

## Continuous mobile asphalt plants **iNOVA C Series** INOVA 1000C | 1500C | 1502C | 2000C



# 60 years of pioneering, technological

## innovations and a great deal of passion

### WHERE THE PASSION FOR ASPHALT PLANTS STRIKES

In the capital of Porto Alegre, in the southernmost state of Brazil, CIBER Equipamentos Rodoviários has been located for the last 60 years. Founded in 1958, the company was the pioneer in the development of mobile counterflow asphalt plants, keeping up to the present day always on the cutting edge, launching new technologies and products in the mobile power plant line. CIBER is a company of the WIRTGEN GROUP, an internationally active group of companies in the road and mining equipment industry.

With a modern factory set in an area of 46,848 sq. meters, strictly following the assembly line standards of German factories, CIBER has already produced and distributed more than 1,800 plants spread throughout Latin America, Africa, Southeast Asia and Oceania. The quality processes at CIBER start from the thorough selection and development of more than 300 suppliers, in the purchase of +170,000 pieces and monthly components, of the 1,600 hours/year carried out in tests

for approvals and that comprise the Lean assembly and finishing process. And all this with ISO 9001 certification. In the CIBER product line, complete solutions in mobile counterflow asphalt plants that meet any size and design profile, with machines that produce from 50 t/h up to 200 t/h of hot mix asphalt, optimized in less mobility when compared to products with high productivity and attributes that ensure greater profitability and operational results.

Through the WIRTGEN GROUP distribution network, CIBER has a customer support structure through its own subsidiaries and authorized dealers spread across four continents, which have a constant and extensive inventory of original parts, highly qualified technicians and a constant training program for clients and operators with a single goal: to be always close to our customers.

CIBER. WIRTGEN GROUP quality standard.







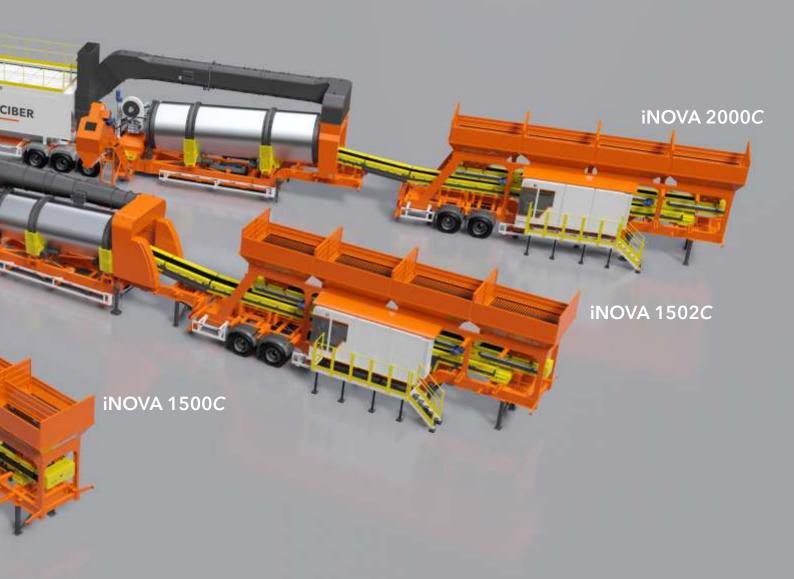
- (1) ADMINISTRATION BUILDING
- (2) RECEIPT AREA
- 3 STORAGE
- 4 FACTORY / ASSEMBLY LINES

- (5) QUALITY CONTROL / TESTING
- 6 FINISHING
- 7 FINISHED
- 8 SHIPPING

**Total area:** 46,848 m<sup>2</sup> **Built area:** 17,862 m<sup>2</sup>

# Continuous mobile asphalt plants





Innovation is the best definition for the CIBER iNOVA C Series asphalt plants.

Asphalt plants used to adapt to the characteristics of the materials and projects, but with variable and proportional performance. With new technologies applied in the CIBER iNOVA C Series plants, maximum productivity has become a constant, regardless of inputs and projects, quality is reached according to the parameters established in each operation. This paradigm break opens a range of opportunities for higher productivity, with higher quality, lower environmental impact and lower cost.





