

BOX
Scientific

The New Standard of the World for
fast, safe and reproducible sample thawing.





Box Station One

Big or small,
Box Scientific's
thawing solutions
thaw it all.

From the research
bench to HTS applications,
speed, versatility and
high reproducibility
make Box Scientific thaw
stations the easy choice
for all of your sample
thawing needs.

The Paradigm has Officially Shifted

Box Scientific thaw stations set the new standard of the world for fast, safe and reproducible sample thawing. Their versatility, capacity and speed far exceed that of any other products on the market today. Designed and built in the USA they blend rock solid durability with innovative design and ease of use. Their applications are near limitless, as is their ability to accommodate nearly any size or shape of sample enclosure. From basic research and development tasks, to fully automated laboratories, you can lean on Box Scientific thaw stations to quickly and safely thaw:

- cell and tissue specimens
- DNA, RNA and mRNA stocks
- Protein stocks
- oligonucleotides
- Master Mixes
- cold stored reagents

Faster thawing means you get your samples into your process quicker. And the highly reproducible results you get translate into tighter process control and better data quality.



Box Heliport

Station One

Three Modes,
Endless Uses

One Solution for Every Benchtop



Standalone



Small Accessory



Large Accessory



The Box Station One brings the power to thaw nearly any known sample enclosure quickly and reproducibly. Three thawing modes and two independent fan controls provide the versatility to thaw anything in your lab with little more than the flip of a switch.

-Standalone mode: thaw free standing media bottles, microplates, microtube racks or vented cryo-boxes

- Small tube accessory: thaws any sample tube or vial, up to 2ml. Accommodates 52 tubes in a single thaw.

-Large tube accessory: thaws larger tubes and vials up to 50+ml. Accommodates 31 tubes in a single thaw.

Build quality into your research and development efforts with proceduralized thawing. Shorten the prep times for manual purifications, extractions and digestion assays. Assure consistent inputs into temperature dependent processes like transcriptions, amplification and enzyme assays. Station One does it all, so you can do it better and faster.

Heliport

Advantages:

Largest capacity on the market. Rapidly thaw 1000+ samples at a time

Easy on/off operation

Works in concert with your existing environmental controls

Easy integration with robotic liquid handlers

Easily create any number of custom sample layouts

No calibration or maintenance required

Low power consumption

Safe for all sample types

An Indispensable High Throughput Solution



Among the growing number of thawing solutions in the market Heliport stands head and shoulders above the field. Designed to keep pace with the ever increasing speed of automation, high throughput screening and biobanking, Heliport offers the largest thawing capacity of any unit on the market. With space for 11 microplates in a single thaw it can literally thaw thousands of samples in as little as 15 minutes. Its powerful ambient air convection system will yield more reproducible results than any thermostatted water bath, circulator or plate warmer, and won't expose your precious samples to unnecessary heat.



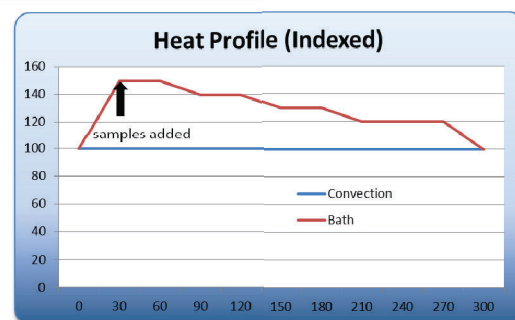
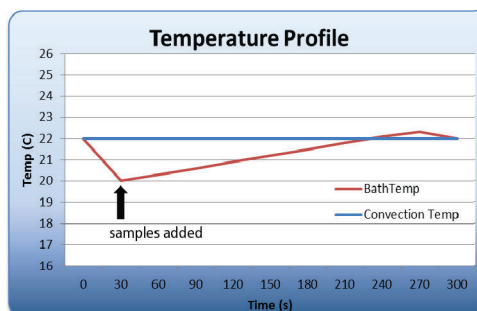
Heliport also features simple plug and play integration with Tecan liquid handlers and others. And custom configurable microplate cradles allow fixed positioning for easy matrixing to automated scripts.

