

Additional requirements for the type testing of paraglider harnesses with integrated deployment bag for rescue systems

(according to NfL II 91/09 „Lufttüchtigkeitsforderungen für Hängegleiter und Gleitsegel“, 1. Allgemeines 1.1.11)

1. According to LTF 91/09 paragraph 6.1.8 the strength of the connection between the rescue system handle as part of the paraglider harness and the deployment bag has to be tested. The minimum strength required is 70 daN.
2. As a complementary test to the LTF type test for paraglider harnesses a test has to be made with the deployment bag (which is part of the harness). A rescue system of the maximum size which the harness manufacturer allows for the deployment bag has to be installed. It must be checked if the rescue system can be released from the deployment bag without delay. Annex 1 describes an appropriate procedure for this test.
3. It must be mentioned additionally on the type label that the harness is a „harness with integrated deployment bag“. The minimum and maximum volume in cm³ of the rescue system which is allowed to be used must be stated.
4. The minimum and maximum allowable volume of the rescue system has to be mentioned in the operating manual of the harness. It also must be mentioned, that the packing instructions of the manufacturer of the rescue system regarding deployment bags which are part of the harness have to be observed.
5. Additional remarks in the operating manual of the rescue system:

The manufacturer of the rescue system determines in the operating manual the requirements for installation of the rescue system in combination with other deployment bags, for example minimum and maximum volume, type of deployment bag, packing instructions.
6. A type test certificate will be issued For paraglider harnesses with integrated deployment bags when the release test as described in paragraph 2 has been completed successfully and when the remarks in the operating manual as mentioned in paragraph 4 have been checked by the testing laboratory.
7. Special remark for harnesses which have an integrated rescue container with opening on the smaller side of the container (pocket container):
8. It cannot be insured for harnesses with pocket container by following the procedures as described in paragraph 1-5, that also special rescue systems (for example rescue systems with directional controls or so called cross canopies) can be released safely in combination with a deployment bag which is part of the paraglider harness. The test laboratory must require and execute a release test for each special rescue system in combination with harnesses with pocket container following paragraph 2.

Annex 1 Example for a simple release test

A rescue system has to be installed into the deployment bag which is part of the harness following the packing instructions of the rescue manufacturer. The volume must be the maximum volume allowed by the harness manufacturer (maximum deviation allowed = -10%).

The following described release test must be made in a place, which allows to execute the test in free fall. Therefore a minimum height is required to enable the lines of the rescue system to stretch, the deployment bag to separate from the canopy and the canopy to open in the air during free fall.

Order of events of the test

- The end of the rescue bridle (connection with the harness) has to be attached to a fixed point
- The rescue system is held into the air. The rescue release handle is at the same height as the attachment point of the bridle
- The rescue release handle is released without using additional force (e.g. without flinging)

Requirements for a positive test

- The deployment bag must open without delay
- The lines of the rescue system and the cloth of the canopy must be released completely from the deployment bag without delay
- The deployment bag must separate completely from the rescue system