

# BFreserve manual



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***BFreserve - your safety in squared ;)***

*Unguided paragliding rescue parachute of square design for manual use.*

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## **A WARNING**

Paragliding, like any other aviation sport, is an activity associated with increased danger to life and health. It is strongly recommended that you take training in a proven paragliding school, as well as choose the equipment

## **Thank you...**

...for choosing BogdanFly. We are confident you'll enjoy many rewarding experiences in the air with our equipment.

This manual contains important safety, using and maintenance information. Read it before your flying, keep it for reference, and please pass it on to the new owner if you ever re-sell your equipment.

Any updates to this manual, or relevant safety information, will be published on our website and facebook/instagram page.

Beautiful flying and safe landings, BogdanFly team

## **About BogdanFly**

My name is Bogdan and I just love travelling with a paraglider around the world. But it's hard to do that with a heavy backpack on. I couldn't find any light cocoon on the market that would suit me. That is why I had to recruit a team to create my own brand :)

## **About BFreserve**

Last year, when we moved to Portugal because of the war in Ukraine, I lost all my flight equipment.

That's why I needed a parachute. I did not want to buy it from other manufacturers, so I gathered our team and said: "we need to develop a rescue parachute." So we started making parachutes :)

It took us almost a year to develop this. More than 10 prototypes, about 5 helicopter drops and more than 20 parachute drops with cargo from a tandem wing. Finally everything is ready now.

During the tests, we often dropped the parachute over rocks or trees. To be honest, we were very surprised how light a parachute can be durable. One of our specimens survived 5 landings on trees and rocks.

Hopefully you won't need to use a rescue parachute, but if you do, be aware. Everything will be fine. You are with a reliable square.. ;)



## PURPOSE

The BFreserve parachute intended for saving paraglider pilot in emergency flight situations. The well-thought-out design and the modern lightweight materials results in very simple and reliable rescue system.

## METHOD OF USE

The BFreserve parachute is intended exclusively for manual entry. It is not recommended for pyro- and pneumatic systems. Use a rescue parachute only in a dangerous flight situation.

Deployment procedure:

- find and firmly grab the reserve parachute handle (on the harness or external container);
- pull the handle so that the parachute comes out of the harness (or outer container) shaft. The parachute must remain in its inner container;
- throw the parachute away from you as much as possible towards the open space - where the canopy or paraglider lines will not interfere with it. The stronger the throw, the faster the parachute will open. If there is a height / time for the throw, it is advisable to make a swing with a preliminary swing. The harness release handle have to be thrown away together with the inner container!
- Immediately after opening the parachute it is necessary "to kill" the canopy of the paraglider to avoid the "bell" regime. To do this, tighten the B- or C-risers of the glider firmly and deeply. If this is not possible, you need to deeply tighten the brakes of the paraglider until it enters a complete stall;
- when descending under the canopy of a rescue parachute, it is necessary to control the height and the environment. Before touching the ground, you need to take the right position - take the maximum "standing" position in the harness, bend your knees, tighten the muscles of the legs, abs and back to absorb the impact energy;
- after landing in a strong wind, you need to kill the canopy of the parachute by tightening either one main (side) line, or the central line.

### ***Deployment system warning:***

This parachute system has been tested and found compliant using the original manufacturer's inner container. Use of any other inner container may produce different results, including failures.

**WARNING — Use of this parachute with any alternative inner container: the speed of opening and opening shock test has been completed using the original BogdanFly inner container. Use of any other inner container may produce different results. (including failure)**

## SAFETY RECOMMENDATIONS

The WTF rescue parachute is intended exclusively for paraglider pilots.

It is forbidden to use it for BASE and parachute jumps.

After deployment, the parachute must be checked by the manufacturer or his authorized representative.

