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## Sporting Parachute Systems

Sporting systems by the Polyot Parachute Factory of Ivanovo are designed and manufactured to optimally meet the clients' demand for parachute systems' quality and reliability, that is why our products are recognized by sportsmen and experts.

This line's chutes became prizewinners in the National Contest "Russia's 100 Best Products".



Main  
Parachutes



Main Parachutes

# Insider

## 9-cell Student Parachute

This student chute is made of F-111 class fabric with Dacron lines. It is designed for sport jumps and initial parachute training under AFF and STATIC LINE Programs.

### Description

- Canopy shape – rectangular.
- Number of cells – 9.
- Canopy material – class F-111 fabric with partial air permeability
- Line material – Dacron.
- Lift-to-drag ratio– 2.4 : 1.
- Max deployment speed – 240 km/h.
- Temperature range – -40°C to +40°C.
- Deployment altitude – 600 to 4,000 m.
- Assigned lifespan – 1,000 deployments with line change after 500 deployments.



- Stable and even canopy inflation.

### Specifications

Size	215	255	300
Area (R <sup>2</sup> )	215	253	300
Area (M <sup>2</sup> )	20	23.5	28.4
Recommended flight weight (kg)	90	105	120
Max flight weight (kg)	115	130	150

This parachute system fits the skills of a student level sportsman.



Main Parachutes

# Magic

## 9-cell performance parachute

The 9-cell Magic performance sporting chute is designed for parachutists of low experience who though have made no less than 50 jumps with a "wing"-type chute.

### Description

- Canopy shape – semi-elliptical.
- Number of cells – 9.
- Canopy material – fabric with zero air permeability (ZP).
- Line material – Vectran.
- Lift-to-drag ratio – 2.8 : 1.
- Max deployment speed – 225 km/h.
- Temperature range – -40°C to +40°C.
- Deployment altitude – 600 to 4,000 m.
- Assigned lifespan – 1,000 deployments with line change after 500 deployments.



- Soft and stable canopy deployment.
- Active flare at landing.

## Specifications

Size	130	150	170	190
Area (ft <sup>2</sup> )	130	150	170	190
Area (m <sup>2</sup> )	12.1	13	15.8	17.7
Recommended flight weight (kg)	80	90	100	110
Max flight weight (kg)	90	100	110	120

This parachute system fits the skills of a BEGINNER and EXPERIENCED level sportsman.



Main Parachutes

# Shark

## 9-cell elliptical chute

The Shark 9-cell high-speed elliptical main canopy is designed for experienced sporting parachutists who have a background of at least 500 jumps with "wing"-type chutes.

### Description

- Canopy shape – elliptical.
- Number of cells – 9.
- Canopy material – fabric with zero air permeability (ZP).
- Line material – Vectran.
- Lift-to-drag ratio – 2.8 : 1.
- Max deployment speed – 225 km/h.
- Temperature range – -40 to +40 °C.
- Deployment altitude – 600 to 4,000 m.
- Assigned lifespan – 1,000 deployments with line change after 500 deployments.



- Accurate steering.
- Good acceleration.
- Stable behavior at turbulence.

## Specifications

Size	90	100	111	123	136
Area (ft <sup>2</sup> )	90	100	111	123	136
Area (m <sup>2</sup> )	8.4	9.3	10.4	11.5	12.7
Recommended flight weight (kg)	78	84	90	98	106
Max flight weight (kg)	90	98	106	113	120

This parachute system fits the skills of an EXPERT level sportsman.



Main Parachutes

# Malva-Axioma

## 7-cell chute for accuracy jumping

Malva-Axioma is a 7-cell canopy, designed for accuracy sporting jumps. This is a modified version of the Malva canopy well known to parachutists. While developing this canopy, we took into consideration the suggestions moved by National Classic Parachuting Team members. All the improvements were based on customers' comments accumulated throughout exploitation.

### Description

- Canopy shape – rectangular.
- Number of cells – 7.
- Canopy material – class F-111 fabric with partial air permeability
- Line material – Dacron.
- Lift-to-drag ratio – 2 : 1.
- Max deployment speed – 225 km/h.
- Temperature range – -40 to +40 °C.
- Deployment altitude – 400 to 4,000 m.
- Assigned lifespan – 800 deployments.



• Relief holes in the main chute canopy help stabilize canopy pressure.

Designed for accuracy sporting jumps.

## Specifications

Size	21	24	27
Area (ft <sup>2</sup> )	230	260	290
Area (m <sup>2</sup> )	21	24	27
Recommended flight weight (kg)	70	90	110
Max flight weight (kg)	85	105	120

This parachute system fits the skills of a BEGINNER, EXPERIENCED or EXPERT level sportsman.





Main Parachutes

# Alfa-Axioma

## 7- cell chute for accuracy jumping

Designed for accuracy sporting jumps.

### Description

- Canopy shape – trapezoidal.
- Number of cells – 7.
- Canopy material – partial porosity fabric class F-111.
- Line material – Dacron.
- Lift-to-drag ratio – 2 : 1.
- Max deployment speed – 225 km/h.
- Temperature range – -40°C to +40°C.
- Deployment altitude – 600 to 4,000 m.
- Assigned lifespan – 800 deployments.



Control elements



### Specifications

Size	250	280	310
Area (ft <sup>2</sup> )	250	280	310
Area (m <sup>2</sup> )	23.3	26	29
Recommended flight weight (kg)	80	95	120
Max flight weight (kg)	105	115	140

This parachute system fits the skills of an EXPERIENCED and EXPERT level sportsman.



Main Parachutes

# Rush

## 7-cell CRW parachute

Rush is a 7-cell main canopy for sporting parachute jumps. Specially designed for canopy relative work. The canopy is very sensitive to steering lines action both for start and stop. It has remarkable wing stiffness. Competitive with world best analogs within the class. Developed and tested in cooperation with national and world CRW champions.

### Description

- Canopy shape – semi-elliptical.
- Number of cells – 7.
- Canopy material – fabric with zero air permeability (ZP).
- Line material – Vectran or Dacron.
- Lift-to-drag ratio – 2.2 : 1.
- Max deployment speed – 225 km/h.
- Temperature range – -40°C to +40°C.
- Deployment altitude – 600 to 4,000 m.
- Assigned lifespan – 1,000 deployments with line change after 500 deployments.



- Balanced and stable canopy deployment with fast inflation.
- Good diving speed and buoyancy.

### Specifications

Size	97 Vectran	107 Vectran/ Dacron	134 Dacron
Area (ft <sup>2</sup> )	97	107	134
Area (m <sup>2</sup> )	9	10	12.5
Recommended flight weight (kg)	70	80	100
Max flight weight (kg)	85	95	115

This parachute system fits the skills of an EXPERIENCED and EXPERT level sportsman.



Main Parachutes

## Tandem

9-cell tandem parachute system

The Tandem 9-cell parachute system of two standard sizes is designed for jumps from aircraft both equipped or not for tandem jumps by an instructor and a passenger inexperienced in parachuting. These systems can be used in the recreational industry, in entry-level parachute training, and for the delivery of specialists to desired localities including inaccessible ones. The Ivanovo Parachute Factory turns out such systems of two standard sizes: "Tandem-330" and "Tandem-400".

