



Make things happen. HOBAS®

Anti-Aging HOBAS Pipes Produced in 1987

Pipeline Withstands Highly Abrasive Glacial Sediment, AT

The Wald hydropower plant enjoys a picturesque setting at the edge of the Hohe Tauern National Park and takes advantage of the considerable difference in elevation between the villages of Krimml and Wald. Built by Salzburg AG in the 1980s, it has been in operation since fall 1988 to meet the rising energy demand in the surrounding area.



Top priority when planning this project were environmental protection and nature conservation. As the national park is such a sensitive area, extreme care was also taken both during construction of the power station and installation of the pipeline to comply with the stringent legislation. The powerhouse is situated in Wald, while the water intake was built around 200 meters higher up in the village of Krimml not far from the famous waterfalls. A daily storage reservoir with a capacity of 65,000 cubic meters and a dam body were integrated in the existing terrain, landscaped and planted. The water intake is an inconspicuous structure and has a very well designed fish ladder that looks virtually like a natural creek. Strict regulations were observed during installation of the HOBAS Pipeline to prevent flora and fauna from being disturbed.

Like most parts of the hydropower pipeline, the penstock between the daily storage reservoir and headrace tunnel was buried. A DN 2200, PN 4-6 pressure pipeline measuring 840 meters in length constituted the first part of the penstock.

It is encased in concrete in the area of the storage dam and the Krimmler Ache river crossing.

After 18 years in operation, the sand flushing pipeline in the hydropower plant consisting of DN 2200, PN 1 HOBAS Pipes underwent inspection by the owner and HOBAS Experts in March 2006. The engineers were delighted to find that even after having been in service for nearly two decades, the pipeline showed hardly any signs of wear. Despite the highly abrasive medium – water with sand and glacial sediment – the inner pure resin layer that is also responsible for the unique hydraulic properties of HOBAS Pipes was neither pitted nor worn away and also in the invert area of the pipes the liner was completely intact.

Just how aggressive glacial sediment is on most materials can be seen from the fact that the power plant's turbine had to be replaced several times over the same period – the HOBAS Pipeline however shone like new against the light. Even the original installation numbering on the pipes was largely still visible and only slight signs of mechanical abrasion could be detected on the markings.



The management at Salzburg AG has every reason to be more than happy with this project and many following generations can rely on the quality of HOBAS Pipes.

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Overview	
Year of Construction	1987 - 1988
Total Length of Pipe	1,143 m
Diameter	DN 1200 - DN 2200
Pressure Class	PN 1 - PN 8.5
Stiffness Class	SN 2500 - SN 10000
Installation Method	Open cut installation, encased in concrete in the dam and stream area, freely installed in the tunnel
Application	HydropowerLine®
Client	Salzburg AG
Contractor	ARGE Polensky & Zöllner
Advantages	abrasion and corrosion resistance, long service life, quick and easy installation, low weight, excellent hydraulic properties