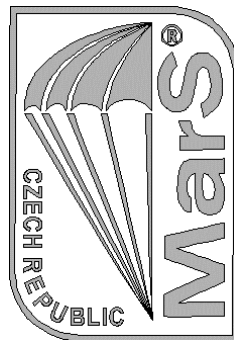


**Instructions for the packing and use  
-the STUDENT 01  
Container OP-093/01, Harness PS-034 S-1**

**Technical description  
of the STUDENT 01**

**P – 004 – 01**



8 th issue

In Jevíčko 03/2015

## **CHAPTER I.**

### Technical Description of the Container/Harness

1. Purpose
2. Tactical and technical parameters
3. Functions of the container
4. Parts of the container/harness
5. List of replaceable parts
6. Parts of the container/harness - technical description

## **CHAPTER II.**

### Instructions for Packing and Use

1. General instructions
2. Inspection of the container before use
3. Removal of faults/Troubleshooting
4. Guidelines for the replacement (assembly) of parachute parts
5. General conditions for assembling the safety devices into the reserve canopy package
6. Assembly of AAD an m2 device
7. Assembly of AAD a Cypres device
8. Assembly of AAD a Vigil device
9. Packing Tools
10. Packing of the Container

## **CHAPTER III.**

### Storage and Transportation of the Parachute (container)

1. Preparation of the parachute (container) for storage
2. Storage of the parachute (container)
3. Transportation of the parachute

## **CHAPTER IV.**

### Removal of Dirt, Washing, Cleaning

## **CHAPTER V.**

### Ecological disposal instructions

## **WARNING!**

**It is necessary to pass appropriate parachutist training program to minimize the risk of serious injury or death or destruction or damage of the parachute set STUDENT 01.**

**Never use this parachute set in case that you have not read this warning, have not finished the prescribed training program, and you have not understood all appropriate handbooks for operating of this parachute set.**

**To prevent the risk of death, serious injury, destruction of the canopy or its damage, we recommend to meet following:**

<b>MAXIMUM EXIT SPEED</b>	<b>240 km/hours / 130 KNOTS</b>
<b>MAXIMUM LOAD WEIGHT</b> <b>(of the parachutists + gear + equipment)</b>	<b>115 kg / 253 lb</b>
<b>MODEL/TYPE</b>	<b>OP-093/01 / PS-034 S-1</b>
<b>NO. OF PART</b>	
<b>SERIES</b>	
<b>DATE OF PRODUCTION</b>	

This parachute has been approved according to TSO C 23 d.

MarS a.s.

Okružní II 239

569 43 Jevíčko

THE CZECH REPUBLIC

## **List of Changes**

In case of the necessity to change or amend this manual, the holder will be notified by means of bulletins with enclosed new (corrected) sheets. The holder of the manual is obliged to record any notified and obtained changes into the List of Changes and replace out-of-date sheets with valid sheets. Changed or amended parts of the manual will be marked with a vertical line on sides and they will further be marked with the number of the change and the date of the issued change on the bottom of the page.

<b>Sequence No. of the Change</b>	<b>Chapter</b>	<b>Nos. of Sheets with Changes</b>	<b>Issue Date of New Sheets</b>	<b>No. of the Bulletin with Issued Change</b>	<b>Approval Date of the Bulletin</b>	<b>Date of Execution Signature</b>

# CHAPTER I

## 1. Purpose

The STUDENT 01 Container with the harness is designed for a basic training of parachutists, possibly for recreational jumps.

It enables a tandem arrangement of canopies of reserve and main parachutes.

## 2. Tactical and Technical Parameters

### 2.1. Limitations:

- Permitted flight speed during an immediate opening from 90 to 240 km//hrs.
- Permitted flight speed for jumps with an attached deployment bag from 90 to 140 km//hrs.
- Permitted flight speed for jumps with a stabilization fall from 90 to 180 km//hrs.
- Permitted flight speed for jumps with an attached pilote chute from 90 to 140 km//hrs
- Permitted altitude of opening from 300 to 4000 mT.

### 2.2. Operational Conditions

- Main and reserve parachutes can be packed for jumps for 180 days in maximum, unless the manufacturer of the main and reserve parachutes do not specify a different period.
- The functioning of the container/harness is assured when stored between - 40 to + 93.7 ° C at relative air humidity corresponding to such temperatures.
- The gear of the parachutist must be attached to the parachutist 's body in such a manner that assures the proper functioning of the container.

### 2.3. Parameters Assuring Reliability

Warranty period

- a) Lasts 24 months on condition that repairs and replacements of used parts are carried out, storage conditions are maintained and regular inspections connected with the airing of the parachute are performed
- b) Begins with the date of the shipment of the parachute
- c) During warranty period the manufacturer will not accept claims in the following cases of:
  - Damage of parachute parts caused by their catching on gear
  - Violation of conditions of packing, storage and maintenance of the parachute by the user
  - Missing parachute log book or its improper records
  - Failure to follow the instructions of this technical description
  - Any unskilled handling with the parachute.

### 2.4. General Overhaul

- Parachutes are accepted for general overhaul if a user/a representative of the user evaluates further use of such a parachute as not suitable.
- General overhaul is performed either directly by the manufacturer or by a organization or person authorized by the manufacturer.

### **2.5. Total Time Life**

The total time life of the parachute is set to 20 years since the production date in maximum. However, it depends on the technical condition of each container. Therefore it is required to meet the following conditions:

- a) Replace damaged parts in time and without any delay. Any replacement of parts must be recorded in the parachute log book.
- b) Repair the parachute and its parts in time and without any delay, always according to technical conditions of repairs. Each and every repair must be recorded in the parachute log book.
- c) After the elapse of 5 years carry out overall technical inspections (validity - 2 years in maximum, result to be recorded in the parachute log book) till its unworthiness for jumps
- d) In Main Risers VK – 44/ ..., the Main Risers must be sent to the manufacturer or person authorised by the manufacturer (parachute technician, senior parachute technician with valid authorization) to perform specialist inspection and evaluate the actual condition of Main Risers at the latest upon completing 300 dives or after 5 years of use.

The evaluation of the technical condition of the parachute (technical inspection) is performed directly by the manufacturer or by an authorized organization or person.

### **3. Functions of the Container**

#### **3.1 Jumps with an Attached Container (Main Deployment Bag)**

After the parachutist's exit out of the aircraft with legs forward (this way is called „a soldier“) and extension of the static line anchored inside an aircraft, the needle of the static line opens the main parachute pack. Then the canopy that is folded in the container (main deployment bag) is taken out of the container. The container is attached to the static line.

