Floor drains for exterior applications

At external junctions or transitions in a building – e.g. façades, balconies, roofs and terraces – it is necessary to install drainage channels. In this way surface water is directed away from the building structure, thus preventing any damage caused by standing water.

Stainless steel is a popular choice for drainage systems. It has good corrosion resistance and water runs off the smooth surface quickly. Generally stainless-steel drainage systems are made of standard grades (1.4301, 1.4307), but in corrosive atmospheres, higher-grade alloys are used (1.4401, 1.4404, 1.4571).

For certain applications, and where visual appeal is important, box-type drainage channels are covered with stainless-steel grating in various styles, or perforated sheet. Anti-slip finishes are also available, as well as designs that can take traffic loading. One way of visually minimising the drainage components at the base of building façades and in public spaces is to use slot-type channels. Slot widths vary from around 8 mm to around 25 mm. A range of stainless-steel channels and covers is available – straight, shaped or round – to fit in with different architectural styles.

Provided the right grade of stainless steel is used, drains and drain covers have high resistance to frost and de-icing salts as well as to the chemicals used during façade cleaning.

Photos: Hauraton GmbH & Co. KG, Rastatt, D (top), Haßheider, Meyer & Behrens GmbH, Rödinghausen, D (middle), KentStainless Ltd, Wexford, IRL (bottom).

Slot or box drains are available, a choice governed by the visual effect required and expected water volumes.

Client: CIT Group Ltd, London, UK
Architect: Foster and Partners, London, UK
Photos: Christopher von der Howen, London, UK

For the Greater London Assembly a special façade drain with narrow slot was developed, in high-gloss stainless steel. This system, designed to run along curved or straight façades, drains away water from the building both efficiently and unobtrusively.