SKYWALK





# PRO GUIDE

ARAK AIR

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## 1 INTRODUCTION

## Welcome to skywalk!

Congratulations on the purchase of your new ARAK AIR and thank you for your trust in us and in our products. In this manual you will find product-specific information that will help you quickly get to know your new paraglider to ensure your fun for a long time. General information about the most important safety-relevant points for handling your paraglider can be found in the attached "BASIC GUIDE".

We are always open for questions, comments or critique and are happy to provide you at any time with further information!

Edition 1.0 / 11\_2020

Your skywalk Team
PURE PASSION FOR FLYING

The latest version of the manual can be found on <a href="https://www.skywalk.info">www.skywalk.info</a>

SKYWALK ARAK AIR

## **2 DESCRIPTION**

With the ARAK AIR, we combine the concept of the ARAK with the technology of our X-ALPS wings! This exclusive combination makes the ARAK AIR the perfect glider for all pilots who like to reduce their equipment to a minimum, like to fly X-Alps-style, and rely on the passive safety of the intermediate class.

The lightweight design requires a certain amount of caution in handling.

#### PILOT REQUIREMENTS

The ARAK AIR's high level of performance and its forgiving handling make it suitable from occasional pilots to ambitious thermal flyers and XC pilots.

#### SCOPE OF DELIVERY

The ARAK AIR comes standard with inner bag, compression strap, glider backpack, riser bag and "BASIC GUIDE".



### 3 TECHNICAL DATA

Size	XXS	XS	S	М	L
Cell number	57	57	57	57	57
Area flat (m²)	21,40	23,30	24,80	26,40	28,60
Wingspan flat (m)	10,75	11,22	11,58	11,94	12,42
Aspect ratio flat	5,40	5,40	5,40	5,40	5,40
Area projected (m²)	18,30	20,00	21,30	22,60	24,50
Wingspan projected (m)	8,60	8,98	9,26	9,55	9,93
Aspect ratio projected	4,03	4,03	4,03	4,03	4,03
min. profile depth (cm)	58	61	63	65	67
max. profile depth (cm)	242	253	261	269	280
Middle line length without risers (m)	6,28	6,56	6,77	6,98	7,26
Line consumption (m)	242	253	261	269	280
Weight* (kg)	2,9	3,1	3,3	3,5	3,7
Recommended weight range (kg)	55-75	70-85	80-95	90-105	100-120
Certified weight range (kg)	50-80	65-90	75-100	85-110	95-120
Winch certified	yes	yes	yes	yes	yes
JET FLAP Technology	yes	yes	yes	yes	yes
Paramotor homologation	no	no	no	no	no
Accelerator	yes	yes	yes	yes	yes
Maximum speed bar travel (mm)	150	150	170	170	170
Distance between risers (cm)	40-44	40-44	40-44	44-48	44-48
Brake line travel max. (cm)	60	62	64	66	69
Trimmers	no	no	no	no	no
Number of seats	1	1	1	1	1

<sup>\*</sup> with Dyneema-riser. Weight with Regular-riser approx. +200g

### **4 LINE SYSTEM**

The layout of the suspension points is designed for optimal load distribution and a long lifespan. With all considerations and calculations however, our focus is always on safety. The mix of materials used on the lines of the ARAK AIR is an ideal combination of durability, low stretch and low drag.

The skywalk ARAK AIR has 3 A-, 3 B-, 3 C-, and 1 stabilo line. The main-stabilo is connected with the B-riser. The brake lines are not load-bearing and lead from the trailing edge over the main brake lines through the brake pulleys on the C-risers to the brake handles. A marking on the main brake line indicates the position of the handle attachment. This setting should not be lengthened, for example, to provide more brake travel in extreme flight situations or during landing, nor shortened such that the glider is flown constantly with some brake on

4 Description Technical data 5

# To provide a better overview and to make sorting easier, the lines have different colors:

- → the Al, All, AllI-lines and the A-risers are red.
- → the BI, BII, BIII-lines are yellow.
- → the Cl. Cll. CllI-lines are blue.
- → the stabilo lines are orange.
- → the brake lines are orange.

The lines are attached with loops to oval shackles and secured with plastic inserts.

## The skywalk ARAK AIR has 4 risers (3 risers on the Dyneema-riser) per side:

- → the two inner A-mainlines lead to the inner A-riser, the outer A-line leads to the outer A-riser. The Dyneema-riser has only one A-riser.
- → the B-lines as well as the stabilo lines lead to the B-riser.
- → the C-lines lead to the C-riser.

A schematic drawing of the risers can be found at the back of the manual.

