

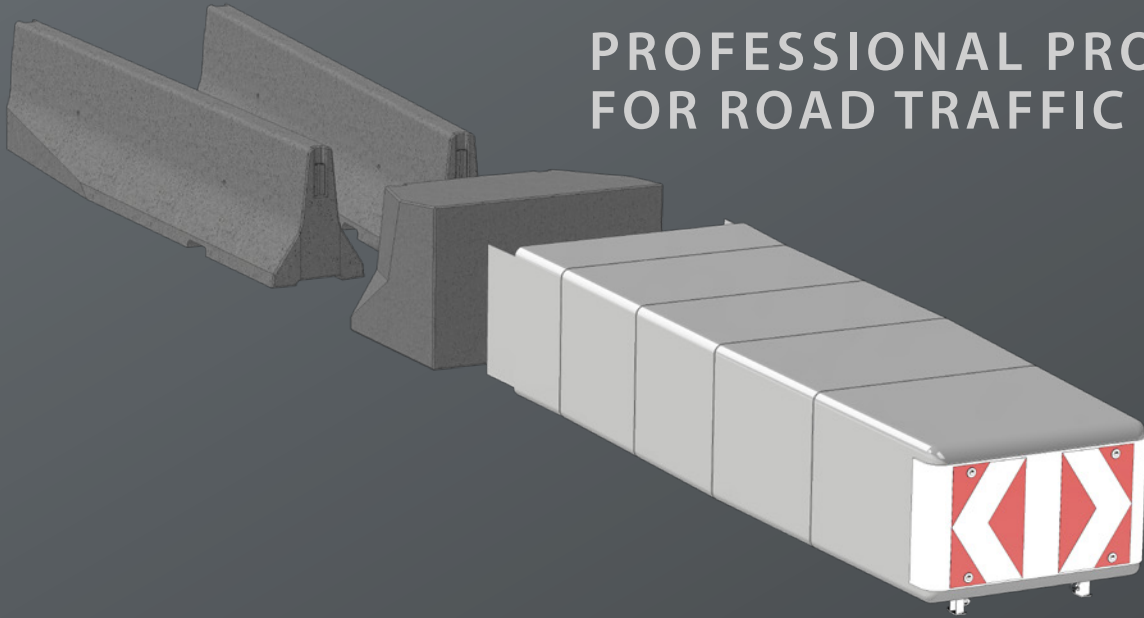


→ impact protection

your professional safety partner



PROFESSIONAL PRODUCTS FOR ROAD TRAFFIC SAFETY





Perfect performance since 1997

Perfect Connectivity

- Easy connection to existing systems
- Concrete junction element to connect to the standard concrete guard rails or existing concrete safety barriers

Quick Installation

- No special foundations required
- No concrete slab, anchors, or specially prepared basement required
- The ALPINA Road Airbag absorbs the impact energy
- No force transmission into the substrate
- Inestimable advantage for tunnel portals and bridges
- Installation in two hours – up to 10 installations per day

Insist on Maximum Safety

- Experience in safety for speed sports for decades
- Your partner for safety matters
- All around the world
- Tested and checked thoroughly
- Close cooperation with FIA, FIM, FIS, and with national and international traffic authorities
- Appropriate safety solutions at reasonable prices

Non-redirective:

- Permanently elastic material
- 3 or 5 air chambers (depending on type)
- The air is compressed during impact
- The air flows through throttling valves between the chambers and escapes through drain valves
- This absorbs the impact energy and minimizes the rebound

After Impact:

- The ALPINA Road Airbag returns to its original shape in a few seconds after impact
- Immediately ready for the next impact
- Remains partially functional even when damaged
- Easy to repair by craftsmen in case of minor damage

ALPINA Terms & Conditions

You can download or read our terms and conditions online:
<https://alpina.at/en/terms/>



→
safety
first.



2	Advantages · Imprint
3	Content
4	Innovations for road traffic
5	The new ALPINA F1-80 & T1000-100
6-7	decades of high speed experience
8	non redirective working principle
9	Selection of performance level
10-11	product overview
12	The ALPINA F1-50: Facts & Purposes
13	Technical data ALPINA F1-50
14	The ALPINA F1-80: Facts & Purposes
15	Technical data ALPINA F1-80
16-17	Crash test & Performance
18-19	Save Money – work with the Pro's!
20	The ALPINA T800-50: Facts & Purposes
21	Technical data ALPINA T800-50
22	The ALPINA T1000-80: Facts & Purposes
23	Technical data ALPINA T1000-80
24	The ALPINA T1000-100: Facts & Purposes
25	Technical data ALPINA T1000-100
26-27	Protect employees! Reduce costs. ALPINA TMA-Light
28	ALPINA TMA-Light Facts & Purposes
29	Technical data ALPINA TMA-Light
30-31	Quick Moveable Barrier: flexible track reorder
32	Exclusive Partnerships: SITEC · Snoline / Lindsay
33	ALPINA Team: Passion and Commitment
34	We care for Sustainability
35	Contact Persons



The New ALPINA F1-80

- ▶ *Very short length 2.4 m*
- ▶ *No foundation required*
- ▶ *No energy transfer into ground*
- ▶ *Quick installation*
- ▶ *Unique worldwide*



OFFICIALLY APPROVED BY

 Federal Ministry
Republic of Austria
Climate Action, Environment,
Energy, Mobility,
Innovation and Technology

The New ALPINA T1000-100

- ▶ *Higher test level 100 km/h*
- ▶ *No special surface conditions required*
- ▶ *No energy transfer into ground*
- ▶ *Simple assembly*
- ▶ *Saves considerable costs*





decades of high speed experience

ALPINA Crash Cushions – Quality “Made in Austria”

- Originally developed and designed for Formula 1
- Used on Austria’s roads since 1997
- Today also used in Poland, Czech Republic, Slovakia, Slovenia, Sweden, Portugal, and Switzerland
- Successfully tested
- More than 1,000 installed units in central Europe

Insist on maximum safety

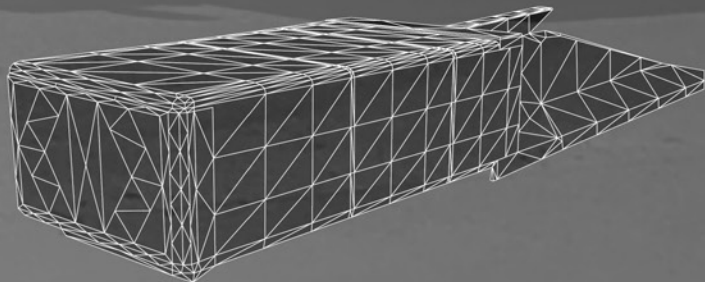
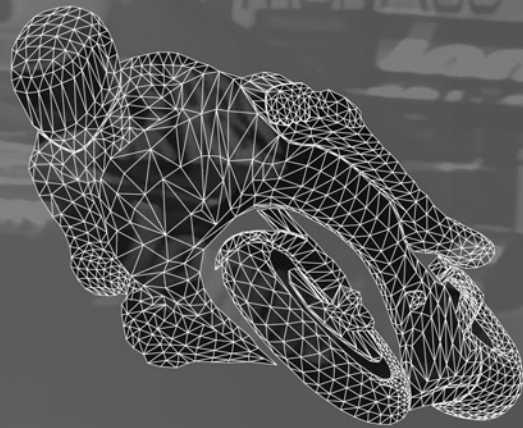
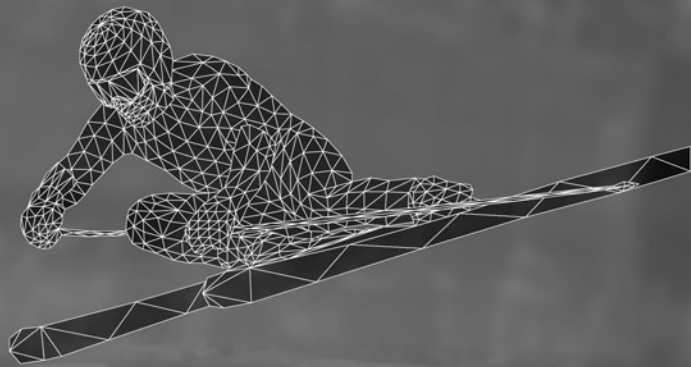
- In safety for speed sports since decades
- Your partner for safety matters all around the world
- Tested and checked thoroughly
- Close cooperation with FIA, FIM, FIS, and with national and international traffic authorities
- Appropriate safety solutions at reasonable prices

Alpina services for organizers of motorsports events

- Crash protection for motorcycle racing for more than 15 years
- Formula 1 series rely on ALPINA safety experts and products
- High-quality products, years of experience, practical know-how, and personal commitment
- For maximum safety on your roads

Extra value through extra know-how

- For decades we have been engaged internationally in satisfying our customers’ needs in different businesses, such as safety for
- Ski jumping
- Ski racing
- Motorsports
- Road traffic
- Events

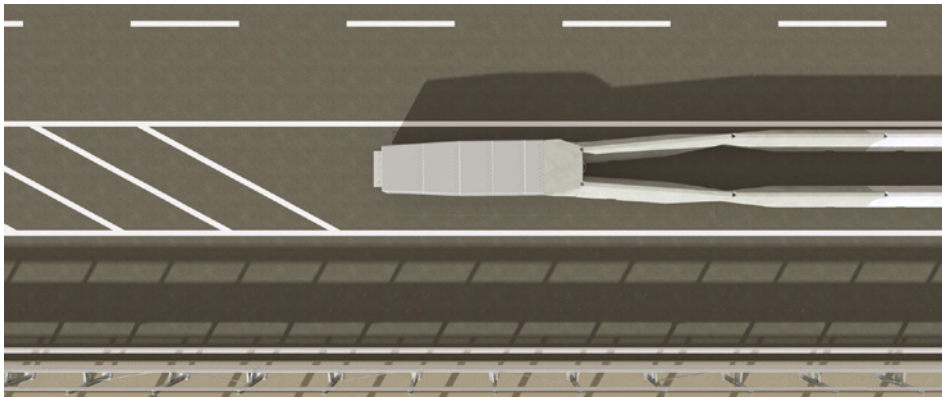


non redirective working principle

The ALPINA crash cushion (road airbag) consists of a permanently elastic material, which builds 3 or 5 air chambers (depending on the type). At impact, the air is compressed. The air flows through throttling valves between the chambers and escapes through drain valves. This absorbs the impact energy and minimizes the rebound.

