

Bridge Drainage in Osijek, HR

Green Light for HOBAS® Pipes on Croatian Highway Bridge

Since Croatia's declaration of independence in 1991, approximately 900 km of highways were built in the country, connecting Central Europe with the east and south of the Balkan States. The highways include a great number of tunnels, bridges, and viaducts. One particularly long bridge across the Drava has recently been successfully equipped with a HOBAS GRP Drainage System.

Over the past years, HOBAS Bridge Drainage Systems have been used at more than 300 newly built bridges in Croatia – they have proven to be the most solid, long-lasting solution and are highly resistant to weather conditions, mechanical loads, and chemicals. The "Most Drava" Bridge is located on a highway in the eastern part of Croatia which connects Budapest, Osijek, Sarajevo, and the international harbor of Ploče. The highway is part of the 700-km long pan-European route E73 and a future route to Montenegro, Albania and Greece. The Most Drava Bridge is 2,485 m long and, as the name suggests, crosses the river Drava.

The river itself is not as wide but the floodplains are, which is why the bridge became one of the longest in Europe. A part of the bridge crossing a floodplain is made of 35-m long pre-stressed concrete beams. The central part is divided into three steel sections which are suspended on two A-shaped 75-m high pylons. The bridge runs 29 m above the river water surface to guarantee a safe passage of ships.

Two parallel pipelines run along the whole length of the bridge, transporting rainwater from the central part of the bridge to its ends. Pipes DN 300 were used for the central steel section and pipes DN 400 and 500 for the concrete beams above the floodplains. T-pieces with vertical pipes DN 150 connect the main pipeline to the gullies. Since the distance between the gullies is 14 m, custom-tailored 2-m long T-pieces were used. The pipes were suspended beneath the beams using galvanized steel straps and threaded rods which were placed at a distance of 2 m. At the expansion joints, customized compensators were placed to handle bridge movements caused by changes in temperature.

HOBAS Bridge Drainage Experts supported the final design stage with their advice on how to overcome technical problems and reduce construction costs. All pipes and fittings were delivered on time and professional advice was also offered during construction.

Over the years, HOBAS has gained the clients' trust and become a popular supplier for bridge projects in Croatia. Mr. Višekruna, site manager of the construction company Viadukt: "We have built a lot of bridges and viaducts using HOBAS Pipes for drainage and the cooperation has proven successful. The representatives have a lot of experience which is very helpful during the preparation as well as the construction period."

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Year of installation	2012-2014	Installation method	Above ground, on suspensions
Installation time	2 years	Client	Hrvatske autoceste (Croatian Highways)
Product range	4900 m pipes, 900 fittings	Designer	Institut IGH
Pressure class	PN 1	Contractor	Viadukt, Hidroelektra Niskogradnja, Skladgradnja, Osijek
Diameter	DN 150-500		Koteks, Konstruktor Inženjering
Stiffness class	SN 2500, 10000	Advantages	High longitudinal stiffness, UV and corrosion resistance (salt on roads!), long lifetime
Application	Bridge drainage		

