

MOBILE ASPHALT MIXING PLANTS

TYPE MBA





> Plant concept

> Layout

> Customer support

> Plant components

> Options

> Control

> Plant overview

> Assembly

THE TOP 5 FACTS ABOUT MOBILE ASPHALT MIXING PLANTS (MBA)

- > CAN BE IMPLEMENTED QUICKLY
- > COMPACT PLANT
- > MOBILE FOUNDATIONS
- > CAN BE EXPANDED ON A MODULAR BASIS
- > LOW LOGISTICS COSTS

Mobile asphalt mixing plants are ideal for construction sites with limited time frames as well as for regions without extensive plant availability. They are simply mounted on mobile steel foundations and move to the next construction sector together with the mobile construction site. Mobile mixing plants can be set up close to the construction site, which provides constantly high quality of the asphalt.



PLANT CONCEPT

MOBILISES THE MASSES.

Thanks to the intelligent concept of the mobile asphalt mixing plant type MBA, construction sites can be handled flexibly and with efficiency. The plant can be set up or taken down within a very short time and is therefore quickly available at changing project sites.

All sections of this plant are already completely pre-wired and pre-piped at the factory, greatly facilitating handling on site. The concept covers capacities from 100-240 t/h and allows customers to commission the plant themselves using their own operating personnel.



// ASPHALT MIXING PLANT MBA

// FLEXIBLE AND POWERFUL

The mobile asphalt mixing plants are simply mounted on mobile steel foundations which only require a compacted gravel surface for the entire setup area. The short installation time allows asphalt production to take place close to the construction site. The low logistics cost due to mobile transport on standard trailers, with road and TÜV approval, are a further advantage.

Mixers up to 3 t are used for the available capacities with mixing outputs up to 240 t/h. This flexibility allows homogeneous asphalt to be produced not only in large volumes but also in small batches without any problems.



// SUSTAINABLE AND ECONOMICAL

Like all **our** plants, the MBA features high-quality, low-maintenance components with a long service life which will meet any market and environmental requirements.

The thermal insulation of the components in the heated section is exemplary, as is the low energy consumption. This contributes to the optimisation of the environmental aspect and of health and safety while increasing cost efficiency.

// LAYOUT OF MOBILE ASPHALT MIXING PLANT

- 01 Cold feed system
- 02 Dryer drum with burner
- 03 Dust collection system
- 04 Mixing tower
- 05 Filler silo
- 06 Bitumen tanks





PLANT COMPONENTS

LIKE WINNING THE LOTTERY.

All that is required to transport and install a mobile asphalt mixing plant are six standard trucks. The TÜV and road approval allows the plant to be transported worldwide by road.

In principle the components of the MBA plant type are designed to be mobile, via the semi-trailer. The equipment consists of a dual-line braking system, parking brake, kingpins including height-adjustable supporting feet and a complete lighting system.

In addition to the high quality materials of the components, the wearing plates are also designed for a long

service life and precisely adapted to severe conditions such as hard stone and thermal loads.

This ensures constant functioning at all times and the plants can easily provide maximum performance.





// COLD FEED SYSTEM

The 5-fold mobile cold feed system group is manufactured in a solid steel construction and guarantees simple assembly, cheap transport and user-friendly filling. The cold feed system group is equipped with a folding approach ramp, which is backfilled on site.



// MIXING TOWER

When assembling the mixing plant, the mixing unit is supplemented by two components, the hot bin section and the screen, offering a high mixing capacity and flexibility.



// FILLER SILO

The filler silo for reclaimed or imported filler features an outlet cone, emergency shut-off valve, injector loosening system and fill level display.



// DRYER DRUM

The drum tube, which is made of a thick-walled, solid steel construction, achieves maximum efficiency, very low exhaust gas temperatures and prevents temperature losses during the drying process thanks to special fittings.