The ALPINA Road Airbag returns to its original shape a few seconds after impact and is ready for the next impact.

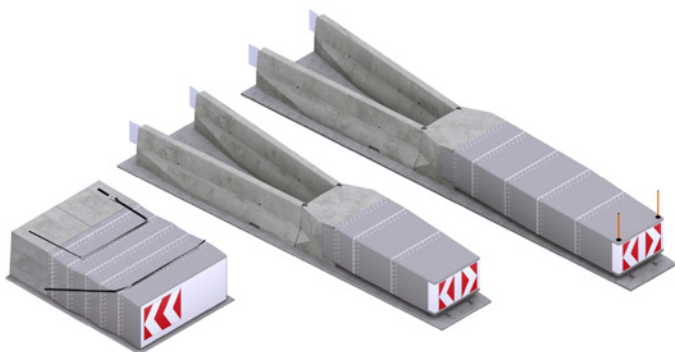
It is also partially functional in a damaged state and can be easily repaired by craftsmen in case of minor damage.



Due to the low rebound, only a small duration of acceleration at a low level (impact force) is achieved, whereby the risk of injury decreases significantly.

All parts are closely matched so that no parts can break loose from impact.

Due to the homogeneous surfaces of the ALPINA Road Airbag, the risk of injuries to motorcyclists is significantly lower than with alternative products. The risk of injury can be further reduced by attaching the optional motorcycle driver protection.



The ALPINA Road Airbag is fixed in accordance with the installation instructions using rustproof adhesive anchors in the area of impact on the roadway.

Due to the low weight of the ALPINA Road Airbag, it can be moved by manpower after releasing the anchorage, if needed.





Perfect performance since 1997

The performance level required of the impact absorber can be determined based upon the locally allowed speed. A distinction is made between the levels 50, 80, and 100. It should be noted that the performance levels are not the same as the locally allowed or expected velocities.

Based on the local conditions it has to be decided which system is to be used. When "redirecting" the impacting vehicle is not desirable (e.g., oncoming traffic areas, tunnel portals, or in general) and passing of the impact energy into the ground must be avoided because of possible structural problems (e.g., bridge area), we recommend a non-redirective crash cushion system with the appropriate performance level and geometry.

The impact severity of the crash cushion (Level A or B) that results from the tests according to EN 1317-3 may also be a selection criterion for the application. In a note to EN 1317-3 the following is emphasized: "The impact severity class A provides an increased level of security for the passengers of errant vehicles. Therefore, generally products of Level A are prescribed."

Selection of performance level in accordance with RVS 05.02.31

speed limit for cars [km/h]	performance level	
	normal risk	high risk
≤ 80	50	50
≤ 100	50	80
> 100	80	100





product overview



Technical data	ALPINA F1-50	ALPINA F1-80	ALPINA T800-50	ALPINA T1000-80	ALPINA T1000-100
Performance Level:	50	80	50	80	100
Impact severity class:	B	B	A	A	
Length (depth):	1580 mm	2400 mm	2550 mm	4250 mm	
Width front (depth):	2340 mm		1200 mm		
Width back (depth):	2340 mm		1400 mm		
Height front:	1000	1100 mm	880 mm		
Height back:			920 mm		
Lateral overlapping cases:			300 mm		
Weight approx.:	180 kg	300 kg	120 kg	160 kg	
Behavior in fire:	B2 of ÖN B 3800				
Energy absorption:	Typically 650 kJ per module		Typically 750 kJ per module		
Measured energy absorption:	Typically 80–90%				
Standard color:	Grey / impact surface white with reflecting direction arrow symbol				
Fixing on roadway:	-		Rustproof adhesive tape		
Fixing on bridge:	-		Seal-checked rustproof bridge bolts		

Installation and fixing	<p>The preparation of the impact absorber is combined with a special concrete-retaining system. After the concrete elements are established, the F1-50 / F1-80 is brought into position and strapped. Based on the low weight of the ALPINA impact absorber, it can be moved manually after releasing the binding pieces.</p>	<p>The crash cushion is fixed directly on the roadway with embedded fixing bolts (rustproof) and rustproof bridge bolts. The impact absorber is brought into position in front of the concrete connective elements. The lateral overlapping cases are plugged into the concrete element.</p>
--------------------------------	---	--

Application purposes	<ul style="list-style-type: none"> • Static obstacles (tunnel portal, tunnel niche) • Construction site safety measures • Impact absorber on construction site safety vehicles 	<ul style="list-style-type: none"> • Road dividers separating at gore points • Highway on-ramps and off-ramps • Fixed obstacles such as, e.g., overhead
-----------------------------	---	--

ALPINA F1-50

The ALPINA F1-50 impact absorber is primarily used for wide obstacles and in places where there is little space available in the longitudinal direction (e.g., tunnel portals, tunnel niches, etc.).

The F1-50 is set up in combination with a special concrete restraint system. After the concrete elements have been set up, the F1-50 is lifted into position and strapped. Due to its low weight, the impact damper can be moved with manpower after loosening the belt.

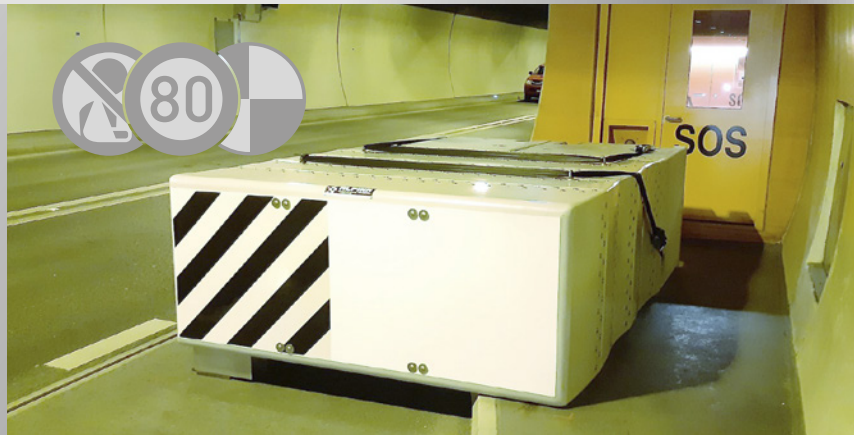


ALPINA F1-80

The ALPINA F1-80 impact absorber is also used for wide obstacles and in places where there is little space available in the longitudinal direction (e.g., tunnel portals, tunnel niches, etc.).



The F1-80 is set up in combination with a special concrete restraint system. After the concrete elements have been set up, the F1-80 is lifted into position and strapped. Due to its low weight, the impact absorber can be moved with manpower after loosening the belt.



ALPINA T800-50

In connection with concrete deflecting walls, the T 800-50 impact absorber is especially suitable for securing overhead signposts and as a lane divider at gore points.

The connection to guardrails can be made with the help of transition elements. This model also doesn't need to be connected to the foundation, as all ALPINA impact absorbers. With hundreds of installations, the ALPINA T800-50 is Austria's most used impact absorber.



ALPINA T1000-80

The Alpina T1000-80 impact absorber in combination with concrete guide walls is ideally suited for securing overhead signposts and as a lane divider at gore points.

The connection to guardrails can be made with the help of transition elements. By using the concrete transition element H92 and standard concrete guide wall elements, the T1000-80 is connected flush with existing restraint systems, such as guide rails or concrete guide walls.



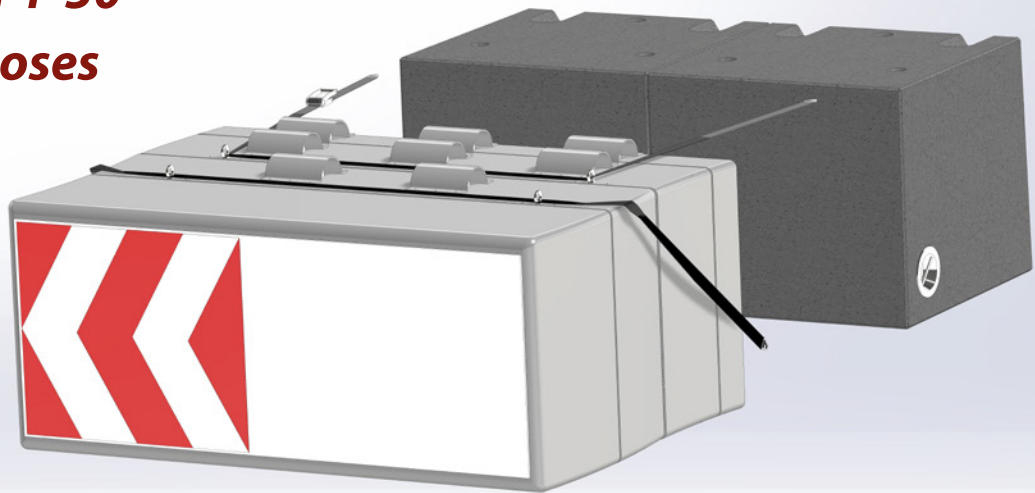
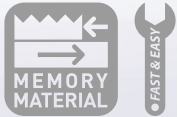
ALPINA T1000-100

The Alpina T1000-100 impact absorber in combination with concrete guide walls is ideally suited for securing overhead signposts and as a lane divider at gore points.

