The in-water resistance training devices we tested are divided into two main categories: 1) those used for developing strength and speed in the competition pool and 2) those designed to allow a continuous swim workout, via a tethering system, in a small home or hotel pool. However, there is crossover. Some of the stationary swimming devices can be used for focused strength or body position work, making them a nice option for competitive swimmers who cannot always get to swim practice.

Our testers learned an important lesson during the testing phase for this issue of SWIMMER. It is critical to properly warm up before using any of these devices.

Some of the devices change body position, and swimming hard against them without a proper warm-up can cause a pretty severe back strain. Others can put an extra load on muscles and knees, shoulders and other joints. Caution is advised when trying any resistance device. Swimmers with joint or back problems should consult a certified coach before using one.

Most of these products utilize rubber tubing, fabric, nylon straps and other materials that eventually deteriorate in sun and chlorine. Careful inspection before each use is recommended.

### In the Competition Pool

#### Focused Speed and Strength Work

1. **Finis Stationary Cords Lane Belt** ($40 | finisinc.com)

Both the Finis and StreChordz stationary trainers tether the swimmer to the lane lines in a competitive pool. Testers found these devices most useful when installed near the wall so they could work on push-offs, pullouts and breakouts. One tester also noted that a swimmer with a leg or foot injury could utilize one of these devices farther away from the wall to avoid turns.

Both brands consist of a waist belt and two tethers spaced near the hips. Most testers noticed difficulty rotating in freestyle and backstroke. This may help to teach rotation by suppressing it or presenting crossover. Some of the stationary swimming devices, any pause in the stroke is immediately evident, so an increase in tempo is necessary to maintain proper technique.

2. **Lane Gainer Swim Belt—Short Model**

This device attaches the swimmer to a starting block, ideally, and consists of a shorter rubber tube than Lane Gainer’s Water Snake. Testers liked the short model for practicing push-offs, breakouts and other strength and speed-building drills close to the wall. Testers did not like the Short Model for continuous swimming in place, because the tubing is not as forgiving as in the other devices tested for stationary swimming. Available in two resistance levels.

3. **Lane Gainer Water Snake**

Like the Short Model, the Water Snake attaches to the starting block. The 30-foot rubber tube is designed to allow the swimmer to reach the other side of a 25-yard pool. Once at the other wall, either a flip turn (for stronger swimmers) or a wall grab and push start is used, and then the fun begins. On the return trip, the rubber tubing contracts rapidly, pulling the swimmer along, giving that feeling of swimming really fast. This can be enhanced by having a partner on deck pull on the tubing to keep the ride going all the way back to the block. Testers enjoyed the Water Snake for training all four strokes. When used with fins, fingertip paddles and even a snorkel, the Water Snake allows the swimmer to focus on perfect technique. If the technique is not right, the paddles will slip off when met with resistance. Available in two resistance levels.

4. **Finis Speedbox**

Testers found that not being tethered to a fixed object has the advantage of not changing anything about their stroke. The drag suit slips over a regular suit and its pockets catch water, slowing you down and making you work a little harder. Also, the drag suit can
be worn for a longer period of time, provided that care is taken not to put a strain on any chronic weakness such as a shoulder or knee problem.

Testers enjoyed swimming with the drag suit and felt good after removing it and being able to feel (and swim) faster. Available in four sizes.

6. AquaVolo DragSox ($30 | aquavolo.com)
This was a tester favorite. The deceptively simple fishnet rags don’t look like much out of the package, but they completely destroy the kick, a result that’s similar to what anti-paddles do for the hands on the catch. When the DragSox are removed, sensory perception increases on top of the foot, and the feel for crucial parts of the kick is more obvious.

Testers liked them for all four strokes, although breaststrokers should be cautious with anything that creates drag in the kick due to the potential for knee or groin injuries. Testers who used these for half a kick set and then removed them felt like they were flying during the second half.
7. Finis Swim Parachute ($25 | finisinc.com)
The Parachute consists of a waist belt and a long nylon strap with a small parachute at the end to catch water and create drag. Like drag suits, they can be used for longer distance sets, but caution is advised in order to not overstretch any joints.

