

KORTEL Karre

The new **Kortel Design** rescue parachute, **Karre**, has 3 main innovations in front of the competition:



- Karre's unique design generates a horizontal speed after opening. This one allows to create a lift, and thus to significantly improve the rate of fall.
- This horizontal speed also has a fineness of the order of 1.5, which allows the pilot to direct the parachute through the handle system, and thus avoid potential obstacles during the descent.
- The asymmetrical shape induces a folding which improves the opening speed, without complicating the folding.

Model	Weight (kg)	Volume(cm3)	Sink Rate (m/s)	Maximum Mass At Take Off (kg)
Karre 100	1.17	3900	4.7 m/s @ 100 kg – 3.6 m/s @ 70 kg	100
Karre 125	1.39	4700	4.5 m/s @ 125 kg – 3.5 m/s @ 85 kg	125
Karre 160	1.78	5300	4.5 m/s @ 160 kg – 3.5 m/s @ 110 kg	160
Karre 220	2.52	7300	4.5 m/s @ 220 kg – 3.5 m/s @ 160 kg	220

KORTEL **Krisis Rogallo II**

The **Krisis Rogallo II** completes our range of light technical reserve parachutes.

Until now Rogallo parachutes have always been heavy and bulky and the fact that they glide immediately after opening limited, in our opinion, their suitability for cross country pilots (severe risk of mirror effect, risk of being on a collision course with an obstacle if the pilot does not immediately steer the parachute).

The **Krisis Rogallo II** incorporates an innovative system allowing it **to behave like a hemispherical parachute** during the initial phase after opening, descending vertically in a stable manner with very little forward speed. Thus in the case of a **very low deployment** the pilot only has to think about landing correctly (parachute landing fall), **without having to worry about eventual complications.**

This safety enhancing feature is only possible due to the large surface area of the **Krisis Rogallo II.**

In the case of a **deployment at higher altitude** the pilot can, in a second phase, **take control of the brakes** and benefit from the incomparable glide ratio and sink rate of the parachute which give it an **undeniable safety advantage** over a hemispherical parachute.

The **Krisis Rogallo II** weighs just **under 2kg** including the inner container for a surface of 42m².

We have chosen only the best materials and thanks to a light fabric that is both strong enough and highly durable, as well as a new type of suspension line, the weight and volume are

very low despite a surface area of 42m².

Characteristics of the Krisis Rogallo II

- An extremely rapid opening time for such a high surface area (EN tested: **2 seconds**)
- Sink rate at full load (130kg) : EN tested: **3.8m/s**
- **1840 g with inner container**
- The Parachute opens with the brakes applied resulting in very little horizontal displacement (in the case of a deployment close to a rock face for example)
- Different brake positions allow the **Krisis Rogallo II** to be optimally installed whether attached at the shoulder level or to the main karabiners.
- The direct effect of the brakes allows turning practically on the spot.
- The specific construction of the risers improves stability when the pilot is in an asymmetric position (in the case of a riser twist for example).
- **Very low packed volume** (4959 cm³)
- Four leaf inner container with additional safety equipment.
- Superior quality materials
- Made in Europe

Opening Behaviour

Thanks to its particular shape and specific packing method the **Krisis Rogallo II** opens up to **50% faster than a standard round parachute**. The specific packing technique renders **scravats practically impossible**.

A new feature is the fully braked configuration of the canopy upon opening which greatly reduces the horizontal displacement. This corresponds to the wish of many pilots to benefit from the **advantages of a round parachute which**

descends vertically combined with those of a Rogallo which can glide and is steerable. When opened near a rock face for example the **Krisis Rogallo II** descends almost vertically. The canopy only starts to glide forward once the pilot takes control of the brakes.

Deployment and Handling

The deployment of the **Krisis Rogallo II** is the same as that of a normal reserve parachute (pull and throw). It slowly moves forward and can be steered with the two brakes even if the paraglider remains attached: this slow horizontal airspeed reduces the loading on the paraglider allowing it to be B-stalled with only one hand. The other hand can thus be used to steer the parachute.

If a quick release system is used to release the paraglider the **Krisis Rogallo II** can be used to its maximum effect: **the glide ratio is doubled** for a slight increase in the sink rate.

Installation in the Harness

The **Krisis Rogallo II** can be installed in the integrated container of a harness.

The parachute is either attached at shoulder level.

Warning: In order for the parachute to be attached at shoulder level the harness must be pre-equipped with specific attachment points for this purpose.

Technical Data Krisis Rogallo II

Model	Flat area (m²)	Weight (kg)	Volume(cm³)	Sink rate (m/s)	Max load at take-off (kg)
Krisis Rogallo II	41.75	1.84	4959	3.8	130

Model	Flat area (m ²)	Weight (kg)	Volume(cm3)	Sink rate (m/s)	Max load at take-off (kg)
Krisis Rogallo II Light	41.75	1.42	3837	3.8	130
Krisis Rogallo II Light Small	35.47	1.18	3324	3.7	90 (100)*

(*) Extended Weight Range

Although the EN/LTF flight tests showed a 3,7 m/sec descent rate at 100 Kg, our own experience also tells us that highly loaded Rogallos, like conventional reserve parachutes, can lead to mirror flying or down-planing when combined with the paraglider. This mainly happens with very stable and collapse resistant school gliders, or in very steady throwing conditions such as training openings over water. The EN/LTF practical tests are always carried out in separated configuration – without the troublesome paraglider. When developing our Rogallo reserve parachutes we focus a lot of attention on the overall functioning spectrum, above all in connected condition (when the paraglider is not cut away).

Despite the positive flight tests at more than 100kg we recommend that the extended weight range is only for use by experienced “Rogallo pilots”, or in conjunction with a reliable cut-away system.

Carabiner (Square shape 8mm)

Square shape: the finest connector when connecting two flat

webbing of same width.

0-Rings

Connecting the rescue parachute risers to the harness:

1. Place the Maillon (locking nut upwards and on exterior side) inside the web-bing loop. Place the 0-ring inside the Maillon and twist it.
 2. Pass the riser inside the free loop and inside the Maillon.
 3. Make a new twisted loop with the ring and pass it inside the Maillon.
 4. Repeat steps #1, #2 and #3 with another 0-ring for the connection to harness. Tighten the Maillon locking nut correctly, with a spanner if needed.
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Windtech WindSOS

The advanced design of this emergency parachute has allowed it to achieve an extremely fast opening time, combined with a smooth and stable descent and a very slow descent speed, which are the most important features of these systems.

We are extremely proud of our achievement in bringing to pilots one of the very best products now available on the market!

size	31	35	48 tandem
area (m2)	31	35	48
sink rate (m/s)	4.4	4.4	4.7
gores	16	18	20
central line (m)	5.85	5.85	6.50
bridle	0.40	0.40	1.20
max. total weight (kg)	105	120	220
weight of system (kg)	1.8	2.0	3.5
certification	AFNOR	AFNOR	AFNOR

construction

canopy fabric:	F111 ripstop nylon or equal material
reinforcements:	15 mm polyamide bridle
suspension lines:	3 mm nylon cord – 4 mm nylon cord
apex lines:	3 mm nylon cord – 4 mm nylon cord
central line:	6 mm nylon cord – 8 mm nylon cord
bridle:	25 mm high resistance polyamide

certification

The Windsos is AFNOR certified.