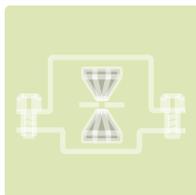




Easy to use, powerful instrumentation for HP research

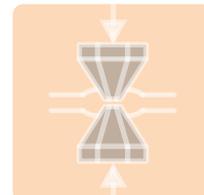
SPARK ERODER SEC-400



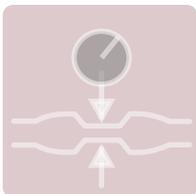
DAC Cell



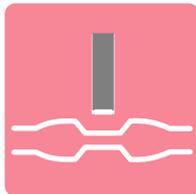
Microscope



Gasket



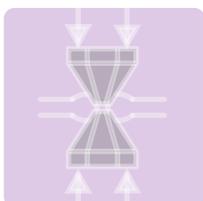
Gauge



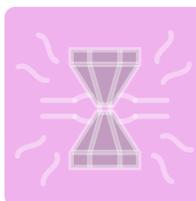
Spark eroder



Liquid / Gas



Press. device



Heater/cooler



Ruby Lines

LOTO-eng EDM machine is an automatic spark eroder system designed with innovative concepts and solutions. It provides decisive advantages for a fast and easy drilling of the gasket used in DAC's cell. It is an advanced research instrumentation for scientific study of matter over a wide pressure-temperature range. The EDM micro-drilling machine as 100% of success producing precise holes in the center of indented gasket. Hole diameters can range from 50 to 500 microns.

AUTOMATIC DRILLING

CREATIVE SOLUTIONS TO MAKE FAST AND PRECISE

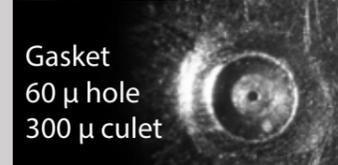
SEC-400 spark eroder uses a manufacturing process to realize precise micro-holes on gasket used in high pressure DAC cell using an electrical discharge.

Excellent performance are offered by SEC-400 Spark eroder:

- Easiness in tip alignment to produce precise hole.
- Reduced times in drilling process
- Easy and intuitive software
- Manual and automatic procedure control
- Innovative mechanical solutions
- Totally portable
- Reduced final costs
- Online service



