

# VERTICAL CONCRETE MIXING PLANTS

V-AK | V-AM | V-AG



## SCHWING-STETTER MOVES CONCRETE. **WORLDWIDE.**

Wherever concrete is produced and moved is where you will find Schwing-Stetter machinery.

With plants in Germany, Austria, USA, Brazil, Russia, China and India as well as with more than 100 sales and service facilities, the group of companies is always close to the customer.

Our wide range of products with something for every application is what makes Schwing-Stetter the No. 1 system supplier for concrete machinery worldwide.



CONCRETE MIXING PLANTS



TRUCK MIXER



TRUCK-MOUNTED CONCRETE PUMPS



STATIONARY CONCRETE PUMPS



SEPARATE PLACING BOOMS



CONCRETE RECYCLING PLANTS

## STETTER'S VERTICAL CONCRETE MIXING PLANTS. THE STANDARD FOR QUALITY, PERFORMANCE AND EFFICIENCY.

Stetter vertical concrete mixing plants incorporate the know-how of more than 45 years' development, engineering, production and commissioning of concrete mixing plants. Constantly evolving technology as well as optimisation of the details has led to the high efficiency and reliability which characterise Stetter vertical plants today. The large complex mixing plants are configured by us to exactly meet your requirements. They consist of the main components material feeding, storage, batching and weighing components and mixing technique.

### THREE TYPE SERIES FOR YOUR NEEDS

Stetter vertical plants are based on three type series, which differ in size, storage of aggregates as well as in the mixer capacity. The output achieved is up to approx. 180 m<sup>3</sup>/h, or as twin tower up to approx. 260 m<sup>3</sup>/h. You decide on the suitable mixer system according to the required application.

According to the large variety of applications and the differing requirements of our customers, our vertical plants offer ample designs and variants, so that the mature modular system also makes economic individual solutions possible.

Stetter vertical plants are in operation all over the world and in all climate zones. The technologically required concrete temperatures are guaranteed under all conditions by heating and cooling systems which are integrated in the concrete production process.



## FEEDING, CONVEYANCE AND STORAGE.

To meet your requirements.



*The aggregate feed hopper can be supplied in different configurations, depending on the customer's requirements:*

- With part or entire "drive-over" facility
- Normal or low-height execution
- With wear plates or rubber lining
- Cover can be lowered either mechanically or hydraulically
- With one or two outlets
- Aggregates are fed-off via vibrating chutes or belt conveyor



*Feeding of aggregates in bunkers is done for instance with two power-adjusted vibrating chutes onto an inclined belt conveyor. Feed-off belt conveyors can also be employed instead of vibrating chutes. They ensure a constant utilisation of the belt conveyor's or bucket elevator's capacity.*



*Lifting of aggregates by belt conveyor: if enough space is available, smooth belts with a maximum inclination of 17° are used. The picture shows a steep belt conveyor with 26° inclination. The belt width is suited to the capacity. Belt covers are available in different executions.*



*Bucket elevators are designed according to the capacity requirements, whereas a two-shaft bucket elevator is provided as standard equipment. Buckets can be supplied in different executions. For high-capacity plants, a bucket width of up to 800 mm is provided. Upon request, a creep speed is offered for better maintenance and cleaning of buckets.*



*The S-type conveyors provide optimal operating safety, maximum running smoothness, more service life and, additionally, easy maintenance. This high-tech equipment is, however, of course also reflected in the price. Moreover, interior conveyors are also used.*



*The distributing chute is the most economic and cleanest solution for distribution of aggregates into the individual aggregate compartments. Silos with larger diameter are equipped with a distributing belt, which is either extractable or/and reversible – as required. The maintenance gangways are laid out according to the Regulations for the Prevention of Accidents (UVV).*



*Metering of the filling level is done with minimum/maximum probes. Upon request, ultrasonic devices or cameras are also installed for monitoring the filling level.*



*The large-dimensioned screw conveyor platform with ample space is available with or without housing.*



*Uncontrolled cement consumption is prevented by pneumatic gates.*



*Safety device against over and under-pressure in a compact and technically perfect construction for the cement silos. Thanks to its location it is easy to maintain. Vibrating filters are provided as standard equipment, other systems on request.*

## PRECISE WEIGHING AND BATCHING.

Trouble-free with Stetter technology.



