



# COUNTERFLOW ASPHALT PLANT ADVANCED Series

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Performance data shall depend on each project's conditions.

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# COUNTERFLOW ASPHALT PLANT WITH EXTERNAL MIX ADVANCED Series UACF CIBER

The line of UACF plants Advanced Series adds the maximum mobility of a continuous production plant to the quality of batch plants.

A line of versatile and reliable equipment that is adjustable to different materials and weather conditions. There are three production range options applicable to the various job sizes.

- Aggregates dosing system with maximum technology, individual weighing, pick up system to ensure the real speed of the belt and data transmission in a network, immune to electronic noise.
- Counterflow drier exclusively dedicated to aggregates drying and heating. Longer drying time and less fuel consumption.
- Robust filtering system with pleated bags with a larger filtering area ensures continuous production of the plant and minimizes emissions of pollutants into the atmosphere.
- External mixer Pug-Mill type: Ciber quality and technology at use to ensure maximum quality in the production of asphalt mixes.
- Industrial computer with robustness that fits the job sites. Intuitive graphic interface on a touch screen display.



- 1
  - **Pick up** system and data transfer by **CAN network** represent the maximum technology in dynamic weighing of aggregates.
- 2
  - A **counterflow drier** exclusively dedicated to aggregates drying and heating combines the highest drying capacity with the lowest fuel consumption.
- 3
  - The pre-collector of particulates prevents particles larger than mesh.200 (0.075mm) to be thrown into de pleated bag filter. The plant operates in low pressure mode, allowing production in a continuous level. Robust filtering with less emissions into the atmosphere.
- 4
  - **External mixer Pug-Mill** type with controlled temperature ensures higher homogeneity of the mix with less aging of the bitumen. Necessary robustness for production of mixes with modified asphalt. Robust filtering with less emissions into the atmosphere.
- 5
  - Control of production through intuitive graphic interface in **touch screen** ensures technology and total control of the process. **Automatic or manual** operation.



# Aggregates drying

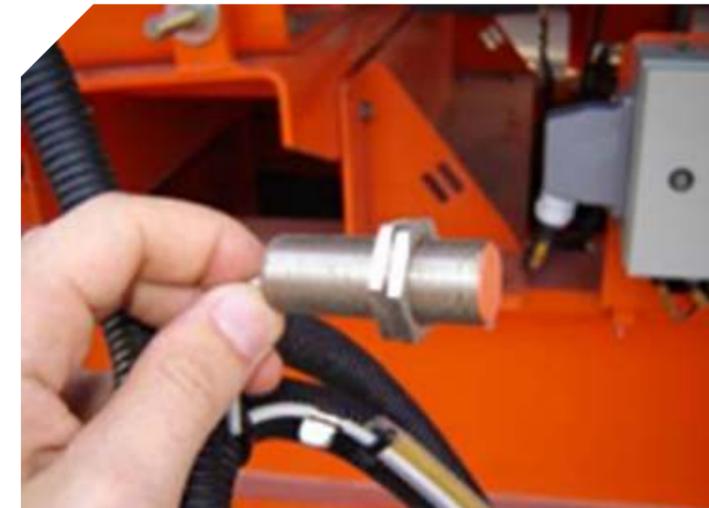
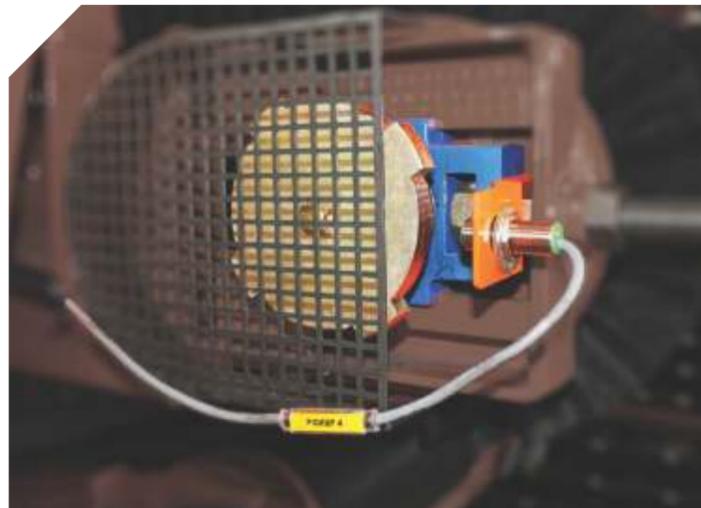
High precision in asphalt mix production



Dynamic weighing of aggregates done through a high precision robust load cell added to a high stability signal converter that ensures the control in aggregates dosing.