### PLANTS WITH HIGH PRODUCTION CAPACITY IN LESS MOBILITIES

- > Plants with production of 50 t/h to 200 t/h in 1 or 2 mobilities
- > Lower cost of transportation
- > Lower area and cost of installation



# EFFICIENCY IN FUEL CONSUMPTION

- > Perfect thermal exchange between aggregates and fuel gases
- > Automatic exhaust control
- > Dryer drum with Thermal insulation



### HIGH PERFORMANCE IN SPECIAL MIXES

- > External Pug Mill mixer
- > Dry mixing zone
- > Automatic mixing time control
- > High accuracy in dosing of aggregates and asphalt cement



## EASE OF OPERATION

- > Classic Control® operating system
- > Automatic operation with touchscreen interface
- > Excellent production visibility
- > Comfort and ergonomics in operation

# Continuous mobile asphalt plants

## iNOVA C Series







# in less mobilities

Higher production capacity

1 and 2 iNOVA 1000C and iNOVA 1500C: plants in 1 mobility

3 and 4 iNOVA 1502C and iNOVA 2000C: plants in 2 mobilities

### **COMPACT LINE OF ASPHALT PLANTS**

> Plants with high production capacity. Ideal for all types of projects.

### **LOWER TRANSPORT COST**

- > Lower number of mobilities reflects lower transport costs
- > Lower investment of the plant + freight package
- > Transport conditions appropriate to international traffic rules

### **SAFETY OF OPERATION**

- > Protection of mobile parts
- > Emergency and interlocking systems

### **EASE OF INSTALLATION**

- > Easy adaptation to different construction sites
- > Low complexity for installation
- > Less mobilization and assembly time



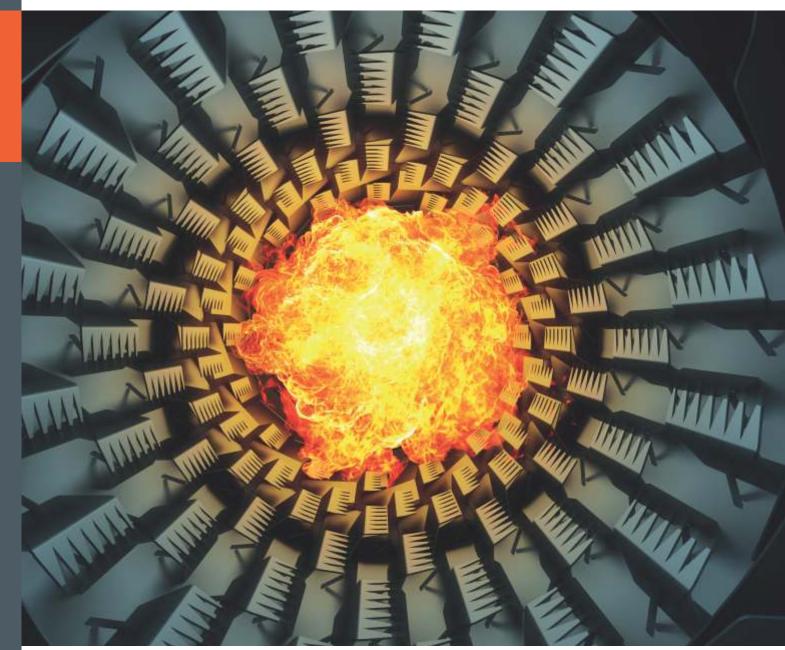


### **OPTIMIZED PRODUCTION WITH SYNCHRONIZATION BETWEEN DIFFERENT COMPONENTS**

- > Production capacity from 50% to 100% of rated capacity
   > The majority of engines have rotational speed proportional to the production, reducing the consumption and cost of electricity



# Efficiency in fuel consumption



The iNOVA C line features unique technologies that minimize the energy consumption needed to dry and heat aggregates.

