

## REFERENZLISTE |

REALBRANDVERSUCHE, BRANDRAUCHVERSUCHE,  
WARMRAUCHVERSUCHE:

### Brandrauchversuche in Gebäuden:

- ▶ **Opernwerkstätten**, Hamburg, 2018
- ▶ **DHL-Frachthalle, Fraport**, Frankfurt a. M., 2018
- ▶ **PEP Einkaufs-Center**, München-Neuperlach, 2018
- ▶ **Geschäftshaus „Upper Zeil“**, Frankfurt a. M., 2018
- ▶ **Erweiterungsbau Möbel Hardeck**, Hilden, 2017
- ▶ **Halle der Fa. Decathlon**, Schwetzingen, 2017
- ▶ **Atrium des BV Ebert 13**, Bonn, 2016
- ▶ **Verbindungsbauwerk „Spindel“ zwischen dem Tunnel Kö-Bogen und den angrenzenden Tiefgaragen**, Düsseldorf, 2016
- ▶ **Diskotheek Carpe Noctem**, Bonn, 2016
- ▶ **World Conference Center Bonn**, 2015
- ▶ **Messe-, Kongress- und Eventarena CityCube Berlin**, 2015
- ▶ **Siemens, Bau 26**, Erlangen, 2014
- ▶ **Neubau der Europäischen Zentralbank (EZB)**, Frankfurt a. M., 2014
- ▶ **Europäische Investitionsbank**, Luxemburg, 2014
- ▶ **Erweiterungsbau der Uniklinik**, Frankfurt a. M., 2014
- ▶ **OSRAM-Werk**, Berlin Spandau, 2014
- ▶ **Bürogebäude Swisscom**, Ittigen, Schweiz, 2014
- ▶ **Sportgeschäft „SportScheck“**, Kassel, 2014
- ▶ **EmslandArena**, Lingen, 2013
- ▶ **Einkaufszentrum Skyline Plaza**, Frankfurt a. M., 2013
- ▶ **Casino**, Duisburg, 2013
- ▶ **Logistikzentrum (2. Bauabschnitt)**, Greven, 2013
- ▶ **Halle Siemens**, Erlangen-Röthelheimpark, 2013
- ▶ **Einkaufszentrum Forum Mittelrhein**, Koblenz, 2012
- ▶ **Flughafen BBI, Terminal TP01**, Berlin, 2012
- ▶ **Neue Drahthalle im Werk der ArcelorMittal Ruhrort GmbH**, Duisburg, 2012

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REAL FIRE TESTS, FIRE AND SMOKE TESTS, HOT  
SMOKE TESTS:

### Fire and smoke tests in buildings:

- ▶ **Workshops of the Hamburg State Opera**, Hamburg, 2018
- ▶ **DHL cargo storehouse, Fraport**, Frankfurt a. M., 2018
- ▶ **PEP Shopping Center**, München-Neuperlach, 2018
- ▶ **Shopping Center „Upper Zeil“**, Frankfurt a. M., 2018
- ▶ **Extension of the Möbel Hardeck**, Hilden, 2017
- ▶ **Decathlon hall**, Schwetzingen, 2017
- ▶ **Atrium of BV Ebert 13**, Bonn, 2016
- ▶ **Connection „Spindel“ between Kö-Bogen tunnel and adjacent underground car park**, Düsseldorf, 2016
- ▶ **Diskotheek Carpe Noctem**, Bonn, 2016
- ▶ **World Conference Center Bonn**, 2015
- ▶ **New trade fair and congress venue CityCube Berlin**, 2015
- ▶ **Siemens, Bau 26**, Erlangen, 2014
- ▶ **New building of the European Central Bank (ECB)**, Frankfurt, 2014
- ▶ **European Investment Bank**, Luxembourg, 2014
- ▶ **Extension of the University Hospital**, Frankfurt, 2014
- ▶ **OSRAM factory**, Berlin Spandau, 2014
- ▶ **Swisscom office building**, Ittigen, Switzerland, 2014
- ▶ **Sports shop „SportScheck“**, Kassel, 2014
- ▶ **EmslandArena**, Lingen, 2013
- ▶ **Skyline Plaza Shopping Center**, Frankfurt, 2013
- ▶ **Casino**, Duisburg, 2013
- ▶ **Distribution centre (2nd section of construction)**, Greven, 2013
- ▶ **Siemens Hall**, Erlangen-Röthelheimpark, 2013
- ▶ **Shopping Center Forum Mittelrhein**, Koblenz, 2012
- ▶ **Berlin Brandenburg Airport, TP01 Terminal**, 2012
- ▶ **New wire hall of the ArcelorMittal plant in Duisburg**, 2012

## REFERENZLISTE |

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WARMRAUCHVERSUCHE:

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- ▶ „Schlaues Haus“ – Haus für die Bürger und die Wissenschaft, Oldenburg, 2012
- ▶ Palmengarten, Frankfurt a. M., 2012
- ▶ Einkaufszentrum Galeria Kaskada, Stettin, Polen, 2011
- ▶ Düsseldorfer Schauspielhaus, 2011
- ▶ Infrastrukturzentrum der Goethe-Universität, Frankfurt a. M., 2011
- ▶ Hochhaus BICC, Frankfurt a. M., 2011
- ▶ Möbelhaus Möbel Hardeck, Bochum, 2010–2011
- ▶ Einkaufszentrum Rheingalerie, Ludwigshafen, 2010
- ▶ Kongresssaal, Interlaken, Schweiz, 2010
- ▶ Zoofenster, Berlin, Brandrauchversuche zur Bewertung der Rauchkontrolle und Löschwirkung von HDN-Anlagen, 2010
- ▶ Einkaufszentrum Serdika Center, Sofia, Bulgarien, 2010
- ▶ Parlamentsgebäude, Bern, Schweiz, 2009
- ▶ Einkaufszentrum Stücki, Basel, Schweiz, 2009
- ▶ Bildungszentrum Grüenthal, Aachen, 2009
- ▶ Atrium des Science-College, Jülich, 2009
- ▶ Sicherheitstrepfenraum des Nikolaihof, Hamburg, 2009
- ▶ Einkaufszentrum, Nümbrecht, 2009
- ▶ Kongresszentrum Eurogress Aachen, 2008
- ▶ Bürogebäude Office Center, Aachen, 2008
- ▶ Freizeit- und Einkaufszentrum Westside, Bern, Schweiz, 2008
- ▶ Einkaufszentrum Aachen Arkaden, Aachen, 2008
- ▶ Kaufhaus Loeb, Bern, Schweiz, 2008
- ▶ Broker Office Center II, Frankfurt a. M., 2008
- ▶ Magistrale des BMW Informationszentrums, München, 2007 und 2008

## REFERENCE LIST |

REAL FIRE TESTS, FIRE AND SMOKE TESTS, HOT  
SMOKE TESTS:

### Fire and smoke tests in buildings (continues):

- ▶ “Smart House” (House for the promotion of science), Oldenburg, 2012
- ▶ Palmengarten, Frankfurt, 2012
- ▶ Shopping Center Galeria Kaskada, Szczecin, Poland, 2011
- ▶ Düsseldorf Theatre, 2011
- ▶ Infrastructure Centre of Goethe University, Frankfurt, 2011
- ▶ Hochhaus BICC (BICC Business Center), Frankfurt, 2011
- ▶ Furniture store Möbel Hardeck, Bochum, 2010–2011
- ▶ Shopping Center Rheingalerie, Ludwigshafen, 2010
- ▶ Congress Centre, Interlaken, Switzerland, 2010
- ▶ Zoofenster, Berlin, real fire tests for assessing the smoke control and the extinguishing capacity of high pressure mist systems, 2010
- ▶ Shopping Centre Serdika Centre, Sofia, Bulgaria, 2010
- ▶ Parliament Building, Bern, Switzerland, 2009
- ▶ Stücki Shoppingcenter Basel, Switzerland, 2009
- ▶ Learning Centre Grüenthal, Aachen, 2009
- ▶ Atrium of Science College, Jülich, 2009
- ▶ Safety staircase of the Nikolaihof, Hamburg, 2009
- ▶ Shopping centre, Nümbrecht, 2009
- ▶ Congress Center Eurogress Aachen, 2008
- ▶ Office building Office Center, Aachen, 2008
- ▶ Leisure and shopping complex Westside Center, Bern, Switzerland, 2008
- ▶ Shopping Center Aachen Arkaden, Aachen, 2008
- ▶ Department store Loeb, Bern, Switzerland, 2008
- ▶ Broker Office Center II, Frankfurt, 2008
- ▶ Main corridor of the BMW information centre, Munich, 2007 and 2008

## REFERENZLISTE |

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### Brandrauchversuche in Straßentunneln:

