



La Tèrmica Roca Umbert
de Granollers
MNACTEC

**ENERGY WILL
BE THE KEY TO
THE FUTURE.
AS INDEED IT
ALREADY WAS
IN THE PAST.**

Guide



The history of the thermal power plant is one of creativity and achievement. Built in 1951, it was an ingenious response to the energy demands of the textile factory, where work was often constrained by power cuts during the post-war period. For this reason the decision was taken to embark on an ambitious project that would guarantee energy self-sufficiency for Roca Umbert.

Initially using coal, and subsequently other fossil fuels, the thermal power plant ensured the availability of the steam and electricity essential to power Roca Umbert, thereby making possible the industrial and social transformation that took place at that time. The plant contributed to the growth and reputation of Roca Umbert, which became widely known.

A visit to the thermal power plant is a visit to one of the best-preserved complexes of its kind in Europe. And it is also a reminder of how, with initiative, we can address the energy challenges that await us in the future. And indeed those we face today.



1
DECALCIFICATION TANKS – GROUND FLOOR

The decalcification system removed the mineral salts from the water in the boiler, thus avoiding the build-up of deposits in the pipes and tanks used when working with hot water or steam.



2
BABCOCK & WILCOX BOILER – FIRST FLOOR

The second boiler was purchased in 1958, from a company in the Basque Country. It's a Babcock & Wilcox W.I.F. model. With a surface area of 250 m² it could operate up to 32 kg/cm², producing 10 Tn/h, approximately twice as much as the first one. It ran on coal, fuel oil and gas.



3
GARBE BOILER – FIRST FLOOR

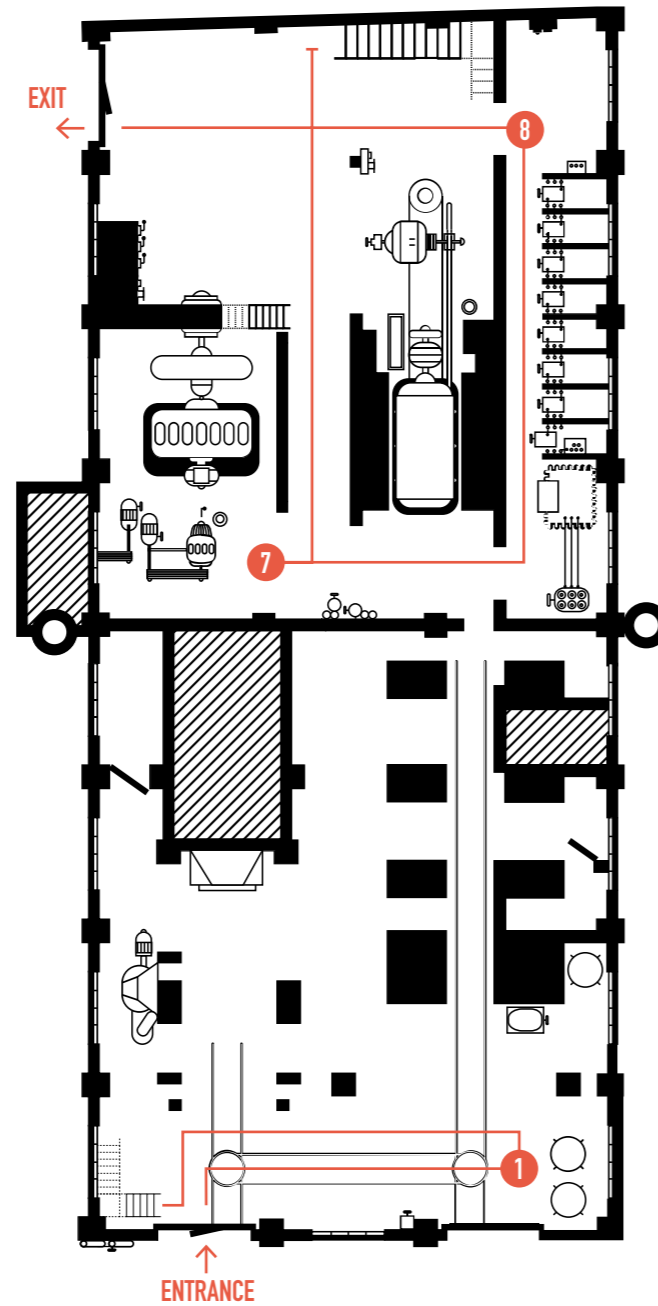
The whole of the building was constructed in 1951, and the first boiler - a Garbe - was installed. The boiler occupied 180 m², ran on coal and fuel oil, and had a heating surface area that allowed it to operate at up to 15 kg/cm², producing 5 Tn/h.



