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FLIGHT SUIT BUYER'S GUIDE

EVERYTHING YOU NEED TO KNOW
TO FIND YOUR PERFECT FIT



VERTICAL suits





**THERE ARE NO
SHORTCUTS
TO QUALITY**

WELCOME

Vertical's aim is to produce the highest quality jumpsuits on the market - with input from professionals, instructors, coaches, competitive teams and casual skydivers and utilising the modernest, fanciest techniques combined with the finest materials available.

Whether it is your first suit or another addition in a line of many, the ordering process can be confusing and stressful. You are about to spend a significant amount of money on something that has many variables to consider and will not show up for many weeks.

This guide is designed to help you through the necessary steps to order exactly the right suit for you, and advise you through the main considerations such as which design to go for, how to get the measuring part right and which options are appropriate.

With the correct choices, the ideal suit for your purposes is but a handful of steps away, and what you will ultimately receive will help you achieve your flying goals and serve you well for many years to come.

Ready?

SKY VS TUNNEL

Should I get a sky suit or a tunnel suit?

In the beginning, flying in the sky and in the tunnel look and feel much the same. As you progress your awareness of the subtleties between the two environments grows, and by the time you are getting fancy the two things can feel pretty different in your head and around your body.

In the simplest of terms it boils down to this: In the tunnel - lift is crucial. In the sky - not so much.

While power is still an important consideration for the sky, it is generally a more forgiving place for muscles and materials and thus some concessions can be made for comfort - such as more spandex in the places one's parachute harness goes. Tunnel suits are built to generate as much power as possible in all the right places, and prioritise this over everything else in the design process.

So, should I get a tunnel suit or a sky suit?

If you are asking this question then you are probably committed enough to your career as a flyer that you both skydive and get some tunnel regularly. Although suits are designed and built with a particular purpose in mind they retain plenty of crossover practicality - A suit from our Freely list will function perfectly well in the tunnel, just as a Dynamic suit will work fine for skydiving. Once it arrives you will get used to the way your new suit performs and not ever worry about it again.

Simply put, you should get the type of suit you do the most flying in.

However! The different types of suit exist for good reasons. When you arrive at the point where you need both, you will have already wanted both for a while, and don't need us to tell you it is a good idea.

What does 'Optimised for Tunnel' mean?

Despite the exponential growth of the wind tunnel industry and its direct relationship with actual skydiving, there are still plenty of jumpers out there that do not have access to or are not bothered about the tube.

Seasoned tunnel types know the importance of both the highest quality spandex and a wind-proof zip that will not open in the powerful indoor wind - and this is where the extra money is spent. Skydiving freefall presents fewer stresses in these areas and if you do not require it then you can save a little cash and still get what you need.

FIT

You will likely have noticed that some suits are available in tight, medium or loose fit, where others are only available in tight or medium, or even just tight. What should you get, and why?

Fit Is A Science

Good suit designs are carefully considered, researched and tested. Over the years both the process and the results have become rather fancy. Form-fitting fully articulated versions are designed to be just that - mobile in the places where you need it so the rest of the suit can fit to your body. These models do not lend themselves to a looser fit as it can compromise what they are created to be, whereas other options are fully customisable and can be made as a more snug or more relaxed version with no fuss.

Understanding Fit

- If a choice you are looking at says it is only available in a tight fit, this means that the standard fit for this suit is tight.
- In general terms, for both sky and tunnel, you should choose the standard fit—or the medium fit that a suit offers. The exceptions are if you are either tiny or rail thin and struggle to stay down with others, or if you are enormous and massive and sink out all the time or if you have a larger body type and are concerned that the suit you want will not provide sufficient power, you can either choose a baggier suit or look into the option of adding additional layers for lift.
- You may have noticed an option for “extra-tight fit.” If your skills are strong, you might have reached the point where the precision offered from extra-tight fit around a couple of limbs will aid you. Belly flyers looking squeeze an extra point? Slinky, zoomy arms may help with that. Freeflyers with an eye on the dynamic dive pool? The precision offered from skinny legs may aid your snakes and such.

Adding Layers

- If you have decided you need some extra layers, then you next need to choose what kind and where. Be sure to consult a dealer—layers are very difficult to add after the fact.
- Generally, the first place layers are added is the legs, then the arms.
- Layers are offered in three fabrics: Taslan, Ripstop nylon, Cordura. The three available options increase in power, but also get hotter and slightly less comfortable.

FIND YOUR PERFECT FIT

By using different combinations of shapes and materials, contemporary articulated jumpsuits aim to provide the perfect balance between range of movement and power. The short version is that the closer your suit fits, the more you are using your actual body shape to fly instead of being pulled this way and that by lots of fabric.

[Click Here to browse our full sky and tunnel flight suit line up.](#)



SPEED

The pursuit of bodyflight in its purest form has created demand for a new breed of suit - one that offers total flexibility while fitting as tight to your body as possible. The speed suit is made entirely of elastic Cordura, making it the ultimate Dynamic flying suit. You will not find a more powerful suit than the Speed anywhere!



