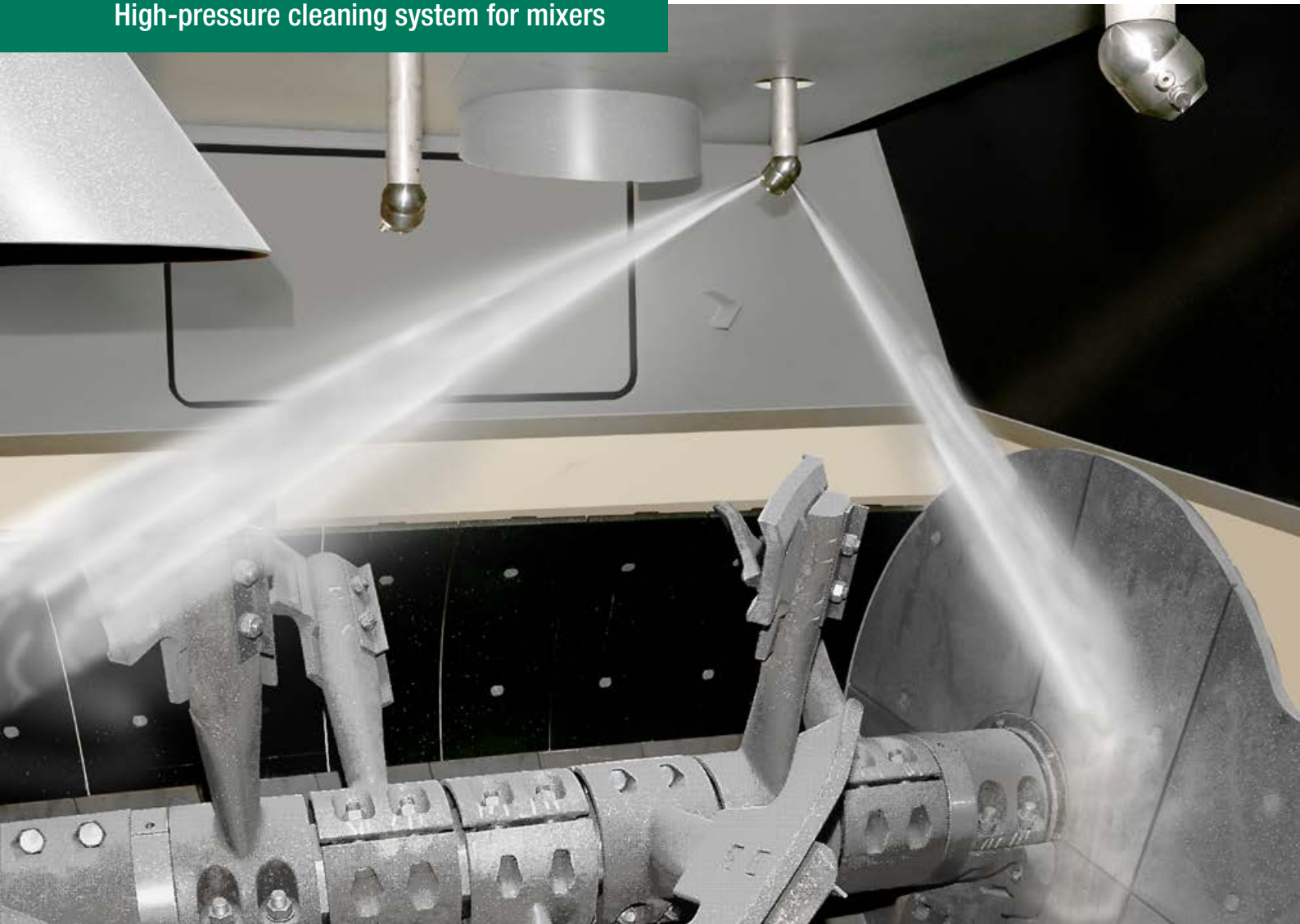


HighEfficient Cleaning System

High-pressure cleaning system for mixers



Delivery rate	100 l/min.
Water pressure	100 bar
Pump performance	2 x 11 kW



RECORD BREAKING ENGINEERING

Stetter HighEfficient Cleaning System

Thorough cleaning for each mixer

**Increases batching plant productivity and reliability:
The automatic high-pressure cleaning system from Stetter.**

Task

A consistently high quality supply of fresh concrete is what ensures customers' satisfaction and is the basis for the economic success of a batching plant. The better the production conditions, the easier and more reliable the production of quality concrete. The operators must therefore pay special attention to the cleaning and maintenance of the mixer, ensuring it is performed regularly and carefully. Manual cleaning takes up a lot of employee time and is a physical burden for the employee responsible. These personnel costs are not offset by sales due to the downtime. So often some of the useful intermediate cleaning is missed during the working day.

