

PRESS INFORMATION

015 – July 2, 2019

Reference project: Metro Line 2 Panama

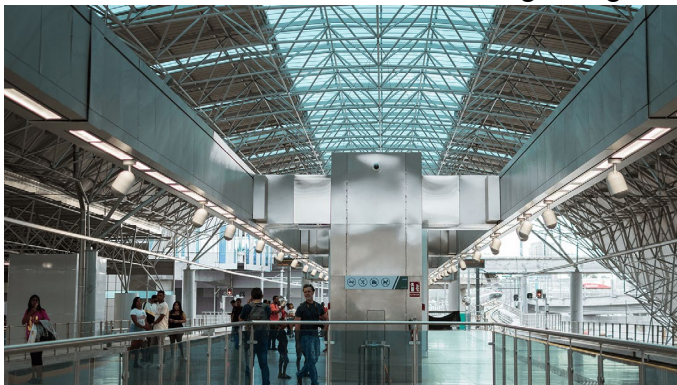
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LMT successfully completes major project *Metro Line 2* in Panama

Specially developed multimedia and lighting tube system defines new possibilities for LED platform lighting.

In only 18 months, the German LMT Leuchten + Metall Technik GmbH developed, produced and installed a new multimedia lighting solution in three variants based on the LED platform luminaire VARYO II. Now the 16 stations of Metro Line 2 in Panama City shine in the light of the project specialist from Hilpoltstein, Bavaria.

Hilpoltstein/Panama City, July 2, 2019 – In 2015, the ground-breaking ceremony for the new Metro Line 2 marked the beginning of the expansion of the Metro network, in



order to relieve the increasing volume of traffic in Panama City especially at peak times by east-west-directional public transport. For the connection of the city centre with the airport in the east and to link up with the existing Metro Line 1, 16 above-ground stations were built over a total of 21 kilometres. They

were equipped with newly developed LED multimedia lighting tubes and supporting systems of the Bavarian LMT Leuchten + Metall Technik GmbH.

Multimedia lighting tube system serves as main artery for the Metro stations

The newly developed system bases on a large-volume media channel with stainless steel housing, containing up to 14 cable ducts, which is supported by columns with cantilevers made of heavy steelwork. The inserted luminaires are advanced types of LMT's LED platform luminaire VARYO II and were especially adjusted to platform geometries. Due to the special architecture of the Line 2 Metro stations, the solution was not only designed to serve as a lighting tube, but also in particular as a media channel for features like loudspeaker and camera systems, fire detection and extinguishing equipment, emergency systems, destination displays and information boards, as well as antennas for WLAN and radio. The height of the media channel was primarily defined by the dimensions of the integrated large-scale screens.

„We started with a mere lighting tube, and ended up with a multimedia channel system, which represents the „main artery“ for all platform functions including the entire

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operating systems for controlling and monitoring the passenger traffic as well as power supply, data cables and even fire extinguishing equipment“, says project engineer Björn Höhler.

LMT assigned with development for complete subproject

At the beginning, LMT Leuchten + Metall Technik GmbH actually had “only” been charged with the supply of the lighting tubes. Yet the contracting consortium realized, that the solution presented by the engineering company was not feasible due to the special station architecture. So, they had to find an alternative solution in shortest time.

For the reason of LMT’s experience in world-wide station lighting projects and their agile company structure which facilitates them to respond flexibly and fast to new individual requirements, LMT was commissioned with the complete construction development of the subproject in the further course of the project. The challenge was to complete everything in only 18 months: the development, the production including a prototype for customer release, the overseas export as well as the installation.

The reason for this early date was the upcoming visit of pope Francis to Panama City, so the first stations had to be ready in January instead of April.

This timeframe was kept, not least because of the successful cooperation with a local installation company, which also assumed the co-ordination on site.



Metro Panama Line 2 – a project of superlatives

With a height of 905 mm and a width of 350 to 700 mm, the trapezoidal profile of the multimedia lighting tube has impressive dimensions. But the technical innovation lies in the unsupported span of 9 metres between two main columns. Additionally, the construction had to be dimensioned for earthquakes, according to the seismic classification of Panama, as well as for wind loads in hurricane force. Never before has such a construction been realized in the field of platform lighting.

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The other data also confirm the scope of the project: A total of 3,720 metres of media channel with 1,487 VARYO II LED luminaires with different light distribution



characteristics were installed in 16 stations. All luminaires have been UL-certified as well inspected and approved according to fire safety regulations.

More than 400 support systems with inserts such as fire extinguishing equipment, emergency stop systems,

intercoms and cable ducts provide the static load bearing capacity. The column housings are made of 22,000 square metres of grinded stainless steel sheet.

LMT Leuchten + Metall Technik GmbH once again demonstrated with this project their ability to realize big and complex projects in compliance with internal and external standards on schedule.

About LMT Leuchten + Metall Technik GmbH

LMT Leuchten + Metall Technik GmbH specializes in the development and manufacturing of tailor-made solutions for lighting and metal projects. The portfolio comprises lighting tubes and luminaires for train stations, products for industrial lighting, various lighting solutions for architecture as well as housing and metal parts for medical technology, machine construction, interior works and art objects. Since 2016 LMT offers with its LED luminaire families YECTO, LYCA, LYSO, AGIO and SCOPE ideally suited products for energy efficient illumination of offices, schools, retail shops and residential buildings.

Since its foundation in the year 1984, the company worked together with many renowned clients, architects and lighting planners and implemented more than 2,000 national and international projects, including numerous train stations in Europe and America, as well as lighting projects such as the Museum Island in Berlin, the main church St. Katharinen in Hamburg, the Airport in Frankfurt as well as the Kulturpalast in Dresden.

Further Information on www.lmtgmbh.de.

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