



WORKBOOK  
GET THE FACTS



DEUTER – GET THE FACTS WORKBOOK



# WELCOME TO DEUTER

Every single Deuter product tells a story – packed with ideas, unique experiences, and a lot of passion. Here, we would like to share these stories and our expertise with you.

## WHAT DOES A “DEUTER” STAND FOR?

Fit, Ventilation & Function – those are the key factors that we focus on when building a backpack. The human anatomy shapes the carrying system: in the end, the backpack should offer maximum, customised comfort for the individual wearer. Further, our backpacks minimise sweating. A well-ventilated back system efficiently helps reduce heat build-up. Depending on the range of use, Deuter has developed solutions that have set new standards. The features are trimmed to the purpose, always bearing the ideal weight-to-function ratio in mind. We say no to fragile high-tech designs – and yes to solid, no-frills solutions.

Innovation and quality essentially define our brand. Deuter has never been a marketing driven company. Our budgets are pretty low when it comes to marketing. On the other hand, the list of milestones is long – from the first fully ventilated backpack with a mesh back system (the legendary Aircomfort system) to the “invention” of the functional bike backpack. From the simple-to-use back adjustment of the Vari-Quick system to the first TÜV approved child carrier and the back protector for bike packs – those were all world premieres. And we will continue to invest a lot more in research and product development than in marketing.

Sustainability is not a new concept for Deuter: for decades, our products have been known for their exceptional durability and the extremely low number of returns. We are also famous for our in-house repair service where we fix what we can at net cost – even long after the warranty has expired. We’ve had “Tauern” models from the 1950ies that we brought back to life... Of course, often it would be a lot easier to just exchange those packs for a new product. Yet, we believe that maintenance and repair are key strategies of sustainable thinking. Plus: many of our customers just love their Deuter pack and want to preserve it, because it holds an emotional value.

We are very committed to reduce the negative impact of our actions on man and nature. Essential for us is the cooperation with independent partners. We have joined bluesign® already back in 2008. It is the world’s strictest standard for sustainability, occupation-

al health and consumer safety. We have complied to create an ecological product cycle from the early planning stages to the delivery of the end product. Duke was the first Asian backpack manufacturer to become bluesign® system partner in 2011. Hence, our production facilities in Vietnam work according to the world’s strictest standard for sustainability. The manufacturer of our sleeping bags also became a bluesign® partner in 2012. Our products are made in Asia, but our approach is rather uncommon within the industry: we do not change our production sites! We’ve been working with Duke for 20 years, which also gives us a strong say when it comes to the working conditions. Further, we joined the Fair Wear Foundation (FWF) in 2011: the organisation’s strict Code of Labour Practices includes international standards such as no child labour or forced labour, safe and healthy working conditions, no excessive working hours and living wages.

There is so much emotion involved in our sleeping bags and backpacks – for us they are so much more than mere products. They are our reliable companions on trips, we eagerly test them, critically review them – and we passionately love them.

Our products are also tested by professional mountain guides: this means 200 days of tough field testing a year. After 12 months we get a feedback that we would get from common users maybe after eight to ten years. Three of the world’s biggest mountain guide associations – Germany, France and USA – share their expertise and experience with us, and thus support us in optimising our products.

Devoted and loyal retailers are crucial for Deuter. Our dedication pays off! In the end, complex products depend on experienced sales staff. People who know which product is the right one for which wearer. They also give us essential feedback regarding the end consumer’s requests.

We would like to thank you for your great support! And we look forward to working with you in the future!

## YOUR DEUTER TEAM

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# DEUTER SINCE 1898

1898 Augsburg-Oberhausen, The company is founded by Hans Deuter. At the turn of the century Deuter is commissioned to supply the Royal Bavarian Post Office with postage bags and mail sacks.

1905 Expansion The "mechanised sailcloth and linen weaving, sackcloth, freight, car and horse blanket manufacturing firm" expands and now also includes a rental service for tents.

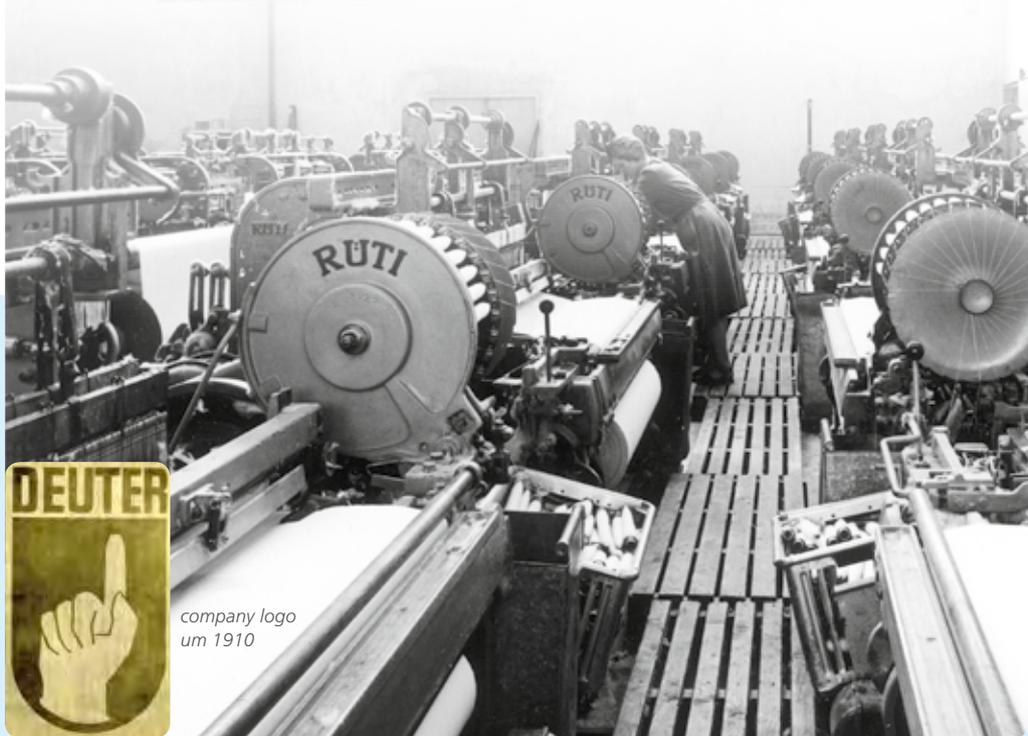
1910 First major client Satchels, backpacks, knapsacks, belts, mess and store tents are increasingly in demand, especially by the military.

1919 The founder Hans Deuter operates the company under his name and produces suitcases, backpacks, tents and truck canopies. The bag production division becomes a joint-stock company. The tent rental reaches its space limit of 10.000 sq metres. It's the first year for Deuter tents at the famous Oktoberfest in Munich.

1939 The dark years The entire equipment and tent production is being taken over by the armed forces.

1945 The consequences of the war are severe. Deuter tries to operate at full capacity by developing new products.

1955 Staff increases from 1.500 in July to 2.000 people. The turnover amounts to 24.1 Mio. DM. Yet, the orders do not come in as anticipated, which leads to a critical financial situation.



company logo um 1910

1957 The family business becomes a joint-stock corporation. The company is now called "Deuter Industrierwerke AG-Augsburg".

1962 The tent division becomes an independent company "Deuter Hallenbau GmbH".

1989 Separate ways – on 01.01.1989, two product segments, travel and

1994 The new partnership with the company "Duke" in Vietnam further pushes and optimises the production process.

2001 Deuter goes international and establishes a new subsidiary in the United States: Deuter USA Inc.

2006 Schwan Stabilo, a family owned German Company, purchases Deuter. The company is now called "Deuter Sport GmbH & Co. KG".



company logo 2009

1971

Deuter becomes the biggest producer of backpacks and luggage in Germany.



Production and storage space of the luggage section is almost doubled to 40.600 sqm. For the fourth time, Deuter equips the Olympic Team with sports bags and luggage.

Deuter increases the amount of nylon used in backpacks. Deuter provides more than 80% of all tents at the Oktoberfest.

1972

1973

1984

Deuter-Aircomfort: the original of a mesh back system is born and patented. It revolutionises the backpack market and becomes the most famous back system worldwide.



1991

Mountain biking gets more and more popular. Deuter is the first company developing bike specific packs – in cooperation with mountain bike legend Andi Heckmair. The godfather is the „Bike I“ with Airstripes-System.



1995

The new Vari-Quick System premieres: it allows a quick and easy back length adjustment.



1996

1998

The Futura range with its Aircomfort Futura back system enters the market. It has been extremely popular ever since.



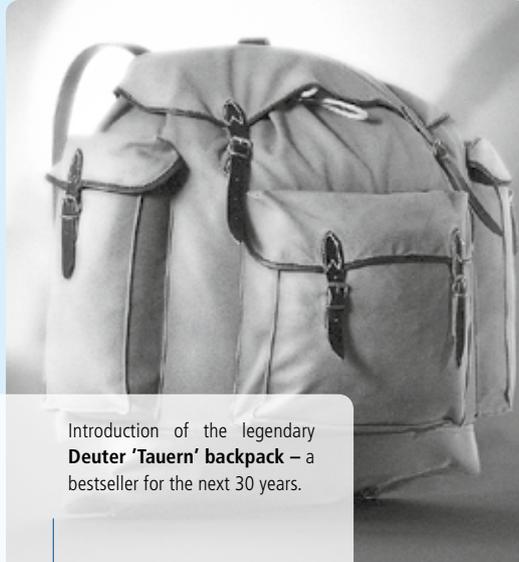
Deuter introduces the Aircontact and the sleeping bag range. Further, for the family segment, Deuter engineers the first TÜV approved child carrier. A market survey declares Deuter as market leader in Germany for backpacks.





A saddlery is set up for the processing of leather.

For the first time, Deuter tents can be seen at the Oktoberfest in Munich.



Introduction of the legendary **Deuter 'Tauern' backpack** – a bestseller for the next 30 years.



Deuter introduces the first nylon backpack range. It quickly becomes the number one backpack material.

Five of the 15 **'Tauern' backpacks** for Hermann Buhl's Nanga Parbat (8.125 m) expedition were made of Perlon, a nylon alternative.

1899      1905      1914      1920      **1930**      1939      1951      1953      1965      1968

The company starts its rental tent service.

Hans Deuter already employs 80 workers and 12 clerks.

As in the Great War, Deuter produces mainly equipment for the military, but also industrial tents.

A weaving and dyeing mill is established; production of clothing and camping tents.

With the alpine model "Sierra" Deuter premieres a backpack with integrated supporting frame.



2004      2005      2006      2011      2013      2014

Sleeping bags become more and more important. The range includes kid's models and 4-season down sleeping bags. The **alpine pack Guide** is fully revised convincing mountaineers and alpine pros.



Deuter introduces the **Shield System** – a totally new backpack concept. The integrated **TÜV approved and CE certified back protector** guarantees more safety for bikers and winter sports lovers. The innovation wins the Eurobike Award Gold 2005 with the Attack pack.



**Introduction of the school backpack Ypsilon:** perfectly adapted to the needs and anatomy of kids.



**Neosphere down sleeping bag range:** the counterpart to the Exosphere synthetic models, which were introduced to the market in 2009. The extremely elastic sleeping bags feature the **THERMO STRETCH COMFORT SYSTEM**. The bags' state-of-the-art technology and the unique comfort literally move the sleeping bag market.



Exosphere

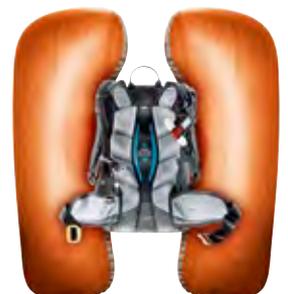


Neosphere

**Bluesign products enter the market:** Kikki (bluesign approved fabric) and the kids sleeping bag Dreamland (bluesign product).



**Safety meets comfort!** Launch of the **ABS®** avalanche backpack OnTop.



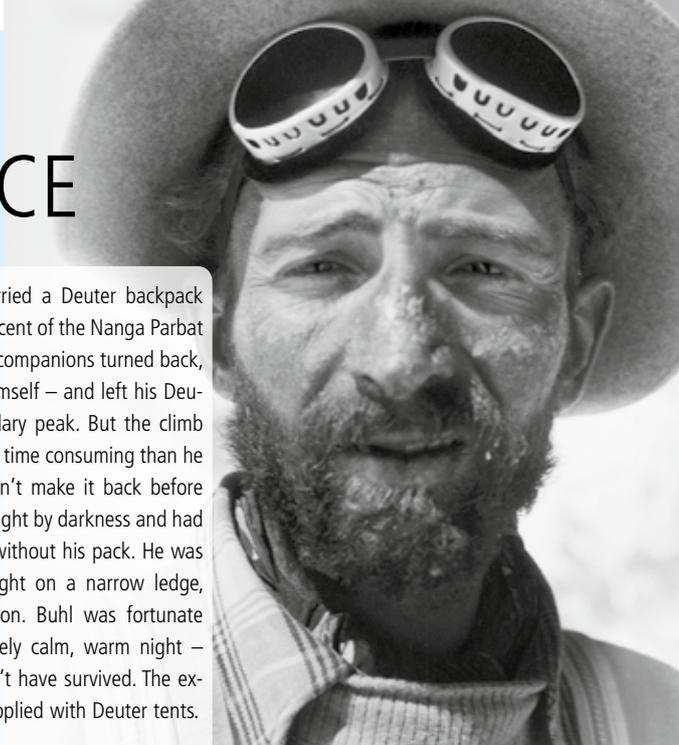
# PROFESSIONAL EXPERIENCE

Pamir expedition led by Willi Rickmer

Anderl Heckmair is the first to conquer the Eiger North face (on July 22.-24.) accompanied by Ludwig Vörg, Fritz Kasperek, and Heinrich Harrer. On his back: a Deuter rucksack.



Hermann Buhl carried a Deuter backpack on his famous first ascent of the Nanga Parbat (8.125 m). While his companions turned back, Buhl continued by himself – and left his Deuter pack at a secondary peak. But the climb was harder and more time consuming than he expected and he didn't make it back before the night. He was caught by darkness and had to survive the night without his pack. He was forced to stand upright on a narrow ledge, without any protection. Buhl was fortunate that it was a relatively calm, warm night – otherwise he wouldn't have survived. The expedition was also supplied with Deuter tents.



Cordilleras expedition, Himalayans expedition

1928      1934      1937      **1938**      **1953**      1954      1957      1958      1959      **1961**

The "Tauern" proves its worth at the **Himalayans expedition to the Nanga Parbat**. Expedition member Fritz Bechtold writes to Deuter: "We were exposed to the most extreme conditions – and so was our equipment. We are happy to say that the Tauern sack is a piece of high quality alpine gear that we could always fully depend on."



Tauern backback from 1930

German-Austrian Karakoram expedition

Broad Peak expedition

German Karakoram expedition

German-Swiss Himalayans expedition

**Toni Hiebeler's** first winter ascent of the Eiger with Toni Kinshofer and Anderl Manhardt. Hiebeler writes about his childhood: "My father was a ski and mountain guide. He owned two Tauern backpacks. Owning a Deuter Tauern in the 1930 to the 1950s meant feeling a little like a king. When my dad was out in the mountains with clients, I wanted to go climb "my mountains", too. I was 10 and simply stole my dad's second Tauern. One day I ended up in a heavy storm and the backpack was still wet when dad found it. He didn't like it and I got good thrashing. In the end, though, he had to admit there was no holding me back. He gave me his second Tauern. For me that was a gift from heaven."

1991      1996      **1997**      2001      **2005**

**Ralf Dujmovits** becomes technical consultant, fine-tuning the products.

**Steve Buffinton**, product designer, joins the Deuter development team and creates the signature Deuter product design.

Start of the close cooperation with the **German Ski and Mountain Guide Association**. Supplied with Deuter rucksacks and sleeping bags they deliver important feedback for the product department.



**In cooperation with Le-ki, Helly Hansen and Meindl, Deuter sets up a test center on the Jamtalhütte**. Here, costumers have the opportunity to test the latest Deuter products. The input from the center is integrated in the product development.

The SL backpack program is further extended and becomes a coherent women's collection. Deuter sees the **new SL-Women's Fit** range as an important step that needs to be managed by a professional, independent team. The new team solely focuses on the optimisation of the women's products. And who knows better about female demands than women themselves? The entire team is set up of female outdoor enthusiasts, headed by **Gerlinde Kaltenbrunner**, a true mountain pro, who brings her experience from the 8.000 m peaks to the table.

**FAKT:**  
For Deuter, the close cooperation with professional athletes has always been and will always remain crucial for the development of all products. Here you find an overview of athletes and expeditions that deeply influenced and formed our products.





Excerpt from the expedition report of the **German Himalayans expedition honouring the 100th anniversary of the German Alpine Association**: "All nine members made it up the 7.149m Glacier Dome. We also managed the first ascent of the Roc Noir (7.516 m)... We are happy to inform you that the Deuter backpacks have performed superbly."



**Peter Habeler**, together with Reinhold Messner, first climbed the Mt Everest without oxygen in 1978. He becomes technical consultant at Deuter taking the products on all of his tours and expeditions to test them under the most severe conditions. He worked for Deuter until 1991.

**Pepi Stückl and Peter Vogler**, mountain guides, become members of the development team and thoroughly test the products on their tours. **Bernd Kullmann**, a great allround mountaineer, becomes product & sales manager at Deuter. **The beginning of a new era: alpinists, mountain guides, and bikers strongly influence the collection.**

The German Nuptse (7.879 m) expedition with **Ralf Dujmovits** first climbs the peak via the NW face.



**Andi Heckmair**, mountain guide and passionate biker has inherited his father's love for the Alps. He also shares his dad's passion for working on products: together with Deuter he develops the first bike rucksack worldwide.

1962    1964    **1969**    1972    1982    **1985**    **1988**    1989    1990

German Wakhan expedition, German Himalayans ski expedition

German Diamir expedition, Nanga Parbat (8.125 m) via the Diamir Face

Anden expedition led by a team from Augsburg, Deuter's hometown

Deuter's product development team gets further professional support by the **American Mountain Guide Association**.



On the 4th of May, **Vladimir Balyberdin and Eduard Myslovsky** reached the Mt Everest peak via a new route, the almost 2.000 m high SW face. It is to be considered the most difficult and most dangerous route. Further seven expedition members, also equipped with Deuter backpacks, reach the summit.

**20 years of Trans Alp** – an anniversary that was, of course, celebrated on the saddle on the jubilee transalp leading from Oberstdorf (Germany) to Lago (Italy). Guided, of course, by Andi Heckmair himself – the man who invented the crossing of the Alps on a bike, and the bike backpack along with it.



**2006**    2009    2010    2011    **2013**

A second **test center for Deuter** backpacks is established at the Taschachhaus in the Pitztal, Austria.



Deuter becomes a member of the **Fair Wear Foundation** (FWF).



**Move to new Headquarters**  
Deuter grows – relocation to the new corporate building.



The **Schwan Stabilo Group** purchases Deuter. After 20 years with the brand, Bernd Kullmann becomes CEO.



Management changes. **Martin Riebel** becomes new CEO at Deuter GmbH.

Why do we develop different backpacks? A winter jacket at +30°C, sneakers on Via Ferratas - the right equipment not only provides more comfort, but also safety. This is why we have the right backpack for the respective use: you need different packs for climbing, hiking, biking, or trekking. We design our equipment specifically for the intended use. This is how we can guarantee fantastic carrying comfort, maximum ventilation and exact, smart details. Yet,

WHICH  
BACKPACK  
IS THE  
RIGHT ONE?

?



# 1. HOW, WHERE AND WHAT TO BRING ALONG?

## HIKING

### DAY HIKES

hiking for several hours, backpack with food and weather protection

### DAY / MULTI-DAY HIKE

hiking weekend; backpack with hiking gear; overnight equipment provided at accommodation

## TREKKING

### LONG DISTANCE TREKS

hikes from accommodation to accommodation over a longer period of time & longer distances; backpack with hiking equipment

### TREKKING BACKPACK TRAVELLING

multi-day, long distance trekking backpack with tent and food; often off the beaten track / no infrastructure

## BIKE

### SHORT RIDES MARATHON

several hours ride; backpack with water/energy bar, tool and weather protection

### DAY / MULTI-DAY RIDES

crossing Alps in 5 days without gear transportation; board & lodging in cabins / hotels

## ALPINE

### MOUNTAINEERING CLIMBING

week of alpine tours; backpack with full equipment; board & lodging in cabins

### SKI, SNOWBOARD, AND SNOWSHOE TRIPS

from day-tour with usual backcountry safety equipment to alpine routes with additional glacier gear

## FURTHER USES

### PROTECTOR

for fast activities with high injury risks, such as single trail rides, downhill, freeride etc.

### LIGHTWEIGHT

for activities where every ounce counts: alpine climbing, trail running, fast ski tours etc. & as light summit pack

### FAMILY

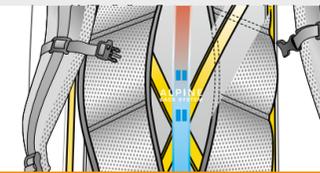
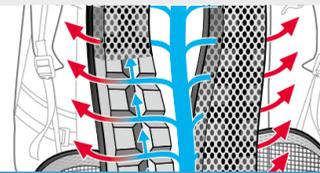
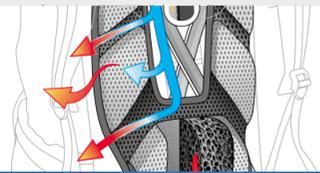
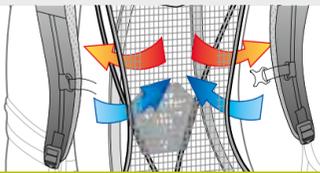
child carriers and kids backpacks for outdoor activities

### DAYPACK

Daypacks for everyday use at school, college, office, or the beach

### TRAVEL

for multi-week trips with longer hiking tours; Work & Travel;



**LOAD TRANSFER**  
(stowable) back system – snug fit with internal frame for heavy loads

**ADJUSTABLE BACK LENGTH**  
for a perfect individual, comfortable fit

**HEAVY DUTY**  
superior material and construction that lasts a lifetime

**PACK ORGANISATION**  
front opening; removable daypack; separate compartments;

## AIRCOMFORT SYSTEMS

### VENTILATION

Aircomfort Mesh Back: 25% less sweating helps saving energy

**OPTIMISED COMFORT**  
regarding carrying properties and features

### FUNCTION

attachment system for poles, external pockets

### VENTILATION

Aircomfort Mesh Back: 25% less sweating helps saving energy

**PADDED HIP FIN**  
for comfortable carrying of medium load

### OPTIMISED COMFORT

regarding carrying properties and features

### FUNCTION

attachment system for poles, separate bottom compartment, external pockets, compression straps

## AIRCONTACT SYSTEMS

### LOAD TRANSFER

Aircontact: snug fit with internal frame for medium load

**ADJUSTABLE BACK LENGTH**  
for a perfect individual, comfortable fit

### VENTILATION

functional Aircontact pads: 15% less sweating

### PACK ORGANISATION

separate compartments also evenly distribute the load

### LOAD TRANSFER

Aircontact: snug fit with internal frame for heavy loads

**ADJUSTABLE BACK LENGTH**  
for a perfect individual, comfortable fit

### STABILITY

superior material and construction that lasts a lifetime

### VENTILATION

functional Aircontact pads: 15% less sweating

### PACK ORGANISATION

separate compartments also evenly distribute the load

## AIRSTripES SYSTEM

### LIGHTWEIGHT

light and compact for a small load

**FREEDOM OF MOVEMENT FOR THE SPINE**  
sport-specific cut avoids chafing

### VENTILATION

Airstripes channels: free air circulation for 80% of the back

### COMPACT SHAPE

guarantees full freedom of movement also for the helmet

### FUNCTION

reflectors, H<sub>2</sub>O compatible

### TIGHT FIT

Airstripes: close and secure fit in any cycling situation

**FREEDOM OF MOVEMENT FOR THE SPINE**  
sport-specific cut avoids chafing

### VENTILATION

Airstripes channels: free air circulation for 80% of the back

### COMPACT SHAPE

guarantees full freedom of movement also for the helmet

### FUNCTION

helmet holder, reflectors, H<sub>2</sub>O compatible

## ALPINE BACK SYSTEM

### COMPACT FIT

Alpine Back System: secure, close fit for difficult terrains

### SLENDER PACK

for maximum freedom of movement

### FUNCTION

attachment system for ice axe and skis, SOS label

### LIGHTWEIGHT

focus on the essentials to save energy

### SAFETY

fully reliable material and function

### COMPACT FIT

Alpine Back System: secure, close fit for difficult terrains

### FUNCTION

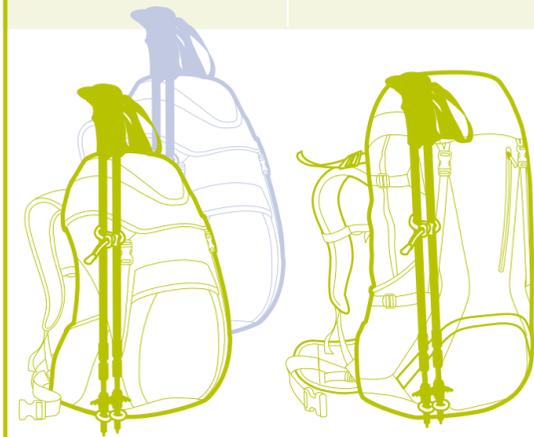
attachment system for skis/snowboard/snowshoes, compartment for shovel & probe, SOS label, ice axe holder

### LIGHTWEIGHT

focus on the essentials to save energy

### SAFETY

fully reliable material and function

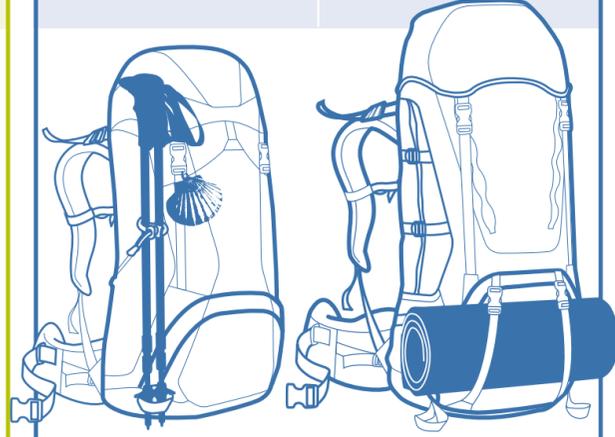


14-30l

3-8 kg

22-50l

5-15 kg



35-50l

5-17 kg

40-75l

12-25 kg



10-15l

2-4 kg

15-30l

3-7 kg



24-45l

5-15 kg

24-45l

5-15 kg



18-20l

2-10 kg

10-30l

2-10 kg



16-32l

3-10 kg

55-80l

12-20 kg

55-80l

12-20 kg

## 2. THE CUSTOMER'S PHYSIQUE



Photo: Klaus Fengler

You cannot choose a backpack exclusively on its capacity. The more volume a backpack has, the more important is a carrying system that can be individually adjusted and guarantees freedom of movement plus fantastic wearing comfort. Take a look at the customer's build and you'll find the ideal fit for him or her.

Broad back?  
 Yes  
 No

Narrow shoulders?  
 YES   
 NO

Short legs / long back?  
 Yes  
 No

Long legs / short back?  
 YES   
 NO

Narrow hips?  
 Yes  
 No

Round waist?  
 YES   
 NO

2 x Yes?  
 » Try The Standard-Model

2 x Yes?  
 » try the SL model



### EXTRA LONG FIT

For taller people, our Extra Long (EL) models offer superior carrying comfort! Tall people (185 – 200 cm) often have trouble finding the right gear for their adventures. We've therefore elongated the back length, adding 6 – 9 cm to our most popular models. We've also increased the capacity for our EL range to swallow the bigger gear of taller people. We've kept, however, the respective standard model's back systems and features for our EL versions.



# SL WOMEN'S FIT SYSTEM

## WHY DOES THE DEUTER SL SYSTEM FIT WOMEN SO WELL?

We've established a female team (including professional athletes and designers) for the development of our SL packs. "SL" stands for SlimLine – and those products are far from just men's models in feminine colours. The entire pack, including the carrying system, is perfectly adapted to a woman's physique. Compared to men the female anatomy has:

**1 a slightly shorter back** (because of longer legs and shorter height)<sup>1</sup>

» The SL back system with its lower shoulder strap anchor point is a bit shorter than the standard version. A key comfort factor since only the right back length can guarantee the optimum fit of the shoulder straps and waist belt.

**2 a more conical shape of the hip**, which is further enhanced by women's tendency towards a hollow back.

» The SL waist belt anchor points are set closer together and are slightly curved angling diagonally upward. The fins are also preshaped so that the fastened hip belt has a conical shape delivering a customised fit. Hugging the waist, it leaves no space between wearer and backpack.

**3 a narrower shoulder width**

» In order to give a perfect anatomic fit around the upper body, the SL shoulder straps are both narrower and shorter in length, have narrow tapered ends and smaller buckles. They avoid chafing in the armpits and eliminate pressure points in the chest area.

» Further, the SL shoulder straps are set closer together. Thus, they stay in place and do not slip off the shoulders.

**4 a more sensitive chest**

» That is why the SL shoulder straps have an S-shape and feature softly lined edges on both sides. The SL construction curves around sensitive areas and stays in place.

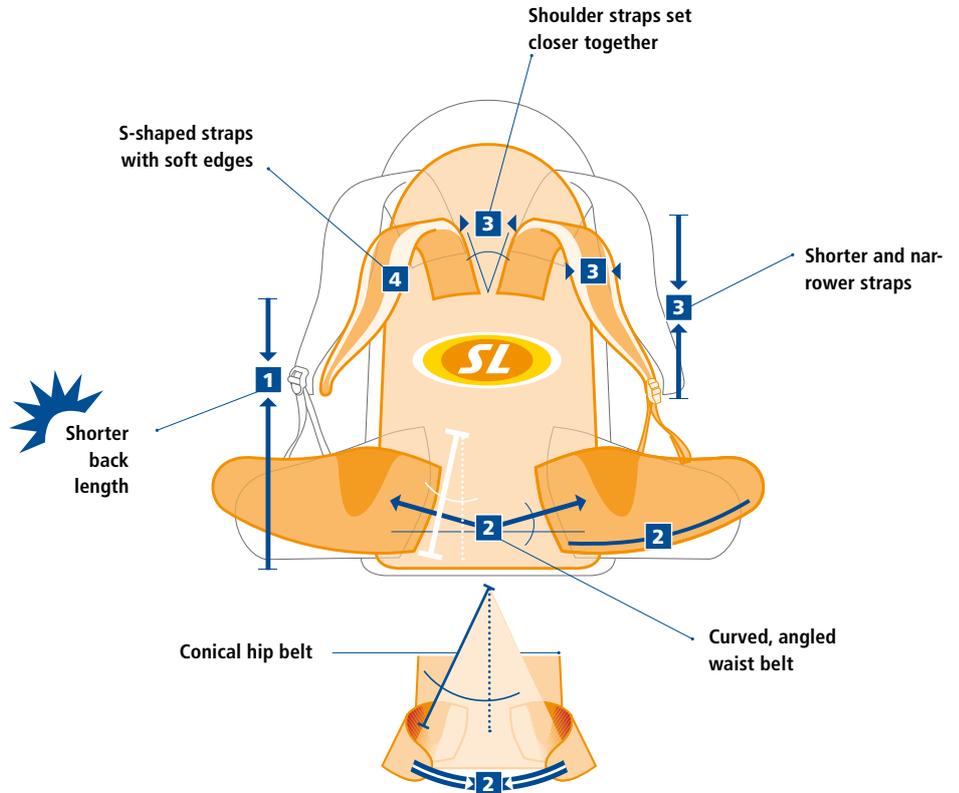
## WHO ELSE CAN WEAR SL?

Our SL rucksacks are designed to fit the average athletic female build. However, since not everyone fits the norm it is likely that standard models also fit female users perfectly well – and vice versa: SL models fit men...

... with a very slim build, who do not fit the common unisex sizing » **check physique**

... with long legs, because they often have shorter backs » **check pants size**

... with a clothing size of S/M » **check clothing size**



"Selling SL is fun! Just let the the fe-male customer try on a standard 'men's' backpack and then the SL version – both packed. You feel the difference straight away and this is what convinces without many words. Myself, I'm wearing Deuter SL exclusively on my trips."

*Gerlinde Kaltenbrunner, the first woman to summit all 14 of the world's 8,000-meter peaks without using supplementary oxygen; since 2005 member of the Deuter SL development team;*



**FACT:**

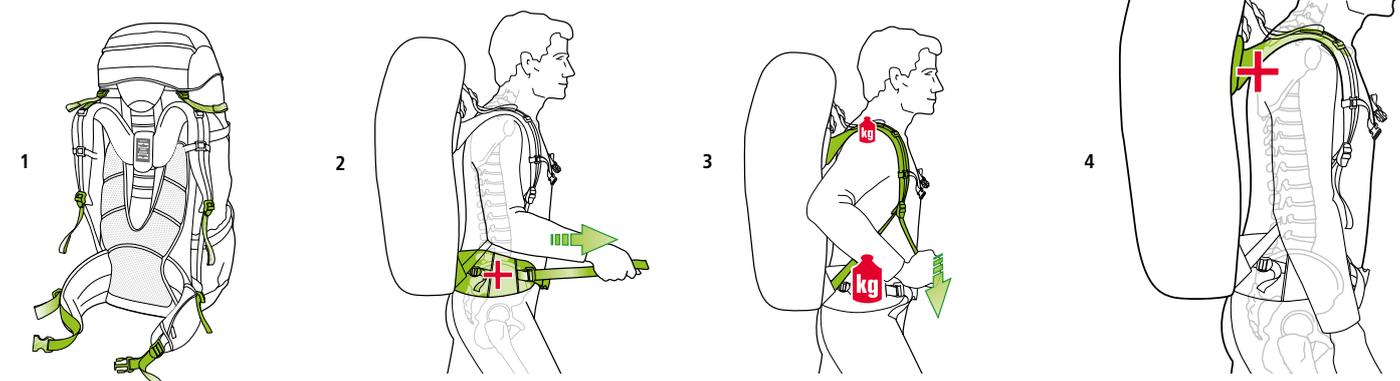
In average a woman can carry less than a man. Further, a woman has less muscular strength than a man. No wonder the SL development team never asked for "cute extras". On the contrary, all SL models are (just like the standard versions) trimmed to the ideal weight-to-features ratio. A challenge to create clever solutions.

1) Results of the German microcensus statistics 2005: average female population: height: 165 cm & weight: 60 kg; average male population: height: 178 cm & weight: 60 kg (> you can carry about 25% of the your body's weight); 2) Waist-to-Hip-Ratio

# 3. HOW TO FIT THE BACKPACK RIGHT?



Once you've decided on a few models, it is time to test the individual fit. You best start by loading them up and trying them on:



**1 Fill the backpack with a realistic weight.** Loosen all straps. Shoulder the pack.

**2 Position the middle of the hip belt over the hip bones and tighten.** If the belt sits too high, it might constrict the stomach. If the position is too low, the fins might chafe.

**3 Now tighten the shoulder straps, but not too tight.** The main weight should be on the hip belt.

**4 The anchor points of the shoulder- straps are ideally positioned between the shoulder blades.** Thus, the pads comfortably close around the shoulders.

**A** If the position is too low, the back length is too short. **B** The shoulder pads, therefore, do not sit on the blades and can easily slip off the shoulders. **C** If the position is too high, the back length is too long. **D** It sits too close to the neck, the shoulder pads run down to the arm pits – this will lead to chafing on neck and arms. Further, the pack tends to tilt back. Here, length adjustable shoulder straps will

not help. Only the right back length can solve this problem. It provides full freedom of movement for your arms and relief for your upper back muscles with its anatomic, S-shaped pads. Choose the right back length (**Standard, SL or EL**) for small capacity Deuter backpacks. For larger models adapt the length adjustable back system (**Vari-Quick and VariFlex System**) to the ideal position.

**5** Once you have found the perfect back length, **fix and close the height adjustable sternum strap.** Not too tight, since it could hinder breathing. The strap stabilises the shoulder straps and is a standard feature of almost all Deuter packs.

**6 Tighten the hip belt stabiliser straps depending on the terrain.** Tighten for more load control. Loosen for more freedom of movement. Tension the **shoulder stabiliser straps** on the shoulder straps of larger capacity packs. Loose for **improved ventilation** and more weight on the waist belt for easy passages. **Tighter they deliver more load control and transfer more weight to the shoulder straps on rugged ter-**

**rain.** On longer trips, make sure you loosen and tighten all straps regularly to vary the load transfer.

To perfectly fulfil their function the stabiliser straps should be horizontally angled between 30° and 45°.

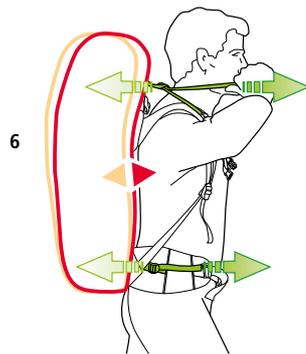
**E** For Deuter trekking backpacks you can adjust the angle by choosing a higher or lower positioned buckle on the pack.

For **smaller capacity packs**, the straps fulfil a different role. They allow the **fine-tuning of the back length.**

**F** Loosen or tighten stabiliser and shoulder straps to perfectly fit the pack's back position. Here, the angle can be significantly smaller or even negative.

To judge the carrying properties of a pack, you need to load it up. Fill half of the pack with an air bladder or foil. You can prepare the foil in convenient small packs. Then place weight in the pack – at about shoulder height and fill the rest of the space with foil so that the weight won't shift.

*Miguel Tiblas, worked as Sales Rep Outdoor & Sport for eight years. Nine years ago, he joined the Development and Design team at Deuter.*



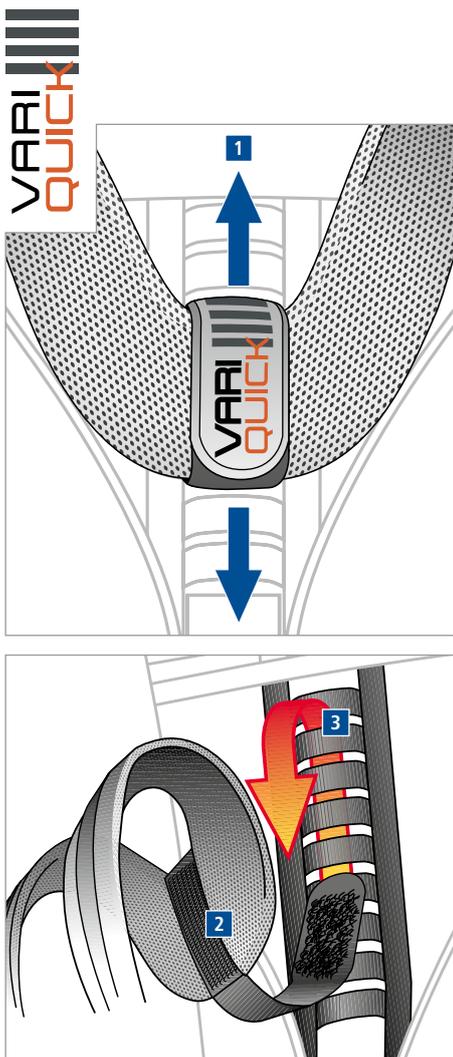
**FACT:**  
 Lighten the load by bringing it close to the body! The perfect pack is slender and sits close to the back – of course, it also has to be packed and fitted the right way!

