

FROM STAR WARS TO THE HOLY SEE, THE LASER MADE IN ITALY CLEANS UP THE WORKS OF ART OF THE VATICAN

Quanta System, Italian company among the world leaders in laser technology, has applied for the first time ever on the Vatican Gardens' works of art a technology used so far only in minimally invasive surgery for removal of urological stones

From Star Wars to the recovery of works of art: the laser technology, made famous by the saga of George Lucas arrives at the Vatican, not for military purposes but at the service of secular works of art that will now return to their original splendor thanks to this innovation. It is not the last episode of the famous science fiction movie, but it is what happens at the Vatican Museums, where, for the first time in the world 500 marble sculptures, busts, fountains and statues come back to life, thanks to the Made in Italy laser, so far used only in the medical field for the removal of kidney stones. A 'bombardment' of pulsed light that, unlike the protagonist of 'Star Wars' Luke Skywalker, in the patient hands of the restorers, acts in a precise and selective way restoring and cleaning up the works of art, 'demolishing' the organic and inorganic concretions deposited over the centuries. All that without the use of micro drills, cutters or chemical solvents, harmful for the masterpieces, the environment and for the operators.

Pioneer of this technological wonder is **Quanta System, Italian company part of group El.En (Star segment of the Italian Stock Exchange - ELN.MI), among the world's leading manufacturers of medical lasers, industrial and scientific**, that donated to the Vatican City a new generation infrared laser equipment, Holmium: YAG, called Litho.

“Our mission – says Paolo Salvadeo, **CEO of Quanta System** - is help to preserve the heritage of humanity. My sensitivity towards the artistic patrimony, is linked to a passion and love for the culture transmitted to me since I was a child, but moreover it draws inspiration from the important cultural tradition of our country, and the message of beauty projected over the centuries by the great masters of 'Italian art of the past. The same beauty that **is our legacy for future generations, and we have the duty to preserve it for them.** We are so proud to be the first in the world to present this specific laser for the restoration of works of art utilizing the same technology used for medicine and surgery. Whether it's the restoration of works of art or medicine, we can say that we respond to the same principle: **take care of people, our masterpieces.**”

The restoration carried out on the Vatican's works of art, which starts from the Gardens of the Pope with the cleaning of the statue of the Emperor Antoninus Pius, is made possible thanks to an Italian technology, developed after years of studies and tests, by a staff of engineers and technicians of the office of Varese Solbiate Olona Quanta System. The company is part of some sort of new 'Italian Silicon Valley', at the forefront of research and applications design of **futuristic technologies strictly 'Made in Italy'**.

Two are the types of lasers used in the Vatican Museums: one on which were focused the most recent experiments, the so-called '**laser wrecker**', used to break kidney stones, and now used for cement **sculptures, marble and pieces in metals like gold and bronze**. Technically classified as Holmium laser, its strength is in its action of breakage or pulverization of hard aggregates, by creating shock waves controlled and simultaneous **biocide action** that eliminates mosses, fungi, lichens and any organic and biological materials deposited over time, especially on the pieces left outdoors, as those of the Vatican Gardens.

The pulverization and 'demolition' process, is precise, self-selective and causes no damage, respecting the patina and the surfaces original value. A technological progress of great importance that allows to save time and assures a greater accuracy of the restoration. For paintings and works in outdoor environments, is used a laser of reduced size and weight, compared to the models normally used, more easily transportable, which guarantees effects **on the surface, vaporizing the substrate or the black crust deposited**. This laser is characterized by wavelengths capable, in dermatology, to remove even tattoos, destroying the molecules of ink, under the skin. "We are delighted to be the **first in the world to be eligible for these lasers** - says **Ulderico Santamaria, Director of diagnostic laboratory of the Vatican Museums** - as we have always been strong supporters of the **indispensable union between art and technology for restorations, according to dictates of the theory of the restoration of the famous historian Cesare Brandi**. That is why, the laser technologies, were, always studied and applied here. Now thanks to the Quanta System donation our park laser - among the best in the world - in use in laboratories of restoration and in the Vatican Gardens, can add two new technologies and new challenges. Good news for our restorers who can achieve better results without the use of chemical solvents. A guarantee of a more effective protection of the Vatican art treasures, and the wonderful environment that surrounds us."

Quanta System is an Italian company founded in 1985 based in Solbiate Olona (Va), from 2004 belonging to the international group El.En and a world leader in the production of lasers for three scientific fields: aesthetic medicine, surgery and art. Three divisions united by one principle: to improve the quality of life of patients and taking care of people. Founded as a spin-off of one of the largest research centers in the field of lasers and optics worldwide, Quanta System has taken the first steps in high energy physics, plasma physics, spectroscopy and light-matter interaction. The first laser for the restoration of works of art were developed in 1994, and since 1997 began the activities in the field of medical lasers for dermatology and aesthetic medicine. Trusted partner of healthcare institutions, physicians, institutions and agencies engaged in national and international scientific projects, the Quanta System activity is also aimed at European and international research programs, in collaboration with prestigious universities around the world.

Contact

Quanta System
Alessandra Barbanti
Tel. 0331 375385
alessandra.barbanti@quantasystem.com

FOUND!
Valerio Giacomoni – Alessandro Conte
Tel. 02.20.40.42.12
valerio.giacomoni@foundcomunicazione.com
alessandro.conte@foundcomunicazione.com