



HUNNAPAP

TECH SOLUTIONS

***CASTING
SOLUTIONS***

Contents

Prestige

Oro, Unicast, Sigma, Royal Cast 6

Sparkle, Optima, Ferro-vest 8

All Season Wax 11

Unver Alloy 12

Silicine Rubber 13

RTV Jewerlly Molding Rubber 14

Zhermack 15

Total system Solutions 16

Topcast

TVCd , TCE 18

Local Machine

Burnout Oven, The Chiler Expert 22

Teknik Dokum

AWC - 100, AWC - 100D 24

Automatic Embedding Machine 26

Pneumatic Mold Rubber Valcanizer 27

Cimo

Mixer St. Louis 29

Riace Wax

Endura - Mono and Bi 31

Intuitive - Mono and Bi 32

Intuitive - Belt 33

Maxi Intuitive - Mono and Bi 34

About us

Our mission at *Khunnapap* is to improve our clients molding and casting and surface finishing surface processes to enhance quality and reduce production-related problems and waste.

We work closely with our supplier's customers to innovate our products and processes we create more efficient manufacturing setups with less loss and eliminate the need to recast orders, thereby saving on overall manufacturing costs and lowering production lead times.

“We are not a tools shop, we are a Solutions Provider”

Welcome to Khunnapap



Certus — Investment Powder Technologies Co., Ltd., is a privately owned company that was established in 2009. The company's activities revolve around raw materials research, investment powder development, production, precision batch testing and to provide efficient technical service in support of all Certus products produced for jewelry casting via the "Lost Wax Process". According to the founders, a huge success for Certus has been their line of "PRESTIGE" "user friendly", extra high-quality jewelry casting Investments. Through thousands of hours of research & development, Prestige brand investment have been engineered to outperform all old, outdated premium investment powders first developed in America back in the 1960's and still used today.

To develop top quality investment, Certus used the latest developments in ceramic raw materials and formulating technology. To ensure the quality and consistency of each product, Certus utilizes only the purest raw material resources available in the world. Due to the high purity and precise sizing of refractory grains used in Certus investment powders, most all casting defects still obtained using other premium brands have now been eliminated, thus far "Surpassing the Industry Standard" for investment. As a further benefit to the customer after casting, Certus investments undergo a physical change in properties that allow them to blast out more easily from the casting flask during initial water quench. With PRESTIGE brand investments casters can now reduce the time required for tree and flask clean-up.

Oro

For casting palladium

Yellow & white gold up to 22 carat



Premium Grade investment Powder using the finest ingredients and formula, providing outstanding results.

หล่องานทองคุณภาพและเคลสูง, ถึง 22 เค Oro คือปูนพริ่เมียมของ Prestige ที่ใช้วัตตฤดดิบที่ บริสทุธิทั้งคริสเตอร์โปรไลด์ และซิลิกา รวมถึง เคมีที่มีคุณภาพ เหมาะสำหรับการหล่องานทองที่ ต้องการคุณภาพสูง

Product weight 22.5 kg

Unicast

For casting yellow & white gold up to 18 carat

Flexible formula with a range of applications, from silver to gold to wax gold to wax setting. This is the one powder that can truly do it all.

ปูนเดี่ยวหล่อได้หมดทั้งทอง และ เงิน Unicast เป็นปูนที่สามารถใช้งานหลากหลายที่สุดที่หล่อได้ทั้งทอง เงิน และโลหะรวมถึงงาน wax set ที่ฝังพลอยควิวบิค



Product weight 22.5 kg

Sigma

For casting silver, brass & bronze



Economical, yet high value. Sigma is easy to work with and produces smooth, dense and fin free casting.

สำหรับงานพิมพ์ เงิน ทองเหลือง และ สัมฤทธิ์

Product weight 22.5 kg

Royal Cast

For casting Silver, brass & bronze

Prestige ROYAL-CAST™ is a breakthrough in low cost, high quality, gypsum bonded investment material developed specifically for the casting of high & low production brass & bronze jewelry castings.

