

# Indutherm Casting Machines



## Mini Casting Systems



MC 16



MC 20V



MC 100V

	MC 16	MC 20V	MC 100V
Performance Max. / Electrical connection	3.5 kW 230 V, Single phase	3.5 kW 230 V, Single phase	8 kW 3x400 V, three phase
Maximum Temperature	2000 °C	2000 °C	2000 °C
<b>Capacity</b>			
Crucible Volume	100g Au 18ct / 110 g Steel / 200 g Pt	100g Au 18ct / 110 g Steel / 200 g Pt	450 g 18ct / 250 g Steel / 500 g Pt
for use of flasks up to	up to ø 30/50/65/80 mm x 80 mm h	up to ø 30/50/65/80 mm x 80 mm h	up to ø 80/100 mm x 120 mm h
<b>Handling + Control</b>			
Control Panel	by LCD display, full text read out	by LCD display, full text read out	by LCD display, full text read out
Automatic Vacuum Function	✓	✓	✓
Automatic Overpressure function	✓	✓	✓
Casting also under vacuum only	✓	✓	✓
Vacuum or Overpressure after casting	✓ -1 up to +2 bar	✓ -1 up to +3 bar	✓ -1 up to +3 bar
Vibration System	-	✓	✓
Supply: Cooling water, Inert gas argon or nitrogen	✓	✓	✓
Temperature Measurement/ Control	✓ Up to 1300 °C (Optional) Up to 1600 °C	✓ Up to 2000 °C	✓ Up to 2000 °C
<b>Quality Management</b>			
Interface RS 232	✓	✓	✓
GMS Modem	(Optional)	(Optional)	(Optional)



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Standard - "✓" Not Available - "-"

# Indutherm MC 60V



This small high-performance casting machine is ideal for smaller production quantities and can be used for jewellery alloys such as gold, silver, copper and bronze, as well as for alloys of brass and aluminium. Thanks to the vacuum and overpressure functions and the many automatic control features, the machine provides first class castings with little work



## Main benefits

- \* Very simple use, short training period, very good results even by operators with less experience in casting techniques
- \* 3,5 kW generator enables quick melting periods
- \* Thorough mixing of metal by induction generator (low frequency tuning)
- \* Melting under vacuum for reduced danger of oxidation
- \* Excellent mould filling because of inert gas / overpressure, max. 2 bars
- \* Excellent ratio machine size to capacity: flasks up to Ø 100 mm x 120 mm h

Specifications	MC 60V
Performance Max. / Electrical connection	3.5 kW 230 V, Single phase
Maximum Temperature	1300 °C
<b>Capacity</b>	
Crucible Volume	450 g 18ct / 300 g Ag 935
for use of flasks up to	up to Ø 80/100 mm x 120 mm h
<b>Handling + Control</b>	
Control Panel	by LCD display, full text read out
Automatic Vacuum Function	✓
Automatic Overpressure function	✓
Casting also under vacuum only	✓
Vacuum or Overpressure after casting	✓ -1 up to +3 bar
Vibration System	✓
Supply: Cooling water, Inert gas argon or nitrogen	✓
Temperature Measurement/Control	✓ Up to 1300 °C
<b>Quality Management</b>	
Interface RS 232	✓
GMS Modem	(Optional)



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# Indutherm MTC 100V

The MTC 100 V redefines precision casting for platinum and other high-temperature metals. Designed for use with ceramic crucibles, it eliminates the challenges associated with traditional centrifugal casting systems. A highly reliable, specially engineered automatic pressure and tilting system, delivering exceptional mold filling for both intricate and solid castings.

## Features

- \* Crucible capacity up to 600 g of platinum
- \* Can also be used to cast gold and silver alloys
- \* Flask size of up to  $\varnothing$  100 x 150 mm
- \* 8 kW induction power
- \* Operates at a remarkable 2,100°C
- \* Equipped with a multi-frequency infrared pyrometer
- \* Automatic tilting with adjustable speed, and variable pressure build-up, ensuring consistent, high-quality results.



