

Active temperature control for
extreme conditions



TETHYS

Bringing thermal comfort to people

Mission

Revolutionizing human endurance in
extreme environments.

Inspired by space and nuclear thermal
control systems, this architecture
amplifies exchange efficiency.



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Thermal management for people

Tempesta is a compact, silent, active thermal regulation system integrated directly underneath PPE. It enables the user to maintain the thermal output desired by the wearer, thus improving the comfort, health and safety of heat-stressed professionals.

Based on proven technology, **Tempesta** is the most advanced reversible thermal control device for optimizing the well-being of the human body.

KEY BENEFITS



-25% lower operating costs



+15% productivity



-20% lower risk of accidents



SMART

You set your comfort preferences, Tempesta does the rest. The system adjusts its power in real time according to your choice.

ULTRA-LIGHT

The best thermal power/gram ratio. Invisible under clothing, does not impede movement.

KEY INNOVATION

Unlike passive solutions, **Tempesta** is based on an advanced architecture combining :

- Mechanically pumped fluid loop
- Thermoelectric modules for Peltier effect
- Miniaturized heat exchangers in direct contact with the fluid
- Closed-loop control driven by user setpoints

PERFORMANCES

Rapid adaptation: -20°C in 20s

Adjustable power between 15°C and 55°C

MEASURES

Sizes

- XS-S
- M-L
- XL-XXL

Length

- 57cm
- 67cm
- 77cm



- 1 adjustable vest
- 2 thermo-fluidic circuits (front + rear)
- 12 active evaporator heat exchangers (in contact with the body)
- 2 active condenser heat exchangers (in the ventilated zone)
- 16 Peltier modules
- Micropump, fans, control electronics
- Power supply : battery (15V, 74 Wh), runtime > 3h30

PATENTED TECHNOLOGY

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THERMAL PERFORMANCE

Capable of absorbing up to 50W of thermal power.

BATTERY

Autonomy from 3h30 to 8 hours depending on use.

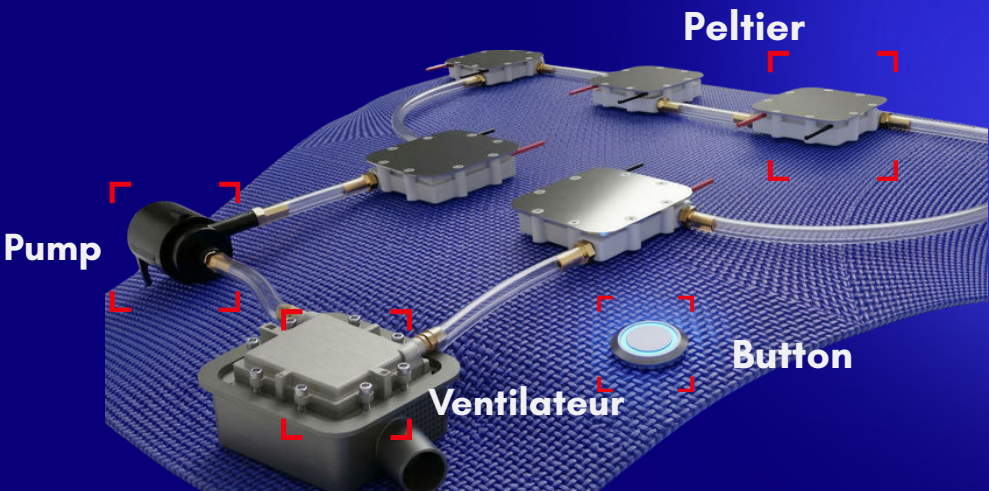
Replaceable battery for continuous use: double battery set available.

CSR

3-year product life guaranteed, fully recyclable; +60% energy efficiency compared with air-conditioning systems

SPECIFICATIONS

Parameter	Value
Total weight	< 1600 g (including batteries)
Max. thickness	< 1 Cm (body surface)
Noise level	< 50 dB
Power supply	15V DC
Max. current	< 3,0 A
Thermal control	PID with Peltier modules
Working fluid	Water
Safety	Very low voltage, fail-safe system
Thermal power	50W



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