



Ciber Equipamentos Rodoviários Ltda.
91140-38 - Porto Alegre - RS - Brazil
Rua Senhor do Bom Fim, 177

Phone: + 55 51 3364 9200
Fax: +55 51 3364 9222
email: ciber@ciber.com.br



ADVANCED SERIES **BATCH ASPHALT PLANTS**

PRECISION DOSAGE, HIGH-QUALITY MIXTURE
ENVIRONMENTAL CARE, HIGH PRODUCTION, TOTAL RELIABILITY



All pictures, illustrations and specifications are based on information in force as of the date of approval of this publication.
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UAB 18 ADVANCED

BATCH ASPHALT PLANTS

CIBER UAB 18 ADVANCED

UAB 18 Advanced

The line of Ciber's Batch Asphalt Plants combines the quality enabled by its renowned batch plant production process with precision dosage, provided by state-of-the-art electronic processors. These plants are intended for large projects where high, non-stop production of special and superior quality asphalt mixtures is a critical factor. The plant's operational principle enables the production of both standard and special types of asphalt mixtures, including modified asphalt and/or by adding different substrates. This equipment is even ideal for developing experimental mixtures.



UAB 18E Plant

BATCH ASPHALT PLANTS

CIBER UAB 18 ADVANCED



UAB 18SP Advanced (optional STA 50E)

ASPHALT MIXTURES THAT EXCEED THE WORLD'S HIGHEST QUALITY STANDARDS

Two configurations are available:

UAB 18E Advanced

In the stationary version the three main modules (feed bins, dryer/filter and tower) are fixed.

UAB 18SP Advanced

In the semi-portable version the feed bins and dryer/filter are portable (mounted on road chassis) and the tower is stationary.

SUPERIOR QUALITY ASPHALT MIXTURES



Large capacity bins

Large capacity cold bins

They allow operational stability and ensure continuous supply of aggregates at high production rates.



The gear motor has a coupled frequency converter.

Feeder belts

Superior durability accordion belts prevent waste of material.



PU counter scraper

Collector and conveyor belts

The collector and conveyor belts are endowed with PU scrapers that prevent adherence of fine aggregates due to humidity.



Floodgates

Adjustable floodgates for volumetric pre-dosing.

Floodgates

EFFICIENT AGGREGATE HEATING AND DRYING

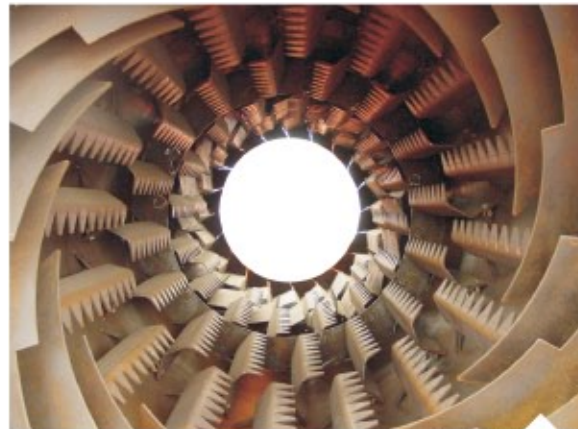


Counterflow dryer

Counterflow dryer

Fully dedicated to heating and drying of aggregates. Its counterflow operating system applies heat to aggregates gradually, thus respecting the physical laws of moisture extraction, ensuring high productivity and low fuel consumption.

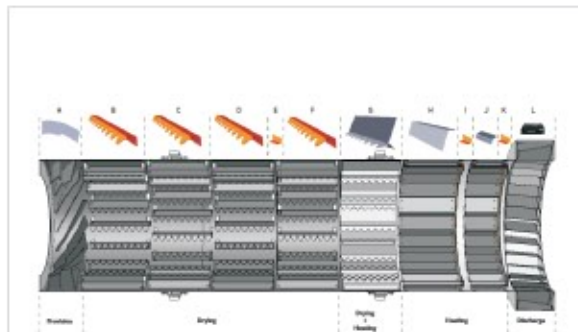
Designed by state-of-the-art computerized simulation systems, its fins have been designed in order to achieve maximum efficiency in all of the steps that comprise the drying and heating stage, thereby ensuring total elimination of moisture, as well as the right temperature and high production.



