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ADVANCED SERIES COUNTERFLOW ASPHALT PLANTS

HIGH TECHNOLOGY, FULLY MOBILE
FAST COMMISSIONING AND RELIABILITY



All of the pictures, illustrations, and specifications are based on current information on the date this publication was approved. Ciber Equipamentos Rodoviários Ltda. reserves the right to change specifications and designs and eliminate components without previous notice.

The performance data depends on the conditions of the plant site. Publication date:

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UACF ADVANCED



Fully mobile without the need of cranes

Perfect control in the dosing of the aggregates

ASPHALT MIXTURES THAT COMPLY WITH THE STRICTEST WORLD QUALITY STANDARDS

PORTABLE ASPHALT PLANT WITH COUNTERFLOW DRYING AND EXTERNAL MIXING

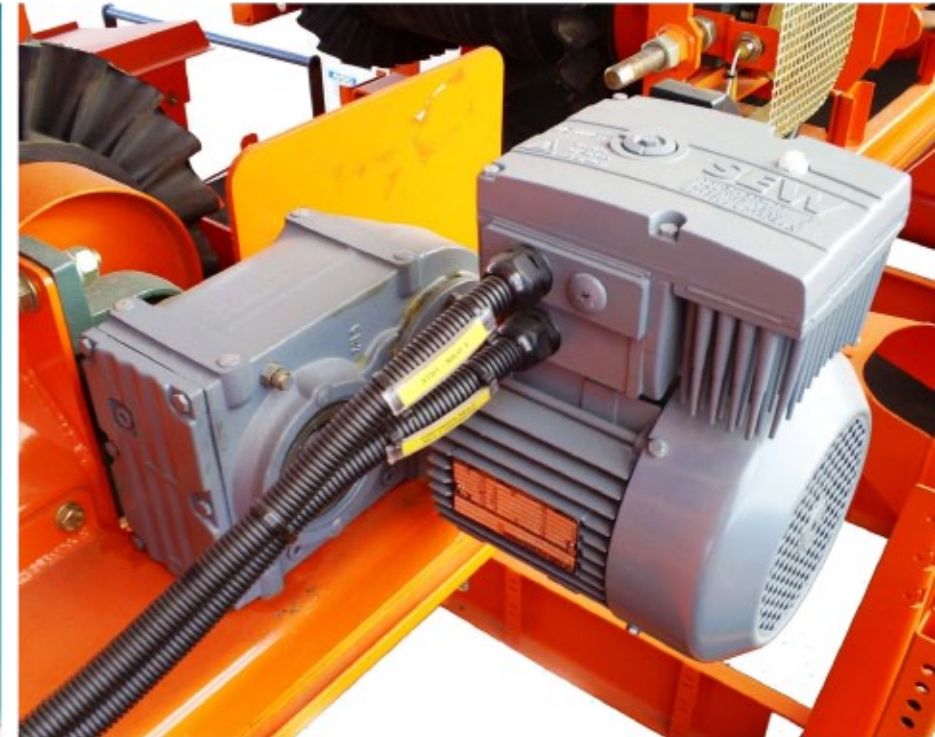
Counterflow Asphalt Plant Advanced Series

The asphalt plants from the Advanced series combine a fully mobile structure to the continuous production concept of counterflow drying and external mixing by a pug-mill, resulting in a mixture quality compared to the batch plants. It is a line of versatile and reliable equipment that can be adapted to different materials and weather conditions. There are three options of production ranges, which make them applicable for several different sizes of projects.

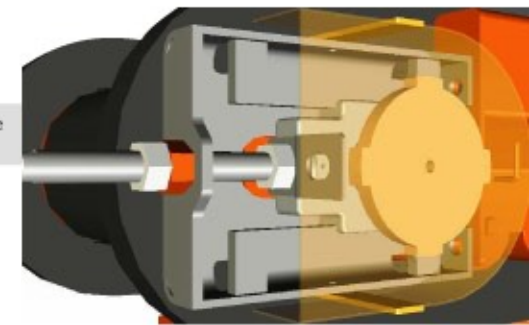


INDIVIDUAL WEIGHING SYSTEM

Dynamic weighing of the aggregates is done by means of robust and high precision load cells together with a superb stability signal converter that ensures the control in the dosing of the aggregates.