The connection to guardrails can be made with the help of transition elements. By using the concrete transition element H92 and standard concrete guide wall elements, the T1000-100 is connected flush with existing restraint systems, such as guide rails or concrete guide walls.



The ALPINA F1-50 Facts & Purposes

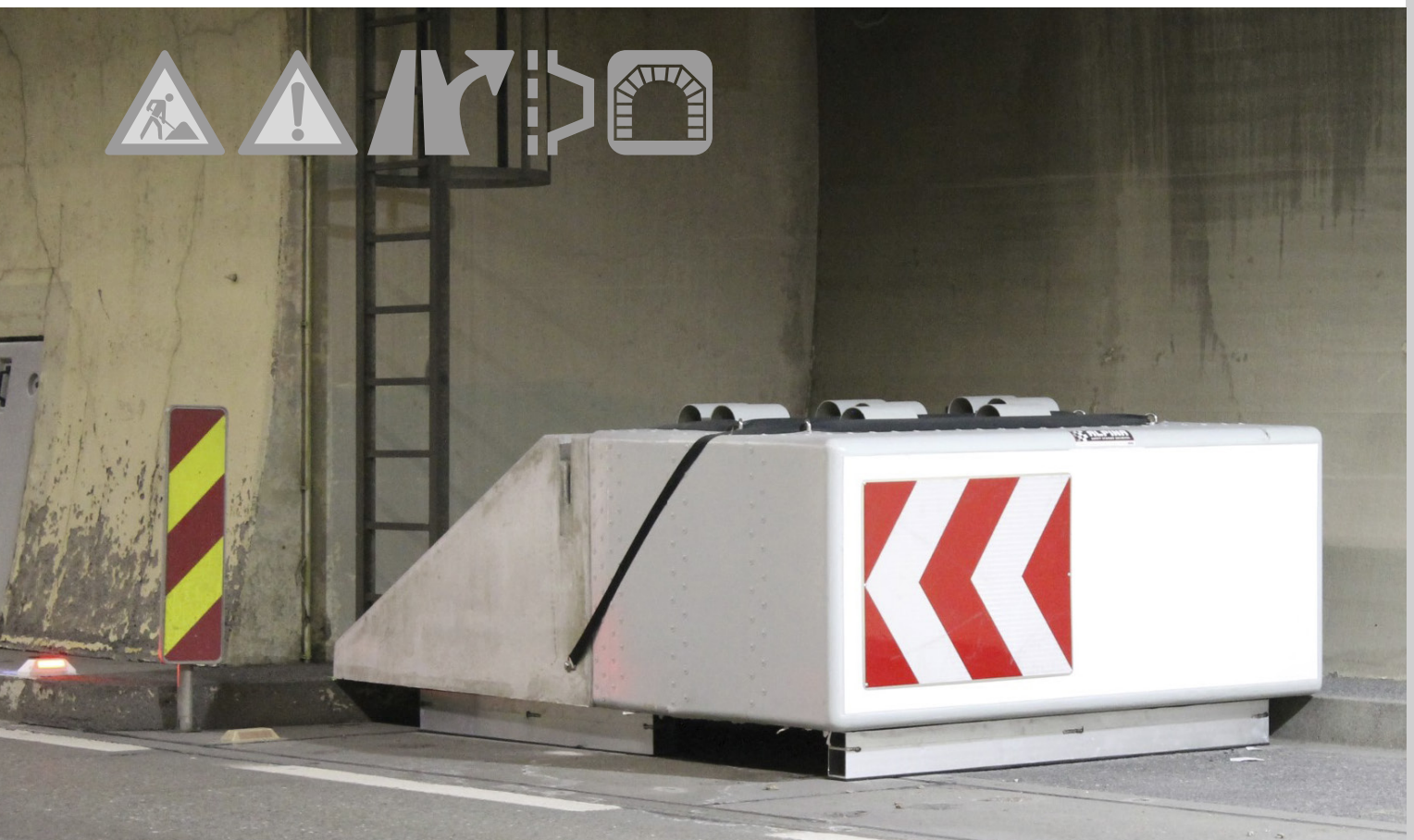


The Alpina Impact Absorber F1-50 (frontal impact barrier) is especially used for wide obstacle, and in places where little space is available in the longitudinal direction (e.g., tunnel portals, tunnel niches, etc.). This model also doesn't need to be connected to the foundation, as all ALPINA crash cushions.

The Alpina F1-50 Road Airbag was originally developed for use in Formula 1. Through minor structural changes, it was possible to use the F1-50 on public roads. In the tests according to EN 1317-3, the results are far below the limit, despite the short version, which highlights the particular suitability of the impact damper.

To protect particularly hazardous areas, it is possible to combine several F1-50 Road Airbags in a package (beneath and behind each other).

For assembly, no special foundations are required. The installation is made on an asphalt or concrete surface with a thickness of about 22 cm.



Technical Data ALPINA F1-50

- Performance Level 50
- Impact severity class: B
- Length (depth): 1580 mm
- Width front: 2340 mm
- Width back: 2340 mm
- Height: 1000 mm
- Weight approx.: 180 kg
- Behavior in fire: B2 of ÖN B 3800
- Energy absorption: typically 650 kJ per module
- Measured energy absorption: typically 80–90%
- Standard color: grey
- Impact surface white w/reflecting direction arrow symbol

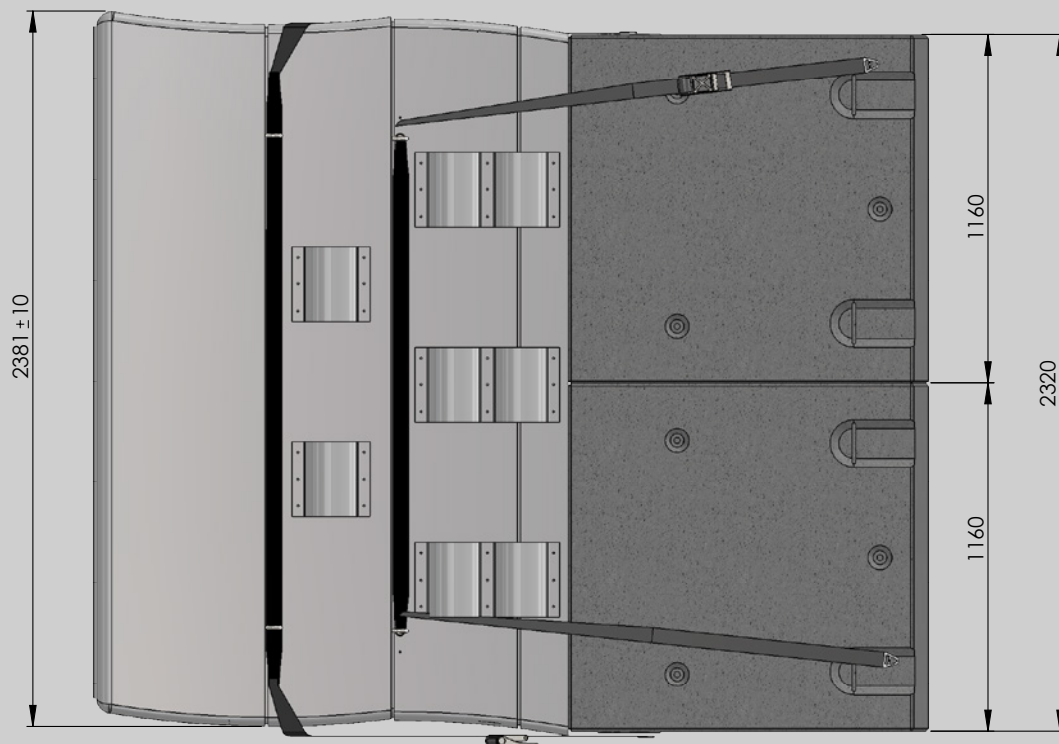
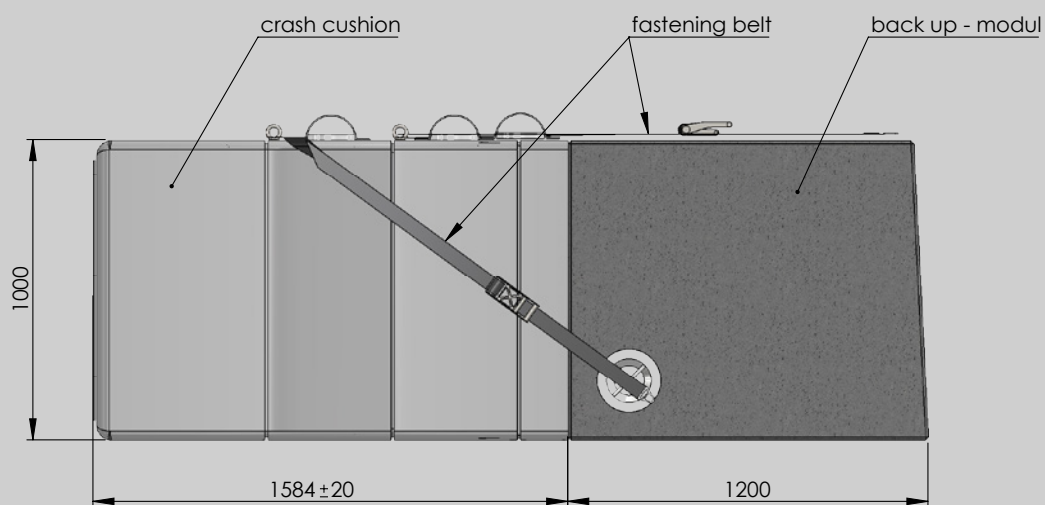
Installation and Fixing

The preparation of the F1-50 is combined with a special concrete retaining system.

After the concrete elements are established, the F1-50 is brought into position and strapped. Due to the low weight, the ALPINA impact absorber can be moved manually after releasing the binding pieces.

