

Neo Super Cascom

Clean, easy to use, reliable casting
machine, updated with the
Newest Technology!

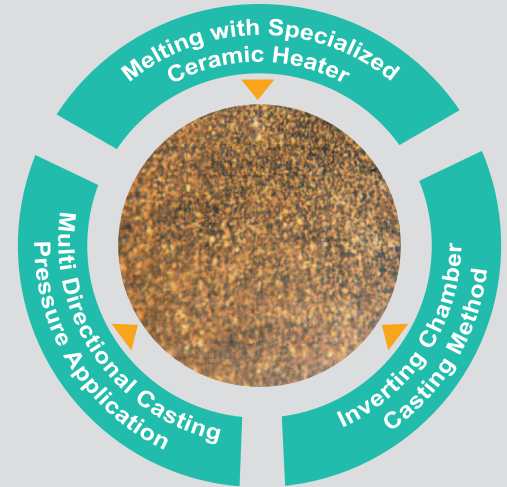
**Vacuum and Pressure Casting
with Muffle Heating**

kdf u.s., inc.
denken CO., LTD.



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Neo Super Cascom
Cast Sample-Smooth Surface

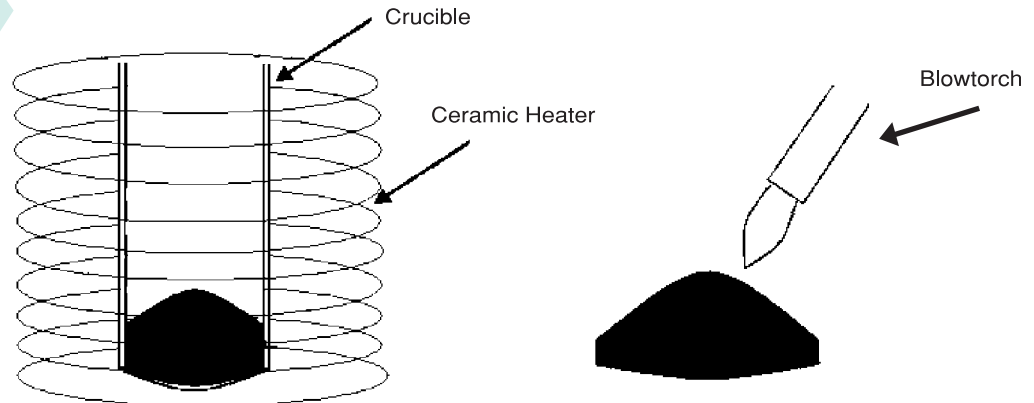
1. Advantage of Neo Super Cascom Casting Machine

* Melting with Specialized Ceramic Heater

The spiral-ceramic heating element of the muffle chamber completely surrounds the crucible that enables the furnace to melt the alloy evenly with precise temperature control. Thus with the

Neo Super Cascom, all castings can be done at the lowest possible temperature, never overheats the alloy, translating to porosity-free dense castings with ideal alloy characteristics.

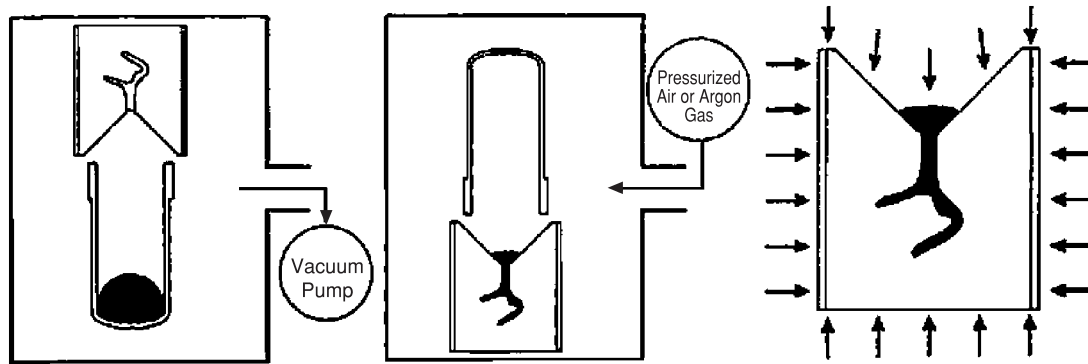
Spiral Ceramic Heating Element



* Multi Directional Casting Pressure Application

With the airtight chamber design, the 0.44Mpa (4X more pressure than centrifugal casting) casting pressure is applied from all directions instead of from only

