

# Batching and Mixing Plants



3750 litre ready-mix concrete plant with day bins.



# Individual solutions and approved technique



Modernisation of existing ready-mix concrete plant with a Haarup 6000 litre mixer.



Tower plant with 2 – 2250 litres mixers for production of railway sleepers.



Precast plant with Haarup mixing plant and ground bins.



Tower plant with 2 – 6000 litres mixers for production of ready-mix concrete.



Concrete slats factory with complete Haarup batching and mixing plant.



Small batching and mixing plant for Teknologisk Institut.

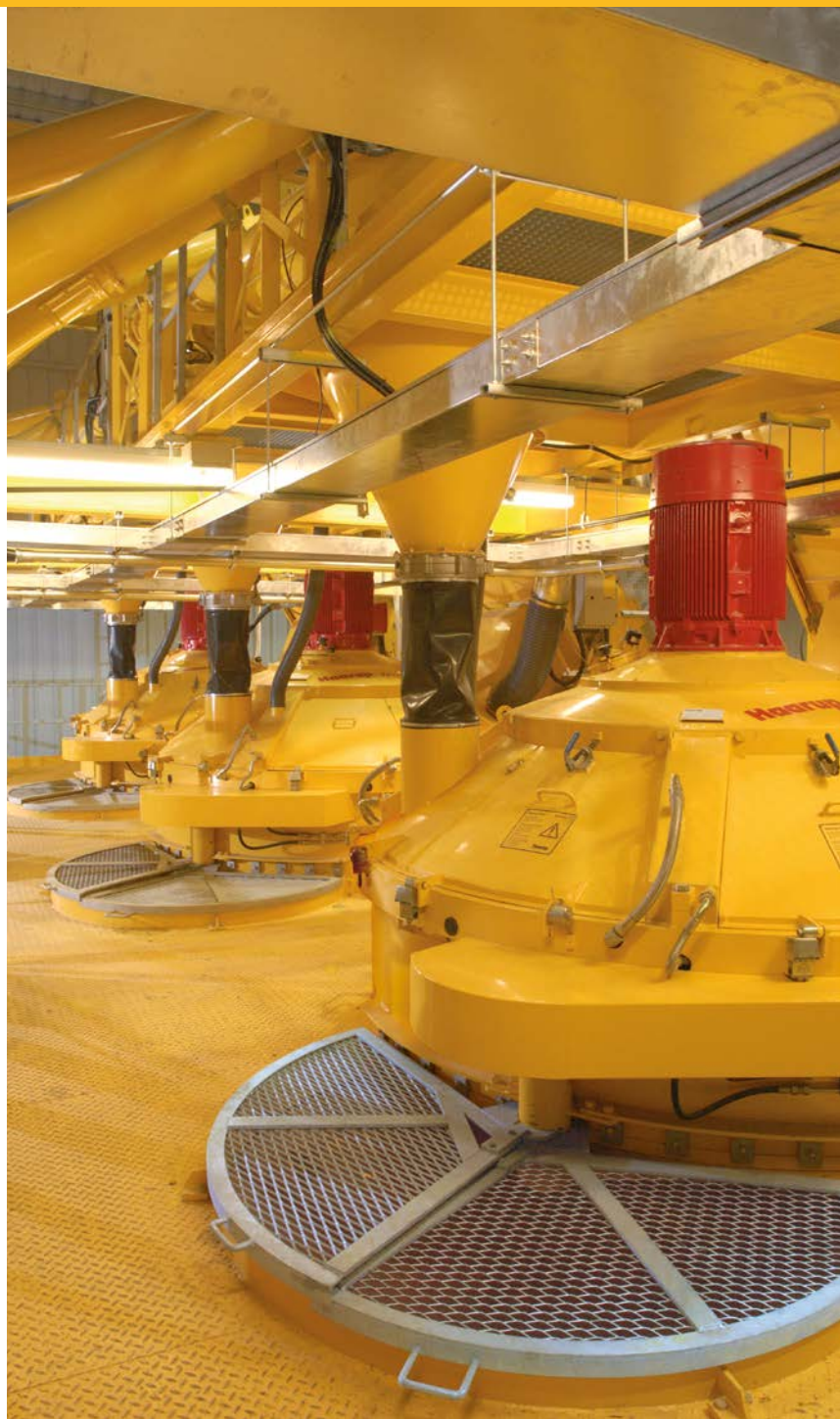


Block and paving stone factory.



