



MARINI
LATIN AMERICA
FAYAT GROUP

CARBON T-BOX 160

ASPHALT PLANTS



F A Y A T M I X I N G P L A N T S

CARBON T-BOX 160

The future of road construction requires efficiency and practicality, and it is precisely this concept that the new series of CARBON T-BOX asphalt plants brings to market.

CARBON T-BOX was developed in standard containers ISO 40 'HC, aiming at the reduction of transport costs, by road or sea, with lower bureaucracies.

Its structure is divided into three modules: dosage, drying / mixing and filtering, which reduces the time required for assembly and disassembly of the machine.

More than a new machine, the CARBON T-BOX series is the key to building the future of asphalt plants.

**CARBON
X160**

Introduction 02

CARBON T-BOX 160

- Differentials from CARBON T-BOX asphalt plants 03
- Practical and agile installation 05
- Aggregate Dosing 06
- Drying and heating of aggregates 07
- High quality mix 08
- Filtering system 09
- Control and automation 10
- Recycling solution 11
- Technical Specifications 12
- Optionals 13



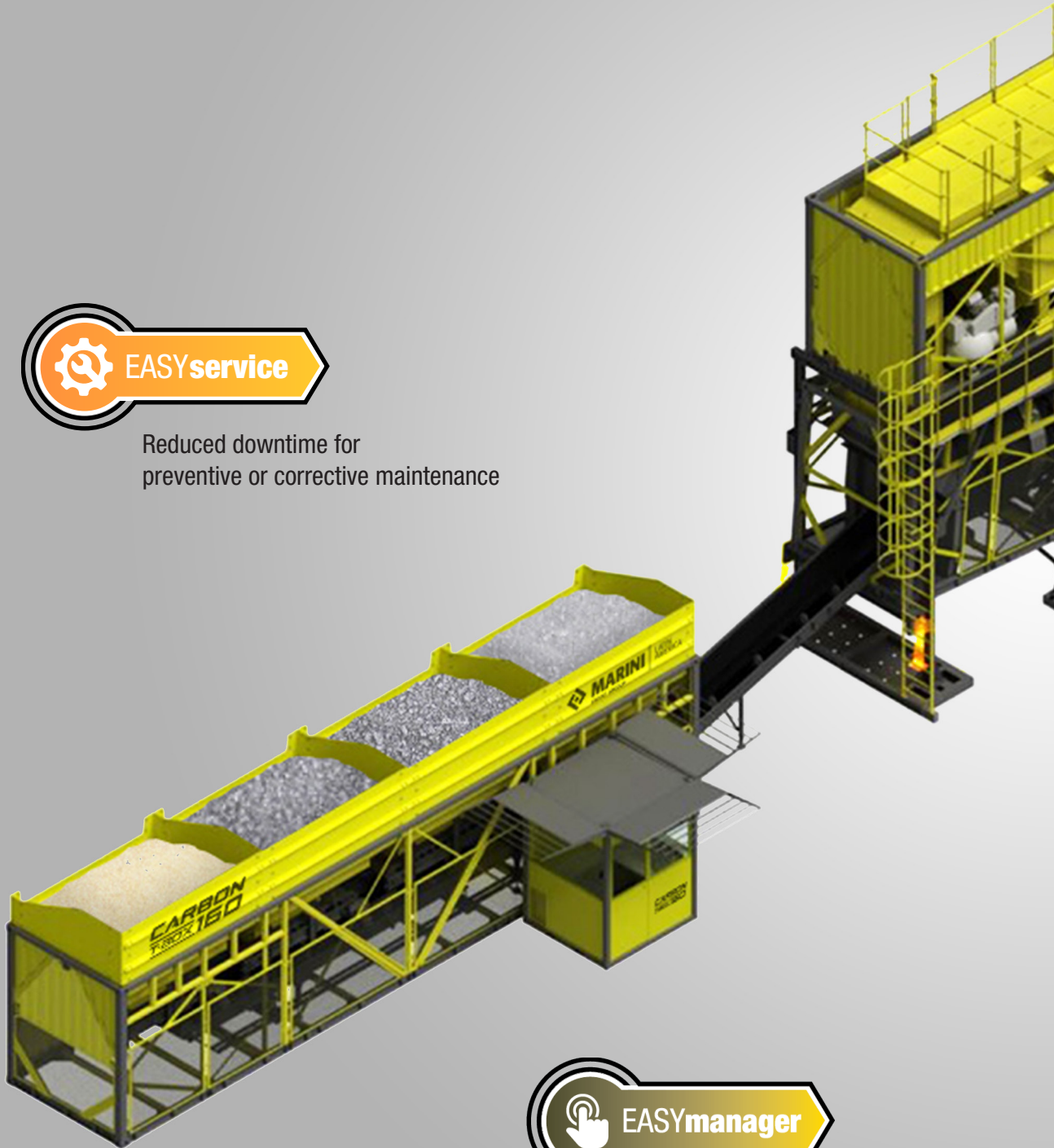
EASYstart

Practicality in the installation



EASYSERVICE

Reduced downtime for preventive or corrective maintenance



EASYmanager

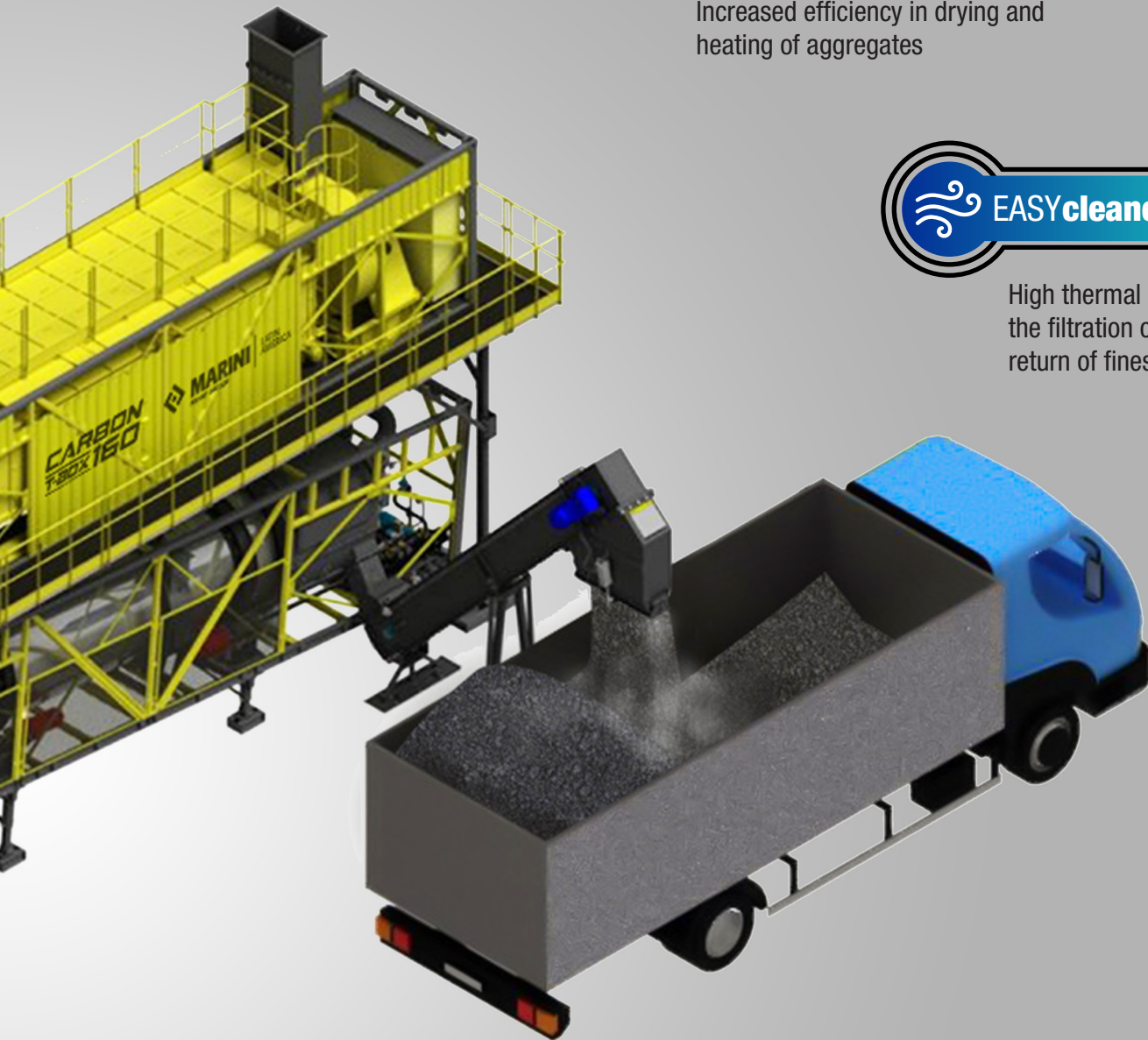
Control and automation of last generation



Increased efficiency in drying and heating of aggregates



High thermal efficiency in the filtration of gases and return of fines



High quality mixture with longer residence time



High quality mixture with longer residence time

PRATICALLITY IN THE INSTALLATION (PLUG & PLAY)



The new generation of MARINI Latin America asphalt plants requires less assembly area and provides faster comissioning.

