

J-zP & J-zP Autocast[™]

Induction Casting Machines

Performance You Can Afford

Here are the induction casting machines you've been waiting for! The low-cost, high-performance J-zP from Neutec[™] is a casting system designed to help you meet your competition head-on. No other machines in this price range come close for the rugged durability, low operating cost, and high-quality castings the J-zP models can produce. In fact, these machines outperform casting machines that cost far more! While the J-zP models are more sophisticated, with more features than any of their competitors, they are also engineered to be the easiest to operate and maintain of any machines in their class.

J-zP: The Essential Casting Machine

Neutec[™] takes its induction casting technology to new heights with the J-zP and J-zP Autocast[™]. The J-zP line includes two tabletop induction casters with many of the features found in our larger models. Designed for the small- to medium-sized shop, the J-zP line offers the excellence that has made Neutec the world leader in casting technology.

Fast Cycle Times & Simple Operation

Neutec[™] Advanced Dynamic Computer[™] (ADC) technology takes the guesswork out of casting. The Dynamic Variable Compensation[™] automatically produces the fastest and most efficient melting program for any alloy and any size load—without operator intervention. Casting cycles average about four minutes, or 15 flasks per hour. Exclusive ADC technology produces the most consistent casting cycles of any machine on the market today so you can be assured of great results time after time. Learning to use either of the J-zP models takes just 15 minutes—nothing is easier than casting with a J-zP!



No Over-Karating

ADC[™] control provides Neutec[™] Power Stir Cast[™] technology to keep alloy ingredients from separating once the metal is molten. Power Stir Cast works right up to the pour so you never have to over-karat to get required karat values throughout the tree.

Low Reject Rates

Porosity and other defects caused by oxidation are virtually eliminated. A closed-system nitrogen or argon atmosphere keeps oxygen away from the hot metal, and a Neutec[™] graphite crucible scavenges any oxygen dissolved in the metal. The benefits of this are clearly evident in the quality of the castings. High-quality castings mean far fewer rejects for lower labor and material reprocessing costs.



Sharing your passion for making jewelry.
Products. Service. Know-how.

The J-z™ line: reliability • affordability • simplicity

The Neutec™ J-zP and J-zP Autocast™ meet the needs of manufacturing facilities everywhere.

J-zP

J-zP Induction
Casting Machine
with Dynamic
Pressure System™



Grain-Making Tank
(included with both J-z machines)

J-zP AUTOCAST™

J-zP Induction
Casting Machine
with DPS™ and
Autocast™ features

Shown with optional
water cooler stand
#710805



Optional Storage Stand
#710804

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Neutec™ casting machines help you cast with excellent speed, incredible detail and very few defects.



J-zP Specifications

Crucible capacity*:	184cc (1151g sterling, 1439g 14K)
Perf. flask capacity:	127 x 229mm/5" x 9"
Normal cycle time:	4 minutes
Max. temperature:	1370°C/2500°F
Overall dimensions:	89 x 56 x 97cm/35" x 22" x 38"
Weight:	132kg/290 lbs.
Shipping weight:	186kg/410 lbs.
Power requirements:	200–240 volts, 50amps, single-phase, 50/60Hz
Thermocouple:	type-K or type-S

*Working capacity is 60% of liquid capacity, using casting grain.

18-Turn Induction Coil

Look at the coils in competitors' induction casting machines: you'll see less than half the number of turns that we gave the coils in the J-zP models. Each J-zP machine has 18 turns on the induction coil, though you'll have to take our word for it. You can't see our coil—it's encased in a heat-resistant, dielectric ceramic material. This keeps you safe from electrical shock and makes the coil extremely reliable. What you can see is the superior stirring that an 18-turn coil provides for your metal before you cast.

No Compressed Air Required

Another thing we learned from the interviews we conducted is that many shops have limited capacity to supply compressed air, so we designed the J-zP line to work without compressed air.

Single-Phase Electricity

Everyone said they had single-phase electricity in their shop or studio, so we engineered the J-zP line to be compatible. In fact, the J-zP models are designed to work almost anywhere in the world, adjusting automatically for voltage between 200V and 240V. Just tell your electrician to install a 50-amp. high-inrush circuit breaker (the type commonly used for motors) and you're ready to go!

Water Cooling System

All induction casting machines need cooling water. With the J-zP models, you have two choices. You can connect your J-zP to your water line and let the water run through it to a drain or you can purchase our closed-loop cooling system that re-uses water. Both J-zP models fit on top of the J-zP water cooler stand, saving space and putting the J-zP at just the right working height. If you don't want a closed-loop water cooling system but still want your machine at an ideal height, we offer the J-zP storage stand, a cabinet with extra storage space instead of the water cooler.

Accessories



Neutec™ Flask Tongs

These specially designed tongs meet your specific casting needs and are available in four sizes to fit individual flask sizes.

