We put concrete into shape

Machines and equipment for the building material industry
Effective and flexible production of concrete pipes and Box Culverts

The VARIANT by Schlosser-Pfeiffer produces all pipe dimensions and pipe shapes in premium high-density quality. VARIANT by Schlosser-Pfeiffer combines the outstanding compacting quality of Schlosser-Pfeiffer’s vibration technology with the liberty of selecting any shapes or sizes and impresses with its size and power - the main requirements for the manufacturing large dimensions.

Every machine is individually adaptable and is distinguished by its ease of operation, reliability, and ease of maintenance.

A virtually unlimited selection of products to be manufactured highlights the versatility of this machine, making it perfectly adaptable to both individual requirements and the ever changing demands of the market at any time. VARIANT by Schlosser-Pfeiffer guarantees optimized compacting of all products - for maximum quality in accordance with the relevant national and international standards.

Compacting

VARIANT by Schlosser-Pfeiffer VARIANT produces „underground“ - for reasons of, among anything else the reduction of noise emission and isolation of the vibrations, which occur during the manufacturing process.

The concrete is evenly fed into the mould by a rotating feeding belt. The filling speed can be adapted to individual requirements. The vibration is generated by a central vibrator connected to the core via a hydraulic clamping unit. This design allows for rapid mould and product changes. The mould jacket with base pallet is isolated from the other machine components by a support structure. This ensures that the vibration is introduced into the product. The centrifugal force is individually adjustable to diameter and product type.

Advantages:

- Powerful and even compacting action.
- Constant wall thicknesses.
- Perfect embedding of the reinforcing cages.
- Smooth internal and external pipe surfaces.
- Dimensional accuracy.
VARIANT by Schlosser-Pfeiffer is modular in design and easy to upgrade:

- Motor-assisted swiveling of the slewing arms and adjustment of the rotating feeding belt.
- Contour control for manufacturing non-circular products (e.g. box culverts) with state-of-the-art sensor technology.
- Hopper weighing system for automatic request for concrete.
- Automatic pipe-spigot manufacture.
- Supplementary equipment for the manufacture of pipes with in-liners.
- Control system monitoring via modem/Internet.

Control system

The control system of VARIANT by Schlosser-Pfeiffer features a powerful Siemens SIMATIC S7 PLC, a user-friendly Siemens SIMATIC HMI device, and decentralized peripheral units all communicating via future-oriented bus systems. All manufacture-relevant parameters can be set and saved at the HMI device.

A user-friendly recipe management system for the various pipe sizes as well as a diagnostic system are integrated as a standard in our control system.

Technical characteristics

<table>
<thead>
<tr>
<th>Variant</th>
<th>1500</th>
<th>2500</th>
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* for 2.5-meter pipe lengths

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<td>DN 1200</td>
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<td>30</td>
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<td>60</td>
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Pipes/8 hours/2 5-meter pipe lengths *
The RADIAL PRESS is the speedy high-performance machine for manufacturing concrete pipes with diameters of DN 250....DN 2,000 and design lengths of up to 3.5 meters

- High production output.
- High level of reliability at minimum wear & tear.
- Low noise level thanks to the proprietary compacting method used (radial press method).
- Separate drives for the distributing and pressing tools.
- Ease of operation and ease of maintenance.
- Fully automated pipe production.
- High hydraulic input power; for superior quality even of sophisticated products such as e.g. jacking pipes, thick-walled pipes, or double-reinforced pipes.
- Tension-free embedding of steel reinforcements.
- Low energy consumption.

Compacting process

The pipe barrels are compacted by the time-tested radial-press system whose essential feature is a counter-rotating pressing tool. The distributor head located in the upper part of the pressing tool, which features a distributor spiral for the smaller nominal pipe diameters, flings the concrete fed in from above against the wall of the mould jacket, whereupon the compacting tool located at the bottom does the actual and final compacting. A segmented trowel located underneath the compacting tool ensures a smooth inner pipe wall after compacting.

The counter-rotating action of the top and bottom pressing tools safely rules out any twisting or distortions caused by the radial powers acting on the reinforcing cage. This ensures a precise and tension-free embedding of the reinforcing cage. The result: uninterrupted high-quality manufacture of concrete pipes.
Pipe handling

The following system concepts are available for transporting the manufactured pipes in their mould jackets and for their subsequent handling:

- SP RADIAL PRESS + fork lift truck
- SP RADIAL PRESS + crane
- SP RADIAL PRESS + demoulding robot + evacuation robot
- SP RADIAL PRESS + demoulding robot + evacuation robot + moving floor system

The plant’s automation level can be additionally enhanced by additional peripheral equipment such as base pallet management, reinforcing cage feeding, and a pipe testing line.

