

By Robert Kaiser, PPSS Group

Helping Personal Protection Specialists To Understand Concealable Bullet Proof Vests

Before going into **concealable bullet proof vests** there is one thing I must say right at the beginning of this article: To look after, or to be responsible for the personal security and safety of another human being is without question one of the very best and most rewarding professions one can be part of.

If you are new to this industry... be proud of yourself, you are looking at exciting times ahead, but be also assured you are going to experience some of the most challenging, stressful and truly life-changing decision making moments in your life.

Your own security and personal safety

If you can learn to collect and analyse all available relevant information, and turn it into real intelligence... then you will do an outstanding job in improving the personal security of your principal, as well as your own safety, as good intelligence will help you plan a few steps ahead and put effective 'safety nets' in place.

However, the matter of fact is that sometimes things don't go to plan. That's exactly when you really have to think and act quickly, make crucial decisions and rely on the gear you have invested in, prior to your assignment.

A good quality concealable bullet proof vest must be part of this gear, and this blog will hopefully provide you with information, which will allow you to ask specific technical questions prior to your purchase... ensuring you end up with the RIGHT body armour for your most realistic operational duties, risks and threats.

Please be aware that beside your weapon... your concealable bulletproof vest will be the only piece of equipment that really can make all the difference between your life and death... between coming home safely or not at all!

Ballistic Protection Standards

Concealable bulletproof vests are always designed as soft body armour. Very rarely do they feature front and rear pockets for additional hard trauma plates... that's something you will find in overtly worn body armour, primarily in use in conflict or hostile environments e.g. war zones or politically unrest countries.

Subject to their stated protection level, concealable bulletproof vests can offer excellent protection from even the most powerful handguns and ammunition. Tested and certified protection can be offered from .38 Special and 9mm Parabellum, to .44 Magnum and .45 Magnum rounds, as well as Israel's rather famous Uzi sub-machine gun.

Many countries around the world have their own ballistic protection standard. However, the best-known and most respected one is known as National Institute of Justice (NIJ) standard. The NIJ standard is recognised and respected all over the world, in comparison to the British, German or other standards, which in most cases are more dominant or relevant within homeland security services in their own country or region. Personally I wish there would be a single International Ballistic Protection Standard all body armour manufacturers have to comply with, allowing them to manufacture larger volume and offer them to government and homeland security agencies at a much better price... but I guess that's a little too political for this article. However, let me make it clear here... a single International Ballistic Protection Standard would make it MUCH easier for everyone to understand what exact protection level is the 'right' one for them.

Looking at this most recognised ballistic standard NIJ, what would be the best possible protection level you should be looking for? Well, the answer is simple. I strongly suggest you go with the highest possible protection level for 'soft' concealable bulletproof vests, which is the NIJ IIIA ballistic protection level. I will get to the much-discussed weight and thickness issues in a few moments.

A NIJ Level IIIA tested and certified concealable bullet proof vest will guarantee you protection against 9 mm Full Metal Jacketed Round Nose (FMJ RN) bullets from close range, with nominal masses of 8.0 g (124 gr) at a reference

velocity of 436 m/s (1430 ft/s \pm 30 ft/s) and .44 Magnum Semi Jacketed Hollow Point (SJHP) bullets, with nominal masses of 15.6 g (240 gr) at a reference velocity of 436 m/s (1430 ft/s \pm 30 ft/s). It also provides protection against all handgun threats a body armour tested and certified to NIJ Level IIA and II will offer.

Only a very few concealable bullet proof vests manufacturers have recently taken 'safety' even to another level and offer body armour with additional protection from Tokarev Ball 7.62 x 25mm and Makarov 9 x 18mm, which is of great benefits to Personal Protection Specialists operating in Eastern European countries or the Russian Federation, or those facing realistic threats origination from this region. Another thing I want to point out here is the risk of Far East manufactured body armour, especially those manufactured in China. I fully understand the financial pressure many of us are currently under, but when it comes to the purchase of a potentially life saving piece of equipment... please think at least twice! We have to accept that a Rolex is more expensive than a cheap watch, a Rolls Royce is more expensive than a Skoda and a trip to Kaiteriteri Beach in New Zealand is more expensive than a trip to the local coast (unless you are lucky enough to live nearby). A tested and certified high performance body armour will not be cheap... but there is no doubt it can make a long operational day in the heat less demanding and is more likely to save your life than a body armour we have no real idea on HOW and WHERE it has been made.