Solution

The automatic HighEfficient Cleaning System from Stetter cleans each mixer thoroughly within 20 minutes (for a full clean), using much less water than manual cleaning. In comparison to cleaning manually, the personnel costs are significantly decreased, the downtime is reduced and the employees are relieved of performing a physically difficult task as often. Additionally, the consistently high quality cleaning prevents premature wear that may result from insufficient cleaning and ensures continued system functionality. Regular intermediate cleaning (duration: 10 min.) avoids deposit build-up, ensures consistently good mixing results and reduces the cost for the mixer cleaning at the end of the working day. The HighEfficient Cleaning System by Stetter: Safer and more efficient for every mixing plant.



Twin-shaft mixer after the mixing process



Twin-shaft mixer after the automatic cleaning with the Stetter HighEfficient Cleaning System

Mixer cleaning	Automatic Stetter HighEfficient Cleaning System	Manual Spray lance / high-pressure cleaner
Mixer downtime	20 min. (full cleaning)	approx. 45 min.
Personnel time used	approx. 3 min.	approx. 45 min.
Cleaning result	very good	variable
Working safety	very high	restricted
Water consumption	low	high

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Technology

The components of the HighEfficient Cleaning System by Stetter:

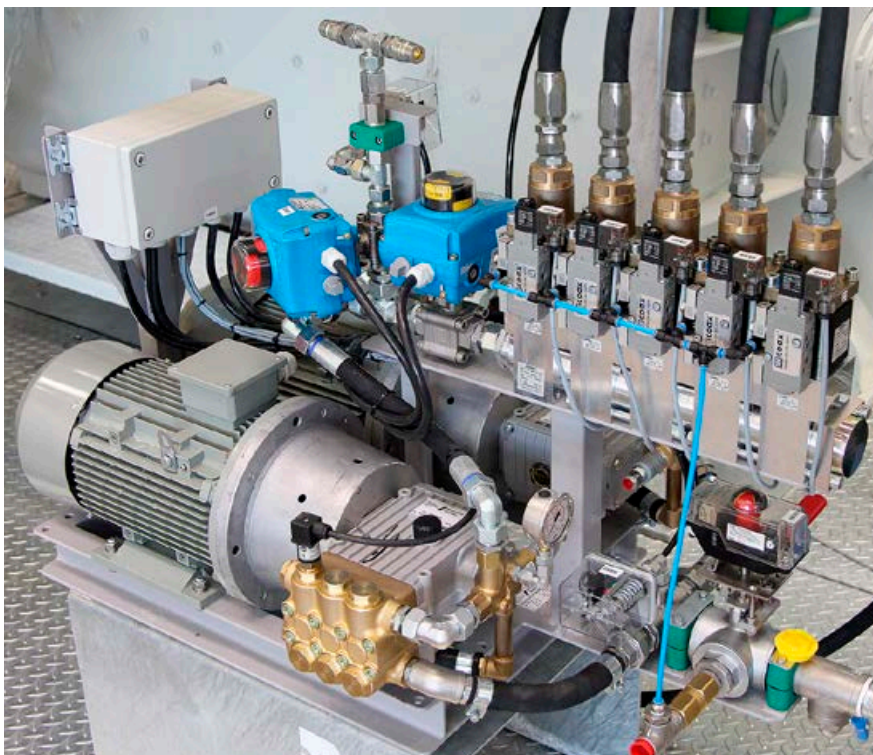
- 4 to 5 cleaning heads in the mixer
- High-pressure pump unit
- Control

Cleaning heads

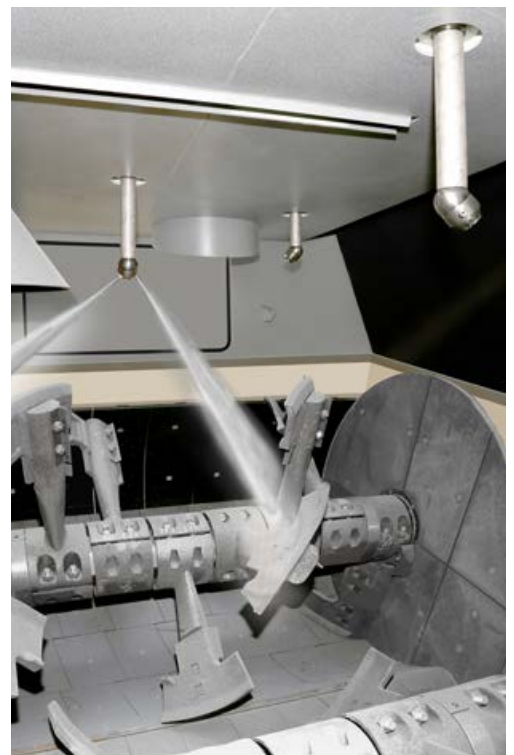
Depending on the size of the mixer, the HighEfficient Cleaning System from Stetter has 4 to 5 cleaning heads arranged in a set pattern embedded in the cover. The 3D cleaning heads are used sequentially during the cleaning cycle. This provides each twin jet nozzle head with full power from the double pump unit. The combination of high water pressure (100 bar) at 100 l/min removes the persistent concrete and cement residues, achieving outstanding results. The splash zone within the mixer can be adjusted to, for example, prevent water gaining entry into the cement outlet. In addition to the rotation of the cleaning heads, the end of each head also rotates with its two jet nozzles, ensuring an optimal spherical surface coverage.

