

TEST CONDITIONS

Small XC-trips in summer thermals. Partly challenging, partly superb conditions for flying thermals or ridge soaring in Meduno, Italy, in September.

SKILL LEVEL

Student	Beginner	Hobby pilot	Experienced pilot	X-C-pilot	Competition pilot
---------	----------	-------------	-------------------	-----------	-------------------

PERFORMANCE DATA

Glider weight (kg)	4,8
Altitude (m MSL)	700
Trimspeed (km/h)	38
Top speed with speed bar use (km/h)	51
Test pilot's total takeoff weight (kg)	100
Wing loading (kg/m ²)	3,78

DESIGN

Number of risers	3
Line levels (at canopy)	4
Upper line layers	1
Split A-risers for Big Ears	yes
Dirt openings	yes

MATERIALS/SEAMS

Pulley material	Plastic/metal
Brake toggle attachment	Snap fastener
Toggle	Soft loop with soft bar
Line fixation in carabiners	Rubber bands
Seams	Inside
Stitching of line ends	Accurate, narrow stitches, strong reinforcement at the end
Line attachment points	Seams reinforced several times on Mylar, stress relief at heavily loaded points

TEST LOG

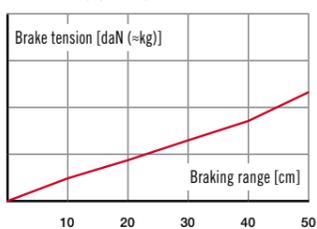
Weight range: 65-100 kg
Test pilot's total takeoff weight: 100 kg

Test pilot's harness:
Woody Valley Peak 2

Measuring instruments:
Bräuniger Competino

Speed bar range:
36 cm (distance to full acceleration)

BRAKE TENSION DIAGRAM



PILOT REQUIREMENTS (essential skills)

E1	E2	i1	i2	S1	S2	H1	H2	CC
----	-----------	----	----	----	----	----	----	----

E2: Beginner's gliders that offer sufficient handling and upwards push for use in thermals and updrafts while providing maximum safety margins. Recommendable as the first glider for inexperienced pilots. Skill/experience requirements: none, but a certain degree of talent and understanding of the matter is recommended.



It's hard to put into words: the high fun factor that results from smooth gliding, trust in the glider, and pleasant handling characteristics.

SUMMARY

MATERIAL AND WORKMANSHIP	Material ★★★★	High quality mix of materials in the canopy and lines, standard material for risers
	Workmanship ★★★★★	Seams at canopy, risers, and lines are of high quality with narrow stitching and well-thought-out reinforcements, lines are cut to length with rounded ends
LAUNCH CHARACTERISTICS	Launch ★★★★★	Suitable for paragliding students
	Reverse launch ★★★★★	Easy to lead with manageable responses, decisive inputs required for corrections
FLIGHT PERFORMANCE	Agility ★★★★★	An A-glider that's fun! Agile with sufficient damping for inexperienced pilots.
	Flight characteristics ★★★★★	Pleasant damping, can be very nicely controlled through harness and brakes, conveys a direct feel in thermals and during ridge soaring.
	Collapse characteristics ★★★★★	Difficult to induce, opens slowly and unspectacularly while building little dynamic energy, and veering off only moderately.
DESCENT MANOEUVRES	Speed bar ★★★★★	Short speed bar range, moderate resistance at the gas pedal, fast while stable compared to other gliders in this category
	Big Ears ★★★★★	Resistance increases considerably at full tuck, good efficiency, finely tuned gliding and control characteristics
	B-stall ★★★★	Strong resistance during initiation of the manoeuvre, stable canopy, minimal tendency to veer off, glides forward without delay after exit
	Spiral dive ★★★★★	Can be controlled easily and directly in every phase
Special technical features	Brake gathering system at the trailing edge, plastic rods for reinforcement of the leading edge	
Suitability	Students, inexperienced pilots, hobby pilots, thermal-loving pilots, moderate XC-trips	
Ratings	★ Inadequate, ★★ average, ★★★ good, ★★★★ very good, ★★★★★ excellent	



UP Ascent 3

E2
THERMIK TESTED BY

Flying 118.98 km FAI from Herndleck at the foothills of the Alps in just under six hours with an A-category glider? Hans Poscher, owner of a paragliding school, demonstrated how with the new UP Ascent 3. Of course that made us curious to find out what's in UP's new beginner's glider...

