

Dear Readers,



It's very nearly time for the Intertraffic 2018 to begin in Amsterdam. Our exhibition stand will once again be featuring innovative traffic safety products, and we are looking forward to meeting you again and to many interesting discussions.

We are very pleased that the AVS Group continues to grow this year. In January for example, AVS was given entrusted with traffic safety in the framework of the new PPP project on the A10/A24 motorways in Brandenburg, which entails six-lane expansion and refurbishment of the motorways over a length of more than 60km. For the start of this major construction project, more than 35km of crash barriers were installed and more than 300km of road markings applied. The work is planned to last about 4.5 years. We are therefore going to set up a new branch of AVS Mellingen in Brandenburg.



Dieter Berghaus,
Managing Director AVS

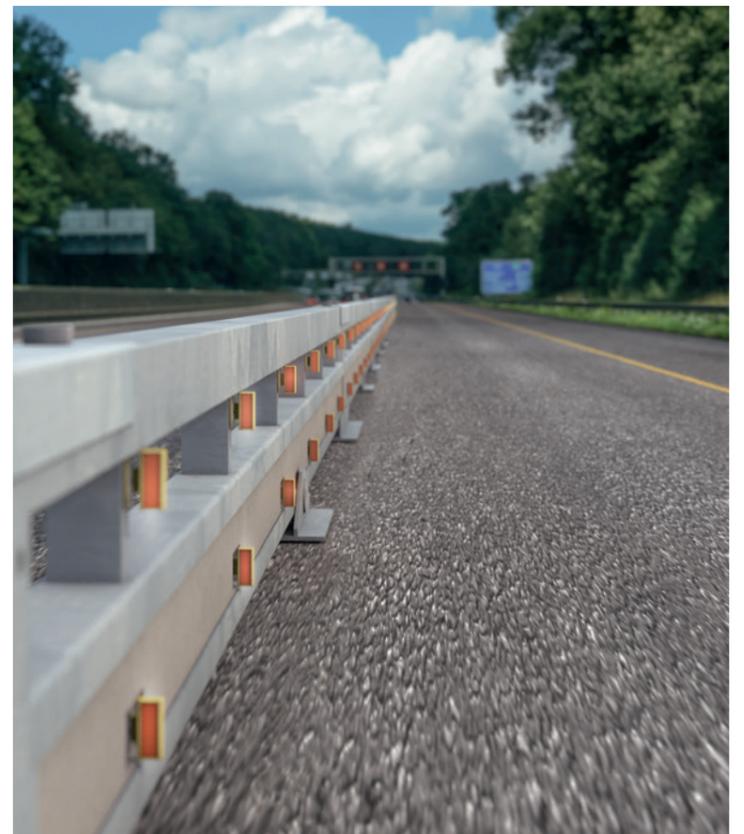
LATEST INNOVATION: Mobile crash barrier ProTec 80

At the INTERTRAFFIC in Amsterdam, for the first time we will be presenting the latest innovative addition to the ProTec family: ProTec 80. This new crash barrier combines the advantages of the lightweight ProTec 50 with the sturdy stability of our compact ProTec systems. It weighs just 80kg per metre, thus permitting a higher transport volume and making ProTec 80 even more economical.

As with all ProTec crash barriers, reflectors are fastened at regular intervals on both sides at the top and bottom of the elements, thus eliminating the need for additional yellow road markings parallel to the barrier. The crash barrier elements are six metres long with a generous water opening, so that this system again prevents any dangerous accumulation of rainwater at the barrier. ProTec 80 is 50 cm wide and has a structural width of 24cm. The planning-relevant width measured up to now of just 12cm is even narrower than a road marking line.

The system has been successfully tested according to DIN EN 1317 with free-standing installation in containment levels T1/T3. Only the starter element was anchored in the H1 impact test with a 10t truck. The lowest impact force level of A was achieved in all three impact attempts. And so the latest innovation ProTec 80 enriches our proven ProTec family portfolio by adding another interesting, easily handled crash barrier system for many different applications.

The ProTec family consists of several successfully tested mobile crash barriers, for all application areas of mobile road restraint systems pursuant to the ZTV-SA. Despite differing shapes and structures, all mobile ProTec crash barrier systems can be combined with each other and fitted together with force-fit connections. Mobile crash barriers in the ProTec family can also be combined with stationary restraint systems or mobile systems by other manufacturers with a force-fit connection.