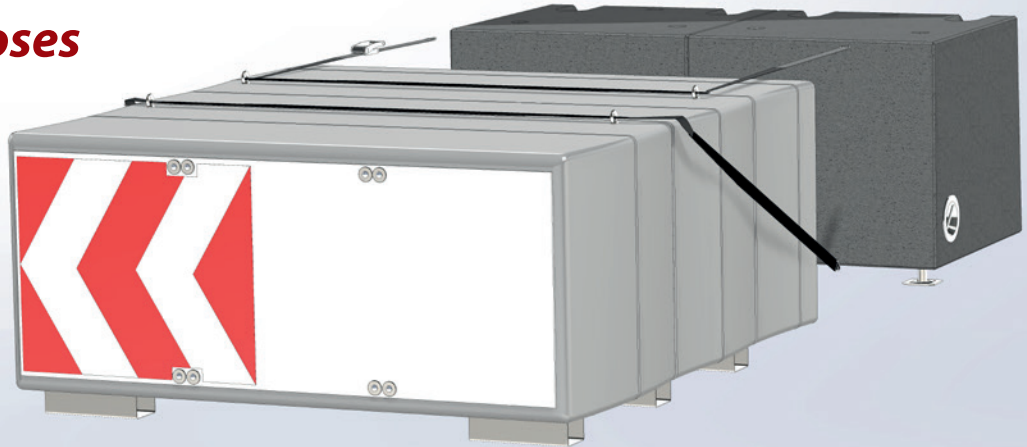
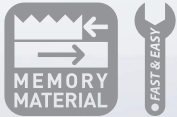
Application Purposes

- Static obstacles (tunnel portal, tunnel niche)
- Construction site safety measures
- Impact absorber on construction site safety vehicles



The ALPINA F1-80

Facts & Purposes



Low length, maximum performance

The ALPINA F1-80 is the shortest available solution (2.4 m) in performance level 80.

Memory material combination

The special combination of fiberglass and special plastic creates an accordion effect. This means that in the event of an impact of up to 50 km/h, the F1-80 returns to its original shape.

Quick installation, no foundations

No special foundations are required to install the ALPINA ROAD AIRBAG. Other systems require a concrete slab, anchors, or a specially prepared base. Height-adjustable feet make it easy to compensate for level differences, thus saving time and costly tunnel closures. Since the ALPINA ROAD AIRBAG absorbs impact energy, no force is transmitted into the ground, which is a major advantage for securing tunnel niches, tunnel portals, and bridges. Quick installation in approximately 30 minutes.



Technical Data ALPINA F1-80

- Performance Level 80
- Impact severity class: B
- Length (depth): 1580 mm
- Width front: 2340 mm
- Width back: 2340 mm
- Height: 1000 mm
- Weight approx.: 180 kg
- Behavior in fire: B2 of ÖN B 3800
- Energy absorption: typically 650 kJ per module
- Measured energy absorption: typically 80–90%
- Standard color: grey
- Impact surface white with reflecting direction arrow symbol

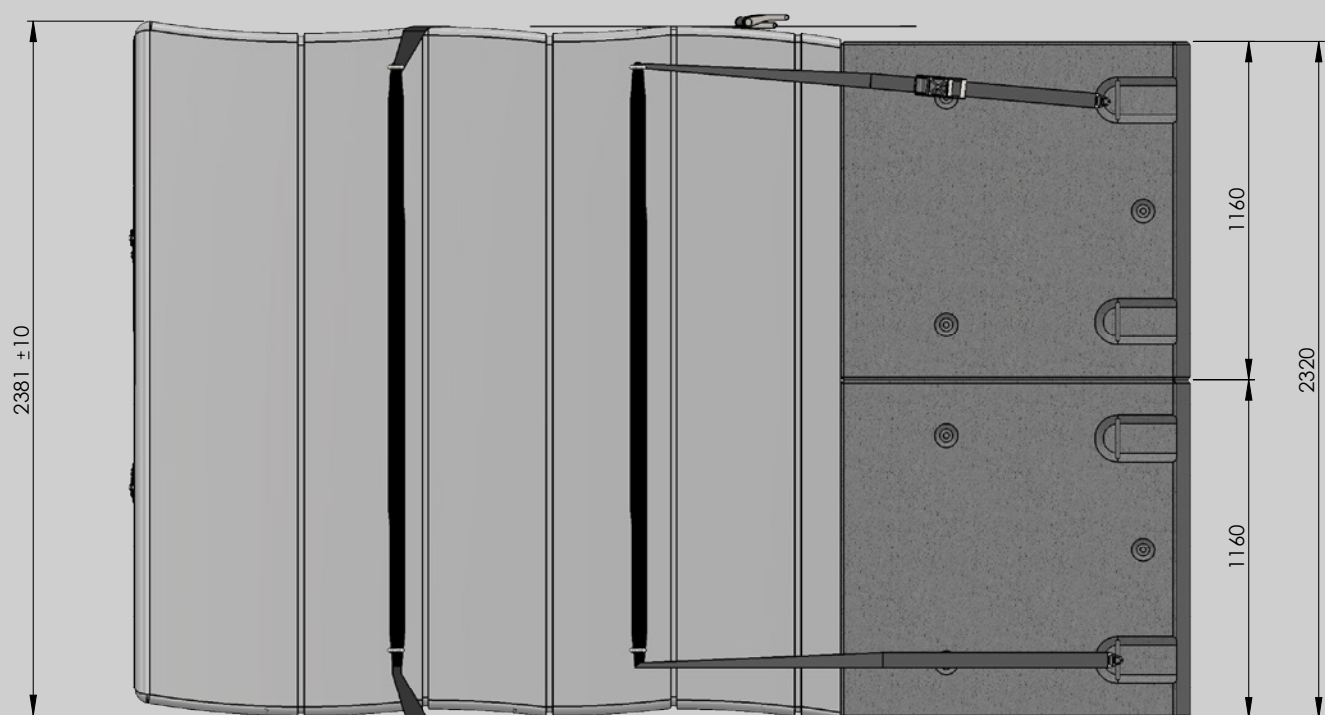
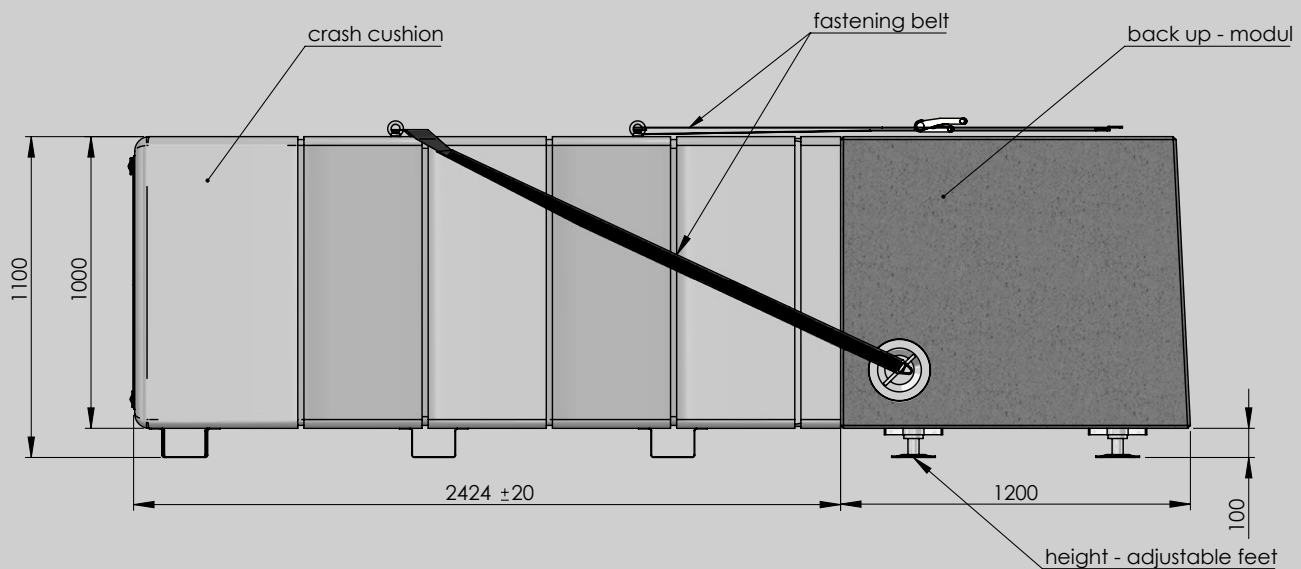
Installation and Fixing

The preparation of the F1-50 is combined with a special concrete retaining system.

After the concrete elements are established, the F1-50 is brought into position and strapped. Due to the low weight, the ALPINA impact absorber can be moved manually after releasing the binding pieces.

Application Purposes

- Static obstacles (tunnel portal, tunnel niche)
- Construction site safety measures
- Impact absorber on construction site safety vehicles





crash test & performance

Pure Action

Our impact absorber is thoroughly tested by renowned institutes. Watch the crash test performance videos on our website: <https://alpina.at/en/road-traffic/> or simply scan the QR code, which directs you to the videos.