Prestige Royal - cast™ (เพชรที่จ ไรย์ลคาสต์) เป็นวิวัฒนาการในการทำแม่พิมพ์เซรามิก ผงนี้มีคุณภาพสูงในราคาที่ไม่แพง โดยอาศัยแร่ยิปซัมเป็นตัวประสานเพื่อใช้กับงานพิมพ์ทุกประเภทที่ใช้ทองเหลืองและ / หรือ สัมฤทธิ์



Product weight 22.5 kg

Made in Turkey
www.khunnapap.com 7

Sparkle

For Wax Settle Diamond & Colorstones

Prestige SPARKLE™ is a special application, gypsum bonded investment developed by Certus for casting 'Stone in Place' (wax setting). Pre-blended with special, technical grade anti-oxidizing ingredients, SPARKLE™ forms a reliable, protective barrier (heat shield) that protects diamonds, semi-precious stones and cubic zirconia from clouding, or burning during the burnout and casting process. Engineered with environmentally friendly control chemicals...



Product weight 22.5 kg

ปูน Sparkle เป็นปูนสูตรพิเศษเพื่อใช้หล่องานฝังในเทียน
เหมาะกับเพชรพลอยแท้ ซึ่งปูนชนิดนี้มีส่วนผสมของน้ำยา
เคลือบเพชร พลอย

- เพื่อปกป้องไม่ให้เพชร พลอย หมอง แดกและ ดำ
- ปูน สามารถสูกได้ในอุณหภูมิ 620°
- ใช้ได้ง่ายไม่จำเป็นต้องมีน้ำยาผสมต่างหากและมั่นใจได้ว่า
ผิวออกมาสวย พลอยจะไม่หลุด
และไม่เสีย



Optima

For Casting Resin & Plastic Patterns

Prestige Optima is a significant breakthrough to a new generation, gypsum bonded investment, that can withstand the highest burnout temperatures and thermal expansion needed to effectively burnout resins.

Can be used with :

Standard injection waxes, Carving Waxes, Resin Patterns (SLA), Wax based Polymers, and Hybrid wax/ pattern plastics

Optima เป็นปูนสูตรใหม่ล่าสุดสามารถทนความร้อนสูงและกระจายที่สูงด้วย ซึ่งจะเหมาะกับการหล่องานเรซินที่ปริ้นเครื่องสามมิติ (3D)



Product weight 22.5 kg



Ferro-vest

For Phosphate Bond

Platinum & Stainless Steel



Prestige's phosphate bonded investment powder for high temperature metals such as platinum and stainless steel. Guaranteed smooth and clean results with an easy to use formula.

Ferrovest เป็นปูน Phosphate bond ซึ่งหล่อได้ทั้งงานแพลตตินั่มคุณภาพสูง และ งานสแตนเลส มีน้ำยา Binder ช่วยในการเสริมความแข็งแรง และเร่งการแห้งของปูนสูตรนี้ งานออกมาเรียบซัด และสวยแน่นอน

Product weight 22.5 kg sack + 500 g binder liquid



Prestige Handbook



PRESTIGE INVESTMENT POWDERS

Made in Turkey

All Season

Jewellery injection wax

Introducing All season™ jewellery injection wax. New from Certus, the company with products that continually surpasses the industry standard.



All Seasons comes in 20 kg. Plastic lined Poly Sacks



- All season Reliability - Perfect for use all year round in all types of climates
- Reproduction - Captures sharpest details of the most intricate designs
- Smooth finish - Provides a high gloss surface finish for superior casting that require less finishing
- Complete fills - High fluidity fills the most complex designs
- Easy view - Any imperfections present are easy to identify for repair
- Low shrinkage - Low injection temperature (68°C) for less shrinkage and sink in thick sections
- Low injection pressure - High fluidity are better flow allows for the lowest injection pressures to be used
- Versatile - One wax for everything. Unique formula works perfectly for all types of patterns. Great for everything from thick to thin to fine filigree
- Extra long shelf life - Properly stored, patterns made with “All seasons“ injection wax will remain ready for use almost indefinitely
- Low ash content - High purity of ingredients and near zero ash content provide cleaner burnouts for a superior casting surface



Unver Casting was founded in 1988 and started business near Grand Bazaar in Istanbul, Turkey. Our main objective has always been customer satisfaction.

Throughout the years, we have invested in cutting edge technology and have combined it successfully with our knowledge, expertise and quality consciousness.

