



MIRACLE CUTTING MACHINE

Gem cutting, faceting and
polishing machine with
minimal and physical human
touch



Miracle Cutting Machine

Miracle Cutting Machine (MCM) is a company dedicated to empowering commercial jewelers globally through the development of highly innovative semi-automatic gems cutting, faceting, and polishing machines. Our mission is to advance the jewelry industry by providing state-of-the-art solutions that enhance efficiency, precision, and creativity with minimal physical human touch.



OUR STORY



Since the beginning of 2009, our company has been on a gems journey under the visionary leadership of Mr. Alex Spinel, specializing in gem cutting factory operations (jeweler) and sales.

Mr. Spinel made the strategic decision to develop semi-automatic machines in response to the mounting challenges posed by a shortage of skilled labor and the market's low quality outputs from automatic machines significantly.



OUR STORY

After ten years of dedicated research and development, Mr. Spinel created outstanding gem cutting machines. Although he had intended to use the breakthrough solely in his own factory, overwhelming demand from industrial collaborators prompted him to reconsider and pursue sharing his innovations with the rest of the world.

This story emphasizes our dedication to innovation, quality, and the advancement of the gemstone industry through practical, expertly engineered solutions.

MCM's Human-Robot Collaboration Policy

At MCM, CEO Mr. Spinel has established a philosophy where humans and robotics **work together as partners**, rather than robots replacing human talent. This balanced approach defines the company's innovation strategy.

Key Principles

1. Semi-Automatic Technology Approach

- MCM prioritizes "semi-automatic" machines instead of fully automated systems.
- This ensures human involvement is maintained while leveraging robotic accuracy.

2. Minimal Physical Human Touch

- Reduces repetitive, physically demanding tasks.
- Keeps humans in control and responsible for oversight.
- Combines human expertise with machine precision for better outcomes.

3. Bridging Manual and Full Automation

- MCM positions itself as the bridge between traditional manual labor and complete automation.
- This approach fosters a collaborative model where human skills and robotic efficiency complement one another.

Benefits of the Policy

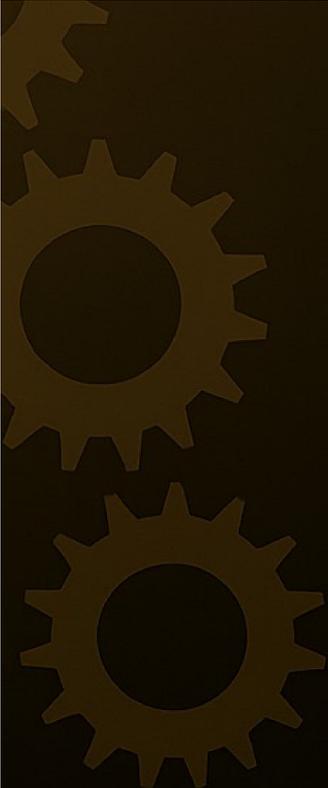
- **Preserves Craftsmanship:** Human judgment and artistry remain central to gem cutting.
- **Reduces Labor Dependency:** Automation supports workers without eliminating skilled roles.
- **Ensures Quality Control:** Humans actively monitor and adjust machine performance.
- **Provides Flexibility:** Allows customization and complex work that requires human insight.
- **Improves Safety:** Machines handle high-risk cutting operations, while humans supervise.

Our Purpose

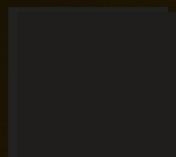
Our innovative solutions effectively address the primary challenges that precious gem cutting face, namely a lack of skilled labor and subpar output from fully automated cutting machines.

We have developed advanced semi-automatic machines that enable factories their reliance on skilled labor while producing superior results through innovation and a commitment to excellence.

Our journey is defined by a commitment to solving real-world problems for the gem cutting industry by offering dependable, efficient, and high-quality solutions that set new standards for craftsmanship and productivity.



