





WATERTIGHT CABLE ENTRIES IN CLOSED SYSTEMS

# TRANSFORMER STATION HAMBURG-NORTH

### Wall inserts HSI 90/150 and cable entry systems KES-M 90/150

## INSTALLATION AND CONNECTION



Wall inserts HSI 90 and HSI 150 and earthing entries are installed in theformwork.



Flexible cable duct systems KES-M 150 using Hateflex 14150 and KES-M 90 using Hateflex 14090 are being laid.



Cable ducts are being laid and connected to the wall inserts using sleeve method.



Wall inserts HSI 90 are set in concrete and KES-systems 14090 are connected to the wall inserts using sleeve method.



Wall inserts HSI 150 are set in concrete and KES-systems 14150 are connected to the wall inserts using sleeve method.

#### Extension of Hamburg-North Transformer station

Hamburg-North transformer station will be extended and modernised in four phases until 2017. This extension has become necessary as the increased electricity production with renewable energies requires large-scale grid extensions. Owner of the station is 50 Hertz Transmission GmbH, Berlin. The work to be done comprises the demolition of some old parts as well as the construction of 13 bays, six transformer stations, seven relay stations and one service building. For this project, Hauff-Technik supplied cable entries and flexible cable duct systems HSI 150/KES-M 150, HSI 90/KES-M 90 and earthing entries.

# Project information and Solutions provided by Hauff-Technik FACTS



#### **PROJECT INFORMATION** Location Umspannwerk Hamburg-Nord Beim Umspannwerk 60 22844 Hamburg Owner 50 Hertz Transmission GmbH Eichenstraße 3 A 12435 Berlin Planner **INROS LACKNER AG** Zeppelinstraße 48 A 14471 Potsdam Construction TS Bau GmbH Industriestraße 20 A company 01612 Glaubitz

SOLUTIONS PROVIDED BY HAUFF-TECHNIK	
Specification	Cable entries and earthing entries
The challenge	Watertight flexible cable entries in closed systems to the interior of the building, suitable for buildings made from in-situ concrete as well as prefabricated walls.  The challenge consisted in different concrete works of interior and exterior walls. The problem was solved by using KES-systems with adapter KES-M 150-D for connection to wall inserts.
Products used	HSI 150-K2 HSI 90-K2 KES-M 150 KES-M 90 Earthing entries

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