#### **3.2 Jumps - Stabilized Fall**

After the exit out of the aircraft with legs forward (this way is called „a soldier“) and extension of the static line, the static line anchored with a snap hook at one side in the aircraft becomes unlaced from the passes on the parachute container. After it is extended in full length, the stabilization parachute is withdrawn from the container attached at the end of the line. After the stabilization parachute is inflated and the connecting webbing is extended, the parachutist becomes stabilized in a position slightly leant forward. After holding time, the parachutist pulls the release of the main parachute out.

After lines are extended in full length, the container is slid off the canopy and the canopy cells are gradually filled up with air.

#### **3.3 Freefalls with a Manual Opening**

After the exit out of the aircraft and after 3 seconds in minimum, the parachutist pulls the release of the main parachute out.

Then the parachute container opens and the pilot chute pulls the container with a folded canopy out of the container.

Suspension lines become unlaced from rubber loops of the container and the closing flap of the container is released.

After the lines are extended in full length, the container is slid off the canopy and cells of the canopy are gradually filled up with air.

#### **3.4 Jumps with an Attached Pilot Chute**

After the parachutist's exit out of the aircraft with legs forward (this way is called „a soldier“) and extension of the static line anchored inside an aircraft, the needle opens the parachute container. Then the PV – 006 pilot chute is taken out of the container. The pilot chute is tied to the stem at the end of the static line and to the deployment bag with the canopy. After the system is extended, the tearing-off line with the strength of  $450 \pm 50$  N is torn up, the container is slid off the canopy and cells of the canopy are gradually filled up with air.

#### **4. Parts of the Container/Harness**

4.1.	Container (OP-093/01)	1 piece
4.2.	Harness (PS-034 S-1)	1 piece
4.3.	Ripcord Handle Reserve (U-051)	1 piece
4.4.	Three Ring Release Ripcord (U-053)	1 piece
4.5.	Ripcord Handle of the Main Canopy (U-065)	1 piece
4.6.	Ripcord Handle of the Main Canopy (U-066 b)	1 piece
4.7.	Ripcord Handle of the Main Canopy (U-067)	1 piece
4.8.	Reserve static line (SS-058 a)	1 piece
4.9.	Static Line (VL-025 L)	1 piece

#### **5. List of replaceable parts**

Except for the packing and the harness, all other parts can be replaced.



## **6. Parts of the container/harness - technical description**

### **6.1 The Container OP-093/01 (fig. 1)**

- both main and reserve parachutes are folded in the parachute container that is of a trapezium shape and is made of polyamide fabric. After the back pad, the pack of the main parachute and the pack of the reserve parachute are sewn together, they form one unit.

The pack of the main parachute consists of: the bottom (4), left side flap (5), right side flap (6) and bottom flap (7). A closing line (8) of the main parachute container is placed on the bottom flap.

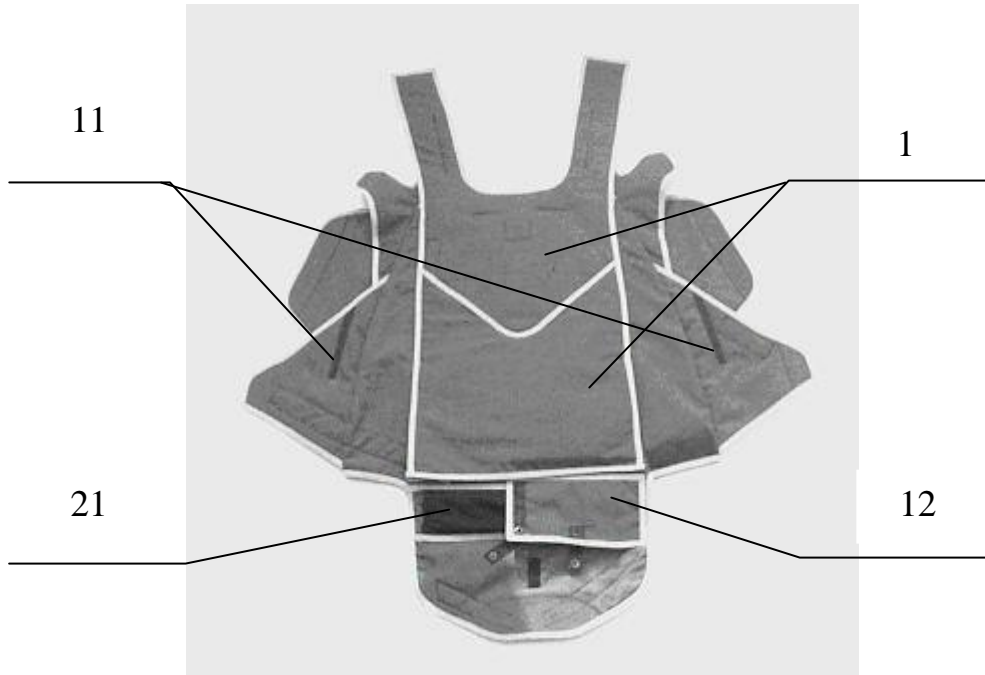
The hose of the main parachute release is sewn on the right side flap of the main parachute. Passes (11) that serve for the attachment of the static line are sewn on both flaps of the main parachute.

The pocket of the stabilization parachute (12) and the pocket of the pilot chute (21) are sewn on the bottom flap of the main parachute.

