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Owner's Manual

Rescue system

Annular 20 / 22 / 24

Annular HG / 24 HG

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Warning

This emergency system should not be used for skydiving.

Emergency systems are not required to be registered by the Department of Aviation in Germany (Luftfahrt Bundesamt LBA). Any injuries or damage occurring in connection with this emergency system cannot be held the responsibility of the manufacturer.

Paragliding is an extremely dangerous activity that can and often does result in serious injury or death. The designer, manufacturer, distributor, wholesaler and retailer cannot and will not guarantee your safety when using this rescue system. You alone must judge the flying conditions, including weather, wind, congestion, launching areas, and landing area before you fly. Rescue systems require careful and consistent care. Overtime, solar radiation, dirt, dust, grease, water, wind, stress, and other variables will degrade the performance and safety of the system, thereby increasing the risk of injury or death. Read the owner's manual of the rescue system before you fly. Always wear a helmet and protective clothing when flying a paraglider.

1. TECHNICAL DETAILS

Parachute types: Paragliding rescue system Annular 20 / 22 / 24
Hang gliding rescue system Annular HG / 24 HG

Manufacturer: **Fly market GmbH & Co. KG**
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	Annular 20	Annular 22 Annular HG	Annular 24 Annular 24 HG
Weight (kg):	2,0	2,3	2,6
Area (m ²):	32	36	40
Max. Load (kg):	100	120	160
Drag at Sink Rate of 6.8 m&s (kg):	127	154	174

2. Purpose

The emergency parachutes are manually-released parachutes for paragliding / hang gliding (HG version) pilots in an emergency situation while flying.

3. Conditions of use

Operational lifespan of parachute: 10 years with an inspection every 2 years. For the next three years thereafter, the parachute must be inspected annually.

4. Necessary documentation

- A) Handbook
- b) Inspection records

5. Mode of operation

During an emergency in the air, the reserve is deployed by giving the release handle a firm tug. This action will remove the fastening pins from their securing loops. The pilot should then throw the inner container to the rear, either to the left or to the right. The air current stretches the lines and subsequently opens the inner container. The canopy releases, stretches and fills with air.

6. Inspecting the parachute

A parachute must be inspected by a registered packer before it is packed. After being opened during an emergency rescue, the parachute must be inspected. A packed parachute which is to be repacked, should undergo a release test. This establishes whether the power of the release is between 2 kp and 7 kp.

It is recommended that the Annular be opened, aired and repacked after being closed for a period of four months.

7. Storage

Oil, grease, acid and paint should not be stored near the parachute. The storage space should be dry. Parachutes which have not been used for a long period of time should be opened and the canopy loosely rolled and stored in a bag.

8. Cleaning and drying

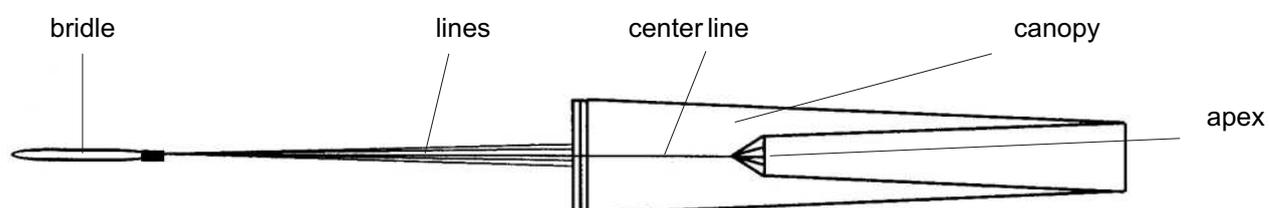
A dirty canopy and container can be washed with clean tapwater. If the rescue system comes in contact with salt water, it should be washed with fresh water and hung up to drip dry in the shade. Grease and mould can affect the strength of parachute components and when evident, the parachute should be sent to the manufacturer for cleaning and inspection.

9. In the event of damage

It is established during an inspection that the airworthiness of the canopy is impaired, then it must be sent to the manufacturer for repair. This is also advisable if the parachute is damaged and the pilot is unsure whether the airworthiness is affected. All repairs should be carried out by the manufacturer.

