



Press Release

Synova Announces Groundbreaking Automatic Cutting and Shaping Solution for Diamond Manufacturers

“DaVinci Diamond Factory” - From rough to completely shaped diamond with 57 facets in a single process

DUBAI, UAE, September 26, 2019 - Synova, a Swiss-based provider of advanced laser cutting systems, has developed an automatic cutting and shaping system for diamonds. *DaVinci* substantially decreases diamond production time by combining several manufacturing processes into one machine. It also reduces polishing processes to a final finishing step.

“DaVinci is the first automated laser full faceting solution for round brilliants on the market. It will revolutionize the diamond manufacturing industry because the system covers virtually the complete Rough-to-Polish process”, says Dr Bernold Richerzhagen, Synova Founder and CEO. “Several cost, skill and labor-intensive steps in the polishing phase such as crown and pavilion blocking, girdle bruting or recurrent quality checks become redundant”, adds Richerzhagen.

As a result, manufacturing capacities can be increased or flexibly adapted according to seasonal demand and location. Customers gain a higher and more predictable polished yield through greater accuracies and improved stone symmetries. Unlike when polishing customers also see additional value by reusing diamond chips that are cut off from rough stones during laser cutting.

The heart of the *DaVinci* system is Synova’s DCS 50, a highly accurate and well-established laser machine based on the advanced Laser MicroJet® technology. The 5-axis CNC machine integrates Synova’s patented breakthrough detection that recognizes when a cut is finished and automatically initiates facet changing.

The water jet guided Laser MicroJet cools the diamond surface during laser ablation and significantly reduces the risk of rough diamond cracking, especially with stress stones. The water jet maintains the laser’s focus creating a cylindrical laser beam resulting in perfectly parallel walls and tight kerf widths.

De Beers, a minority shareholder, has made diamond product available for some of the machine testing.

Synova owns all patents of the *DaVinci* solution and related brands.

About Synova

Synova S.A., headquartered in Duillier, Switzerland, manufactures advanced laser diamond-cutting systems that incorporate the proprietary water jet guided laser technology (Laser MicroJet®) in a true industrial CNC platform. Customer benefits include significant yield and quality improvements in cutting, as well as enhanced capabilities for shaping, blocking, bruting and drilling. For more information, contact us at sales@synova.ch or visit our website at www.synova.ch.

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