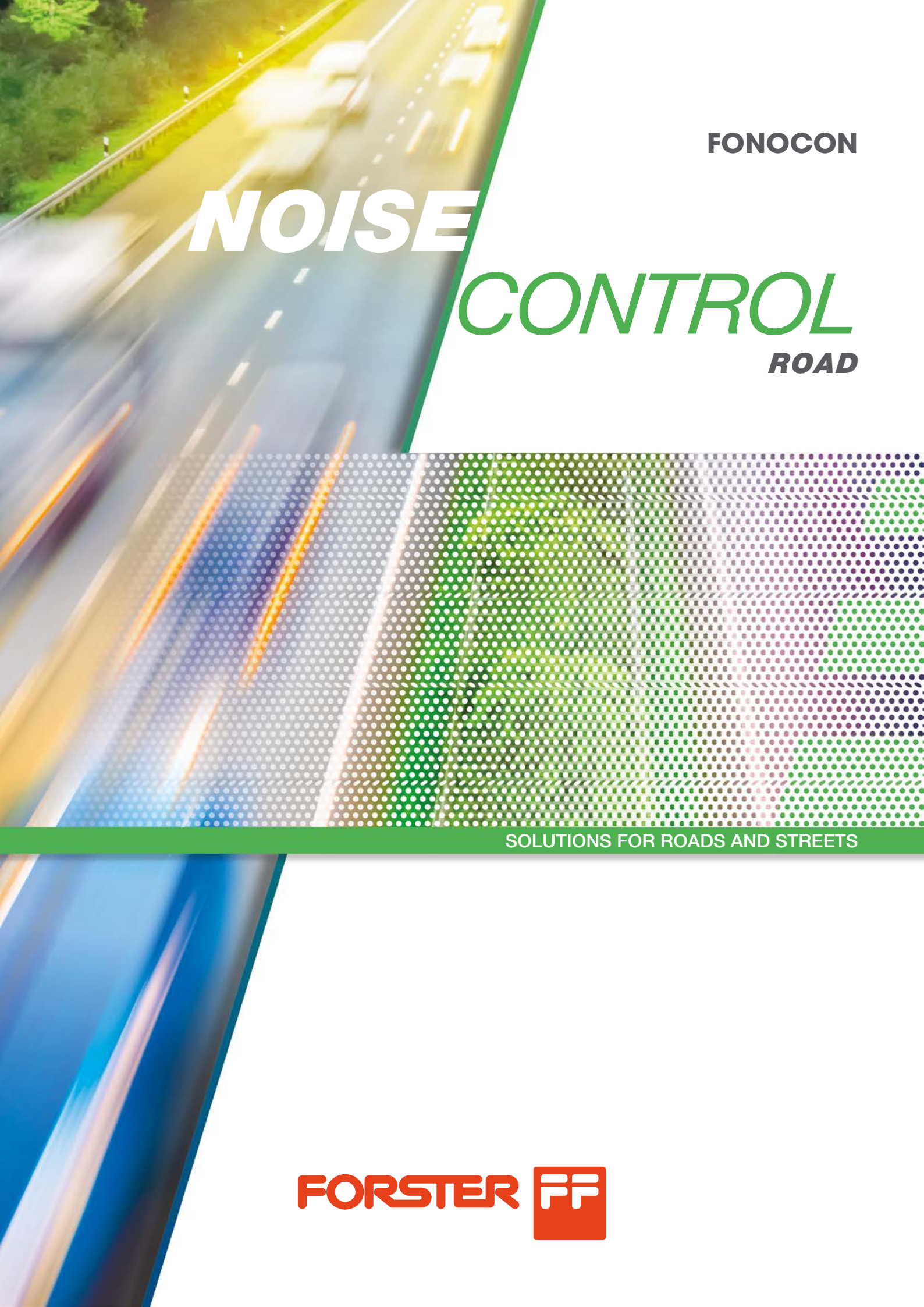




FONOCON

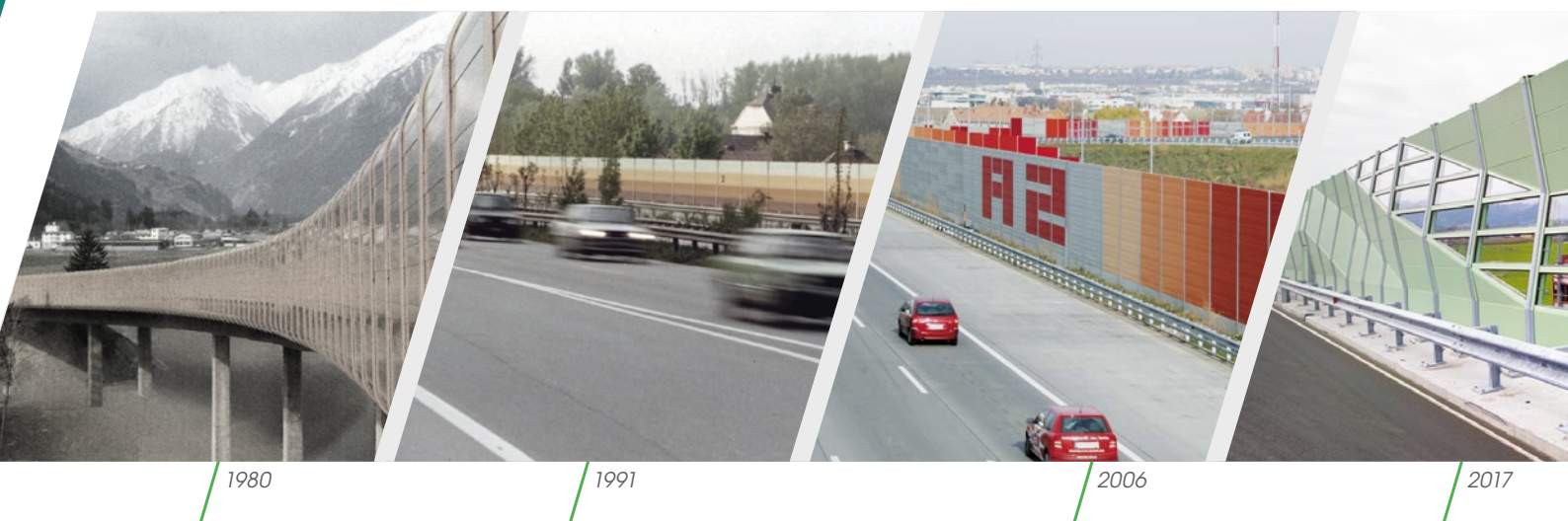
NOISE **CONTROL** **ROAD**

SOLUTIONS FOR ROADS AND STREETS

FORSTER 

NOISE CONTROL SYSTEMS GO BACK A LONG WAY WITH FORSTER

Forster, a family enterprise founded in 1956, can turn to more than 45 years of experience in the production of aluminium noise screens. Thanks to its competence and know-how, Forster has become a leading expert in the development of noise protection systems along roads and railway tracks.



