

## Product Overview

# Fully Automatic Paint Stripping System (EVA L1000; EVA L2000, EVA-S ...)





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## 1 Chemical Paint Stripping with the Fully Automatic Paint Stripping System

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Chemical paint stripping in a closed system provides a safe, simple, and clean stripping process and facilitates its operating procedure.

The closed system with its compact size enables for easy integration into the existing infrastructure of the individual company.

The fully automated paint stripping system is designed for non-stop operation and can therefore also be used in multi-shift operation.



There is no direct contact with chemical agents while operating the fully automatic paint stripping system. Connection to an exhaust system inhibits chemical vapors from escaping and possible odors are removed immediately.



This improves the entire working environment for all staff involved in the paint stripping process without impacting the cost-efficiency of “in-house” paint stripping.

Furthermore, the physical strain for the staff is reduced by using the transport system especially designed for the fully automated paint stripping system. Paint stripping objects are loaded into the system at an ideal ergonomic working height, the hood is closed and the paint stripping program is started.

## 1.1 Features of Fully Automated Paint Stripping System EVA Series

SMiTO-Technic offers fully automated paint stripping systems with dipping or spraying processes. The decision for the “right” process must be made on a customer-specific basis. The process that is more advantageous for the customer mainly depends on component geometry and the material of the parts to be stripped, the type of coating and the resulting chemicals that can be used.

Together we will determine which system is suitable for your application by carrying out appropriate preliminary tests at our premises.

The fully automated paint stripping systems of the EVA series are completely made of stainless steel and comply with the water management law (WHG) by their integrated safety collection tray. All systems are CE-compliant. The system is operated via the control panel at the front left side. The temperature of the chemical paint stripping agent in use plays an important role in reaching an optimal process time. Therefore all tanks are equipped with electrical heating which indirectly warms up the paint stripping agents to operating temperatures up to max. 85°C, resp. max. 120°C. All systems are isolated to reduce heat loss. A circulation unit ensures constant bath movement and consistent temperature. Temperature is controlled by a Siemens control unit. Overheating is prevented by the safety temperature limiter. Monitoring the filling level in the tank and leakage detection by sensor are further safety devices.

### System Features EVA Series

- completely in stainless steel, isolated
- integrated safety collection tray, leakage detection by sensor
- electric heating, indirect
- paint stripping agents with operating temperatures up to 85°C, resp. 120°C
- circulation by efficient IE2 engine
- integrated extraction for vapors
- electrical cabinet with operating panel
- Siemens control (PLC and display)
- safety temperature limiter
- monitoring of filling level
- CE conformity

### EVA L1000; L2000:

- When water-based chemical agents are used, an additional rinsing option with fresh water is possible.

### EVA-S:

- Filtration with bag filter and filter sieve basket
- rinsing with fresh water

# Fully Automatic Paint Stripping System



## 1.1.1 Overview technical data

	<b>External dimensions:</b> - (L x W x H) - H with open hood <b>Usable interior space:</b> - (L x W x H)	<b>Electrical data:</b> - Power (kW) - Connection values	- Filling volume - Weight (empty) - Max. loading capacity	<b>Process temperature</b>
<b>EVA L1000</b> 	- 2000x930x2100 mm - 2500 mm - 1000x585x600 mm	- 6 kW - 3~/ 400 V / 50 Hz	- max. 600 l - 630 kg - 150 kg	max. 120°C
<b>EVA L2000</b> 	- 3000x930x2100 mm - 2500 mm - 2000x585x600 mm	- 11 kW - 3~/ 400 V / 50 Hz	- max. 1000 l - 900 kg - 300 kg	max. 120°C
<b>EVA-S</b> 	- 2300x1250x2100 mm - 2600 mm - 1000x585x600 mm	- 12kW - 3~/ 400 V / 50 Hz	- max. 600 l - 750 kg - 150 kg	max. 85°C

All fully automatic paint stripping systems require a pneumatic connection (min. 6 bar, NW 7.2) and an exhaust air connection with a diameter of 110 mm.