## MC 60V

Performance Max. / Electrical connection 8 kW 3x400 V, three phase

Maximum Temperature 2100 °C

## Capacity

Crucible Volume 450 g 18ct / 250 g Steel / 500 g Pt  
for use of flask up to bis  $\varnothing$  100 mm x 150 mm h

## Handling + Control

Control Panel by LCD display, full text read out

Maximum pressure 3 bar

Automatic Vacuum Function ✓

Turbo pressure PLUS system ✓

Casting also under vacuum only ✓

Vacuum or Overpressure after casting ✓ -1 up to +3 bar

Vibration System ✓

Supply: Cooling water, Inert gas argon or nitrogen ✓

Temperature Measurement/Control (Standard) Up to 2100 °C

## Quality Management

Interface RS 232 ✓

GMS Modem (Optional)



Also available as table-top unit

Standard - "✓" Not Available - "-"



# Indutherm VC 400

The ideal machine for smaller companies producing moderate quantities, but need considerably more capacity than that offered by MC machines.

VC 400	
Performance Max. / Electrical connection	3.5 kW 230 V or 4.5 kW 3x400 V
Maximum Temperature	1400 °C
Capacity	
Crucible Volume	170 cm <sup>3</sup> = 2.5 kg Au 18 ct
for use of flasks up to	ø 130mm / 240 mm h
Handling + Control	
Vibration Technology	-
Pneumatic Bell Lock	-
Maximum Pressure	1.5 bar
Program	20 temperature programs
Dual Temperature Control	(Optional)
Flask and Chamber Lift	Switch
Turbo Pressure PLUS System	✓
Turbulence Reduction Software	-
Quality Management	
Interface RS 232	✓
GMS Modem	✓
Accessories	
Sintering Kit (for diffusion bonding)	(Optional)



Standard - "✓" Not Available - "-"

# Indutherm VC 440

The VC 440 is designed to be robust and easy to use. Major functions are controlled by automatic system. All relevant parts are water cooled.

VC 440	
Performance Max. / Electrical connection	3.5 kW 230 V or 4.5 kW 3x400 V
Maximum Temperature	1400 °C
Capacity	
Crucible Volume	170 cm <sup>3</sup> = 2.5 kg Au 18 ct
for use of flasks up to	ø 130 mm / 240 mm h
Handling + Control	
Vibration Technology	-
Pneumatic Bell Lock	✓
Maximum Pressure	1.5 bar
Program	20 temperature programs
Dual Temperature Control	✓
Flask and Chamber Lift	Button powered
Turbo Pressure PLUS System	✓
Turbulence Reduction Software	✓
Quality Management	
Interface RS 232	✓
GMS Modem	(Optional)
Accessories	
Sintering Kit (for diffusion bonding)	(Optional)
Also available as granulating unit	540mm, if VC 440 has flask lift

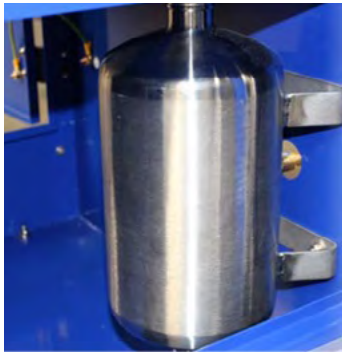


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Standard - "✓" Not Available - "-"

# Indutherm VC 450 HV

The VC 450V is equipped with INDUTHERM vibration system. An integrated pressure tank enables faster pressure build-up for Turbo Pressure PLUS activation.



Performance	
Power Max. / Electrical connection	4.5 kW, 3x400 V
Maximum Temperature	1400 °C
Capacity	
Crucible Volume	170 cm <sup>3</sup> = 2.5 kg Au 18 ct
for use of flasks up to	ø 130 mm / 240 mm h (Optional) ø 160mm / 400 mm h
Handling + Control	
Vibration Technology	✓
Pneumatic Bell Lock	✓
Maximum Pressure	1.5 Bar
Programs	20
Program Control	LCD display, full text display
Dual Temperature Control	(Optional)
Flask and Chamber Lift	✓
Turbo Pressure PLUS System	✓
Turbulence Reduction Software	✓
Quality Management	
Interface RS 232	✓
GMS Modem	(Optional)
Accessories	
Sintering Kit (for diffusion bonding)	(Optional)
Granulation Tank	(Optional)

Standard - "✓" Not Available - "-"

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# Indutherm VC 460V

The all new VC 460 V is a cutting-edge, fully automatic vacuum overpressure casting machine, designed with advanced features specifically for stone-in-place and filigree casting. It boasts an optimized vibration system that, combined with a novel high-speed overpressure mechanism, ensures perfect form filling for intricate designs.