1978

1980

1991

2006

2017

1978

MORE THAN 45 YEARS OF COMPETENCE, KNOW-HOW AND EXPERIENCE



RESPONSIBILITY VIS-À-VIS PEOPLE AND THE ENVIRONMENT

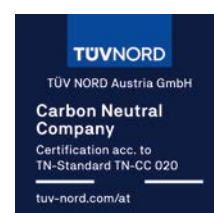
Developing and producing sustainable products is a particular concern of Forster. We insist on using materials and energy without exploiting resources, and we consider sustainability across the entire life cycle of a product to be essential.



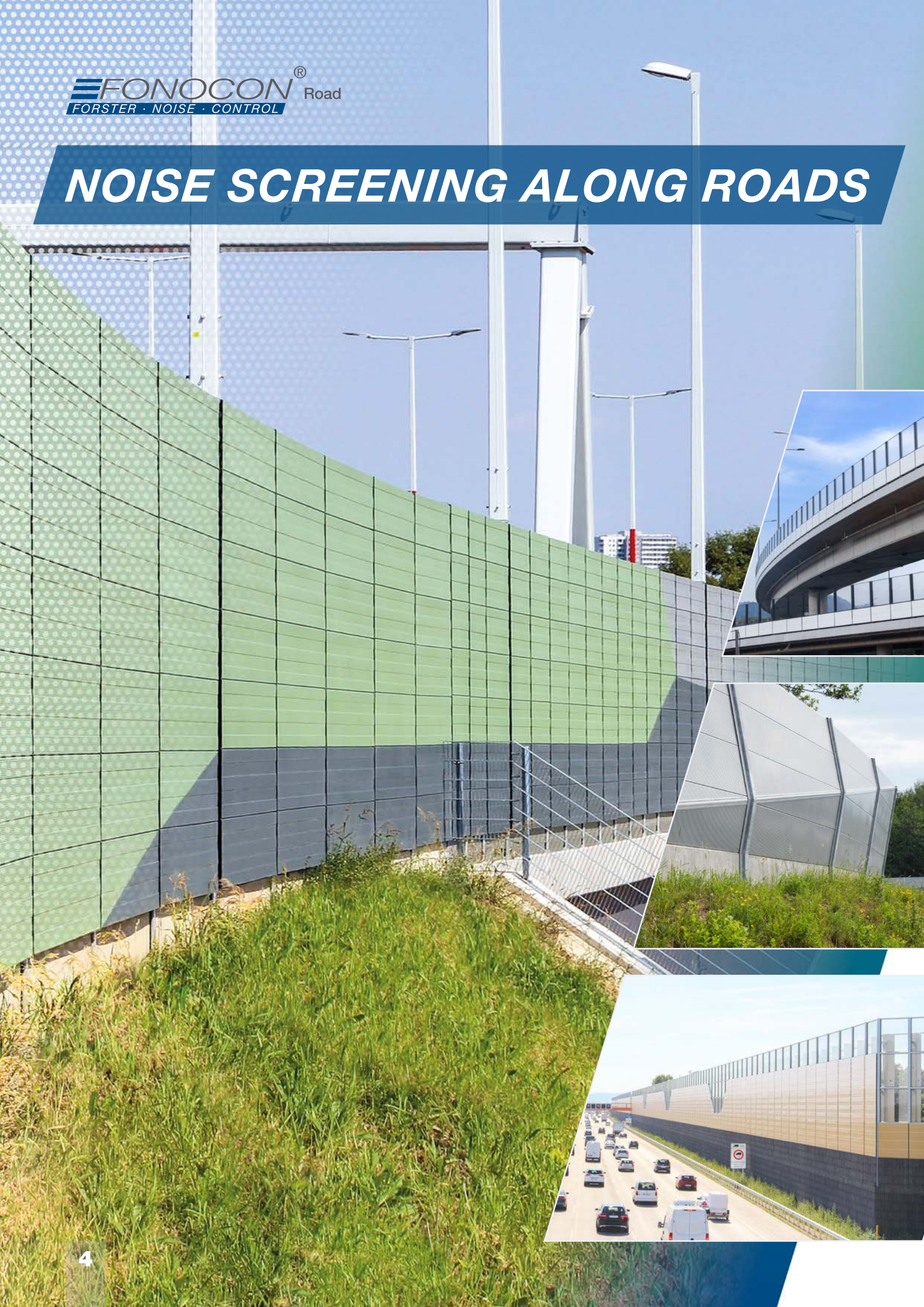
2025



For these reasons, we have extended our certified integrated management systems (IMS) for quality (ISO 9001), environmental management (ISO 14001) and occupational health and safety (ISO 45001) by a sustainability management system (ONR 192500). And quite clearly, we closely observe our CO₂ footprint, which has led to our company becoming certified as a **carbon-neutral operation** in November 2024.



NOISE SCREENING ALONG ROADS



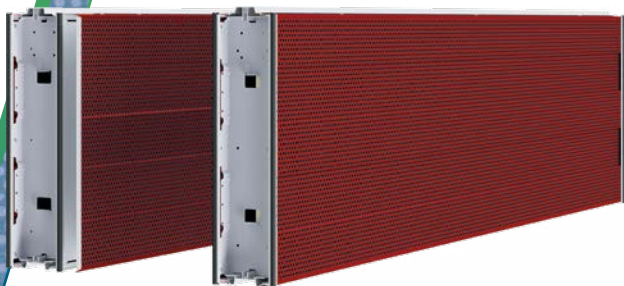
In a car-driven environment, noise control measures have become indispensable. Wherever busy traffic lanes meet residential areas, it is necessary and effective to set up a noise barrier. Noise screens made of aluminium have stood the test of time, offering an excellent performance.

FONOCON Road systems are not only highly flexible and suitable for a wide range of applications, but they also enable you to realise customised projects.