The thick fabric and seamed edges of the Finis parachute appear to be quite durable. Testers liked that the chute can be unclipped and that changed out for a different size, and the towline rotates freely on the waist belt. Available in two sizes: 8- and 12-inch parachutes.

8. Kiefer Parachute Drag Trainer ($22 | kiefer.com)
Kiefer's parachute can also be swapped out, but the towline is sewn in place on the waist belt, making it a little less flexible. Like the Finis model, Kiefer's parachute is seamed. Available in two sizes: 8- and 12-inch parachutes.

9. StrechCordz Drag Belt/Tow Tether ($26 | nzmfg.com)
This parachute has raw edges, rather than folded and sewn seams as in the other brands, which gives the impression that it could fray over time. However, it performed perfectly well in testing. StrechCordz offers three sizes in their interchangeable parachutes: 8-, 12- and 16-inch, for an extra heavy load.

Buddy Resistance
10. Kiefer One-on-One Tug of War Belt ($37 | kiefer.com) and StrechCordz Grudge Belt ($47 | nzmfg.com)
These two devices are nearly identical and just plain fun. Consisting of a long piece of rubber tubing with a waist belt on either end, these devices allow two swimmers to pull against each other. The victor is the swimmer who doesn’t end up getting pulled backwards. It should not be legal for Masters swimmers to have this much fun at practice and manage to get in a good workout. The Tug-of-War and Grudge Belt are both excellent tools for coaches who want to spice things up once in awhile.

Kick Resistance
11. StrechCordz Kick Trainer ($37 | nzmfg.com)
The StrechCordz Kick Trainer consists of two independent straps that hang over the shoulders, with stretchy cords that end in cuffs and attach to the opposite ankles. Testers found that the resistance created by having their left shoulders attached to their right ankles and vice versa made them focus on each part of the kick in freestyle, backstroke and butterfly. Testers noted that having to kick with their feet being pulled into a streamlined, pointed position by the shoulder straps isolated the importance of flexible ankles and the resistance area of the foot utilized in various forms of kicking.

Testers used the StrechCordz Kick Trainer only for kick sets, as swimming with the device prevented them from focusing on their kick.

Because the cords cross over, pulling the feet slightly in toward each other, breaststrokers felt resistance in getting their feet to kick out, but the resistance did not feel like a natural progression of the kick and they did not feel this device would be very helpful for kicking breaststroke. Available in five resistance levels.
Swimming in Place—At Home and on the Road

Simple Stationary Swimming Solutions

12. Finis Stationary Cords Ankle Straps ($40 | finisinc.com)

As with the Aqua Sphere and Riptide units, the Finis stationary cord attaches to a ladder, eyelet or, if in a competition pool, a starting block. Testers liked these products for their simplicity and for a more natural rotation in the long-axis strokes than with the lane trainers that attached at the hips; however, most felt that their kick was hindered somewhat by the foot attachments and that these devices are not good for working breaststroke or butterfly.

The Finis unit consists of two independent tethers that attach to the ankles with Velcro straps. The large, hard plastic fitting that hooks the tethers to the ankle straps proved to be irritating in all strokes except backstroke. However, testers liked the independent cords, which allowed each leg to work against the fixed object.

13. Aqua Sphere Stationary Swimmer ($20 | aquasphereswim.com)

The Aqua Sphere Stationary Swimmer is similar to the Finis version, except that instead of two independent cords, the Aqua Sphere has one continuous loop, which causes the legs to kick against each other, rather than the fixed object. Testers felt this added an unnecessary component to an already awkward kicking sensation from being tethered at the feet.

However, the Aqua Sphere unit’s ankle attachment was more comfortable and versatile than Finis’s. The Aqua Sphere unit can be worn so that the tether attaches at the sides of the ankles, or it can be turned upside down, making the attachment point the ball of the foot, as with the third one of this type we tested, the Riptide tether.

The elastic band that attaches the ankle straps to the tether appears to be more vulnerable than other materials and was snagged by the Velcro as soon as the package was opened. Testers speculated as to its longevity in chlorine.

