

# CPH Go Airport Terminal Copenhagen, Denmark



One of the oldest international airports in Europe is also one of the fastest growing and most forward thinking. What's surprising is that growth at Scandinavia's biggest "hub" airport hasn't been driven by the large flag carriers but by budget airlines.

In most cities these airlines operate out of distant secondary airports far from the city centre but not in Copenhagen. Like all major airports, Copenhagen Airport has multiple terminal buildings each tailored to a specific group of travellers. Terminal 1 handles domestic travellers whilst Terminals 2 & 3 handle international flights but it is the most recent terminal building in Copenhagen that really differentiates the airport from all others.

The fourth terminal at Copenhagen Airport, CPH Go, is dedicated solely to budget low cost airlines like EasyJet and has been built from the ground up specifically for this purpose. Despite the focus on budget flights, CPH Go is anything but a cheap

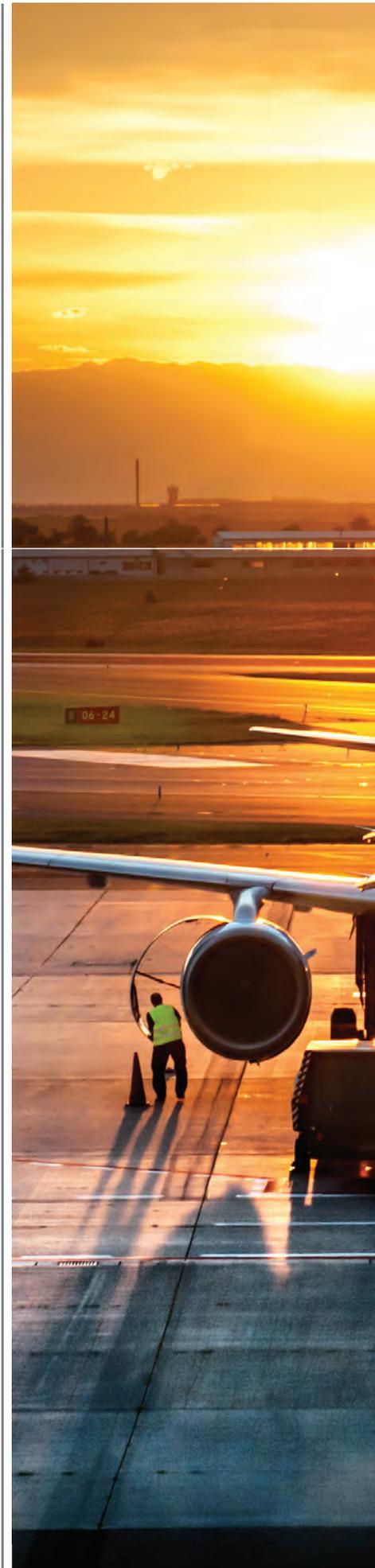
building. Realising the highest principles of modern Scandinavian design, CHP Go is a vision of a healthier, more pleasant future for international air travel.

### Fresh Air, Open Spaces

Vilhelm Lauritzen Architects wanted to ensure that travellers flying through the CHP Go terminal were able to feel a sense of the pristine wide open spaces of Scandinavia. As part of achieving this it was important to ensure a plentiful supply of fresh and conditioned air.

All modern airports are serviced by complex air-conditioning systems and the requirement for a high standard of air-quality inside CHP Go meant that the air-conditioning system here simply had to be built to the highest specification.

Throughout the terminal building are thousands of metres of chilled water pipework needed to supply the air-conditioning system.





Without insulation condensation would form on these pipes accelerating corrosion and, worse still, creating ideal conditions for mould and mildew growth.

#### Groundwater heating & cooling

As you'd expect from a flagship Scandinavian building, the CHP Go terminal is efficient in every conceivable way. This efficiency extends to the energy use of the building, giving CHP Go a distinct set of green credentials you might not expect from an international airport!

One of the key technologies used was a groundwater heating & cooling system that reduces the overall Carbon footprint. These systems are more energy efficient than traditional heating & cooling but when implemented on this scale they do significantly increase the complexity of the pipe configurations in the plant room.

#### Dust & fibre free insulation solution

With a complex arrangement of pipes throughout the terminal, from the restricted access plant rooms to the very public lounges, and a set of demanding design considerations influencing every decision on site it was important to select the right insulation materials.

Kaiflex insulation is dust and fibre free with a closed cell structure that's inherently resistant to bacterial and mould growth. These attributes alone would have made it a strong contender to be the insulation material of choice in Copenhagen but Kaiflex offered far more than this.

The closed cell structure of Kaiflex makes it ideal for preventing the condensation that would otherwise occur on all of the air-conditioning pipe and ductwork and even on some of the groundwater heating pipework. Kaiflex isn't only amongst

the longest lasting insulation materials for below ambient temperatures, it's also one of the most efficient in terms of thickness. The lead insulation contractor on site, Tim Birk of Grenaa Isolerings A/S, was able to use 19 mm Kaiflex for almost all of the pipework.

All of the Kaiflex installed in the CHP Go terminal building was supplied by Øland who promote Kaiflex to their customers as their recommended flexible elastomeric insulation material.