Gear drive on the front roller



Speed sensor on the rear roller

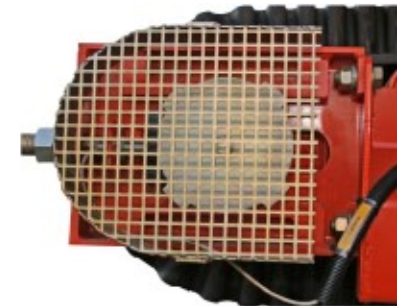
HIGH PRECISION PRODUCING ASPHALT MIXTURES

Speed sensor on the rear roller

Continually checks the belt speed: self-monitoring and total protection against slippage.

Gear motor on the front roller

Frequency inverter inset, which eliminates risk with electrical interferences on the scales.





FEATURES THAT ADD VALUE TO THE PRODUCING PROCESS

Dosing Belts

Require low maintenance and provide precision weighing without losing aggregates. They are flat, easily aligned and set for tension, and they distribute uniformly the weight from the load of the aggregates on the weighing rollers.

Manual floodgate

Its smooth operation makes it possible for the belt to work at ideal speeds, which generates loading stability and a long lifetime.

Versatile configuration

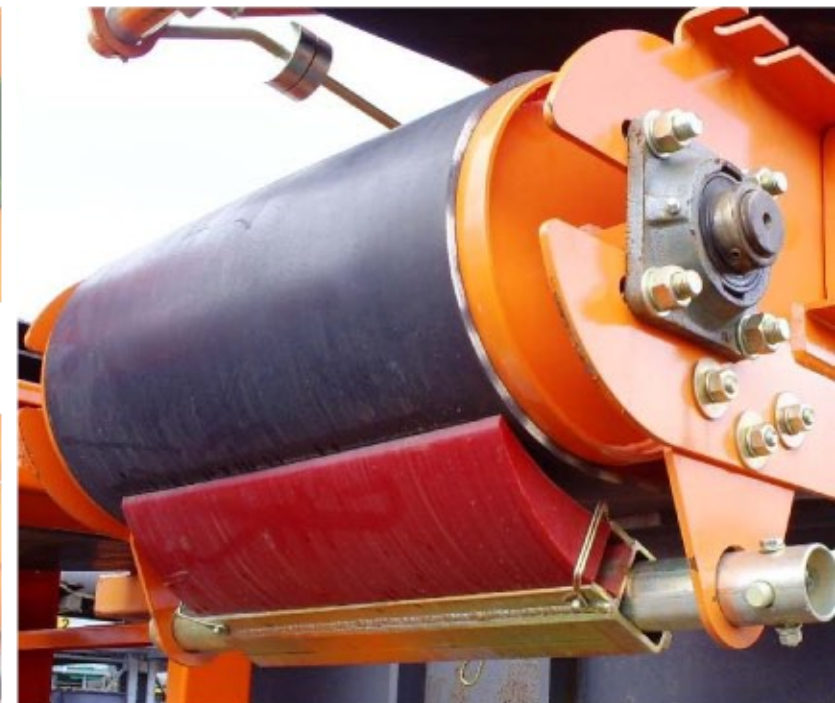
Possibility of setting the plan up to 5 bins. Top opening 3 meters wide, which make them easier to load and avoids inter-bin aggregate contamination. Gives the option of using grates for impurity retention.



Dosing belts with vulcanized side guards



Manual floodgate



Collecting belts and conveyors with scrapers

PERFECT CONTROL OVER THE DOSING OF AGGREGATES



Lathed and balance weighing rollers

Wall vibrator

Activated by the operator or automatically in the case of lack of material in the belt.

Lathed and balance weighing rollers

Complement the high level of precision provided by the self-adjusting system.

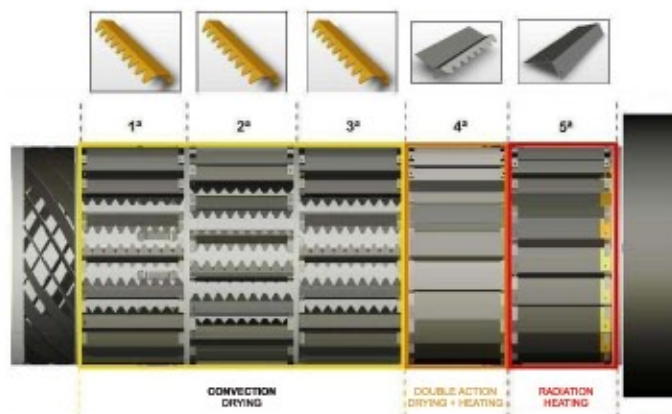
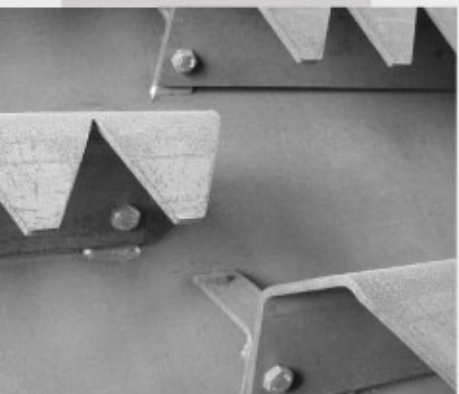