THE MANY BENEFITS OF ALUMINIUM:

- *Superior noise abatement and sound absorption*
- *Long service life*
- *Uniform surface*
- *Individual design*
- *Combinable with other materials*
- *Optional anti-graffiti coating*
- *Low weight*
- *Easy and quick to instal*
- *Complies with all standards and guidelines*
- *CE certificate*
- *High stability against freezing and de-icing salt*
- *Zero maintenance*
- *Low lifecycle costs*

ROAD ELEMENTS



NOISE SCREEN ELEMENT HIGHLY ABSORBENT

**highly absorbent
on one or both sides**

aluminium, polyester
powder-coated

Airborne sound insulation
 $DL_R = 25 - 35 \text{ dB (B3)}$

Sound absorption
 $DL_a = 8 - 12 \text{ dB (A3-A4)}$

All types are available in three insulation options and as post-covering design.

ARCHING ELEMENT HIGHLY ABSORBENT

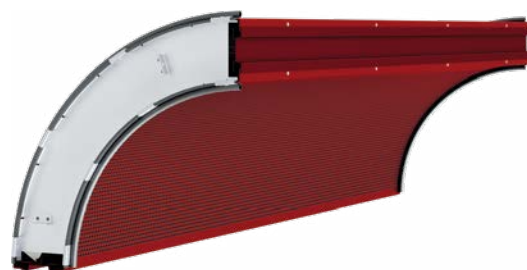
**highly absorbent
on one side**

aluminium, polyester
powder-coated

Installed in a bent steel up-
right with screw-off flange.

Airborne sound insulation
 $DL_R = 25 \text{ dB (B3)}$

Sound absorption
 $DL_a \geq 8 \text{ dB (A3)}$



DELTA TOP-ELEMENT / DELTA ELEMENT

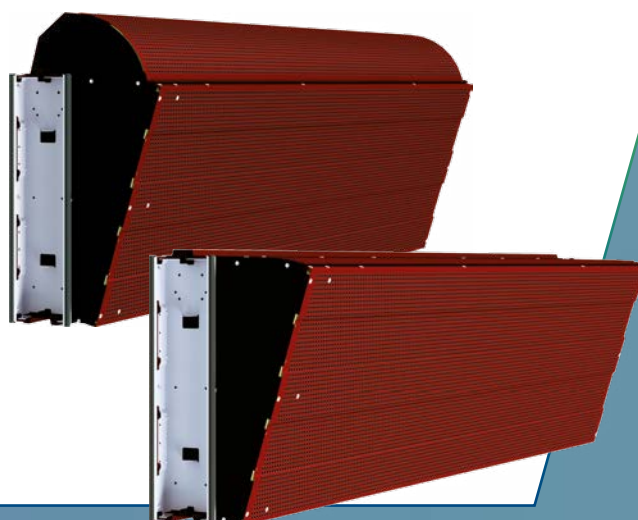
With forward-tipping absorption panel and
acoustically soft edges as an option.
Post-covering design as standard.

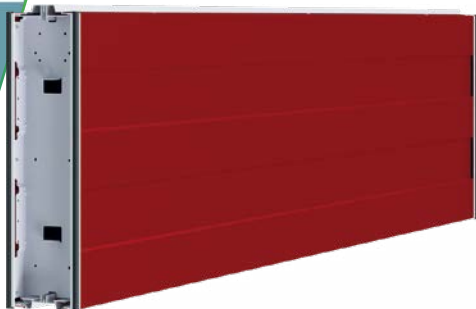
**highly absorbent
on one or both sides**

aluminium, polyester
powder-coated

Airborne sound insulation
 $DL_R = 25 - 31 \text{ dB (B3)}$

Sound absorption
 $DL_a = 12 \text{ dB (A4)}$





NOISE SCREEN ELEMENT REFLECTING

Reflecting on both sides

aluminium, polyester
powder-coated

Airborne sound insulation
 $DL_R = 25 \text{ dB (B3)}$

Also available as post-covering design.



ALUMINIUM-GLASS ELEMENT

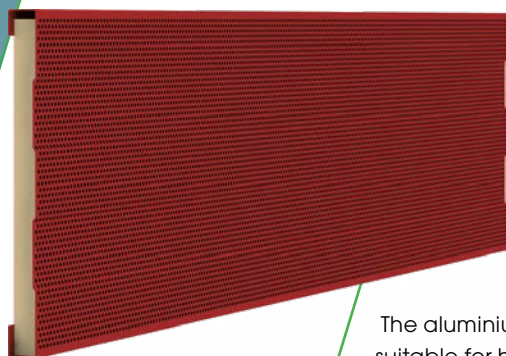
reflecting

aluminium frame, polyester
powder-coated

transparent materials:
glass thickness: min. 12 – 20 mm

Airborne sound insulation
 $DL_R = 26 - 33 \text{ dB}$
(depending on the type
of glass used)

All transparent materials provided for in the standards
possible; optional bird guard strips or decorative prints.
Acrylic glass optionally with embedded polyamide threads.
With or without centre bar, depending on size.



CLADDING PANELS

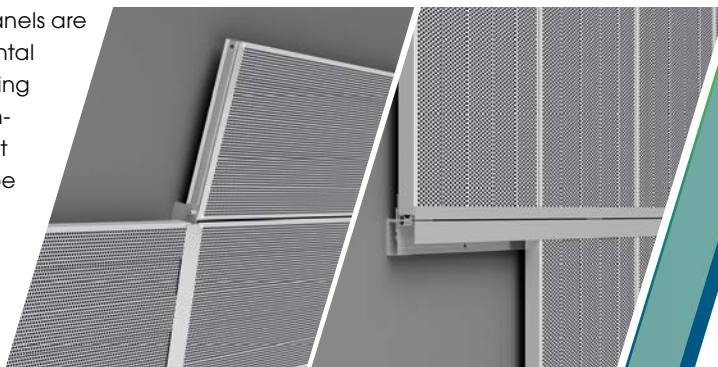
highly absorbent

aluminium, polyester
powder-coated

Sound absorption
 $DL_\alpha = 12 \text{ dB (A4)}$

Applied to walls and ceilings

The aluminium panels are
suitable for horizontal
and vertical cladding
in tunnels and retain-
ing walls. Attachment
depending on the type
of application. Suita-
ble backing structures
are necessary against
uneven bases or bored
diaphragm walls.