Precise Procedure

All ALPINA safety equipment is tested and certified by the renowned CSI test institute in Milan (official F.I.A. and F.I.M. test institute), Politecnico di Milano, Monash University/ AUS, the Roosevelt test institute/USA and DSD - Dr. Steffan Datentechnik and the Graz University of Technology Vehicle Safety Institute

A-Level-Safety

All ALPINA Road Airbags reach either A-Level or B-Level in impact severity, which is confirmed by extensive crash tests

Reduced Costs

High cost savings due to reusability after impacts—the functionality is not affected in 80% of accidents

Effect on Drivers:

- Low rebound
- Small duration of acceleration
- Low level impact force
- Risk of injury decreases significantly
- All parts are closely matched so that no parts can break loose from impact.
- The risk of injuries to motorcyclists is significantly lower than with alternative products, due to the homogeneous surfaces of the ALPINA Road Airbag
- The risk of injury can be further reduced by attaching the optional motorcycle driver protection





Vehicle approaches at 80 km/h



First contact, vehicle hits the front of the impact absorber



The ALPINA F1-80 air chambers get compressed by the impact of the vehicle which is thereby moderately decelerated



Deceleration of the vehicle in progress, whilst the air valves do their work and transform the impact energy into airflow



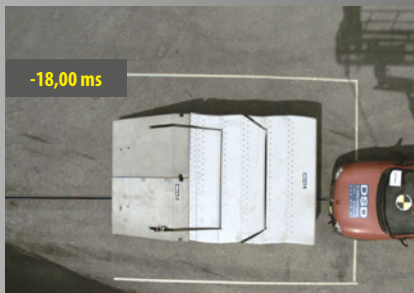
Still slightly decelerating the vehicle, the Road Airbag is compressed to its maximum



Impact energy is almost absorbed, vehicle nearly stopped, backup concrete blocks start shifting



Vehicle stopped moving, driver takes no injury. The F1-80 will soon start unfolding, ready to take the next impact ...



Vehicle approaches at 80 km/h



First contact, vehicle hits the front of the impact absorber, but offset from the center



The ALPINA F1-80 air chambers get compressed by the impact of the vehicle which is thereby moderately decelerated



Deceleration of the vehicle in progress, whilst the air valves do their work and transform the impact energy into airflow



Vehicle still decelerating, whilst keeping direction. It will not be redirected to the driving lane or other obstacles



Still slightly decelerating the vehicle, the Road Airbag is compressed to its maximum. Vehicle starts shifting sideways slightly



Impact energy almost absorbed, vehicle speed and sideways shifting almost stopped, backup concrete blocks start shifting



Vehicle stopped moving, driver takes no injury. The F1-80 starts to unfold, soon ready to take the next impact ...



Save Money - → work with the Pro's!

Extra value through extra know-how

The majority of ALPINA's product range presented in the catalogue is tested and checked thoroughly. We emphasize accuracy in production—beginning with the selection of the best raw materials up to our quality management. So you benefit twice: from the world championship quality of our safety tools as well as from our fair factory prices!

Professional safety for all

Wherever safety is an issue, Alpina is always present. As the official supplier of equipment for FIM motorcycle World Championships, FIA Formula 1 grand prix racing, Olympic courses, world championship slopes, and World Cup races.

More than 1,000 installed Road Airbag units in central Europe

Traffic flow advantages:

- No traffic impairment during installation and replacement
- No impairment of traffic flow after accidents
- Reusability after impact, withstands up to 3 impacts
- without replacement
- Short delivery times and prompt servicing

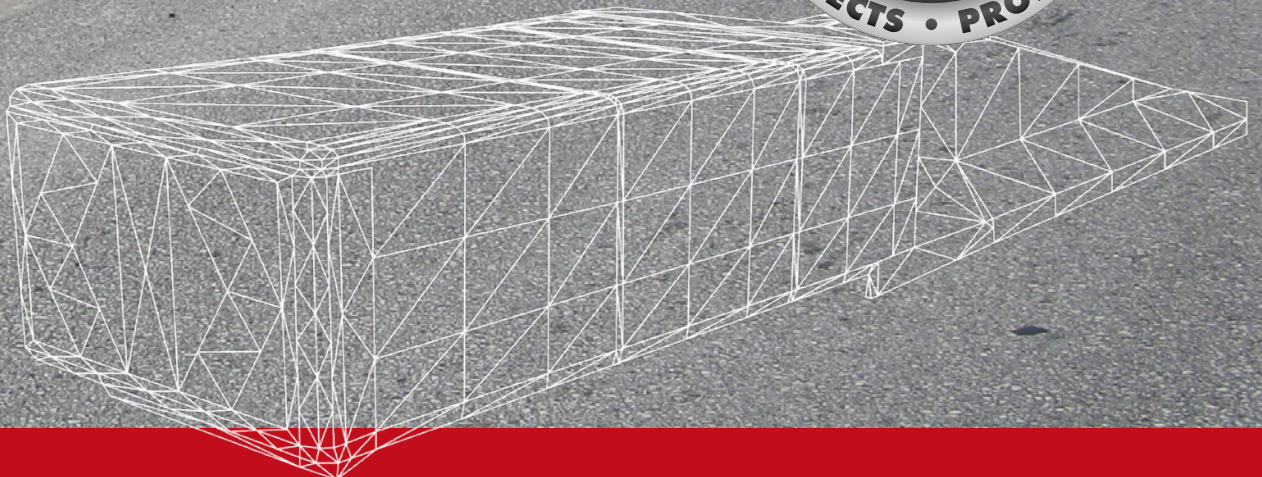
Environment advantages:

- Suitable for all climatic conditions
- Weatherproof and UV resistant
- Easy disposal—no hazardous waste
- Relevance for national economy—fewer rehabilitation costs for victims of accidents

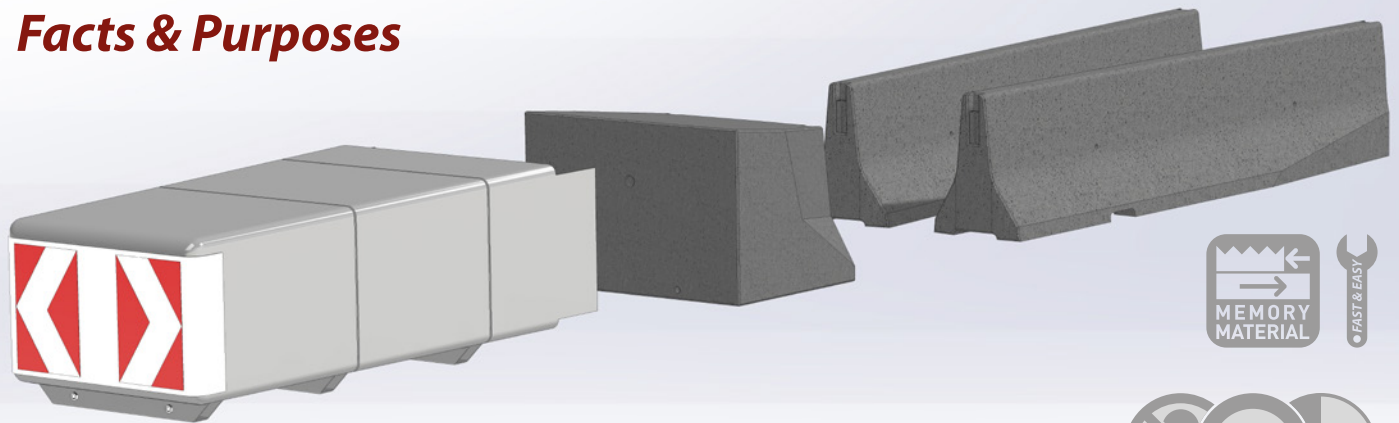
Special solutions:

- ALPINA offers solutions for special situations, e.g., slanted roads
- Years of experience from memberships in state-run advisory committees

TESTED AND VERIFIED!
VERTRAUEN SIE KEINER BILLIGEN KOPIE
DO NOT RELY ON BAD COPIES



The ALPINA T800-50 Facts & Purposes



In connection with concrete deflecting walls, crash cushion T 800-50 is especially suitable for the validation of overhead direction signs and also serves as a lane divider at gore points. Using connective devices, they can even be connected to guard rails. As all ALPINA crash cushions, this model doesn't need to be connected to the foundation. With hundreds of installations, the ALPINA T800-50 is Austria's most used impact absorber.

With a length of 2.55 m, no other product offers the same safety level as the T800-50 Road Airbag.

Through the use of concrete transition element H92 and standard concrete guide wall elements, the T800-50 is connected flush with existing restraint systems, such as guide rails or concrete guide walls.

For assembly, no special foundations are required. The installation is made on an asphalt or concrete surface with a thickness of about 22 cm.



Technical Data

ALPINA T800-50

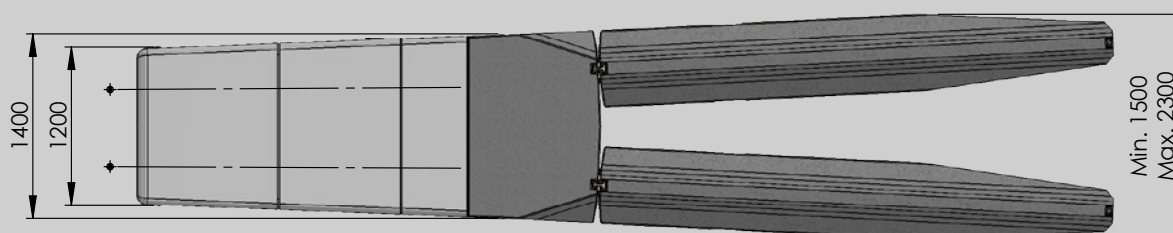
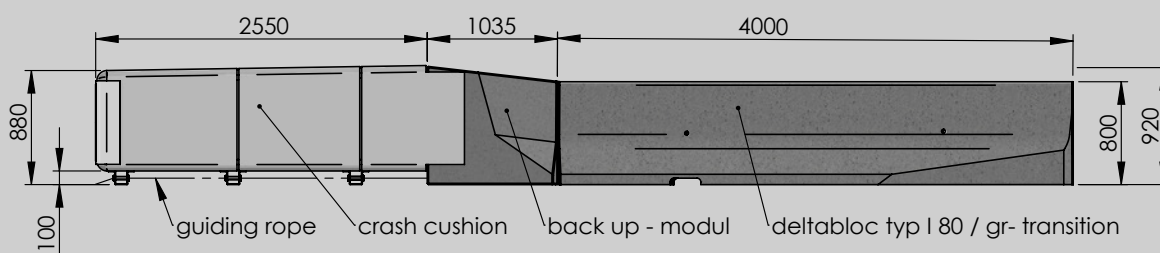
- Performance Level: 80
- Impact severity class: A
- Length (depth): 2550 mm
- Width front (depth): 1200 mm
- Width back (depth): 1400 mm
- Height front: 880 mm
- Height back: 920 mm
- Lateral overlapping cases: 300 mm
- Weight approx.: 160 kg
- Behavior in fire: B2 of ÖN B 3800
- Energy absorption:
- typically 750 kJ per module
- Measured energy absorption:
- typically 80–90%
- Measured energy absorption:
- typically 80–90%
- Standard color: grey
- Impact surface white with reflecting direction arrow symbol
- Fixing on roadway: rustproof adhesive tape
- Fixing on bridge: seal-checked rustproof bridge bolts

