



# Inline casting system for precious metals

Orotig sets a new standard for casting precious metals. **Prometheus is a fully automatic, easy to use tabletop casting machine** that enables jewelry producers to create customized designs directly at their shop, reducing lead time for the end customers.



## **Fully automatic**

The operator only needs to push a button, while the tilting and the blocking happens in a completely automatic way.



### Compact

Prometheus' compact size allows seamless placement in any lab, catering to even the smallest spaces. An ideal companion for daily use, it combines efficiency with versatility.



## Consistent, high-quality results

Perfectly smooth surface with reduced porosity and great alloy homogeneity are obtained thanks to the inductive power mixing and automatic vacuum and overpressure functions.



### Easy to use

With a user-friendly interface, Prometheus is perfect for first-time operators. Simplifying the experience, it ensures accessibility and ease of use for all users.



### Low maintenance, few consumables

Manufactured in Italy using top-quality materials, Prometheus stands out for its durability and minimal maintenance requirements. It does not require any consumables, representing enduring quality and cost-effectiveness.







## **Compact**

Not only does Prometheus boast a remarkably compact footprint, making it suitable for even the tightest spaces, but it also efficiently manages all automatic functions using a minimal amount of gas. This unique feature eliminates the need for compressed air, ensuring efficient use of shop space.

The integrated air/water cooling system supports 1-2 consecutive casting cycles without requiring an external chiller, helping to optimize shop space even further. For those requiring continuous operation, an external chiller enables uninterrupted casting cycles.



# The first inline casting system for consistent high-quality results

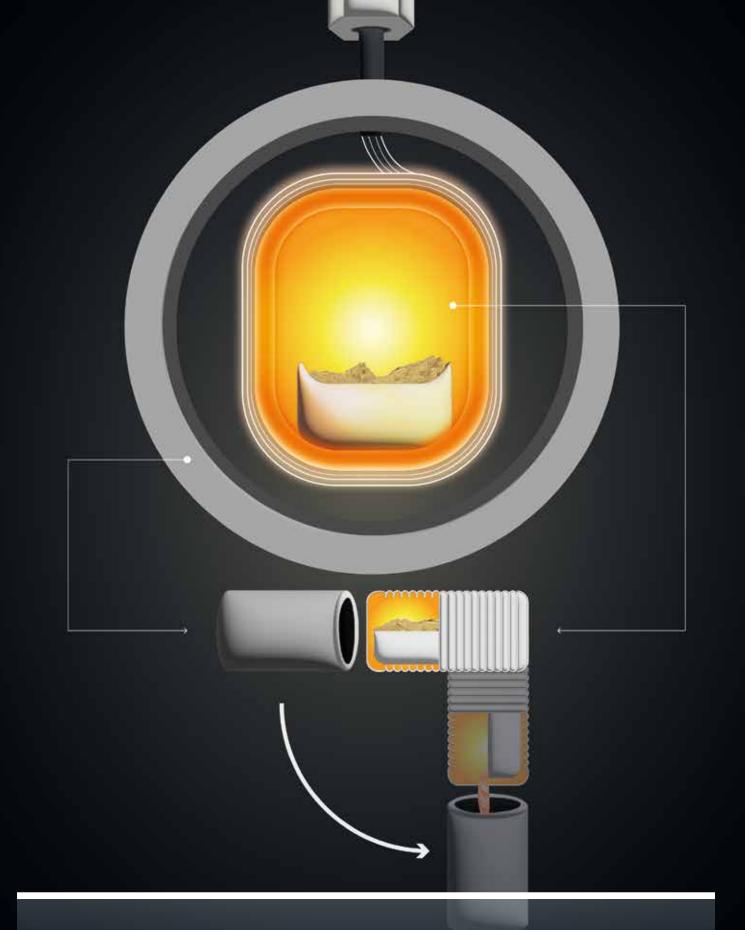
JEWELRY WITH SMOOTH SURFACE AND REDUCED POROSITY

With its linear casting system (patent-pending), Prometheus features a design where the crucible is in horizontal position and alings perfectly with the flask. This innovative design marks a groundbreaking advancement, enabling the direct and swift pouring of metal into the flask. This ingenious approach not only streamlines the process but also prevents temperature drops and minimizes vortices, ultimately enhancing the final result's quality.