Counterflow Dryer (inside view)

Fins

Each region of the dryer has different types of fins that perform specific functions.



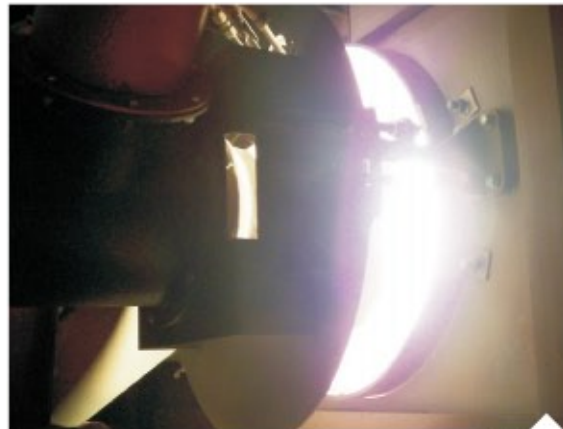
Functional diagram of dryer: different fins in each region perform different functions.



Burner

Burner

Operates according to a low-pressure sprayer system that ensures ideal oxygen conditions for complete combustion. Both air and fuel metering is proportional and independent, thus ensuring perfect, complete burn at all output ranges. As a result, total fuel performance is achieved, enabling high production, low fuel consumption and greater respect for the environment. 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.



Ciber Burner

Ciber Burner

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



Optional Burner

Optional Burner

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

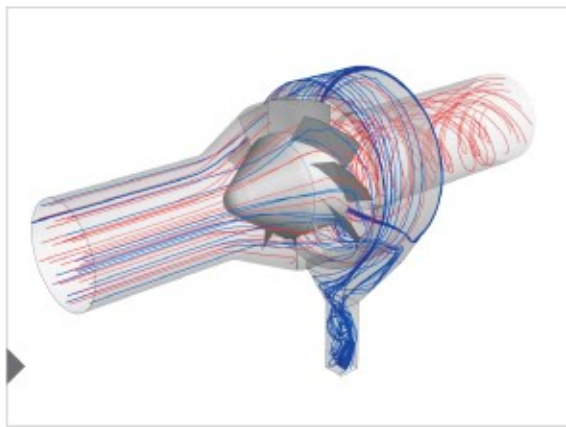
ADVANCED SOLUTIONS THAT RESPECT THE ENVIRONMENT



Pre-collector of Particulates

Pre-collector of Particulates

A high-efficiency static separator pre-collector retains particulates retained in mesh200 ($>75\mu\text{m}$), resulting in a long useful life for filtering elements.



Pre-collector of Particulates



UAB 18 with filter

Bag Filter

Coated polyester pleated bags filter particles on the surface, thus preventing dust build-up, increasing durability, providing less load loss and extremely low emission rates. These bag filters also have an exclusive system for usage control and dosing of fine aggregates in the mixture.



Bag Filter

SAFETY, COMFORT AND RELIABILITY



Control Station

Control Station

The control station is air-conditioned, has increased visibility, and the ergonomic control panel allows long operating hours with safety and comfort.



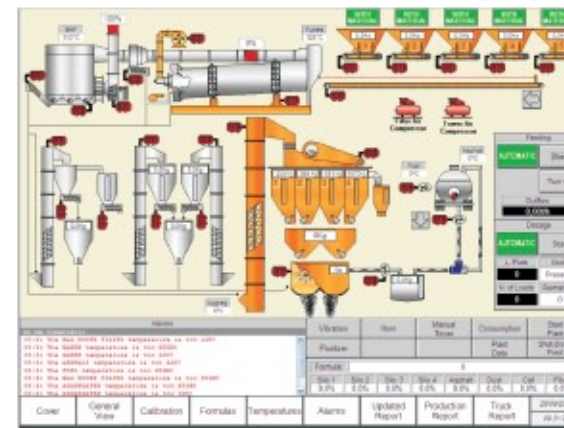
Operating Screen

Control Panel

A system made up of an industrial computer ideal for heavy-duty applications, with a 15" LCD touchscreen and two programmable controllers (PLC) with interchangeable components that ensure full equipment availability.