14. Riptide Resistance Swimming Tether ($75 | swimriptide.com)

Testers were initially skeptical about this unusual-looking device, which consists of a pair of reef runner-type shoes with grommet holes at the balls of the feet. Cables attach through the grommets, and terminate at a stretch cable that tethers to a fixed object. A buoy on the tether cable keeps the feet elevated.

As with the Finis and Aqua Sphere, testers liked this device best for freestyle and backstroke but not for the short axis strokes. Some testers enjoyed swimming with the Riptide more than the Finis or Aqua Sphere, as the buoy seemed to slightly counteract the odd feeling of being tied by the feet.

One advantage or disadvantage, depending on how it is viewed, is that the shoes must fit. This is a custom piece of equipment that cannot be shared unless training partners happen to have the same size feet. Available in 14 men’s and women’s sizes.
### Complete Tether Systems

#### 15. Bowswim ($347 | bowswim.com)

The Bowswim is one of several devices we tested that tethers the swimmer to the side of the pool at elevation, to keep the tether away from the swimmer’s feet. This prevents the cord from interfering with the kick and elevates the lower body, allowing the more desirable “swimming downhill” position.

Testers noticed the high quality of all the Bowswim components, which are relatively simple: a receiver (must be inserted into a hole drilled in the pool deck), a carbon fiber telescoping pole, and a braided nylon rope that knots to the pole and to the nylon, neoprene-padded belt. The “simple is better” approach has resulted in a product that will provide a lasting piece of training equipment that anyone from a water-aerobics enthusiast to a highly competitive swimmer can use.

When fully extended, the Bowswim bends only slightly, even with a strong swimmer at the end of the rope. The nylon braid rope does not stretch as rubber tubing does, so the device keeps the swimmer in one place. Some testers viewed this as a negative. Other testers found that swimming against the rope made them acutely aware of their catch in freestyle and backstroke, as the immediate and strong resistance made them catch early and often. The device worked well for all strokes except butterfly, which requires more undulation than the tether will allow.

Bowswim has just released a clamp that secures the unit to a handrail or ladder so that swimmers who travel can take it with them. The clamp was not part of the testing process.

**Editor’s Note: Two similar products from another manufacturer were tested alongside the Bowswim. The other manufacturer withdrew them from the process after testers broke both of them within seconds of swimming against them. In one case, a tester sustained a minor injury when the product snapped under pressure.**

#### 16. HomeSwimmer ($90 | homeswimmer.com)

There is no drilling involved when installing the HomeSwimmer, but it does require a solid attachment point nearby. Several methods of attachment are included in the kit. A pole extends to the pool bottom and a rubber plate helps stabilize the unit. The HomeSwimmer held up for the most part, although stronger testers were able to unseat the rubber plate and cause the pole to slowly “walk” up the wall as they swam.

At a fraction of the cost, the HomeSwimmer is a good alternative to the Bowswim for anyone on a budget or the casual or recreational swimmer who wants to exercise at home or on the road. Strong competitive swimmers may not have as much success with it. The neoprene belt was quite comfortable and, like the Bowswim’s belt, should be placed on the hips, not the waistline, to obtain the best body position.

#### 17. AquaVee Portable Home Swim System ($80 | aquaveeonline.com)

The AquaVee has a two-point attachment system that comes with suction cups for pool border tiles and an alternative system utilizing silicone adhesive and plastic tiles to accommodate different pool border materials. The two cords can also be attached to lane lines when swimming in a competitive pool. The hips are not elevated as with the Bowswim and HomeSwimmer, but the AquaVee belt (available in three sizes) is inflatable to provide some buoyancy. Butterfly is an option with the

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**Hammer rules the pool at Nationals!**

Niclas Ohman swims to three golds and two silvers at the USMS Summer Nationals. Photo: Chris Stevenson

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Congratulations from Hammer Nutrition!
AquaVee, since the hips are not held in a fixed position.

Testers were initially skeptical about the suction cups, but they held fast to the side of the Myrtha testing pool, which has smooth sides, even with the strongest swimmers trying to break them loose doing push-offs and breakouts. Testers also liked the attachment point of the metal “V” on the back of the belt. This allows for natural rotation in freestyle and backstroke, unlike with the devices that attached to the sides of the hips.