## Speed sensor in the rear roller

- Continuous verification of belt's speed.
- Speed correction in case of engine slippage.



## CAN OPEN System

- Transfer of aggregates weighting data to the CLP through digital signal, by network protocol.
- Immune to electronic noise.
- Correct weighing guaranteed.

# Individual dosing system

Perfect control of aggregates weighing

## Versatile configuration

- Possibility of increasing the number of bins. Opening superior to 3.00 meters width with facilitates loading and avoids aggregates contamination between bins. It allows for the use of grids to retain impurities, level sensors and additional vibrators.



## Toned and balanced weighing rollers

- They complement the high degree of precision afforded by the self-regulating system.



## Feeding belts

- With vulcanized lateral protections, they demand low maintenance and provide precision in dosing without loss of aggregates. Belts of easy stretching and alignment distribute the weight of aggregates load on the weighing roller uniformly.



## Manual hatch

- With smooth drive through a handle, it helps the belt to operate in the optimum speed, generating dosage stability and long useful life.



## Wall vibrator

- Driven by the operator or automatically in case of lack of material.
- Standard Silo I



## Collector and conveyor belts

- With hoppers and scrapers with counterweight which avoid adherence and loss of fine and wet aggregates.

# Aggregates drying

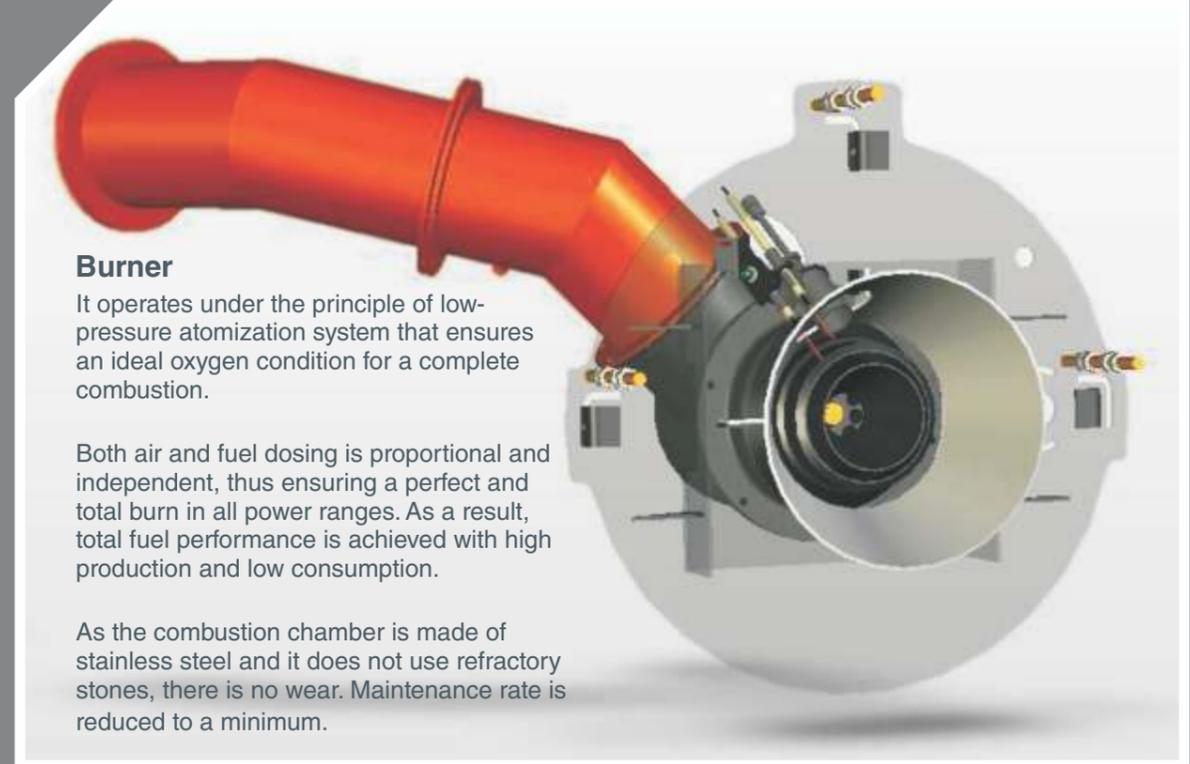
High production and low fuel consumption



## Counterflow dryer

Fully dedicated to drying, heating and pre-homogenization of aggregates. Lower fuel consumption due to a longer heat period between the burner fire and the aggregates. It operates in a counterflow system ensuring high productivity.

