

Revolutionizing Precision Temperature Management

Insu Health Design has developed a novel temperature control and insulation system that enables precise cooling, heating, and temperature maintenance while using far less energy than competing technologies. It is comprised of Thermoelectric Coolers (TECs), heatsinks, fans, a water block, a pump, tubing, a vacuum flask, and a tubing coil inside the vacuum flask.

Innovative Temperature Control Technology

Thermoelectric Coolers (TECs) typically generate more heat than they remove, posing efficiency challenges. Traditional methods mitigate this by modulating power, which continuously consumes energy and risks temperature instability upon power loss. Insu Health Design's innovation addresses these issues by decoupling the TECs from the payload with a water block and coolant loop inside a vacuum flask. This design only requires power for 10%-15% of the time to maintain the desired temperature, relying on the flask's insulation to prevent heat transfer for the remainder. As a result, the system significantly reduces energy consumption and can also reverse its function to heat contents if necessary, enhancing efficiency and temperature control.

Key features

Energy-Efficient Operation

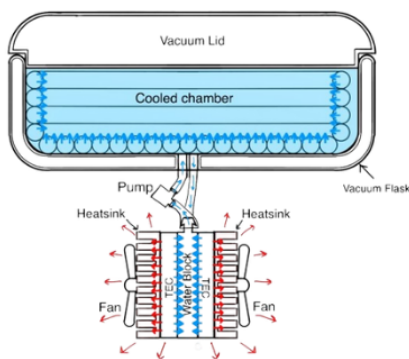
- Operates effectively with significantly lower power usage, needing activation only 10%-15% of the time.
- Automatically powers on and off to adjust temperature only as needed, relying on insulation to maintain conditions most of the time.

Versatile and Portable

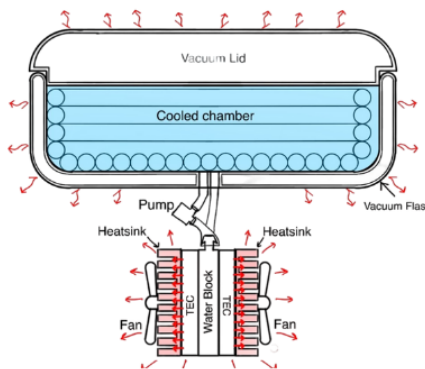
- Engineered for versatility, our technology is perfect for storing and transporting temperature-sensitive materials.
- Capable of both cooling and heating contents, adaptable for various applications.
- Its scalability ensures suitability for various sizes and needs, from personal portable coolers to larger refrigeration units.

Our Technology

Powered On



Powered Off



Current Market Technology

