

Coatings for Water-Power Plants:

**Ceramic Polymer: PROGUARD CN 200 for spiral pipe systems of Francis turbines – water-power plant at river Louros/Greece**

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The company W.T.S.-Ludwig Ltd., located in Heidenheim/Germany, fabricates complex devices and tanks for filter technology and water treatment as well as large steel constructions. Recently, W.T.S.-Ludwig built 3 huge spiral pipe systems of Francis turbines for the water-power plant of the river Louros in Greece. For the durable protection against corrosion, abrasion and erosion our premium coating PROGUARD CN 200 was applied.



For long-term corrosion protection of water turbines the coating has to provide outstanding physical properties. In this case, the main focus is on a supremely high abrasion resistance, since river water contains high particle loads. Sand, which is carried by the stream may induce immense abrasion in the turbine.

Our product PROGUARD CN 200 offers beside excellent corrosion resistance a high-grade abrasion protection. Thus, our coating is perfectly suitable for this scope of application.

PROGUARD CN 200 is applied by airless spraying process directly on the prepared substrate – generally only **one layer** is enough for ideal corrosion and erosion protection. In this project a thickness of 500 µm was applied.

Moreover, the smooth surface texture of PROGUARD CN 200 facilitates an optimization of water flow conditions and therefore an increase of the hydraulic efficiency. Of course our coating system is also qualified for the repair of water-power components.

**Technical Details**

<b>Spiral pipes:</b>	Total diameter of 3.60 m, diameter inlet 1.40 m
<b>Height of waterfall:</b>	70 m
<b>Water pressure:</b>	7 bar
<b>Power of turbines:</b>	2.9 MW each turbine (3 turbines in use)
<b>Coating product:</b>	PROGUARD CN 200



## W.T.S. - Ludwig

Our partner for complex construction of steel buildings and apparatus:

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### Our Product:

- PROGUARD CN 200

Beside the excellent physical properties, our solvent-free coating system PROGUARD CN 200 features a very simple treatment. After blast cleaning, the product is applied directly onto the steel by common airless spraying method.

The ceramic filled PROGUARD CN 200 facilitates a uniform and immaculate coat. **One layer of 500 µm** already contributes essentially to a long-lasting service life of the spiral pipes.



The spiral pipes have a total diameter of 3.60 meters.



PROGUARD CN 200 provides perfect coating results and short curing times.

Are you searching for specific coatings for protection against corrosion and abrasion?

We gladly support you with a versatile portfolio and competent advice!