Gasket
200 μ hole
500 μ culet

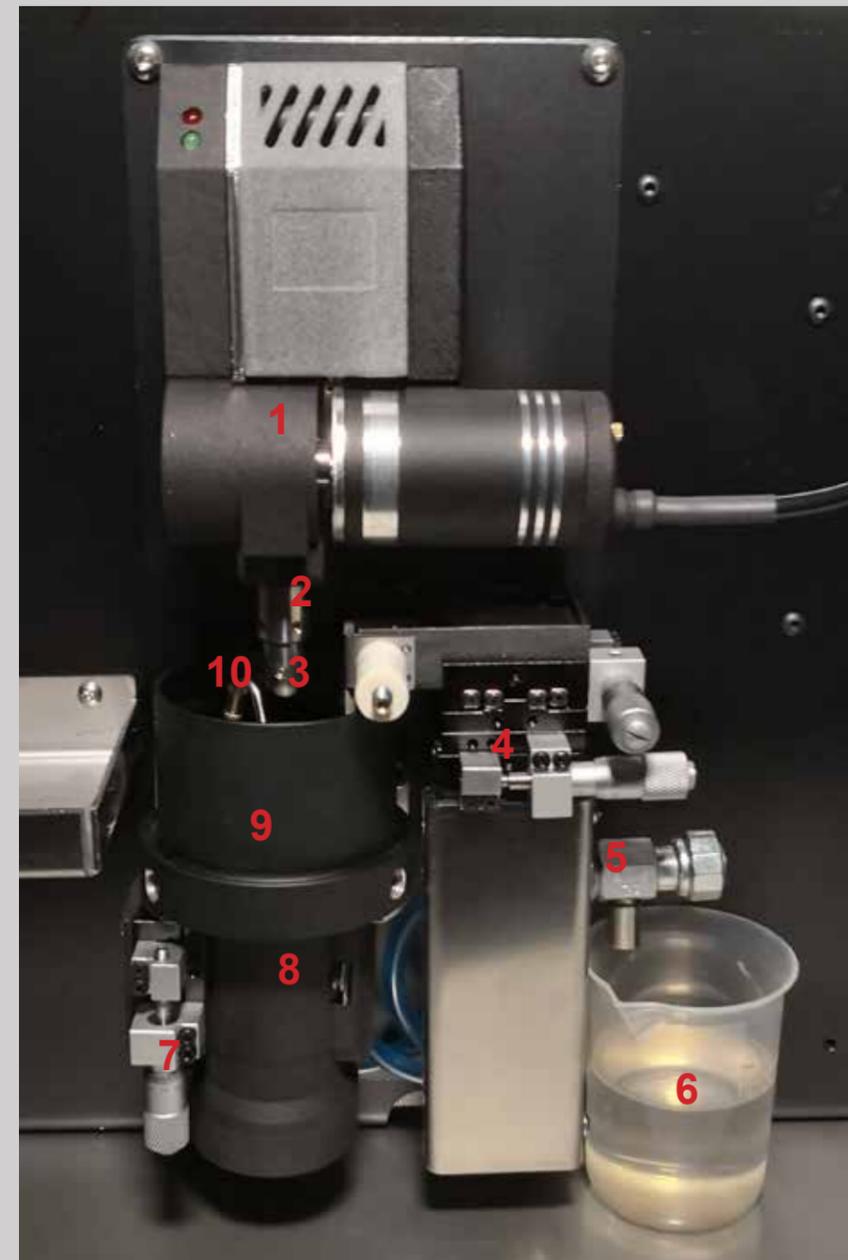


Gasket
60 μ hole
300 μ culet



Interchangeable tip

1. HEAD
2. X-Y TIP ADJUSTMENT
3. TIP
4. X-Y GASKET MOVEMENT
5. LIQUID TAP
6. LIQUID TANK
7. CAMERA FOCUS
8. CAMERA
9. LIQUID STORAGE
10. LIQUID FLUX



LOTO-eng is the owner of an interactive software for managing the parameters of tip movement, controlling the level of discharge. Thanks to the feedback circuit, the tip is kept upon the gasket, at the right distance, until the whole drilling process is complete. The managing software is equipped