

## Project implementation report

### Infiltration system for aircraft movement areas North-west runway Fraport, Frankfurt am Main



#### Construction project:

Frankfurt, Fraport / storage tanks /  
storage/infiltration system / drainage  
structure of North-west runway

#### Planning:

Dr. Born – Dr. Ermel GmbH Ingenieure  
Gebäude Lyoner Stern  
Hahnstr. 70  
60528 Frankfurt am Main / Germany

#### Construction execution:

Max Bögl Bauunternehmung  
GmbH & Co. KG  
Lyoner Straße 14  
60528 Frankfurt am Main / Germany



**MAX BÖGL**

Fortschritt baut man aus Ideen.



**DRAINAGE SYSTEMS**

**ELECTRICAL SYSTEMS**

**BUILDING TECHNOLOGY**

**INDUSTRIAL PRODUCTS**

# Infiltration system for 317,000 m<sup>2</sup> of connected area



## System description:

In order to accommodate the growing international air traffic in the long term, a new runway with a length of 2,800 m is being constructed at Frankfurt/Main Airport. Infiltration of the entire stormwater of the "North-west runway" shall take place on the property! Slot channels connected laterally and a network of channels with an overall length of approx. 60 km transport the accumulating stormwater to the structures of the infiltration system.

These include:

- three pump stations
- two underground storage tanks (total volume: 25,000 m<sup>3</sup>)
- eight filter tanks (emptying through Strabusil drainage pipes), and
- two structures (Rigofill inspect) for infiltration (capacity of more than 600 m<sup>3</sup>)

This allows up to 4,300 cubic metres of purified stormwater per day to be returned to the natural water cycle. Rigofill and Strabusil therefore make a valuable contribution to handling natural resources in an environmentally compatible manner.

The entire area connected to the infiltration system amounts to 317,000 m<sup>2</sup> (equivalent to approx. 65 football fields).

## Specific features:

- Just-in-time delivery within 4 days
- Installation depth of approx. 4.00 m
- Complex installation conditions at the "Fraport" major construction site
- Special lengths Strabusil 8.0 m – 8.50 m pipes to facilitate installation

## Scope of delivery:

Due to the modular design, quick and smooth completion of the project was possible in just a short time period. Two underground structures with a size of 32.80 m x 13.60 m were created. A total of 1,374 Rigofill inspect blocks and 16 QuadroControl shafts were used.

The filter tanks were implemented using more than 7,000 m of Strabusil pipe in special lengths.