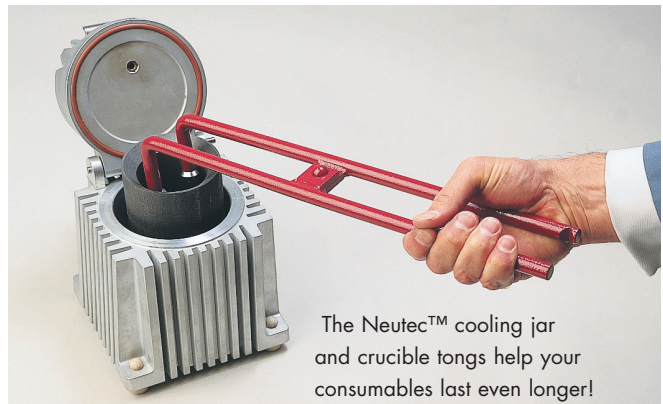
Neutec™ Crucible Cooling Jar (#710-527)

Use this airtight jar for quick crucible changes. It seals out oxygen and prevents deterioration of crucibles due to accelerated oxidation while they cool. Use the jar when changing alloy crucibles or when going from casting to grain-making. It holds all sizes of Neutec™ crucibles.



Crucible Removal Tongs (#710-208)

Holds hot or cold crucibles safely and easily during insertion or removal from machine. Tongs can be used with the cooling jar (above) for quick crucible changes.



The Neutec™ cooling jar and crucible tongs help your consumables last even longer!

Stirring Rod Holder (#710-207)

For holding the graphite stirring rod. The right angle allows you to use it with a hooded crucible chamber.



Stone-in-Wax Casting

The accuracy of ADC temperature control has proven successful for stone-in casting because it allows you to cast at the lowest possible metal temperatures, reducing thermal shock to the stones. In addition to diamonds, CZs, sapphires and rubies, a whole new group of stones is being successfully cast with Neutec™ machines—Chatham® Created opals, lab-grown emeralds and many others once considered impossible to use with this timesaving technique.

Autocast™ Raises Efficiency

The Autocast™ feature delivers the time-saving efficiency of an automatic cast at the precise moment your metal reaches optimal temperature—you cast at the right time, every time—automatically!

Pressure-Vacuum Improves Fill and Detail

Neutec™ has conducted extensive research into pressure technology and how best to implement it. The Dynamic Pressure System™ developed for the J-zP is a sophisticated two-stage system that increases fill rate at lower casting temperatures and improves surface detail—so you have fewer rejects and easier finishing. You will be amazed at how well this system fills small details such as prongs and the small letters found on school rings.

NeuSprue™

Couple the benefits of Neutec™ casting machines with the revolutionary NeuSprue® sprue and sprue base assembly to get the best quality castings possible. The patented NeuSprue system solves age-old casting problems caused by traditional sprue and base systems. Contact your Neutec dealer for more information.

Built-in Vacuum Pump

Both machines in the J-zP line include a high-quality, oil-sealed, direct-drive 15cfm vacuum pump that is built into the cabinet. This pump offers quiet durability and trouble-free operation.

The Grain-Making Advantage

With the grain-making accessory, standard with both J-zP models, you can stock fine gold and master alloy and mix the karat and color alloy you need when you need it.

This means you save money and increase service to your customers. Research shows that casting quality improves when only casting grain is used. The ability to recycle sprues by converting them to casting grain saves you money and improves the quality of your castings. Neutec™ knows how important it is to take a systematic approach to casting; grain-making in a controlled atmosphere is an important part of that system. It

is because grain-making is so vital to successful casting, that we include the grain-making tank as standard equipment with both J-zP models. Ask your Neutec representative about the benefits of recycling sprues in our patented AutoValve™ crucible.

Large Crucible

The 184cc graphite crucible of the J-zP line is surprisingly large for machines of this size—use it to alloy 2.7kg (18K) at once or to cast up to 1.6kg at a time. And it's no less effective for small amounts—the exclusive ADC melt control provides the same precision on 100 grams as it does on 1500 grams—automatically.

Large Flask Capacity, When You Need It

The first thing we did at the start of the J-zP design project was to interview jewelry casters to find out what they need. Most of the casters originally said they needed a maximum flask size somewhat smaller than 5" x 9". But we also heard about missed job opportunities and the desire to cast small sculptures. In other words, you wanted a larger crucible and flask capacity—if it didn't cost more. Our engineering staff met this challenge. Now you can have big-machine capacity together with a practical, reasonably-priced machine for everyday work.

Inert Gas System

All you need is a bottle of inert gas (available from your local gas supplier or welding supply house). We can supply the correct gas regulator and the hose. We recommend you use pure nitrogen gas in the J-zP models. If you prefer, you can use argon gas—the same regulator will work with either gas. We would be glad to talk to you about the pros and cons of both gases. Each J-zP model has two gas flow meters to the left of the control panel. The crucible chamber gas and the flask chamber gas are controlled separately just as they are on our larger machines. This system makes the J-zP models more flexible and less expensive to run; you get big-machine performance at a small-machine price.



J-zP Autocast induction casting machine shown on water cooler stand

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