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## **WASHING**





## FIELDS OF APPLICATION



#### **AGGREGATES**

Matec has developed a wide knowledge in the aggregates sector, as our machines for the water treatment were born to work with aggregates, materials which are not easy to handle. This is why we created a range of machines for the **washing of aggregates**, to manage the whole process and guarantee the best output both from the washing system and the water treatment plants.



#### INDUSTRIAL SANDS

We look forward to the industrial **sand production sector**, as the demand of silica materials is constantly increasing. A treatment which can reduce contaminants and precision in the separation of material are the requirements we face from our customers and that our machines are able to fulfill.



## RECYCLING

Recycling, **C&D recycling** especially, is a fast-pace growing sector. The concern for re-using materials to respect the environment and comply with laws has led to a development of technologies, systems and plants for which Matec can exhibit great experience. In addition, the recovery of resources has always been one of the key objective of our business since we started as Matec back in 2003.



#### WATER MANAGEMENT

Matec is already a leader in the water management system with **over 3000 installations** which help customer save and recover water all across the world. Through our filterpresses and our thickeners, you will be able to reuse up to 95% of the water. Cutting down costs is essential for a washing system and our equipment will deliver it, maximizing the return of your plant.

# FROM WASHING TO FILTRATION WITH MATEC, STEP BY STEP TO GREAT RESULTS

Matec is a well-established leading company in the designing, manufacturing and installation of purification and filtration plants. After over **15 years of experience** and hundreds of washing plants we have started our dedicated line of washing systems, to offer our customer a solution which has been conceived to work with our purification and filtration plant. Thus, the best result is guaranteed. The creation of systems which harmonize cuttingedge industry and the environment has always been our main objective. As a matter of fact, our machines, from the washers to the filter press, comply with regulations in terms of water and materials.

Searching for innovation, to offer customers complete and efficient plants in the aggregates, recycling, sand production and mining sectors. 100% Made in Italy products to be assembled in our headquarters in Massa, in one of our branches worldwide (USA, Brazil and India) or on-site, thanks to the work of a great team of engineers and technicians. In addition, Matec will offer you pre-sale assistance for your customized plant, perfect for your needs, and after-sale assistance thanks to global dealer network, because we believe in working with local people to best serve our customers, wherever they are.

Our machines can be stationary or modular ones, according to the requirements of the plant.



## **AGGRETEC**

# SEMI-MOBILE **SCREENING**AND **WASHING UNIT**

Aggretec is Matec's rapid installation **modular washing platform** for a wide range of sectors including aggregates, recycling, remediation and mining. Since the system is semi-mobile, it is highly portable so also ideal for working in construction and demolition sites.

Aggretec integrates the following items into a single platform machine:

- Washing screen (multi-deck)
- Fines recovery / sand washing unit
- Stockpile conveyors
- Electrical controls and pre-wiring
- All structures and walkways
- Comprehensive options / potential to customise for specific applications

- UP TO 4 GRADES OF AGGREGATE AND 1 OR 2 GRADES OF SAND
- MODULAR DESIGN, PRE-TESTED
- COMPLETELY PRE-WIRED WITH PLC CONTROL PANEL
- RUBBER LINED PUMPS, CYCLONES AND CHUTES/PIPES FOR EXTENDED PLANT LIFE
- TRANSPORTABLE









## SANDTEC

# SAND RECOVERY GROUP WITH HYDROCYCLONE

Sandtec is a **hydrocyclone based washing unit** designed to recover fines and ultra-fines. It can receive feed in a slurry form (usually from a washing screen) or as dry feed from a conveyor to an optional slurry feed box added to the machine.

Sandtec guarantees the recovery of ~95% of fines over 75 microns and highly accurate elimination of excess fines.

The washed product is discharged with a residual moisture avg <15%.

Highly compact and self-contained unit, easily integrated with existing systems to upgrade capacity and efficiency, highly customizable with an extensive options list and project specific builds.

- MAX RECOVERY OF MATERIAL THROUGH SILT REMOVAL
- EASY TO ASSEMBLE AND COMPACT
- EASY MAINTENANCE
- VERY LOW RESIDUAL WATER CONTENT
- IT FITS OTHER WASHING EQUIPMENT PERFECTLY







## SCREENTEC

## INCLINED VIBRATING SCREEN

Screentec is the machine that washes and selects materials as gravel, coal, crushed stone, slag, recycled materials, concrete, iron ore and silica glass, with high efficiency.