// DUST COLLECTION SYSTEM

The dust collection system includes supporting feet for easy installation and implementation. The filter dust collection system is perfectly tailored to the mixing plant capacity. The vertical layout of the filter bags guarantees maximum utilisation of the surface area with efficient filter function.



// BITUMEN TANK

The binder tank in horizontal design, ready-piped with filling and dosing pump, is indirectly electrically heated and implemented with insulated container walls. Connection to the mixing tower is made via a heated, insulated and flexible hose.



// BURNER



PLANT COMPONENTS

EQUAL RIGHTS FOR ALL: QUALITY.

- > Simple, modular design
- > Compact structure
- > Mobile burner for easier accessibility (e.g. for servicing)
- > Easy to maintain
- > Inspection doors on both sides
- > Easy to retrofit
- > Internal fan
- > Long service life
- > Low wear
- > Highly efficient in terms of consumption
- > Minimum pollutant emissions thanks to state-of-the-art control technology

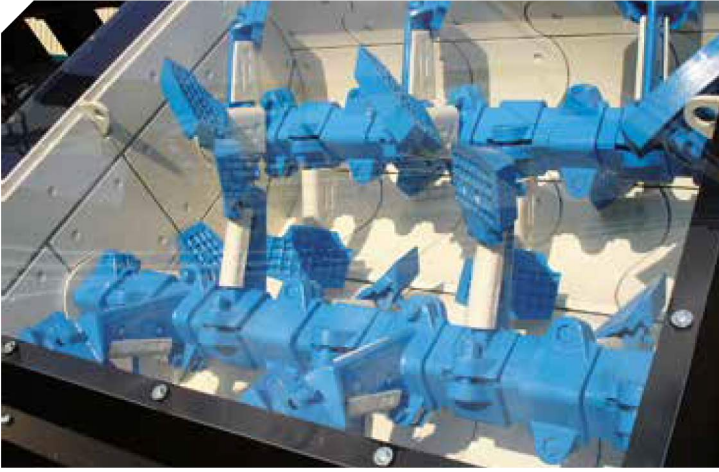
// DRYER DRUM

For the manufacture of asphalt, it is essential to remove the moisture from the base material to ensure bonding with the bitumen.

For us, each drum is subject to a 100% final inspection.

In order to attain optimum results, these come in various lengths, diameters or with a variety of installed components, which are suited to the particular circumstances such as the location, aggregates and material moisture. The dryer drum is compact, robust and easy to maintain.





// MIXER

The mixer is the key component of an asphalt mixing plant. Here, the mineral is mixed intensively with binder and filler to form a homogeneous mass. A mixing cycle, including the filling and emptying, takes 45 seconds. Due to the heavy burden with regard to wear, weight and power transmission, only the highest quality materials are installed in the mixer.

Whether it's a question of special wear plates to line the trough or mixing arms with arm protection, everything is manufactured based on the premise of optimum wear protection. This guarantees the durability of the plant and smooth processing.