SHORTIE SKY

The ultimate relaxed fit for jumping on warmer days. Designed to simulate jumping in board shorts and a T-Shirt while giving you better comfort and performance. A must for warm summer days.



VIPER SHORT SLEEVES

Specifically designed for flyers who need a cooler option when flying in warm climate. Suitable for both sky and tunnel in all flying angles. Perform at your highest level when flying with a jumpsuit that fits like a second skin and gives you the power you need when you need it the most.

VIPER PRO

The Viper Pro is an evolution of the original Viper and represents a step toward what we believe to be the perfect balance of tunnel and sky design elements. It's optimised for dynamic flying while compromising nothing. The optional Poron pads are a proven choice for indoor flying.



PHOENIX

A technical, form fitting engineered flight suit made of Dura-Stretch, a soft and stretchy yet powerful material. So comfortable you could sleep in it, yet so powerful to bring your flying to the next level. The Phoenix suit is the ultimate flying tool to achieve grace and perfection in your freestyle flying.



RAPTOR SWOOP

Built to offer maximum comfort with minimum drag while being nearly indestructible - the Raptor shorts are designed for those who are most concerned with the pond and the sand.



VIPER SWOOP

Featuring an exceptional fit, maximum comfort and minimal drag, these shorts are a great choice for high performance swooping.



SWOOP ORIGINAL

Perfect to swoop the pond or for jumping on warmer days. Featuring a strong base, these shorts can be customized to your needs with a full range of options.



FUSION

The Fusion is Vertical's all out dynamic flying suit. Spandex has been reduced to a minimum to squeeze every drop of power from the available surface area and hug to one's body for total feeling and precision. Hips locked, legs straight, no compromises.



TUNNEL PRO

The Tunnel Pro was Vertical's first indoor specific suit and remains the first choice for many who ply their trade in the tube. With a little more spandex articulation than the Fusion it provides the kind of mobility required by coaches and flyers who need to operate in any position and at any speed.



VIPER

The Viper is the sum total of everything learned so far. It is a fully fitted and articulated all-rounder, designed for top level performance in all circumstances. Upwards, downwards, sideways, indoors, outdoors.



RAPTOR

The Raptor was the first creation in our family of articulated suits and offers a design alternative with similar high-end properties to the Viper - form fitting, yet versatile and with power in all the right places.



RW SLIM

The RW Slim has been carefully constructed for serious flat work. Power where you need it. Speed where you need it. If you are always aiming for the next level on your belly - this one is for you.



RW LOOSE

Designed for the fast falling flyer, this extremely powerful RW suit was carefully designed for the best fit, comfort and maximum performance. Take your RW flying to the next level with this exceptional suit.



RAPTOR 2

The Raptor 2 is refined version of the original Raptor suit, produced after considering feedback from tunnel instructors about what they require when the balance of flying shifts towards the tube.



Z SUIT

The Z Suit is a less technical suit whose strength is in its comfort and durability as an all round day-in, day-out workhorse for anything and everything you need it for. It can be made in a loose fit for larger body types, as well as anyone who's looking for a more relaxed fit rather than extra layers.

Add wings and you got yourself a camera suit!



INVERTED SUIT

Featuring a unique inset design which makes it very light and performant, the Inverted suit is ideal for the freeflying skydiver looking for a comfortable suit with a very unique style.



FLEX

The Flex is a well-rounded, looser fit, fully articulated suit that will perform equally well in the sky and in the tunnel. Ideal for freeflying, it will also perform well in other angles. Carefully designed for the best fit, comfort and maximum mobility. Perfect for increasing drag while minimizing bagginess.



TUNNEL SUIT

Our original tunnel suit is a perfect fit for anyone looking for a performant, great fitting suit with a minimal amount of spandex. If you need more range and/or drag, this suit will help you perform your best in any flying angle.



Z PANTS

A strong, well-rounded, highly customizable pants. Our Z Suit Pants feature a classic design which is very versatile and performs well in the sky while providing the best comfort and durability you can get on today's market.



Z CAMERA JACKET

A strong, well-rounded, highly customizable jacket. Our Z Jacket features a classic design which is very versatile and performs well in the sky while providing the best comfort and durability you can get on today's market. Add optional wings and you got yourself an awesome camera jacket.

FABRICS

Modern jumpsuits are built largely of synthetic nylon that has been engineered using tremendously scientific processes to deliver very specific properties.

Porosity:

Most of the materials used in suit manufacture are porous to some extent - they let air pass through them. Porosity allows the material to grab the air that moves over and around it, providing power and control. Material that does not let the air through has “zero porosity.” Air that hits ZP material head on will not pass through and will try to push it away (power!). This can offer particular refinements to a suit’s design.

However, the same resistance to the wind means ZP will not grab the air - making it faster and potentially slide-y-er. Yep slide-y-er.

TASLAN:

What is it?

