#### About TAT Technologies - KMN Ltd.

TAT Technologies is a world leading manufacturer of heat transfer and cooling systems for the aerospace industry since 1969. TAT designs and manufactures heat exchangers, bleed air heating system, pneumatic valves, vapor-cycle air conditioning systems, and cold plates for electronics cooling for both commercial and military customers all over the world. Boasting comprehensive in-house engineering, design and manufacturing resources, TAT has the capabilities to provide customized turnkey solutions for Environmental Control Systems (ECS) for business jets, general aviation aircrafts and helicopters.

With its shares traded on the NASDAQ stock exchange (ticker "TATT"), TAT Technologies is a public company with complete transparency for its customers. Headquartered in Gedera, Israel, the TAT Group - including daughter companies in the United States - employs about 600 employees.

TAT understands that its value proposition to its OEM customers should not be summarized only by excellent performance with competitive pricing BUT must also include superior aftermarket service for maintenance, repair and overhaul (MRO) as well as 24/7 spare parts. This is accomplished through our US subsidiary Limco Piedmont Inc.

To let you better appreciate TAT global reach and experience in both OEM and MRO markets, TAT invites you to follow its global footprints in serving aircraft manufacturers, airlines and operating support centers in the USA, Europe and Asia Pacific region.

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## **Environmental Control Systems for Aircraft**

Turnkey Solutions with Focus







# on Passenger Comfort















### www.tat-technologies.com

#### TAT Value proposition:

Single Source for turnkey Environmental Control Systems (ECS) solutions including Heating and Cooling with focus on passenger comfort and efficiency.

- Innovative designs for all sub-systems and major components:
  - State of theart, Set & Forget type system with digital control and display.
  - High Reliability Bleed Air Management Systems.
- Design Support for the Air Distribution System.
- Reduction of development frictions during design and testing process.
- Reduction of costs and number of suppliers
- Full after-market support through our FAA/EASA repair stations including 24/7 spare parts delivery.

TAT offers its customers a One-Stop-Shop for all their needs be it for air conditioning, heating, or a combination of the two in a single Environmental Control System. Whatever the aircraft - a business jet, a turboprop, a luxury piston engine aircraft or a corporate helicopter - our systems are designed to provide unrivaled passenger comfort and efficiency.

#### **Temperature Control System & Control Panel**

With focus on human engineering, the digital electronic temperature controller assembly is the brain of the ECS, responsible for handling comprehensive input data from all subsystems and sensors and operating all subsystems to achieve maximum passenger comfort at maximum efficiency.

#### **Air Conditioning Pack**

Vapor cycle cooling system (VCCS) provides cooling to the aircraft cabin and consists of the following major components:

- Compressor Assembly variable displacement compressor controlling the cooling capacity of the system under varying flight and heat load conditions.
- Condenser Assembly using state-of-the-art fin & plate heat exchangers and brushless motor fans.
- Evaporator Assembly(s) offered in single and multiple units ensuring uniform comfort throughout the cockpit/cabin space. Assemblies feature state of the art fin & plate heat exchangers and brushless motor fans.
- Receiver Dryer Assembly engineered to ensure long lasting, peak system performance.
- Built In Test and improved diagnostic capability of components.



#### **Heating System**

Provides heating via the ECS to the aircraft cockpit/cabin space. The source of heat and the way it is extracted is determined by the powerplant utilized on the aircraft. The Heating System comprises a heat exchanger (type determined by the powerplant), valves, mass flow meters and temperature sensors.

- For turbo-engine aircraft (including helicopters), hot compressed air is extracted from the Engine Bleed System through a stainless steel air-to-air heat exchanger to provide heat to the ECS.
- For piston engine aircraft (including helicopters), heat is extracted from the aircraft engine and/or its cooling systems. The way of extracting heat depends on whether the engine is of diesel or avgas type. We offer air-to-air exhaust gas heat exchangers, oil-to-air heat exchangers, or water-to-air heat exchangers.

The key to a truly integrated system is high efficiency which ensures superior passenger comfort while minimizing weight, drag, and cost. As important as these issues are to large aircraft, they are also critical to entry level aircraft.

#### **ECS** Team

We are Proud to have the advantage of employing team members having rich experience in development and certification of a wide variety of related products which TAT offers to be put to good use in developing the most efficient ECS system tailored to a new jet aircraft and/or luxury piston engine aircraft.

Our team understands the importance of choosing the right component and subsystem for achieving the highest efficiency and can provide just the right system for your aircraft, not just a jumble of components.