

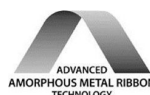


AGRICULTURE RADIANT HEATING AMORPHOUS HEATWAVE SYSTEM

ENERGY EFFICIENT RADIANT HEATING FOR FARMS



Smarter Heat, Greener Tomorrow





WHAT IS THE AMORPHOUS HEATWAVE SYSTEM?

Introducing the Amorphous HeatWAVE® system—an unrivaled, all-electric solution tailored for underground radiant heating for the agriculture industry. Powered by proprietary amorphous metal technology, the HeatWAVE® system distinguishes itself by rapidly initiating heat delivery, surpassing the performance of all other forms of underground radiant heating systems including hydronic or other electric systems. Remarkably, the HeatWAVE® system starts to deliver optimal heat outputs using far less energy than all competing systems.

In an era marked by heightened energy consciousness, the HeatWAVE® system stands as a beacon of energy efficiency, offering an ideal solution for various agriculture applications such as greenhouse heating, livestock heating, and barn heating. The system not only addresses immediate heating requirements but also aligns seamlessly with contemporary sustainability priorities as it is the most energy efficient radiant heating solution in the market.

EMBRACE THE CUTTING EDGE OF TECHNOLOGY & EFFICIENCY WITH THE AMORPHOUS HEATWAVE® SYSTEM—A BEACON OF INNOVATION IN THE REALM OF UNDERGROUND HEATING



PATENTED AMORPHOUS METAL TAPE TECHNOLOGY

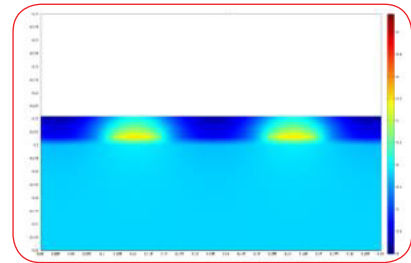
Our amorphous metal heating element is crafted through a distinctive manufacturing process that produces 20-30 micron thin yet ultra-durable metal ribbons. This innovative, lightweight design allows our heating element to achieve ideal heating outputs with a fraction of the energy consumption compared to all other radiant heating sources. Unlike traditional heating methods, such as hydronic tubes or electrical cables, our amorphous metal tape delivers heat far more rapidly and efficiently. By requiring less energy to start producing the desired heat, the HeatWAVE® system offers exceptional energy savings and efficiency for users.

RAPID HEAT DELIVERY USING MINIMAL ENERGY

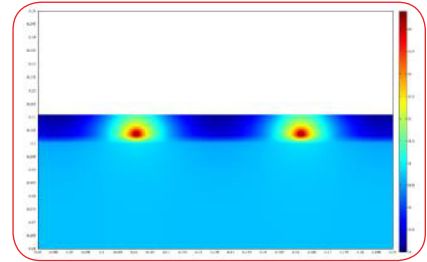


MAXIMUM HEAT TRANSFER EFFICIENCY

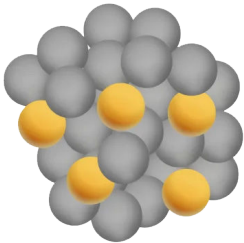
Thanks to the flat profile of our distinctive heating element, the HeatWAVE system makes a far greater contact with the heated surface. Just take a round pen and find out how much of it is actually touching your finger. Due to the flat nature of our heating element, the HeatWAVE system can operate at lower temperatures and still provide the same heating output as conventional radiant heating system which use a round heating element. In addition to a greater contact area, our patented amorphous heat tape stores zero heat energy. Any generated heat is instantly transferred into the surface it is trying to heat whereas traditional round wires or hydronic tubes tend to trap heat within the element, leading to a high temperature gradient. Illustrated in the images, our metallic heat tape boasts superior heat flux, preventing heat accumulation and eliminating temperature stresses. What this means is that our system will offer a much faster heat transfer. The desired surface will heat much more rapidly versus all other radiant heating sources, saving the user tremendously on running costs.



