



THE EXCELLENCE IN **FILTRATION**, BY NATURE



WATER TREATMENT & WASHOUT SOLUTIONS

GLOBAL REFERENCES



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MATEC is a worldwide leader in the design and manufacturing of filtration and purification plants for waste water and silt. We design, manufacture and install complete and turnkey plants in any sector which deals with waste water and silt. The most important ones are mining, aggregates, sand and gravel, stone, concrete, ceramics, plastic and glass. We have developed extensive experience over 10 years and thousands of successful projects all across the world. Through our systems we can guarantee the best results, allowing any working site to reach its maximum efficiency and production, because Matec systems maximize the returns of the plant, recovering precious materials and reducing disposal costs. We can provide our customers with the best quality machines, also

thanks to components by top brands and the best assistance service.

Matec headquarters are in Massa, Tuscany, Italy. Our workshop and offices cover a 5000 m² area, here we design and manufacture all our machines to offer 100% Made in Italy products. Matec is a well-established presence in every continent and we have developed branch offices in America, Brazil and India, plus a global dealer network. Through our warehouses and dealers, we can easily supply the spare parts you need and give assistance. The need of constantly keeping a high level of both service and operational skills must be translated into a strong integration between Customer's needs and the daily comparison to the evolution of our reference markets. Our company mission is to create values through the supply of cutting edge products and services for customer's greatest satisfaction, at the same time respecting mankind and the environment.

FIELDS OF APPLICATION

- ✓ MINING COAL AND IRON-ORE
- ✓ AGGREGATES - SAND AND GRAVEL
- ✓ STONE CUTTING MARBLE AND GRANITE
- ✓ CONCRETE AND TUNNELING
- ✓ RECYCLING AND SOIL WASHING
- ✓ GLASS AND CERAMIC
- ✓ CHEMICAL, PLASTIC, INDUSTRIAL APPLICATION



- ✓ 1800 INSTALLATIONS IN THE WORLD
- ✓ OVER 150 COUNTRIES
- ✓ 4 FACTORIES ITALY USA BRAZIL INDIA
- ✓ GLOBAL DEALER NETWORK



PRODUCTIVITY



AGGREGATES

Aggregates like gravel and in particular sand, because of their applications, need to be washed to recover fine particles and eliminate the silt which adheres to their surfaces. Usually, the water used for sand washing can be recycled by using settling ponds in which heavier particles settle down and where they are collected from the bottom to be stocked.

Recovery and storage of these materials, which must be disposed of with excavators, trucks and personnel at a later stage, have significant costs for aggregate production industry, also due to the fact that it is necessary to dedicate a large area to these operations.

Matec filter press allows to get rid of settling ponds and produces dry cakes easy to stock and dispose of, it also recovers water which is particularly important in dry areas.