The EASY Start system with the “Plug & Play” concept guarantees quick installation and allows easy layout change among its accessories, possible relocations and shorter assembly time.

The use of the support shoes (optional), does not require the preparation of concrete bases, being necessary only the leveling and compaction of the soil for its installation.



Smaller installation area



Base footing

Filter module

Dosing module



Dryer and mixing module

DOSAGE OF THE AGGREGATES



The individual dosage of aggregates counts on four in-line dosing silos, each with a capacity of 10m³, a wide opening of 3.0m and a separating grid.

The dosage is performed individually, through an automated system with dynamic weighing through load cell, managing the speed of the belts and maintaining a constant flow of aggregates, guaranteeing the total quality of the mixture and the perfect injection of CAP.

Complete safety system, composed of protections and interlocking of easy maintenance, according to NR12 and Directive 2006/42 / EC.



Dosing module with four aggregate silos



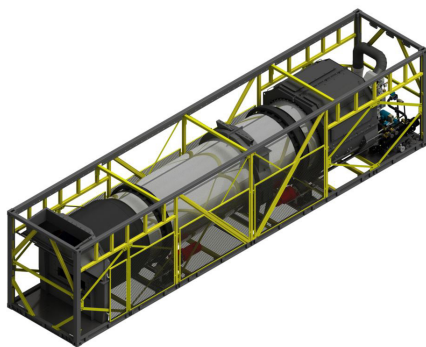
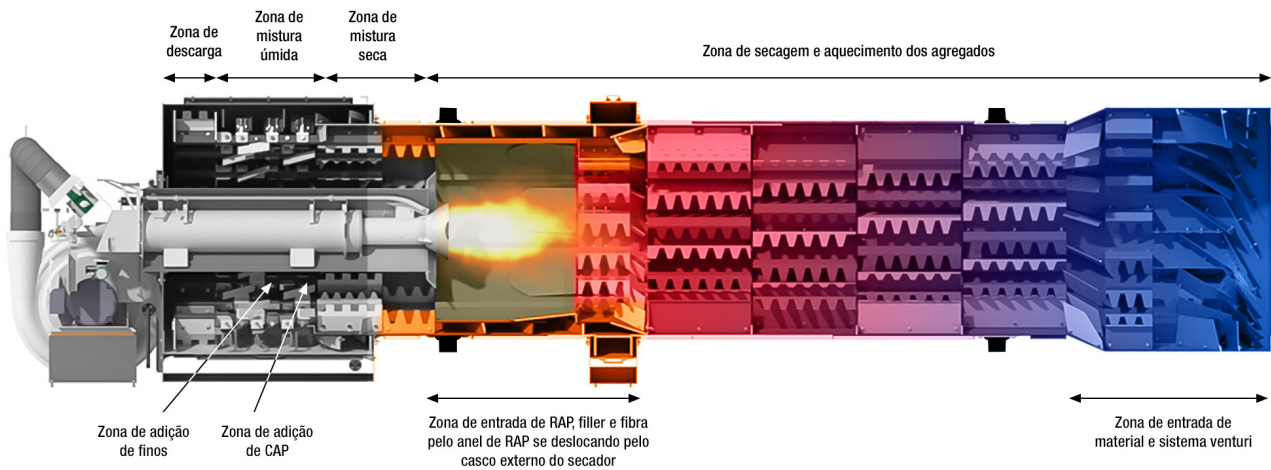
Impurities separating grid



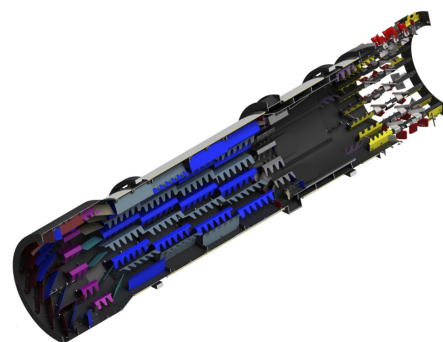
Full protection system with easy access for maintenance

The CARBON T-BOX series is equipped with the TITANIUM mixing system, which offers greater thermal efficiency in the drying and heating of aggregates, the largest dry-mix zone on the market, ideal for the production of modified and special asphalt.

The drying of the aggregates is carried out gradually, through the counter-flow system, providing homogeneous and efficient mixture of the material. The thermal insulation of the drum guarantees optimum temperature stability, ensuring productivity even in cold regions



Módulo de secagem e mistura



Aletas maiores e em maior quantidade

The Hauck burner has the optional EASY Flame system, enabling the operation and regulation of the flame from the control panel or automatically via the Easy Flame system.