one direction as is the case with centrifugal casting. This creates significantly denser casts with razor sharp margins.



A Vacuum

After setting the casting mold in the casting chamber, the vacuum pump creates a vacuum inside the chamber.

B Chamber Inverting

With the chamber inverting, the melted alloy flows into the casting mold by gravity. Some differences in the fluidity of melted alloy will make slight differences in the resultant flowing times.

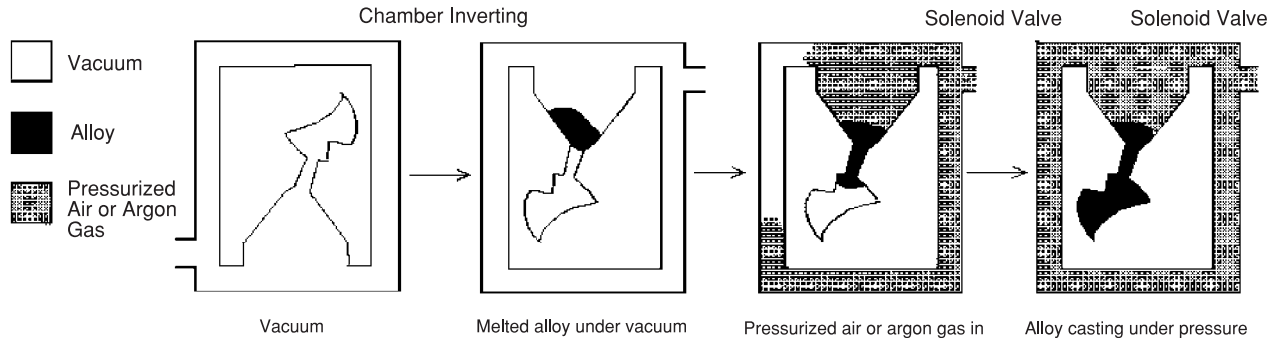
C Pressure

The melted alloy is further assisted into the casting mold with compressed air or argon gas pressure.

* Inverting Chamber Casting Method

With the inverting chamber casting, the Neo Super Cascom minimizes the risk of miscasts by minimizing the contact of

the casting alloy with the atmosphere prior to entering the casting ring.



* Large Casting Capacity and Cast Wide Range of Alloys

The furnace is capable of casting numerous alloy types including silver, gold, precious and semi-precious, nickel-chrome, and chrome-cobalt to fabricate inlays,

crowns, implant and partial frameworks. The maximum melting capacity is 150gm (5 oz).