- > Intelligent heat exchange system
- > Automatic exhaust control
- > CIBER Open Fire burner
- > Thermal Insulation



### **INTELLIGENT HEAT EXCHANGE SYSTEM**

> Automatic control of the dryer spin speed results in the maximum heat exchange between the aggregates and fuel gases

### **AUTOMATIC EXHAUST CONTROL**

> Automatic control of the exhaust motor speed ensures perfect combustion regardless of production rate

### **CIBER OPEN FIRE BURNER**

- > Simplified operation for burning light oils, heavy and gas (optional)
- > Automatic adjustment of the air and fuel ratio ensures great atomization and combustion
- > Innovative automatic burner control according to the need for heating the materials (closed loop system) (optional)



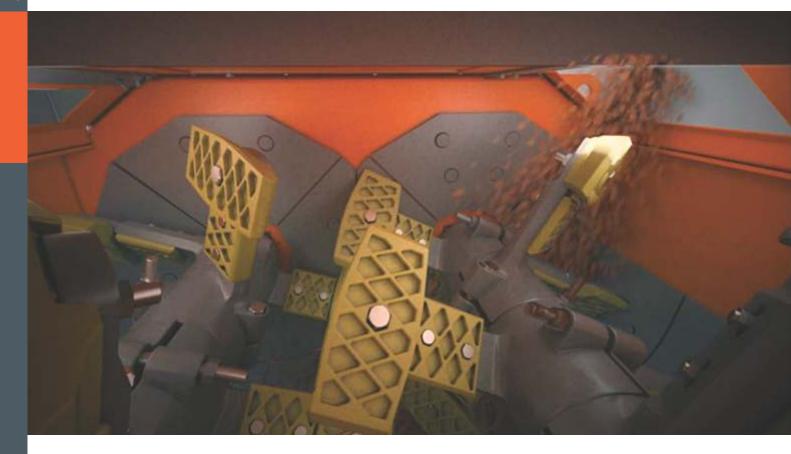
### THERMAL INSULATION

- > Avoids thermal energy dissipation of of the dryer drum
- > Rapid stabilization and uniformity of temperature inside the dryer
- > Coated with aluminum material





# High performance special mixes



Pug-Mill with dry mixing area

### **EXTERNAL MIXER PUG-MILL**

- > Mixing separated from the drying system
- > High shear rate applied to the mix
- > Minimizes early aging of asphalt cement due to oxidation

### **DRY MIX**

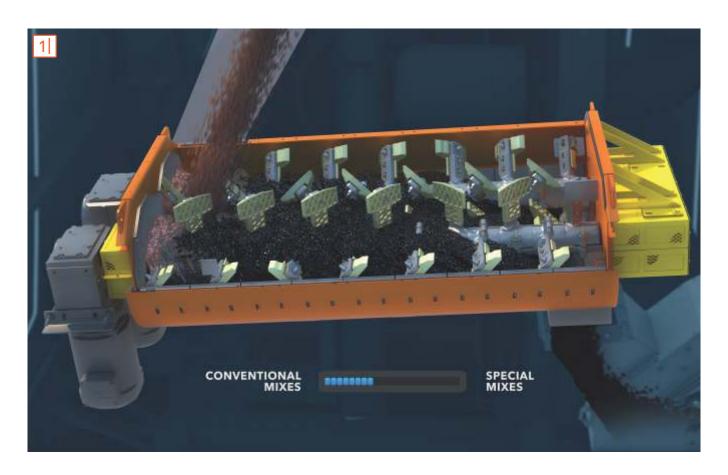
- > Homogenization of the aggregates before the asphalt cement injection and perfect dispersion of this binder in the aggregates
- > Important in applications using lime as adhesion improver
- > Essential requirement for special mixes using fibers and other additives

### MIXING TIME CONTROL

- > Automatic adjustment of the volume of material inside the mixer as required by different types of asphalt mixes
- > Maximum power applied to the mixture that guarantees homogeneity of asphalt concrete

### HIGH ACCURACY OF DOSAGE OF AGGREGATES AND ASPHALT CEMENT

- > Pick-Up and Can Open systems that assure total quality in the dosage of aggregates
- > Perfect aggregate and asphalt cement ratio ensure a high-quality mixture





1| Mixing time control on demand.

2| High accuracy for dosing of materials with the Pick-up system.



# Ease of operation

### **CLASSIC CONTROL® SYSTEM**

- > Intuitive software with full control of productive processes
- > Easy-to-operate touch screen
- > Automatic control (no operator interference) of the burner flame and other components during production (optional)

### **COMFORT AND ERGONOMICS FOR OPERATION**

- > Air-conditioned cabin
- > Ergonomic and intuitive operation painel
- > Guarantee of total efficiency and safety of operation

### **BROAD VISIBILITY OF THE PRODUCTIVE PROCESS**

> Cabin located in strategic position with a wide view of the production

### **POWER PANEL**

- > High degree of protection/sealing of components
- > Air conditioning to ensure the perfect temperature of eletronics components



1| Broad visibility of the production process. High-tech Classic Control® control system.

