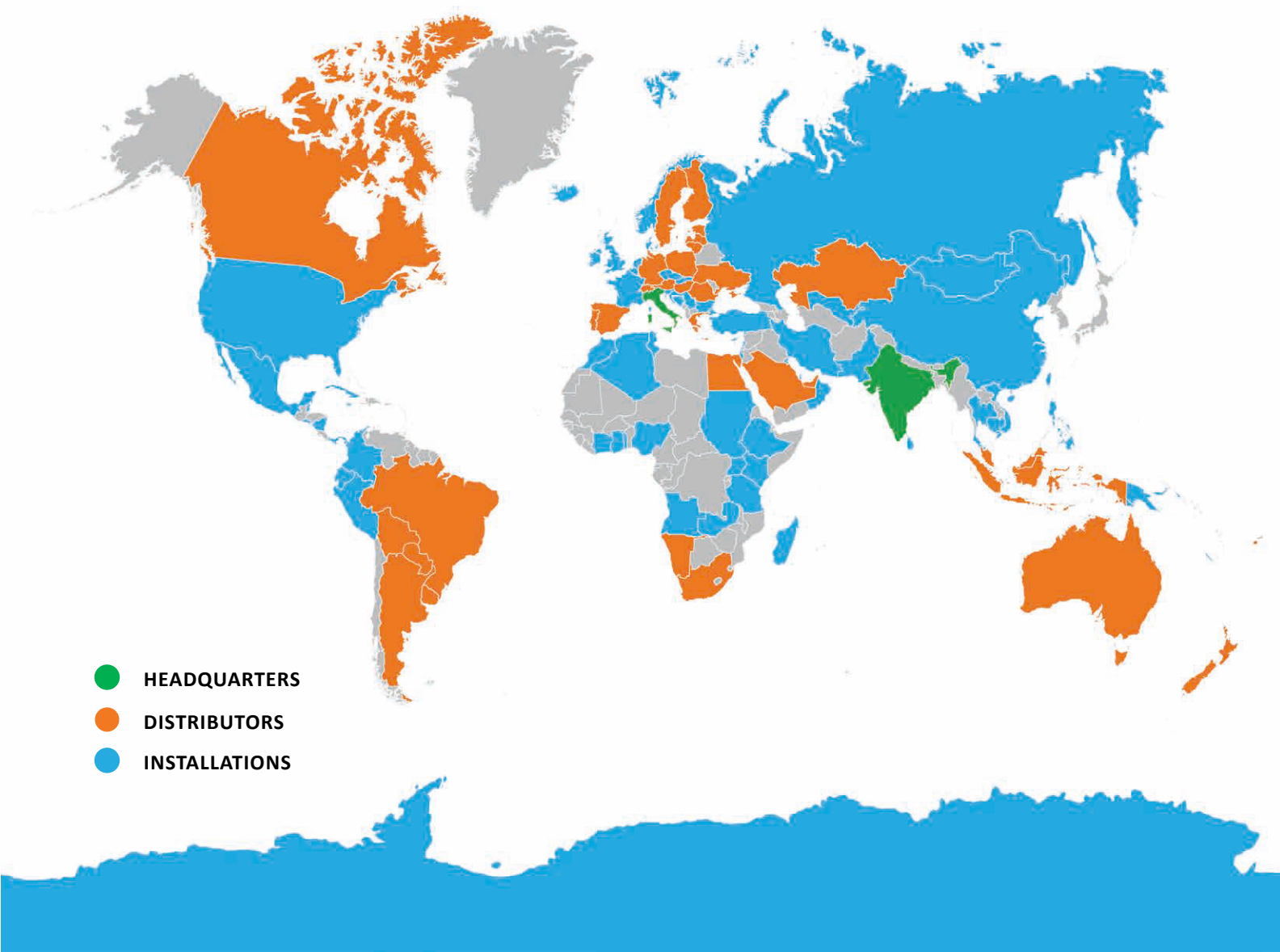
Thanks to the long-term experience in the Indian market, the careful selection of suppliers and materials, together with the support of its technical head office in Italy, TEKNOFANGHI WATER TREATMENT ASIA is able to manufacture equipment aligned to the standards of quality and reliability that TEKNOFANGHI is well known for worldwide.

*Some of our references*





## TEKNOFANGHI EQUIPMENT INSTALLED IN OVER 100 COUNTRIES ACROSS THE 6 CONTINENTS



*Some of our references*





### THE PERFECT COMBINATION OF A THICKENER AND BELT FILTER PRESS

For dewatering the sludge produced by medium-sized and big WWTP, TEKNOFANGHI suggests the use of MONOBELT®. The machine is composed of two units, the pre-thickener and the sludge press.



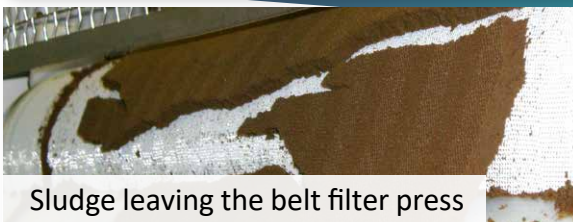
Sludge leaving the pre-thickener

The pre-thickener rotary drum, with Archimedean screw inside, performs the initial solid/liquid separation, with a significant reduction of the hydraulic load fed into the belt press. This allows the unit to handle sludge having very low Suspended Solids concentrations (0,5-1%).



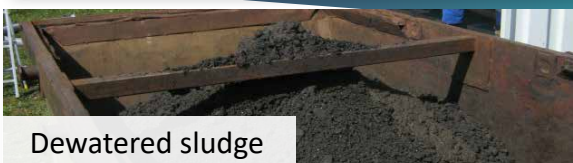
Baffles and breaker combs

The thickened sludge (that generally has a concentration of 5-15%) is then fed to the Low Pressure Draining Zone and distributed over the whole cloth width. It's then gently pressed by three adjustable baffles and two breaker combs.



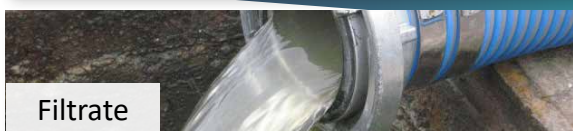
Sludge leaving the belt filter press

At the end of this stage, the sludge enters into the Wedge Zone, where it receives a gradual increase of pressure. After that, the sludge reaches the Maximum Pressure Zone, where it is compressed between the main filter cloth and the secondary filter cloth (fixed to the perforated cylinder).



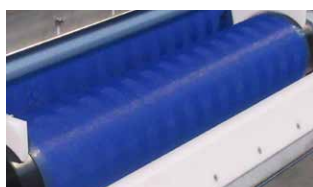
Dewatered sludge

At the exit of the MONOBELT®, depending on the characteristics of the sludge, it is possible to reach Dry Solids concentration between 18% to 30% and more.



Filtrate

Due to the special design of the entire system, the filtrate water is very clean, with solid capture up to 98%.



#### ENDLESS BELT

Only one of the two belts installed on the unit is “under traction”, hence the name Monobelt. This design allows the use of an endless belt which needs no joining zippers or clips (typical critical points of belt filter presses). This characteristic simplifies the unit and makes the belt drive system more reliable.



#### EASY-CLEAN NOZZLES

The filter cloths are kept clean with an automatic washing system, using special Teknofanghi designed spray nozzles, which use less water than other standard nozzles on the market. For rapid cleaning of the nozzles, they can be easily detached-cleaned-replaced, without any tools.



