

Innovating Induction Systems

An Introduction



- Innovating Induction System
- Advanced Technology for Jewellery and other Metal Industries
- India's most successful Machines

Shapet Induction Company is Rajkot (Gujarat-India) based manufacturing company. **Shapet Induction Company** was founded by visionary Mr B.S. Patel in 1995.

Shapet Technologies have been inaugurated in January 2021 in **Ahmedabad** to enhance our customer reach.

Our product range: Induction based Gold melting machines, Silver melting machines, Gold casting machines, Gold bar Casting machines, Granulating machine for gold/silver, Casting plant machineries, DLP 3D Printers, Graphite crucible, Ceramic jacket etc. for Jewellery industries.

Shapet also have industrial range of product which is used for various application like Brazing, Heating, Hardening, Forging, Annealing, Bending, Melting etc. These product are useful for various industries like submersible pump manufacturer, ball bearings manufacturer, Surgical implant manufacturer, Diamond Cutting Tools manufacturer, steel vessel manufacturer. etc.

We have also ventured into the field of commercial cooking with its latest range of products like Induction Kadai, Induction Mawa maker, Induction Hot Plates, Induction Cook Tops and Induction Tawa etc. These products provide an effective, economical, and environment friendly methods for commercial cooking applications and cater to various clienteles like restaurants, hotels, Farsan manufacturers. sweets manufacturers, caterers etc.

We have become a well-known global name in the field of jewellery industry as our clientele is spread across many countries like UAE, Bahrain, Qatar, Bangladesh, Congo, Uganda, West Africa, Sri Lanka etc.

Our list of long-term satisfied clients in Jewellery Industries consist of Titan Industries Itd (Tanishq), Relince Jewellery, C Krishna Chetty & Sons Pvt Ltd, Abhran Jewellery, Khazana Jewellery, Kiran Jewellery, Derawala Word Jewellery, Malabar Gold, GRT, Emrald Industries to name a few.

In other industries also, we have happy clients like Topland Pump Ltd, Lada Laxmi Pump Pvt Ltd, Silver Pumps & Motors Pvt Ltd, Lubi Industries, Fieldmarshal P.M. Diesels Pvt Ltd, Rotec Submercible Pumps LLP. and Kirloskar to name a few.

It would be our honour to serve you with advanced Technological Machineries. If you are interested in having business relationship with us, please don't hesitate to contact us at +91 98795 52825

TRADITIONAL MELTING / CASTING METHODS	INDUCTION MELTING / CASTING METHODS	
As there is resistance coil, chances of defusing of coil are frequent. Due to this oxidization the coil corrodes.	Coil is of heavy gauge hollow copper pipe having high temperature and double insulation. Due to circulation of cold water, the coil lasts for a very long time.	
First melting usually takes as long as 30 to 45 minutes, hence the chance of oxidization is more and also there are chances of metal loss.	First melting takes only 10 to 15 minutes resulting in null oxidization and zero loss of metal.	
In this method, the coil gets heated first & then the heating of crucible takes place followed by the metal heating, which results in loss of heat and metal.	In this method the metal heats with the help of frequency and so there is no loss of heat and metal.	
Due to the heat loss the power consumption is always more.	Due to no loss of heat the power consumption reduces significantly.	
Because of no stirring effect the metal does not properly melt. At the time of pouring of the ready metal it is found that the metal oxides also come out with the finished metal creating an improper metal stick or rod.	Because of the stirring effect the metal oxides rise to the top of the melting unit creating a separate layer without blocking the flow of pure metal for making the metal stick or rod.	
As there is no water circulation the temperature of the workshop unit remains hot for a very long time.	Due to chiller, the machine gets cooled within 2-3 minutes and the temperature of the workshop unit remains normal.	
There is no auto stirring and the metal is stirred with the help of a carbon rod. The metal sticks to the carbon rod leading to loss of metal and also mixture of carbon with metal.	In this method there is auto stirring without the need of a carbon rod resulting in no loss of metal which remains pure during the entire process.	
As there is no stirring effect, there is addition of copper and silver in gold (99.99%) it is not in uniform micro structure. On rolling of stick, from wire (metal coil) received after melting it is found not to be in good condition. Because of this there are chances of breaking of chain which is prepared from the wire and also loss of carat value. (refer diagram shown below)	Due to the automatic stirring effect there is perfect distribution of copper and silver to be mixed with gold (99.99%). This perfect mixture helps the wire (metal coil) to remain strong for a longer period of time and also giving it a high carat value. The wire and strip received after melting is in very good and perfect condition and there are no chances of breaking(refer diagram shown below)	
Copper & Silver Gold Base Alloy	Copper & Silver Gold Base Alloy	
During the second melting process the heat is excessively spread out so it is very difficult to put metal in the form of dust or scrap in the crucible. This requires putting the dust from a safe distance to avoid the heat which may result sometimes in dropping of dust and also loss of metal.	Here there is no heat spread; hence it is very easy to add the metal dust. Therefore there is no metal loss.	



