



This innovative concept allows parts to be processed quickly on a product-specific basis for both powder and liquid coating.

are activated, depending on the programme selected.

As a result, each batch of products receives exactly the pre-treatment required, according to its properties and the purpose for which it will be used. The control panel of the machine can be used to select predefined treatment processes or to program new ones. This allows for the optimum pre-treatment of almost any metallic material.

#### Significant flexibility in a small space

The pre-treatment chamber has three rails and can process up to two trolleys at a time. The two outer rails are used for small parts and the central rail for larger parts. After the machine has been loaded, the different reservoirs are automatically activated in the correct order.

The workpieces are suspended from hooks and sprayed with the appropriate pre-treatment agent via a centrifugal pump. The agent that runs off the parts is returned directly to the reservoir.

After a brief dripping phase, the next tank is activated and another pre-treat-

ment stage begins. This is repeated until the process is complete.

The pre-treated parts are then removed from the chamber and the next batch of products can be cleaned and pre-treated using a specially selected programme.

#### Reproducible quality that is easily monitored

The variable pre-treatment system is only one part of the modular concept, which can also be used in the treatment phase itself. Job coaters are now in a position to apply powder and/or liquid coatings to parts.

Using a specially designed conveyor system, the trolleys are moved to their individual positions in batches after the drying process, depending on the type of coating required. After this, they can be painted or powder coated.

Workpieces that require both a liquid and a powder coating are diverted after the first stage to undergo a masking process. After this, the second coating process can begin. In order to ensure that the production process is as cost-effective and environmentally friendly as possible, the trolleys are moved via a

cross-shifting mechanism after the liquid or powder coating stage to a parking area where they are grouped together. Depending on the properties of the products, up to twelve trolleys can be placed in the oven for baking at once.

The "Modulo" system with its flexible batch pre-treatment machine offers a range of benefits for both the coating process and the coating company. For example, far less space is needed for the pre-treatment machine than for a standard continuous flow system. In Kopp's case, less than 70 square metres is required for the spraying tunnel with its reservoir area that currently contains eight tanks.

The purchase cost of the system is also significantly lower. As a result of the high level of availability in the materials area, as well as in pre-treatment and in the coating process itself, production bottlenecks have almost become a thing of the past, without any negative impacts on quality.

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