



Made in Italy

# ***HEAVY DUTY FUSUS NEW***

## ***HIGH-PRODUCTION CENTRIFUGAL CASTING MACHINE WITH VACUUM ASSIST***



*This machine incorporates the system features and the latest process control technology for high-production casting of both platinum and gold with extremely fast cycle times (just abt 60 seconds for platinum and 3 minutes for gold).*

*Available with choice of 60- or 100-cubic meter vacuum pump (optional).*

*Includes crucible kit (please specify gold or platinum) and flask cradle (please specify flask size).*

*Includes installation and operator training.*

## FEATURES:

- Casting chamber under full vacuum with appropriate inert gas protection (argon or nitrogen). Vacuum removes gases from the invested flask minimizing or eliminating gas porosity and radically enhances crucible life, argon or nitrogen gas prevents oxidation of gold and platinum alloys.
- Medium-frequency induction melting with self-stirring effect to ensure absolute homogeneity from the top to the bottom of the cast tree.
- Accurate Computer-controlled PID adjusts power as set temperature is approached assuring accuracy and eliminating overshoot.
- Dynamic double-swing arm for straight and smooth entry of molten metal into the center of the flask.
- Produces high quality dense castings.
- All casting parameters are programmable and can be stored in memory, including precise controlled metal temperature, r.p.m. of the centrifugal arm, acceleration, vacuum and gas pressure. It guarantees repeatability of the results.
- Fully automatic and semiautomatic cycles. In the automatic cycle, operator sets new casting parameters or choose a program stored in memory, then push one button to initiate the complete casting cycle. In the semi-automatic cycle, when temperature reaches the set point, operator can watch the melt and push the casting button to start the centrifugal arm when the metal is considered ready.
- All functions are controlled by a full-color touch-screen computer mounted on an articulated box that can be easily positioned for the operator convenience.
- Two temperature control systems: immersion thermocouple for gold up to 1,150°C (2,100 °F) and infrared optical pyrometer for platinum up to 2,100 °C (3,800 °F) ± 2%
- Optional state-of-the-art Land Instruments Dual-Color Optical Controller available for maximum temperature accuracy of platinum up to 2,100°C (3,800 °F) ± 1.0%.  
This fiber-optic pyrometer is designed for precise platinum temperature measurement.  
Highly recommended for use with automatic cycle for platinum.  
Must be ordered with the machine, impossible to retrofit it.

Electrical	230/400 V, 3Ph, 50/60 Hz (other voltages available)
Power	12 kW
Max.Flask Size	120 mm dia. x 160 mm h
Crucibles	sintered zirconium crucible cap. 200 g, 350 g, 500 g platinum graphite crucible cap. 2 kg 24 kt gold
Dimensions	850 mm d x 1050 mm w. 1300 mm h (including optical pyrometer)
Air Requirement	6 bar for raising/lowering induction coil
Water Requirement	3 liters/minute connected to the water network or to a 'chiller'
Vacuum pump	60- or 100-cubic meter (sold separately)
Inert Gas Requirement	Nitrogen or argon
Net/Ship Wt.	280 kg/335 kg

**Additional information:** The HD Fusus New can cast up to max. abt 700 g platinum but since it is a very large quantity the kit will be only made on request provided we find the crucible.  
Necessary steps will be made on a specific request only.