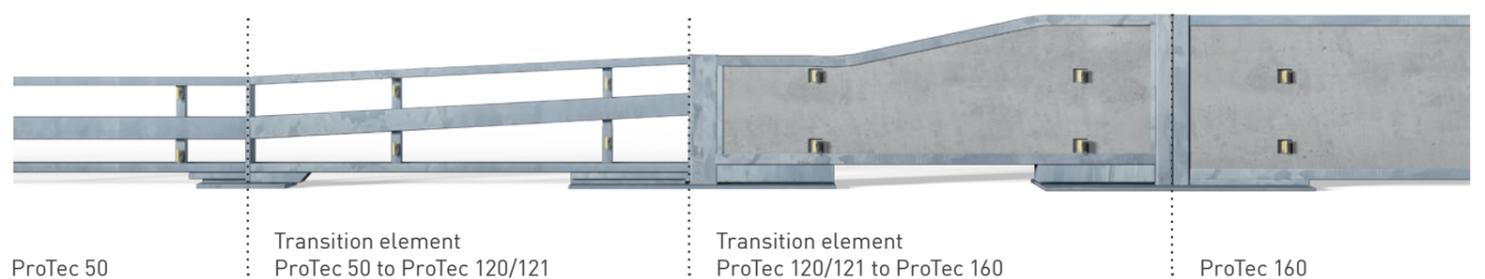


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- Prewarners and warning trailers

Combination example for force-fit connection using the whole ProTec family



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- Mobile traffic light systems
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- AVS Traffic Safety Professionals
- F.V.S. becomes AVS Nürnberg
- Redesign of the websites

Your ticket into the INTERTRAFFIC 2018

Are you planning to attend the INTERTRAFFIC in Amsterdam and would you like to come to our exhibition stand to find out about new products by Berghaus Traffic Technology?

Then we'd like to pay your entrance fee and extend a cordial invitation for you to come, as this year once again, we have free tickets available for our loyal customers in a free online registration process.

Would you like to accept our cordial invitation?

Then please register in plenty of time before coming by using the free registration link directly to the trade-fair organisers RAI, which you will find on our website berghaus-verkehrstechnik.de. We look forward to your visit at our exhibition stand 01.410 in hall 1: it will be nice to see you again!

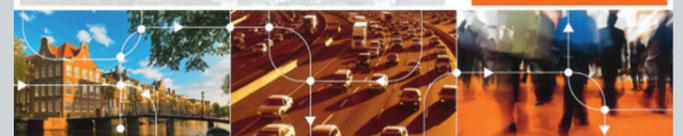
Come and visit us!
Stand 01.410, hall 1

Intertraffic
AMSTERDAM

INVITATION

20. 21. 22. 23 MAR
2018
RAI Amsterdam

The world's leading international trade fair for infrastructure, ITS traffic management, safety and parking



With around 800 exhibitors from 47 countries and more than 30,000 trade visitors from 134 nations (as of 2016), the INTERTRAFFIC Amsterdam is the largest and best known international trade-fair for traffic technology.