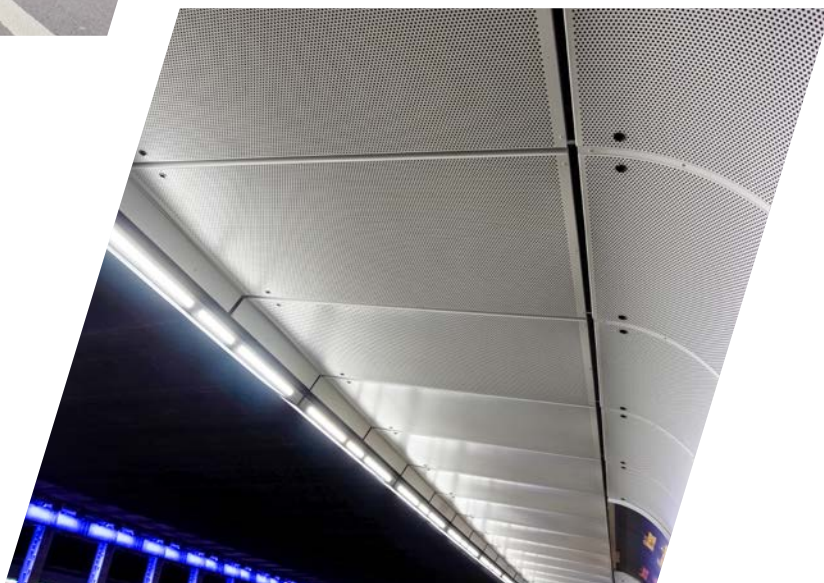


FULL-SCALE NOISE CONTROL



TARGETED USE OF VARIABLE DESIGN OPTIONS

Urban tunnels as such reduce the noise level suffered by neighbours, but their entry and exit zones still need special consideration in terms of noise abatement.





HIGHLY ABSORBENT WALL CLADDING

Tunnels and trough-type structures may increase noise emissions through their shape and structure. Cladding with noise screening panels helps reduce the effect. The panels are equally suitable for use on straight and curved tunnel walls. Forster supplies the requisite substructures for installation to fit the type of substrate.



THE BENEFITS:

- Copes with maximum load situations in tunnels
- Can be applied horizontally and vertically
- Nondestructive removal and re-installation of individual panels possible
- Flexibly fits to all substructures
- Same design for walls and ceilings
- Can be retrofitted to existing structures

FREEDOM OF DESIGN

DESIGNING WITH NOISE BARRIERS – HIGH QUALITY AND VISUAL APPEAL

Noise control structures need superior acoustic as well as optical features in order to provide a successful performance. The multiple colouring schemes available for aluminium elements and their unlimited combination with transparent elements open up new vistas in the design of noise barriers.



POST-COVERING DESIGN

This design produces an almost overlapping barrier appearance. Overlaps are available as single- and double-sided designs. In this way, a single noise control panel may feature a standard element on the side facing the tracks and an overlapping design on the other side.



MULTICOLOURED

Whether laid-back or consciously orchestrated: an individual element may bear several colours and colour nuances may shift across slanting segues. Front and back of individual panels may be made in different colours.



(Photo: Rebecca Bayer)

PRINTED NOISE BARRIERS

Using digital imprints, we apply images, art designs and symbols directly onto the noise screens without impairing their acoustic and stress properties. Whether the object is integration in the landscape, advertising or artistic impressions – noise protection becomes a design element.

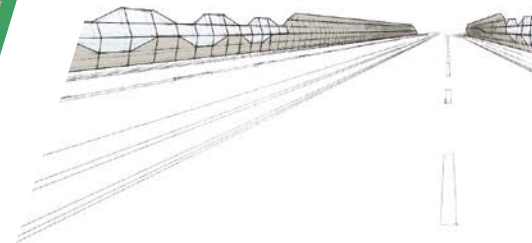


ACOUSTIC CROWN ELEMENTS

The DELTA top provides designers with additional accents for the barrier. Positive acoustic effects vie with the spatial impact and a new freedom of design.



NOISE CONTROL MEETS DESIGN

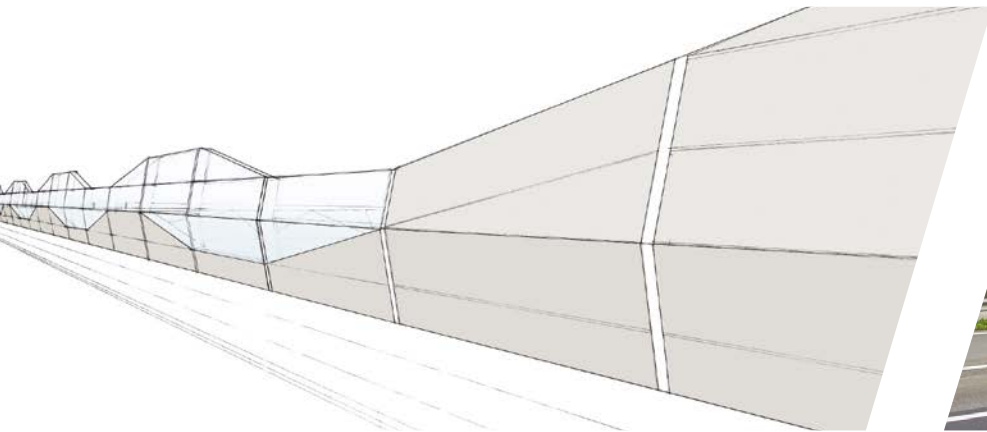


NOVEL IDEAS FOR NOISE SCREENS

This innovative solution gets its eye-catching effect from its shape – the design of the barrier: steel supports folded twice at differing heights provide the basis.



These supports, which may be swivelled around their longitudinal or transversal axis, allow innumerable combinations for the surfaces inbetween which are filled by the special **2Fold**[®] aluminium and glass elements available in three shapes – rectangle, triangle and parallelogram.

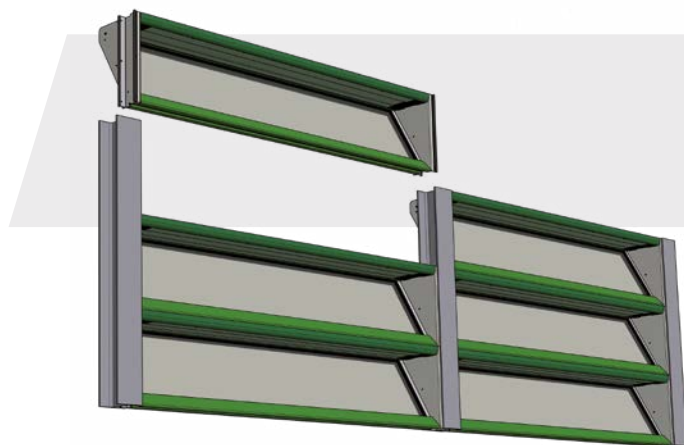


SEE-THROUGH NOISE PROTECTION

FONOCON SILENT VIEW

This transparent and sound-absorbing system combines the benefits of two types of noise screens. It consists of an absorbing aluminium frame and a transparent filling element that inclines backwards.

