

# masa

Milestone to your success.

## Concrete Slab Production

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# First Class, Efficient, Trend Setting.

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**Masa – your partner for the successful production of building materials.**

With intelligent and flexible solutions, Masa leads its customers to success.

Experience, reliability and passion are the basis for a long lasting partnership.

[www.masa-group.com](http://www.masa-group.com)

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**The secret of our success is the future profitability of our customers.**

Masa is the world's leading manufacturer and supplier of plants, machinery and components for the building materials industry. Our experience, the quality of our products and the constant dialogue with our partners have contributed to the success of our customers worldwide.

The planning and design of our plants encompass all the basic principles which are fundamental to "Engineered in Germany".

**Quality:** Proven technology, customised solutions and durable equipment

**Profitability:** Economical - without compromising efficiency

**Safety:** Comprehensive safety solutions in consultation with the customer

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**Contents**

- 04 Turn-key Plants:** Quality at each stage.
- 06 The Slab Press UNI 2000:** For today and the future.
- 08 Surface Treatment:** The perfect finish.
- 10 Modern Slab Design:** Wide variety for increased sales.
- 12 Take-off, Transport and Packaging:** Professional handling.
- 14 Service:** There is no limit to our partnership.

**Note**

In general Masa plants are equipped with all the necessary safety guarding to local standards. For reasons of clarity, some photos are shown without safety guards.

# Experience is our strength. Flexibility takes us forward.

**Masa is able to look back on more than 100 years of company history. Our experience, the quality of our products and the constant dialogue with our partners, have contributed to the success of our customers worldwide.**

Our head office with departments for development and production of concrete block making machines and plants is situated in Andernach, between Frankfurt/M and Cologne. A second location for the development and production of plants and machinery for concrete slabs, AAC blocks and sand lime bricks is situated in Porta Westfalica. Furthermore subsidiaries for sales and services are established worldwide: in USA, China, Russia, India and Dubai, responsible for the Middle East.

## **Success is a strong basis**

Throughout our long company history, we have been significantly influenced by the many developments in the building materials industry. The experiences gained over the years in both technical and functional capacities now benefit

both the customer and ourselves. This continuity means the customer can be safe in the knowledge that Masa has created solutions which are built to last and can be quickly modified on demand.

## **Flexible in global markets**

As a result of globalisation on the world economy, we have benefitted from our growing reputation for providing solutions. Different markets present specific requirements for which we develop individual solutions. In the end, there are no two products alike; every single solution is based and optimised on the individual wishes of the customer.

## **Safety and environment protection**

On designing a plant, safety is of paramount importance, whilst incorporating ease of operation. Another aspect of vital importance is protection of the environment, hence Masa's solutions for power efficiency, dust protection and the reduction of noise emission.



Quality is the sum of experience and the pursuit of perfection.



Quality management: Passion for solid and reliable solutions.

# Turn-key Plants: Quality at each stage.

Whilst the slab press is the heart of the plant, Masa also provides the batching and mixing equipment to feed concrete to the paving slab machine, slab take-off devices incorporating direct washing facilities, curing systems, slab secondary processing and packaging – in fact, the complete ‘know-how’ for the manufacture of slabs. A distinct advantage for our customers is that large turn-key plants or single components are all from one supplier – Masa, your partner, through planning, design, manufacture, assembly, commissioning, training and continuous support during production.

The commercial success of each production plant is achieved by careful planning, taking into account the requirements and opportunities available on site for long-term growth from the outset. For this, our designers specify the capacities and layouts of equipment, as well as organising the production process. Turn-key plants are assembled with standard components, which can be combined to achieve individual solutions. Utilising standardised components wherever practical results in short delivery times.