Safely through roadworks with mobile ProTec crash barriers

<p>ProTec 50 City</p>  <p>The mobile crash barrier ProTec 50 City is the ideal choice for professional traffic safety in the urban setting. This crash barrier is ideal for city and urban use with its „handy“ element length of 2 metres, structural width of 24 cm (planning-relevant width 10 cm) and the low element weight of 23.5 kg per metre with containment level T1/W2 and ASI value A. It has been tested in impact tests according to the strict regulations made in DIN EN 1317 for 80 km/h. Given the fact that speed is usually limited to 30 km/h at most urban roadworks, this makes ProTec 50 City even safer!</p>	<p>ProTec 50</p>  <p>ProTec 50 with its structural width of 24 cm (planning-relevant width 10 cm) is really narrow, while its weight of just 28.7 kg per metre also makes it one of the lightest mobile road restraint systems available from Berghaus. Containment level T1/W2, ASI value A. All crash barriers in the ProTec family are always fitted together with force-fit connections – naturally also with elements from other systems or stationary road restraint systems.</p>	<p>ProTec 80</p>  <p>The new mobile crash barrier ProTec 80 is an ideal combination of the open, lightweight ProTec 50 with the sturdy stability of the compact ProTec systems, but with a clearly reduced weight of just 80 kg per metre. The reduced transport costs thus make ProTec 80 even more economical. Tested successfully to DIN EN 1317: T1/W1, T3/W2 and H1/W6, each with impact force levels A.</p>
<p>ProTec 100</p>  <p>The compact mobile crash barrier system ProTec 100 fulfils containment level T3/W2 with an outstanding ASI value of 0.2 (A). It has a structural width of 25 cm (planning-relevant width 12 cm). Another advantage of all ProTec barriers is that the flexible reflectors are mounted in protected recesses and do not get sheared off when touched by a vehicle. They are also fitted at the same height in all ProTec systems.</p>	<p>ProTec 120 / 121</p>  <p>Type ProTec 120 was tested with the results H1/W5 and T3/W2. It has a structural width of 30 cm (planning-relevant width 14 cm). The model variant ProTec 121 with its structural width of just 24 cm was successfully tested with T3/W1. Our system components ProTec-Tor 120 and ProTec-Tor 50 offer quick access for emergency services. In an emergency, the mobile crash barrier can be opened at these elements without needing tools to create a generous space.</p>	<p>ProTec 160</p>  <p>The mobile crash barrier ProTec 160 fulfils containment level H1/W4 with a structural width of 50 cm (planning-relevant width 18 cm). ProTec 160 can be used for all applications as per ZTV-SA (A to E). All ProTec systems also have a generous water opening to prevent any dangerous accumulation of rainwater at the barrier.</p>

Mobile prewarners and warning trailers at a glance

<p>Can also be pushed onto our AM 4 TL for transportation!</p> 	<p>LED prewarner MV-LED – for active visualisation of road signs and animations.</p> <p>To give warning of one-day roadworks, accidents, changed road layouts and with information about events.</p> <ul style="list-style-type: none"> • Display signs as self-contained LED systems, protection rating IP 54; lighting test as per EN 12966 • Electric lifting and lowering of the LED sign • LED sign electromechanically locked in position when hinged down • Easy operation directly at the prewarner or with the optional radio remote control with colour display • Freely programmable including editing software for creating own texts, symbols and animated features • Height-adjustable drawbar incl. exchangeable DIN eye for trucks and ball-type coupling for cars 		<p>LED prewarner TOP-LED 2 – for active overhead signs</p> <p>Bright LED lamps give active warning six meters above the carriageway of approaching hazard situations. Features as MV-LED and also:</p> <ul style="list-style-type: none"> • Large overhead LED sign in landscape format for signalling over more than just two lanes • Stainless steel battery casing for three 12V/230Ah batteries and fully automatic battery charger • Height-adjustable inertia system • Voltage transformer 12/24V for automatic voltage detection, compatible with MAN-TGA and TGS • Hot-dip galvanised chassis • Hydraulic pump casing made of stainless steel • Hydraulic tilt protection with 4 hydraulic outriggers • Stability-tested to 85 km/h
 	<p>Mobile warning trailers AM (616-30) with LED lamps – for roads without oncoming traffic</p> <p>Mobile warning trailer type AM 3 TL (top):</p> <ul style="list-style-type: none"> • Complies with TL Mobile Warning Trailers 97 • Hot-dip galvanised trailer with loading area 1,200 x 1,200 mm • Aluminium tailgates • Exchangeable DIN eye for trucks and ball-type coupling • Covered with microprismatic highly reflective foil RA2 • 24 LED lamps and 2 LED flashlights – BAST-tested • With standard cable or optional radio remote control <p>Mobile warning trailer type AM 4 TL (bottom): Features as 3 TL and also:</p> <ul style="list-style-type: none"> • Large drive-on loading area 3,520 x 1,850 mm – ideal for transporting the MV-LED • Motorised lifting of the upper section with remote control 	 	<p>Mobile warning trailers SM with LED lamps – for roads with oncoming traffic</p> <p>Mobile warning trailer type SM 10, Vz 615 (top):</p> <ul style="list-style-type: none"> • Complies with TL Mobile Warning Trailers 97 • Hot-dip galvanised trailer with loading area 1,590 x 1,095 mm • Aluminium tailgates • Exchangeable DIN eye for trucks and ball-type coupling • Covered with microprismatic highly reflective foil RA2 • 3 LED flashlights – BAST-tested • Electrically adjusted blue arrow • Cable remote control as standard feature <p>Mobile warning trailer type SM 40, Vz 616-31 (bottom): Features as SM 10 and also:</p> <ul style="list-style-type: none"> • LED illuminated arrow and 2 LED flashlights – BAST-tested

