



Gate Gourmet's new catering building at Zurich airport is 120 m long by 72 m wide and cost CHF 120 million to build. Over 11 kilometers of Optipress and Optipress XL piping was needed for the eight separate water supply systems.

Superb new catering building

Eleven kilometers of Optipress piping

The new catering building of Gate Gourmet Zürich AG has been constructed 150 meters to the east of the existing building at Zurich airport.

Using state-of-the-art technology and super-streamlined operating processes, the 1,000 or so employees prepare in-flight meals for fifty different airlines. On peak days, that means as many as 50,000 meals.



Figures to make your head spin

Gate Gourmet International AG, a subsidiary of the SAir Group based at Zurich airport, provides catering services for around 75,000 passenger flights a year. An MD-11, for example, requires 4.6 tons of supplies such as meals, drinks, newspapers, blankets, cushions, and cots, not to mention in-flight shopping products and flowers for the first-class cabin. To prepare last year's 12 million in-flight meals, Gate Gourmet used up 268,000 kilos of meat and poultry, plus 160,000 kilos of fish and shellfish.

The firm responsible for coordinating and overseeing the installation of all internal services was Lippuner Energie- und Metallbau-technik of Grabs (SG). Seen here on the roof of the new building is Ruedi Lippuner (right), the managing director of the Sanitation / Heating division, together with his cousin and chief installer, Hans Lippuner.

The top floor has a whole series of specialty kitchens ranged one after the other, with facilities for preparing meat dishes, vegetables, fish, Muslim menus, etc.

Frequent flyers demand quality

For the airlines, their most treasured passenger is the frequent flyer. While these customers pay well, however, they are extremely demanding in terms of safety, punctuality, and comfort. They also expect the highest quality of service for everything on board, from food and drinks to newspapers.

To retain the loyalty of the frequent flyers in both business and economy class, the airlines place great emphasis on their cuisine. The food has to be just as tasty and appetizing as home cooking. The only difference here is that the portions have to be precisely the same for everyone. No favoritism from the cabin crew!



Hot and cold water supply pipes (before lagging) for the first-floor washing machines.



Eight water supply systems installed using Optipress piping

The sanitary installations in the new building required the contractor to lay over 11 kilometers of piping. This is an ultra-streamlined hi-tech operation which calls for much more than simple hot and cold water pipes. The 8 separate water supply systems were installed using Nussbaum's Optipress and Optipress XL piping, in nominal diameters ranging from 12 to 100:

- cold water «mains pressure» (10 bar)
- cold water «basic» (reduced pressure)
- cold water «soft»
- cold water «osmosis» (completely demineralized, e.g., for use in the final rinse phase of automatic washing machines)
- hot water 50°C (soft)
- hot water 60°C (soft)
- cold water for sprinkler system (Optipress XL)
- pressurized system

Optipress – the universal piping system

Speaking about the many kilometers of Optipress piping, Ruedi Lippuner remarks: «We have nothing but good to report about our experiences with Nussbaum's Optipress system. The fact that it covers all nominal diameters from 12 to 100 is a big advantage. And so is the fact that the same compression tool can be used to fit all of them.»

The high regard in which professionals hold Optipress is understandable. This is a comprehensive plumbing system, offering a complete range of stainless steel pipe and press fittings in nominal diameters from 12 to 100, plus gunmetal tapware and fittings. Nussbaum's tried and tested compression tool can be used for every size.

Process-oriented working

In the new building, flows of materials and working lines are fully optimized. The first floor has three separate flowlines for emptying, cleaning, and reloading the food trolleys. As soon as the trolleys have been emptied and cleaned, they are fed into the shuttle, a 25-meter-high paternoster-type lift which, at the press of a button, takes each trolley under computer control to its intended floor.



The food cooked on the second floor is laid out on trays in accordance with the menus and then loaded onto the trolleys. Operations here are conducted on a just-in-time basis, synchronized to match flight departures.



This enormous double tank (20 m³) serves to pre-heat the hot water supply, making full use of heat recovered from waste water.

Safe, hygienic, environmentally friendly

In keeping with the requirements of the aviation industry in general, the new catering building meets the strictest standards for safety, hygiene, and environmental protection. No expense has been spared to ensure energy efficiency and the recycling of waste. For example, the hot waste water passes through a grease trap which doubles as a heat recovery unit. The thermal energy saved in this way is then used to prepare more hot water. The waste heat from the refrigeration plant is also used to heat the premises and the water. As a result, the building needs a minimum of energy from outside sources.

For safety reasons, the pressure-reducing valves are always installed in pairs.

Cold-water distribution.



Every type of building valve

With such an extensive piping system, the new catering building obviously requires all the related stopcocks, safety valves, pressure-reducing valves, and non-return valves, as well as all kinds of drinking water system separators. As a supplier of total solutions with a complete product range, Nussbaum was able to satisfy every requirement.

Preparation plant for osmosis water with Nussbaum Optipress piping and tapware.

«We like working with Nussbaum»

«We've had a good working relationship with Nussbaum for over 12 years,» explains Ruedi Lippuner, the managing director of the sanitation division. «It's not only the quality and balance of the product range that's so important for us, but also the specialist services and technical support we get from Nussbaum. We like the innovative spirit that lies behind all of Nussbaum's products and solutions.»



The various water-supply networks (before lagging).

Lippuner's recipe for success

Back at the company base in Grabs, they say that Lippuner owes its success to the fact that they are «good workmen and good businessmen.» Established in 1940, the Rhine valley firm now employs a 210-person staff in a group consisting of four divisions: sanitary installations, heating, air-conditioning & refrigeration, and engineering.

When the Gate Gourmet building was under construction, Lippuner Sanitär/Heizung AG had as many as 30 installers working on the site.

New catering building

Owner, general planning:	aviReal, 8058 Zurich Airport, represented by Gate Gourmet International AG, 8058 Zurich Airport
Operating company:	Gate Gourmet Zürich AG
Site management:	GMS Partner AG, 8058 Zürich-Flughafen
Planning for heating / ventilation / sanitation / refrigeration / electrics / MSR:	Lippuner Klimatechnik AG, 9472 Grabs
Sanitary installations:	Lippuner Sanitär Heizung AG, 9472 Grabs, and Jürg Würmli, Haustechnik, 5430 Wettingen

Timetable

Start of new building	June 1998
Building shell completed	November 1999
Services installed	December 1999
Building commissioned	March 2000
Start of operation	May 2000
Demolition of old building	Fall 2000



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R.Nussbaum AG
 Foundry and valve works
 Martin-Disteli-Strasse 26
 Postfach
 CH-4601 Olten
 Phone 062 286 81 11
 Fax 062 286 84 84
 info@nussbaum.ch
 www.nussbaum.ch

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