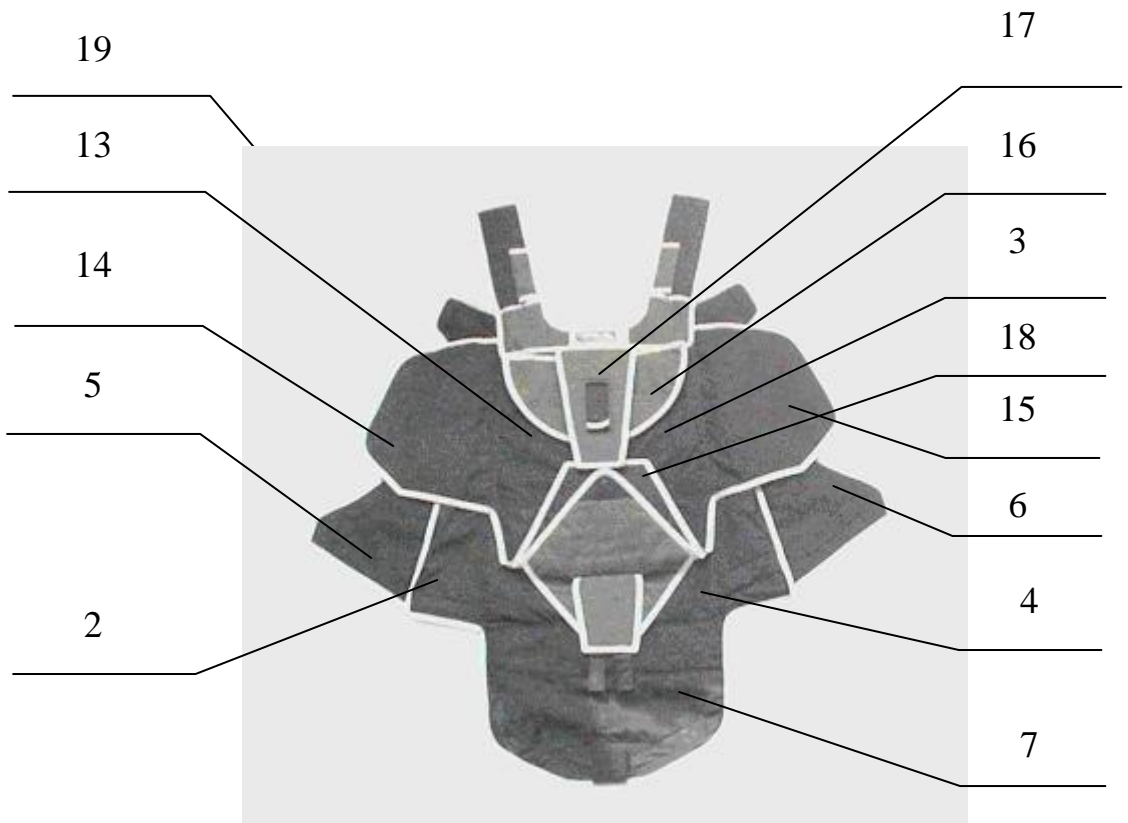
The pack of the reserve parachute consists of:

The main part (13) that passes into the left (14) and right (15) side flaps. A top inside flap (16) and a top outside flap (17) are sewn on the main part at the top. A bottom inside flap (18) and a bottom outside flap (19) are sewn on the bottom part. There is an exchangeable transparent perspex window placed in the top outside flap. The closing line of the reserve parachute is fitted to the bottom of the reserve parachute. There is a webbing stitched on the right side of the pack and serves for the attachment of the snap hook of the static line on the parachute packed and ready for jumps.

Cutaway hoses are attached to the right shoulder pad. The hose of the reserve parachute cable is attached to the left shoulder pad. This hose goes up to the left main strap of the harness.



**figure 1a**



**figure 1b**

## 6.2 The Harness PS-034 S-1 (fig. 2)

The supporting harness is made of a polyamide strap and is designed for the attachment of the container of parachutes of tandem arrangement to the body of the parachutist.

The supporting harness consists of main straps (1) that pass into leg straps (2), the chest strap (3a, b), back straps (4) and the lumbar strap (5). The main strap is divided by a buckle (6) for the control and regulation of the size of the harness. The main strap is doubled and divides into two parts above the cutaway ring, that is 44 mm large. The fork that is created by the division of the strap forms free ends with loops for the attachment of the reserve parachute.

Pads are sewn on leg straps.

A pocket for placing the release of the reserve parachute is sewn on the right main strap. Pockets for the cutaway release as well as for the main parachute release are sewn on the left main strap.

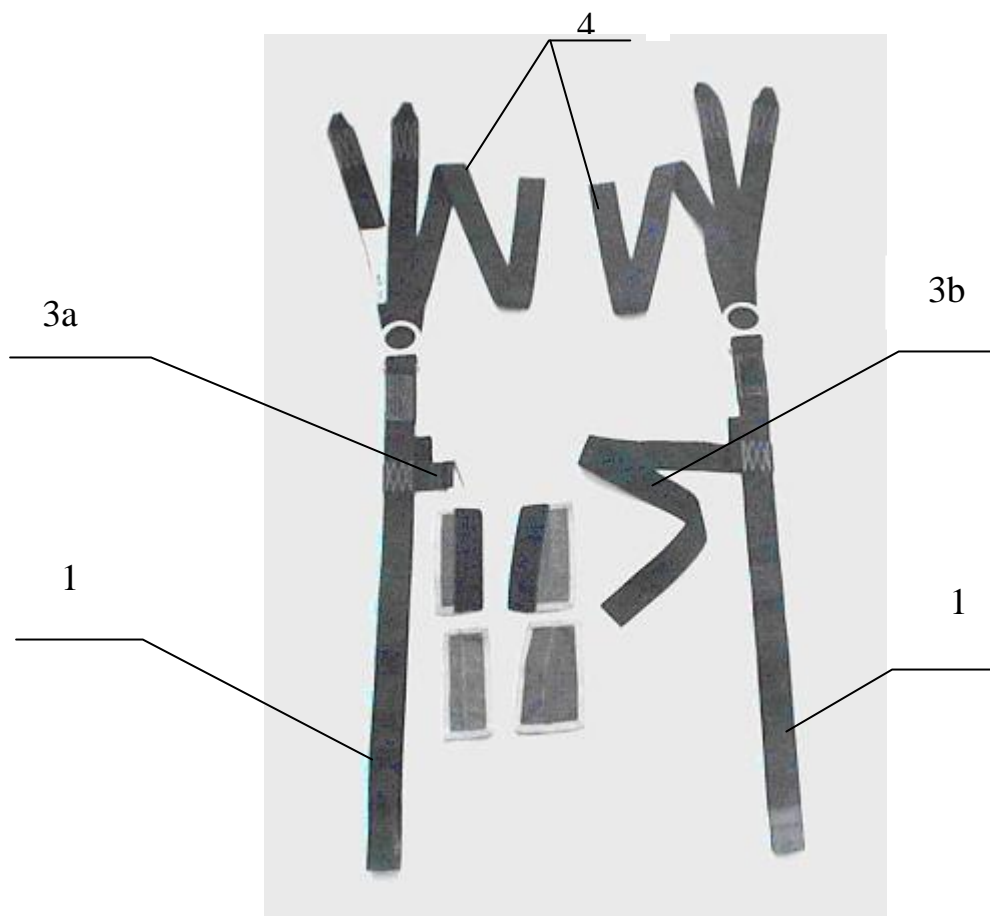
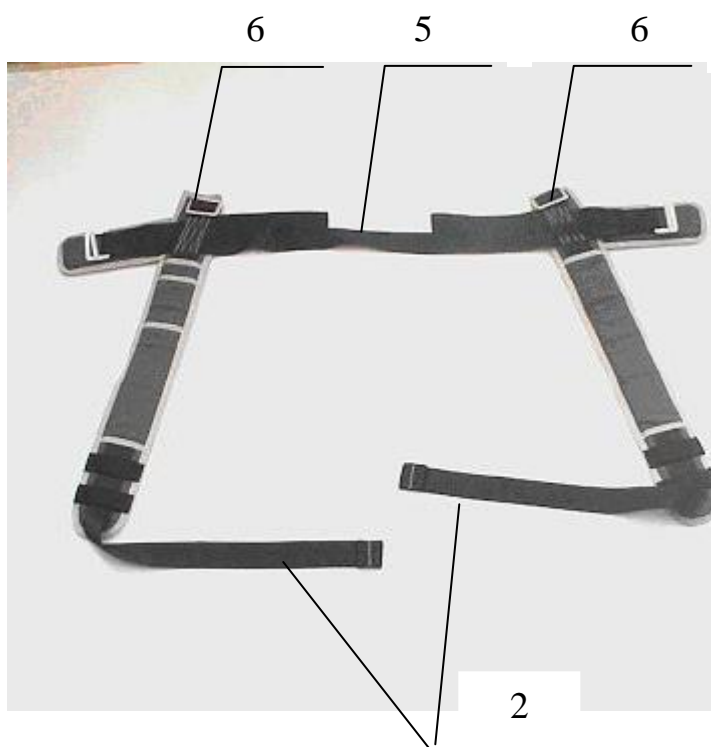


