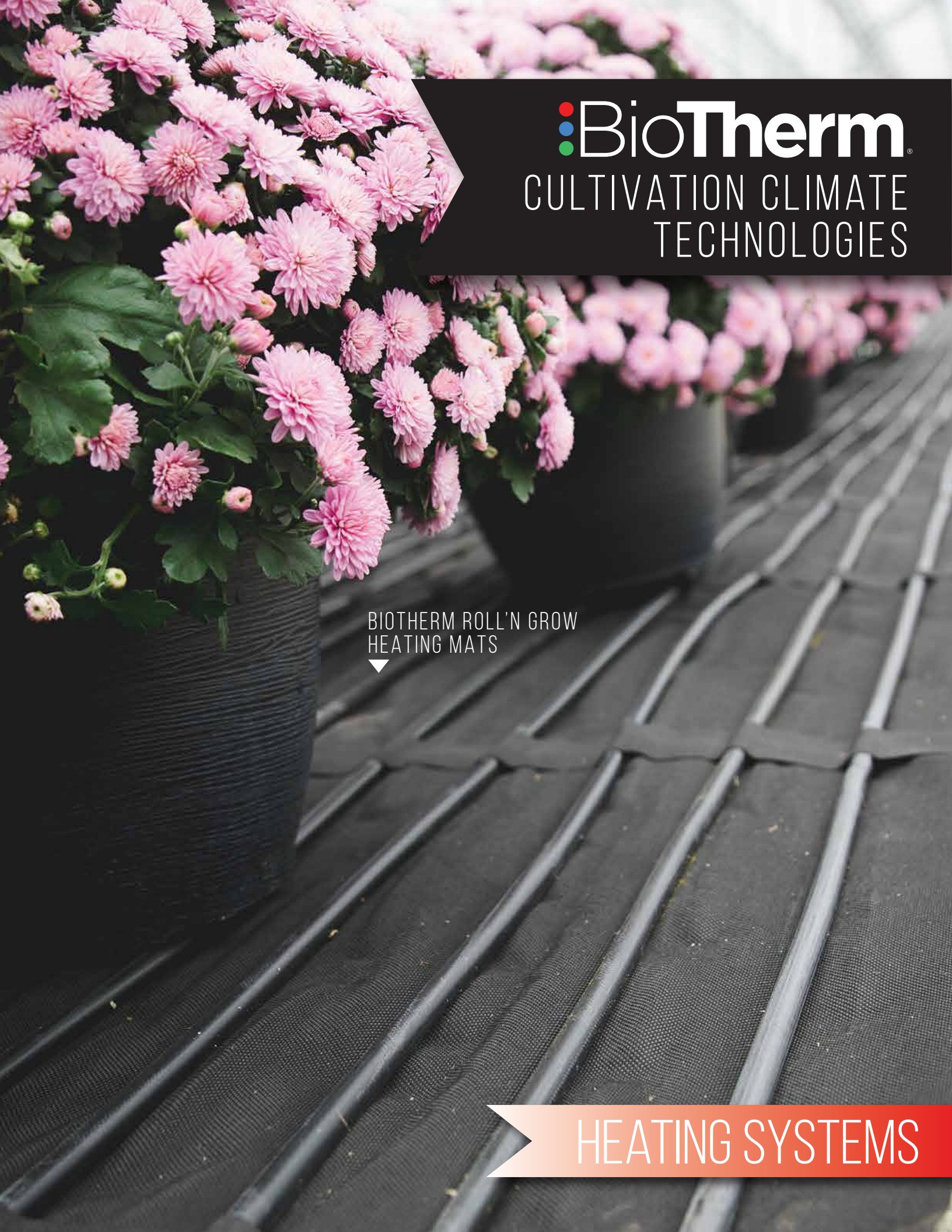


BioTherm®

CULTIVATION CLIMATE TECHNOLOGIES

BIOTHERM ROLL'N GROW HEATING MATS

HEATING SYSTEMS

BIOTHERM DUOFIN
IN-CROP APPLICATION

BioTherm

CULTIVATION CLIMATE TECHNOLOGIES

At the forefront of BioTherm's mission is the belief that growers, their families, and the entire world will benefit from stronger, healthier crop yields. By providing innovative solutions for the grower, we take pride in contributing to happy, healthy, and thriving plant production.

HEAT

Our greenhouse heating systems are tailored to each grower's specifications, and our innovative technology meets the needs of even the most demanding projects -- whether new construction, major upgrades, or retrofits; small to many acres.

HYDRO SCIENCES

BioTherm Hydro Sciences has one simple focus... to enhance your irrigation system and boost plant growth using cutting edge technologies with efficiency in mind. Our products are proven to increase yields, improve plant vigor, and increase resistance to diseases and pests.

OPTIMIZED AIR

BioTherm creates innovative air technologies for plant growers. The atmosphere of the growing environment directly affects the health and productivity of the crop.

HEATING SOLUTIONS

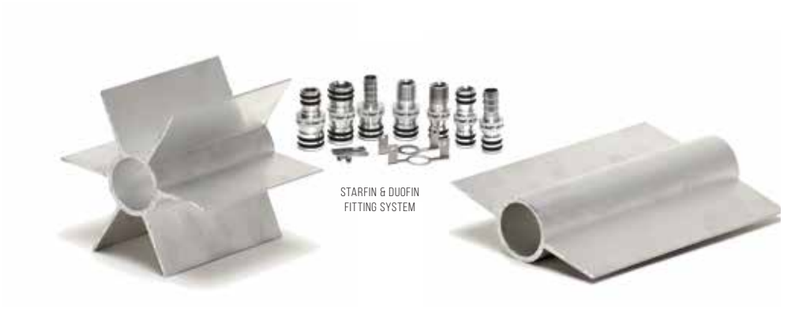
Our innovative, energy-saving technology is designed to meet the individual needs of even the most demanding projects — whether through new construction, major upgrades, or retrofits. Each greenhouse heating system is tailored to specific climate and growing conditions. Our systems are durable and efficient, resulting in high success rates and peak crops.

