



Parts Cleaning. Systems and Solutions.

A close-up photograph of numerous brass-colored metal parts, likely valves or fittings, submerged in a cleaning solution within a wire mesh basket. The parts are covered in fine white bubbles, indicating an active cleaning process. The basket's mesh is visible in the background.

Eugen Geyer GmbH:
Clean components in only
15 minutes with the MAFAC ELBA



User Report

Atlanta

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In their sawmill, the company Eugen Geyer installed a highly efficient working area with extremely short distances. Three MAFAC compact cleaning machines play a major role in the overall concept.

Based in Königsbach-Stein, the family-owned enterprise Eugen Geyer – now in third generation – forms semi-finished metal products for a number of industries and applications. Pipes, rods and wires in a great variety of metals and alloys are manufactured pursuant to the specifications of the customers from mechanical and tool engineering, model building, medical, sensor, and measuring engineering, as well as manufacturers of musical instruments, jewellery, and writing utensils. As a precondition for the successful working of niche markets, Eugen Geyer had to specialise in custom-made products and small volumes of one manufacturing length.

As the demand for ready-for-assembly products is constantly increasing, the requirements in the production processes have changed as well. Here, component cleaning plays a crucial role and is meanwhile integrated in the process as an indispensable manufacturing step. To meet the increased requirements in cleanliness, the company Eugen Geyer created a special concept with integrated cleaning process for the sawmill. The result is a logistics concept characterised by short distances and premium efficiency: The sawed parts contaminated with

sawing emulsion and chips drop directly into the baskets of the cleaning machine. Once a basket is full, it is loaded into the parts washer. This ensures that the cooling lubricants will not dry up on the parts, and particles will not stick.

In this way, primarily sections of maximum lengths of 600 millimetres are cleaned which come in a wide range of diameters and materials and are intended for customers from medical and electrical engineering. Every day, each of the three machines running in one-shift operation cleans around 30 to 40 batches. The sawing machines are installed on the right side of the shop floor; on the left, there are three MAFAC cleaning machines, two ELBAs and one KEA. From the sawing machine, the parts cut in a fully automated process drop directly into the receptacle baskets of the parts washers. Once a basket is full, it is conveyed into the cleaning machine waiting in direct vicinity. This convincing logistics concept was one of the main reasons why Eugen Geyer purchased the MAFAC systems: “We wanted to implement the entire concept including the logistics. The MAFAC experts submitted a proposal tailored to our wishes,” Managing Director Lorenz Geyer says. In his view, the MAFAC machines are characterized by their high flexibility. They offer optimum setting options for a wide range of different materials, he says, as well as frequently changing items, lengths and diameters. The components – aluminium parts only for the KEA – are loaded into the stainless steel basket as bulk goods and secured with a lid for rotary operation. Corresponding to the extensive product portfolio,



different programs are stored in all three machines. The programs take 15 minutes on average.

The process is divided in a wet phase and a drying phase, which is about one third of the entire cleaning time. The two baths of the ELBA are used in cleaning – rinsing sequence. For both partial processes, the patented basket-nozzle-rotation, a typical MAFAC feature, is employed. For drying, a hot air pulse blowing system is used. The workpieces are blown off by a rotating blowing system in a pulsed manner, with the simultaneous application of hot air. Also during drying, the basket receptacle system counter-rotates to the rotating blowing system. Thanks to the

special filter system of the MAFAC machines which comprises chips filtration in the return flow, the customer's main requirement – absolutely no chips on the parts – is reliably met. For coarse and fine separation of surface contaminations, a coalescence separator with floating suction device is provided. The separated oils and greases are collected in a separate container.

Lorenz Geyer draws a positive conclusion: "We are very happy with our three MAFAC machines, not only in terms of the cleaning result but also reliability. And this is impressive, particularly considering our daily throughput."



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