Mobile traffic light systems by Berghaus at a glance



MPB 1400 –
Quartz-controlled traffic light system for one-way traffic, (export version also for T-junctions and crossroads)

- Tested as per TL-LSA 97 for one-way traffic
- Can be upgraded for T-junctions or crossroads by simply adding additional identical signal heads (for export)
- Simple handling with menu-guided infrared remote control
- Menu language in German, English, French, Spanish, Dutch, Italian or Turkish (other languages possible)
- Fixed-phase operation, manual operation with continuous green, continuous red, flashing, lamps off
- Innovative LED technology with night-time reduction feature



MPB 3200 –
Radio-controlled signal system, vehicle-actuated for alternating one-way traffic

- Tested as per TL-LSA 97 for one-way traffic
- Clearly arranged controls, all at a glance
- All signal heads identical so that all can be used as transmitter or receiver
- Vehicle-actuated control with directional radar detectors
- Fixed phase mode, request mode, green phase extension, manual operation with continuous red or continuous green, flashing, lamps off, green on request (continuous red)
- For universal use with radio, cable and quartz control. Standard halogen lamps or innovative LED technology with night-time reduction feature on request



MPB 3400 –
Radio-controlled signal system, vehicle-actuated for alternating one-way traffic, can be extended for crossroads

Technical features as MPB 3200 and **also:**

- Tested as per TL-LSA 97 for one-way traffic, T-junctions and crossroads (to comply with the TL-LSA, traffic lights in Germany have to be wired for crossing traffic flows).
- All signal heads identical: can be extended immediately by simple addition of more signal heads to obtain T-junction or crossroads control – also by radio.
- In contrast to the competition, a crossroads traffic light consists of four identical full traffic lights that can be combined at random, instead of one transmitter and three receivers
- Different modes can also be mixed, for example: main road with green phase extension and side road (or roadworks exit) on request



MPB 4400 –
Radio-controlled signal system, vehicle-actuated for alternating one-way traffic, can be extended for crossroads

TL-LSA 97 tested: technical features as MPB 3400 and **also:**

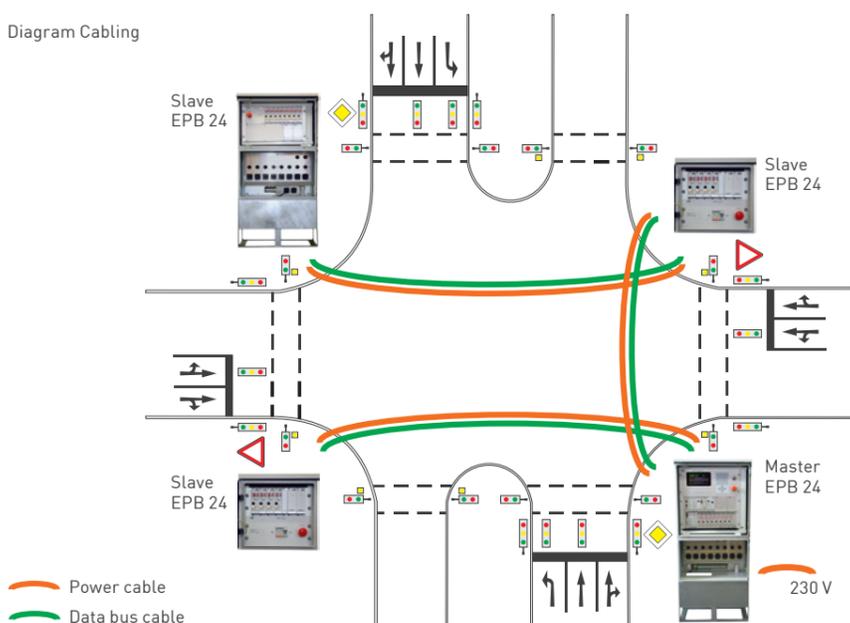
- Simple handling with menu-driven handheld terminal for up to 4 signal groups
- Programming possible on a laptop with AmpelTools for up to 12 signal heads with max. 24 monitored and 24 parallel signal heads
- Printout of all relevant data as per RiLSA and TL-LSA possible from the working traffic lights on site
- Timed program changeover with day and week programs for flexible traffic control
- Also for pedestrians, coordinating local public transport with progressive signalling, SMS module, fire brigade control, and much more besides