- ▶ **Petuelntunnel**, München, 2013 und 2018
- ▶ **Lärmschutzeinhausung** (A 1), Köln-Lövenich, 2018
- ▶ **Engelbergtunnel** (A 81 bei Loenberg), 2017
- ▶ **Agnesburgtunnel**, Aalen/Ellwangen, 2017
- ▶ **Tunnel Pfaffenstein** (A 93), Regensburg, 2017
- ▶ **Meisterntunnel**, Bad Wildbad, 2017
- ▶ **Brudermühltunnel**, Mittlerer Ring, München, 2017
- ▶ **Tunnel Micheville**, Esch-sur-Alzette, Luxemburg, 2016
- ▶ **Bühltunnel** (B 62n), Siegen, 2016
- ▶ **Tunnel Kö-Bogen** (2. Bauabschnitt), Düsseldorf, 2016
- ▶ **Tunnel Deggendorf**, 2016
- ▶ **Autobahntunnel Schwarzer Berg** (A70), Bamberg, 2005 und Eitmann, 2016
- ▶ **Kiesbergtunnel**, Wuppertal, 2016
- ▶ **Tunnel Grouff und Tunnel Stafelter**, Luxemburg, 2015
- ▶ **Riedbergtunnel**, Regen, 2015
- ▶ **Luise-Kiesselbach-Tunnel und Heckenstallertunnel**, München, 2015
- ▶ **Richard-Strauss-Tunnel**, München, 2015
- ▶ **Tunnel Grötzingen**, 2014
- ▶ **Tunnelgruppe Kö-Bogen**, Düsseldorf, 2014
- ▶ **Tunnel Oberkirch**, 2014
- ▶ **Tunnel Wagenladungsstraße**, Stuttgart, 2014
- ▶ **Hugenwaldtunnel**, Waldkirch, 2014
- ▶ **Reutherbergtunnel**, Ortsumfahrung Wolfach, 2014
- ▶ **Tunnel Wambel**, Dortmund, 2013–2014
- ▶ **Westringtunnel**, Ulm, 2013
- ▶ **Meisterntunnel**, Bad Wildbad, 2013
- ▶ **Gmünder Einhorn-Tunnel**, Schwäbisch Gmünd, 2013
- ▶ **Tunnel Gernsbach**, 2013

## REFERENCE LIST |

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### Fire and smoke tests in road tunnels:

- ▶ **Petuelntunnel**, Munich, 2013 and 2018
- ▶ **Köln-Lövenich noise protection tunnel** (A 1), 2018
- ▶ **Engelbergtunnel** (A 81 bei Loenberg), 2017
- ▶ **Agnesburgtunnel**, Aalen/Ellwangen, 2017
- ▶ **Tunnel Pfaffenstein** (A 93), Regensburg, 2017
- ▶ **Meisterntunnel**, Bad Wildbad, 2017
- ▶ **Brudermühltunnel**, Mittlerer Ring, Munich, 2017
- ▶ **Tunnel Micheville**, Esch-sur-Alzette, Luxemburg, 2016
- ▶ **Bühltunnel** (B 62n), Siegen, 2016
- ▶ **Tunnel Kö-Bogen** (2nd section of construction), Düsseldorf, 2016
- ▶ **2016 Tunnel Deggendorf**, 2016
- ▶ **Motorway tunnel Schwarzer Berg** (A70), Bamberg, 2005 and Eitmann, 2016
- ▶ **Kiesbergtunnel**, Wuppertal, 2016
- ▶ **Grouff and Stafelter Tunnel**, Luxemburg, 2015
- ▶ **Riedbergtunnel**, Regen, 2015
- ▶ **Luise-Kiesselbach-Tunnel and Heckenstallertunnel**, Munich, 2015
- ▶ **Richard-Strauss-Tunnel**, Munich, 2015
- ▶ **Tunnel Grötzingen**, 2014
- ▶ **Tunnel group Kö-Bogen**, Düsseldorf, 2014
- ▶ **Tunnel Oberkirch**, 2014
- ▶ **Tunnel Wagenladungsstraße**, Stuttgart, 2014
- ▶ **Hugenwaldtunnel**, Waldkirch, 2014
- ▶ **Reutherbergtunnel**, local bypass Wolfach, 2014
- ▶ **Wambel Tunnel**, Dortmund, 2013–2014
- ▶ **Westringtunnel**, Ulm, 2013
- ▶ **Meisterntunnel**, Bad Wildbad, 2013
- ▶ **Gmünder Einhorn-Tunnel**, Schwäbisch Gmünd, 2013
- ▶ **Gernsbach Tunnel**, 2013

## REFERENZLISTE |

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### Brandrauchversuche in Straßentunneln (Fortsetzung):

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- ▶ **Saukopftunnel**, Weinheim, Überprüfung der Druckbelüftung der Rettungstollen, 2012
- ▶ **Tunnel Mainzer Ring**, 2012
- ▶ **Tunnel Gruibingen** (an der A8 zwischen Karlsruhe und München), 2012
- ▶ **Löwenherz- und Barbarossatunnel**, Annweiler am Trifels, 2011
- ▶ **Kreuzstraßentunnel**, Tuttlingen, 2011
- ▶ **Theatertunnel**, Frankfurt a. M., 2010
- ▶ **Tunnel Leutenbach** (B 14), Winnenden, 2009
- ▶ **Felderhaldetunnel**, Isny, 2009
- ▶ **Grotztunnel**, Bietigheim-Bissingen, 2009
- ▶ **Saukopftunnel**, Weinheim, 2008–2009
- ▶ **Schützenalleetunnel**, Freiburg, 2008

