NISBAU
MOBILE CONCRETE PLANTS

Mobile concrete plants and systems engineering

Made in Germany
www.nisbau.de

NISBAU
MOBILE CONCRETE PLANTS

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About us

NISBAU - Compay
We, the NISBAU Ltd. are a family-run enterprise, which specialized in the production and development of fully mobile concrete batching plants. Thanks to the long experience as manufacturers our unique products are of international standards in quality and progressiveness.
As an enterprise with German profile we‘ve set the goal to bring our customized products onto the world market and to satisfy customer‘s requests in every respect.

Our concept is confirmed sequentially by positive customer feedback, because satisfied customers are both indicator and evidence of good work.

NISBAU - Euromix
As the brand label of our company, we see in the series Euromix more than just a product and grant highest priority to their research and development. Thus consolidated expertise, technical know-how and an innovative concept show in our concrete batching plants.
Euromix plants are designed for maximum mobility. The resultant mobile potential is maximally used without capacity loss. Our plants thus offer an efficient way for both mobile and stationary operation for the production of quality concrete.

NISBAU - Quality
We do not compromise in the development, production and manufacturing of our products, because quality is our top priority. Close customer contact, the associated feedback and strictest quality controls help us to optimize our systems continuously and to fulfill the high requirements all of our customers.

NISBAU - Customer Service
We take care - worldwide!
From the first inquiry to the configuration and start-up of the Euromix concrete batching plant for each customer a contact person and individually customed advice is provided. This enables us to deal with special customer‘s requests intensively and to implement those as quickly as possible.
Even after the successful set-up of the plant by our skilled personnel, our cooperation and service do not end. We impart the required expertise for a smooth independent and efficient use for the manufacture of high quality concrete and are glad to help at questions any time.

We move concrete. Euromix 100.

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Mobility

EUROMIX 100 is a compact and efficient concrete batching plant. Its fully mobile character is in no way inferior to a stationary plant. The application varies from ready-mix concrete plants on major construction sites to concrete block works. Thanks to its extremely robust construction it is designed for frequent moving and neither requires digging a pit nor the complex filling of foundations.

The necessary cables are factory-laid and the practical plug-ins enable a simple assembly and dismantling within a few days (depending on the number, design and capacity of the cement silos). In order to not have to be dependent on external power supply works, EUROMIX 100 can optionally be equipped with a Caterpillar generator (on board). The resulting flexible applicability in areas difficult to access ranges from mountain regions to deserts and islands.

Transport

The transport of EUROMIX 100 is performed in two units. The first unit consists of the aggregate or bunker storage systems, the second unit carries the mixer. These two components equipped with air-suspended chassis, enable the transport on only two truck trailers.

The units are designed as semitrailers, have German vehicle registrations and are certified TÜV. Our elements do not require permission neither for heavy nor for special shipments and can even operate without a state approval of operation within the European Union. With maximum mobility does Euromix 100 work as a reliable work machine which is ideal for the production of quality concrete.

With this premise, we offer transportation on all traffic routes. On land, ship or on the railway system- any option is open to you.

The points above result in significant savings in transport and resettlement costs as well as in the assembling and commissioning. The single-row aggregate storages, which can be filled over a one-sided ramp, guarantee a particularly fast assembly and dismantling of the entire plant.

Produce your concrete to the desired time, in the desired quantity at the desired place. This environmentally friendly JIT (Just-in-time)- production is in the sense of today's climate change and climate protection.

You enjoy further advantages with our product in the work surface. On just 300 m the entire plant draws highest capacity. With our product, you can efficiently produce quality concrete even in difficult places, such as traffic junctions, inner cities and ports, which shows another indication of the versatility of our system. For the maritime regions, corrosive elements can be galvanized according to DIN C5/M, in order to prevent costly repairs caused by the proximity to saltwater.

