

## MC tests back protectors

Jofamas Track provides the best protection. Discount-chain Liedl's back protector, Delta Sport profile, beats out the other eight and ends-up in second place. Rukka's Air-Power achieves third place. These three are in a class of their own, when we compared ten popular back protectors.

(Text and pictures: Magnus Klys, [magnus@mc-folket.se](mailto:magnus@mc-folket.se))

Choosing a back protector can be tricky. Do not just go into the first store and buy the one which you think looks good. You must know which length you need and which one gives the best protection, among other things. If you choose a protector which is too short, it can be fateful. Most of all do not go by the price. In our test, the most expensive one was not the best.

There are many protectors on the market, which perhaps do not live up to what they promise. If a protector does not provide sufficient protection there is no reason to use it. Then it becomes simply an additional expense and nothing better than a piece of foam between the jacket and the body.

EU norm 1621-2 demands that the size of the product is clearly marked. The length of the back protection must be appropriate for the length of the person's back. According to standard EN 340, there must be a tag which sizes according to different back lengths. Only two brands had this, Dainese and Jofama.

The other brands are very optimistic with the sizes of the persons whom the protectors fit. This is of course so that they do not need to produce so many different sizes. Of course, it is also curious that some of them only mark their products with size medium, says Roderick Woods.

Two of the protectors had no size marking, Rukka and AP. Rukka has 'medium' marked on the protector and that is not enough according to the norm.

According to 1621-2 there must also be user information for the protector. Only five of the brands have this user information: Dainese, Jofama, Knox, Delta sport, and Ufo. Of course since we purchased the protectors in a store it may be possible that the user information fell off when someone else tried them on, and the store employee did not see this. However there were tags, which showed that the protectors had been tested and who had conducted the test. If there is no information and the seller tries to claim that the product is CE-approved, then be alert. The information must also be in Swedish, since we actually live in this country. Some of the products which we tested only have information in English. This is not adequate. In this user information there must also be a description of which sizes the protector covers. None of the five brands, which had user information, had this information explained.

In the case of the back protector from Know there is user information enclosed, but on the list of the models which the manufacturer makes, Ricochet (the model we tested) is missing. The protector, the tag, and the enclosed user information are analysed to decide how large the person may be who is to use the specific protector. In only one of the cases, Alpinestars, was there a tag with the actual size of the person and which size protector is suitable. The protector is marked M 53,5, but does not fit a back which is larger 43 cm long. AP has no size tags whatsoever.

When it comes to the test, five in the given directive and two in haphazardly selected places, the points may not go above 18 kN and none may go over 24 nK to achieve level 1 in the norm. In order to go ahead to level two, the protector may not have an average of more than 9 kN and none may be more than 12 kN.

In the cases of Clover, Dainese, and Ufo, one can discuss the quality. The back protector from Clover does not clear the test, but falls with just 0,5 kN. The protector from Ufo achieved “only” 0,5 kN.

The difference for making the CE-test is too small for Clover and Ufo. To determine these two there would need to be further tests. Dainese is jointed and has weak points between the protector plates in the back, otherwise it would have cleared the test. The best protectors, Delta sport, Jofama, Rukka, and Knox have no weak points, says Woods.

One of the protectors, AP, was of such bad quality that it ought not be called a protector. It is very thin and only weighs half the amount as the others.

It was not even possible to test it with 50 joules, which is the given directive. When it was to be tested by striking it to pieces, only 25 joules were used. This was enough to determine the quality. Usually thinner protectors are stiffer and heavier to match the thicker and softer protectors, says Woods. The results are described on the following pages.

## CE-marking

### PERSONAL PROTECTION EQUIPMENT

Before a piece of personal protection equipment may be sold in Sweden and other EES-countries, it must fulfill certain safety requirements and be CE-marked. The CE-mark can be compared to a passport. It means that a product may be sold in all EES-countries. A piece of personal protection equipment, which has been determined to fulfilling all of the safety requirements and is CE-marked in one EES-country, may be also sold in all the other CEE-countries. Which requirements the personal protection equipment depends on against which risks it must protect. There are three different categories. Motorcycle protection belongs in category two. Many of the most common personal protection devices belong to category two. In this category are also helmets, life jackets, hearing protection, non-skid protection, as well as the majority of eye protectors and safety clothing.