### Brandrauchversuche in Parkhäusern:

- ▶ **Tiefgarage des BV Patio**, Kuhwaldstraße, Frankfurt a. M., 2018
- ▶ **Parkhaus Reglermauer**, Erfurt, 2016
- ▶ **Tiefgarage des BV T8 Taunusanlage**, Frankfurt a. M., 2016
- ▶ **Flughafen BBI**, Berlin, **Parkhäuser MWC, PNA und PSA**, 2012
- ▶ **Garage der Coens Galerie**, Grevenbroich, 2011
- ▶ **Parkhaus des A10-Einkaufs- und Freizeitcenters**, Wildau, 2011
- ▶ **Parkhaus des Neubaus Hertie**, Essen, 2011
- ▶ **Tiefgarage des BMW Informationszentrums**, München, 2007 und 2009

## REFERENCE LIST |

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### Fire and smoke tests in road tunnels (continues):

- ▶ **Michaelstunnel**, Baden-Baden, 2012
- ▶ **Saukopftunnel**, Weinheim, examination of the pressurization in the emergency galleries, 2012
- ▶ **Mainzer Ring Tunnel**, 2012
- ▶ **Gruibingen Tunnel** (A8 between Karlsruhe and Munich), 2012
- ▶ **Löwenherz- and Barbarossatunnel**, Annweiler am Trifels, 2011
- ▶ **Kreuzstraßentunnel**, Tuttlingen, 2011
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- ▶ **Leutenbach Tunnel** (B 14), Winnenden, 2009
- ▶ **Felderhaldetunnel**, Isny, 2009
- ▶ **Grotztunnel**, Bietigheim-Bissingen, 2009
- ▶ **Saukopftunnel**, Weinheim, 2008–2009
- ▶ **Schützenalleetunnel**, Freiburg, 2008

### Fire and smoke tests in car parks:

- ▶ **Underground car park of project Patio**, Kuhwaldstraße, Frankfurt a. M., 2018
- ▶ **Car park Reglermauer**, Erfurt, 2016
- ▶ **Underground car park of project T8 Taunusanlage**, Frankfurt a. M., 2016
- ▶ **Berlin Brandenburg Airport, MWC, PNA and PSA car parks**, 2012
- ▶ **Double-storey car park of the Coens Galerie**, Grevenbroich, 2011
- ▶ **Multi-storey car park of the A10 Center**, Wildau, 2011
- ▶ **Car park of the new building of Hertie**, Essen, 2011
- ▶ **Underground car park of the BMW information centre**, Munich, 2007 and 2009

## REFERENZLISTE |

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### Brandrauchversuche in Verkehrsanlagen:

- ▶ **Zentralbahn Luzern**, unterirdische Haltestelle „Messe/Allmend“, Schweiz, 2012
- ▶ **Tramdepot**, Bern, Schweiz, 2011

### Brandrauchversuche in Industriegebäuden:

- ▶ **Pumpspeicherkraftwerk Vianden**, Luxemburg, 2016
- ▶ **Schluchseewerke AG**, Bad Säckingen und Wehr, 2015

### Brandrauchversuche für Feuerwehrrübungen:

- ▶ **Tunnel Leutenbach (B 14)**, 2017
- ▶ **Agnesburgtunnel**, Aalen, 2014
- ▶ **Tunnel Rastatt**, 2013
- ▶ **Tunnel Mainzer Ring**, 2012

### „Fahrende Brände“:

- ▶ Demonstrationsversuch eines „**Fahrenden Brandes**“ (Fahrzeug fährt brennend und rauchend im Tunnel ein und bleibt dort stehen); **Pieterlen-Tunnel**, Schweiz, 2012

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REAL FIRE TESTS, FIRE AND SMOKE TESTS, HOT  
SMOKE TESTS:

### Fire and smoke tests in traffic facilities:

- ▶ **Zentralbahn Luzern**, underground station “Messe/Allmend”, Switzerland, 2012
- ▶ **New tram depot**, Bern, Switzerland, 2011

### Fire and smoke tests in industrial buildings:

- ▶ **Pumpspeicherkraftwerk Vianden**, Luxemburg, 2016
- ▶ **Schluchseewerke AG**, Bad Säckingen and Wehr, 2015

### Fire and smoke tests for fire drills:

- ▶ **Tunnel Leutenbach (B 14)**, 2017
- ▶ **Agnesburgtunnel**, Aalen, 2014
- ▶ **Rastatt Tunnel**, 2013
- ▶ **Mainzer Ring Tunnel**, 2012

### “Driving Fires”:

- ▶ Demonstration test of a “**driving fire**” (the vehicle enters the tunnel on fire and comes to a standstill in the tunnel); **Pieterlen Tunnel**, Switzerland, 2012