## 01 Preparation

- Raw material storage
- Raw material dosing and mixing



## 02 Production

- Dosing
- Pressing
- Take-off

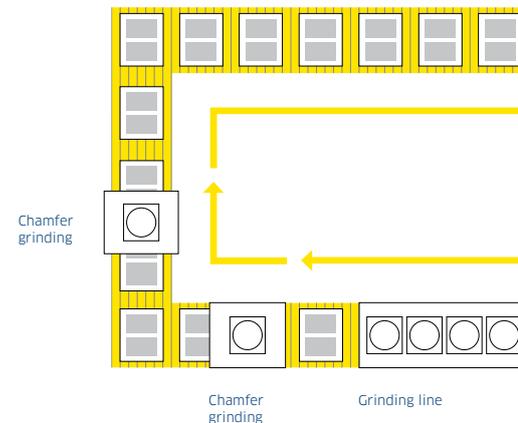
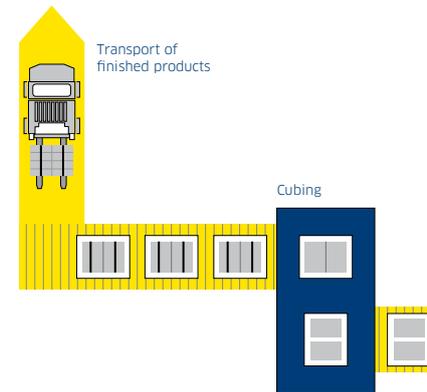


## 03 Cubing

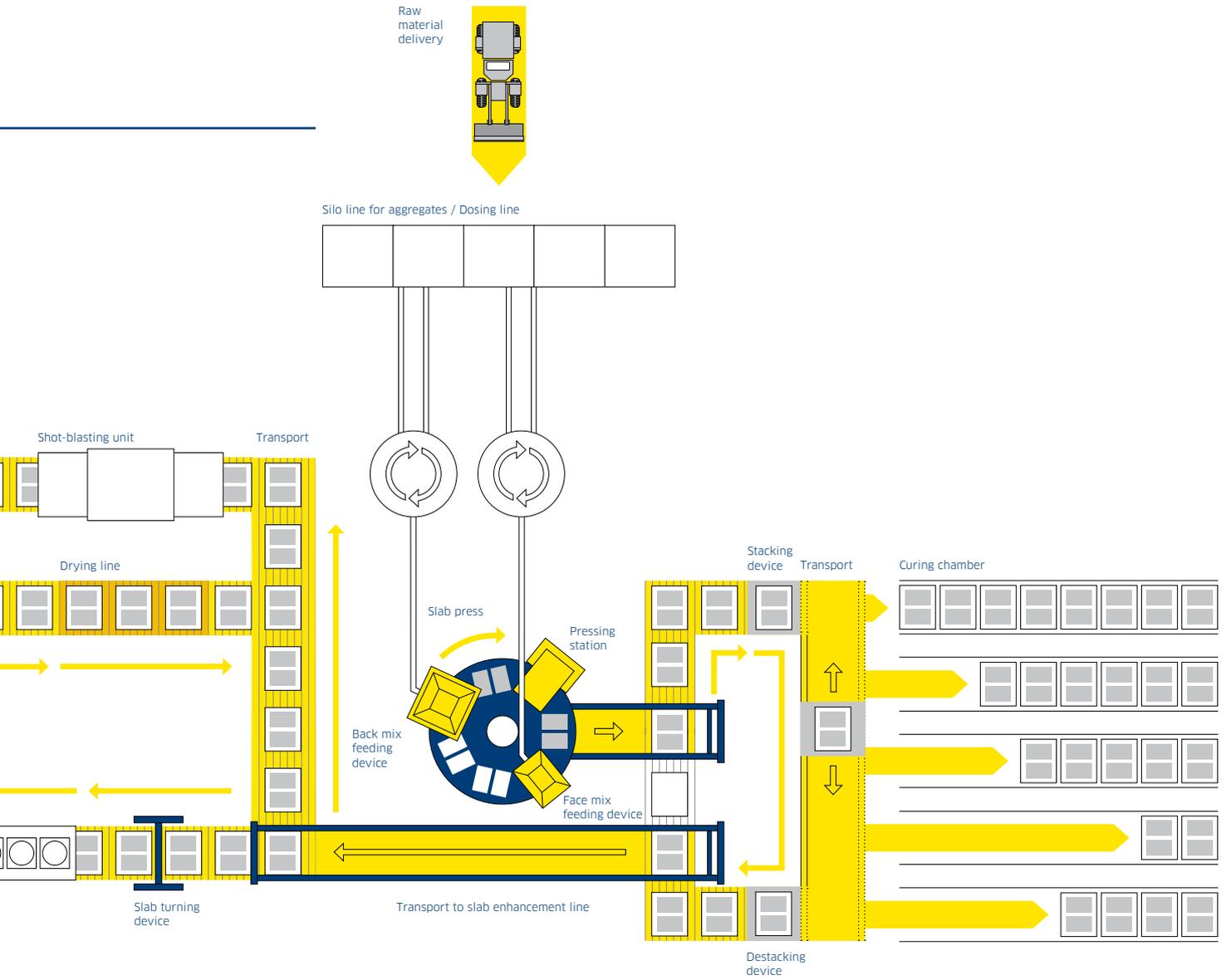
- Transport: Storage
- Transport: Surface enhancement
- Cubing / wrapping



