

## ENGINEERED FOR PERFORMANCE

Over time, the Faro F1 has become much more than just a machine, it's a reliable partner for those who demand speed, precision, and perfection in jewelry production. Designed to run even without supervision, it transforms complex operations like engraving, satin finishing, diamond-cutting and final shaping into an efficient, repeatable, and high-quality process.

Whether you're producing pendants, earrings, or flat components destined to be bent and finished later, the F1 adapts to your creativity without compromising accuracy. Thanks to smart automation and cutting-edge design, it handles both coils and sheets effortlessly, even on both sides, with perfect alignment and flawless results. With its specialized tooling, it can even cut and diamond-finish ultra-thin sheets down to 0.15 mm, opening the door to new levels of finesse and design freedom.

Every texture, every edge, every detail speaks of control and quality. One of its greatest strengths lies in the seamless integration between hardware and software: the F1 runs on a proprietary firmware platform and the in-house developed Pigreco CAD/CAM software, constantly updated to simplify even the most complex operations. Unlike generic systems that rely on external programs, this tight integration ensures a smoother workflow, greater control, and a dramatically faster learning curve.

The F1 is not just about what it does, but how it makes you feel while doing it: confident, fast, and ahead of the competition. It brings the kind of reliability that lets you focus on creativity, not corrections. In a world where every micron matters, the F1 delivers not only precision, but peace of mind.

## ADVANCED TOOLS & FUNCTIONS

### DIAMOND HEAD

Enhances the F1's creative range by generating a variety of textures and decorative effects with precision. Includes an automatic tool changer with three diamond tools, selectable and configurable via software. Fully integrated with Pigreco CAD/CAM for complex patterns and synchronized motions with full control and ease.

### COIL DRAGGING

Efficient solution for diamond-cutting and final contouring of pendants directly on coils, regardless of thickness or material. Suitable for unattended operation and double-sided machining, thanks to the auto-alignment system. Dragging can be motorized or driven by a dedicated tool, depending on the application.

### SATIN DEVICE

Essential for surface preparation, it uses interchangeable heads to quickly create shiny or matt textures. Reduces processing time on coils and sheets before diamond-cutting, engraving, or final contouring—improving workflow and finish consistency.

### MINI DIAMOND HEAD

NC-controlled and synchronized on two axes, it adds advanced customization by creating fine textures and narrow design patterns. The reduced diamond wheel diameter allows for more detailed and delicate finishes compared to the main Diamond Head.

## STRUCTURE

Natural granite frame to eliminate thermal expansion, vibrations, and structural deformation. Axis motion is managed through ISO-7 precision linear guides and preloaded ball screws, driven by digital brushless motors equipped with encoders.

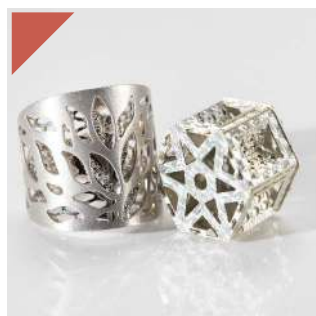
The structure has been designed and dimensioned using advanced simulation software and resonance analysis tools, combined with empirical measurements through dedicated instrumentation, to ensure maximum structural stability—directly translating into superior cutting quality.

## TECHNICAL SPECIFICATIONS

- Axes Travel (X/Y/Z): 300 mm / 450 mm X 200mm
- Resolution XY: 1  $\mu$ m
- Resolution Z: 0.5  $\mu$ m
- Max Feed Rate XY: 30mt/min
- Max Feed Rate Z: 15 m/min
- Spindle Power: 1.2 kW (HF)
- Max Spindle Speed: 60,000 RPM
- Max Tool Diameter: 6 mm
- Tool Magazine: 7-position linear
- Numeric Control: Faro CN FDC, 9-axis, 32-bit DSP
- Remote Control: EC-certified with emergency stop
- Interface: USB 2.0 or higher
- OS Required: Windows 10 or higher (PC not included)
- File Format: ISO G-code
- Power Supply: 230V single-phase
- Max Consumption: 3 kW
- Circuit Breaker: 300 mA required
- Air Pressure: 6 bar constant
- Compressor: Min. 300 NI/min with air filters – NOT included
- Temperature Control: Automatic fan activation >45°C min.
- Working Space: 150 × 200 × 300 cm
- Machine Weight: 400 kg
- PC Required: Windows 10 or higher, 2 USB ports, internet connection - NOT included

Specifications are subject to change without notice.

The manufacturer reserves the right to modify features and technical data at any time.



## DIMENSIONS