// SCREENING

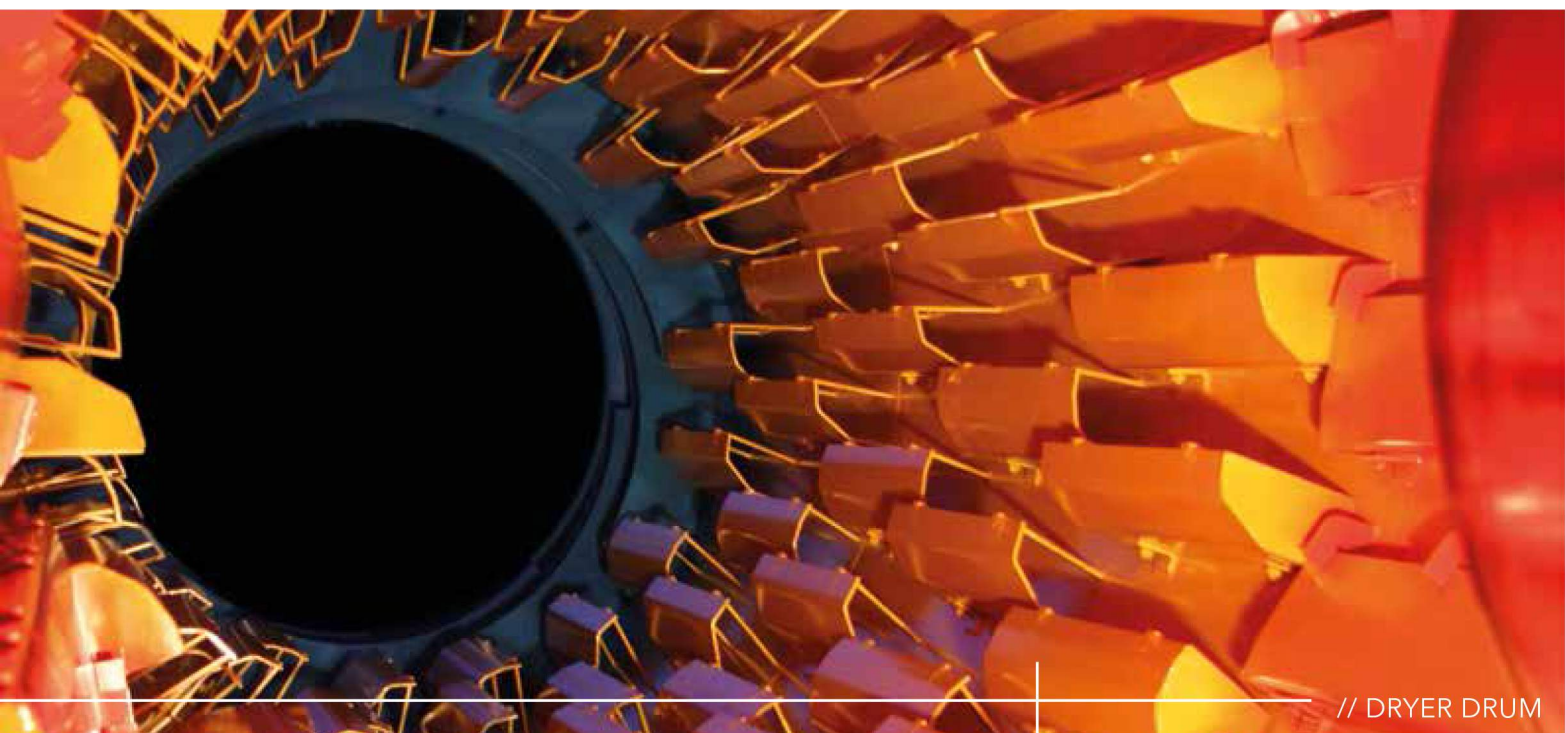
All mobile asphalt mixing plants feature 5-fold screening as standard. This enables standards and recipe requirements in the various countries around the world to be fulfilled without any problem.



// DUST COLLECTION SYSTEM

Our dust collection system/filter is impressive thanks to its extremely compact structure and modular design. Quick installation is guaranteed thanks to the few simple interfaces.

The dust collection system is also easily accessible for inspection and maintenance; e.g. changing the filter bags is easy and can be carried out without any special tools. The vertical layout of the filter bags guarantees maximum utilisation of the surface area with efficient filter function. Thanks to their high-quality processing and heat resistance, the filter bags have a long service life. An innovative silencer system provides effective minimisation of the noise level.



// DRYER DRUM

HEAVY-DUTY MODELS.

