

Case study

A92 motorway Munich – Deggendorf, Landshut



SediPipe® XL plus surface water treatment

Products

- 3 SediPipe XL plus

A92 motorway Munich – Deggendorf, Landshut



The A92 motorway has significantly gained in importance within the last few years as a feeder route to the airport and for the traffic from and to the settlement and production centres of Freising, Moosburg, Landshut, Dingolfing, Landau an der Isar, Deggendorf and the Bavarian Forest. Since the opening of the borders in the east of Europe, it has become an important traffic route to the Czech Republic. In addition to that, the building of the airport and the continuous growth of the Munich surroundings have led to an above-average increase in traffic over the past few years on the motorway in the north of Munich. And it is further rising. Forecasts for 2020 expect an average daily traffic volume of approx. 90,000 vehicles (source: Autobahndirektion Südbayern). The drainage system could no longer cope even with the current traffic volume. Therefore, it has been modernised between the junctions Moosburg-Nord and Landshut-West.

Preventive protection of waterbodies

With a rising traffic volume, the accident risk increases as well. Spills with leaking oil, petrol or diesel, bursting hydraulic hoses or oil-bearing fire water during vehicle fires can never quite be excluded. Light liquids leaking in case of such spills are hazardous to water and must never enter any downstream waterbodies or the groundwater. In dry weather, conventional stormwater sedimentation tanks provide the required retention. During rainfall, however, they easily reach the limits of their capability. SediPipe XL plus by FRÄNKISCHE provides exactly this retention and reliably separates light liquids even in case of heavy rain. The system provides reliable storage of separated particles even in case of subsequent heavy rainfalls.

Additional requirements and limitations

A special challenge of the construction project was the routing. The motorway section is located within a water protection zone. Therefore, special construction measures were required in all phases of the drainage project. Due to the new design of the motorway drainage system with the SediPipe XL plus system by FRÄNKISCHE, the pollution load for the environment is significantly reduced in this area and the treatment of the accruing road water is improved. But that's not all:

This section now fulfils the high requirements that were tightened again with the new edition of the directive for construction measures for roads in groundwater protection areas (RiStWAG 2001) in 2013.

Stormwater treatment as easy and efficient as never before

All SediPipe systems by FRÄNKISCHE are equipped with light liquid retention that reliably retains in the system, e.g., leaking petrol in dry weather. Spills, however, do not adhere to schedules, they can,

of course, also occur during heavy rainfalls, or a high volume of oil-bearing fire water may enter the sewer system, for example, in case of a vehicle fire. SediPipe XL plus was equipped with an additional flow separator for these cases and therefore revolutionises surface water treatment, since these systems sediment not only dirt particles. In case of great flow rates, they also reliably retain light liquids such as oil; the discharge values correspond to those of a class 1 oil separator according to DIN EN 858-1 (oil retention of at least 99.9 %).

Facts & figures

- tested by TÜV-Rheinland LGA Products GmbH
- high stormwater treatment performance – replaces conventional stormwater sedimentation tanks
- large storage volume for sediments and light liquids (oil retention volume up to 5 m³ per system)
- minimised maintenance requirements thanks to jetting resistance

Organisation & execution

Customer/builder:

Free State of Bavaria
Autobahndirektion Südbayern

Construction project:

A92 motorway Munich – Deggendorf
Modernisation of the drainage system near Landshut
flow passage BW 52/11

Building company:

Max Bögl GmbH & Co. KG
Max Bögl Str. 1
92369 Neumarkt