Installation and Fixing

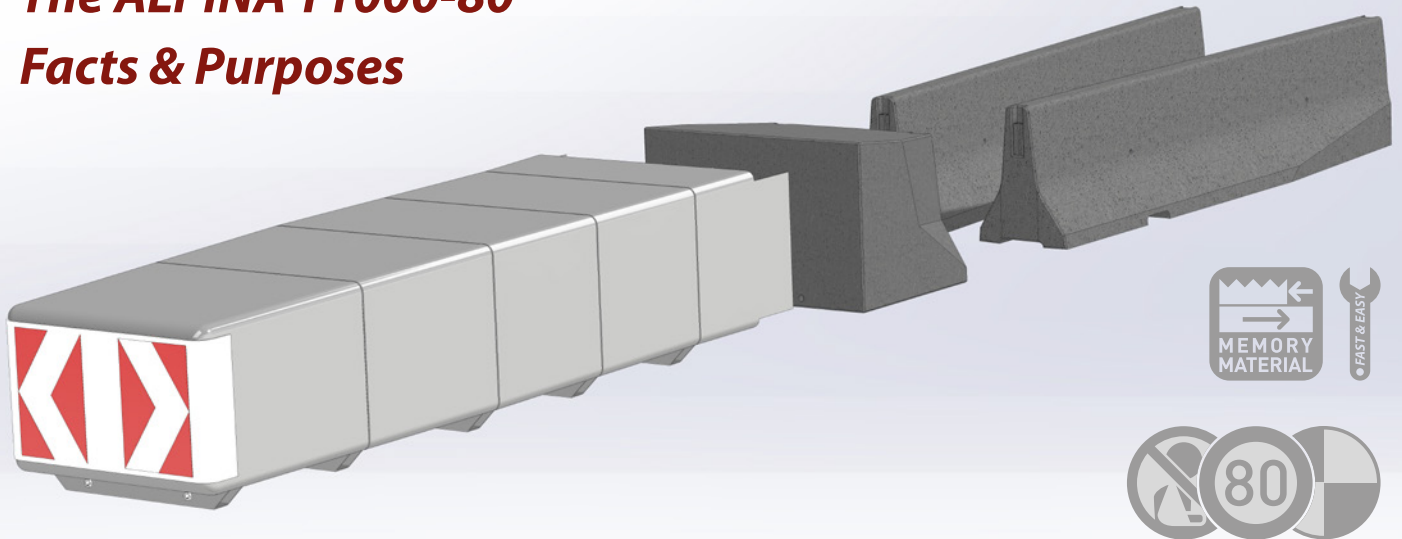
The crash cushion is fixed directly on the roadway by embedded fixing bolts (rustproof) and rustproof bridge bolts. The impact absorber is brought into position in front of the concrete connective elements. The lateral overlapping cases are plugged into the concrete element.

Application purposes

- Road dividers separating at gore points
- Highway entrance and departures
- Fixed obstacles such as e.g. Overhead signs or bridge piers



The ALPINA T1000-80 Facts & Purposes



In connection with concrete deflecting walls, crash cushion T1000-80 is especially suitable for the validation of overhead direction signs and also serves as a lane divider at gore points. Using connective devices, they can even be connected to guard rails. As all ALPINA crash cushions, this model doesn't need to be connected to the foundation.

With a length of 4.25 meters, the T1000-80 offers even more safety potential. Through the use of concrete transition

element H92 and standard concrete guard rails, the T1000-80 is conclusively connected to existing restraint systems, such as guard rails or concrete barriers.

For assembly, no special foundations are required. The installation is made on an asphalt or concrete surface with a thickness of about 22 cm.



Technical data

ALPINA T1000-80

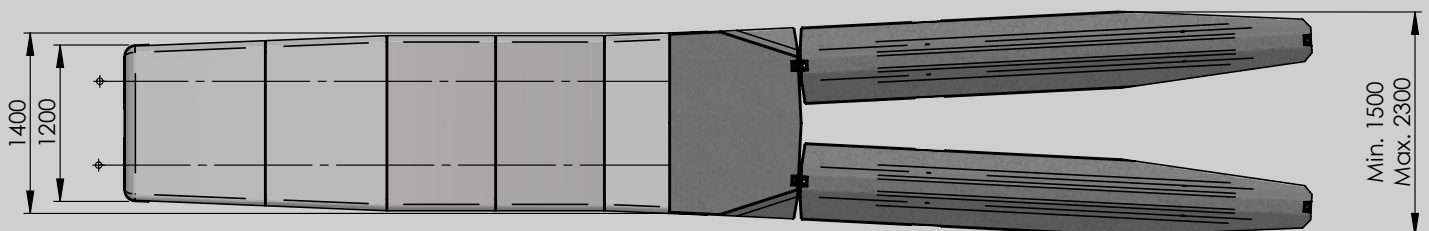
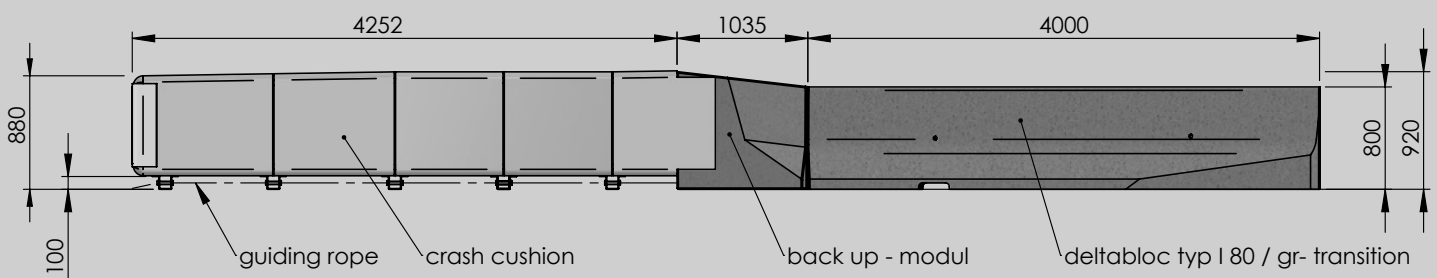
- Performance Level: 80
- Impact severity class: A
- Length (depth): 4250 mm
- Width front (depth): 1200 mm
- Width back (depth): 1400 mm
- Hight front: 880 mm
- Hight back: 920 mm
- Lateral overlapping cases: 300 mm
- Weight approx.: 160 kg
- Behavior in fire: B2 of ÖN B 3800
- Energy absorption:
- typically 750 kJ per module
- Measured energy absorption:
- typically 80–90%
- Measured energy absorption:
- typically 80–90%
- Standard color: grey
- Impact surface white with reflecting direction arrow symbol
- Fixing on roadway: rustproof adhesive tape
- Fixing on bridge: seal-checked rustproof bridge bolts

Installation and Fixing

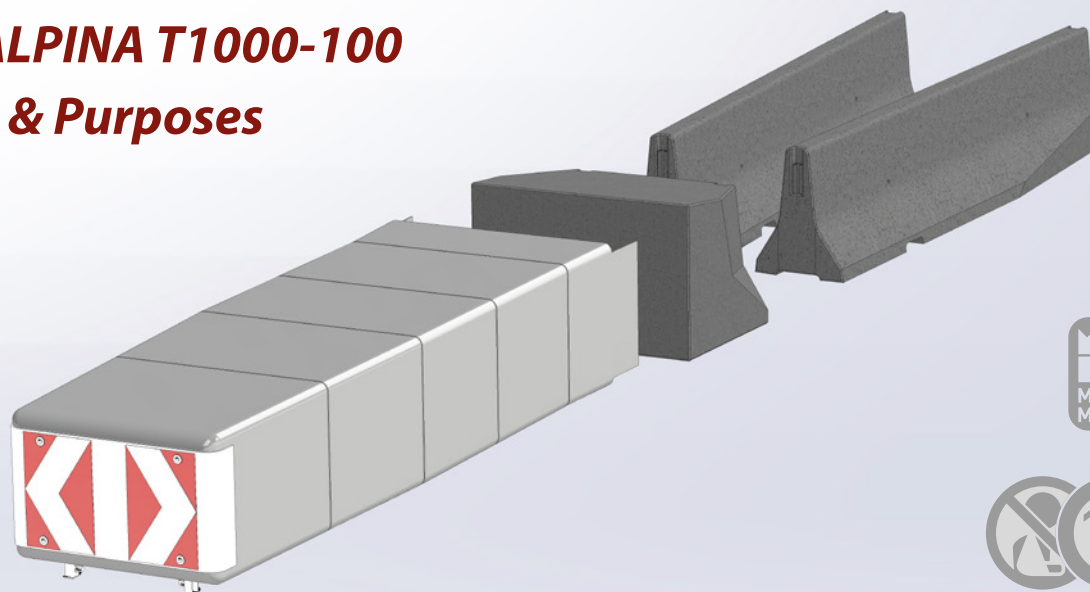
The crash cushion is fixed directly on the roadway by embedded fixing bolts (rustproof) and rustproof bridge bolts. The impact absorber is brought into position in front of the concrete connective elements. The lateral overlapping cases are plugged into the concrete element.

