

Gear rental is expensive

I think I need my own stuff

Congratulations on getting ready to purchase your first rig! There are so many options available for every component and the process is often overwhelming. I remember purchasing my “perfect” first container, wiring money to somewhere in Montana, and anxiously waiting for that big box to arrive. I got lucky and my “perfect” container wasn’t so bad! I only had to spend a hundred bucks or so getting random stuff fixed. When an under-informed individual makes a snap purchase like I did, they usually aren’t as lucky. Take your time and consult with your rigger, mentor, AFF-I, DZO, or whoever *actually* knows what they're talking about. Try and set up an escrow purchase (google it), most rigging lofts will do this at very little, or no charge. It protects you and protects the seller.

Skydiving gear is sold for a variety of reasons. People often lose interest in the sport, have family commitments, or are ready to downsize from what they currently own. Do not be afraid of buying used gear! **Do not** even consider buying something brand new at this point. Seriously. Used skydiving gear holds value extremely well. If you play your cards right, you can often buy used gear, jump it for a year, and sell it for the same price. To get the best bang for your buck, you must be willing to listen to the right advice, commit to finding the right gear, and consider all purchasing options available.

Outlined below is the best advice I have on purchasing gear. Remember, one suggestion may be great for one person and not so great for another, so be sure to reach out to someone qualified for more personalized advice. You need to ask the right questions and give the right answers to both the seller and your rigger or trusted individual(s).

Again, this is a list of MY opinions occasionally backed up with factual information. This advice comes from my experience as rigger, assisting many friends and newer jumpers with finding the right gear and years of jumping. Everyone in this sport loves to talk about experience! They all have it – many have more and many have less and the advice they offer may be different than my own. I encourage you to listen to these opinions when they come from someone you trust.

Container Choice

Vector 3 (United Parachute Technologies):

Choosing this container is likely one of the most expensive options, but arguably one of the best choices. Extensively tested, field proved, and of course a long list of options make this container, in my opinion, the best buy on the market. If you can get a hold of one of these at a reasonable price and have money to spend, you're likely on the right track.

Javelin (Sunpath Manufacturing):

I am partial to Javelin containers. They aren't as refined as many other containers, however, Sunpath has been making a quality container for years. I personally jump a Javelin container made in 1994 and would consider it nearly as modern and solid as most other containers. I have opted for updated features to better suit the type of flying I do. Javelin containers are also readily available in a wide variety of sizes and are incredibly economical. They are well suited to newer jumpers who intend to primarily fly in a belly orientation, however, with easy modifications, these containers prove to also be free-fly friendly. The newer version of these containers, the Javelin Odyssey, is available with all modern options; comparable to any high-end container.

Infinity (Velocity Sports Equipment):

These containers have recently risen in popularity across the skydiving community. The company began making budget priced custom containers with highly customizable fabric and hardware options to compete with the high-end rig manufacturers at a lower price and shorter lead times. All of these factors have led to a huge boom of Infinity containers available on the used market today. I am personally not a huge fan of these containers because of their design and aesthetics, namely the design of the reserve container, and the design of the integrated main riser covers. All of that being said, I have to concede to their popularity and availability and would not discourage someone purchasing one as a first container.

Talon 2, FS, Voodoo, Curv (Rigging Innovations):

Rigging Innovations makes fantastic rigs, but they simply are not common on this side of the country. This is why, despite their vast differences, I have grouped them into one category. (Most containers on this list are made in Florida). Any of these containers is worth considering for a new jumper, however, I would recommend consulting a rigger to glean the intimate details of the particular container considered. There is also a wide range of pricing and options because RI offers containers made in the 90's to present.

Icon (Aerodyne Research):

Aerodyne was primarily a manufacturer of main and reserve parachutes, however, they broke into the container manufacturing market. Their container is essentially a copy-cat of a UPT/Vector container offering similar features and options. Skydivers of all experience levels seem to appreciate the Icon containers. Purchasing one used for a good price would be an excellent investment for a newer jumper.

Vector 2 (United Parachute Technologies):

There are many similarities between the Vector 2 and Vector 3 containers, but simply not enough to lump them together. There are many airworthy Vector 2 containers available and they often are affordable. They do lack the options available on the Vector 3 containers, and may be a little rough around the edges, but are arguably an excellent choice for a first container. These containers may require some updating to make them free-fly friendly.

