

Medisch Spectrum Twente

Netherlands

Case Study



An unique facade access system for leading clinical hospital

As a vital part of the development of this important city centre hospital facility, the facade access solutions developed by Manntech are critical in achieving the goals of improved patient care and recovery through the qualities of hospital building itself.

Medisch Spectrum Twente (MST) is a leading clinical hospital which arose out of a merger between two existing hospitals in the Dutch city of Enschede. It was necessary to address the issue of outdated buildings spread across two locations, neither of which was capable of supporting modern technology or the most beneficial approaches to a patient-centred medical environment. This bold project therefore demanded the construction of a new hospital building designed to integrate with the city centre and to provide an environment which could deliver a patient experience based on the latest research into Evidence Based Design and the effectiveness of the Healing Environment.

The Healing Environment concept focuses on every aspect of the hospital building itself and how the design can positively contribute to a less stressful patient experience for improved health outcomes. The factors the architects IAA Architecten considered include the provision of natural daylight, the views available, the use of color, noise reduction, and how the built environment meshes with the logistical needs of the hospital. In order to deliver ongoing benefits from this carefully considered design for many years to come, Manntech's expertise as a world leading facade access solution provider was required to develop highly-engineered, tailor-made systems which would provide effective maintenance access for a wide variety of surfaces, including the building exterior and a number of interior atriums.

The exterior facades are safely and reliably accessed with a Building Maintenance Unit (BMU) and two further BMUs which provide complete coverage of the building envelope for one of the Netherlands' largest non-academic hospitals. The more unusual and challenging part of the project involved developing special bespoke facade access solutions for the hospital's interior surfaces and atrium structures. These systems needed to provide for practical cleaning and maintenance access whilst avoiding any negative impact, either aesthetically or physically, on the carefully considered Healing Environment vision.

In response, Manntech's expert design and engineering teams utilised a range of approaches and strategies to deliver unique facade access solutions tailored to the particular requirements of the hospital environment. Manntech designed and manufactured three Building Maintenance Units which can be conveniently transported and used interchangeably across the various atrium structures as required. Firstly, an aerial work platform provides access to the highest window surfaces in the atriums. A second work platform is a bespoke design capable of safely and practically reaching recessed window features with a unique swiveling platform functionality. Finally, a telescopic platform was specially developed to provide comprehensive access to all remaining hard to reach areas of the interior facades.

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