

## CASE STUDY

# MICROPILES & FOUNDATIONS



Montezemolo Barracks,  
Palmanova, Udine - Italy

## OVERVIEW >>>>

Brenelli Costruzioni was awarded the contract to carry out **seismic upgrading and redevelopment works** at the former Montezemolo Barracks complex. The seismic upgrading is a key step in the transformation of the building as part of the Art Recovery

Project, creating a centre dedicated to the conservation, protection and restoration of works of art damaged by natural disasters, including seismic events.

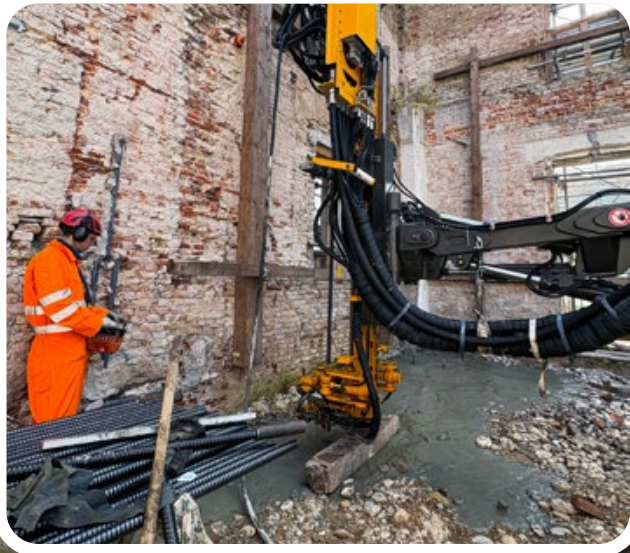
Minova supplied **CE-marked steel self-drilling bars for micropile applications**, including R38 & R51 diameter bars and all accessories (couplers, bars, nuts, plates, and drilling tips). The project required the installation of micropiles to support the seismic retrofitting of existing structures for secure storage facilities and restoration laboratories. Key challenges included working within a historically sensitive fortified site, ensuring precise load transfer into competent strata, and maintaining strict quality and alignment standards during installation.



# SOLUTION >>>>

Minova supplied Brenelli Costruzioni with **CE-marked self-drilling bars, including R38 (3,500m) and R51 (1,000m)**, along with complete accessories. These materials allowed installation using Klemm KR-801-3GK rotary-percussive drilling rigs.

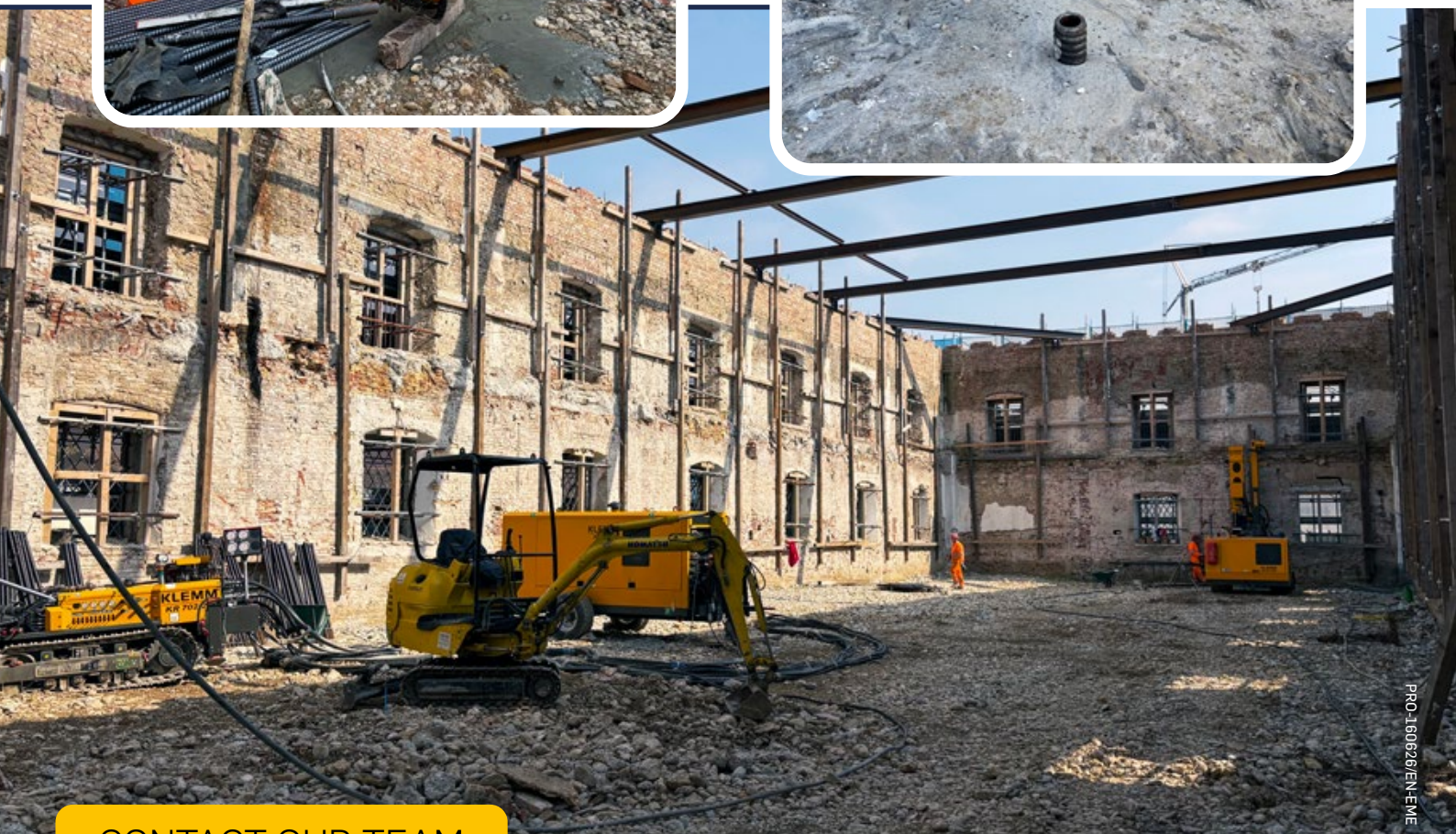
The result was **micropiles measuring 11 and 20m** in length, which were grouted in place for optimal bonding. Technical measures included



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monitoring drilling parameters, grout pressures, and pile alignment, ensuring full compliance with design and structural specifications. All micropiling works were completed on time and to specification. **Piles were inspected, approved, and fully compliant with seismic and structural requirements.**

The collaboration between Minova Global and Brenelli Costruzioni ensured a technically robust solution for the redevelopment and seismic upgrading of the former Montezemolo Barracks in Palmanova.



CONTACT OUR TEAM

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