Hauck burner: reliability and efficiency

The mixing system of the MARINI Latin America asphalt plants guarantees economy and energy efficiency because it shares the same drum drive energy. The rotation of the dryer, together with the angle of attack of each blade, results in a greater mechanical energy applied to the aggregates.

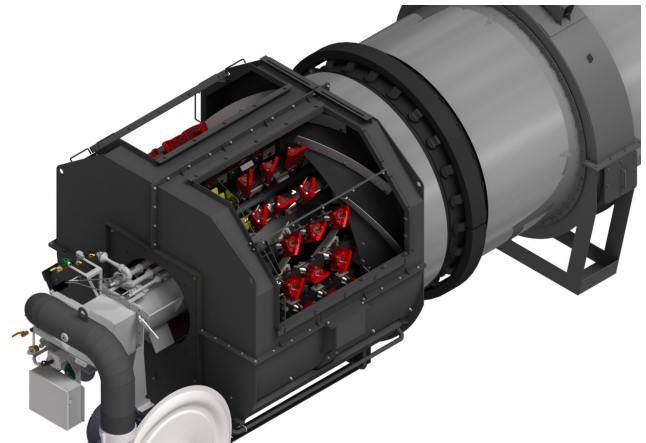
Some special asphalt mixtures use filler, fiber and milled asphalt material (RAP), these materials need to be heated separately to the virgin aggregates, in this way they are added in a separate chamber and heated through the contact with the drum.

Exclusive advantages of MARINI Latin America asphalt plants:

- Longer dry mixing time and wet mix on the market;
- Longer residence time of the material in the mixer;
- Each component of the mixture is added in different stages of the process, respecting its characteristics: essential for the production of quality asphalt mixtures.

TITANIUM MIXING SYSTEM

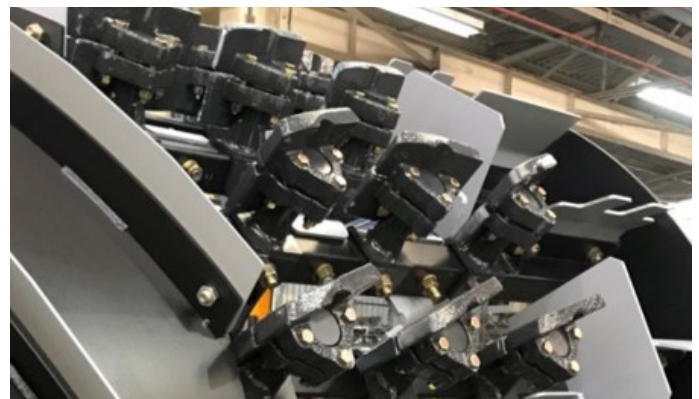
- Blades with honeycomb cavities to ensure longer life;
- Possibility of varying the residence time of the mixture by adjusting the angle of attack of the blades;
- High mechanical energy applied to the mixture;
- Easy access and maintenance;
- TITANIUM mixing system: Lower cost of maintenance and greater efficiency of the market.



Injection of CAP is separated from the rest of the drum



High strength blades



Filtration system is responsible for the retention of the solid particles from the drying of the aggregates, and incorporates them to the mixture, avoiding their discharge into the atmosphere. The filter element system guarantees an emission of particulates of less than 20 mg / Nm³, according to the strictest environmental standards.

Large particulate retention also occurs in the dryer in the Venturi system, where particles larger than # 200 are retained due to the low gas velocity. These particles are re-inserted into the mixing process, still in the dryer, reducing wear in the exhaust system and contributing to longer bag filter life.

Due to the MARINI Latin America drying and mixing system, which is unique in the Brazilian market, the toxic gases from the mixing process are incinerated through the burner, ensuring emission reduction.

SMART CLEANER CLEANING DEVICE

- Filter saturation control;
- Cleaning on demand;
- Low power consumption;
- Easy access and large windows for any inspections and cleaning;
- Reduced downtime for possible maintenance;
- Longer life of bag filters.



BAG HOUSE

- Excellent filtration area;
- High energy efficiency exhaust system;
- Full immersion cleaning system, with reduced air consumption of the compressor;
- Bag filter mounted over the dryer, providing optimum thermal efficiency generating fuel economy;
- High durability sleeves and static separator;
- Wide walkways for access;
- Automatic filter cleaning at the end of production.

CARBON T-BOX plants rely on EASY View, and EASY Manager systems to provide the most advanced control and automation technology.