Application purposes

- Road dividers separating at gore points
- Highway entrance and departures
- Fixed obstacles such as e.g. Overhead signs or bridge piers



The ALPINA T1000-100 Facts & Purposes



The ALPINA T1000-100 is the further development of its predecessors T800-50 and T1000-80. Thanks to innovative research, the test level could be increased to 100 km/h.

It must be emphasized that the length of the impact cushion remained unchanged from its predecessor, the T1000-80, despite the higher performance level.

The ALPINA T1000-100 with a test level of 100 km/h is used, particularly, for dangerous areas on major roads, such as lane dividers, interstate exits and entrances, solid obstacles, etc.

Due to its simple assembly, it doesn't require any special surface conditions and thus saves considerable costs.



Technical data

ALPINA T1000-100

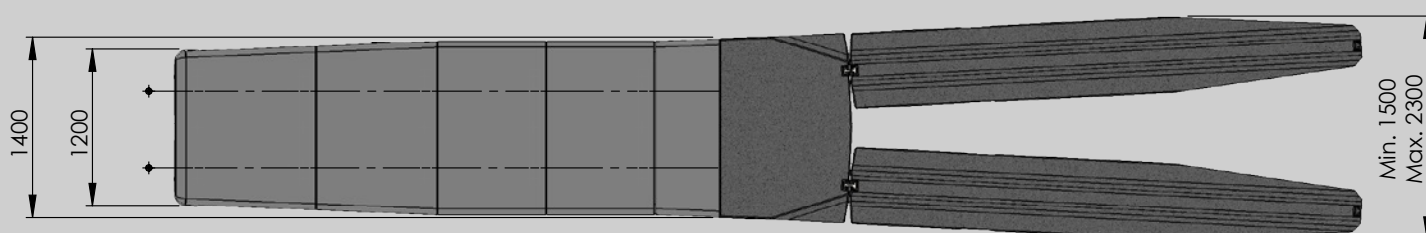
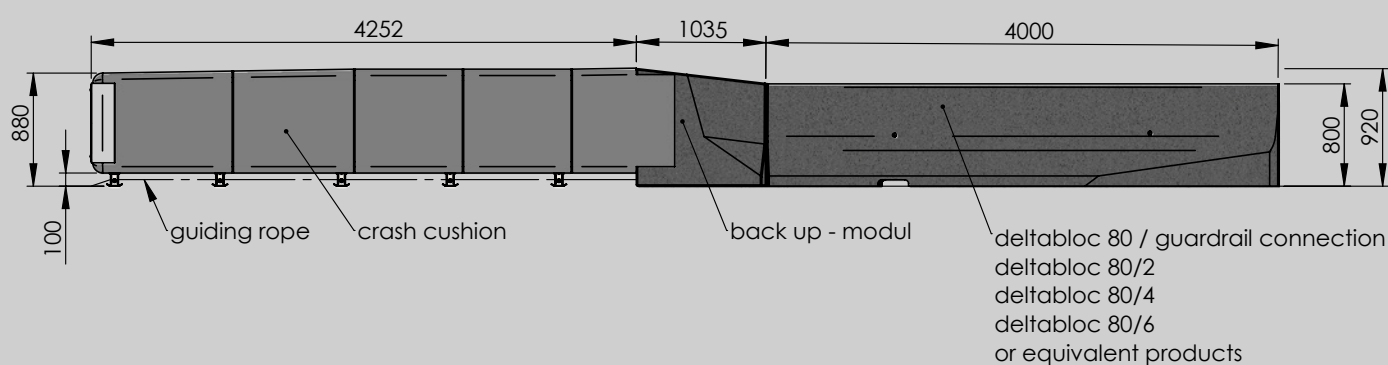
- Performance Level: 100
- Impact severity class: A
- Length (depth): 4250 mm
- Width front (depth): 1200 mm
- Width back (depth): 1400 mm
- Hight front: 880 mm
- Hight back: 920 mm
- Lateral overlapping cases: 300 mm
- Weight approx.: 160 kg
- Behavior in fire: B2 of ÖN B 3800
- Energy absorption:
- typically 750 kJ per module
- Measured Energy absorption:
- typically 80–90%
- Measured energy absorption:
- typically 80–90%
- Standard color: grey
- Impact surface white with reflecting direction arrow symbol
- Fixing on roadway: rustproof adhesive tape
- Fixing on bridge: seal-checked rustproof bridge bolts

Installation and Fixing

The crash cushion is fixed directly on the roadway with embedded fixing bolts (rustproof) and rustproof bridge bolts. The impact absorber is brought into position in front of the concrete connective elements. The lateral overlapping cases are plugged into the concrete element.

Application purposes

- Road dividers separating at gore points
- Highway entrance and departures
- Fixed obstacles such as e.g. Overhead signs or bridge piers



*Protect Employees!
Reduce Costs.*





TMA-LIGHT

ALPINA

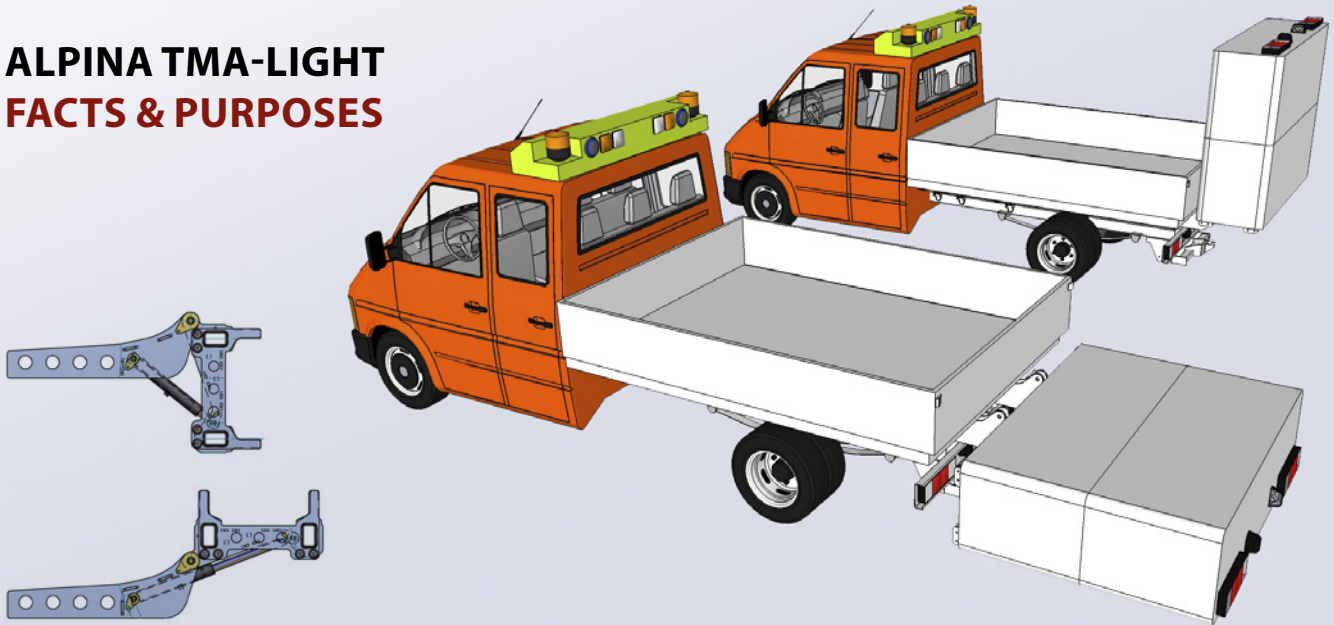
***Life-saver for previously
unprotectable trucks up to 3.5 t***

***TÜV-tested design based on
racing sports know-how***

Reduce costs for vehicles & personnel

Ready wired bolt-on system

ALPINA TMA-LIGHT FACTS & PURPOSES



Maximum safety for your employees

Road maintenance vehicles with a maximum gross weight up to 3.5 t (flatbed) are often used at work in the primary road network for cost reasons. Because of the small mass of these light trucks, the workers in these vehicles are inadequately protected. Therefore, the Alpina TMA-LIGHT was developed specifically for these vehicles. With our proven airbag technology and the new tailor-made carrier construction, we have managed to minimize the weight of the TMA-Light. This TÜV-tested system is the first one to be mounted on any flatbed truck.

Lifesaving for staff in and beyond the light truck and for colliding road users: The crash cushion reduces the consequences of an accident. By reducing the impact considerably, it secures the road workers inside (and beyond) the maintenance vehicle significantly, but also the impacting road users.

TÜV-tested complete system

The complete functional system including all accessories mounted on a light truck was tested according to the strict

criteria of NCHRP 350 – MASH (2009). It also marked the first time that the loads in the light truck were recorded with a crash test dummy in the driver's cab and sensationally low values were measured – "Made for the little guy—performs like a champ."

Impressive crash test performance

- Test scores prove it: Twice as safe as standard requirements!
- Driver cabin is safe area, even in cases of heavy trucks and high impact speed—people can get off uninjured!
- In all tests the maintenance vehicle remained undamaged—and instantly reusable after a 20-min. cushion replacement.

Safe maintenance work now also on roads without hard shoulder

Such "saving cushion" systems have lessened thousands of accidents around the world and saved lives. For the first time also available for light trucks (flatbed), which makes roadside parking possible.



Technical data

ALPINA TMA-Light

- Weight ready for mounting, including hydraulics: 350 kg
- Weight of cushion without mounting plate: 105 kg
- The dimensions may vary slightly depending on the vehicle model
- The ground clearance of the crash cushion should be set between 250 and 300 mm.
- Fast installation with custom-fitting components—without vehicle modification
- Cost-saving operation—trailer or pre-warning can still be carried. Coupling device of the drawing vehicle remains usable so you can save costs for personnel and vehicles.
- Protects your vehicle and existing investments (e.g., display panels)
- A crash does not damage your vehicle—cushion replacement takes only 20 minutes
- Finally, no more downtime by repairing collision damage
- World's first TÜV-certified employee protection system for light trucks (pickup)

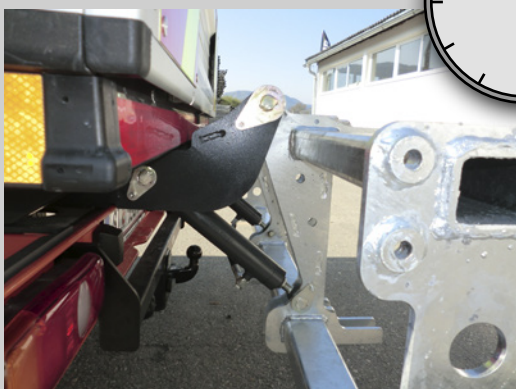
Installation and Fixing

Quick and easy bolt-on system!