Inovation

The sturdy steel construction guarantees EUROMIX 100 both longevity and adaptability to any environment. Despite its high technological equipment with the twin-shaft compulsory mixer, moisture probes, PLC control, fully automatic lubrication system for the mixer and various EU safety devices, EUROMIX 100 is easy to use and operate. Appropriate platforms, balconies and stair railings provide safe access to the individual components of the plant. Several maintenance openings and accesses e.g. on the mixer are of great advantage for the maintenance. After a detailed training by the NISBAU support team the PLC control, NISBAU software, computer and the operator program are also easy to use.

During the concrete production, the requirements of the recipe according to standard EN 206 are kept. The output of EUROMIX 100 is about 100 m /h, but varies with the aggregates and general conditions. Our fully mobile concrete batching plant provides maximum efficiency for construction sites from 6000 m volume of production. To determine the accuracy of all recipe components most profitably, EUROMIX 100 has electromechanical balances and for each bunker two independent dosing units, which regulate the flow velocity of the aggregate. Apart from these measuring accuracies our twin-shaft compulsory mixer produces concrete, which due to the equal distribution of its components shows highest homogeneity and quality.

Technical specifications

Characteristics	Euromix 100
Theoretical output	100 m³/h
Output hardened concrete of the mixer/charge	2.25 m³
Total content of bunker (Standard plant with 4 boxes)	80 m³
Transport dimensions bunker unit (L x W x H)	~ 13.6 x 2.5 x 4.0 m
Transport weight bunker unit	~ 20.000 - 22.000 kg
Transport dimensions mixer (L x W x H)	~ 13.5 x 2.5 x 4.0 m
Transport weight mixer	~ 20.000 - 22.000 kg
Total work space	~ 30 x 10 m
Total work height	~ 8.5 m
Aggregate scale	5.000 kg
Cement scale	1.000 kg
Additive scale	20 kg
Water scale	750 kg
Water supply	1200 l/min
Integrated reservoir	5.000 l
Max. number of cement silos	6 Stück
Connection power	150 kW
Integrated current generator	250 kVA

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Twin-shaft compulsory mixer

The twin-shaft mixer is characterized by its extremely robust steel construction. The stiffened frame of the tank eliminates the risk of deformation during the full load operation and guarantees the correct planarity of the shafts' seals.

Mixing elements
The mixer tank is lined with Ni-Hard Cast Iron of 530HB minimum hardness. The mixing arms, with a low profile to avoid material build up, are made in spheroidal cast iron.
The mixing blades are made of Ni-Hard Cast Iron and are of the same hardness as the mixer tank. The large number of blades, their position and their orientation as well as the rolling and circulation of the material guarantee the right mixing effects. Maintenance and exchange work can be done quickly and easily by individual screws.

Shaft seals
The patented modular support is made of two separate housings. The bearing is lubricated in a long lasting oil bath. The seal, realised with the exclusive system of the counter-rotating disks, is lubricated with liquid grease. The grease is given by the automatic pump through a sequential distributor. It dispenses uniformly the actual necessary quantity of grease (0.08 kg/h) and guarantees a low grease consumption together with a low contamination of the mixing.

Gearboxes
The gearboxes of the mixing group are of epicyclical type. The first reduction is carried out by a pulley transmission equipped with a constant-velocity universal joint to keep the shafts syncronised. The low input speed to the gearboxes allows the lubrication oil to work at low thermal load.

The connection between the gearbox and the tank is made with the exclusive bell housing. The design and functionality provide stability and additionally simplify the assembly and maintenance of the bearings and seals.

Hydraulic power pack
The closing of the door is guaranteed by the pressure sensor included in the hydraulic circuit. In case of failure or blackout, a manual pump can be operated for the emergency discharge.

Alarm box
For such an important element like the twin-shaft mixer, an alarm system is a logical consequence. For this reason, the mixer is equipped with several sensors: thermal sensors for the motors and for the gearboxes, level gauges for the oil of the gearboxes and for the hydraulic power pack. Filling levels can be operated by pressure sensors in the lubrication system.
Upon request, the Black Box can be supplied, an electronic system that records type, number and duration of possible anomalies and alarms during the operation of the mixer.