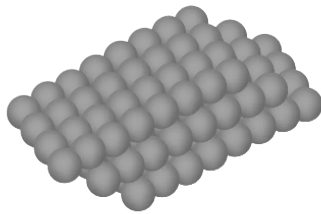
AMORPHOUS HEATWAVE



CONVENTIONAL SYSTEMS
Hydronic or Cable Based Systems



**AMORPHOUS
STRUCTURE**



**CRYSTALLINE
STRUCTURE**

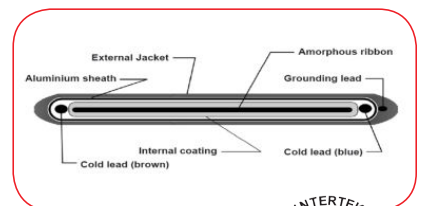
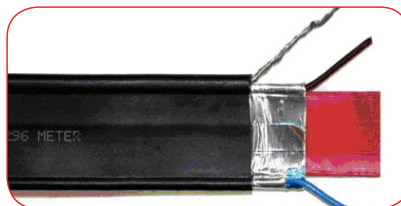
SIMPLY BETTER HEATING SCIENCE

The HeatWAVE® system isn't your typical heat trace cable — it's a game-changer in heating technology. At its core, the system boasts an amorphous metal tape heating element—a revolutionary creation distinguished by its disordered atomic-scale structure. In stark contrast to conventional electric heat trace cables composed of crystalline metals, our amorphous metal heating element exhibits exceptional strength, unparalleled durability, and unmatched heat performance!

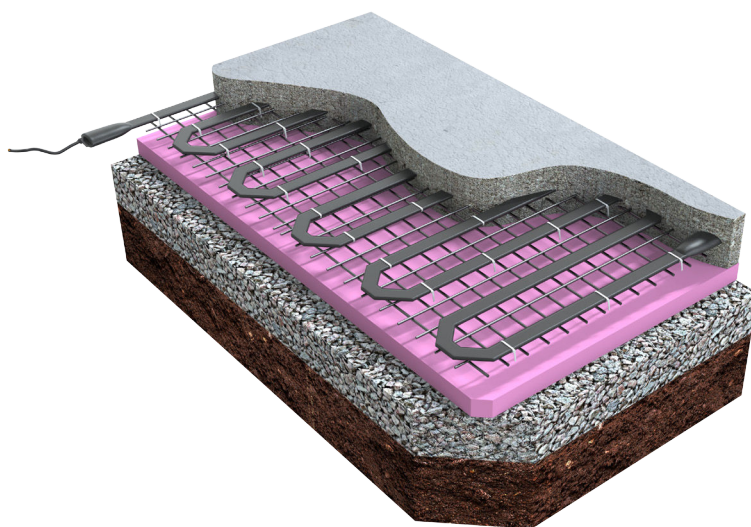
ROBUST, INDUSTRIAL-GRADE CONSTRUCTION



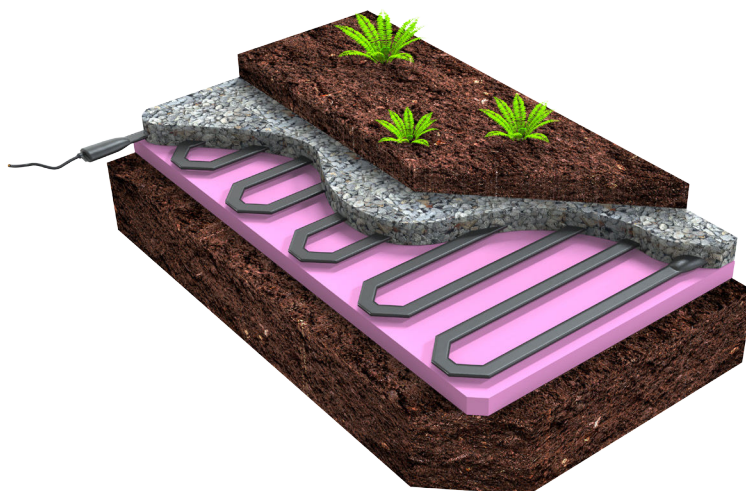
The Amorphous HeatWAVE® is based on a unique design of fully grounded heat-tracing cable made of amorphous metallic tape enclosed in a mechanically robust flexible enclosure. The element is designed to meet IEEE 515.1 standards for underground and outdoor exposed applications and are fully certified and listed by INTERTEK and proudly carry the ETL mark.



FULL INSTALLATION FLEXIBILITY



INSTALLS WITH OR WITHOUT CONCRETE



FACILITATE ADVANCED CROP GROWTH & YEAR-ROUND CULTIVATION

Infrared heating is ideal for greenhouses, open fields, trays, and (insulated) cultivation tables, with the depth and temperature of the HeatWAVE infrared ribbons tailored to the specific needs of each crop.

