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# RIGENERA

CLEANING & TESTING SYSTEM

**THE MOST ADVANCED SOLUTION  
ON THE MARKET**

RIGENERA™ OF SMARTJET™ is the most technologically advanced system for the regeneration of printheads, avoiding their replacement with obvious savings in terms of costs and maintenance.





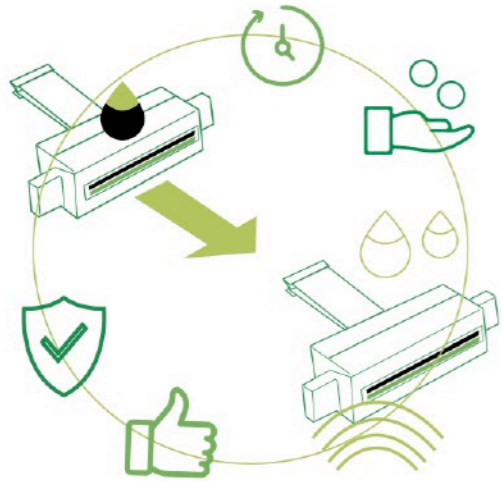


## REGENERATE IN ORDER NOT TO REPLACE

### Reduced costs and top quality

Printheads are key elements in ensuring the quality of the printing process in industrial inkjet printers. Often these components experience malfunctions due to clogged nozzles and internal ducts that directly affect print quality and therefore require replacement of the component.

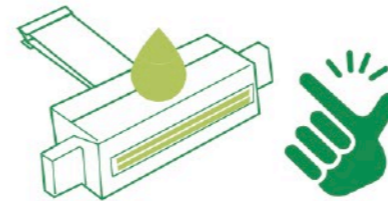
Having an advanced printhead regeneration system allows companies using digital inkjet printers to recover most of the clogged printheads and thus avoid buying new ones with obvious savings in maintenance costs.



## THE NEW SMARTJET MODEL: THANKS FROM THE PRINTHEADS

Since 2016 SMARTJET has been working incessantly to regenerate printheads dedicated to digital printing. After a careful and substantial revision, it now presents a completely new model based on a 2-in-1 system that carries out washing and subsequent printing test, providing the operator with all the tools to evaluate the actual restoration of the print capacity of the printheads themselves

RIGENERA™ addresses both service centres that want to offer a printhead regeneration service, and companies that want to carry out the cleaning process in-house, all in a simple and effective way. RIGENERA™ can wash up to four printheads in parallel thanks to the presence of two modules and two independent washing chambers.



### A DOUBLE SOLUTION, THE SAME QUALITY

Today, companies and service centres can choose between RIGENERA™ with double module, called RIGENERA™ DUO and the machine equipped with single module, RIGENERA™ MONO.

**RIGENERA™ DUO**  
The double module configuration provides a highly productive solution and allows the user to clean up to four printheads simultaneously.

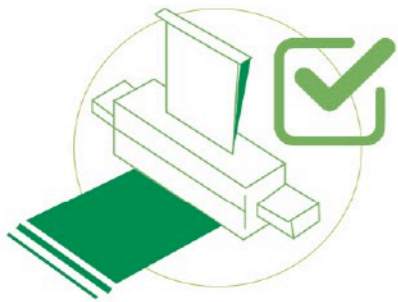




# THAT'S WHY WE MAKE A DIFFERENCE

## A COMPLETE 2-IN-1 SYSTEM

RIGENERA™ is a 2-in-1 complete printheads regeneration system, where washing is integrated with the print test module. In this way it is possible to test and wash the printhead and to wash it again in case of partial success of the print test without having to disconnect the electrical and hydraulic connections.



## STATE-OF-THE-ART TESTING

RIGENERA™ allows to perform different types of tests and is able to print a test pattern that allows operators to evaluate in a rigorous way the operation of each nozzle of the printhead. It is also possible to perform tests with customised graphics loaded directly by the operator on board the machine.

## PERFECT CLEANING IN THREE STEPS

The RIGENERA™ system is unrivalled because it uses three different cleaning steps and guarantees superior washing effectiveness.