High-pressure pump unit

The high-pressure pump unit, a double pump system has a power of 2 x 11 kW. Each pump unit is equipped with a pressure monitor in order to prevent the unit from starting without water (dry-run protection). When in operation, the system provides a constant flow of water (100 l/min) with a 100 bar water pressure. The high-pressure pump unit has a separate coax valve for each cleaning head and an additional pipeline outlet to which a hand lance can be connected for manual cleaning work. The supply line to the pump units is equipped with a dirt filter and a manual 3-way valve to drain the pipe for frost protection.



Powerful and efficient: the high-pressure pump unit



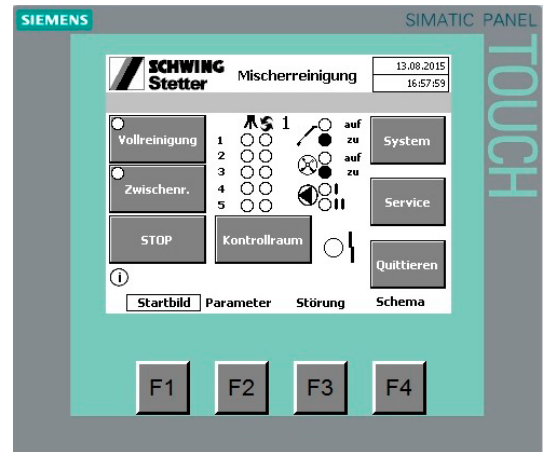
Clean: Cleaning heads in use

Stetter HighEfficient Cleaning System

The high-pressure cleaning system for mixers

Control

The HighEfficient Cleaning System is intuitive and easily operated with the clear operating structure of the controls. The desired cleaning program (full or intermediate cleaning) can be selected and started via the large-format touchscreen display. Duration and intensity of cleaning can be adapted according to the requirements of the mixing plant. The display also provides graphic information about the various stages of the mixer cleaning and allows quick retrieval of system data and selected settings allowing real-time alterations to the parameters. The cleaning control can be integrated into existing mixing plant controls from Stetter or other providers, just as easily as the self-sustaining control design.



Advantages

- more productive operating time due to shorter cleaning times
- cleaner mixer for higher concrete quality and less wear
- better cleaning results with less time invested
- thorough intermediate cleaning in less time
- more occupational safety and operating comfort
- more environmental protection through reduced water consumption
- high flexibility: expandable to monorail bucket system and mixer outlet hopper, if needed
- retrofittable for mixers of all manufacturers (regardless of batching plant and control)
- simple integration into existing control systems

Technical data

Drive	<ul style="list-style-type: none"> ■ Double pump unit ■ 2 x 11 kW drive power ■ 2 x 50 l/min. Pumping power (100 l/min. delivery rate) 	<ul style="list-style-type: none"> ■ 100 bar water pressure ■ Water supply of the cleaning heads via separate valves
Cleaning technology	<ul style="list-style-type: none"> ■ 4 or 5 cleaning heads with 2 full jet nozzles each ■ each cleaning head driven via separate drive motor with 14 U/min. 	<ul style="list-style-type: none"> ■ Splash zone of the cleaning heads is variable: optionally 240° or 270°
Program types	<ul style="list-style-type: none"> ■ automatic full cleaning (20 min.; preset at factory, changeable) ■ manual cleaning (spray lances operation) 	<ul style="list-style-type: none"> ■ automatic partial cleaning (10 min.; preset at factory, changeable)
Additional equipment	<ul style="list-style-type: none"> ■ Water supply line to double pump unit with valves for drainage (frost protection) ■ Compressed air connection for the frost emptying 	<ul style="list-style-type: none"> ■ Hand lance for additional manual cleaning work ■ automatic regreasing of the mixing shaft seals after cleaning (option)

Stetter batching plants. For reliable and efficient concrete production.



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