# 4. HOW TO PACK THE BACKPACK RIGHT?



Photo: Tobias Meyer

So you found the perfect pack – now use it the right way! Make sure you adjust the models that feature an adjustable back length and an internal frame to the individual back. And finally pack it the right way! Pack it the right way! Those are crucial factors when it comes to carrying comfort.



## DEUTER VARI-QUICK SYSTEM

An unprecise adjustment restrains the potential of a good back system. The following steps will help you to perfectly adjust the back length of the Vari-Quick system:

- 1 Find the right back length (see page 10).
- 2 Loosen and pull out the Velcro closure.
- 3 Put the harness strap into the right position, then lace the straps through 4 attachment loops. Tighten the strap and secure the Velcro closure.

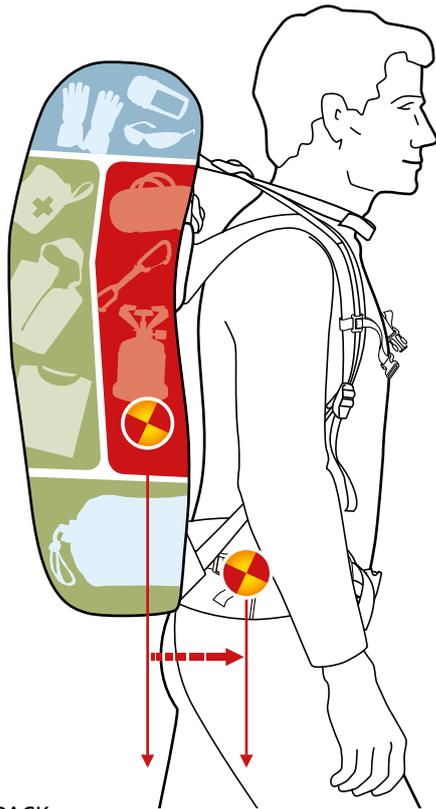
For heavy loads (from about 10 kg) and longer walking distances in particular, the ideal adjustment to the user's back length is crucial. This means, it makes absolute sense to equip packs from a volume of 35 l with a Vari-Quick system. Yet, keep in mind that every system with back length adjustment means additional weight. For smaller capacities keep the pack's own weight as low as possible.

Deuter therefore offers for those models an option of three different sized back lengths: Standard, SL and EL. Our rucksacks are designed to fit the average athletic build. Yet, since not everyone fits the norm, we also offer a very special service: we can easily adapt the carrying systems. In a few steps the shoulder straps of packs and child carriers with Vari-Quick can be swapped for SL-shoulder straps. Vice versa SL straps can be exchanged for standard Vari-Quick shoulder straps that are suitable for the wearer with a more stronger build.

## INTERNAL FRAME

The duraluminium stays inside the packs are crucial for the optimum comfort and the ideal load transfer on the waist belt. The lightweight stays have an S-shape and therefore already fit most wearers: it has a snug fit and distributes the main weight on the hips. However, in case the wearer's back has a very different shape the stays can be further adapted. Shape the pack by carefully bending or straightening the back, e.g. on the edge of a table.





Bernd Kullmann, for 27 years heart and soul of the rucksack development team; until 2013 DEUTER CEO – and still as passionate about mountains

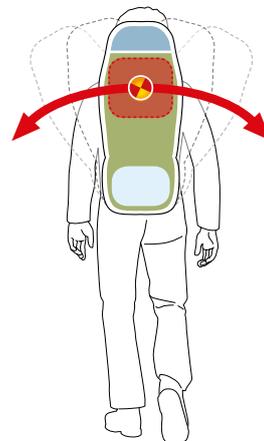
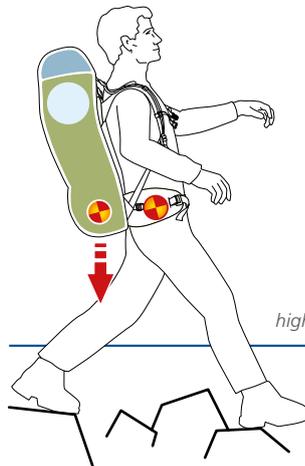
“The most important step when packing your rucksack is to leave the superfluous at home! As a general rule, a fit person should not carry more than 20-25% of his/her body weight over a longer period of time. The German military calculates with 33% – but then, we all know that their trips are more than strenuous!”

**LOADING THE PACK**

The pack's center of gravity should sit close to the body and ideally at shoulder height. This way it is positioned over the body's center of gravity and the pack won't pull backwards. How to properly load your bigger capacity rucksacks (from about 30 l):

Put the sleeping bag, down equipment and other light objects in the bottom compartment. Place mid-weight gear such as clothing on the top towards the outside. Heavy equipment – tent, food, big jackets – above shoulder height, close to the back. Put small, often-used items in the lid pocket where they can be easily grabbed. To avoid swinging, big wind surface or wetness, minimise the number of items you strap to the outside of the pack and keep them as compact and small as possible. In general keep an even weight distribution, in particular for side pockets, in mind. Use stuff sacks to get organised. Waterproof sacks are also a safe alternative to a raincover.

In easy terrain (hiking routes, flat trails) the load's center of gravity should sit higher **A** in difficult passages (alpine routes, Via Ferrata) a bit lower and thus closer to the body's center of gravity. **B** This packing system leads to a more forward leaning position, yet it provides more balance compared to a higher center of gravity.



high center of gravity > flat terrain

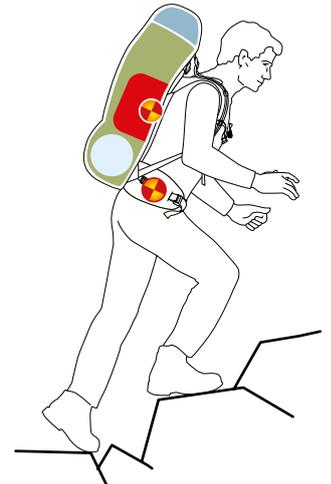
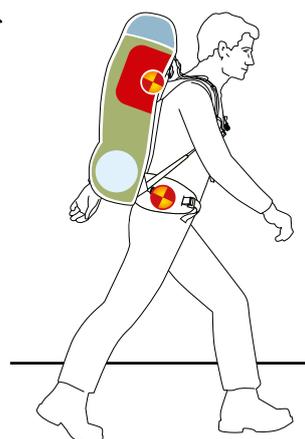
**A**



low center of gravity > alpine terrain

**B**

*Wrong! The pack strongly pulls backwards – this indicates that the pack's center of gravity sits far from the body's center of gravity. When you carry a heavy load like this trekking easily turns into torture. The body constantly works against the pack's weight. The shoulders are heavily burdened. If your pack is not loaded properly it could become even risky in difficult terrain.*



# HIKING

## “FULLY VENTILATED ON A HIKING TOUR”



© Christian Pfanzelt Photography

We fully focus on ventilation for small to medium backpacks that are engineered for easy terrains. Deuter puts an end to sweaty backs. It's the heart of the Aircomfort system and for decades it has proven its strength and stability: the durably elastic spring steel frame construction.

It provides the tension for our superior Aircomfort mesh panel, which creates space between the backpack and the wearer's back. This ensures effective air circulation since warm air can escape to three sides avoiding heat build-up.

Soft ventilation pads between the shoulders and at the hip guarantee fantastic comfort. We offer various versions of the Aircomfort System that are specifically designed for allround, lightweight or heavy load use. Yet, they all have one thing in common: they reduce sweating and therefore enhance the athlete's endurance. Perspiration is reduced by up to 25 % – this has been tested and verified by the renowned German Hohenstein Research Institute.

## DEUTER AIRCOMFORT SYSTEMS

- AIRCOMFORT FLEXLITE SYSTEM **FUTURA**
- AIRCOMFORT FLEXLITE PRO SYSTEM **FUTURA PRO**
- AIRCOMFORT FLEXLITE VARIO SYSTEM **FUTURA VARIO**
- AIRCOMFORT SYSTEM **AC LITE / GRÖDEN & ZUGSPITZE (CLASSIC)**
- ADVANCED AIRCOMFORT SYSTEM **AC AERA**
- AIRCONTACT TRAIL SYSTEM **ACT TRAIL**

	<b>1-3</b> days	 	<b>AC AERA</b> hikes; weekend excursions; family hikes;
	<b>1-3</b> days	 	<b>AC LITE / CLASSIC</b> hikes; weekend excursions;
	<b>1-3</b> days	 	<b>FUTURA</b> hikes; family hikes; weekend excursions;
	<b>2+</b> days	 	<b>FUTURA PRO</b> cabin-to-cabin trips; pilgrimage; winter walks;
	<b>2+</b> days	 	<b>FUTURA VARIO</b> multi-day cabin hikes; pilgrimage;
	<b>1-3</b> days	 	<b>ACT TRAIL</b> hikes; Via Ferrata;

## BASIC FEATURES HIKING

**Drinking system compatible:**

attachment loops, opening for the tube, and a hose holder, enable the use of a water bladder



**S-shaped shoulder straps** relieve the neck and shoulder muscles and avoid chafing; adjustable sternum straps for more stability

**SOS-Label**

with emergency numbers and international instructions for emergency cases



**Attachment system for hiking poles:** easy access to the poles

**Rain cover:**

backpacks for longer excursions are equipped with a rain cover. It can be found in a zippered bottom compartment and can be removed for drying



**External pockets and compartments:** easy access to map, drinking bottle or sun screen. Keeps you organised and evenly spreads the load

## EXTRA FEATURES HIKING

**Padded Vari Flex hip belt**

crucial for the perfect load transfer on the hip, particularly for heavy loaded packs (Futura Pro, Futura Vario)



**Compression straps:** for tightening the pack and improved load stability

**Adjustable back length:**

shoulder straps allow individual back length adjustment (Futura Vario)



**Separate bottom compartment:** zip opening; holds the load in place

**Height adjustable lid:**

volume of the backpack can be increased by approximately 10 litres (Futura Vario)



**Stabiliser straps:** loose > more air circulation; tight > more load control (all Futuras, ACT Trail, AC Aera)

## SPECIAL FEATURES HIKING

**Elastic front compartment:**

for quick access items like your jacket or harness etc. (ACT Trail)



**Front allround zip:** for quick gear access (ACT Trail, Futura Vario)



AIRCOMFORT  
HIKING

BY FAR THE BEST AIRCOMFORT SYSTEM  
WE HAVE EVER DESIGNED!

We are very proud of the numerous test wins and awards we have received for the AIRCOMFORT FLEXLITE System.



"Very good, compact and defined fit, perfect load control, great ventilation. Easily handles load up to 12kg."



"No rocking, no swaying, but a super stable fit – plus fantastic back ventilation."



"All round airy comfort backpack."



Steve Buffinton, can't take his hands off Deuter products since 1996: he started as a member of the product development team and then became head of product management.

"Comfort strongly depends on weight. If you carry the whole load yourself, you want to shave off grams. Less weight also means more energy – but it is crucial that the pack does not compromise on comfort and function."

# 30 YEARS OF VENTILATION

## 30 YEARS OF AIRCOMFORT



1930

### Inspired by history: "free your back"!

Over decades, from the Thirties to the Mid-Seventies, Deuter's "Tauern" was the state-of-the-art pack for generations of mountaineers. It was the first backpack with a comprehensive carrying system – "that frees the back with an adjustable strap construction" – and provided some airflow between back and pack. Yet the contact area was limited to a few pressure points and the one defining element was still missing...



### BEFORE 1984

#### What did a typical hiking backpack look like back then?

Two straight cut, hardly padded shoulder straps, a 'carry' system with non-breathable lining and a bulky shape – the average hiking pack wasn't exactly built for comfort.



1984

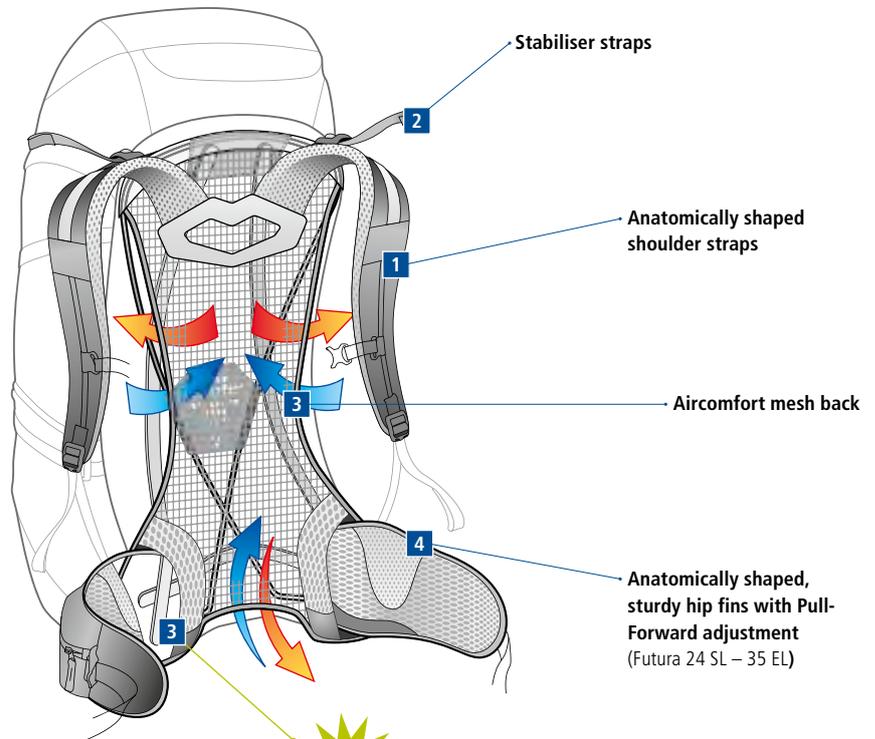
### Aircomfort – the world's first mesh back system is patented

And the defining element was found: The special back mesh tensioned with a highly durable spring steel frame evenly distributes the load and creates the stable tensioned platform for the outstanding ventilation system which allows moist air to escape to three sides. A milestone in the history of backpack design! The unique, airy construction revolutionizes the backpack market.

# AIRCOMFORT FLEXLITE SYSTEM



Futura 20 SL – 28



**Bendable twin-frame construction**

combines lightweight properties, ergonomic fit and 3-sided ventilation with excellent flexibility



Futura 24 SL – 32

**1 Anatomically shaped shoulder straps** with airy, comfortable Soft AirMesh lining.

**2 Stabiliser straps** enable precise backpack positioning.

**3 Twin-frame construction** gives the Aircomfort Flexlite System its special lightweight properties and at the same time guarantees excellent flexibility and ergonomic fit. The secret lies in the combination of complimentary round and flat spring steel frame profiles. It easily follows body movements and transfers the load perfectly to the hip fins. It also gives the back mesh a stable tensioned platform for the patented Deuter three-sided ventilation system. For backpacks with smaller volume we use a round profile frame for full function and flexibility with minimum weight.

**4 Anatomically shaped, sturdy hip fins with Pull-Forward adjustment** and close set anchor points give a snug fit and spread the load to the hips (Futura 24 SL – 35 EL).

**Ventilation pads** for superb carry comfort (Futura 20 SL – 28).



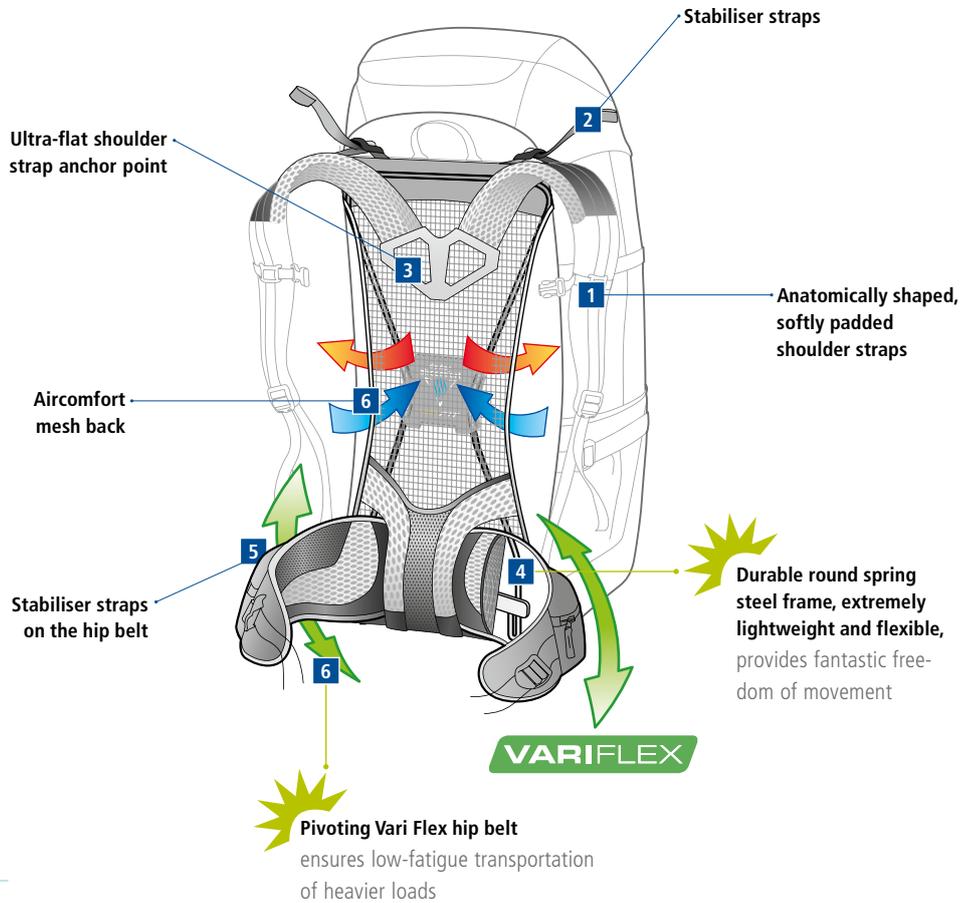
2014

**Aircomfort Flexlite System – the update version**

Top carry comfort at a minimum weight – the Aircomfort Flexlite System is the latest addition and has already won numerous awards and tests. It achieves perfect performance and airiness with its super flexible, yet stable twin-frame construction.

# AIRCOMFORT FLEXLITE PRO SYSTEM

AIRCOMFORT  
HIKING



**1 Anatomically shaped, softly padded shoulder straps** covered with breathable 3D AirMesh.

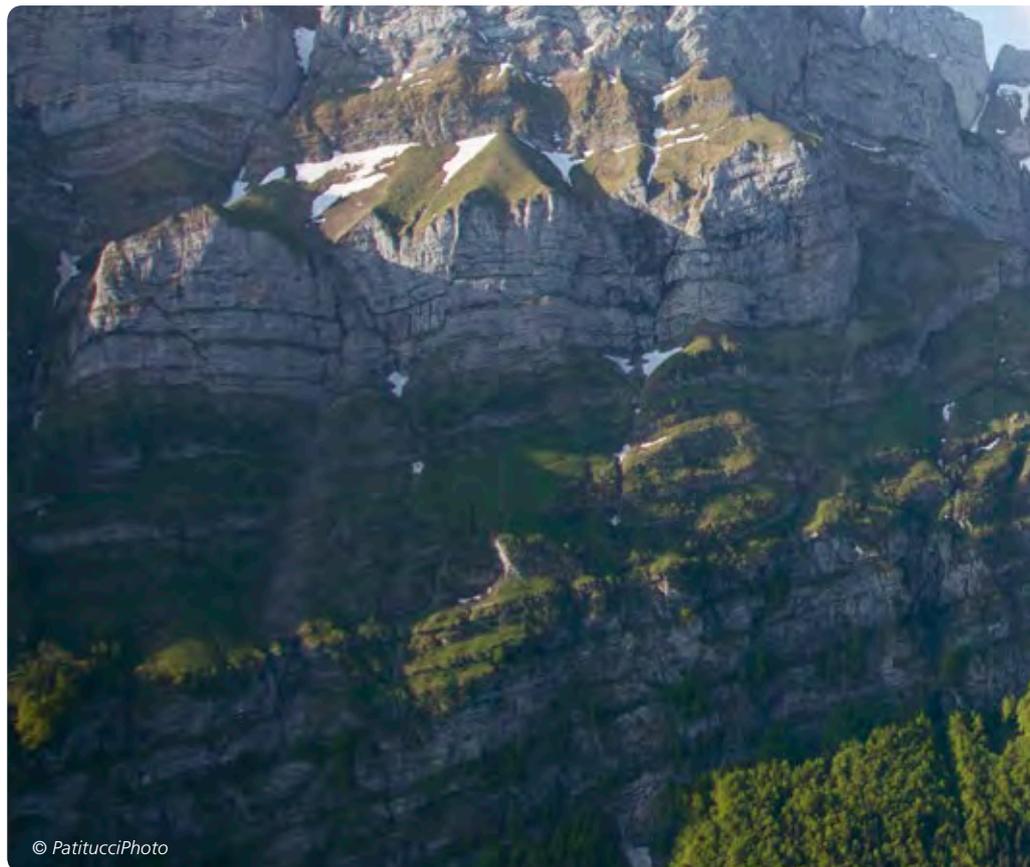
**2 Stabiliser straps** for precise, individual positioning of the backpack.

**3 Ultra-flat shoulder strap** anchor point with ventilation holes

**4 The durable round spring steel frame** is extremely lightweight and flexible and provides great carry comfort, fantastic freedom of movement and a perfect fit. The round spring steel frame tensions the mesh, ergonomically moulds itself to the back and thus guarantees an optimal weight transfer to the hip – thereby efficiently reducing stress on the spine.

**5 Compression straps** on the hip belt stabilise the pack.

**6 The carry system is a fantastic comfort combination:** the Aircomfort back mesh guarantees excellent ventilation; the pivoting, ergonomically formed, reinforced Vari Flex hip belt follows each and every movement and thus helps saving energy.



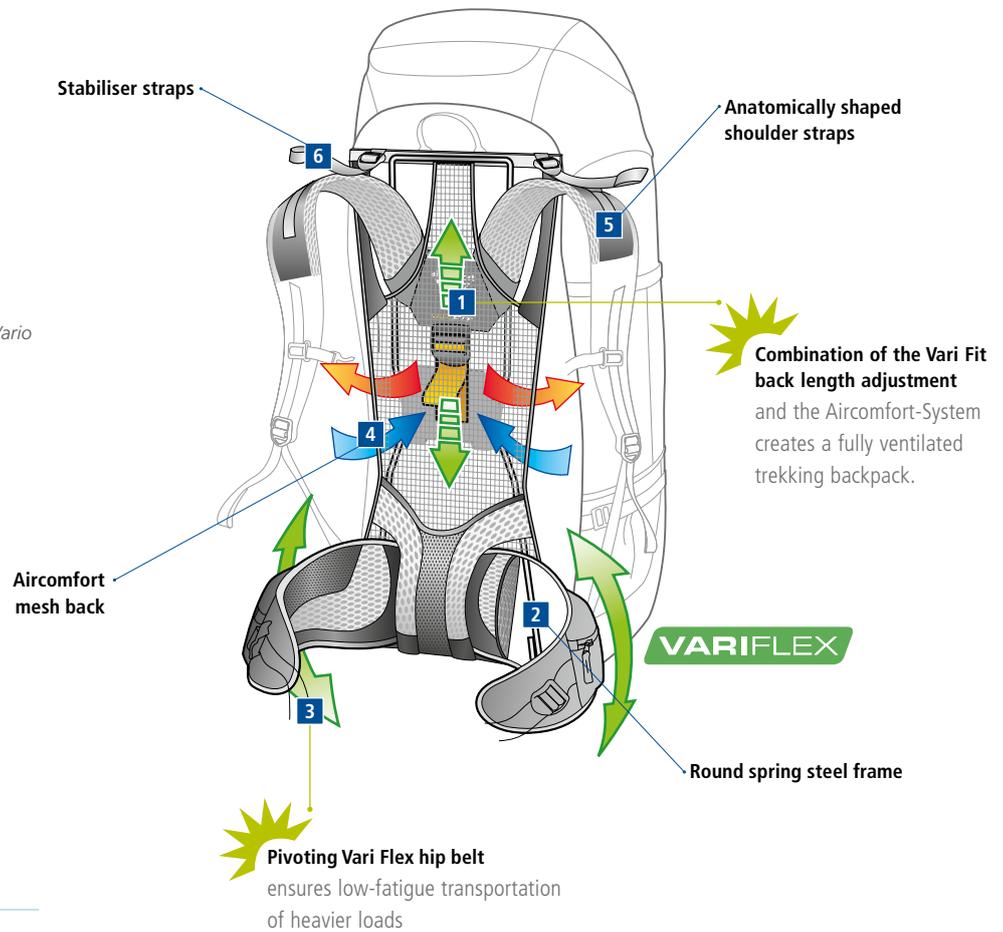
© PatitucciPhoto

# AIRCOMFORT FLEXLITE VARIO SYSTEM

HIKING  
AIRCOMFORT



Futura Vario



# AIRCOMFORT SYSTEM

AIRCOMFORT  
HIKING

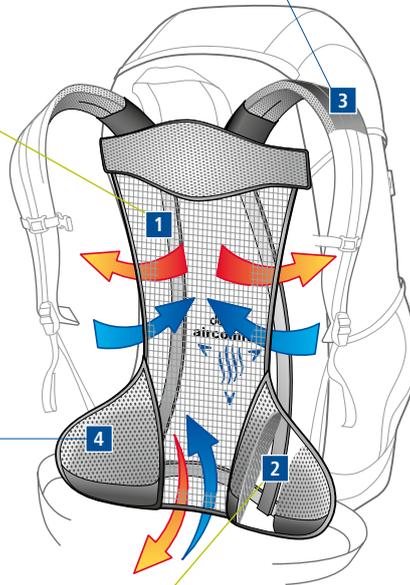


Anatomically shaped, softly padded shoulder straps

**Aircomfort mesh back**  
Deuter's Aircomfort carrying system set a completely new standard in 1984.

Ventilation pads

Durable spring steel frame



**1 The Aircomfort mesh back** provides comfort and top class ventilation: the hot air dissipates freely from three sides. This **reduces perspiration by 25 % enhancing the athlete's endurance.**

**2 Flat spring steel frame:** Aluminium deforms, plastic easily breaks. Our spring steel frame, however, is indestructible and always springs back into its original shape. The tensioned mesh and the back pads stay in place and provide stability.

**3 Anatomically shaped, softly padded shoulder straps** with 3D-AirMesh cover relieve the muscles at the neck and **avoid chafing.**

**4 Ventilation pads** made of bilaminate foam (AC Lite Serie, Zugspitze Modelle) or **padded hip belts** with ventilation pads (Gröden models) provide a great fit and fantastic carry comfort.

## PACKING LIST HIKING

### DAY TOUR

#### AC AERA 24

##### What to wear:

- Ankle high hiking boots with good grip
- Functional hiking pants
- Functional shirt
- Functional jacket or vest
- Backpack

##### Essential

- Extra short-sleeve shirt
- Water- and windproof jacket
- Water- and windproof pants
- Hat or headband & Cap or buff
- Liner gloves
- Sunscreen, lip balm (UPF 30)
- Sunglasses
- Drinking bottle or bladder with at least 1l capacity (depending on tour)
- Electrolyte and magnesium tabs
- First Aid Kit incl. blister pads and personal medication
- ID, cash, credit card, plastic bag
- Small torch or headlamp
- Mobile phone

**Approximate weight "Essential"**  
**4,7 kg** (incl. backpack)

##### Recommended:

- Nuts, dried fruit, bars as required
- Functional shorts
- Swiss army knife
- Trekking poles

##### Without mountain guide:

- Maps
- Guide book
- Compass
- GPS device

**APPROXIMATE  
OVERALL WEIGHT:  
6,5 KG**



Find detailed check lists on [www.deuter.com](http://www.deuter.com) in the section Backpack Tips / Packing lists.

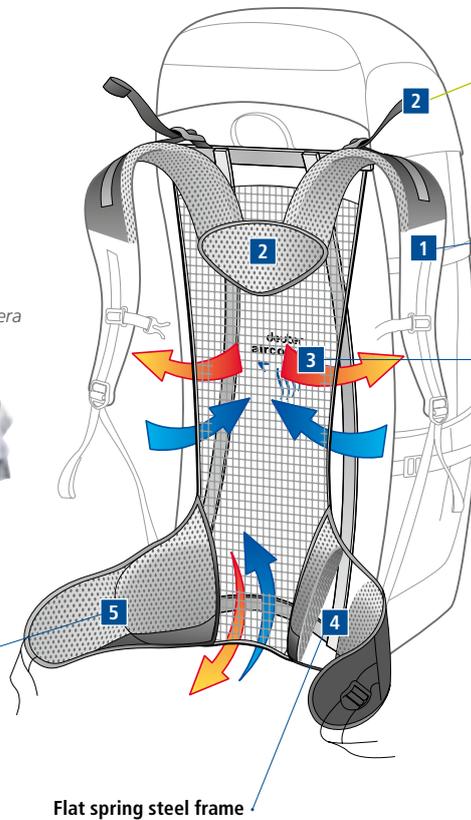
# ADVANCED AIRCOMFORT SYSTEM



HIKING AIRCOMFORT



AC Aera



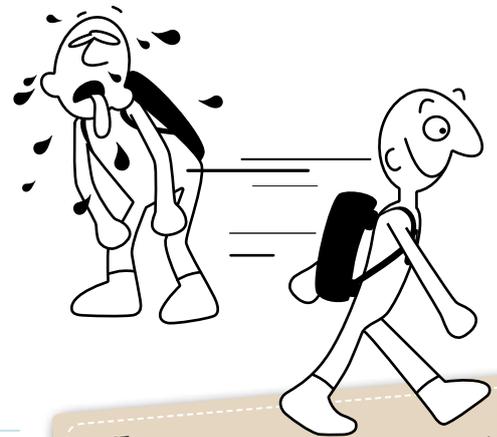
Low set anchor points of shoulder straps combined with stabiliser straps provide optimum carrying comfort for medium loads

Anatomically shaped, softly padded shoulder straps

Aircomfort mesh back

Compact, anatomically shaped hip belt

Flat spring steel frame



**FACT:**

Aircomfort for more energy! Heavy sweating is uncomfortable – and a soaked back also reduces your performance.

**1 Anatomically shaped, softly padded shoulder straps** with 3D-AirMesh cover relieve the muscles at the neck and avoid chafing.

**3 The Aircomfort mesh back** provides comfort and top class ventilation: the hot air dissipates freely from three sides.

**4 Flat spring steel frame** provides a durable and light structure, and applies tension to the mesh.

**5 Compact, anatomically shaped hip belt** for a snug fit and great load transfer.

**2** The more load, the more important the ideal fit. Therefore, the "Advanced Aircomfort System" **positions the shoulder straps lower on the backpack. In combination with the stabiliser straps** the back length and the position of the pack can be easily regulated for more load control.

Autumn ispo 1984 – Deuter promotion for the patented world premiere of the "Aircomfort" mesh back backpack



**gestern:**

Das „alte Erlebnis“ beim wandern: Zähne hoch, Knie zusammenbeißen!



So, jetzt kann man sagen: Jeder sollte, daß ich selber in der Freizeit weiß, warum es geht! Hand mit Rücken durchgeschüttelt – und Rücken mit Rücken durchgeschüttelt – und somit ganz verschlafen. Schwitzen drüber! Jetzt erst mal ein kühles Bierchen!

**ab heute:**

Größt Gott, ich kann mich nur wundern, wie leicht einem jetzt wandern fällt. Jetzt geht's leichter und schneller – wie mit dem Propeller! Selbst bergauf!

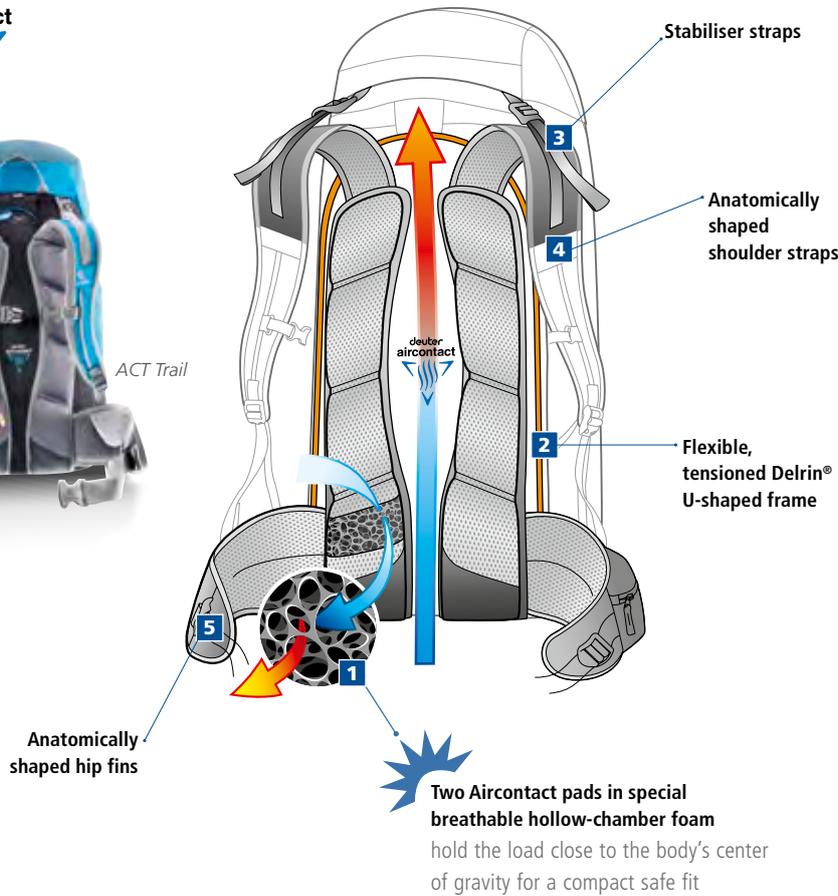


Die neuen Vorteile des luftigen-Rucksacks von DEUTER kann jeder deutlich sehen: zwischen Rücken und Rucksack entsteht automatisch „gutes Klima“ (keine unnötige Erregung des Trägers, trockener Platz im Luftraum, selbst weiche, federnde und anatomisch geformte Rückenauflage). Das neue luftige-Rucksack ist ungewöhnlich packfreundlich!



# AIRCONTACT TRAIL SYSTEM

AIRCOMFORT  
HIKING



Ideal for those who love a snug fitting pack. Universal carrying system, from the classic day hike to Via Ferratas:

**1 Two Aircontact pads in special breathable hollow-chamber foam distribute the load evenly.** The Aircontact pads perform a pump effect, whereby every movement prompts the exchange of air, resulting in optimum back ventilation. **The result: 15% less perspiration than with previous body-contour packs.** Additional ventilation channel between the Aircontact cushions.

**2 Flexible, tensioned Delrin® U-shaped frame provides stability with little extra weight.** It follows the most varied movements with absolute ease. The frame combines with the body-hugging fit of the pack to create a comfortable yet compact carry system with even load distribution and effective load transfer.

**3 Stabiliser straps** allow precise positioning of the backpack.

**4 Anatomically shaped shoulder straps** covered with 3D-AirMesh.

**5 Anatomically shaped hip fins** for freedom of movement and body-hugging carrying.

## SALES ARGUMENTS FOR HIKING BACKPACKS

- Deuter Aircomfort saves energy! It reduces perspiration by 25%<sup>1</sup>, which in turn cools the skin temperature by up to 3°C and thus reduces the load on the cardiovascular system by a significant amount, not to mention the increase in user comfort. <sup>1</sup>tested and verified by the German Research Institute Hohenstein.
- 1984 Deuter introduced the first fully ventilated mesh back system – the Original. It is the authentic mesh back system and has influenced generations of backpacks with back ventilation.
- Tension and stability: the durable spring steel frame holds the tension even after many years.
- Plastic breaks, aluminium deforms. The powder-coated spring steel frame in Deuter's Aircomfort Systems, however, will last a lifetime!
- Functional clothing can do its job – thanks to the breathable Aircomfort mesh panel.

- No pressure points since the hip pads come in a three-dimensional, ergonomic shape.\*



- Straight cut shoulder pads chafe on the neck and in the arm pits. Deuter's anatomic S-shape follows the shoulder line, re-lieves neck and upper shoulder muscles, and guarantees great freedom of movement. Soft edges on both sides further increase the wearing comfort.



Deuter backpacks are the most popular: the readers of German magazine outdoor have voted Deuter as the top brand 2013 in the backpack category – and it was a spectacularly clear vote: 49,3% named Deuter as Best Brand – compared to 5.5% for the brand in second place.

- Deuter fits. You can only actually use the potential of a good carrying system when it provides the right back length. The two Deuter sizes, SL-Women's Fit and Standard, fit most of the customers and thus guarantee fantastic comfort.
- Futura 35 EL, Futura Pro 44 EL und ACT Trail 38 EL (ExtraLong) fit taller people between 185 cm and 200 cm. Longer back and straps for maximum individual comfort.



Photo: Bernd Ritschel



Sigi Zang, Deuter Sales Staff, Northern Germany

“My top sales strategy: test it! Many ask for a small backpack. But does it all fit in there? Go and pack the usual equipment with your client: rain jacket, rain pants, food, First Aid Kit, drinking bottle and a few other essentials. This gives you the opportunity to explain perfect load transfer and to test the carrying comfort with realistic weight.”

## PACKING LIST VIA FERRATA

### DAY TOUR

#### ACT Trail 32

##### What to wear:

- Functional pants
- Functional shirt
- Functional jacket or vest
- Hiking boots with good ankle support and grip
- Backpack

##### Essential:

- Climbing harness
- Via Ferrata set
- Via Ferrata gloves
- Locking karabiner
- Climbing helmet
- Extra short-sleeve
- Water- and windproof jacket
- Water- and windproof pants
- Hat and/or headband
- Sunscreen, lip balm (UPF 30)
- First Aid Kit M
- Drinking bottle or bladder with at least 1l capacity (depending on tour)
- Muesli, dried fruit, nuts, bars as required
- ID, cash, credit card, plastic bag

**Approximate weight "Essential"**  
(incl. backpack)  
**5,8 kg**

##### Recommended:

- Sunglasses
- Functional shorts
- Climbing shoes (depending on route)
- Multi-tool

##### Without mountain guide:

- Route description
- Compass
- GPS device
- Mobile Phone
- Headlamp
- Short safety rope
- Bivouac sack

**APPROXIMATE  
OVERALL WEIGHT:  
8,6 KG**



IN SHORT

#### AC LITE

+ light and compact

#### FUTURA

+ fully equipped  
+ zipped bottom compartment  
+ adjustable back length  
(Futura Vario)

#### ACT TRAIL

+ front opening  
+ load close to the back  
for a safe fit

Find detailed check lists on [www.deuter.com](http://www.deuter.com)  
in the section **Backpack Tips / Packing lists.**

# TREKKING

## "VENTILATED CARRYING COMFORT FOR HEAVY LOADS"

When you form an entity with your rucksack, even the heaviest load becomes a comfortable carry. It is important to bring the pack's center of gravity close to the body's center of gravity. This gives you full control and evenly spreads the weight. Our Aircontact system for trekking packs takes care of just that:

The back padding made of breathable hollow chamber foam allows a snug fit while providing great ventilation. With every movement a pump effect circulates air through the cushions.

