

Public building



Co-authors of the Louvre-Lens museum © SANAA (Kazuyo Sejima and Ryue Nishizawa) - Imrey-Culbert (Celia Imrey and Tim Culbert) - Mosbach Paysagistes (Catherine Mosbach).
Museographer: Studio Adrien Gardère. Photo: © Iwan Baan

Louvre-Lens - France



Presentation of the project:

An annex of the Louvre museum in Paris, the Louvre-Lens museum is an autonomous institution linked to the original Louvre by a scientific and cultural convention. Built on the site of a disused coalmine, the new museum houses semi-permanent exhibitions that are sourced from the Louvre's collections of works and changed on a regular basis. It also hosts temporary exhibitions. Stretching across 20 hectares of landscaped grounds, the Louvre-Lens museum has a total surface area of 28,000 m² that includes 7,000 m² of exhibition galleries and storerooms open to the public.

Parties involved:

- Contractor: Region Nord-Pas-de-Calais
- Project Manager: SANAA Architectes
BETOM Engineering
- Installer: Eiffage ENERGIE THERMIE Nord
DELANNOY DEWAILLY

Objectives:

- Maintain temperatures and humidity at very precise levels
- Adapt the air handling units to the limited space available in the mechanical rooms

The CIAT solution:

The mixing boxes were specifically adapted to take into account the fresh air flow rates and the recovery in order to facilitate the installation of the air handling units and ensure more precise management of mixing. CIAT also fitted the high-pressure humidification racks in the factory and provided technical support on the disassembly and reassembly of several AHUs on site. The large indoor spaces of the museum's galleries made it particularly difficult to meet the specifications. Six air handling units with air flow rates of 25,000 m³/h were installed in the largest gallery which measures 3,000 m² and has a ceiling height of 6 m, representing a volume of almost 20,000 m³. AHUs with air flow rates of 25,000 m³/h were also installed in the temporary exhibition rooms and two 20,000 m³/h AHUs were installed in the glass pavilion. Each mechanical room was also equipped with its own air handling unit in order to meet the same temperature and humidity requirements.

Technical data and equipment:

- 60 Air handling units of which 31 dual flow
- 40 Major Line
- 3 UTA Compact
- 37 Melody cassettes
- 78 Coadis 2 cassettes
- 17 Heliothermes

