

# Green Electricity with HOBAS® Hydropower Pipelines – Clean energy from the power stations Ebriachbach and NockEnergie Glanzer, AT

1270 water bodies, 8000 kilometers of rivers and numerous mineral springs make Carinthia not only the most water abundant region of Austria – it also ranks among the leading provinces for electricity from sustainable sources. Approximately 540 hydropower plants cover around 90 percent of the country's province's total electricity demand. Last year, two noteworthy small hydropower plants have been realized with HOBAS Pipes; they are now contributing to Carinthia's green power production.

## Power Plant Creek Ebriachbach

The hydropower of the Ebriachbach Creek in the health resort Bad Eisenkappel is used to produce energy in the identically named power plant. The water is lead from the spring to the power house through a 2660 m long penstock, which has been realized with HOBAS GRP Pipes. The advantages of the HOBAS Angular Cut System were a determining factor for this choice. Thanks to the angular cut pipe segments there was no need for costly fittings and the pipes could be laid very flexibly in accordance with the planned track. HOBAS Experts provided help and advice during the installation of the HOBAS Penstock DN 1200, PN 6, SN 10000. The power plant Ebriachbach was put into service in autumn 2012 and has a capacity of 600 kW.

## Power Plant Ebriachbach

Year of construction

**2011 - 2012**

Total length of pipe

**2660 m**

Pipe specifications

**DN 1200, PN 6, SN 10000**

Installation

**Open Trench**

Contractor

**M & R Bauholding GmbH**

Designer

**Geos Consulting ZT-**

**GmbH**

Advantages

**HOBAS Angular Cut**

**System, low weight,**

**technical support by**

**HOBAS Experts**



**Power Plant NockEnergie Glanzer**

Another impressive hydropower project implemented with HOBAS GRP Pipes is the power plant NockEnergie Glanzer in the village of Radenthein. Gerald Glanzer and his son David built a small hydropower plant right on their doorstep at the Kaningbach Creek. It consists of a Tyrolean weir, used to channel the Kaningbach Creek, as well as a sand trap and a screening system. The connected 1400 m long HOBAS Hydropower Pipeline (DN 900, SN 10000, PN 6-14) leads to the powerhouse with several curves that were realized by means of angular deflection in the couplings. At a head of 106 m, the average flow rate is 1.4 m³ per second. Each year, 4 Million kWh of energy will be produced and fed into the KELAG power grid – one of Austria's leading energy suppliers. Learn more about this project and the advantages of HOBAS in the following interview.



## Interview with David Glanzer, NockEnergie Glanzer GmbH

**You considered various pipe producers and materials for your small hydro power plant. Why did you choose HOBAS at last?**

**Glanzer:** We wanted to find a high quality product. HOBAS offered us a factory visit in Wietersdorf, we got to know the production and the different testing procedures and could thereby convince ourselves personally of the products' quality. The incredibly smooth inner liner impressed us right away – you won't find anything similar from other pipe producers. Our power station has now been in operation for a few months and we can already confirm the excellent hydraulics and the low friction loss: The energy output exceeds our expectations.

**Did the advantages of HOBAS Products also facilitate the design of the pipe route?**

**Glanzer:** They did. Our originally planned track would have involved 27 bends. Since HOBAS Couplings can accommodate deflections up to 3°, we were able to plan a new pipe track in agreement with the surrounding property owners, which contains no fittings at all. This reduced the costs of the pressure pipeline considerably.

**Please tell us a few words about the installation works.**

**Glanzer:** The installation of the pipeline went smoothly and the decision to opt for HOBAS proved to be the right one again. Since we did not have a big enough storage area for all segments of the 1400 m long pipeline, the delivery had to take place in several stages, which were difficult to predict due to the variable progress of the installation works. HOBAS showed great flexibility and delivered the necessary number of pipes very spontaneously right on demand.

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**Power Plant NockEnergie**

Year of construction

**2012**

Total length of pipe

**1400 m**

Pipe specifications

**DN 900, PN 6 - 14,  
SN 10000**

Installation

**Open Trench**

Client

**NockEnergie Glanzer  
GmbH**

Designer

**Zivilingenieurgesam-  
schaft Ebner-Jaklin**

Constructor

**Fürstauer Bau GmbH**

Advantages

**Optimal hydraulic  
properties, long service  
life, possibility of angular  
cut pipe ends and deflec-  
tion in the couplings**