Through the EASY View system, the operator has a 360 degree view:

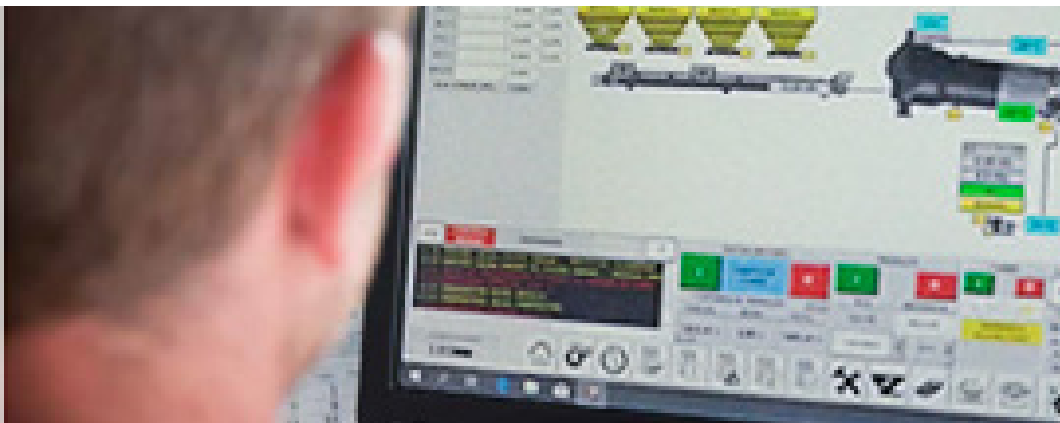
- Wide and ergonomic operating cabin;
- Air-conditioned cab and sunroof tilts;
- It can be easily installed outside the plant structure, with adjustment system for leveling.



Operation cabin with wide view



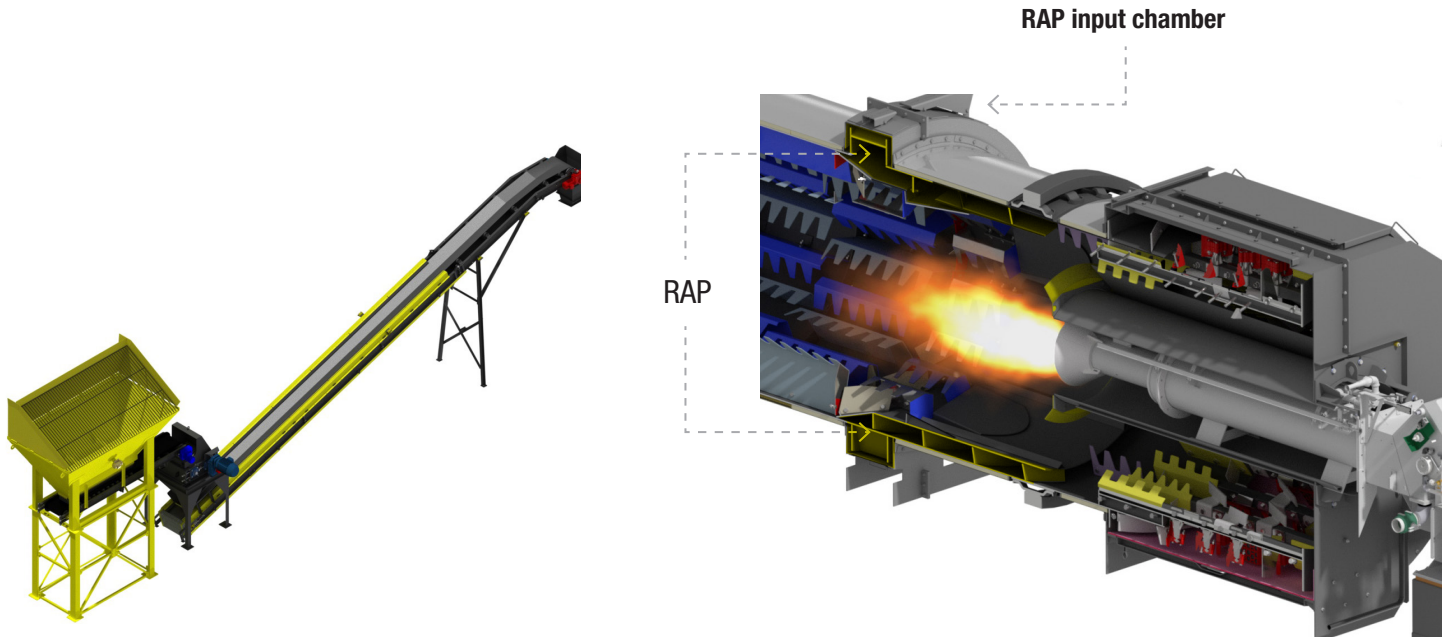
Great internal space



Exclusive control system EASY manager provides quick answers to the variations of the production process and, consequently, better quality of the mixture.

