romer®

Automatic pretreatment chamber

Surface preparation

- Increased efficiency, fully automatic operation
- Reduction of surface preparation costs
- Intelligent and intuitive control

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PLC control with 7" touch panel

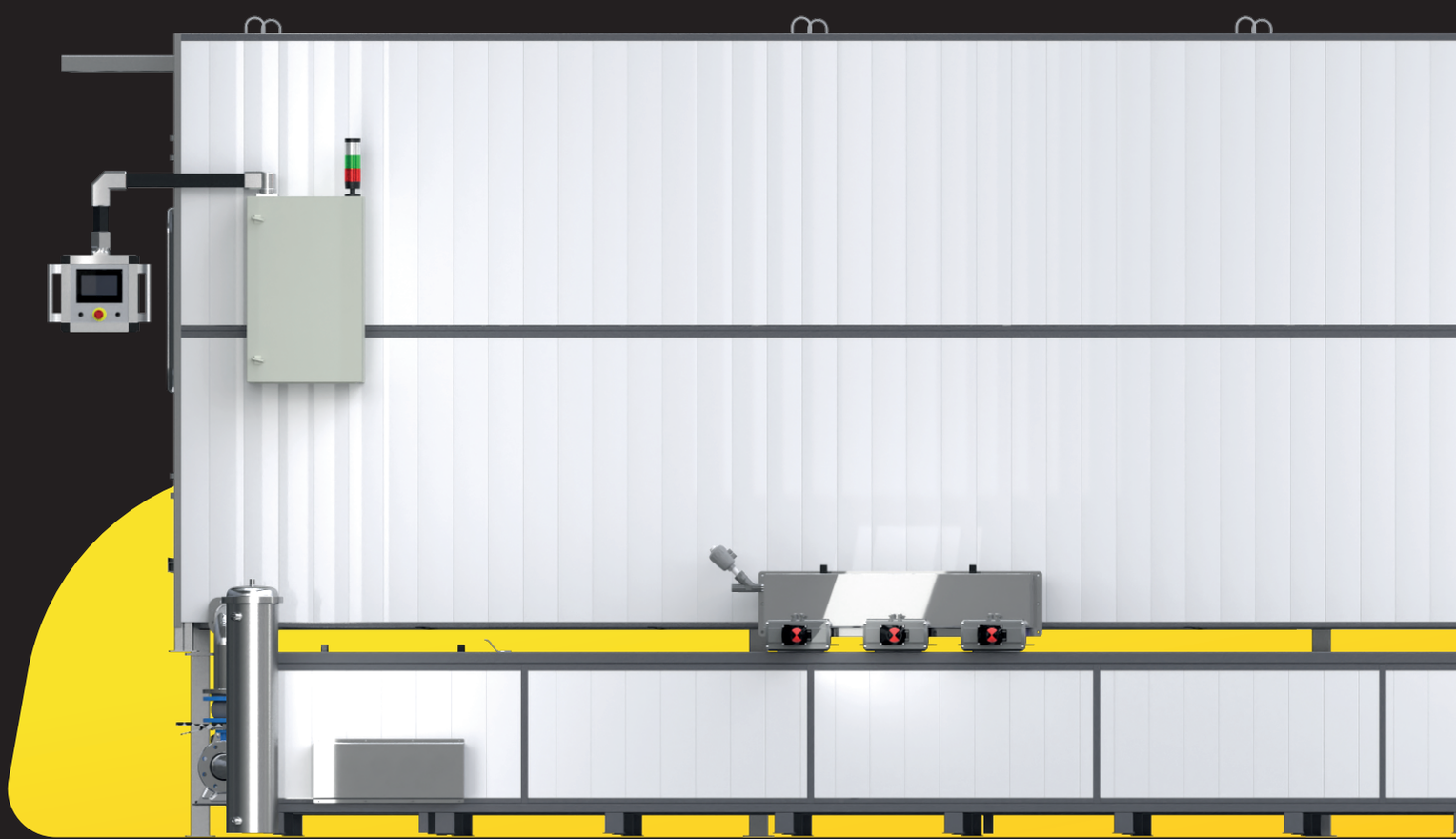
A large color panel and an intuitive graphical interface make work easier. The control allows programming parameters such as: the length of each process, reagent temperatures and time intervals between treatments.

Closed circuit, environmental protection

Nowadays, the emphasis is on ecological solutions, and this is one of them. The lack of waste entering the sewage system means that the chamber does not require special permits for use and does not have a negative impact on the natural environment.

