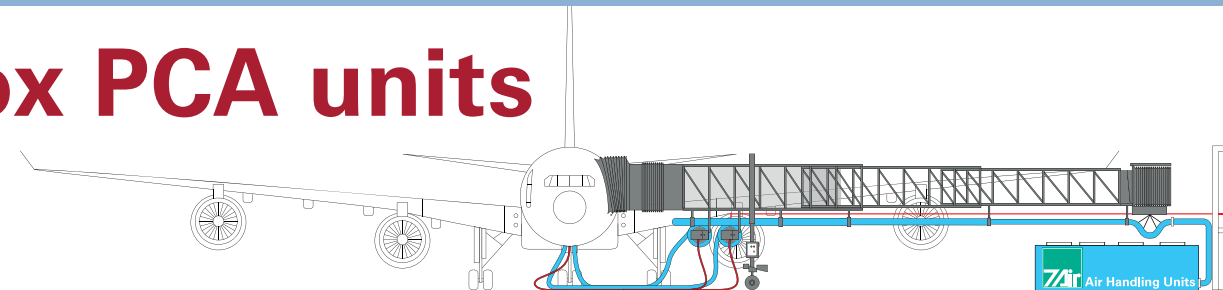


- ✓ **Less Fuel**
- ✓ **Less CO2**
- ✓ **Less Noise**

ISTinox PCA units



The problem with conventional DX units...

Many airports report, that aircrafts cannot be cooled to specified cabin temperatures with hot outside temperatures: the cooling capacity of the conventional PCA units seems not to be sufficient. Moreover, the control system of some types of PCA units are told not to work according to specifications (defrosting). Lately, increasing information is reported, that the installed compressors fail due to operating conditions, which destroy the machines (mainly caused by the DX system).

With the technology used today, therefore, the cooling of the aircraft cabins, especially in the hot seasons, is not guaranteed.

The need of Airports

The PCA unit should be designed to continuously supply each aircraft with preconditioned air at $-3^{\circ}\text{C}/ -6^{\circ}\text{C}$ to ensure the wellbeing of passengers and crew, even at extremely high outside air temperatures.

The PCA unit should ...

- i) meet the specifications given by the airports.
- ii) ... cool the aircraft continuously and reliably.
- iii) .. provide a quality standard that satisfies both operators and passengers.