*The weighing and batching technology is a quality-determining component of each concrete mixing plant. It goes without saying that the standard equipment comprises load cells and automatic material-in-air compensation.*

*All weighing systems are protected against wear and easy to maintain.*

*Functional hot-galvanised batching gates ensure fast and precise weighing of aggregates.*

*Belt conveyors are available for lightweight aggregates.*

*Optimal wear protection of the aggregate weighing container is provided by wear plates, or rubber or attachable rubber aprons.*



*A logical development in combination with recycling plants: hot-galvanized water weighing container for weighing of fresh water and residual concrete slurry water. The weighing system can be combined with a slurry water pressure pump. Water is then led into the mixer via spiral nozzles.*



*Where flowmeters or volumetric batching devices were used for batching of admixtures, Stetter nowadays installs weighing systems with fully automatic flushing. Size and number of compartments as required.*



*The moisture meter developed and produced by Stetter fully meets the requirements for ready-mix concrete. Moisture in sand is corrected automatically within split seconds.*



*The cement weighing system is equipped with load cells.*

- The inside of the weighing container is protected with durable sliding means.
- The standard equipment comprises six inlets (upon request up to nine) and a vibrator.
- If white cement is used, a second weighing system will be installed.
- The de-aerator provides optimal dust protection.
- Weighing systems with two mixers are equipped with a two-way distributor.

## STETTER PAN MIXERS AND TWIN-SHAFT MIXERS.

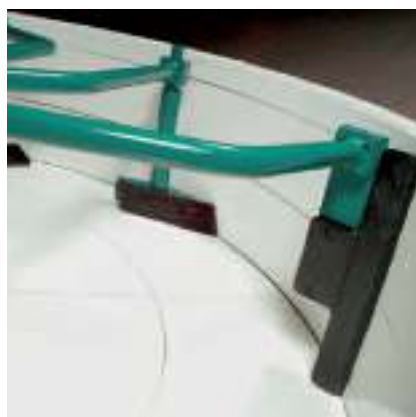
The guarantees for reliability and quality concrete.

### PAN MIXERS



Stetter pan mixers guarantee production of quality concrete in all slump ranges as they mix intensively, thanks to short mixing paths both horizontally and vertically. The result: homogenous concrete with short mixing times and low energy input. The spring-mounted mixing arms can be adjusted quickly and without difficulty and are protected against wear by polyurethane sleeves. Upon request, shovels made of synthetic material in conjunction with reinforced carbide for outer scrapers for particularly long lifetimes are available. The mixing trough is lined with exchangeable wear plates on the inner and outer wall as well as on the mixing trough bottom. As an option, the mixing trough bottom can either be lined with special chilled cast iron tiles or tiles made of ceramics.

The pan mixer can be equipped with up to three hydraulically actuated discharge gates which are driven by the mixer motor, designed either as a sliding gate or as a newly developed flap. The dustproof mixer cover can be fully opened for maintenance and cleaning.



*Inner and outer scraper support mixing and discharging effect.*



*The agitator achieves the highest concrete homogeneity and the most effective breakdown of cement paste.*



*Stetter pan mixer T 1500.*



## TWIN-SHAFT MIXERS



Twin-shaft mixers are perfectly suitable for the application in high-capacity ready-mix concrete plants, thanks to their high mixing intensity and low wear. Great robustness and reliability ensure cost-effective application. When using large grains, for instance as needed for dam construction, it outclasses other mixing systems by far. Its discharge behaviour is unmatched. For use as a mortar mixer, it will be supplied with pole-switchable motors.



*For plants equipped with two pan mixers, either individually attached or common hoppers as required by the customer could be installed. Details are agreed upon with the customer.*



*Hopper for transfer onto trucks or dumpers: the pneumatic slewable hopper is adapted to the required discharge heights in order to prevent large filling heights and soiling. Draining of the cleaning residues into the recycling plant is done via additional slewable draining equipment.*



*Bucket system for application in conjunction with a precast concrete factory.*

## STANDARD OR SPECIAL EQUIPMENT.

Technically perfect in the details.