**The BFreserve parachute can be used at speeds up to 32 m / s only.**

**The BFreserve rescue parachute must be checked and re-packed every 6 months.**

## EXCLUSION OF LIABILITY

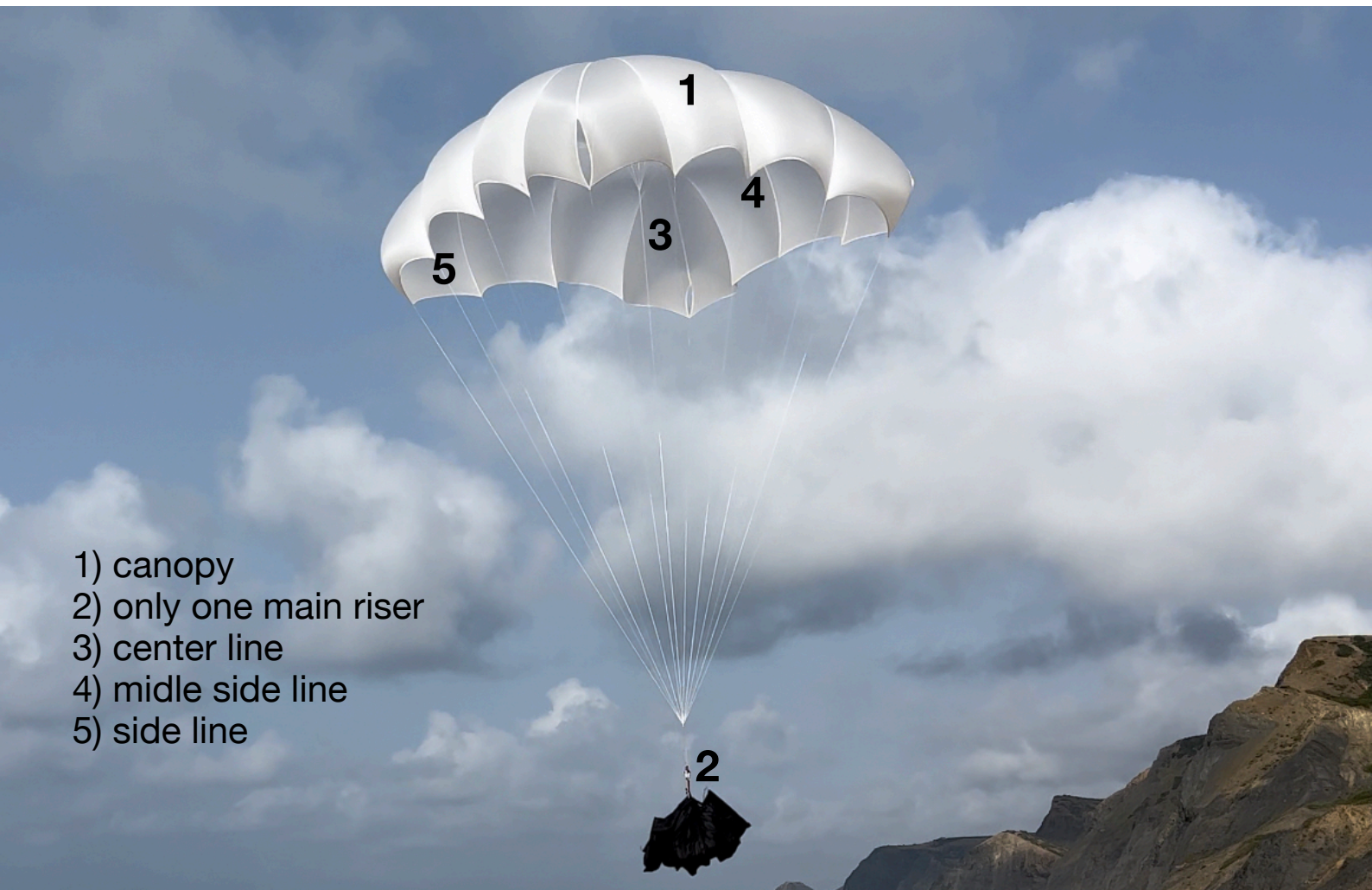
The pilot using this parachute is solely responsible for the risks and hazards associated with paragliding.

The parachute manufacturer is not responsible for the wrong use of the parachute.

Modifications and changes of the design of the parachute are fully prohibited and can lead to dangerous and even fatal consequences.

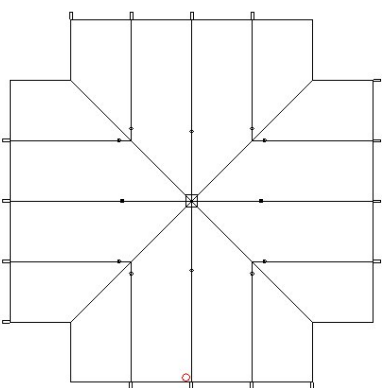
## DESIGN OF PARACHUTE

The canopy of the BFreserve parachute has a square shape with curved edges and a slightly retracted top. The BFreserve-23 has 16 main lines(24 for size 29( and 1 center line. All lines are attached to the canopy of the parachute on one side and to the main riser on the other. The main riser is designed to connect the parachute to the corresponding harness bridle. Number of main riser – one, it is mean one connection point for the parachute. The parachute canopy consists of a special nylon breathable fabric and reinforcing webbings. The BFreserve has no any adjustments.