The HeatWAVE stand out by delivering heat precisely where needed, targeting the soil rather than the air to achieve significant energy savings. Our advanced control systems can adjust soil temperatures across various zones according to their unique climatic conditions, all managed automatically through sensor-based technology. Additionally, the systems are designed for easy disassembly and relocation.

Research and trials conducted by Wageningen University, a leading agricultural institution, have demonstrated that radiant heat enhances the growth of white asparagus, strawberries, and hyacinths (Ask your TruHeat representative for study data).



ADVANCED GROWTH UP TO 4 WEEKS



YEAR ROUND CULTIVATION



EVEN HEAT DISTRIBUTION ENSURES OPTIMAL ROOT GROWTH & NO DAMAGE TO CROPS



LOWER OPERATING COSTS



MAINTENANCE FREE



HIGH YIELD

GREENHOUSE HEATING



GROWING TABLE HEATING



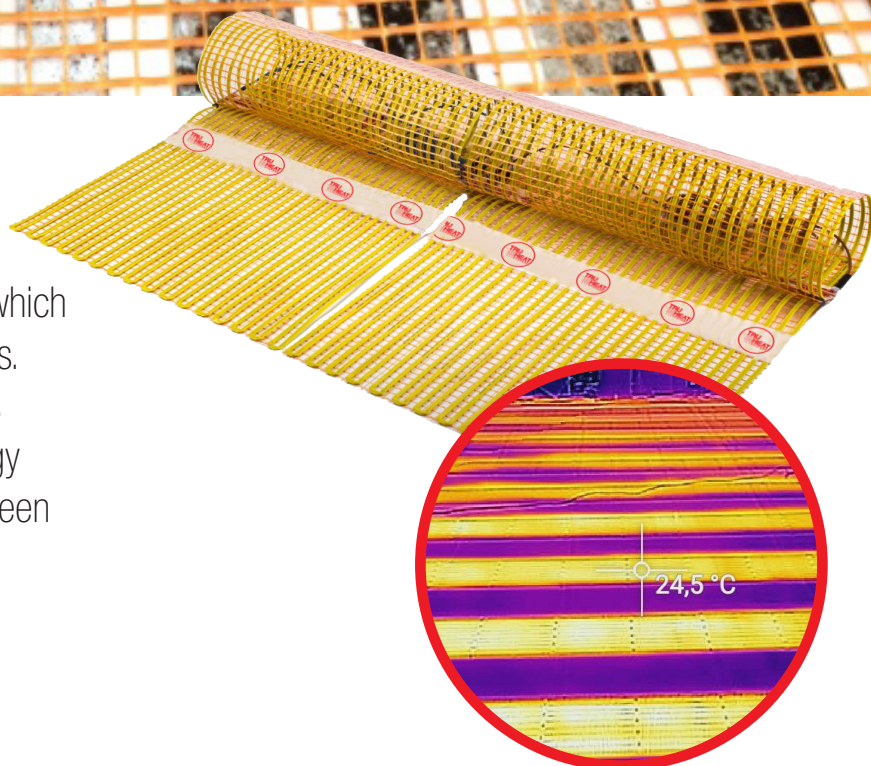
OPEN SOIL HEATING



ASK ABOUT OUR EZ-HEAT MATS FOR HEATING CULTIVATION TABLES



Our EZ-Heat mats are powered by the same patented amorphous metal tape technology which makes them ideal for heating cultivation tables. Simply place the heating mats under the pots separating by a thin plant fabric. Having energy efficient heating for potted plants has never been more possible using TruHeat's EZ-Heat mats.





