

Berghaus-News

Traffic Technology · Mobile Crash Barriers

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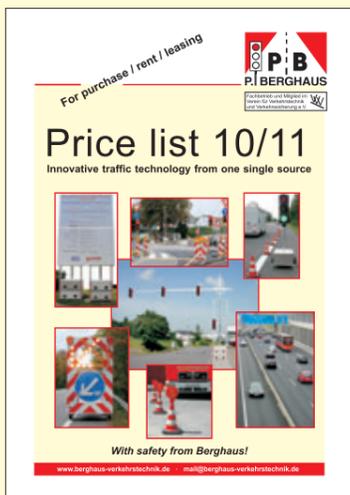
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Order the Berghaus Catalogue Free



Our new 2010 product catalogue has just come out. Its 64 colour-printed pages provide an overview of our whole broad range of products. With well over 200 illustrations, and full descriptions, it gives a picture of Peter Berghaus GmbH in all our vigour and variety: innovative traffic engineering all from a single source – and naturally, direct from the manufacturer.

Order our catalogue "Price List 2010/2011" from us right now free!

Imprint

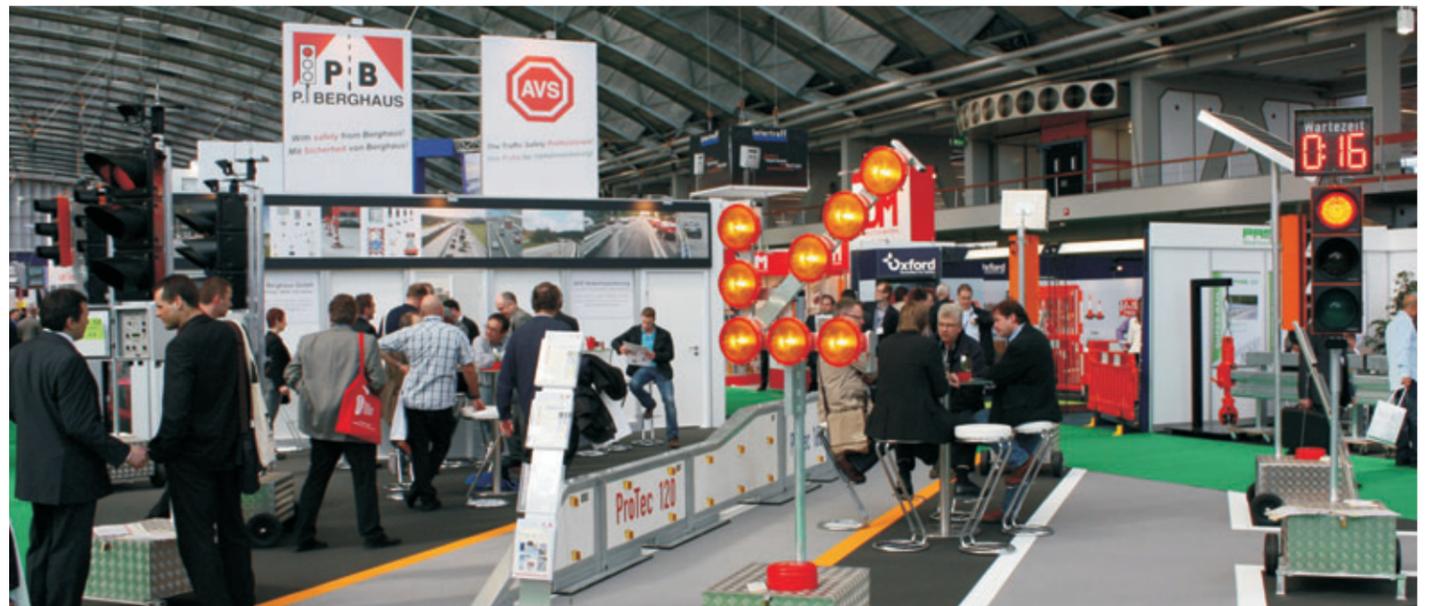
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INTERTRAFFIC 2010: Thanks for Your Visit



Crowds of visitors pressed around Peter Berghaus and AVS Traffic Safety's joint exhibition stand on all four days of the INTERTRAFFIC Trade Fair. Many visitors from both Germany and elsewhere used the Amsterdam fair to inform themselves about our innovations in the field of mobile traffic engineering and picked up, right at the stand, our latest product catalogue and prospectuses.