COUNTRY



2000x2000 100 PLATES

CLIENT SHAPIR

LOCATION ISRAEL

TPH 45,52

CYCLES 2



COUNTRY



1500x2000 190 PLATES

CLIENT SUNROCK

LOCATION NORTH CAROLINA

TPH 89.3

LPM 20000 / GPM 5400

CYCLES 3



COUNTRY



1500x2000 190 PLATES

CLIENT GRANITE ROCK

LOCATION CALIFORNIA

TPH 89.2

LPM 60000 / GPM 16000

CYCLES 3



COUNTRY



1500x1500 200 PLATES

CLIENT SILICA SAND

LOCATION CALIFORNIA

TPH 89.3

LPM 20000 / GPM 5400

CYCLES 3



COUNTRY



1500x1500 200 PLATES X2

CLIENT SOLVALOR

LOCATION FRANCE

TPH 92

LPM 18800 / GPM 5000

CYCLES 2



COUNTRY



1500x1500 160 PLATES

CLIENT FRAC SAND

LOCATION WISCONSIN

TPH 20

LPM 20000 / GPM 5400

CYCLES 2





COUNTRY



1300x1300 160 PLATES

CLIENT OLD CASTLE

LOCATION NORTH CAROLINA

TPH 35

LPM 8000 / GPM 2115

CYCLES 2/3





COUNTRY



1300x1300 150 PLATES

CLIENT SRC

LOCATION ENGLAND

TPH 13

LPM 3000 / GPM 792

CYCLES 1



COUNTRY



1300x1300 120 PLATES

CLIENT PEDRIX

LOCATION BRAZIL

TPH 31.5

LPM 4000 / GPM 1100

CYCLES 3



COUNTRY



1300x1300 100 PLATES

CLIENT H&K

LOCATION NEW YORK

TPH 22

LPM 5200 / GPM 1375

CYCLES 2/3



COUNTRY



1300x1300 75 PLATES

CLIENT IMPLENIA

LOCATION SWITZERLAND

TPH 15.3

LPM 3000 / GPM 790

CYCLES 2/3



COUNTRY



1300x1300 60 PLATES X2

CLIENT HOCHEL ZPM

LOCATION POLAND

TPH 36

LPM 7500 / GPM 2000

CYCLES 3/4



COUNTRY



1200x1200 170 PLATES

CLIENT KOC

LOCATION TURKEY

TPH 18,92

LPM 8500 / GPM 2245,46

CYCLES 2





COUNTRY



1200x1200 170 PLATES

CLIENT SU-TAS

LOCATION TURKEY

TPH 24.4

LPM 6000 / GPM 1600

CYCLES 2/3





COUNTRY



1200x1200 I70 PLATES

CLIENT LACIN AGREGA

LOCATION TURKEY

TPH 26,88

CYCLES 2



COUNTRY



1200x1200 100 PLATES

CLIENT WEST OAHU AGGREGATE

LOCATION HAWAII

TPH 22

LPM 6500 / GPM 1756

CYCLES 3



COUNTRY



1000x1000 140 PLATES

CLIENT SKSM SOBOTKA

LOCATION POLAND

TPH 18.8

LPM 18000 / GPM 4755

CYCLES 2/3



COUNTRY



1000x1000 I20 PLATES

CLIENT AGG CORP

LOCATION OHIO

TPH 19

LPM 18000 / GPM 4900

CYCLES 3



COUNTRY



1000x1000 100 PLATES

CLIENT VALLI

LOCATION ITALY

TPH 13.5

LPM 5200 / GPM 1370

CYCLES 2/3



COUNTRY



1000x1000 100 PLATES

CLIENT BETTONI

LOCATION ITALY

TPH 13.5

LPM 10000 / GPM 2640

CYCLES 2/3



COUNTRY



800x800 100 PLATES

CLIENT KSD

LOCATION ENGLAND

TPH 7.2

CYCLES 2



COUNTRY



630x630 30 PLATES

CLIENT GOLDEN STATE CRUSHING

LOCATION CALIFORNIA

TPH 2

CYCLES 3 /4



COUNTRY



HORIZONTAL THICKENER

CLIENT OYAK BETON

LOCATION TURKEY

LPM 6000 / GPM 1600

CYCLES 2 / 3





RECYCLING AND SOIL WASHING

The recycling sector is the one dedicated to the recovery of material deriving from crushing processes and soil washing. The material has to be washed to remove the polluting part, decontaminating it.

The system works with attrition cells, special tanks where the sand is agitated to eliminate contaminants through attrition, then the material is filtrated by the filter press. An important application is for the recovery of construction materials.