#### PLUG & PLAY

MONOBELT® units are supplied with a control panel mounted on the unit that completes the entire plug & play system.



#### SAFETY SPILLAGE COVERS

MONOBELT® is equipped with a full set of safety and water containment covers. The machine is completely enclosed to prevent aerosols and bad smells.





MONOBELT® TYPE	NP06C	NP08C	NP12C	NP12-6SC	NP15C	NP15-6DC	NP20-6DT	NP20-10ST	NP20-10DT
Belt width (mm)	600	800	1200	1200	1500	1500	2000	2000	2000
Drum thickener (mm)	N°1 Ø 400	N°1 Ø 400	N°1 Ø 400	N°1 Ø 600	N°2 Ø 400	N°2 Ø 600	N°2 Ø 600	N°01 Ø 1000	N°02 Ø 1000
Max Flow (m³/h*)	1-6	2-8	3-12	4-15	5-20	7-30	10-40	20-70	40-140
Thickener and Belt Press (kW)	0,62	0,62	0,92	1,1	1,3	1,65	1,85	2,25	3,75
Washing pump (kW)	2,2	2,2	2,2	2,2	3	3	3,7	3,7	4
Weight (Kg)	1.340	1.440	1.620	1.740	1.850	2.160	2.600	3.000	3.400
* Sludge flow depends on the type of sludge and concentration of Dry Solids.									



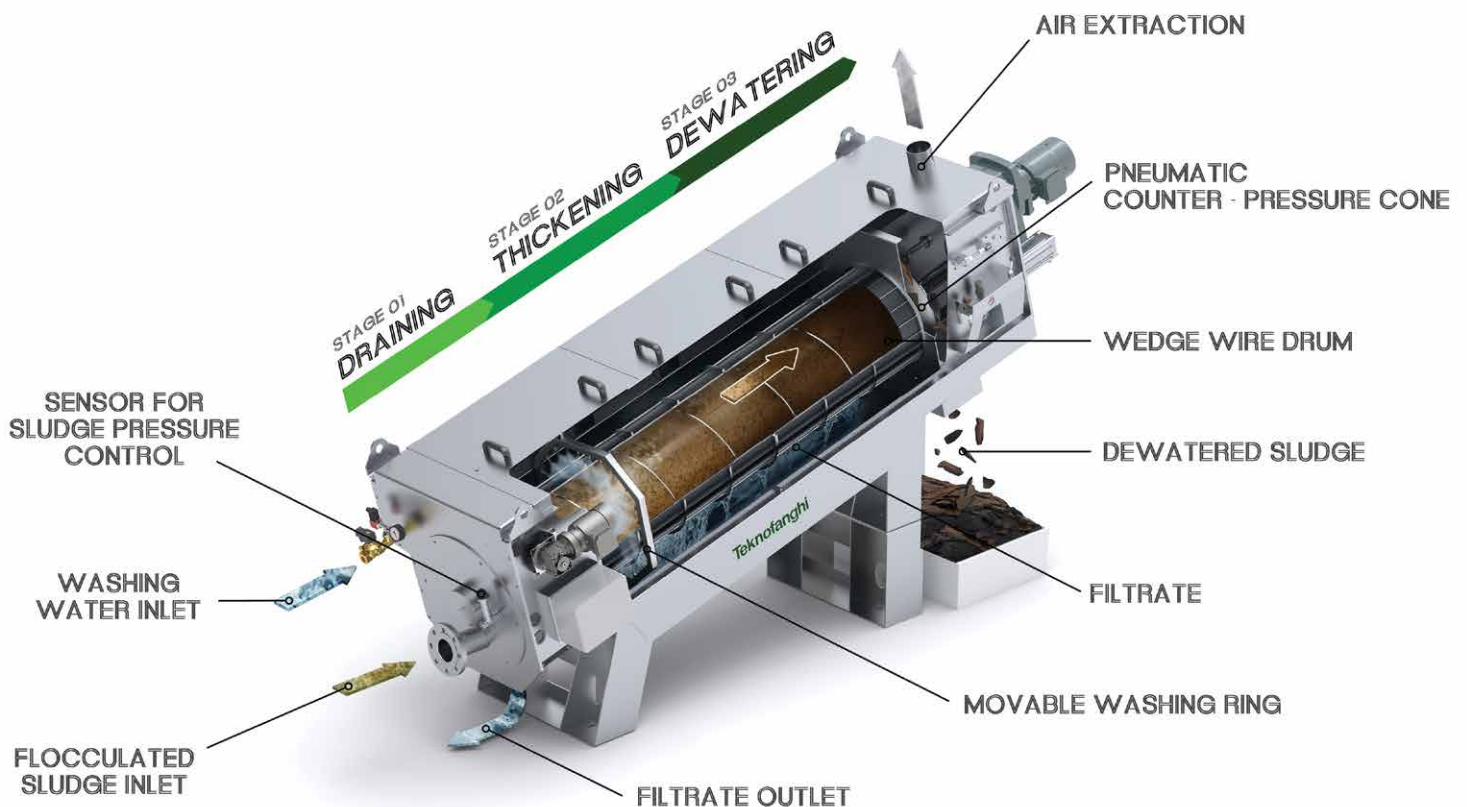




### **DRAINING, THICKENING AND DEWATERING IN A SINGLE COMPACT UNIT**

TEKNOFANGHI's extensive experience in sludge handling has allowed the company to develop and produce this new type of screw press. The SCRUPRESS® is composed of an inclined three stages (draining / thickening / dewatering) wedge wire drum, with a special conical screw running inside and a pneumatic counter-pressure cone installed at the end.





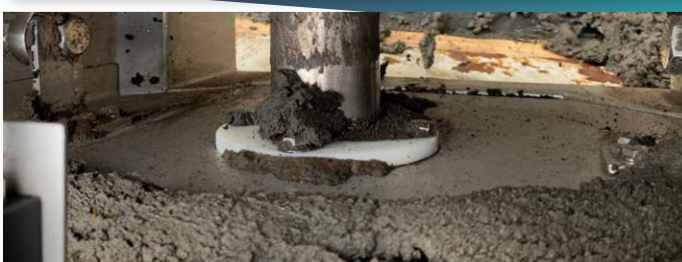
### STAGE 1: DRAINING

The flocculated sludge entering in the SCRUPRESS® loses immediately the liquid fraction in the first draining wedge wire section, where a larger spacing of 0.5 mm is present.



### STAGE 2: THICKENING

In the second stage, thanks to a progressive and gentle compression of the sludge against the wedge wire surface of a section 0.4 mm spacing, the thickened sludge is gradually dewatered.



### STAGE 3: DEWATERING

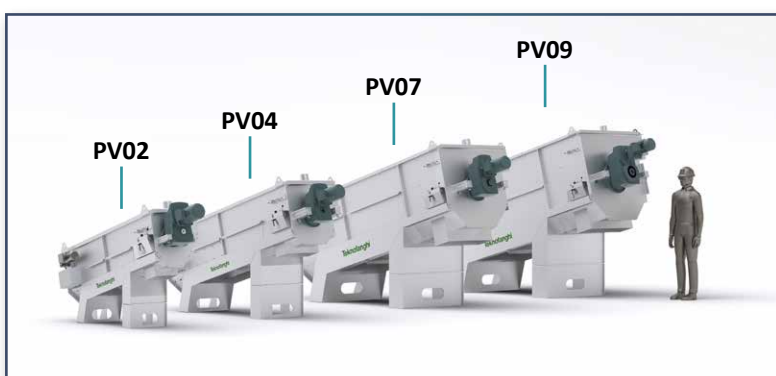
The final stage, with 0.15 mm spacing, is where the sludge is definitely pressed by means of a counter pressure cone, reaching high results in dryness.