Wir move concrete. Euromix Dynamik.

NISBAU twin-shaft compulsory mixer
The proven twin-shaft compulsory mixer is the heart of every NISBAU concrete batching plant. It achieves a constantly high mixture homogeneity with every recipe in very short mixing time. Its developped and solid design keeps the operating costs low and simultaneously provides high availability. Hundreds of NISBAU mixers have been reliably in service for years. Every day.

Set-up and dismantling on one day
The mobile concrete batching plant Euromix Dynamik is built on a trailer chassis and can be transported in one unit (transport dimensions LxWxH: 13.60 x 2.50 x 4.00 m). This construction method guarantees both stability and mobility, even after frequent changes of location. The complete plant is factory pre-installed and wired, with the interface being equipped with convenient plug connections. Since the plant is set up without foundation, assembly and dismantling are possible on one day each.

Ideal for large sites
NISBAU is the specialist for construction products in high power range, e.g. concrete road construction, airport projects, dams, major projects in channel construction, etc. NISBAU plants provide accurately to recipe and with each mixture a reliable mixture homogeneity, which is particularly important with the delivery into open trucks, because an incorrect load could not be corrected anymore. You can rely on the high operational safety of NISBAU concrete batching plants.

No compromises
With convertible products the requirement of the mobility often ist at the expense of maintainability and accessibility in daily operation. The purpose of the NISBAU concrete batching plant however, is the economical and reliable production of concrete. Euromix Dynamik is therefore designed for mobility without compromises.

An inexpensive solution even in stationary operation
Euromix Dynamik can also be operated as a stationary plant. Compared to conventional plant solutions however, attractive savings in investment costs are made. If the once selected location after some years should prove to be unsuitable, a change is easy.

Flexibility
Euromix Dynamik is an open system despite standardisation. Storage and dosage of the aggregates can be customized individually. For the transport of the aggregates options with climbing conveyor or elevator are available. The control permits the integration of customer's requests.

NISBAU plants are unique, because NISBAU as independent and innovative enterprise with own production is focused on high quality and development.

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Technical specifications

Merkmale	Euromix Dynamik
Theoretical output	60 m³/h
Output hardened concrete of the mixer/ charge	1,25 m³
Total content of bunker (Standard plant with 4 boxes)	50 m³
Transport dimensions mixer (L x W x H)	~ 13,5 x 2,5 x 4,0 m
Transport weight mixer	ca. 28.000 kg
Total work space	~ 18 x 14 m
Total work height	~ 8,5 m
Aggregate scale	3.500 kg
Cement scale	800 kg
Additive scale	20 kg
Water scale	400 kg
Water supply	800 l/min
Integrated reservoir	3700 l
Max. number of cement silos	6 Stück
Connection power	110 kW
Integrated current generator	150 kVA

NISBAU twin-shaft compulsory mixer

The NISBAU twin-shaft compulsory mixer is the heart of every Euromix concrete batching plant. It is used in Euromix Dynamik. For its generous capacity per mixture, up to 1.25 m compacted concrete can be produced. This in turn is almost completely discharged by a pneumatic door at the outlet. The entire interior of the mixer is equipped with Hartox 500- plates, which can be easily exchanged after many years of operation. A fully automatic lubrication system by Lincoln additionally provides a smooth operation of the mixer arms and mixer blades. Apart from that, safety and limit switches, water connections, electrical wiring and a water-ring distributor belong to its serial equipment.

The filling volume of the NISBAU twin-shaft mixer amounts to 2.2 m . The rated output of the electric motor has 2 x 22 kW and achieves after a short mixing time of only 30 seconds 95% of the maximum mixture. The constantly good mixture homogeneity guarantees the essential characteristics of quality concrete. Its characteristics are not only high concrete compressive strength, but also uniform concrete consistency. In comparison to other mixing methods, with the same concrete quality even an effective cement saving up to 8% is proven.