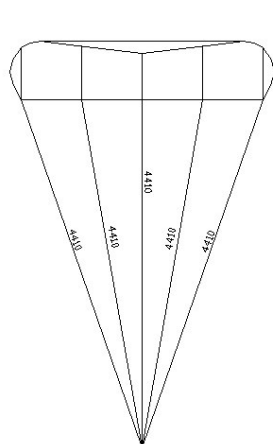
- 1) canopy
- 2) only one main riser
- 3) center line
- 4) middle side line
- 5) side line

BF Rescue-23

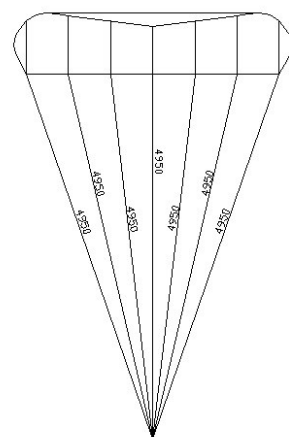


Center line – 4550+400 mm  
Main lines – 4410 mm

BF Rescue-29



Center line – 5100+450 mm  
Main lines – 4950 mm



## TECHNICAL DATA

Name of the parachute: BogdanFly BFreserve

Type of the parachute: Paragliding rescue system

Sise, Area. m2	23	29
Central line, mm	4410	4950
All side lines, mm	4550	5100
Packed dimensions, cm	19x17x9	21x19x10
Packing volume, cm3	2900	3990
Min load, kg	50	60
<b>MAX load, kg</b>	90*	110*
Parachute weight, kg	0,95	1,19
Best Sink on EN test. m/s	-4,9	-5,13

*\*BFreserve 23 is full certified in EN for 90 kg. But we, as a manufacturer, allow its use up to 95 kg.*

*\*BFreserve 29 is certified(sink test) in EN for 110 kg. But we, as a manufacturer, allow its use up to 115 kg.*

## LIST OF MATERIALS

**Parachute canopy** – ripstop Nylon rescue fabric 25 g/m; UTT (Germany)

**Reinforcing webbings** – Stout Group Nylon webbing LTKP-12; (Ukraine)

**Side lines** – Liros Safety line Dyneema 1.3mm 190 daN; (Germany)

**Center line** – Liros SL500 Dyneema 3,2mm 500 daN;

**Main riser** – Liros Dyneema D-pro 2300 daN;

Rubber rings – silicone 20x2x1 mm.

To obtain spare parts (in case of simple repair or needed parts replacement) please contact to manufacturer or local dealer.