- The SCRUPRESS® is fully automatic and controlled by a PLC. The dewatering action is tuned up via a pneumatic counter-pressure cone, while the VFD takes care to increase/reduce automatically the speed of the internal screw, in order to optimize and keep constant the performance also in case of variation of the inlet sludge's concentration.

- A movable washing ring with spray nozzles (designed to reduce the washing water consumption), together with a special rubber wiper fixed on the flight edge, keeps clean the filter drum from the external and internal sides, so to grant the maximum efficiency in terms of permeability.



SCRUPRESS® TYPE	PV02	PV04	PV07	PV09
Wedge wire drum (mm)	Ø220	Ø 415	Ø 710	Ø 870
Sludge Flow (m³/h*)	1-5	2-8	3-12	5-20
Screw-press (kW)	0,37	0,55	1,1	1,5
Movable washing ring (kW)	0,12	0,12	0,12	0,12
Real consumption of washing water in 1 h (m³)	0.1	0.2	0.4	0.5
Weight (Kg)	440	820	1400	1800

\* Sludge flow depends on the type of sludge and concentration of Dry Solids.



### A MODULAR SYSTEM TO DEWATER, DRY AND PACK

For dewatering the sludge produced by small WWTP, TEKNOFANGHI proposes TEKNOBAG-DRAIMAD®. This system dewateres in bags and stores the sludge of every nature.

- The heart of the system is the filtration bag, made from a special "TNT" water repellent material, very resistant and inert to chemicals, acids, bacteria and insects. The bags are mounted on a special stainless steel frame, designed to give an optimal sludge distribution into the bags.
- The TEKNOBAG-DRAIMAD® modules are offered in about 30 different models, ranging from the small manual units to the fully automatic and pressurised units. If it is necessary to increase the sludge capacity of a plant where a bag-module is already installed, an additional bag-module can be added and connected to the existing one, using the existing automation and saving on additional costs.
- On the automatic models, the only manual task is removing the full bags from the unit and fitting new bags. The correct operation of the whole system is managed by a control panel, complete with a digital unit, that controls and also detects possible important alarms, such as: first filling lasted too long, refill lasted too long, bag damaged.
- The optional pressurization system enables the dewatering time to be decreased and increases the quantity of sludge that can be treated, due to a higher dry solids concentration achieved inside the bags. It also reduces working time and bag consumption.

The original Teknofanghi machine invented in the '80s



Today





Sludge after 24 hours



## DEWATERING

After a few hours of operation (with the correct conditioning of the sludge with polyelectrolyte), dry solids contents of 15-30% can be achieved, depending on the nature of the sludge.

The volume of dewatered sludge produced is subject to the solid content of the raw feed sludge. For example, with raw sludge contents of 1% dry solids, one machine can treat up to 20 m<sup>3</sup> per day.

Bags during pressurization

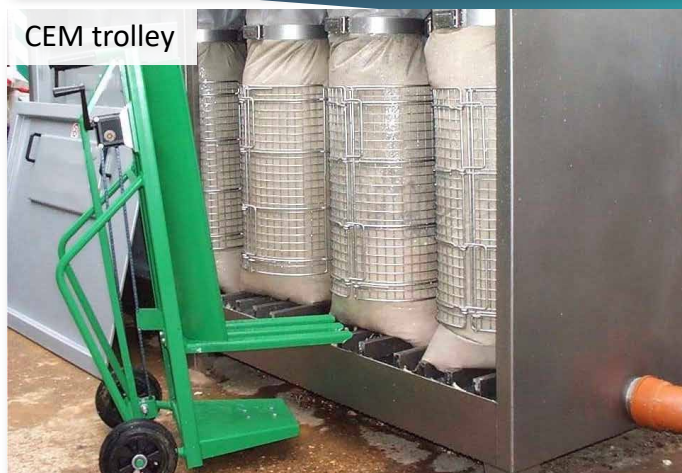


## DRYING

After the initial dewatering stage on the machine, the bags are sealed and removed with a special bag trolley and stored in the open air. During this second phase, sludge weight and volume continue to reduce, regardless of weather conditions. The special water repellent material of the bags prevents rainwater from entering, but it allows dehydration of the contents by evaporation. After two months storage, a cake with minimum 50% dry solids content can be reached.

If the sludge is stored for a few more months, the final result will be between 70% and 95% dry solids. As an example, 1 m<sup>3</sup> of sludge at 1% solids content would give, after two months, a cake of at least 50% dry solids content. This would weigh only 20 Kg and represents a 50-fold reduction of the original weight.

CEM trolley



## PACKING

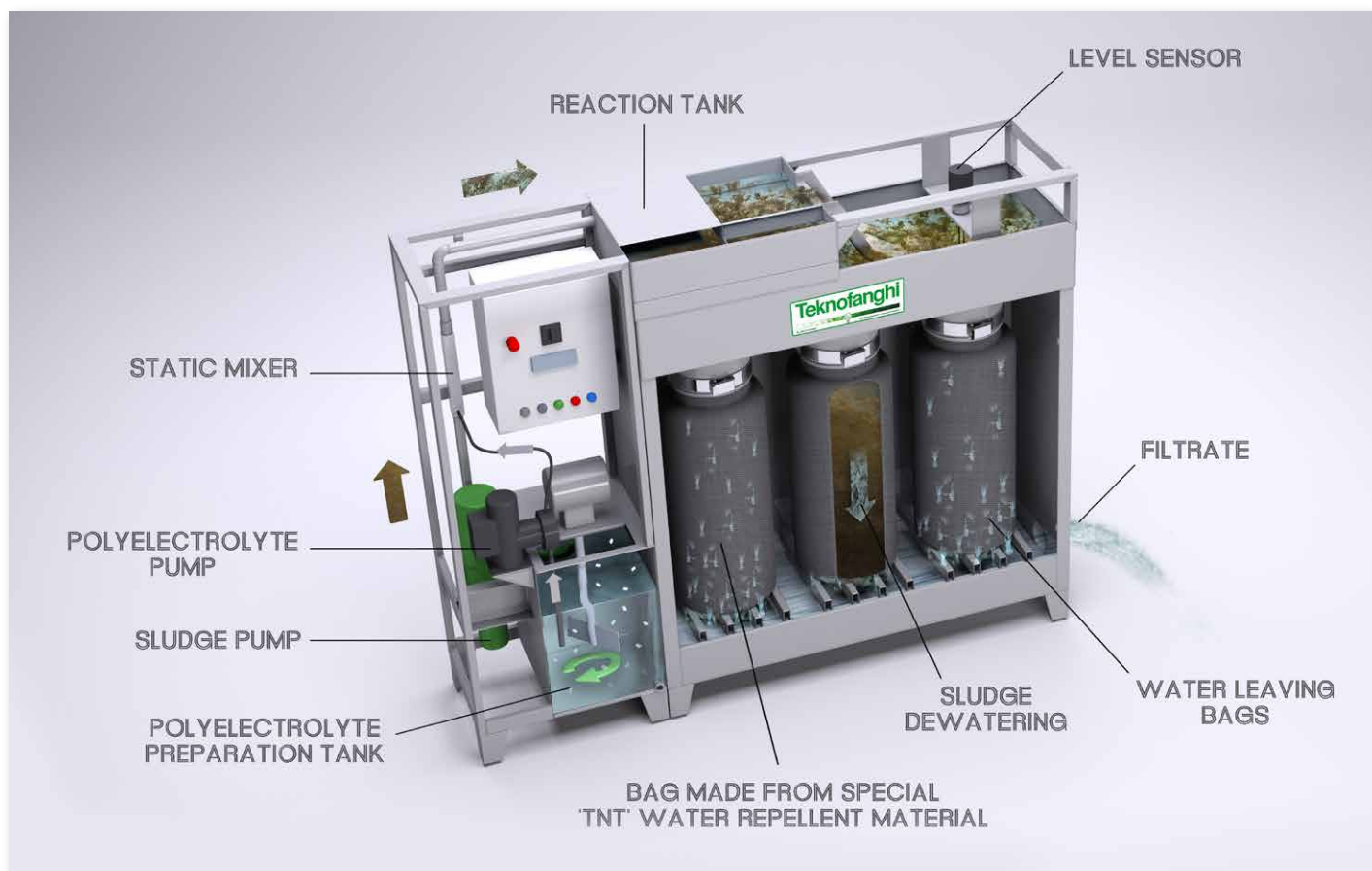
The bags containing the dried cake act as strong containers and, thanks to their shape, allow easy disposal.