## 03. Cubing



## 01. Preparation



**Standard plus trend:** The Masa plant concept for the manufacture of concrete slabs enables both conventional and specialised textures and surface finishes to be produced, utilising the integration of secondary processing lines. The enhancement facilities allow our customers to react rapidly to new market trends and individual market requirements.

## 02. Production

### Curing

#### Masa control systems

When designing a new plant, Masa attaches great importance to the individual requirements of the customer and the speed at which technology is advancing. Masa has achieved solutions with the utmost flexibility, using its own unique concept of visualisation, enabling simple operation of the equipment and incorporating different levels of password access and security.

# The Slab Press UNI 2000: For today and the future.

**With its solid portal construction and robust design concept, the UNI 2000 concrete slab press incorporates flexibility with high productivity. Other construction design details such as the servo turntable drive and patented compressed air feeding system enable very short cycle times with low wear and tear.**

The portal construction design of this type of press ensures maximum use of the available pressing power. Another

important construction feature is the face mix feeding device utilising a hose type batcher giving a uniform face mix layer. The servo turntable drive provides optimum acceleration and braking resulting in short cycle times. The back mix feeding device complete with feed box and belt feeder guarantees exact slab thickness. The control system for the press and ancillary equipment is designed to achieve high production with the utmost flexibility.



The slab press UNI 2000: fast and robust.

**Efficient for all quantities:** Capacities from 2400 to 7600 slabs per 8 hours depending on slab size and quantities required.

## Slab press UNI 2000

Type	Number of stations	Pre-compaction	Main pressing station	Effective area** max. (mm)	Max.* production capacity per 8-hour shift (pieces)
2000/300/6	6	-	300 t	1 x 500 x 500	2.400
2000/500/6	6	-	500 t	1 x 500 x 600	2.400
2000/600/7	7	✓	600 t	2 x 400 x 600	4.800
2000/800/7	7	✓	800 t	2 x 500 x 500	4.800
2000/1000/7	7	✓	1000 t	4 x 400 x 400	7.600

\* Cycle times depend on types of raw materials used for 2-layer slabs, 4 cm thick, without direct washing.  
 \*\* Other sizes possible by agreement.



Back mix feeding device with feed box and belt feeder for exact slab thicknesses.



High-capacity hydraulic unit, pumps and pressure accumulators for short cycle times.



The portal construction ensures maximum use of the available pressing power.



Servo turntable drive provides optimum acceleration and braking.

# Surface Treatment: The perfect finish.

**Masa can supply secondary processing equipment to provide a wide range of different paving slab textures and finishes.**

**Grinding and polishing:** Masa grinding and polishing lines are designed to grind a wide range of different aggregate sizes and types of raw materials (hard/soft stone). Special attention is paid to minimise the energy and tool costs. Depending on the degree of polished surface required, different numbers of grinding stations are used. Frequency-controlled electric drives enable the adjustment of the optimum working speed for each product.

**Shot-blasting:** Shot-blasting units can provide various high quality surface textures. For example, expensive coloured face mix materials can be exposed in the shot-blasting process. This process provides a 'roughened' surface which then has very good non-slip properties.

**Calibrating and chamfering:** Calibration stations enable the paving slabs to be machined to a uniform thickness so that the chamfers are then ground evenly. This ensures that the concrete slabs have a perfect visual appearance and can then be used in high quality applications.



Calibrating station: Diamonds for an exact slab thickness.