with a panel for the video output of the camera, so that the customer can control the alignment of the main components, tip and gasket, and visualize the finished work.

SOFTWARE

INTUITIVE, DYNAMIC SOFTWARE

The software manages the motion of the tip and the level of discharge. Then, through a feedback signal, it keeps the tip over the gasket until complete drilling.

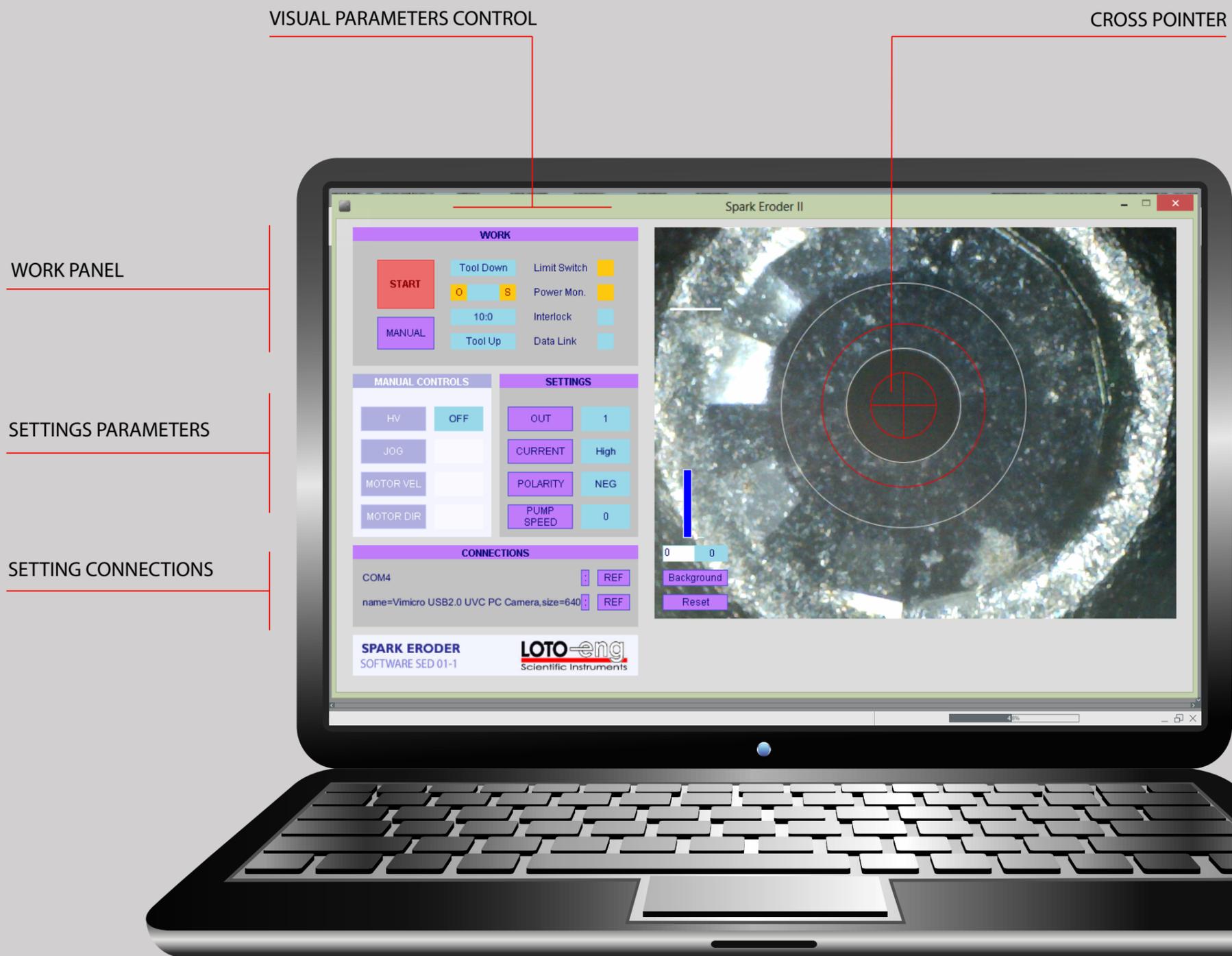
The image on the monitor permits to control the alignments of the tip on gasket indenting. Moreover, it allows to visualizing the realization of the hole.