## Tailor-made plants with standard components

Through more than 50 years Haarup have developed solutions for the concrete industry. This has resulted in an extensive range of high quality modern equipment allowing many variations and possibilities. Haarup ensure that installations are simple and flexible, and once the installation is complete high reliability. Thereby low operating costs, high quality concrete and in turn high profits.



Modernisation of plant with new Haarup 3000 litre mixer.

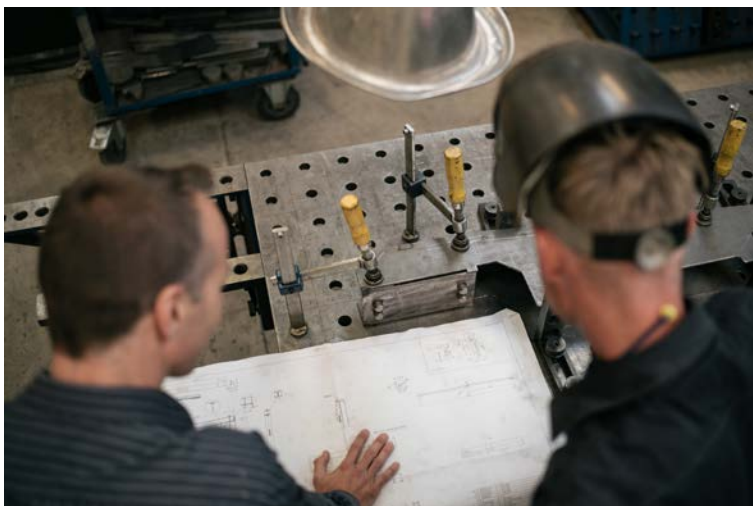
Pipe factory with three 2250 litre mixers and concrete travelling buckets.

Inclined belt with waste belt and turnable distribution conveyor.



## Co-operative solutions – Respect for your requirements

Haarup liaise closely with you in order to obtain the best solution meeting your expectations of up-dating old plants, building complete, new plants, or supplying single machines. Planning and construction of your order includes engineering assistance to your architect, engineering company, construction company, electrician, etc.



Production of Haarup mixer gear – Equipment is manufactured in our own factory in Denmark.

## Bin system – a choice with many possibilities

### Filling systems with large capacity

In-line bin systems require an optimum filling system no matter whether there are few bins for a small plant or many bins for a large plant with several mixers. Haarup have solutions with inclined belts, or hoist buckets for filling, and distributing systems with turnable, travelling, reversible, or moveable conveyors that are adjusted to the task.



Day bins for filling with loader.



Tower silos.



Bins placed in the ground with hydraulic operated cover.



Small, movable hoppers for special aggregates.



High silo system with filling system.



Hopper for tip loading with grating.

## Bins placed in the ground – Day bins – In-line bins

No matter which plant you prefer Haarup have the solution. With the experience of thousands of plants in operation we are able to choose the right storage capacity for present and future needs. Haarup can incorporate into your design various square or circular in-line bins or bins placed within a concrete structure. Day bins are typically galvanized and are used in many plants where face-mixes are used.



Hydraulic cover for aggregate bin.

# Accurate batching – essential for quality

Stable weights and a fast, advanced control ensure accurate batching.



Weigh belt and hoist.



Self-propelled, electronic weigh hopper for sand and gravel.