FOR THE FIRST TIME IN THE WORLD A UNIQUE INDUCTION MELTING FURNACE

Advanced Technology



IGBT TECHNOLOGY



SPECIFICATION OF MACHINE

Power Supply : Single Phase Voltage : 230 V Ac Absorbed Power : 3.5 Kw

Capacity of Crucible : 300 Gm. Gold + Maximum Temperature : 1150 Degree Melting Time : 4 - 6 Min. + +

Temperature Measurement : K Type
Cooling Water Temperature : 20 To 35
Water Pressure : 3 Bar

Maximum Water Flow : 3 Lit / Min

Dimension (In Cms) (L X W X H)

 Weight
 Size

 Melter (Approx)
 18 Kg. : 44 X 35 X 43

 Chiller (Approx)
 22 Kg. : 44 X 35 X 43

LITTLE WONDER

BENEFITS

- Small, Safe, Easy and sturdy model.
- Low power consumption & can also be used in A/C showrooms.
- Quick first melting within 4 6 minutes for increased productivity.
- Continuous melting of metal with chilling plant.
- Perfect mixing of alloys due to auto stirring & reduced metal loss.
- Economical and efficient in operation, single phase.
- No combustion or waste product.
- Income Tax Depreciable for Energy Saving - Flame less Device.
 - † Brimful Capacity †† Under Standard Condition









SHAPET

TECHNOLOGIES

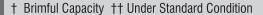


SPECIFICATIONS

Power SupplyVoltageAbsorbed PowerSingle phase230 V AC5 Kw to 7 Kw

Capacity of Crucible500 Gms, 1 Kg. & 2 Kg.

Maximum Temperature
Melting Time
Temperature Measurement
Cooling Water Temperature
Water Pressure
Maximum Water Flow
1150 Degree
4 to 8 min
k type
20 to 35
3 bar
Maximum Water Flow
3 lit /min



HIGHLIGHTS

- Fully automatic control
- Automatic power regulation
- Easy to install
- Feather touch controls; Simple in operation
- All safety precautions provided
- Heat and power loss reduced
- Less power consumption
- Reduce metal loss

BENEFITS

- Safe & Easy operation
- Continuous Melting of Metal with chilling plant
- Convenient layout
- Perfect mixing of alloys due to auto stirring
- Economical and efficient in operation
- No products of combustion or waste product
- Increased productivity
- Income Tax Depreciable Under Energy Saving Flameless Device Category











Note:

- Technical data dimensions and other characteristics are not binding and can be changed even upon request.
- Always use graded crucibles for efficient, effective and maximum machine utilisation.

Dimension (In Cms) (L X W X H)

 Weight
 Size

 Melter (Approx)
 36 Kg.
 : 44 X 44 X 48

 Chiller (Approx)
 46 Kg.
 : 44 X 44 X 54



Available in Compressor Based Chiller
Radiator Based Cooling Options









SPECIFICATIONS

Power Supply
Voltage
Absorbed Power
Three Phase
415v 50Hz/60Hz
6 Kw to 9 Kw

Capacity of Crucible2 Kg., 3 Kg., 4 Kg. & 5 Kg.

Maximum Temperature
 Melting Time
 Temperature Measurement
 Cooling Water Temperature
 1150 degree
 10 min.
 Digital/k type
 20 to 35 degree

Water PressureMaximum Water Flow4 Bar4 Itr/min



HIGHLIGHTS

- Fastest operation at lower cost
- Instant heating with finger tip control.
- All safety precautions provided
- Consistent quality of casting
- Creative and innovative technology
- Both gold & silver can be melted
- Reduced casting expenses

Note:

- Technical data dimensions and other characteristics are not binding and can be changed even upon request.
- Always use graded crucibles for efficient, effective and maximum machine utilisation.

