



Pictured >> Vasa SwimErg

SWIM BENCH TRAINING AND STROKE TECHNIQUE

BY MICHAEL J. STOTT

This first of a multi-part series on swim benches addresses their use in perfecting technique. Subsequent articles will highlight their utilization in dedicated training and prehab and rehab.

Athletics—and swimming in particular—are long past the old-school way of doing things. The days of mega-yardage dogma have given way to more enlightened training that involves video, computers and myriad forms of evolved science and equipment. Dryland training has advanced by leaps and bounds, with one component remaining a staple—the swim bench.

When Richard Shoulberg ruled at Germantown Academy, he was an unapologetic high-volume trainer. He was a master at coaching individuals to their potential. He would run practices, most often in Germantown's six-lane, 25-yard pool, while orchestrating dryland training, using every one of his five biokinetic benches, four Vasa ERGs, nine Vasa Trainer machines and nine spin bikes.

"Every day was hard work at Germantown," he once noted. But his attention to dryland detail produced strength gains and injury-free swimmers. These days, prehab/rehab and performance testing through the use of ergometers highlight the versatility and value of the bench in its various iterations.

Credit for developing the swim bench has been variously

assigned to Doc Counsilman and Glen Hensen (isokinetic bench, 1969) and California engineer Evan Flavell (Biokinetic Swim Bench, early 1970s). Not present at the creation, but early on in the development, eager adapters were Shoulberg, Nort Thornton and Richard Quick. Mark Schubert had 12 swim benches when running his powerhouse program at Mission Viejo and 12 Vasa Trainers while on deck at USC.

These days, the bench has morphed well beyond a basic flat slab and cords that help swimmers simulate swimming strokes on terra firma. There are a number of manufacturers that offer static benches, tilting surfaces, ergonomic attachments and innumerable accessories (see "Resources" sidebar, page 43, at end of story).

USED BY COACHES EVERYWHERE

Swim benches have become de rigueur in hundreds of college and club team programs.

University of Tennessee head coach Matt Kredich started using Vasa trainers (the industry's most prevalent) in 1991 while with Richard Quick at Stanford. He likes the utility of Vasa's Trainers and Swim Ergs because they go beyond swim-specific strength and force production. He uses them to teach three technique concepts: high-elbow catch, proper pull pattern and efficient body posture. The ability to isolate positions, teach concepts and communicate with the athlete while on deck—rather than in the water—also enhances swimmer understanding of drag reduction and force generation.

CONTINUED ON 42

While coaching age groupers at Mission Viejo, Tyler Fenwick used swim benches as his dryland backbone and “solely to stress athletes physically, mentally and give a solid dose of hard work. They do increase strength, endurance and power pretty rapidly.”

However, Fenwick admits, “My mistake was only using the benches to induce large bouts of stress. I missed the most critical part of the swim bench value—replicating perfect movement patterns.”

Now associate head coach at the University of Virginia, Fenwick says, “My approach has changed significantly with influence from Matt Kredich, Chris Martin and Bill Boomer. Today, my primary objective when introducing a swim bench is to further swimmers’ understanding of a proper movement pattern.

“By eliminating buoyancy, respiratory challenges and placing them in an environment with less stimulus, a swimmer can focus on isolating the movement and adjusting their mechanics. Feedback is key. Having a coach—or, better yet, a teammate—providing verbal cues and adjustments, allows for immediate corrections. Mirrors and video are also great forms of feedback. With a dialogue centered around what a stroke should look like, how it feels and any challenges found, an athlete can begin to establish a visualization of a proper movement and self-correct,” he says.

Bench introduction with very little stress can take weeks or even months, but it’s worth the investment, notes Fenwick. Once the correct pull pattern is understood neurologically, he begins to apply stress, provided the stroke pattern has not eroded. That process may take the form of three sets of six perfect pulls at a very low resistance. The athlete then progresses to five sets of six perfect pulls at the same level of resistance. The following week, athletes will do the same set, but at a slightly higher resistance.

“You can manipulate the size of the grade and number of pulls as the athlete begins to master each level,” Fenwick says. “Eventually, I may ask them to go 15 minutes of slow perfect pulls or 20 seconds on/off of pulls with more pop to them. The beauty is that the only limitation to the swim bench is the depth of your imagination.

“At Virginia, athletes have begun to design their own workouts on the Vasa Trainer that are tailored to their personal needs and events. Where one athlete may need work on positioning on the front 1/8 of their catch under stress, another may need to focus on maintaining elbow position throughout each movement as stress increases. Everyone has very specific areas of improvement and is fairly well versed in the nuances of each stroke. Such an environment allows for some really productive conversations and excellent feedback.

“I’m a firm believer in teaching mechanics to where our athletes can teach each other. Not only does it help an individual become more efficient, but they’ll carry their teammates with them. This sort of inherent awareness also prevents injury. Learning and reinforcing proper mechanics on land (swim bench) while increasing strength, places an athlete in a less vulnerable position in the water. They will have better posture, better balance and strokes that carry speed—as opposed to strokes that compensate for inefficiencies in body position,” he says.

