

How the “Jochenstein Energy Experience” app works

Dive into the world of the Danube power plant Jochenstein and experience your tour of the power plant with 3D effects. At the heart of the tour is a mobile app that enables a visitor’s smartphone to be upgraded to a pair of 3D glasses. Electricity generation with all auxiliary plants takes place completely out of sight under water or behind walls.

With the free “Jochenstein Energy Experience” app and the handy virtual reality glasses, visitors can discover the hidden secrets of hydropower generation. Watch the local fish on the bottom of the Danube and discover how the power plants also act as rubbish collectors. As a highlight, we offer you a virtual journey inside a Kaplan turbine, which isn’t possible even for the most experienced of engineers.

How your smartphone becomes 3D glasses:

- Download the “Jochenstein Energy Experience” app at www.verbund.com/energieerlebnis-jochenstein
- Collect the VR glasses from the vending machine in the information centre or at the “Haus am Strom”
- Launch and search for QR trackers in the power plant



Or scan the QR code:

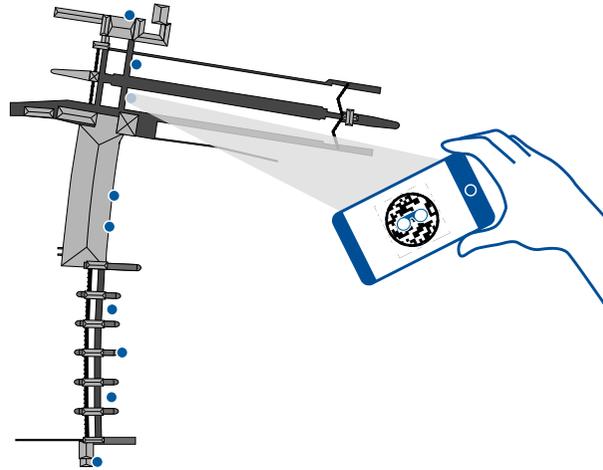
Use our free WiFi 

“Jochenstein Energy Experience”.



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You can find the points of the 3D stations here:



Jochenstein Energy Experience The secret of electricity generation



Contact

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WASSERKRAFT
Ja bitte!

 -gedruckt nach der Richtlinie „Druckerzeugnisse“
des Österreichischen Umweltzeichens,
Druckerei Placek GmbH, UWW-Nr. 707

LEGAL NOTICE Media owner and publisher: VERBUND Hydro Power GmbH, 1150 Vienna. Photos: VERBUND. Design: Fuchs m³. Last revised: December 2018. Printed by: Placek.

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The castle in the river

The Danube power plant Jochenstein once numbered amongst the biggest electricity generators of its time. The architectural jewel was a symbol of reconstruction and a step towards a better future when it was commissioned in 1956. The power plant still serves today as a bridge between Germany and Austria, between Bavaria and Upper Austria. On the basis of a governmental agreement concluded in 1952 between Germany, Austria and the Free State of Bavaria, the Jochenstein power plant was built between 1952 and 1956 by Donaukraftwerk Jochenstein AG as the first Danube power plant in Austria after the Second World War and the biggest run-of-river power plant in Central Europe. It remains Germany's biggest run-of-river power plant to this day.

TECHNICAL SPECIFICATIONS

Turbines

Number	5
Type	Kaplan turbines
Arrangement	vertical
Nominal output	28,900 kW
Nominal flow rate	410 m ³ /s each
Nominal speed	65.2 rpm
Impeller dia.	7.4 m

Generators

Number	5
Nominal output	35,000 kVA
Nominal voltage	9.0 kV

Weir system

6 weirs	clear width 24 m each
Double-hook	contactor closure height 11.8 m
Final level	290.0 m AMSL = 290.34 m above the Adriatic.
Storage area length	around 27.4 km

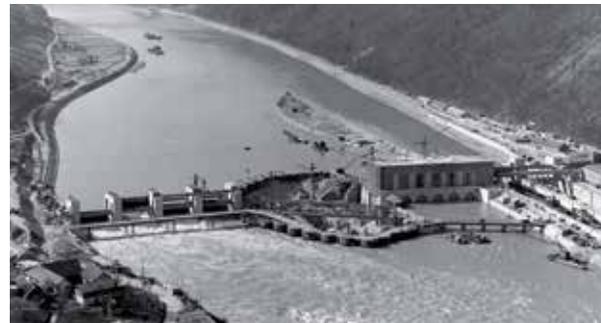
Locks

2 locks	usable length 230 m, width 24 m
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Endurance runner on the Danube

The plant dams the Danube to a height of 8.2 m. The weir system lies on the Austrian side of the river, the locks on the German side. Located between them is the generator house, in which 5 Kaplan turbines are installed vertically. Each Danube power plant consists of three parts: the generator house with the turbines, the weir systems and the ship locks. The weirs are used to discharge excess water. This ensures that the level in the storage area remains constant during operation.

The lock is for shipping traffic only and consists of 2 chamber locks, each with a width of 24 metres and a usable length of 230 metres. A lock cycle takes about 20 minutes.



Construction site of the hydro power plant Jochenstein in July 1955



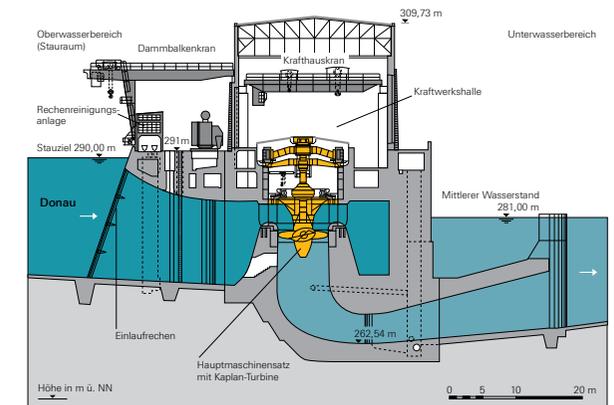
View inside the hydro power plant hall

Electricity and hydropower experience

In and around the 'Haus am Strom', visitors have already been able to experience and learn about electricity from hydropower in a playful way: To illustrate the power of water, VERBUND apprentices made a miniature impeller with sound generator and installed it in the gully on the experience path around the Haus am Strom: The power of the water generates an acoustic signal.

Inside the Haus am Strom, VERBUND presents the energy industry with its Energy Manager game. The player takes on the task of an energy manager, who has to provide his supply area with electricity in an environmentally friendly, affordable and reliable way. Available to him or her are various energy sources with which he or she can put together a power plant park and play at managing the supply and demand of electricity.

With the virtual tour at the power plant and the redesigned information centre in the weir control building, the Danube power plant Jochenstein now has yet another contemporary attraction – the Jochenstein Energy Experience.



Draft of a Kaplan turbine