Employee safety

The closed chamber minimizes the employee's contact with chemical substances, which is difficult to avoid when using other solutions.



Durability for many years

The inside of the chamber is entirely made of AISI304 or AISI316 acid-resistant sheet metal. The high quality of the materials used and its tight welding make it a structure designed for long years of use.
To administer the bath, centrifugal pumps made of AISI304 steel finished with Viton seals, fully dedicated to chemicals, are used.

Chemical dosing [option]

Decide when the chamber should be refilled and the automatic chemical dosing system will take care of it for you.

Liquid measurement system [option]

Each liquid mixture can be distinguished by important control parameters. An external measurement system helps in, among others: checking the pH of the liquid, temperature or conductivity in the tank itself.

Our automatic pretreatment chamber has been designed in such a way that as little liquid as possible migrates to subsequent surface preparation processes after the treatment, which reduces costs and improves the quality of prepared surfaces.

Up to 5 processes in one chamber

The innovative solution of the flap system and separate tanks allows us to use up to 5 chemical treatments in one chamber.
For example:
1. Nanoceramics with degreasing
2. Rinsing with mains water
3. Rinse with DEMI water
4. Passivation
5. Rinse again with DEMI water

Automation and repeatability of the washing process

Investing in automation pays off. An automatic pretreatment chamber allows for repeatability of the quality of the washing process, which is almost impossible to achieve with manual solutions. It allows you to reduce employee workload and increase the efficiency of the surface preparation process.

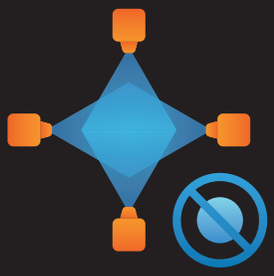
Minimizing bath mixing

Thanks to the use of separate spray systems, nozzles, pumps and pipelines, chemical and rinsing treatments
can be replaced even less often than usual.

Working time programming

Thanks to the extensive control system of the pretreatment chamber, you can optimally plan your working hours.
The sprinkling chamber will heat the baths at night so that they are ready when employees come to work in the morning.

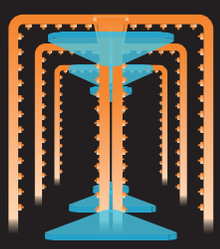
No dead zones



The nozzles are mounted in rows between each rail:
from the top, bottom and in two rows on the sides.
A wide spray angle and a huge amount of water pumped mean that the elements are washed,
even in hard-to-reach places.

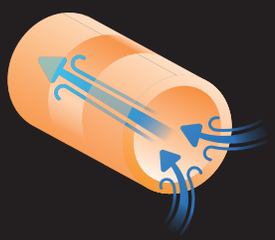
Stepless liquid level sensor

Each tank has a stepless, programmable sensor that protects against overflow or too low liquid level.



Moving pipeline [option]

The internal pipeline running along the top strip allows easy cleaning of previously inaccessible elements or their parts on the inside.
Due to its modularity, it is always possible to pull it out and continue washing large-sized elements.



Pipeline blow-through [option]

Using a turbine to blow-through pipelines results in a high-pressure air flow that blows the inter-process liquid from the details through each nozzle. This reduces inter-process carryover, use of scrubbers, chemicals and energy consumption in the drying process.

Rail oscillation [option]

For the most demanding loads, there is an element oscillation system that eliminates any unwashed surfaces that are beyond the reach of the spot spray.

Automatic cascades [option]

The automatic cascade return system of liquids migrating and moving between tanks between processes will allow you to significantly save on chemicals.

Drying of details [option]

The chamber can be equipped with the function of drying parts with hot air blown by a set of fans after the washing process. Thanks to drying at a temperature of 120 degrees, complete evaporation of water from the load takes place after 22 minutes. This process can be accomplished by direct heating with a burner or electric heaters.

Replaceable nozzles

The nozzles we use are easily replaceable and are fastened to the pipe with acid-resistant fasteners made of a special polymer that is resistant to eg.: build-up of phosphate layers.

Filtering

The sieve system in the chamber is made of meshes of various densities, protecting the pumps against damage. Optionally, flow filters with large surfaces and a mesh size of 25µm are installed to collect sludge from the tanks.

Built-in work calendar

The pretreatment chamber has a built-in work calendar in which we can plan e.g. heating based on shift hours or working days, and in the event of a power cut or sudden shutdown, internal memory prevents unwanted mixing of tank fluids.

Security

Control systems ensure control of events such as incorrect flap position, incorrect liquid level in the tank, pressure drop or sudden loss of power.