In addition, the pad construction creates efficient ventilation channels. Adjustable aluminium stays transfer the load to the reinforced, anatomically shaped hip belt, which also comes in a flexible version for the Aircontact and Aircontact Pro models. The pivoting VariFlex waist belt saves a lot of energy in particular for heavy loads.

Result: 15% less sweating compared to a common standard trekking backpack plus fantastic load transfer. (Confirmed in a field test conducted by Gabriel L.&T. in cooperation with the University of Erlangen)

Photo: Lars Schneider

## DEUTER AIRCONTACT SYSTEMS

AIRCONTACT SYSTEM ACT LITE / AIRCONTACT  
AIRCONTACT PRO SYSTEM AIRCONTACT PRO



1-7

days

35-50 l  
5-17 kg

### ACT LITE

multi-day cabin hikes, pilgrimage



5-14

days

40-75 l  
12-20 kg

### AIRCONTACT

multi-day trek



14-∞

days

55-70 l  
12-25 kg

### AIRCONTACT PRO

trekking tour with tent and equipment; expeditions; work & travel

## BASIC FEATURES TREKKING

**Padded and reinforced hip belt:**  
crucial for the perfect load transfer on the hip, particularly for heavy loaded packs



**Pull Forward:**  
makes the hip belt easy to adjust, even with heavy loads

**S-shaped shoulder straps**  
relieve the muscles at the neck and avoid chafing; adjustable sternum straps for more stability



**Adjustable back length:**  
height adjustable shoulder straps ensure the individual of the back system

**Stabiliser straps**  
loose > more air circulation; tight > more load control



**Separate bottom compartment**  
with zip opening holds the load in place

**Compression straps:**  
for tightening the pack and improved load stability



**Height adjustable lid:**  
volume of the backpack can be increased by approximately 10 litres

**Attachments for ice axe / hiking poles:**  
easily accessible, yet safely stored equipment



**Drinking system compatible:**  
attachment loops, opening for the tube, and a hose holder, enable the use of a hydration bladder

**SOS Label**  
with emergency numbers and international instructions for emergency cases



**Various attachment options:**  
loops and straps for attaching sleeping mat etc.

## EXTRA FEATURES TREKKING

**Rain cover**  
is included in backpacks for longer excursions. It is stored in a zipped bottom compartment and can be removed for drying (Aircontact, Aircontact Pro)



**Compressions straps on top**  
secure the load and keep the lid in place

**Front compartment**  
is offering a easy access storage (ACT Lite, Aircontact Pro)



**Front allround opening**  
for quick gear access (Aircontact, Aircontact Pro)

## SPECIAL FEATURES TREKKING

**Detachable lid**  
convert it into a daypack quickly (Aircontact Pro)



**External bellow side pockets**  
offer 8-10 l of additional volume. You can store your drinking system in bigger volumes. (Aircontact Pro)



TREKKING AIRCONTACT

# AIRCONTACT SYSTEM



AIRCONTACT TREKKING

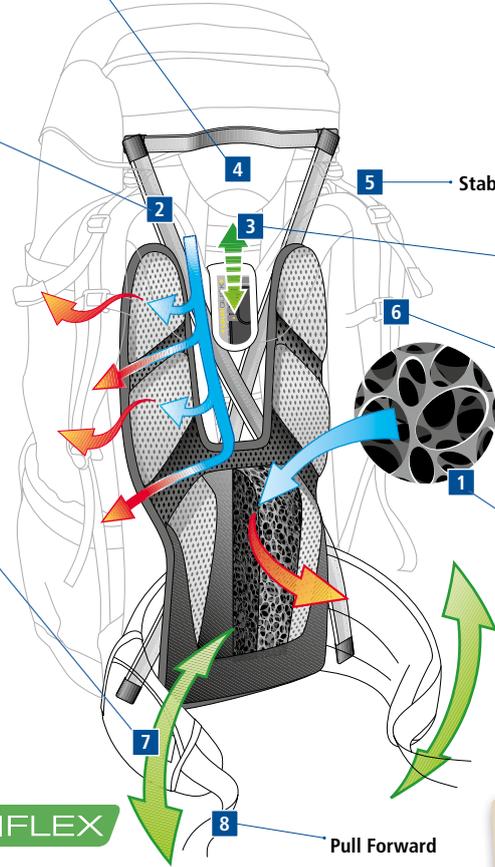


Ergonomic head moulding (Aircontact Modelle)

The anatomic profiled X-frame creates a comfortable, flexible construction for medium to heavy loads

The anatomically shaped hip fins

- ACT Lite models engineered for medium load; ideal for cabin-to-cabin tours and alpine trips
- With the reinforcements and the Vari Flex System, the Aircontact models are built for long tours with tent and gear



Stabiliser straps

Vari Quick adjustment system

Anatomically shaped shoulder straps

Breathable padding with special ventilating Aircontact hollow chamber foam

**VARIFLEX**

Pull Forward

**1 Breathable Aircontact hollow chamber foam** blends superior ventilation with perfect load transfer. The complex multi-layer construction of the back padding uses an upper layer of extremely breathable foam: when compressed air is pushed out and vice versa: fresh air is soaked in when relieved. Thus, with every movement the pump effect circulates air through the cushions. This saves a lot of energy, in particular when carrying heavy loads. Further, channels between the padding improve ventilation. **The result is a snug fitting, stable pack for great carry comfort of heavy loads. It also provides 15% less perspiration than a conventional trekking backpack.** (Confirmed in a field test conducted by Gabriel L.&T. in cooperation with the University of Erlangen.)

**2 Anatomically shaped X-frame** utilises two crossed aluminium stays. This flexible, yet stable carrying system follows your every movement and transfers the weight from the shoulders to the waist.

**3 Vari-Quick System** serve for easy back length adjustment. Loosen the velcro strap, remove and thread through the four appropriate adjustment loops again.

**4 Head moulding** guarantees freedom of movement. (Aircontact from 50+10 SL).

**5 Stabiliser straps** ensure a precise positioning of the pack. The special "Triglide" buckle allows an easy adjustment of the straps. Additionally, for the Aircontact models from 50+10 SL two anchor points are set at different heights. The stabilisers can therefore be adapted to the individual back length.

**6 Anatomically shaped shoulder straps** covered with 3D AirMesh.

**7 Anatomically shaped waist belt** with multi-layer construction: **soft foam on the inside** covered with 3D AirMesh guarantees superior comfort. **stiffer foam on the outside** models the anatomic shape and transfers the load on the hips. Side compression straps on the fins improve the stability. The compact ACT Lite fins utilise a bilaminat construction to pair weight reduction with great load transfer. The **aircontact models** engineered for heavier loads **maximise stability and load transfer** with their additional **reinforcement** between the

**FACT:**  
15% less perspiration than a conventional trekking backpack\*, which in turns reduces the heat build-up between pack and wearer's back by up to 5°C. Result: better performance and an increase in user comfort.



foam layers and the **torsion stiff construction (1)**. Further, the pivoting **Vari Flex hip fins** follow every movement. They help you keep the balance and save a lot of energy on difficult terrain.

**8 Pull-Forward** makes the hip belt easy to adjustment even when heavily laden.

## PACKING LIST PILGRIM ROUTES

**MULTI-DAY TOUR**  
**ACT LITE 40+10**

**What to wear:**

- Ankle high hiking boots with good grip
- Functional hiking pants
- Functional shirt
- Functional jacket or vest
- Backpack

**Essential:**

- Extra short-sleeved shirt
- Extra long-sleeved shirt
- 1-2 bottoms short / long
- Functional socks
- Water- and windproof jacket
- Water- and windproof pants
- Hat or headband
- Cap or buff
- Liner gloves
- Functional shorts
- Sunscreen, lip balm (UPF 30)
- Sunglasses, ideally with photochromic lenses
- Drinking bottle or bladder with at least 1l capacity (depending on tour)
- Electrolyte and magnesium tabs (capsules)
- Muesli, dried fruit, nuts, bars as required
- First Aid Kit M (incl. blister pads, personal medication and rescue blanket)
- Headache pills
- Small torch or headlamp
- ID, cash, credit card, plastic bag
- Sleeping bag liner
- Washing bag (travel shower gel, tooth brush / paste, small functional towel, tissues, ear plugs)

**Approximate weight "Essential"**  
**(incl. backpack)**

**6,4 kg**

**Recommended**

- Trekking poles
- Swiss army knife
- Cotton shirt for the hut
- Hut shoes
- Plastic bag (for hut shoes or wet laundry)

**Without mountain guide**

- Maps
- Guide book
- Compass
- GPS device
- Bivouac sack
- mobile phone

**APPROXIMATE OVERALL WEIGHT:**  
**8,5 KG**



## PACKING LIST TREKKING

**MULTI-DAY TOUR WITH TENT**  
**AIRCONTACT PRO 60+15**

**additional to multi-day tour:**

- Tent with pegs
- Cooking system / stove
- Fuel for cooking system
- Water filter
- Sleeping bag (models depends on temperature range)
- Sleeping mat
- Tea / coffee
- Cup
- Cutlery
- Toilet paper
- 6 packs of instant food
- Cereal
- Milk powder
- Lighter / igniter

**APPROXIMATE OVERALL WEIGHT:**  
**17,8 KG**



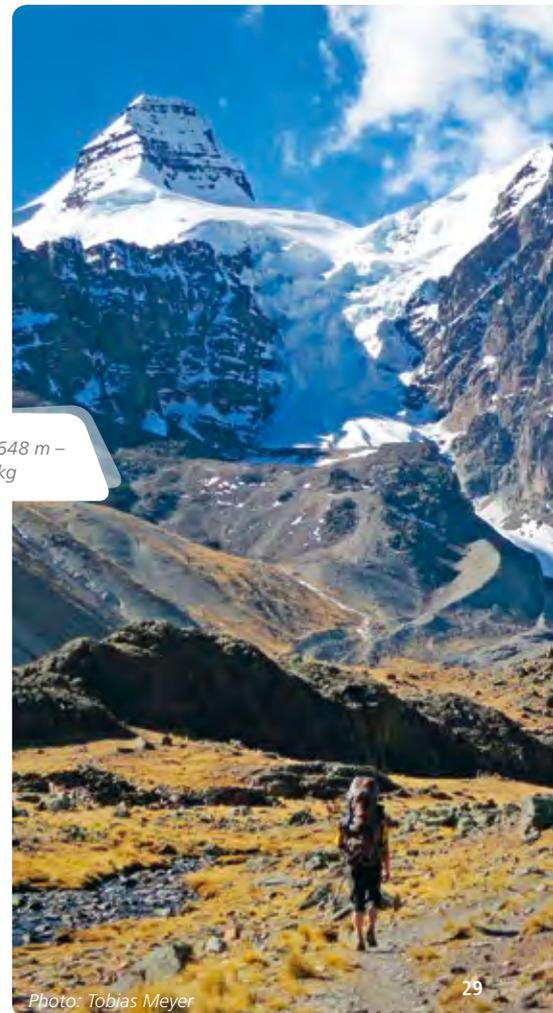
*On the way to the base camp of Cabezza de Condor 5648 m – the "Matterhorn" of Bolivia, Aircontact Pro 60+15, 18 kg*

Find detailed check lists on [www.deuter.com](http://www.deuter.com) in the section **Backpack Tips / Packing lists.**



*Andy Herrlinger, Sales Manager since 2002*

"I easily carry 30 kg." – well, that's maybe what a 90 kg army man can load up. My sales argument: let the customer wear a 15 kg backpack. She/he will quickly see (and feel) that more is less – in comfort as well as energy. It doesn't matter that much whether you go on a two week or two month excursion. Sooner or later you have to do the laundry. So rather bring 3 than 10 shirts."

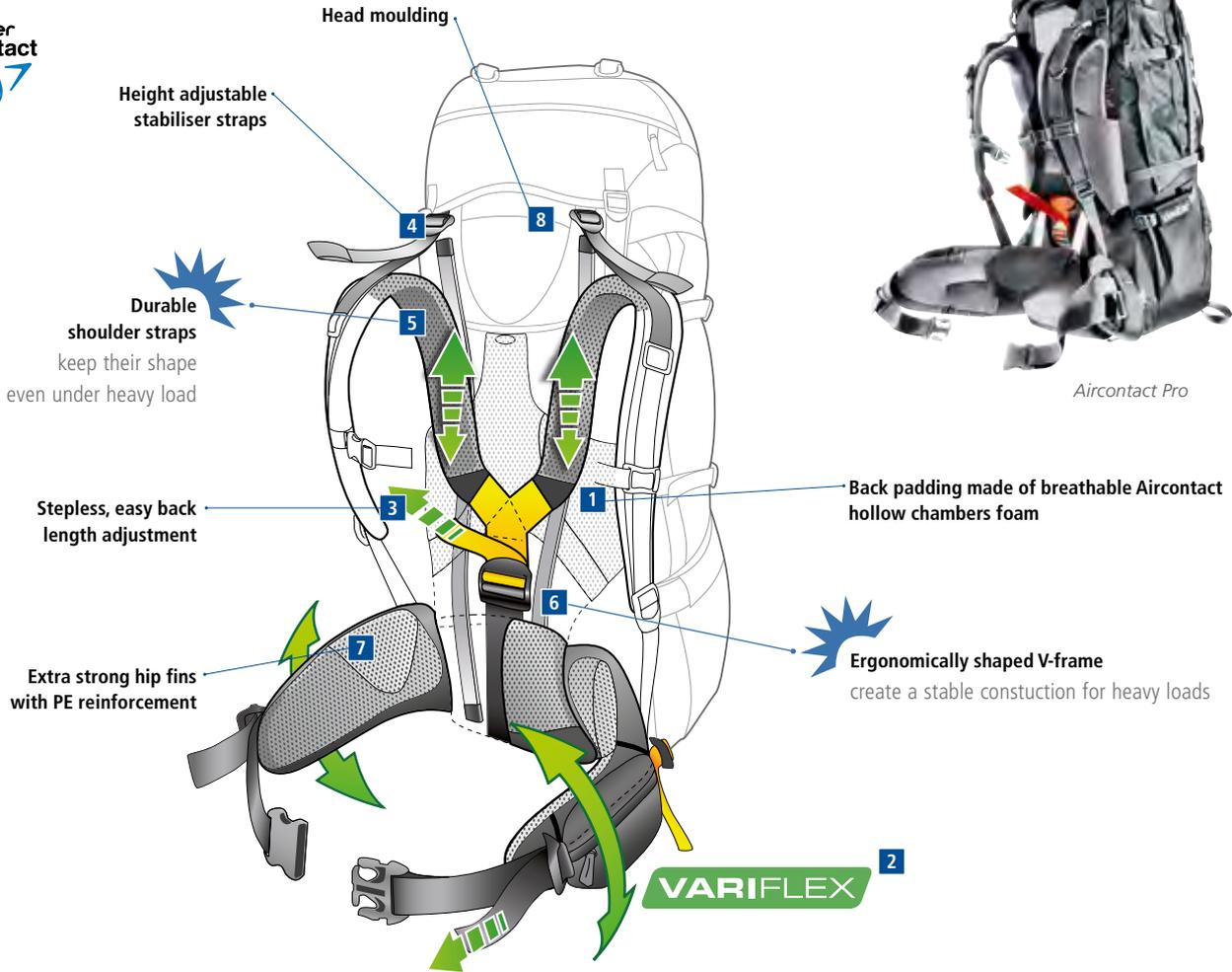


*Photo: Tobias Meyer*

# AIRCONTACT PRO SYSTEM



AIRCONTACT TREKKING



Aircontact Pro

**1 Back padding made of Aircontact hollow chambers foam** for superior ventilation.

**2 VariFlex hip fins** define the flexibility of the entire construction. They follow every movement and hold the load firmly in place. The weight is evenly transferred on the hips and the fantastic freedom of movement helps saving energy. Two stable aluminium stays on the sides and the side adjustment straps on the hip pads ensure a precise load control.

**3 Back length adjustment** with a centralised system allows an easy, stepless adjustment of the straps. This guarantees an individual, perfect fit.

**4 Stabiliser straps** Two anchor points in different positions allow the optimum adjustment to the back length. For a precise positioning and load stabilisation, choose an horizontal angle between 30° and 45°.

**5 Anatomically shaped shoulder straps** covered with breathable 3D AirMesh keep their shape even under heavy load due to their heavy duty construction with special dual layer foams.

**6 Two aluminium stays** in V-shape effectively transfer the load from the back to the hips.

**7 Concave hip belt** features ergonomic, supercomfortable padding with a close fit. Multi-layered foam with PE reinforcement for improved load transfer. The 'pull-forward' function makes it easy to fasten even when heavily loaded.

**8 Head moulding** for freedom of movement.

## SPECIAL FEATURES CLEVER DETAIL SOLUTIONS FOR EASY HANDLING

The Aircontact Pro Serie blends superior function with stability, efficient load transfer, and fantastic flexibility. Thus, you can save energy even when carrying very heavy load.

**Detachable lid:** convert it into a daypack quickly



**External bellow side pockets:** 8-10 l of additional volume. You can store your drinking system in bigger volumes



Photo: somewhereelseland



TREKKING AIRCONTACT

Faith Dickey (USA), holds the women's world record for highline and longline; member of the Deuter Sport Family since 2010

"I'm part of the "Somewhereelseland Team" – the five of us are great friends and we travel the world hunting for the best spots for highlining. For us, it is about combining our love for outdoor sports with the respect for nature. That means that we always use public transport or hike to remote spots and we have to carry all our equipment, which sums up to about 40 kg. My pack is an Aircontact Pro in the female specific SL version and it is perfect: no pressure points – even when it is fully loaded and we've been hiking for hours. The padding is super comfortable and I can easily shift the load between hips and shoulders. And it is really simple to use as well, especially the adjustment of the hip belt."

### SALES ARGUMENTS FOR TREKKING BACKPACKS

- No plastic that could break. No screw that could come loose. Deuter trekking backpacks are no-frills packs and extremely durable. And in case incorrect use leads to damage you can easily repair the packs, no matter where you are, without any special spare parts.
- Hip fins adjust individually to the wearer's waist without pressure points or chafing, because they are shaped by true sewing craftsmanship and not by plastic pieces.
- Variflex hip belts follow your every movement, provide balance, save energy and offer perfect comfort.
- The Pull-Forward function makes the hip belt easy to fasten and also to adjust, even with even heavy loads.
- The more volume, the more important the individual fit of the back system – Deuter trekking packs are available in two sizes: SL-Women's

Fit and Standard. In combination with the individual back length adjustment, the carrying system can be perfectly fitted to the wearer's body.

- Soft and breathable 3D AirMesh cover on back pads and shoulder straps prevents chafing and protects clothing.
- Deuter trekking packs are the most popular: the readers of Germany's OUTDOOR magazine have repeatedly awarded Deuter trekking packs with the "GEAR OF THE YEAR" top spot.
- Straight cut shoulder pads chafe on the neck and in the arm pits. Deuter's anatomic S-shape follows the shoulder line – takes the load from the upper shoulder area and guarantees freedom of movement. Soft edges on both sides further increase the wearing comfort.



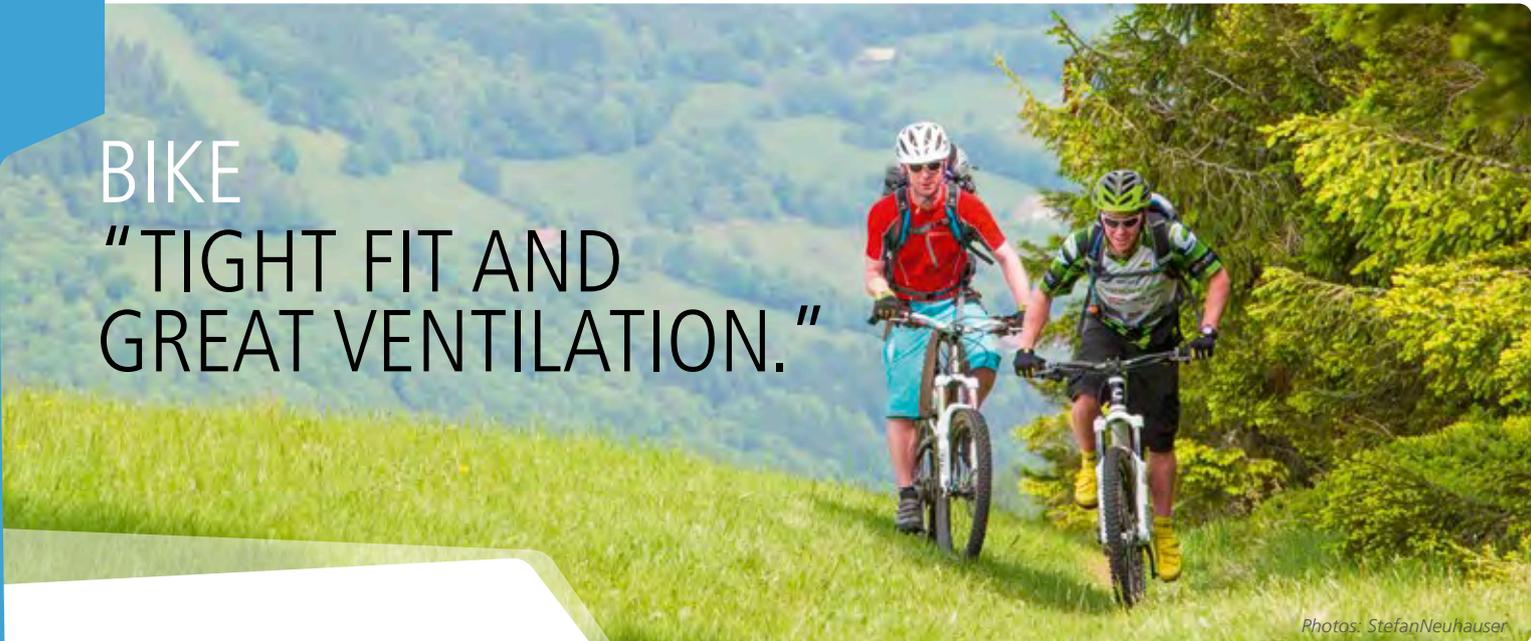
### IN SHORT

**AIRCONTACT LITE**  
+ lightweight  
+ clean & reduced  
+ medium volume

**AIRCONTACT**  
+ flexible X-frame  
+ for heavy loads  
+ topequipment

**AIRCONTACT PRO**  
+ stable V-frame  
+ for very heavy loads  
+ extremely durable

# BIKE "TIGHT FIT AND GREAT VENTILATION."



Photos: StefanNeuhauser

A bike pack has to sit safely on the rider's back – in any cycling situation. Our unique Airstripes System provides superior control and great ventilation. This special carrying system for bikers is made of two contoured foam stripes with air channels and is covered with a highly breathable mesh.

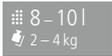
The Airstripes system features a reduced surface design, so that about 80% of the wearer's back is exposed to free air circulation.

The airy AirMesh cover is extremely soft, yet durable. Further, the spacing between the foam stripes generates a "chimney effect" that enhances the ventilation while riding. The bilaminate construction of the pads utilises a stable and a soft foam layer providing exceptional wearing comfort.

The result: an excellent, compact fit with fantastic ventilation even on hot rides.

## DEUTER AIRSTripES SYSTEM

AIRSTripES COMPACT EXP / RACE / CROSS BIKE /  
BIKE ONE / SUPERBIKE / TRANS ALPINE / TRANS ALPINE PRO  
AIRCOMFORT FLEXLITE RACE EXP AIR / CROSS AIR EXP

	<b>1</b> day	 8 – 10 l 2 – 4 kg	<b>COMPACT</b> day ride mountainbike; downhill
 	<b>1</b> day	 10 – 15 l 2 – 4 kg	<b>RACE / RACE EXP AIR</b> day ride; daypack
 	<b>1 – 2</b> days	 14 – 20 l 3 – 5 kg	<b>BIKE ONE / SUPERBIKE / CROSS BIKE / CROSS AIR EXP</b> day ride and 2-day ride; daypack
 	<b>1 – 7</b> days	 24 – 32 l 3 – 7 kg	<b>TRANS ALPINE / TRANS ALPINE PRO</b> multi-day bike ride; Trans Alp routes; daypack

## BASIC FEATURES BIKE

**3M reflectors**  
for more visibility in low-light conditions. The Trans Alpine and Superbike models further feature big reflectors on the side



**Soft edges on straps:**  
seams on the ergonomic straps are placed on the outer creating a soft edge trim which prevents chafing

**Mesh wings:**  
hip belt made of airy mesh material guarantees stability even when you get out of your saddle



**Drinking system compatible:**  
attachment loops and opening for the tube enable the use of a hydration bladder

**SOS-Label**  
with emergency numbers and international instructions for emergency cases



**Height adjustable sternum strap**  
holds the shoulder straps in place

**Rain cover:**  
backpacks for longer excursions are equipped with a removeable rain cover – can be stored in a zipped bottom compartment



**External mesh pockets:**  
quick access to drinking bottle, energy bar etc.

**Compact shape:**  
the specific shape of the Deuter bike packs guarantees freedom of head movement with the helmet on



**Helmet holder:**  
quickly stores the helmet – can be easily folded away for a clean look (not Race, Race X)



BIKE  
AIRSTripES

## EXTRA FEATURES BIKE

**Separate bottom compartment:**  
zip opening; holds the load in place (Trans Alpine, Trans Alpine Pro)



**Removable foam mat**  
supports the back system and can be used as seat (Trans Alpine, Superbike, Bike One)



**Expandable volume EXP:**  
expandable main compartment; if not needed, zip it up to keep a slender, aerodynamic design. (Superbike, Race EXP Air, Cross Air, Compact, Compact Air)

**Rain Cover with safety blink loop:**  
bike packs for longer rides are equipped with a rain cover in signal colour (Superbike, Trans Alpine, Trans Alpine Pro)



**Separate back compartment**  
with long two-way zipper for hydration system or further quick-access gear such as maps. (Trans Alpine Pro, Compact EXP, Compact Air EXP)



**Lightweight:**  
volume and function specifically engineered for fast activities. (Race)

## SPECIAL FEATURES BIKE

**Windshield:**  
patented, integrated wind vest protects from the elements (Superbike)



**Map pocket**  
on the back, zipped and easily accessible (Trans Alpine, Trans Alpine Pro)

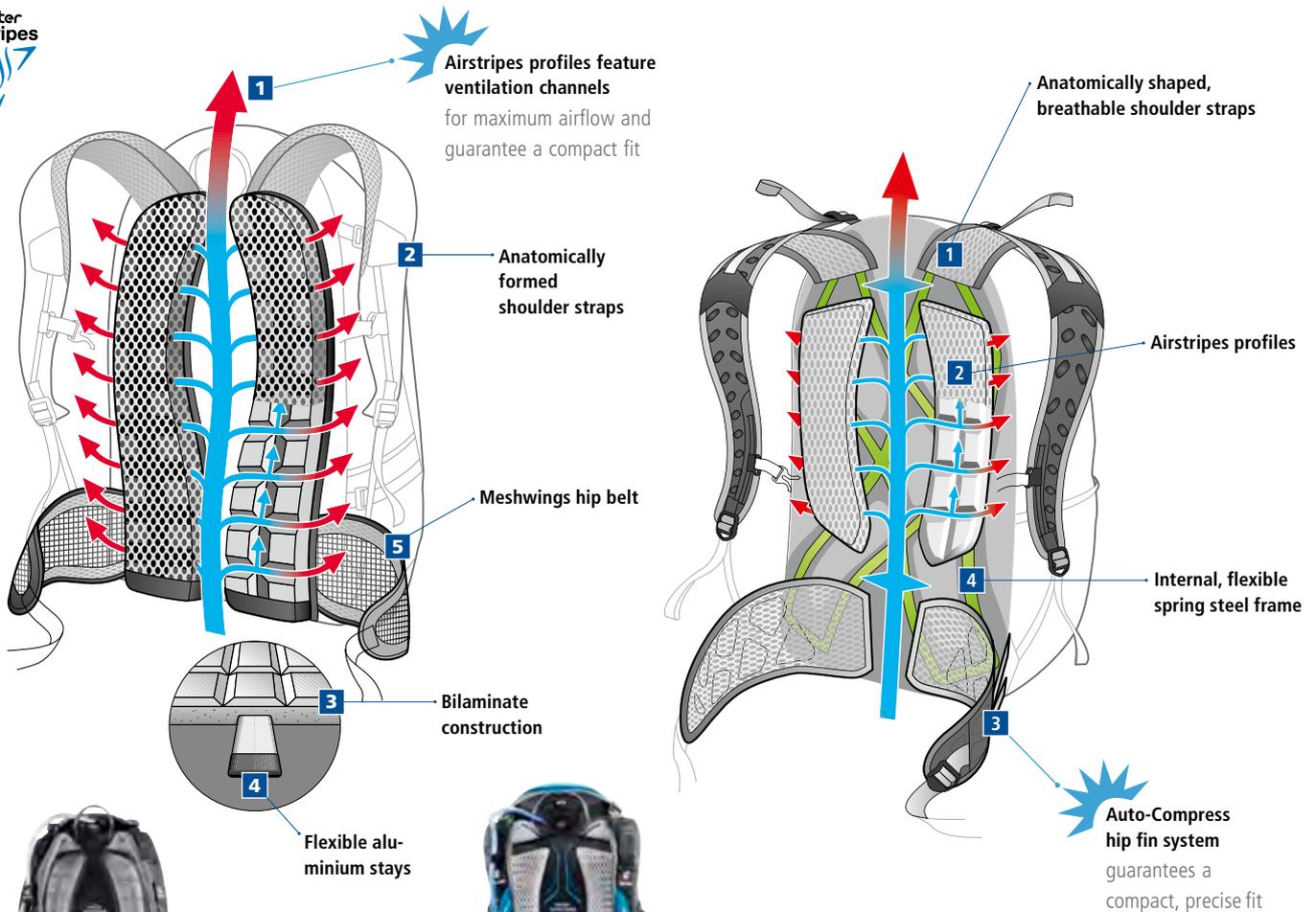


**Big, fold-out front pocket**  
with zipped internal compartment, phone pocket, and detailed organizer for tools, tubes and pump. (Trans Alpine Pro)

# AIRSTripES / AIRSTripES PRO SYSTEM



AIRSTripES  
BIKE



Trans Alpine



Trans Alpine Pro

**1 Compact, secure fit combined with maximum airflow** thanks to the reduced back contact of the Airstripes pads with their ventilation channels and the Wide AirMesh lining.

**2 Anatomically formed shoulder straps** guarantee comfortable freedom of movement. The chest strap further secures the fit.

**3 Bilaminate construction with one soft and one firm foam layer** for excellent carry comfort and optimum load distribution.

**4 Flexible aluminium stays within the foam profile** allow precise adjustment to the wearer's back. (Bike One, Compact, Superbike und Trans Alpine).

**5 Mesh wings on the hip belt** guarantee a compact, tight fit on all rides.

**1 Anatomically shaped, shoulder straps** guarantee comfortable freedom of movement. With the perforated foam and the 3D AirMesh cover they offer fantastic breathability. The chest strap further secures the fit.

**2 The Airstripes profiles feature ventilation channels and Wide AirMesh contact material.** The minimal contact area results in maximum airflow, yet also guarantees a compact fit.

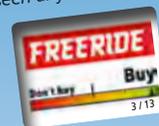
**3 The clever Auto-Compress hip fin system** guarantees a super compact, secure fit on the roughest rides: the anatomically shaped wings with the Pull-Forward system comfortably hold the pack close to the body. The Pull-Forward adjustment results in an automatic side compression and guarantees a compact, precise fit.

**4 Internal, flexible spring steel frame** evenly distributes the load, stabilises the pack and maintains its ergonomic shape. It follows the rider's movements for perfect balance control.

It's one of the most beloved bike packs worldwide and a true classic: the Trans Alpine. Deuter doesn't change its legend, but adds one on top with the award winning Trans Alpine Pro.

"The best bike pack in the world? Well, we haven't seen any better yet."

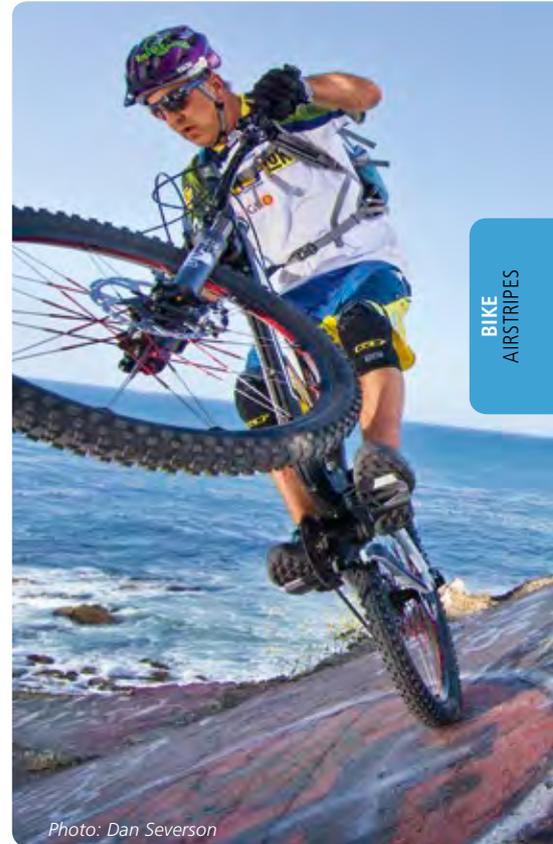
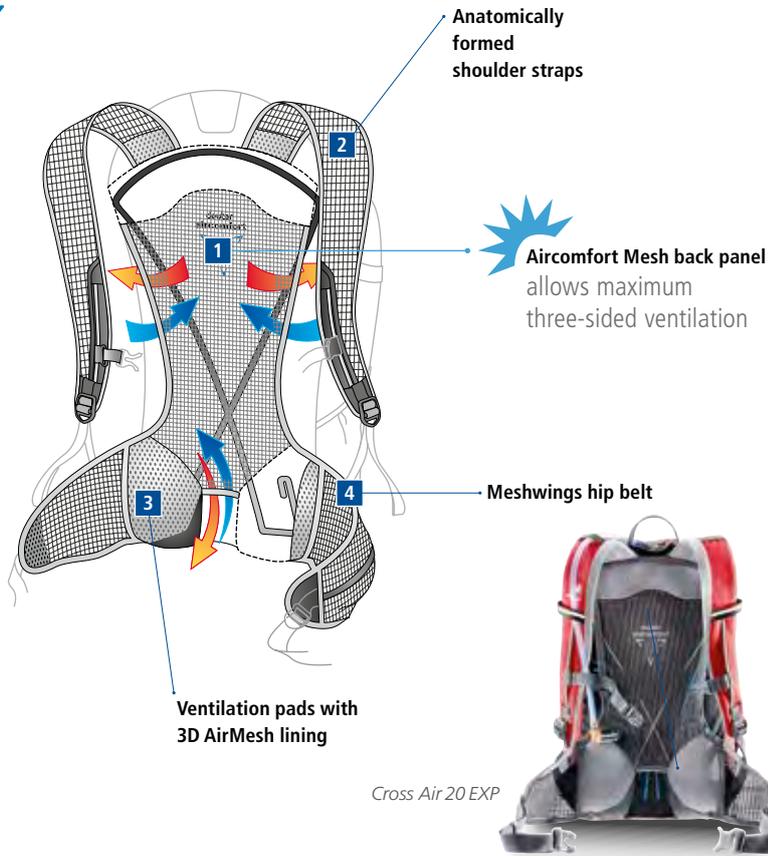
"... the backpack benchmark for multi-day rides."



"Great fit, top organisation."



# AIRCOMFORT FLEXLITE SYSTEM



Hans Ray, Trial world champion and founder of the charity organisation "Wheels 4 Life", stuntman and star of many bike films; member of the Deuter Bike Family since 2012

**1 The flexible round profile spring-steel frame** gives the special Aircomfort mesh construction the stable tensioned platform needed for the patented 3-sided ventilation system. The high-tech frame geometry guarantees an exceptional fit and maximum flexibility at minimum weight.

**2 Ventilation pads with 3D AirMesh lining** for superb carry comfort.

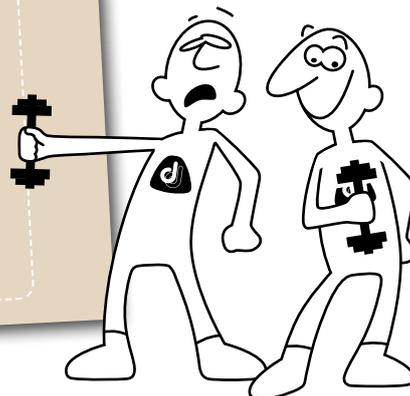
**3 Anatomically formed shoulder straps** guarantee comfortable freedom of movement. The chest strap further secures the fit.

**4 Mesh wings on the hip belt** guarantee a compact, tight fit on all rides.

„For me, Deuter stands for quality, function and reliability. I just got back from a 'volcano bike trip' in Ecuador. We slept in huts at a very high altitude of 4.600 – 5.000 m; the Trans Alpine 30 with all its features was extremely useful. And I had super comfortable nights in the Exosphere -4° sleeping bag despite the cold and windy nights.“

**FACT:**

Biken with Airstripes or Aircomfort? Imagine a chairplane with its seats anchored right at the axis – no centrifugal forces will drive you to the outside. A boring chairplane ride! Yet for bike rides it is crucial! Steep descents, quick changes of direction – the load on your back better stays in place. The closer it sits to the body, the better the balance. The Airstripes system is an extremely safe and effective back construction, particularly for bigger capacities. At the same time, the space between the body and the pack which is created by the Aircomfort systems guarantees superior ventilation on fast endurance rides, day trips with a light load and popularity gaining 'bike & hike' trips. However, the centrifugal forces here are a bit stronger.





Downhill from the Freiburger Hut (1.931 m), Transalp, 5 days, 6.000 metres of altitude, Trans Alpine 30, 6 kg



*Andi Heckmair, father of the legendary Transalp Tour. In 1989, he crossed the Alps, from North to South (Oberstdorf in Southern Germany to Lake Garda, Italy) on his mountainbike for the first time. Today, this route only goes by the name Heckmair Route. He planned the trip with only a few carrying passages. The result was a 450 km long route including 11 passes and 14.000 m total ascent. Together with Deuter CEO Bernd Kullmann, he developed the prototype of a bike pack, the "Bike I" in 1990.*

"Biking is my profession and my passion. I'm on the saddle every day – and I always carry a bike pack. I love the great ventilation that the Airstripes system provides. When it gets from hot to hotter, it still controls the heat build-up and sits safe and tight."



Improved safety with DEUTER's bike backpacks

Features:

- 3M reflectors add safety at night.
- Bike specific cut guarantees freedom of head movement with the helmet on.
- Compact shape and fit for secure balance on any terrain.
- Helmet holder quickly stores the head protection.
- Special bike packs with integrated back protector for risky rides. (see Shield System p. 38)
- Integrated wind protection vest in signal colour for high visibility in low-light conditions.

