

Modular Six-Chamber System

Interim and Final Cleaning in One Machine

A multi-chamber machine has been developed for interim and final cleaning and corrosion protection of vehicle injection components, which allows for flexible operation and short cycle times.

The new (Hexa) machine from LPW is 13 metres wide, almost 9 metres deep and has a modular structure. The multi-chamber system is used in the automotive supply industry for injection components which have to comply with very high cleanliness standards. It was developed to meet the following requirements: Interim and final cleaning of steel and stainless steel components including corrosion protection of the steel components that have undergone final cleaning. Cycle times of 4 to 5 minutes for interim cleaning and 8 to 12 minutes for final cleaning were also needed.

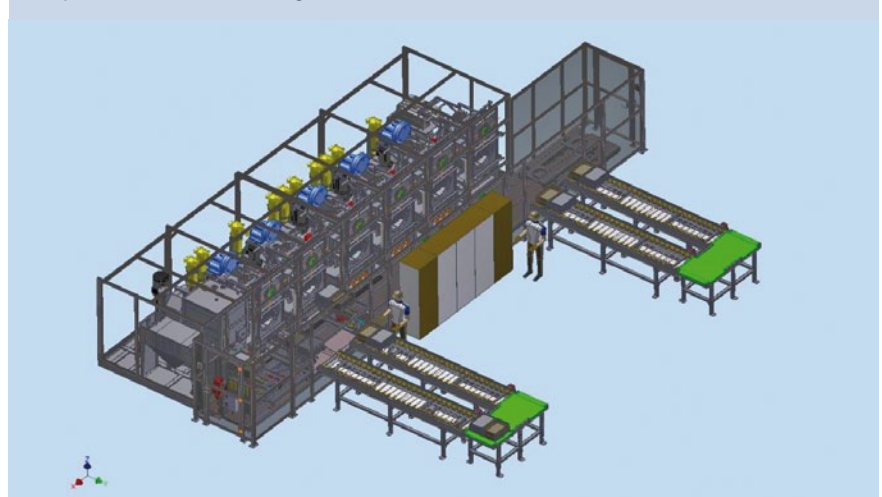
None of the disadvantages of open multi-bath systems

Until now, requirements of this kind and those relating to throughput, in particular, could only be met by multi-bath systems. However, the open baths in machines of this kind are often subject to major restrictions on the mechanical washing methods that can be used and on the flooding and filtration results. In addition, they need extensive maintenance and incur significant energy costs, because of the high levels of heat loss.

A further development of the PowerJet modular system, which takes the form of a new multi-chamber machine, has none of these disadvantages. The machine has separate rinsing and drying chambers for steel and stainless steel parts and a distillation system for recycling the cleaning agents. The parts are cleaned using a combination of ultrasound and injection flood washing. The machine has a PC-based control system which includes process moni-



The six-chamber system provides interim and final cleaning processes for injection components and meets the highest standards of cleanliness.



toring using RFID and frequency-regulated pumps. It can be loaded both manually and by robots. The high-performance automated shuttle system allows for significant flexibility, in particular when batch sizes vary significantly.

The central system can be used for a wide variety of applications because

of its multi-chamber design and has much lower energy consumption levels than multi-bath systems. ■

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