ENERGY EFFICIENT LIVESTOCK HEATING

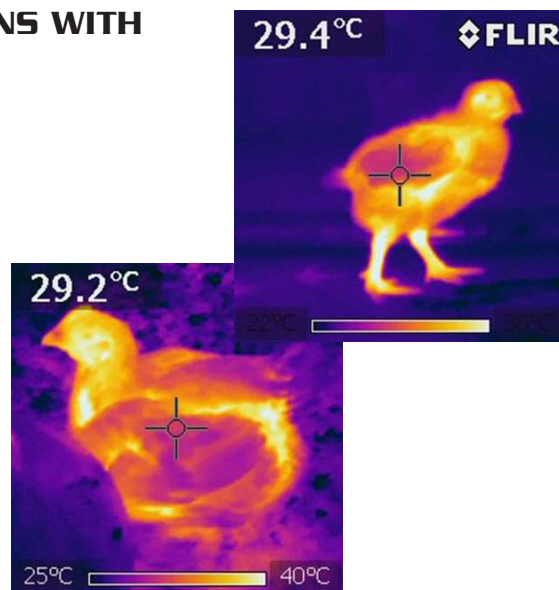
The advanced HeatWAVE® Radiant Heating System—your ultimate solution for efficiently heating livestock environments. Whether you're warming a barn full of animals, providing optimal conditions for broiler chickens, or ensuring your horses and cows stay comfortable, the HeatWAVE® system is designed to meet your needs with unparalleled efficiency.

Our cutting-edge amorphous metal technology offers radiant heating that is not only highly effective but will do the job for a fraction of the energy cost. The unique design of our system ensures rapid and even heat distribution, creating a consistent and comfortable environment for your livestock. The low-profile, durable amorphous metal ribbons are incredibly thin yet resilient, making them ideal for heating large spaces without bulky equipment.

By utilizing minimal energy to achieve maximum warmth, the HeatWAVE® system significantly reduces your energy costs compared to traditional heating methods. Say goodbye to high energy bills and hello to a more sustainable and cost-effective way to keep your animals healthy and happy.

BENEFITS OF RADIANT HEAT ON BROILER CHICKENS WITH AMORPHOUS HEATWAVE SYSTEM

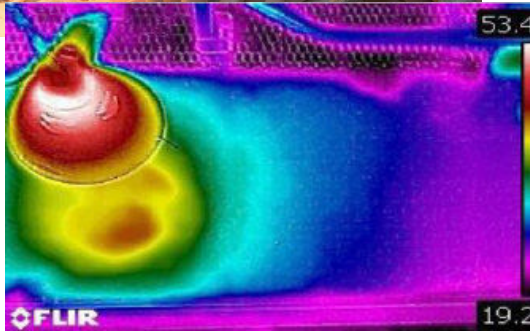
- ✓ **PROMOTES OXYGENATION TO THE BODY**
- ✓ **STIMULATES SWEATING TO REMOVE TOXINS**
- ✓ **RECOVER CELLS AND PREVENTS BLOCKAGE OF VEINS**
- ✓ **REMOVES PAIN, REDUCES INFECTIONS & STIMULATES THE IMMUNE SYSTEM**
- ✓ **PROVIDES ENERGY TO STIMULATE METABOLISM & REDUCE FATIGUE**



ACHIEVE IDEAL COMFORT FOR LIVESTOCK

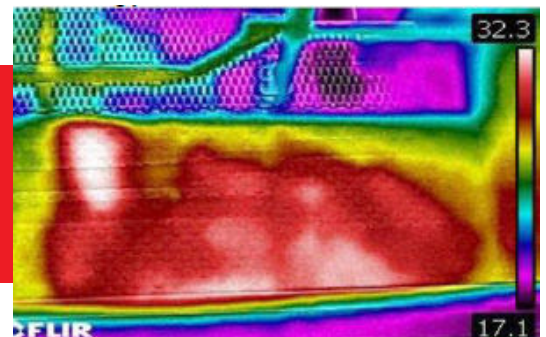


The traditional method of heating livestock involves the use of heat lamps, but this approach is not the most efficient, especially in extremely cold conditions. Heat lamps provide uneven heat distribution, warming only limited areas. This forces animals to compete for the warmest spots, often leaving weaker ones in colder zones, which can slow their growth or even lead to their death. Additionally the life expectancy of heat lamps is rather low and therefore they need to be replaced on a regular basis resulting in higher on-going costs.



**POOR HEAT DISTRIBUTION OF HEAT
WITH ONLY A LIMITED NUMBER OF
ANIMALS UNDER HEAT LAMP.**

**EXCEPTIONAL HEAT DISTRIBUTION THANKS TO THE
HEATWAVE SYSTEM IN PROVIDING ENERGY EFFICIENT
RADIANT HEATING AND INCREASING COMFORT FOR A
LARGER QUANTITY OF LIVESTOCK.**





Smarter Heat, Greener Tomorrow

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CONNECT WITH US



Industry leading customer service & technical support.
Our experts can answer any technical questions on any of our products we offer.