

Case Study Northern Ticket Hall, Kings Cross Tube Station, London

Product 7500 series floor access covers



Architect: Capita Architecture

Situated beneath ground between the platforms of the newly redeveloped St Pancras station and Kings Cross station the Northern Ticket Hall is a new entrance and ticket hall to King's Cross underground. This second phase of a larger scheme, that has also seen the addition of a ticket hall at the front entrance to St Pancras Station, will lessen passenger journey times and ease congestion considerably. The developments will cater for the added demand required by new mainline and Eurostar services which will be especially crucial in the run up to the 2012 Olympics.

The scheme was designed by Capita Architecture and overseen by a joint venture between Balfour Beatty Civil Engineering and Balfour Beatty Engineering Services. DMC Rail, a division of the DMC Group specially developed to provide specialised services to London Underground and Network Rail, was responsible for all internal works. Internal works included the screeding and tiling of tunnels, the building of ticket offices and the creation of flooring – including the installation of 60 of Howe Green's 7500 series access panels.

Howe Green's 7500 series stainless steel access covers were chosen to provide safe and unobtrusive access to essential floor based building services including ventilation ducting, electrics, communication cables and rail services. In this challenging environment access panels that offered fire resistance along with the ability to withstand massive amounts of foot traffic were required.

Performance

Two types of Howe Green's 7500 Series stainless steel covers were used on the project. As well as single covers, the company's innovative multi-part covers were also used. A series of panels set into one larger frame, they grant simple access to complex junctions of service utilities. Purpose

designed for a variety of different floor finishes, the heavy duty covers have the capability to cope with up to a 5 tonne pneumatic wheel load.

Crucially, especially given their installation on the London Underground, all Howe Green access panels are available as tamper resistant units, ensuring complete security, with special lifting keys provided for ease of access.

Sitting flush with the floor to prevent any trips, they provide quick, easy and safe access to the concealed services underneath. The panels are double-sealed to meet the highest standards of hygiene and security, while staying corrosion resistant and maintenance-free. With up to a three hour fire rating in line with BS 476: Part 20:1987 Howe Green's 7500 series access covers would prevent the passage of fire through service channels. Combined with the capability to tolerate extreme footfall the 7500 series offered the perfect solution for the challenges presented by the new Northern Ticket Hall.

Installation

Each panel was individually manufactured by Howe Green to the exact requirements of both the flooring and building services contractors. Using the latest manufacturing techniques, Howe Green offers specifiers and contractors individually produced panels without the high costs and extended lead times normally associated with bespoke products.

To install the panels, operatives from DMC Rail set them flush into the floor substrate. The covers follow the floorline exactly so do not represent a trip hazard. The cover panels were then filled with screed and completed with tiles specially manufactured for the London Underground. The pattern of the tiles was exactly matched to the surrounding flooring pattern, ensuring an uninterrupted and aesthetically pleasing surface.