TECHNICAL DATA PLANT OVERVIEW MBA

	MBA 1250	MBA 2000	MBA 3000
Mixing capacity (t/h)	100	160	240
Drying capacity (t/h)	90	145	220
General information	All information is based on a material moisture level of 4%, Wind load: 25 m/s, horizontal gravitational acceleration: 0.4 m/s ² , snow load: 0.85 kN/m ²		
Installation types	Mobile steel foundations (set-up area must be suitable for ground loading of 350 kN/m ²)		
Cold feed system			
Number of hoppers	Mobile 4-fold cold feed system	Mobile 5-fold cold feed system	
Capacity (m ³)	8	8	8
Approach ramp	Yes (included in the delivery, on-site backfill min. 650 mm)		
Loading width (mm)	3,400	3,400	3,400
Dryer drum			
Type	MT 7.18 K	MT 8.22 K	MT 9.23 K
Drive rating (kW)	1 x 18,5	1 x 37	1 x 55
Burner			
Type (standard fuel oil)	EVO JET 2 FU ÖI	EVO JET 2 FU ÖI	EVO JET 3 FU ÖI
Rated heat output (kW)	11.9	11.9	19
Optional fuels	Natural gas, liquid gas, lignite - can be implemented as a combi-burner		
Dust collection system			
Output (Nm ³ /h)	28,000	42,000	58,000
Screen/Hot bin section			
Capacity (0-4 mm, t/h)	90	160	220
Screening	4-fold screening	5-fold screening	5-fold screening
Hot bin section	14 t in 4 bags (sand + bypass together)	30 t in 5 bags (sand + bypass together)	
Mixing and weighing section			
Mixer (kg)	1,250	2,000	3,000
Aggregate weigh hopper (kg capacity)	1,250	2,000	3,000
Filler weigh hopper (kg capacity)	125	200	300
Bitumen weigh hopper (kg capacity)	150	200	250
Mixed material storage silo/filler silos			
Mixed material storage silo total capacity	Mobile mixed material storage silo 50 t (1 chamber)		
Mixed material storage silo optional	90 t (2 chambers)		
Filler silos	Mobile reclaimed filler silo 50 m ³ , mobile imported filler silo 50 m ³		
Bitumen system			
	General design mobile, with electric heating and 150 mm insulation		
Capacity	One bitumen tank 50 m ³ (mother tank)		
Capacity, subsidiary tank	Additional tanks 50 m ³ (optional)		

// MBA 2000

**MBA 1250****MBA 2000****MBA 3000****Control**

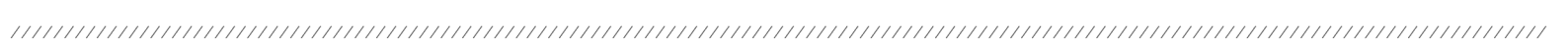
Our control system BLS 3000: switching and power element, air conditioning unit and low-voltage main distribution system

Recycling dosing systems**Middle ring dosing system**

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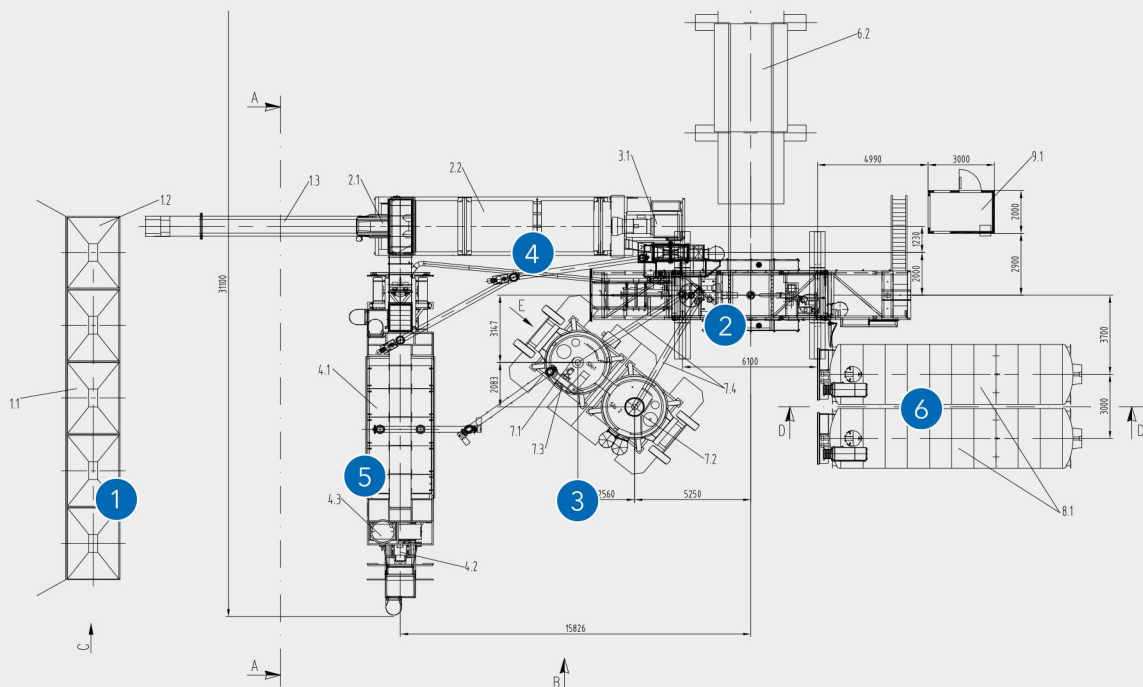
max. 25% RAP material