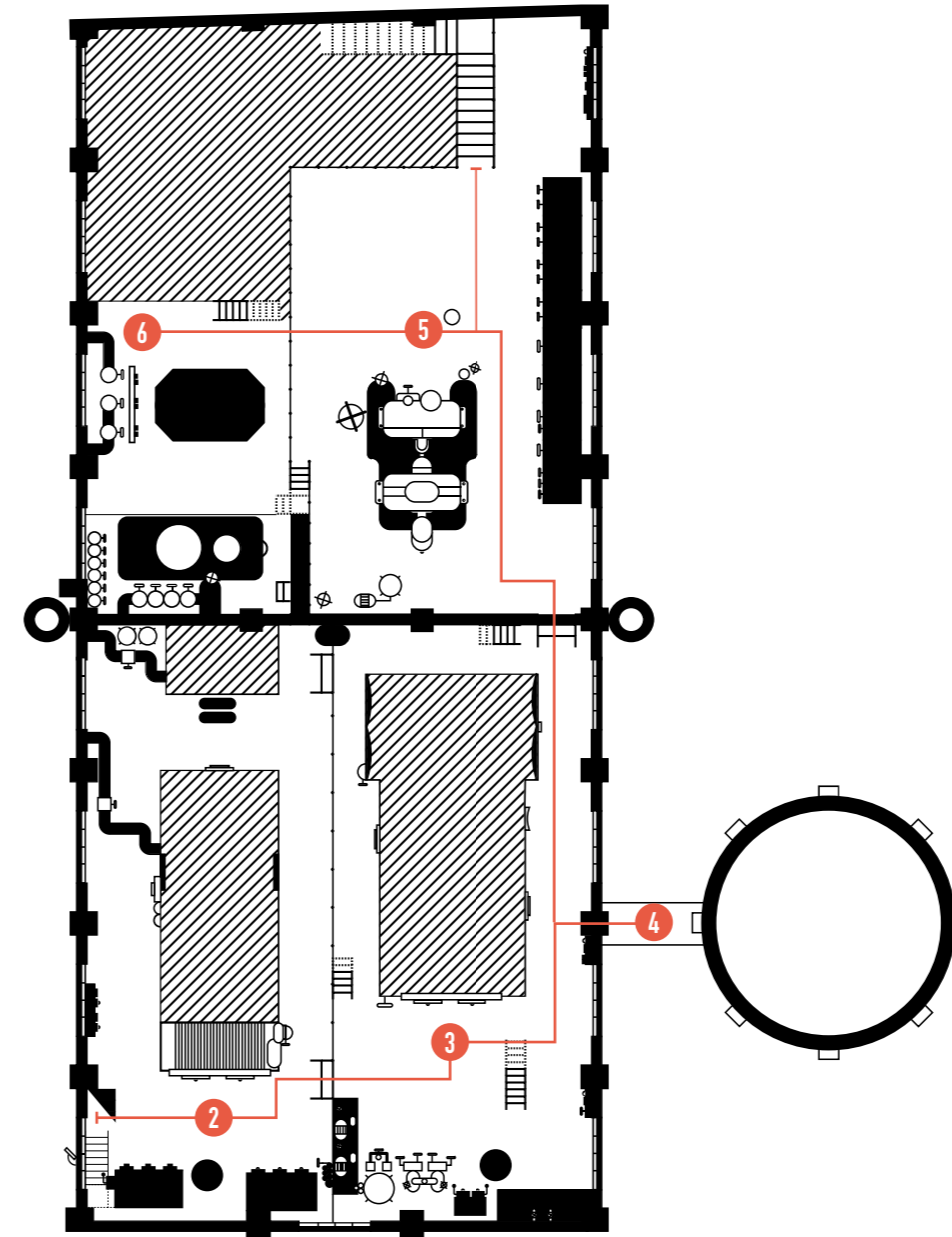
4
COOLER – FIRST FLOOR

The cooler is a device used in thermal power plants to recover and reuse residual thermal energy. This may come from steam that has already been used for various tasks, such as the dyeing and blocking processes, or from the generation of electricity.

GROUND FLOOR



FIRST FLOOR



5
AEG GENERATOR – FIRST FLOOR

The turbine next to the generator was driven by the steam generated in the Garbe boiler, and this in turn powered the AEG generator, which then produced the electricity.

6
SPILLING STEAM ENGINE – FIRST FLOOR

The Spilling 720 HP three-cylinder steam engine powered two alternators using a belt drive system to produce the electric current.

7
650 kV AND 600 V ALTERNATOR – GROUND FLOOR

Once rotational force had been generated by the Spilling engine and its cylinders, the alternator had to convert that mechanical rotational energy into electrical energy.

8
SWITCHING CELLS ON THE CONTROL PANEL – GROUND FLOOR

Each of the two boilers has its own electrical circuit and a single control panel distributed the electricity generated throughout the different areas within the factory.



We've organised three routes to complement your visit to the thermal power station, and all are suitable for everyone.



THE NIGHT-WATCHMAN'S ROUTE

A short journey through the history of the Roca Umbert factory and those who worked in it, seen through the eyes of the night-watchman, who for many years patrolled the factory at night.

You can check out the route via this QR code:



THE CHIMNEY ROUTE

A tour of the remaining factory chimneys in Granollers to learn more about the key figures and themes of the industrial revolution: the Torras Villà, Font de l'Escot, Can Comas and Roca Umbert factories plus the Gibert sawmill.

You can check out the route via this QR code:



THE MURALS ROUTE

A route that spotlights the various murals to be found on Roca Umbert's walls, both exterior and interior.

You can check out the route via this QR code:



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