ÜNVER

Jewellery Alloy

Unver casting is capable of casting all variations of gold and silver jewellery alloys. Currently we are providing our customers complete line of lost wax casting process and beyond, including following:

- Jewellery design
- CAD - Computer aided design
- Metal moulds
- Rubber moulds
- Wax models
- Casting of pieces manufactured by 3D printers (CAM - Computer aided manufacturing)
- Cast pieces of jewellery by regular lost wax process
- Stone setting and polishing services



Made in Turkey

Silicone Rubber |



Gold Green

42- 45 Shore (Medium/ Soft)

Vulcanization Temperature 90°C

Time 30- 60 mins

Shrinkage 1%



Silver Red

45 Shore (Medium/ Soft)

Vulcanization Temperature 90°C

Time 30- 60 mins

Shrinkage 1%



Silver Pink

50 Shore (Medium/ Hard)

Vulcanization Temperature 90°C

Time 30- 60 mins

Shrinkage 1%

RTV Jewellery Molding Rubber |

- Specifically designed for CAD and Resin prototypes
- 0% shrinkage
- Easy to mix and fast curing
- Clear silicone mold for bubble detection and easy cutting of mold
- 12 hours room temperature cure
- 30 minutes accelerated cure option under slight heat
- Long shelf life and high tear resistance

- ไม่มีการหด
- มีวิธีการที่ทำงานง่ายและรวดเร็ว
- มีความใส ช่วยในการทำงานโดยเห็นแบบ และทำให้ตรวจสอบฟองอากาศได้ง่าย
- ปล่อยให้แห้งในอุณหภูมิห้อง ใช้เวลา 12 ชั่วโมง
- ปล่อยให้แห้งนอกที่มีอากาศร้อนจะแห้งภายใน 30 นาที
- เป็นซิลิโคนที่ทนต่อแรงฉีกขาดสูงและไม่ขาดง่าย



Product weight 20 kg

Made in USA

Zhermack |

Zhermack HT33 Transparent

Zhermack range of material for the jewellery industry

- Optimum hardness for most designs
- Low viscosity for easy handling
- Comfortable setting time of 150 minutes
- Transparent for clear visibility
- Easy 1:1 mixing ratio
- Excellent mechanical characteristics

- ความกระด้างที่เหมาะสมที่สุด ใช้ได้กับทุกงานออกแบบ
- สะดวกในการใช้งาน ด้วยความหนืดต่ำ
- เพียง 150 นาทีเพื่อให้พิมพ์เต็มที่
- สีใสสะอาด
- ผสมง่าย ในสัดส่วน 1:1
- มีคุณสมบัติสำหรับการหล่อหลอมเป็นเลิศ



1+1 = 2kg per set

5+5 = 10kg per set

Total System Solutions |

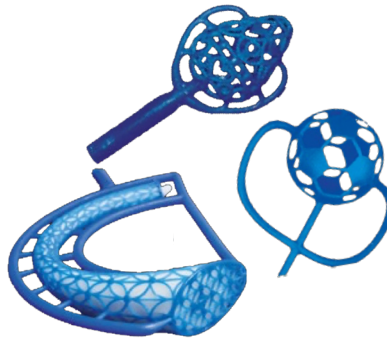
Consumables



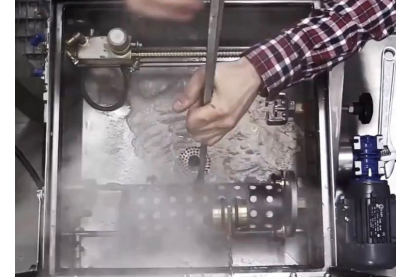
Machines



Output



Consumables



Output



TVCd | Double Chamber pressure over vacuum casting machine

TVCd is the pressure over vacuum casting machine designed to meet the more severe needs in lost wax casting production.

This machine works with a new, revolutionary double chamber concept.

This innovative system gives several advantages compared with the traditional single chamber suction system currently available in the market. In TVCd melting chamber and flask chamber are completely independent and at the moment of casting the machine controls the metal injection into the mold by applying a differential pressure during pouring.

This leads to a faster injection compared to simply gravity pouring with the benefit to cast items at lower temperature. The result is a better surface finishing of the cast parts.

The casting cycle takes only a few minutes and, while the previous cycle is at the cooling stage, the next charge can be loaded into the crucible to be melted, thus overlapping two cycles for an increase of productivity.