LAYOUT

ALWAYS IN A GOOD POSITION.





// VARIABLE INSTALLATION OPTIONS

All the components of a mobile asphalt mixing plant can be positioned differently in accordance with the local conditions.

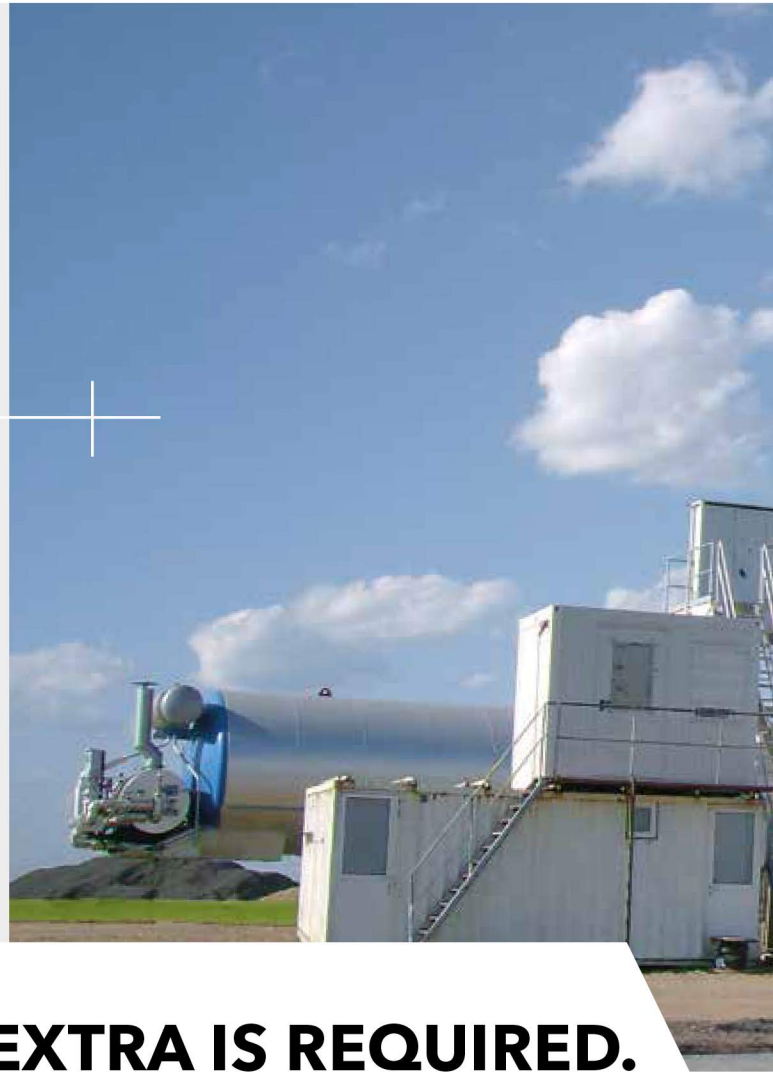
BASIC LAYOUT

// COMPONENTS

- 01 Cold feed system
- 02 Mixing tower
- 03 Filler silo
- 04 Dryer drum with burner
- 05 Dust collection system
- 06 Bitumen tanks