### Description

The "Tandem-330" and "Tandem-400" parachute systems comprise the following basic units:

- main chute of 37.2/30.1 m<sup>2</sup> in area, double-shell, nine-cell;
- reserve chute of 36.2/30.0 m<sup>2</sup> in area, double-shell, nine-cell;
- container and harness;
- passenger harness.



### Specifications

Size	Tandem-330	Tandem-400
Area (ft <sup>2</sup> )	330	400
Area (m <sup>2</sup> )	30.1	37.2
Max flight weight (kg)	110–205	110–225

The system can be equipped with a Cypres-like AAD, and the Transit opening link is applied to ensure the automatic deployment of the reserve chute at the disconnection of the main one.



Reserve  
Chutes



Reserve Parachutes

# Zoom

## 7-cell reserve chute

The 7-cell wing-type reserve chute is designed to recover the parachuting sportsman in case of a complete or partial failure of the main chute. The canopy is made of fabric class F-111, lines of Microline 725, 1000.

Description

- Canopy shape – rectangular.
- Number of cells – 7.
- Canopy material – class F-111 fabric with partial air permeability.
- Line material – Microline/Spectra 725/1000.
- Lift-to-drag ratio – 2 : 1.
- Max deployment speed – 280 km/h.
- Temperature range – -40°C to +40°C.
- Deployment altitude – 150 to 4,000 m.
- Assigned lifespan – 20 deployments.



• Zoom is produced in seven standard sizes, from 120 to 260 ft<sup>2</sup>, so a parachutist is able to select the most suitable size according to his/her own weight.

### Specifications

Size	120	135	150	170	190	225	260
Area (ft <sup>2</sup> )	120	135	150	170	190	225	260
Area (m <sup>2</sup> )	11.2	12.6	13.0	14.4	17.7	20.9	24.3
Recommended flight weight (kg)	70	80	90	100	110	120	130
Max flight weight (kg)	100	115	115	115	120	130	160
Min flight weight of the "parachutist+parachute" system – 60 kg.							



## Irbis Containers

The Irbis container is similar to the world's best models by its functionality, ergonomics, design and aesthetics. Irbis got a diploma of the National Contest "Russia's 100 Best Products" in 2009. Each container is manufactured to the parachutist's individual sizing and in a special colour scheme approved by the customer. Various customized embroidery is also available.



Irbis Container

# Irbis

## Sporting Chute Container

Three customized options are available: BASE, STANDARD, VIP. The Irbis container has 12 standard sizes for different parachute sports, with the deployment of the reserve chute according to the Western standard, i.e. routing the closing loop through the container bottom. A four-ring harness is used. The container design implies the use of a Cyprus- or Vigil-like AAD.

The Irbis container remains usable in the ambient temperature range of -40°C through +40°C.

### Specifications

Container size, №	Max flight weight (kg)	Main chute compartment volume (dm <sup>3</sup> / m <sup>3</sup> )	Reserve chute compartment volume (dm <sup>3</sup> / m <sup>3</sup> )	Appr. main chute area (ft <sup>2</sup> /m <sup>2</sup> )	Appr. reserve chute area (ft <sup>2</sup> /m <sup>2</sup> )
000	100	3.82/240	3.18/200	7.5-9.3 (80-100)	7.5-9.3 (80-100)
00	100	4.35/265	3.69/225	7.5-10.7 (80-115)	7.5-11.2 (80-120)
0	100	4.92/300	4.1/250	9.8-12.1 (105-130)	10.2-12.1 (110-130)
1	115	5.57/340	4.51/275	11.2-13.0 (120-140)	11.6-13.0 (125-140)
2	115	5.98/365	4.92/300	12.6-14.9 (135-160)	12.6-14.9 (135-160)
3	115	6.39/390	5.41/330	14.4-16.7 (155-180)	14.4-16.7 (155-180)
4	115	7.38/450	5.9/360	16.3-18.6 (175-200)	16.3-18.6 (175-200)
5	130	8.19/500	6.47/395	17.7-22.3 (190-240)	17.7-21.4 (190-240)
6	150	9.83/600	7.21/440	21.4-27.0 (230-290)	20.5-24.2 (220-260)
Classic C-0	115	9.20/580	4.51/250	17.7-22.7 (190-245)	11.6-13.0 (125-140)
Classic C-1	115	11.13/700	5.08/310	21.4-24.0 (230-250)	12.1-14.9 (130-160)
Classic C-2	120	13.10/800	5.48/340	24.2-27.0 (260-282)	13.9-17.7 (150-180)



All-metal line cutter attached to a leg strap



- The harness sizing is selected individually for each client according to his/her body sizes.

- Every container is manufactured in a colour scheme proposed by the client. Various customized embroidery is also available.

- The four-ring harness in the BASE option.



Various customized embroidery is also available





Irbis Sack Line

# Irbis Student

## Sporting Chute Containers

Beside sporting parachute containers, three Irbis Student standard sizes have been developed with adjustable harness to train beginners under AFF and Static-Line programs. For the AFF Program, the container is equipped with the Transit opening link and a loose elastic pocket for the main pilot chute. Under the Static-Line Program, the container is complete with an extra main deployment bag with a bandage and a static line.



The four-ring harness in the BASE option



- Adjustable harness.
- Loose elastic pocket of pilot chute.

## Specifications

Irbis	Student №4	Student №5	Student №6
Main compartment volume (dm <sup>3</sup> /in <sup>3</sup> )	7.38 (450)	8.19 (500)	10.8 (680)
Reserve compartment volume (dm <sup>3</sup> /in <sup>3</sup> )	5.9 (360)	6.47 (395)	7.21 (440)
Appr. main chute area (ft <sup>2</sup> /m <sup>2</sup> )	215 (20)	255 (23.5)	300 (28)
Appr. reserve chute area (ft <sup>2</sup> /m <sup>2</sup> )	190 (17.7)	225 (20.9)	260 (24.8)
Max flight weight (kg)	115	130	150