INTERTRAFFIC is without a doubt the worldwide No. 1 among trade fairs for specialists in the field of traffic engineering.

The 20th INTERTRAFFIC fair took place at the end of March in Amsterdam and was the largest yet held. Some 806 exhibitors from 45 countries presented their newest products and services in the traffic-engineering field. The Amsterdam fair was visited by around 25,000 people active in the sector from some 114 countries, eager to gain a full picture of the newest developments directly from the manufacturers and service-providers. Our exhibition stand – located for the first time right at the centre of the fair, in Hall 1 and shared with our service-provider the AVS Traffic Safety Group – was also mounted on a bigger scale than ever before. We

used it once again to introduce to an international audience of experts innovations never seen before the fair.

Such as the new **MPB 3400 mobile traffic light system**, which was conceived for use as an alternating one-way traffic system but can – so as to meet the needs especially of international customers – be expanded and used to control traffic at crossroads simply by adding further structurally-identical signal heads. Likewise very popular was the latest addition to the ProTec family of mobile crash barrier products. Introduced for the first time at this year's fair was the **ProTec 160 mobile crash barrier**, with its force-fit transition element to the ProTec 120. With the ProTec 120 supplemented by the new ProTec 160, it is now possible to supply all traffic-control needs on

construction sites meeting the German "Roadworks Safety Guidelines" (ZTV-SA 97) from a single family of products – and this, moreover, not only between worksite and oncoming or parallel-flowing traffic but also between streams of contraflow traffic, and even in the transition zone.

There was also great demand for our complete catalogue, newly published for the fair, and for the 2010 price list. Visitors also took away many CDs containing extensive product information. Once again, our exhibition stand became a rendezvous for industry specialists from Germany and the whole world. We want to thank all our customers, and those interested in becoming such, for visiting our stand and for the interest shown in our products!

Individually-Tailored Traffic-Light Solutions



A very special form of traffic control was needed during the building project that went on in the 3.1-kilometre-long Jagdberg Tunnel on Federal Autobahn No. 4 in Thuringen. Alarm switches (see photo on right) were fitted into the structure of the Tunnel itself on all escape routes. These switches could, in case of danger, be operated by anyone and would immediately halt the significant flow of heavy-goods traffic at the tunnel entrances. This far from everyday system of traffic regulation by traffic-light was planned and executed by AVS Mellingen – using Berghaus technology, naturally.

There is presently going on in Thuringen, under the direction of the German Unity Motorway Planning and Construction Company (DEGES), the reconstruction of Federal German Autobahn No. 4 as a six-lane motorway between the junctions Magdala and Jena Goeschwitz. This involves constructing the Jagdberg Tunnel,

over a length of 3.1 kilometres, as an autobahn tunnel. The Tunnel will form the heart of Autobahn No. 4's so-called "Leutra Valley Bypass". It is planned that the 11.8-kilometre-long, six-lane stretch should replace, in mid-2012, the four-lane route, with its numerous bends and gradients, that drivers are currently

obliged to take through the valley. The 3-kilometre-long southern course of the Jagdberg Tunnel is currently experiencing a massive flow of heavy-goods traffic. Some 60 four-axle dump-trucks drive daily, up to 15 times a day, back and forth to and from Bucha, heavily loaded with soil and earth. They are bearing away the artificial mountain which has arisen near Goeschwitz. The more than 1.3 million cubic metres of excavated earth created by the tunnel-blasting must now be transported up out of the valley through the Tunnel's southern course (there is a difference in altitude of 90 metres between the eastern and the western entrances). The earth is to be used to construct noise-protection embankments up to 12 m high.

