Therma-HEXX creates new ThermaPAVER

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Robert Barmore, owner/CEO Therma-HEXX, LLC has invented ThermaPAVER.

The project set out to tackle the thermal impacts of traditional pedestal-mounted and ground-mounted architectural pavers and flagstones typically used on high-rise building roofs, plazas, sidewalks and pool patios. "Their temperature can surge to over 140°F on sunny days, creating an intolerable environment," he says. "In winter, snow and ice accumulate on them, rendering the areas unusable."

ThermaPAVER is a modular heat exchanger panel that evenly distributes a heating and cooling transfer fluid (glycol or water) through turbulent flow channels to allow for even, efficient energy transfer across the entire panel surface. The 23.5" x 23.5" panels connect in rows, using simple push on connectors. The rows are connected in parallel to send and return manifolds to form arrays.

The ThermaPAVER panel system is assembled beneath either pedestal mounted or ground mounted pavers or stones. They can be used under driveways, roads, patios, sidewalks, plazas, rooftop patios, entry ways, pool decks, and any other place where pavers of any size, shape, or material are used.

ThermaPAVER is ideal for snow melting, surface cooling, and heating of domestic/pool water.

When mounted on pedestals, standard architectural slab pavers are used, typically sized 23.5" to 24" square.

When ground mounted, any size or type of segmented paving material can be used such as interlocking pavers, cobblestones or flag stone.

The manifold system is custom designed for each project and is made using weldable PP-R pipe. Each row has a push to connect shut off valve on the send and return at the manifold to allow for easy installation and pressure testing. The removable push on connectors utilize robust EPDM D-rings making it easy to access the surface below the system, such as the roof or below grade utilities, as needed.

When tied into a geo-thermal or waste heat system, snowmelting can be accomplished for free without the use of fossil fuels. The same geo-thermal system can cool the surface in the hotter months.