Test pilot & Photos: Peter Feichtinger

Alongside category B, category A is one of the big winners of the certification reforms. Within the new regulations, beginner's models have developed into full-fledged gliders and as a result, the "glider for life" no longer has to be a category B wing. For those that want to have fun and fly stress-free, a large selection of "full-fledged gliders" can now be found in category A. With the Ascent 3, UP has introduced a very special A-category model to the market. With its significant XC-suitability this A-glider may seriously compete with low-end intermediate gliders. Hans Poscher, owner of a paragliding school and XC-pilot himself, has explored the area around his home with the Ascent 3 and has made a dream come true with the FAI triangle of 118.98 km mentioned above. The Ascent 3 has been designed for pilots of all abilities, says UP's Matthias Hartmann, from beginners to XC-pilots, with glider safety being prioritised.

Design

For the design of the Ascent 3, designer Frantisek Pavlousek took inspiration from the EN B low-end intermediate glider Makalu 3. Pavlousek revealed that while designs are often adapted from higher categories to lower ones, very rarely does the reverse happen. Similarities between the Ascent 3 and the Makalu 3 can be spotted in the curvature, the shape of the leading edge, and the structure. A flat aspect ratio of 5.07 and 44 cells make the Ascent 3 one of the more elegant models in category A. The leading edge of the Ascent 3 is equipped with short plastic reinforcements, and the glider also boasts 3D-shaping. The wing tips are, as is typical for UP, slightly bent backwards. An efficient brake gathering system at the trailing edge shows its value during steering. On the inside of the canopy, diagonal cells alternate with cells without reinforcements to create a stable canopy shape. The three cells at the centre of the canopy are not fitted with diagonal reinforcements, but the very central cell is supported by lateral reinforcements. All lines are fully sheathed, and the Ascent 3 is set up with three line levels. The upper C-lines are split into two levels to form a level of D-lines closer to the canopy. The risers are a standard version, which is common and makes sense for beginner's models. Interestingly, the Ascent 3 covers a weight range of 55 to 135 kg with only 4 sizes, and furthermore, each size is licensed with an extended weight range. For example, the size S that we tested is licensed with a weight range from 65 to 100 kg – with an area of 26.5 m². We particularly appreciated the packing instructions in the handbook of the Ascent 3, which highlighted how to properly care for the reinforcements at the leading edge.

Launch performance

The launch preparations proved to be very simple with the Ascent 3. No matter if laid out flat, arched, or in a slight V-shape, the canopy always inflates quickly and evenly. The lines, including the numerous upper lines, which are uniformly grey, are easy to sort. During launch the Ascent 3 presents itself suitable for schooling, yet demands a bit of sensitivity from the student. The Ascent 3 rises reliably and slows down at the zenith. At the same time the canopy shows a tendency to align itself with the wind, and occasionally requires the pilot to take a step or two towards the lower wing. However, this tendency is not very distinct and even a student wouldn't be overwhelmed.

The Ascent 3 rises with very similar characteristics when launched in reverse. After the canopy lifts off the ground, it can be steered very precisely with the A-risers. Making corrections, however, requires distinct braking inputs and decisive weight shifts.

Flight performance

Even during the first flight with the Ascent 3, the wing immediately feels familiar. While circling in a strong thermal the wing takes me to the cloud base as if it were an everyday routine, and it is surprising how precisely the pulsations of the updraft are transmitted through the brakes and harness. The glider is manoeuvrable and versatile in



Some sensitivity is advantageous despite the glider's suitability for students.

SPECIFICATIONS (manufacturer's data)

Manufacturer/Dealer	UP International GmbH Kreuzeckbahnstrasse 7, 82467 Garmisch-Partenkirchen Tel: +49 (0) 8821 73099-0 info@up-paragliders.com, www.up-europe.com			
Production	Aeroman China			
Designer	Frantisek Pavlousek			
Test pilots	Michal Snejberg, Jiri Dlak, Franta Pavlousek			
Sizes	XS	S	M	L
Chambers/cells	44	44	44	44
Takeoff weight (kg)	55-85	65-100	75-115	90-135
Surface area flat (m²)	24,3	26,5	28,7	31,1
Surface area projected (m²)	20,5	22,3	24,2	26,2
Flat span (m)	11,1	11,6	12,1	12,5
Projected span (m)	8,7	9,1	9,5	9,8
Flat aspect ratio	5,07	5,07	5,07	5,07
Projected aspect ratio	3,7	3,7	3,7	3,7
Glider weight (kg)	4,6	4,95	5,35	5,7
Total line length (m)	298	313	325	340
Minimum speed (km/h)	ns	ns	ns	ns
Trimspeed (km/h)	37	37	37	37
Top speed (km/h)	51	51	51	51
Price incl. 20% VAT (€)	2.895,-	2.895,-	2.895,-	2.895,-
Category LTF	A	A	A	A
Category EN	A	A	A	A
Top sail/bottom sail	Skytex 38 Universal/DOKO-30DMF, Skytex 38 Universal			
Upper lines	Edelrid Dyneema and Cousin Dyneema, sheathed			
Main lines	Edelrid Dyneema and Cousin Dyneema, sheathed			
Included in delivery	Backpack, glider bag, compression strap, UP gift, UP sticker			

the turns. It can be put into steep turns when necessary, but also easily masters narrow, flat circles in the thermal. The wing manages changes from wide, flat circles during searching to narrow turns almost without delay. Steering it feels like flying a low-end model of the EN B-category, only with a slightly longer steering range, but equally direct and accurate. The flight performance is calm and smooth. The Ascent 3 circles upwards staying reliably on track and remains almost undisturbed by turbulences. At cloud base, I hit the speed bar and start off on a small valley crossing. I put it up to full speed – the leading edge only shows minimal denting. I pass through the turbulences at the thermal's edge with a smile on my face as the wing rests steadily above me, barely affected. The speed bar's adjustment is a little short – I can't quite extend my legs fully. But the pressure from the bar is moderate and I can keep it pushed down with little effort until I reach the next thermal. I end up completing a full turn around the valley and touch down at the launch site amid challenging conditions. My first impression: a successful flight with a well-designed glider.

During ridge soaring in Meduno, Italy, the Ascent 3 shows how accurately it can be steered in dynamic lift. It feels very precise and direct, but at the same time inspires confidence when flying close to the ground by absorbing turbulences, and doesn't start pitching unpleasantly. The test flights also showed that the Ascent 3 can be controlled very easily and efficiently through weight-shifting and with the brakes. During dynamic manoeuvres it builds up a moderate level of energy, and steep wingover turns can be achieved by using a good amount of the steering range. It is very difficult to induce a wing collapse with the Ascent 3, however, at high momentum the wing does tuck at an angle of slightly more than 60 degrees. But, it then opens up slowly and gently while only building up little dynamic energy. Only if the pilot lets their weight fall onto the collapsed side, the wing continues the rotation slightly. In short, it is very easy to keep the Ascent 3 on track during a collapse, which is partly owed to the sufficiently large steering range.

Descent manoeuvres

Big Ears:

At the start of the manoeuvre the ears willingly collapse with moderate resistance at the outermost A-risers, align with the neighbouring lines, and deflate very little. The tension on the outer A-risers further increases slightly during the manoeuvre, especially as soon as the ears are fully collapsed. Despite the large collapsed area, the ears remain stable, and the wing glides along calmly, while subtly absorbing turbulences. During steering inputs, it begins to turn reliably, then decelerates the rotation, and finally has to be held in the turn with decided weight-shifting. The ears have a distinct opening tendency, and open up quickly and independently.

B-stall:

Initiation of the B-stall results in high resistance at first, but lessens after the stall, allowing the manoeuvre to be held without difficulty over a longer period of time. The stall is remarkably stable; the wing merely shows a minimal, negligible, and easily correctable tendency to drift sideways. After a somewhat lengthy "acceleration phase," the manoeuvre proves to be quite efficient with a descent rate of around 10 m/s. During exit the glider initially resumes flight without delay, pitches forward only slightly, and swings back gently after inflating completely. Its unhurried reactions cause the Ascent 3 to take considerable time to complete the re-inflation process.

Spiral Dive:

The spiral dive can easily be called the showcase manoeuvre of the Ascent 3. The glider willingly turns into the spiral dive, circles with a quite manageable 14 m/s descent rate, and reacts to brake inputs accurately and without hesitation. In order to achieve higher descent rates – 20 m/s and more are easily achievable with the Ascent 3 – the A-glider requires decisive brake input. The wing then needs some time



No matter if thermalling or ridge soaring – the Ascent 3 always shows a good performance. A-glidors have long stopped being an excuse for going down.

to reduce energy and circles another one or two times to re-stabilise at moderate descent rates. Just like the spiral itself, the exit feels very homogenous and gentle with the Ascent 3.

Summary

Rarely has there been such agreement among the THERMIK test crew. No matter which one of the pilots tested the UP Ascent 3, their enthusiasm was great. Above all they praised the fun factor, regardless if they were flying in thermals, ridge soaring close to the ground at their local launch sites, flying freestyle, or taking it cross-country. The unanimous view is that the unique blend of performance, handling, safety, agility, and damping in such a compact package creates a big fun factor. Certainly, the Ascent 3 offers these parameters in the right combination, which makes it ideal for a considerable range of uses. Regardless if the pilot is a beginner, hobby pilot, thermal pilot, frequent pilot, XC-hopeful, or one who wants to relax on XC-flights, everyone will equally feel at ease with the Ascent 3. Indeed, like all category-A gliders, there are some trade-offs, but they come in return for a fantastic safety buffer. ■