10. The parachute, lines and bridles

The parachute canopy has 20 segments (Annular 22, HG: 22; Annular 24, 24 HG: 24). The material is an air-permeable, tear resistant nylon fabric. The main seams are reinforced with a band. The lines are connected at the base with V-flaps, spliced and overstitched on the join. The apex is pulled in and secured with an elastic line. This allows a fast opening, a low sink-rate and no oscillations. When sewn the main bridle has a strength of 2.6t.



12. INNER / OUTER CONTAINER

The inner container is made from tear-resistant nylon fabric. If the rescue system is delivered with outer container it includes a release handle and two pins. The outer container is made from strong, water-resistant nylon. It consists of a base section, two side flaps and an upper and lower flap.

13. PACKING THE PARACHUTE

Packing the parachute should take place on a special packing table or a clean flat surface. The parachute is stretched to its full length on the surface. The packer stands to the right of the parachute.



1. Secure the parachute at its apex to a suitable hook.

2. The packer takes segment 10 (Annular 20), pulls it toward him, and places the segments, one by one, on top of each other, so that the lines are between the thumb and index finger of the right hand. (Annular 22 & HG: Segment 11; Annular 24 & HG: Segment 12). Finally take the center line also between thumb and index finger.

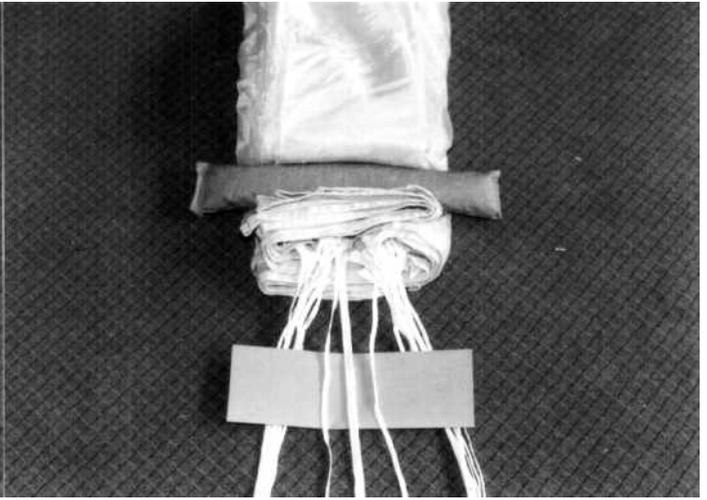


3. The canopy is placed on the table and folded such that the stamped segment (No. 1) lies on the top. The same number of segments are now on the left and right side.

4. Fold the canopy in the form of an "S", so that the lines are together in the centre. To keep the lines lying flat they must be held down with a weight.



5. Arrange the upper part of the canopy as shown.



6. Inspect the lines 1 and 20 (for Annular 20); lines 1 and 22 (Annular 22 & HG); lines 1 and 24 (Annular 24 & 24 HG) and the center lines. Check that none of the lines are twisted.



7. Place the parachute in the container in the form of an "S". At first make 3 "S" folds on the inner container. Leave the last 40 cm without an "S".



8. Take all "S" folds and put it inside of the inner container. Fold the last 40 cm in small "S" folds in the inner container.



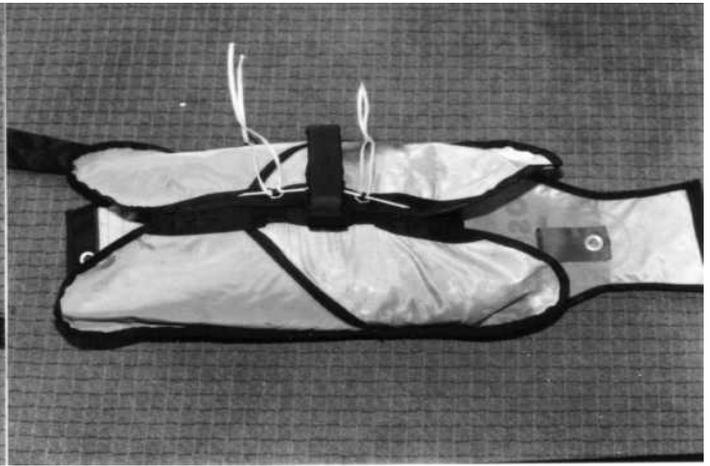
9. Form the lines in 3 "S" forms. The curve on each "S" is loosely secured with rubber bands. The 3 bundles of lines are placed on the parachute.