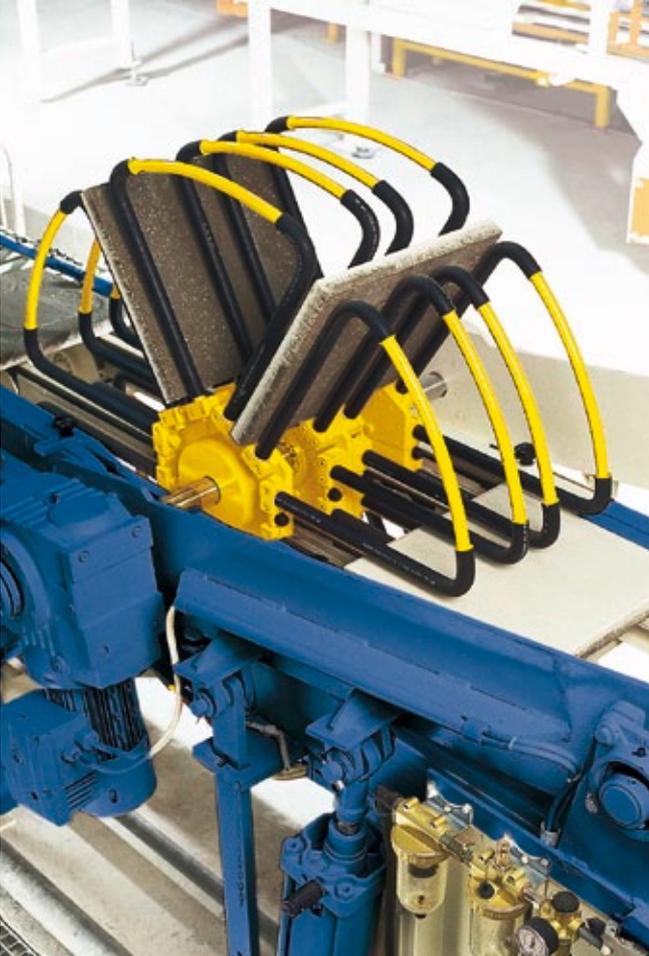
**Every slab a quality item:** Integrated into the production plant, the surface enhancement line enables the creation of individual slab designs with various materials, colours and surface textures. In accordance with individual requirements, the fresh slabs can be ground, polished or shot-blasted.



Grinding line: Precision at optimum working speed.



Drying line before (shot-blasting line and) packaging line.



Slab turning device: Always the right way up.



Shot-blasting line: Excellent appearance and non-slip surface.

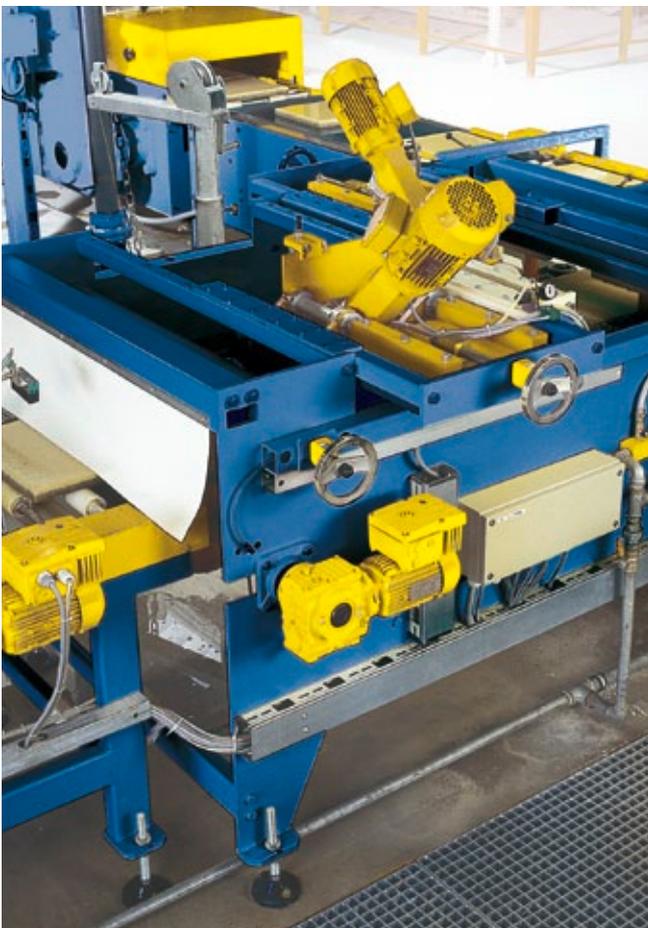
# Modern Slab Design: Wide variety for increased sales.