BENEFITS

- Safe & Easy operation
- Faster, economic and accurate castings
- Convenient layout
- Perfect mixing of alloys due to auto stirring
- Economical and efficient in operation
- No products of combustion or waste product
- Increased productivity
- Income Tax Depreciable Under Energy Saving Flameless Device Category

Dimension (In Cms) (L X W X H)

 Weight
 Size

 Melter (Approx)
 80 Kg. : 56 X 51 X 82

 Chiller (Approx)
 100 Kg. : 61 X 61 X 81









AN ISO 9001: CERTIFIED COMPANY



The Of Symbol of Quality

Advanced Technology for Jewelry





10 Kg to 60 Kg. Induction Melting For Gold >> >> >>



Innovating Induction Systems



10 Kg to 60 Kg. Induction Melting For Gold

Advanced Technology for Jewelry



FEATURES:

- Operates on Three phase 440v. A.C.
- Fully automatic controls
- Heat and power loss reduced
- Less power consumption
- Simple to operate
- All safety precautions provided
- You can use it for melting gold and silver.
- Feather touch controls
- Automatic regulations of temperature
- Automatic power control
- Perfect homogeneous mixing Increased productivity.
- Economical and efficient in operation.
- Energy saving-Flameless furnace

TECHNICAL SPECIFICATIONS:

Power Supply
Voltage
Absorbed Power
Capacity of Crucible
Maximum Temperature
Melting Time
Temperature Measurement
Three Phase
440 volt AC
10 Kw to 50 Kw
10 Kg to 60 Kg
1150 degree
15 min to 40 min
Automatic

Temperature Measurement : AutomaticCooling Water Temperature : 35 degree Max

Dimension (In Cms) (L X W X H)

Weight Size

Melter (Approx) 79 Kg. : 80 X 60 X 113 Chiller (Approx) 131 Kg. : 84 X 59 X 105 Tilting Unit (Approx) 60 Kg. : 84 X 62 X 92

† Brimful Capacity †† Under Standard Condition

Note:

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- Always use graded crucibles for efficient, effective and maximum machine utilisation.















PRESENTING THE NEXT GENERATION OF DLP PRINTER

ADDING DIMENSIONS TO

Your Tdeas

- ▶ 120mm x 68mm x 180mm Build Volume
- ▶ 62.5 microns X/Y resolution
- ▶ 10 microns Z resolution
- ▶ 485 cm³ speed
- Powerful UV light engine
- ▶ 1920 x 1080 Full HD Resolution

YOUR IDEAS

VIRINCHI DLP PRINTER

Introducing VIRINCHI DLP printer which uses high power intensity ultraviolet light engine with full HD resolution processing DLP technology. Print detailed accurate part with an accuracy of 25 micron with smooth surface finish. With combination of high speed brushless motor and high intensity light engine, printing process is faster than ever before. User friendly control of machine makes control easier and comfortable. Super active carbon air filter ensures odor and toxic free environment in printing process.













POWERFUL LIGHT ENGINE

High power light engine inside the printer uses a system of lenses and mirror to deliver perfectly accurate image to print clearer than ever. Masking in engine ensures uniform light intensity across the entire build platform.



HEAVY LINEAR GUIDE

Build platform of printer is driven by a ballscrew and guideway slides on an optimized U- rail to achieve higher accuracy and maximum speed.



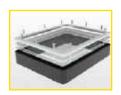
PRECISE MOVEMENT

Shapet uses heavy duty brushless DC motor with resolution of 6400 steps per revolution for discrete steps & smooth movement of build platform.



ACTIVE CARBON AIR FILTER

Shapet uses air filter which has an especially high carbon content and is proven to remove odor and volatile organic compound from machine.



ALUMINUM RESIN TRAY

Resin tray uses Fluorinated Ethylene Propylene film (FEP) to ensure smooth and easy seperation between layers. Resin tray also features replaceable FEP film for hassle free printing.



USER FRIENDLY CONTROL

Printer offers 5 inch bright HD display for observation of printing and luminous buttons for basic control and operations of machine.