## 2 Fully Automated Paint Stripping System EVA L Series

The fully automatic paint stripping systems of the EVA L series are chemical paint stripping systems that use an immersion dip process. The paint stripping chemicals are located in an immersion dip tank that is



completely sealed off from the surroundings by a closed cabin. After opening the door of the cabin, the goods to be paint-stripped can be placed in the system at an ergonomic working height. This is done either manually or by using the loading and unloading system with a trolley. After closing the door, the goods are automatically immersed in the dip tank. The hot chemical agent is constantly circulated, thus ensuring a homogeneous distribution of heat and an even effect on the workpieces. The dip stripping process is particularly suitable for complex component geometries and components with a high density. The workpieces are completely bathed, and the dip bath volume keeps temperature losses at a minimum when inserting cold workpieces.

Due to the excellent insulation of the fully automatic paint stripping systems, operating costs are very low. Fully automatic paint stripping systems with immersion dip technology can be operated with all common paint stripping agents. Both alkaline solutions (water-based paint strippers) and soft paint strippers (water-free systems) can be used, even acidic water-based paint strippers ( $\text{pH} \geq 1.5$ ) can be used here.

The fully automatic paint stripping systems of the EVA L series are characterized by their robust design, high reliability and safety. Maintenance costs are minimal and operating the paint stripping system is simple and intuitive.

The EVA L series can be equipped with a fresh water rinse when using water-based paint stripping chemicals. The fresh water rinse is a pre-rinse process and is used to remove concentrated chemicals from the surface of the stripped parts. Rinsing is carried out with water line pressure, which must be set to a maximum of 3 bar using a pressure reducer (provided by the customer on site).



Fig.: Option: Fresh water flush with nozzle system and protective plates

## 3 Fully Automated Paint Stripping System EVA S Series

The fully automatic paint stripping systems of the EVA S series are chemical paint stripping systems that use a spray process for paint stripping. The paint stripping chemical agents used for the process (water-based chemicals) are heated and sprayed onto the workpieces to be stripped using a special pump and nozzle system. Over time, the coating on the workpieces peels off. This process is generally accelerated by the spraying pressure, which can lead to a reduction in process time. The entire return flow of paint stripping chemicals is passed through a filter basket and thus freed from paint flakes or mechanical coarse particles before it is returned to the system tank. A large maintenance access to the chemical tank ensures easy bath changes and uncomplicated cleaning. A central access to the filters offers an optimal work comfort for daily maintenance work, such as removing residues from the filter.



The rinsing process required after the paint stripping process is integrated in the systems of the EVA S series. Fresh water is sprayed onto the workpieces with a separate nozzle system in the cabin. As standard, the fresh water introduced is pumped out of the system at the same time as the flushing (loss flushing). The extension for a recirculating water rinsing is available as an option. For this purpose an additional, separate tank with pump is connected to the system. The recirculation rinsing water is contained in this tank and is pumped into the nozzle system in the cabin and sprayed onto the workpieces. The returning circulation water is pumped back into the separate tank.

## 4 Transport System

A transport system is available for safe and simple transportation of stripping objects. This system includes a transport trolley and adaptable movable loading rack.



Fig.: Transport trolley



Fig.: Transport trolley with adaptable movable loading rack – here with loading rack for hooks





## 5 Paint Stripping Examples

### 5.1 Chemical Paint Stripping of Hooks and Hangers

Re-using hooks and hangers is an important contribution to the issue of process reliability and sustainability. For our customers cost-efficiency is the key factor. Using our fully automatic paint stripping system together with our transport trolley system for an “in-house” chemical paint stripping procedure in your own company has many benefits. Compared to contract paint stripping our system not only provides a high level of flexibility, saving time and costs, but also facilitates the entire working process. Hooks which need paint stripping do not have to be bundled and transported in boxes, they can be sorted and placed on the loading rack on site.



The hooks stay there during the entire paint stripping process which means they are ready to use right after transportation back to the powder coating or paint-spray line. This is a time saving procedure which also avoids shipping and transportation damages. The hooks are held by the loading rack in a way which facilitates paint peeling. Unlike bundled hooks, the single hooks are entirely enclosed by the chemical agent, which reduces process time. It is easy for paint flakes to fall off. This also applies to rinsing the hooks after paint stripping.

### 5.2 Chemical Paint Stripping of Miscoated Components

The fully automated paint stripping system is also ideally suited for chemical paint stripping of miscoated components. With different loading racks paint stripping is possible for i.e. bike or motor cycle frames, fenders, engine parts and wheels (4 rims up to 22“ per batch), and almost all paint coated metal work pieces.



## Fully Automatic Paint Stripping System



Notes:



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