figure 2a



**figure 2b**



**figure 2c**

### **6.3 The Ripcord Handle Reserve U – 051 (fig. 3)**

The U-051 release secures the opening of the reserve parachute container. It consists of a handle and a cable with a needle. The handle is made of a trapezoidal stainless-steel tube.



**figure 3**

### **6.4 The Three Ring Release Ripcord U – 053 (fig. 4)**

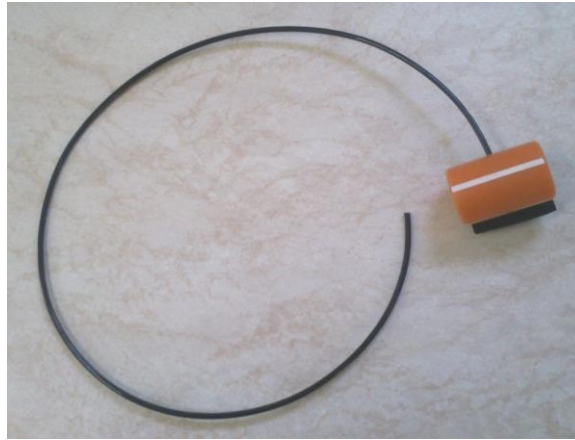
The U-053 release secures the disconnecting of the main parachute canopy from the harness. It consists of a handle and a plastic-coated steel cable. A Velcro strap is sewn on the release handle, which helps fix the release in the pocket on the harness.



**figure 4**

### **6.5 The Ripcord Handle of the Main Canopy U – 065 (fig. 5)**

The U-065 release (Student 01 – trainee) is designed for the opening of the pack of the main parachute. It consists of a pipe handle and plastic coated cable.



**figure 5**

### **6.6 The Ripcord Handle of the Main Canopy U – 066 b (fig. 6)**

A webbing with a Velcro adhesive tape leads out of the handle. The webbing is equipped with a loop at the end that is put on the U – 065 cable.



**figure 6**

### **6.7 The Ripcord Handle of the Main Canopy U – 067 (fig. 7)**

The U-067 release is mainly used as a release of the main parachute of the STUDENT 01 container part for jumps known as „stabilization“. It is also possible to use it as a replacement for the Ripcord Handle of the Main Canopy U-065 type. It is placed on the leg strap in such a way that it prevents a possible misholding of the release and confusing this release with the Tree Ring Release Ripcord U-053 cutaway release in a maximum possible way.



**figure 7**



**6.8 The Reserve static line SS- 058 a (fig. 8)**

The SS-058a is designed for an automatic opening of the container part of the reserve parachute (see the Technical Specifications specifications no. P – 003 – 99).



**figure 8**

**6.9 The Reserve pilot chute (fig. 9)**

The pilot chute secures the opening of the reserve container and pulling the free bag (with a stowed reserve parachute canopy) out of the reserve parachute container. It is made of PAD fabric and net. The bottom is reinforced with duralumin sheet.

The chute PV-028 is equipped with a coiled spring with the minimal ejection strength of 100 N.

The chute PV-055 is equipped with a coiled spring with the minimal ejection strength of 180 N.



**figure 9**

### **6.10 The Static Line VL-025 L (fig. 10)**

The VL-025 L is designed for the opening of the main parachute pack and a forced sliding of the deployment bag or of the stabilizer bag off the stabilization parachute canopy. The static line is made of a PAD tubular line. A snap hook is sewn on one end and a loop on the other end. There is a plastic coated release cable sewn on a place 500 mm from the end with the loop. The total length of the line is 2,900 mm.



**figure 10**

### **CAUTION!**

**In case of using the VL – 025 L static line, it is required to check the length of the extended system, i.e. the static line and container. The static line with the container must not in any case limit or endanger control functions of aircrafts that will be used for airdrops.**



## CHAPTER II.

### *Instructions for the packing of the container*

#### **1. General Instructions**

- a) Before packing the parachute, it is necessary to check the entirety and technical condition of the parachute. Damaged parts are either replaced or repaired.
- b) It is not recommended to expose the parachute to direct sunlight during packing.
- c) The parachute is packed by one person. Each packing of the reserve parachute is to be recorded into the log book.
- d) The Container is usually used as a set with the following Reserve canopies: Round Canopy PZS-92 or Square Canopy Witty Plus WP 210, and with the following Main canopies M 291, M 330 Z manufactured by the company MarS, possibly with other types of canopies based on the agreement of the manufacturer and the testing office of AeČR (Aero Club of Czech Republic).
- e) No adjustment of the parachute container/harness is acceptable.

#### **2. Inspection of the Container before Use**

Prior to packing, the user must perform visual inspection of all parts of the parachute set, if the parts are not damaged, the sewing is not interrupted, fabric, binding, straps, race closing, and metal parts. Damaged parts must be repaired or replaced. In designated parts it is necessary to record the replacement into the parachute log.

