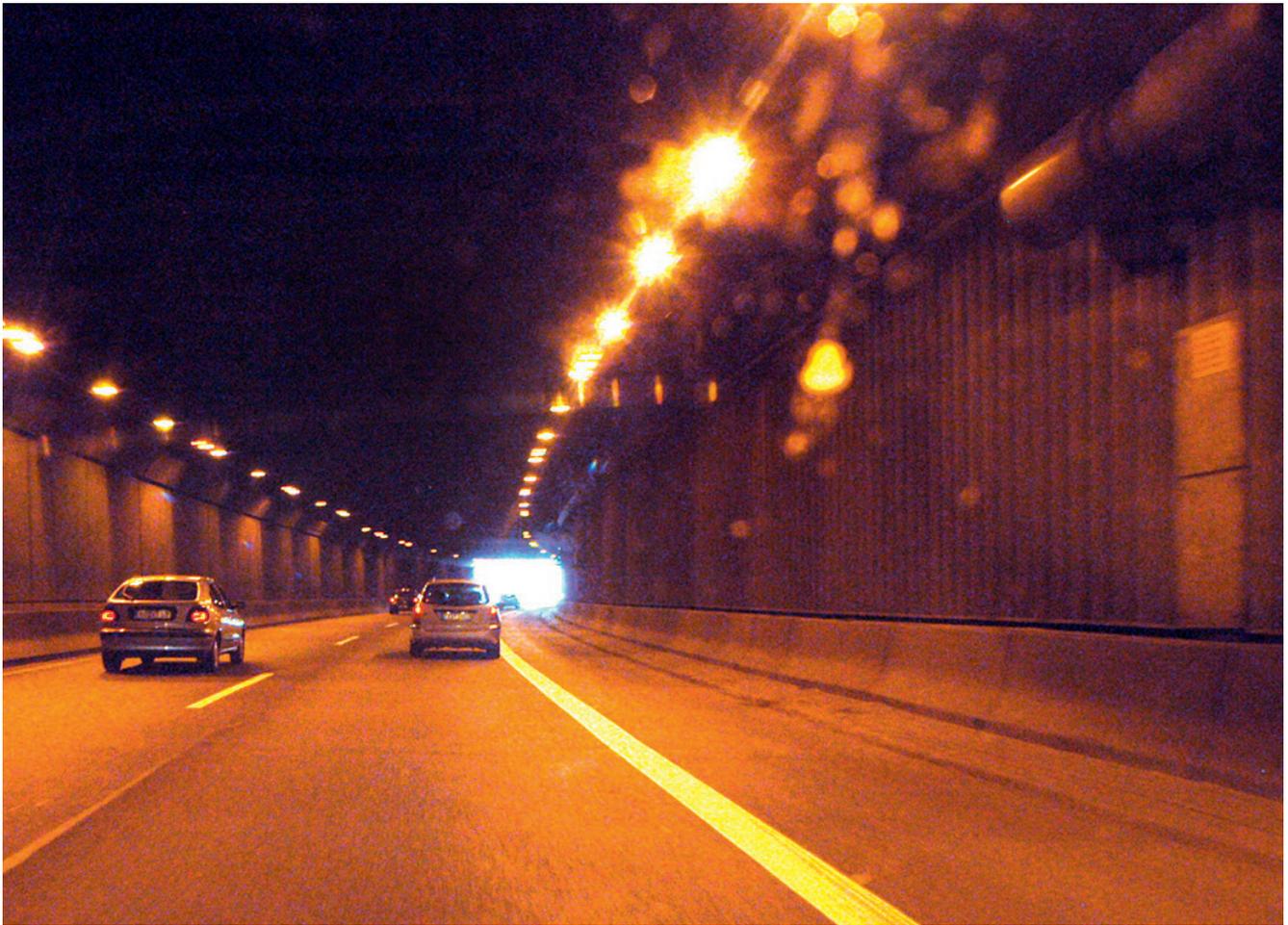


Always. Reliable. Tight.



SUBSEQUENT SEALING OF CABLES AND DUCTS
WITH THE AID OF SPLIT FLANGE PLATES AND SPLIT CABLE AND PIPE SEALINGS

TECHNICAL BUILDING TUNNEL A40 BOCHUM

of existing as well as newly to be installed cables and corrugated ducts
GAS- AND WATERTIGHT SEALING



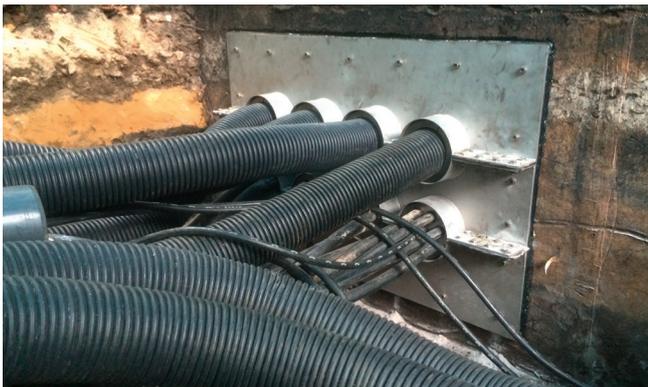
Installation of the pre-mounted flange plate and marking of installation positions in front of the wall entry.



Adhesive bonding of the flat seal via Sikaflex sealing compound.



Step by step installation of the flange plate with long-shaft fixing dowels and stainless steel bolts.



Ready installed flange plate with cable and pipe penetrations.



New wall entry with cable and duct ditch before grouting.

Safety relevant rehabilitation work at the existing lighting and LED activation control of variable message sign in the tunnel at the A40 in Bochum. Rehabilitation and structural alteration measures at the illumination system at the technical building as well as retrofitting of the existing safety systems required a multitude of new cables and control lines. These had to be inserted reliable and watertight. The existing cables and ducts had to remain in operating state during the installation. Beside the existing lines new control lines and corrugated ducts were installed. The existing cables and ducts were integrated in the new HRD sealing system. The flange plates were installed on the rectangular opening (770 x 410 mm).

PROJECT INFORMATION

Location	Technical building of the Autobahn A40, Bochum
Requirement	gas- and watertight sealing of existing as well as newly to install cables and corrugated cable ducts
Construction company	Spie GmbH, Building Technology & Service Solutions Nordwest, Düsseldorf

SOLUTIONS PROVIDED BY HAUFF-TECHNIK

Specification	split multiple stainless steel flange with 8 pipe sockets each, split pipe and cable sealings
Solution	professional removing of the old existing sealing system installation of the split multiple flange plate on the existing rectangular opening gas- and watertight sealing of the cables and ducts with split cable and pipe sealings
Products used	7 pcs. individual sealings type HRD 150-2G-1/110 incl. clip rings for corrugated ducts 9 pcs. individual sealings type HRD 150-2G-x/d 2 pcs. multiple HRD flanges 150-2x4-FG

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