The screen parts are easy to mount and assemble and make the Screentec a suitable match for the other washing machines. You can install **2 or 3 decks** and choose among several options. They mainly consist of:

- Deck-holding body suspended on helical springs
- Mesh tensioning system with a metal rod
- Steel alloy shaft, grease lubricated bearings protected by a set of labyrinth flanges
- Adjustable eccentric weights for output variation
- Rear feeding chute and hoppers bolted onto the front part of the machine for material discharge

- UP TO 4 TYPES OF WASHED AGGREGATES AND 1 OR 2 GRADES OF SAND
- LOW MAINTENANCE FOR HIGH EFFICIENCY
- EASY REPLACEMENT
- CUSTOM CHOICE FOR MESHES AND DECKS
- EASY ASSEMBLING AND MOUNTING









## SCRUBTEC

## HEAVY **SCRUBBING** UNIT

The combination of heavy scrubbing action and flotation removal of lightweight contaminants makes Scrubtec a key component in Construction & Demolition Waste recycling systems. It is also ideal for aggregates and mined materials with high clay content.

The material is washed through inclined blades arranged in series inside the machine. These blades slow down the advance of the material when it is very dirty, but facilitate progress when it is cleaner. The whole washer is lined with interchangeable anti-wear steel armour. The machine is driven by a motor reduction unit. Scrubtec is composed of:

- Pre-screen
- Log washer
- Trash screen
- Finishing / dewatering screen
- Supporting structure on skid
- Water and sand pump group

- MODULAR DESIGN FOR EASY INSTALLATION
- 100% AUTOMATIC
- EASY TO TRANSPORT
- BEST EFFICIENCY SCRUBBING







## BUCTEC

## SAND **RECOVERY** UNIT

Buctec **bucket wheel dewaterers** are relatively conventional washing units, are used for the recovery of sand / fine materials. Most frequently used in the quarry and sand industries, they are also applied to a wide range of washing projects for various minerals and mined materials coming from aggregate washing plants.

Whilst they do not offer the same efficiency and separation accuracy of Sandtec systems they do remain an attractive option for many operators:

- Easy to install
- Relatively low cost
- Simple engineering
- Basic maintenance requirements
- Well known by operators across the world

- UP TO 2 GRADES OF SAND
- SIMPLICITY
- MAXIMUM VERSATILITY
- COMPLEMENTARITY
- LOW RUNNING COSTS
- LOW MAINTENANCE









## ATTRITEC

# ATTRITION CELLS MIXER AND AGITATOR

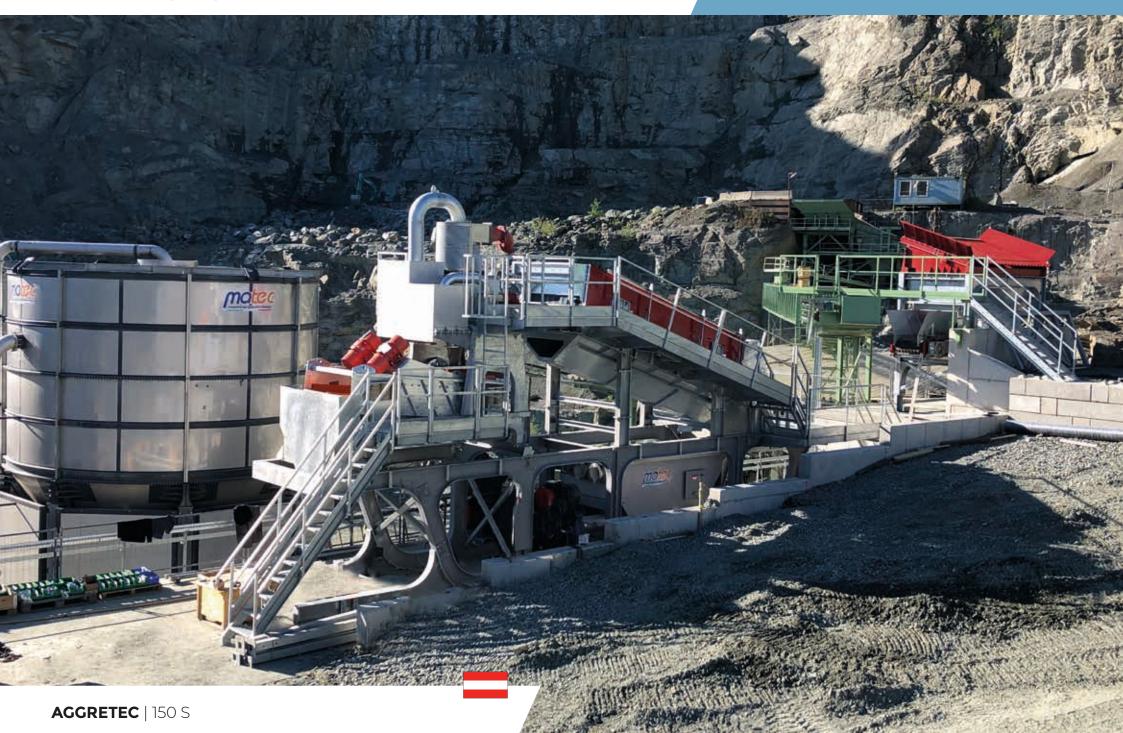
Attritec attrition cells are used to remove contaminants bound to surface of sand. They are most commonly used within circuits producing high-value and high specification sands for industries including glass manufacture / foundries / frac oil production. For example within the glass sand sector Attritec is often used to remove iron contamination on the surface of silica sand particles.

