



### **IMPRESS 3: a new generation harness**

The IMPRESS 3 introduces a new generation of harnesses to the thermal, cross country and competition pilot. This logical continuation of the unique seatboardless LIGHTNESS concept provides the highest degree of comfort, and is aerodynamically as good as you can get. With an EN/LTF certified back protector the IMPRESS 3 weighs only 4.7 kg - extremely light - and compact.

### **Based on the LIGHTNESS concept**

With this new design - without a seatboard - your body weight is supported by an ergonomic, crease-free seat surface, meaning that you definitely sit (or lie) more comfortably in the harness. This design does not create those pressure points that become a nuisance on long flights, and this is a clear advantage compared with a conventional harness.

### **Significant weight reduction**

The IMPRESS 3 weighs only 4.7 kg – quite revolutionary for a harness with speedbag and approved protector. This weight reduction results from the sum total of numerous design and material details; lighter materials and innovative design also considerably reduce the packed volume.

### **Perfect aerodynamics**

The results of a lot of wind tunnel measurements were considered in the development of the IMPRESS 3. We specifically directed our focus on the aerodynamics, namely the airflow over the chest and leg areas. A low drag and geometrically optimised harness with a novel cockpit-spoiler concept is the result.

### **Innovations and Features**

- Innovative reserve compartment closure system
- Safe-T-System for the chest and leg straps
- Quick-out carabiner capable
- Detachable instrument panel on the cockpit
- Camera pockets in the speedbag
- Ballast compartment under the seat shell
- Shoulder Velcro for Solario and SPOT
- Provision for drink system
- Exit in speedbag for urine tube

### **Included in delivery**

- Speedbag with cockpit and spoiler
- Speed system with ball bearing pulleys
- Carbon footboard
- 2 alu main carabiners (Twistlock)
- Foam protector EN/LTF approved
- Comfort foam for back area
- Four-flap reserve inner container
- Radio pocket
- Easy-to-fit (fully assembled in its basic settings)



## Technical Data

IMPRESS 3		S	M	L
Pilot height	cm	155-170	171-185	186-200
Seating width	cm	n/a *	n/a *	n/a *
Carabiner height	cm	n/a *	n/a *	n/a *
Chest strap width	cm	40-48	40-48	40-48
Total weight of harness incl. alu carabiners (2 pcs.)	kg	4.5	4.7	4.9
Load test		DIN EN 1651 / LTF 91/09, 120 kg		
Certification foam protector		LTF 91/09		
Colours		black/aubergine		

\*) Because the hammock system follows the body shape exactly the seating width together with the carabiner height will vary with the pilot dimensions.

## Size chart

Height (cm)  
↓ → Weight (kg)

	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120
155																
160																
165																
170																
175																
180																
185																
190																
195																
200																

generally fits well  
 has to be tested individually (depends on the back and leg length)



# Frequently Asked Questions about the IMPRESS 3

## **Which pilots is the IMPRESS 3 suitable for?**

The IMPRESS 3 is suitable for thermal, cross country and competition pilots - and anyone else who values aerodynamic excellence and would miss the warm comfort of a speedbag.

## **Why does the IMPRESS 3 not have a seatboard?**

Like the LIGHTNESS the IMPRESS 3 uses a novel (for paraglider harnesses) hammock principle, which perfectly adapts itself to the body shape of any pilot. With this seating shell design the harness takes up an ergonomic shape, supporting the body over its whole area and thereby providing the highest possible level of comfort. The hammock principle also means that annoying pressure points do not arise on long flights, and, not to be ignored, no seatboard means less weight.

## **How can the IMPRESS 3 be so much lighter than the previous Impresses?**

The weight reduction of around 3 kg is the result of many details to do with the choice of materials, and the design. Compared with the IMPRESS 2+ the IMPRESS 3 is made of lighter but just as robust and durable materials, tested by long and intensive mechanical trials. The IMPRESS 3 really is much lighter than its predecessor, and more comfortable.

## **Why can't the IMPRESS 3 be flown without the speedbag?**

If the IMPRESS 3 didn't have a speedbag it would still have to have a foot support, to prevent the pilot from continuously slipping forward. The speedbag is therefore an integral part of the harness, and the footboard part of it serves as the foot stirrup, for reasons of weight. Compared with the IMPRESS 2 the footboard load is considerably reduced by a new triangular supporting geometry, and comfort is further improved.

## **Can the IMPRESS 3 be combined with a speedbag of a different size?**

Basically one of the normal three S, M and L sizes with their flexible speedbags should suit almost every pilot. In special cases, however, any harness can be fitted with a speedbag of a different size and ordered as such – all the speedbag sizes are interchangeable.

## **How was the IMPRESS 3 aerodynamically optimised?**

The IMPRESS 3 has a low drag shape which results from a reduced cross section area (due to the compact protector) and its streamlined silhouette. A lot of information from wind tunnel measurements contributed to the development. The new Cockpit-Spoiler concept also improves the aerodynamic geometry - the spoiler prepares the airflow to meet the upper body and this minimises vortex production at the chest area.

## **Why does the IMPRESS 3 not have a tail extension?**

In the IMPRESS 3 we focused our attention on aerodynamically critical areas, in other words those parts directly meeting the airflow. These extend from the nose of the speedbag to the upper body. Wind tunnel research showed us that that flexible airflow-inflated tail extensions provide no advantage whatsoever: the harness cross section area has to be larger because of the air intake requirement for the said tail cone, and, because the connection between harness and wing is not rigid, the tail leads to yawing movements in flight. These of themselves present increased area to the airflow thus increasing drag...



### Can you take ballast with the IMPRESS 3?

The IMPRESS 3 has a ballast compartment just like the previous Impresses - under the seat, near the pilot centre of gravity. It can take 8 litres of water ballast, and the ballast container can be satisfactorily secured.

### What are the advantages of the new-style reserve system?

The reserve compartment is completely closed by a zip fastener; this effectively protects the reserve from outside influences, and accidental releases are now very unlikely. A well-designed mechanism ensures a reliable and fast opening. The reserve compartment can accept a steerable Rogallo parachute, in fact it can accommodate all reserves within a specified volume range. In addition the new reserve system is much less prone to mistakes while being packed.

### What are the differences from a LIGHTNESS?

The IMPRESS 3 addresses those compromises that were necessary for the LIGHTNESS (for its stringent weight requirements) without having to give up the advantages of the X-Alps harness. The following differentiate the IMPRESS 3 from the LIGHTNESS:

- Use of stronger materials
- User comfort and convenience: adjustable in flight
- LTF approved protector
- Built-in reserve
- Bigger side pockets in the speedbag
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