











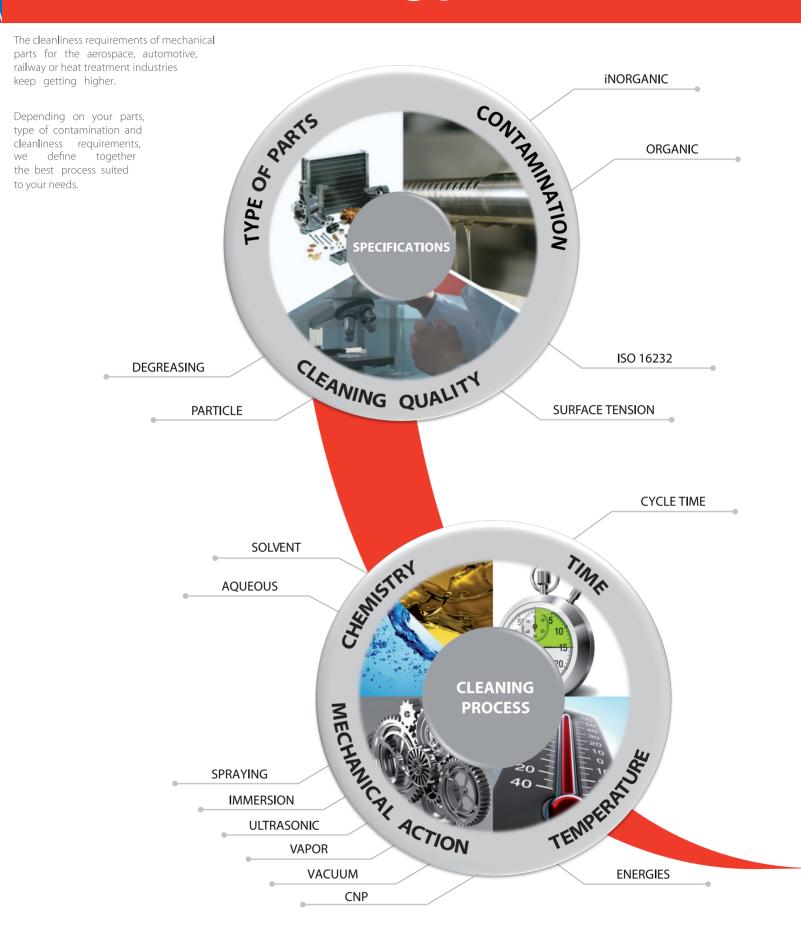




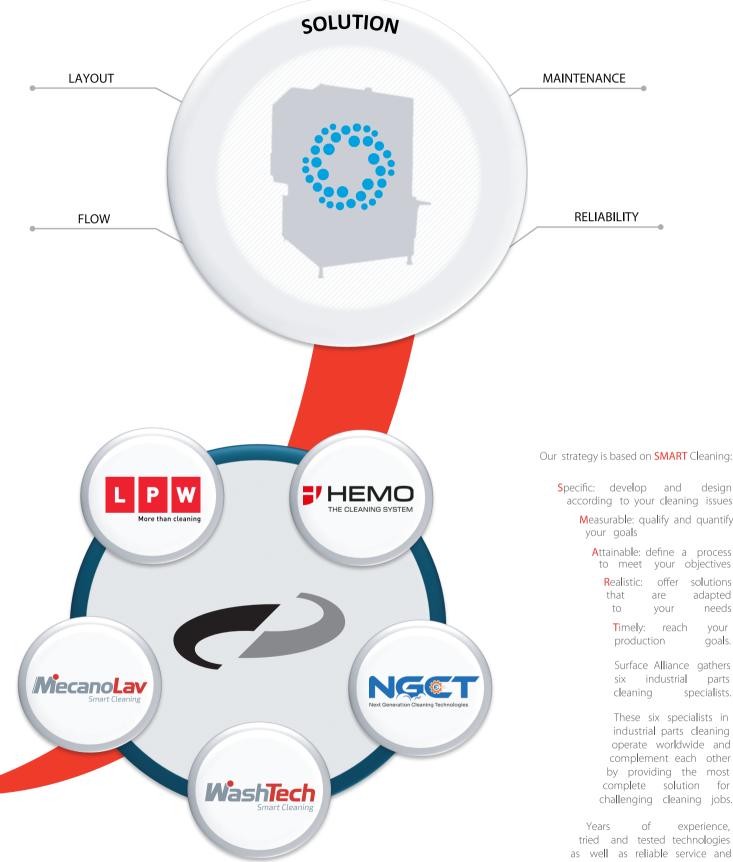




The cleaning process ...



... « SMART Cleaning »



Specific: develop and

according to your cleaning issues

Measurable: qualify and quantify

Attainable: define a process to meet your objectives

Realistic: offer solutions that are adapted to your needs

Timely: reach your production goals.

Surface Alliance gathers six industrial parts cleaning specialists.

These six specialists in industrial parts cleaning operate worldwide and complement each other by providing the most complete solution for challenging cleaning jobs.

experience. tried and tested technologies as well as reliable service and sales network are the basis of their success.

