

# Hospital de Antofagasta

Antofagasta, Chile

# The new public hospital in northern Chile

## An engineering challenge in a land with high seismic activity.

Client: Sacyr Group

The hospital will become the largest in Chile, with 45 consultation boxes, 24 emergency boxes, 16 dental boxes, 18 pavilions and 671 beds.

This public hospital will benefit a population of 260.000 people and will increase the availability of beds in the region, with hospital infrastructure and medical equipment of high level and complexity.

### Scope

Chile is one of the most seismically active countries in the world. Due to this particular characteristic, the construction regulations are stringent.

The building has many different separated levels at various heights. It also has some inner facades. The roof decks do not have enough space for a typical BMU installation with rail-tracks fixed on the ground.

### Strategy

Two Building Maintenance Units are the fastest and easiest way to clean all the external facades. The continuous rail-track has been attached to the parapet due to the few space on the terraces.

To maintain internal courtyards, 20 sections of SafeAccess monorail system have been installed for the suspension of the RopeClimber lifting hoist with battery supply.



BMU type FBA 2 fixed on a rail-track attached to the inner parapet.

This machine does not require a big storage area, an electrical power supply, it's easy to transport between the courtyards and able to access small sections on the façades.

Engineering calculations for both systems have been thoroughly evaluated and approved by SIRVE Institute - Seismic Protection Technologies.



SafeAccess Monorail with RopeClimber which can be removed after use.



BMU Type FBA 2. The lightest solution with two jibs that allows working positions with different reaches and a parking position for the cradle.



Cradle with control box to operate the translation of the machine and the lifting of the cradle.



RopeClimber Bosun chair that allows the access from ground to the inner facade of the courtyards. Translation movement through a trolley manually operated.



SafeAccess monorail fixed to the inner parapet. The brackets have been designed according to SIRVE's antisismic parameters.