BioTherm is more than heating. We deliver the highest quality products with unparalleled service, saving you time and money. From initial consultation to installation, BioTherm's staff is with you every step of the way. Each system includes comprehensive instructions for installation and operation, along with custom CAD drawings. All heating systems include two years of free support.

BioTherm designs mission-critical heating systems to ENHANCE greenhouse crops. Greenhouses rapidly gain heat when the sun comes out and lose heat almost as fast when the sun disappears. Humidity levels can be jungle-like. The presence of water, fertilizer, and other corrosive chemicals is everywhere. We have invested over four decades into developing rugged heating solutions that are robust and designed to go the distance to help plants thrive.

"ALL BIOTHERM PRODUCTS ARE DESIGNED TO WORK TOGETHER TO CREATE A PERFECTLY INTEGRATED ENHANCED GROWING ENVIRONMENT.

WE HAVE INVESTED OVER FOUR DECADES INTO DEVELOPING RUGGED HEATING SOLUTIONS TO HELP PLANTS THRIVE.



STARFIN & DUOFIN FITTING SYSTEM

STARFIN® & STARFIN PLUS

The BioTherm® StarFin has a tapered aluminum six-fin design that has 3 times the surface area of two-fin designs or 51mm thin-wall steel tubing. This increased surface area produces StarFin's high heat output, allowing lower water temperatures to be used and producing a soft, gentle heat.

DUOFIN® & DUOFIN LITE

BioTherm's DuoFin heat pipe is constructed of super-conductive aluminum alloy. This product provides low-mass, high-output heating for under-bench and perimeter heat applications.

SUNFIN FITTING SYSTEM

SUNFIN®

Aluminum SunFin is high-output, finned heat pip manufactured specifically for various heating applications. They are manufactured with 1-1/4" Schedule 40 tubing to transport hot water quickly, then dissipate it quickly with broad aluminum fins. Will not rust.

HDX

High-Density Polyethylene ("HDX") tubing is strong, extremely tough and very durable. It is made of an ultra-high molecular weight resin and comes in a distinctive red color so you know you are getting true HDX tubing. HDX is our most cost effective solution for floor heat tubing.

ROLL'N GROW®

Roll'N Grow gives your plants the root zone heating they thrive on with less hassle and more versatility than ever. Like a carpet, Roll'N Grow covers your growing surfaces with growth-enhancing gentle heat.

51MM CARTRAIL

Heat your crops using steel pipe and use a cart to simultaneously manage plant growth. If you are looking to use a cart system in your greenhouse for harvests, enhance it by transforming the rail into a heat source. BioTherm can provide a cart rail solution using 51mm pipe that allows the use of a cart and doubles as heated pipe.

MICROCLIMATE®

MicroClimate tubing is a heater, a direct delivery system to the crop. It can withstand external temperatures of 250°F without harm and twenty-five years of direct ultra-violet light without cracking. The tubing can be placed on top of wooden benches, below expanded metal benches, on the ground for bedding plants, or buried in media beds for propagating woody ornamentals. It can also be used as a solar collector and for retrofit floor heating applications.

MEGATUBE®

MegaTube is the Original BioTherm® MicroClimate's "Big Brother". Using the same extrusion and manifolding technology, we created a jumbo size to provide a product that will work for a wide range of heating applications. Because of its high tolerance to temperature and chemicals and its excellent heat transfer characteristics, MegaTube will provide years of optimum temperatures as part of a BioTherm Heating System.

"THE PRODUCTS ARE SOUND, THE ENGINEERING IS SOLID. THEY KNOW THE GREENHOUSE AND THE PLANT INDUSTRY. MORE THAN ANYTHING, IT'S THEIR SERVICE AND THAT'S GOTTEN ME TO BE A FOLLOWER.

-RICH PHILBRICK
DIRECTOR OF CONSTRUCTION AND DEVELOPMENT
DIRECTOR OF FACILITIES, APOTHCA

HEATING SOLUTIONS

SUNFIN® PERIMETER/SPACE

STARFIN® PERIMETER/SPACE

DUOFIN® UNDER-BENCH/ON-BENCH

MICROCLIMATE® ON-BENCH/MEGATUBE® IN-BENCH

ROLL'N GROW® ON-FLOOR/ON-BENCH

HDX IN-SLAB HEAT

RAYPAK® BOILERS

ROLL'N GROW MACHINE
AT BIOTHERM HQ

MIKE MUCHOW,
BIOTHERM CO-FOUNDER

Raypak® A Rheem® Company

BIOTHERM IS THE EXCLUSIVE DEALER FOR RAYPAK® BOILERS TO THE CEA AND CANNABIS INDUSTRIES

RAYPAK PRODUCTS OFFER UP TO 98% EFFICIENCY

GROWER STORY MIKE GOODER, PLANTPEDDLER

BioTherm installed two Raypak boilers, which have run continuously since 1984. Tied to an Argus control system, they serve the greenhouse's needs well, even in the bitterly cold, snowy winter months – Mike says they get 20° F below weather, blizzards with 40 mph winds and dinner plate-sized chunks of ice on the greenhouse roof.

"We have them set about 160 to 175°, and they roll with what we need. The water temperature is always there."

"The crops we produce are very fragile, needy," he says. "We make sure we have redundancy, and work with BioTherm who understands the loads greenhouses require, how heat integrates into our short-range plan."

BioTherm®

Elements...Enhanced.

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