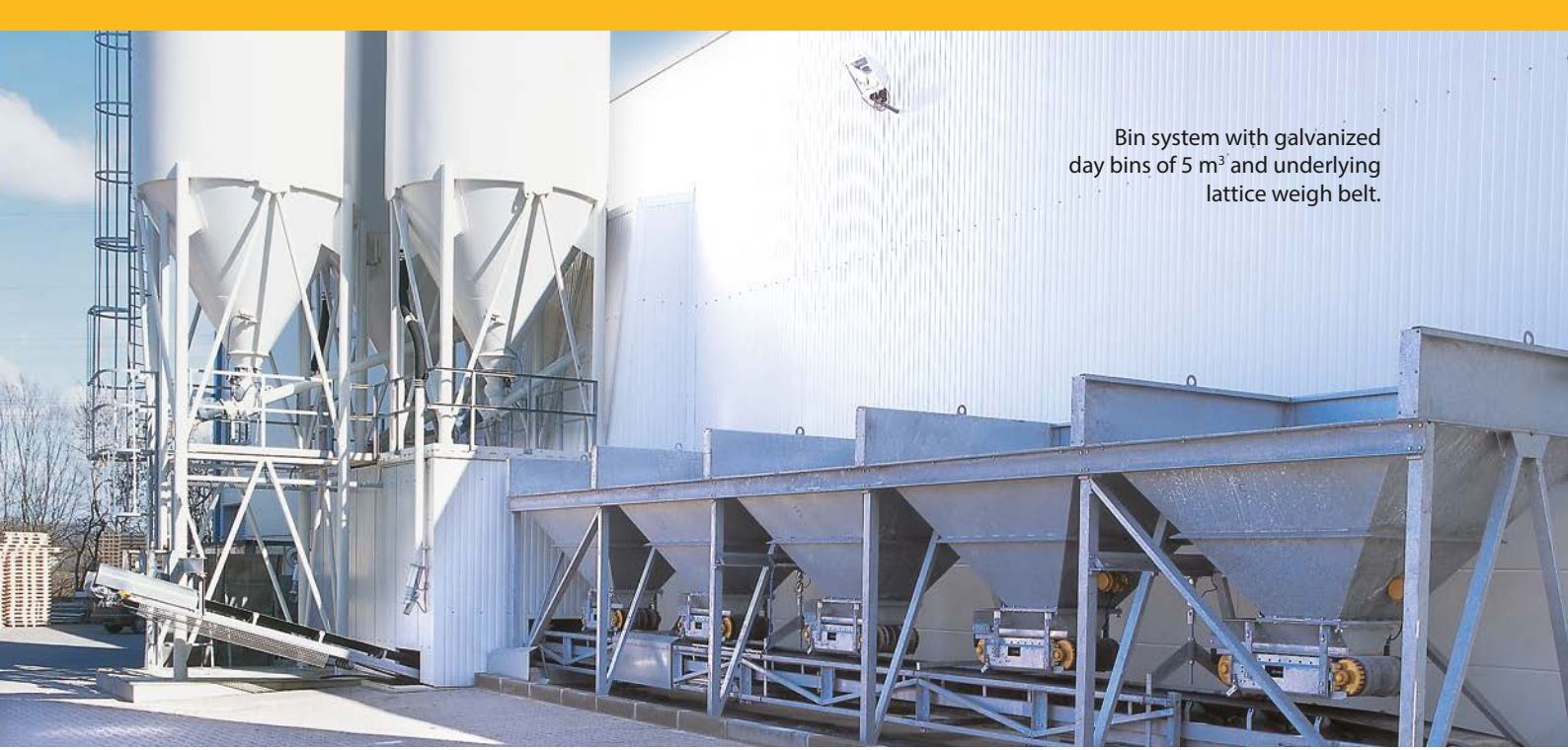
Combined weighing system with lattice weigh belt and weigh hopper.



Galvanized weigh belt with high sides.



Galvanized lattice weigh belt.



Bin system with galvanized day bins of 5 m<sup>3</sup> and underlying lattice weigh belt.

## The weigh system is the key to high capacity

Haarup weighing units have many applications. Haarup supply weigh belts with high sides and different belt widths or side heights for either stationary or stepwise belt movement when weighing. Or a combined weigh belt with weigh hopper – also combined with the hoist bucket. Another possibility is the travelling weigh hopper that can be used for example with face-mix plants.

### Batching

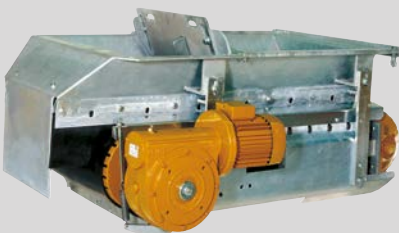
- ✓ Batching belt with 3 belt widths for volumetric and weight batching.
- ✓ Batching gate with single or double cylinder for fine batching.
- ✓ Special batching gate/vibration channel for weight batching with fine batching.

## Haarup have many batching possibilities

With Haarup's different batching units for sand/stone materials we have a design that will meet your requirements for all types of batching and mixing plants.