## OPERATIONAL LIFE

**It is recommended to replace the rescue parachute after 10 years, even if it has never been used.**

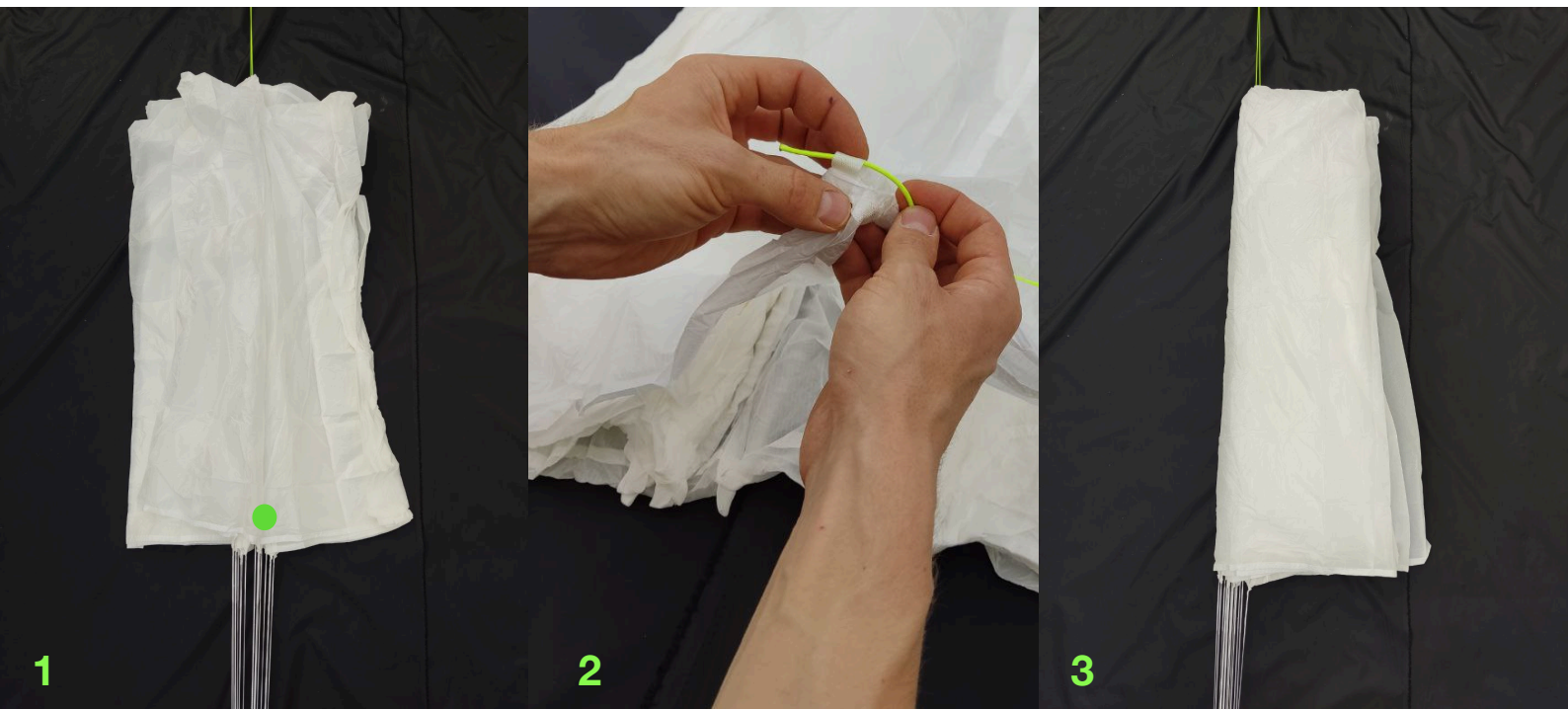
## PACKING

All BFreserve parachutes are delivered after inspection and professional packing in our manufacturer's factory. It is recommended that BFreserve is always inspected and re-packed by experienced rigger.

The effectiveness of the parachute depends on the correct packing. In any case, if you have doubts or questions, you can contact the manufacturer or an experienced instructor.

Before re-packing it is highly recommended to unpack the parachute and to air it in the light wind.

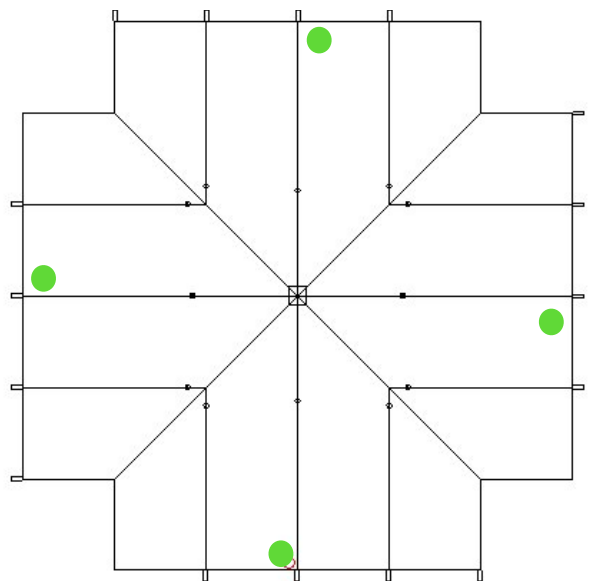
### *Order of operations:*



**1)** Place the parachute on a clean and level surface. It is necessary to start arranging with any of the four lines, which are attached to the center of each quarter of the parachute canopy. They are shown by lime points on the chart below.

**2)** Pass the lines **IN ORDER INTO EACH** of the 12 (or 16 for 29) packing loops. And fix it. On the opposite side, also fix the main riser, thereby slightly stretching all the lines and the parachute.