The absorbing part of the element is installed horizontally which gives additional protection to the absorption panels. The impacting sound is reflected upwards towards the absorber by the inclined transparent panels.



Detailed tests in line with the latest standards, both in-situ and in a reverberation room, have confirmed the absorbing capacity of our new transparent noise barrier. The tests included procedures pursuant to EN 1793-5 which defines the in-situ values of sound reflection in directional sound fields.



Discover the effect
and benefits on video:

forster.at/en/noise-control/silent-view

FONOCON Silent View may be combined with all of Forster's standard noise control systems.

THE BENEFITS:

- *Transparent and absorbing*
- *Combines the advantages of transparent systems with the absorbing aluminium systems*
- *High stability*
- *Can be combined with all Forster standard noise control systems*
- *Sits flush with the noise barrier on the absorption side*
- *Tested in a directional sound field pursuant to EN 1793-5*



NOISE BARRIER TRANSFORMED INTO

SOLAR POWER PLANT

PHOTOVOLTAICS

With **FONOCON Silent Solar**, noise screens provide double benefits for the environment: they protect against noise and the barrier serves as a substructure for environmentally friendly energy generators. Existing screens can be retrofitted simply by replacing individual elements or increasing the height of the barrier.





The sun has always been and will always be our mightiest source of energy – **FONOCON Silent Solar** exploits this source without building up any further land.

THE BENEFITS:

- *Double gain: noise protection and energy generation*
- *No additional land consumption*
- *Retrofittable – same screening effect by highly absorbent surface*
- *Cost-cutting by adding a photovoltaic project*
- *Simple installation of solar modules*
- *Compatible with all standard photovoltaic module types*
- *Easy cable-laying in integrated cable trays*



NOISE CONTROL

IN URBAN AND
RESIDENTIAL AREAS





Peace and quiet within your own four walls are becoming a luxury, especially when the surrounding is about to transform into a setting that necessitates structural countermeasures.



Aluminium noise barriers made by Forster provide an excellent solution and their individual design elements can be chosen to ensure a pleasant appearance.



ELEMENTS FOR URBAN AND RESIDENTIAL AREAS

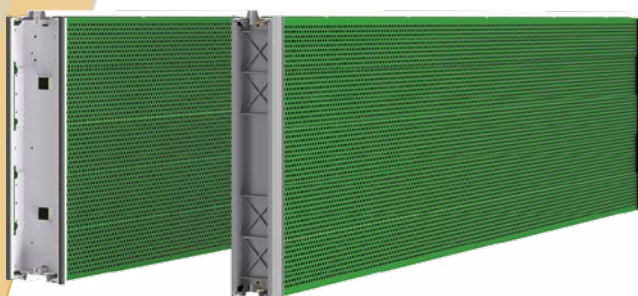


NOISE SCREEN ELEMENT REFLECTING

Reflecting on both sides

aluminium, polyester
powder-coated

Airborne sound insulation
 $DL_R = 25 \text{ dB (B3)}$



NOISE SCREEN ELEMENT HIGHLY ABSORBENT

highly absorbent on one or both sides

aluminium, polyester
powder-coated

Airborne sound insulation
 $DL_R = 25 - 26 \text{ dB (B3)}$

Sound absorption
 $DL_a = 8 - 12 \text{ dB (A3-A4)}$

ALUMINIUM-TIMBER ELEMENT

highly absorbent on one side with closed backwall

aluminium, polyester
powder-coated

Choice of heat-treated or
boiler-pressure preserved
pine.

Airborne sound insulation
 $DL_R = 25 \text{ dB (B3)}$

Sound absorption
 $DL_a \geq 8 \text{ dB (A3)}$



The pine wood battens can be arranged horizontally or vertically.

ALUMINIUM-TIMBER ELEMENT



highly absorbent on one side with open backwall

aluminium, polyester
powder-coated

Choice of heat-treated or
boiler-pressure preserved
pine.

Airborne sound
insulation
 $DL_R = 25 \text{ dB (B3)}$

Sound absorption
at the front
 $DL_a \geq 8 \text{ dB (A3)}$

Sound absorption
at the back
 $DL_a = 4 \text{ dB}$



COMBINED GLASS ELEMENT WITH UPPER AND LOWER CHORD

reflecting

aluminium frame, polyester
powder-coated

transparent materials:
glass thickness: min. 12 – 20 mm

Airborne sound
insulation
 $DL_R = 26 - 33 \text{ dB}$
(depending on the
type of glass used)

All transparent materials provided for in the standards
possible; optional bird guard strips or decorative prints.

Acrylic glass optionally with embedded polyamide
threads.



COMBINED GLASS ELEMENT WITH U-SHAPED UPPER CHORD

reflecting

aluminium frame, polyester
powder-coated

transparent materials:
glass thickness: min. 12 – 20 mm

Airborne sound
insulation
 $DL_R = 26 - 33 \text{ dB}$
(depending on the
type of glass used)

All transparent materials provided for in the standards
possible; optional bird guard strips or decorative prints.

Acrylic glass optionally with embedded polyamide
threads.

SYSTEM ACCESSORIES



EMERGENCY EXIT AND SERVICE DOOR, ESCAPE ROUTE SIGNS

Direct access to maintenance or emergency exits improves safety on roads and tracks. Such doors have the same exacting acoustic performance rates as the adjoining noise barriers. A different colour scheme increases their visibility and indicates possible escape routes. The range of Forster products includes angular signs to mark escape routes and flag-type signs to indicate escape doors.

NOISE-SCREENING SLIDING DOOR

Where space at the centre is at a premium, sliding doors can be a solution.



NOISE-SCREENING SIDE-HUNG GATE

Ideal for locations where emergency or road service vehicles need to enter. Its robust design allows the gate to be used also at high-speed routes. With low barriers and a low speed situation there is no need for a top transom, so that no height limit applies when the gate is open.



NOISE-SCREENING ESCAPE DOOR

The double-leaf emergency door is a version of the escape and service doors. Where necessary, an adjustable additional wing extends the width of passage.





CLIMBING AID FOR GREENERY

We offer various types of trellises to help climbing plants. Simple greening is possible without the need for trellises.



CAPS

Caps are normally used to top-cover steel uprights. Their harmonic design makes for a conscious highlight in a noise barrier. Their colour schemes provide a choice from laid-back to emphatic accents.

SAFETY ROPE

Rope harnesses for bridges across roads and streets.