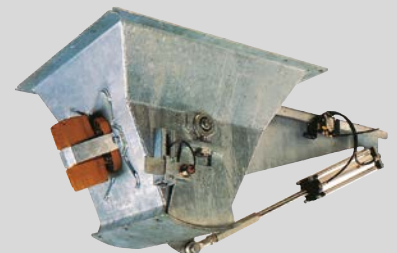
400 mm batching belt.



Galvanized batching belt with chute section. Width of belt 400, 500, or 800 mm.



Combined batching gate for large quantities and vibration channel for fine batching.



Galvanized batching gate fitted with vibrator.

# Important components for each type of concrete

## Water – An important factor

A correct water content and addition of water are both decisive factors in order to be able to produce high quality concrete in the shortest possible time. Haarup's electronic Water Controller measures and compensates automatically for variations in the moisture in the aggregates and ensures an exact concrete consistency.

Measuring is made via a microwave probe in the mixer, and then the precise quantity of water to be added is calculated, the water is then supplied in a single batch.

The Haarup Water Controller is an integrated part of the Haarup control system.



Water weigh hopper.

## Many types of water – Cleaning of mixers

The Haarup electronic flowmeter can batch clean water as well as slightly dirty water. If recycled water is used, Haarup water weigh hoppers are used to weigh a fixed, required quantity or it is used as a negative (reversed) water weigh hopper.

Clean water that is batched for each mix can be used for intermediate cleaning of the mixer by flushing water into the mixer with a pressure of 6-8 bars ensuring a higher degree of cleaning within the mixer.



Washing nozzles to minimise cleaning of mixers.



Cabinet with flowmeter and water valves for a mixer.



Water pump for intermediate cleaning of the mixer.



# Cement

Haarup's complete range of silos, filters, safety equipment, screws, weigh hoppers, etc. meets all needs of storing and batching cement, fly-ash or the like.

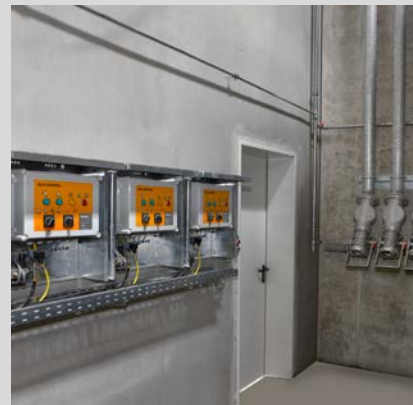
The weighing systems are integrated in the Haarup control system and give an unsurpassed accuracy when batching.



Cement silos with galvanized ladder, railing, and filter with pneumatic cleaning.



Dust extraction from mixers.



The Haarup Silo Control ensures against excess filling and excess pressure in the silo.



Cement weigh hoppers suspended in electronic load cells.



Dust filters on silo tops.

# The small quantities in concrete make a big difference



4-chamber admixture weigh hopper.



2 x 35 litre colour weigh hopper.

## Accuracy is a requirement for admixtures

Haarup know the requirements for use of admixtures in modern concrete technology and have a complete range of equipment. The admixtures require batching pumps, valves and weigh hoppers with the correct size so that large and small quantities can be weighed. All admixture weigh hoppers are therefore independent units with plastic weigh hoppers in various sizes and are supplied with a size and number of chambers that suits your mixer and concrete production.

## Efficient colour-slurry

Coloured concrete is fast growing for paving stones, walls and the like. For production of slurry Haarup have colour mixing hoppers in more sizes for bag or big-bag filling. Batching in plastic weigh hoppers takes place with hose or pneumatic pumps that at the same time circulate the colour-slurry at intervals to avoid any settling within the piping and thus ensure the correct colour and quality are produced.



4-chamber admixture weigh hopper above a 2250 litre mixer.



Slurry-colour and water weigh hopper with inlet and outlet valves.