Given the low cost of the disposable sacs and the extreme simplicity of the equipment, the TEKNOBAG-DRAIMAD® system reduces disposal costs and further improves payback times of what is in any event, a low capital outlay.

# TEKNOBAG-DRAIMAD® PACKAGE

## A COMPLETE AND COMPACT SYSTEM TO AUTOMATIC MIX, DEWATER, DRY AND PACK

An automatic and modular filtering system, with the sludge loading by a pump and a direct control of the solid substances dewatering through draining bags.



### “PACKAGE” SYSTEM

- To satisfy the requests of the market, we introduced the “PACKAGE” system to the TEKNOBAG-DRAIMAD® range. This system is a complete and very compact dewatering plant, equipped with a bag-module, polymer preparation unit, polymer dosing pump, sludge feed pump, inline mixer, level probe, control panel and all necessary for a complete automation.
- The unit is delivered completely assembled and tested, to minimise installation time and costs. Due to its simple installation and maintenance, the “PACKAGE” system has found a relevant market in small communities, hotels, holiday villages and small industrial facilities.
- TEKNOBAG-DRAIMAD® system is particularly suited for plants up to 4,000 People Equivalent and it offers a simple, economic and efficient solution that gives a return on the capital costs in a very short time.
- Electrical power consumption is minimal, because power is only necessary during the bag feed (1-2 hours/day) and not during the dewatering or drying phases.



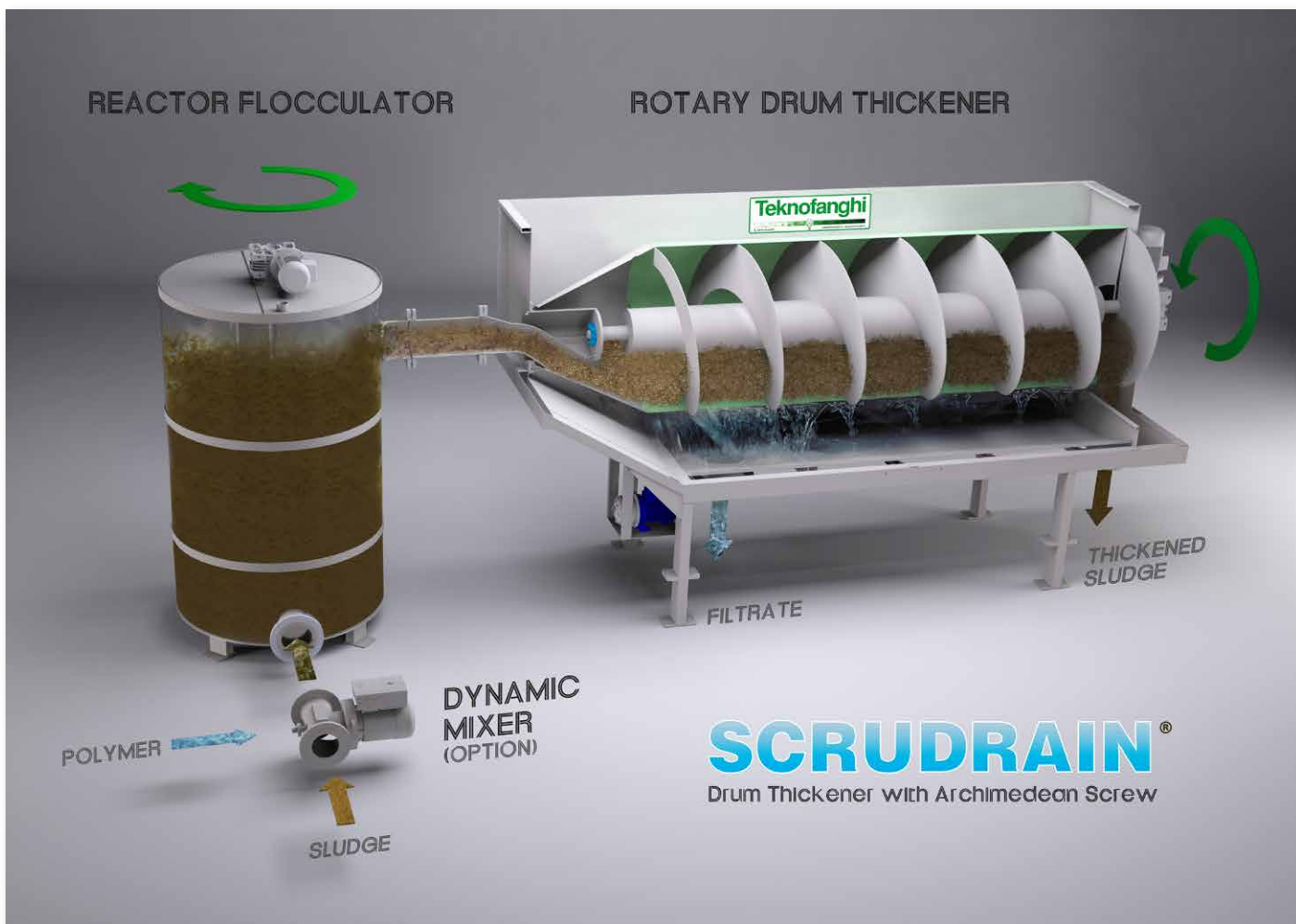


## THE STATE OF ART SOLUTION TO SLUDGE THICKENING

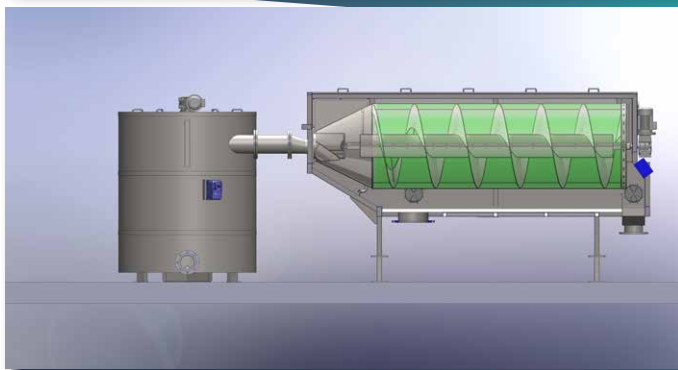
SCRUDRAIN® is a modern and economical solution to sludge thickening; it's a PLUG&PLAY unit with different accessories widely used in many wastewater treatment plants.