2 and 3 Operating table with comfort and ergonomics for operation.













## **Optimized maintenance**

### **LONGER LIFE = LESS DOWNTIME FOR MAINTENANCE**

The iNOVA C line is designed to facilitate preventive and corrective maintenance. Several components were developed, guaranteeing greater robustness in production.

Sistema inteligente de diagnóstico de falhas.

### **INTELLIGENT FAULT DIAGNOSIS SYSTEM**

- > Possibility of preventive maintenance of engines and electrical components
- > Digital mapping of the plant
- > Real-time component information
- > Minimizing the possibility of errors or operating faults
- > Lower number of maintenance stops
- > Remote access to reports and diagnostics (optional)
- > Visibility of the whole asphalt plant through 4\* video cameras (\*optional)

### **EASY ACCESS TO WEAR ELEMENTS**

- > Less time needed for preventive or corrective maintenance
- > Easy Spin tool for quick and easy removal of bag filters

### HEAVY DUTY COMPONENTS WITH LONGER LIFE

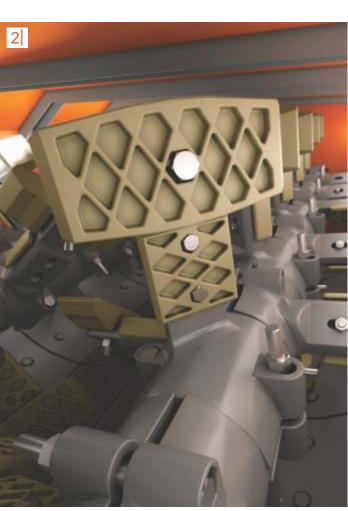
- > Mixer paddles with new Honey Comb shape, with the surface that favors the creation of a cover with the asphalt material itself, reducing the wear
- > High abrasion resistance paddles
- > High resistance elements on surfaces exposed to wear
- > Highly weather resistant fuel injectors, blower air and cold air dampers

### **PLEATED BAG FILTER**

- > Greater filtration and production area ratio
- > High durability structured bags
- > Washable bags



- 1| Easy access to wear elements.
- 2 Longer heavy-duty components such as Honey Comb paddles.





## Data Sheet

	iNOVA 1000
P 1 11 11	
Production capacity	50 to 100 t/h
Malifieta	
Mobilities  Axles/Tires mobility 1	1 3 / 12 (+
·	
Axles/Tires mobility 2	Tital and
Suspension / Brakes - mobility 1	Triple tan
Suspension / Brakes - mobility 2	-
Size	21.30 x 3.20 x 4.30m (L x W x H)
Number of Bins	
Bin volume	2 of 10m³
Aggregate weighing	
Speed sensor	
Wall Vibrator	
Technology	
Burner	
Bag Filter	88 bags
Filtering area	518 m²
Maximum filtration/production area ratio	
Filter efficiency	
Filter technology	
3,	
Technology	
Mixing steps	
Mixing time	
Cleaning	
Wear elements	
Asphalt Injection	
Mix Transport Technology	
Wear elements	
Bin volume	1
Туре	
Operation cabin	
Sistema de climatização	
Critical Control	
	OPER.
Feed bins	Fixed protections
i cca sins	Emerge
Dryer	
Dryer / burner	Emerge
<b>,</b>	
Mixer	Emerge
Bag Filter	Emerge
Control cabin	Emergency button +
55.11.51.51.51	Operating interface in
Power Panel	Security PLC
I OWELL ALIEL	Command circuits with 2