The colour scheme of the plants is implemented according to **our** standard and in accordance with customer requirements or legal, normative specifications. Weather-resistant and heat-resistant paint is therefore used.



OPTIONS

WHEN THAT LITTLE BIT EXTRA IS REQUIRED.



// STORAGE SILO

The mixed material storage silo is used to store the finished asphalt for up to 24 h and can store 50 or 90 t. The silo is positioned at the side of the mixing plant and filled via a skip.



// RAP MATERIAL FEED OPTION

The MBA offers the option of feeding into the middle ring of the dryer drum. This allows the customer to add up to 25% RAP material, depending on the base material.





// FUEL CHANGE

The customer has the option of operating his burner, which is responsible for drying and heating the base material, with different fuels. These combi-burners are capable of changing fuel at the touch of a button, guaranteeing independence and flexibility.

A combi-burner also has the advantage of eliminating downtimes for the plant due to a shortage of raw materials or delivery problems. In the event of price fluctuations for any particular fuel, the cheapest can always be selected.

// MORE OPTIONS

- > Liquide additive
- > Foam bitumen system
- > Filler loading set
- > Filler water mixer



// GRANULATE FEED SYSTEM

In order to optimise the properties of the asphalt, additives can be added to the asphaltic mixture. Here, **we** offer the option of a single or double dosing system and dosing in container design with integrated craneway and enclosure.





CONTROL

SOPHISTICATED CONTROL.

// MIXING PROCESSES AND DOCUMENTATION

All the plant's mixing processes can be freely selected, so the scales can be filled and the mineral, filler, bitumen and RAP material added to the mixer in any order. Continuous tare compensation is also integrated, and corrections can be made subsequently on the basis of previous mixtures. The uninterruptible power supply ensures operational safety.

// RECIPES AND ORDERS

Via the control system, any number of recipes can be input and managed. Base parameters and pre-input can be changed during the mixing operation. Recipe selection and creation, accounting with daily, monthly and annual logs as well as parametrisation are all carried out via the user interface.

Order input is also possible in any quantity. Orders can even be divided into partial orders. In addition, customer orders may be interrupted and others given priority, whereby the remaining amount is stored and can be called up again if required.