- SCRUDRAIN® is generally placed before plate filter presses, belt presses and centrifuges, to achieve higher sludge concentrations before final dewatering.
- The system is often added to existing plants where, due to an increase in the quantity of sludge to be treated, an existing dewatering machine has reached over-capacity.
- Sludge thickeners are also used to increase the sludge concentration before biogas reactors, thus enabling the use of smaller reactor units.
- Another application is in reducing the volume of sludge before pumping into drying beds or uses in agriculture.
- When a WWTP is not fitting with a dewatering system, the SCRUDRAIN® thickener unit is added to obtain a higher reduction in the volume of sludge, saving money and energy.



The achievable thickening results are much higher than with conventional systems. SCRUDRAIN® sludge thickeners can handle from a few m<sup>3</sup>/h to a maximum of 200 m<sup>3</sup>/h per single unit, depending on the type of sludge and the dry solids content.



The SCRUDRAIN® thickeners advantage is the use of an "Archimedean screw" instead of a conventional drum filter. The Archimedean screw allows an adjustment of the concentration of the thickened sludge, creating a continuous mix that aids the drainage of the water and minimises the use of polyelectrolytes. As a general guide, sludge with 0.5%-3% can be thickened to 5%-15% dry solids (DS).



Simple control of the thickening process, by adjusting the rotating speed that allows to increase/decrease the retention time and to achieve the optimal desired thickening.





The filter cloth is kept clean with an automatic washing system, using special TEKNOFANGHI designed spray nozzles, which use less water than other standard nozzles available on the market. For rapid cleaning of the nozzles, they can be easily disassembled-cleaned, without using any tools.



The filter cloth has a long life, since it is not under tensile stress because it is directly fixed on the screw. Combined with the robust and simple structure of the machine, it makes thickeners extremely reliable.



The dirt particles, removed during the washing phase, remain inside the drum thickener and they are discharged together with the thickened sludge, ensuring a particularly clean filtrate (high efficiency capture) up to > 98%.

## PLUG & PLAY UNIT

SCRUDRAIN® thickeners are supplied as “plug & play units”, complete with control panel, washing pump, and all ancillary equipment necessary for efficient operation. The control panel enables a fully automatic operation of the machine. It has been designed to be interfaced with other panels and it gives inputs to drive sludge and polyelectrolyte pumps. The machine is completely enclosed to prevent aerosol and bad smells.

Optionally, the SCRUDRAIN® can be equipped with a RCT reactor-flocculator to optimise sludge and polyelectrolyte mixing and to distribute correctly the sludge inside the drum thickener. Each SCRUDRAIN® model is available with a dedicated TRM tank for thickened sludge storage and transfer, and it is complete with a level probe and a thickened sludge pump. In line with TEKNOFANGHI's renowned high quality standards, all our sludge treatment equipment are made of AISI 304L stainless steel as standard execution.

SCRUDRAIN® TYPE / TIPO	AD04C	AD06C	AD04D	AD06D	AD10C	AD10D
Drum size (mm)	N°1 Ø400	N°1 Ø600	N°2 Ø400	N°2 Ø600	N°1 Ø1000	N°2 Ø1000
Flow max (m3/h*)	10-20	15-30	20-40	30-60	40-100	80-200
Thickener drive (kW)	0,37	0,55	0,74	1,1	1,5	3
Washing pump (kW)	2,2	2,2	2,2	2,2	2,2	3
Weight (Kg)	380	500	530	750	1200	2100

\* Sludge flow depends on the type of sludge and concentration of Dry Solids.

## CONTINUOUS MICROFILTRATION FOR MEDIUM/LARGE PLANTS

The rotating disc system TEKNODISK® is a solution for the microfiltration and subsequent reuse of the filtered water for irrigation and industrial purposes.

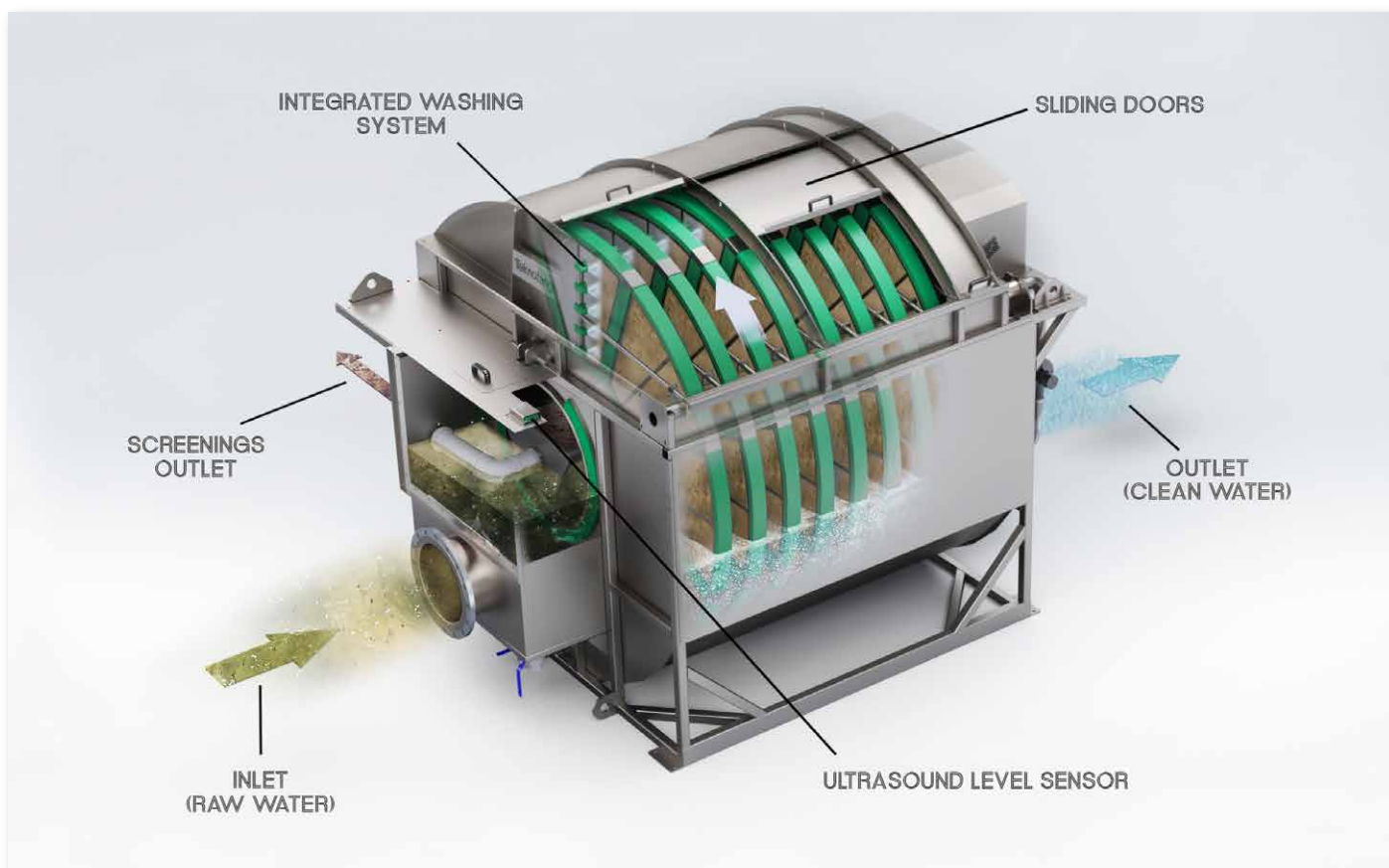
It is based on a straightforward gravity-based principle. The water flows through discs, capturing solids on filter cloths. Filtered water is released, and when the filter plate is clogged, a sensor triggers disc rotation and a backwash system, using filtered water to wash. Retained solids are collected into a central hopper, then expelled.

