



## **Mobility & Security Expert**

### **1) OUR HISTORY AND HERITAGE**

We originate from the Westley group, a European leading non-ferrous foundry and engineering group since the beginning of the 19th century in the cradle of the industrial revolution. Westley Plastics was created in the 1960's, developing polymer technologies to replace more expensive, heavier and wear-resistant metal products. RunFlat International is a spin-off and partner of Westley Plastics which specialises exclusively in run flat systems. Our composite material has been developed and is processed specifically for run flat applications while our products are subject to multiple patents.

### **2) OUR PRODUCT DESCRIPTION**

Our run flat systems are tyre inserts bolted onto the wheels and designed essentially to allow the driver to control their vehicle and enable them to drive on safely following ballistic or terrain-related tyre damage (to one or more tyres).

While the tyre is fully inflated, the tyre insert has no effect on the performance or handling of the vehicle. If the tyre becomes deflated, the tyre insert prevents full deflation and enables the vehicle to continue its journey until its passengers and contents until a safe place is reached. The RunFlat tyre inserts do not affect the handling characteristics of the vehicle being driven in run flat mode, whether on or off roads.

### 3) OUR MARKETS

Our run flat systems were originally developed to meet highly demanding military requirements. Following our success with the ministries of defence and interior of many countries (UK, Spain, Germany, Israel, Saudi Arabia, India, Pakistan, Malaysia, Thailand, etc...) as well as the United Nations, we have subsequently applied our expertise to broader markets: emergency vehicles, VIP cars, aid agency vehicles, high value cargo carriers, caravans, busses, trucks, trailers, etc... We now work with a growing number of renowned manufacturers such as Mercedes, Toyota, Isuzu, Tata, KIA, Renault, Ford or Oshkosh as well as manufacturers of armoured vehicles around the world.

### 4) OUR PRODUCTS

Our product range has extended to adapt to the increasing variety of our customers' requirements. Essentially we offer 3 main types of RunFlat Tyre Inserts.

**Ty-Lok** is a band which fits in the well of the wheels. It locks the tyre on the wheel, preventing it from slipping off the wheel when deflated. This gives good driver control after a tyre blowout at speed and allows the driver to continue for several kilometres with a flat tyre. Ty-Lok can accommodate both tubed and tubeless tyres.

For more demanding applications requiring a vehicle to safely cover distances up to 100km with one or more deflated tubeless tyres, RunFlat International has developed various systems which can be fitted quickly without special, expensive tooling. For single-piece wheels, we propose a **Dynamic System** made of 2 or 3 antiballistic composite segments bolted around the wheel rim which remain fixed on the rim when the tyre is fully inflated but slip anticlockwise to the forward rotation of the tyre and wheel when the tyre is deflated, compensating for the difference in diameters between the tyres on each side of the axle.

For multiple-piece wheels, we manufacture a **Static System** made of 3 antiballistic composite segments bolted tightly around the wheel rim which remain fixed and keep the tyre in place whether inflated or not. Its "beadlock" function is particularly strong in run flat mode thanks to its patented shape. This system, primarily designed for military applications on and off-road, typically allows 50 to 100 km in run flat mode.

Each system can be tailored to the customer's specific requirements (distance to cover after the puncture, peak speed, type of terrain, geometry of the wheel, tyre profile, etc). In addition, RunFlat International also offers a range

of **tyres, wheels** and related accessories such as tyre pressure gauges or central tyre inflation systems (CTIS) in order to provide a complete system ready to fit on the vehicle. RunFlat International is regularly consulted to design and supply complete wheel systems for bespoke applications involving steel or forged alloy, single or multi-piece wheels for any load rating and vehicle configurations. Our **tyre fitting centre** can also provide a RunFlat fitting service from tyres and/or wheels which may be free-issued to us.

## 5) OUR CREDENTIALS

Our products are regularly and arduously tested according to military standards such as Finabel, TUV, NATO and American Standards as well as more bespoke standards established by certain countries or manufacturers (e.g. Plasan 300km, Mercedes 150km tests). Products are usually tested in terms of ballistic performance, control of the vehicle and distance covered with 1, 2 or all flat tyres. Our proprietary polymers and patented designs have been developed specifically to meet these requirements. The effectiveness of our products in recent conflicts in Iraq and Afghanistan has been praised by our customers and has further improved our reputation around the World.

## 6) OUR STRENGTHS

The main advantages of our products compared to our competitors are the following:

1. Our systems are **easy to fit** in a few minutes without special and expensive tools or presses. This allows in-theatre changes. Our Dynamic Systems are also safer to fit as it is not necessary to insert one's fingers inside the tyre during the assembly.

2. Our products are **lighter** due to their design and our proprietary material. Our Static Systems typically offer over 20% weight saving over rubber products. For further weight savings, Dynamic Systems on single piece wheels may be substituted to heavy multi-piece wheels and rubber products (please consult RunFlat International for an assessment).

3. Our system is **reusable**; it can be fitted on the same or another wheel after a puncture.

4. Our proprietary polymer material was specifically designed to offer an exceptional **ballistic resistance**. Typically the material does not shatter when it is fired; it flexes, absorbs the energy and partially heals back.

5. In addition to the characteristics stated above, the comparative tests carried out in collaboration with our customers around the World consistently highlight a clear advantage for our products in terms of the quality of the **vehicle handling** and the **distance** covered in run flat mode, on and off road.

## 7) OPERATIONAL EXCELLENCE

RunFlat International offers the flexibility and fast responsiveness of a small business whilst relying on operational excellence through state of the art machinery, polymerisation expertise and regularly audited quality standards. This results in **outstanding customer service** and **impeccable product quality**.



# RunFlat International Limited

Gawne Lane, Cradley Heath, West Midlands, B64 5QY United Kingdom

Telephone: - +44 (0) 1384 414845 Fax: - +44 (0) 1384 414849

E-mail: -info@runflatinternational.com Web Site: -www.runflatinternational.com