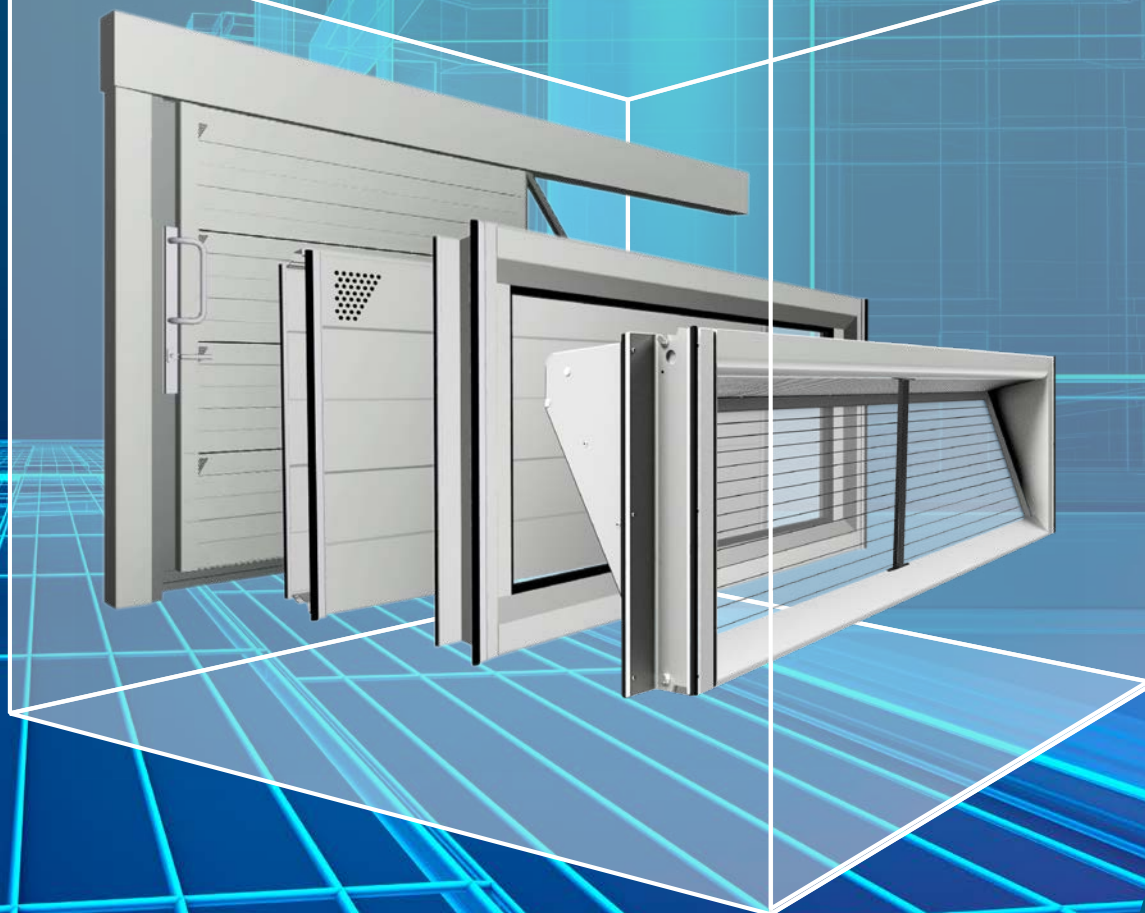
ANTI-GRAFFITI COATING

Optionally, FONOCON noise protection elements can be supplied with a special anti-graffiti coat that enables spraying paint and scribbles to be removed repeatedly and without any residues.

PLANNING MADE EASY

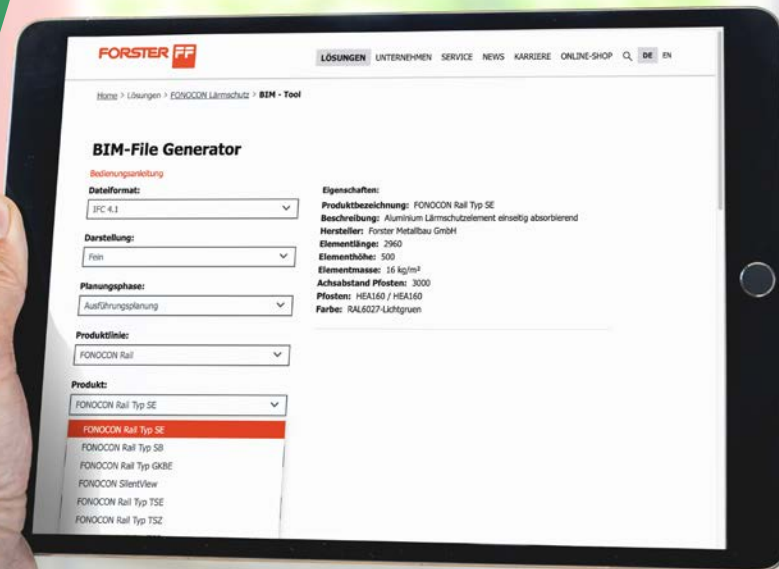
APPLIED PRACTICAL EXPERIENCE: THE BIM-GENERATOR

The future is digital – also on building sites. Using BIM (Building Information Modelling), interlinked planning can be digitalised also for noise control projects. Forster has developed a service-oriented BIM generator which is available for free as a service tool on the Forster homepage.



In addition to the “standard elements”, special components such as emergency and service doors or the FONOCON Silent View noise screen element can be configured with the BIM tool.

forster.at/en/noise-control/bim-tool



INTUITIVE, INNOVATIVE AND INDIVIDUAL

Intuitive operation, a wide range of settings and a live preview combine to cover every angle when planning noise control elements.

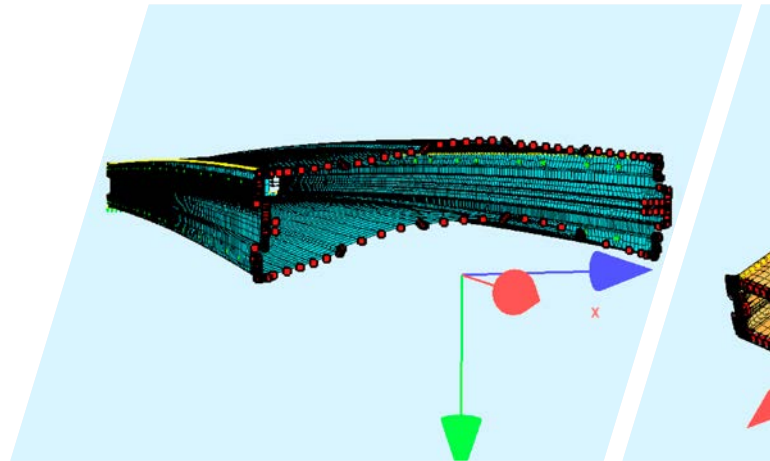


Once the settings have been chosen, the data are just a mouse click away from the digital inbox.