**3)** Place all parachute sections on one side.





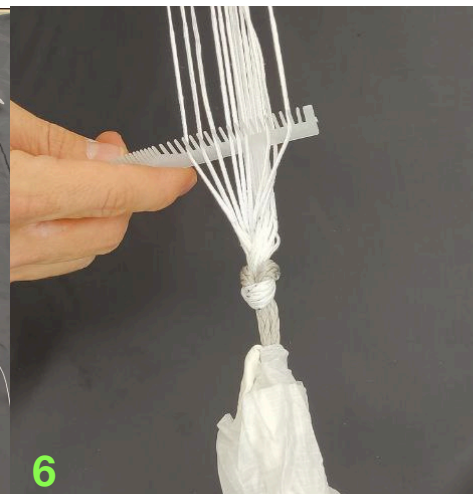
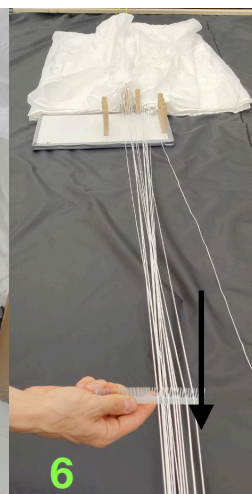
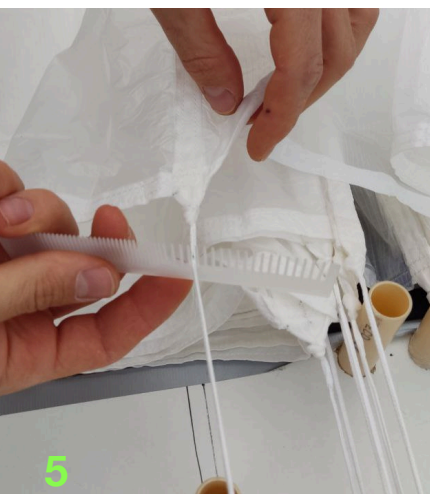
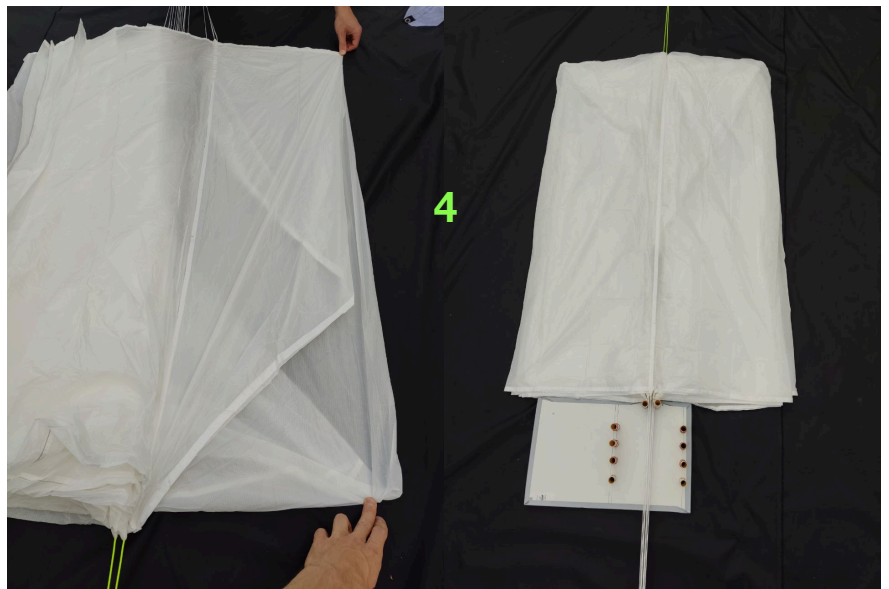
4) Place the parachute on a clean and level surface. It is necessary to start arranging with any of the four lines, which are attached to the center of each quarter of the parachute canopy. They are shown by lime points on the chart below.

Carefully lay out and sheet each section of the praashute. Do this in turn. First 8 on one side, then 8 on the other. (12 sections per side for BFreserve 29)

**DO count the sections to make sure you have the SAME number of sections on each side.**

**BFreserve 23 - 8 sections on each side.**

**BFreserve 29 - 12 sections on each side.**



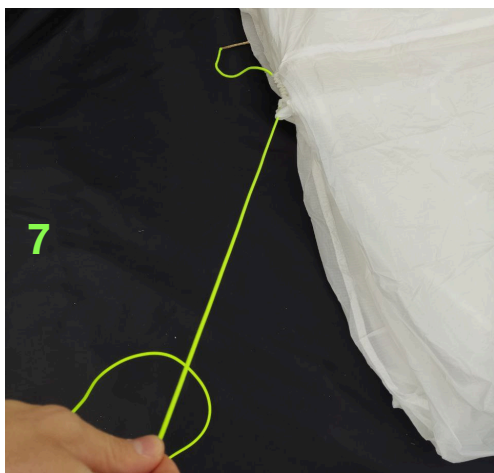
5) Not everyone does this part. **BUT WE STRONGLY RECOMMEND TO "COMB" THE LINES.** To get the fastest possible opening of the parachute and reduce the risk of line tangling to the very minimum. In QUEUE, they laid out each line along the comb. Start at the top.

