

Gliwice Radio Tower as the world's tallest structure built of wood

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The radio tower located in Gliwice is a remarkable phenomenon. Built in 1935, it was one of many other wooden broadcasting towers in Poland; however, these days, it is by no means unique. Not only does it function as one of the most characteristic buildings in Upper Silesia, but it is also a masterpiece of wood engineering.

{mosloadposition pathway}

Solid structure

The tower stands on an area of 400 square metres and is 118 metres high, including the eight-metre-high spire on its top. The whole structure is made of impregnated larch wood, particularly resistant to external forces such as pests and severe weather conditions. The wooden framework is assembled using 16 thousand brass screws. In fact, there is not a single nail there since iron would absorb the transmitter's power and cause interference.

Taking into consideration the new and effective methods of wood preservation, it is expected that the radio tower will serve its purpose for at least the next twenty years.

Each year, a team certified to work at heights is accountable for tightening the screws as well as impregnating wood. According to Andrzej Jarczewski, the tower steward, they need about one month and one thousand litres of wood preservatives to paint all the beams.

What is interesting is that the construction work took only five months from building the foundations to finishing works. At that period this could be considered record speed. Today, you can observe the structure on its four platforms, which are respectively 40.4 m, 55.3 m, 80.0 m and 109.7 m above ground level. In order to reach the top level, the size of which is 2.13 square metres, you have to climb up a 365-step ladder.

□ Elżbieta Adamczyk - Fotolia.com

Today's significance

Following the decision of the City Council taken in 2004, the radio tower functions at the moment as the Museum on Radio History and Visual Arts. Carrying out dozens of antennas, it is also used for transmitting the signals of mobile phone services and for low power FM-broadcasting.

The Gliwice radio tower attracts crowds every year. It looks particularly attractive at dusk, when it is illuminated by powerful spotlights and, therefore, can be seen from miles away. It is worth mentioning that the use of LED technology, including a computer-controlled set of light-emitting diodes, not only creates a spectacular effect (the possibility of altering the colour and intensity of the light produced), but it is also energy-efficient, environment-friendly, and safe for the wooden construction of the tower.

Magdalena Kaczor

GLOSSARY:

built of – zbudowany z

broadcasting tower – wieża nadawcza
wood engineering – budownictwo drewniane
to stand on an area of – zajmować powierzchnię
larch wood – drewno modrzewiowe
resistant to external forces – odporny na działanie czynników zewnętrznych
pest – szkodnik
framework – szkielet, konstrukcja
to assemble – zmontować
brass screw – mosiężna śruba
nail – gwóźdź
wood preservation – konserwacja drewna
certified to work at heights – uprawniony do prac na wysokościach
accountable for – odpowiedzialny za
to tighten the screws – dokręcać śruby
to impregnate wood – impregnować drewno
steward – tu: klucznik
beam – belka
construction work – roboty budowlane
to build the foundations – postawić fundamenty
finishing works – prace wykończeniowe
above ground level – (wysokość) nad powierzchnią Ziemi
at dusk – o zmierzchu
illuminate – oświetlić
spotlight – reflektor
computer-controlled – sterowany komputerowo
to alter – zmieniać
energy-efficient – energooszczędny
environment-friendly – przyjazny środowisku