RESEARCH AND DEVELOPMENT

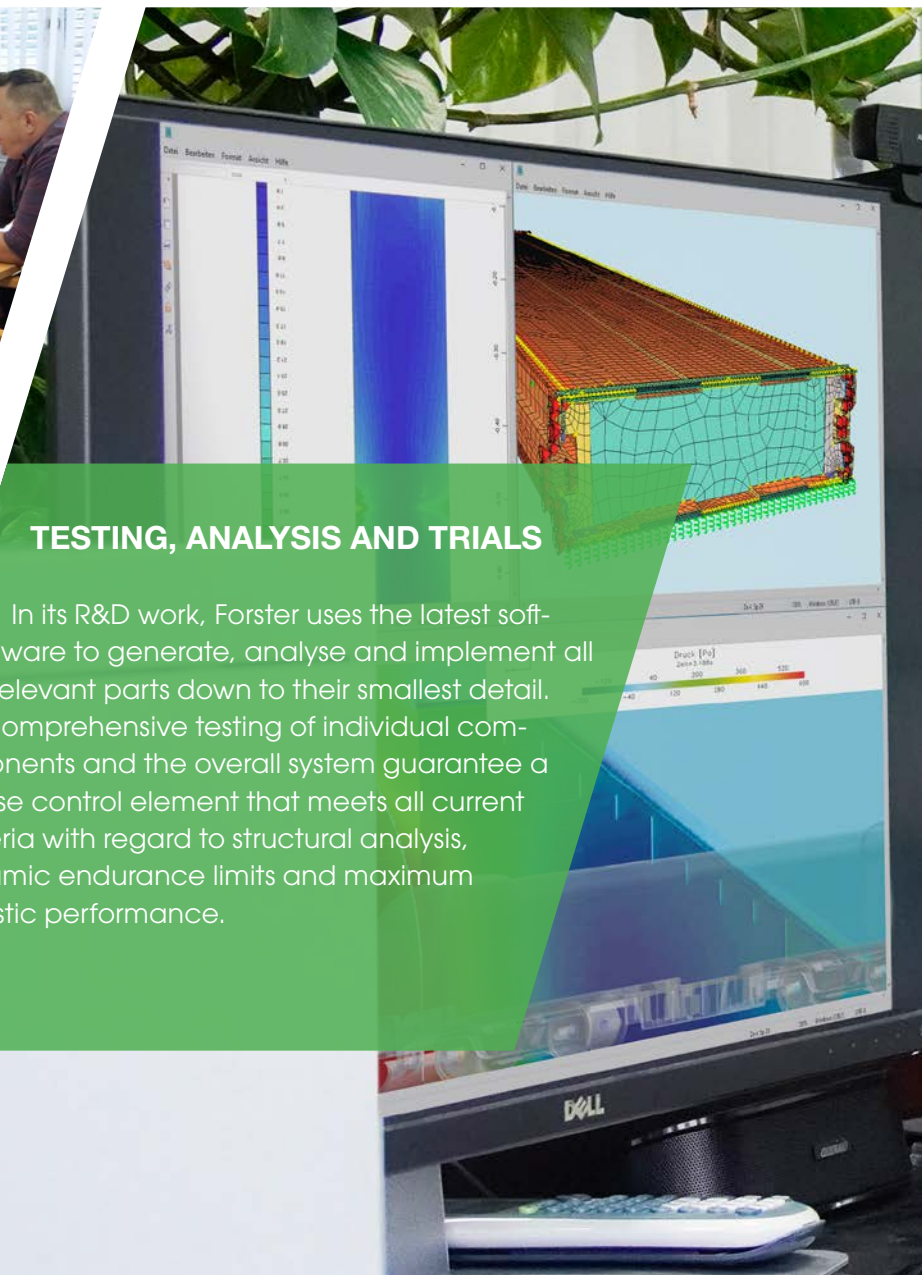
NOISE CONTROL COMPETENCE

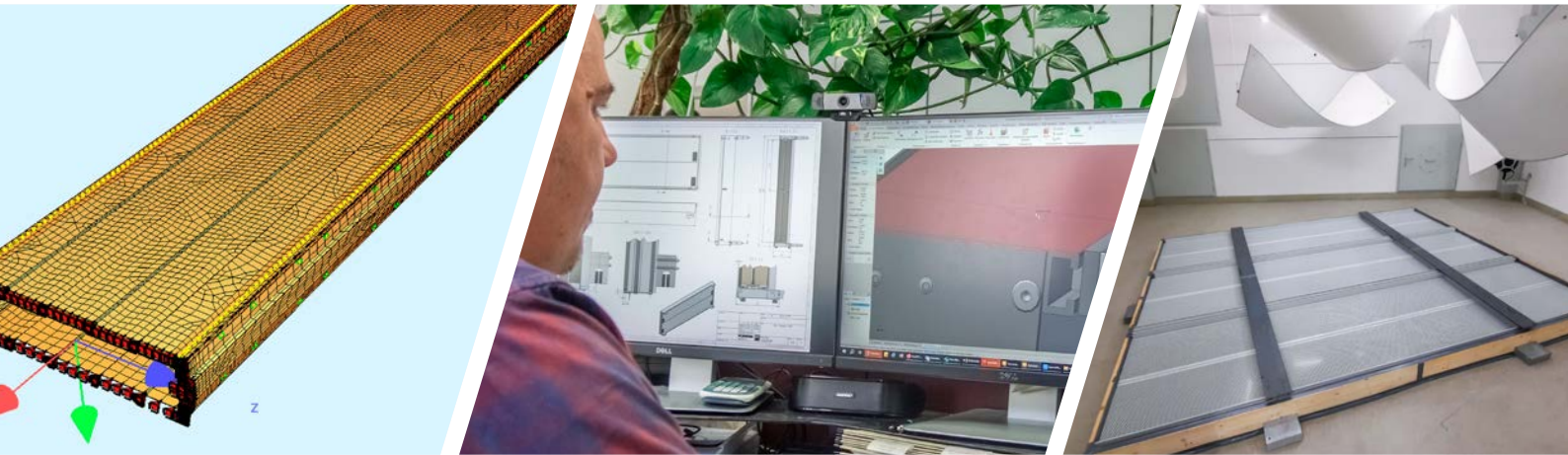
Groundbreaking developments and innovative solutions for maximised noise control provide the basis for the success of our products. Patented products, collaboration with experts, universities and testing bodies, as well as membership in professional associations help us deliver tailored noise protection systems that meet global requirements and standards.