The manufacturer must deliver the equipment to a notified body to receive a type control certificate. The test usually takes place according to so-called harmonised standards, which are the same inside the EU. It can also happen according to fundamental requirements in legislation. There are also a number of fundamental requirements which all products must fulfill. For example there must always be a user guide in Swedish.

### REQUIREMENTS

For all personal protection equipment, it is required that the manufacturer or the representative from the EES:

- Compile a technical documentation.  
This must contain all relevant facts about the measures the manufacturer uses to guarantee that the equipment fulfils the fundamental requirements in the regulations.
- Establish a special, written assurance that the equipment agrees with the conditions in the regulations for personal protection equipment (assurance of agreement).
- Deliver the product information including a user guide in Swedish.

### CE-MARKED PRODUCTS

The manufacturer must mark that the product has been CE-certified. The marking must be visible, easy to read, and constant. The CE-mark must be on every product which is produced. If it is not possible due to how the product is made, then it is permitted to place the CE-mark on the packaging. Other labels, which can easily be mistaken for the CE-mark, are not permitted.

If personal protection equipment does not fulfill the requirements for health and safety, the design, or label, then the consumer agency can intervene.

In the first step, the manufacturer is contacted to be given the opportunity to freely make the necessary changes. If this does not happen, the Consumer Court can issue a ban on selling the product or order that the product is taken off the market. Banning a product or ordering it off the market can also be arranged by a representative of the Consumer Agency. These bans or removal from the market must be approved by the industry in order to be considered valid.

Those who break the law on personal protection equipment through intent or negligence can additionally be judged in general court. Punishment is either a fine or imprisonment of up to one year.

Dr. Roderick Woods

Dr. Roderick Woods runs the company Blue Hibiscus Limited in England. He is one of the people who started the Cambridge standard in the 1980's. The Cambridge standard is the predecessor to the CE-standards. Woods is an expert in legal mechanisms in England concerning motorcycle accidents where humans are injured. In many cases the authorities want to know everything about the accident and they also conduct an investigation, which involves investigating the clothing worn by the individuals involved in the accident and whether this clothing was CE-certified.

Of course there are cheaters, who call motorcycle clothing 'protection', even if it does not fulfill the CE requirements, but the majority of them say that their protection is up to standards. "If I may estimate, then I would say that two-thirds of the industry is in accordance" says Woods.

<p>ALPINESTARS TECH RAC Place of Purchase: Lelles, <a href="http://www.lellesmc.se">www.lellesmc.se</a> Price 1195 kr Weight 785 grams No shoulder strap. Possibly constructed to fit in the outer garment. The middle strap is very thin and does not keep the protector upright. Only usable in the garment.</p>	<p>FAILED!  AP BIGSENSENIOR Place of Purchase: Lelles, <a href="http://www.lellesmc.se">www.lellesmc.se</a> Price 595 kr Weight 292 grams The removable middle strap holds the protector against the body. Perhaps the protector is meant to be placed in an outer garment.</p>
<p>BEST IN THE TEST!  HALVARSSON Place of Purchase: Touringbutiken, <a href="http://www.touringbutiken.se">www.touringbutiken.se</a> Price 1278 kr Weight 981 grams Easy to handle. Good support for the middle. The shoulder straps pull the upper arms back and when you release them, you risk that the protector does not stay on during an accident.</p>	<p>GIALL CK RACE Place of Purchase: Touringbutiken, <a href="http://www.touringbutiken.se">www.touringbutiken.se</a> Price 1198 kr Weight 726 grams Easy to handle. The shoulder straps pull the upper arms back and when you release them you risk that the protector does not stay on during an accident.</p>
<p>DOUBTFUL  RUKKA AIR-SYSTEM Place of Purchase: Touringbutiken, <a href="http://www.touringbutiken.se">www.touringbutiken.se</a> Price 878 kr Weight 1089 grams Very easy to handle. Excellent fixings with straps in the branches. Quite hard and stiff.</p>	<p>DOUBTFULL  UFO PLAST Place of Purchase: Motobikers, <a href="http://www.motobikers.se">www.motobikers.se</a> Price 740 kr Weight 776 grams Easy to handle. Good support for the middle. The shoulder straps pull the upper arms back and when you release them you risk that the protector does not stay on during an accident.</p>
<p>DOUBTFUL  CLOVER BACK PRO-2 Place of Purchase: Handelsboden, <a href="http://www.handelsboden.se">www.handelsboden.se</a> Price 1195 kr Weight 528 grams Easy to handle. The middle band goes up on the thorax and the shoulder straps pull the middle band up so that it can easily become too loose and end up in the wrong place during an accident.</p>	<p>KNOX RICOCHET STYLE 79 Place of Purchase: Motobikers, <a href="http://www.motobikers.se">www.motobikers.se</a> Price 1195 kr Weight 976 grams Easy to handle. Material in the quick stirrup in the middle is a bit too frail and does not give enough support in the middle.</p>