Wind-Shield Superbike



# PACKLISTE TRANSALP

1 WEEK:

## TRANS ALPINE PRO 28

To enjoy difficult passages and steep ascents, the pack should not weigh more than 7 kg (without luggage transportation). And a fully loaded pack should leave enough room for the head – with the helmet on!

### What to wear:

- Jersey
- Shorts
- Vest
- Gloves
- Helmet
- Backpack

### Essential:

- Long-sleeved jersey / arm warmers
- Knee or leg warmers
- Windproof jacket
- Waterproof jacket
- Waterproof pants
- Hat / headband / buff
- Long finger gloves
- Sunscreen
- Sunglasses, ideally with photochromic lenses
- Hydration bladder with at least 1l capacity (depending on tour)
- Electrolyte and magnesium tabs (capsules)
- Energy gel, muesli, dried fruit, nuts, bars as required
- First Aid Kit M (incl. rescue blanket)
- Personal medication
- Headache pills
- Multi-tool
- Tools (if not integrated in multi-tool):
- Spare tube
- Patch kit
- Tire tools
- Lustre terminal (provisional for fixing derailleur or brake cables)
- Pump
- Spare valve

- Spare cables
- Brake pads
- Chainring nut and bolt
- Spare screws
- Spoke spanner
- Zip ties
- ID, cash, credit card, plastic bag
- Washing bag (travel shower gel, tooth brush/ paste, small functional towel, tissues, ear plugs)
- Sleeping bag liner
- Mobile phone
- Headlamp

Approximate weight "Essential"  
(incl. backpack)  
**5,6 kg**

### Recommended

- Socks, shoe covers
- Baselayer
- Hut shoes
- Light pants
- Underwear
- T-Shirt
- Detergent
- Oil, duct tape
- Pen

APPROXIMATE  
OVERALL WEIGHT:  
**8,0 KG**

**Mountain BIKE LESERWAHL** DIE ZUBEHÖR-MARKEN DES JAHRES  
**BEST BRAND**

1. Platz	Deuter	2001
1. Platz	Deuter	2002
1. Platz	Deuter	2003
1. Platz	Deuter	2004
1. Platz	Deuter	2005
1. Platz	Deuter	2006
1. Platz	Deuter	2007
1. Platz	Deuter	2008
1. Platz	Deuter	2009
1. Platz	Deuter	2010
1. Platz	Deuter	2011
1. Platz	Deuter	2012

THANKS A LOT FOR YOUR TRUST IN US!

**1. Platz** Deuter  
KATEGORIE: RUCKSÄCKE

## SALES ARGUMENTS FOR BIKE BACKPACKS

- Deuter is the bike backpack pioneer. The Deuter Bike I from 1991 is the god-father of all bike packs: Airstripesback, helmet holder, reflectors, tool pocket, compact bike specific shape.

- The Deuter Airstripes System blends fantastic ventilation with safety: the pack sits close to the body and thus always provides great balance even in challenging passages.

- The spine has much space between the Airstripes foams. The construction avoids chafing and pressure points in any cycling situation.

- For 'bike & hike' trips the Cross Air 20 EXP the perfect companion with its pole attachments and the Aircomfort back system ventilation.

- Deuter Airstripes backpacks are true all-rounders and also perform fantastic in other activities, such as cross-country skiing, trail running, hiking, or as daypacks.

- The helmet always stays in place. The compact shape of the bike specific packs ensures enough head-space for the helmet.

- Deuter fits. You can only benefit from a good carrying system when it provides the right back length. The two Deuter sizes, Standard and SL Women's Fit, fit most of the customers and thus guarantee fantastic comfort.

- Trans Alpine 32 EL (ExtraLong) fits taller people between 185 and 200 cm. Longer back and straps for maximum individual comfort.

- Parallel aluminium stays provide stability for bigger capacity packs (Bike One, Superbike EXP and Trans Alpine). They are moldable and thus allow for form fitting to the individual curvature of the wearer's back.

- Deuter Bike packs are the most popular: the readers of Germany's MOUNTAINBIKE magazine have awarded Deuter with the "BEST BRAND" award twelve times in a row in the backpack category! And readers of both magazines, BIKE and FREERIDE, voted us the Number 1 backpack brand!



BIKE  
AIRSTripES

# PROTECTOR "CERTIFIED PROTECTION"



Photo: Stefan Neuhauser

On single trail rides or even "just" as urban commuter, the risk of injuries always rides with us. A physically fit athlete might be better prepared than a beginner – still, the risk is always there. The main purpose of our Shield System is to minimise, or even to a large extent, prevent sports injuries. Protection is worth it – head and back injuries often have terrible, long-term consequences. Our complex Multi-Layer Construction delivers excellent shock absorption and provides the basis for the protective function. Soft foam in the outer layers ensures superior carry comfort and ventilation for strenuous activities. The V-shape of the construction covers the sensitive areas of the back, whilst retaining the pack's outstanding freedom of movement. Its intelligent protector foam remains soft and flexible in normal use, a slow increase in load leads to a gradual shock absorption, whereas a rapid impact results in increased stiffness.

The deuter Shield System is state-of-the-art: with an average transmitted force maximum of 10.5 kN the results are well below the required ce-maximum of 18 kN. The result: The Shield back protector system unites a comfortable carry, exceptional ventilation and maximum TÜV SÜD certified protection.

## DEUTER SHIELD SYSTEM



**PROTECTOR INTEGRATED** Backpacks with integrated, TÜV approved PPE back protector (EN 1621-2)



1  
day

18-20l  
3-5 kg

### ATTACK

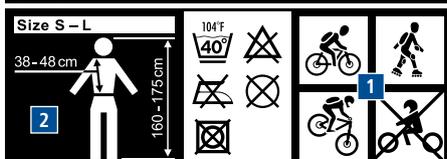
Mountainbike, Downhill, Inline Skating

### ATTACK 18



Deuter Sport GmbH  
Siemensstraße 1  
86368 Gersthofen | Germany  
www.deuter.com

### Back Protector Backpack



Information on backpack label inside: 1 Use: biking, inline skating, downhill – NOT motor biking; 2 Sizing: Attack 18 SL: 38-48 cm back length, 160-175cm height = S-L; Attack 20: 44-54 cm back length, 170-185 cm height = M-XL; 3 Backpack Name

The backpacks with integrated back protector are exclusively designed and certified for the activities listed on the label inside the pack. Using the Shield System for other activities not listed can be dangerous. The protec-

tor backpack was engineered to minimise the risk of injury in crashes, yet it cannot offer a full protection guarantee for all injuries such as ruptures or hyperflexion of the spine.

Marcus Klausmann, 15x German Downhill Champion (unreached), Vice-World Champion, winner of the World Cup in 1996, plus double Junior Trial World Champion and Deuter Bike Family member since more than 9 years.

“I’ve been working with Deuter for many years now and I’m very proud to be part of the team. At Deuter I’ve found the perfect bike pack – the Attack 20. Of course, I often ride wearing protectors. But whenever I don’t need them – e.g. on enduro rides – I so much enjoy having the Attack on my back. I just feel it’s important to have a great back protection also when I’m training. The Attack is so comfortable and I can also pack all my gear.”

## FEATURES ATTACK

**Padded waist belt:**  
extra wide hip belt guarantees a compact and secure fit



**Separate hydration system pocket**  
can be accessed from the outside and both shoulder straps feature a tube channel

**Tool front pocket**  
with great organisation for sparetube, pumps etc.



**3M reflectors**  
for more visibility in low-light conditions

**Removable helmet holder**  
quickly and safely stores full-face helmet



**Side compression straps**  
for reducing pack volume and improved load stability also can be used to attach protection gear

**Universal Hyperlon attachment flaps:**  
extremely durable and safe multi-use attachments for jacket, helmet, etc.



**Stretch external pocket**  
provides easy access for water bottle, bar, etc.

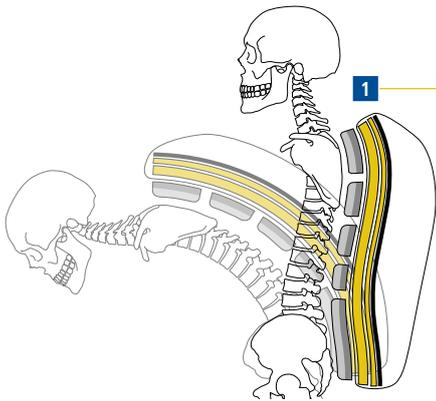


PROTECTOR SHIELD



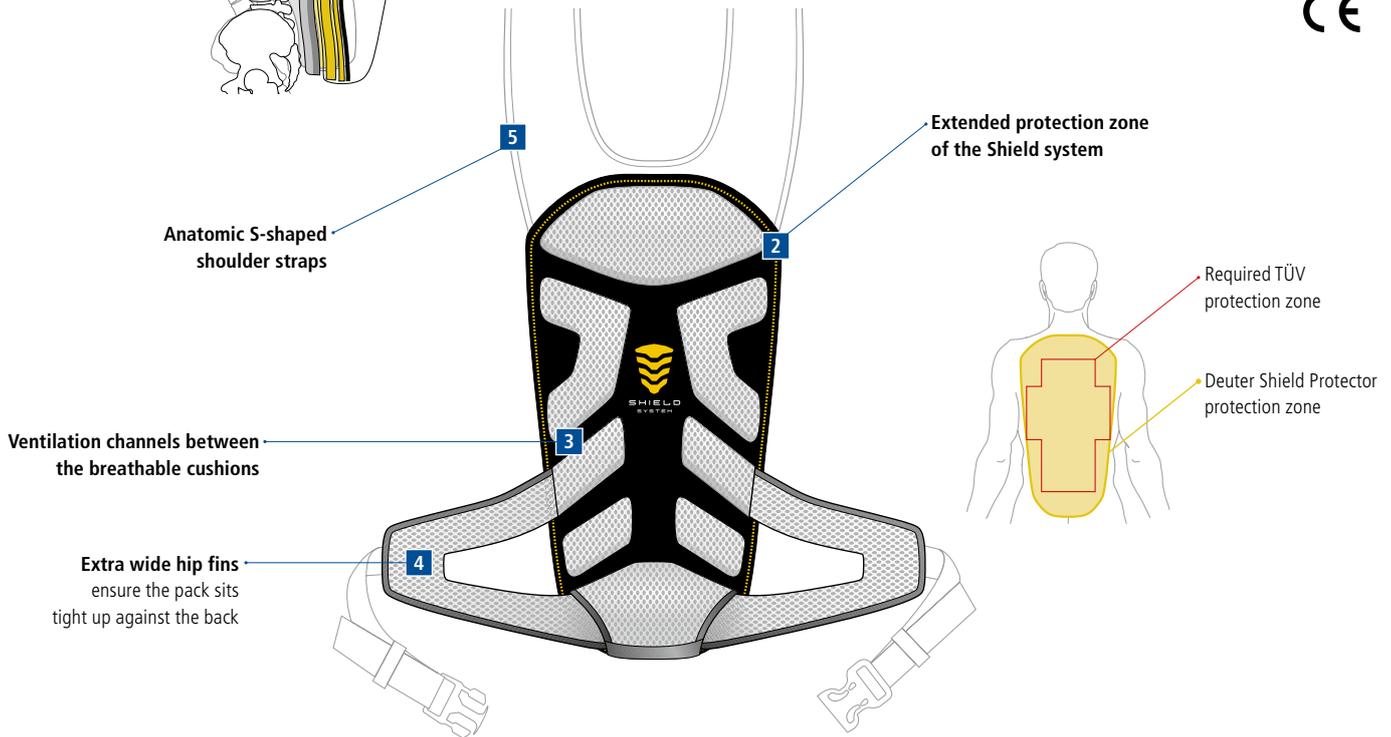
Photo: Günther Linder

# SHIELD SYSTEM



**1 Multi-layer construction** viscoelastic SC-1\* foam and PE plate providing cushioning whilst soft foam on the outer layers adds comfort.

SHIELD PROTECTOR



**1** Deuter's integrated Shield System features a **multi-layer construction** which minimises, or even prevents injury occurring during a fall. Mutually complementary foam layers and plates combine to give comfort and maximum safety during a fall. The shock-absorbing core component is the **viscoelastic SC-1\* Foam**. SC-1\* Foam sets benchmark standards with its **progressive shock-absorption function**. A slow impact increase leads to the PSA back protector reacting gradually, whereas a rapid impact shock means the protector's resistance increases progressively quicker. The SC1 foam also features a **'Memory Effect'** – after a deforma-

tion it goes back in its original shape and can therefore be used again and again. Two layers of PE offer additional protection against sharp or pointed objects while soft foam pads guarantee carry comfort.

**2 The protection zone of the Deuter Shield Back Protector** significantly exceeds the minimum zone required by the norm. It covers sensitive back areas such as the shoulder blades and the spine. At the same time, its anatomical shape provides fantastic freedom of movement.

**3 Space between the cushions** guarantees additional ventilation even on strenuous rides.

**4 Extra wide hip fins** add flexibility and freedom of movement in any riding position and also ensure the pack sits tight up against the back.

**5 The anatomic S-shaped shoulder straps** guarantees full freedom of movement.



The SC-1 foam is soft, flexible and follows every movement.



Exposed to low energy impacts the foam remains soft and comfortable.



Exposed to strong energy impacts the foam hardens with increasing speed – absorbing the shock progressively. After a deformation it goes back in its original shape and can therefore be used again and again.



## BIG IMPACT – MAXIMUM PROTECTION

Before we can officially call it a protector, a safety product has to pass several strict tests in accordance with the European norm EN 1621-2 at the TÜV Product Service. An impact test determines the protector's ability to absorb mechanical energy.

A rectangular 5kg projectile is dropped from a height of one meter on the protector, which is itself mounted on an anvil with an integrated measurement device. It measures the force transmitted through the protector. The Shield back protector has an average peak force of 10.3 kN and is therefore well below the required CE maximum force of 18 kN. Drops without protector (directly on the anvil) have a peak force of about 108 kN.

This means the Shield back protector absorbs 90% of the impact. This might be an impressive number, but

you should always keep in mind that the best protection is to act responsibly. The back protector's ergonomics and wearing comfort are tested in field tests. All attachment and anchor points have to undergo a drop test to check the tear strength. The requirements further include the minimum protection area, as well as a clear and explicit labeling of the protector.

To ensure a continuous top quality standard, the production sites and the products are regularly controlled by TÜV SÜD Garant.

**FACT:**

The protector can only perfectly fulfil its function if:

- it sits in the optimum, intended position (centrally on the back) covering the protection zone, and has not shifted.
- all straps are tightened.
- sharp, pointed items do not affect the protective function.
- the backpack is loaded the right way.

For more information see the hangtags on the respective product.



### SALES ARGUMENTS FOR PROTECTOR BACKPACK

- Protector is prepared for multiple crashes. The SC-1\* protector foam always resumes its original shape. It doesn't break or deform permanently – this is a fundamental factor not only for crashes with repeated impact. The protector also does not lose its function and can be used again.

- The Shield back protector is extremely safe. The advanced impact absorption of the SC-1\* protector foam presents test results well below the required CE-norm.

- The Shield back protector absorbs the impact, similar to a shock absorber in a car, and does not just spread the impact like a hard armor protector.

- The Shield protector moulds to the wearer's back. The SC-1\* protector foam is extremely flexible and guarantees full freedom of movement – it only hardens when exposed to strong impact.

- The Shield protector is light! A hard armor protector with a comparable level of protection weighs in at about 800g, the Shield merely at 450g.

- The PE plate integrated in the Shield System protects from punctures.

- Fantastic ventilation and great comfort: the space between the soft back cushions unite comfort and efficient TÜV SÜD certified protection.

- Perfect control and ideal fit – anatomic hip fins and shoulder straps with additional sternum straps keep the protector in place. The two sizes, Standard and SL Women's Fit, guarantee fantastic comfort.

- If the PSA back system is not needed, you can remove the protector and use the Attack for less challenging bike rides.

- All in one: protector and backpack. Quickly slip on the protector – and you simultaneously slip on all the gear for your tour.

- Deuter Attack – the the world's first backpack with integrated TÜV SÜD certified back protector received the innovation award Eurobike Award Gold in 2005.



\*SC-1 Foam made by  
**Sas-Tec**  
Sicherheit aus Schaum

PROTECTOR SHIELD

# ALPINE "FULL CONTROL ON DIFFICULT TERRAIN"

A backpack system for alpine use has to be tailored for the most demanding conditions: it has to provide superior wearing comfort, durability and function at a minimum weight. Especially on difficult terrain, a heavy pack overloaded with features (and therefore also vulnerable), can quickly become a big risk itself.

The Deuter Alpine Back System meets all those high-tech demands. The two foam stripes sit close to the body and ensure an anatomical and flexible fit contoured to the back in any position. Thus, the slender pack is always close to the body's centre of gravity giving you full control – crucial in difficult passages. We have integrated a removable foam mat (except OnTop), which also stabilises the carrying system and protects from punctures. The space between the softstripe cushions, which are covered with highly breathable 3D AirMesh, creates a 'chimney effect' which further promotes back ventilation.

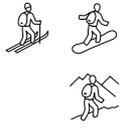
Result: The system guarantees an outstanding, close fit combined with top carrying comfort and airy ventilation between the soft-stripe pads.



Photo: Armin Demler

## DEUTER ALPINE BACK SYSTEM

ALPINE BACK SYSTEM **GUIDE LITE / GUIDE / GUIDE TOUR**  
**CRUISE / RISE / FREERIDER / FREERIDER PRO / ONTOP**  
BREATHABLE FOAM BACK PROVOKE

	<b>1–7</b> days		<b>GUIDE</b> alpine routes; climbing; backcountry ski tours;
	<b>1–5</b> days		<b>CRUISE / RISE / GUIDE TOUR</b> snowshoe trips; backcountry ski tours; ski traverse;
	<b>1</b> day		<b>FREERIDER / ONTOP FREERIDER PRO / PROVOKE</b> freeriding; backcountry ski tours; snowboarding;

## BASIC FEATURES ALPINE

**Slender pack:** keeps the load close to the center of gravity and guarantees fantastic freedom of movement



**S-shaped shoulder straps:** relieve the muscles at the neck and avoid chafing at the neck and arms; adjustable chest straps for more stability

**Stabiliser straps** and compression straps on the side of the hip belt regulate the distribution of the weight and stabilise the pack



**Attachments for ice axe:** easily accessible, yet safely stored equipment

**SOS Label** with emergency numbers and international instructions for emergency cases



**Compression straps** allow the pack to slim down when it is less loaded and thus keep the weight close to the body – on some models they also close across the pack's front (not the OnTop)

**Attachment loops for helmet holder:** all alpine packs feature attachment loops for the helmet holder, which is available as accessory



**Ski carry options:** Depending on the model you can securely attach your skis A-frame, diagonally or on the front – some packs offer all three options

**Removable foam mat:** supports the back system and can be used as a seat (not OnTop)



**Drinking system compatible:** attachment loops and opening for the tube enable the use of a hydration bladder



Christian Pfanzelt Photography

ALPINE ALPINE BACK

## EXTRA FEATURES ALPINE

**Height adjustable lid:** volume of the backpack can be increased by approximately 10 litres. (Guide Series, Rise)



**Separate bottom compartment:** zip opening; holds the load in place (Guide 40+ und 45+, Guide Tour)

## SPECIAL FEATURES ALPINE

**Side access:** covered side zip opening for quick access on the entire content (Guide, Guide Tour)



**Compartment for shovel** guarantees quick access to shovel and probe (Rise, Freerider, Freerider Pro, Guide Tour, Provoke, OnTop)



**Additional back opening:** easy access to the entire pack with the additional U-shaped rear opening (Cruise, Freerider Pro)

**Removable hip belt:** key factor for climbing trips or for shedding weight (Freerider Pro, Guide, Guide Tour, Rise)



**Snowboard and snow-shoes attachment system:** durable flaps on the front hold the equipment firmly on ascents and descents (Freerider, Freerider Pro, Rise, Cruise, Provoke, OnTop)

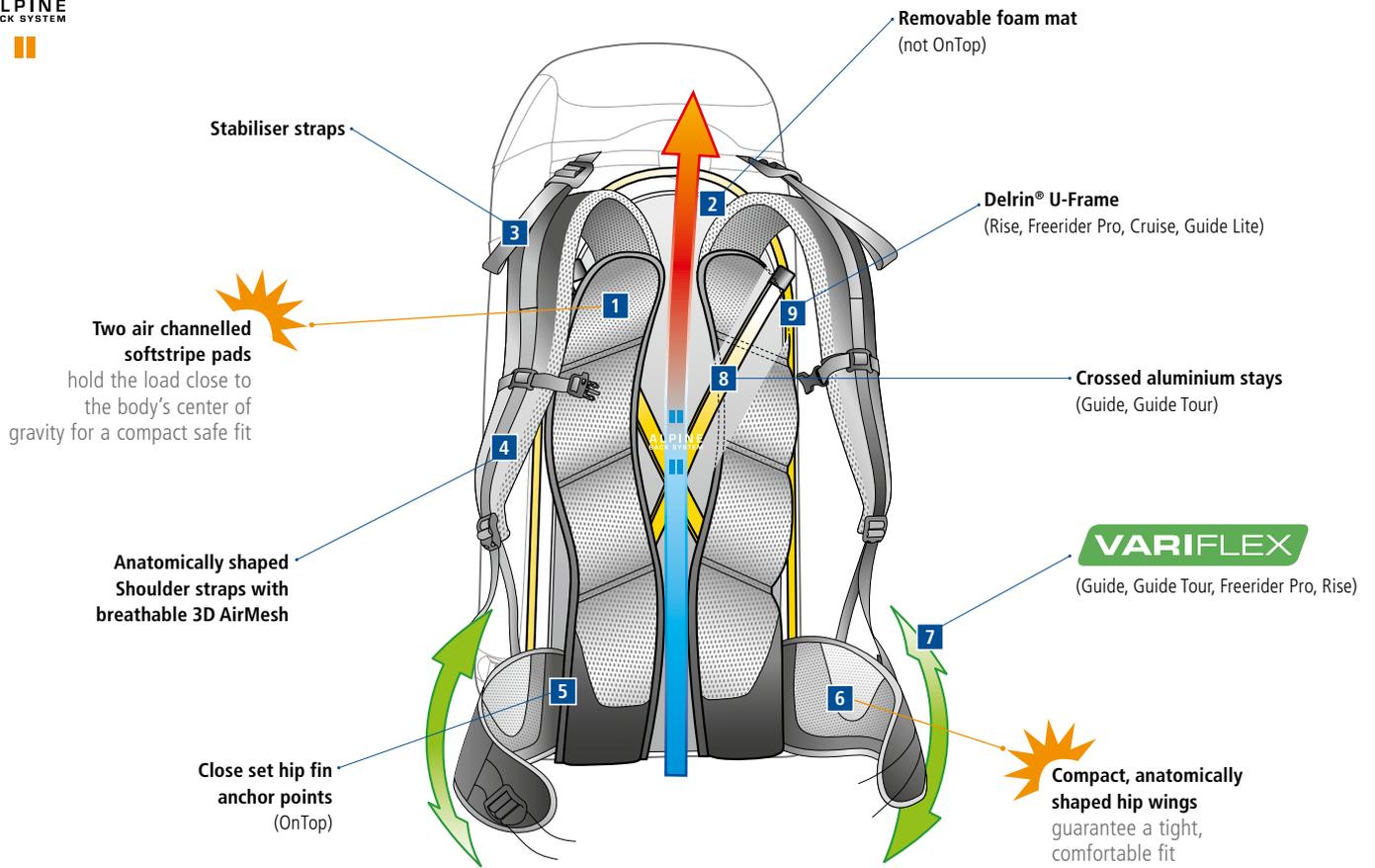


**Full opening to main compartment** grants easy access on the entire content or a specific item via the side (OnTop)

# ALPINE BACK SYSTEM



ALPINE BACK  
ALPINE



**1 Two air channelled foam stripes** sit close to the body and ensure an anatomical and flexible fit contoured to the back in any position. Thus, the slender pack always sits close to the body's center of gravity giving you full control and even load transfer. The channel between the two back cushions creates a ventilating 'chimney effect' and thus grants extra airflow.

**2 Removable foam mat** supports the back system and can be used as seat (not OnTop).

**3 Stabiliser straps** on the shoulder straps and the hip fins allow a fine-tuning for different terrains. loose > more air circulation; tight > more load control, tight fit

**4 Anatomically shaped shoulder straps** with durable 3D-AirMesh cover.

**5 Close set anchor points** of the anatomically shaped hip fins provide a super tight fit. Their soft and perforated foam offer excellent carrying comfort (OnTop).

**6 Compact, anatomically shaped hip fins** transfers the weight and provides a tight, secure fit – the larger models come with PE reinforcements.

**7 Pivoting Vari Flex hip fins follow complex body movements.** Thus, the load can be evenly distributed to the hips, providing freedom of movement and reducing fatigue. The Vari Flex hip fins are removable for weight reduction and better access to your climbing harness (Guide, Guide Tour, Freerider Pro, Rise). Remaining stabilizing waist strap is also removable (Guide, Guide Tour, Rise).

**8 Crossed, removable aluminium stays** transfer the load to the hip fins (Guide, Guide Tour).

**9 Flexible Delrin® U-frame** guarantees great load transfer at minimum weight. (Rise, Freerider Pro, Cruise, Guide Lite).



**FACT:**  
For additional weight reduction detach the hip belt of the Guide, Guide Tour, Freerider Pro and Rise. Further the aluminium stays of the internal back system of the Guide and Guide Tour can be removed.

# ONTOP ABS® AVALANCHE AIRBAG SYSTEM

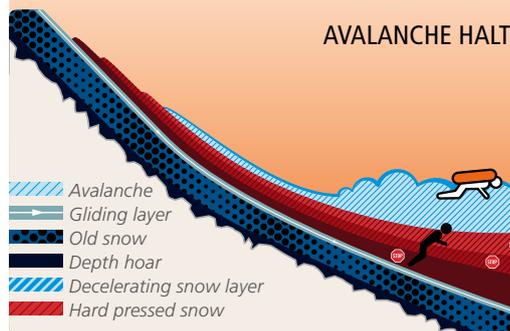
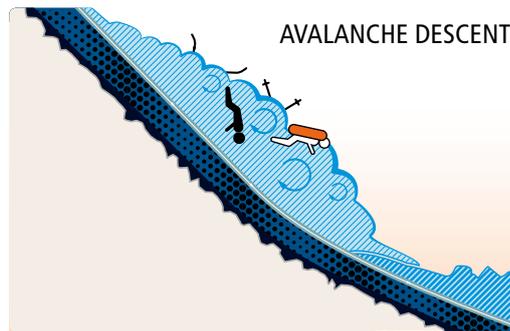
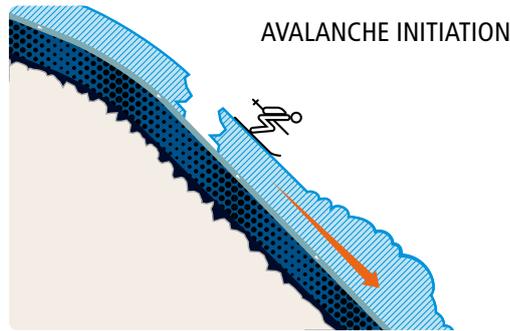
**An ABS® backpack that fits perfectly!** Our new OnTop range unites the top safety of avalanche airbag pioneer ABS® with the top carry comfort of our Alpine Back Systems. OnTop ABS®, of course, also refers to its functionality: the integrated ABS® Twinbag System with a total volume of 170 l keeps the rider 'on top' of the snow masses. And the ABS® Twinbag System is tuned for all phases of the avalanche:

An avalanche rupture happens extremely quickly and leaves not much time to make the right decision. **Thanks to the pyrotechnic-pneumatic activation, the ABS® Twinbags inflate particularly fast, easily and reliably.**

Also the snow masses in an avalanche cause huge forces of acceleration, friction and surging snow slabs. This leads to a forward rotation, which can pull the rider under the snow surface. **The two side airbags together with the body create a particularly large gliding surface, which significantly reduces the risk of sinking and produces a counter-effect against the rotation.** The strong dynamic uplift is similar to the effect of wide freeride skis.

Further to be considered is the potential damage to the airbag by the immense mechanical forces. ABS® offers extra safety with its two separate airbags!

In the crucial halt and solidifying phase of an avalanche each layer is extremely compressed. This can lead to the dangerous anchor effect where parts of the body get stuck in the compressed snow and subsequent avalanche layers bury the rider. An upright position makes the danger even more acute. **The ABS® Twinbags reduce this potential risk effectively by keeping the victim in a horizontal position. The ABS® pack translates to a significantly greater chance of survival – a survival rate of 97% speaks for itself.**



- Avalanche
- Gliding layer
- Old snow
- Depth hoar
- Decelerating snow layer
- Hard pressed snow

SERIE OnTop  
**ABS® AVALANCHE AIRBAG**  
**DEUTER ALPINE BACK SYSTEM**

SAFETY MEETS COMFORT



FACT: SURVIVAL RATE

**262** Avalanche victims with inflated ABS® Airbag System  
 255 Avalanche victims survived  
 7 Avalanche victims died

**67** Avalanche victims without inflated ABS® Airbag System  
 50 Avalanche victims survived  
 17 Avalanche victims died

*Out of 295 people with activated ABS® airbag in 249 avalanche accidents no single head or neck injury occurred. Source: SLF, known and documented avalanche accidents with ABS® avalanche airbags, August 2010.*



*Thomas Hilger, Deuter product manager who is always the one trail breaking on ski tours*

"Of course, we are not the first to introduce an avalanche airbag backpack to the collection. But that made it even more of a challenge for us – and even more exciting – to design a great pack. I love my job and I love being out there in the backcountry. I wanted to consider all the different aspects. Now I'm very happy with the OnTop range, particularly because they are well-balanced packs. The carry system is exceptional and you hardly feel the extra weight of the airbag. And the OnTop is focusing on the essentials. It's a functional and clean no-frills pack. We offer the right product for those out ski touring as well as for the descent-driven off-piste riders. Have a great time out there with our new ABS pack and enjoy a safe white winter season!"

# FAQS ABS®

## Isn't the "standard kit" with avalanche transceiver, shovel and probe enough?

If the avalanche transceiver is working, a buried victim is always found, yet often it is too late. The options for rescuing victims alive depend largely on the following factors: burial depth, unblocked airways and air pocket. The average burial depth is about a meter, and three quarters of buried victims have blocked airways. It is asking a lot of the rescue team to find your within 15-20 minutes and dig you out so that your airways can be cleared. You have the best chance of survival when you avoid being buried in the first place. That is why we strongly recommend going one better than the standard kit and using the ABS airbag.

## What is more important – ABS backpack or avalanche transceiver?

An ABS backpack is no good at locating victims, and avalanche transceivers are no use in preventing burial. Apart from the deadly effects of the fall itself, burial is the cause of all avalanche deaths. An avalanche transceiver is absolutely necessary, because even an ABS avalanche airbag cannot prevent burial in all conceivable situations. This means that the best emergency kit for avalanches includes an ABS avalanche airbag, an avalanche transceiver, a shovel and a probe.

## Does the ABS work in all avalanche conditions?

Whether in heavy, wet snow or soft powder the 170 l volume of the airbags is calculated to guarantee sufficient dynamic lift in any snow condition. If a skier is at the bottom of the valley, with the full weight of the avalanche above, the chances of survival are very slim indeed, even with an avalanche airbag. However, these situations are very unusual. Most avalanches are triggered when the victims themselves cause the slab to come loose – which means they start quite high up in the avalanche. Here the ABS avalanche system can significantly reduce the risk of burial – proven by a survival rate of 97%.

## Is it realistic to activate the system in an avalanche situation?

Yes, it is certainly realistic in most cases. But it is essential to commit to activation immediately and without hesitation. As the speed increases after falling, it can be difficult if not impossible even to reach the activation handle. Something else that happens quite often is that the skier does not real-

ize that he/she has loosened a slab or is falling – believing instead that he/she made a mistake and consciously deciding not to activate the airbag. People are also sometimes immobilized by fear for a moment. Therefore, self-activation must be practiced regularly to improve reaction times and movements.

## Is the leg strap really necessary?

This is stipulated by the TÜV and in the operating instructions. If the hip strap is not pulled tight enough, the backpack might be pulled over your head in an avalanche. This can be prevented by an extra leg strap.

## Can you attach the skis to the sides?

No. Always attach all equipment – such as ice axe, poles, skis etc. – on the ABS pack's front only and thus ensure the unhindered deployment of the dual side airbags. Also be careful when packing and make sure that nothing can damage the airbags.

## How about travelling to the US with ABS?

Importing cartridges and handles can cause difficulties when travelling via or to the USA. We recommend that you fly with your ABS backpack (without the activation unit) and rent a cartridge and handle at a local dealer (<https://www.abs-airbag.com/de/haendler/>).

## Can I take the ABS on flights?

Yes, it is possible to check in an ABS backpack as passenger luggage. The arrangements are set out in IATA Regulation DGR, Tab. 2.3.A. However, you must declare the ABS backpack at the time of booking, or at the latest 14 days prior to the flight. For the ABS TwinBag, the cartridge should be screwed in, but it is essential for the activation handle to be kept separately in the strap pocket. One spare activation unit may be carried with each ABS backpack. In the ABS in planes section you can read the relevant section from the IATA Regulation, and details of how to register your ABS backpack and what do to at check-in.

## Does the ABS need maintenance?

The ABS is a piece of emergency kit that can make the difference between life and death. The manufacturer recommends returning the equipment for a general check every three years. The manufacturer's maintenance involves testing the function, replacing seals and checking the general condition. Our newsletter contains details of the retailers taking part. Before every season you are also recommended to practice a real activation with a filled cartridge. You should monitor the activation as it happens, check that the airbag is airtight, and inspect the general condition of the equipment and the backpack. Subscribe to our Newsletter on the ABS web site.

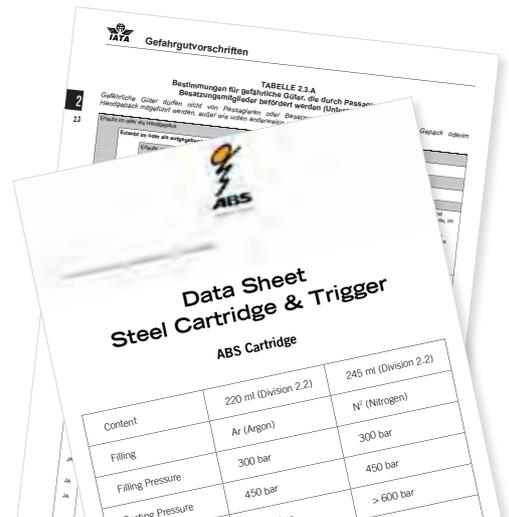
## How does the activation handle work?

The activation handle includes a pressurized capsule, which is released by the pull of the handle. The explosion pressure travels through the pressure tube to the piercing unit. The full cartridge is pierced at this point by the needle and the cartridge medium travels through the pressure tubes to the two airbags, where it inflates the airbags with the help of the fill and outlet unit. Filling time is about 2-3 seconds. The pressurized capsule in the activation handle can only be released once. This is why both the activation handle and cartridge must be returned and replaced by a dealer.

## Why a pyrotechnic activation handle?

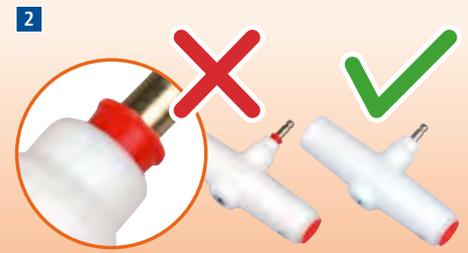
The Bowden cables used in simple systems must be pre-tensioned before every activation and are, therefore, always enabled. This results in frequent accidental activation. This is

ALPINE BACK  
ALPINE



## AFTER ACTIVATING THE ABS:

1. Deflate airbags.
2. Fold the airbags and pack them back in the designated compartments.
3. After activation a red line is visible on the activation handle and the cartridge is punctured. After every activation the cartridge and the activation handle must be replaced! The ABS-System is only operational when both parts have been refilled or exchanged.



why ABS® replaced the vulnerable Bowden activation mechanism over 10 years ago and switched to the more practical pneumatic activation system. It guarantees the fastest, most reliable and, by far, easiest activation for your personal safety.

**Why never trigger the activation handle without a cartridge?**

If you trigger the system without a cartridge by mistake, you might damage the piercing mechanism, potentially causing the entire system to fail. If this happens to you, there is no alternative but to send the ABS backpack for service.

**Can you move the activation to the right side?**

Yes, the handle of the avalanche backpack can also be installed by a specialist dealer or ABS on the right with the activation plate for left handers.

**How do I adjust the height of the handle?**

The activation handle must be ideally positioned for easy accessibility. The correct position of the activation handle is between the chest and shoulder. In order to adjust the height, open and unfold the Velcro fastener, attach the handle plate to the appropriate plastic grommet and attach the Velcro fastener.

**Are there any problems with ice build-up on the activation handle when attaching to the pressure tube or at the time of activation?**

No. Not unless you cause an ice build-up accidentally. Make sure that the Velcro covers adequately protect the pressure tube adapter whether the activation handle is attached or not. It is also important to take care with the activation handle itself, keeping the pin and the pin opening completely clean. If the activation handle does get dirty, never attempt to clean it yourself – instead, replace the handle. Otherwise the system might activate accidentally, possibly causing injury. Replacing the handle is not expensive – all you pay for is the refill charge.

**How does the cartridge work?**

The cartridges contain only non-hazardous, non-flammable gases found in the atmosphere. Internal pressure 300 bar (carbon cartridge 340 bar). The cartridge must only be pierced inside the puncture unit of the ABS-system. Handling

the closure of the cartridge can cause an explosion. Serious risk of injury and death, even for bystanders! Also avoid impacts, such as dropping the cartridge. The cartridge is designed for temperatures of between -40 °C to +50 °C.

**Can I leave the cartridge screwed in at all times?**

Yes. You just need to check the weight of the cartridge regularly to make certain it is completely filled.

**How do I know if the cartridge is correctly filled?**

Check the weight of the cartridges without protective cap regularly before using it. The weight is printed on the side of the cartridge. If there is a discrepancy of more than 5 g, do not use the cartridge. Ask ABS for a free replacement.



**How can I avoid activating the airbag by accident?**

By only ever attaching the activation handle to the system when you are out on the mountain. When you are not skiing/snowboarding, we strongly recommend removing the activation handle and keeping it in the pocket on the hip strap.

**Is it advisable to carry a second activation unit?**

Yes. You should never delay activation until you are already being carried by the avalanche. Pull the activation handle the instant you suspect you might have dislodged a slab. If no avalanche materializes, so much the better. It's good to err on the side of caution, and although you now have an empty cartridge, there's no harm done. To get the system working again, you need a second cartridge with activation handle.

**Where do I get new fillings for the activation unit?**

The cartridges and activation handles can only be refilled by the manufacturer. Replacement cartridges and handles are only available from ABS dealers. The same rules apply in all countries.