- Monitoring and remote access to the control system;
- Simple and intuitive user-friendly interface;
- Information on operation and production control data;
- Universal language buttons;
- It allows to operate in automatic and manual mode.

Increasingly common in many markets, the use of recycled material, known as RAP (Reclaimed Asphalt Pavement), is consolidating as an ecological, sustainable and economically advantageous application, and is already being required for some specific projects. The MARINII Latin America asphalt plants series already has the pre-disposition of the RAP ring as standard, and can process up to 30% of recycled material.



Increased capacity to use RAP of the market in compact plants, reaching 30%.

The RAP ring in the dryer is the most recommended for application of special mixtures such as SMA, as it ensures a dry mixing time before the injection of asphalt.



TECHNICAL SPECIFICATIONS

DESCRIPTION	MEASURES	CARBON T-BOX 160
Nominal Production	Tonelada hora (t/h)	160
CONTÊINER		
Mobility	Type	Contêiner
DIMENSIONS		
Lenght	m	30,5
Height	m	8,8
Width	m	3,8
Total weight	Tons	45
AGGREGATES DOSAGE		
Silos	Nº	4
Silos capacity	m ³	10
Weighing System	Type	Individual weighing by a centralized load cell
Vibrator	Type	Standard Silo 1
Width of dosage belt	Pol / mm	22'/560 (pol/mm)
Transport belt width	Pol / mm	24'/610 (pol/mm)
SECADOR		
Dryer	Type	Counterflow
Dimensions (Largest section x smallest section x length)	m	2,1 x 1,8 x 7,6 (m)
BURNER		
BURNER	Type	Hauck Star Jet Dual
Thermal power	Kcal / h	11.180.000
MIXER		
Mixer	Type	Multi-Paddle
BAG HOUSE		
Filter system	Type	Pleated Bag
Quantity	Nº	108
Material	-	Polyester
Air compressor	Quantity	Screw 11KW
Efficiency	%	99,9 %
Particle emissions	mg / Nm ³	Inferior to 20 mg/Nm ³
Cleaning	Type	Pulsating Jet
DRAG MIXER		
Drag Mixer	Type	Flat blade
Mass Silo	M ³	1/10*/25* m ³
RECYCLING		
Capacity	%	Up until 30%
OPERATION CABIN		
Cabin	Type	Metallic with control panel
Air Conditioning	Type	Air Conditioner of 9000 BTUs/h
Operação	Type	Automatic and manual system

OPTIONALS – TANKS

TANKS - Heating and storage systems for asphalt and fuel

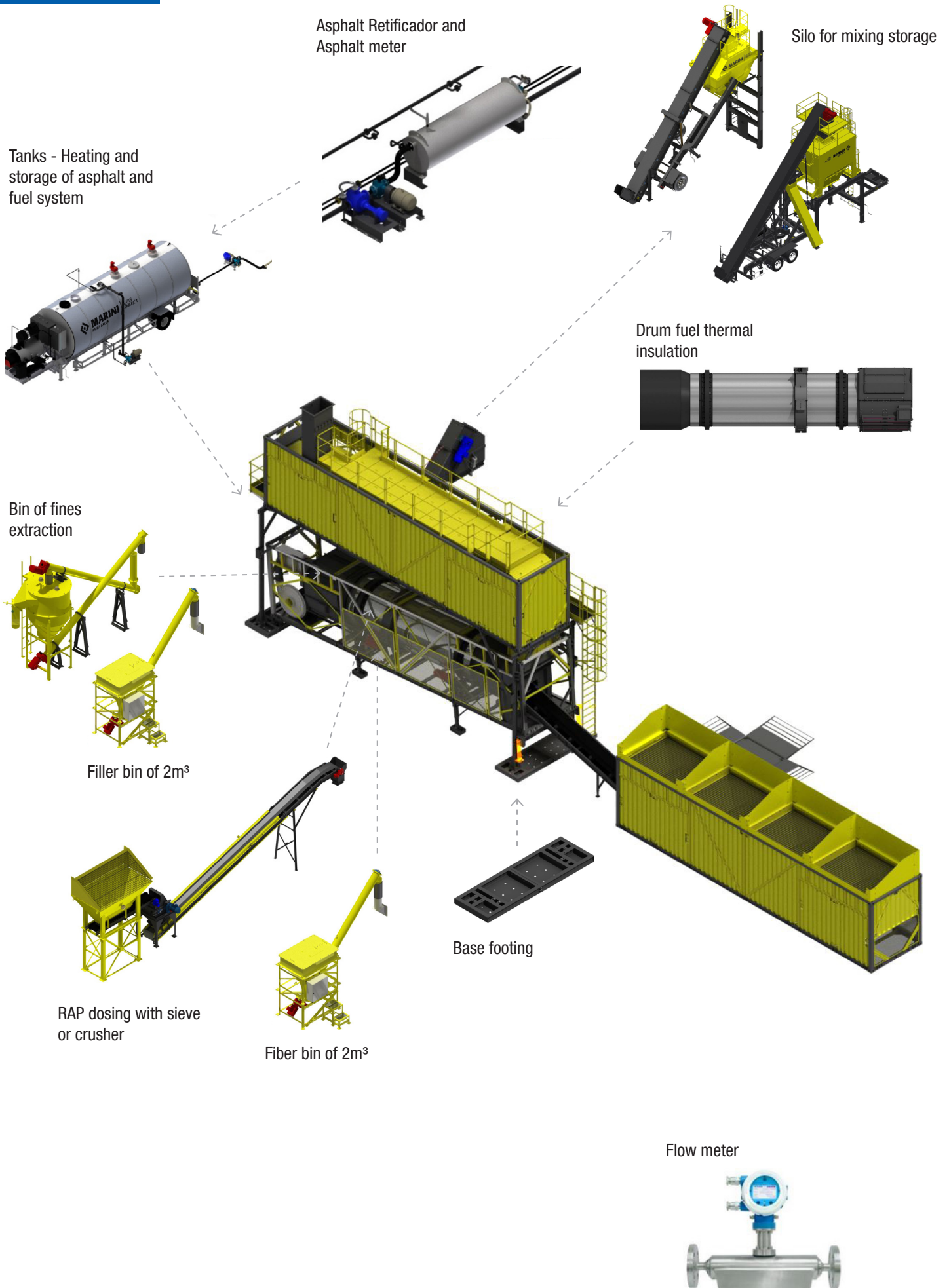
MARINI Latin America has a variety of horizontal mobile asphalt and fuel tanks with a structure built on a chassis and its own axles.