Mirage (Mirage Systems):

Mirage makes an excellent container system, available in G3 and G4 models currently. These designations are based upon available options and configuration. Either model proves effective as a first container choice and are free-fly friendly, however, they tend to be a pricey choice. This is another container I am not personally fond of, but holds its own as a good choice for jumpers of all experience levels.

Wings (Sunrise Rigging):

It pains me to list this rig on the list of good first-time container choices because I have a personal bias against them for multiple reasons. (I would be happy to answer any questions about this, but it is beyond the scope of this document.) Wings containers are sturdy, usually somewhat affordable, often free-fly friendly, and carry the right options a first-time owner would be interested in.

Containers to Avoid:**Racer (Jumpshack):**

Overly complicated, non-traditional, antiquated design, usually not free-fly friendly, not AAD friendly to modern AAD's.

Reflex (Flightline Enterprises)

Non-traditional, overly complicated, antiquated, NOT free-fly friendly

Dolphin (Altico)

Antiquated design, NOT free-fly friendly

Quasar (2) (Strong Ent.)

Antiquated design, non-traditional

Vortex (2) (Parachute Systems)

Javelin Copycat Rig, Major Recent Service Bulletin. All in all, this container isn't a horrible choice, however, I would recommend going another direction.

Reserve Parachutes

Because reserve parachutes tend to have more similarities than differences, I have simply listed reserve canopies that are common and well accepted, as well as, canopies I would not recommend. I am not a personal fan of low-bulk/pack volume reserves especially in a newer jumpers rig, and therefore those canopies are not listed here. I recommend consulting a rigger for more advice on a low bulk/pack volume reserve before purchasing.

Common/Recommended:

Performance Designs Reserve

Precision R-Max

Precision Raven

Icarus Reserve

Aerodyne Smart

PISA Tempo

Not Recommended:

Flight Concepts Reserve

Para-flite Swift Plus

Parachutes Australia AirForce Reserve

Round reserves of any type

Main Parachutes

A Quick Discussion on Wing-loading - Canopy performance changes with wing loading:

With a *heavier* wing loading, expect:

- Faster forward speed.
- Faster descent rate.
- Quicker turns.
- Steeper and longer dive from a turn.
- More violent malfunctions.
- More skill to flare correctly.

With a *lighter* wing loading, expect:

- Less drive against a strong wind.
- Slower turns.
- More forgiveness of landing errors.
- Less predictable in turbulence.

The formula is as follows:

$$\frac{\text{Jumpers Clothed Weight (Helmet, Jumpsuit, Altimeter, Etc.)} + \text{Weight of Rig (20-30lbs)}}{\text{Square Footage of Canopy}}$$

For example:

Jumper X weighs 190 pounds, with a 25 pound rig, jumping a 190sq/ft canopy would produce a wing-loading of 1.13

Jumper Y weighs 125 pounds, with a 20 pound rig, jumping a 150sq/ft canopy would produce a wing-loading of .97

A wing-loading of .80-1.1 is a good range for a newer jumper to fall into. This range allows the jumper to learn to fly a far more aggressive parachute than student specific gear, but still maintain a safe and reasonable learning curve. There are many exceptions to this rule and individual canopy progression will vary greatly among newer jumpers. Main canopy size selection is something to discuss with a trusted rigger, AFF-I, S&TA, Canopy Coach, etc. before jumping or purchasing. The above information allows for an educated guess to be made, but it is always better to consult with these trusted individual(s).

Any canopy smaller than 150sq/ft is considered a high performance canopy, regardless of wing-loading!

Err on the side of a lighter wing-loading and make a logical progression from student gear to sport parachutes!

Types of Main Parachutes:

There are several fundamental types of the modern ram-air parachute and each design offers its jumper different flight characteristics. For a first canopy, a docile, slightly oversized, reliable parachute is often desired. As a jumper's experience level builds, he or she may decide to sacrifice some of these characteristics to enhance the overall canopy experience.