iNOVA 1500	iNOVA 1502	iNOVA 2000	
75	to 150 t/h	100 to 200 t/h	
TRANSPORT			
		2	
1 spare)	2 / 8 (+ 1 spare)		
	3 / 12 (+ 1 spare)		
dem / ABS	Double tandem / ABS  Triple tandem / ABS		
21.30 x 3.20 x 4.30m (L x W x H)	13.90 x 3.20 x 4.30 / 17.10 x 3.20 x 4.30m (L x W x H)	13.90 x 3.20 x 4.30 / 19.00 x 3.20 x 4.30m (L x W x H)	
DOSING SYSTEM			
	4		
+ 2 of 5 m <sup>3</sup>	10 m³		
Individual dynamic weighing by centralized high precision	on compression load cells, with an individual capacity of 200kg		
	or speed check (pick up)		
3 standard vibrators in b	n 1. Optional vibrators in bin 2		
DRYING SYSTEM			
	ng and heating of aggregates   Smart drying system		
	R Open Fire		
FILTERING SYSTEM			
	32 bags	176 bags	
	777 m²	1.091 m²	
5,2 m²/(t/h)	al 00 000/	5,5 m <sup>2</sup> /(t/h)	
	than 99.99%		
	ated Bags		
	tem with EasySpin tool		
MIXING SYSTEM	ug mill with arms and paddles		
	king with asphalt cement		
	rfigurable		
	lower deck		
	resistance material		
	inkling nozzles		
TRANSPORT AND STORAGE SYSTEM			
	type drag lift		
	resistance material		
m³	esistance material 2 m³		
	rindow, anti-segregation plate, inspection flap		
CONTROL SYSTEM			
	, supervisory, buttons for actuation in manual and PLC		
	conditioning		
Automatic (supervisory) or emergency me	ode (by supervisor + manual operation buttons)		
SAFETY			
ATION	PRODU	JCTION	
for mobile parts			
ncy button		-	
-	Reading of the rotational speed with interlocking		
	Flame sensor - UV photocell		
ncy button	Pick up dryer monitoring		
ncy button			
	Temperat	ure sensor	
ncy button	Cold Air Damper		
	Emergei	Emergency valve	
internal audible alarm			
		-	
extra low voltage (24V)			
extra low voltage (24V) Monitoring			







## **Customer support**

### AFTER-SALES SERVICE - A PERFECT CONCEPT FROM A TO Z

Always next to the client

The CIBER service is present in all locations in which the company markets its equipment, in order to provide fast and efficient service in any part of Latin America, Africa, Southeast Asia and Oceania. The company's goal is to facilitate the work of its clients, offering technical support and constant partnership.

#### **PRODUCT SUPPORT**

Optimized operation of all equipment:

- > Comprehensive technical support for the entire product line
- > High quality original parts
- > Practical and intelligent customer communication
- > Training courses for all products marketed

### **WORKSHOP SERVICE**

Complete workshop services:

- > Quality: highly specialized shop services
- > Services performed by highly qualified and permanently trained maintenance technicians
- > Wear parts replaced by original parts, serviced by qualified personnel
- > Professional installation of auxiliary equipment

### **TECHNICAL SUPPORT**

Your equipment always working:

- > Specialized technical delivery: the equipment sold is assembled and verified by experienced and qualified professionals
- > Local support: CIBER technicians and their resellers are close to customers, ensuring fast and efficient
- > Trained resellers: CIBER authorized resellers receive training to solve issues regarding all branded
- > Factory support: customers can contact the CIBER team directly, by telephone or via the internet

### **LOCAL SERVICE**

Maintenance directly on site: we guarantee quick solutions:

- > State-of-the-art technology: maintenance service engineers are regularly trained at the company headquarters
- > Full maintenance with an extra: technical support combined with application consulting as and when required
- > Complete equipment: rapid diagnosis and repair of dysfunctions with special tools

### **ORIGINAL PARTS**

Credibility in original parts:

- > Fast and reliable order processing
- > In-depth consultation with trained service specialists when purchasing original parts
- > > Quick identification of spare parts through complete documentation such as Parts and More, WIDOS and WITRAIN

#### **TRAINING**

For an equipment to offer greater productivity, it is essential that all those who operate it have a wide knowledge about its operation.

In order to ensure safety and long life of the equipment it markets, CIBER, through its network of dealers and the factory itself, provides training to its customers in order to qualify all operators with the necessary knowledge for operation and maintenance of machines. The training has the credibility of the factory, providing the knowhow of specialists and personalized service according to the specificity of each project or work

### **TRAINING SCHEDULE**

Find the right training for you and check out the seminar dates available.

www.ciber.com.br/en/customer-support/training/





### CIBER Equipamentos Rodoviários Ltda.

Rua Senhor do Bom Fim, 177 91140-380 Porto Alegre / RS · Brazil T: +55 51 3364 9200 ciber@ciber.com.br

> www.ciber.com.br