

# MICRO Q TECHNOLOGIES

## TEMPERATURE CONTROLLED SCIENTIFIC SHIPPING INCUBATORS

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Without question, one of the most valuable of all biological materials are embryos. Embryos are the start of new life and thanks to modern technology and shipping practices, it's now possible to transport living embryos anywhere in the world. These valuable specimens represent the culmination of decades of hard work by researchers; an embryo is also the opportunity of a new child for some very lucky people. Because so much hard work has been invested into this embryo, it is imperative that it be taken safely through each shipping and receiving point until it finally reaches its ultimate destination. A lot of highly precise work is needed for embryo shipping to be successful. Your shipping team and the facilities owned by your organization can be part of this transport line, but only if you have the capacity to provide the embryo with the cold environment it needs.

The transportation of living human tissue is a complex process that has to be carried out with care and precision. If conditions at any point along the transit route are less than ideal, then it's very possible that the material being shipped will be damaged. An environment that is too cold can be just as disastrous to medical material as an environment that is too hot. For instance, if a heart or other human organ is being shipped for transplantation purposes, then it has to be kept at a very stable temperature all the way up to its final destination. If the organ gets too cold, it won't revive properly, which would result in a failed attempt at transplantation. Embryo shipping has very similar concerns. In order for this precious cargo to be safely delivered, it's vital that an appropriate environment be maintained at all times.

#### ADDITIONAL TEMPERATURE CONTROLLED SCIENTIFIC SHIPPING INCUBATOR BENEFITS

There are several ways in which an ideal environment for embryo shipping is created. Temperature is perhaps the first consideration, though far from the only one. The shipping containers that are used for the packaging of medical materials usually have built in climate controls. This allows shipping agents to check and verify that climate levels inside the container are in keeping with the particular needs of the material inside. Heat and cold are one consideration; humidity is another. Water vapor in the air can have a distinct effect on temperature conditions, so shipping agents are also careful to watch the humidity levels present inside the container. And finally, time itself is a consideration that has to be taken into account. The cooling material that is built into the climate controlled shipping containers is able to provide a stable and secure environment though this will last for a limited time. The useful life of this cooling material must be carefully calculated if the embryo shipping is to be successful. There can't be any mistakes in the timing of shipping, since lengthy delays will cause a depletion of the cooling material. As the cooling material loses its ability to retain cold temperatures decreases, the likelihood of damage occurring to the embryo or other human tissue goes up. It's clear that successful embryo shipping depends on many factors. Temperature, humidity, and time must all be taken into consideration if the shipping process is going to be completely successful. If you company wishes to become involved in this valuable form of transportation, then it's essential that you train your shipping agents carefully in the methods required for embryo shipping.

#### Benefits of Micro Q Technologies



- Active precision heating or cooling
- Temperature LCD display resolution = 0.1° C
- Temperature control range 0° C to 42° C
- Rechargeable battery with integrated power supply
- Ambient Temperature range -20° C to 50° C



- Temperature holding duration 24+ hours to 168+ hours
- Microprocessor controlled heat pump
- Tamper resistant key switch
- Temperature control resolution = 0.0625° C



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