**You must do this in turn for each half of the parachute sections. Never all lines at once!**

**BFreserve 23 - 8 lines on each side.**

**BFreserve 29 - 12 lines on each side.**

6) Pull back the line cover on the clay riser. Gently guide the comb all the way down to the main parachute riser, unraveling the overlapping lines.



7) **DON'T FORGET** to remove the line from the parachute packing loops.

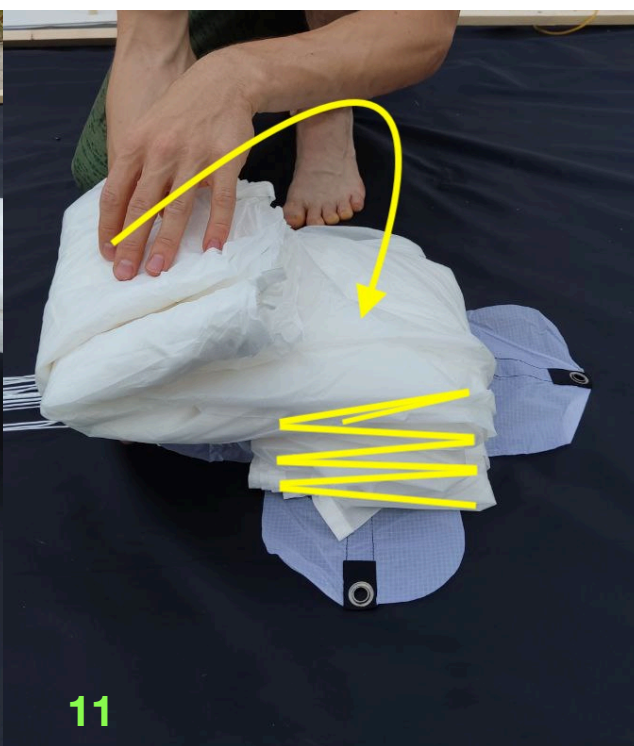


8) Place the parachute packing bag as shown in the picture. A petal with a



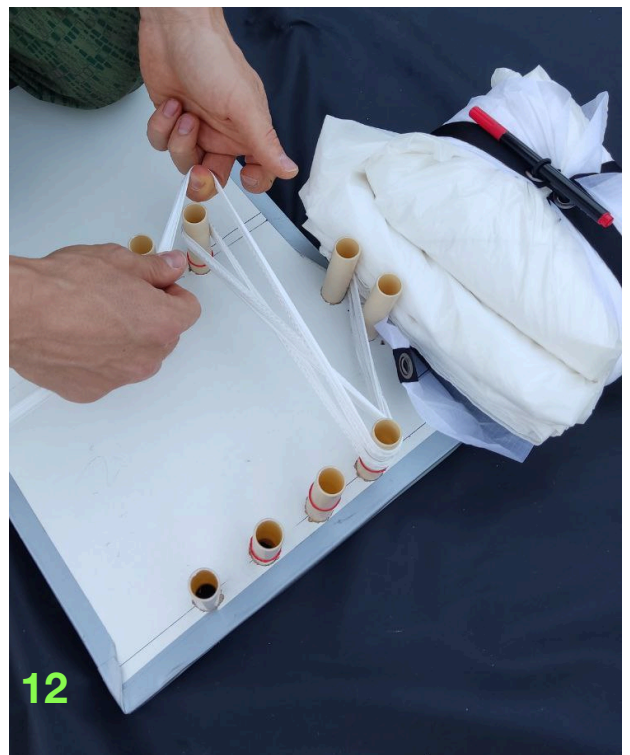
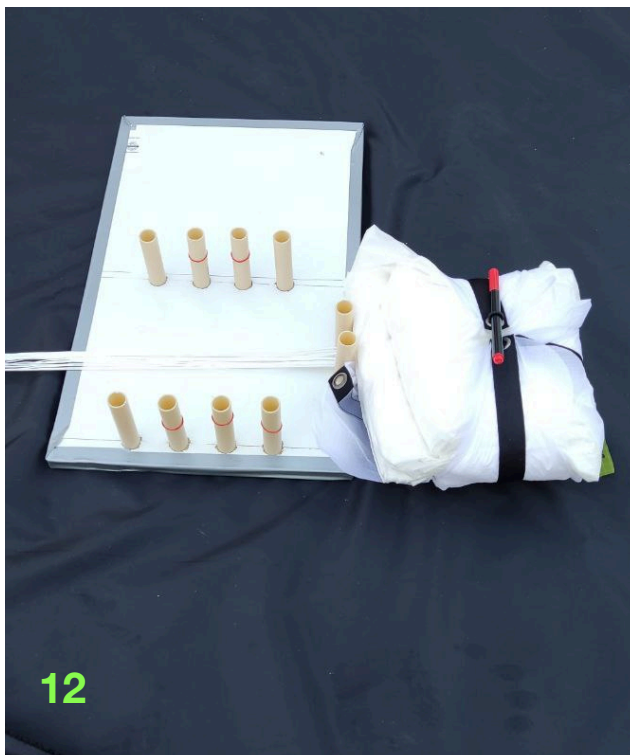


