

# SANLLEHY SQUARE, BARCELONA, SPAIN

## CASE STUDY

## New subway line constructed in Barcelona, with the help of Alimak Vectio 350

For more than 26 years, Barcelona has been undertaking one of Europe's most ambitious infrastructure projects: the construction of the new L-9 subway line. Once completed, it will become the longest automated subway line in Europe. Delivering such a complex underground project requires a reliable, safer, and flexible vertical access solution to support daily construction activities deep below ground.

The L-9 line has been designed with stations constructed in large cylindrical shafts measuring 18 metres in diameter and extending more than 40 metres in length. At the Sanllehy shaft, excavation will ultimately reach a depth of 78 metres below ground. These dimensions and depths created a clear requirement for a robust vertical access solution to enable the reliable transport of personnel, tools and materials throughout the construction phase.

### IMPROVED PRODUCTIVITY

An Alimak™ Vectio™ 350 transport platform was installed in the Sanllehy shaft to provide reliable vertical access tailored to the demands of underground construction. Designed for flexibility, the Vectio 350 enables efficient daily access for personnel while also supporting the transportation of construction materials and tools.

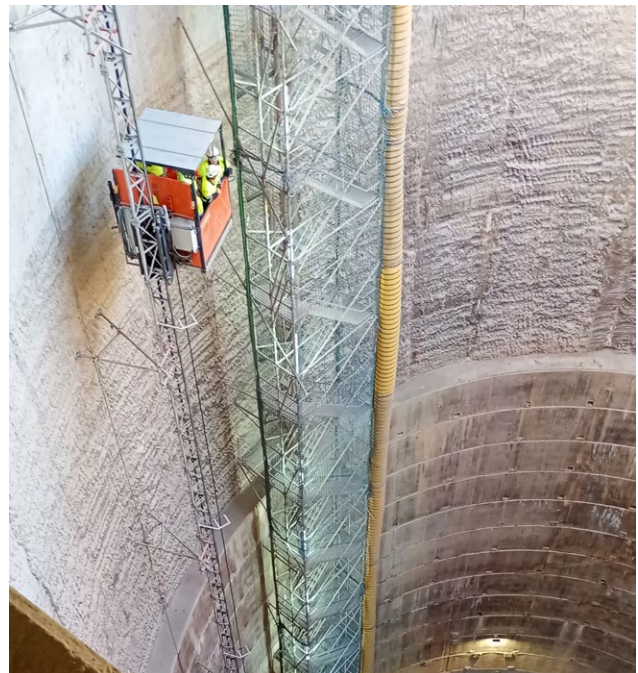
The Vectio 350 range offers payloads of 500-2,000 kg. For this project a Vectio 350 10-15 model was installed, providing a 1,000 kg payload, helping improve productivity by reducing manual handling and optimising material flow. Its smart operational design allows seamless switching between transport platform mode for personnel access and material hoist mode for material handling, ensuring continuous support for multiple site activities without interruption.

To accommodate the shaft's curved geometry, an adaptable tie system was implemented, ensuring a secure installation as excavation progressed and the installation height increased.

### DESIGNED FOR TOUGH CONDITIONS

Alimak was selected for its proven expertise in designing robust vertical access solutions for harsh and demanding environments. The Vectio 350 is well suited to the high-humidity conditions typical of underground construction, delivering the reliability required for continuous operation.

The local Alimak team also supports the project through My Alimak, enabling equipment usage monitoring and performance optimisation to help minimise downtime and support efficient site operations.



Alimak Vectio 350 installed during Barcelona subway project

### PLATFORM DETAILS

|                               |                                                            |
|-------------------------------|------------------------------------------------------------|
| Location:                     | Barcelona, Spain                                           |
| Application:                  | Underground subway                                         |
| Platform type:                | 1 x Alimak Vectio 350 10-15                                |
| Platform capacity:            | 1,000 kg                                                   |
| Platform size:<br>(W x L x H) | 1.4 x 1.5 x 2.2 m                                          |
| Speed:                        | 24 m/min (Material Hoist)<br>12 m/min (Transport Platform) |
| Lifting height:               | 80 m                                                       |
| No. of landings:              | 2                                                          |

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