The Plant allows operation under three modes as a standard feature:

- Fully Automatic: this mode automatically controls all functions and components via a computerized system, thus ensuring maximum performance and quality.
- Semi-Automatic: in this mode those functions directly related to production, such as PAC and aggregate dosing, are controlled automatically via a computerized system, thus ensuring dosing precision and quality asphalt mixtures. The actuation of motors is controlled manually, thus ensuring production continuity.
- Fully Manual: in this mode all functions and components are manually controlled, thereby ensuring production continuity fully independent of the automated system.



Operating Screen

HIGH-PRECISION DOSAGE UNDER ANY CONDITIONS



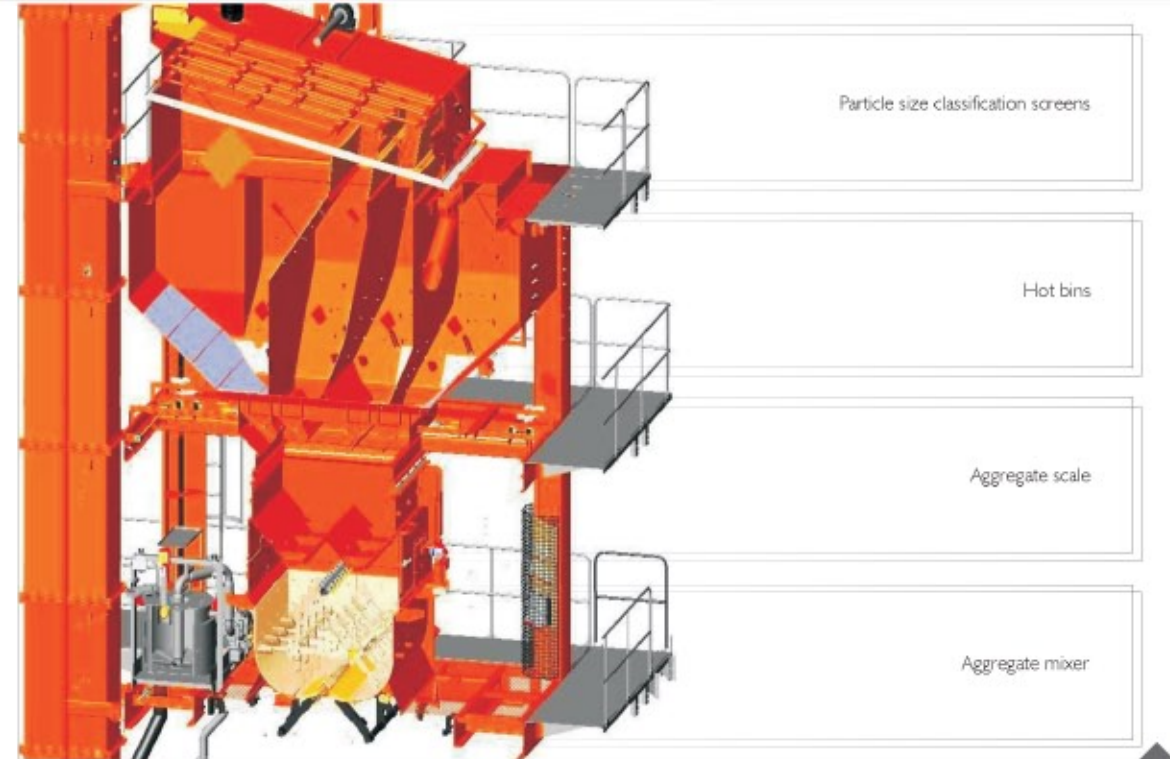
Batch Tower

Once moisture is extracted, the aggregates are conveyed to the upper part of the batch tower.