Intensive mixing movement
The mixing arms made of spheroidal cast iron with 500 mm thickness are helically attached on a hexagon shaft. The interaction of the axial and radial motion directions cause their controlled three-dimensional movement. This patented design enables extremely short mixing times at high mixing quality and additionally saves energy.

Turbulent mixing zones
The special mix kinematics of the NISBAU twin-shaft compulsory mixer, with which the two mixing circles interlock, causes a highly turbulent zone which results in maximum mix effect. The energy input is optimally converted into mixing capacity. At the same time a very intensive cement exposure is permitted.

Small wear zones
By the slope of the mixture between the shafts only about 30% of a mixer turn affect the trough ground. Thus, the wear of the floor tiles, which are identical in construction and can be easily exchanged, are much smaller than e.g.with plate or planet mixers.

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Mobile feeding conveyor belt

With Euromix feeding conveyor belts, we offer you a low-cost option to produce quality concrete quickly and without major preparatory work. It‘s an alternative to save time and money, because it replaces both the digging of pits and ramp construction, which in any case would be necessary to access the aggregate storage. In today’s change savings in Diesel fuel and time are an important aspect in any business. Mobile feeding conveyor belts prevent high fuel costs for the wheel loader driving onto ramps. Since elaborate foundations are not required, the set-up can take place directly.

All aggregates for the concrete production such as sand and gravel are easily transported to the aggregate storage on the conveyor belt. Both the wheel loader driver as well as the mixer craftsman can operate the conveyor full-automatically by a remote.

The feed hopper has a volume of 7 m and is equipped with an electromechanical vibration oscillator. This ensures even damp and therefore sticking material to entirely fill up onto the 3-lines conveyor from the feed hopper. Euromix conveyors with its 6-point support and fishbone profile are designed for optimal transport of the material.

With measures of 800 x 17200 mm it carries the material to a ring distributor which can serve any desired aggregate storage.

The conveyor belt is driven by an electric motor with a rated output of 11 kW and 1500 rpm, which ensures a smooth conveyance. Besides, the transmission is equipped with a return stop which guarantees a one-sided flow of the material. The feeding system is fully mobile, has a German vehicle registration and is certified TÜV (approval by German Boiler Code) and CE. Just as Euromix concrete batching plants, neither heavy nor special permits are necessary for the supply.

Bunker Volume: 7m
Feeding belt conveyor dimensions: 800x17200 mm
Motor-reduction: 11 kW, 1500 rqm, i:12

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Vertical cement silos

With our NISBAU silos we create a simple and efficient way to store cement and to optimize it for your production. With the building method we offer three types, which feature different capacities depending on the type. Each of our silos is determined by compactness and minimized transportation costs.
The structure is composed as follows:
All designs have a 4-point support and prefabricated pipings for the filling of the store.
The cement filling unit with integrated WAM filtration system ensures the suppression of any dust during the filling of the silos.
The filtering unit is regularly equipped with pneumatic and vibration systems, thus prevents the accumulation of cement in the filter system.
With the start-up, air at 1,5 bar pressure is pumped into the store over an electric motor, in order to loosen the material and to carry it easily over the screw conveyors to the mixer.
Outlet valves which are connected to the screw conveyors have a manual device.
Security is provided by the pressure valves as well as the integrated measuring sensors, which prevent the silos to overflow and at the same time adjust their content.
Additionally, Two sensors with optical LED signal lights are attached to the silos which ensure a visualization of the filling conditions. A fully galvanized stair railing with safety railing and safety corpus is likewise present for each kind of maintenance work.

Construction types overview

Modular construction
The modularly panelled Silos are available in the diameters Ø3500, Ø5000, Ø6150, Ø7600, Ø9500 mm, and their capacities range from 50 to 1000 m . The single panels of the silos, whose couplings are well sealed, are assembled to the desired size and width.