Features	Basic	Virinchi mini	Virinchi	Virinchi plus
Build Platform	100mm*56mm	90mm*50mm	120mm*68mm	150mm*84mm
X/Y Resolution	52um	46um	63um	75um
Z - Height	200mm	200mm	200mm	200mm
Speed	Medium	High	Medium	Medium
Air Filter	Yes	Yes	Yes	Yes
Print control Buttons	No	Yes	Yes	Yes
Intelligent speed control	Yes	Yes	Yes	Yes
warranty	1 Year	1 Year	1 Year	1 Year



3 in 1

Melting, Casting & Powder Vaccum

SPECIFICATION OF MACHINE

Power Supply : Single Phase

Voltage : 230 V Ac

Absorbed Power : 5 Kw Capacity of Crucible : 2 Kg.

Maximum Temperature : 1200 Degree Melting Time : 4 - 6 Min. + +

Temperature Measurement : K Type



BENEFITS:

- Small, Safe, Easy and sturdy model.
- Low power consumption.
- Economical and efficient in operation, single phase.
- No combustion or waste product.



Weight Size

Machine (Approx) 70 Kg. : 32 X 24 X 32

† Brimful Capacity †† Under Standard Condition











2 in 1 Melting & Casting

TECHNOLOGIES

Available in Single Phase
Three Phase Options





SPECIFICATIONS

Power Supply Single Phase / Three Phase

Voltage
 230 v AC / 415 v AC

Absorbed Power6 Kw to 9 Kw

Capacity of Crucible2 Kg., 3 Kg. & 4 Kg.

Maximum Temperature 1150 degree

Casting Time6 Min to 10 Min

Temperature Measurement K Type
Cooling Water Temperature 20 to 35
Water Pressure 3 bar

Maximum Water Flow3 lit per min

Dimension (In Cms) (L X W X H)

 Weight
 Size

 Casting Unit (Approx)
 145 Kg.
 : 82 X 61 X 103

 Chilling Unit (Approx)
 100 Kg.
 : 61 X 61 X 81

 Vaccum Pump (Approx)
 51 Kg.
 : 63 X 25 X 36

† Brimful Capacity †† Under Standard Condition

HIGHLIGHTS

- Accurate casting temperature controlling
- Advantage of vacuum casting hence optimal results
- All safety precautions provided
- Consistent quality of casting
- Creative and innovative technology
- Instant heating with finger tip controls
- Less oxidation casting due to bottom pouring
- Reduced casting expenses
- Use for casting & melting also (both use)

BENEFITS

- Safe & Easy operation
- Faster, economic and accurate castings
- Convenient layout
- Perfect mixing of alloys due to auto stirring
- Economical and efficient in operation
- No products of combustion or waste product
- Increased productivity
- Income Tax Depreciable Under Energy Saving - Flameless Device Category



Note:

- Technical data dimensions and other characteristics are not binding and can be changed even upon request.
- Always use graded crucibles for efficient, effective and maximum machine utilisation.









SHAPET GOLD VACUUM CASTING INDUCTION FURNACE. Due to induction current constantly circulating in the coil, the metal stirs automatically hence creating a perfect mix of alloys with gold to provide much superior quality of metal to prepare the finished piece of jewellery.

SHAPET GOLD VACUUM CASTING INDUCTION FURNACE. Provided with CHILLING UNIT that helps to eliminating coil burnouts, which is frequent with other electrical furnaces.

SHAPET INDUCTION SYSTEM is also designed to work in individual modes of melting & casting. It also has the capabilities to work in auto and manual mode to suite the different casting cycles. Along with the chilling unit it can be used again and again for any number of cycles continuously.

OTHER CASTING MACHINERY...



BURNOUT FURNACE WITH PROGRAMMABLE TIMER

Size : 20 x 20 x 20 Inches (Internal)

Power Supply
 Maximum Temperature
 Weight
 Power Consumption
 Single Phase
 0° – 850° C
 80 Kg.
 6 Kw

Programmable Timer : Maximum 9 Steps
 Temperature Measurements : 'K' Type Thermocouple



WAX INJECTOR WITH AUTO CLAMP FACILITY



Power Supply : AC 220V 50Hz/60Hz

Power Consumption : 510w

Size : 450 X 310 X 450 MM : Weight : 22 kg. Approx

Temperature : 55°

Head : 8 mm

■ Compressor : 0.4 – 0.7 MPA, 0.0.2 MPA

Fuse : 5 Amps

Wax capacity : About 3 kg.