COUNTRY



1500x1500 200 PLATES

CLIENT WENTVALLEY

LOCATION ENGLAND

TPH 31.34

CYCLES 1



COUNTRY



1500X2000 150 PLATES

CLIENT COLLARD

LOCATION ENGLAND

TPH 24

CYCLES 1





COUNTRY



1500x1500 120 PLATES

CLIENT TARMAC

LOCATION ENGLAND

TPH 18.8

CYCLES 1



COUNTRY



1300x1300 I20 PLATES

CLIENT CLAMENS

LOCATION FRANCE

TPH 21

LPM I200 / GPM 320

CYCLES 2



COUNTRY



1300X1300 100 PLATES X2

CLIENT SIBELCO

LOCATION FRANCE

TPH 17

LPM 1400 / GPM 370

CYCLES 1





COUNTRY



1300x1300 100 PLATES

CLIENT GERBER

LOCATION SWITZERLAND

TPH 22

LPM 2800 / GPM 740

CYCLES 3/4





COUNTRY



1300X1300 80 PLATES

CLIENT MICOPERI

LOCATION ITALY

TPH 17,00

LPM 3200 / GPM 845

CYCLES 2



MINING, COAL AND IRON ORE

In the mining sector, the filter press is used for the tailing and the concentrate.

Coal mines have to deal with the problem of disposing of the uneconomic material, by-product of the coal production. Especially, Matec machines can dewater the waste fines suspended in water, recovering them, cleaning water and eliminating tailing ponds.

Matec filter press is also employed in the concentrate recovering. For this application, the cake output must have a very low residual moisture, 6 or 7 %, and Matec filters can reach it through the installation of membrane plates which squeeze further and the core blow accessory to dry the cakes.

Processed rocks, coal and clay may contain a wide range of heavy materials, such as arsenic, lead, cadmium, chromium, iron, manganese, aluminium and nickel.



COUNTRY



1500x2000 I80 PLATES

CLIENT RHINO KERCO

LOCATION KENTUCKY

TPH 84.6

LPM 74000 / GPM 20000

CYCLES 3



COUNTRY



1500x2000 140 PLATES X2

CLIENT VALLOUREC

LOCATION BRAZIL

TPH 88

LPM 18000 / GPM 4800

CYCLES 2



COUNTRY



1500x2000 I30 PLATES

CLIENT KENTUCKY COAL

LOCATION KENTUCKY

TPH 61

LPM 25000 / GPM 8300

CYCLES 3



COUNTRY



1500x2000 100 PLATES

CLIENT GOLD ROAD MINE

LOCATION ARIZONA

TPH 47

LPM 10000 / GPM 2700

CYCLES 3



COUNTRY



1500x1500 170 PLATES X2

CLIENT ARCELOR WV

LOCATION WEST VIRGINIA

TPH 83

LPM 8000 / GPM 2115

CYCLES 2



COUNTRY



1500x1500 100 PLATES

CLIENT JARVIS COAL

LOCATION INDIANA

TPH 35

LPM 8000 / GPM 2200

CYCLES 3



COUNTRY



1000x1000 90 PLATES

CLIENT NORSK SANERINGS SERVICE

LOCATION NORWAY

TPH 10.32

LPM 5200 / GPM 1374

CYCLES 2





STONE CUTTING – MARBLE AND GRANITE

In marble, granite and stone working, either in quarries or workshops or stone processing factories, water has multiple applications. From cutting to polishing, water is necessary to avoid the over-heating of tools and reduce dust produced in various processes.

Then, water needs to be treated in order to be re-used in the closed production cycle or to be discharged in the environment safely. Matec filter press is perfect to produce dry cakes with a 15% residual moisture and recover 99% of water, occupying the minimum amount of space.



COUNTRY



1000x1000 40 PLATES X2

CLIENT CAESAR STONE

LOCATION ISRAEL

TPH 15

LPM 7200 / GPM 1900

CYCLES 3/4



COUNTRY



1000x1000 20 PLATES

CLIENT SANTORO MARMI

LOCATION ITALY

TPH 4.5

LPM 7200 / GPM 1900

CYCLES 3/4



COUNTRY



500x500 I5 PLATES

CLIENT FARMINGTON MASONRY

LOCATION UNITED KINGDOM

TPH 0,66

LPM 600 / GPM 160

CYCLES 3



COUNTRY



400x400 IO PLATES

CLIENT GUALTIERO CORSI

LOCATION ITALY

TPH 0.17

LPM 200 / GPM 52

CYCLES 3/4



COUNTRY



400x400 5 PLATES

CLIENT CAVA GIOIA

LOCATION ITALY

TPH 0.17

LPM 200 / GPM 52

CYCLES 3/4





CONCRETE AND TUNNELLING

The water used for the washing of trucks and mixers must be treated in order to be recovered and cement remains must be disposed of or recovered at the end of the working cycle.