Manufacture of special products

The RADIAL PRESS allows the additional manufacture of the following special products: jacking pipes; interjack lead pipe stations; drainage pipes; manhole rings; adapter pipes; pre-bed pipes; ...

Options

The RADIAL PRESS by Schlosser-Pfeiffer is easy to upgrade:

- Height adjustable working table for manufacturing pipes of different lengths.
- Hopper weighing system for automatic request for concrete.
- Equipment for fast change overs of pipe sizes.
- Monitoring of the controls via modem/Internet.

Skip hoist with adjustable concrete skip
- Equipment for the manufacture of “compound” pipes (Schlosser-Pfeiffer patent).

Control system

The control system of the RADIAL PRESS by Schlosser-Pfeiffer features a powerful Siemens SIMATIC S7 PLC, a user-friendly Siemens SIMATIC HMI device, and decentralized peripheral units all communicating via future-oriented bus systems.

All manufacture-relevant parameters can be set and saved via the HMI device. A user-friendly visualization system, operating system, and recipe management system for the various pipe sizes as well as a diagnostic system are integrated as a standard in our control system.
**Technical characteristics**

<table>
<thead>
<tr>
<th>Model</th>
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*) Machines also available for lengths of 3.0 and 3.5 meters

**Geometry**

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<tr>
<th>DN</th>
<th>3000</th>
<th>800</th>
<th>1200</th>
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<td>160</td>
<td>90</td>
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</tbody>
</table>

*) Theoretical production output depending on machine equipment and aggregates used.

**Output**

The high-performance machine for automated production of manhole elements

The SRA manhole production machine features a sophisticated machine concept for minimized set-up times during mould changes. Both the entire handling and the feeding of the climbing elements are available either manually or fully automated, in line with customer specifications.

Quality and precision – an unbeatable team

The manhole production machine combines the precision of HESS concrete block machines with the compacting qualities of the Schlosser-Pfeiffer central vibrator. The results are quite impressive: Manufacture of precise-fitting manhole rings and manhole neck frames, with or without climbing elements, in ultra-short cycle times. The rugged machine frame with its high-precision four-column guide system ensures precise and reproducible manufacturing of manhole elements. All products are perfectly compacted thanks to the time-tested vibration technology.

**SRA 1513 technical data:**

- Max. effective length: 1,350 mm
- Min. DN ring diameter: 500 mm
- Max DN ring diameter: 1,500 mm
- Min. DA outer diameter: 1,900 mm
Quality, economic efficiency, and simplicity are the hallmarks of our mould equipment.

Many years of experience gives the know-how that distinguishes each and all of our machines. It takes minimal set-up and operating costs to manufacture a wide range of pipe sizes to the satisfaction of even the most stringent national and international quality requirements.

We offer customer-specific solutions for manufacturing e.g. jacking pipes, large-size concrete pipes, or pipes with and without dry water flow channels or arch pipes.

The spinning machine’s infinitely adjustable drive ensures the powerful compaction of pressure pipes, flumes, poles or piles.

Machines and moulds alike have been designed for ease of operation and long service life.

SM series mixers are the perfect solution for manufacturing concrete for paving blocks, curbstones, hollow blocks and slabs, or concrete pipes, manholes and prefabricated concrete elements. Thanks to their outstanding mixing intensity, our compulsory mixers are particularly suited for concrete types with a low water-cement ratio.

According to the definition by ISO 18650, mixing results with a variation coefficient of less than 7.5 % are considered favorable. The faster a low coefficient is achieved, the better the mixer. The SM mixer has a variation coefficient of 1%!

Even at short mixing intervals!
It’s correct batching that counts.

Schlosser-Pfeiffer offers all components required for the demand-oriented production of high-quality concrete products. This begins with the quality-oriented storage of the aggregates.

Hopper systems with either mobile or stationary feeding - Schlosser-Pfeiffer’s customers have a choice of six different basic types for efficient and separate aggregate storage.

Design, construction and fine-tuning of the required hopper systems generally takes into account all key factors including economic aspects, space conditions, and the number of aggregates to be stored.

We support our customers with all of our experience and technical know-how in their decision-making processes in order to find the best possible solution for their specific application.
We put concrete into shape

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