The machine is fully automatic having also a PC based monitoring system for process variable acquisition and production data management with easy editing of casting programs suitable for many kinds of alloy (optional)

This revolutionary machine is the synthesis of the most advanced engineering and 20 years of experience in casting that only TOPCAST can bring inside your factory.

TVC 3d



TVC 5d, 10d, 12d



TVC25d



Technology, features, technical data

Gas Wash Procedure

- Crucible loading operation introduces oxygen
- The Gas Wash Purge procedure remove the oxygen (1) in a very fast and efficient way and then refills back the chambers with Argon or Nitrogen gas (2)
- Compared with the traditional crucible protection by dilution, the consumption of gas is dramatically reduced and the alloys oxidation is minimized; moreover the crucible life is increased

Melting

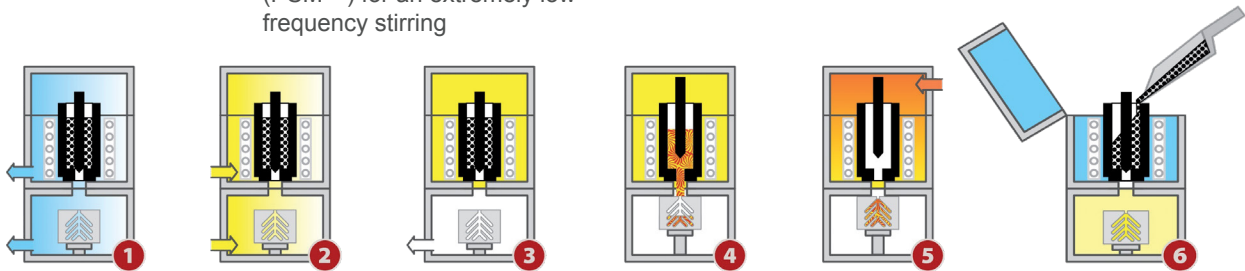
- Advanced Self Tuning thermoregulation (AST™) with exact temperature control of the melted alloys
- Two Set-Points available: Homogenization and Casting Temperature
- Set-up with multiple thermocouples available on request
- Medium frequency induction heating stirs the melted alloy and leads to a perfect homogeneity
- Pulse Stirring Management (PSM™) for an extremely low frequency stirring

Injection and Compression

- When the stopper rod lifts up, it is very important to control the injection rate to avoid turbulences
- TVC has the unique feature to have the injection rate controllable and programmable (IRC™)
- The metal enters smoothly inside the mold (4). Then, after filling and during the solidification phase, a strong compression takes place on the tree (5)
- No turbulences in filling and high compression rate lead to a large reduction of shrinkage porosity phenomena

Tree protection after casting

- Thanks to the double chamber concept, after the solid phase, the flask cools down in a protective atmosphere while at the same time you can load your alloy in the melting chamber for the next melting
- This operation will allow an overlapping of the casting cycles which will give you the ability to protect longer the tree before removing it without loosing time and productivity.



Model	TVC3d	TVC5d	TVC10d	TVC12d	TVC25d
Crucible volume	50cc	100cc	280cc	500cc	2 liters
Crucible working capacity	200g Bronze 250g Silver 500g Gold	200g Aluminum 400g Bronze 500g Silver 1 kg Gold	500g Aluminum 1.5 kg Bronze 1.5 kg Silver 3 kg Gold	750g Aluminum 2.3 kg Bronze 2.5 kg Silver 5 kg Gold	3 kg Aluminum 10 kg Bronze 8.5 kg Steel 2 kg Magnesium
Flask max diameter (mm)	90	• 150/ ∅200	• 150/ ∅200	• 150/ ∅200	• 350/ ∅400
Flask max height (mm)	120	• 300/ ∅400	• 300/ ∅400	• 300/ ∅400	• 600
Induction heating power	2.5 kW	4.9 kW	10 kW	12 kW	20 kW
Vacuum pump	External	Internal	Internal	Internal	Internal
pressure over vacuum	3 bar	3 bar	3 bar	3 bar	1 bar
Max. temperature	1250°C	1250 °C / 1600 °C	1250 °C / 1600 °C	1250 °C / 1600 °C	1250 °C / 1600 °C
Granulation unit	-	-	◦	◦	◦
Industry 4.0	-	-	◦	◦	◦
Automatic feeder for crucible replenishing	-	-	-	•	•
Autotest with data report	•	•	•	•	•
Monitoring system for data acquisition	◦	◦	◦	◦	•
Flask check before casting	•	•	•	•	•
Vacuum leakage detector	•	•	•	•	•
Oxygen Analyzer	-	◦	◦	◦	◦
RS232 remote interface	-	◦	◦	◦	◦
Main alloys	Gold (Au), Silver (Ag), Copper (Cu), Brass, Bronze, Aluminium (Al) and their alloys, Magnesium				
	• Provided / ◦ Available on request				