Additionally the VC 460 V introduces a new automatic closing and locking system for the vacuum chamber, significantly enhancing user comfort and increasing production speed. The design has been thoughtfully refined, both visually and ergonomically, making the machine easier to handle and more efficient to operate.



Performance	
Power Max. / Electrical connection	4.5 kW 3x400 V
Maximum Temperature	1400 °C
Capacity	
Crucible Volume	170 cm <sup>3</sup> = 2.5 kg Au 18 ct / 1.5 kg Cu
For use of flasks up to	ø 130mm / 240 mm h (Optional) ø 160mm / 400 mm h
Handling + Control	
Vibration Technology	✓ Optimized vibration system
Automatic Lid Lock System	✓
Maximum Pressure	1.5 Bar (Optional 3 bar)
Programs/ Program Control	100 programs / LCD display, full text readout
Dual Temperature Control	(Optional)
Automatic Flask and Chamber Lift	✓
Variable Vacuum Flask Chamber	✓
Turbo Pressure PLUS System	✓ With additional gas tank
Turbulence Reduction Software	✓
Novel High Speed Overpressure System	✓
Turbulence Reduction Software	✓
Quality Management	
RS 232, Ethernet, USB, diagnostic system	✓
GMS Modem	(Optional)
DMS	✓
Accessories	
Sintering Kit / Granulation Tank	(Optional)
Water Chiller, Vacuum Pump	(Optional)

Standard - "✓" Not Available - "-"



VC 460V features a new automatic lid lock system

# Indutherm VC 480 V



The VC 480 V comes with an 8 kW generator, an advanced program control with 100 casting programs, automatic mold and chamber lift, variable vacuum in the flask chamber and the INDUTHERM vibration system.



Standard - "✓" Not Available - "-"

Performance	
Power Max. / Electrical connection	8 kW 3x400 V
Maximum Temperature	1600 °C
Capacity	
Crucible Volume	170 cm <sup>3</sup> = 2.5 kg Au 18 ct
for use of flasks up to	ø 130mm / 240 mm h (Optional) ø 160mm / 400 mm h
Handling + Control	
Vibration Technology	✓
Pneumatic Bell Lock	✓ Switch
Maximum Pressure	1.5 Bar
Programs	100 temperature programs
Program Control	LCD display, full text display
Dual Temperature Control	(Optional)
Flask and Chamber Lift	✓
Variable Vacuum Flask Chamber	✓
Turbo Pressure PLUS System	✓
Turbulence Reduction Software	✓
Quality Management	
Interface RS 232	✓
GMS Modem	(Optional)
Accessories	
Sintering Kit (for diffusion bonding)	(Optional)
Granulation Tank	(Optional)

# Indutherm VC 650 V

VC 650 V for high speed and casting quality with high crucible capacities, sweep mode vibration system and up to 3 bar overpressure that are essential for large productions.



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Performance	
Power Max. / Electrical connection	12 kW 3x400 V
Maximum Temperature	1700 °C
Capacity	
Crucible Volume	245 cm <sup>3</sup> = 3.6 kg Au 18 ct; (Optional) 386 cm <sup>3</sup> = 5.8 kg Au 18 ct (Optional) 700 cm <sup>3</sup> = 10.5 kg Au 18 ct
for use of flasks up to	ø 130mm / 240 mm h (Optional) ø 160 mm / 400 mm h
Handling + Control	
Vibration Technology	✓
Pneumatic Bell Lock	✓
Maximum Pressure	3 Bar
Programs	100
Program Control	LCD display, full text display
Dual Temperature Control	(Optional)
Flask and Chamber Lift	✓
Turbo Pressure PLUS System	✓
Turbulence Reduction Software	✓
Quality Management	
Interface RS 232	✓
GMS Modem	(Optional)
Accessories	
Sintering Kit (for diffusion bonding)	(Optional)
Granulation Tank	(Optional)

Standard - "✓" Not Available - "-"