*Powder weighing system for addition of coloured granules or microsilica.*



*The plastic tanks for storing of the admixtures are filled from level  $\pm 0$ . All fill lines are centrally combined.*



*The safety device to prevent overfilling of the cement silo meets the requirements of the UVV. A squeeze valve in conjunction with an optional pressure controller prevents overblowing of the cement silo.*



*As standard, dedusting is done via airtight airbag.*



*In order to keep the mixing plant's platforms free from dust to a large extent, a forced dedusting device can be installed.*



*Thermal insulation of mixing and weighing platform is done with sandwich or profiled plates/mineral wool/smooth plates. The section  $\pm 0$  up to the lower edge of the platform can optionally be covered. For thermal insulation of the aggregate silo profiled plates/mineral wool will be used.*



*The wide substructure of the cement silos is designed as portal construction. Beside the control container, it can also accommodate social facilities, an admixture tank storage or a heating system.*



*The raised control container with MC control system and high-voltage section allows free sight to the discharge hopper of the mixer.*

## STETTER CONTROL SYSTEMS.

Quality from own development and production.

Stetter is well experienced in the development of control systems. The solutions are perfectly adapted to the requirements and needs of the concrete industry.

### TRIED AND TESTED SOLUTIONS FOR THE CONCRETE INDUSTRY

Production of concrete requires more than just a simple control system for the mixing plant. A complete package comprises the preparation of quotations, the planning of orders, production of concrete, fleet management and invoicing. Different statistical evaluations are required to control production and turnover. If several concrete mixing plants are part of the total production turnover, networking, a common data stock and a transparent control are the most important factors.

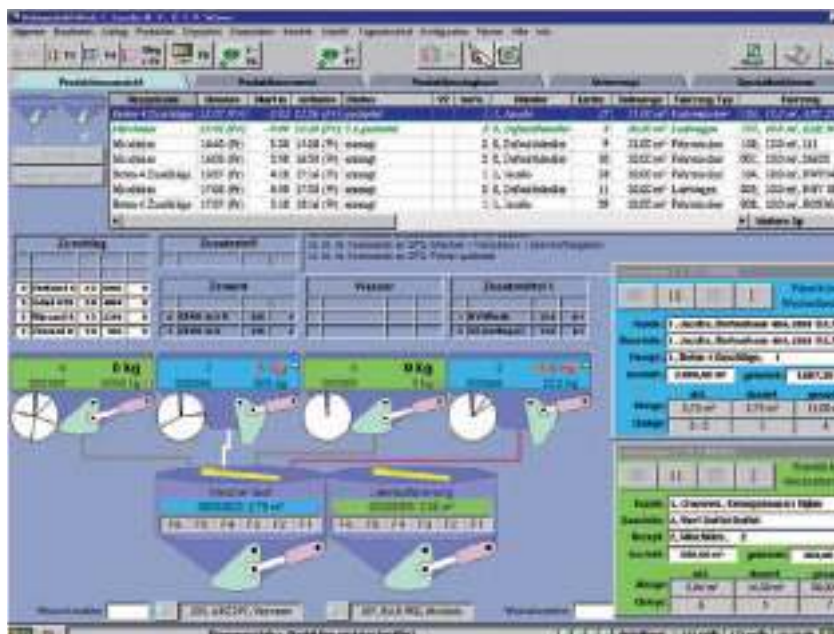
All this is offered by Stetter – customised exactly to your specifications.

### QUALITY AND RELIABILITY

We attach special importance to tried and tested first-class components when selecting the hardware. Our control systems are checked with the most modern test and simulation tools during their development. An extensive final testing ensures constant high quality.