**DELTA SPORT PRO LIFE**

Place of Purchase: Lidl, www.lidl.se

Price 349 kr Weight 691 grams

Easy to handle. The shoulder straps pull the upper arms back and when you release them, you risk that the protector does not stay on during an accident.

**DAINESE PARASCHANA WAVE 2**

Place of Purchase: Lelles, www.lellesmc.se

Price 1295 kr Weight 680 grams

Good support for the stomach. Shoulder straps can pull back on the upper arms. If one releases them, the protector can slip off.

In the comparison test for 1621-2 back protector for motorcycle driving, the mean value of the seven different points, five in the given directive and two in haphazardly selected places, the points may not go above 18 kN and none may go over 24 nK to achieve level 1 in the norm. In order to go ahead to level two, the protector may not have an average of more than 9 kN and none may be more than 12 kN.

MODEL	Average release of strength	Highest release of strength	Marked as CE-certified according to EN 1621-2	Approved according to the label	Reason for deviation from the markings
Alpinestars	16.8	20.5	NO	YES	made level 1
Clover	13.2	24.5	YES, level 1	NO	very close to 0.5 kN too high
Dainese	17.9	28.5	YES, level 1	NO	should have made level 1, if it had not been for the weak points between the protection plates
Giali	15.6	18.5	YES, level 1	YES	
Halvarssons	6.1	6.3	YES, level 2	YES	
Delta sport	7.4	8.7	YES, level 2	YES	
Knox	11.7	12.8	YES, level 1	YES	
Rukka	8.9	10.2	Incomplete information	?	protector makes level 2
Ufo plast	18.1	23.5	YES, level 1	YES	makes it with 0.5 kN marginally
AP back protector	49.0	56.0	NO	YES	does not provide protection



## Halvarssons Track

**T**estets vinnare är utvecklat i Sverige. Detta ryggskydd klarar vår kritiska granskning mycket bra. När den koniska fallvikten försöker penetrera skyddet blir resultatet en 1,5 millimeters djup inbuktning. Klart godkänt! Över ryggraden noteras en maxkraft på 2,11 kN vid slagprovet. Utanför "bikakan" uppmäts en maxkraft på 2,53 kN som sårst. Säkerheten är mycket bra. Det här är även ett komfortabelt skydd som knappt känns på kroppen. På prislappen står det 1 295 kronor.

**Poäng: 59**



Smidigt  
och säkert



Aningen  
varmt

## Halvarson's Track

The winner of the test was developed in Sweden. This back protector passes our critical examination very easily. When the conical drop weight tries to penetrate the protection, a 1.5 millimetre deep dent is the result. Clearly approved! Along the spine a maximum force of 2.11 kN is noted in the impact test. Outside the "honeycomb" a maximum force of 2.53 kN at worst was measured. The protector scored well on safety. It is also a comfortable protection which can hardly be felt on the body. The price label states 1259 kronor.

**Points: 59**

- +** Flexible and safe
- A little warm