- 9)** Fold the parachute in a zig-zag pattern as shown in the picture. Put the first half of the parachute under the bottom, the second on top.
- 10)** Squeeze excess air out of the parachute.

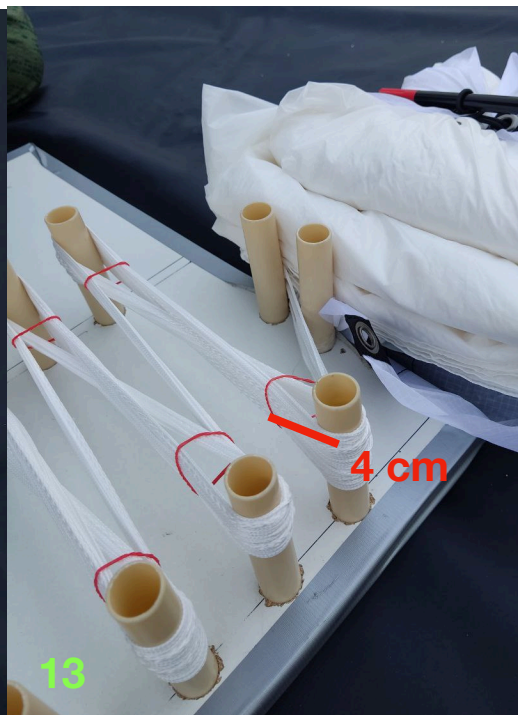


- 11)** Fold the parachute in a zig-zag pattern as shown in the picture. Turn the top of the parachute inwards.