Achieve Equilibrium

Equilibrium. That sweet spot where everything is in perfect balance. It is dependable, predictable and all matter is perpetually trying to get there. In the laboratory it can work with you or against you. Samples in thermal equilibrium with their working environment will act predictably and reproducibly when input to a clinical process. Meanwhile, samples in disequilibrium, pushed in the direction of your process, will logically yield variable results.

Box Scientific thaw stations are made to help you achieve equilibrium. Ambient air convection provides a simple, safe and highly reproducible means to bring samples to equilibrium and hold them there. This means that samples removed from cold storage can quickly and consistently be brought to equilibrium with the working environment. Box Scientific thaw stations are open systems, working in concert with your existing environmental controls by drawing ambient air from the inexhaustible reservoir in the room. Thus no external heat is required or introduced. And equilibrium cannot be overshoot or overstayed. Once there, samples will remain in this fixed and stable state so long as they remain on the unit. This consistent sample state will naturally optimize your process and the quality of data it yields.

Conventional baths are closed systems that are continuously trading heat with their environment. Adding cold or frozen samples them drops their temperature immediately. They must then compensate for this by applying heat inputs in excess of the target temperature in order to maintain it. The result is that any two sample sets coming your bath at the target temperature, may have experienced a vastly different heat profiles during their time in the bath.



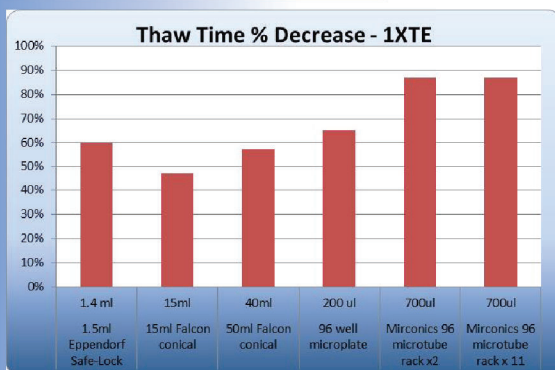
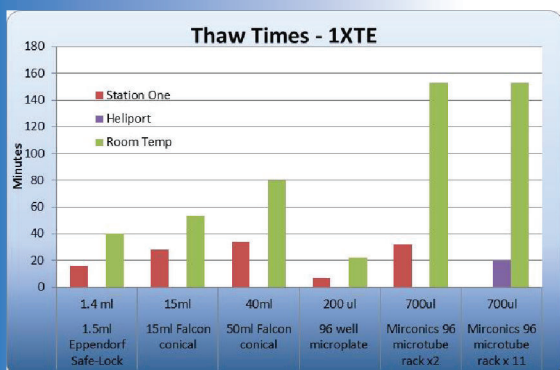
Chemistry works via heat and not temperature. Thawing in a water bath has done little to assure more consistent chemistry.

Idle time is the Devils Playground

Every storage solution, technology and practice exists for the same reason: because no good can come from leaving samples to sit in an uncontrolled state. Heat, light, contaminants, and even time can contribute to variability and degradation in samples and reagents. Yet even the most controlled process involves some idle time. Whether during thaw, prep or in-between steps in your process, your samples inevitably experience idle time, and this idle time can affect your samples. Waiting for your samples to thaw? Box Scientific thaw stations drive them quickly and safely towards thermal equilibrium then hold them there. Sample array waiting to be digested, extracted, replicated, aliquotted, etc? Box Scientific thaw stations will hold them in a stable thermal state while they rest. Samples resting between sequential steps in your process? Box Scientific thaw stations will hold them at process temperature assuring an optimized input into that next step. One tool makes it all this easy.