Characteristics of tanks:

- Capacities of 60,000 L, 80,000 L and 100,000 L;
- Asphalt and fuel compartment options;
- Total thermal insulation with external protection;
- Direct heating by internal coil;
- Thermal fluid heating system (300,000, 400,000 or 600,000 Kcal/h);
- Flexible / rigid pipes that interconnect the tanks and the plant;
- Asphalt loading and circulation system;
- Fuel charging system;
- Modified asphalt agitators system, polymers, etc;
- Safety system with temperature sensors and controllers.

OPTIONALS



MARINI LATIN AMERICA PLANTS AROUND THE WORLD



NORTH AMERICA

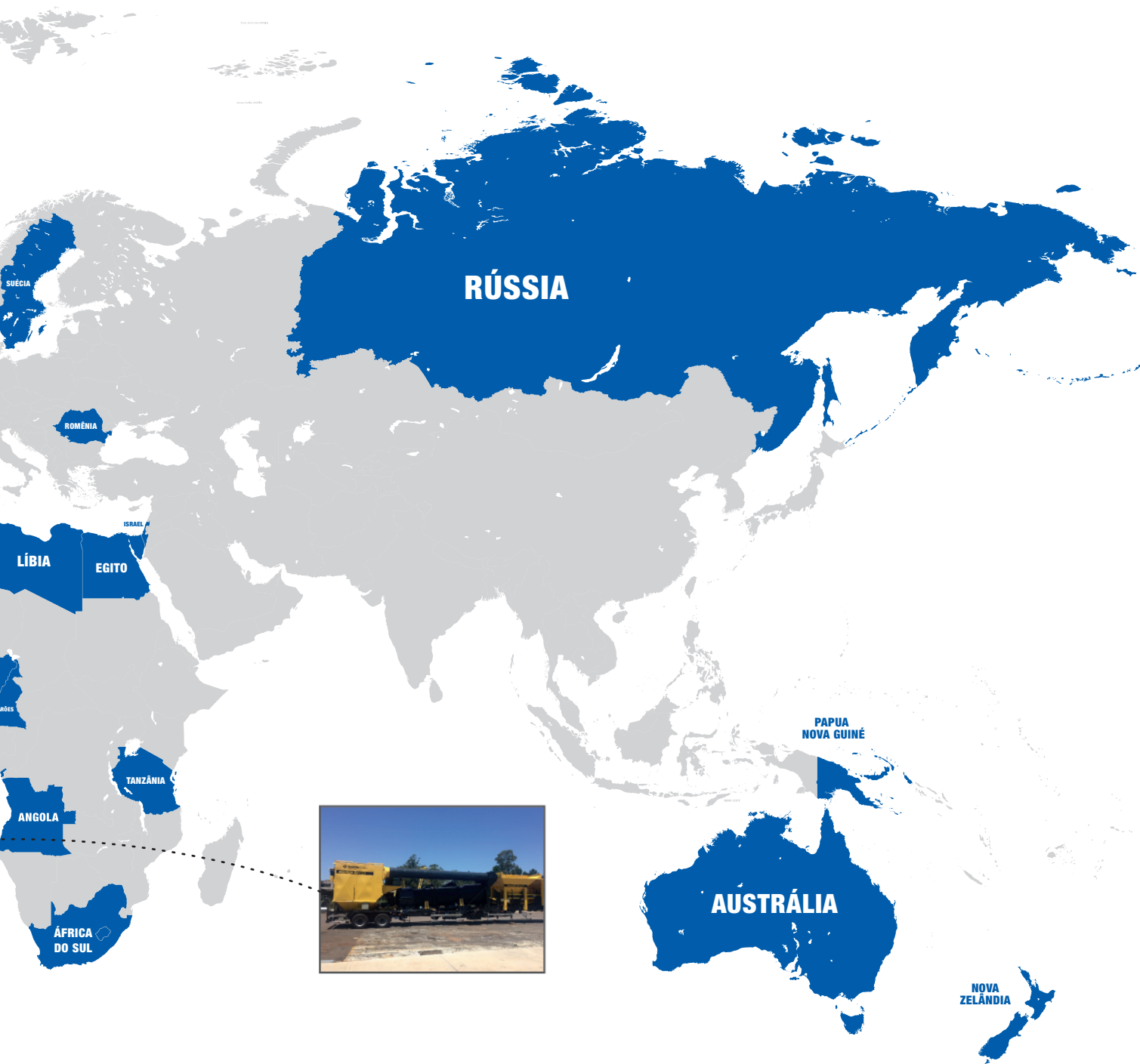
- Canada
- United States
- Grand Cayman
- Mexico

