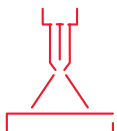




Acerios



Hot Active Plasma
surface cleaning (HAP)

Optimal preparation

Precise cleaning

The cleanliness of part surfaces is an essential quality criterion for modern production and lightweight construction technologies. Impurities or residues must be sufficiently removed in pre-cleaning or intermediate cleaning steps, so that subsequent production work can be performed with sufficient quality.

Thanks to the ability to program cleaning processes with Acerios with pinpoint accuracy, it is not necessary to clean the entire part before the next production step. Only those areas that require particular cleanliness are treated.



Acerios – Your benefits



Economical and sustainable

- Partial cleaning – only where it is actually needed
- Efficient alternative to wetchemical cleaning processes
- Low media consumption
- No use of substances hazardous to the environment or health



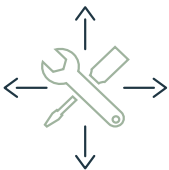
Fast and reliable

- Cleaning speeds of 6 m/min and more
- Long service life (low wear, low maintenance)
- High process stability and simple configuration



Highly compatible

- Easy to integrate into automated plants due to inline capability
- Easy robot connection thanks to the variety of interfaces
- Compatible with all robot systems
- Small torch geometry, good accessibility



Universal application

- Also works with nonconductive materials
- Cleaning of oils, lubricants, fluids, fibers, and much more
- Removal of thin coatings
- Suitable for both part- and torch-guided systems

Acerios in action:
www.fronius.com/acerios



Efficient cleaning

Innovative HAP technology

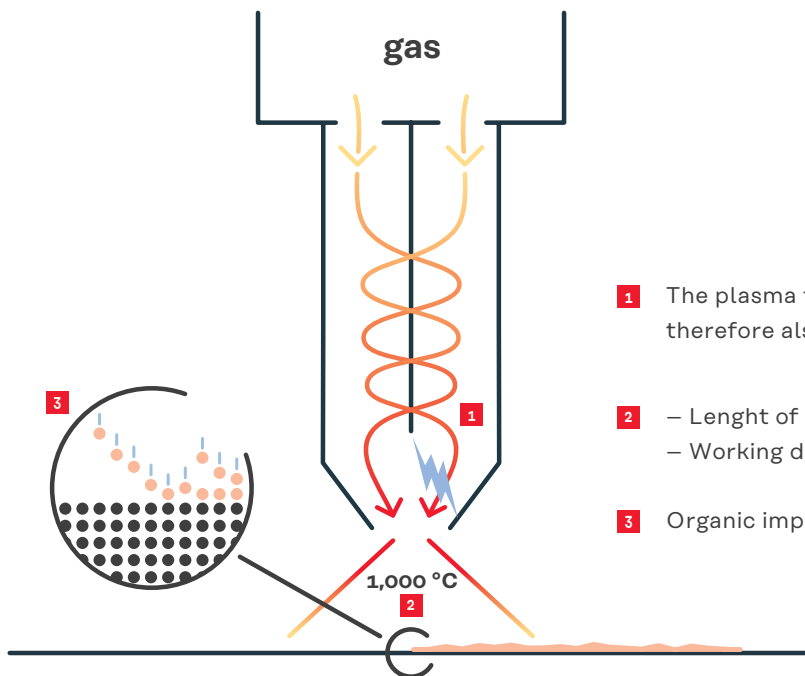
The Acerios hot active plasma technology allows partial and precise cleaning of material surfaces in industrial production by removing organic residues and film impurities quickly and efficiently. Compared to conventional methods of fine cleaning, the application impresses with low energy consumption, higher efficiency, and the absence of environmentally harmful cleaning additives.

Treatment speeds of 6 m/min and more can be realized, depending on the material and the soiling. The hot active plasma generated by Acerios is guided fully automatically over the material surfaces. The pyrolysis and plasma processes that take place remove the organic impurities and provide sufficient pre-treatment of the material surface.



How does Acerios work?

The HAP process used by Acerios frees metallic and non-metallic surfaces such as glass, ceramics or organic contaminants.



- 1** The plasma flame is generated with a non-transferred arc – therefore also works with non-conductive materials.
- 2** – Length of the plasma flame approx. 15–20 mm
– Working distance approx. 5–25 mm
- 3** Organic impurities are removed.

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High compatibility

Acerios can be used in both part-guided and torch-guided systems. It can be easily integrated into automated systems or equipped with

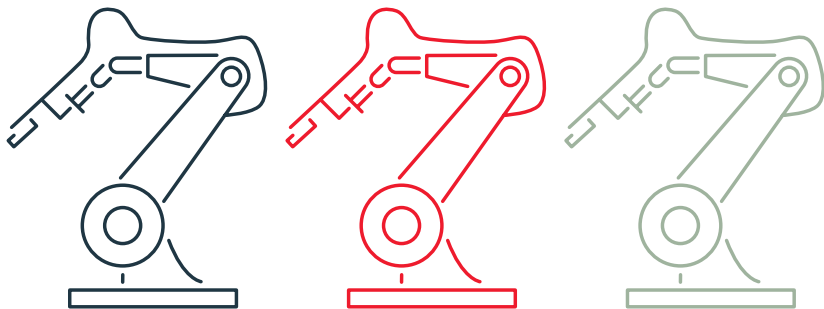
a variety of robot interface variants. This makes it easy to connect and control the system using a standardized industrial robot interface.

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Gentle pretreatment

With a stable plasma flame length of around 15–20 millimeters, the process uses plasma temperatures of up to 1000° Celsius. The parents materials to be treated are not melted but only freed from impurities. In addition to the temperature-related cleaning, the surfaces are also activated by the plasma.



We take responsibility



Cleaning without chemicals

Better working conditions, better for the environment: Acerios makes it possible to dispense with conventional pretreatment methods such as grinding or priming – and avoid the associated adverse effects such as grinding dust pollution or chemical hazards. The absence of solvents and chemicals also means that hot-active-plasma surface cleaning is ecologically beneficial.

Save up to 90 % energy

Programming precise pretreatment of surfaces with Acerios: It is not necessary to clean the entire part before the next production step. Only those areas that require particular cleanliness are treated. For example, before starting the welding process, cleaning is only necessary in the area where the weld seam runs. The result? Energy savings of up to 90 % compared with wet-chemical cleaning.

Acerios – technical data

	Acerios
Mains voltage	3 x 400 V
Mains voltage tolerance	± 15 %
Grid frequency	50/60 Hz
Process current range	35–200 A
Process current at 10 min/40° C (104° F) 100 % Duty Cycle	200 A
Open circuit voltage	97 V
Working voltage	11,4–33,0 V
Striking voltage (Up)	9,5 kV
Protection class	IP 23
Dimensions l/w/h (with handle)	625/290/475 mm 24,6/11,4/18,7 in.
Weight	40,3 kg 88,85 lb.
Marks of conformity	S, CE

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