Wall vibrator
* Standard Bin I



Each region of the dryer has different types of blades that have specific functions

Perfect distribution of the blades.
Greater efficiency of thermal exchange.

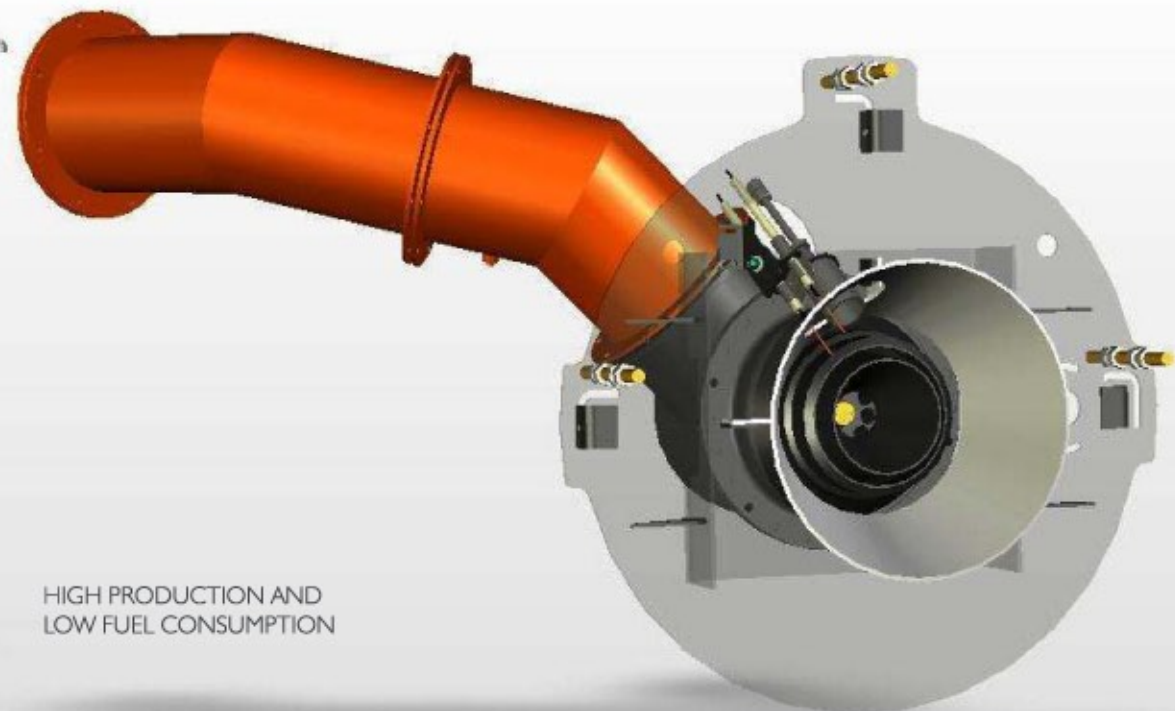


EFFICIENCY IN HEATING THE AGGREGATES

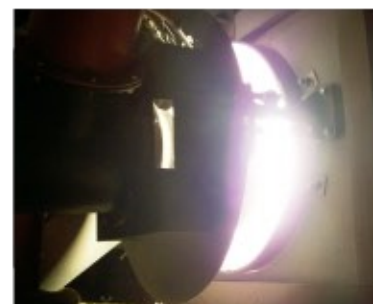
Counterflow dryer

Completely dedicated to drying, heating, and pre-homogenization of the aggregates. It operates a counterflow system where the heat is gradually applied on the aggregates, respecting the physical laws for extracting humidity, ensuring high productivity and low fuel consumption.