EPB 24 multiprocessor –
local controller system

The mobile traffic light controller system EPB 24 multiprocessor controls temporary systems at large crossroads with minimum cabling in next-to-no time. The master and slave controllers in the EPB 24 series are capable of local actuation of up to 24 signal groups with maximum 48 power cards for 96 three-aspect, fully monitored LED traffic light signal heads. The power cards can be freely addressed by hand, also on site at the roadworks. Depending on the application, customers can put together their own EPB 24 master/slave controller system from four different types to suit their specific needs and local conditions. The local EPB 24 controller system with several slave controllers physically separated from the master offers the great advantage of clearly reduced cabling, as it is no longer necessary to draw all cables together at a central point above all carriageways. All that's needed is to connect signal heads, buttons and detectors simply with the nearest controller.

Diagram Cabling



New Berghaus product catalogue 2018/2019

Our new product catalogue 2018/2019 is being mailed to customers in good time for the INTERTRAFFIC. More than 80 pages give a clear overview of our comprehensive Berghaus product range.

More than 200 illustrations, detailed explanations and practical tips present the strength and diversity of Peter Berghaus GmbH: innovative traffic technology from a single source – naturally straight from the manufacturer.

Our new catalogue is clearly organised into product groups, including for example:

LED flashlights and advance warning lights, LED temporary traffic control light systems, LED illuminated arrows, rotating beacons, mobile LED prewarners also with overhead signs, mobile warning trailers with LED lamps, mobile traffic light systems and crossroads controllers, software for computing signal timetables and programming traffic lights, mobile mounting devices for road signs and traffic light systems, modular large mast systems, LED lamps for roadworks and incidents, GPS-controlled maintenance documentation, height warning systems, lane marking foils, TL beacons and guidance systems, mobile crash barriers for protecting motorway and urban roadworks and many more traffic technology products besides.



Needless to say that you can also download all product brochures and operating manuals freely without having to register, on our website at any time. The new product catalogue with sales price list will also be online at the end of March in good time for the Intertraffic.

berghaus-verkehrstechnik.de

The AVS Traffic Safety Group – Your Number One service partner

When it comes to professional traffic safety on Germany's roads and motorways, the AVS Traffic Safety Group is without doubt your Number One service partner.

Our network of more than 500 well-trained experienced AVS professionals at currently 14 AVS sites in Germany provides fast, expert, low-cost implementation of regional and national traffic safety projects. AVS is the compact provider of professional traffic safety on all roads and motorways. Time and again the AVS Traffic Safety Group finds itself being called upon as a reliable partner for traffic safety in major projects implemented in the framework of public/private partnership (PPP) models. These include the long-term, long-distance major PPP roadworks on the A1 motorway between Hamburg and Bremen, on the A5 between Baden-Baden and Offenburg, on the A9 upgrade project between Hermsdorfer interchange and Hof, on the A7 between Hamburg and Bordesholm and between Bockenem and Göttingen, as well as the very latest project beginning in March 2018 for the six-lane upgrade and refurbishment of the A10/A24 motorways in Brandenburg.

The AVS experts are at your side in word and deed to handle all aspects of traffic safety. The range of services



includes initial planning, compilation of road sign and signal plans, applications for approvals and traffic law injunctions, setting up diversions with signage and mobile crossroad traffic lights, complete road marking at the construction site marking with foil, paint or plastic materials including demarking with the AVS PeelJet after the end of construction without leaving any residues while protecting the road surface, installation, maintenance, modification and dismantling of TL-beacons and mobile ProTec crash barriers with Pro-Tec-Tor quick access for emergency services, LED signage and mobile congestion warning signs as well as regular inspection and maintenance of the construction site protection as a 24/7 service, and much more besides. AVS is your expert service partner, supplying all you need for safe traffic control from a single source. You too can benefit from our wide range of experience and the extensive AVS network: simple entrust your roadworks facilities to AVS, your Traffic Safety Professionals!



