



Automatic Cleaning Systems for the concrete industry







WALTER cleaning systems – simple clean solutions



We from WALTER, located in Ochsenbach, in the district of Ludwigsburg, are well known to the concrete industry for high-quality cleaning systems for more than 30 years now. We are experts for all types of cleaning processes which our customers in the sectors ready-mixed concrete, concrete transportation as well as precast and stone production are working with.

Already in the second generation, our family-run company is operated by Dipl.-Ing. (Mechanical Engineering) Marc Ingelfinger and his sister Dipl.-Oec. Julia Ingelfinger. Together with our team of more than 60 staff members, WALTER produces robust and efficient cleaning systems!

Constant development and new technologies as well as a high degree of vertical integration make it possible to realize concepts for standard and customer-specific solutions. On this basis, individual customer requirements lead us to create ressource-friendly, sustainable and durable solutions. The reliable nationwide service with service technicians throughout Germany as well as highly-efficient partners abroad guarantee the necessary availability of the cleaning technology. A large number of small, mid-size and large customers in the concrete industry rely on this fact.

Solutions for ready-mixed concrete plants



>> Automatic mixer cleaning page 4-9

>> Inside cleaning for truck mixer drums page 10-11

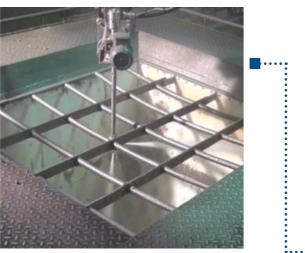




WALTER worldwide

- Installations in more than 60 countries
- more than 1200 installed systems
- more than 40 service partners worldwide

Solutions for the concrete precast industry



>> Distributor cleaning system page 15

We speak your language.

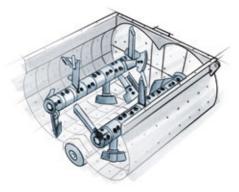
■ DE "Rufen Sie uns an!"
■ EN "Give us a call!"
■ ES "Llámenos!"
■ FR "Арреlez-nous!"
■ RU "Позвоните нам!"

>> Bucket cleaning system page 14



Solutions for ready-mixed concrete plants for all mixer types

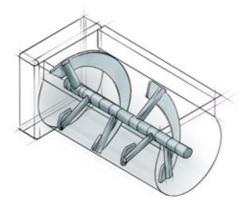




twin-shaft mixer



planetary mixer/pan mixer



single-shaft mixer

- Increased production capacity Cleaning time is reduced by up to 90%
- Improved concrete quality
- Lower costs for maintenance and repair of the concrete mixers
- Higher availability of the concrete mixer



twin-shaft mixer before and after cleaning

Shorter cleaning times - savings in personnel costs

- Active prevention of accidents NO risk of accidents - improved ergonomics
- Quick, safe and simple cleaning Easy operation, automatic cleaning 5-15 min depending on the mixer type. Also applicable as interim cleaning for special types of concrete

MADE IN GERMANY

The investment in a WALTER cleaning system repays itself in less than 24 months!



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"The installation of the mixer cleaning system was quick and simple. The mixing plant was ready for operation again after less then 1 day. Since then we benefit from the shorter cleaning times and the mixer just simply gets cleaner."

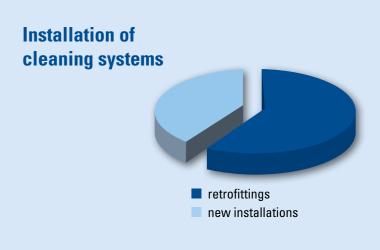


"The working time of our mixing engineers is limited to 10 hours per day. Thanks to the WALTER cleaning system we can now use more of this time for mixing and less for cleaning. For the manual after cleaning it takes us less than 5 minutes."



"Our WALTER cleaning system is cleaning the twin-shaft mixer since 1996. Now we have decided to retrofit our second mixer with the WALTER system. Thanks to the short cleaning time of 10 minutes we can now use the mixer more frequently at peak times."





"I'm responsible for the safety in our plants in southern Germany. What convinces me is that WALTER has a consistent safety concept which can be integrated into any mixing plant."

