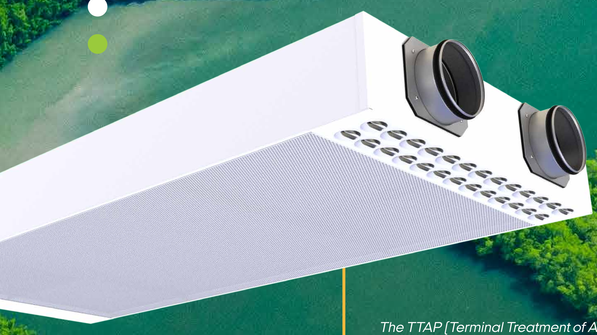
Net Zero Within Reach

Solid state TTAP platform ideal solution for building electrification

The world is getting hotter and regulators are taking action: French RE2020 standard, USA New York S4006c/A3006c and others are now demanding a net zero future. The solid state TTAP platform electrifies last mile cooling and heating, which significantly reduces legacy HVAC system requirements and a building's reliance on fossil fuels, while lowering the building's total cost of ownership. Making an investment in TTAP today future-proofs your tomorrow.



The TTAP (Terminal Treatment of Air with Peltier) offers an HVAC solution that provides fully demand- based cooling and heating without the need for refrigerants or a hydronic network.

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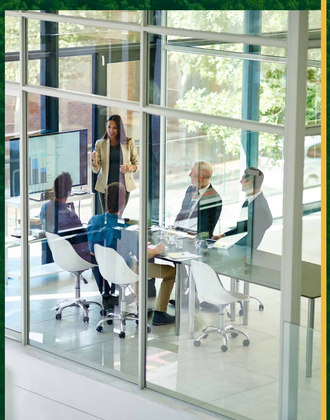
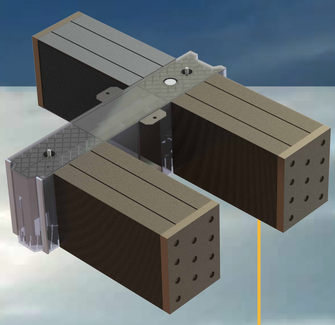


Zero Refrigerants

Significant system-wide emissions reduction

TTAP is a solid state platform that has made sustainable heating and cooling a reality. The TTAP unit eliminates toxic HFC refrigerants that can have a Global Warming Potential rating of up to 2,000. Over its 20-year lifespan, owners realize at least 15% reduction in CO_2e at time of installation, another 16% or higher reduction through ongoing operations, and the units' recyclability unlocks yet further carbon savings at end of life. The TTAP unit is truly sustainable from beginning to end.



The solid state thermal unit is the core component in the TTAP platform that enables sustainable heating and cooling. It leverages the fundamentals of the Peltier thermoelectric effect for efficient cooling and heating.

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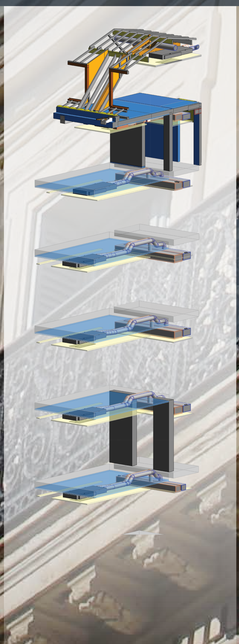
Lower Total Cost of Ownership

Simplicity of design unlocks superior economic value

The TTAP platform can unlock 18% cost savings through the elimination of HVAC redundancies and complexities and can work with fresh or partially treated building air. Its ability to heat and cool streamlines legacy infrastructure integration and simplifies power requirements. TTAP has no compressor and no refrigerants that need to be serviced, improving reliability and decreasing maintenance costs.



By reducing or eliminating piping in new buildings, or allowing the reuse of existing pipes in retrofits, the TTAP not only saves costs but also reduces embedded carbon.

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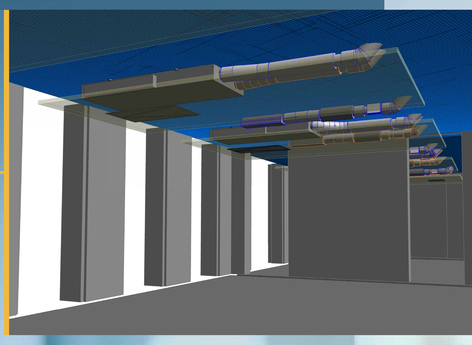
Fresh Air & Customized Comfort

Tailor temperature room-by-room

A TTAP system can deliver personalized comfort while also helping to save CO_2e. Cooling and heating are delivered room-by-room, with the ability to simultaneously heat one room while another is cooling. Fresh or partially treated air is introduced to the room, and can be filtered locally for a healthier, more productive work environment.

The TTAP approach enables the use of fresh air ventilated throughout the building, which is then cooled or heated by the TTAP units locally, based on occupant- specific settings.



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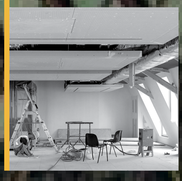
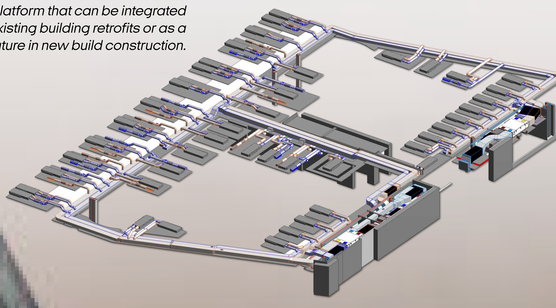
Seamless Installation

Full design flexibility maintains architectural integrity

With the size, simplicity and sustainability of the TTAP platform, net zero building goals can be attained more quickly, cost-effectively and with no required design compromises. In retrofit projects, TTAP leverages existing ducting, which is often the only option to retain a building's historical character while meeting net zero goals. For new builds, the all-electric TTAP eliminates the need for plumbing or complex infrastructure that's typically required for legacy HVAC installation, saving both time and money.





The TTAP is a modular solid state platform that can be integrated into existing building retrofits or as a feature in new build construction.

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