The disc rotation stops automatically after washing and the machine is energy-efficient and static during normal filtration.



- This technology, compact and with a simple design, allows for a high filtering surface combined with a low space commitment and has been designed to ensure ease of use and maintenance.
- Filter plates' cloth is made of high quality of polyester, ranging from 10 to 100 microns mesh. Filter plates are available in stainless steel and different mesh sizes upon request.
- The high filtration efficiency is enhanced by the extremely high-performance cloth backwashing system equipped with a tilting and swinging washing arm. Filtration is continuous, even during washing operations.
- Thanks to the presence of a filter and the use of quick-disassembly 1/4 turn nozzles, clogging problems and the consequent maintenance of the nozzles are minimal.





#### DISC STRUCTURE

Each disc has 8 separate sectors composed of 2 filter plates. The structure of the sectors is made to easily and quickly replace the filter plates when necessary.



#### BACKWASHING SYSTEM

The cloth backwashing system, composed of swinging arms and genuine TEKNOFANGHI nozzles, ensures high filtration efficiency. Filtration is continuous, also during the washing phase.



#### SLIDING DOORS

The top cover is equipped with sliding doors, that don't need to be removed and are easy to open for immediate access to the internal part of the machine.



#### CONVEYOR HOPPER

Due to the pressure of the washing water, the solids retained by the filter plates drop down into the central collecting hopper, from where they are subsequently expelled by gravity.

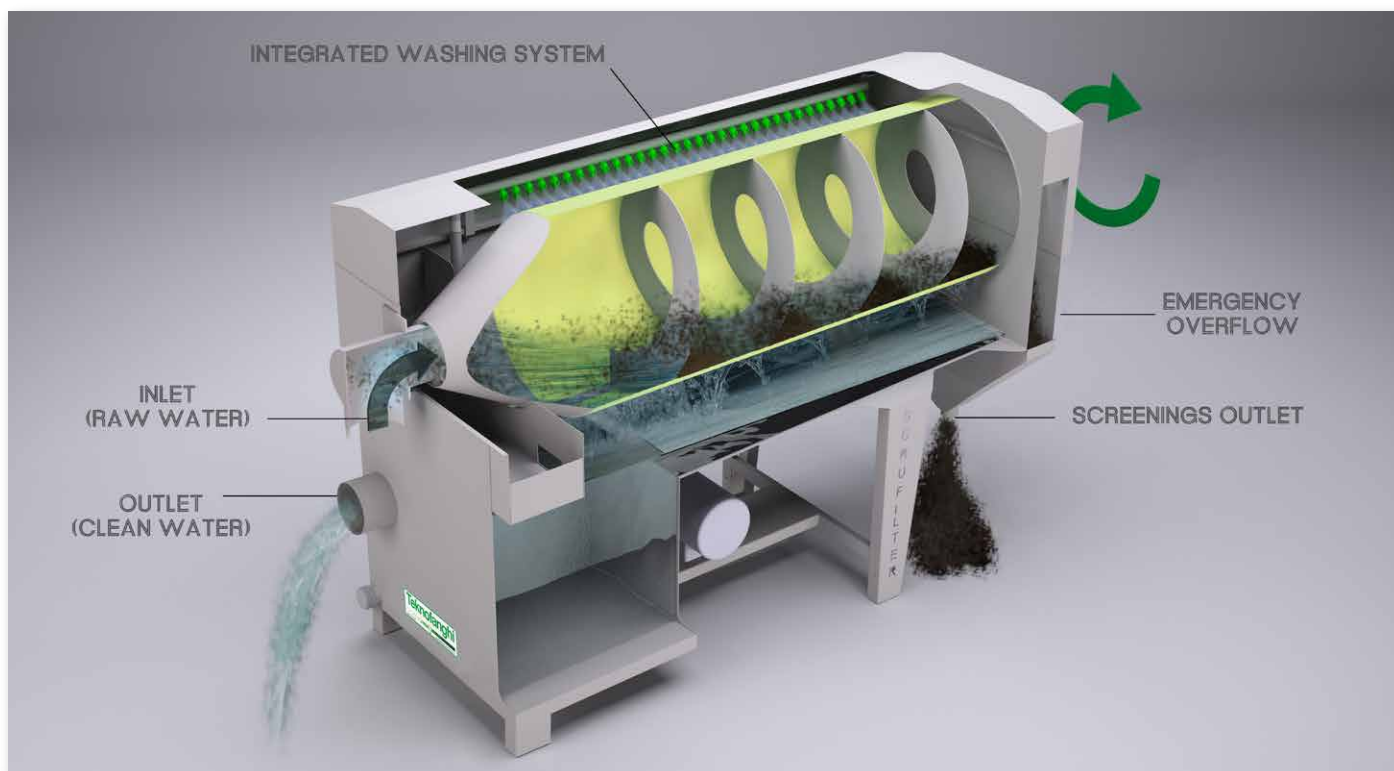


### THE MOST RELIABLE SYSTEM WITH LOW MAINTENANCE COST

SCRUFILTER® is a system for the continuous microfiltration of wastewater, successfully made by TEKNOFANGHI and sold worldwide for many years. This very compact filter has been designed for tertiary filtration, after the secondary treatment or settlement, in biological and industrial WWTP, but due to its versatility, it is also suited to many other applications. The unit is supplied fully assembled, the mainframe includes tanks and all that is necessary for a normal use. No need of special foundations or buildings.



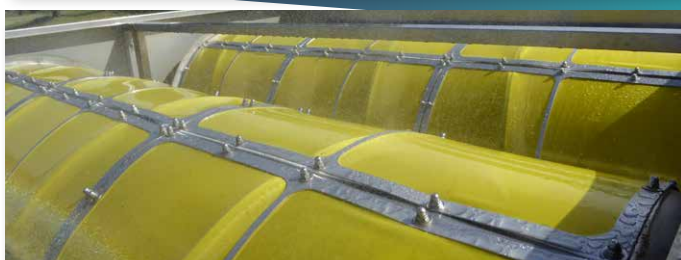




The filtration occurs by gravity and it is continuous, with irrelevant head loss. The backwashing also is continuous, with no external water required. The unit has an integral overflow system to control the maximum flow-rate or solids concentration. The system diverts the non-filtered overflow water into the solids discharge. In this way, the quality of the filtered water is preserved.



The machine is completely enclosed to prevent from aerosol and smell and it is equipped with removable inspection panels for simple and fast maintenance.



SCRUFILTER® is composed of many filter plates, in order to replace only damaged filters when necessary, with a relevant cost containment. Filter plates replacement can be carried out without removing the drum from the mainframe. SCRUFILTER® is a compact unit with high capacity.



The constant washing of the filter media maintains the permeability of the filter and therefore maximum efficiency, while the absence of level probes avoids possible problems caused by "false contacts".