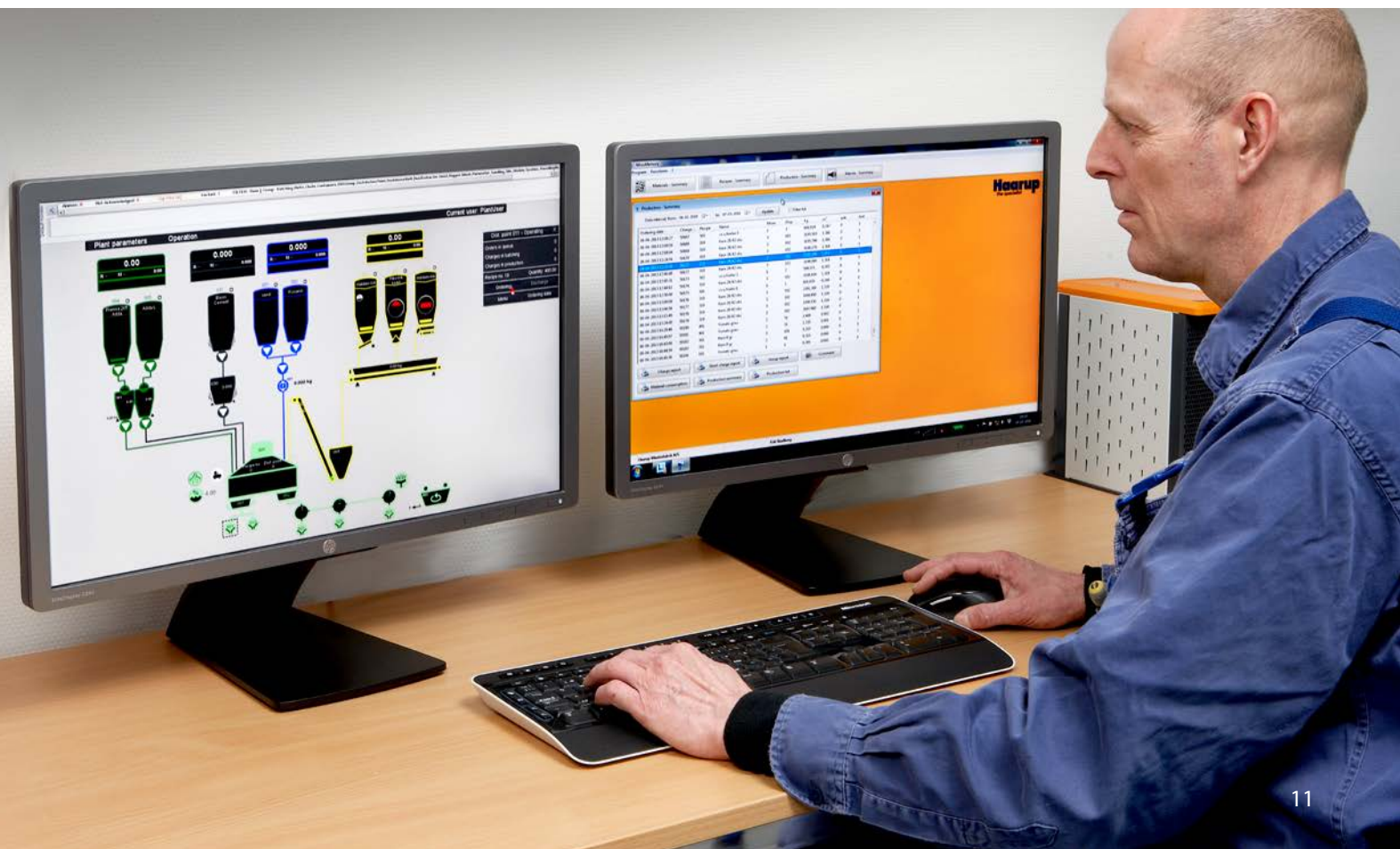
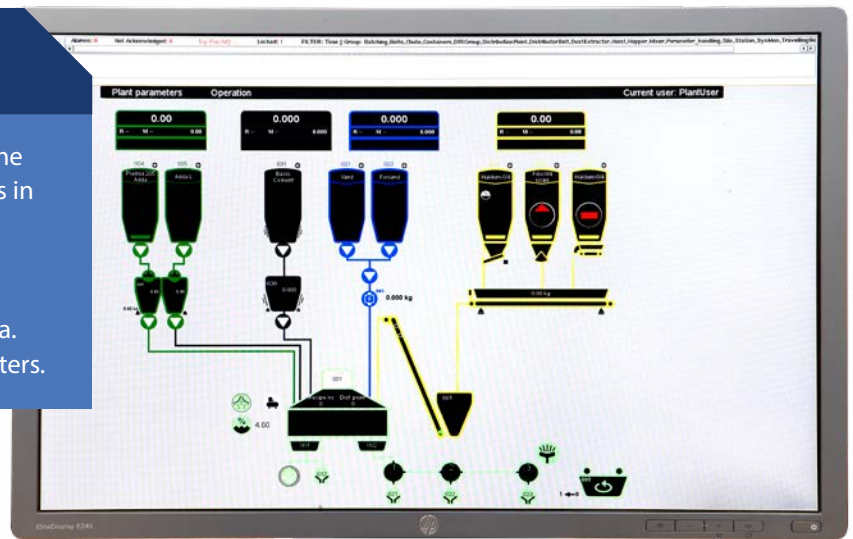
# Mixo5000