#### **WARNING:**

**It is prohibited to perform diving with a parachute set with damaged or worn function parts!**

#### **3. Removal of Faults/Troubleshooting**

- a) Removal of faults is carried out by an exchange of damaged parts or a repair according to instructions stated in Technical Conditions of Repairs/Technicke podminky oprav.
- b) Parts that are permitted to be exchanged during the operation:
  - Ripcord Handle Reserve
  - Three Ring Release Ripcord
  - Ripcords Handle of the Main Canopy
  - Exchange of risers of the main parachute harness
  - Closing line of the main and reserve parachute
  - Steering toggles of the reserve and main parachute
  - Free bag
  - Main Deployment bag
  - Reserve Pilot chute
  - Pilot Chute
  - Static line

#### 4. Guidelines for the replacement (assembly) of parachute parts

Use, assembly and disassembly of the Reserve static line of the Reserve Container is carried out according Technical Specifications specifications no. P – 003 – 99.

Replacement of the reserve parachute packing string:



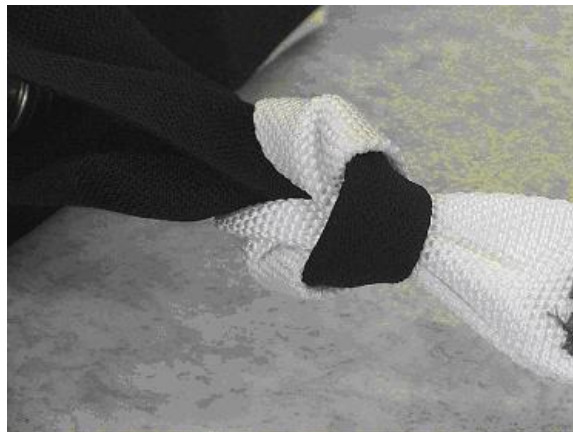
Replacement of the closing line of the main parachute:



Attachment of the Reserve pilot chute to the deployment bag webbing:



Attachment of the Main deployment bag to the static line:



Attachment of the stabilizer bag (PZ-015) to the static line:



Attachment of the Stabilization parachute (ST-015) to the main deployment bag and connecting line:



Attachment of the pilot chute (PV-006) to the main deployment bag and main canopy and connecting line:



:

## **5. General conditions for assembling the safety devices into the reserve parachute package:**

Installation of the safety device into the package part can be performed **solely** by a trained person with authorization of 'Senior parachute Technician'.

The safety device **must be installed** only in the original set supplied by MarS and installed into the package directly by the manufacturer or another authorized person.

### **WARNING:**

**The closing cord designed for closing the reserve parachute package must always pass through the aperture in the cutter of the safety device!**

## **6. Assembly of AAD an m2 device**

The assembly is carried out according to Instructions for use  
- the Users' Manual of m2.

## **7. Assembly of AAD an CYPRES device**

The assembly is carried out according to Instructions for use  
- the Users' Manual of CYPRES.

## **8. Assembly of AAD an VIGIL device**

The assembly is carried out according to Instructions for use  
- the Users' Manual of VIGIL.

## **9. Packing Tools**

No special aids are needed for the packing of the parachute. The BS-11 packing set can be used, or the PST-003 field packing table.

## **10. Packing of the Container**

### **Packing of the Reserve Canopy**

The packing of the Reserve Square Canopy Witty Plus WP-210 is described in the Technical Specifications no. P – 011 – 96.

The packing of the Reserve Round Canopy PZS-92 is described in details in the Technical Specifications no. P – 003 – 93.

### **Packing of the Main Canopy**

The packing of the Main Canopy M 291 (M 330 Z) is described in the Technical Specifications no. P – 003 – 96 up to the phase of folding and packing of the canopy into the container including lines. Further folding and packing into the STUDENT 01 container continues according to the type of jumps:

- jumps with an attached container (main deployment bag)
- jumps - stabilized freefalls
- jumps - freefalls with a manual opening
- jumps with an attached pilot chute

### 10.1. Packing of the Parachute for Jumps with an Attached Container (Main Deployment Bag)

During jumps with an attached container (main deployment bag), the parachutist jumps out of the aircraft in a manner called „soldier“. After the extension of the static line, the needle sewn on 50cm from the end of the static line opens the parachute container and withdraws the deployment bag with the canopy and lines. The lines become gradually unlaced from the container passes and the canopy begins to fill up.

Solving of special cases is described in the V-PARA-1 methodology of the Aero Club of Czech Republic (AeČR).

The complete parachute set packed for jumps:

- Harness	PS-034 S-1	1 piece
- Container	OP-093/01	1 piece
- Ripcord Handle Reserve	U-051	1 piece
- Three Ring Release Ripcord	U-053	1 piece
- Release Static Line	SS-058a	1 piece
- The PZS-92 Reserve Round Canopy	V-076-1	1 piece
- Connecting Line	SS-043	1 piece
- Reserve Pilot Chute		1 piece
- Static Line	VL-025 L	1 piece
- Main Deployment Bag	VV-041/3 NL	1 piece
- Connecting Line	SS-050	1 piece
- The M 291 Main Canopy	V-095-1	1 piece

In case the Witty Plus Reserve Square Canopy is used, the set must be complemented as follows:

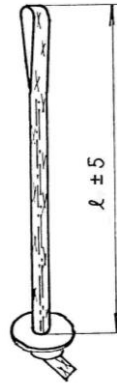
- Witty Plus WP 210	V-104-1	1 piece
- Free Bag	VV-050	1 piece
- Reserve Steering Toggle	RP-006	1 pair

Then the PZS-92 Reserve Canopy and the SS-043 Connecting Line are not used.

*Packing of the Container with an Attached Main Deployment Bag*

The container (main deployment bag) with a folded and packed canopy and suspension lines is placed into the main parachute pack with lines put on the bottom while the bottom edge of the closed deployment bag is put near the bottom of the reserve parachute pack. There is a folding of the bottom part of the main parachute pack made in the left corner. There the bag is folded and is led to the bottom of the reserve parachute. Then it is folded again and led to the right bottom corner of the main parachute pack. The last (third) folding is finished in the centre of the pack at the bottom of the reserve parachute. The VL-025 L static line leading from the attachment of the deployment bag goes from the left side across the central flap. First the bottom and top flaps of the main parachute are fastened as well as both side flaps (in the following order: first the left flap, then the right one). The needle of the static line is pulled through the eye of the closing line. The static line is folded into rubber passes on side flaps of the main parachute. The snap hook of the static line is hung into the pass sewn on the top part of the right side of the parachute container.

The length of the main parachute closing line from the knot is  $35 \pm 5$  mm in maximum.





