



THE EXCELLENCE IN **FILTRATION**, BY NATURE

STONE CUTTING, MARBLE & GRANITE



MATEC GUARANTEES:

DRY CAKES

The average residual moisture is 20%, but can squeeze cakes to obtain 7-8% residual moisture to dispose of easily or to recover concentrate.

CLEAN WATER

The water obtained from the filter-press dewatering process is clean water ready to be re-used or disposed safely.

COMPLETE TURNKEY PLANTS



STONE CUTTING, MARBLE & GRANITE

MATEC is the leading producer of hi-tech water filtration plants in the stone sector. MATEC designs and manufactures complete water treatment plants & filter presses.

By using the filter press, our plants allow the treatment, recovery, re-use of waste water and the disposal of arising sludge.

MATEC treatment plants are designed to maximize the returns of any workshop. MATEC's experience in this field has always been the most trusted and well-reputed in the Massa-Carrara area.

STONE CUTTING

In marble, granite & quartz, stone cutting, water is of a multiple importance. From cutting to polishing, water is necessary to avoid tools' overheating and to reduce dust from the various processes. Then water must be treated to be re-used in a closed production cycle.



Vista de las canteras de Carrara

THE FILTER PRESS

Compliance with environmental laws has become important for plant owners in most countries. Cutting-edge technologies have been developed in the industrial wastewater and slurry treatment field. Matec technology complies with the latest environmental regulations, while maximizing the returns of the plant, through savings and earnings.

That is what clients have been asking for. Matec offers five ranges of filter presses:

AQUÆ, IGNIS, TERRÆ, MAGNUM, MEGALITH.

Our machines can handle all kinds of capacities and flow rates, and are designed for heavy duty projects. Automation, top brands, 24-months warranty, **HPT** and **TT2** Fast are what Matec can offer compared to our competitors.

OUR MACHINES' FEATURES ARE:

All made of single-block steel from thick slabs; Plasma, laser or water-jet manufacturing process; Purified water drained through external manifolds; First choice components by major manufacturers; Stainless steel accessories; High speed and high pressure hydraulic system.

MATEC SUPPLIES COMPLETE TURNKEY PLANTS:

100% Made in Italy
Assembled With:

- **HPT (High Pressure Technology);**
- **Gasser Shakers;**
- **Real automatic washing;**
- **Filter cloths easy to replace;**
- **Open design to identify cloth damages;**
- **PLC with remote control and assistance;**
- **Variable number of plates;**
- **Different models for the best technical/economical solution.**

**CUSTOMIZE YOUR FILTER PRESS SYSTEM
TO YOUR NEEDS**





MOISTURE < 20%



OPEN FILTRATE
DESIGN



"GASSER"
SHAKER

ALLEN BRADLEY AND SIEMENS
TECHNOLOGY FOR PLC







WHAT MAKES MATEC THE BEST SOLUTION FOR YOUR BUSINESS

PRESSURE

MATEC is the only 100% HPT company using pressure up to 16 - 21 BAR.

OPENING TIME

The TT2 patented system reduces discharging times of big machines from 15/20 minutes to less than 3 minutes.

CAPACITY

We design and build plants to process from 0,5 to 100 m³/h, every plant is automatic and customized.

AUTOMATION

MATEC produces only 100% automatic and hi-tech plants.



500x500 Matec plant in England

HIGH QUALITY

Matec only uses top brands: Siemens and Allen Bradley for the electrical part, Bosch Rexroth for the mechanical part and feeding pumps 100% made in Italy.

WARRANTY AND ASSISTANCE

MATEC has a technical office with 10 engineers dedicated to blueprint design, project engineering and the providing of different platforms, 1 dedicated engineer during installation, 10 technicians for the plant assembling and start-up, and for the after-sale assistance within 24/48 hours.

**FROM 400x400 TO 2500x2600
PLATE SIZE
FROM 3 TO 220 PLATES
OVER 250 TPH**



HIGH LIGHTS

HPT (High Pressure Technology):

Our machines work at higher pressure than competitors'. Higher pressure means better components to sustain it, but it means better results and shorter cycles especially.