So that, in case of danger, any one of the over 200 workers involved in the tunnel construction will be able immediately to halt the flow of heavy traffic, AVS Mellingen GmbH has received as part of its commission the task of putting in place a traffic-light system with "alarm switches". The whole tunnel can thus be sealed off in a split second, so as to allow quick access to emergency vehicles

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Mobile Warning Trailer Broadcasts “Attention, Danger!”



As was reported by StrassenNRW and the German Ministry of Transport in their press release, Lutz Lienenkaemper and Dr. Peter Ramsauer, the Transport Ministers of the state of North-Rhine-Westphalia and Germany respectively, introduced in April an additional safety system for construction sites on motorways. This system is based on CB radio transmitters which broadcast in several languages, from mobile warning trailers, from devices used on site such as power sweepers and road-section supervisory vehicles, and from directing cones, the warning “Attention, danger!”.

The warning system is aimed primarily at lorry drivers. The warning is received by all vehicles that are equipped with, and have activated, CB radio. It is broadcast on different channels and in different languages (German, English, Polish, Czech, Russian, Lithuanian, Turkish). The transmitters have a very short range of about 350 metres, so the message reaches drivers only as they approach the site of possible danger. The broadcasts are also

adjusted to the flow of traffic and, where speeds fall below 30 km ph, or where traffic slows to a grind or a jam, they automatically turn off.

“Our goal is better traffic safety for everyone using the motorways and also for motorway maintenance employees. The job they do is often mortally dangerous,” said Dr. Ramsauer, introducing the new system. The Transport Minister praised the invention, which had first been tested out in a pilot project in the area covered by the North Bavarian Motorway Directorate. “CB radio is a very suitable means of warning lorry drivers in particular of possible danger spots.” North-Rhine-Westphalian Transport Minister Lutz Lienenkämper stressed that “almost every week on our motorways safety trailers are destroyed that are there to draw attention, by warning lights, to one-day roadworks. And the damage is not always just material. Sadly, people are often hurt too, sometimes seriously. I’m very glad that North-Rhine-Westphalia will now be the

first federal state to introduce this new warning system on all motorways.” Winfried Pudenz, CEO of StrassenNRW, stated that he was convinced that the lorry drivers would indeed make use of this additional instrument. StrassenNRW has arranged for a total of 233 warning-transmitters.

Warning trailer featuring CB-radio warning system. It can be recognized by the antenna (left) and the radar sensor (right) used to register the approach of a vehicle.



Also available with CB-radio warning feature are Berghaus's “AM-type” mobile warning trailers for motorways and federal highways without oncoming traffic.

Large numbers of lorry drivers still have CB radio. A random-sample survey commissioned by StrassenNRW revealed that 75% of lorries were CB-equipped. Admittedly, there were great differences between lorries of different national origin:

96% of Polish lorries were equipped with CB radio, and 74% of Dutch lorries, but only 65% of German ones. Among the lorries so equipped, 70% of the drivers, on average, kept the CB radio on while they drove.

The motorways of North-Rhine-Westphalia have seen a significant increase in lorry-and HGV-traffic in recent years. One-day roadworks in traffic areas – for example, for road repairs or cleaning and maintenance work – have become very dangerous for road maintenance workers and employees of other firms involved. When driving close together in long columns, lorry drivers often overlook written warning signs.

Berghaus offers re-equipment of existing warning trailers

We can make your (one-day) roadworks “audible”, not just visible, as we now, as manufacturer of mobile warning trailers, offer to our customers, should they wish it, the CB-radio warning feature directly ex works and ready to operate, with every newly-purchased warning trailer.

But it is also possible to upgrade the mobile warning trailers and advance-warning devices that you are already using and to add to them the new CB-radio system. We will be happy to give you more details about this. Just contact us and we will immediately prepare an offer to fit your particular needs.