## 10.2. Packing of the Parachute for Jumps - Stabilized Freefalls

During jumps with stabilized freefalls, the end of the static line with a snap hook is anchored in an aircraft. The bag of the stabilization parachute is attached at the other end of the static line. After the line is extended in full length, the stabilization parachute is taken out of the bag. Due to air flow, the stabilization parachute is filled up and it stabilizes the parachutist in a slightly leant forward position. After holding time the parachutist opens the pack of the main parachute with the U-066 Ripcord Handle of the Main Canopy.

The stabilizer functions as the pilot chute at this moment and withdraws the deployment bag with the canopy and lines from the pack. The lines become gradually unlaced from the container passes and the canopy begins to fill up.

The complete parachute set packed for jumps:

- Harness	PS-034 S-1	1 piece
- Container	OP-093/01	1 piece
- Ripcord Handle Reserve	U-051	1 piece
- Three Ring Release Ripcord	U-053	1 piece
- Release Static Line	SS-058a	1 piece
- The PZS-92 Reserve Round Canopy	V-076-1	1 piece
- Connecting Line	SS-043	1 piece
- Reserve Pilot Chute		1 piece
- Static Line	VL-025 L	1 piece
- Main Deployment Bag	VV-041/3 NL	1 piece
- Connecting Line	SS-050	1 piece
- The M 291 Main Canopy	V-095-1	1 piece

In case the Witty Plus Reserve Square Canopy is used, the set must be complemented as follows:

- Witty Plus WP 210	V-104-1	1 piece
- Free Bag	VV-050	1 piece
- Reserve Steering Toggle	RP-006	1 pair

Then the PZS-92 Reserve Canopy and the SS-043 Connecting Line are not used.



*Packing of the Container for a Stabilized Fall*

The deployment bag with a folded and packed canopy and suspension lines placed in spring loops is put into the main parachute pack, with lines in the bottom part of the pack, i.e. in the direction leading from the space of the reserve parachute.

Free ends of the supporting harness are placed between the reserve parachute and cover flap. The closing line of the main parachute is drawn through the bottom part of the central flap. A connecting webbing of the stabilization parachute leading from the attachment of the canopy to the container (deployment bag) goes from the left side across the central flap.

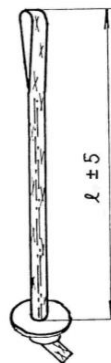
Then the main parachute side flaps are fastened (in the following order: first the left flap, then the right one). The ring of the connecting webbing of the stabilizer is put on the closing line of the main parachute pack. Then the needle of the main parachute release is drawn through the closing line, and the stabilization parachute is folded and placed into the bag of the PZ-015 stabilizer, to which the static line is attached.

The connecting webbing of the stabilizer is extended and fastened with a Velcro adhesive tape on the bottom flap of the main parachute. The stabilizer bag with the stabilization parachute is put into the pocket of the stabilizer that is sewn on the bottom flap of the main parachute. A knot tightening the static line and the stabilizer is tied up with a tearing-off line, further it is drawn through metal bushings in the webbing and pocket of the stabilizer.

The static line is led from the attachment through rubber passes of the side flaps of the main parachute. The snap hook of the static line is hung into the pass sewn on the side of the main parachute.

**CAUTION!**

**The length of the main parachute closing line from the knot is  $25 \pm 5$  mm in maximum. In case of a longer closing line, there is a danger of an early untimely opening of the main parachute**



### 10.3. Packing of the Parachute for Jumps – Freefalls with a Manual Opening

During freefalls with a manual opening of the main parachute, after holding time and the freefall the parachutist opens the main parachute pack with the U-066 Ripcord Handle of the Main Canopy. Due to air force, the PV-006 Pilot chute pulls the Main deployment bag together with the canopy and lines out of the parachute container. The lines gradually become unlaced from the passes of the container and the canopy fills up.

The complete parachute set packed for jumps:

- Harness	PS-034 S-1	1 piece
- Container	OP-093/01	1 piece
- Ripcord Handle Reserve	U-051	1 piece
- Three Ring Release Ripcord	U-053	1 piece
- Release Static Line	SS-058a	1 piece
- The PZS-92 Reserve Round Canopy	V-076-1	1 piece
- Connecting Line	SS-043	2 pieces
- Reserve Pilot Chute		1 piece
- Static Line	VL-025 L	1 piece
- Main Deployment Bag	VV-041/3 NL	1 piece
- Connecting Line	SS-050	1 piece
- The M 291 Main Canopy	V-095-1	1 piece

In case the Witty Plus Reserve Square Canopy is used, the set must be complemented as follows:

- Witty Plus WP 210	V-104-1	1 piece
- Free Bag	VV-050	1 piece
- Reserve Steering Toggle	RP-006	1 pair

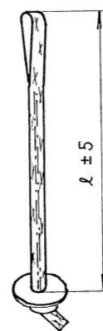
Then the PZS-92 Reserve Canopy and the SS-043 Connecting Line are not used.

#### *Packing of the Container for Freefalls with a Manual Opening*

The container (deployment bag) with a folded and packed canopy and suspension lines placed in spring loops are put into the main parachute pack with lines in the bottom part of the pack, i.e. in the direction leading from the reserve parachute space.

Free ends of the supporting harness are placed between the reserve parachute and cover flap. The closing line of the main parachute is drawn through the bottom part of the central flap, under which the spring of the pilot chute is pressed and side flaps of the main parachute are fastened (in the following order: first the left flap, then the right one). The needle of the main parachute release is pulled through the eye of the closing line.

The length of the main parachute closing line from the knot is  $35 \pm 5$  mm in maximum.



#### 10.4. Packing of the Parachute for Jumps with an Attached Pilot Chute

During jumps with an attached pilot chute, the needle of the extended static line opens the pack of the main parachute. The container (main deployment bag) with the canopy is extended. The lines gradually become unlaced from spring loops. After suspension lines are extended, the canopy is taken out of the container (bag). All the cells of the canopy are gradually filled up with air.

The complete parachute set packed for jumps:

- Harness	PS-034 S-1	1 piece
- Container	OP-093/01	1 piece
- Ripcord Handle Reserve	U-051	1 piece
- Three Ring Release Ripcord	U-053	1 piece
- Release Static Line	SS-058a	1 piece
- The PZS-92 Reserve Round Canopy	V-076-1	1 piece
- Connecting Line	SS-043	1 piece
- Reserve Pilot Chute		1 piece
- Static Line	VL-025 L	1 piece
- Main Deployment Bag	VV-041/3 NL	1 piece
- Connecting Line	SS-050	1 piece
- The M 291 Main Canopy	V-095-1	1 piece
- Pilot Chute	PV-006	1 piece

In case the Witty Plus Reserve Square Canopy is used, the set must be complemented as follows:

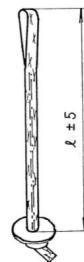
- Witty Plus WP 210	V-104-1	1 piece
- Free Bag	VV-050	1 piece
- Reserve Steering Toggle	RP-006	1 pair

Then the PZS-92 Reserve Canopy and the SS-043 Connecting Line are not used.