GASSER SHAKERS:

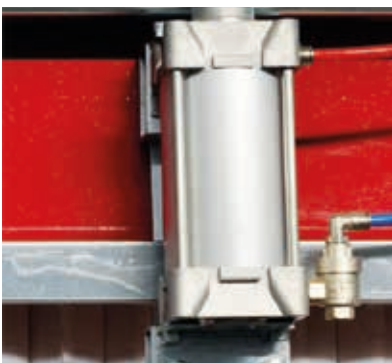
Dedicated hydraulic cylinders which lift up the plates to shake them and eventually will discharge some mud still attached to the plates.



HPT[®]
HIGH PRESSURE
TECHNOLOGY
16BAR

GASSER[®]
SHAKERS

DOSCON
DOSING SYSTEM ANALIZER by MATEC



OPTIONALS

REAL WASHING: 100% automatic washing system that washes 20 by 20 plates for a fast process and excellent results. With our system you can wash cloths and piping. The best thing is that the operator can immediately check the result

NO EXTRA PUMP, NO WASTE OF EXTRA WATER

DRIP TRAY: it is a special drainer positioned below the filter press to collect any drops of water from the plates.

CORE BLOW: the core blow system is a system conceived to clean out the central feeding residual liquid mud which remains in the diffusion conduit through the plates. The blowing occurs when the filtration cycle has ended, but before the cake discharging. One dedicated valve system allows the blown mud to bypass the mud feeding pump and to be discharged in the mud homogenizer tank again.





BENEFITS

Matec manufacture complete turnkey plants (fixed and mobile ones), which consist of:

- Filter presses, side beam 400, 500, 630, 800, 1000, 1200, 1300, 1500, 1500x2000, 2000, 2500x2600 for about 120 models;
- Thickeners, vertical (from 2 to 600 m³) and horizontal ones (from 8 to 50 meter diameter) for about 60 models;
- Flocculant dosing systems;
- Homogenizing tanks.



24 Hours on site assistance



24 Months full warranty



10 Years warranty on stainless steel products



HPT technology



Best brand high technology components



Automatic shaking and washing



TT2 fast opening time less than 4 minutes





KOMPACT & BIG BAG

KOMPACT

The Kompact plant is the plant that guarantees the quality of larger plants at the service of small businesses. It is designed for users who have flow rates from 200 to 700 l / min and who have a limited storage space that requires compact mud. Everything is integrated into the plant structure, and the clear water tank and the settler are combined. In a small space of about 2.5×2.5×5 meters in height, Kompact brings together all the components and quality standards typical of larger plants:

- . Stainless steel decanter, from 5000 to 15000 liters
- . Bifloc system
- . Filter press Aquae 400×400

OPTIONAL:

A special structure for easy handling, ideal on building sites, quarries and wherever is necessary an easy mobility of the plant.

- . Cloth washing
- . Unloading containers
- . Ramps for transferring mud (Big bag)





BIG BAG

For medium-small water consumptions, MATEC produces water treatment plants and slurry management with flows up to 500 litres per minute, with the same quality and the same standards of the bigger plants.

Matec manufactures systems equipped with filtering bags, known as Big Bags (90 cm x 90 cm x 120 cm), tailored to the stainless steel silos.

Plants with 1 or 5 Big Bags can afford from 1500 Kg to 7500 Kg of mud, with or without a flocculant station.