TCE | Vacuum centrifugal casting machine

TCE are consistent, robust and easy to use vacuum centrifugal casting machines designed for small and medium casting laboratories. They can be manufactured in Class A or B.

TCE in Class B are particularly suited for Platinum, Palladium and Steel especially designed to cast Titanium, Inconel and amorphous metals. All models can also melt nonferrous and precious metals.

The main difference between TCE in class A and TCE in class B is the degree of vacuum, leak-back rate and ppm of oxygen that are admitted during the process, that makes the TCE in class A the best solution for casting Titanium-based alloys and intermetallic alloys. Also the choice of the vacuum pumps station and the induction power generator

is different and it is chosen to get the maximum result in Titanium cast parts. Hence, TCE machines conceived in class A are suitable for fields that require high quality control and low interstitial pick-up on the cast parts, like Aerospace, Medical and Automotive.

TCE in class B can instead be used where the price of the machines is an important factor and where no particular restraints of oxygen content are involved

TCE 10



Class A
TCE12-TI



Class A
TCE40-HD-TI



Class B technical data

Model	TCE5	TCE10	TCE50-Ptd
Crucible working capacity	500 g Pt 250 g Steel	1500 g Pt 1000 g Steel	10 kg Pt
Flask maximum diameter (mm)	110	130	250
Flask max height (mm)		180	380
Induction power	8 kW	10 kW	50 kW
Max. spinning speed	500 rpm	450 rpm	300 rpm
Vacuum pump	External	External	External
Max. temperature	2000 °c	2000 °c	2000 °c
Monitoring system for data acquisition			•
Vacuum leakage detector	•	•	•
Oxygen Analyzer			•
Optical Pyrometer	•	•	•
Rotating Thermocouple	◦	◦	◦
Main alloys	Pt, Pd, CrCo, Stainless Steel		
	Provided • / ◦ Available on request		

Class A technical data

Model	TCE8- Ti	TCE12- Ti	TCE40-HD- Ti
Applications	Laboratory Machine		Production Machine
Crucible working capacity	100 g Ti	400 g Ti	400 g Ti
Flask maximum diameter (mm)	110	130	200
Flask max height (mm)	120	200	220
Induction power	8 kW	12 kW	40 kW
Max. spinning speed	500 rpm	350 rpm	600 rpm
Vacuum pump	External	External	External
Max. temperature	2000 °c	2000 °c	2000 °c
Fully water- cooled 24/ 7			•
Monitoring system for data acquisition	•	•	•
Vacuum leakage detector	•	•	•
Oxygen Analyzer	◦	◦	•
Industry 4.0/ Remote interface	•	•	•
Optical pyrometer	•	•	◦
Automatic Arm Home Position for Robot Load/ Unload operations	◦	◦	•
Automatic Spin Trigger Algorithm	◦	◦	•
Main alloys	Pt, Pd, CrCo, Stainless Steel, Ti, Black Ti, Zr		
	Provided • / ◦ Available on request		

Local Machine | Burnout Oven

Model	KP -06
Power supplies	380 / 3 Phase (6 AMP)
Outside dimensions	55 x 60 x 100 cm
Digital control	Max temperature 800 / 1000 °c
Capacity	4 x 8" = 6 flasks

Model	KP -12
Power supplies	380 / 3 Phase (6 AMP)
Outside dimensions	65 x 80 x 150 cm
Digital control	Max temperature 800 / 1000 °c
Capacity	12 flasks

Model	KP -20
Power supplies	380V / 3 Phase (12 AMP)
Outside dimensions	65 x 80 x 150 cm
Digital control	Max temperature 800 / 1000 °c
Capacity	20 flasks