Designed using advanced computer-simulation systems, with blades so that the application of the heat on the aggregates is done gradually in order to eliminate humidity and result in ideal heating conditions until reaching the temperature stipulated.



HIGH PRODUCTION AND
LOW FUEL CONSUMPTION



Ciber Burner for fuel oils
(light and heavy)
Ciber Dual Burner for LPG and
optional for fuel oils

Hauck Dual Burner for natural
gas and fuel oils (light and heavy)
*Optional



Burner

Operates under the principle of low-pressure spraying, ensuring the ideal condition of oxygen for complete combustion.

The dose of air as well as of fuel is proportional and independent, ensuring a perfect and total burn at all the levels of power. The result is the complete use of the fuel with high production and low consumption.

Since the fuel chamber is made out of stainless steel and does not use refractory stones, there is not wear on it. The level of maintenance is minimal.



PRODUCTION OF HIGH QUALITY MIXTURES

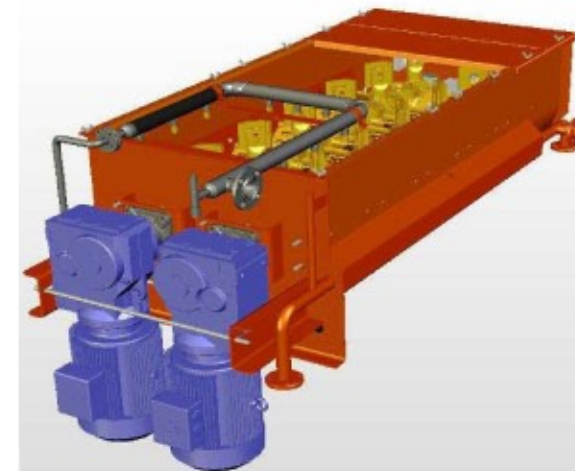
External Mixer

Completely external mixing process using the pug-mill type mixer, 2 synchronized, symmetrical and parallel shafts with arms and paddles.

Completely internally protected mixer with highly durable wearing plates divided into small section, which make them easy to replace and more cost-effective.

PRODUCTION OF MIXTURES WITH DIFFERENT TYPES OF BINDING AGENTS

- Force applied directly on the mixture.
- Heating system by thermal fluid, keeping it at an ideal temperature.
- Mixer and conveyor set for cold mix production as an option.

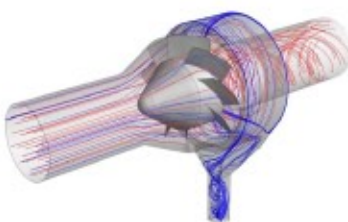




STRICT CONTROL OVER THE EMISSION OF PARTICLES.

THIS IS DEVELOPMENT GIVING A PLACE OF PRIORITY TO PRESERVING THE ENVIRONMENT.

Precollector of particulates



ADVANCED SOLUTIONS THAT RESPECT THE ENVIRONMENT

Precollector of particulates

The static separator type of precollector is highly effective in reducing the particulates retained in the mesh 200 ($>75\mu\text{m}$), which results in a longer life of the filtering elements.

Bag filter

Using polyester-lined pleated bags, the filtering of particles takes place at the surface. This keeps the component free from getting impregnated with the dust and therefore increases durability and results in less loss of load and very lower emission rates. It also has an exclusive system for controlling the reuse and proportion of fine solids in the mixture.



HIGHLY DURABLE PLEATED BAGS

Bag filter



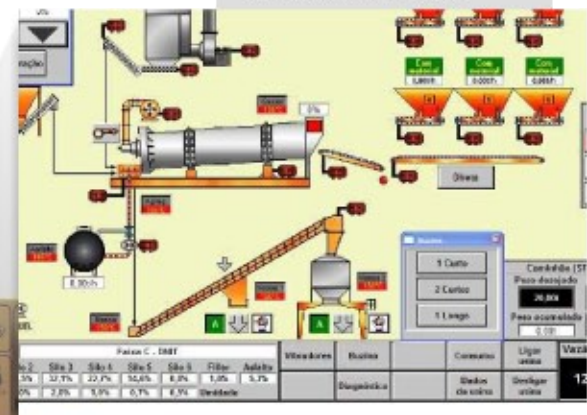


Operational Station



THE CONTROL CABIN IS SPACIOUS AND COMFORTABLE FOR THE OPERATOR

The "Overview" screen is to visualize the operation of all the equipment's parameters.