## **5 ACCELERATION SYSTEM**

The skywalk ARAK AIR can be equipped with a foot-operated acceleration system. The acceleration system effects the A- and B-risers. Both risers are equipped WITHOUT trimmers. Exact lengths of the accelerated risers can be found at the end of the instruction.



## **6 FLIGHT TECHNIQUES AND CHARACTERISTICS**

#### WINCHTOWING

The skywalk ARAK AIR is well suited for winch towing. Make sure that you only use certified winches and that you climb from the ground at a flat angle.

The pilot must have had proper towing instruction and must ensure that the winch operator has had proper training that includes paragliders. When launching on a winch, always fly with a lot of feeling and don't brake too much as your glider will already have an increased angle of attack. We recommend the use of a towing adapter.

#### **FLYING WITH A MOTOR**

Currently, the ARAK AIR has no certification for flying with a motor. You can find out the current status of motor certification at any dealer or importer, or by asking skywalk directly.

You can find further information on practices and characteristics of flying in the enclosed "BASIC GUIDE".

## **7 DESCENT TECHNIQUES**

#### **BIG EARS**

In contrast to the spiral dive, with big ears your forward speed is higher than your sink speed. This descent method is used to quickly leave dangerous areas in a desired horizontal direction.

The danger of canopy disturbances in turbulent air is greatly reduced with big ears. Proceed as follows:

- → Hold the outer A-lines on the Regular-risers they are suspended on separate A-risers and pull down on the lines or risers.
- $\rightarrow$  Keep the brake handles and the outer A-lines in your hands during the maneuver. The glider remains controllable with weight shifting.
- → To increase both sink rate and forward speed, you can also optimize this maneuver with the speed bar.
- → To recover from the maneuver, release the A-lines and the glider normally will open by itself.
- ightarrow To speed up the opening, pull on the brakes lightly. It is better to first open one side and then the other to minimize the risk of a possible stall.

#### **Examples:**

- → If the pilot is surprised near a summit with little ground clearance by strong wind or a thundercloud, neither a B-stall nor a spiral dive can help.
- → If the pilot is stuck in very strong lift, it is advisable to exit the lift band with the use of big ears and to find sinking air in which to lose altitude.

#### **B-LINE STALL**

The B-lines are pulled down symmetrically 15-20cm. Keep the brake handles in the respective hands. The airflow on top of the profile largely detaches and the paraglider descends without flying forward. Pulling hard on the B-risers allows you to decrease the area of the wing and increase your sink rate, but this also increases the risk of the wing forming a rosette to the front. If this happens, recovery from the B-stall immediately! You can exit the stall by quick and symmetric release of the B-lines. The paraglider will pitch forward and pick up speed. At no time you may use the brakes in this case! If the wing doesn't reopen you may speed up the opening process by gently braking.

You can find further information about descent techniques in the enclosed "BASIC GUIDE".

## **8 MATERIALS**

The skywalk ARAK AIR is manufactured from the highest quality materials. skywalk has selected the best possible combination of materials with regard to resilience, performance and longevity. We are aware that the durability of the glider is a deciding factor in the pilot's satisfaction.

#### WINGS AND RIBS

Upper sail: Dominico TX-Light / 10D

Lower sail: Dominico 10D

Ribs: Porcher Skytex 27 hard

LINES

A, B, C Main lines: Liros PPSLS 180/125 A, B, C Middle lines: Liros PPSLS 125 A, B, C Top lines: Liros DC 60

Brake lines: Liros DFLP 200/32. PPSLS 125/65. DC 60

#### **RISERS**

The risers are made of 6mm Dyneema or 12mm webbing. Stretching values, strength and stability of this material is among the highest of all webbing products available.

## 9 HOMOLOGATION

The ARAK AIR is certified to LTF 09 and EN926-1, EN926-2 in the category B. The ARAK AIR is defined as a lightweight sport aircraft with an empty weight of less than 120kg in the paraglider category. The many homologation tests are the last hurdle in the development of a skywalk paraglider. The homologation test flights only take place when the test team is completely happy with the glider development.

We remark that the certification results will differ during flight in thermals or turbulent air. The homologation informs solely regarding the paraglider performance during extreme-flight- manoeuvres performed in stable air conditions. These extreme-flight-manoeuvres during the homologation process should thus not be over-valued. Remember that certification maneuvers were carried out with a harness in the group GH with a carabiner distance (middle to middle) of 42-46 cm. If another harness is used, the glider may display flight characteristics that differ from those in the description.



