

IST-Edelstahl-Anlagenbau AG Andrea Zimmermann Schorenstrasse 54 3645 Thun-Gwatt Switzerland

Zurich-Airport, May 3, 2018

## Subject: experience with PCA systems from IST-Edelstahl-Anlagenbau Thun

Dear Ms Zimmermann

In 2001/2002 Zurich Airport equipped 27 passenger bridges at terminal E with stainless steel telescopic tubes and stainless hose reels by IST-Edelstahl-Anlagenbau AG to transport the PCA from the PCA unit to the aircrafts. In the same contract section the PCA units from IST/Seven-Air were installed. These units cool the air with glycol fed cooling coils.

We are very satisfied with all the components and the performance of IST/Seven-Air. The telescopic tube and the hose reels are functionality and very practical. We also want to point out the aesthetics of the tubes and the hose reel. The fine metallic surface is easy to clean and looks also after more than 15 years of operating time almost like new. The products are virtually maintenance free and no mechanical parts had to be replaced. The PCA units work to our full satisfaction as well. During the last 15 years of operation at Dock E we never had any problems. In summer when the PCA has to be cooled to -3°C at the unit outlet and if it's handled as recommended, the aircrafts are cooled under all climatic conditions to the full satisfaction of the airlines. Icing occurs, but defrosting of the cooling coils is fully automated and aircraft cooling is reliable. The satisfying operation of the PCA units is an important basis to justify Zurich airport's APU ban.

This equipment turned out as a sustainable investment and puts us in the position to recommend such equipment to whom it may concern.

Yours sincerely,

Markus Bienz

Head of Ground Energy System for Aircraft

Zurich Airport