Monolithic construction
The monolithic silos, available in the diameters Ø2500 and Ø3000 mm are specifically designed for small small cement storage in the series. They cover a volume from 23 to 85 m . These silos can also be transported on usual trucks without problems and can be quickly erected with the help of experienced staff.

Telescopic construction
The capacity of the Ø2500 mm telescopic silos vary from 29 to 68 m . For the transport the cement silos are interlocked telescopically and are put into one another for the set-up.

Screw conveyors

Our NISBAU screw conveyors are designed for a wide range of applications:

- For the dosage and transport of cement and cement-related products
- For the filling of concrete batching plants
- As cold filler in asphalt mixing plants as well as in processing plants for dry construction materials

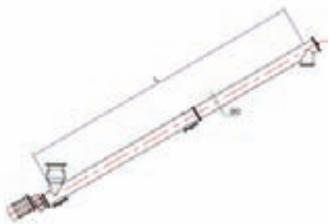
Composition

Our screw conveyors usually consist of a steel housing, which on request can be galvanized.
The housing consists of a tube, for one or more flanged components and includes a spiral tube sheet, which turns around the material and carries it from the input to the output side according to the principle of the Archimedean screw.

An electric motor with coupled reduction gear is used for the drive. Alternatively, the production is possible in conjunction with a direct, v-belt or chain drive.
Our screw conveyors include an intermediate and final storage, and therefore ensure a precise alignment of the spiral blade, which prevents unbalance.
With this measure disturbing vibrations and expensive wear are prevented.

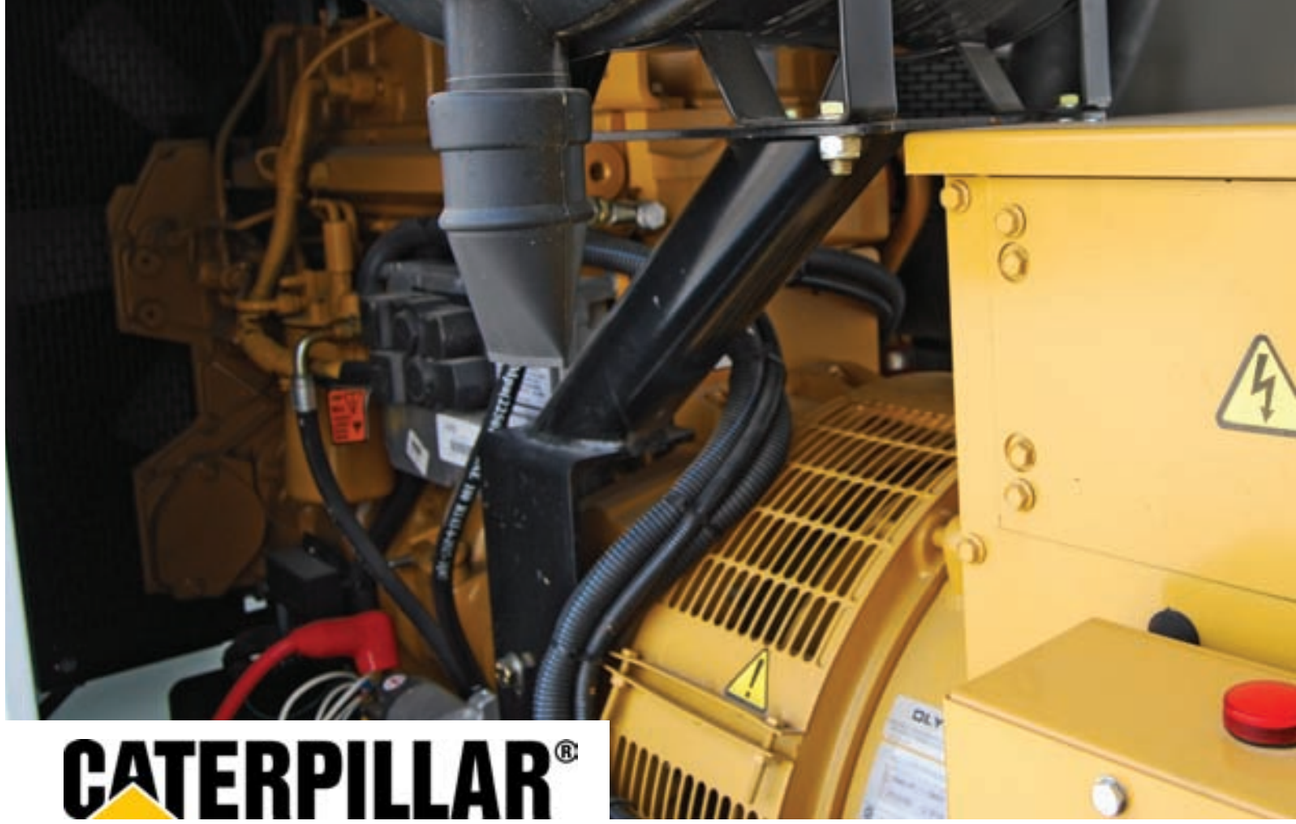
Apart from that, there are inspection holes on the intermediate and input side, by which the easy access for maintenance, cleaning and repair work is guaranteed.
Additionally, the seals on storage and transmission prevent the leaking of material from the screw conveyor tube.