8 Descent techniques | Materials Homologation 9

#### **10 CLOSING WORDS**

The skywalk ARAK AIR is at the pinnacle of paraglider development in the market for ultralight intermediate gliders and shows what is possible regarding performance, safety and innovation. It cost us a lot of time to develop this glider, but it was also a lot of fun. In this development we recognize the challenge of making the right product for every area and individual taste. We are pleased if you notice this during your first flight and if you feel a certain unity with your glider from the very beginning.

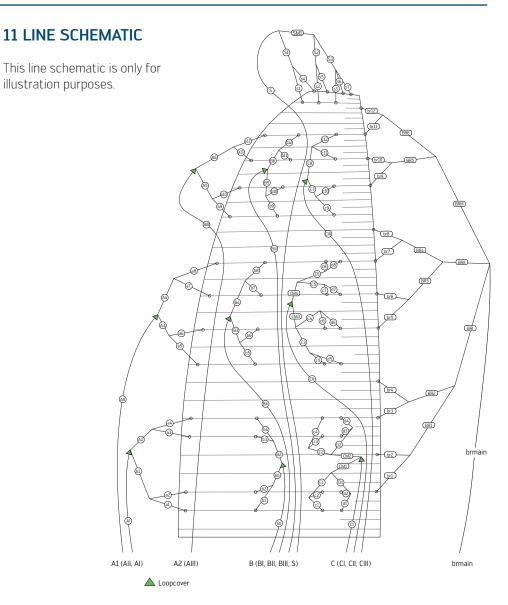
The ARAK AIR will provide you with plenty of joy over many years if you treat it and care for it properly. Respect for the demands and dangers of our sport are essential for successful and beautiful flights.

Even the safest paraglider can be dangerous due to misjudgments of meteorological conditions or pilot error. Always remember that flying sports are potentially risky and that you are responsible for your own safety. We advise you to fly carefully and to respect laws in the interest of our sport, because every pilot always flies at his or her own risk!

## WE WISH YOU A LOT OF FUN WITH YOUR NEW GLIDER AND ALWAYS HAPPY LANDINGS!!

Your skywalk Team





## 12 LINE LENGTH

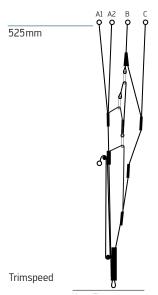
Total line length ARAK AIR size: XXS, XS, S, M, and L: www.skywalk.info

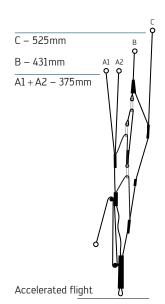
Single line length ARAK AIR size: XXS, XS, S, M, and L: www.skywalk.info

10 Closing words Line schematic | Line length 11

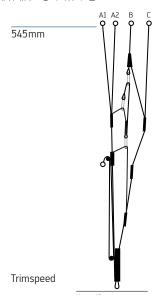
## 13 RISERS

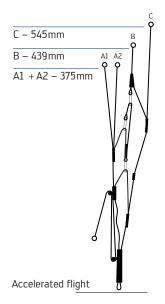
ARAK AIR - XXS + XS





ARAKAIR - S + M + L





## **14 OVERVIEW GLIDER**



12 Risers Overview Glider 13



15 TEST PROTOCO	Date:						
Customer, Name:							
Adress:				Phone:			
Glider:	Size:		Serial number:				
Type certificate number:			Date of last check:				
Date of first flight:	Year of	construc	tion:				
Accomplished checking:	Results [+/-]:		Description of failure:	Suggested repairs:			
Identification:	+	-					
Visual check of canopy:							
Upper surface:	+	-					
Lower surface:	+	-					
Profiles:	+	-					
Line flares:	+	-					
Leading edge:	+	-					
Trailing edge:	+	-					
Crossports:	+	-					
Visual check of lines:							
Seams:	+	-					
Abrasion spots:	+	-					
Core withdrawals:	+	-					
Visual check of connection	nparts:						
Suspension line screw locks:	+	-					
Risers:	+	-					
Length measurement:							
Risers:	+	-					
Lines:	+	-					
Examinations of the canopy:							
Firmness of canopy:	+	-					
Porosity:	+	-					

Examinations of the lines:						
Firmness of main lines:			daN			
	Results [+/-]:	Description of failure:	Suggested repairs:			
Visual check of trimming:	+ -					
Checkflight necessary?	+ -					
Type certificate patch?	+ -					
Identification plate?	+ -					
Good co	used, but within hor	mologation standards, fred e of the limit values.	quent checks required			
Repairs made?:						
Signature of tester:		Date:				
Name of tester:		Firm stamp:				

14 Test Protocol Test Protocol 15



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