Model	KP -40
Power supplies	380V / 3 Phase (12 AMP)
Outside dimensions	85 x 100 x 150 cm
Digital control	Max temperature 800 / 1000 °c
Capacity	40 flasks



The Chiller Expert

- Compressor: Panasonic rotary type
- Hi/ low pressure: saginomiya
- Control switch: Mitsubishi
- Fan motor: Yamabishi
- Temperature control: Digital, act Thailand
- Stainless steel pump
- Stainless steel water tank



Model		ACT 1.2A (AIR COOL)
Specification		ACT 1. 2A
Power supply		220 V. 1 P. 50 HZ
Temp. range		1 - 40 Degree °c
Comp	Power	1 HP
	Capacity	12,000 BTU/ HR (2500Kcal/Hr)
	Type	Mitsubishi: Hermertic
	Cooling	Air cool
Pump	Power	1/2 HP
	Material	Stainless steel
	Flow rate	20 L/ Min
	Pressure	1- 2 bar
Machine system		Digital temperature control package coil in tank system
Water tank		Stainless steel
Tank capacity		30 litre
Dimension (CM)		55(w) x 82 (L) x (72.5(H))
Connection size		Inter 1 "outlet 1" Inc.Stop values
Protection devices		Compressor over loading protector, over current relay, high/ low pressure protector, internal by- pass, solenoid valve

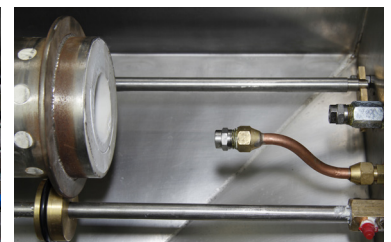
Teknik Dokum |

Automatic Investment Breaker (Quench + Wash)



AWC - 100

Automatic Investment Breaker to peel sprue systems out of flask (even cold flasks) and to remove investment in two operations by means to flask and objects. Accurate cleaning even in hollow spaces and in filligures. Plexiglass window at the lid and lightening, provides easy follow-up to users.



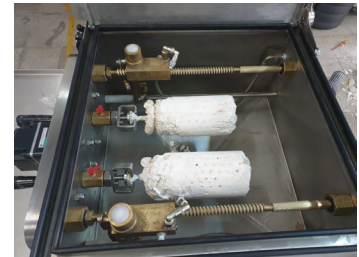
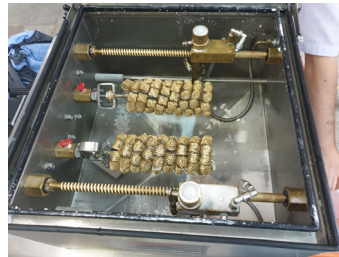
Model	AWC-100
Maximum Flask Dimensions	150 x 300 mm
Operation	2 -3 mins
Power Supply	4 kW / 3 phase / 400V
Maximum pressure	120 bar
Water Consumption	15 l / min
Dimensions (w x l x h)	63 x 86 x 123 cm
Weight	150 kg

Automatic Investment Breaker (Double Wash)



AWC - 100D

Automatic Investment Breaker to remove investment powder from casting tree with high- pressured water without any damage to objects. Accurate cleaning even in hollow spaces and in filigrees. Plexiglass window at the lid and led lightening, provides easy follow-up to users.



Model	AWC-100D
Maximum Flask Dimensions	125 x 300 mm
Operation	2 - 3 mins
Power Supply	5,6 kW / 3 phase / 400V
Maximum pressure	120 bar
Water Consumption	15 l / min
Dimensions (w x l x h)	93 x 170 x 137 cm
Weight	200 kg

Automatic Investment Mixing Machine

- Homogeneous Slurry for Quality Castings
- Superior results with Vacuum and Vibration
- Bubble- free Embedding, Nodule- free Castings
- Easy Handling and Cleaning



