DaVinci Diamond Factory
Powered by Synova Laser MicroJet®

First automated laser faceting solution for diamond manufacturers
- Virtually complete Rough-to-Polish process
- 57 facets, one single operation
- Reduced manufacturing pipeline
- Higher accuracy and stone yield
- Stone size: 0.25 to 10 cts

Shareholder partner:

DaVinci software
Stone mounting station
From rough diamond to 57 facets
## General Specifications

### Axes
- **Axis system**: 3 linear + 2 rotary axes
- **Drive**: Linear and torque motors
- **Accuracy**: ±3 µm
- **Repeatability**: ±1 µm
- **CNC control (Bosch-Rexroth)**: 5-axis

### Laser
- **Laser type**: Diode pumped solid state Nd: YAG, pulsed
- **Wavelength**: 532 nm

### Water Jet
- **Nozzle diameter**: 50 µm

### Special features
- **Breakthrough sensor**: Optical detection of cut-through

### Dimensions/Weight
- **Dimensions (machine)**: 800 x 1200 x 1650 mm (W x D x H)
- **Dimensions (utilities cabinet)**: 700 x 2300 x 1600 mm (W x D x H)
- **Weight (machine)**: 750 kg
- **Weight (utilities cabinet)**: 700 kg

### Mounting Station
- **Positioning accuracy**: ±30 µm
- **Tilt angle deviation**: ±0.5 degree

### Software
- **CAM software**: 3D Shaping

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The specifications are subject to change without notice due to technical changes. The LMJ machines incorporate the worldwide patented technology of water jet guided laser invented at the Swiss Federal Institute of Technology in Lausanne, Switzerland. These machines conform to CE regulations.