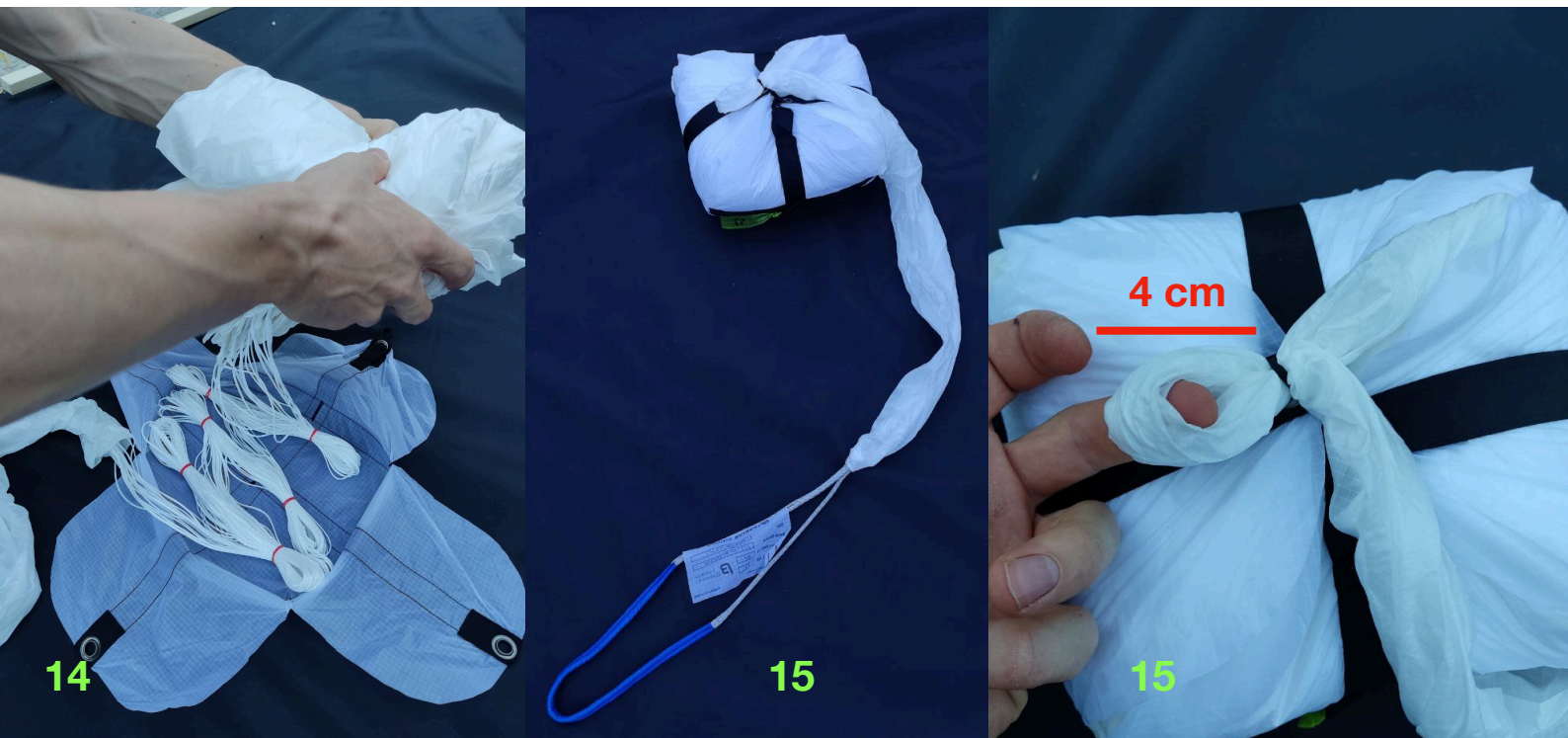




**12)** Partially close the parachute envelope using a marker or pencil. Lay the parachute lines as shown in the picture. Make 2 loops for each turn. If you don't have a slinger, use an assistant.



**13)** Put the elastic on the sling.  
**The elastic should not be further than 4 cm from the edge of the loops.**  
 Straighten the sling cover.



**14)** Lay the lines on the bottom or side of the parachute container.

**15)** Close the parachute envelope completely.

**The check of the container should not be more than 4 cm.**

**Ready. The parachute is ready for installation in harnesses ;)**

***If there are 2 ways to connect a parachute to the harness.***

**1)** Carabiner or softlinks (we recommend softlink).

Softlink or carabiner must be at least **2300 daN**



**2)** Loop “bridle-to-bridle” method. Be sure to secure the knot with a rubber band or duct tape to keep the knot from parted.





## **WINCHING OPERATIONS**

For using BFreserve in winch towing you must follow the recommendations and instructions of the harness-, paraglider- and tow release manufacturer. First of all, you must make sure the parachute can be applied in any flight situation.

## **PARACHUTE RECYCLING**

At the end of service life the parachute must be disposed properly. Please, send it back to manufacturer for correct disposal.

## **STORING, CLEANING**

- a dirty parachute and inner container can be carefully cleaned with clear water and a soft sponge;
- do not store the parachute in a wet, not ventilated room;
- avoid sunlight exposure;
- do not leave equipment(harness, parachute) in a closed car in direct sunlight;
- avoid contact of the parachute with hot objects and open fire;
- avoid wetting the parachute;
- in case of wetting dry the parachute;
- after getting soaked in sea water, immediately rinse the parachute in plenty of fresh water (for example, in a car wash), only then dry it in the shade in the wind;
- 10 - for long time storing open the parachute from inner container.

## **CHECKS, REPAIRS**

**The manufacturer strongly recommends to make a qualified check and repacking the parachute every 6 months.**

For the repair it recommends to ask manufacturer. Your parachute consists of many high-quality long-life components. When replacing parts (fabric, lines, risers..), only original parts may be used.

## **ENVIRONMENTAL INFORMATION**

Paragliding is a particularly nature-friendly sport. This makes it all the more important that we as paraglider pilots behave in a responsible way towards both the environment and the people sharing it with us. Please also make sure to comply with legislation regarding protected areas, privately owned property or hunting arenas – this ensures the least possible friction in relation to other users of the great outdoors, to the benefit of both yourself and the sport as a whole.

**Parachute getting out of the harness test after first installation.**

**If your harness has a parachute mounted under the seat, be sure to do a test draw of the parachute to make sure it comes out easily.**

**Do this test with the protector in place while seated in the harness.**

For rubber bands for lines for repacking, you can contact the manufacturer.  
If you need to pack your parachute urgently, you can cut rubber bands from a medical glove or condom.

**IT IS FORBIDDEN TO USE STATIONERY RUBBERS!**  
They stick together over time and can lead to blocked lines!



Serial number		
Date of packing	Name of rigger	Signature

***Thank you for your attention. Fly beautifully, high and most importantly safely.  
Best Regards, BogdanFly team.***