Implant Framework



Porcelain Bonding Metal Frame

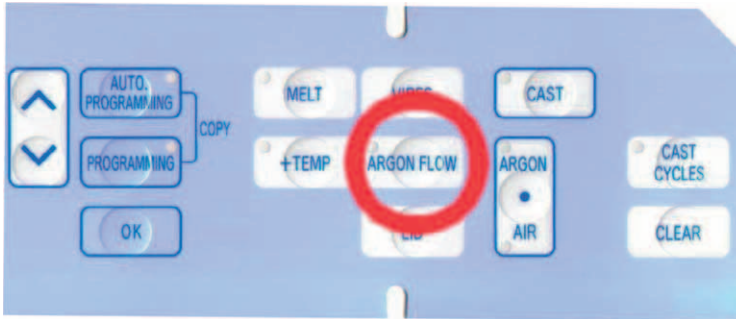


Chrome Cobalt Metal Frame

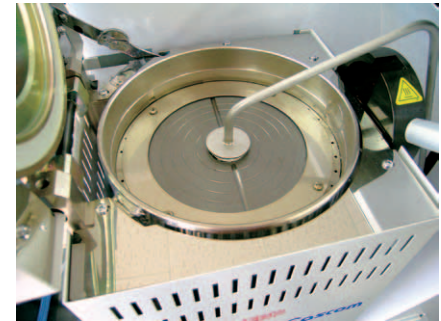
* Argon Gas Casting System

The Neo Super Cascom is capable of melting in an air or argon gas atmosphere as well as capable of casting with

pressurized air or argon gas. Using the argon gas to melt and cast creates oxidation-free casts.



* Melting Alloy with Argon gas



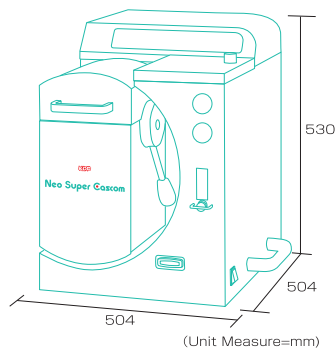
Flow Argon in Crucible

* Compact Size and Easy Set up

Compact desktop size enables use in the smallest space. The Neo Super Cascom does not require over 200V electricity, just require the regular household. In

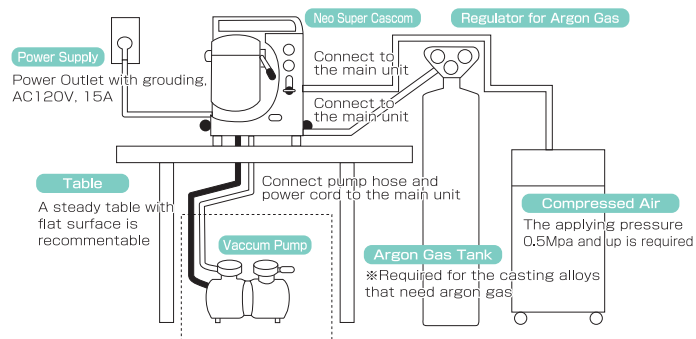
addition, the Neo Super Cascom is cooled by air and thus no expensive water line construction is required.

The unit compact in design allows you to set up easily in the laboratory within a dental clinic office with the power outlet of 120V, 1.5KW, equivalent to that of the general houses.



Neo Super Cascom

[Installation]



※Note : The argon gas tank is necessary for the alloys that need argon gas to cast. Contact KDF US Inc. for more information.

* **Economical Advantage**

Since the flame from the blowtorch heats the alloy from one direction, some portion of the alloy will evaporate into gas. The loss is approximately 1% of the melted alloy. Furthermore, in centrifugal

casting, about 5% of the melted alloy is lost in splashing. The Neo Super Cascom prevents any loss of alloy by evaporation or being splashed.

* **Easy and Stabilized Castings**

Computerized system requires no skilled operation and enables you to obtain stabilized castings.

* **Safe and Clean Environment**

KDF Neo Super Cascom will contribute to offer safe and clean laboratory with work environment free of noise.

2. Casting Process



Power On

1 Power-On

Turn the switch on the front right side of the unit upward to power on. If start temp has been programmed, it will start heating up toward the start temp.



Set up Casting Program

2 Easy Set up Casting Program

Two methods of programming are provided. One is Auto Program Mode, the other is Manual Program Mode. Once accurate program has been set up, the unit memorizes the program up to 100 programs.

3 Melt the Alloy

When the Start Temp is reached, chime will sound to notify that the start temp is reached and set the crucible into muffle. After setting the crucible with alloy into muffle, press Melt button. The temperature is heating up toward Cast Temp.



