

Vacuum Technology & Related Instrumentation

Distributing the products of the following companies: **VAT** – Switzerland (gate valves), **KJ LESKER** - USA (components for vacuum technology), **MDC CABURN** - Great Britain (components for vacuum technology), **OXFORD INSTRUMENTS** - UK (cryogenic systems), **STAIB INSTRUMENTS** – Germany (surface analysis instruments), **ECOVIDE** – Italy (vacuum chambers)

Lasers / Optics / Spectroscopy



Distributing the products of world leading companies: **IPG** – Germany (high power fiber lasers), **ACTON PRINCETON INSTRUMENTS** – USA (ICCD cameras, HR spectrometers), **LASERVISION** – Germany (goggles, laser protection equipments), **HAMAMATSU** – Japan (detectors, photonics), **AMPLITUDE SYSTEMS** – France (diode-pumped ultrafast solid-state lasers for scientific and industrial applications), **YENISTA**– France (telecom lasers & fiber optics), **CRYSTALASER** – USA (diode pumped solid state lasers), etc.

laservision
WE PROTECT YOUR EYES



Applications

- Multiphoton microscopy
- LIBS: Laser Induced Breakdown Spectroscopy
- PLD: Pulsed Laser Deposition
- LIDAR: Light Detection And Ranging
- LIF: Laser Induced Fluorescence
- CRDS: Cavity Ring Down Spectroscopy
- PIV: Particle Image Velocimetry
- Laser cleaning and surface treatments
- Laser shockwave generation / defectoscopy



High-technology Systems and Equipment for REsearch, Industry and Science

- **HISTERESIS S.R.L.** is specialized in the distribution of high-technology equipment for research and industry on the Romanian market, covering various fields, from lasers, optics and spectroscopy, to vacuum and cryogenics;
- **HISTERESIS** is exclusive representative of **QUANTEL** (France /USA), world leader in pulsed solid state lasers (Nd:YAG, nanosecond);
- **HISTERESIS** is official representative of **Agilent Technologies** (Italy/USA) – Vacuum Products Division, world leader in vacuum technologies (dry pumps, turbomolecular pumps, ionic pumps, leak detection, vacuum measurement etc.);



Agilent Technologies

- **HISTERESIS** is official distributor of **AVANTES** (Netherlands) – one of the world main manufacturers of compact spectrometers, light sources and fiber optics.



- **HISTERESIS S.R.L.** offers expertise in spotting the best solutions for the research projects in large areas such as physics, chemistry, analytical and environmental sciences, but also for university and high-school didactic purposes.



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253/27.05.2009

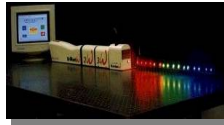
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The best solutions for research projects

Scientific & Industrial Lasers

QUANTEL ns Tunable Lasers

- **TDL 90** : Tunable Dye Lasers ; Narrowband Tunable Source $0.08 \text{ cm}^{-1} - 0.05 \text{ cm}^{-1}$; Wavelength Tuning Range 200 - 4500 nm; PUMP: YG980 OR BRILLIANT;
- **Rainbow : Broadband OPO** All Solid-State Tunable System Tuning Range : 210 - 2000 nm Pump : Brilliant



AMPLITUDE diode-pumped femtosecond lasers

- **t-Pulse** series of high energy diode-pumped femtosecond and picosecond oscillators, with pulse energy in the microJoule level.



- **s-Pulse** series of high repetition rate, high average power femtosecond and picosecond amplifiers
- **Tangerine** high power ultrafast fiber laser.

- **Optional extensions**, offering extended wavelength range, ultrashort pulse duration, flexible pulse control, etc.
Applications: multiphoton microscopy; lab-on-chip; laser ultrasonics; nano-surgery; nano-machining; eye surgery.

IPG PHOTONICS High-Power Fiber Lasers

Ytterbium fiber lasers (1070 nm)
Up to 20 kW output power
TEM₀₀ Output Beam
Continuous & modulated operation

Industrial & Scientific Applications:

cutting, welding, micromachining, surface thermal treatment



QUANTEL Scientific & Industrial Lasers

Ultra & CFR series

50 mJ up to 800 mJ/pulse;
Compact and rugged; Totally sealed-off

Brilliant series (Eazy, BR, BB)

330, 360 & 850 mJ @ 1064nm ; High stability & beam quality; "Plug & Play" harmonic generators (532, 355, 266, 213 nm)

YG series - up to 2.5 J/pulse output power

EverGreen - multi-pulse laser system dedicated to PIV (particle imaging velocimetry)

Ylia series

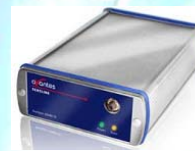
Fiber lasers for marking and engraving industrial applications
0,5mJ & 1mJ/pulse; 10 to 30 W average power; 20 kHz-250 kHz repetition rates



Optical Spectroscopy

AVANTES

Compact Spectrometers (USB powered); Light sources; Fiber optics; Optical and mechanical accessories
UV-VIS-IR (160 – 2500 nm)



PRINCETON INSTRUMENTS ACTON

High-resolution imaging spectrometers with multiple gratings, ICCD cameras

Applications: optical emission & absorption spectroscopy, fluorescence, absorbance (physics, chemistry), thin film measurement (layer thickness, composition, reflectance, polarization), medicine, horticulture, mineralogy, etc.



Electron Spectroscopy

STAIB INSTRUMENTS

AUGER electron spectroscopy

Large working distance; Variable energy resolution and resolving power, electronically selectable; Large accepted sample area and uncritical positioning of the sample; Integrated electron source.



Agilent Technologies Vacuum Systems

Dry Scroll Pumps

Dry scroll pump **Agilent Technologies** delivers low ultimate pressure at high speed. Oil-free, durable, reliable, and easy to maintain, our dry scroll pumps are the ideal primary pumps for many of your demanding applications.



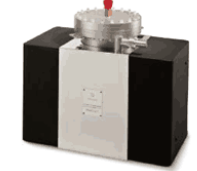
Turbo Pumps

Covers all possible applications and market segments; Pumps may be operated in any position without compromise; Stresses on materials and bearings are reduced; No oil, no contamination; Simple, space-saving configuration; Navigator software eases remote control and monitoring.



Ion pumps

Agilent VacIon *Plus* - a complete family of ion pumps, controllers, options, and accessories, designed to provide the best performance for each application. Dedicated ion pump solutions offer variety in operating pressure, gas mixture to be pumped, and starting pressure. VacIon*Plus* family includes Diode, Noble Diode, and StarCell pump versions.



Vacuum Measurement

Agilent transducers, vacuum gauges and controllers are reliable, accurate and cost-effective tools for measuring and controlling vacuum pressure in a wide range of industrial and research applications. XGS-600 is currently the most powerful and versatile controller on the market. It accepts four different gauge cards which operate all Agilent vacuum gauges, including Full-Range, Capacitance and Active gauges. Up to six cards can be installed, in practically any combination to suit your particular application. The XGS-600 Gauge Controller allows for simultaneous operation of up to 12 gauges and can display readings for up to 8 gauges simultaneously.