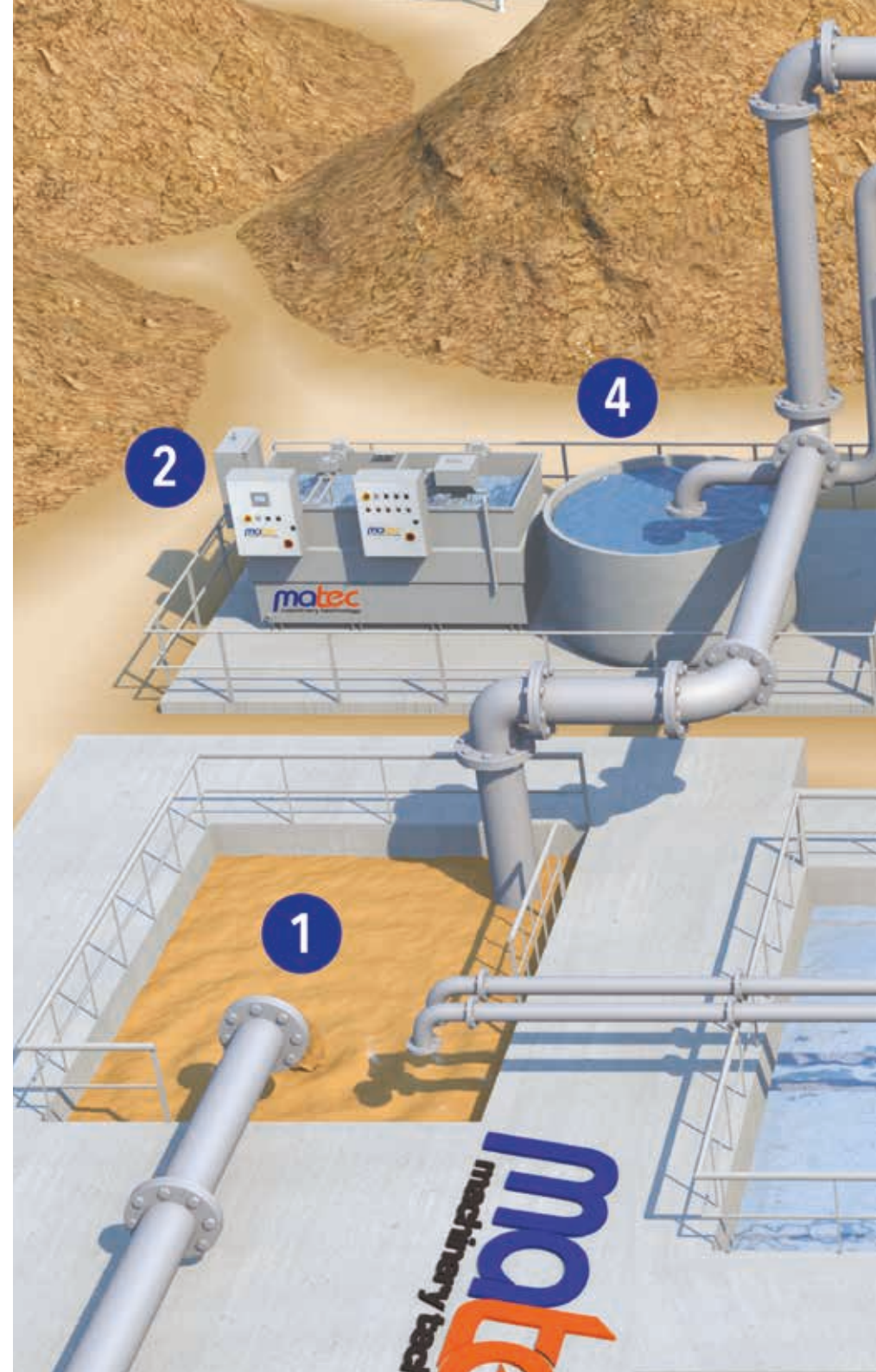


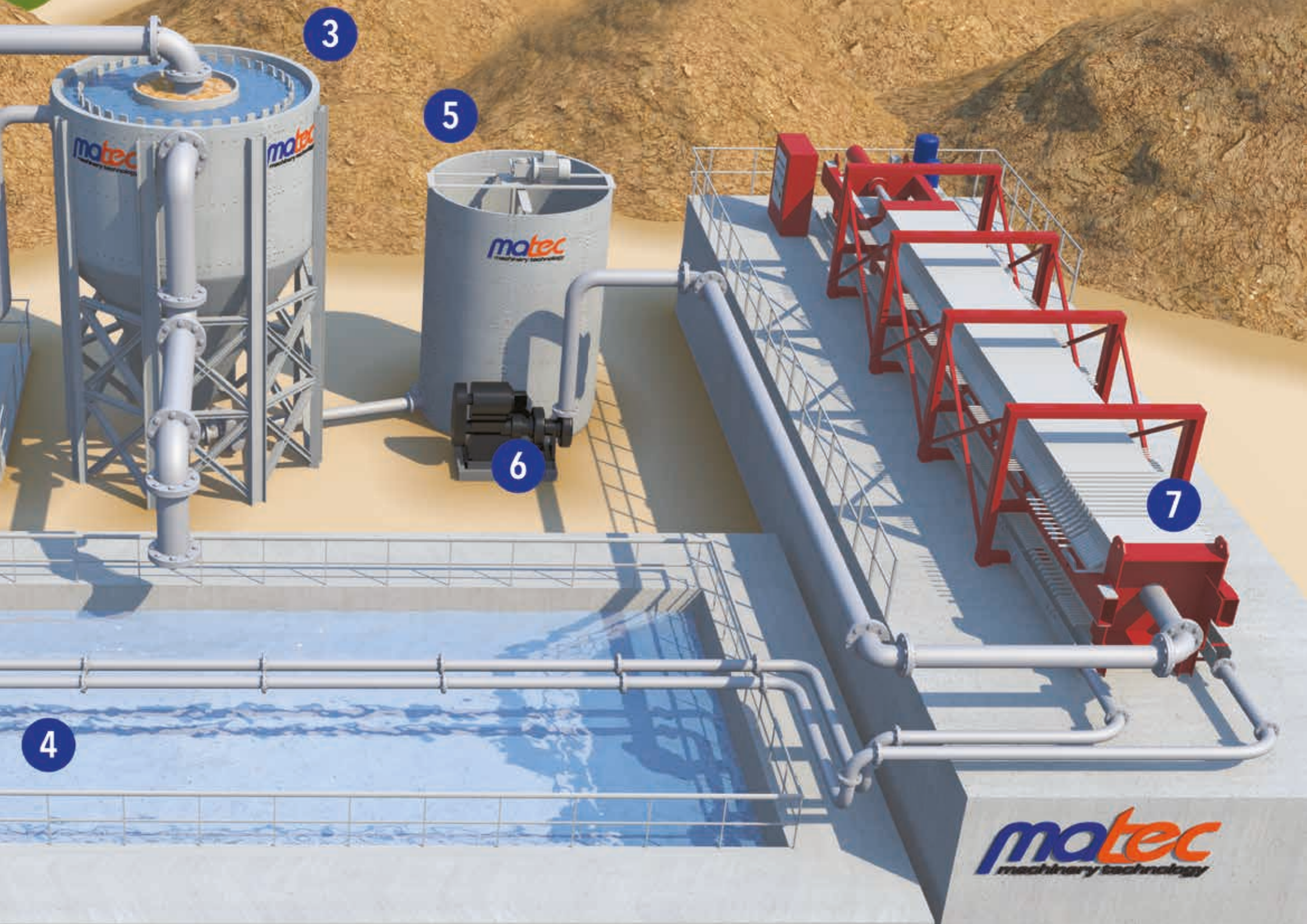
THE PROCESS

The waste water from washing is collected into the dirty water tank **(1)**. The submersible pump sends the dirty water in the deep cone vertical thickener **(3)**. Flocculant prepared by the Bifloc **(2)** is injected in the dirty water pipe, before entering the vertical thickener **(3)** in which the decantation process takes place. Purified water overflows from the top of the thickener **(3)** and ends into the clean water collecting pit/tank **(4)**. Thickened mud is sent into the Bifang homogenizer tank **(5)**. The filter press **(7)** closes and the HPT pump **(6)** sends the mud into it. The New TT2 Fast opens the filter press **(7)** in sections (for machines with over 50 plates) and the dry cakes are discharged.

PLANT LEGEND

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





3

5

6

4

7

matec
machinery technology



**STONE
CUTTING,
MARBLE &
GRANITE**
DIVISION

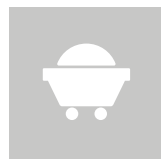
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& SOIL
WASHING**
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DIVISION



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Via Aurelia Ovest, 383 - 54100 Massa (MS) Italy - tel. +39.0585.831034 - Fax +39.0585.835598
matec@matecitalia.com - www.matecindustries.com