MATEC offers two options in their plants for the clarification of water derived from pump and cement mixer washing in concrete and cement plants. Before the filtration and purification process is carried out by the filter press, the residue can be processed by a screw separator or a dewatering screen in order to separate and select aggregates.



COUNTRY



630X630 40 PLATES

CLIENT ZIGNEO

LOCATION USA

TPH 1.68

TRUCKS PER HOUR 35

CYCLES 3/4



COUNTRY



630x630 30 PLATES
CLIENT TRANSGULF COMPANY
LOCATION DUBAI
TPH 2.1
TRUCKS PER HOUR 30
CYCLES 3/4



COUNTRY



630X630 I5 PLATES

CLIENT CONCRETE AUTOMATION TECHNOLOGY

LOCATION NORTH CAROLINA

TPH 1.2

TRUCKS PER HOUR 25

CYCLES 3/4



COUNTRY



500x500 20 PLATES

CLIENT AAA ZOELLNER

LOCATION MISSOURI

TPH 0.8

TRUCKS PER HOUR 25

CYCLES 3/4



COUNTRY



500x500 15 PLATES

CLIENT ROCKTECH

LOCATION RUSSIA

TPH 0.6

TRUCKS PER HOUR 20

CYCLES 3/4



COUNTRY



400x400 20 PLATES

CLIENT METROMONT

LOCATION NORTH CAROLINA

TPH 0.5

TRUCKS PER HOUR 15

CYCLES 3/4



COUNTRY



400x400 15 PLATES

CLIENT IMPRESA BAGNASCO

LOCATION ITALY

TPH 0.5

TRUCKS PER HOUR 15

CYCLES 3/4



COUNTRY



400X400 I5 PLATES

CLIENT SYLVESTRE

LOCATION FRANCIA

TPH 0.5

TRUCKS PER HOUR 15

CYCLES 3/4



COUNTRY



800x800 40 PLATES

CLIENT METROMIX

LOCATION COLORADO

TPH 4.7

TRUCKS PER HOUR 60

CYCLES 3/4



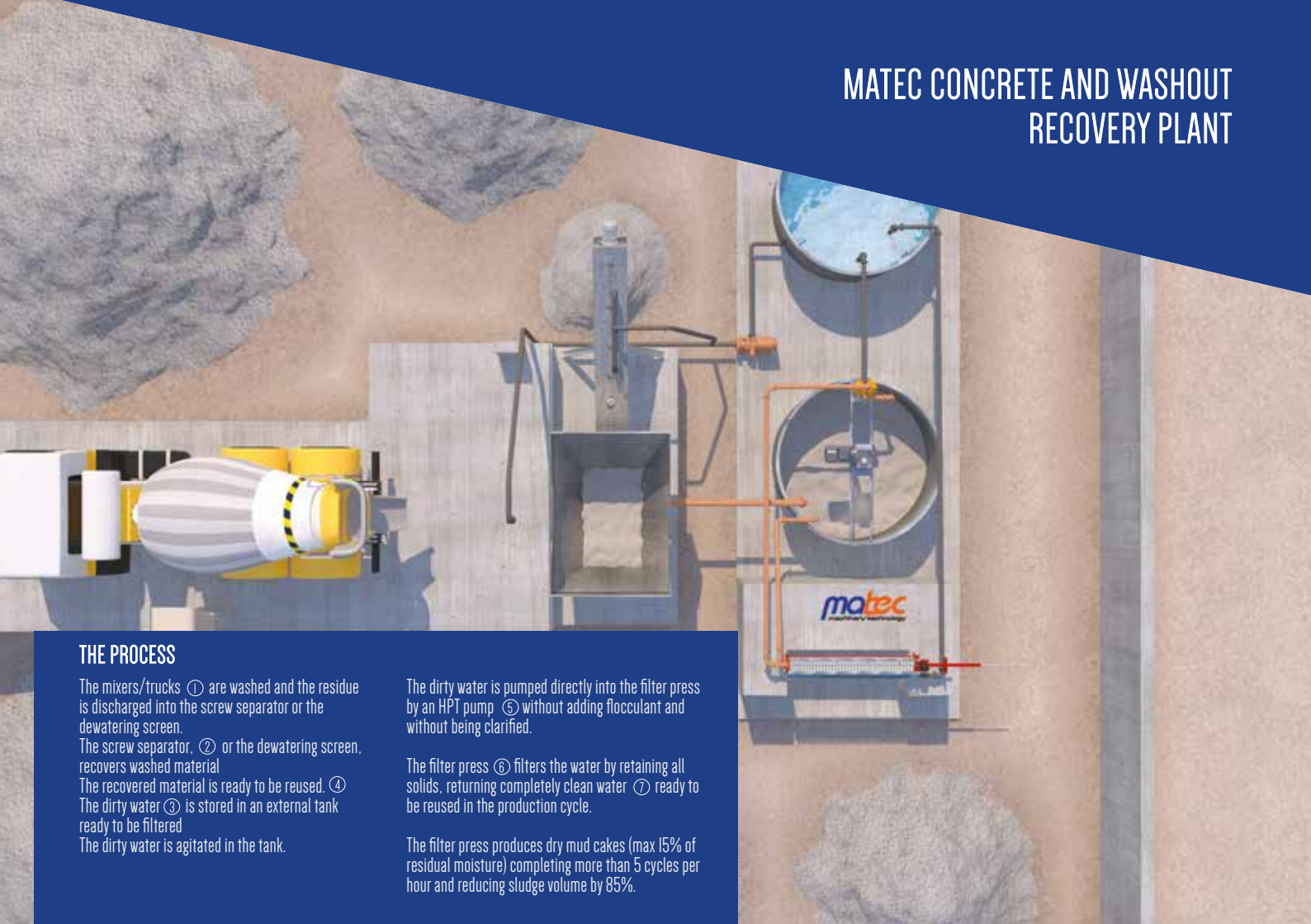
MATEC STANDARD PLANT



PLANT LEGEND

- | | |
|-----------------------------|---------------------------|
| ① Dirty Water Pit | ⑤ Bifang Homogenizer Tank |
| ② Bifloc Flocculant Station | ⑥ HPT Pump |
| ③ Deep Cone Thickener | ⑦ TT2 Fast Filter Press |
| ④ Clean Water Pit/Tank | |

MATEC CONCRETE AND WASHOUT RECOVERY PLANT



THE PROCESS

The mixers/trucks ① are washed and the residue is discharged into the screw separator or the dewatering screen.

The screw separator, ② or the dewatering screen, recovers washed material

The recovered material is ready to be reused. ④

The dirty water ③ is stored in an external tank ready to be filtered

The dirty water is agitated in the tank.

The dirty water is pumped directly into the filter press by an HPT pump ⑤ without adding flocculant and without being clarified.

The filter press ⑥ filters the water by retaining all solids, returning completely clean water ⑦ ready to be reused in the production cycle.

The filter press produces dry mud cakes (max 15% of residual moisture) completing more than 5 cycles per hour and reducing sludge volume by 85%.



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DIVISION



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AGGREGATES
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RECYCLING AND SOIL WASHING
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STONE CUTTING, MARBLE & GRANITE
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