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Tradition and modernity in the employ of VIP protection

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Composites among us

How to decarbonise the maritime sector: a sea serpent rearing its ugly head?



SOLUTIONS application

Tradition and modernity in the employ of VIP protection

Presented at the 2023 edition of Milipol Paris, the ParaPactum umbrella by Semper Invicta is the world's first bulletproof umbrella. Able to resist 9-mm bullets, this device keeps VIPs safe in a crowd and is increasingly used by security services worldwide. The ParaPactum combines elegance and discretion with the protection provided by the composite materials which are the essence of its manufacture. It is an ingenious contraption that could have been plucked straight out of a James Bond film.

The market for protective devices invented especially for VIPs holds a prominent place in the personal protection industry.

VIPs —whether celebrities, politicians, or high-profile individuals— navigate a world that is ever more complex. The need to ensure their security has therefore become an unavoidable priority. Products designed specifically to protect play a crucial role in keeping them safe from physical harm.

This dynamic market aims to meet the needs of a discerning and diverse clientele, and within it, the search for innovative and discreet solutions is of paramount importance.

VIPs' media exposure means that they face a wide array of risks. The accessories intended to protect them designed with their specific needs in mind must be sophisticated, unobtrusive and effective in addition to offering an uncompromising level of protection.

Physical security equipment in the guise of a simple umbrella

Following this observation, the French company Semper Invicta (Latin for 'always invincible') was founded by Charles Yvon, CEO of Le Parapluie de Cherbourg. His company is specialised in manufacturing luxury umbrellas and has been recognised by the French EPV (Entreprise du Patrimoine Vivant) label as a living heritage company (Figure 1).



Fig.1: ParaPactum, an umbrella and a protection tool

After 3 years of research and development, Semper Invicta has brought to bear the benefits of composite materials and technical fabrics. They have created an umbrella capable of shielding individuals from a wide spectrum of potential threats while in public. These include:

Chemical attacks: deliberate release of chemicals or corrosive products like acids and

other deterrents. This type of attack, while not generally lethal, targets the physical integrity of the person, in particular through disfigurement.

Attacks with blunt or sharp objects: these aim to create physical damage with projectiles like rocks, improvised weapons such as hammers, or sharp-edged objects.

Attacks with firearms: these attacks aim to do physical harm to the person, generally with the intent to kill.

Attempts to coerce by exerting pressure: during this type of attack, the target is surrounded and pressure is applied to throw the personal security detail off balance and disorganise it. For example,



Fig. 2: Its reinforced frame resists to strong gusts of winds

the person may be tripped or pushed so that they fall, or pressure points are used to induce a loss of consciousness. Inclement and severe weather such as strong wind and rain, while more conventional, remain the primary hazard that umbrellas are supposed to protect.

Tradition and modernity in the context of new uses

Crafted entirely by hand, the ParaPactum has been codeveloped with Pangolin Défense, a French company specialising



Fig. 3: Some 176 parts are necessary to manufacture the ParaPactum

in ballistic protection solutions. At first glance, the umbrella appears to be a regular umbrella but it conceals a number of solid virtues in terms of physical protection. Based on a carbon fibre shaft (grade 5 titanium), its reinforced frame resists gusts of wind up to 200 km/h head on, and a pressure of 100 kg without deformation (Figure 2). In other words, it's strong enough to resist the equivalent of two adults charging it straight on. Weighing in at 3 kg and 1 m in diameter, it is practical and easy-to-wield when seeking to push back crowds in either an opened or closed position. A one-day training course is offered during which users can perfect mastery of this tool so that its full potential for defence may be wielded in hostile environments.

The umbrella fabric is composed of several layers of superimposed sheets. Its fibres stop attacks with bladed weapons. Aramid is widely used as a ballistic protection material and is resistant to firearm attacks. Bullets fired from 9-mm pistols and revolvers as well as machine pistols are deflected by the ParaPactum. Custom-manufactured machinery and some 176 parts are necessary to produce this protective canopy (Figure 3). All of these characteristics are what have made it possible

Focus

National Institute of Justice (NIJ) ballistic resistance standard

Ballistic protection is an essential measure for countering threats related to projectiles and impacts. Throughout the world, different standards of ballistic protection have been established to ensure precise assessments of protective equipment performance. The NIJ in the United States is one of the most well-known and reputed on the topic. It has determined classification levels that range from IIA, II, IIIA, III and IV, according to the resistance to specific munitions.



Fig. 4: Bulletproof briefcases and anti-slash textiles are also available

for ParaPactum to meet the requirements of the NIJ IIA (9-mm to 40 S&W) standard. This certification has literally opened the doors to national security services in many countries, and particularly the Security Group for the Presidency of the French Republic (GSPR). This group has put the umbrella to the test in at-risk situations. This level of protection is not, however, without cost. That offered by the ParaPactum rings up to €10,000. Discreet and

effective, it is a superlative complement to the mobile personal security equipment already available (Figure 4).

Last but not least, this achievement is a fine example of what companies in traditional sectors can offer when they seek to develop new products based on the performances of advanced materials. □

More information:
<https://semper-invicta.fr>