Your benefit from WALTER cleaning systems



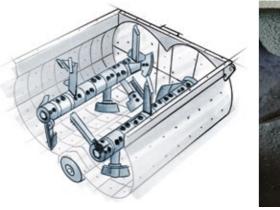
The automatic cleaning systems from WALTER offer solutions for all cleaning tasks in the concrete industry. With our system you **reduce** the **cleaning time** and thus **increase** your **profitability and productivity**.

The **robust construction** of our components, in particular of our cleaning head **RD3**, is designed to meet the requirements of the concrete industry. You invest in an instrument which is reliable and always ready for use.

The **WALTER cleaning system** is designed for **absolute safety**. The required performance level D can only be reached with our **safety system WALTER PLD**. With our system you increase the safety of your concrete mixing plant for new installations as well as for retrofittings and thus benefit from a clean safety and function interface to the partner plant.

Your mixing plant supervisors will come to appreciate the **higher safety at work** and the **improved working** conditions and will never want to operate a mixing plant again without a WALTER cleaning system.

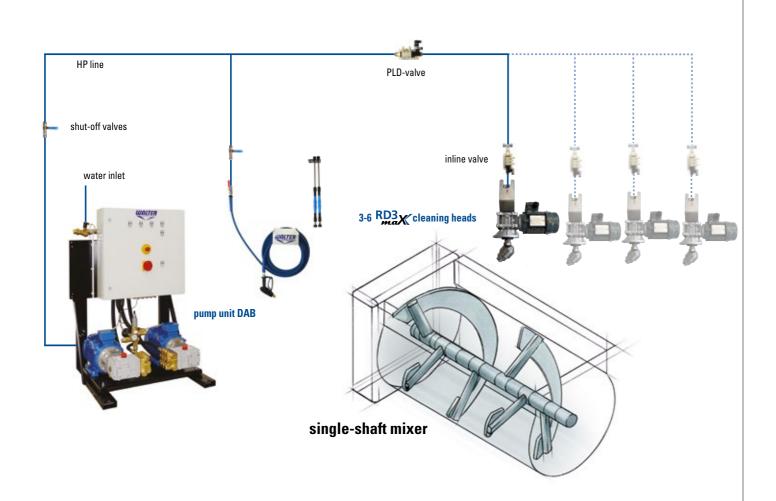
Installation examples





twin-shaft mixer before and after cleaning

Construction of WALTER cleaning system







pan mixer before and after cleaning





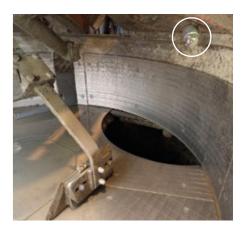
planetary mixer before and after cleaning











High-performance pump units



A2-B – for pan and planetary mixers

Technical data A2-B: Delivery capacity: 50 l/min Operating pressure: 110 bar Motor capacity: 11 kW



DAB – for twin and single shaft mixers double performance

Technical data DAB: Delivery capacity: 100 l/min Operating pressure: 110 bar Motor capacity: 2 x 11 kW

MB – **multi pump unit** Encased version: Also suitable for cleaning several mixers, buckets and distributors at the same time.

Technical data MB: Delivery capacity: 50-300 l/min Operating pressure: 110 bar Motor capacity: 11-66 kW can be heated for areas below zero Optional:

WALTER $\frac{RD3}{max}$ – 3D nozzle system

Designed for the concrete industry with well-thought-out self-cleaning





Increased impact due to technical further development

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New!

Technical data RD3 Cleaning capacity: Flow rate: Pressure range: Nozzle circulation time: 2.5 min

7-22 kW 30-100 l/min 30-400 bar

Simulation graphic

Automatic cleaning system for the inside of truck mixer drums

At a simple touch of a button, the WALTER truck mixer drum

residue out of the drum. The development of the system was

cleaning system (FMT) flushes fresh, not yet hardened concrete

Bundesministerium für Wirtschaft und Energie



sponsored by the German Ministry of Economic Affaires and Energy. If used on a daily basis, the mixer drums will remain clean and no concrete build-up will occur.