The following designations refer to the shape/design of the square parachute wing:

- **Square:** Square parachutes are typically the most docile and reliable shape of parachute on the market. This is the recommended shape for a beginner canopy.
- **Tapered:** Tapered canopies offer a jumper greater responsiveness and performance, but can still be a safe choice for a new jumper provided he or she is loading the canopy acceptably.
- **Elliptical or Cross-braced:** It is never advised for a new jumper to purchase or jump any canopy designated as "elliptical" or "cross-braced." These design platforms create increased probability of malfunction, excessive speed, and longer recovery times. All of which are unacceptable for a newer jumper regardless of wing loading.

Canopy Recommendations by Manufacturer:

Performance Designs:

Sabre 1
Sabre 2
Silhouette
Spectre

Aerodyne Research:

Pilot
Triathlon

Icarus Canopies:

Safire
Safire 2

This list is in no way complete and a quick trip to dropzone.com will allow easy reference of the vast selection of main canopies available. This is simply a list of excellent beginner canopies when sized appropriately. It is strongly recommended that you speak with a rigger, S&TA, AFF I, or someone with REAL experience and knowledge before purchasing or jumping ANY main parachute. This person should also be familiar with your level of canopy piloting

Automatic Activation Devices (AAD)

It is strongly suggested that every jumper use an AAD in his or her rig. Many individuals elect not to for a variety of reasons, but it is especially recommended for newer jumpers to have a functional automatic activation device. There are currently two major manufacturers of AADs and several other companies operating on a smaller scale. The only two AADs I would recommend purchasing are listed below. The others are simply too new to the market or not approved for use in many common sport parachuting containers.

Cypres 2 (Airtec)

- Unit life 12.5 years
- Maintenance Checks at 4 and 8 years
- \$65 expired unit trade-in value
- Water resistant to 1.5 meters

Vigil 2 (Advanced Aerospace Designs)

- Multi-Mode Design (Pro, Tandem, Student, Speed)
- Battery change at 10 years
- Service life 20 years
- No maintenance interval unless an error code is displayed
- Waterproof

These units are very comparable and carry a nearly identical price point. I am personally a fan of the Vigil units, simply because there is no required maintenance and they offer a longer service life. However, the Cypres unit does have advantages and a little maintenance isn't a bad thing. Speak to a trusted rigger or other reliable source to decide which unit would fit best. These units are both compatible with nearly every modern sport parachute container, just ensure that the correct unit configuration is ordered if purchasing new.

Reserve Static Line (RSL):

RSLs are another component to the parachute system highly recommended to newer jumpers. Jumpers of all experience levels use RSLs for a variety of reasons. There has been a great deal of debate about RSLs, but statistics show that they save lives. They are also mandatory for use of any tandem or student parachute system used in accordance with the USPA. Why? Because they work.

The RSL is a small lanyard connected to the main riser with a snap-shackle that can be removed. Particularly in the case of high winds, if a jumper feels he or she may become uncontrollably drug by the main parachute on landing. When the jumper initiates emergency procedures and begins to fall away from the main canopy, the RSL lanyard pulls the reserve pin and allows the reserve to begin its deployment process regardless of whether the jumper has pulled the reserve ripcord. These are available as a standard option on most modern sport containers. So, when looking at a rig to purchase, make sure it has one. If it is not equipped with an RSL, contact a trusted rigger to determine what the cost of installing one would be. (Typically, under \$100)

There is one other type of RSL currently on the market called a MARD (Main Assisted Reserve Deployment). It is an option offered by several manufacturers, the most well known is the Skyhook, invented by United Parachute Technologies. To avoid any complex discussion, this type of system uses the force of the cut-away main to extract the reserve from the container, rather than relying on the reserve pilot chute. This often provides a faster reserve deployment after a cut-away, some boast in as little as 80 feet. As with any newer technological development in the sport, some people are huge fans, some are not sold. The purpose of including this information is simply to provide knowledge when searching for prospective gear. The essential point, have a functional reserve static line installed on a rig intended for a newer jumper!

Where to go?

Your local DZ (There is usually a bulletin board with used gear postings)

Classifieds

- dropzone.com
- [facebook.com](https://www.facebook.com)
 - “skydiving gear for sale and wanted”
 - “2nd hand skydiving/BASE gear”
 - “skydiving gear for sale and wanted – ladies only edition”

New:

- chutingstar.com
- paragear.com
- skydivestore.com