The unique Mixo 5000 control system ensures optimal control during the production of concrete. The system is a combination of both leading control technology and decades of experience in concrete production management. Along with being the most professional and precise control system in the industry; the Mixo 5000 is easily scalable for both small and very large

facilities. Operators will also experience an intuitive and easily understandable tool for the production of homogenous concrete, while Production data is easily accessible and can be transferred to a management accounting system. The control panel itself consists of quality components from leading suppliers and is assembled by Haarup specialists.

## Facts

- ✓ Unique weighing algorithms ensure the most accurate weighing of aggregates in the industry.
- ✓ Optional redundancy offers increased reliability.
- ✓ Easily understandable production data.
- ✓ Latest generation of industrial computers.



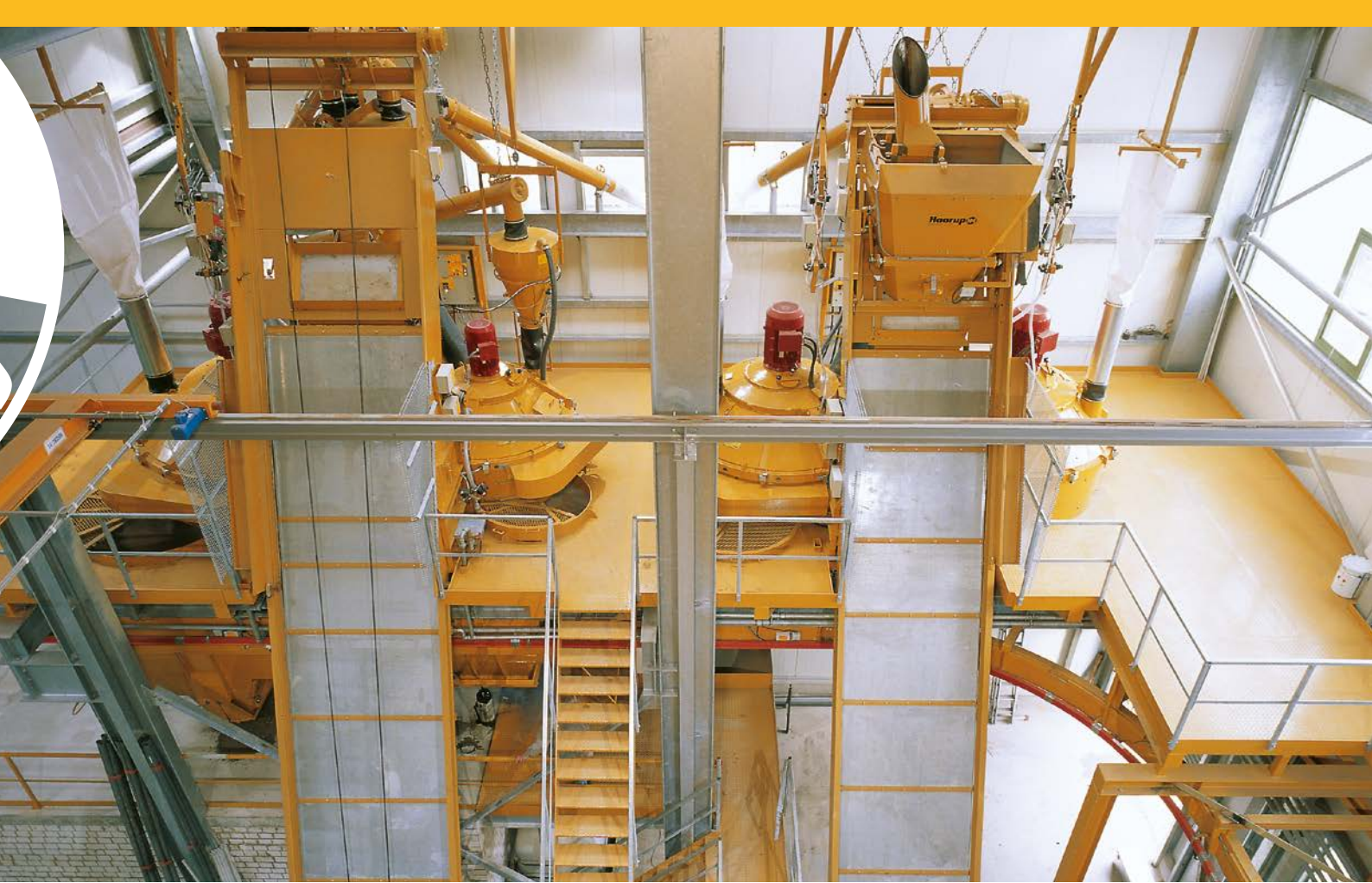


Equipment is manufactured in our own factory in Denmark.

Mixers for all needs with 8 years warranty



6000 litre Haarup mixer with skip hoist and 500 litre face-mix mixer.



Mixer platform with 1 - 750 and 1 - 2250 litre mixer and 2 - 1500 litre mixers.

## Haarup counterflow mixers have the strength

More and more clients choose Haarup counterflow mixers with many individual adaptation possibilities.

The combination of rotation and counterflowing within the mixers makes it possible to produce concrete to a very high quality with optimum utilisation of cement.



Side scraper, mixing arms, and mixing shovels in a 6000 litre mixer.

## Mixers in 15 sizes

Haarup counterflow mixers are used for production of heavy concrete, face-mix concrete, lightweight concrete, etc.

The gear construction with strongly dimensioned bearings and toothed wheels in an open oil sump offers unrivalled reliability. All our mixers work with a noise level below 85db(A) thus ensuring a good working environment.

## Cement saving, low operating costs, and easy cleaning

The counterflow effect gives a minimum, uniform pressure on the bottom and sides of the mixer, which results in less wear and tear and a longer lifetime. All over in the Haarup mixer we have thought of wear and tear. The mixing arms dia. 52 mm are for instance made of spring-chrome-nickel-steel and the mixing shovels are made of special rubber and are turnable. At the same time the mixer is easy to clean.

