

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

Autor: Administrator  
08.12.2011.

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 &ndash; zbudowany z

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