**Does the activation unit have an expiry date?**

Yes. For cartridges, the expiry date depends on the number of refills. The maximum number of refills is 20. A record is kept of each refill. When you send us an expired cartridge to refill, we will keep it and automatically send you a replacement free of charge. The activation handle should be activated at least once every three years, otherwise it should be replaced. The expiry date can be found on a red plate on the side of the handle.

**Does the ABS® avalanche airbag mean I'm absolutely safe?**

Every avalanche is absolutely life threatening – regardless of any equipment! Therefore the ABS Avalanche Airbag System should not encourage you to take greater risks.

ALPINE ALPINE BACK

**FOR MORE INFORMATIONS:**

You find a **manual** with detailed information in every OnTop ABS® backpack. Inside the pack you find a print with the **short checklist** to ensure the right handling of the safety device.

Vor dem Einsatz / Before use			
	<input checked="" type="checkbox"/> Gut geplant? Well planned?		<input checked="" type="checkbox"/> Gurte schließen Close straps
	<input checked="" type="checkbox"/> Patrone einsetzen Insert cartridge		<input checked="" type="checkbox"/> Auslösegriff einsatzbereit Handle ready for use
Nicht im Einsatz / Not in use			
	<input checked="" type="checkbox"/> Auslösegriff abnehmen Remove handle		<input checked="" type="checkbox"/> NIE Auslösegriff ohne Patrone betätigen DON'T pull handle without cartridge

Mehr Informationen / More information: [www.deuter.com](http://www.deuter.com) / [www.abs-airbag.com](http://www.abs-airbag.com)  
 Deuter Sport GmbH, Daimlerstraße 23, 86368 Gersthofen, Germany  
 Deuter USA Inc., 1200 South Fordham St., Suite C - Longmont CO 80503, USA

CE, TÜV, GS logos.



# ABS® AVALANCHE AIRBAG – TRUST IN 25 YEARS AVALANCHE EXPERTISE!

**97%**  
SURVIVAL

Highest survival rate: Out of 262 persons with activated ABS® avalanche airbag, 97 % survived, and 84 % were uninjured. (Source: SLF, August 2010)



German engineering: The original ABS® self-rescue system – developed, manufactured and tested by avalanche experts since 1985. Survival 'made in Germany'.



Double safety: Even if one of the two ABS® TwinBags is damaged, there is usually sufficient remaining volume to prevent total burial. For ABS, this extensive double safety is an important practical requirement.



Dynamic lift: The wide bearing surface due to laterally placed ABS® TwinBags stabilizes the body and increases the lift precisely in the critical avalanche runout zone.



Pyrotechnic-pneumatic activation: A quick pull with little force and the system inflates irreversibly at the speed of sound. Within a few moments, the ABS® TwinBags inflate. Without compromise, quickly and with absolute certainty.



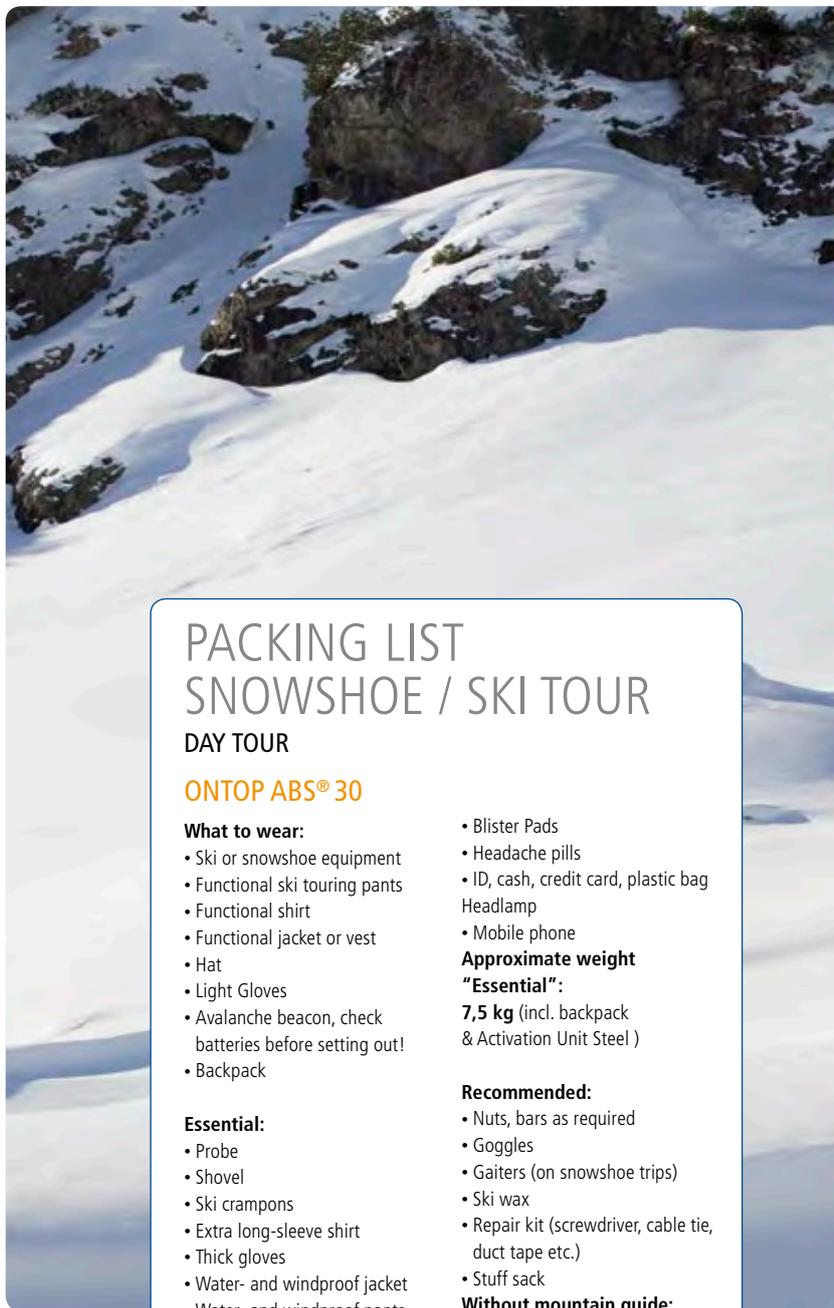
See and flee: The ABS® TwinBag system can be activated without hesitation at the first sign of an avalanche. Nothing hinders the attempt to escape and nothing blocks the view or restricts movement.



Maximum visibility: In 97 % of all documented avalanche accidents with activated airbags, the TwinBags were visible on the surface. The time-consuming, highly stressful and error-prone search in difficult terrain is avoided.



Easy pack and use: Simple and safe to pack and quickly ready again for operation – after recommended training activation or in an emergency.



## PACKING LIST SNOWSHOE / SKI TOUR

### DAY TOUR

#### ONTOP ABS® 30

##### What to wear:

- Ski or snowshoe equipment
- Functional ski touring pants
- Functional shirt
- Functional jacket or vest
- Hat
- Light Gloves
- Avalanche beacon, check batteries before setting out!
- Backpack

##### Essential:

- Probe
- Shovel
- Ski crampons
- Extra long-sleeve shirt
- Thick gloves
- Water- and windproof jacket
- Water- and windproof pants (to pull over)
- Sunscreen, lip balm (UPF 30)
- Sun-/glacier glasses, ideally with photochromic lenses
- Drinking bottle or bladder with at least 1l capacity (depending on tour)
- Electrolyte and magnesium tabs
- First Aid Kit S (incl. rescue blanket)

- Blister Pads
- Headache pills
- ID, cash, credit card, plastic bag
- Headlamp
- Mobile phone

##### Approximate weight "Essential":

**7,5 kg** (incl. backpack & Activation Unit Steel)

##### Recommended:

- Nuts, bars as required
- Goggles
- Gaiters (on snowshoe trips)
- Ski wax
- Repair kit (screwdriver, cable tie, duct tape etc.)
- Stuff sack

##### Without mountain guide:

- Maps
- Guide book
- Altimeter
- Compass
- GPS device

**APPROXIMATE  
OVERALL WEIGHT:  
9,2 KG**

Find detailed check lists on [www.deuter.com](http://www.deuter.com) in the section **Backpack Tips / Packing lists**.



## IN SHORT

## ALPINE BACK SYSTEM

- + load close to the back for a safe fit
- + alpine specific features
- + slender shape

## SALES ARGUMENTS FOR ALPINE BACKPACKS

- The Alpine Back System guarantees a tight, secure fit of the pack – crucial for activities in difficult terrain.
- Deuter's Alpine models are extremely lightweight, yet provide great comfort, durability and function – ideal for hard alpine use.
- All Deuter Alpine packs feature ski attachments, a SOS Label, a removable foam mat (not OnTop), attachments for helmet holder and are all drinking system compatible.
- Front pocket for shovel and probe on all winter packs guarantee an extremely quick and easy access on emergency gear (Rise, Cruise, Freerider, Freerider Pro, Guide Tour, OnTop).
- Continuous product optimisation with the help of pros: Deuter closely cooperates with two of the biggest mountaineering associations: "Verband der Deutschen Berg- und Skiführer" (Germany) and the "American Mountain Guides Association".
- Since 1997 Deuter is the official supplier of the Association of German Mountain and Ski Guides.
- The Guide models are fantastic all-rounders offering exceptional load transfer, flexible Vari Flex hip wings and a host of smart functions. Austrian magazine "Land der Berge" states: "The Top-Tipp clearly goes to Deuter. The Guide 45+ provides superb carry comfort. It features two long pads on the back that guarantee very good ventilation. And despite the compact fit, the shoulder straps and hip wings offer full freedom of movement."
- The OnTop ABS® avalanche airbag packs unite the top safety of avalanche airbag pioneer ABS® with the top carry comfort of our legendary Alpine Back system.
- ABS® TwinBags on the sides create a big surface and generate an exceptional dynamic lift – similar to fat freeride skis. They keep the rider 'on top' of the snow masses and thus significantly enhance the chance of survival.



Photo: Stefan Neuhauser

Alpine tour, 1200 metres of altitude, 7-8 h, OnTop ABS® 30, 8 kg



*Peter Vogler, professional mountain and ski guide, member of the Deuter product development team since 1988, Sales Rep for Western Germany*

"The product development team has been working closely with the German Mountain and Ski Guides Association since 1997. Deuter provides all guides with sleeping bags and backpacks and they put them to test about 180 days a year. Compare this to an average user who spends maybe 20 days in the mountains. The guides' professional, detailed feedback continuously pushes our product development team to set new standards."

LAND  
DER  
BERGE  
5/13 TOP

# LIGHTWEIGHT "LESS WEIGHT, MORE ENERGY"

Extremely light, extremely big capacity, extremely comfortable and extremely hard-wearing – demands that are extremely difficult to combine in one product. It is extremely important to know the limits of lightweight equipment and to know when it actually makes sense to use it. Our Lite range is specifically designed for fast endurance activities, for alpine day trips or as minimalist summit gear. Reduced on the essentials, it still provides great carrying comfort for light to medium loads.

Yet, a lightweight design should never compromise on durability. This is and has always been our brand philosophy – to present the consumer a long-lasting product and to protect our nature. Throw-away products have a huge negative impact on our environment. We want to protect our mountains, rivers, valleys, and forests. This is where we are at home, this is where we hike, bike, climb, and have a good time. Our featherweights are therefore designed for those who want to carry lightly, yet still want to rely on comfort and durability!

In the end, it is also a question of safety. A backpack which falls apart during an alpine trek is not only annoying, it can also turn out to be dangerous.



Christian Pfanzelt Photography

## DEUTER LITE SYSTEM

LITE SYSTEM PACE/SPEED LITE



1  
day

20 l  
3 – 6 kg

### PACE 20

ski race; ski tours;  
cross-country skiing; Inline Skating;



1–3  
days

26–36 l  
3 – 10 kg

### PACE 26–36

ski tours; climbing;  
alpine tours with reduced gear;



1  
day

10–20 l  
3 – 6 kg

### SPEED LITE

climbing; ski tours; biking;  
running; cross-country skiing; city trips

## BASIC FEATURES LIGHTWEIGHT

**Side pockets:**  
easy access to drinking  
bottle or energy bar



**Lightweight:**  
volume and functions  
specifically engineered  
for fast activities

**Drinking system  
compatible:**  
opening for the tube,  
and a hose holder,  
enable the use of a  
hydration bladder



## EXTRA FEATURES LIGHTWEIGHT

**Attachments  
for ice axe:**  
easily accessible,  
yet safely stored  
equipment (Pace)



**Compression straps  
can be fastened at the  
centre of the pack**  
for tightening and improved  
load stability or to fasten gear  
(Pace 26-36, Speed Lite 20)

**SOS Label**  
with emergency  
numbers and inter-  
national instructions  
for emergency cases



**Stabiliser straps**  
for stabilisation and  
precise load transfer  
(Pace 26-36)

**Helmet holder:**  
loops for the helmet  
holder (accessory) on  
Speed Lite & Pace 20  
or spacious front flap  
on Pace 26-36)



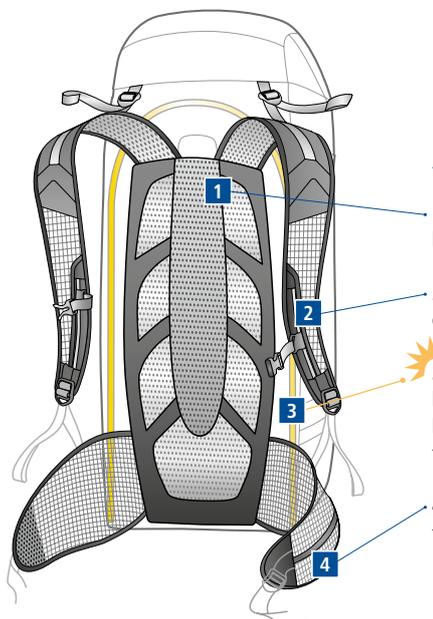
**Ski attachment**  
on the side with the com-  
pression straps (Pace 26-36,  
Speed Lite 20) or on the front  
(Pace, Speed Lite 20)



### SALES ARGUMENTS FOR LIGHTWEIGHT BACKPACKS

- Low weight, but not at the expense of strength and durability: our Lite range features hard-wearing material, quality workmanship, and smart constructions. The weight is reduced by using state-of-the-art fabrics and focusing on the essential.
- Deuter's Lite packs have an outstanding weight-to-function ratio.
- Flexible Delrin® U-frame guarantees great load transfer and stability at minimum weight.
- Deuter uses fine Nylon material for the lightweight products. The extremely tight weave makes the material rugged and reinforcement threads guarantee improved tear strength.
- Whether a rain jacket or skitouring skins – there is always something to quickly store in the large front pocket of the Pace 26-36 and Speed Lite 20.
- Small and packable – Deuter's light packs fit in any trekking pack or travel luggage. Easy to take along on city trips, climbing tours or as summit pack.

LIGHTWEIGHT LITE



## LITE SYSTEM

- 1 Padded back** with breathable 3D AirMesh lining holds the load close to the body's center of gravity for a compact safe fit.
- 2 Anatomically shoulder straps** with an easy to adjust chest strap fit perfectly.
- 3 Tensioned Delrin® U-Frame** provides exceptional flexibility and gives the pack the necessary level of stability at very low weight. Removable for weight reduction or for stowing the backpack. (Pace 26-36, Speed Lite)
- 4 Light and airy mesh hip fins** provide a secure, compact fit (Pace). **Removable waist belt** (Speed Lite);

# FAMILY

## "EXPLORING THE WORLD THE SAFE WAY"



Photo: Lars Schneider

Child carriers are perfect means of transport for kids aged one up to four or five. No wonder Deuter has also played a pioneering role in the development of child carriers – we wanted to take our kids outdoors! To places that even the best all terrain pram would not manage. It just adds so much flexibility and gives us the opportunity to introduce our kids to nature from an early age on. The little ones enjoy the view from their 'cabin' high up, love the freedom of movement and the cosy, all-round protected seat. The healthy sitting posture and the ergonomic design was developed in cooperation with child surgeon Dr. Micha Bahr. Mothers and fathers so much appreciate the exceptional carry comfort, the great ventilation and the easily adjustable back length. The thought-through back system keeps wearer and child in balance even on difficult terrain, steep stairs or muddy paths. In the end, a child is not only a heavy load to carry, it is also the most precious load!

The Deuter child carriers, therefore, guarantee top TÜV/GS tested and certified safety for child and wearer alike: tests conducted by the Technical Inspection Association (TÜV SÜD) ensure durability, load capacity and handling of the carrier and also analyse the chemical properties of the material.

Even the production is regularly checked by TÜV staff. We've been working with the TÜV SÜD since 1996 and our Kid Comfort was the first child carrier that was TÜV SÜD approved and carried the GS safety certificate.



## DEUTER KID COMFORT SERIES

AIRCOMFORT SYSTEM    KID COMFORT AIR  
AIRCONTACT SYSTEM    KID COMFORT 2 & 3



for children  
**aged ~8  
months**



(The child should be able to sit up by himself and to hold his head upright)



14-18 l  
max. 22 kg  
(child 18 kg  
+ load 4 kg)

**KID COMFORT AIR**  
**KID COMFORT 2**  
**KID COMFORT 3**

Hiking; City; Excursions; Trekking;

## BASIC KID COMFORT

**Child seat can be effortlessly adjusted in height and width** – even with the kid already seated



**The ideal position** is always guaranteed due to the height adjustable seat

**Simple and safe side entry** gives kids the option of climbing into the seat by themselves or makes it easy and safe to lift in the child



**Anatomically shaped, padded 5-point safety harness** offers maximum child safety as well as maximum practicality through easy handling and adjustment

**Removable chin pad** is comfortably soft and washable



**Height adjustable footrests** support the blood flow of the child's legs

**Cosy cockpit** has all-round padding and gives the child a sense of security without feeling cramped



**Heavy load carry system** – adopted from our trekking backpacks – guarantees perfect carry comfort

**Stepless VariFit torso adjustment** allows an effortless adjustment to the wearer's back length



**Multiple storage options** such as stretch side pockets, a large zipped compartment underneath the seat and a compartment on the back

## EXTRA KID COMFORT 2 & 3

**Pivoting VariFlex hip belt** follows the wearer's movements and this helps saving energy



**Soft, ergonomic chin pad with side support** provides comfortable stability for the head and the upper body, when the child falls asleep and slouches forward

**Additional storage options:** long zipped compartment for hydration system or sun / rain roof (accessories) and zipped front pocket



## SPECIAL KID COMFORT 3

**Extra high child head rest** for more protection and comfort



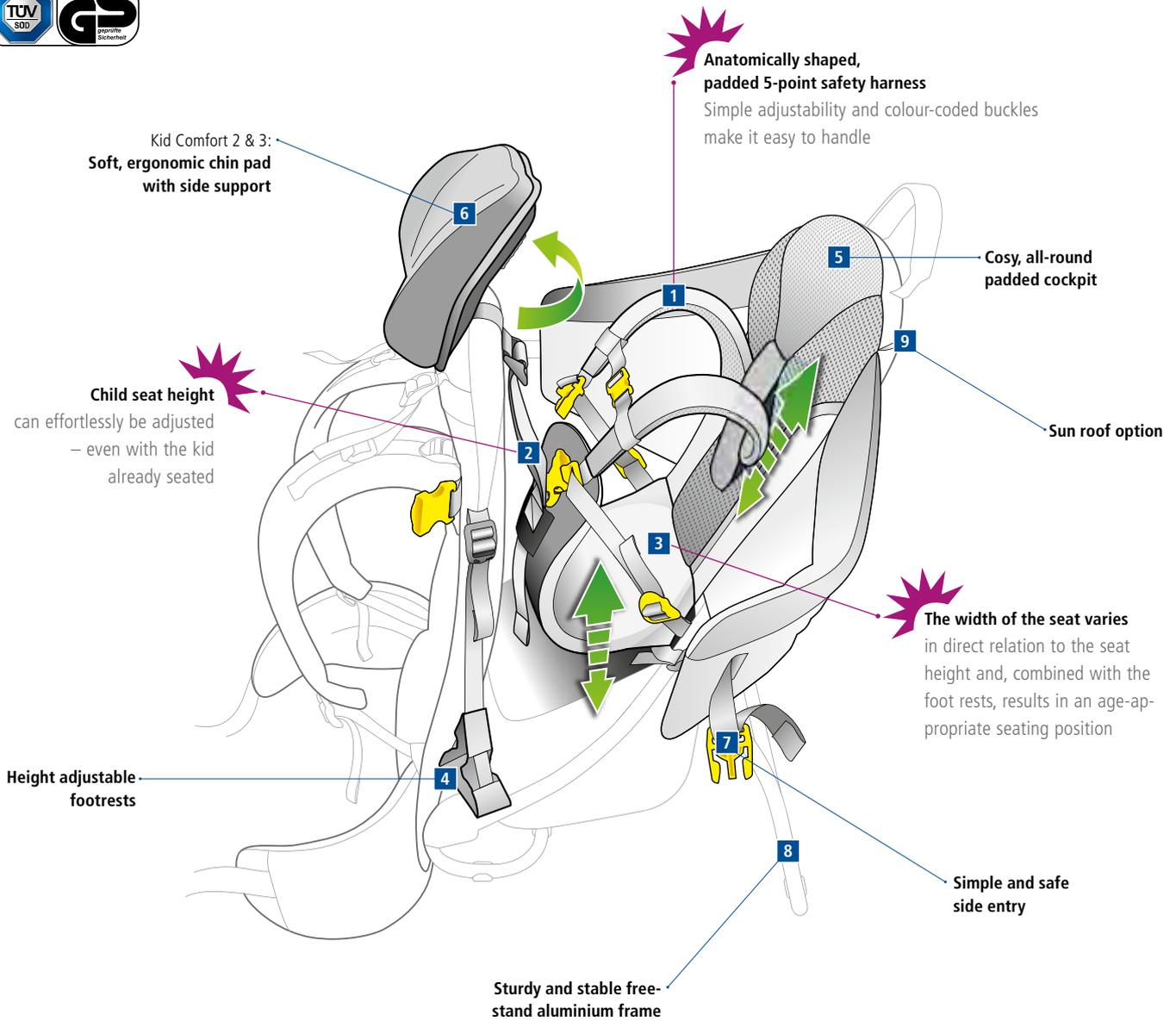
**Integrated sun roof** is practical to stow, when needed, simple to pull out and will never be lost



FAMILY KID COMFORT

Photo: Ralf Bernert

# KID COMFORT CHILD SAFETY AND COMFORT



KID COMFORT FAMILY

**1 The soft padded 5-point harness** is easy to adjust to the right size. Bright yellow buckles clearly indicate the points that need to be secured for safe carrying.

**2 The height of the seat is easily and generously adjustable** – even when the child is already seated. Lift the buckle under the chin pad to lower the seat; or tighten the adjustment strap to lift the seat. Slip one hand under the seat to support the lift. The height adjustable seat perfectly accommodates the growing child, with the chin at the level of the upper half of the chin pad.

**3 The width of the seat cushions matches the adjusted height** and thus guarantees an ergonomic sitting posture in combination with the specific footrest construction. The width increases with the height of the seat to guarantee a natural spread squat position; the lower the seat the narrower the width for an upright sitting position.

**4 Height adjustable footrests** prevent nerves getting pinched which can lead to cold legs or pins and needles. The foot rests are mobile, which encourages the child to kick with the legs and thus promotes circulation. The foot rests are attached in a way that prevents the child from standing up. If they extend their legs, they will just press against the back rest of the carrier.

**5 The cosy cockpit has all-round padding** and is lined in hypoallergenic fabric. It gives the child a sense of security without feeling cramped.

**6 Kid Comfort 2 & 3: The soft, ergonomic chin pad with side support** provides comfortable stability for the head and the upper body, when the child falls asleep and slouches forward.

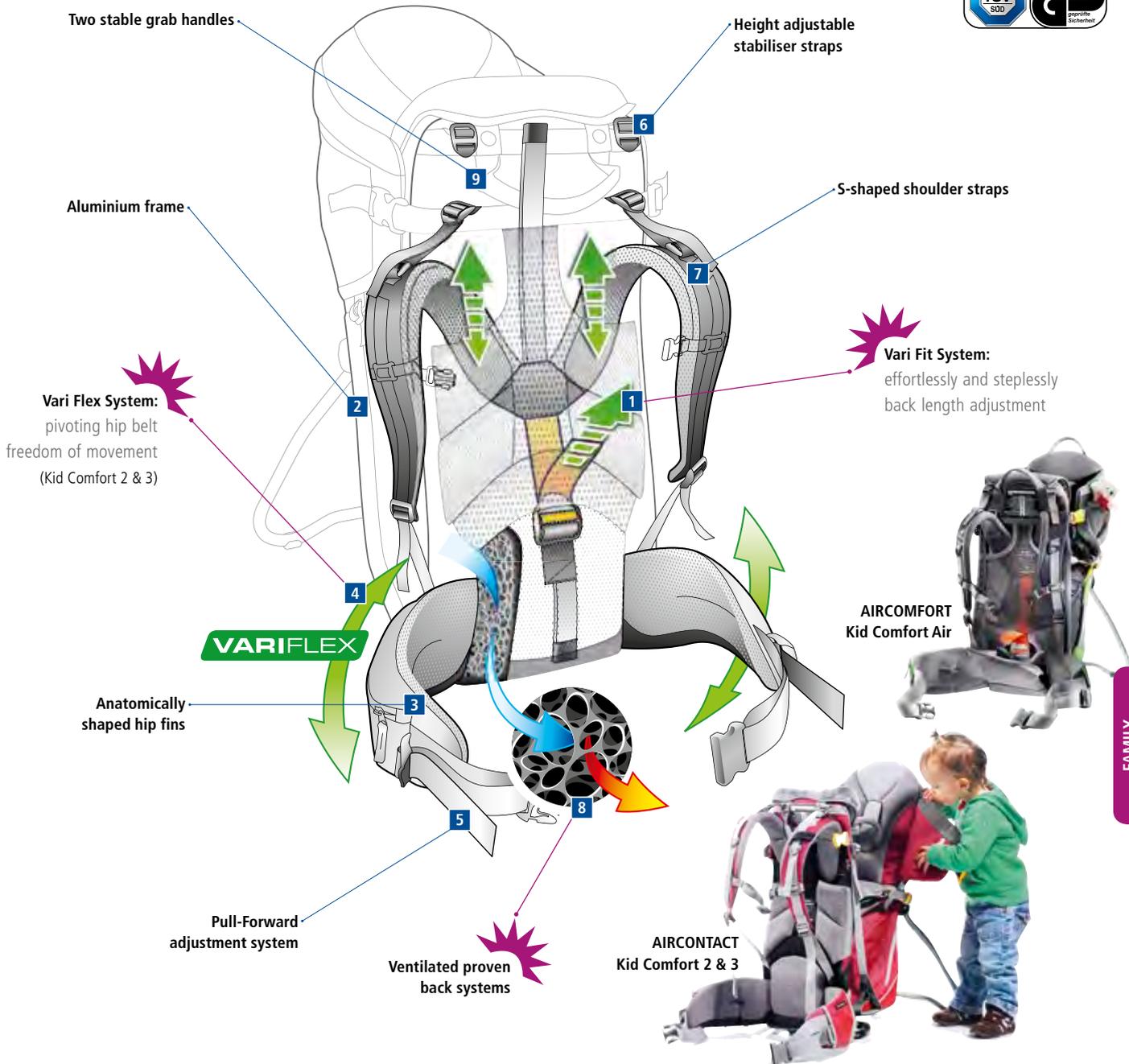
**7 The simple and safe side entry** is very popular with larger children, because they have the option of climbing in-

to the seat by themselves. This also makes lifting smaller children into the pack much easier and minimises back strain.

**8 The sturdy aluminium frame** provides a safe and stable free-stand with its wide kickstand and guarantees an easy access. Its frame geometry has no rough and sharp edges, is extremely robust and features a soft fabric cover in the seat area (Kid Comfort 2 & 3). You can effortlessly extend and retract the kickstand while carrying. A “click” sound ensures that the kickstand has snapped into its standing or transport position.

**9 The sun roof option** protects the child’s sensitive skin from harmful sun rays, especially on hot summer days or at higher altitudes (sun roof for Kid Comfort Air & 2 available as additional accessory, on Kid Comfort 3 it is integrated). Mind: always apply sunscreen even when the child is not exposed to direct sunlight!

# KID COMFORT CARRIER SAFETY AND COMFORT



**1** With the **Vari Fit System** all Kid Comfort models can be effortlessly **adjusted to the wearer's individual back length**. This is vital for the perfect fit of the child carrier and guarantees a safe and balanced carry.

**2** An **aluminium frame** is the basis of the carrying system and transfers the load exactly to the hip area.

**3** The **anatomically shaped hip fins** are made from **multiple layers**. The inner side has a layer of soft foam with 3D AirMesh lining for heightened comfort. The firm foam on the outside is modelled to the anatomic shape and transfers the load to the hips. Side compression straps on the fins regulate the load and increase stability.

**4** **Kid Comfort 2 & 3: Anatomically shaped, pivoting Vari Flex hip wings follow complex movements** and thus save energy on stairs, uneven terrain or steep paths. The Pull-Forward adjustment system on the hip belt easily cinches the child carrier close to the body even when fully loaded.

**5** The **Pull-Forward construction** on the hip belt allows the hip fins to be positioned correctly even with a full load.

**6** **Height adjustable stabiliser straps** enable precision positioning of the pack and allow heavy loads to be cinched in closer to the body.

**7** The **S-shaped shoulder straps** are inherently stable, come with an airy 3D AirMesh lining and comfortably curve over the shoulders.

**8** **Ventilated proven back systems – AIRCOMFORT (Kid Comfort Air) or AIRCONTACT (Kid Comfort 2 & 3) – guarantee Deuter's signature carry comfort.** The back systems further create a space for airflow between child and carrier: this reduces perspiration, prevents heat accumulation and saves energy.

**9** **Two stable grab handles** make the Kid Comforts easy to lift on the back without additional help.

FAMILY  
KID COMFORT

# TESTED AND CERTIFIED BY THE TÜV – THE STORY BEHIND IT

Maybe we should just start with: as usual... As usual the idea of the child carrier was born out of a personal need by the Deuter team. In early 1994 it was hard to find any kid carrier on the market. Bernd Kullmann (then Deuter product manager) was forced to think about developing his own kid hauler, when he and his wife had their second child. The family wanted to be outdoors, to go climbing – and this initiated the Kid Comfort and the new safety standards for child carriers:

“Summer 1994, late afternoon in the Austrian Alps. I was hiking down fast from a hut carrying my daughter Julia in a Kid Comfort sample. We had finished shooting the photos for the catalogue and I wanted to bring Julia down to Ingrid who waited in the valley. My plan was to sprint back up again so I could climb a South face route with Bill, our export manager. I had just half-jumped a steep passage when Julia screamed out. One of the seams on the prototype was torn. Luckily the seat was still intact, yet it was a shock for Julia and myself.

I thought about this incident while climbing in the evening hours. A torn seam on a backpack has no severe consequences, even if the content spills out. Yet, on a kid carrier the consequences can be fatal. The following Monday I called Pit Schubert, engineer and the ‘king of safety’ of the German Alpine Association. I explained the story and – as usual – it didn’t take Pit long to come up with a good advice: “Call Volker Kron from the TÜV, the Technical Inspection Authority, in Munich.” Volker is a fellow mountaineer and we

got along from the start. Together we developed criteria for improving the product safety of kid carriers. Volker has five kids himself and he knew what was crucial. There were so many things to consider: the tiny fingers had to be protected from being jammed in the frame – thus, we had to create a new pivot with spacer. We had to test the material for harmful substances, had to put down the safety instructions and find the right tag place for them. We wanted an individually adjustable back length construction. And we adapted the VariQuick system, which we had developed recently for our trekking packs. And on top we had a long-term test that simulated thousands of alpine altitude meters with a weight of 20 kilos. We had a mechanical, wooden dummy that simulated the climb. Volker decided on 20.000 load changes, which relates to 20.000 meters of descent and ascent. We attached an additional weight of 5 kg on a wooden baby to reach the 20 kg. It all seemed martial to me and I thought our product might last a few hours tops. Volker turned the machine off after 75.000 load changes. The carrier was fully intact. There were merely a few chafe marks on the shoulder straps and the waist belt. Nothing dramatic. We were both stunned how durable the gear was and how it had survived the heavy simulation. This was how we got the TÜV certificate for our product – and we had the first safety tested kid carrier worldwide.”



2006 – On the way, here with his daughter Selma, Steve gets new inspirations for our products



KID COMFORT FAMILY

1996



1994 – Bernd with his daughter Jule put one of the first Kid Comfort prototypes through its paces

2005

Steve Buffinton, Deuter product manager since 1996, then continued the design of the Kid Comfort. He has three kids and they all – more or less – grew up in those carriers becoming big outdoor lovers. “I just love being out there with Benjamin, Neil and Selma. It’s always a big challenge and you need to improvise all the time, but that’s where and how I get new inspiration for our products.” For the Kid Comfort he fine-tuned the side entry, the 5-point safety harness and added the pivoting VariFlex hip wings and the stepless Vari Fit torso adjustment.

Today the kid carriers have a long tradition at Deuter and our product managers so much expertise. Yet, we never stand still and we continuously work on our gear. And we ask independent experts for their input so that we will not miss one aspect in optimizing our child carriers.

## VALUABLE SUGGESTIONS FROM AN INDEPENDENT EXPERT



are carried around in a car." As soon as his daughters were able to sit upright they changed from baby sling to child carrier – and were always outdoors with mum and dad. "From an early age the kids can explore nature instead of spending their times in front of TV or computer screens", says Dr. Bahr. "Over and over again my girls surprise me with their curiosity and attentiveness. They point out all those little, fascinating things and they love observing and exploring. Being outdoors is an experience we share as a family and that brings us closer together. The kid carriers help making those experiences possible. And they also encourage direct communication between us and the girls." After

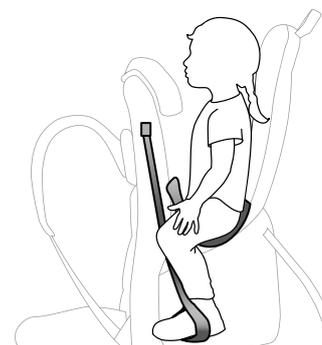
Our team of experts includes Dr. Micha Bahr, Medical Director of the paediatric surgical ward at the Ruhr University Hospital in Bochum/Germany. We asked him to evaluate our kid carriers – a rather easy task for him since he has been using them for years. He has three daughters, Cari, Franci and Noa, and "all three had a lot of fun with the child carriers – I think we used them more often than any pram." And Dr. Bahr adds: "The rocking movement reminds kids of the movement they felt in their mother's womb." Brain research has further shown that the swaying, three-dimensional movement has a positive stimulating effect on the child's equilibrium organ, "which is very important for the development of the child. You can even say that the transport in a child carrier fosters the kids' perceptions and senses – compared to children who

numerous tours Dr. Bahr reviewed our Kid Comforts: "Deuter's back systems offers a very ergonomic and balanced carry, while the seat for the child provides great comfort and thought-through safety details. In particular the 5-point harness and the easy seat access make it the best and safest child carrier currently available on the market."

Yet there were things to improve. Dr. Bahr's input was invaluable: "I remembered one time when I was hiking with my wife Reni and our eldest daughter who had just turned one. We wanted to climb a really beautiful peak, but after an hour she cried so hard and we couldn't calm her down." Why? Her legs had fallen asleep. To avoid this we have constructed height adjustable footrests for our revised child carriers: no dangling feet, no pinched

nerves! The legs stay warm and the kids don't suffer from pins and needles. Further, the footrests animate the kids to play with their little feet, which further enhances the blood circulation. At the same time, our new footrests consider all safety aspects: the construction prevents the kids from pushing themselves out of the seat, because it doesn't provide enough back-pressure to stand up or 'rock' the carrier. Yet this was only the beginning: with Dr. Bahr's feedback our four product managers started to revise the Kid Comfort range. The result: the child's seat can now be easily and generously adjusted in height and width – it gets wider the higher the seat. "That's a fantastic solution", Dr. Bahr says, "because the angle of the hip joint, the vascular system and nerve tracts change with the growing child. The smaller the child, the wider the spread squat position should be." The lower the seat the narrower it gets for an upright position. Further, the new ergonomic chin pad, the side wings and the head rest guarantee extra support to all sides.

2014



## FREQUENTLY ASKED QUESTIONS ABOUT THE CHILD CARRIERS



### FAKT:

The performance requirements that the Kid Comfort has to pass for the TÜV certificate:

- chemical safety assessments in migration tests
- durability of the material in bite tests
- functionality of the kickstand locking device after 300 uses
- stability test with kid dummy on a surface with an angle of 12°
- no sign of wear and tear of the adjustable back system after 50.000 load changes
- the adjustable safety harness must not disengage after six full overhead turns with a fastened kid dummy
- surfaces show no risk of injury
- kickstand shows no risk of pinching
- general quality of the carrier: every two years a staff member of the TÜV SÜD audits the manufacturing process
- besides the standard requirements the Kid Comfort has to pass an additional test with 150.000 walking loads with a weight of 22 kg.

### HOW OLD HAS THE CHILD TO BE FOR THE CHILD CARRIER?



You should not use it until the child is able to sit up by him/herself. The child should be able to reach the sitting position without assistance and to hold his/her head upright. In general that's the case at about eight months, but it is, of course, individual.

### IS THERE A MAXIMUM LOAD CAPACITY?



The maximum load capacity for the Kid Comfort is 22 kg (child 18 kg + load 4 kg). This was the weight used in the dynamic load test by the TÜV and meets the European safety standard.

### WHAT'S THE MAXIMUM HEIGHT FOR THE KIDS?

There is no maximum body height reference, because kids grow differently. But the maximum load capacity for the child carrier is 22 kg (child 18 kg + load 4 kg) – meaning in average that you can use the carrier up to the age of four or five.

### HOW LONG CAN I WALK WITH MY CHILD IN THE CARRIER?



While we will get warm as we are hiking (and carrying), the kids are not generating heat in their static position and lose body heat quickly – especially in winter!!! Therefore always make sure the child is properly dressed and regularly check the temperature of your child's hands and feet on tour. Also, being seated for a longer period of time can reduce blood flow in the legs. Hence use the Kid Comfort footrests and regularly stop for exercise: do not carry the kids for more than 60 minutes without stopping – then make a break of 5-15 minutes.

### DO I ALWAYS HAVE TO FASTEN THE SAFETY HARNESS?



Any sudden movement – by the carrier or the child – can affect the balance and you might slip or fall. You also have to be very careful when putting the child carrier on or down, or when you lean forward. When not secured to the harness, the

child may try to stand up. Therefore only carry the child with the safety belt fastened. Ensure the harness is adjusted correctly to the child's proportions.

### FOR WHICH ACTIVITIES CAN I USE THE CARRIER?



The child carrier is designed for the use of various activities, yet not for sports activities such as cycling or skiing!