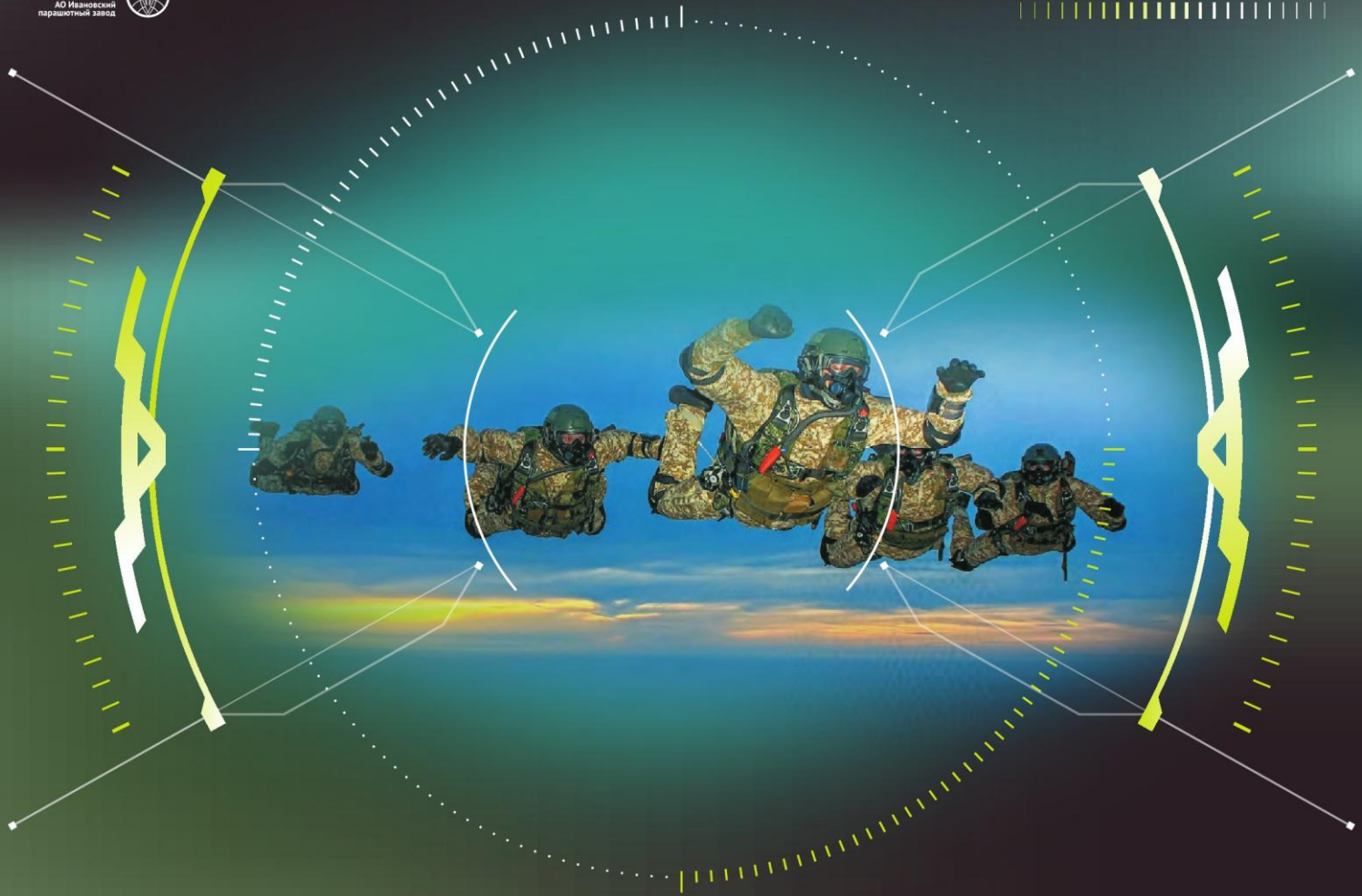


## Special Purpose Parachute Systems

Since 2008, the Polyot JSC has been developing new parachute systems for the SP divisions of the Ministry of Defense, Aerial Forest Protection, National Guard, Federal Guard Service, Federal Security Service, Ministry for Emergency Situations, Federal Air Transport Agency, salvage units.

Notice: Employment of SP parachute systems requires special parachute training!





SP Parachute Systems

## Stayer Parachute System

Designed for the airdrop delivery of special purpose detachments and other forces of defense and law enforcement agencies at altitudes of 700 to 8,000 m at an aircraft speed of 140 to 255 km/h – with immediate deployment, 140 to 350 km/h – with delayed deployment. A cargo of up to 50 kg container can be attached on the front side, weapons and oxygen equipment can be fixed to the paratrooper harness.

System weight w/o carrying bag and AAD – no more than 17.5 kg.

Flight weight range - 90 to 180 kg.

### Description

The system is complete with:

- Stayer main chute, wing-type, 300 ft<sup>2</sup> (28.4 m<sup>2</sup>) in area, lift-to-drag ratio 2.6. Outer canopy shell of zero permeability fabric, lines of Microline;
- Zoom-R9-290 reserve chute, 290 ft<sup>2</sup> (27 m<sup>2</sup>) in area, lift-to-drag ratio 2.4;
- container with harness;

Dropped at 8 km, main chute glide range with tail wind – up to 35 km.

For lengthy hanging under the canopy, a "holderbat" appliance may be used (as an extra option).



- Quick disconnecting hooks for a faster release out of the harness upon landing.
- A forced deployment appliance (Transit opening link) provides for the immediate deployment of the reserve chute after the disconnection of main loose risers.
- An additional waist strap to fasten the oxygen equipment to the container.



## Special Purpose Parachute Systems

### Extra option for SP parachute systems



Quick disconnecting hooks for a faster release of the harness upon landing

A forced deployment appliance (Transit opening link) provides for the immediate deployment of the reserve chute after the disconnection of main loose risers

An additional waist strap to fasten the oxygen equipment and weapons

### Oxygen equipment



### UGKS-50 multi-purpose cargo container

Designed for the delivery of munitions and outfit under 50 kg in weight. Can be used as a backpack upon landing. Weight no more than 4 kg without the extra container and carrying bag.

Container outer dimensions:  
• length – no more than 1.31 m;  
• width – no more than 0.82 m.

### SKG-50 cargo fastening system

Designed for the airdrop delivery of both a parachutist and cargo up to 50 kg, including that odd-shaped, ready for further application upon recovery from the fastening system. SKG-50 weight does not exceed 4.0 kg without the carrying bag.



Cargo fastening system design provides for the allocation of cargo of various dimensions and its quick release upon landing



Container external dimensions:  
• length – no more than 0.92 m;  
• width – no more than 0.44 m;  
• height – no more than 0.22 m.

SP Parachute Systems

# Tandem-400

## Special Purpose Tandem Parachute System

Designed for both training and combat jumping exercised by a parachutist and a passenger with equipment and cargo (or without thereof), including jumps from a group of aircraft both equipped or not for airdrop at a speed of 140–350 km/h from altitudes up to 8,000 m with a flight weight under 225 kg.

### Description

The tandem parachute system comprises the following basic units:

- Riser-400 main chute of 37.2 m<sup>2</sup> in area, double-shell, nine-cell, lift-to-drag ratio 2.8;
- Tandem Reserve 390 reserve chute of 36.2 m<sup>2</sup> in area, double-shell, nine-cell, lift-to-drag ratio 2.4;
- container with harness;
- passenger harness.

Parachute system weight does not exceed 23 kg without the carrying bag and passenger harness.

The system allows to attach some additional rigging and oxygen equipment on the passenger



## Specifications

	Main	Reserve
Altitude range	1200 to 8,000 m	300 to 8,000 m
Min safe altitude	900 m	300 m
Mean vertical component of glide speed with flight weight of 180 kg	up to 5 m/s	up to 6 m/s
Forward speed component value with flight weight of 180 kg	at least 11 m/s	at least 10 m/s

- Flight weight range of 110 to 225 kg.
- Deployment speed range of 140 to 350 km/h.



SP Parachute Systems

# Dalnolet Parachute System

## 13-cell main parachute.

Designed for airdrop delivery of the SP detachments of the Ministry of Defense or other defense and law enforcement agencies from altitudes of 1,200–8,000 m at aircraft speeds of up to 350 km/h with a parachute deployment delay of 5 to 10 seconds and with a drag chute applied. Also, a special seat is provided for lengthy hanging under the canopy. The parachute system is equipped with quick disconnecting hooks for quicker releasing from the harness after landing. The container may carry a front cargo container of up to 50 kg, also installed are the Transit opening link and an electronic safety device.