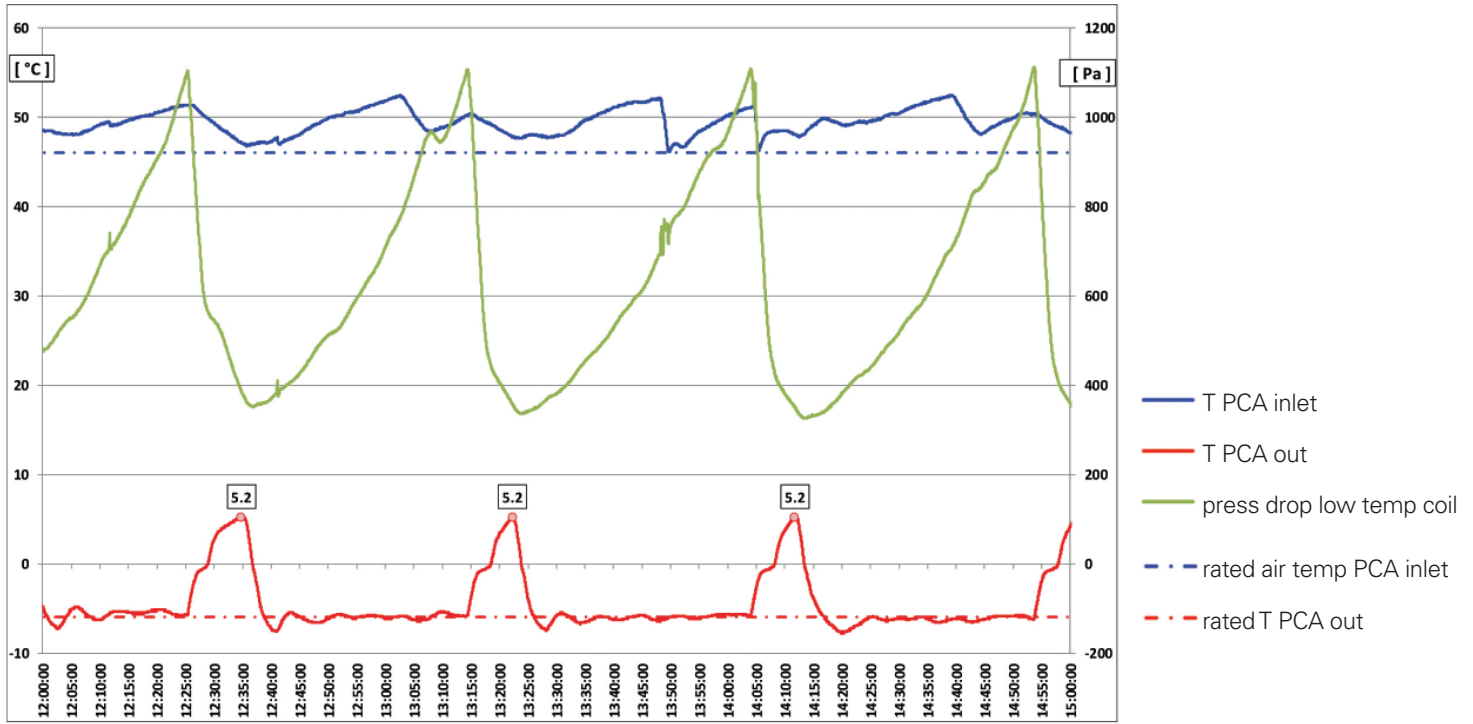
The solution

The concept of the newly developed ISTinox DXi unit is based on a new innovative cooling technology.

In order to optimize the cooling of the aircrafts, the new DXi unit has two compressors and two cooling coils to ensure continuous cooling of the aircraft even during defrosting. In addition, the new refrigeration concept also optimizes the control of the defrosting cycle.

Deicing only takes place when it is necessary and, on the contrary to existing systems, it is not timed but measured. The deicing cycle takes place approximately every 50 minutes and lasts around 6 - 8 minutes. During the defrosting cycle, the first compressor runs continuously; thus, the temperature of the PCA does not climb to values higher approx. 5°C during the defrosting cycle and continuous cooling of the aircraft is guaranteed.

Operating results



ISTinox PCA devices - your benefit

The new ISTinox DXi unit produces the required air flow rate (max. 15'000 kg/hr) under rated conditions and cools the air to the required temperature of $-3^{\circ}\text{C}/-6^{\circ}\text{C}$ at the unit outlet. With the air conditioning process the following key points are reached:

High operational safety

- The dual-circuit cooling system ensures continuous cooling of the aircraft.
- The PCA outlet temperature is very stable throughout the process.
- The control cabinet and machine room are air-conditioned and ensure high reliability of the controlsystem.
- Defrosting is measured not timed; time between

two defrosting cycles is approx. 50 minutes under rated conditions.

Low operating costs

- Longevity thanks to uncompromising execution with high-quality materials.
- Thermally separated device housing ensures low energy losses.
- Low energy consumption thanks to high-quality and energy-efficient components.

Easy to maintain

- All components are easily accessible for maintenance and cleaning thanks to large inspection doors.

+ SWISS MADE

As a Swiss producer, the company has committed itself to the "Swiss Quality" standard of excellence. In order to ensure that Swiss standards of quality are met in every sense, IST's products are exclusively produced by its qualified staff at its location in Switzerland.



ISTinox DXi - Unique

- ISTinox offers complete systems to supply aircrafts with PCA and 400Hz power
- ISTinox PCA units are designed to meet the requirements of all aircraft types under all climatic conditions - guaranteed.
- ISTinox PCA units are built in modules achieving a standard design. adaptable to meet specific requirements of each airport.
- Environmentally sound technology through maximum energy efficiency and small refrigerant contents
- Designed for extreme longevity: all major components are made of high-quality materials; motors, compressors and fans are in best quality and performance efficiency; casing with extruded aluminium profile frame and high insulated double metal sheet panels.