Moreover, the automatic vacuum and overpressure functions (up to 2 bar) and the inductive power mixing elevate performance, ensuring flawlessly smooth surfaces and perfect flask filling, even for the most intricate designs.







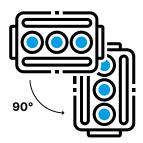
# How does it work?

The direct and swift pouring of metal into the flask prevents temperature drops and minimizes vortices, enhancing the final result's quality.

## **Fully automated process**

#### The flask filling process operates seamlessly through a fully automatic, one-button operation.

A mere push of a button initiates the tilting of the vacuum chamber, ensuring remarkable process repeatability and consistently superior results. This streamlined process guarantees efficiency and reliability.



Moreover, the **automatic flask locking**, facilitated by a gas-powered piston (without the need for compressed air), further enhances workflow efficiency.

This feature empowers even less experienced operators to achieve optimal outcomes effortlessly.

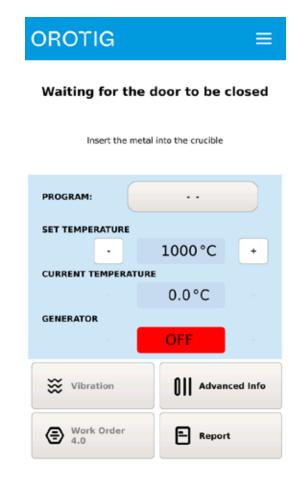
## Intuitive software

Experience enhanced control through Prometheus' advanced **7" touch screen display**. Engineered for user-friendly operation, this interface ensures a smooth casting experience. Throughout the cycle, casting parameters remain clearly visible, empowering operators with real-time information for optimal decision-making.

The system includes **pre-set programs optimized for platinum, gold, and silver**. In addition, the operator has the ability to create and store custom profiles, enabling the development of a program library with up to **50 user-defined configurations**.

The main controls (Start, Stop, Tilting) are in manual configuration to facilitate the use of the machine with gloves.

Prometheus includes Ethernet connectivity, diagnostics and 4.0 configuration, maintaining an industry-leading approach.



## Low maintainance

Prometheus boasts a **sturdy**, **heat-resistant body that ensures maximum safety and minimal absorption**. Its robust design allows **easy access to the machine core**, simplifying service and maintenance procedures and **reducing downtime**.

In contrast to machines equipped with stoppers, it minimizes the risk of component wear and metal leakage, reducing the risk of precious metal loss. This results in reduced operating expenses, providing an economically feasible solution without compromising performance. This reduction in consumables aligns with sustainability objectives, minimizing environmental impact.

Ultimately, Prometheus stands as a testament to durability, simplified maintenance, and cost-efficiency in precision casting technology.

## **Technical data**

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CASTING PROCESS	Induction with controlled atmosphere
MAX CASTING VOLUMES (g)	Au 18 kt (140 g), Ag (90 g), Pt (150 g)
MIN CASTING VOLUMES (g)	Au 18 kt (30 g), Ag (20 g), Pt (50 g)
FUSION CYCLES	Up to 2 consecutive fusions without a chiller are allowed if ambient temperature does not exceed 30 °C.  Above 30 °C, an external chiller is required.
OVERPRESSURE WITH GAS	Argon 2 bar
VACUUM	10 <sup>-2</sup> bar
MAX FLASK SIZE (h x Ø, mm)	90 × 100
TEMPERATURE CONTROL	Pyrometer, up to 2000° C
FLASK LOCKING	Automatic
FLASK FILLING	Automatic
FLASK FILLING SYSTEM	Tilting
COOLING SYSTEM	Integrated air/water cooling system Optional external water cooling system
DISPLAY	7" Touch screen
POWER	230 Vac ±10% 50/60 Hz Single Phase max power consumption 3 kW
COMPRESSED AIR	Not needed
ACCESSORIES	Chiller (not included)
WEIGHT	65 kg