Reduce Dependence on Skilled Labours



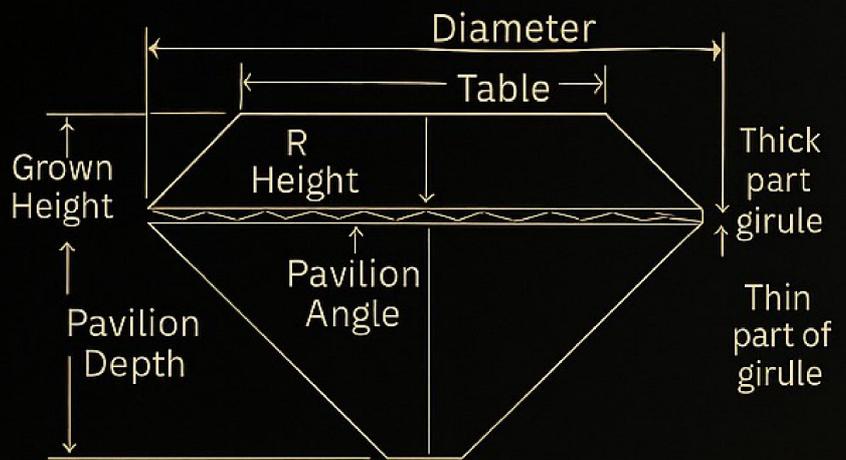
SUPER IDEAL CUT PACKAGE



Gems cutting, faceting and
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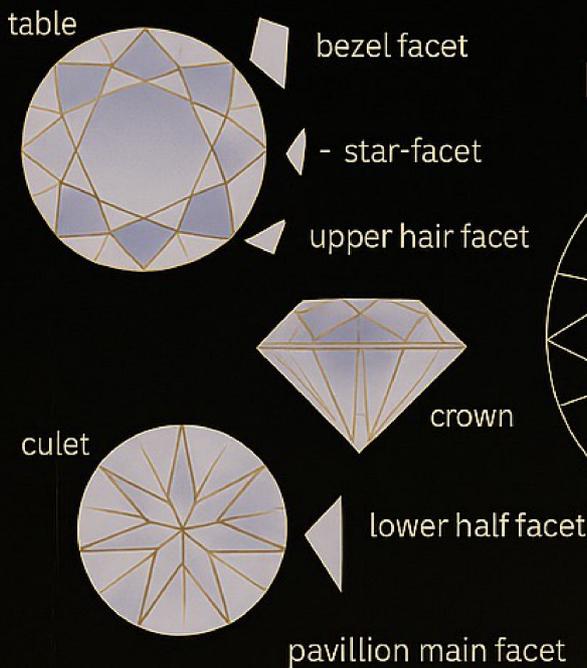


SUPER IDEAL CUT PROPORTIONS



SIDE VIEW

Figure 1: Diamond Proportions



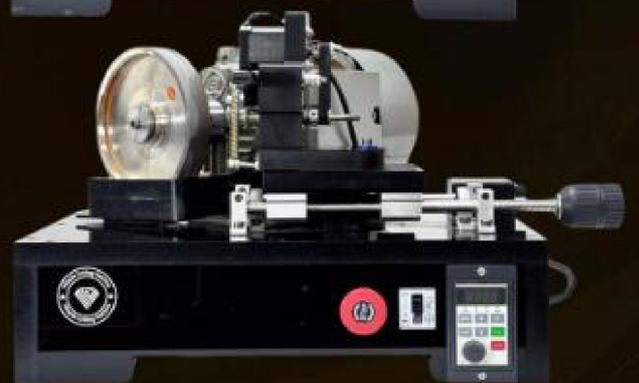
TOP VIEW

- 8 Star Facets
- 8 Kite Facets
- 16 Upper Girdle Facets
- 8 Pavilion Main Facet

BOTTOM VIEW



SUPER IDEAL CUT PACKAGE



FACETING & POLISHING MACHINE

For Precision Cutting of Small Gemstones (1-3mm)



- All-in-one faceting and polishing system
- Specialized for Ruby, Sapphire & Spinel
- Servo-controlled micro-positioning