Trade and Industry Secretary Guest at AVS

CEO Axel Keller at AVS Overath GmbH had the honour, in April, of greeting an important visitor:

At an event for local entrepreneurs organized at AVS Overath GmbH, North-Rhine-Westphalia's Trade and Industry Secretary Christa Thoben discussed the economic upturn in the state and the government's plans to support it. Looking particularly at new industrial-estate areas added to the business park at Burghof/Diepenbroich in the town of Overath, she explained how the state government has taken measures to support some 14,000 small and medium-size businesses since the start of 2009. The government support-programme *Meistergründungsprämie NRW* can currently report over 13,000 start-ups in the trades and crafts sector, involving some 65,000 jobs created or preserved in the medium term. This programme, she said, has been ensuring for 15 years now that young craftsmen who want to start up businesses of their own can do so under optimum conditions. “The *Meistergründungsprämie* is still the most successful business start-up programme in the country – and the cheapest for the taxpayer,” she emphasized. This was the Secretary's answer to the question of co-organizer Dr. Christiane van Zwoll, of the North Rhine branch of the “Consortium of Family Entrepreneurs” (ASU/BJU), as to how the state government intended to handle



Holger Müller, Dieter Berghaus, Christa Thoben, Bernd Sassenhof, Axel Keller, Rainer Deppe (from left to right)

the visible upturn. An example of this upturn was the success of AVS Holding, which draws together Peter Berghaus GmbH and ten other firms specializing in roadworks safety. Host and AVS Holding CEO, Dieter Berghaus, told the interested guests how the AVS Traffic Safety Group, as a medium-size enterprise with 225 employees, manages to work successfully all across Germany.

For the town of Overath and its marketing authority, senior municipal councillor Bernd Sassenhof attested that significant progress had indeed been achieved. By designating, opening up and structuring some 180,000 square metres of trading estate, Overath had made itself a popular site for businesses... and (as we reported in Berghaus News no. 33) 21,000 square metres of this land now form the company premises of AVS Overath.

www.avs-verkehrssicherung.de

Solar car suitable for everyday use emerges

For ten years now, students at Bochum University have been developing innovative solar vehicles which run exclusively on the energy of the sun's rays. The trainee engineers' designs have already several times won prizes at the unofficial “solar car world championships” in Australia. One of the team of developers is a former trainee of ours, Sven Hennecke.

The latest solar vehicle from Bochum is the *BOcruiser*. Of a size comparable with the average private car, it was designed specifically with everyday use in mind. This innovative concept once again won the “Global Green Challenge Design Award 2009” in Australia and also gained attention from all over the globe.

Bochum University intends to consistently pursue this path of electro-mobility for everyday use. For the “Global Green Challenge 2011” they are developing a version of the *BOcruiser* with two passenger-seats.

As one of the sponsors, our firm has had the honour of making its own contribution to this future-oriented project.

In the *BOcruiser* we see, already today, how the future of electro-mobility may look. Because this basic orientation toward a design for everyday use – that is, a genuine “solar car” – forms the core of Bochum University's plans for a mass-producible electro-mini-van, which is to be called the *BOmobil*.

www.hochschule-bochum.de/solarcar



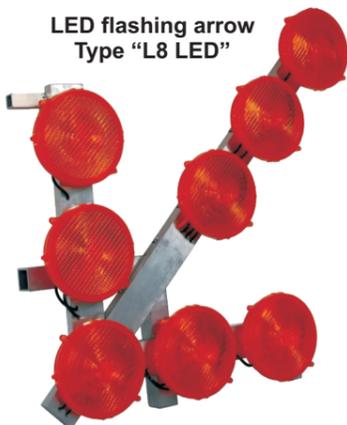
The trainee engineers of Bochum University are delighted as their *BOcruiser* arrives at its goal after a sun-powered journey of 2000 km right across Australia, winning the design prize for most conceptually innovative solar vehicle. Among the development team was a former trainee of ours, Sven Hennecke (third from left).

New LED technology for warning lights and lamps

Even if our lights cannot be identified at first glance as Berghaus lamps, we have been manufacturing electronic circuitry for more than 45 years already – so that Berghaus technology is “hidden” in the most various objects, such as the double warning-light units used in vehicle safety systems, advance-warning lights at roadworks, mobile warning trailers, temporary traffic control light systems, illuminated arrows, flashing lights on directing cones, and many other products.

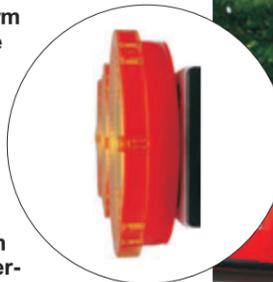
Many of these lights are battery-driven, which is why we pay particular attention to energy-saving LED technology. We have developed a new LED board that is suitable for almost every application. Whether the diodes used take the form of flashing or merely blinking lights, the new Berghaus LED technology ensures that optimum brightness is achieved with minimal power-consumption – an important consideration, because the safety of human beings in traffic often depends on such lights. Flashing lamps set on standard two-piece directing cones or single, battery-powered flash-lights are used in police, customs, Federal Agency for Technical Relief (THW), and fire-brigade opera-

tions, and the saving in power-consumption is palpable particularly in such lights, which use commercially-available 6-volt block batteries (4R25). The LED flash-lights can now be run with one set of batteries for easily twice or three times longer than with conventional gas-discharge flash tubes. This is both practical for users, because the batteries don't have to be changed so often, and also good for the environment.



But it is not only in battery lamps that the new technology that we have built into our lamps – extremely compact, with only 50 mm depth – is used. We are currently also offering the LED illuminated arrow “L8 LED” and the compact tail safety lights “LED Triple Flasher” (photo above right) with the new lamps. Berghaus has also developed further features for this innovative LED control, such as automatic recognition of 12- or 24-volt DC current, electronic reverse-polarity and undervoltage protection, and smooth adaptation of the LED brightness to the ambient light.

New casing form with innovative Berghaus electronics: 50-mm flat LED lamp as blinking or as flashing light – optimum brightness with minimum power-consumption.



Compact tail safety lights with LED Triple Flasher – equipped, of course, with our own electronics.

The new Berghaus LED technology means that a single set of batteries now provides two to three times the operating time compared to traditional 6V gas-discharge-flash-tube-powered lamps, making our battery-powered LED flash-lights cheaper and more environmentally friendly to use.



Portable 6V LED flash-light, now featuring new Berghaus LED technology. Available as single- or double-faced flash-light.



The flash-light seen from the side.

Retroreflecting directing cone with energy-saving LED flash-light of only 50mm thickness.

Continued from page 1: Individually-Tailored Traffic-Light Solutions

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But it is not only in Thuringen that individual solutions using mobile traffic-light technology are in demand.

Even deep in the Southern Hemisphere Berghaus technology is proving its worth. At the largest and busiest airport in New Zealand, Auckland Airport, it is a Berghaus mobile traffic light that directs traffic – only ground-traffic, of course. Our partner in New Zealand, *International Safety Products NZ*, employs here the MPB 4400 mobile traffic light system.



Radio-controlled Berghaus MPB 4400 traffic light on the landing field of Auckland Airport, New Zealand
picture: International Safety Products NZ

Permissible routes for ground traffic on the landing field are transmitted from the tower via radio remote-control, so that, during building

works at the airport, works vehicles can cross the runways without danger. Berghaus traffic lights are also presently directing traffic at Germany's biggest airport in Frankfurt-am-Main. Building works there necessitate directing bus traffic in both directions turn by turn through a single narrow strip of road. The problem is especially challenging because a bus-stop is also situated at this point. If a bus is standing at the stop, no other bus can pass, from either direction. Before a bus is allowed to drive into this

particular stretch of road, then, it must be checked whether there is already a bus at the stop.

The traffic-control problem here is being handled by the Trebur firm *BSM Henning*



Traffic lights for busses at Frankfurt Airport

picture: BSM Henning GmbH

GmbH – using Berghaus traffic-light technology, of course. The EPB 6000 mobile crossroads controller meets all the demands of the situation. Induction loops permit automatic registering of arrival and departure as well as supervision of the bus-stop. Entry is automatically allowed only when no other bus is present at the stop or on the problematic road-strip. Berghaus's mobile traffic-light technology enables the busses to be steered safely through the roadworks.

Traffic-direction problems of these far-from-everyday kinds illustrate what close attention we as manufacturers pay to concrete practical considerations – because Berghaus traffic technology has been distinguished for 45 years now by the special flexibility of our mobile traffic-light systems. We are happy to work out with you a solution tailored to your individual traffic situation, which you can either buy directly from Berghaus or rent from your AVS service partner.

Traffic-light training for road maintenance depots

As an attentive reader of Berghaus News you will already be aware that, for many years already, we have been offering, every spring, traffic light training courses at our Kuerten works in North-Rhine-Westphalia, and at AVS Mellingen in Thuringen.

We are happy, however, also to come and train your workers directly at your company, municipal building yard, or administrative office.

At the end of May, for example, we organized for the Administrative District Office of the Rhine-Neckar district two day-long seminars for the workers of the road maintenance depots at Wiesloch and Neckarbischsheim respectively.

The seminar participants – up to 20 per depot – were first given a brief introduction to the applicable German regulations bearing on traffic lights and traffic signals both stationary (RILSA) and mobile (TL-LAS 97) as well as to the guidelines for safeguarding roadworks (ZTV-SA).

This introduction to the topic of “traffic-light systems on building sites” also

involved the elucidation of the legal and technical bases of mobile traffic lights. Proceeding from these elements and from the specific building-site requirements, the most appropriate traffic-light systems were sought out, with participants drawing up, under the guidance of our seminar leader, signal-schedules tailored to the needs of each building project.

Theory was thus already translated into practice. We then proceeded to actually programme the signal-schedules into the traffic-light systems and to mount a test-run with checking of the signal safety features. For this, we placed at participants' disposal various systems that differed from one another in their technical equipment and manner of operation. Participants were also trained to recognize and deal with faults, such as a wrongly-adjusted light or a radar detector not properly directed toward traffic.

Very soon, participants were themselves in a position to correctly and usefully employ, without need of supervision, mobile traffic-light systems on building sites.

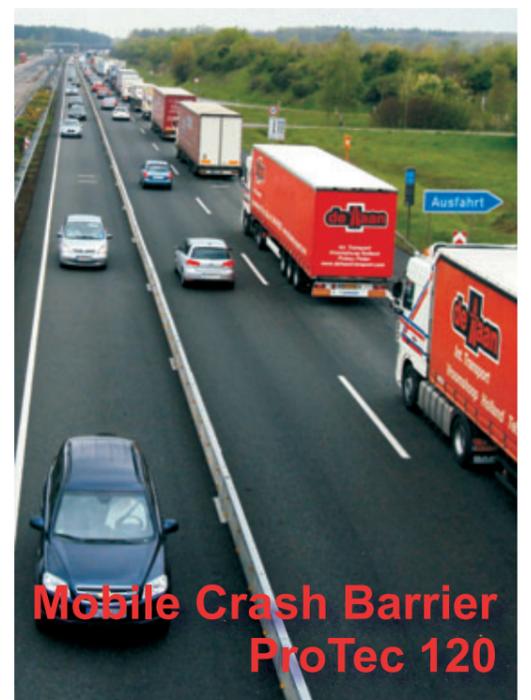
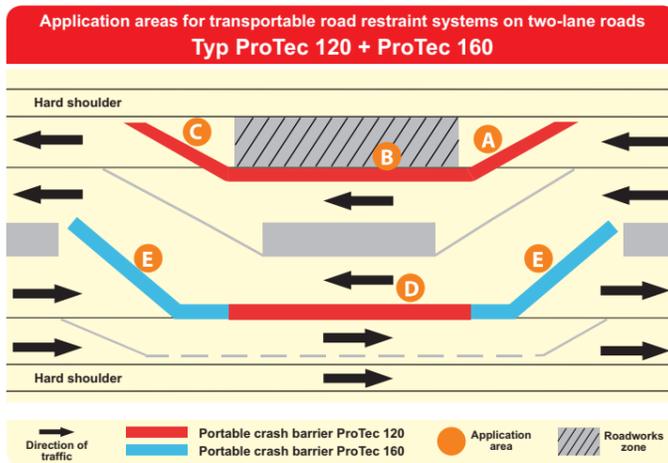


Employees of the Wiesloch Road Maintenance Depot at a traffic-light training seminar

One for All: Mobile Crash Barriers from the ProTec Family



Mobile Crash Barrier ProTec 160



Mobile Crash Barrier ProTec 120

With the mobile crash barrier ProTec 160 (seen, left, on Federal Autobahn 4 near Bad Hersfeld) and its "little brother" the Protec 120 (seen, right, on Federal Autobahn 2 near Lehrte-Haemelerwald), you'll be well-equipped for any application area that needs to meet ZTV-SA 97 standards. And special adapters (see middle photo) facilitate a perfect force-fit linkage of both systems, e.g. in the transitional areas between application areas D and E.