Model	VACUMIX-3A	VACUMIX-3B	VACUMIX-4B	VACUMIX-5B	VACUMIX-6A	VACUMIX-6B
Capacity (dry investment powder)	8 kg		12 kg	15 kg	16 kg	
Capacity (number of flasks)	3		4	5	6	
Max. Flasks Height	280 mm			300 mm		
Max. Plain Flask Diameter	110 mm		120 mm	125 mm		
Max. Flanged Flask Diameter	100 mm			110 mm		
External Dimensions (wxlxh)	420 x 790 x 1410 mm		450 x 950 x 1620 mm	495 x 1075 x 1620 mm	510 x 1110 x 1650 mm	
Net Total Weight	115 kg	145 kg	155 kg	170 kg	190 kg	175 kg
Total Installed Power	1.25 kW			1.6 kW		
Voltage	400 V AC 3 ~					
Frequency	50/ 60 Hz					
Upper Mixer + Sieve	-	-	-	-	-	-



Pneumatic Mold Rubber Valcanizer

- Accurate Temperature Control
- Digital Display
- Timer with Auto Shut-off
- Vulcanization under Constant Pressure
- Perfect Molds without Deformation

Optional

- Digital Timer

Model	VPP - 17 / 20*	VPP - 20 / 25**
Max. Temperature	200 °c	200 °c
Size of Heating Platens	170 x 200 mm	200 x 250 mm
Max. Dist. Between Platens	80 mm	80 mm
Required Compressed Air	6 bar	6 bar
Power	1250W	1250W
Voltage	230V AC	230V AC
Frequency	50/ 60 Hz	50/ 60 Hz
Dimensions (wxlxh)	330 x 280 x 480 mm	330 x 280 x 480 mm
Weight	40 kg	55 kg

*Also available dual heat control model (VPP - 17 / 20 - 2D)

**Also available dual heat control model (VPP - 20 / 25 - 2D)



C.I.M.O. srl is a company established in 1988 on the basis of the forty-year experience of the Barettoni Gianfranco company which still operates today as a supply shop of equipment and consumer products for goldsmiths in Valencia.

The daily contact with the demanding production realities of high quality jewels convinced the heirs of Barettoni Gianfranco to create a production structure for unique and specific machines capable of satisfying the needs of modern goldsmith manufacturing.

So here is C.I.M.O. which besides being importer and distributor of Kerr products (coating, waxes and articles for investment casting), specializes in the production of vacuum mixers for coating, the famous ST machines.

LOUIS: real technological evolution of the conventional coating preparation system. Machines present today in all laboratories and factories for investment casting.

Over the years, the range of production has characterized the presence of C.I.M.O. not only on the national territory but also abroad, where the products are supplied and assisted directly with an expert and selected range of direct resellers.

The plaster lifter and distributor: DISPENSER LIFT, the ANGEL polishing benches with the patented water-air filtration recovery system for the precious metal and the very recent MIX CAST, casting machines for accurate casting, represent an effect of continuous technological research and innovation at the basis of all C.I.M.O. expressions.

Mixer St. Louis



St. Louis 92 - 2kg



St. Louis 82



St. Louis 2002 - 14kg



St. Louis 2002 - 22kg

Model	92 - 2kg	82	2002 - 14 kg	2002 - 22 kg
Power Capacity Kg	2	14	22	22
Inverting Flask	Single	Multiple	Multiple	Multiple
Flask Max Diameter mm	160	350	400	400
Flask Plate Diameter mm	120	360	450	450
Voltage V	220 single fase	220	220 + 380	220 + 380
Singlephase	X	X	X + 3 PH	X + 3 PH
Vacuum Pump	Included	Included	Included	Included
Pump m ³	40/ 50	40/ 50	100	100
Base Size cm	62 x 66	62 x 66	72 x 80 + 47 x 95	72 x 80 + 47 x 95
Height cm	170	170	175 + 100	175 + 100
Weight Kg	210	212	230 + 150	230 + 150



Riace tech Srl was founded in 2006 from the idea of Giovanni Lejkowski. It is based in Arezzo, the Tuscan heart of the jewellery sector. A dynamic and technologically advanced company, it focuses its core business on the creation of innovative wax injections, fully controllable and programmable. It provides all the companies in the casting industry with a wide range of totally automatic and certified machines in the casting industry with a wide range of totally automatic and certified machines, all with different functionalities and configurations, that are suitable for industry 4.0 and meet all the needs of the jewelery and fashion accessories world. It also provides a rich variety of consumable products.

Riace tech expresses the results of its constant desire for innovation and research for perfection in a product that is a guarantee of high quality, offering constant technical support to the consumer and new ideas and suggestions for optimizing internal processes and the final result.