- **Direct cleaning with solvent:** the solvent is pumped into the printhead to clear internal ducts and nozzles of any obstruction.
- **Ultrasound tank:** the printhead is immersed in a solvent tank on which ultrasound acts, so that any obstruction in the printing nozzles will dissolve.
- **Nozzle operation during the washing phase:** the electronics allow the nozzles to be operated during the washing step, even together with ultrasounds.

Moreover, thanks to the electronically controlled double pump system, RIGENERA™ is able to carry out a backwash step allowing to detach even the most difficult obstructions.

## LONG CLEANING CYCLES WITHOUT INTERRUPTIONS

RIGENERA™ uses an active solvent temperature management system that allows the user to carry out potentially very long cleaning cycles without interruptions and maintaining maximum cleaning effectiveness. In addition, the solvent cooling

system prevents printhead damage due to solvent over-temperatures.

## NEW SOFTWARE, VERY SIMPLE AND EASY FOR THE REGENERATION PROCESS

The recent redesign has equipped RIGENERA™ with a new and more complete software. The 17" touch screen together with a new software allows the operator to manage the cleaning and testing activities in a more intuitive way. In addition, the large touch screen makes it easy to monitor operating data in real time during the entire printhead washing cycle.

## THE FIRST ULTRASOUND SYSTEM IN SEALED CHAMBERS

RIGENERA™ uses a washing system in sealed chambers, reducing solvent consumption to a minimum and limiting the spread of unpleasant odours into the environment.



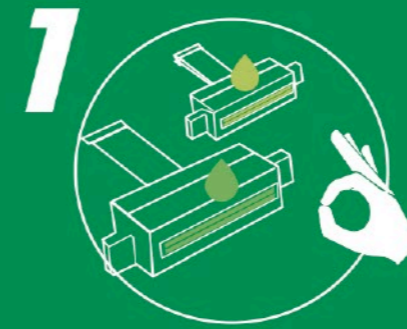
## MAXIMUM COMPATIBILITY, TODAY AND TOMORROW

RIGENERA™ is compatible with all the main printheads on the market because it uses a specific adapter module that includes a hydraulic part and the dedicated electronics to drive the heads during the washing and printing steps. With the release of new printheads or new models, it will be sufficient to purchase the module for the new printhead: the RIGENERA™ solution is thus future-proof.

## A SYSTEM DESIGNED TO LAST OVER TIME

RIGENERA™ is built with high quality materials. The structure is entirely made of stainless steel and anodised aluminium, while the electrical system is made with SIEMENS PLC. The entire system has been designed to last over time and to be easily maintained by medium-qualified personnel, reducing operating costs as much as possible.

# CONCRETE ADVANTAGES, IMMEDIATE EFFECTS



Highest cleaning efficiency for clogged printheads.



Significant reduction of the number of printheads replaced and their purchase costs.



Possibility to check rigorously and immediately the condition of the printhead before and after the cleaning cycle through an advanced test/printing module.



High productivity thanks to the configuration with double module RIGENERA™ DUO.



High ease of use thanks to the advanced and intuitive software that allows the rapid launch of the cleaning cycle and the constant monitoring of the operating data for easy supervision by the operator.







**VERY SIMPLE AND EASY FOR THE REGENERATION PROCESS**

The 17" touch screen together with a new software allows the operator to manage the cleaning and testing activities in a more intuitive way.

# 2.

## Printhead cleaning.

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**HIGH PRODUCTIVITY WITH RIGENERA DUO**

The double module configuration provides a highly productive solution and allows the user to clean up to four printheads simultaneously.

# 3.

## The print test.

The Rigenera system automatically loads the test ink inside the printhead and prints the test pattern directly on photographic paper. The operator just has to observe the printed pattern to see if the nozzles are printing correctly or not.



**PERFECT CLEANING**

Nozzle operation during the washing phase: the electronics allow the nozzles to be operated during the washing step, even together with ultrasounds.

# 4.

## Clean printheads.

Once cleaned, the printheads are ready to be used again.

# 1.

## Clogged printheads.

Printheads are key elements in ensuring the quality of the printing process in industrial inkjet printers. Often these components experience malfunctions due to clogged nozzles and internal ducts. Having an advanced printhead regeneration system allows companies using digital inkjet printers to recover most of the clogged printheads and thus avoid buying new ones with obvious savings in maintenance costs.

