The Constellation

The 813-carat Constellation Diamond is the most expensive rough diamond in the world, sold for 63 Mio USD. The resulting 313-carat ‘Constellation One’ is the largest D color emerald cut diamond in the world today.

LMJ used for:
- Cutting rough diamond

Perfect cut on a very expensive and valuable diamond

Main processing criteria:
- Minimal weight loss
- Highest yield
- Minimal or no diamond damages
- Smooth surfaces

Machining technologies able to reach these criteria:
- Laser MicroJet (LMJ)
- Conventional dry laser

Laser MicroJet Technology

LMJ advantages:
- Very large cut depths (26-33 mm)
- Extremely low weight loss (0.04%- 0.32%)

Installed machine type:
- 1 x DCS 300
- 100 W green laser

Sources: Lucara, Synova