Designed by means of advanced computer simulation systems, it has internal fins distributed in a way that heat application over aggregates is carried out gradually, ensuring moisture removal and perfect heating to obtain the desired temperature.

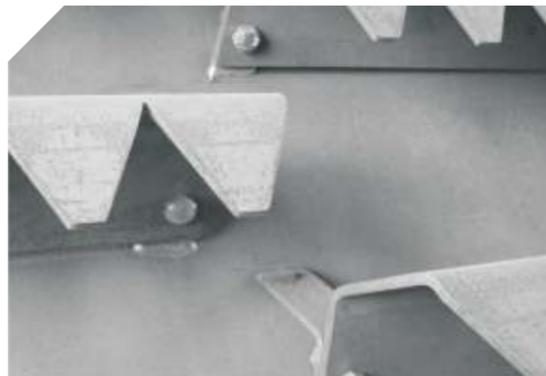


## Burner

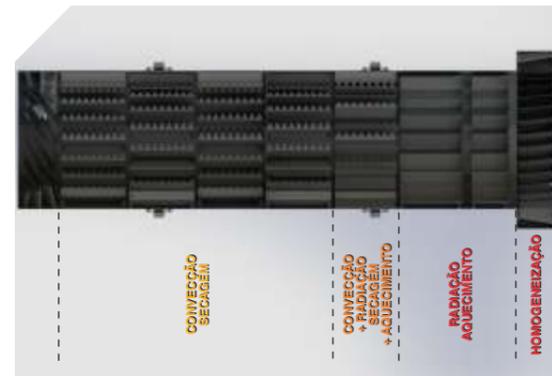
It operates under the principle of low-pressure atomization system that ensures an ideal oxygen condition for a complete combustion.

Both air and fuel dosing is proportional and independent, thus ensuring a perfect and total burn in all power ranges. As a result, total fuel performance is achieved with high production and low consumption.

As the combustion chamber is made of stainless steel and it does not use refractory stones, there is no wear. Maintenance rate is reduced to a minimum.



- Perfect fins distribution, higher efficiency in the thermal exchange.



- Counterflow drier exclusively dedicated to aggregates drying and heating.



## Ciber Burner

- Ciber Burner for fuel oils (light and heavy).
- Optional Dual Ciber Burner for LPG, NG, and fuel oils. (\*)



## Hauck Dual Burner

- Natural gas and fuel oils
- (light and heavy). (\*)

(\*) Optional items.

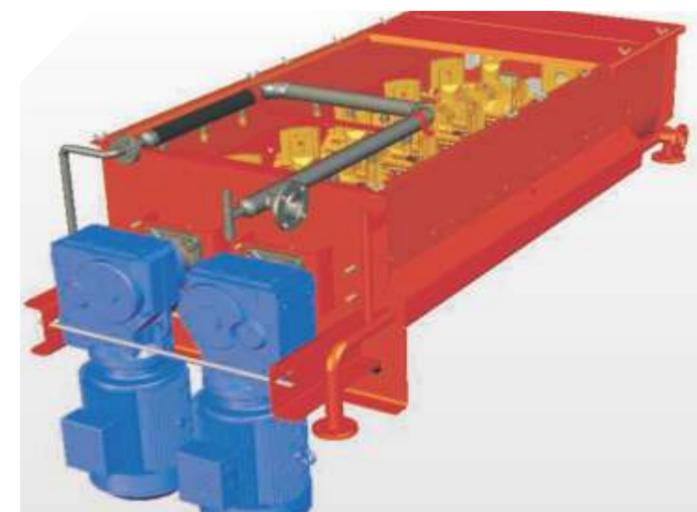
## External mixer Pug-Mill type

Homogenous mix from conventional asphalt projects to high viscosity modified asphalt.