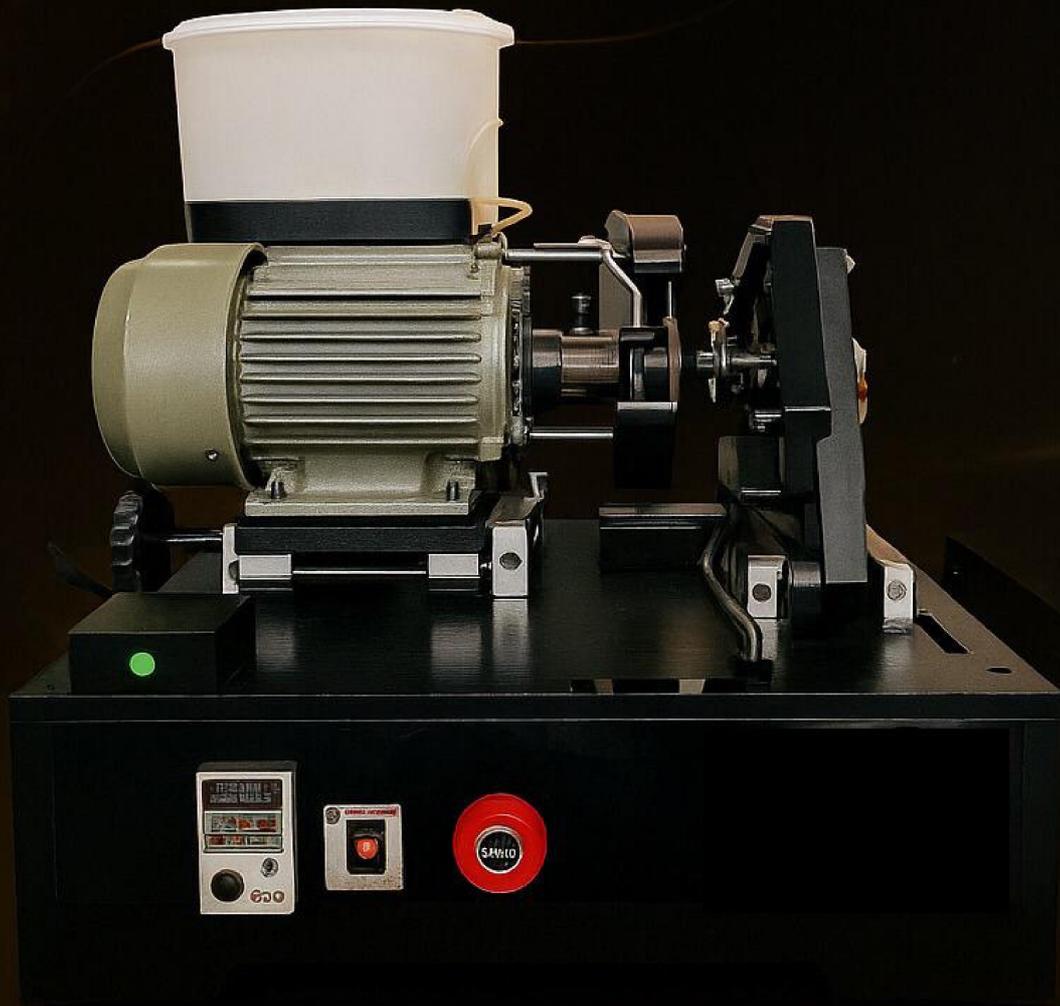
Digital LCD with programmable speed & angles

Enclosed, safe cutting chamber with emergency stop

- Delivers high-precision results with minimal material loss
- Perfect for jewelry production, custom faceting & fine finishing

Girdle & Calibration Machine

For Perfect Gemstone Rounding and Sizing



- Forms precise girdles with accurate diameter control
- Ensures perfect roundness and symmetry
- VFD motor with digital speed control
- Precision chuck and micrometric adjustments
- Built-in cooling system and safety stop features
- Heavy-duty design for vibration-free performance
- Ideal for calibrated gemstone production

Crown Angle Machine

For Precision Faceting of Gemstone Crowns

- Crafts crown facets with exact angle control
- Ensures symmetry, brilliance, and facet consistency
- Digital display with step-motor positioning
- Micrometric adjustments for precise crown height and angles
- Supports table, star, bezel, and upper girdle faceting
- High-grade diamond wheels & vibration-free build
- Emergency stop & enclosed cutting area for safety
- Perfect for standard cuts, custom crowns, and bulk production