## Description

The parachute system comprises the following basic units:

- main wing-type chute of 13 cells with the lift-to-drag ratio no less than 4.2 : 1; area of 350 ft<sup>2</sup> (32.5 m<sup>2</sup>);
  - reserve wing-type chute of 290 ft<sup>2</sup> (27 m<sup>2</sup>);
  - container with the harness equipped with an additional waist strap to fasten the oxygen equipment and other outfit.
- System weight is under 20 kg w/o carrying bag.

Max flight weight is under 190 kg.

Dropped at 8 km, main chute glide range

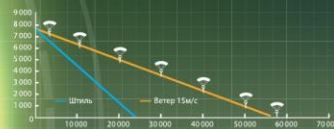
with tail wind – up to 60 km.

Flight weight range – 100 to 190 kg.



- 13-cell main chute.
- Lift-to-drag ratio 4.2 : 1.
- A special “seat” for lengthy parachuting is provided.

Glide range so long is enough to cover up to 60 km after deployment\*.



\* With tail wind towards inhabited area and drop altitude 8,000 m.



SP Parachute Systems

## Insider-300S Parachute System

Designed for airdrop delivery of the SP detachments of the Ministry of Defense or other defense and law enforcement agencies.

According to the task, it provides two ways of main chute deployment:

- manual (hand-deploy pilot chute);
- forced pulling of a deployment bag (static line).

### Description

The system is complete with:

- Insider-300 main chute (wing-type), 9-cell, 300 ft<sup>2</sup> (28 m<sup>2</sup>) in area;
- Zoom-260 reserve chute, 7-cell, 260 ft<sup>2</sup> (24.3 m<sup>2</sup>) in area, Irbis Combat container with harness, a set to mount Cypres-like AAD to the reserve chute, Transit opening link (RSL).
- System weight w/o carrying bag and AAD is no more than 15.5 kg.
- Flight weight ranges from 80 to 160 kg.

Min safe deployment altitude:

- Main chute – 500 m;
- Reserve chute – 150 m.

The system may carry a front cargo container of up to 50 kg, weapons also may be fastened.

The harness may be customized with quick disconnecting hooks on the chest and leg straps to facilitate quick release from the harness on landing.

The dog harness provides for the airdrop of a parachutist with a draft dog.

## Insider-300SF Parachute System

Designed for special mission jumps.

### Description

The parachute system comprises:

- Stayer main chute (wing-type), 9-cell, aspect ratio 2.6 : 1, lift-to-drag ratio – 2.6 : 1;
- Zoom-260 reserve chute, 7-cell, aspect ratio 2.1 : 1, lift-to-drag ratio – 2 : 1;
- Irbis #6 Combat container with harness.

Basic specifications:

- Main chute deployed by forced container opening and pulling the bag away from the canopy by a static line or through manual opening («soft» pilot chute).
- The container provides for the installation of an electronic AAD like Cypres-2 and of RSL (Transit) for the forced opening of the reserve chute after the disconnection of main loose risers.
- The container is equipped with an extra waist strap to fasten additional equipment.
- The harness has buckles to attach a front cargo container carrying up to 50 kg.
- The system may be customized with quick disconnecting hooks for a faster release thereof after landing.
- Max flight weight – 160 kg,
- Max deployment altitude – up to 4,000 m.
- Min main deployment altitude – 400 m.
- Min reserve deployment altitude – 150 m.
- Max drop speed with a deployment delay of 5 sec or more – 280 km/h.
- Temperature range – -40°C to +40°C.
- Assigned lifespan: main chute – 1,000 deployments with the change of all cords after 500 deployments; reserve chute – 20 deployments with deployment speed no more than 280 km/h.
- System weight w/o carrying bag and AAD no more than 16.5 kg.



SP Parachute Systems

# Berkut 2

## Parachute System

Designed for airdrop delivery of the SP detachments of the Ministry of Defense or other defense and law enforcement agencies from aircraft equipped with dropout slings.

## Description

The parachute system consists of:

- main chute, 28.4 m<sup>2</sup>, double-shell, nine-cell, lift-to-drag ratio 2.4;
- reserve chute, 24.3 m<sup>2</sup>, double-shell, seven-cell, lift-to-drag ratio 2.0;
- container with harness.

According to the task, the system provides two ways of main chute deployment:

- stabilization at aircraft speed up to 350 km/h with PPK-U-240AD safety device;
- forced bag pulling (by a static line) at aircraft speed up to 240 km/h.

The harness provides for fastening a cargo container (up to 50 kg) on the front, as well as weapons and munition.

- The harness can be equipped with quick disconnecting hooks to facilitate fast release after landing.
- System weight w/o carrying bag and AAD – no more than 18 kg.
- Max flight weight – no more than 160 kg.



PPK-U safety device

- The reserve chute carries an electronic safety device.

## Specifications

Size	Main	Reserve
Deployment altitude range	400 to 4,000 m	150 to 4,000 m
Min safe altitude:	with stabilization up to 3 sec – 500 m; with forced container opening – 400 m	150 m

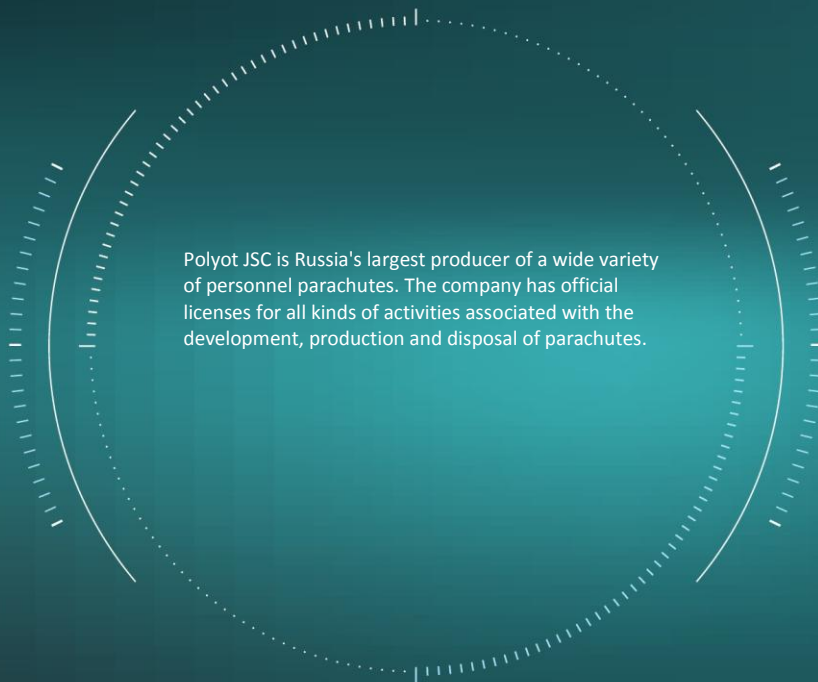
- Mean vertical component of glide speed for main chute – no more than 5 m/s (with flight weight of 120 kg).
- Mean forward component of main chute speed – no less than 12 m/s.