ENDURA

MONO and BI

The ENDURA series combines an aggressive design with an essential line, which characterizes and enhances its strength and sturdiness, resulting in a machine with a slender line with two work-stations.

Injector with essential electronics, equipped with 7" touch screen interface, allows a total control on the injection process, easy maintenance and powder-coated aluminum and stainless-steel surfaces make this injector particularly reliable and suitable even for the most difficult environments. It is equipped with a transparent melting tank with a constant vacuum system, a vacuum switch to check the vacuum in the mold, an RFID reader, an 8-cmc injection syringe with final temperature regulation and a self-centering clamp with 120x90mm plates.

Technical Specifications

Moulds

Min 50 x 30 x 12 mm
Max 120 x 90 x 47 mm

Machine

38 kg
60 x 38 x 53 cm



Watch how it works



Data sheet



Technical Specifications

Moulds

Min 50 x 30 x 12 mm
Max 120 x 90 x 47 mm

Machine

54 kg
90 x 38 x 53 cm



Watch how it works



Data sheet

INTUITIVE

MONO and BI

The MONO INTUITIVE injector allows to create light and very thin objects, maintaining their weight over time.

An Android 10.1" Industrial PC is the control unit with specially developed applications that allow to save recipes with photos and manage and control production orders. Thanks to the ability to connect remotely, it is compatible for Industry 4.0.

It is equipped with a transparent melting tank with a constant vacuum system, digital sensors to control the pressures that always allow the IPC to display the graph of the vacuum on the molds during injection, an RFID reader, an 8 cmc injection syringe with final temperature regulation and self-centering clamps with 120x90mm plates

Technical Specifications

Moulds

Min 50 x 30 x 12 mm
Max 120 x 90 x 47 mm

Machine

40 kg
60 x 38 x 53 cm



Watch how it works



Data sheet



Technical Specifications

Moulds

Min 50 x 30 x 12 mm
Max 120 x 90 x 47 mm

Machine

58 kg
90 x 38 x 53 cm



Watch how it works



Data sheet

INTUITIVE

Belt

The AUTOMATIC BELT SYSTEM INTUITIVE injector belongs to the Intuitive line and retains all its features; it can inject up to 20 molds of different sizes at the same time by loading them automatically and speeding up the entire production process thanks to the self-centering function on the molds of different sizes; it can create light and very thin objects, maintaining their weight over time.

An Android tablet is the control unit of both the machine and the loading system, with specially developed applications that also allow to check statistics and productivity. Thanks to the ability to connect remotely it is compatible for Industry 4.0.

It is equipped with a transparent melting tank with a constant vacuum system, digital sensors to control the pressures that always allow to check the graphs of the vacuum trend on the molds during injection from the tablets, a RFID reader, a TC-700 cooler, an 8-cmc injection syringe with final temperature regulation and self-centering clamp with 90x90mm plates.



Technical Specifications

Moulds

Min 50 x 30 x 12 mm
Max 90 x 90 x 47 mm

Machine

75 kg
130 x 72 x 53 cm



Watch how it works



Data sheet

MAXI INTUITIVE

MONO and BI

The MONO MAXI INTUITIVE injector is able to produce large parts maintaining their weight over time.

Injector has an Android 10.1" Industrial PC in the control unit, with specially developed apps that allows to save recipes with photos and manage and control production orders. Thanks to the ability to connect remotely it is compatible for Industry 4.0.

It is equipped with a transparent melting tank with a constant vacuum system, digital sensors to control the pressures that always allow to check from the IPC the graph of the vacuum trend on the mold during injection, an RFID reader, a 120-cmc injection syringe with final temperature regulation and self-centering clamp with 250x155mm plates.

Technical Specifications

Moulds

Min 50 x 30 x 12 mm
Max 250 x 155 x 80 mm

Machine

54 kg
81 x 38 x 53 cm



Watch how it works



Data sheet



Technical Specifications

Moulds

Min 50 x 30 x 12 mm
Max 250 x 155 x 80 mm

Machine

65 kg
110 x 38 x 53 cm



Watch how it works



Data sheet



Thank you



HUNNAPAP

TECH SOLUTIONS



(02) 635 2897



info@khunnapap.com



www.Khunnapap.com



41/24-25, Hatam Bldg 1st floor, Silom Soi 19,
Bangrak, Bangkok 10500