Taslan is a woven polyester fabric that is thin and lightweight yet durable. It is also quick-drying and breathable. For many years it has been the primary choice for the construction of jumpsuits.

What is it for?

Taslan is a fine material for making suits, and many contemporary designs are constructed around its qualities. There are suits available that are made almost entirely from Taslan. As flying techniques are better understood and fabric technology advances suits are getting more and more complicated, yet this material remains an essential part of the whole picture.

WINDPROOF SPANDEX:

What is it?

Spandex is celebrated for its exceptional elasticity - it is able to stretch to many times its original size and then return to its original shape. Its correct usage is a very important (and much discussed) element of suit design. We use the highest quality Schoeller wind-proof spandex throughout.

What is it for?

Spandex is used in the areas of a suit where full mobility is required, such as between the legs and under the arms. Different types of suit require mobility in different areas - articulated skydiving suits often utilise spandex in areas where one’s parachute harness sits, whereas tunnel suits might have more around the elbows and knees for those elaborate moves and positions used in the tube. The compromise is power. Even wind-proof spandex of the highest quality is not as good for generating power as any of the other construction materials, and the same stretchiness that is its greatest strength is also its greatest weakness as it can shift and flap in the wind.

CORDURA 1000:

What is it?

Cordura is a heavy and very tough material most commonly associated with luggage and outdoor gear.

What is it for?

This is the thickest material used in the construction of jumpsuits and as standard is used to reinforce areas subject to the most wear and tear. Any tunnel instructor will tell you the advantage of some well placed patches on their knees, and a great many professional skydivers will offer up the same about their ass. Cordura is a very powerful material for flying and it used as such by those who really need some extra drag on their suit, but the tradeoff is comfort - Cordura is thick and warm.

CORDURA 160:

What is it?

Cordura 160 is a thinner, lighter version of its big brother.

What is it for?

At the same time both lighter and less porous than Taslan - while still being relatively tough for its weight, Cordura 160 is becoming regarded as one of the best material for pure body flight, especially in the controlled environment of the tunnel where daily wear is less of an issue (for those who don’t spend too much time embracing the net and the walls).

CORDURA NATURALLE:

What is it?

The demand for powerful, fully mobile suits has led to research into blended materials. Cordura Naturalle has an exceptional strength-to-weight ratio and integrates Lycra fibres to add an element of stretch.

What is it for?

A fabric that offers the required amount of both power and flexibility means that suits can be constructed from the same material all over - allowing for a second-skin fit that facilitates the pursuit of the perfect synergy between human body and relative wind.

NYLON:

What is it?

Nylon is a generic term for a large family of synthetic polymers that have a huge range of applications throughout our daily lives - first used commercially as toothbrush fibres and subsequently in many fabrics.

What is it for?

We use Nylon as a slick material in areas where speed is important and drag needs to be decreased. It is very useful for lighter people and those who need areas of their suit to operate as fast as possible - such as serious belly flyers.

MEASUREMENTS

Correct measurements are key. Here's how to do it right.

Relax. Measuring is not as difficult as people think it is and if you follow a few simple rules it is pretty straightforward.

Get someone to help. While it is technically possible to measure yourself it is not recommended. There will be some touching - try not to make it weird.

Make it a dress rehearsal. Wear what you would normally wear under a suit. Base layers, thermals, underpants. You choose - but keep practicality in mind.

Follow the video. It is difficult to get it wrong if you use the talking pictures. We live in the future - few people are ever more than ten feet from a device that will let you do this. No excuses.

You can find the video here:
<https://www.verticalsuits.com/pages/measurements>

Measure twice, cut once. Always measure twice. Maybe switch hands or stand on the other side and do it the other way around. Perhaps switch the limb being measured.

Don't tweak. Suit design has grown into a very precise process using science and maths and brains. There are a lot of measurements for a reason and the best results come from sticking to the plan. If you mess with them, it can throw out the form of the suit and compromise its awesomeness.

Let us know. If you do require a specific area to be looser, for example if you wear a brace, please contact us directly for advice instead of altering your measurements.

Don't fudge the numbers. Your measurements now are what counts. If you want your suit to fit, do not adjust anything based on the diet you just started or the gym membership you just bought.

Be gentle. When wielding the tape measure you should be aiming for tickle, not strangle.

Come as you are. When being measured, stand naturally - don't puff out your chest or suck in your stomach or clench your buttocks or whatever. Your suit will feel better, fly better and look better if it fits you as you really are.

DEALERS

The best way to get all of this stuff done is to seek out one of Vertical's official dealers.

In and around all the places where skydiving is popular there are people who work closely with the company as boots on the ground to help with exactly the type of information presented in this brochure.

Our dealers have tried and tested many different jumpsuits through the years and can offer horse's-mouth feedback on any issues or questions you might have. They are usually skydiving industry professionals who travel a lot and can likely be found at boogies or events somewhere you might be. They will go on and on. You will wish they would shut up about it after a while.

Find our awesome dealers on our website's map:
verticalsuits.com/pages/find-a-dealer