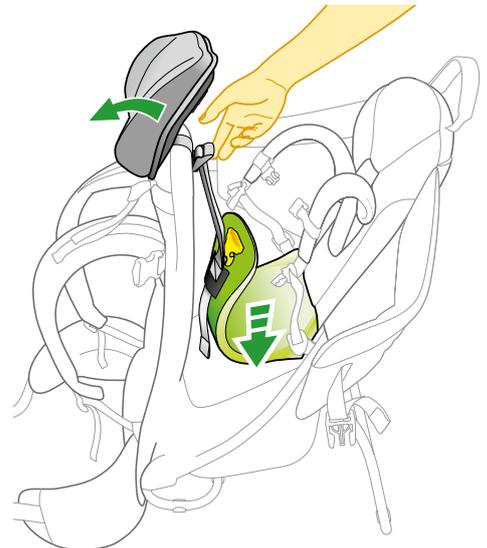
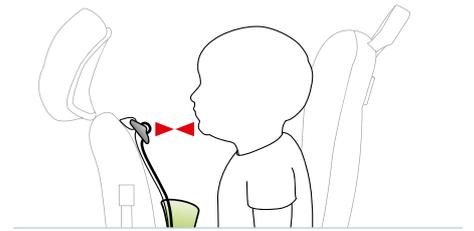
### CAN I LEAVE MY CHILD UNATTENDED IN THE CARRIER?



No! Never leave the child unattended in the carrier – especially not on tables, counters or any other elevated places! Although the Kid Comfort can stand upright by itself, even the most stable child carrier can tip over.

### HOW DO I ADJUST THE SEAT HEIGHT?

The height of the seat is easily adjustable, even when the child is already seated. Pull the adjustment strap until the child's chin is on the level of the buckle for the seat height adjustment. Slip one hand below the seat to support the adjustment. In the ideal position the chin of the child is on level with the height adjustment buckle.



**WHAT IS THE RIGHT HEIGHT FOR THE FOOT RESTS?**

The height of the foot rests is steplessly adjustable: In the ideal position the legs rest in a slightly less than 90° angle.



*Dr. Bahr introduced his daughters to nature's beauty early in life ... and Cari just loves flowers...*

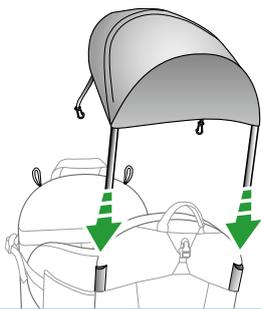


**FACT:**

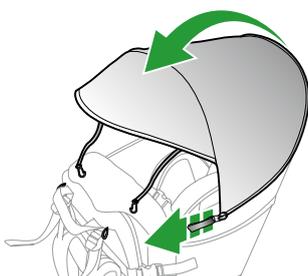
Don't expect to make it to a certain target in a certain time when you hike with your child – well, maybe if your target is the next ice cream parlor, otherwise be prepared for multiple stops. There are so many exciting things worth investigating. Give your kid the time to explore the surroundings and the hike will turn out a great outdoors experience for the whole family.

**DO I REALLY NEED THE SUN ROOF?**

The sun roof protects the child's sensitive skin from harmful sun radiation especially on hot summer days and in high altitude. And always use sunscreen, too.



*Kid Comfort Air & 2: sun roof with small integrated rain cover available as accessory*



*Kid Comfort 3: integrated sun roof*



**SALES ARGUMENTS FOR CHILD CARRIERS**

- Deuter's Kid Comfort was the first baby carrier worldwide with the TÜV/GS safety certificate.
- To ensure a perfect age appropriate sitting position you can adjust the width of the seat in combination with the foot rests.
- The height adjustable footrests are flexible so the child can playfully change his/her leg and sitting position, which supports the blood flow in the child's legs. At the same time, the construction prevents the kids from lifting him/herself out of the seat.
- The height adjustable seat allows the child to always sit in the ideal position.
- Height adjustable 5-point safety harness can be effortlessly adjusted to the individual proportions of the child. Differently coloured buckles for easy use.
- The simple and safe side entry is very popular with children: they have the option of climbing into the seat by themselves. And it is also easy and safe to lift in the child with the yellow buckled side access open.
- Safe stability for the child to all sides guaranteed by the chin pad (removable & washable), the side wings as well as the head rest.
- Protection over 'pinch points' that might catch the child's fingers.
- Extremely durable frame provides a safe and stable free-stand with its wide kickstand and guarantees an easy boarding.
- Heavy load carry system – adapted from the Deuter trekking packs – guarantees perfect comfort for the wearer.
- VariFit System allows effortless and stepless adjustment to the wearer's individual back length – vital for a safe and balanced carry.
- Pivoting VariFlex hip wings help saving energy (Kid Comfort 2 & 3).
- Spacious easy-access storage for extended tours as well as shopping.
- Millions of parents worldwide appreciate the effortless adjustments, the fantastic carry comfort and durability as well as the high-tech safety constructions of our child carriers.
- The soft, ergonomic chin pad with side support provides comfortable stability for the head and the upper body (Kid Comfort 2 & 3).

# SCHOOL

## "EXCEPTIONAL QUALITY BY THE BACKPACK PIONEER"

Of course, there are many details and functions to be considered in a school backpack – but our priority is to make sure the kids can carry their daily supplies comfortably and without risking health problems. That is why we work so hard on creating the perfect carry system for our student pack Ypsilon. And this is what we are good at! We are absolute experts on this field. For almost 120 years we have developed and produced backpacks for alpinists who often have to tote their equipment on long, strenuous tours. The close cooperation with independent experts plays a major role in our product development – for alpine packs as well as school packs: together with parents, paediatricians and kids we fine-tune the smallest details to find the perfect solution. No wonder Deuter backpacks have earned the trust of those who use them on a daily basis: e.g. the German Mountain and Ski Guide Association or the German Alpine Club's youth section.

Our backpacks are equipped with highly functional carry systems – and the same applies, of course, to school rucksacks. We have designed the Active-Comfort-Fit® back system especially for kids.

## DEUTER ACTIVE-COMFORT-FIT®

ACTIVE-COMFORT-FIT® SYSTEM YPSILON/ONETWO

19 l  
3–5 kg

### ONETWO

Schoolchildren from first grade

28 l  
3,5–6 kg

### YPSILON

Schoolchildren from third grade



#### FACT:

A study conducted at the University of Saarland ([www.kid-check.de](http://www.kid-check.de)) shows that children do not suffer from carrying up to 17% of their body's weight.



books  
folders



pencil case  
booklets  
accessoires



snack  
key  
...

Photos: Chris Müller

## BASIC FEATURES SCHOOL

- Flexible Active shoulder straps**  
supports the natural urge to move of the children and guarantee a great, solid fit



- Removeable waist belt**  
provides additional stability
- A4 folder sized heavy load compartment placed right at the wearer's back**  
holds the backpack's centre of gravity close to the body, so the pack won't pull backwards



- Stable base and reinforced sides**  
guarantee form and a secure stand.
- All round 3M reflectors**  
add safety in low light conditions for better visibility in road traffic



- Stable loop**  
to hang up the school pack in the locker etc.
- Two elastic side pockets**  
keep a water bottle or other quick access gear close to hand



- Special timetable pocket**  
gives a quick glance at the class schedule
- Separate ruler pocket**  
eliminates searching
- Spacious front pocket**  
with wipe able lining stores the lunch box separately





## EXTRA FEATURES SCHOOL

- Compression straps**  
allow a quick, individual adjustment of the pack's volume, which also secures the content (Ypsilon)



- Stabiliser straps**  
allow the fine-tuning of the back length (Ypsilon)
- Organizer front pocket**  
with removable key loop keep mobile phone, purse, pencil case etc. separated (Ypsilon)



- Grab handle**  
is softly padded grab handle and ergonomically shaped (Ypsilon)

## WHAT IS THE MAXIMUM WEIGHT RECOMMENDED FOR A SCHOOL BAG?

The German safety standard DIN 58124 recommends a maximum school bag mass of 10-12,5% of the child's body weight to prevent the onset and development of musculo-skeletal symptoms.

### HAT IS THE SOURCE OF THESE GUIDELINES?

Researchers have found out that this recommendation actually goes back to the days before the Great War. It was a guideline for soldiers and their maximum backpack mass on long marches (more than 20 km) to prevent muscular fatigue. To transfer this result on the weight of kids packs is rather unrealistic and is not backed by science. A study conducted at the University of Saarland investigated the effects of a school bag with a weight exceeding the recommended 10% on the body posture of primary school kids. In average the packs weighed 17.2% of the child's body weight. The kids then had to run an obstacle course simulating a "strenuous way to school". Although the packs weighed more than 10% of the body weight

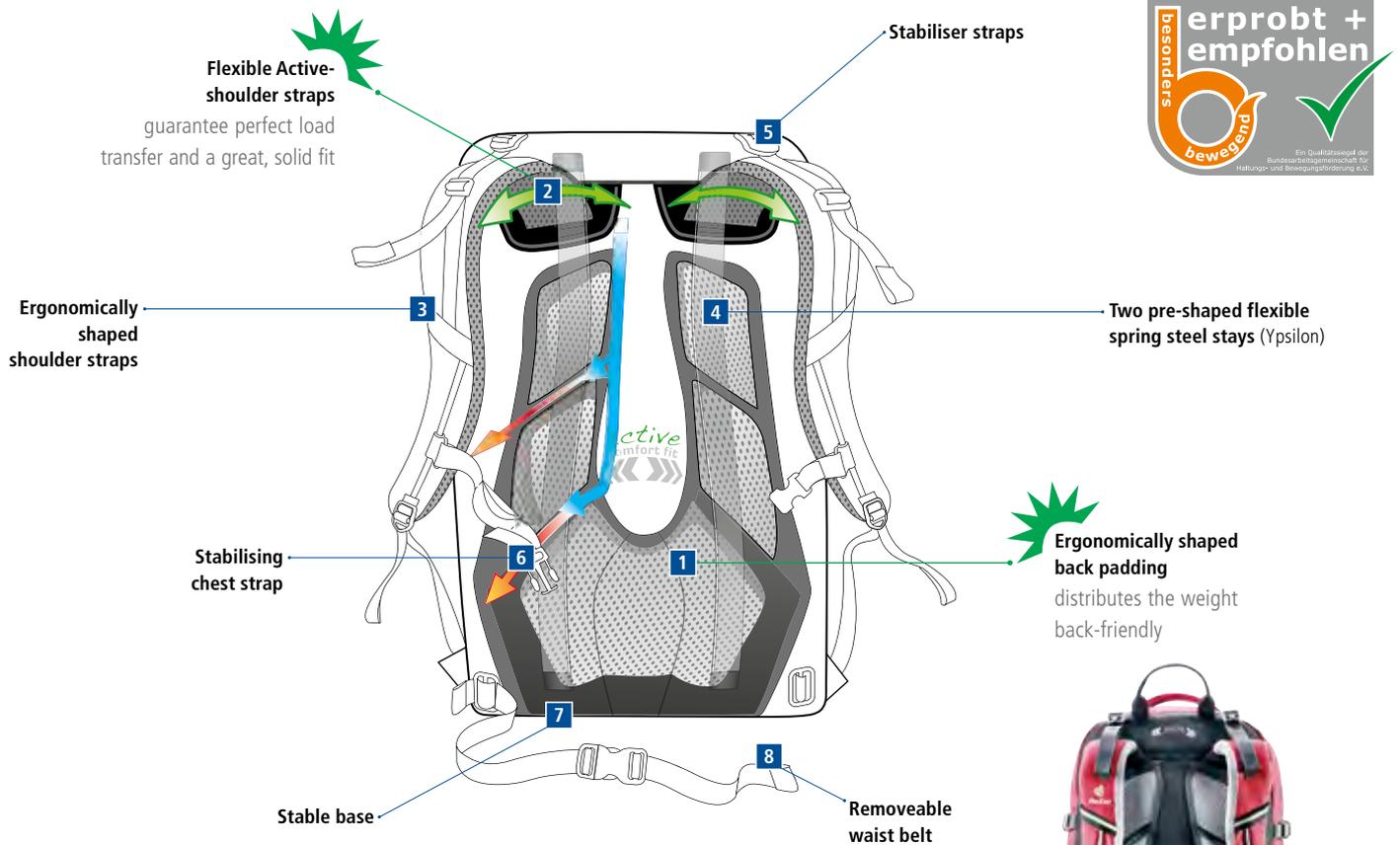
the scientists did not observe symptoms of fatigue in the upper body muscles. On the contrary: the extra weight resulted in an increased core muscle tone to stabilise the body – and this in turn reduced the strain on the spine. **Moderate weight even helps building strong muscles and bones.**

### IT IS CRUCIAL, TO WEAR THE PACK PROPERLY AND TO DISTRIBUTE THE WEIGHT EVENLY

The backpack's centre of gravity should sit close to the body, ideally on shoulder height – thus it won't pull backwards. The heavy school content should be arranged respectively. The parents can help their kids packing their school supplies properly and finding out what can be left at home or in class. It is also important to teach them how to use the strap system so that the pack hugs the body closely. Even weight distribution on both shoulders is important: if the weight is shifted to one-side only, it can cause serious strain and spinal problems. However, if the kids pack and wear the Ypsilon correctly they will enjoy back to back strength!

Source: BAG

# ACTIVE-COMFORT-FIT® SYSTEM



For a perfect fit, the backpack should sit as close to the body as possible to distribute the weight evenly on the child's back. The Active-Comfort-Fit system achieves its fantastic carrying comfort with a stable, padded construction.

**1 The ergonomically shaped back padding** perfectly adapts to the back and evenly distributes the weight preventing pack pain and strain. Further, the load is easier to carry when it sits close to the body. The space between the pads guarantees great ventilation.

**2 The flexible and ergonomic Active-shoulder straps** follow every movement and therefore provide an even distribution of the load and a secure, stable fit.

**3 The shoulder straps specifically designed for the anatomy and the demands of the kids:** from the width and the length of the shoulder straps to their ergonomic S-shape. This not only guarantees an ideal fit, it also results in a unique carrying comfort – no pressure points, no chafing.

**4 Two pre-shaped, durably elastic spring steel stays** can be ergonomically adjusted to the individual anatomy of the child's back. At the same time, they guarantee a solid, durable stability even when the pack is loaded to the max. (Ypsilon)

**5 Stabiliser straps** on the shoulder straps allow the individual fine-tuning of the back length. (Ypsilon)

**6 Height adjustable chest strap** secures the fit of the shoulder straps to add freedom of movement.

**7 Stable base and reinforced sides** guarantee form and a secure stand of the school packs.

**8 Removeable and adjustable waist belt** optimises the stability and the compact fit.



## THE BAG QUALITY SEAL: "TESTED AND RECOMMENDED" – THE "TÜV FOR SCHOOL BACKPACKS"

To perfectly adapt our school backpacks to the students' needs, we rely on the input of independent experts such as the BAG, a federal organization dedicated to the promotion of physical activity. The non-profit association, which is supported by the

German Federal Ministry of Family Affairs, Senior Citizens, Women and Youth, encourages activity in everyday life from kindergarten to school to office. Physical exercise plays such an important role in maintaining health and improving the children's cognitive, emotional and social abilities.

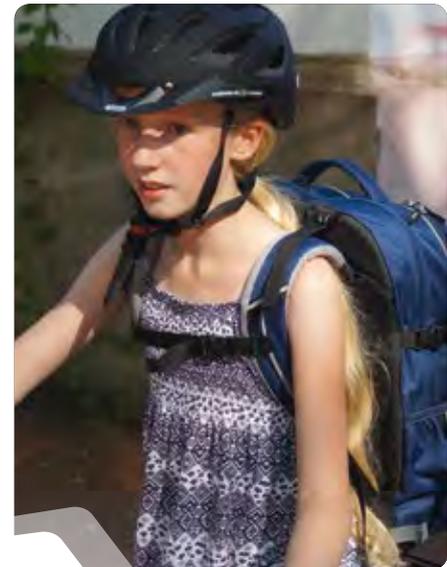
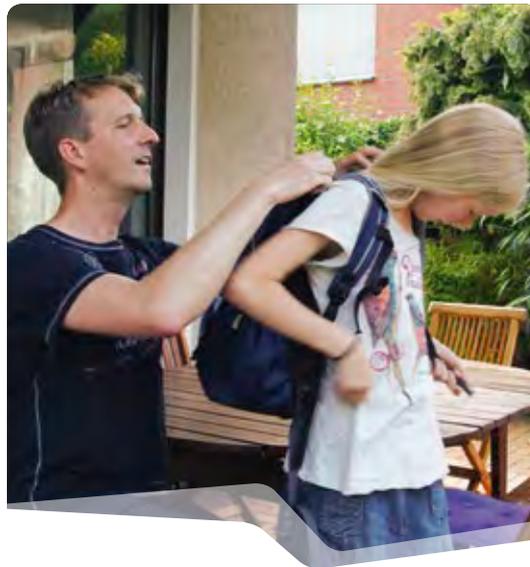
We much appreciate the BAG's ambitions and are very proud that our school pack Ypsilon has been certified with the BAG quality seal.

Dr. Micha Bahr, Medical Director of the paediatric surgical ward at the Ruhr University Hospital in Bochum/Germany, is one of our dedicated experts supporting us with invaluable input.

“It all began when I was looking for a school backpack for our oldest daughter,” Dr. Bahr explains. “I searched the stores and came back home empty-handed and frustrated: the models neither fitted the needs nor the anatomy of a child.” That is how Dr. Bahr ended up writing an email to Deuter asking us to get back to him – the subject was: school backpacks. That was the beginning of our cooperation.

However, today Dr. Micha Bahr’s daughters Noa and Carina are just as important for us. They are extremely reliable and dedicated when it comes to testing our school packs and accessories: every day, in sunshine, rain or snow, walking, biking or taking the bus. And they send handwritten test reports and write eager emails. No matter whether their feedback is put down in an email or drawn in big letters – we take it very seriously!

Extremely important is the design of the back system. We are backpack pioneers and bound to achieve the highest carry comfort, also for kids toting their school equipment. We are constantly refining our constructions and Noa quickly noted the differences: our new back system closely hugs the body, or as Noa puts it: “The new Ypsilon sits so snugly on my back.”



“The Ypsilon has been the best student pack on the market and now it has been further improved,” Dr. Bahr agrees. “It is so important to promote back care awareness for kids in our society. And for me one major aspect is to make good school packs accessible for everybody.” For Dr. Bahr, the optimum fit is not just a question of comfort – but also a question of safety: “It is so important that the kids are not restricted in their movements. They need to feel free and move as they like.”

#### FAKT:

During growth children and teenagers often suffer from back pain. For a healthy back they need to build muscles that stabilize the spine. Exercise and sports promote bone growth, strengthen the kids’ backs and essentially reduce back pain. Parents can support the healthy growth and development of their children by giving them time and space to be physically active. Everyday activities such as walking or cycling to school and a moderate load exercise (carrying the school-bag) fosters the growth of muscles and bones and is also important for the development of core competencies like self-confidence and self-esteem. It is therefore wrong to think you make it easier for your child by (literally) taking something off his/her shoulders. Kids need to get the chance to build self-esteem and

to learn responsibility, e.g. for his/her backpack and its contents. Running, jumping, climbing, swinging, balancing – all on the way to school... For that you need a school bag that fits perfectly and does not restrict any movement. The concept of the durable school rucksack Ypsilon integrates these key factors: the Active-Comfort-fit carry system supports the kids’ natural desire to be physically active; and it also promotes a healthy muscle and bone growth.

Quelle: BAG



Bundesarbeitsgemeinschaft für  
Haltungs- und Bewegungsförderung e.V.

#### SALES ARGUMENTS FOR SCHOOL BACKPACKS

- Top carry comfort for professional mountaineers as well as for school kids – Deuter transfers all its backpack expertise on the school backpack design.
- Deuter school packs offer back friendly carry comfort with their ergonomically shaped back pads that evenly distribute the weight and sit close to the body.
- Ergonomically shaped, flexible Active shoulder straps support the kids’ natural desire to be active and foster a healthy muscle and bone growth.
- The Ypsilon’s ergonomically shaped spring steel stays stabilise the back system even when heavily loaded.
- Large, folder-sized main compartment at the back for optimal weight distribution.
- The BAG – a federal organization dedicated to the promotion of physical activity – has tested and certified the Ypsilon with the BAG quality seal.
- Reflective elements on the back and front – made from top quality material and smartly integrated into the pack’s design – ensure high visibility in low-light conditions.
- We know that the kids’ packs see serious use and abuse... We therefore rely on the same material for the Ypsilon that we use in our top bike or alpine models: robust, technical and durable.

# TRAVEL

## "NIMBLE & COMFORTABLE THE DEUTER WAY OF EXPLORING THE WORLD"



Photo: Ralf Bernert

See as much of the country as possible. Get on the bus or train and explore places. Your Deuter Travel Backpacks go anywhere with you and make sure you travel with function and style:

The ergonomic back system makes sure even heavy loads are comfortable to carry. The travel range also integrates clever suitcase qualities: the U-shaped zip opens fully and enables easy and quick access to the entire main compartment.

Plus, it keeps the content organised, safe and protected for weeks or even months. No torn zippers, broken buckles or deformed shoulder straps will wear your travels down.

### TRAVEL HELION / TRAVELLER / QUANTUM



5 – ∞  
days

60–80 l  
12–20 kg

#### HELION

Multi-week trips with short hikes; commuting;

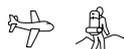


5 – ∞  
days

55–80 l  
12–20 kg

#### TRAVELLER

Multi-week trips with longer hiking tours; Work & Travel;



5 – ∞  
days

55–70 l  
12–20 kg

#### QUANTUM

Multi-week trips with short trekking tours;



Helion – Trolley & Backpack

**Concealable back system** and shoulder strap turn it into a courier bag. Also it doubles up as protection on flights.



Traveller

Quantum

#### FACT:

Normally an economy class passenger may be entitled to 20 kilos (44lb) of check-in baggage and a business class passenger to 30 kilos (66lb). The piece may not exceed more than 158 cm (62 in) adding the dimensions: height + width + length. All our travel packs meet this demand. But to make sure, check with your airline first as baggage allowance will differ depending on airline, route, class fare, etc.

## BASIC FEATURES TRAVEL

**S-shaped, stable shoulder straps**  
relieve the muscles at the neck and avoid chafing; adjustable sternum straps for more stability



**Padded and reinforced hip belt:**  
crucial for the perfect load transfer on the hip, particularly for heavy loaded packs

**Vari Quick back length adjustment:**  
height adjustable shoulder straps ensure the individual of the back system



**Compression straps:**  
for tightening the pack and improved load stability

**Clamshell main compartment**  
opens up completely to provide full access to the main compartment - just like a suitcase



**Separate bottom compartment**  
with removable separator for ideal gear access and load placement

**Detachable daypack**  
with front pocket for day excursion



**Three grab handles**  
guarantee a convenient and easy transportation



## EXTRA FEATURES TRAVEL

**Detachable carry strap**  
turns the pack into a practical shoulder bag, but can also be removed (Traveller)



**For more input**  
and an additional 10 litre volume, simply expand with EXP zipped bellows (Traveller) or the height adjustable lid (Quantum)

**Internal organizer compartments**  
keep the load organised and safely in place (Traveller)



**Transport cover**  
with name tag provides protection on flights and doubles up as a rain cover (Quantum)

**Mount additional gear**  
on the compression straps and the eyelets on the lid (Quantum)



**Joining compression straps**  
can be centrally secured over the front to fasten equipment or to compress the pack to the max (Quantum)



### SALES ARGUMENTS FOR TRAVEL BACKPACKS

- The perfect companions for trips with trekking tours: the "Quantum" and its trekking partner "Aircontact Pro". They combine travel functions – with a top as well as a front opening and an extra detachable daypack (Quantum) or backpack lid (Aircontact Pro) – with trekking functions such as the rain cover and the slim, streamlined shape.

- The "Traveller" is the perfect companion for Work & Travel: durable material, many compartments, a daypack with Airstripes back system, and it is the only one in its class, which comes with a front zip that opens up fully, yet still alternatively features a separate bottom compartment.

- The more volume, the more important the individual fit of the back system – Deuter travel all come with the Vari Quick individual back length adjustment.

- Hip fins adjust individually to the wearer's waist without pressure points or chafing, because they are shaped by true sewing craftsmanship and not by plastic pieces.

- Straight cut shoulder pads chafe on the neck and in the arm pits. Deuter's anatomic S-shape follows the shoulder line – takes the load from the upper shoulder area and guarantees freedom of movement.

- Soft and breathable 3D AirMesh cover on back pads and shoulder straps prevents chafing and protects clothing.

- Deuter travel backpacks are no-frills packs and extremely durable. And in case incorrect use leads to damage you can easily repair the packs, no matter where you are, without any special spare parts.

TRAVEL

## IN SHORT

### HELION

- + travel specialist
- + Trolley & pack rolled into one
- + robust exchangeable wheels

### TRAVELLER

- + extremely durable
- + for heavy loads
- + top travel features
- + SL-Women's Fit model

### QUANTUM

- + Trekking backpack with travel features
- + for heavy loads
- + well equipped

# HYDRATION "STAY FIT!"



The Streamer hydration reservoirs are compatible with all of Deuter's functional backpacks. For endurance sports, in particular, they deliver great advantages compared to a standard drinking bottle: The Streamer is easily stored in a compartment and the tube can be securely fixed to the shoulder straps. A hydration system ensures a constant, hands-free flow of liquid – without you having to interrupt the flow of your sports.

A crucial point for your performance since you always should start drinking before you get thirsty. A loss of water amounting to 1-2 % of your body weight can reduce your performance up to 10 %.

Further, the Streamer is lightweight and compact: while two common 1 l bottles weigh in at 270 g, the 2l bladder amounts to 140 g. Once it is empty (and totally flat) it hardly takes up any space at all. The fluid remains fresh for the entire tour. The drink in the hydration system is sealed from air and hidden inside the pack, whereas a bottle – placed in the external side pocket for easy grab – is exposed to the sun.

## DEUTER STREAMER 2.0 & 3.0



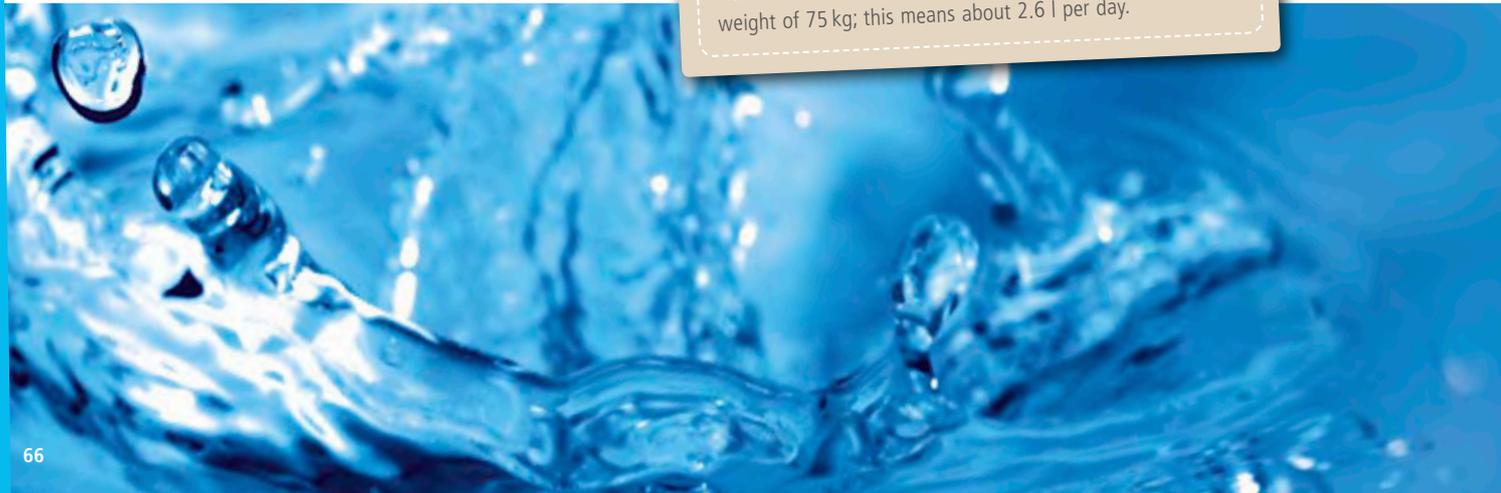
**SOURCE**  
VAGABOND SYSTEMS

Competent drinking system technology from Source Vagabond, Israel.



**FACT:**

During heavy exercising you should drink up to 1 l/h to stay properly hydrated. That is the amount of moisture you lose by sweating. During the day (without any exercising) the German Nutrition Society recommends drinking ~35 ml/kg – for a body weight of 75 kg; this means about 2.6 l per day.



**Streamer Clip**

Easy to use sliding clip allows full width opening of the bladder for easy filling and cleaning. Absolutely leak-proof.



**TasteFree® Bladder & Tube**

The special film with an inner surface as smooth as glass holds water for days without changing taste or quality. Due to the special molecular properties of the bladder, this system is very hygienic and easy to keep clean. The tube also comes with the Taste-Free® film on the inside, which makes sure your drink won't taste of plastic.



**BPA & PHTHALATES FREE**

**Helix Valve & Dirt Guard**

The valve is leak-free and comes with an automatic flow shut-off. It is opened by turning it half a turn anti-clockwise until it stops (markings on the outside). Soft pressure activates the drinking opening, which guarantees a constant high flow. The integrated interlock spring means the flow stops automatically. The Helix Valve can be easily dismantled for cleaning. The Dirt Guard is a dirt cover for the mouthpiece to keep the water in and the dirt out on the trail or during transport.

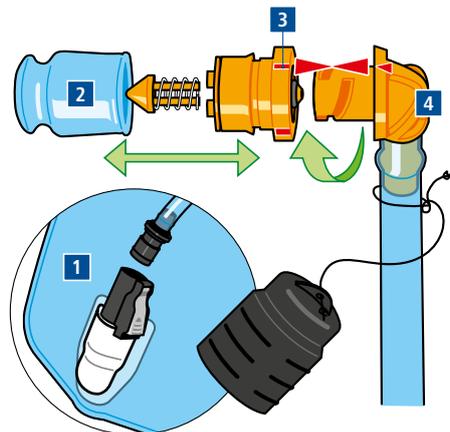


# MAINTENANCE

Open the Streamer. (1) Remove the tube from the bladder (Streamer 2.0 & 3.0). (2) Take the bite-valve from the mouthpiece – turn the valve socket to the middle (3) label (quarter turn), remove and take apart (do not remove the 90° angle piece (4) from the tube). Rinse and clean it with warm water and mild detergent – never use boiling water! Rinse again thoroughly with clear water.

Dry with paper towels and hang it upside down. When fully dried, put the pieces back together. Mind to keep the filled Streamer from direct sun exposure. Thoroughly clean it after use with soft drinks. Discolourations from electrolyte beverages are harmless. Use cleaning tablet in case your hydration system is extremely dirty. If necessary put the empty hydration system in the freezer and clean thoroughly after defrosting – an easy, effective way of killing bacteria.

Storage: Please only store your Streamer once it has been cleaned (as described). Store in a clean, dry place.



# TIPS

You can fill the Streamer with cold as well as warm hydration drinks (up to 60°C). Never fill in boiling water, fat, carbonated or alcoholic drinks. Electrolyte drinks can cause discolouration on the bladder. For cooling use ice cubes or fill your Streamer halfway with water and put it in the freezer. After filling your Streamer turn it upside down. Remove excess air from the bladder. After drinking, blow the liquid from the tube back into the bladder so that it will not warm up in the tube where it is exposed to the sun.

**SALES ARGUMENTS FOR STREAMER HYDRATION SYSTEM**

- Grunge-Guard™ Technology Inhibits bacteria growth on the reservoir and drinking tube surfaces for the life of the system. Technology utilizes FDA-approved and EPA-registered anti-microbial agent.
- A multi-layer Polyethylene film utilizing SOURCE's Glass-Like™ technology, which prevents bio-film build up making the system self-cleaning. Glass-Like™ Film is 2000% smoother than standard TPU

films, with virtually no difference from glass itself.

- SOURCE was the first hydration reservoir producer using the antimicrobial Grunge-Guard technology which prevents bacterial growth.
- The leak-free, high flow Helix Bite Valve features an automatic flow shut-off and allows single-hand use.
- Easy to use Streamer Clip seals the water from air and makes the bladder absolutely leak-free.

- The Streamer clip allows full width opening of the bladder for easy filling and cleaning.
- All Deuter Streamers come with a bite valve featuring a dirt guard – a protective cover for the mouthpiece.
- Deuter backpacks are specifically adapted with H2O opening, tube and bladder fixation to the Deuter hydration system.

# SLEEPING BAG

## "FUEL UP!"



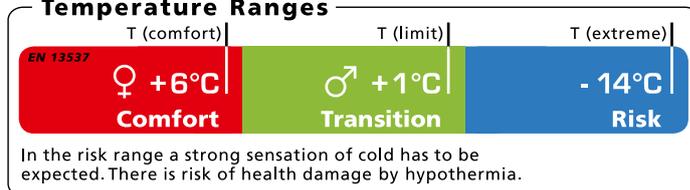
PatitucciPhoto

Fatigue? Problems concentrating, memorising, making decisions? Something you definitely want to avoid when you're outdoors. But this is what could happen when you spent a night awake and freezing. A night you very likely also spent cursing the day you chose that sleeping bag. It is a big responsibility to find the right sleeping bag for the customer taking the different temperature ranges, constructions, fillings, sizes and cuts into consideration.

Yet with experience and the right questions at hand, you will find the ideal sleeping bag for your customer – ideal for his/her level of fitness and the range of use. Only with the right choice he/she can recover from a strenuous day and be back on her/his feet to enjoy another fantastic day outdoors.

## 5 STEPS TO FINDING THE RIGHT SLEEPING BAG

### Temperature Ranges



Since 2005 the temperature rating of sleeping bags in Europe has to be tested and labeled in accordance with the EN 13537. This is an example of our sleeping bag ID label.

## TEMPERATURE RANGES ACCORDING TO EN 13537:

### THE UPPER LIMIT

is based on the highest temperature at which a 'standard' adult male is deemed to be able to have a comfortable night's sleep without excess sweating. The range can be extended with hood and zippers open.

= according to the norm, the labelling of this result is optional.

### T(COM) THE COMFORT RANGE

is based on the lowest temperature at which a 'standard' woman (25 yrs. / 60 kg / 160 cm) can expect to sleep comfortably in a relaxed position.

= a comfortable sleep also for inexperienced users

### T(LIM) THE LOWER LIMIT

is based on the lowest temperature at which a 'standard' adult male (25 yrs. / 70 kg / 173 cm) can expect to sleep comfortably in a relaxed position.

= an experienced user can optimise the insulation qualities by his choice of clothing and further factors

### T(EXT) EXTREME

is a survival only rating for a 'standard' adult woman. She can remain for six hours without risk of death from hypothermia, but with a risk of other damages to health (such as frostbite).

= the label explicitly warns the user of the extreme temperature rating

### HOW IT IS MEASURED:

A thermal, full-sized mannequin equipped with heaters and temperature sensors is placed inside the sleeping bag in a climate chamber. The mannequin is heated to simulated body warmth. The air temperature is measured in the climate chamber and on the skin surface of the mannequin. From these measurements, the insulation value of the sleeping bag is calculated. The EN 13537 therefore determines temperature ratings in a standard laboratory test to compare sleeping bags.

### OTHER FACTORS:

1. The EN norm test standardises external circumstances. Yet, they usually strongly differ in reality depending on the quality of the sleeping mat, clothing, air humidity, etc.
2. Long term quality cannot be measured in a short term test: it cannot measure the insulation quality on a multi-day trip under harsh conditions.

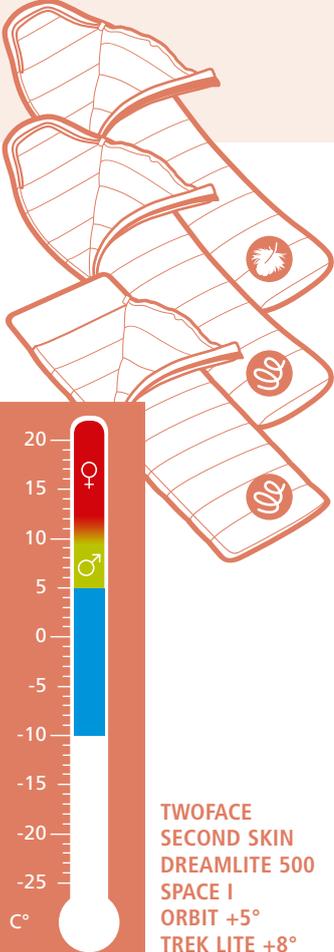
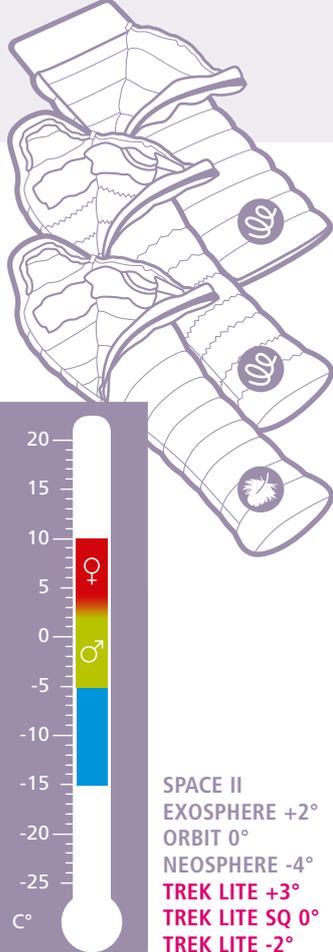
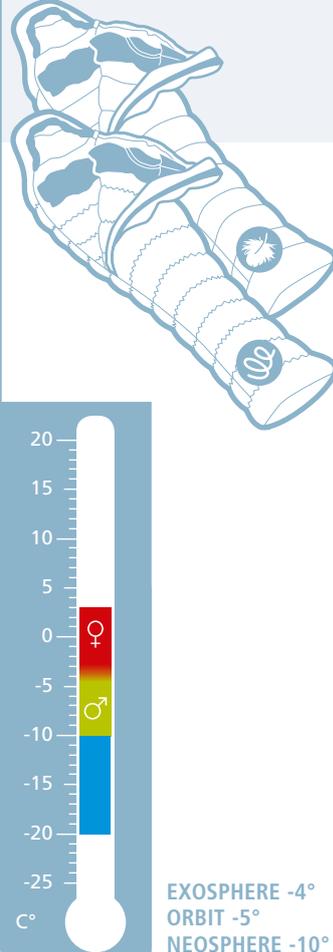
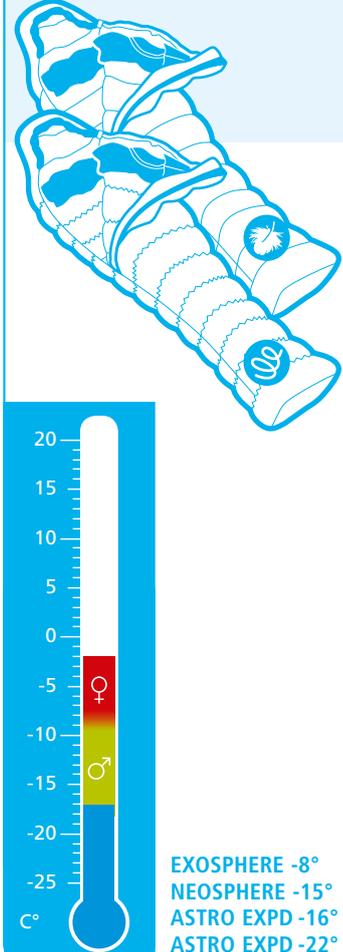
3. And there are many more factors influencing the insulation power that a mannequin cannot simulate: such as sweating, age, restless sleep, nutrition, level of fitness etc.