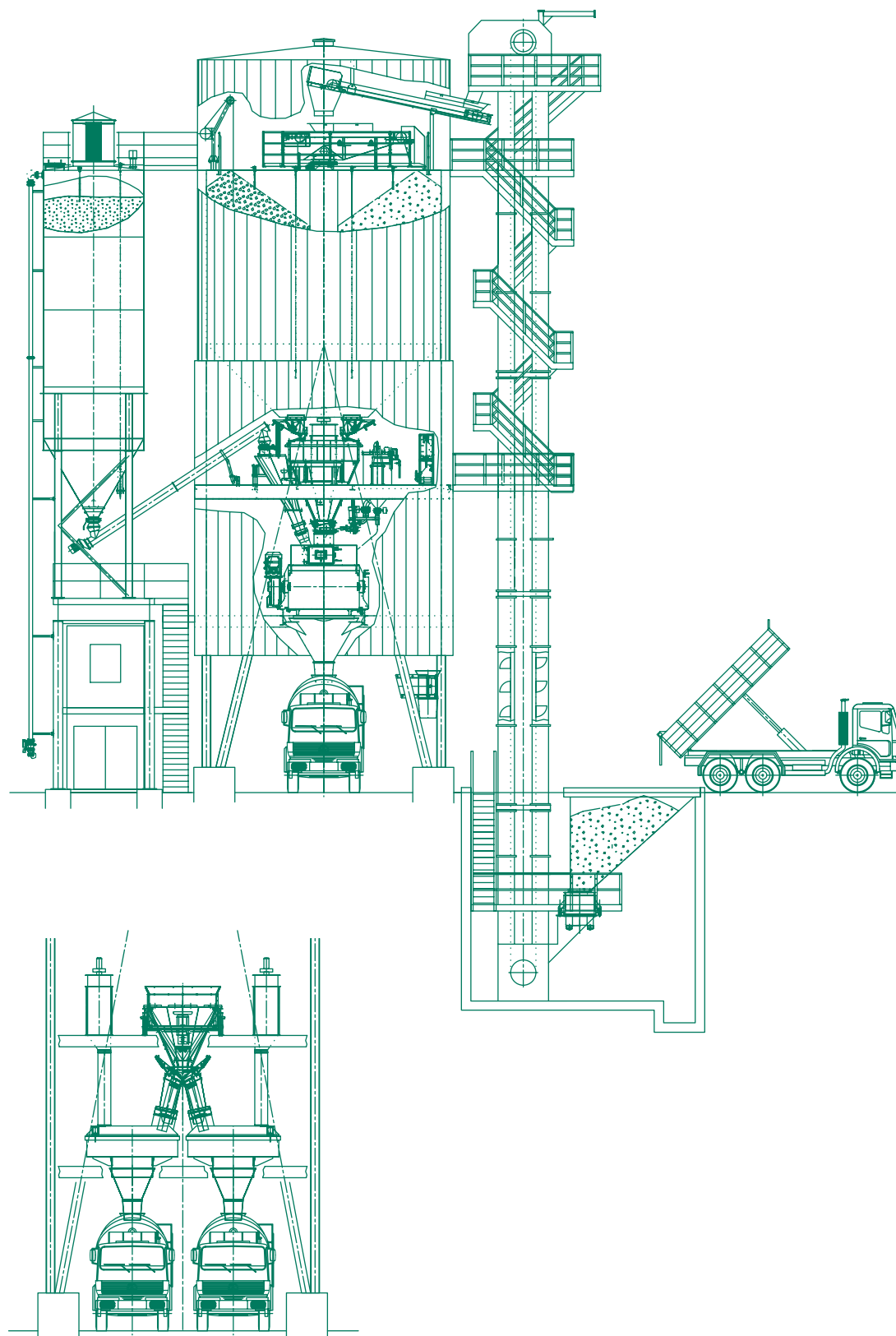
### FLEXIBILITY AND INVESTMENT SECURITY

The architecture of our software produced with the most modern methods of development in our own works guarantees the highest flexibility: thanks to their possibilities in configuration, software and systems offer simple adaptation to your operating schedule. Also, preparation of wiring diagrams and manufacture of switch cabinets is done in our own works. So we can optimally suit the control systems to our concrete mixing plants. Upon request, we integrate our control systems also in external installations.



# EVERYTHING AT A GLANCE.

Technical data.