The simplicity of construction and process makes SCRUFILTER® a very reliable system, with low maintenance costs. The filtration of the discharge from WWTP has several advantages:

- Improvement of the quality of the final effluent, the conformity of the plants to new laws, the possibility to recover water for industrial use or irrigation.
- SCRUFILTER® is able to effectively reduce the suspended solids, which implies a reduction in COD, BOD5, phosphorus, nitrates and other substances.
- When used before additional further treatment with U.V., it is able to reduce the turbidity caused by the suspended solids, implying better results by the disinfection and allowing the use of smaller and less expensive U.V. systems.
- The filter cloth can be selected according to specific needs. Standard mesh can be 20 – 30 – 40 – 60 – 80 or 100 micron, but different sizes can be supplied upon request.
- The “Archimedean screw” inside the drum allows a significant reduction of the reject water. As a general reference, the volume of reject water is 90% less than other drum filters available on the market.

Liquid before and after filtration



### Typical applications:

- > Waste water treatment plants (discharge improvement)
- > Waste water treatment plants (removal of phosphates)
- > Water recovery (food industry, textile, paper mill, etc.)
- > Water treatment for cooling systems
- > Recovery of primary materials
- > Beverage production plants
- > Reverse osmosis plants and MBR plants
- > Fish-breeding farms
- > Clarified water from flotation systems
- > Filtration of surface water (river, lake, etc.) and wellwater
- > Filtration water prior to disinfection with UV systems

SCRUFILTER® TYPE	FL03S	FL06S	FL06D
Drum (mm)	N°1 Ø 340	N°1 Ø 600	N°2 Ø 600
Flow max (m3/h*)	15	30	60
Drum (kW)	0,09	0,18	2 x 0,18
Washing pump (kW)	0,65	0,75	1,1

\* Sludge flow depends on the type of sludge and concentration of Dry Solids.



**POLYELECTROLYTE UNIT FOR EACH INSTALLATION CONTEXT**

TEKNOFANGHI's long experience in the field of sludge dewatering has led to the development of a complete range of polyelectrolyte preparation and dosing units, the CMP semi-automatic series and the fully automatic CAP series.

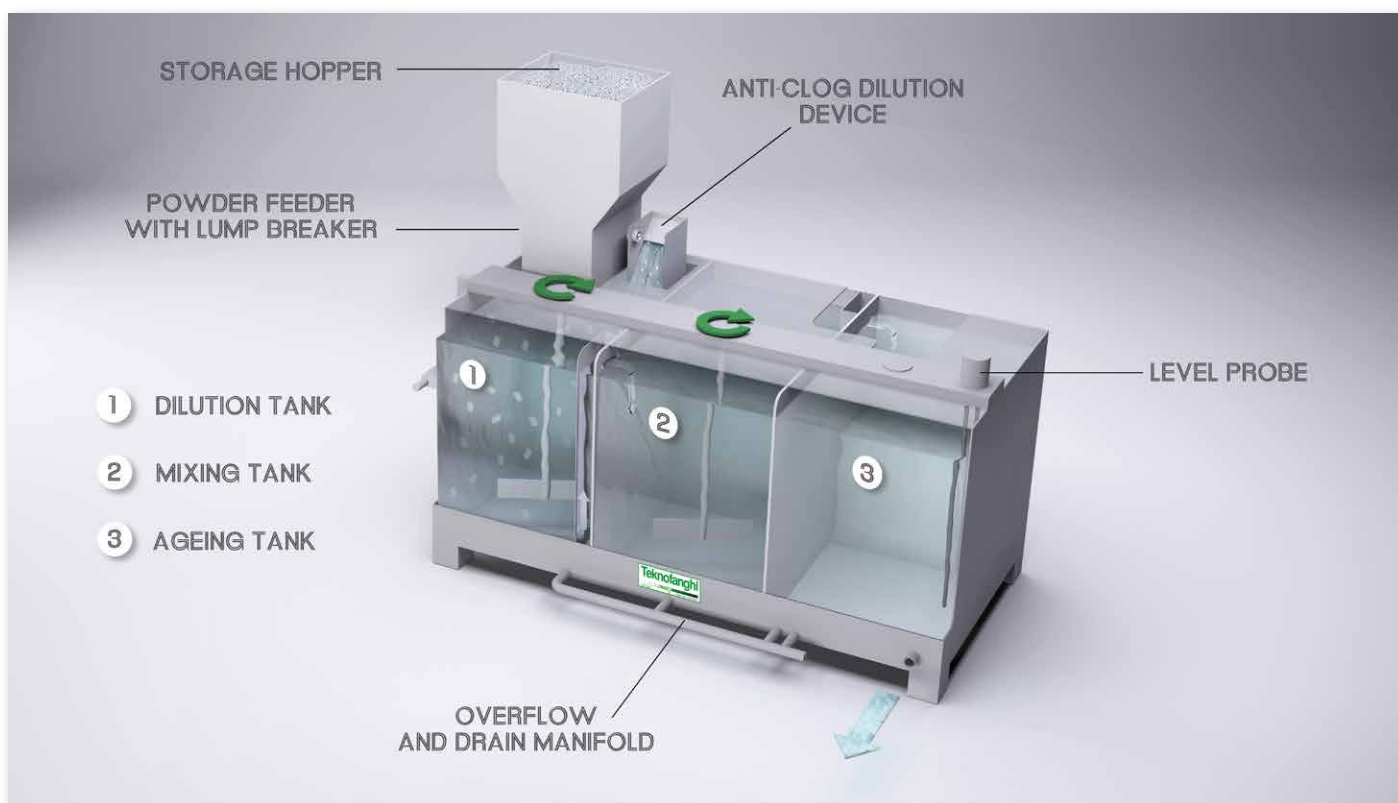
**CMP (Semi-automatic series)**

The lower cost CMP series are suitable for use in small plants where the requirement of flocculant is not continuous and where chemical make-up can be manual.

**CAP (CE series)  
with COMBI and pneumatic powder loader****CAP (CE series)  
Automatic unit for powder base polyelectrolyte****CAP (EM series)  
Automatic unit for emulsion base polyelectrolyte**

The CAP series has been developed for applications in which the polyelectrolyte must be fed on a continuous basis, with accurate control of dilution and ageing. The CAP are available for preparation of polyelectrolyte in powder base (CE series) and also in emulsion base (EM series).

The automatic unit with polyelectrolyte in powder base is available in 750 - 1,500 - 3,000 - 6,000 l/h capacity, with adjustable polyelectrolyte solution between 0,05% and 0,3%, and granting ageing time over than 60 minutes. The CAP units for polyelectrolyte in liquid base are produced in two models: one to prepare up to 2,000 l/h of solution, the other to prepare up to 6,000 l/h, with adjustable polyelectrolyte concentration between 0,05% and 0,8%. The whole process takes a minimum time of at least 20 minutes, allowing sufficient ageing even for the most "difficult" emulsions. The automatic sequence of functioning is common to both models and it is controlled by the integral electrical control panel, supplied with an "operator friendly" Synoptic, for a simple and immediate control on the unit.



### PNEUMATIC POWDER LOADER

For applications where it is required to operate the POLYDILUTION® on a 24 h/day basis, or where the manpower is not always available on the plant, an automatic powder loader is offered as option. The powder loader system is fully automatic and, via a Venturi pump, adjustable timer and sensors, can grant some days of operator-free running.



### POWDER LEVEL SENSOR AND HEATER

Optionals for powder series: a level sensor installed in the hopper and the anticondensation heater to prevent the formation of lumps of polyelectrolyte caused by humidity.

HOPPER FOR  
POWDER LOADING

DOSING PUMPS FOR  
EMULSION

**CAP + COMBI**  
FOR POLYELECTROLYTE IN  
POWDER AND LIQUID BASE



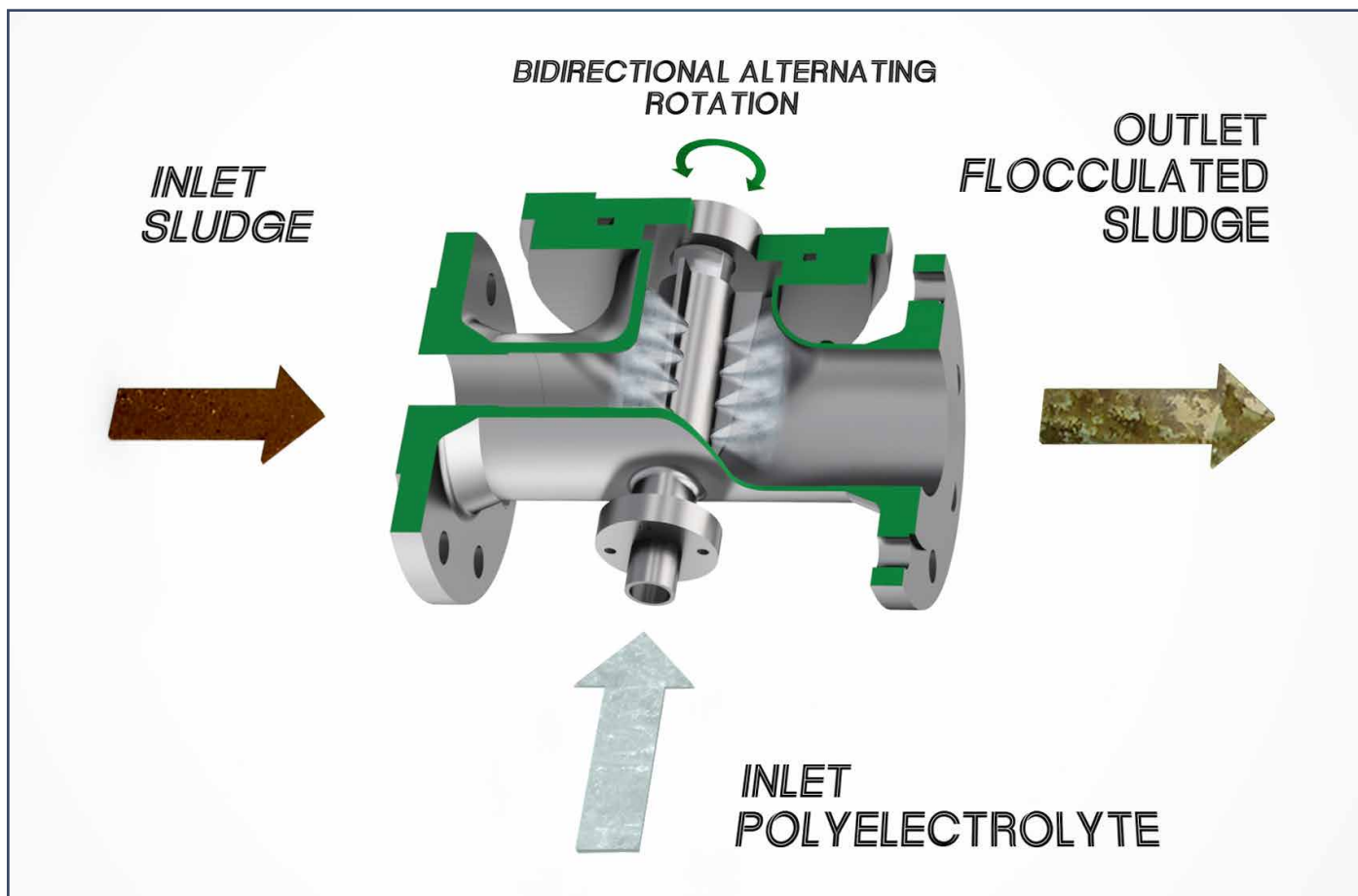
TEKNOFANGHI can supply standard units, fully customised units and units on "COMBI" versions, able to prepare polyelectrolyte in powder and emulsion bases in a single compact unit.





The POLYDILUTION® is manufactured on TEKNOFANGHI's usual high standards, with best quality non-corrodable materials and all metallic parts made of AISI 304L stainless steel. AISI 316L or polypropylene execution available on request.

POLYDILUTION® TYPE	CAP07CE03	CAP15CE03	CAP30CE03	CAP60CE03	CAP20EM03	CAP60EM03
Polymer type	Powder base	Powder base	Powder base	Powder base	Emulsion base	Emulsion base
Polymer concentration (%)	From 0,05 to 0,3	From 0,05 to 0,3	From 0,05 to 0,3	From 0,05 to 0,3	From 0,05 to 0,8	From 0,05 to 0,8
Polymer dosing amount	From 0,37 to 2,25 kg/h	From 0,75 to 4,5 kg/h	From 1,5 to 9 kg/h	From 3 to 18 kg/h	From 1 to 16 l/h	From 3 to 58 l/h
Max capacity (m³/h)	0,75	1,5	3	6	2	6
Minimum ageing time (minutes)	60	60	60	60	20	20
Feeding water pressure (bar)	min. 2,5	min. 2,5	min. 2,5	min. 2,5	min. 2,5	min. 2,5



### THE OPTIMAL MIXING DEVICE

TeknoMix+® is an innovative series of inline Dynamic Mixers. Thanks to the wide variation of the impeller revolutions, TeknoMix+® grants the possibility to find the optimal energy/turbulence for each application.

- Controlling the size of the flocks, it is possible to improve the performance in terms of flow (due to the higher drainage speed) and dryness.
- Granting the best possible mixing, not a single drop of polyelectrolyte is wasted, with consequent saving in polyelectrolyte consumption.



**Without  
TeknoMix+®**



**TeknoMix+®  
at 25 Hz = 700 min-1**



**TeknoMix+®  
at 50 Hz = 1415 min-1**



**TeknoMix+®  
at 70 Hz = 2000 min-1**



## CUSTOMISED TRASPORTATION SYSTEMS

TEKNOFANGHI can supply a range of standard screw conveyors to transport the sludge cake to waste bins, but also customised solutions when standard conveyors cannot be used.



Shaftless Screw Conveyors CCL® are very helpful for handling viscous and bulk materials such as dewatered sludge.

- A major benefit of Shaftless Screw Conveyors is the elimination of intermediate support bearings to support the screw sections. Intermediate support bearings require a constant maintenance and they can create issues with sludge flow.
- Shaftless spirals are supported by anti-abrasive liners in the housing, providing a lubricated surface. The reduced speed of rotation grants a long life of the liners.
- As a standard, the CCL® Screw Conveyors have a U-section trough made in AISI 304L, a spiral painted in Higher Strength Microalloyed Steel and a liner in ultra-high molecular weight polyethylene (UHMWPE), which are self-lubricating and have a high resistance to abrasion.



# Teknofanghi

EXPERIENCE AND PASSION IN SLUDGE AND WATER TREATMENT



Teknofanghi

HEADQUARTER



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