COMFORT AND RELIABILITY

It is air-conditioned and the operations are laid out in an ergonomic way. The design makes optionally to install the cabin disconnected from the chassis frame. Easy access air-conditioned electric panel.

Advanced processing software calculates the flow needed for each bin individually and auto-adjusts real-time in order to reach perfect dosing results.

The plug-and-play software is ready to receive any one of the options offered at any time, without the need of replacement of hardware or software.



CONTROL PANEL USES AN INTERACTIVE 15-INCH SCREEN, WITH TOUCH-SCREEN TECHNOLOGY



OPTIONAL FEATURES

Asphalt Storage Silo

A logistical alternative is the asphalt storage system with capacities of 30 and 40 metric tons.

Fine Aggregates Feed Bin

An independent fine aggregates system makes it possible to add lime, cement, polymers, or fibers directly into the mixer. It also can be used to remove excess fine aggregates.



Unloading of excess fine aggregates

Plant with an Asphalt Storage System



Inspection Platform for the Bins

TECHNICAL SPECIFICATIONS

	UACF 15 P ADVANCED		UACF 17 P ADVANCED		UACF 19 P-2 ADVANCED
PRODUCTION CAPACITY	40 – 80 t/h		80 – 120 t/h		100 – 150 t/h
CHASSIS					
QUANTITY	P-1	P-2	P-1	P-2	P-2
	1	2	1	2	2
NUMBER OF AXLES	2	1 METERING CHASSIS - 2 DRYER CHASSIS	3	1 METERING CHASSIS - 2 DRYER CHASSIS	1 METERING CHASSIS - 3 DRYER CHASSIS
NUMBER OF TIRES	8	4 METERING CHASSIS - 8 DRYER CHASSIS	12	4 METERING CHASSIS - 8 DRYER CHASSIS	4 METERING CHASSIS - 12 DRYER CHASSIS
FEED BINS					
NUMBER OF FEED BINS	3 STANDARD	4 STANDARD	3 STANDARD	4 STANDARD	4 STANDARD
	UP TO 4 OPTIONAL	UP TO 5 OPTIONAL	UP TO 4 OPTIONAL	UP TO 5 OPTIONAL	UP TO 5 OPTIONAL
CAPACITY	7.2 m ³ WITH STANDARD ADD-ON EXTENSIONS / 10m ³ WITH OPTIONAL ADD-ON EXTENSIONS				
AGGREGATE WEIGHT READING	DYNAMIC READING BY MEANS OF A HIGH PRECISION LOAD CELL COMPRESSION				
BELT	FLAT, CLOSED, MADE OF VULCANIZED RUBBER, WITH ACCORDION-TYPE SIDE BANDS.				
DRYER					
TYPE	METAL ROTATING CYLINDER, OPERATING IN COUNTER-FLOW, WITH BOLTED, MOVEABLE BLADES.				
BURNER					
MODEL	CIBER MC-8		CIBER MC-10		CIBER MC-10 (MC 12 OPTIONAL)
SAFETY SYSTEM	THE PHOTO-CELL TYPE FLAME SENSOR CUTS THE FUEL IF THE FLAME IS NOTICED TO BE OUT.				
EXHAUST SYSTEM					
PRE-SEPARATION	STATIC-TYPE PRE-SEPARATOR				
FILTERING AND RECOVERY	HIGHLY EFFECTIVE BAG FILTER				
NUMBER OF BAGS	72		144		216
FILTERING AREA	360 m ²		720 m ²		1.080 m ²
EFFICIENCY OF THE BAG FILTERS	MORE THAN 99.5% - EMISSION OF PARTICULATE MATERIAL IS LESS THAN 50 mg/Nm ³				
MIXER					
TYPE	COMPLETELY EXTERNAL MIXER WITH ASPHALT DIRECT INJECTION, PUG-MILL TYPE, 2 TWIN SHAFTS, SYNCHRONIZED FOR OPPOSITE ROTATION.				
ELEVATOR					
TYPE	REDLER-TYPE, CLOSED, DRAG ELEVATOR.				
UNLOADING SILO					
TYPE	METAL UNLOADING SILO MOUNTED ON THE ELEVATOR – UNLOADING OPTION OF 30 T AND 40 T, FIXED OR PORTABLE, WITH THEIR OWN CHASSIS.				
CAPACITY	1m ³		1m ³		2m ³