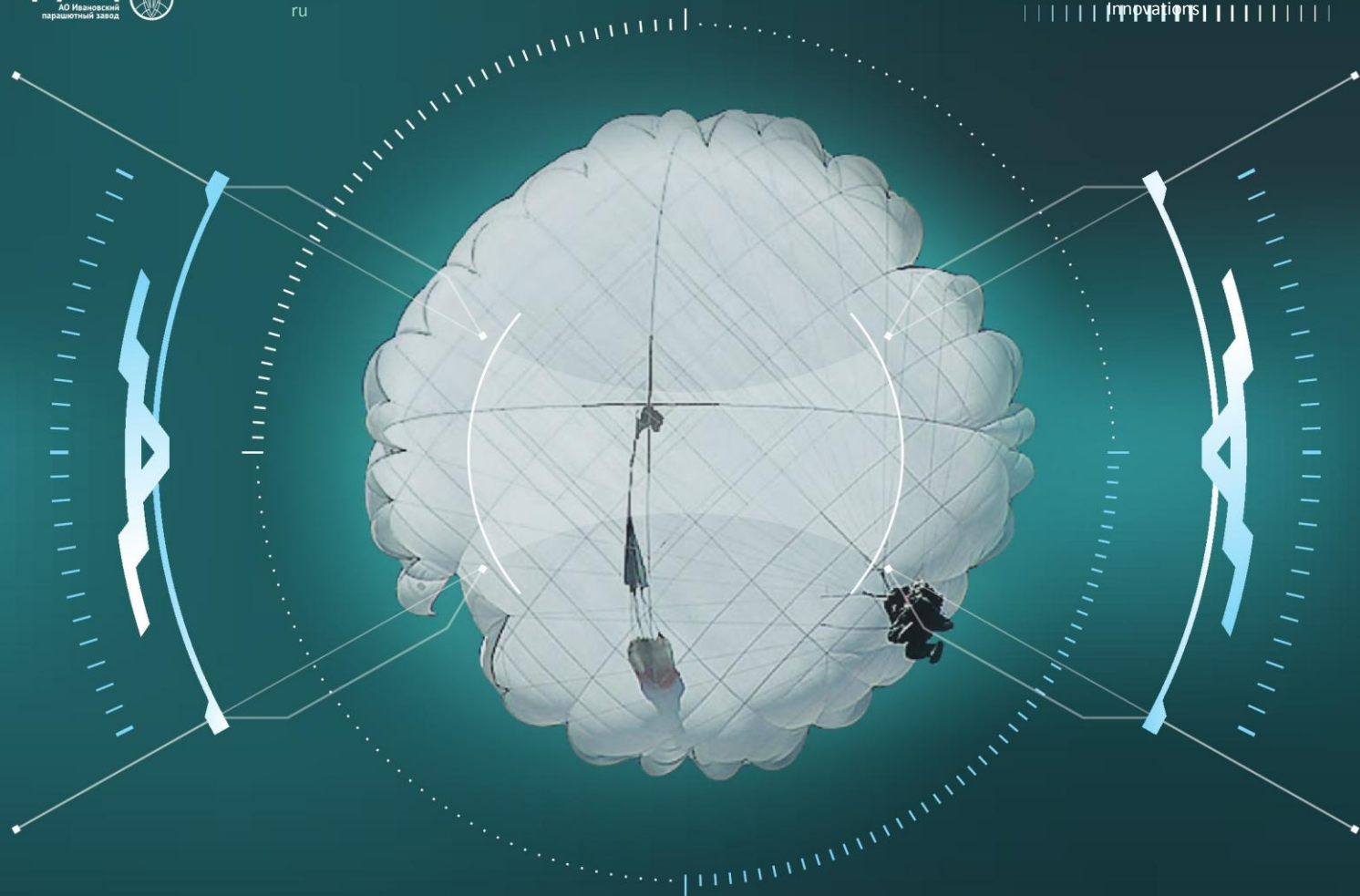




## COTS Parachute Systems

Polyot JSC is Russia's largest producer of a wide variety of personnel parachutes. The company has official licenses for all kinds of activities associated with the development, production and disposal of parachutes.







Troop Parachute  
Systems



Troop Parachute Systems

## 3-5 Reserve Chute



## GK-30-U cargo container

The GK-30-U cargo container is designed for airdrop of a paratrooper together with special cargo up to 32 kg in weight.

## Description

The container's structural design provides for:

- cargo drop at an aircraft speed of 500 km/h from the max altitude of 8,000 m;
- safety and usability of cargo which can withstand a vertical landing speed of up to 6 m/s;
- fast disconnection of the cargo container from the main chute harness in the air and at ground or water landing as well.
- assigned lifespan – 25 deployments.
- lifetime – 10 years.



## D-6 series 4

### Troop Parachute System



D-6 parachute system series 4 enables parachutists of any qualification level to jump from any transport airplanes and helicopters equipped for airdrops. The system can be used for training jumps by entry-level parachutists.

## Description

Specifications:

- canopy area – 83 m<sup>2</sup>;
- descent speed – up to 5 m/s with the parachutist's flight weight of 120 kg;
- lifetime – 20 years;
- system weight w/o carrying bag and PPK-U safety device does not exceed 11.5 kg;
- fit for PPK-U-165A-D safety device;
- a GK-30 or GK-30-U cargo container can be attached;
- activated by PPK-U-165A-D safety device or manually;
- with the parachutist's total flight weight of 140 kg, the system is reliable at altitudes of 200 to 4,000 m with stabilization during 3 s and more at drop speeds of 38.9 to 111.1 m/s (140 to 400 km/h).

PPK-U safety device

Troop Parachute Systems

# D-10

## Troop Parachute System

The D-10 troop parachute system is designed for single and group jumping from military transport planes and helicopters equipped for airdrops.

### Description

D-10 parachute system specifications:

- canopy area – 100 m<sup>2</sup>;
- descent speed – under 5 m/s with the parachutist's flight weight of 120 kg;
- lifetime – 14 years;
- a GK-30 or GK-30-U cargo container can be attached;
- activated by PPK-U-165A-D safety device or manually;
- system weight w/o carrying bag and PPK-U safety device does not exceed 11.7 kg.
- with the parachutist's total flight weight of 140 kg, the system is reliable at altitudes of 200 to 4,000 m with stabilization during 3 s and more at drop speeds of 38.9 to 111.1 m/s (140 to 400 km/h).



## PPK-U safety device



PPK-U is a combined and unified semi-automatic activation device. It activates the parachute opening appliance. The device is used with parachutes as a safety means.



- 1 – drogue chute bag
- 2 – drogue chute
- 3 – main chute bag
- 4 – main chute
- 5 – container



PPK-U safety device



Troop Parachute Systems

## 3-5 Reserve Chute

The «3-5» reserve chute is designed to be coupled with D-6, D-10, D-1-5U, T-4 and other training systems. It can be easily and conveniently fastened to the main chute harness. Attached at the front of the parachutist, it can easily be deployed with any hand by pulling out the manual deployment mechanism with further sight control.