**A Masa slab making plant with additional enhancement components is the basis for the production of a wide range of products. This enables the manufacturer to react quickly to market requirements with special designs, finishes and textures and have the ability to introduce their own creations and set market trends.**

Masa plants, with their sophisticated slab making technology and surface enhancement lines provide the customer with the possibility to combine different raw materials, colours and surface finishes time and time again. They can also experiment

with different surface structures and secondary processing techniques. The number of options is endless.

Depending on market requirements, a wide variety of different products can be produced enabling the slab manufacturer to increase his share in the market place with exclusive surface textures. The efficient production and flexibility of patterns and textures is a positive incentive to invest in a Masa plant and ancillary equipment for the production of concrete slabs.



Chamfering device: Important for edge grinding.



Carborundum station: Precision is what counts.



Chamfer grinding: Exact contours.

This small selection of slabs shows the various product finishes available, with and without secondary processing.



Structured face plate: Small paving block structure



Small paving block structure



Natural stone texture



Fine washed texture



Ground surface



Ground and shot-blasted surface, mid-size aggregate



Ground and shot-blasted surface, coarse aggregate



Ground and shot-blasted surface, pattern masking



Marbled and ground

# Take-off, Transport and Packaging: Professional handling.

**In addition to the slab press Masa can also supply all the necessary handling systems for take-off, transport, hardening and packaging of the slabs. Each individual plant can be tailored to suit customer's individual requirements - whether a semi-automatic plant with forklift truck transport or a fully automatic circulation system.**

Freshly pressed slabs can be stacked either horizontally or vertically, dependant on the type of transport device specified. A direct washing unit can also be integrated if required.

Careful handling of the green slabs is crucial for the next stages of the production process, to ensure, ultimately, a first class product. All components are designed to quality specifications and can be installed as flexible modular systems.

Depending on the level of automation, the products are transported fully automatically to the curing chambers. After curing, the slabs are transported directly to the packaging line or via a separate enhancement line.



Vacuum take-off device: Gently lifted.

**Co-ordinated at all stages:** A fully automatic circulation plant ensures state-of-the-art concrete slab production. Smooth transport of the slabs within the plant plays an important role here.



The hardened slabs are taken off carefully.



Direct washing device: The natural aggregates are exposed.



Racking system with programmed pallet stack transfer device.



Slab package transfer device: Powerfully grabbed and gently placed.



Slab package take-off station: Ready for transport.

# Service: There is no limit to our partnership.

Whether you purchase a complete production line or a single component, it is the start of a long lasting relationship with Masa. Our service does not stop with the handover of the equipment to the customer – but lasts for the lifetime of the machine.

### Assembly and commissioning

After delivery, plants are installed and commissioned by our own qualified and experienced engineers.

### After sales service

With programmed visits by our experts, a preventative maintenance programme is agreed to maintain high productivity and minimise downtimes.

### Training of operators

During the installation and commissioning of the equipment, the operators are given training and familiarisation with all the plant components and after the final test run, should be able to run the plant themselves at the agreed productivity.

### Product advice

Masa's vast experience of manufacturing concrete elements ensures both visual and technical qualities of the finished product.

### Service hotline

Masa has a 24 hour Service hotline for the customer to assist in the diagnosis of any malfunctions or when problems in the production system occur.

### Online Tele service

Today, technical support for the equipment is provided in most instances online. Updates and programme modifications can also be done via modem/router, without having Masa engineers on site.

### Spare parts service

With our flexible system and worldwide spare parts locations, if necessary, we are able to supply quickly and cost effectively within 24 hours, unless the parts have to be manufactured specially.



Machining center



Own fitters: Masa competence on site.



Plants for concrete blocks production.



Plants for sand lime brick production.



Plants for AAC blocks production.

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**Masa – your partner for the successful production of building materials.**

Masa is the world's leading manufacturer and supplier of plants, machinery and components for the building materials industry. This brochure describes equipment for the manufacture of concrete slabs – other brochures are also available, giving an overview of capacities, plant layouts and components for the manufacture of **concrete blocks, sand lime bricks and AAC blocks.**

Masa – the one company to talk to for all solutions. A complete range of machinery to produce all types of building materials.

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