

Building history

September 16, 1908

The AEG's founder Emil Rathenau (1838–1915) informs the royal minister of state and public activities, Paul von Breitenbach (1850–1930), about a new building project of the company: the construction of a new assembly building for turbines at the corner of the streets Huttenstraße and Berlichingenstraße.

December 17, 1908

Application for a construction permit

March 17, 1909

Construction permit is issued

March 30, 1909

Excavation work starts

October 22, 1909

Building shell is accepted

November 12, 1909

Final acceptance

Even more than 100 years after its completion, the assembly building still serves its original purpose: the manufacturing of turbines.

For over six decades, for the main part steam turbines for power plants and for industrial use have been built in the hall. In 1969, the location received the order to start building gas turbines following the merging of AEG's and Siemens' power plant engineering activities. Since then, the hall has housed the mechanical processing of gas turbine components such as casings, rotor discs, tie rods and hollow shafts.

In both extensions of the building, the rotor assembly area is located. There, gas turbine rotors are stacked, subjected to overspeed testing, balanced and tensioned.

Since the delivery of the first gas turbine for a power plant in 1972, the rotors for more than 1,000 gas turbines have been assembled in this building.



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The turbine assembly hall in Moabit

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Description of the building

The turbine assembly hall comprises one main hall and an annex that is slightly set back. Originally, the building was planned with a total length of 207 m. In 1909, 127 m were completed.

The main supporting structure of the entire building consists of 28 three-pin arches made of iron which are set apart 9.22 m from one another. The main hall's span length and height of the angular point amount to 25 m each. Its ridge roof consists of skylights serving illumination as well as ventilation purposes.

The most striking attributes of the front façade are the rounded corner pylons made of concrete (that are sub-divided by horizontal iron girders), the 14.40 m high glass front composed of windows framed in iron as well as the seven-angled gable showing the AEG company logo and the word "Turbinenfabrik" (Engl. turbine plant).

A prominent feature of the façade alongside street Berlichingenstraße are the also 14.40 m high, slanted windows between the vertical girders, whose abutment hinges are positioned above the concrete base. The two-storied annex has a skylight in the middle of its roof. The building is almost 13 m wide and has a ridge height of 17.50 m.

Its front façade and the first four meters of the courtyard side are built up of concrete. At the front side, this building material is open-worked by two large windows with an iron framing. At the courtyard façade, a supporting structure made of iron with wide horizontal braces follows the concrete part.

The height of the main hall and of the two-storied annex resulted from the height of the overhead cranes. In addition, the height of the annex' first floor was adjusted to the height of the then common freight wagons. A connecting bridge with a span width of 18.40 m leads from the annex' upper floor to the staircase of the opposite building. Originally, this bridge was not planned; its building license was requested due to safety reasons only during the construction of the hall.

In 1956, the turbine assembly hall was placed under a preservation order. From 1939 until 1941, the hall was extended to a length of 207 m following the designs of architects Jacob Schallenger (1882–1955) and Paul Schmidt (1889–1959). This annex was placed under a preservation order in 1995. A second extension to a length of 242 m took place in 1969.



Contemporary opinions about the assembly hall

"The turbine hall [...] is a prototype building. Only iron girders and modest tamped concrete are used here, but the house rises proudly, tall and airily: a cathedral for machines."

Artur Fürst, 1910

"Sculptural and ornamental embellishments were renounced completely, firstly because the character of a factory building demands simplicity of form in relation to the intended use, and then as well because with them the targeted physicality and the therein distributed proportions could only have been derogated, and not promoted."

Peter Behrens, 1910

"Here the previous style of the factory hall is completely abandoned [...]. One believes to see an iron church [...]."

Franz Mannheimer, 1910

"We sense the strong rhythm of an energy tamed by intelligence. Inside we may have a presentiment of the superiority of future creations; the exterior is perfected, definite like a doric temple."

Karl Ernst Osthaus, 1910

"This new building carries the character of the functional building with its steady, powerful lines and means a complete success [...]."

Oskar Lasche, 1911

"The task at hand determined that as much light as possible, which means glass surfaces, will be created, so that except from glass and iron at the side walls concrete appeared as building material only at the end walls. However, at this spot the concrete does not serve as bearing wall but only as filling [...]. Everybody looks upon the pediment that is formed of a thin layer of reinforced concrete covering the iron framework as a massive concrete structure: two corner pillars with a high pediment [...]. In contrast, the glass and iron front on street Berlichingenstraße is genuine and an inviolable work of the art of iron construction, an artistic success, which must be doubted concerning the gabled front."

Karl Bernhard, 1911

Peter Behrens (1868–1940), the architect

Peter Behrens studied painting at the academies of arts in Karlsruhe, Düsseldorf and Munich from 1886 until 1891. Subsequently, he evolved into one of Germany's leading Art Nouveau artists.

In 1899, he followed the call to join the Darmstadt Artists' Colony "Mathildenhöhe"; five years later he was appointed director of the arts school "Kunstgewerbeschule Düsseldorf".

From 1907 until 1914, Behrens worked as AEG's artistic adviser, and in this function he acted as the first modern industrial designer. He bestowed a simultaneously aesthetic and modern look upon his employer by submitting its products, buildings and print works to the principle of (industrial) objectivity always insisting upon a synthesis of technology and art.



After 1914, Behrens firstly had worked as a self-employed architect, before he was appointed to the Academy of Arts Düsseldorf. Furthermore, one year later he was in charge of the master school of architecture at the Academy of Fine Arts Vienna.

In the early nineteen-thirties, Behrens was significantly involved in designing Berlin's square Alexanderplatz. Starting in 1936, he became the head of the master school of architecture at the Prussian Academy of Arts in Berlin.

Karl Bernhard (1859–1937), the structural designer

Karl Bernhard studied construction engineering at the Royal College of Technology in Hannover. From 1888 until 1898, he was employed as a government-approved master builder at Berlin's administration of civil and underground engineering. Afterwards, he became self-employed with a design office for statics and construction engineering in Berlin.

Bernhard is well known because of his numerous bridge constructions as well as his statistical calculations for factory, office and commercial buildings.

Among the famous architects with whom Bernhard collaborated were, besides Peter Behrens, Hermann Muthesius (1861–1927) and Max Taut (1884–1967). Joint executed AEG projects of Bernhard and Behrens were the Turbine Assembly Building in Moabit and the High Voltage Plant in Wedding/Berlin.