## TECHNICAL DATA OF THE STANDARD SERIES

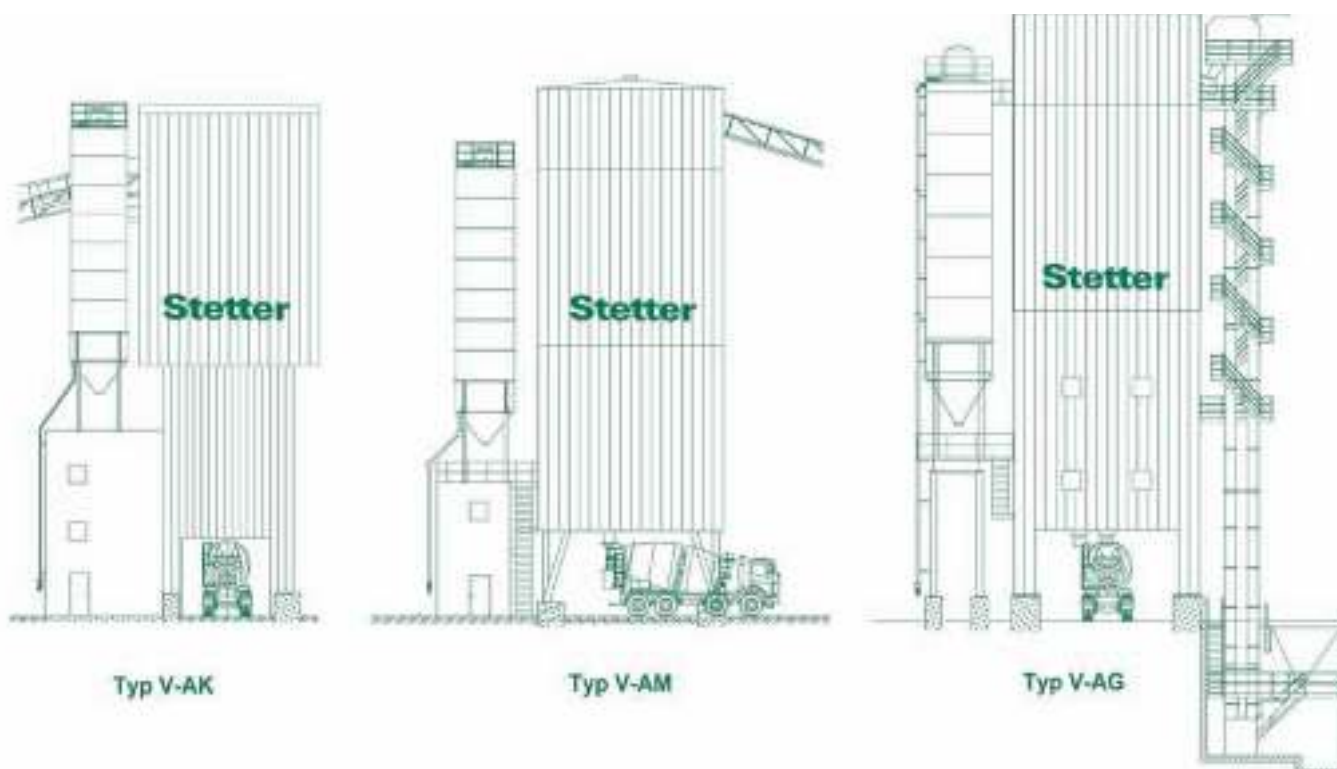
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## MIXER INSTALLATION POSSIBILITIES

1 pan mixer	max. 2,250/1,500 ltr.	max. 3,375/2,250 ltr.	max. 3,375/2,250 ltr.
2 pan mixers	max. 1,500/1,000 ltr.	max. 3,375/2,250 ltr.	max. 3,375/2,250 ltr.
1 twin-shaft mixer	max. 4,500/3,000 ltr.	max. 5,250/3,500 ltr.	max. 6,000/4,000 ltr.
2 twin-shaft mixers	-	upon request	upon request
Concrete capacity compacted concrete	max. 140 m <sup>3</sup> /h	max. 160 m <sup>3</sup> /h	max. 180 m <sup>3</sup> /h
<b>Aggregate silo</b>			
Diameter	6,506 m	7,436 m	8,365 m
Size 140–190 m <sup>3</sup>	190–600 m <sup>3</sup>	500–900 m <sup>3</sup>	
Compartments	4–6	5–8	5–10
<b>Cement silos</b>			
Number, common up to	4	4	4
Types	6	6	6
Lanes underneath mixer	1	1 or 2	1 or 2
Total height of the plant	20–23 m	21–31 m	27–35 m





# THE STETTER TOWER PLANT SYSTEM.

Versatile variations for worldwide customer satisfaction.



SCHWING-STETTER ALWAYS CLOSE TO THE CUSTOMER.



- Parent plant
- Production subsidiary
- Own/independent sales and service company

Subject to technical and dimensional modifications.  
Photos are not binding.  
The exact scope of the delivery is listed in the offer.



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