# 1. HOW WARM SHOULD IT BE?

That's the central question asked when looking for the right sleeping bag. Travel destination and range of use have to be considered. The air humidity plays a role as well. Constant rain and low temperatures

effect the insulation quality. Also the altitude – while the temperatures are still comfortable in the valley, it might be freezing up in the mountains. In average, temperature drops 0.5°C per 100 altitude meters. Al-

ways choose a sleeping bag that offers a comfort rating that is 5°C lower than the lowest temperature you expect to experience. Read more in step 2.

1-SEASON	2-SEASON	3-SEASON	4-SEASON
<p>SUMMER / CABINS / SOUTHERN REGIONS</p>	<p>SPRING / COOL SUMMER NIGHTS</p>	<p>ALLROUND / COOL AUTUMN DAYS</p>	<p>MOUNTAINEERING / WINTER / EXPEDITION</p>
<p><b>SYNTHETIC FILL</b> ideal for summer sleeping bags. The light-weight High-Loft hollow fibre / Polydown filling (from ~180 g) is evenly distributed &amp; easy to care.</p> <p><b>DOWN</b> from ~200 g fill weight, ~500 cuin, ~80/20</p> <p><b>OPTIONAL SHAPE</b> temperatures allow use of different sleeping bag shapes</p> <p><b>IMPORTANT DETAILS</b> zipper baffle</p>	<p><b>DOWN &amp; SYNTHETIC FILL</b> optional; down from ~250 g fill weight, ~600 cuin, ~80/20; synthetic Thermo ProLoft / High-Loft hollow fibre from ~350 g fill weight</p> <p><b>OPTIONAL SHAPE</b> temperatures allow use of different sleeping bag shapes</p> <p><b>IMPORTANT DETAILS</b> zipper baffle; thermal collar, contoured functional hood optional</p>	<p><b>DOWN &amp; SYNTHETIC FILL</b> optional; down from ~300 g fill weight, ~650 cuin, ~80/20; synthetic Thermo ProLoft from ~600 g fill weight</p> <p><b>MUMMY CONSTRUCTION</b> best warmth-to-weight ratio</p> <p><b>IMPORTANT DETAILS</b> zipper baffle; warmth collar, contoured functional hood</p>	<p><b>DOWN</b> ideal for mountaineering; from ~700 g fill weight, ~650 cuin, ~90/10;</p> <p><b>SYNTHETIC FILL</b> ideal for winter trips; Thermo ProLoft from ~1100 g fill weight;</p> <p><b>MUMMY CONSTRUCTION</b> best warmth-to-weight ratio</p> <p><b>IMPORTANT DETAILS</b> zipper baffle; thermal collar, contoured functional hood</p>
 <p>TWOFACE SECOND SKIN DREAMLITE 500 SPACE I ORBIT +5° TREK LITE +8°</p>	 <p>SPACE II EXOSPHERE +2° ORBIT 0° NEOSPHERE -4° TREK LITE +3° TREK LITE SQ 0° TREK LITE -2°</p>	 <p>EXOSPHERE -4° ORBIT -5° NEOSPHERE -10°</p>	 <p>EXOSPHERE -8° NEOSPHERE -15° ASTRO EXPD -16° ASTRO EXPD -22°</p>

# 2. HOW SOON DO I GET COLD?

We all have a subjective sensation of warmth. It can differ by up to 15°C. For people who get cold easily or fit one of the variables below, we recommend a sleeping bag with a comfort rating that is 5°C lower than the lowest temperature you expect to experience.

**UNATHLETIC?** Exhaustion reduces heat production. People with a high fitness level therefore do not get cold as quickly as unfit people.

**INEXPERIENCED?** Experienced outdoor sleepers know how to optimise the insulation of their sleeping bag (choosing a protected place for their camp, proper clothing, etc.).

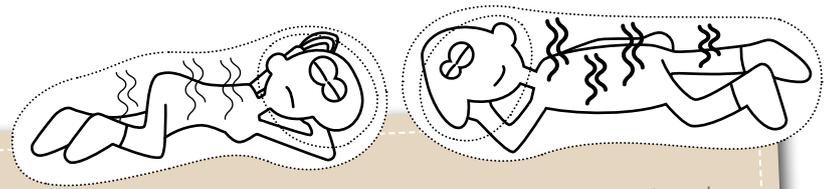
**HOMEY?** Someone who spends a lot of time outdoors is used to colder temperatures.

**SLIM?** A strenuous tour leads to a higher energy demand. People with a strong build fall back on their reserves. People with a slender build, however, sometimes burn more energy than they can take up and get cold quicker.

**ELDER?** Young people up to about 25 years have a higher metabolism. They generate more heat than older people do.

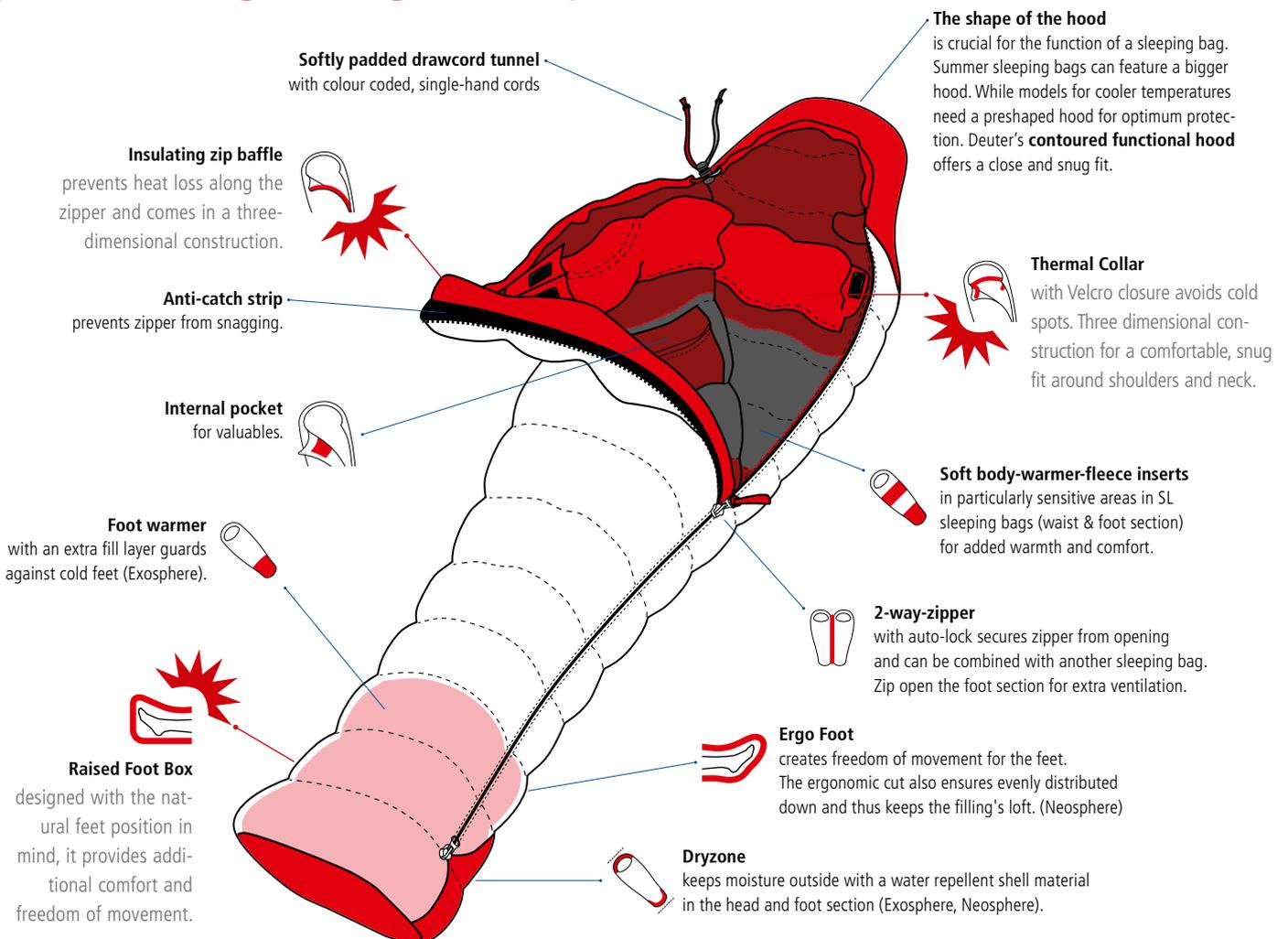
**CHILD?** Children have a less developed and less effective temperature control system, so they are at particular risk from the cold; they need to be looked after carefully.

**FEMALE?** Women are usually 'colder sleepers' than men. In average, they have less muscle mass and therefore produce less body heat. Women should pick a bag according to the EN norm 13537. This temperature rating is about 5° C lower than that for men.



**FACT:**  
A 50 kg person produces about 46W of heat; a 80 kg person about 74W. Yet both need a temperature of about 37,2 °C. To sleep comfortably, the insulation power for the lighter person has to be significantly higher.

## SLEEPING BAG DETAILS



# 3. HOW DO I SLEEP?

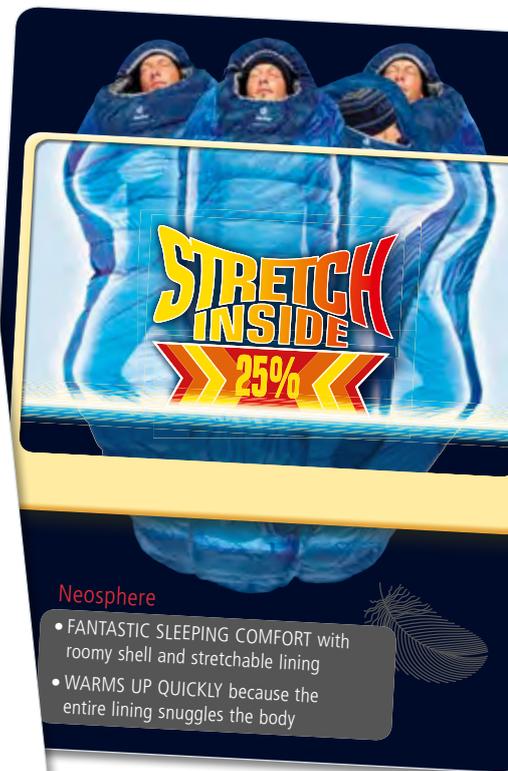
Restless or still, one leg up, on the back or the belly... this is where cut and size of a sleeping bag come in. There is one thing in particular that needs to be considered: air pockets. Is there, for example, too much empty space in the foot section? The generated body heat has to warm up these additional air pockets, too. The result: cold feet.

## SNUG MUMMY SHAPE

is the ideal cut – no wasting of insulation power on air pockets, no superfluous material to carry. Sound sleep, however, also needs freedom of movement. Deuter's 3D comfort cut guarantees just that: it combines freedom of movement in the upper section and exceptional insulation quality in the narrower leg section. The ergonomic, raised foot box is designed with the natural feet position in mind and provides additional comfort and freedom of movement. The mummy shape also allows comfortable 'rolling-in' – so why load more than necessary?

## STRETCHABLE MUMMY SHAPES

with the unique Thermo Stretch Comfort system is constructed with elastic chamber seams. Thus, the elastic "mummy" hugs your body, warms up quickly, but still offers fantastic freedom of movement. For our synthetic "Exosphere" models we use elastic seams on the outer shell as well as on the lining. The entire sleeping bag, therefore, expands up to 25% in width. The down "Neosphere" models come with a roomy cut outer and elastic seams on the lining expanding up to 25%. Additionally, this construction also enhances the insulation properties since it provides even more space between roomy outer and close-fitting inner for the down's loft. This improves the insulation quality at an average of 2°C compared to down sleeping bags without Thermo Stretch Comfort.



**FACT:**  
Restless sleepers change their position up to 60 times a night. They often wake up feeling restricted in a tight sleeping bag. The Thermo Stretch Comfort construction is the perfect solution blending the advantages of a mummy shape with fantastic freedom of movement.

**THERMO STRETCH COMFORT**



## BLANKET SHAPE

for those who request the same freedom of movement they enjoy at home in bed, who sleep outside mainly in warmer temperatures, and who don't have to carry the sleeping bag. The rectangular model can be easily converted into a blanket.

Eggshaped sleeping bags do actually have the shape of a very long egg. This guarantees more freedom of movement in the foot and waist section. The downside: it weighs about a quarter more than a comparable mummy version. And the extra space also needs to be warmed up.

## THE RIGHT SIZE

is beside the shape of a sleeping bag the second decisive factor to eliminate cold spots, which the sleeper has to warm up additionally. Our REGgular models are tailored for the average build with a height of approx. 185 cm.

The bigger L version is equipped with the same features, but fits people up to 200 cm. The shorter cut SL Women's Fit models feature a soft, cosy fleece lining in the hip zone and the foot box and are perfect for women up to 170 cm.



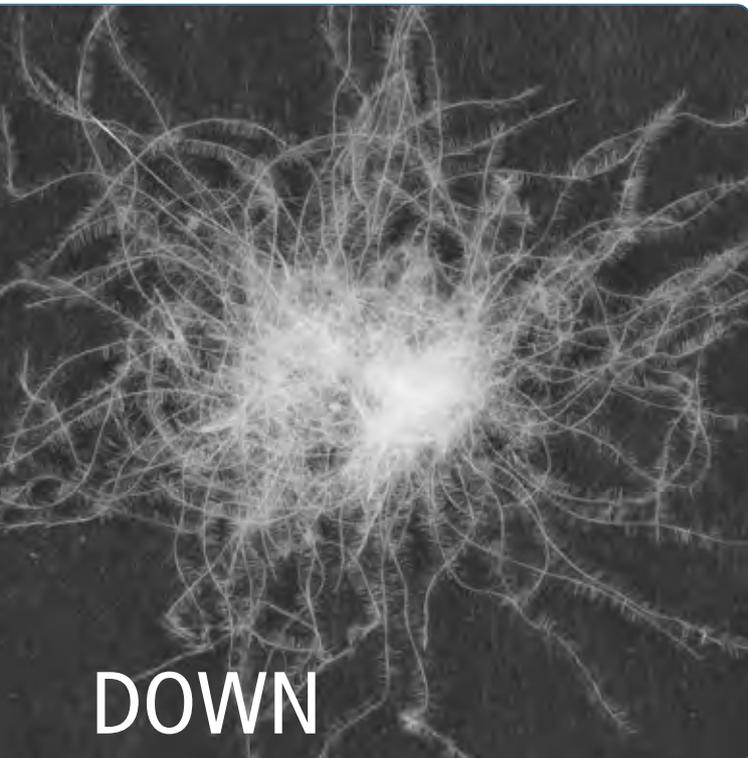
## CHILDREN

Children have a proportionally bigger skin surface area to their body weight: thus they generate more heat in hot conditions and lose more heat in cold conditions. Always dress your child for the sleeping bag according to the outer temperature. To achieve the best possible insulation, choose one of our kid's sleeping bags that 'grow' with your child. They are rugged and cut for children in both, length and width. The expandable, zipped foot section lengthens the bag by 30 cm. When kept zipped up, the extra material acts as an additional insulation to keep the little feet cosy and warm.

We are required to give no temperature ratings for our kid's sleeping bags. There is no infant sized mannequin yet for any official testing of the temperature ratings for kid's sleeping bags. Kid's sleeping bags are therefore not designed for use in temperatures below zero.

# 4. HOW AND WHERE AM I GOING?

Am I out there in heavy rain? Is it warm and humid, humid and cold or dry hot at my travel destination? Will I carry my sleeping bag? Will I care for it properly? Those are the questions you have to ask the customer when it comes to deciding between a down or a synthetic sleeping bag.



+	Unique warmth-to-weight-ratio	-	Heavier than down
+	Unique compressibility	-	Less compressible than down
+	Outstanding moisture transportation	-	Reduced moisture transportation
+	Very long lasting when maintained well	-	Shorter lifespan than down
+	Warms quickly	-	Takes longer to warm up
-	No insulation quality when wet	+	Retains 70% of insulation quality when wet
-	Requires care	+	Easy care
-	Absorbs moisture	+	Hardly absorbs moisture
-	Long drying time	+	Quick drying time

# DOWN SLEEPING BAGS

If you are looking for great insulation combined with low weight and a small packing size, down is your choice! No synthetic fibre achieves such a high loft and thus such high insulation power as this natural product. If maintained well down has a longer lifespan than synthetic sleeping bags. It also ensures a comfortably dry sleeping climate, because it absorbs and transports moisture. However, this is also its major disadvantage: if it gets wet, down can clump and lose its great insulation quality. And once the down is wet, it takes a long time to dry. A drawback not only on multiday winter trips. The body's moisture condenses in the fill, freezes and cannot dry. This will also be the case in a bivy bag and although a waterproof inlet might help, it will negatively affect the comfortable features of the down.

Use: mountaineering, trekking in areas with low to normal air humidity, bike trips with light luggage.

no relevance whether the down is white or grey – they both offer the same function, quality and cleanliness.

## DOWN QUALITY

The bigger the down, the better the loft and therefore the better the insulation. A mature bird provides bigger down than a young bird. Further, birds that live in a rough climate grow more and bigger down. Accordingly, down from a Northern cool region is more stable and has a bigger volume. **Deuter uses quality goose and duck down from Northern China.** We exclusively use down that comes as a by-product of the Chinese poultry industry. Our supplier, therefore, purchases down obtained from dead carcasses. The slaughterhouses are small businesses that slaughter the geese and ducks for local restaurants. Because we only use their down and feathers, we are able to avoid live-plucking completely. To guarantee transparency our down supplier cooperates with the IDFL (International Down and Feather Testing Laboratory). As a bluesign® system partner they also abide by stringent environmental criteria. Only the accurate and careful processing of the raw material and the continuous quality management ensure a top quality fill – highly efficient, hygienic and odour free.

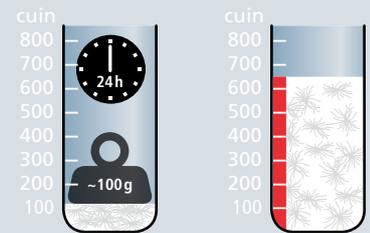
## DOWN CONTENT

A 100% down fill would be extremely sensitive to moisture and pressure. Down fillings are therefore a mix of pure down and small feathers. This is represented as a percentage ratio. The "ideal mix" "90/10" consists of 90% down and 10% feathers. The higher the percentage of feather (e.g. 70/30 or 50/50) the less loft and therefore less insulation power. Mixtures with a low percentage of feathers (e.g. 95/5) achieve higher insulation properties, yet are very expensive. It is therefore reasonable to use them only in products for extreme conditions.

## FILL POWER CUIN

Fill power is the measurement in which an ounce of down mix will loft and expand to fill an empty space. There are different methods of defining the volume-to-weight-ratio. For the test according to the strict European norm EN 12130, which is also our choice of down quality test, 20g of the filling is put in a cylinder (ø 28 cm) and is then tumble dried for a specific period of time. In a next step, the sample is compressed under a

preset pressure for 24 h. Afterwards the re-expanded volume is measured. The fill power is specified in the international unit Cubic Inches. A rating of 550 cuin is more or less standard, a 650 fill rating is considered excellent. The norm test according to the international IDFB standard uses 30 g of sample mass in a slightly smaller cylinder (ø 25 cm). US brands, in particular, use this method of measurement. The different measurements result in considerable variation between the international and the European norms. A down which achieves 730 cuin according to the international standard corresponds to about 650 cuin according to the EN norm – for the same quality, the international specification is therefore higher. What it comes down to: the more volume a down creates, the less fill you need for insulating power. The sleeping bag is lighter – or with the same fill weight: warmer.



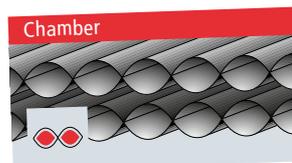
Down has an extremely high loft: the open down (left) can be compressed into the glass on the right.

## DOWN

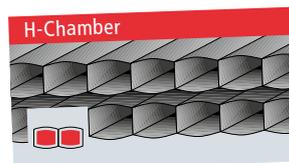
Down sleeping bags are filled with one of two kinds: goose or duck. The fine, fluffy down grows mainly in the chest area underneath the protective feathers. They have a cluster of interlocking, overlapping wisps that look like a dandelion. 1g of high quality down easily has 40.000 interlocking filaments. **The space between the filaments traps warm air.** In average, geese have slightly bigger down clusters than ducks. Thus its fill power is about 8% higher. Yet good quality duck down easily surpasses goose down of low quality. The quality of down (for geese as well as ducks) can best be rated by measuring mixture, fill power and weight. It is also of

## CONSTRUCTIONS

If you just simply fill down in a sleeping bag shell without any baffle construction, it will migrate and settle in a few spots creating large cold spots. That is why sleeping bags utilise different chamber techniques. The size of the chamber depends on the loft.



Outer and inner shell sewn together, the down stays in the baffles. The down volume is reduced towards the seams. This construction is ideal for lightweight sleeping bags with a low fill weight. (Trekrite +8°)



Outer and inner shell is held together by bridges. The down is filled into the rectangular chambers, which provide enough room for the down to puff out. The down is evenly spread also towards the seams. (Trekrite +3°, SQ 0° & -2°)



Opposing diagonal trapezoid pockets and additional full-length chambers on the side ensure the down is stabilised. Cold spots are thus avoided guaranteeing maximum warmth insulation. (Neosphere)

# SYNTHETIC SLEEPING BAGS

A disadvantage that is also a great advantage: synthetic fibres hardly absorb moisture and dry a lot faster than down. Also, when they get wet, they retain most of their insulation power. The hollow Polyester fibres can still trap warm air, because they remain stable and do not clot as down. This makes the material ideal for destinations with high air humidity. It's also the right choice when the temperatures are not too low or the sleeping bag is excessively used and needs to be washed often (children!). Synthetic models are cheaper than down sleeping bags and are easier to maintain.

Use: allround sleeping bags, canoe tours, winter trips, destinations such as Scandinavia with a harsh climate, bike rides with light luggage, cabin tours, summer sleeping bags.

## HIGH-LOFT HOLLOWFIBER

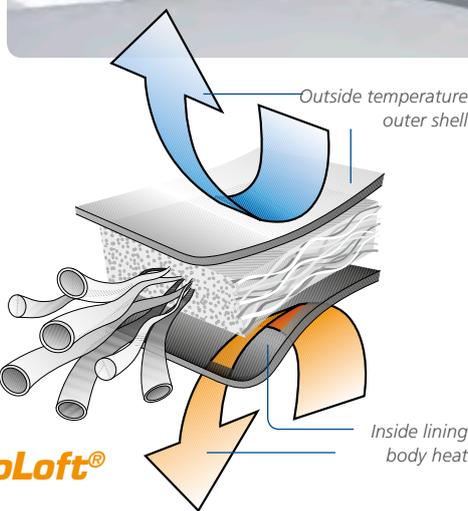
In a thermo treatment synthetic hollow fibres are worked into a fleece filling. To ensure a high compressibility and full loft the short staple fibre is additionally siliconised. Advantage: it has fantastic insulation power, is very durable, and cheap. We use this fibre in our kid's sleeping bags and the camping sleeping bag "Space".

## DEUTER THERMO PROLOFT®

is a thermoformed Polyester fibre providing highly functional insulation qualities. With its mix of full and hollow fibres, it blends durability with low weight, and insulation. To ensure a good and long lasting loft, the Thermo ProLoft® fibres feature a smooth silicon coating. In addition, the material is easy to maintain, well compressible.

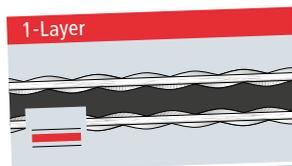
### Advantages for the consumer:

- very compressible synthetic sleeping bag
  - extremely soft hand
  - very durable and easy maintenance
  - fantastic insulation properties even in wet conditions
  - extremely quick drying time
  - great warmth-to-weight ratio
  - According to Swiss "Oeko-Tex Standard 100"
- Used in all Deuter "Exosphere" models.

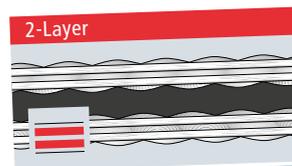


## CONSTRUCTIONS

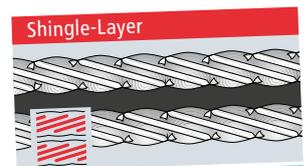
Depending on the fill weight and the requested insulation power, the sleeping bags with synthetic insulation come in different constructions.



The outer shell material is sewn to the upper layer of Polyester fleece. Since this construction can lead to cold spots, we only use it in summer sleeping bags. (Orbit +5° & 0°; Space I; DreamLite 500; Starlight EXP & Little Star EXP)



The outer shell material is sewn to the upper layer of Polyester fleece and the lower layer of insulation to the inside lining. Offset seams of the insulation layers provide improved warmth properties. (Orbit -5°; Starlight Pro EXP; Space II & XL)



The three layers of insulation overlap up to three times in the seam area and thus avoid cold spots. (Exosphere +2°, -4° & -8°)

Photo: Alex Scherl

# 5. HOW TO USE THE SLEEPING BAG PROPERLY

● With the right sleeping bag you're only halfway to a good night's sleep – other key factors are where, on what and how you sleep:

● A sleeping bag does not generate heat – it can only retain it. Therefore

## SLEEPING MAT

A cold ground or circulating air withdraw body heat – no matter how good the quality of your sleeping bag is! Reduce this conductive heat loss (A) by using a good insulating mat.

## EAT PROPERLY

Your body needs a lot of energy for climbing, hiking, cycling etc. If you don't provide your body with plenty of 'fuel', your body won't be able to warm up properly.

## DRINK PROPERLY

Make sure you drink enough already during the day. A dehydrated body cannot produce heat. Before getting into your sleeping bag get warm with a cup of hot tea or hot chocolate.

## WIND PROTECTION

Wind chills (B)! With a slight wind (25 km/h) +5°C will quickly feel more like 0°C. Therefore, limit wind exposure – a tent, bivouac bag or even a big rock can offer good wind protection. Choose the right, wind protected spot for the night.

## AVOID ALCOHOL

Do not consume alcohol in cold temperature. Alcohol may temporarily make you feel warmer, but it soon decreases your body's temperature.

## FUNCTIONAL BASELAYER

Enhance the warmth of the sleeping bag by wearing functional thermo baselayer and socks. Dry clothes in your foot section further improve insulation.

## KEEP YOUR GEAR DRY

Clothes as well as the sleeping bag, down in particular, lose their insulation efficiency when wet. Warm socks quickly become ice cold. Never get into the sack wearing sweaty clothes. If you store your extra clothing in a waterproof sack it stays dry. And also make sure to air out your sleeping bag whenever possible, e.g. on the tent.

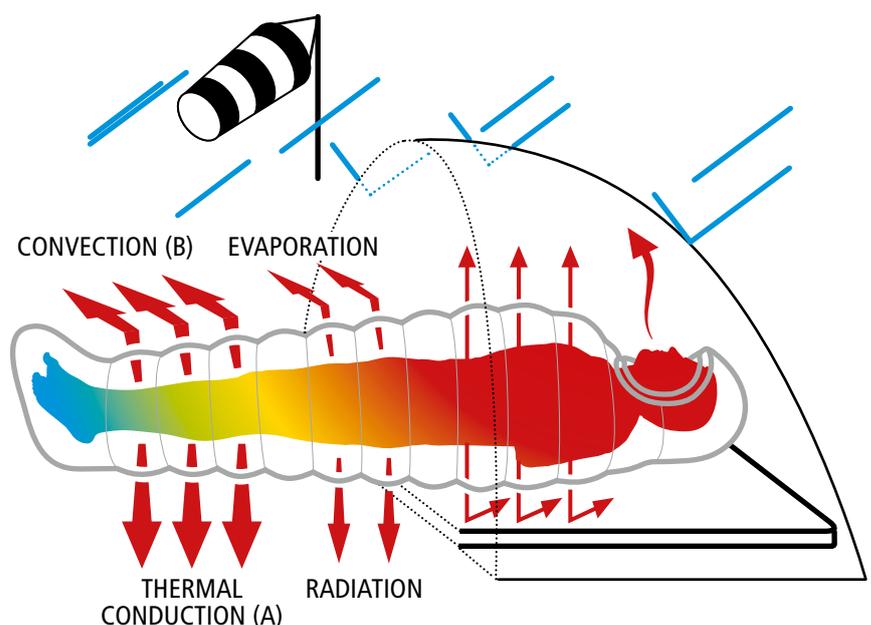
## HAT

When you're in your sleeping bag, the head is the only body part exposed to the outside. A cold head will cool down the rest of your body quickly. Therefore make sure to wear a hat, it is an extremely efficient insulation.



Thomas Hilger, Deuter product development and design

At night, an average person loses about 0.4 l of moisture! And a large amount of it gets into the sleeping bag. It will dry quickly when you air the sleeping bag out in the morning. Yet, sweat also contains salt, protein and body oils. They remain in the material and over time reduce the bag's insulation power. Use an inlet or wear a baselayer which will take up some of the salt and oils. This way the sleeping bag is easier to maintain, its lifespan is extended and, of course, the insulation quality is increased as well.



Besides evaporation and radiation the body loses most of the heat by convection and by conductive heat loss. That is why a sleeping mat and good wind protection are decisive factors for getting or remaining warm.

# HOW DO I EXTEND THE BAG'S LIFESPAN? TAKE GOOD CARE!

## STORAGE SACK

For storage, the fill needs plenty of space to regain and retain its loft. Therefore, store the sleeping bag in a dry place loosely in a large storage sack or pillowcase. Only use the compression sack for transportation.

## STUFF IT, DON'T ROLL IT

When you roll the sleeping bag, the fill is always 'abused' on the same spots. This can damage the construction. Stuffing also allows better packability.

## THOROUGH VENTILATION

After each use, ventilate the bag thoroughly – e.g. by spreading it on the tent. Minimise washing since it reduces the insulation quality. Only wash the sleeping bag when really necessary. Try to remove small stains with a sponge and lukewarm soap water.

## MAINTENANCE

If you wash it – do it gently:

1. Close all straps and loosen all drawcords.
2. Turn the sleeping bag inside out.
3. Only use special down or synthetic fibre detergents.
4. **HAND WASH** – Soak the bag in plenty of lukewarm water, gently squeeze and then rinse several times – do not twist or wring the bag!

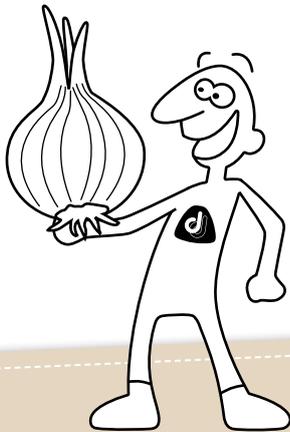
**MACHINE WASH** – Set the machine on the delicate cycle (30°C), rinse several times OR repeat washing program using NO detergent and do not spin! The washing machine should have a capacity of at least 5 kg. Carefully take out the wet, heavy sleeping bag to avoid damage of the fill or down chambers.

5. Gently squeeze as much of the water out as possible. Do not wring it out!

6. **TUMBLE DRYER** – Tumble dry (min. 7kg) on low (30°C). Add tennis balls for down and tumble dry until the full loft is regained.

## DRYING ON A LAUNDRY RACK

Open it up and spread it out, never hang it up! Down will take several days to dry. Gently fluff up the down clots by hand several times a day. Synthetic fibres dry quickly and do not need to be fluffed up.



### FACT:

In cold temperatures you can combine different sleeping bag models. Summer sleeping bags or sleeping bag sheets such as the Two Face, Dream Lite 500 or the Trek Lite 200, for example, greatly fit into a 3-Seasons sleeping bag, such as the Exosphere -4°. This extends the temperature range (and the range of use) by up to 8°C.



## SALES ARGUMENTS SLEEPING BAGS

- Invest in the right sleeping bag! Just like with Deuter backpacks, our prime focus is best comfort and highest quality.
- Der Deuter 3D mummy comfort cut guarantees a good night's sleep with its ideal mix of freedom of movement in the upper section, an exceptional insulation quality in the tighter leg section and great comfort in the raised foot bed.
- Deuter's thermal collar offers a snug fit with its three-dimensional cut that comfortably closes around shoulder and neck.
- Easy to use, single-hand adjustable drawcord fixed to the contoured hood.
- Different sizes guarantee best insulation efficiency for the "Orbit", "Exosphere" and "Neosphere" range: REG (Regular), L (Large) and SL (Women's Fit).
- Deuter Thermo ProLoft® filling has a fantastic price-performance ratio. Compared to other synthetic fills it has an extremely soft hand, fantastic compressibility, a low weight and outstanding insulation properties.
- Easy to care and breathable Deuter Soft-Micro lining for the "Space" and kid's sleeping bags has a very comfortable, soft touch.
- Soft Body-Warmer-Fleece inserts in cold spots of the SL-Women's Fit sleeping bags guarantee cosy warmth and soft comfort.
- With the bluesign® standard, we work on the long-term optimization of resource efficiency and eco-friendliness of our entire production chain, from the first sketches to the delivery of the final product. We are taking many single steps towards our big goal – the child sleeping bag "Dreamland" as "bluesign product" is one of them.
- The Astros are down sleeping bags specifically engineered for expeditions, where low weight, small packability and optimum insulation are essential.

- The kid's sleeping bags "Kikki", "Little Star EXP", "Starlight EXP" and "Starlight Pro EXP" grow with the child: The zippered foot section can be easily extended by 30 cm. When you leave it zipped it adds a further layer of insulation for the cold sensitive children's feet. Further advantage: you cannot lose the integrated foot section.



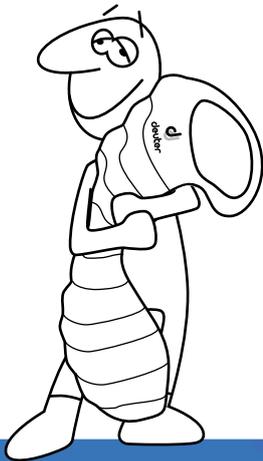
- Deuter's "Neosphere" is a high quality down sleeping bag: quality down 90/10 with 675+ cuin fill power, water resistant, wind- and downproof Deuter Diamond 30D Nylon, Dryzone in the head and foot section, compression and storage sack.

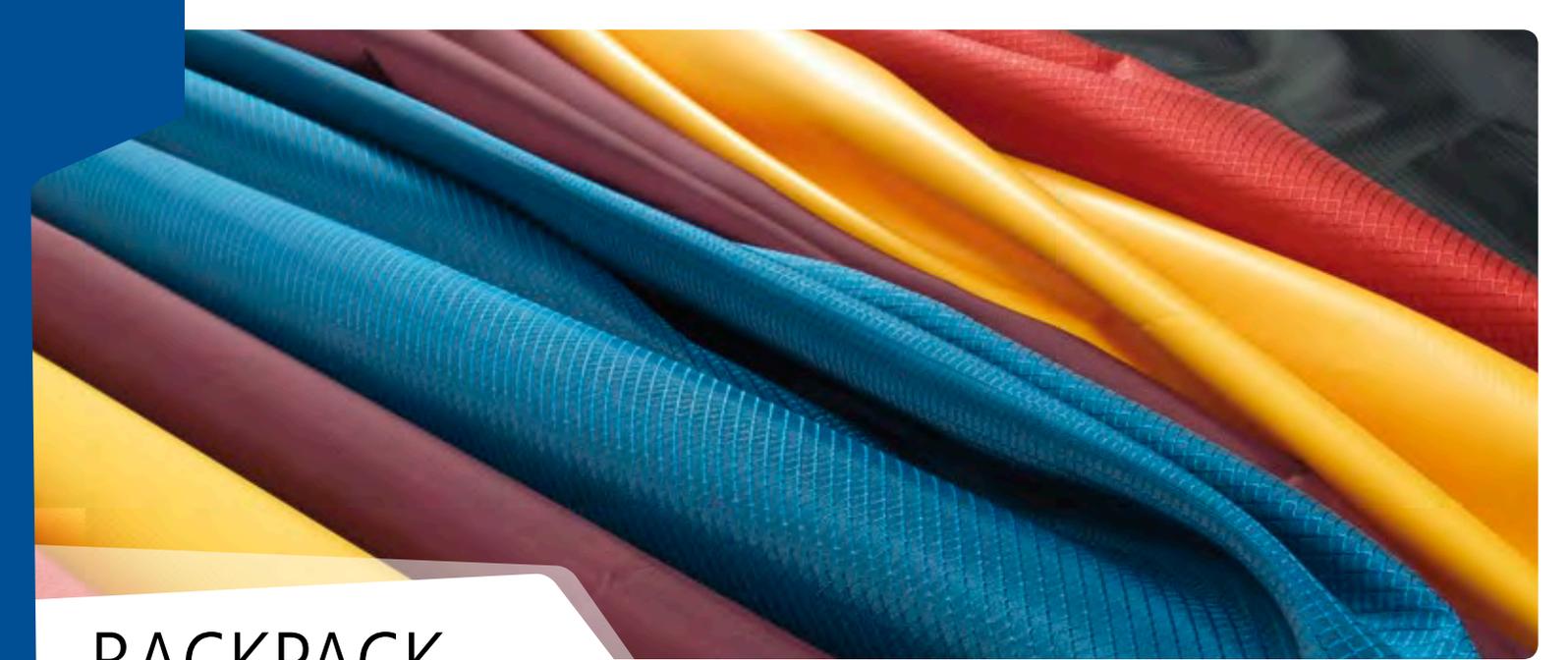
- The lining of the "Neosphere" down sleeping bags features our Thermo Stretch Comfort system with elastic seams and therefore expands up to 25%. The body-hugging, elastic lining and the roomy cut of the outer shell guarantee great freedom of movement and fantastic sleeping comfort. It also warms up quickly since it avoids unnecessary air pockets that require extra energy to keep warm.

- The special "Neosphere" construction with a roomy shell and a body-hugging lining additionally enhances the insulation properties: it provides even more space for the down's loft to expand. This improves the insulation quality at an average of 2°C compared to down sleeping bags without Thermo Stretch Comfort.

- With its elastic Thermo Stretch Comfort seams, the "Exosphere" synthetic sleeping bags expand up to 25% in width. The construction provides a body-hugging fit, while simultaneously offering fantastic freedom of movement. Additionally, it ensures that the sleeping bag warms up quickly since it avoids unnecessary air pockets that require extra energy to warm up.

- Deuter's stretch sleeping bags "Exosphere" and "Neosphere" have just been introduced to the market when they already won one award after the other – innovation pays off.





# BACKPACK FABRICS

Top quality materials are the basis of a highly technical backpack. Unlike cheap productions, Deuter can choose the raw material and all components. Regular lab tests ensure the conformance of the regulations considering AZO free materials and the absence of heavy metals, etc.