TESTING, ANALYSIS AND TRIALS

In its R&D work, Forster uses the latest software to generate, analyse and implement all relevant parts down to their smallest detail. Comprehensive testing of individual components and the overall system guarantee a noise control element that meets all current criteria with regard to structural analysis, dynamic endurance limits and maximum acoustic performance.

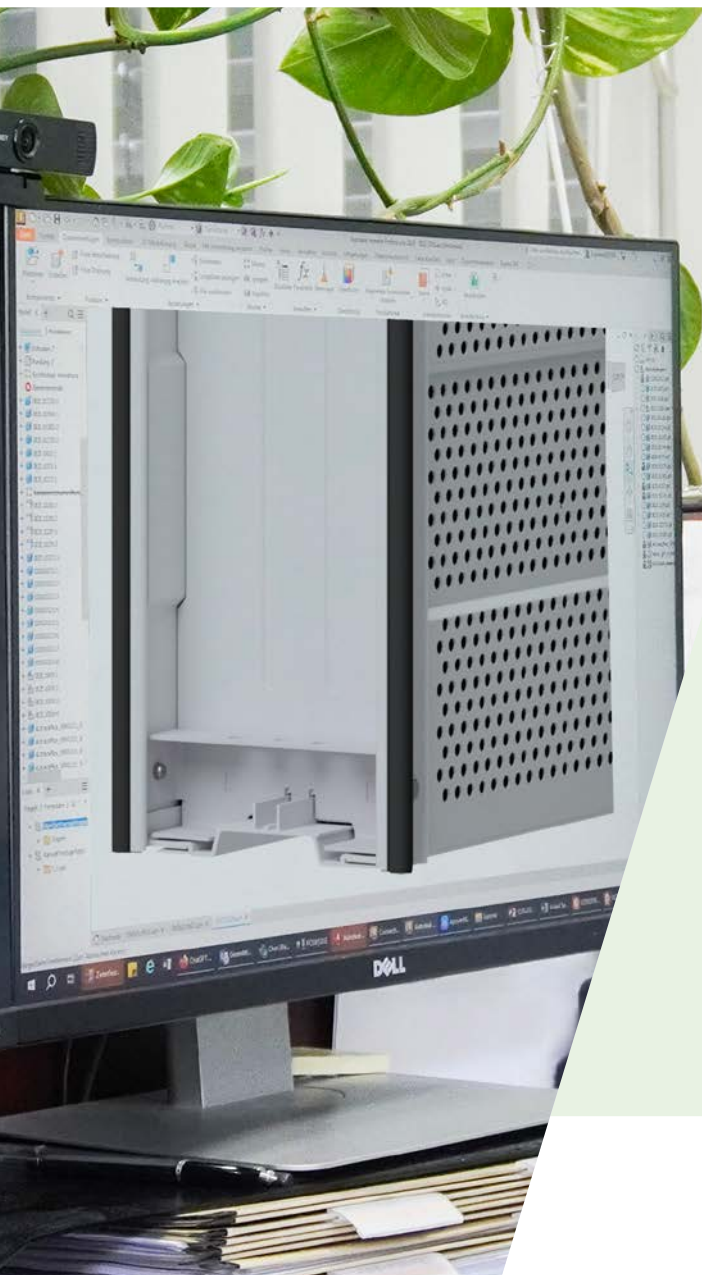




The R&D department at Forster draws on the latest scientific methods, creates complex computer FEM models, builds prototypes and submits them to comprehensive testing.

THE GREAT PLUS:

- Long years of know-how
- Innovation leader
- Direct contact for project-oriented solutions
- Ongoing optimisation and development
- Collaboration with experts, testing bodies and universities
- Membership in professional associations



FEELING SAFE WITH A FORSTER PRODUCT

THE LATEST ENGINEERING TO ACHIEVE MAXIMUM VERTICAL INTEGRATION

The extraordinary ratio of internal production and use of the most modern manufacturing technologies characterise what is typical about the FORSTER Group.

The high degree of automation allows planning cycle times and increases the flexibility of production. As a result we continue to deliver the controlled high quality that our customers have come to expect and appreciate.





COMPACT NOISE CONTROL

PERFECT FOR SHIPPING AND INSTALLATION

Compact packing units and low weight enable us to provide low-cost transport to the site. Optimised product features ensure simple handling of the FONOCON elements at the site. The compatible modular system makes for easy and cheap installation of the noise barrier.



YOUR BENEFITS AT A GLANCE:

- Production completely in-house
- Full-service provider
- Large-scale vertical integration
- Resource-sparing production
- Long-term availability of components
- Excellent and constant product quality



GLOBAL REACH OF FORSTER PROJECTS





SE · Sverige-syd railway line

PARTNERS – TRUST MAKES FOR A RUNNING START

Forster operates all over the world, supported by a network of distributors and partners. For decades, noise control systems have been at the focus of the portfolio of the Forster Group. We are your competent partner and have the know-how to offer attractive, high-quality solutions against noise emissions.



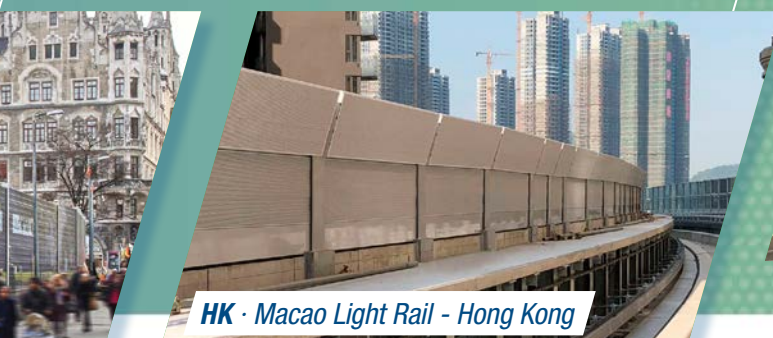
RO · Bypass Centura Bacău



CZ · D55 Sušice u Uherského Hradiště



AU · Townsville Ring Road



HK · Macao Light Rail - Hong Kong

THE LARGE RANGE OF FONOCON PRODUCTS

*The best product for every sector
and every application!*



FONOCON RAIL
NOISE CONTROL FOR
RAILWAY TRACKS



FONOCON INDUSTRY
NOISE CONTROL FOR
INDUSTRIAL USE



Find your contact at: www.forster.at/en/noise-control



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Products subject to changes.