### External Mixer

- Completely external mix process through Pug-Mill type mixer with two symmetrical and parallel, synchronized shafts, with arms and vanes built in highly wear-resistant material.
- Fully internally protected mixer with wear plates of high hardness divided into small sections that allow for easy and economic replacement.
- Bitumen injection in environment with temperature control without hot gases flow avoids early aging of the asphalt binding agent during the mix with aggregates.



- Bitumen injection through 9 spreading nozzles.
- Shearing strength completely applied to the mix.
- Mixer heated through thermal oil flow keeps the ideal temperature of the mix.
- Adjustable mixing time due to the type of asphalt mix.

# Gas filtering and fines recovery

Strict control of pollutants emissions



## Bag filter

- Laminated polyester pleated bags with a large filtering area and high durability.
- Particle filtering happens on the surface, thus preventing dust from building up, increasing durability, providing less load loss and extremely low emission rates.
- Larger filtering area allows for plant production in a constant level and less pollutants emission into atmosphere.

## Pre-collector of Particulates

- A development that has environmental preservation as a priority.
- High-efficiency static separator pre-collector retains particulates retained in mesh 200 (>75µm), providing filtering elements with a long life span.

## Cold air damper

- Temperature control of exhaust gases. Necessary robustness to discontinuous asphalt mix production (SMA, GAP GRADED).

## Emergency valve

- Safety device that blocks the hot gas flow to the filter in extreme cases of overheating.



# Production control

Comfort, technology and reliability



## Operation post

- The cabin with temperature control offers space, ergonomics, and comfort to the operator.
- Overview of the productive process.

- Internal environment with temperature control and ergonomically set operation post. Possibility of installing the cabin outside the chassis structure. Temperature controlled electrical board with easy access.
- Advanced processing software that ensures perfect aggregates and betumen dosing through self-correction of flow and weight in real time.
- Plug and play software ready to receive any of the options offered, at any time, without the need of replacement.
- Manual or automatic operation, extremely high precision potentiometer.
- Data transfer through CAN network. Maximum reliability in weighing information. Lower possibility of electronic noise.



- “Overview” screen for operation and view of all settings of the equipment.
- Control panel in a 15" interactive display of active matrix touch screen type.



## Asphalt storage bin

- A logistic option in the asphalt storage system with a 50 ton capacity.
- Fixed or mobile.



## Fines feed bins and filler

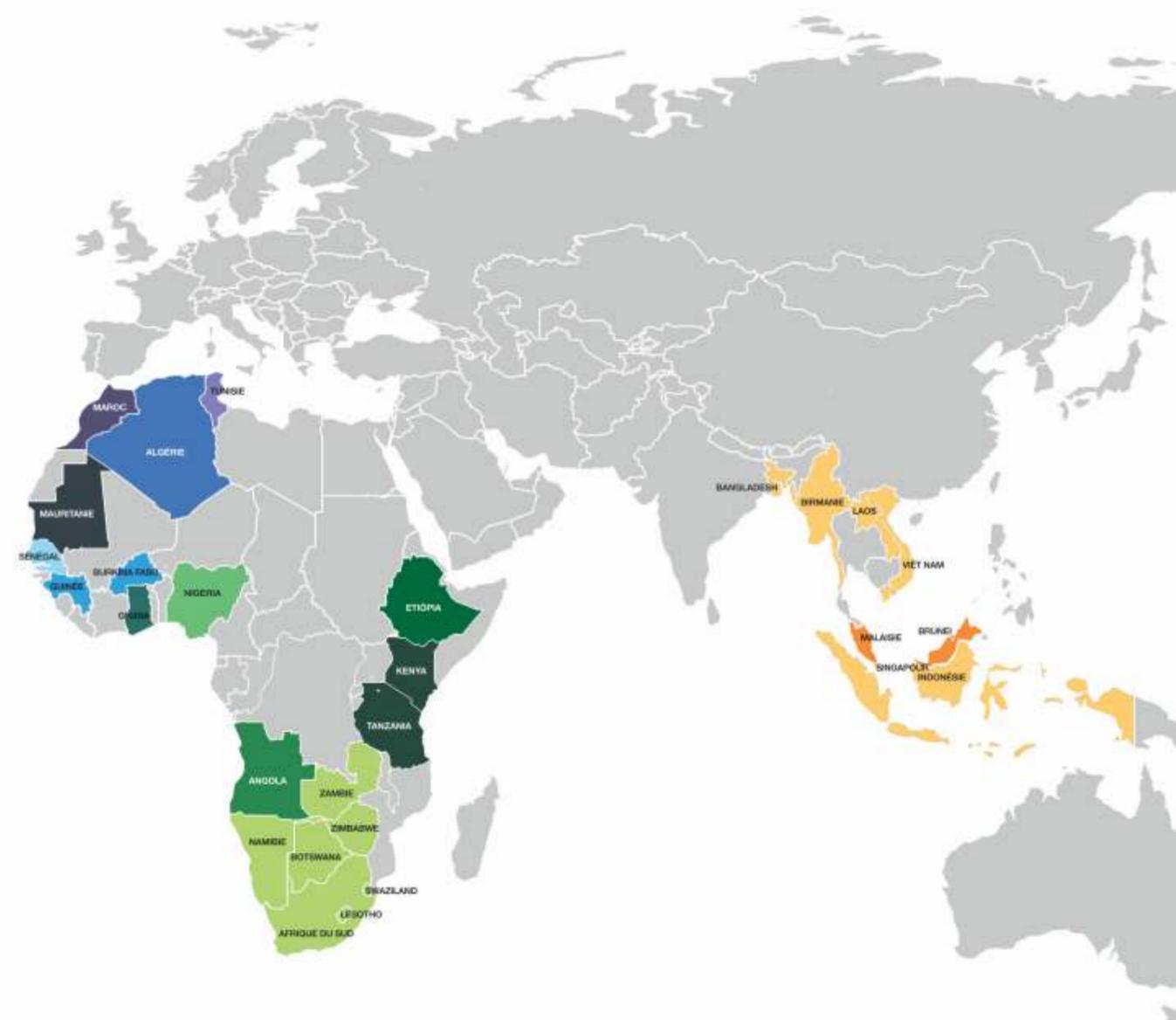
- Independent system for fines dosing able to control the flow rate of fines from the bag filter to the mixer.