SOLVENT AND/OR AQUEOUS CLEANING

Five specialists

The French company MecanoLav, the German companies HEMO and LPW as well as their subsidiaires WASHTECH in Mexico and NGCT in India, are part of a powerful network called **SURFACE ALLIANCE.**

Recently, an office opened for the North American market: Surface Alliance Cleaning Corp.

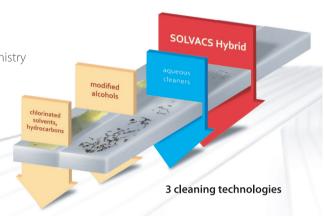
Operating on an international scale, these industrial parts cleaning specialists complement each other to offer the best solution to cleaning issues.

A common know-how

In the cleaning industry, choosing the right chemistry is essential.

Two technologies stand out: the aqueous media for inorganic contamination, chlorinated solvents and modified alcohols for organic contamination.

Surface Alliance offers a complete product line for aqueous and solvent cleaning machines.







Hybrid cleaning

Perfect cleanliness is usually necessary for thermal and surface treatments, as well as for vacuum deposition operations (plasma, nitridation, etc.)

In case there are multiple contaminants (organic and inorganic), HEMO has developed a hybrid cleaning machine that runs in a smart way between solvent and aqueous cleaning cycles.

SURFACE ALLIANCE offers vacuum cleaning machines. These machines combine both aqueous and solvent technologies, creating the benefit of using the natural action of both chemistries.

These modular machines can clean all types of materials and are suitable to any parts dimensions.





The SMART cleaning engineering

MecanoLav Ridel, a French parts washer manufacturer for more than 40 years, is specialized in **one-piece flow cleaning in production cells**.

Its wide product range offers solutions for wide parts (several meters) as well as small parts with a short cycle time.



Maxima - MB



The line composed of aqueous spraying systems, such as the Maxima-MB or MecanoJET, takes care of the most demanding treatments in the aerospace, railway, automotive and heat treatment industries.

The unique know-how of MecanoLav has played a part in the success of its product **MecanoFAST**, a parts washer able **to clean and dry a part in few seconds.**

- **Particle cleaning:** respect of the most precise cleanliness requirements.
- Compact design : (700mm / 2'3 9/16" width), for a footprint of less than $2m^2$ (22 ft²)
- Different options with manual loading, robotized or mixed loading, with turntable or pallet conveyor.
- Workpiece carrier with specific cleaning tools according to the application.



The gateaway to the North American market

Surface alliance cleaning corp. is a newly created office based in Texas, to back up and further develop our business in the U.S.A and Canada, allowing us to meet your needs more efficiently.







Innovative cleaning systems

LPW Reinigunssysteme GmbH is one of the leading manufacturers of aqueous parts washer with ultrasound.

Their high-tech processes are used in sectors such as mechanical engineering, automotive, aerospace and their suppliers, as well as in general industry.

Thanks to the high purity label, LPW is able to provide innovative cleaning technologies for several applications such as for medical equipment, optics, and semiconductor providers.

More recently, the CNp (Cyclic Nucleation process) was added to the other cutting-edge (trouver mieux) technologies of the company.



- Specific systems adapted to customer's demand
- Laboratory for cleanliness measurements
- Systems enabling an outstanding surface quality and the removal of residual particles.





PowerJet Multichambers



The outstanding manufacturers of the alliance

WASHTECH S.A. DE CV based in Queretaro in Mexico, designs and manufactures industrial parts washers for the North and South American markets, licensed from MecanoLav, HEMO and LPW.

Since 2016, the company is the service center of Surface Alliance for these markets.

NGCT Cleansys PvT. Ltd. Manufactures aqueous and solvent-based parts cleaning and degreasing systems for the Indian market. In addition to innovative single chamber systems, NGCT designs and manufactures multi-chambers spray and flood cleaning machines, meeting high quality requirements and respecting the environment.



AN INTERNATIONAL ALLIANCE

Partner of demanding customers

The VAIOCS technology, developed and patented by EMO Oberflächen GmbH, is considered as a turning point in the development of solvent industrial parts cleaning.

For the first time, it enabled the use of **chlorinated**, **hydrocarbon type solvents and modified alcohols** in one single system.

The VAIOCS cleaning systems follow internationally recognized criteria in terms of particle cleaning: measurement of the weight and size of residual particles.

These systems are designed to be integrated in very sharp manufacturing processes requiring an extremely efficient cleaning, such as in the aerospace or nuclear industries, but also in heat treatment or machining workshops.

Wide range of solvent cleaning systems, from the standard to a **specific installation for bigger loads**.





VAIOCS S

Specialist of specific demands

HÖSEL GmbH is a machine manufacturer specialized in cleaning system **for specific issues, such as the ultra-precise cleaning** of injectior system components or miniature components of high-end mechanical watches.





SOLVACS 1

HOSEL offers a complete range of machines, using two types of processes: vacuum solvent and hybrid (solvents and aqueous in the same work chamber).

With one or several working chambers, these installations also enable a precise components loading in baskets or through **specific** workpiece carriers.

The most recent development, the **BEYOND** procedure, was presented in 2016. Instead of using separate steps, it involves the simultaneous use of solvents and aqueous media in a mixture.

In 2017, EMO Oberflächentechnik GmbH and Hösel GmbH merged and became HEMO GmbH.



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