##### *Packing of the Container for Jumps with an Attached Pilot Chute*

The deployment bag is placed on the bottom of the main parachute pack with lines in the bottom part of the pack. The knot of the canopy and the connecting line are then placed near the bottom of the reserve parachute. Then the connecting line is folded on the deployment bag. Before this step, the attachment of the tearing-off line with the strength of  $450 \pm 50$  N is carried out (this strength can be the result of summing smaller strengths of several tearing-off lines). The attachment is led through the loops of the SS-043 connecting line, the PV-006 pilot chute and the static line. The VL-025 L static line leading from the attachment goes from the left side across the central flap. First the bottom and top flaps of the main parachute are fastened as well as side flaps of the parachute (in the following order: first the left flap, then the right one). The needle of the static line is drawn through the eye of the closing line. The static line is folded into rubber passes on side parts of the main parachute. The snap hook of the static line is hung into the pass sewn on the top part of the right side of the parachute container.

The length of the main parachute closing line from the knot is  $35 \pm 5$  mm in maximum.



**WARNING:**

**Prior to entering the airplane, check the complete arrangement in the parachute:**

- **Correct fastening of the bearing harness buckles**
- **Correct connection of loose ends with the bearing harness (three-ring system)**
- **Correct inserting of the reserve parachute releaser needle**
- **Correct connection of Reserve static line (RSL)**
- **Activation of applied safety device AAD (m2, CYPRES, VIGIL).**

## **CHAPTER III.**

### **Storage and Transportation of the Parachute**

#### **1. Preparation of the parachute for storage**

Before the parachute is stored, its inspection must be carried out, if necessary its repair, replacement of damaged parts and airing. The parachute is stored inside a portable bag either packed (for 180 days in maximum) or unpacked. The parachute log-book is put into the portable bag pocket.

#### **2. Storage of the parachute**

Before storing the parachute set carry out its check and the check of its completeness.

Before storing the parachute in the bag, fold the unpacked canopy of the main parachute in the following way: smooth the canopy field, draw the slider with its intermediate part to the canopy, roll the back part of the canopy on the front part (leading edge), and fold the canopy from the top to the bottom edge. Braid the carrying line in a chain. Store the packed canopy in such way that it is not in direct contact with metal parts. Put the parachute in the bag and close the bag.

Put the parachute logbooks in the pocket on the portable bag.

Store the parachute set and all its parts in shelves in dry, dark, well ventilated room without direct sunlight. The parachute sets must not touch the walls, floor, or heating units. Parachute sets may be stored in shelves in two layers maximally. In rooms, where parachute sets are stored, it is not allowed to store metal objects which do not belong to the stored parachutes, nor oils, acids or substances evolving active gases. Smoking is forbidden here.

If the parachute set is stored for a longer period of time, it must be aired at least once in 6 months for at least 24 hours. Airing is done in shade.

The record of the carried-out airing is made in the parachute logbook.

During long-term storing of the parachute sets, these climatic conditions must be kept in the storage rooms:

- |                     |                |
|---------------------|----------------|
| - temperature       | + 14 to + 25°C |
| - relative humidity | 35 to 73 %     |

Storability of the parachute sets and their accessories in storage room is for their whole operating life, when fulfilling the storage conditions above.

### **3. Transportation of the parachute**

On operational conditions, parachutes are transported in portable bags.

During the transportation it is required to prevent:

- a. Moistening of the container
- b. Contamination of the container with oils and chemicals
- c. Mechanical damage

## **CHAPTER IV.**

### **Dirt Removal, Washing, Cleaning**

Dirt (sand, soil, mud, etc.) on the parachute container and supporting harness contaminated during the use can be cleaned mechanically (e.g. by brushing, shaking or rubbing off).

Dirt that cannot be removed mechanically, can be removed with a damp piece of cloth moistened in lukewarm water with soap or cleaning detergents. After such cleaning the container with the harness are to be dried on a place designated for such purposes.

The manufacturer warns the user that using a larger amount of water with detergents may cause the occurrence of stains of various colours or soaking of colours from the inside layer of material into the outside layer of material, in particular with containers of light colours. The warranty does not apply to such cases.

Washing of containers/harnesses manually or in any washing machines **is forbidden**.

Cleaning of containers/harnesses using chemical agents containing chlorine or organic solvents **is forbidden**.

## **CHAPTER V.**

### **Ecological disposal instructions**

Upon the total service life completion or due to wear and tear, terminate the parachute set.