- No vehicle modification necessary
- Tailor-made parts
- Ready wired system
- Ready to use in 2 hours
- Replace cushion in 20 minutes

Application purposes

- Life-saver for previously unprotectable trucks up to 3.5 t
- TÜV-tested design based on racing sports know-how
- Reduce costs for vehicles & personnel
- Ready wired bolt-on system
- Truck-mounted dampener for light trucks up to 3.5 t.
- Tested according to NCHRP 350





flexible track reorder

QMB – Quick Moveable Barrier

A one-ton machine reorders concrete barriers in minutes. The Road Zipper pushes 700 kilos of concrete barriers as if they were made of plastic: they enter the machine at the front, are moved inside, and are placed into a new track at the rear. Traffic is hardly stopped by the work. This is because the heavy machine is driving in traffic and moves one kilometer of barriers in about ten minutes. Concrete elements are moved in a zipper-like manner. Without the Road Zipper, the barriers would have to be moved out and in every night. This really shortens construction time, congestion time, and emissions.

You do not have to reinvent the wheel. Often it is enough to bring attention to interesting innovations. If you care for safety, like ALPINA especially for traffic safety, you simply partner with an American manufacturer. The cooperation with ASFINAG makes it possible: ALPINA, as the exclusive representative of Lindsay/Snoline, brought the ROAD ZIPPER to Austria. The Road Zipper is a unique machine and has been used around 300 times worldwide. Most importantly during construction on the San Francisco Golden Gate Bridge, where the Road Zipper can vary the number of lanes per direction during rush hour, which helps stabilizing the flow of traffic.

Minimize roadwork traffic jams

Road restoration in Vienna is a challenge. Every day, tens of thousands of cars have to be guided quickly through construction sites. For better success, a new special device has been in use for some months: the Road Zipper. With its help, large-scale closures and detours could be avoided, as the ASFINAG stated in an interim assessment. Since the end of January 2016, ASFINAG has been using the leased machine from the USA for work in the Kaisermühlen tunnel on the A22 and A23.

The construction site Südost-Tangente in Vienna was a 2-year project (02/2016–08/2016, 02/2017–08/2017) and a giant success.

Successful cooperation

SITEC is the exclusive sales partner for ALPINA and Snoline products in Austria.

ALPINA has been the exclusive sales partner for all Snoline/Lindsay restraint systems and the Road Zipper System in Austria for over 18 years.



ROAD ZIPPER®
BY LINDSAY



exclusive partnerships



SITEC

SITEC is the exclusive sales partner for Alpina and Snoline products in Austria.
<http://www.sitec.co.at/>



Snoline / Lindsay

ALPINA has been the exclusive sales partner for all Snoline/Lindsay restraint systems and the Road Zipper System in Austria for over 18 years.

sales & distribution partners



FRIKE electronic AG

Signalstrasse 1
CH-8194 Hüntwangen
+41 (0)44 869 23 44
info@frike.ch



RENA NOVA, s.r.o.

Pobočka firmy
Zelný trh 1514
Uherské Hradiště 686 01
+420 518 331 300
info@renanova.cz



MOVEX d.o.o.

Kršiničeva 5
10000 Zagreb
Hrvatska
Tel: +385 1 45 78 224
GSM: +385 91 280 28 88
info@movex.hr
OIB: 29923932730



PrOWERK sp. z o. o

Achse. Piastów 61
31-625 Krakau
Tel./Fax: +48 12 422-33-36
info@prowerk.pl





passion and commitment

Perfect performance on major road system in Austria and Europe

The ALPINA ROAD AIRBAG has been used successfully since 1997 to secure dangerous areas on major roads in Austria and Europe. The ALPINA ROAD AIRBAG is the only rebound solution among vehicle restraint systems.

In an impact, the road airbag absorbs the impact energy. It is important to point out that no force is introduced into the subsurface. This is a clear advantage compared to all other products.

Optimal safety solution – highest quality standards – many years of experience

The safety of road users is a top priority. With the ALPINA ROAD AIRBAG there is a significantly lower risk of injury in the event of an impact.

The use of very special materials in the construction of the ALPINA ROAD AIRBAG results in unique performance—the ROAD AIRBAG returns to its original state in the event of an impact at low speed and is still functional.

The ALPINA ROAD AIRBAG is already being used in Poland, the Czech Republic, Slovakia, Slovenia, Portugal, Sweden, and Switzerland. More than 20 years of successful product performance on major roads!

Quality “Made in Austria”

The ALPINA ROAD AIRBAG is developed and produced in Austria.

The top products from the ALPINA Road Airbag family are the ALPINA F1-80 and the ALPINA T1000-100.

Research & Development

The ALPINA ROAD AIRBAG was created from the ALPINA F1 SAFETY SYSTEM developed for Formula 1. After 20 years of successful use, it was modified for use on major roads. The modified road airbag products have been used successfully on major roads in Austria and Europe since 1997.

All ALPINA ROAD AIRBAG systems have been successfully tested according to Part 3 of the European Standard EN 1317 and approved by the Federal Ministry for Climate Protection, Environment, Energy, Mobility, Innovation, and Technology.

We at Alpina guarantee:

- No compromises with materials
- no logistical limits
- Safety know-how from top-level sport, gathered from every kind of extreme situation





we care for
sustainability



How can we contribute to environmental protection as a company?

It begins with the little things: use of recycled paper in the office, multiple use of packaging material, resource-conserving purchasing, and much more.

Before disposing of any materials, we check its usability for a subordinate application. It may happen that you receive goods in a used packaging.

And your invoice is preferably sent by email, or otherwise printed on environmental-friendly paper.

In the process of rebuilding our premises, we have also ensured that energy efficiency and conservation of resources are at the forefront.

These are just a few examples of how we are trying to contribute to environmental protection.

Designed for long-term and multiple use

All ALPINA Road Airbags are designed to be extremely resistant. UV-Radiation, changing weather conditions and temperatures need to be overcome as long as possible.

If one of these products takes a not-so-severe impact, it folds back to its (almost) original form and performance quality. After three minor or one major hit, the crash cushions need to be replaced.

Designed to be recycled

Every product should be used as long as it is safe to use. The ALPINA Road Airbags are mostly made of components which are rather easy to be recycled.

In a perfect world human products would vanish without a trace. We constantly consider to improve on that goal. By now, the used ingredients of our impact absorbers can easily be desintegrated and recycled, according to the materials.

PVC, Glass Fibers, bolts and other metal elements as well as concrete (used for the Backups) are the main components. Each of them can either be reused for other purposes or recycled.

Environmentally friendly catalogue production in Austria

Our printing company relies on a sustainable and environmentally friendly production. Among other things, the energy needs are met by one of Austria's largest photovoltaic systems (= solar power) in the immediate vicinity. The short line lengths the efficiency of the system increases significantly and therefore a regular contribution to CO² reduction is made.

Vegan printing

No substances of animal origin are included or used in printing production.

Environmentally friendly organic inks

In the production organic inks based on renewable raw materials such as vegetable oils such as linseed oil or soybean oil are used. Moreover omitted harmful and dangerous materials in these colors. They are subject to the guidelines of the European Printing Ink Association EuPIA and are therefore not easily classified corrosive flammable as toxic or harmful, nor irritant or. In addition, in the colors no toxic heavy metals are used.

Environmentally friendly solutions

Printing plates are developed entirely free of chemicals. Old plates are being recycled. Only solvent-free inks which also meet the requirements of the Austrian eco-label are used.

Environmentally friendly material

This catalogue is printed on recycled paper.

A real all-rounder and strong team player – Peter has been taking care of road safety together with Andreas since 2019. Previously, he provided support for all motorcycle construction sites for many years. He also supports our winter sports areas during the high season as well as other projects – wherever he is needed.

Peter Sengseis
 Tel: +43 4243 / 2480 16
 E-Mail: peter@alpina.at



development →
 through experience

An open ear for all concerns – both for customers and inside our own team. With the skills of a mediator, personal coach and supervisor Andreas ensures productivity and customer satisfaction. Serenely handling challenges, in controlling and accounting, characterizes him. With ALPINA since 2010 as a Managing Director & Road-Airbag Manager for Key Accounts.

Andreas Knapp
 Tel: +43 4243 / 2480 11
 E-Mail: andreas@alpina.at



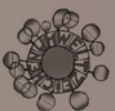
team spirit →
 for workflow

Much of what we produce at ALPINA has not existed previously. With inventiveness, broadband technical know-how and incredible imagination Friedrich evaluates any problem in advance, brings sketches in professional form using CAD. Like the ALPINA windnet systems that have already saved many organizers from a wind-related cancellation of ski jumping competitions. Or environmental-friendly high-level safety systems that could be removed from the site without leaving any residue. As an engineer in the ALPINA technical department since 2000.

Friedrich Burgstaller
 Tel: +43 4243 / 2480 0
 E-Mail: burgstaller@alpina.at



innovation is our →
 standard procedure





ALPINA Sicherheitssysteme GmbH
A-9552 Steindorf · Bundesstrasse 20 · Austria · Europe
E-Mail: office@alpina.at · Net: www.alpina.at
Tel. +43/4243/2480-0 · Fax +43/4243/-2480-5