There's need of care to prepare tip and alignment.

This is the way to make discharge circular and the hole precise. You can check in the display video the performance during the drilling process.

PARAMETERS CONTROL

- Electrical Discharge
- Automation and feedback
- Precise tip alignment



LOTO-eng online support can give remote diagnosis about control, mechanics and process technology. It lets to reduce the work costs and times through a fast help in case of troubles .

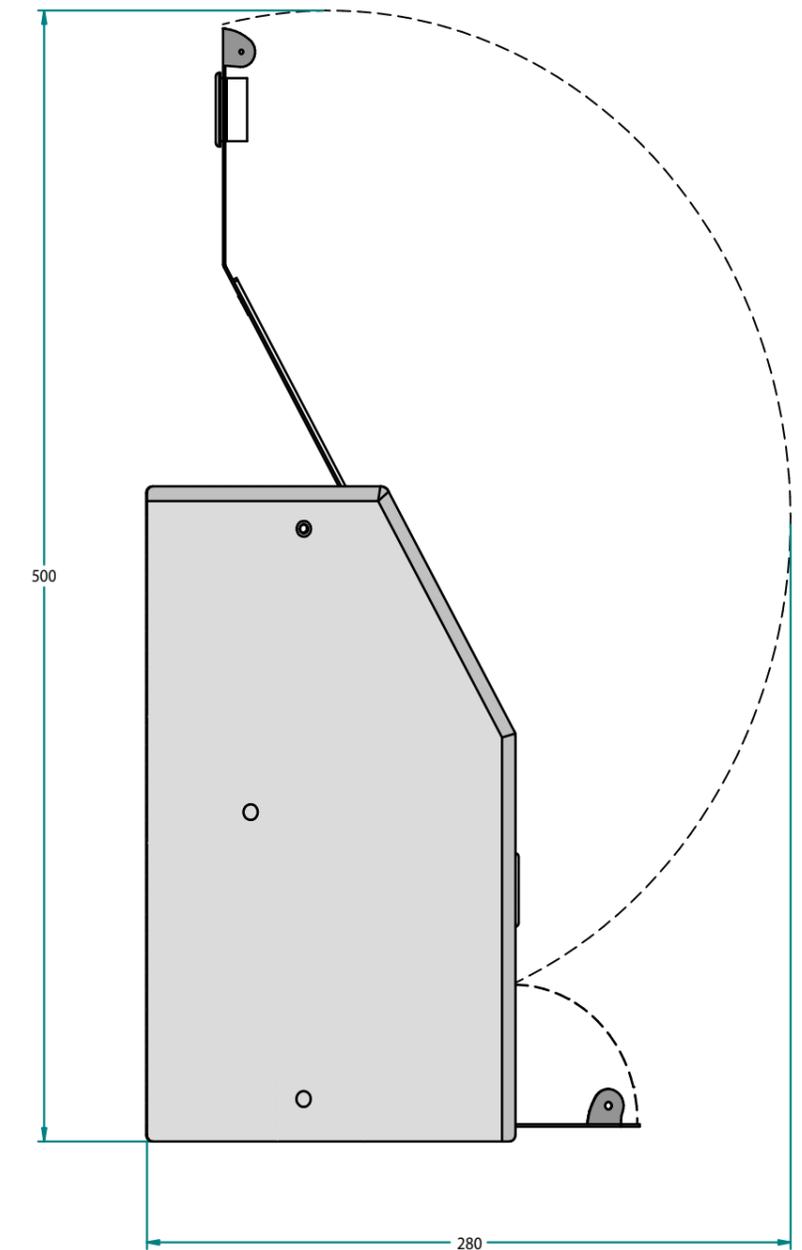
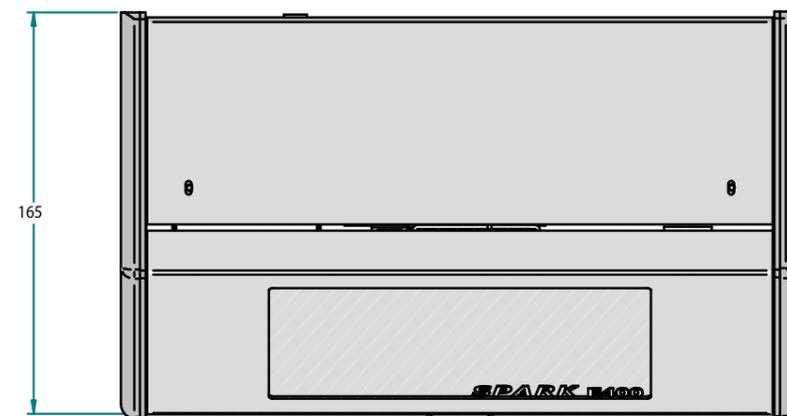
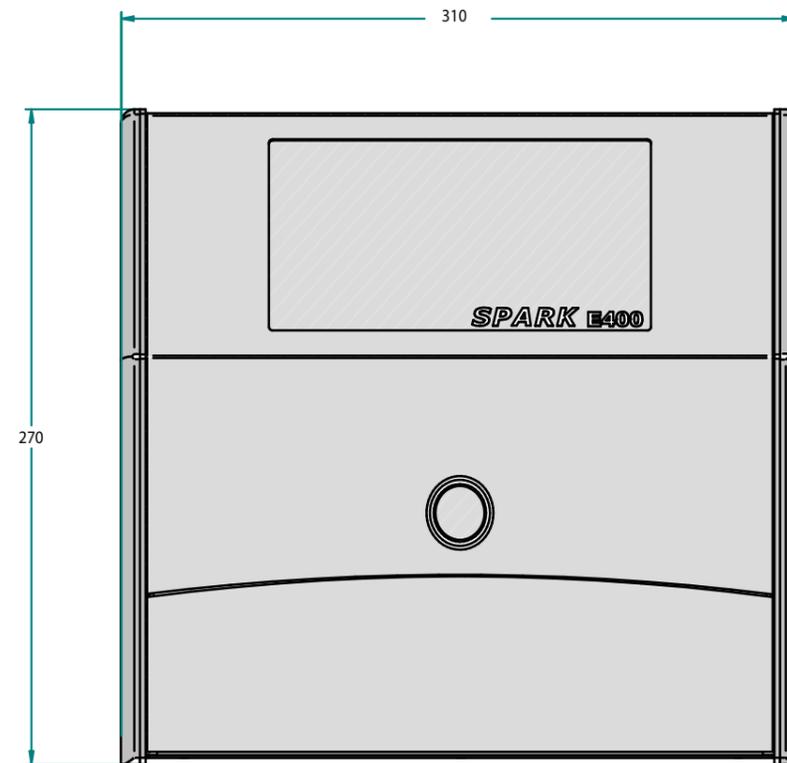
Moreover, it permit to collect customers feedback information about their satisfaction.

Customer's opinion is a precious resource for improving their experience and adjusting our actions to their needs.

SERVICE

TECHNICAL DATA PERFORMANCE LIST

Device name	SEC 400
Application	DAC's Equipment
Electrical spec. 1	Operating V. 100 or 230 VAC 50/60Hz
Electrical spec. 2	High Voltage 300v
Electrical spec. 3	Absorbed power 120W
Dimensions	310 mm x 165 mm x 270 mm (12.2" x 6.5" x 10.6") (LxWxH)
Weight	8,5 kg (21lbs)
Software	Proprietary
Operating System	Windows 8-10
Accuracy	0,005 mm (5 micron)
Used material to drill	Steel, Rhenium, Be Cu (conductive)
Tip	Wire 50-500 microns
Dielectric liquid	Light white oil
Camera magnification	100x /200x function fo resolution
Regulatory Compliance	CE
Operat. Environment	Temp: 17°C-26°C (66°F-79°F); Relative Humidity: 28-75%



OUR PRODUCT RANGE FOR HP EXPERIMENTS:

- » DAC cell
- » Microscope
- » Gauge
- » Spark Eroder
- » Confining medium
- » Pressure devices
- » Temperature devices
- » Detector ruby's lines
- + Accessories + spare parts

“Smart Creativity” not only simple words

LOTO-eng develops and manufactures high-quality devices that has always enjoyed a great reputation for durability and reliability. Our experts work with our customers to develop innovative solutions to support scientists during the HP DAC's experiments.

LOTO-eng

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