

APPLICATION: DATACENTER**CUSTOMER:** INFOMIL**POWER PLANT:** 1 X 1800 kVA**LOCATION:** TOULOUSE (France)

AN ULTRA-QUIET KOHLER-SDMO POWER PLANT ADJOINING AN OFFICE BUILDING

Extension of a datacenter in Toulouse

The user experience in the large retail sector is increasingly connected. The development of scan-as-you-shop applications, loyalty programs, in-store digital signage and drives are leading the big players to invest in digital and develop new services.

Infomil, a subsidiary of the E. Leclerc group, analyses trends and tests the digital services of tomorrow.

To meet its new requirements, the Toulouse-based company needed to create a computer room and install a generating set to secure the installation.

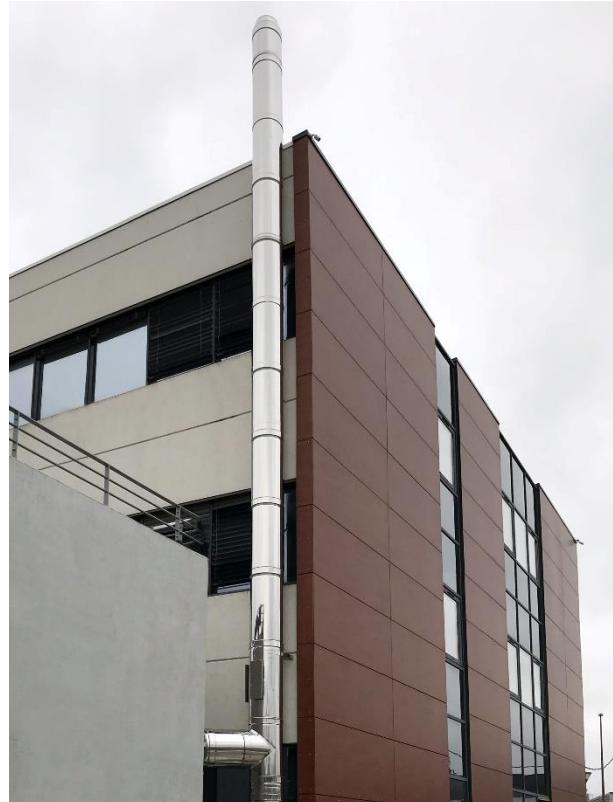
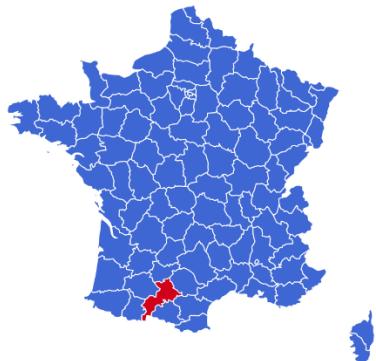
Installing a generator close to offices

A 1800 kVA generating set was chosen as the standby power plant for the new computer room.

Cooling is provided by a horizontal drycooler installed on a concrete slab on the ground outside the building.

To keep exhaust gases and fumes away from the building's windows, the KOHLER-SDMO teams proposed a 15-meter-high modular chimney affixed to the office building by a self-supporting frame.

Fuel is supplied from a 25,000 L underground tank located near the power plant facility and connected to the generator's base frame tank.



A serious technical challenge: minimizing the sound level and vibrations

A new building was erected to house the generator installation. The facility is semi-embedded in the ground.

A very low sound level was required due to its proximity to other buildings. It is limited to 45 dB(A) at 10 m thanks to two exhaust silencers mounted in series on the generator, and primarily by the design of the power plant building itself.

The air expelled outside by two fans passes through a baffle incorporating two successive sound traps (see figure 1). This further reduces the sound level.

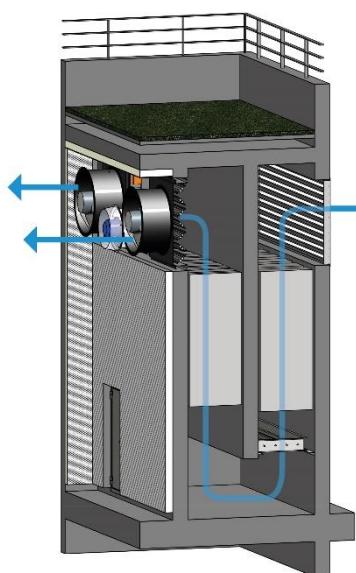


Figure 1: building ventilation

To further improve the soundproofing, anti-vibration mounts were installed on the generator's base frame and additional insulation positioned between the base frame and the ground. The walls of the facility are fitted with wool insulation to minimize operating noise from the generating set.

The customer was invited to attend the tests on the generator, which were performed on a test rig in the KOHLER-SDMO plant in Brest.

The project scope also included installation, commissioning and training the customer teams in how to operate the power plant.

The generator power plant facility is now fully integrated at the Infomil site, and a rooftop terrace has been built to provide staff with a place to relax.

To meet future requirements, in the next few months KOHLER-SDMO will install a second 550 kVA generator for Infomil at another site in Toulouse.



The power plant is equipped with a generating set from the KD SERIES range, which was named the Gold Award winner in the 2018 Product of the Year awards.