ØD	KG.
Ø114	50+ (18xL)
Ø139	65+ (30xL)
Ø168	135+ (35xL)
Ø193	150+ (39xL)
Ø219	190+ (45xL)
Ø273	265+ (52xL)
Ø323	315+ (70xL)



Technical specifications

	Euromix 100	Euromix Dynamik
Tube diameter	273 mm	219 mm
Conveyor capability	120 t/h	90 t/h
Output	7,5 kW	5,5 kW
Gradient angle	max. 30°	max. 30°



Generators

Each NISBAU concrete batching plant is equipped with its own current generator. Hereby we ensure a smooth production flow to each business partner, irrespective of location and local conditions.

Our generators by Caterpillar are driven by a Perkins power engine. All integrated generator types are already provided with the necessary connections and devices. Furthermore, our generators can be controlled via PLC system and enable the change-over from trafo to generator power and reverse. Choose your location and we will convert your choice.

Installed types- overview

	Euromix Dynamik	Euromix 100
Classification	GEP 150	GEP 250-2
Prime power	135 KVA	230 KVA
Standby power	150 KVA	250 KVA
Diesel engine	Perkins 1006TAG	Perkins 1306C-E87TAG4

PLC system

The Compact Telemechanique is the basis for the control system, which operates fully automatic with the PLC/ PC system and works together with the specially developped software. The programmable logic control system is characterized by the latest innovations in control management. This system works full-automatically and operates synchronously with a computer. All systems are conform with the latest German regulations and CE marked. The mobile concrete batching plant can be controlled by a powerful PC system, which is supplied and which contains all necessary components such as display and printer. The program makes each desired mixture possible, can archive and recall prescriptions when necessary. Customers, drivers, concrete mixer vehicles and projects are secured and converted directly into delivery notes. With our PLC system you can control and overlook all components of the production process. The Logic pro IT, which visualizes and controls all elements of the plant with graphic applications, guarantees an easy handling.

The program also provides statistics on the entire production. Thus, mixing capacity, energy and aggregate consumption can be tracked back up to three years. The control system is run by the PLC system. Algorithms guarantee precise measurement during the dosage. All parameters and prescriptions can be adjusted individually by the mixture craftsman. The whole control system is certified PTB and specifically tailored and adapted to Euromix Dynamik.