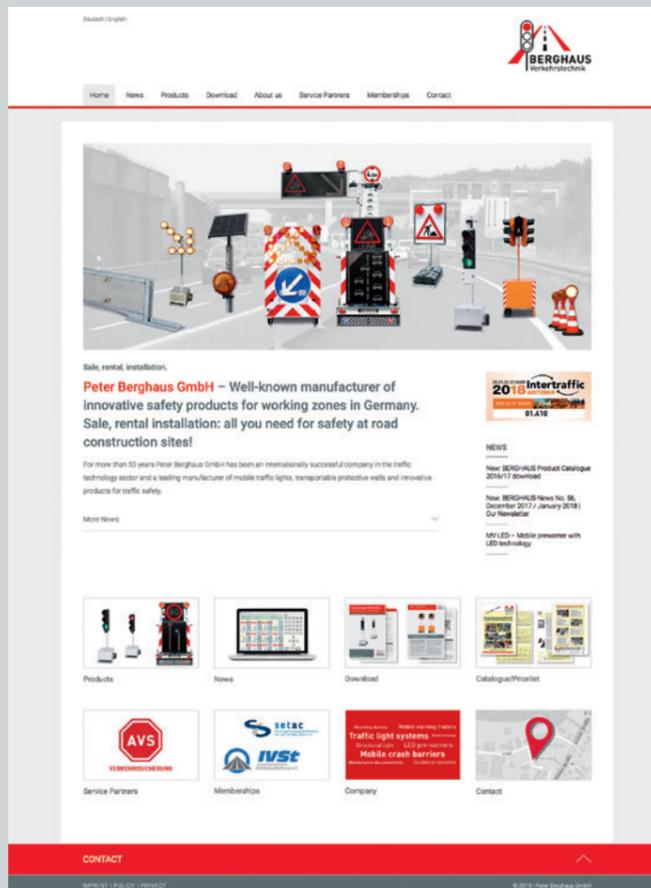
New look for berghaus-verkehrstechnik.de and avs-verkehrssicherung.de

Following the positive response to the redesign of our mobile-schutzwaende.de website, we have now also revamped the avs-verkehrssicherung.de and Berghaus-verkehrstechnik.de websites with our current fresh design.

Both websites were relaunched at the start of January with a particular focus on clear presentation and easy legibility in what is known as „responsive web design“. When you visit our websites, you will find that the on-screen display and corresponding resolution adapt automatically to the differing requirements of mobile devices such as smart phones or tablets. The screen now shows visitors interesting information, technical details and illustrations of our traffic safety products and the services provided by AVS Traffic Safety.

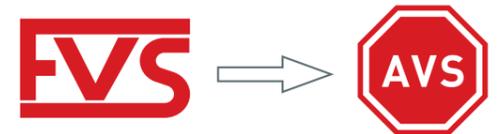
Would you like to look at a brochure with technical information about Berghaus products, read recent issues of Berghaus News once more or do you urgently need operating instructions for one of our mobile traffic light systems? Then simply go to the download section of our Berghaus website. Here you can find important information as well as operating instructions for many current and older roadworks traffic light systems.

The AVS job exchange is also always interesting, with a range of interesting vacancies arranged according to the AVS sites: www.avs-verkehrssicherung.de/jobangebote/



Here at Berghaus we are also always on the look-out for new colleagues for various areas. Simply take a look at our vacancies: www.berghaus-verkehrstechnik.de/stellenangebote/

As announced, the new Berghaus catalogue will be available for downloading on our website as from the end of March in good time for the Intertraffic: www.berghaus-verkehrstechnik.de/en/download/product-catalogue/



F.V.S. becomes AVS Nürnberg

F.V.S. is changing its name to AVS Nürnberg, thus making it clearer that the company belongs to the successful AVS Traffic Safety Group.

„F.V.S. Fachbetrieb für Verkehrseinrichtungen auf Straßen GmbH“ from Wendelstein has changed its name and is now called „AVS Nürnberg GmbH“. At the same time the company has also moved to new premises a few metres down the road at Sperbersloher Straße 568. The warehouse is staying where it was in Sperbersloher Straße 556, 90530 Wendelstein.

„Of course there's always a risk in changing the name of a company well-known for top quality in traffic safety“, admits Managing Director Stefan Krauß. „But we wanted to set an external sign that we belong to the successful service organisation of the AVS Traffic Safety Group. So changing our name wasn't a difficult decision in the end.“ With a knowing smile on his lips, he adds: „Taken literally, there's not much of a change: all we've done is replace the F with an A.“

The AVS Traffic Safety Group includes Peter Berghaus GmbH as manufacturer of innovative traffic technology and mobile crash barriers together with 14 AVS Traffic Safety sites throughout Germany with more than 500 employees working in a highly efficient service network (see report above). This puts us in a position to offer traffic technology and traffic safety from a single source, for the benefit of our customers.