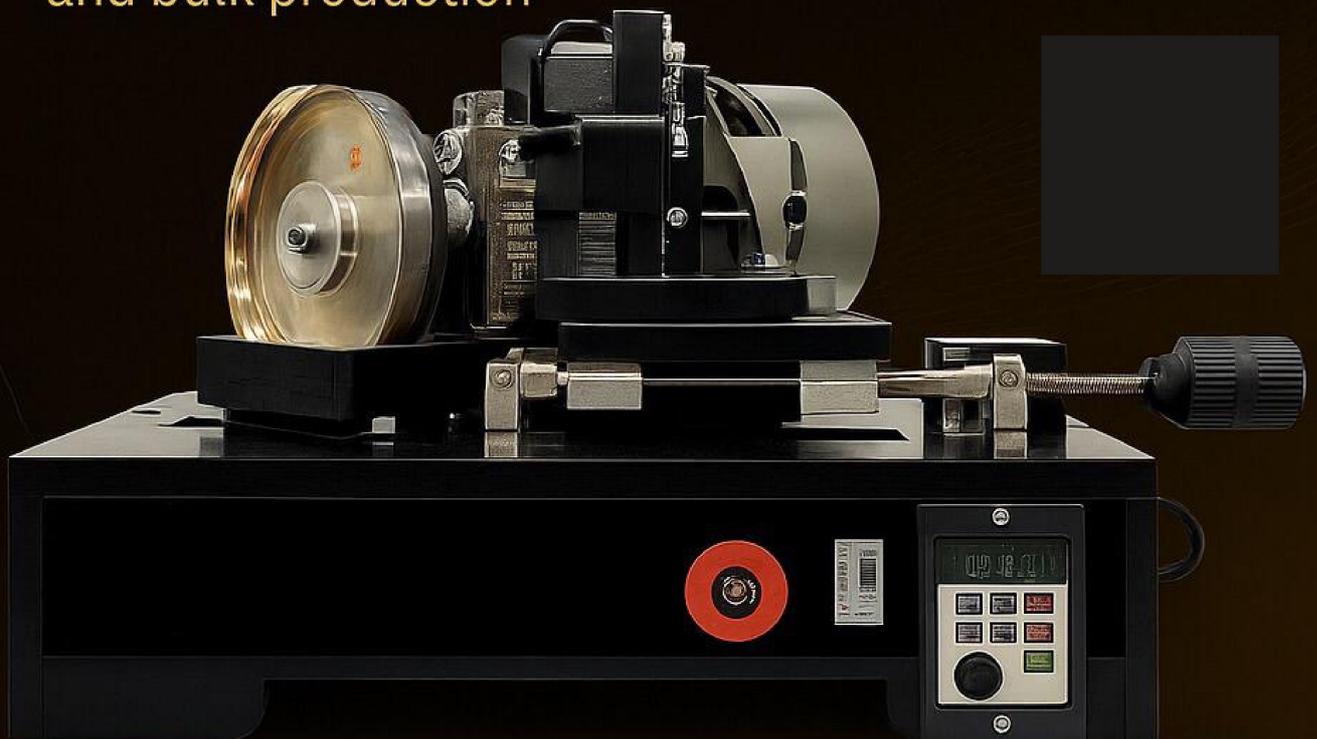


TABLE POLISHING MACHINE

For Mirror-Finish Surface Preparation

- Precision polishing for flat gemstone and sample surfaces
- Variable-speed platen with digital LCD control
- Weighted arm for uniform pressure and polish
- Enclosed setup for safety and debris control
- Delivers lab-grade mirror finish with high repeatability
- Ideal for gem labs, geological surveys, and material research
- Reduces prep time, and eliminates hand-polishing errors
- Built for universities, QC labs, and research institutions



PREFORMING MACHINE

For Rough Shaping of
Gemstones Before Faceting

- ✓ Shapes rough stones into basic geometric forms
- ✓ Enclosed chamber with external safety controls
- ✓ Compact, bench-top design for workshop use
- ✓ Ideal for initial grinding, material removal, and angle setting
- ✓ Prepares stones for crown and pavilion cutting
- ✓ Improves cutting efficiency and reduces material waste
- ✓ Perfect for lapidary studios, jewelry makers, and production setups





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We are ready to give
you Shining & Smiling!

CONTACT US

We are ready to give you
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For inquiries, quotations, or expert
advice, please contact us:



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