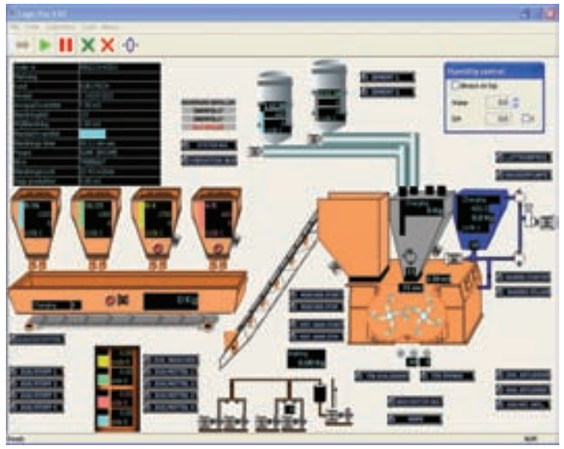
If necessary, the source of the energy supply can be changed. A dedicated device enables the plants to switch from the generator to the transformer station and vice versa.

The software provided is divided into two components: In the above-mentioned Logic pro IT, which is responsible for the control and graphics of the individual production processes, and into the Logic pro manager. With this program you manage everything about the organization, from statistics over prescriptions to the administration of projects and delivery notes. Even other programs, like individual accounting programs are open to you. Maintenance and troubleshooting are included in our service. A remote maintenance and remote diagnostics of the entire system are accomplished on the basis of input processes.

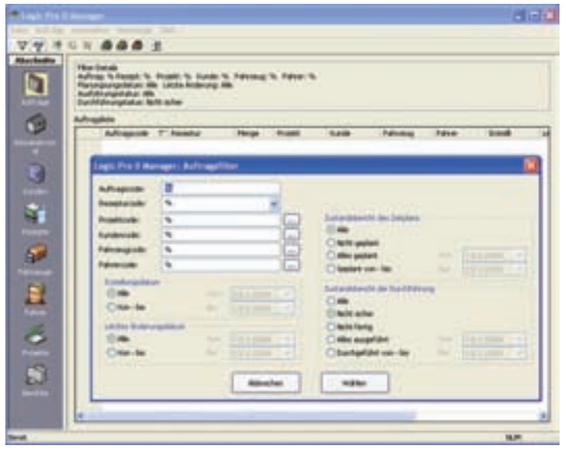
According to an appropriate evaluation of these inputs, support can be provided and problems can be solved quickly. This service only requires an existing internet connection.

-Upgrade of old systems-
As a special service we offer a general overhaul of old plants. You are advised by our staff on site with expert solutions and/or alternatives. This overhaul of old plants represents an economical option for all concrete producers who do not need a new plant, but simply an efficient modernization of the existing system.

Logic Pro RT



Logic Pro Manager



Service & Support

We take care- worldwide!
After the purchase of a Euromix plant, we do not leave you alone, because apart from the intensive consultation before and during the acquisition of a concrete batching plant, the after-sales-service on-site also belongs to our worldwide customer service. For this, we will personally go to your site with our support team, take our time to professionally train your workers for several days for a smooth production process. After all, our principle is not just to sell a product, but also to impart the necessary expertise for an independent production of quality concrete.

During our stay, in addition to the demonstration of the correct and efficient set-up and dismantling of the plant, errors are also simulated and corrected. Thus you will be prepared for all eventualities and your team knows the right approach in every situation. This service enables any company to produce qualitative ready-mix concrete quickly and easily.

Since it is also in our interest to minimize the costs of your concrete production, we deliver a spare and wear part set to each plant on demand. Since this warehouse can be used immediately if required, the production does not have to be interrupted in any case.
As an additional service we offer the possibility to quickly resolve problems using a remote diagnosis with our engineers and developpers. This remote maintenance only requires an internet connection.

And despite everything, if you should be at a loss...
...we will be happy to help you! Our service includes the world-wide dispatch of wear and spare parts within shortest time. For everything else, we are at your disposal with our entire team.

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