Speed

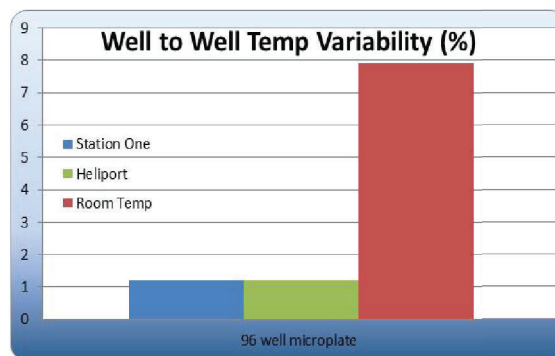
Ambient air convection allows for rapid thawing of your samples with no excess heat input. By maintaining a steady thermal gradient between your samples and the ambient environment, they can be quickly brought to equilibrium. This simple thermodynamic action is highly effective, reproducible and safe for any sample. Yet it reduces thaw times up to 75% or more compared to benchtop thawing, and yields more consistent results.



Thaw time comparison across common sample enclosures and fill volumes. 1XTE buffer solution removed from -20C storage

Simplicity

It's simple: more consistent sample inputs will yield more consistent results. Proceduralized thawing using Box Scientific thaw stations is one of the easiest things you can do to achieve this consistency. Simply determine an optimum target thaw time for samples using visual and data clues. Test it, validate it and you can now implement a procedure for thawing samples that will yield consistency, quality and reproducibility for the long haul.



Well to well temperature variability across a 96 microplate stored on dry ice.

Ease of Use

Box Scientific thaw stations feature spacious, unobstructed and easily accessible working surfaces. This makes integrating them with robotic arms or liquid handlers a breeze. And with accessory systems designed to accommodate microplates, microtube racks, free standing media, or a broad spectrum of tube types and sizes, they are viable solution for nearly every purpose.

Box Scientific thaw stations also work in concert with your existing environmental controls so no calibrating, programming or tweaking is required. Whatever temperature you maintain in your working environment, Box Scientific thaw stations bring samples to equilibrium with it. All you have to do is turn it on. Reproducibility has never been easier to attain.

Sustainability

Lightweight, simple and energy efficient, Box Scientific thaw stations are a great compliment to your green initiatives. Running on just 12VDC and using power supplies meeting the highest global efficiency standards, their thawing power belies their minimal power consumption. Fully CE and RoHS compliant, and coated in low VOC powder, they're just as safe for the environment as they are for your samples.

Furthermore, as part of our waste reduction initiative, units can be returned to us for refurbishing should you ever wear one out. We discard only the spent components and make it good as new for you or the next lucky customer. This helps lighten the load on landfills. Our planet deserves it.

One solution for every purpose

DNA / RNA Quantification

PCR

Apoptosis

Protease Activity

Enzyme Activity

DNA / RNA Extraction

Protein Purification

Nucleic Acid Testing

Epigenetics

Automation

Genomics

Proteomics

HTS

Compound Management

Life Science

Animal Science

Blood Banking

Biostorage



NALGENE® NUNC™



pyrex®



Thermo SCIENTIFIC





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Technical Specifications

Product:	Station One thaw station	Heliport thaw station
P/N:	1-300-0725-01	300-70000
Dimensions (cm):		
L	23	76.5
W	15.5	19
H	25.5	13
Power Source:	120VAC to 12VDC/600mA wall wort	120VAC to 12VDC/3.0A wall wort
Power Requirements:	12VDC/300mA	12VDC/1.4A
Fans	2 x 60mm	7 x 92mm
I/O	Lighed switch - independent fan controls	3 way lighted switch (all fans)
Other modes:	none	Remote- remote I/O via remote port/cable
Max fan airflow (cfm):	38	315
Weight (lbs):	6	6
Shipping container:	corrugated box/cut foam insert	corrugated box/cut foam insert
Packaged weight (lbs)	14	11
Package Contents:	Station One unit, small tube accessory (1), large tube accessory (1), manual, power supply (boxed)	Heliport, accessory cradles(11), manual, power supply (boxed), remote I/O cable (1)
Container Dimensions(cm):		
L	43.5	101.5
W	37	29
H	24	27