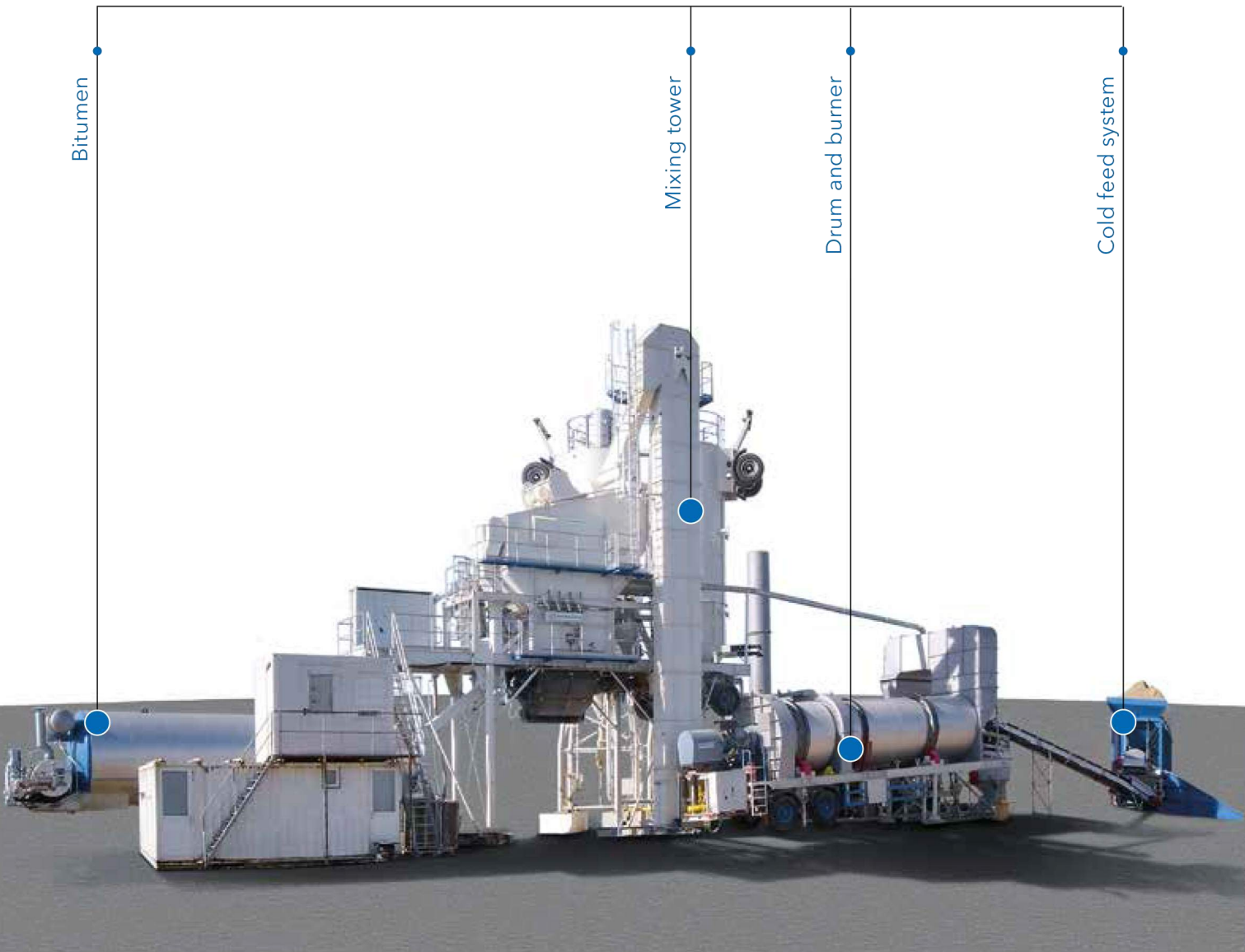
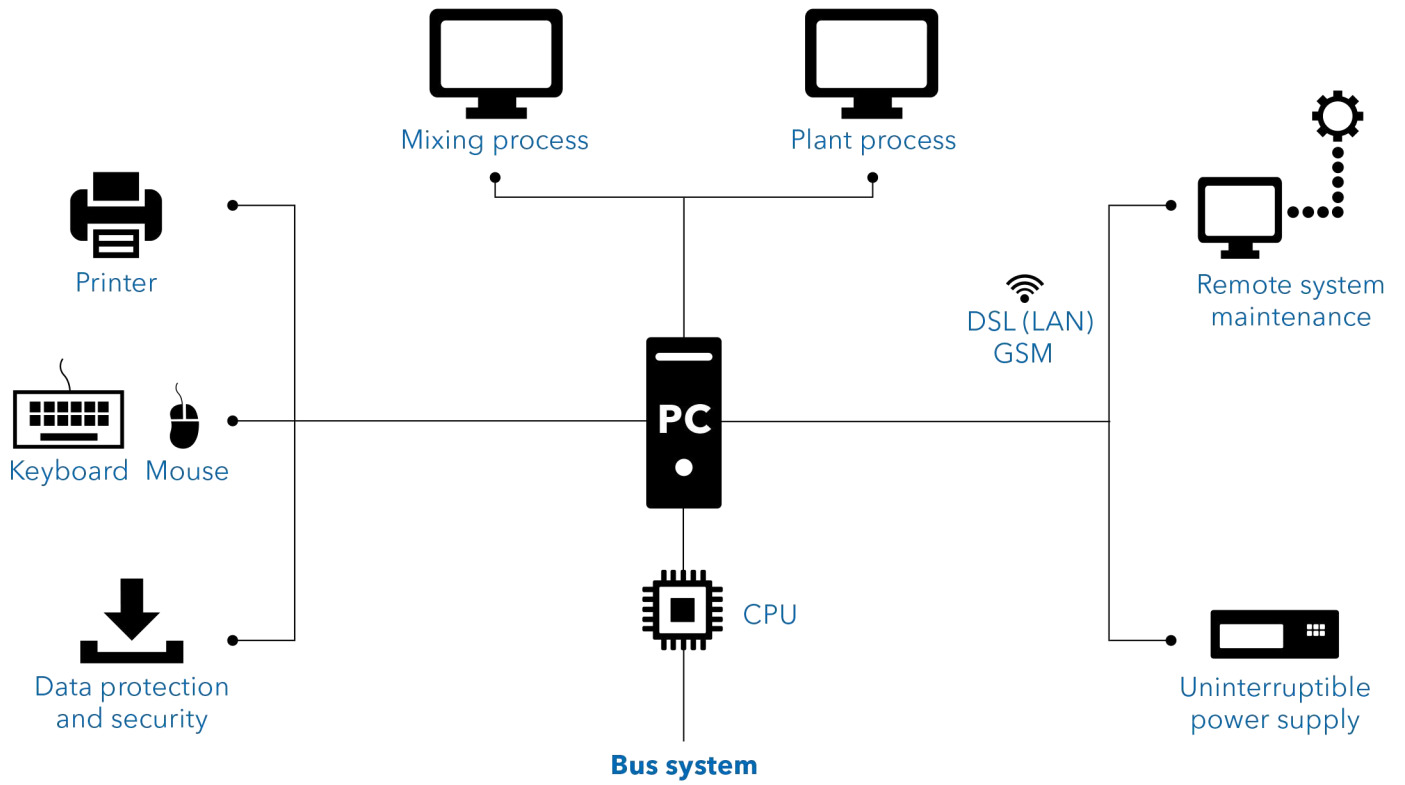
The control system for the entire mixing plant is documented in detail and monitored:

- > Statistical long term recording of individual components in a database
- > Documentation via printer or on the hard drive with data back-up
- > Batch record manager for evaluating and viewing the batch report with detailed search capability
- > Histogrammic analysis of components (graphical presentation of frequency distributions)

// REMOTE SYSTEM

- > Remote maintenance - First Level Support
- > Connection to the plant's control system is possible at any time (following go-ahead from the customer/operator)
- > Diagnosis and support
- > Fault rectification on site with the customer's personnel
- > Cost-effective









// MIXING AND WEIGHING SECTION



// DUST COLLECTION SYSTEM

ASSEMBLY

ARE YOU STILL INSTALLING OR ALREADY MIXING?

The plant can be set up and dismantled within a very short time; all sections of this plant are already completely internally pre-wired and pre-piped, which greatly facilitates handling on site.

Assembling a mobile asphalt mixing plant involves the very brief use of cranes, i.e. two 60 t cranes are required on site for maximally three days, whether you are setting up the mixing tower, the filler silos, the storage silo if appropriate, the stack and the exhaust lines, but also the various pipework.

This economic aspect is a very good reason to opt for this installation model. Thanks to the ingenious constructive concept and the pre-wired units, it will not take long at all for the customer to be ready for production again following relocation.

Positioning via hydraulic cylinders is possible for the mixing section.

The time frame from delivery through to commissioning the plant is only approx. two weeks.