### Description

Deployment range:

- altitude – 100 to 1,000 m;
- speed – 120 to 350 km/h.
- vertical descent speed – no more than 8.5 m/s with a flight weight of 140 kg;
- canopy area – 50 m<sup>2</sup>.
- lifetime – 20 years.
- assigned lifespan – 11 times at speeds up to 225 km/h or single deployment under max ratings.

Outer dimensions of packed system:

- length – 0.415 m;
- width – 0.24 m;
- height – 0.19 m.



«3-5»  
reserve  
chute



PPK-U safety  
device



«3-6P» reserve  
parachute system

## 3-6P Reserve Parachute System

Used to complete parachute systems without a reserve chute. By its design, the 3-6P reserve chute system is a well-tested reliable system with a classic round canopy of 50 m<sup>2</sup> in area. The system can be quickly and conveniently connected to and disconnected from the main chute harness.

As located at the front of the parachutist, it can be easily deployed with any hand by pulling out the manual deployment mechanism with further sight control. A special peculiarity of this parachute system is the possibility of PPK-U (safety device) application, structural compartment foreseen therefor.

Description

Deployment range:

- altitude – 80 to 1,000 m;
- speed – 180 to 350 km/h.
- vertical descent speed – no more than 8.5 m/s with a flight weight of 140 kg.
- canopy area – 50 m<sup>2</sup>.
- lifetime – 12 years.
- assigned lifespan – 11 times at speeds up to 225 km/h or single deployment under max ratings.

Outer dimensions of packed system:

- length – 0.415 m;
- width – 0.24 m;
- height – 0.19 m.

Training Parachute  
Systems





## Training Parachute Systems

# Junior

## Training Parachute System

The Junior training parachute system is designed for training entry-level parachutists and for single and group training jumping from airplanes and helicopters.

## Description

- Canopy area – 83 m<sup>2</sup>.
- Mean value of vertical descent speed adjusted by the conditions of the international standard atmosphere and the flight weight of 100 kg at 30–35 m above the earth – no more than 5.0 m/s.
- The system can be activated by compulsory container opening and pulling the cover from the canopy with the static line.
- Lifetime – 12 years.
- System weight w/o carrying bag and PPK-U safety device – no more than 12 kg.

The system matches 3-6P, 3-5 reserve chutes.

## 3-6P Reserve Parachute System



- 1 – parachute 50 m<sup>2</sup>
- 2 – intermediate harness
- 3 – container
- 4 – manual opening mechanism



- Main canopy blowout at ground or water landing under high ground wind speeds with the help of a device for disconnecting the right loose riser of the harness.



## Training Parachute Systems

# PTL-72

## Pilot's Bailout Steerable Training Chute

The PTL-72 parachute system is designed for training jumps and is to be coupled with 3-5-like reserve chutes. PPK-U-240A-D safety device is used.

### Description

PTL-72 parachute system specifications:

- descent speed – up to 5 m/s;
- chute weight including safety device – no more than 15.5 kg;
- assigned lifespan – 700 deployments;
- deployable by PPK-U-240A-D safety device;
- lifetime – 12 years.



- 1 – bag
- 2 – drogue system with 1.5 m<sup>2</sup> canopy
- 3 – coupling member
- 4 – canopy cover
- 5 – 70 m<sup>2</sup> canopy
- 6 – harness
- 7 – container with biconical lock, reserve chute attachment and flexible hose
- 8 – parachutist's pillow
- 9 – opening mechanism
- 10 – carrying bag



## Training Parachute Systems

# D-1-5U

## Steerable Training Parachute

D-1-5U steerable training parachute has a wide variety of applications and is meant for low experienced parachutists, including those in the initial training period. The chute design is simple and reliable, well tested during long and mass operational use. To be applied with a «3-5» reserve chute.

## Description

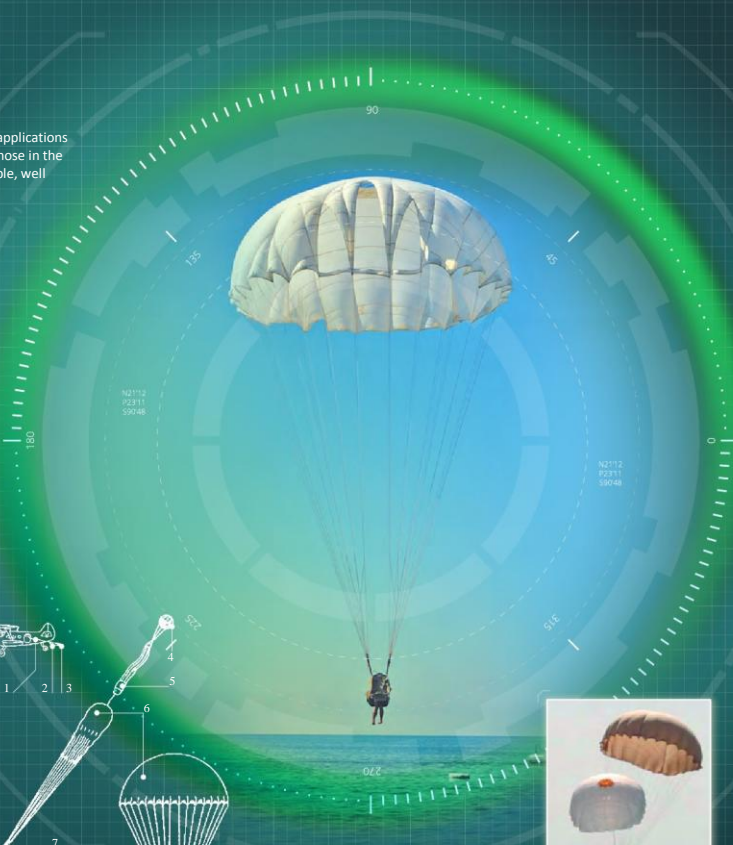
The chute can be deployed in either of three ways:  
forced container opening and pulling the cover away from the canopy with the static line;  
forced container opening;  
manual container opening.

- Canopy area – 82.5 m<sup>2</sup>.  
With the parachutist's total flight weight below 120 kg, the system ensures:
- steerable steady descent at a rate of 5.11 m/s;
- average forward speed of 2.47 m/s.

### Deployment range:

- altitude – 150 to 2,200 m;
- speed – 140 to 250 km/h.
- Assigned lifespan – 200 deployments.
- Lifetime – 15 years.
- System weight without carrying bag and PPK-U safety device – no more than 17.5 kg.

- 1 – static line
- 2 – protective cover
- 3 – rip cord
- 4 – hemispherical cordless drogue chute
- 5 – cover
- 6 – canopy
- 7 – harness with strap
- 8 – container with reserve chute attachment
- 9 – pull ring



## 3-5

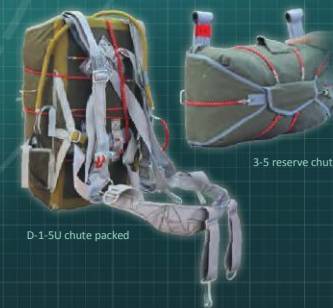
### Reserve Chute



- 1 – 50 m<sup>2</sup> canopy
- 2 – intermediate harness
- 3 – container
- 4 – pull ring with two pins
- 5 – carrying bag



D-1-5U chute packed



3-5 reserve chute



Recovery  
Parachute  
Systems



Recovery Parachute Systems

# C-5K series 2

## Recovery Parachute System

The system is designed for the individual recovery of aircraft crew members both above land and water after emergency bailout at altitudes of 80 to 12,000 m with forward flight speed of 200 to 600 km/h, when ejecting at altitudes of 150 m to aircraft service ceiling, with indicated air speed up to 1,100 km/h.