The material is classified according to its size and then stored in hot bins.

Aggregate dosing is performed on these bins' scales according to the desired mixture and following an individual weighing procedure.

Batch Tower



Mixing Tower

Particle Size Classification Screens

- 4-Deck particle size classification screens;
- Variable vibration, eccentric mixture vibrators (manual adjustment);
- Non-standard material disposal system;
- Fine weighing and separation system (optional);
- 4 different screen configurations for each deck ensure a perfect adaptation to all types of mixture.

Mixing Tower

The mixing tower has compact size, great efficiency, access ladders and maintenance platforms. Ideal for all kinds of mixtures: PAC, SMA and many HMA ranges.

4 Hot Bins

4 high-capacity hot bins to pre-store previously classified material. They have gates for precise and individual dosing of aggregates and maximum and minimum level sensors that automate the whole process.

SUPERIOR QUALITY ASPHALT MIXTURES



Aggregate Scale

Aggregate Scale

The fully cumulative operation aggregate scale discharges the material directly into the mixer.



Twin-shaft Pug-Mill Mixer

Aggregate Mixer

Ciber's proven twin-shaft Pug-Mill mixer ensures the best mixture quality even under extreme conditions. Its two symmetrical shafts turn in synchrony and in opposite directions, shearing and revolving the mixture until they reach a fully homogeneous mixture.

Its robustness is ensured by solid shafts and special steels used to cast the arms and vanes, as well as by the wear plates that protect its structure and the two gear motor output system directly applied to the shafts, synchronized by gear boxes.

It can unload directly onto a truck or storage system (optional).



Asphalt Dosing System

Asphalt Scale

The high-precision asphalt scale provides direct injection and adjustable dry-mixing time.

TECHNICAL TABLE

	UAB 18E Advanced	UAB 18SP Advanced
PRODUCTION CAPACITY	100 – 140 t/h	
TYPE OF SETUP	Stationary feed bin, dryer, filter and tower.	Portable feed bin, dryer and filter. Stationary tower.
MOBILITY	-	2
NUMBER OF FIXED COMPONENTS	3	1
FEED BINS (COLD BINS)		
NUMBER OF FEED BINS	4	
STORAGE CAPACITY	7.2 m ³ with standard extensions – 10 m ³ with optional extensions	
AGGREGATE PRE-DOSING IN THE BINS	Particle size	
FEEDER BELTS	Automatic speed variation	
DRYER		
TYPE	Counterflow with screwed and configurable fins	
BURNER		
MODEL	Ciber MC-10 [®] for light and heavy oils (standard) – Ciber Dual oils/LPG Ciber MC-12 [®] for light and heavy oils (optional for high altitudes) – DUAL oil/natural gas (optional)	
SAFETY SYSTEM	UV photocell flame sensor interrupts fuel feeding in case of absence of luminosity	
EXHAUSTION SYSTEM		
PRE-COLLECTOR	Static Separator Type [®]	
PRE-COLLECTOR EFFICIENCY	80% - 90% for material retained in the screen 200	
PURIFICATION AND RECOVERY OF FINES	High-efficiency bag filters	
QUANTITY OF BAGS	216 units	
FILTERING AREA	1.080 m ²	
BAG FILTER EFFICIENCY	99,5%	
MAXIMUM EMISSION OF PARTICULATE MATERIAL	50 mg/Nm ³	
LIFT		
TYPE	Vertical, buckets	
TOWER		
NUMBER OF DECKS	4	
QUANTITY OF SCREENS	4	
QUANTITY OF HOT BINS	4	
PAC DOSING	Via heated container scale	
MIXER	Symmetrical and synchronized shafts, pug-mill type, with opposite rotation, direct PAC injection and lower opening	
UNLOADING	Direct onto truck or storage bin (optional)	