## Filler bin (lime)

- Filler (lime) dosing bin in asphalt mix. Introduction of additives straight into the plant mix.
- Automatic dosage controlled by frequency inversion.



	UACF 15 P1 ADVANCED	UACF 17 P2 ADVANCED	UACF 19 P2 ADVANCED
Production capacity	40 - 80 t/h	80 - 120 t/h	100 - 150 t/h
<b>CHASIS</b>			
Quantity	1	2	2
Number of axles	2	1 dosing chassis - 2 drying chassis	1 dosing chassis - 3 drying chassis
Number of tires	8	4 dosing chassis - 8 drying chassis	4 dosing chassis - 12 drying chassis
<b>FEED BINS</b>			
Number of bins	3 standard	4 standard	4 standard
	up to 4 optional	up to 5 optional	up to 5 optional
Capacity	7.2 m <sup>3</sup> with standard joint extensions /10.0 m <sup>3</sup> with optional joint extensions		
Reading aggregates weighing	Dynamic reading through high precision compression load cell		
Belt	Closed plain belt built in vulcanized rubber with fanfold lateral band		
<b>DRYER</b>			
Type	Rotating metallic cylinder operating in counterflow with bolted mobile fins		
<b>BURNER</b>			
Model	Ciber MC-8	Ciber MC-10	
System and safety	UV photocell flame sensor interrupts fuel feeding in case of absence of flame		
<b>EXHAUSTION SYSTEM</b>			
Pre-separation	Pre-separator pre-collector of particulates type		
Purification and recovery	High-efficiency bag filters		
Number of bags	72	144	216
Filtering area	360 m <sup>2</sup>	720 m <sup>2</sup>	1.080 m <sup>2</sup>
Bag filter efficiency	Higher than 99.99% - emission on particulate material lower than 50 mg/Nm <sup>3</sup>		
<b>MIXER</b>			
Type	Fully external mixer with direct injection Pug-Mill type, with 2 twin shafts synchronized of opposite rotation		
<b>ELEVATOR</b>			
Type	Closed box drag elevator, Redler-type		
<b>DISCHARGE BIN</b>			
Type	Metallic discharge bin with capacity of 1 m <sup>3</sup> or 2 m <sup>3</sup> coupled to the elevator – option of 50T discharge bin, fixed or mobile, in own chassis		
Capacity	1 m <sup>3</sup>	1 m <sup>3</sup>	2 m <sup>3</sup>



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