Temperature Precision : ± 0.2°c

Temperature adjusting range : 40-99.9° C

Temperature display range : 40-99.9° C

Setting Time range For Vacuum
 Setting Time range For Wax Injection
 Time Range
 0-24.9 seconds
 0-24.9 seconds
 0-99.9 Hours

POWDER VACCUM MACHINE

Model : DP 30 OL

Capacity : 30 M³/Hr (500 LPM)

Oil Capacity : 1 literMax Vacuum : 0.5 Mba

(With Closed Gas Ballast By McLeod Gauge)

Water Vapour Tolerance : 30Mbar

Water Vapour Capacity
 Recommended Motor
 250kg/hr (with open gas ballast)
 1.5 HP 3Phase or Single Phase







SHAPET

CASTING MACHINERY...

DE-WAXING UNIT

ON – OFF Switch

IndicatorContactor

Heater : Single Phase/ Three Phase

Time
Weight
Body Structure
1 To 1.5 Hours
As per design
S. S. material



COMPRESSOR



Capacity 36 Liters **Power Supply** Single Phase Maximum Working Pressure : 4kg / cm2 Hydraulic Test Pressure 7kg / cm2 Disc thickness 3 mm Shell Thickness 3 mm HP - 0.5Motor KW 0.37 **AMP**

■ Volts : 200/230 – 50 Hz

RPM : 1440

WATER JET UNIT

Full S. S. Body

300 PSI Pressure

■ 1.5 Hp motor

Pressure pump
Suction capacity
Motor volts
Motor
432 RPM
22 LPM
400/440
Motor
1440 RPM

Manually pressure adjust







SHAPET

CASTING MACHINERY...

BUFF POLISHING MACHINE DOUBLE STAGE

Vacuum Blower Motor : 1.5 hd / 2800 rpmBuff Motor : 0.75 hp both side

Vacuum Filter : 20 Pocket

BodySizeMS Body Powder Coating31 X 26 X 40 (Inch)



MAGNETIC POLISHER



Capacity : 1 KG.

Power : Single Phase

Size : 14 X 14 X 14 (in inches)

■ Tub Size : 10"

Auto reverse forward : Auto system

Motor : 0.5 Hp

Material : 500 gms. S.S. Media

VIBRATING MACHINE

Capacity : 1 Kg.

Power : Single Phase

Motor : 0.25 Hp / 2800 rpm

Tub Size : 10 (L) x 6 (B) x 6 (H) (In Inches)
 Body Size : 18 (L) x 14 (B) x 19 (H) (In Inches)

10 Kg. S. S. Media : 1 Kg. Material









GOLD BARCasting Machine

SPECIFICATION OF MACHINE

Power Supply : 14 KW (20A) 3 Phase 415 VAC

Length : 86 Cm
 Width : 61 Cm
 Height : 113 Cm
 Vacuum Pump : 500 LPM

Pump Power : 1- Phase / 3-Phase both

type of pumps can be attached.

Display : PLC Based

Operation Modes : Manual & Auto Mode

Inert Gas : Argon

Gas Pressure : Max Pressure 2 PSI

Vacuum Pressure
 Pressure
 13 PSI (Pressure During Vac. Process)
 PSI (Pressure During Melting)

Gas Pressure : 1 PSI (Pressure During Cooling)

Heating time for first time : 330 Sec (Die initial temperature = 32C)

Cooling time: 240Sec







EASY CASTING RAPID SMELTING SMOOTH & SHINY

SAFETY FEATURES

- Safety measures for gas are taken care by electronically operated solenoid valves and pressure release valves operating when reaching Max recommended pressures.
- Machine will stop all operations and activate exhaust valve and bring crucible up in case of any errors sensed by plc such as: Water Fail - (If water supply fails or water pressure drops).

Over Heat - (if water temperature increases in IGBT Plate (temp above 50C) and Induction Coil (temp above 80C).

- Trip In case of Inrush current detected or IGBT/Driver Card failure.
- Under Volt In case of incorrect phase sequence or in case of any phase failure.
- Electricity failure in case of electricity failure die will automatically come up and manual exhaust valve is provided to normalise chamber pressure.





Our Esteemed Clients In Jewellery Field >

























































SHAPET TECHNOLOGIES

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Ministry of MSME, Govt. of India