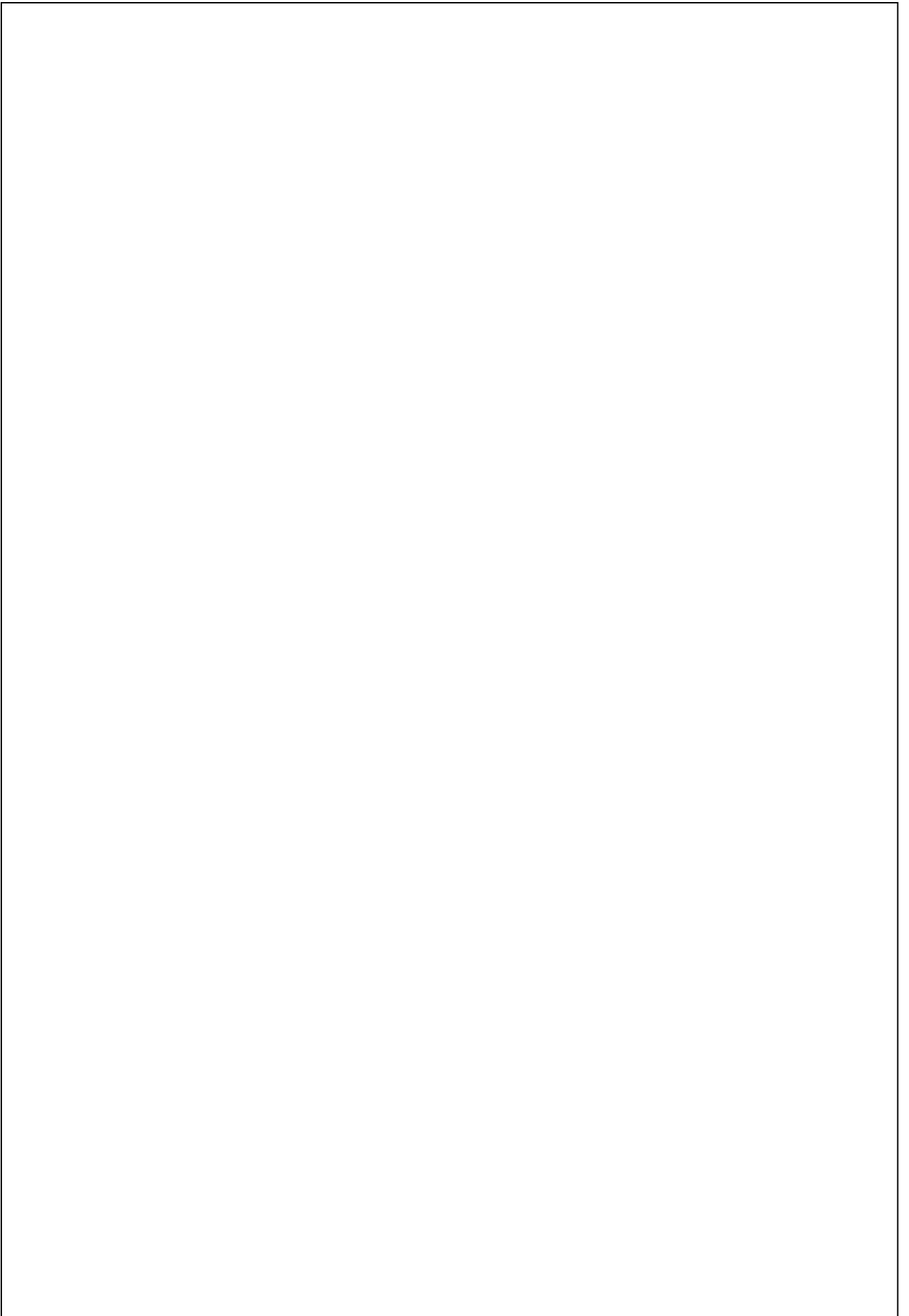
Disposal of terminated parachute sets is performed as follows:

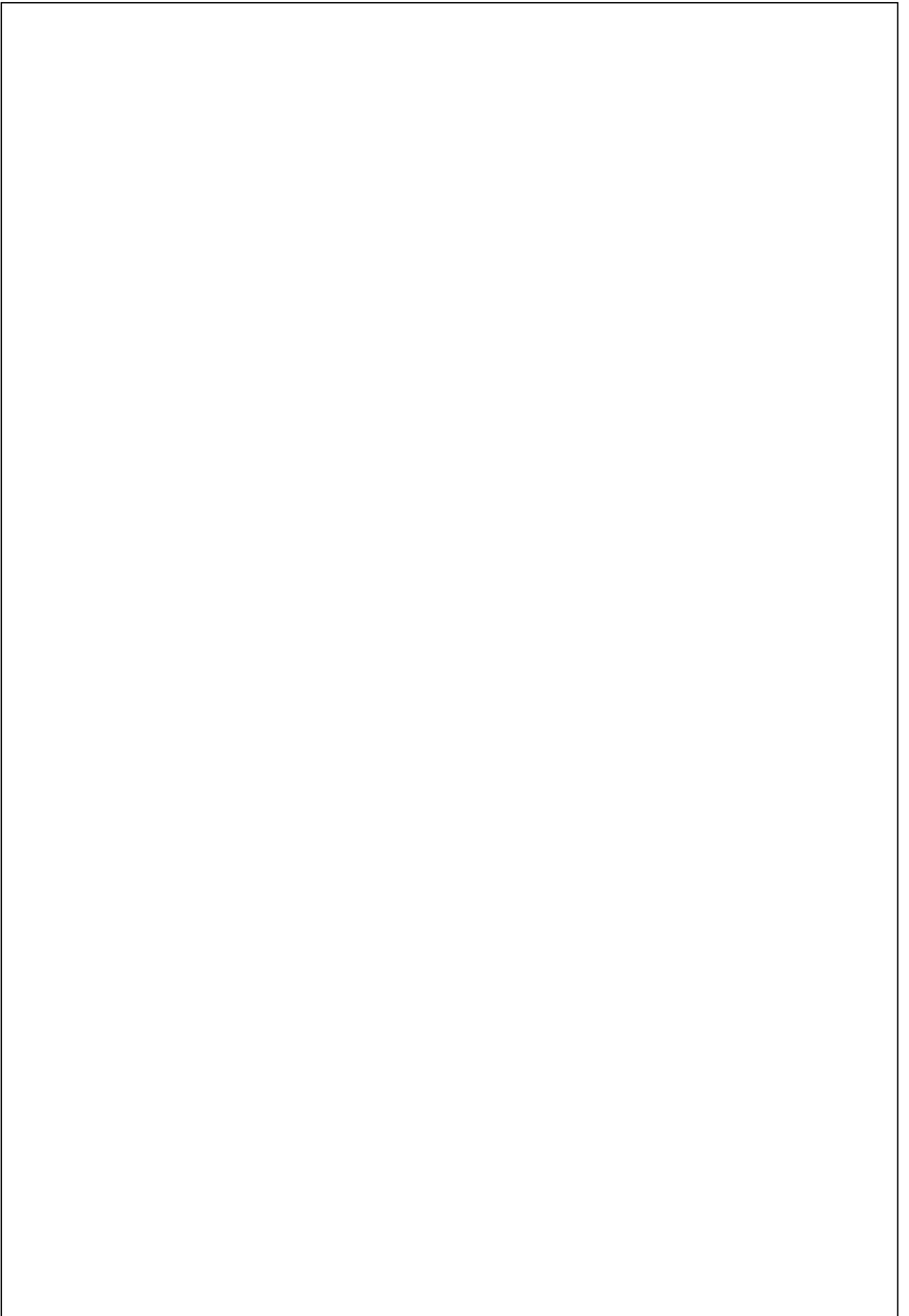
Metal parts

- Useable metal parts can be used within manufacturing upon inspection and repair work;
- Unused metal parts shall be delivered to the waste metal collection.

Textile parts can be disposed of as follows:

- Placing in the waste collection centre suitable for PAD, PES waste;
- Burning whilst complying with the conditions required for the waste disposal type, in cooperation with companies performing the disposal method.







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