

Emsol powers a sustainable future for School Pizzigoni

How comprehensive MEP and renewable energy design transformed a Milanese educational facility into a modern, future-ready environment.

INDUSTRY
Education

LOCATION
Milan, Italy

About School Pizzigoni

School Pizzigoni project focuses on the design and implementation of advanced mechanical, electrical, and special systems. Spanning a 3,000 Sqm area, the core objective was to deliver robust building services that support a modern, highly sustainable educational environment.

Challenges

Modernizing a large-scale educational facility requires balancing advanced technological infrastructure with stringent safety codes and ambitious energy-reduction targets. The project required seamless integration of renewable energy sources while strictly complying with local Italian public works standards like CUP and CIG.

Advanced Electrical Systems

Designed a comprehensive distribution network featuring a new MT/BT transformer cabin, main switchboards, and civil/industrial sockets. The infrastructure includes RJ45 Cat.6 structured cabling integrated into bifacial floor towers and a dedicated, compliant power supply for the kitchen catering service.

Intelligent Lighting Design

Implemented energy-efficient LED fixtures controlled by intelligent DALI & KNX systems. The design integrates advanced sensors for presence and daylight regulation to maximize savings, alongside a fully compliant emergency lighting network.

Robust Infrastructure

Engineered a secure underground network utilizing PEAD cable ducts and specialized technical manholes for energy and data distribution. Absolute safety was ensured through a dedicated grounding system utilizing copper earth rods.

Compliance & Standards

- CEI 64-8:2012:** Full compliance for electrical installations in buildings, covering wiring, lighting, and overarching safety.
- EN STANDARDS:** Strict adherence for the installation of sockets, structured cabling, and emergency backup systems.
- RAL 7035:** Specific color coding implemented for all electrical tower fittings

RESULTS



56 kWp RENEWABLE CAPACITY

Designed an optimized 56 kWp photovoltaic system featuring 140 monocrystalline modules and a 64 kVA inverter. This integration significantly reduces the educational facility's carbon footprint and long-term operational energy costs..



FULLY COORDINATED

Delivered flawless MEP coordination across the entire facility. By proactively mapping underground cable ducts, technical manholes, and multi-floor distribution networks, Emsol eliminated spatial clashes and ensured seamless contractor execution.



33° OPTIMIZED SOLAR YIELD

Rooftop photovoltaic installations were precision-angled at 33 degrees to capture maximum solar gain. This calculated inclination optimizes the inverter's energy conversion efficiency and drives a superior return on investment..



100% REGULATORY COMPLIANCE

Adhered strictly to CEI 64-8:2012 for comprehensive electrical safety , alongside European EN standards for structural cabling, sockets, and the 10kVA UPS emergency backup systems.

Learn how Emsol can transform your projects today



DISCUSS YOUR NEXT PROJECT →

VIEW FULL PROJECT →