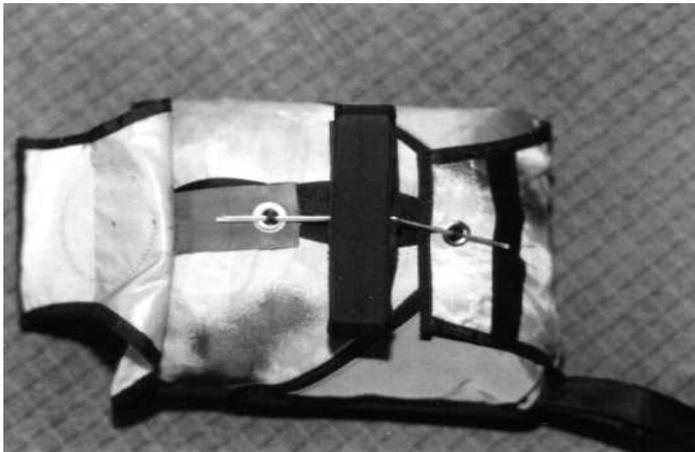
10. Close the inner container with the last 50 cm of lines. Start with the middle, finish with the outer.



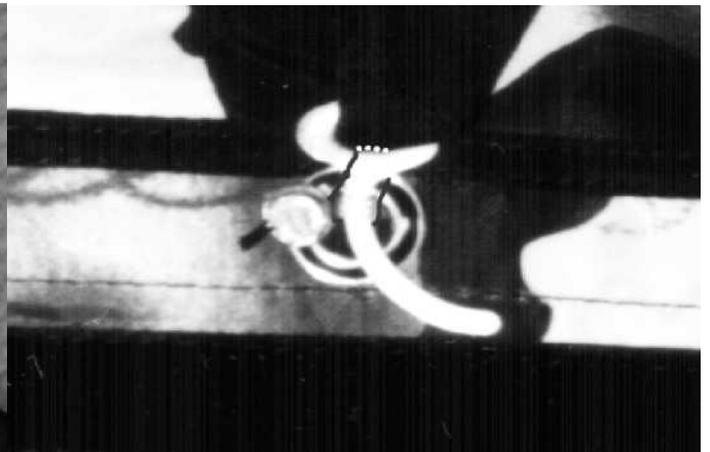
11. The bridle is placed in an "S" shape on the base of the outer container. Arrange the bridle so that it comes from the outer container on the left or right side, depending on the needs of the pilot.



12. At first close the side flaps.



13. Finish by closing the lower fastening flap and finally the covering flap.



14. To avoid an unintentional opening the DHV prescribe to use a special thread to secure the pins. This defines a minimum opening force of at least 2 daN. This special thread must be put through the hole of the pin and around the loop as shown in the picture above.

To secure the pin it is only allowed to use certified material because if the strength of this material is too high the safe operation of the rescue system is not guaranteed.

This thread is supplied by Fly market GmbH & Co. KG! **Do not use** other threads which may look the same!

15. Enter the packing details in the record book, including the name of the packer.

16. Installation in harnesses with integrated rescue system container (Compatibility Check):

With the installation of the rescue system in a harness the compatibility of harness and rescue system is to be checked. This check has to be carried out only by authorized persons.

This check is to be noted in the record book of the rescue system.

In this check must be paid attention to the fact that length is minimized between the release handle and the inner container. Therefore different loops are attached on the inner container for the best result. The shortest possible setting should be chosen always to allow a good throwing of the system.

Make sure that a reliable opening of the harness container is guaranteed and the pin is not blocked!!!

Attachment points handle:

