

Recently the Question came up if the current Design Trends in Speedwings offer an Improvement for new Speedwing Pilots coming into the Sport

The Answer is not so easy in my opinion, so lets have a look at the Development of Speedflying in general from 2003 until today

Speedriding is transitioning through the same development cycles as many other equipment related sports:

- 1 experimental phase (2003 to 2006)
- 2 consolidation phase (2005 to 2010)
- 3 performance phase (2010 onwards)
- 4 settlement / diversification phase (2006 onwards)

We have clearly left Phase 1 and 2 behind.

Material wise we are clearly in phase 3 - improvement of performance - sometimes at the cost of passive safety - wich leads to an enormous choice of "tools" for a relatively small market.

As a Reminder: dont be fooled, Speedflying is a total niche market compared to the already niche market of Paragliding.

Estimated numbers we know of are 60.000 to 150.000 active PG pilots worldwide, vs maybe a few thousand active Speedflying Pilots (dont forget, many people bought a wing used it a few times and realized its way out of their skillset and were unable to sell it due to lack of market demand)

Mentally (at least with all experienced Pilots we know of) we are clearly in Phase 4

So the industry is (thankfully, as its definately an enthousiast business, not a big money business) mainly producing wings for existing more and more experienced and specialised pilots as the amount of newcomers to the sport seems to get smaller any year (at least in my sourrounding) as speedflying does not get much media coverage these days (compared to say 2003 to 2005 when it was a spectacular novelty)

That said, If you focus on new designs you must realise that many of these designs aim towards experienced pilots who usually have a very specific usage profile in mind and who usually own multiple wings for different conditions and KNOW how and when its safe to use a specific design.

So as a result many of the more performance oriented new designs trade glide and rollrate for passive safety, which - depending on the application - can be partly good or very bad.

The safest speedwings (in terms of collapses) are those with classic Parachute design

parameters (big fat cells. flat profile underside, minimal or no crossbracing) and minimal reinforcements in the profile nose.

These design have been developed / optimized around 2003-2006 and there is not much you can "improve" performance wise beside optimisations in materials (weight, durability) and perfected sail tension due to the availability of more advanced computer simulations.

If adding plastic wires in the profile nose for improved inflation during slow ski starts is an improvement - that (in my opinion) is questionable as it takes away the profile noses ability to easily deform and auto correct angle of attack issues instead of creating pitch movements / and subsequent very low aoa situations which could lead to big collapses, which could lead to big direction changes (definitely not good low to the ground)

But lets get back to the main topic:

Due to their profile "classic" designs are almost immune (of course only to a certain extent) to big collapses and resulting big direction changes due to the fact that they (more or less) can not develop a substantial amount of negative lift, as any lowish aoa situation leads to partial deflations of the profile nose area which in turn auto corrects harsh forward pitch movements.

As a result of their flexible structure even in very very rough air only partial deflations of the profile happen which in turn (as already outlined) help do dampen unwanted pitch forward reactions.

So if you get caught in real shitty air (which might happen when flying in big alpine terrain that you are not fully familiar with) then i clearly prefer to be flying a more conservative "soft" design at the price of less glide and less precise steering and less aggressive roll behaviour.

The least "passive safety" designs (in terms of collapses) are those who have thinner, more aggressive (in terms of lift curve) profiles with good glide at high speeds and very coherent, crossbraced canopies.

These Designs tend to react very coherent, so the whole wing will react to turbulence instead of individual cells being disturbed - feels more precise, but has more potential for disaster if you get hit by severe turbulence.

Of course these wings handle a lot more direct and precise, and less "sluggish" compared to the classic designs and are almost a must for "newschool" speedflying with superclose to the ground barrel rolls etc.

Also these more glide performance oriented designs are easier to footlaunch because you can "milk" more lift out of them in the takeoff run even with very small sized canopies (sub 10sqm) IF the canopy is fully inflated - be aware that "basejump style" dropdown launches can be extremely dangerous with high AR / small cell speedwings compared to more parachute like low AR / big cell speedwings

So depending on what you expect from your wing you need to decide about your priorities:

New School Advanced / Expert Pilots - If you are an experienced Newschool Speedflyer you know what you are doing and why and it is very unlikely that anything you have just read is new for you.

Beginner Pilots aiming to be a New School Pilot soon - If you want to become a Newschool Speedflyer (Low level Barrel Rolls, Highspeed Wingsuit style terrain flying) PLEASE accept the learning curve and start with a classic, error compensating design AND PRACTICE FOR 2 YEARS on Skis.

DONT go straight for a 10m High Performance wing for Footlaunching, it will slow down your learning curve in a worst case to the point you get killed. No I am not making this up, to many people have died who EXACTLY made that judgement error.

Advanced Ski Speedflying Pilots aiming for a general use Speedwing for Footlaunching - if you want to mainly footlaunch in zero wind and/or speedsoar in more or less steady lift (seabreeze or perfect smooth soaring spot in the mountains) then go with a more glide performance oriented current 1:5 to 1:5.5 glide design in a tad bigger size (13 - 14 sqm for a 80kg Pilot)

Beginner Pilots aiming for ski use Speedflying - if you want a general use speedwing and your usage profile is more leaning towards winter use on skis (which I would clearly recommend for the beginning) get a less performance oriented "classic" 1:4 glide design

Beginner Pilots aiming for footlaunched Speedflying - If ski use Speedflying is not your goal, do yourself a favor and get a mini wing (size 16sqm and up for a 80kg naked pilot, very small (sub 12sqm) mini wings can be extremely aggressive in their flying characteristics - consult the mfg, they usually know for which target group (beginner, expert..) they build their wings ,-) which is a lot easier to footlaunch and also very good fun with a lot less risk to lethally hurt yourself.

Conclusion: the most current, most "modern" Wing Designs must not be the best Wing Designs for your personal needs.

pls play it safe, dont rush it, and make sure to have long lasting fun for many years to come.

Paul