The attrition cells usually find their ideal location before the hydrocyclonic process of the slurry and their applications are as follows:

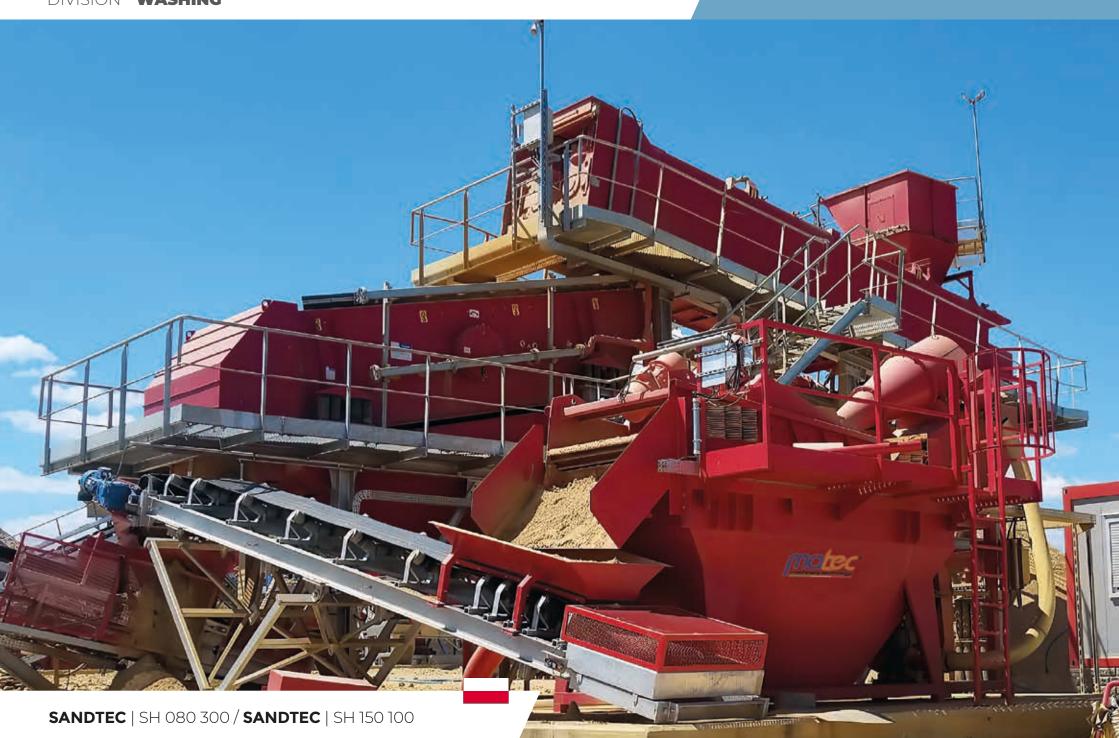
- Easy to install
- Relatively low cost
- Simple engineering
- Basic maintenance requirements
- Well known by operators across the world

- INTENSIVE TREATMENT FOR SLURRY
- POLLUTANTS REMOVAL
- ROBUST DESIGN
- WEAR-RESISTANT



















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