- Higher transport capacity Transport of fresh concrete rather than hardened build-up
- Lower operating costs Continuous reduction of the empty weight of the truck
- Extended life time of the drums Efficient and gentle cleaning no damage to the drum
- Higher availability of the vehicle Shorter cleaning times – reduction of personnel costs
- Active accident prevention NO MORE risks of work accidents - no manual cleaning from the inside of the drum needed anymore
- Quick, safe and simple cleaning Easy operation - automatic cleaning available with only a few simple steps. Also available as an interim cleaning cycle for special concrete mixtures
- Attractive working conditions Due to improved ergonomics and automization
- Government funding possible (country-specific)

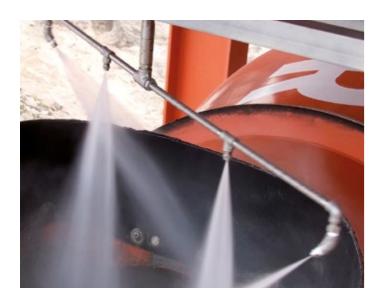






Cleaning system for truck mixer chute

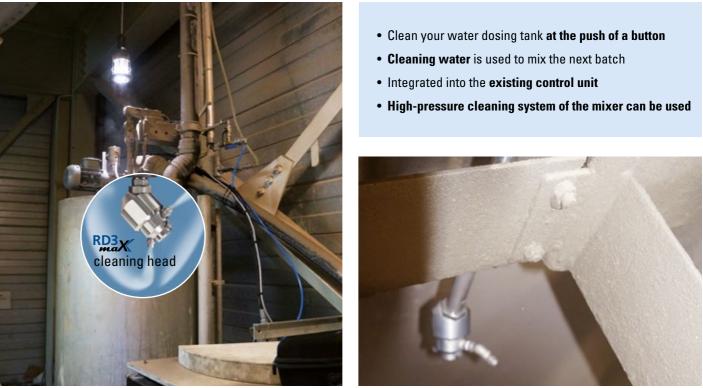






- Cleaning of the truck mixer chute in only 7 sec
- Improves work safety and ergonomics No need to climb the ladder anymore
- Very low water consumption (< 5 ltrs.)
- Cleaning starts at the touch of a button even by remote control if requested
- Existing pump system of the mixer cleaning system can be used





Automatic cleaning system for chute and water dosing tank







"The colleagues on site are extremely enthusiatic - the cleaning success is rated at 100 %. Finally, the drivers don't have to climb onto the truck mixer and thus the cleaning time has been reduced by over 90 %. And with the remote control the mixing foreman can easily start the cleaning from his office."

Solutions for the precast industry



Bucket cleaning system

suitable for all swivel buckets



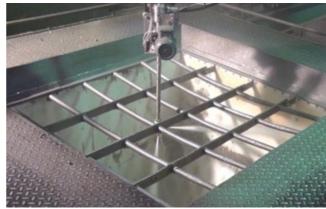
• Optimize production processes

- quicker colour / recipe changes
 cleaning intervals can be scheduled by the central electric control unit
- Reduce cleaning times 3-5 min per cleaning cycle (depending on product and type of equipment)
- Reduce cleaning costs e.g. by avoiding the employment of external cleaning personnel
- Reduce cleaning times 3-5 min per cleaning cycle (depending on product and type of equipment); cleaning intervals can be scheduled by the central electric control unit



Swivel bucket in cleaning position

- Increase production capacity Less interruptions for lengthy manual cleaning
- Improve product quality e.g. improvements for recipe changes
- Active accident protection improve work safety - Less personnel in danger zones
- Integrated into existing safety circuits



Concrete distributor during cleaning





Distributor cleaning system

suitable for all concrete distributors, flap buckets, transfer silos, transport and skip hoists





Our services

- High system availability due to 24-hour-service
- All wear parts are available "ex service vehicle"
- Replacement units for a temporary solution are permanently on stock
- Calculable operating costs due to flat rate maintenance charge
- Maintenance contracts are cancellable at any time
- · Low travel flat rate due to customer-friendly route planning
- Automatic schedule monitoring
- Complete maintenance and safety documentation
- Multilingual and constantly trained service personnel
- Financing service





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