Insert the Crucible in the Muffle



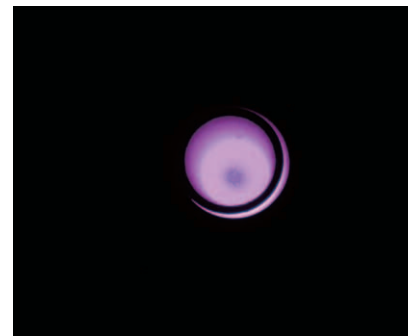
Press the Melt Button

4 Choose Pressure Type

Once Cast Temp is achieved and Hold Time is over, chime will sound to notify that the alloy is ready for casting. After the complete melting is confirmed, choose the type of pressure for casting, compressed air or argon gas.



Choose Pressure Type



Complete Melting Alloy



Place a burned out casting ring



Close the Chamber Lid

5 Place a casting ring

Place a burned-out casting ring on the top of muffle, close the chamber lid and move the locking arm down to lock.



Press the Cast Button



Chamber Inverting

6 Press Cast Button

Press the Cast button. Vacuum pump will work to create vacuum in the chamber. After the vacuum level is reached, the chamber will invert to apply pressure automatically.

7 Cast Finished

After cooling time is finished, the chamber returns to its original position automatically. Open the chamber lid and remove the casting ring and crucible. The Neo Super Cascom creates the beautiful castings.



Chamber returns



Implant Framework



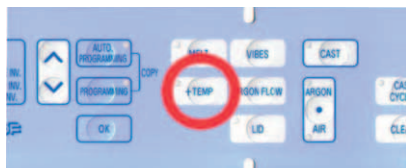
Implant Framework

3. Other Special Features



1 Auto Program Mode

The Neo Super Cascom can program the casting program automatically by inputting liquid phase temperature, alloy melt quantity, investment type, and crucible type.



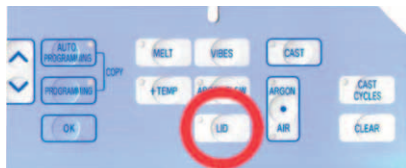
2 +Temp

Once the Cast Temp is reached, press the +Temp button to increase the Cast Temp without accessing the program during melting.



3 Select Argon Flow

Argon gas is useful for preventing alloy oxidation and effective for extending the life of carbon crucible. Double click the Argon Flow button and the argon nozzle engages to inject argon gas.



4 Lid Button

Double click the LID button to draw out the argon nozzle but argon gas is not injected. This function will come in useful for avoiding heat emission and for shortening melting time.

5 Ceramic Crucible Counter

To prevent damage due to cracked or broken crucibles, the unit has a crucible counter. The counter keeps track of Hi/Lo temperature melting to calculate the maximum cast count.



6 Pocket Buzzer

Even from a remote location, the pocket buzzer will beep 5 minutes before the end of the melt cycle (at one minute intervals) allowing the technician to concentrate on other work.



7 Melt Check

Press VIBES button to slightly shake the muffle and to facilitate the viewing of alloy melting situation easily.



4. Specifications

- Power Requirement Single Phase 120V 50/60Hz Max.1.5kVA
- Vac Pump Outlet Single Phase 120V 0.3kVA
- Pressurized Air 0.5Mpa — 1.0Mpa (71psi — 146psi)
- Argon Gas Pressure 0.7Mpa — 0.8Mpa (102psi — 117psi)
- Max Temperature 1530°C (2786F)
- Overall Dimension 504(W) X 530(H) X 504(D) mm, 49kg (20 X 21 X 20 inches, 109lbs)

5. Main Standard Accessories

- Crucible Carbon 1 box (3pcs) Ceramic 1 box (3pcs)
- Casting Ring ϕ 43mm (1pc) ϕ 60mm (1pc) ϕ 76mm (1pc) ϕ 90mm (1pc)
- Sprue Former ϕ 43mm (1pc) ϕ 60mm (1pc) ϕ 76mm (1pc) ϕ 90mm (1pc)
- Manual Instruction Manual, Casting Manual
- Crucible Stand..... 1pc
- Hose 5m (ϕ 8 x ϕ 5) for Argon gas and Pressurized air

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