We presented it in the last edition of Berghaus News as an innovation for the INTERTRAFFIC trade fair: the new, mobile, and extremely narrow (planning-relevant width of only 18 cm) ProTec 160 crash barrier.

This crash barrier retains all the advantages of its "little brother", the tried-and-true Protec 120 system (planning-relevant width of 14 cm) which has been ensuring safety on motorway roadworks for years already. Thanks to the force-fit linkage between the different systems of the ProTec family it is now possible to handle all traffic control around a construction site meeting ZTV-SA 97 standards with ProTec products alone.

No sooner was the ProTec 160 introduced at the trade fair than it was applied in practice. Both ProTec systems were employed together in a building project carried out on **Federal Motorway 4** in

the **Kirchheim Triangle** near Bad Hersfeld (photo above left). This project, mounted by the Hessian Road and Traffic Authority (ASV) Eschwege, involves the renewal of the carriageway surfaces between the Triangle and motorway junction Wildeck/Obersuhl, the construction of continuous hard shoulders on both sides and of additional lanes on uphill stretches, and renovation of the bridge-structure. In several phases of these extensive works traffic control needs to be altered. The Authority's Call for Tenders for the work therefore specified 550 metres of mobile crash barrier with a H1 containment level and a minimal effective range of W4, as well as a T3/W2 crash barrier. **AVS Mellingen** thus chose to handle this traffic-control problem with products from the ProTec family: ProTec 160 satisfies the H1/W4 stipulation and ProTec 120 the stipulation T3/W2. The force-fit transition section

(photo above, middle) professionally links the two crash-barrier systems.

A building project commissioned by the Hanover section of the Lower Saxony State Authority for Traffic and Road Maintenance on **Federal Motorway 2 near Haemelerwald** (photo above right) gave **AVS Lehrte** a chance to shine.

During an extensive asphalt-renewal (OPA), traffic-flow had to be maintained and made safe by appropriate traffic control. The Call for Tenders specified that a total of 5,550 metres of mobile T3/W2 crash barrier (with rubber underlay to protect the carriageway) should be set up within just 2 days on this section of Motorway 2.

AVS Lehrte began setting up the ProTec 120 at 6 pm on Saturday evening. Thanks to AVS's excellent logistics and to the easy-to-assemble structure of the ProTec systems – only two bolts are required to link up the individual 10-metre elements

– the set-up of the whole mobile crash barrier was completed by 11 pm on Sunday night. Traffic was redirected into the newly-created control system and the roadworks could be initiated much earlier than planned.



Quick assembly: because each 10m element requires only two bolts to be secured

Instead of the 48 hours foreseen in the Call for Tenders, the lads at AVS Lehrte were able to complete the set-up in only 29 hours. Proof once again that the AVS service team can not just meet but beat any deadline set for it.

Berghaus and AVS support football teams

The strong social commitment of the AVS Traffic Safety Group was shown recently when AVS Overath became sponsor of the new black-and-yellow club jerseys of their local league football team TUS Marialinden.

AVS Mellingen GmbH likewise recently backed a handy sports-bag in team colours for the women's team of SV Gruenweiss Niedertrebra, which now displays the AVS logo.

And the Bambinis of Duerscheid's junior team also proudly bear on their jerseys the company logo of Peter Berghaus GmbH.



Peter Berghaus Traffic Technology and AVS Traffic Safety have a presence all through regional football, from men's (TUS Marialinden, l.) to women's (SV Gruenweiss Niedertrebra, m.) to kids' leagues (DJK Duerscheid, r.)



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