These are only some of the details that make the Haarup counterflow mixer a safe investment.



Duo-speed concrete travelling bucket for genuine travelling in curves, quick and noiseless with heavy and wide rubber wheels, which also manage high inclines.



Mono-Trans-Ro concrete travelling bucket.



Mono-Trans-Bo concrete travelling bucket.



Duo-speed-Bo concrete travelling bucket.

# Dependable concrete transport with many possibilities

## Quick and safe concrete transport for inclines – also in curves

With various types of travelling buckets Haarup are able to solve all tasks. Monorail (Mono-trans) travelling buckets for travelling in curves and to several tracks via a switch track. Duorail travelling buckets for travelling on straight rail or in curves is handled

by the Haarup Duo-speed with rubber wheels when the transport has to be quick, silent or with steep inclines. The travelling buckets are supplied with bottom discharge or rotating discharge.



Washing station for cleaning of 2000 litre duo-speed concrete travelling bucket.



3500 litre duo-speed concrete travelling bucket is being tested before delivery.



Half-gantry



# Special Concrete Transport Solutions

## Many Applications

Haarup's concrete travelling buckets are also used in connection with special solutions. Half-gantry for hollow-core production or travelling gantry for automatic distribution in the X-Y direction with concrete to a self-travelling block making machine.

Type	Effective volume in concrete bucket				Mono-trans hardened steel wheels Travelling straight/ curve	Duo-speed Rubber wheels Travelling		For mixer type
	litre	yd <sup>3</sup>	kg	lbs		straight	curve	
1000	900	1.18	1200	2645	x	x	x	1125
1400	1200	1.57	2400	5290	x	x	x	1500
2000	1850	2.42	3600	7940	x	x	x	2250
2300	2100	2.75	3600	7940		x	x	2250 light-weight concrete
2800	2500	3.27	4800	10580		x	x	3000
3500	3100	4.05	6000	13230		x	x	3750+3000 light-weight
					max 8%	max 15%		



# Your partner for the concrete industry - From ideas to conclusions

Haarup have the equipment, know-how and expertise required by the concrete industry. This ensures an optimum solution and the necessary security when investing. Haarup are your natural choice when investing in all types of batching and mixing plants.



**Haarup**  
- the specialist

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