Yet, high quality fabrics alone do not guarantee a superior product. The materials also have to be effectively and creatively combined so that each model perfectly fits the respective need of the customer to perfection. See below for a glossary of fabric terms.

**THE TWO MOST IMPORTANT COMPONENTS** are synthetic fibers: Polyester and Polyamide (Nylon). High density Polyamide fabric is extremely abrasion resistant, despite its low weight and fine appearance. Polyester does not absorb water, does not bleach when exposed to UV rays, and has a soft touch.

## TEXTURE IS MEASURED IN DENIER (DEN)

which is a standard measurement of the weight of 9000 m of the thread. For example, a 600 denier thread with a length of 9000 m has a weight of 600 grs. Therefore, the thicker the thread the higher the denier figure. The higher the denier figure the more robust the texture and the higher the weight per square meter.

## COATINGS

make the fabrics water resistant or waterproof – and again: it all depends on the quality. Deuter does not permit the use of environmentally damaging acrylics or PVC materials. On principle, we only use high PU (Poly-urethan) coatings. They remain elastic and flexible and are cold and fold resistant, typically adding 40 to 70 grams per square meter to the weight. Any more coating would cause it to detach from the fabric. Additionally, Deuter fabrics are impregnated for water resistance.

## WATER PROTECTION

According to the German industrial standard, the term "waterproof" may only be used if a material withstands a 1400 mm water column. Our rain covers fulfill this norm. Impregnated and coated backpack fabrics endure 1400 mm to 2000 mm of water. However, in use the PU coating ages and there are also many seams on the backpack through which water can seep. We recommend the use of a rain cover, or additionally to store items in waterproof drysacks.

## POLYESTER



**Deuter-Super-Polytex:** Made from 600 den Polyester thread and with a thick PU coating, this multi-purpose fabric is robust and lightweight. It is most suitable for backpacks, used in average conditions to keep the weight to a minimum. "Deuter Super-Polytex BS" is produced in accordance to the strict bluesign standard. Same functions and durability qualities as Deuter-Super-Polytex.



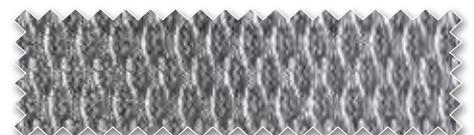
**Deuter-Ripstop-Polytex:** The sturdier version of the Deuter Super Polytex with woven in stronger threads. PU coated.



**Soft AirMesh:** Lining material used for back padding and shoulder straps. It is breathable and extremely abrasion resistant. At the same time it offers great comfort with a soft touch on the skin, which is especially appreciated by women. We therefore use Soft AirMesh especially for our female specific SL backpack range.



**Wide AirMesh:** Larger holed skin contact fabric with excellent breathability and lighter weight. 3-5 mm thick, this Polyester fabric combines durability with comfort.



**3D-AirMesh:** A 3 mm thick and therefore three dimensional Polyester mesh. The optimum air permeability and padding effect turns it to the ideal lining fabric for back padding, shoulder straps and hip belts. It offers maximum durability and comfort.

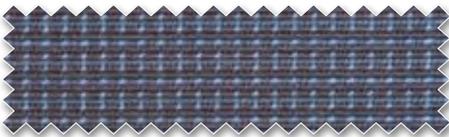
## POLYAMIDE (NYLON)



**Deuter-Duratex:** A Polyamide fabric that is extremely abrasion and tear resistant. For all larger backpacks this is used for the bottom panel. It has a thread of 1000 den and a thick PU coating on the inside.



**Deuter-Duratex-Lite:** Robust and durable Duratex in a 500 denier weave. Markedly lighter than the 1000 weight version yet still durable, tearproof and robust. PU coated.



**330D Micro Rip Pro 6.6:** Deuter Pocket Rip 6.6 is a 330 den Nylon blended fabric offering fantastic tear resistance. The use of Nylon 6.6 makes the material very durable and robust. Waterproof (WC 2.000 mm) thanks to the PU coating. The perfect material for big packs like the new Aircontact range.



**Deuter-Ballistic:** High-density woven, PU coated Polyamide 420 denier fabric with high strength and low weight makes it especially suitable for our Trans Alpine packs. Shiny finish.



**Deuter-MacroLite:** Special high-density 420 denier Polyamide offers high abrasion resistance with its very tight weave. This top quality fabric is used for Guide and Futura backpacks and Travel range models. It has a fine texture and a technical look. PU coating.



**Deuter-Ripstop:** Ultra-tight weave, hard wearing Nylon. Recognisable by the very technical, shiny surface incorporating tough Ripstop threads. This light-weight and extremely robust fabric is perfectly suited to the manufacture of lightweight products. Top quality PU coating. This highly technical material is used in 210 den for lightweight Alpine and Trekking models and in 330 den for the Aircontact models.



**Deuter-Ripstop-Nylon:** The regular chain-and-weft weaving of stronger threads creates a strong, but light 420 den Nylon fabric with good abrasion and rip stopping characteristics. The outside is water repellent, the inside is PU coated.



**Deuter-Microrip-Nylon:** 210 den Nylon fabric with strong ripstop threads and PU coating. This fine, lightweight and yet abrasion resistant Nylon is optimal for lightweight backpack construction.



**Hexlite:** Extremely lightweight Ripstop Polyamide fabric with textured structure. The 100 version of the fabric is used for ultra lightweight backpacks, the 210 den fabric is used for the ACT Trails models and the lightweight alpine and bike backpacks. The reinforcement fibres woven into the fabric increase the tear strength and add stability to this thin fabric. PU coating inside.



**Pocket Rip:** We use this robust Nylon fabric in 250 den and 330 den. The lightweight fabric is durable and has a 2.000 mm water column thanks to the PU coating.



**Matrix RS 150 D:** A fine, lightweight Nylon weave with silky feel. The diagonal weave structure with ripstop function provides high abrasion resistance. The PU coating grants excellent water resistance and makes the seams especially durable.



**330D Hybrid Check:** A very durable Polyamide material with a stylish look. The tightly woven Nylon fibres offer high abrasion resistance and the PU coating provides good water protection (>1.500mm WS). The material's check design results from the yarn's varying surface. Despite the 330 den, the weave structure adds great stability and tear strength.



**Pocket Rip Mini 100D:** The lightweight version of our Nylon Pocket Rip. The thin yarn is extremely lightweight. Yet the tight weave makes it extremely abrasion and tear resistant.



**Deuter Microrip Lite:** This very fine Nylon fabric is extremely lightweight. The PU coating and tight weave enable it to achieve a high waterproof specification. Similar to our other lightweight textiles, the stronger ripstop threads reinforce the lighter main fabric in order to increase its resistance to tearing. Used for our "Bike Bags" and Accessories.



**Taffeta Carbonite:** Comparable to the 190 "Deuter-Taffeta-Nylon". Taffeta Carbonite however, is highly waterproof due to the special carbonite PU coating. This together with its ripstop weave for increased tear resistance, makes it ideal for our waterproof accessories.



**Deuter-Taffeta-Nylon:** It is a fine weave of 190 den threads for the Deuter rain covers. Lightweight and with small packing dimensions. The PU coating grants excellent water resistance.



**Neoprene:** Neoprene is an elastomer foam usually laminated on both sides to Nylon or Lycra to protect the surface and increase durability. We use Neoprene for hip belts that need to be flat, extremely flexible and robust. The protective features make it the ideal material for our Neon Belt and the Camera Cases.



**Hyperlon:** Hyperlon is a high quality, extremely durable TPU material. Textile reinforcement ensures high tear strength and the closed surface makes it waterproof. We use it for our alpine backpacks for areas that are exposed to high mechanical impact or water.

## OUTER SHELL



**70D Nylon Diamond Ripstop:** We use this attractive lining material with Diamond Ripstop Look for our Exosphere series. Soft to the touch, breathable and with its Ripstop construction also tear proof. Additional PU coating in the Exosphere series means this highly functional outer lining fabric protects the Dryzone areas – especially exposed areas such as the head and feet – from damp and moisture.



**Tactel 44D Nylon Diamond Ripstop:** This lightweight, tough, quick drying microfibre fabric with its silky soft finish lends the Exosphere series its comfortable breathability properties. Ripstop construction also means it is tearproof.



**Dura Lite RS:** A soft, durable, lightweight and fast drying nylon fabric used in the Orbit and Space range. This Ripstop-Nylon weave also features a water repellent finish. The even lighter Hexlite version of this material is used in our Dream Lite.



**Deuter Diamond 30D Nylon:** First rate, ultra-fine 30 den outer shell material that is extremely tightly woven. The tight weave makes this featherlight microfibre material strong, windproof, durable, quick drying and downproof. Reinforcement threads in the weft and weave provide further ripstopping qualities. The ideal outer shell material for Deuter's down sleeping bags.



**20D Deuter Micro Tec RS:** A nylon wave used in our "high-Tec" expedition sleeping bags. It features an ultra-fine denier material that is extremely light and packable. It is also water repellent as well as wind- and downproof.



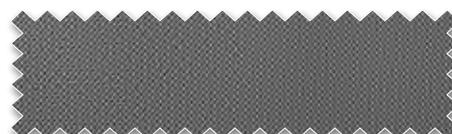
**Deuter-210T-Soft-Nylon Taffeta:** A soft, breathable, non-moisture sensitive, and fast drying shell material. Strong and durable, used on the Starlight EXP and Little Star EXP models. "Deuter-210T-Soft-Nylon Taffeta BS" – just like with our backpack material, 'BS' refers to a special production in accordance with the bluesign standard. Same functions as the 210T-Soft-Nylon Taffeta.



**PRO lite RS 30:** This ultra-fine Nylon ripstop material is extremely soft to the touch and lightweight. It is very thin, yet offers great stability and abrasion resistance. It is durable and quick drying.



**Dura-Hexlite RS:** A supersoft, lightweight ripstop nylon shell fabric, which is tearproof and water repellent. Used for the Dream Lite models.



**Deuter 210T Soft-Poly Taffeta:** A soft yet durable fabric that is also water repellent. This shell material it is the perfect protection of the Space foot area.



**260T Soft Nylon Tactel:** This microfibre, which we use for our TwoFace model, is lightweight, highly breathable and its silky touch is very comfortable. It is durable, non-moisture sensitive and fast drying.

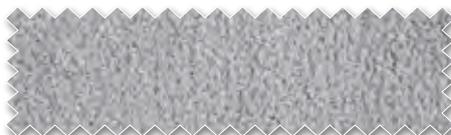
## LINING



**Brushed Thermo Fleece:** This lightweight, excellent Polyester fleece material has a fluffy, brushed surface, making it extra soft on the skin. It has an excellent warmth-to-weight ratio and is breathable, durable, easy-care and dries quickly. Its elasticity supports the Thermo Stretch Comfort construction range of motion in the Exosphere SL and provides warmth in our Orbit SL models.



**Deuter Poly-Lite Soft:** A soft, quick to warm, breathable, easy-care Polyester suitable for use in synthetic sleeping bags like Exosphere. "Deuter Poly-Lite Soft BS" is produced in accordance with the bluesign standard criteria. It is used for our "bluesign product" Dreamland.



**Deuter Micro Fleece:** This soft and thick Polyester fleece material quickly transports moisture away from the skin at the TwoFace and has very good insulation properties.



**PRO lite RS 50:** A durable, easy-care and warm micro denier Polyester fabric with excellent wicking and downproof properties. The perfect lining for our Trek Lite models.



**Tactel Softlining 30D Nylon:** This top quality 30 den inner lining material achieves its silky soft texture through ultra-fine weave. The featherlight, durable and easy-care microfibre material is extremely soft on the skin and is excellent at wicking moisture away. Used in our down sleeping bags.



**20D Soft Nylon:** Used as lining in our expedition sleeping bags, the silky soft material hardly absorbs any moisture and warms up quickly – this guarantees a comfortable sleeping climate in extreme conditions.



**Soft Nylon Taffeta:** This microfibre weave is used in the lining of our Dream Lite models. It is a durable, easy-care material, which is soft to the skin and has great moisture wicking properties.



**Deuter-Soft-Micro:** Soft Micro Polyester lining material with silky soft touch and good breathability. Used in the synthetic sleeping bags, it is lightweight, durable and easy to care for.



Heinz Weidner, passionate mountaineer, former salesman at a big outdoor store; since 2009 Deuter Sales Rep for South Bavaria

**CAN I WASH MY BACKPACK IN THE WASHING MACHINE?**

"No – abrasion wears out the material (PU coating) and will in the long run damage the pack. Also, detergents are often not washed out properly. This could lead to skin irritation for sensitive skin types. A chemical reaction of sweat, detergent and UV rays further damages the material."

**"PROPER CARE FOR LONG-LASTING GEAR"**

**DO I HAVE TO IMPREGNATE THE BACKPACK MATERIAL?**

"For the first years, the rucksack material offers great water protection. However, in heavy rain water will seep through the zippers and seams. In alpine regions, for climbing or ski tours you should use waterproof packsacks in the rucksack to keep your gear 100% dry. The advantage is that the attachment straps then remain free for material, such as ice axe, skis, poles or snowshoes. For hiking and trekking backpacks use a rain cover. Also, impregnation won't last very long on older models. And impregnation (spray and bath impregnation) in the strap's material can lead to skin irritation."

 hand wash
  do not tumble  
 do not iron
  keep zippers free from dirt  
 store in a dry place

**Backpack maintenance:**  
 Place the backpack in a tub or shower filled with water and wash with ph-neutral soap. Dirt and stains can be easily cleaned with a soft brush. Salt stains on the carrying system can be removed by simply washing with soap and plenty of water. Sluggish zippers are best treated with a silicone spray. Make sure to always store the pack in a dry place!

**FACT:**

Why is there no cotton lining? Cotton feels great at the beginning. But it quickly contaminates and wears out. It has a long drying time, because it absorbs multiple times its own weight in moisture. It gets cold, damp and heavy. Nylon is a long lasting fabric. It is light and warms up quickly.



More detailed information about sleeping bag care on page 76.

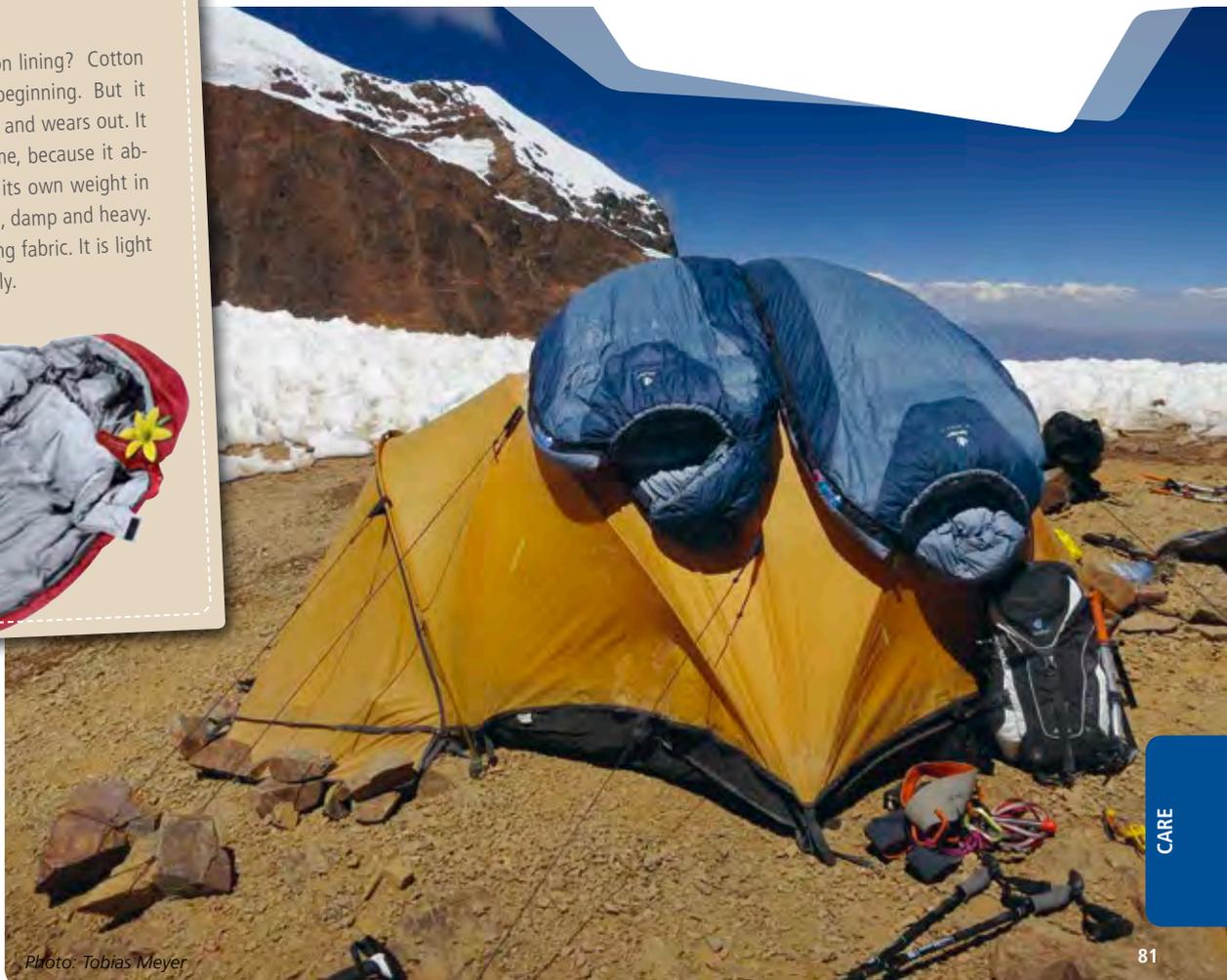


Photo: Tobias Meyer

# CORPORATE RESPONSIBILITY

## "FROM ACORNS OAK TREES GROW"



*Martin Riebel became Deuter CEO in 2013. He has extensive experience from his prior positions at Adidas, Helly Hansen and Gore. The former ski racer also knows how important it is to be able to fully trust the material – and the partners!*

"There might have been a generational change at Deuter, but we still believe that "a cobbler should stick to his last". Today, one of our strongest 'last' is based in Vietnam: the more than 4.000 employees at our long-term production partner Duke. The production of a backpack is a very complex process and demands highly skilled workers. They guarantee the top quality of our products. A fact we can underline with our extremely low repair rate. It was so important for Bernd Kullmann and it is just as important to me: we want to keep up the special, personal cooperation with our partner, in particular with Sang Taek Oh – Mr. Oh's son – and his closest employees. They are such a vital part of the Deuter family. The great results which we achieve in our Fair Wear Foundation (FWF) audits are a natural result of our claim to foster an honest, open and constructive partnership with our workforce in Vietnam."

## FWF

The Fair Wear Foundation (FWF) is an independent, non-profit organisation that works with companies, factories and trade unions to improve labour conditions in the textile and clothing industry, particularly in low-wage countries. By joining the FWF we have complied to the organisation's strict Code of Labour Practices.

The FWF's verification system works on three levels: The members are committed to verify a certain percentage of their production volume in so called factory audits. Further, the FWF implements a complaints procedure program which allows staff in the factories to file working rights complaints via email, phone, letter or text message directly to the FWF. On a third level the members annually undergo brand performance checks, reviewing and evaluating the members activities. E.g. do the buying practices correspond to the FWF's specifications; are the headquarters aware of the consequences certain decisions have on the factories (e.g.: overtime due to short notice design changes).

Medical insurance, employee representation, fixed holiday days, above average pay, fire drills, free lunch and performance bonuses for every worker – these are just some of the elements that lead to successful staff retention and motivation at production partner Duke.



CODE OF LABOUR PRACTICES

With two production partners only we were able to quickly fulfil the FWF's membership conditions and our partner Duke successfully the first audit of the biggest facility. Thus, already 90% of the Deuter production volume has been audited. Since 2013 we are authorized to use the FWF logo due to the high audit percentage and a successful brand performance check. The logo on our product hangtags point out our commitment to improving working conditions. Although we could include the FWF logo on all of our products, we print it on our backpack hangtags only. For our sleeping bags range we want to wait for the first audit and then successively adapt the presentation. For more information on the FWF see [www.fairwear.org](http://www.fairwear.org)



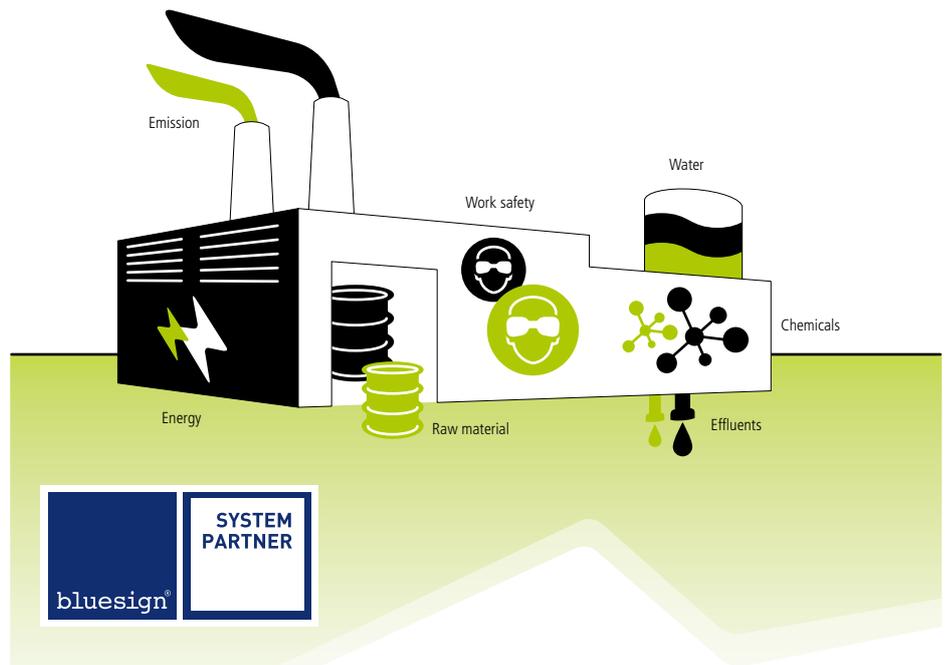
Although not yet all products carry the FWF Logo on their hangtags, the validation applies for our entire collection. The FWF logo does not refer to one special product, but the brand's general FWF membership.

- 1  No forced labour
- 2  No discrimination in employment
- 3  No child labour
- 4  Freedom of association and the right to collective bargaining
- 5  Payment of a living wage
- 6  No excessive working hours
- 7  Safe and healthy working conditions
- 8  Legally-binding employment relationship



Katrin Riedel joined Deuter as Corporate Responsibility Manager in 2011. Always having a strong conviction for social and environmental issues, she has turned her passion into profession. Of course, she is also a great lover of outdoor sports spending as much of her time as possible hiking or bouldering.

"More and more customers want to know about the working conditions in the production facilities. The FWF is an independent, non-profit organisation that supports and confirms all our ambitions."



## REPAIR SERVICE

Deuter products are known for their great quality and longevity. It begins on production level with a careful consideration of the design elements and the material used to ensure maximum durability. This also means that we are not following each and every trend. E.g. we are working on reducing weight, yet we are not compromising on the performance.

At our repair service in Gersthofen we extend the life of our products even further. We do not foster a throw-away mentality. Although it might not be a clever economic move, we do our best to repair even 'ancient' products and bring them back to life. We believe that a long product life cycle is the most efficient contribution to saving resources and therefore to environmental sustainability. A voucher for a damaged product? Just throw it away? That's not Deuter! Of course, this is an easy to follow policy with our extremely low complaints rate of 0,4%... But we love to provide this service and we believe in the sustainability of this approach.

## ECO POWER

We power our facility 100% from renewable energy sources from naturstrom. Most of it supplied by wind and water power stations in Germany. The power is generated carbon neutral and we thus actively promote the further development of renewable energies.

## BLUESIGN

The bluesign® system is the world's strictest standard for sustainability, occupational health and consumer safety. Compared to many other eco labels, the bluesign® system does not test the final product for harmful substances or chemicals, but has a holistic approach. This means it considers the entire manufacturing process involving all the different components. The concept is simple: only a clean process with sustainable ingredients will result in a clean end product. The target is to optimize all production levels from raw materials to the finished product examining the responsible use of resources, clean processes with controlled air and water emissions, safe processes for the workers and safe products for consumers.

Deuter became bluesign® system partner in 2008. Both of our production partners also committed to the strict bluesign® system. In 2011 the bluesign® screening took place at Duke and at Bellmart in 2012. The production sites were audited by independent experts.

Changing to bluesign® certified material is a long and difficult process. Especially since not yet many suppliers have complied to the bluesign® system and a lot of the materials – especially in backpack production – are not approved and therefore not available. Yet step by step we are nearing our destination.

## ÖKOPROFIT

Our goal is to efficiently reduce the negative impact of our actions on man and nature. This affects, of course, our core business, the production of high quality products in Asia. We work on saving resources, enhancing energy and material efficiency as well as on optimizing transportation to reduce CO2 emission. But our commitment also affects our headquarters in Gersthofen/ Germany, where we are constantly working on more sustainable and ecological internal processes.

To promote our corporate sustainability, to identify and promote resource and energy efficiency, we joined a project called ÖKOPROFIT, which was initiated by the city of Augsburg. The project's title stands for "ecological project for integrated environmental engineering" and aims at the implementation of corporate eco management. In July 2013 we passed the commission's test and are now a certified ÖKOPROFIT business.

For more information on ÖKOPROFIT see: [www.oekoprofit.com](http://www.oekoprofit.com)

## DHL GOGREEN

We ship our products from the warehouse in Gersthofen via DHL GOGREEN. We financially support climate protection projects to compensate the transport emissions and guarantee a CO<sup>2</sup> neutral delivery. Of course, we also try to combine as many deliveries as possible to save resources.

# FREQUENTLY ASKED QUESTIONS

## WHY DO YOU REPAIR YOUR PRODUCTS IN GERMANY, YET NO LONGER PRODUCE THERE?

High quality equipment that is based on technical sewing skills cannot be manufactured in Germany at a competitive price level. Plus, today you hardly find qualified staff for this kind of complex sewing work – each backpack is made up of 220 single pieces that are sewn together by hand. In Germany the 'old trade' is more or less extinct as traditional sewing professions are no longer trained. Today more than 4.000 employees work in the factories in Vietnam, where they manufacture backpacks, bags and accessories in top Deuter quality. Further, 100% of the materials we needed for our products also come from Asia. The transportation of textiles, buckles, zippers etc. is therefore short and efficient.

Germany is still our key market, but today about 50% of our products are being sold worldwide in over 50 countries. Most of the products are directly shipped from Vietnam and China to the respective country.



## EOCA

Deuter was one of the first German sports manufacturer to join the "European Outdoor Association for Conservation Association" (EOCA). Today, the non-profit organisation has over 100 members, all of them outdoor brands. EOCA started with an initiative of the "EOG" (European Outdoor Group). It supports various environmental projects worldwide with an annual six-digit figure generated by membership fees and donations. As an EOCA member we provide support with our annual membership fee and by donating products for fundraising. In the end our products are made for the outdoors, they are made for us to enjoy and experience nature!

For more information on the EOCA see:  
EOCA auf [www.eoca.de](http://www.eoca.de)



## PRINT CO2

Print CO2 is an initiative compensating the carbon dioxide emissions produced in the manufacture of printed matters such as catalogue and flyers. This is achieved by investments in effective climate protection projects around the world. Climate neutral printing can be tracked via an identification number on the print product. Further, you can see online how much CO2 has been compensated and which projects neutralised the emissions.

For more information on the climate initiative see:  
[www.klima-druck.de](http://www.klima-druck.de)

## DIRT BAG

The "Dirt Bag" is more than just a rubbish or storage bag. It transports a message. It stands for respecting nature and being considerate. For every Dirt Bag sold 1€ is directly donated to the project Bergwaldoffensive. Deuter, the DAV Summit Club and the retailers selling the Dirt Bag for 3€ do not earn a cent.

For more information see  
[www.deuter.com/Verantwortung](http://www.deuter.com/Verantwortung)

Here you also find our social report ready for download.



## WHERE ARE DEUTER PRODUCTS MADE?

Deuter works with two production partners only. All our backpacks, bags and accessories are made in Vietnam. Here our partner Duke has been manufacturing exclusively for us since 1994. Our sleeping bags are being produced by our partner Bellmart in China since 2003.

**HOW DOES DEUTER VERIFY THAT THE WORKING CONDITIONS IN THE FACTORIES ARE ACTUALLY MAINTAINED?**

The long-standing, trusting relationship with our partners gives us the opportunity to exert a significant influence on production methods and working conditions. Staff from our company HQ in Gersthofen/Germany visit the production sites in Vietnam every four to six weeks. This not only helps with



internal quality control but also means that working conditions are inspected on site. We also regularly visit the sleeping bag production in China.

It is therefore vital for us and our production partners to achieve a high level of staff retention and motivation. This includes e.g. binding employment contracts, health insurance, social security contributions, maternity leave, paid holidays, paid overtime and free lunch. We all benefit from good working conditions: our high standards can only be reliably and continuously guaranteed by a well-trained, experienced and skilled workforce.

For us, fair working conditions have always been a basic requirement for any partnership. And since we've joined the Fair Wear Foundation in 2011 it is also verified by an independent third party. Our membership means we have committed to implement the FWF's eight Code of Labour Practices. These are regularly checked in so-called factory audits.

**WHAT IS THE FWF / FAIR WEAR FOUNDATION?**

FWF stands for Fair Wear Foundation. The FWF is an independent, non-profit organisation that works with companies and factories to improve labour conditions in the textile and clothing industry, particu-

larly in low-wage countries. Deuter joined FWF in August 2011 and has thus committed itself to the organisation's strict Code of Labour Practices.

Eight labour standards form the core of the Code:

- 1 No forced labour
- 2 No discrimination in employment
- 3 No child labour
- 4 Freedom of association and the right to collective bargaining
- 5 Payment of a living wage
- 6 No excessive working hours
- 7 Safe and healthy working conditions
- 8 Legally-binding employment relationship

As a FWF member we are required to annually hand in a comprehensive report about the working conditions in our production sites. The report is published on our website.

**WHAT ABOUT FIRE AND BUILDING SAFETY?**

In FWF audits safety work experts also check the fire safety documents as well as the licenses and inspection certificates for the building and all devices. Further, the staff is interviewed on how to act in case of fire emergency or about recent fire drills.

The bluesign® screening also includes a detailed on-site inspection of the fire safety standard including fire extinguishers, emergency exits and the documentation of fire drills and legal certificates. Both of our production partners have been inspected by bluesign® experts.

**WHAT ABOUT THE PAYMENT OF FAIR WAGES FOR FACTORY WORKERS?**

By joining the FWF we have committed to the payment of a living wage. However, living wages are calculated for different regions with different calculation methods. Yet the FWF audits collect factory wage information. In Vietnam the wages paid are high above the legal minimum wage and the living wage estimate of the Vietnamese Institute of Workers and Union. Our Chinese partner also pays wages above the legal minimum wage. This is the only guarantee to retain our qualified staff with all their expertise and experience – they are the foundation of our products' high standard.

Find out more in our social report: [www.deuter.com/verantwortung](http://www.deuter.com/verantwortung)

**DOES THE STAFF IN THE FACTORIES WORK EXCESSIVE OVERTIME?**

The FWF limits a regular working week to 48 hours plus a maximum overtime of 12 hours per week. Together with our suppliers we are working on meeting those limits. By building a new, third factory in Vietnam we were able to effectively reduce overtime hours. We hardly ever exceed the working time of 48+12 hours per week. Only during extreme peak seasons in winter, we (still) slightly exceed the limit.

Find out more in our social report: [www.deuter.com/verantwortung](http://www.deuter.com/verantwortung)

**WHAT ARE DEUTER'S SUSTAINABLE PRACTICES?**

A long product life cycle is the most efficient contribution to saving resources and therefore to environmental sustainability. If it is in any way technical possible, we repair Deuter products, bringing products that are decades old back to life. Of course, this policy is easy to fulfil with our extremely low complaints rate of 0,4%.

Finally the finished product is shipped via sea transport from Asia to Hamburg and via train from Hamburg to our warehouse in Gersthofen. The products are then shipped to the retailers via DHL GOGREEN carbon neutral.

Deuter joined bluesign® in 2008 and we have been working hard to ensure the successive resource-efficient and sustainable optimisation of our products and the entire production cycle from the first sketches to the final delivery. As the first backpack manufacturer in Asia, our production partner Duke became bluesign® system partner in summer 2010 committing to strict standards. Further, Duke received ISO 14001 and ISO 9001 certification. Our sleeping bag manufacturer has also complied to the bluesign® standard.

**WHAT IS BLUESIGN®?**

The bluesign® system is the world's strictest standard for environmental protection, occupational health and consumer safety. Compared to many other eco labels, the bluesign® system does not test the final product for harmful substances or chemicals, but has a holistic approach. This means it considers the entire manufacturing process involving all the different components of a product. The concept is simple: only a clean process with sustainable ingredients will result in a clean end product. The target is to optimize all production levels from raw materials to the finished product examining the responsible use of resources, clean processes with controlled air and water emissions, safe processes for the workers and safe products for consumers.

Changing to bluesign® certified material is a long and difficult process since not yet many suppliers have complied to the bluesign® system and a lot of the materials – especially in backpack production – are not approved or are not available in sufficient quantities. We are very much aware of the challenges, yet we try hard to follow our belief that "from acorns oak trees grow" – and step by step we are nearing our destination.

# QUALITY BASICS BACKPACKS

We believe that products with a long lifespan are the most effective contribution to saving resources and protecting our environment. That is why we focus on superior quality on all levels.



## SEAM EDGING

The seam edging on the inside of the product is a key element in the design of a lasting quality product. It prevents fraying, water will not enter as quickly and the seam edgings also promote the product's durability. Further, they create a kind of inner frame supporting the pack's stability.



## SEAMS AND STRAPS

Deuter products are strong and durable. At crucial parts of the backpack the seams are multiple sewn. For additional strength on key areas we use 'barring seams'. To prevent fraying the straps are heat sealed.



## PAD MATERIAL

The padding of our shoulder straps and waist belts is flexible and soft, yet rugged. The material we use is non-allergenic and AZO free. The foam is laminated and sewn. To protect the padding at the hip belt, the base is covered with rugged backpack material. This enhances the abrasion resistance and prevents dirt from getting into the AirMesh pores. Further, soft Air-Mesh material around the edges of the shoulder straps avoids chafing and guarantees maximum comfort.



## QUALITY BUCKLES

We exclusively use quality buckles for our entire backpack range. They are strong, cold-resistant, thoroughly tested and last a lifetime.



## DOUBLE-LAYERED BASE

Every Deuter backpack is equipped with a double-layered base making it extremely hard wearing and durable.



## DURABLE SPRING STEEL FRAME

Spring steel is extraordinarily stable and elastic. It is very durable since it springs back into its original form when twisted or turned. In a lightweight round profile construction it allows a very flexible frame build. In a flat profile, it constructs a frame with an extremely high form stability. We use both for our Air-comfort models to give our patented ventilation mesh panel its stable tension.



## REINFORCED DRAWCORDS

A signature feature of Deuter backpacks: our reinforced drawcord closure. It prevents wear, tear and fraying and ensures the cord will not get jammed.



## ORIGINAL YKK® ZIPPERS

are currently the best available on the market. These top quality zippers are very robust and reliable. For years, Deuter has used these high-tech miracles across the pack line.

# DEUTER AWARDS 2009-2014

Futura 24 SL



Futura 30 SL



Futura 32



Aircomfort Flexlite System

"All round airy comfort backpack."

"No rocking, no swaying, but a super stable fit – plus fantastic back ventilation."

"Very good, compact and defined fit, perfect load control, great ventilation. Easily handles load up to 12kg."



Futura Pro 34 SL



Futura Pro 36



Futura Vario 50 + 10



AC Lite 18



ACT Trail 28 SL



Guide 30 + SL



Guide 35 + & 45 +



Cruise 30



Speed Lite 20



Pace 30



ACT Lite 35+10 SL & 40+10



Aircontact 65+10



Aircontact Pro 55+15 SL & 60+15





Bergsteiger  
2/11  
**TIPP**  
AUSSTATTUNG



BAG  
Bundesarbeitsgemeinschaft für  
Haltungs- und Bewegungsförderung e.V.

erprobt +  
empfohlen  
bewegung



ARETS  
PRODUKT  
2011

LÄND  
DER  
BERGE  
**TESTSIEGER**  
Kindertragen  
5/2010



Out  
Door  
INDUSTRY  
AWARD 2013



outdoor  
2011  
Gear of the Year  
1. PLATZ  
TRAIL  
BEST  
IN TEST  
spring 2011  
Bergsteiger  
**TIPP**  
Top 2010



EMPFENGLUNG  
12/09  
& 01/10  
klettern



Bergsteiger  
**TIPP**  
Top 4/12  
klettern  
EMPFENGLUNG  
05/2012  
klettern  
PRAXIS  
TEST



**TESTSIEGER**  
07/11  
Mountain  
BIKE  
**TESTSIEGER**  
07/13  
Mountain  
BIKE



DESIGN & INNOVATION  
AWARD 2013  
**bike**  
Test Rucksäcke, BIKE 6/2009  
Deuter  
Attack  
BIKE-URTEIL SEHR GUT



8/12  
TESTSIEGER  
MTB  
**TESTSIEGER**  
BIKE  
**bike**  
Test Rucksäcke, BIKE 6/2009  
Deuter  
Compact Expert 12  
BIKE-URTEIL SUPER



**bike**  
05/13  
TEST RUCKSÄCKE  
URTEIL: SEHR GUT  
Deuter Race EXP Air



FREERIDE  
Best Buy  
9/13  
MTB  
6/13  
TESTSIEGER  
**bike** 12/12  
HÖHE TITEL / PREISLEISTUNG  
Deuter Trans Alpine Pro 28  
PROFORMA: \*\*\*\*\*  
FUNKTION: \*\*\*\*\*



**bike**  
Test Rucksäcke, BIKE 6/2009  
Deuter  
Trans Alpine 26 SL  
BIKE-URTEIL SUPER  
**bike**  
**TIPP**  
8/11



**TESTSIEGER**  
07/12  
Mountain  
BIKE  
STATE OF THE ART  
4-Seasons  
Referenzprodukt  
2009  
**TESTSIEGER**  
07/10  
Mountain  
BIKE



**KAUFTIPP**  
07/13  
Mountain  
BIKE  
EUROBIKE  
Superbike  
AWARD 09



**TESTSIEGER**  
05/12  
RoadBIKE  
**TESTSIEGER**  
07/11  
Mountain  
BIKE  
Empfehlung  
Test  
RADtouren  
5/10  
TOP-PRODUKT

DIE ZUBEHÖR-MARKEN DES JAHRES  
**Mountain BIKE**  
LESEWAHL  
**BEST BRAND**

1. Platz	Deuter	2001
1. Platz	Deuter	2002
1. Platz	Deuter	2003
1. Platz	Deuter	2004
1. Platz	Deuter	2005
1. Platz	Deuter	2006
1. Platz	Deuter	2007
1. Platz	Deuter	2008
1. Platz	Deuter	2009
1. Platz	Deuter	2010
1. Platz	Deuter	2011 & 2012

1. Platz Deuter  
KATEGORIE RUCKSÄCKE