Description

- Assigned lifespan – single deployment as intended.
- Lifetime – 12 years.
- Parachute system weight without carrying bag and complete set does not exceed 14 kg.
- Outer dimensions of the system packed:
  - length – no more than 0.4 m;
  - width – 0.435 m;
  - height – 0.225 to 0.280 m (according to option).



Deployable with aircraft:



AN-26



IL-76



AN-72

IL-18  
IL-22  
AN-22

Fit for PPK-U-240A safety device



Recovery Parachute Systems

# C-4У

## Steerable Recovery Parachute

An individual recovery means for the air staff of light airplanes and helicopters.  
The parachute can be used for emergency jumps both above land and sea, as well as for training jumps.  
The canopy is round, 54 m<sup>2</sup> in area, allows for stable steerable descent at a vertical speed of no more than 6 m/s with the parachutist's flight weight not exceeding 100 kg.

Description

- Min deployment altitude – 60 m.
- Number of deployments:
  - one at the max aircraft speed of 400 km/h;
  - five for training bailouts at speeds under 300 km/h.
- Lifetime – 12 years.
- Parachute weight w/o carrying bag and complete set does not exceed 13.34 kg.



Deployable with aircraft:

Airplanes:



AN-2



YAK-18



YAK-50



YAK-52

Helicopters:



MI-24

- KA-32
- KA-226
- MI-6
- KA-27
- KA-29
- KA-31
- MI-8
- MI-35M
- MI-35MH
- MI-35
- MI-2
- MI-32

Fit for PPK-U-240A safety device



Recovery Parachute Systems

# PN-58 series 3

## Steerable Recovery Parachute

An individual recovery means for the crew members of airplanes and helicopters without provision for parachutes at crew seats. The round canopy of 54 m<sup>2</sup> with holes allows for stable steerable descent at a vertical speed of no more than 6 m/s with the parachutist's flight weight not exceeding 100 kg.

### Description

- Min deployment altitude – 60 m.
  - Number of deployments:
    - one at the max aircraft speed of 400 km/h;
    - five for training bailouts at speeds under 300 km/h.
  - Lifetime—12 years.
  - Parachute weight w/o carrying bag and complete set does not exceed 12.6 kg.
- Outer dimensions of packed chute with complete set:
- length – no more than 0.42 m;
  - width – no more than 0.37 m;
  - height – no more than 0.2 m.



PPK-U-165V  
safety device



- 1 – 0.48 m<sup>2</sup> drogue chute
- 2 – coupling cord
- 3 – canopy cover
- 4 – 54 m<sup>2</sup> steerable canopy
- 5 – intermediate harness
- 6 – container
- 7 – harness
- 8 – pillow
- 9 – pull ring

Deployable with aircraft:

Airplanes:	Helicopters:
 AN-26	 MI-26
 IL-76	 MI-6
 «Ruslan»	 MI-8
 AN-72	

## Landing Brake Parachute Systems

Landing brake parachute systems are intended to shorten the landing run of an aircraft with wheel brakes on.





Landing Brake Parachute Systems



## PTK-6M

### Landing Brake Parachute System

Intended to shorten the landing run of SU-24 airplane with wheel brakes on to 800 m at an aircraft speed up to 300 km/h at the moment of deployment.

## PT-21UKM

### Landing Brake Parachute System

The system is intended to shorten the landing run of MiG-21 airplane with wheel brakes on to 870 m at an aircraft speed of 280 km/h at the moment of deployment.

Wheel brake engagement:

- at the moment of touchdown – to 670 m;
- after lowering the nose wheel – to 870 m.



Landing Brake Parachute Systems



## PT-10370-65 series 2

### Landing Brake Parachute System

The system is intended to shorten the landing run of MiG-23 airplane with wheel brakes on to 870 m at an aircraft speed of 180 to 320 km/h at the moment of deployment.

## PTK-6M

### Landing Brake Parachute System

- 1 – 1.5 m<sup>2</sup> drogue chute
- 2 – 2.8 m link
- 3 – 25 m<sup>2</sup> chute
- 4 – cover
- 5 – 7.5 m link

- 6 – bag
- 7 – link rings
- 8 – rip cord
- 9 – strain band



## Waterflight Lifting Parachute Systems

Parachutes designed for the recreation and entertainment industry are holding no small share of the market. Anyone regardless of age may experience the full depth of sensation, sailing under a parachute canopy with a bird's eye view without any special parachute training. The Ivanovo Parachute Factory has been manufacturing such systems under the single brand name of Waterflight since 2009. The Waterflight towed chutes for active recreation are made to meet world standards with due account for all advanced requirements and technologies.



Waterflight Lifting Parachute Systems

## Breeze

Lifting Parachute System

Intended for single passengers weighing 40 to 100 kg, can be deployed with a stable direction wind of 2 to 8 m/s in force.

Boat rating – 75 to 100 hp  
Canopy area – 42 m<sup>2</sup> (ft – 24)

## Breeze-Seagull

Lifting Parachute System

Intended for single passengers weighing 40 to 120 kg. Can be used with a light wind of 0 to 8 m/s.

Boat rating – 100-140 hp  
Canopy area – 49 m<sup>2</sup> (ft – 24)

## Albatross-Ultra

Lifting Parachute System

Oriented towards commercial operation. Intended for group flights from the boat deck by up to two persons under 180 kg. Usable with a wind of 0 to 7 m/s. With passenger weight over 45 kg, can be deployed for single flights.

Boat rating – 120-150 hp  
Canopy area – 52 m<sup>2</sup> (ft – 27)

## Mega

Lifting Parachute System

Oriented towards commercial operation. Intended for group flights from the boat deck by up to two persons under 210 kg. Usable with a wind of 0 to 7 m/s. With passenger weight over 60 kg, can be deployed for single flights.

Boat rating – or 250 hp  
Canopy area – 72 m<sup>2</sup> (ft – 33)

## Strizh

Lifting Parachute System

Oriented towards commercial operation. Intended for group flights from the boat deck. The system has a heavier payload, up to 250 kg, and allows for use by up to three persons under still-air conditions ideal for passengers. Provides for flights with a wind of 2 to 6 m/s. With passenger weight over 75 kg, can be used for single flights.