CENTRAL AMERICA

- Antigua and Barbuda
- Bahamas
- Costa Rica
- El Salvador
- Guatemala
- Panama
- Trinidad and Tobago

SOUTH AMERICA

- Argentina
- Bolivia
- Brazil
- Chile
- Colombia
- Ecuador
- Paraguay
- Peru
- Uruguay
- Venezuela



EUROPE

Romania
Russia
Sweden

AFRICA

South Africa
Angola
Algeria
Burkina Faso
Cape Verde
Cameroon
Egypt
Ghana

Israel
Libya
Mauritania
Morocco
Nigeria
Senegal
Tanzania

OCEANIA

Australia
New Zealand
Papua New Guinea

GUARANTEED PRODUCTIVITY

In order to guarantee to our customers the continuous efficiency of its plant, MARINI Latin America has a qualified technical team capable of providing the most different types of support around the world.

In addition, customers have direct communication channels with the factory so technical issues can be clarified directly by phone or email. The guidelines refer to the most diverse aspects of operation, such as mechanical and electrical service, calibration, burner adjustment, safety notions, and various other needs.

TECHNICAL ASSISTANCE

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Learn more about MARINI Latin America services on our website.





Training

MARINI Latin America develops every part of its mills with the aim of delivering high productivity results to its customers. In order for these results to be achieved, we know the importance of training for our clients, so the MARINI Latin America technical team can be activated at any time to offer complete training that can be performed according to the needs of each client.

Original parts

The use of original parts is fundamental to keep the equipment in the best conditions, according to its original functions. MARINI Latin America has an experienced team, able to provide a service of spare parts agile and qualified.

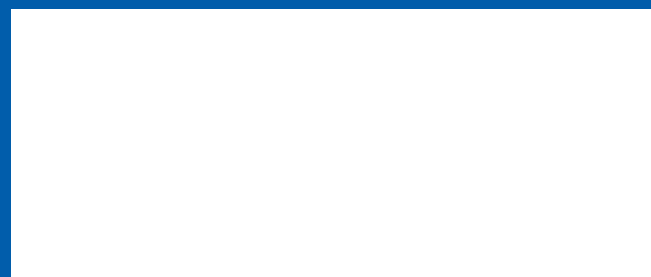
Retrofit

Your equipment can yield and produce more, and optimize production and maintenance costs. MARINI Latin America has a technical and engineering team that works together with our customers to offer solutions focused on increasing productivity, reducing production / maintenance costs and extending the life of their equipment through the application of technology to them.

All photos, illustrations and specifications are based on information in effect at the date of publication approval.

MARINI Latin America reserves the right to change specifications and drawings and to remove components without prior notice, as well as to adapt the equipment to various operating conditions. The yield data depends on the conditions of the work. Some of the equipment mentioned are optional, even without explicit indication in the text.

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