Weight

Body armour technology, manufacturing capabilities and body armour design have evolved a lot over the past 10 years. Body armour worn by the police and other enforcement agencies in most countries weigh in excess of 5kg or even 6kg and are often thicker than 20 or even 25mm.

Please let me assure you that this is totally unnecessary. It is a well-documented fact that such weight will lead to stress, fatigue and subsequently to potentially fatal human errors. Innocent members of the public could get severely injured or lose their lives if a Personal Protection Specialist suffers from fatigue due to the excessive weight of his body armour, and subsequently makes the wrong decision, within what will most likely be an 'extremely stressful situation' to start with.

Many body armour manufacturers are now capable of developing body armour less than half of the above weight, using high performance materials such as DSM's Dyneema® SB51, Dyneema® SB71, or Honeywell's Gold Flex® or Gold Shield®, leading to a noticeable reduction and stress, fatigue and any other negative side effect.

I strongly feel that in case you are looking for a concealable high performance bullet proof vest, your body armour should certainly not weigh any more than 2.2kg in today's day in age. Manufacturers have been competing hard in order to develop the lightest body armour in the world. They have pushed each other to completely new levels, hence concealable bullet proof vests weighing less than 2.0kg are now on the market, offering extraordinary ballistic protection.

Blunt Forced Trauma

What is 'blunt forced trauma'?

Blunt Forced Trauma is the non-penetrating injury resulting from the rapid deformation of armours covering the body. The deformation of the surface of a body armour in contact with the body wall arises from the impact of a bullet or other projectile on its front face. The deformation is part of the energy absorbing process that captures the projectile. In extreme circumstances, the blunt forced trauma may result in death, even though the projectile has not penetrated the body armour. An escalation of the available energy of bullets and the desire of armour designers to minimise the weight and bulk of personal armour systems will increase the risk of blunt forced trauma in Personal Protection Specialists.

In order to be concealable or covert a bulletproof vest needs to be as thin as possible. Now this is not as easy as we all would like it to be. The reason behind is the extremely dangerous risk of blunt forced trauma injuries. All modern materials being used to manufacture bulletproof vests make it literally impossible for a 'bullet' to penetrate. The much higher risk is the risk of blunt trauma injuries. The thinner the body armour, the more attention the manufacturer must pay to protect the wearer from such injury. I am sure you don't fancy seeing your body armour stop the 'bullet'... but die later on in hospital from internal bleeding or other internal injuries!

Concealability

The aspect of concealability (is this actually a proper word?) is of immense importance... for you personally anyway, but even more likely for your principal. Of course, there are a number of high profile musicians, actors and other type of artists out there, who get a real kick out of being surrounded by 'hundreds' of massive guys who look as when they can easily crush you in one hand. However, the type of principal I had in my mind when writing this blog is the high profile business executive and political, religious or cultural leader, who are much more likely to want you to blend in and be more 'unnoticeable' to the public. You might even be required to adapt to their dress code, which can range from wearing just about anything starting from a suit and casual wear right up to golf clothing and other sort of training

gear... so your concealable bullet proof vests really wants to be 100% CONCEALABLE!

Please note a good modern bulletproof vest panel can be less than 10mm thin. In fact, some concealable high performance bullet proof vests are as thin as 7mm and with the assistance and backing of specially designed trauma liner they still outperform existing body armour, which used to be heavy, bulky, thick and restrictive.

Comfort

Comfort is about how you feel when you wear your concealable bulletproof vest. Weight, thickness and flexibility are three of the many aspects, which everyone should carefully consider before purchasing this type of protective equipment.

The wearability especially in hot and humid environments is also an important aspect. Please let me assure you that wearing a bulletproof vest will always make you sweat. The question is just how much?

In Middle Eastern countries, Australia, South America or Africa we have to accept the fact that temperatures can often exceed 40 degrees Celsius. For a Personal Protection Specialist wearing a concealable bullet proof vest in such condition is a serious 'burden' and this professional must be able to get on with the tasks on hand without excessive body heat implications or severe risks of dehydration.

Temperature regulating fabrics, such as Outlast® space technology (as used for all PPSS Bullet Proof Vests), or moisture-wicking technical fabrics, such as Coolmax® are now being used as base layer for high performance bullet proof vests, making them ideal for those Personal Protection Specialists operating in hot and humid environments. I urge you to find out if your potential future body armour is offering this level of 'luxury'.

In case you have any question please contact my team or me and email info@ppss-group.com, call +44 (0) 845 5193 953 or visit www.ppss-group.com