Boat rating – or 250 hp  
Canopy area – 90 m<sup>2</sup> (ft – 38)



Additional Equipment

Cross members

(twin- and three-seater)



Harness



Safety jackets

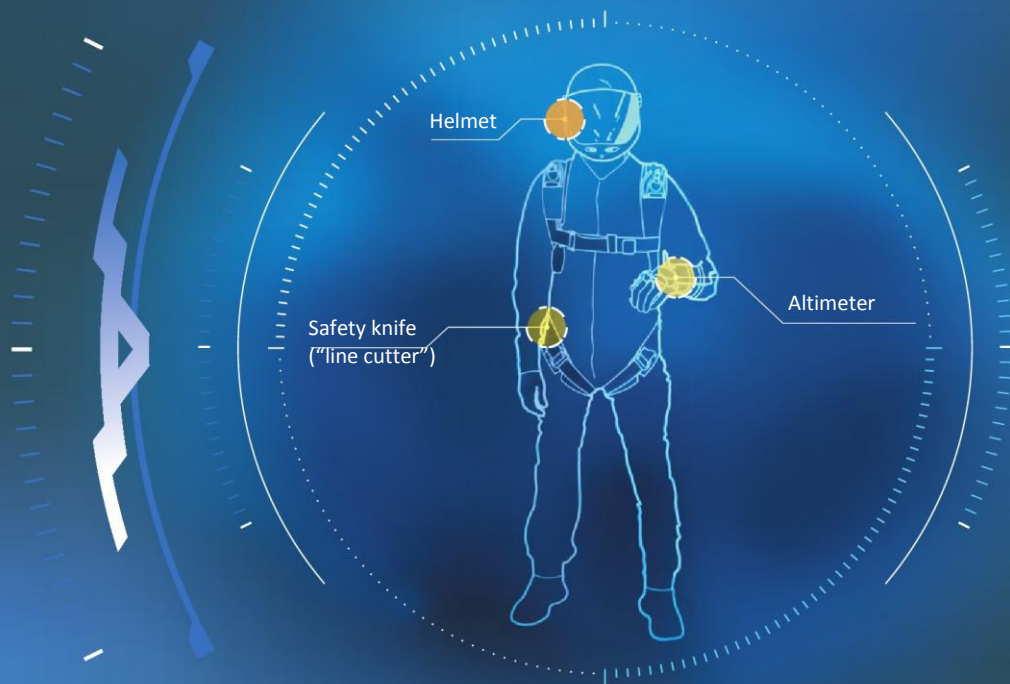


Specifications

Model	Passenger weight, kg	Parachuting descent rate, m/s, no more than	Wind speed while towing, m/s, recommended/max
Breeze	40–100	4.5 (weight 90 kg)	2–7 / 8
Breeze-Seagull	40–120	4.5 (weight 110 kg)	0-6 / 8
Albatross-Ultra	45–180	5.0 (weight 160 kg)	0-5 / 7
Mega	60–210	5.0 (weight 180 kg)	0-5 / 7
Strizh	75–250	5.5 (weight 250 kg)	2-5 / 6

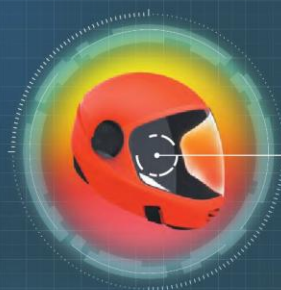


## Jumping Kits





Jumping Kits



Helmets



Altimeters

Barigo parachute altimeters are applied for altitude monitoring throughout the flight.

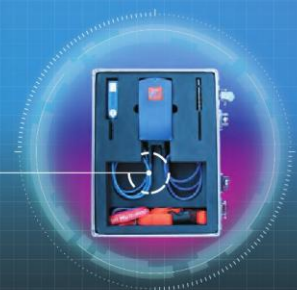


Cypres Safety Device

Designed for the automatic deployment of the reserve chute in case the jumper does not open it for some reason.

VIGIL Safety Device

Designed for the automatic deployment of the reserve chute in case the jumper does not open it for some reason.



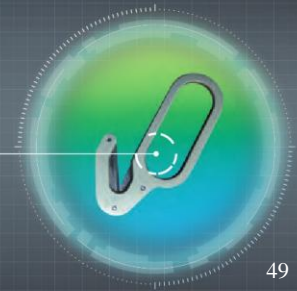
PPK-U  
Safety Device

Combined and unified semi-automatic activation device, used with personnel parachutes as a safety means.



Penguin  
Safety Hook Knife

Body – aluminium  
Lit AD-1 as per GOST 4784-74  
Standard, double blade –  
steel U-8 as per GOST 1435-74



## Company Information

The Polyot JSC – Ivanovo Parachute Factory has been a developer and quantity maker of parachute systems for more than 90 years, awarded the Order of the Labour Red Banner (twice) and many certificates of merit and letter of appreciation for its effective operation.

Polyot JSC has a complete package of official licences for the development, production, repair and disposal of parachute equipment, including dual and military-use items, and, besides, is licenced by the Federal Security Service for the handling of officially classified information.

Nowadays, the company comprises: sewing Department, metal department, textile and chemical laboratories, engineering bureau and an on-staff tester group.

The factory personnel are over 600 specialists and workers.

In 2007 through 2011, a major project of Factory relocation to a new building, specially designed and erected for parachute manufacturing. Total premises area mounts to 17,000 m<sup>2</sup>.

In 2016, in the framework of grand technical re-equipment project, the modernization process was completed and new equipment put into service in the metal department CNC machine shop as well as in the electroplating shop (thus completing the modernization of essential zinc, cadmium, chromium, nickel coating processes).

All business processes are in conformity with international quality standards GOST RV 0015-002-2012 and GOST R ISO 9001-2015. Polyot JSC manufactures the widest scope of parachutes: troop, reserve, sporting, recovery, training, landing brake systems and special-purpose and tandem systems as well.

The moment, the company is Russia's only fully integrated manufacturer of man-dropping parachute systems. All the units thereof, including, metal parts, are made by this factory.



## Our customers

- Ministry of Defense of the Russian Federation;
- Federal Security Service;
- National Guard;
- Ministry for Emergency Situations of the Russian Federation;
- Federal Guard Service;
- transport air force and civil aviation authorities of Russia and other countries;
- Volunteer Society for Assisting Army, Air Force and Navy.

At present, the company keeps the course to the modernization of production and engineering facilities, product line expansion, branding as Russia's leading manufacturer of high-grade reliable and updated parachute systems.

### Acknowledgements

Polyot JSC extends gratitude to International SP Force Training Centre, dealers, Aerograd Kolonna, sporting parachutists and other partners for the photos presented hereinabove and for the assistance in making this directory.

## Cloth Preparation Shop



## Cutting Shop

## Sewing Shop



## R&D Shop



Metal Production.  
CNC Machine Shop



Metal Production.  
Electroplating Shop



## Awards and Licenses



# Партнеры



Хабаровский филиал Санкт-Петербургского государственного университета гражданской авиации



АО ВТОРОЙ МОСКОВСКИЙ ПРИБОРОСТРОИТЕЛЬНЫЙ ЗАВОД



МО Индии



ВВС Российской Федерации



Щеколоская ижевская фабрика



Завод специального оборудования



РОСОВОБРОНКСПОРТ



МО Российской Федерации



МО Азербайджана



МО Армении



ФЕДЕРАЛЬНОЕ ВОЕННАЯ ТЕХНОЛОГИЧЕСКОЕ ЦЕНТРАЛЬНОЕ УЧРЕЖДЕНИЕ

МО Узбекистана



МВС Российской Федерации



ФСБ



ФСО



Росавиация



Росгвардия



Федерация парашютного спорта России