Swimmers at the Naval Academy have been using swim benches for years. Head coach Bill Roberts likes them for the connectivity they can instill, especially engaging the back and shoulder areas with the forearm and hand through the fingertips.

AS LOW AS \$39.95

SASH PINS AS LOW AS 89¢ 1.5"

FREE RELAY

AS LOW AS 99¢ CUSTOM 1.5"

CUSTOMIZE YOUR SASH PIN!

SWIMMING

I.M.

FLY

BREAST

BACK

FREE DIVING

SYNCHRO

MULTIPLE STYLES & COLORS OF PINS AVAILABLE

ACR-SP15W 16"

DEARBOUT DEVIL RAYS SWIM TEAM

2017 Summer Invitational

OVERALL FEMALE HIGH POINT

SOLID ACRYLIC!

2017 Gulf Swimming 8 & Under Championships

FIRST PLACE

AS LOW AS \$395 ACR-SPORTW 7"

www.hastyawards.com • 800-448-7714



[PHOTO BY PETER H. BICK]

Pictured >> University of Tennessee's Matt Kredich uses Vasa's Trainers and Swim Ergs to teach three technique concepts: high-elbow catch, proper pull pattern and efficient body posture. The ability to isolate positions, teach concepts and communicate with the athlete while on deck—rather than in the water—also enhances swimmer understanding of drag reduction and force generation.

BENCHES ARE VERSATILE

Initially, swim benches focused on freestyle application. Nowadays, swimmers can use them to perfect all competitive strokes—even backstroke. Georgia's Jack Bauerle likes them “because a bench gives the swimmer a good feel for the upsweep and finish. And for all strokes, it teaches the athlete to finish all the way through, giving a direct correlation for distance per stroke in the water,” he says.

One caveat is that the best candidates for the swim bench are those with good strength-to-mass ratios. That's because athletes need to adequately handle their own body weight. Generally, that means older age groupers and up.

Because of their availability and time-saving attributes for coaches and personal trainers, benches have found favor with many solo adult athletes (swimmers, triathletes, rowers, et al.) However, a bench remains a handle-with-care apparatus. Supervision to ensure athletes are using proper motion is a must.

David Marsh, a bench advocate going back to his Auburn days, observes, “If you are training with improper technique, you are only hurting yourself.” One way to check for technique is to have the equipment placed by mirrors.

“Benches are not a toy and a gimmick,” says University of Florida coach Gregg Troy. “They are a good training device—one you can change around to offer athletes something different.”

Exercise choices are a key to swimmer motivation. “We look for things where kids will work hard outside the pool,” says Bauerle, “and the benches provide that.” ❖

“We make a huge point to keep a good body line when on the benches. In my opinion, the most common error is a swimmer who arches his upper back to initiate the stroke on the bench. We see this frequently. However, to get the most out of the bench and to reinforce the best technique possible, the athlete needs to initiate the stroke with the forearm and hands sliding into the catch position, an action that needs to be independent of a back arch,” he says.

RESOURCES

Swim bench sophistication spans the spectrum from basic padded slab with stretch cords to accessorized multi-faceted machines complete with ergometers and computer-enhanced capabilities. Following is an all-too-brief introduction to the market. *Swimming World* urges readers to thoroughly explore manufacturer websites and do their own due diligence to find a machine that best suits individual and/or team needs. Spoiler alert: benches are not cheap and, therefore, not for everyone.

Vasa

<https://vasatrainer.com/>

Vasa is by far the most well-known and widely used device of its kind, serving more than 500 college and university customers as well as the Russian national training centers. Vasa Trainers most used by professional coaches is the Pro model that costs \$999. Vasa's SwimErg starts at \$1,799. Vasa's Sport Bench sells for \$399 and can be used with Vasa stretch cords and swim paddles, offering a very affordable and portable swim bench solution.

SwimFast Ergo by KayakPro

<http://www.kayakpro.com/swimfast/>

KayakPro, designer and manufacturer of SwimFast products, was established in 2003 and has been the official ergometer supplier to the Olympic Games for the last four quadrennials. The company is nicely established in international markets, finding particular

favor with Olympic champions in Japan and athletes in Poland and the UK. In the past, SwimFast has offered several variations of its basic model, but is consolidating its production to its SwimFast Pro model, \$2,315 (plus shipping) basic price.

Halo Swim Training System

<http://lanegainer.com/products/Halo-Swim-Training-System.html>

Produced by Lane Gainer Sports, the basic Halo Swim Training system includes, among other things, a bench, a Halo™ template, handle and pacing device (\$444). This system addresses three key competitive swimming components and helps teach and reinforce high-elbow catch. A kit (\$149) converts a bench from any manufacturer into a HALO™ swim bench. Lane Gainer offers an unending array of accessories to please the most discriminating coach. The accessories allow for considerable creativity as demonstrated by CEO of competitiveswimmer.com and California Baptist University coach Steve Friederang (*multiple examples on YouTube*).

PowerSpeed-Training

<http://powerspeed-training.com/swimbench.html>

The company (formerly Mini Gym) of early swim bench developer Glen Hensen offers the Isokinetic Swim Bench Model #85 with two #101 Mini Gyms for Dry Land Training. It has a variable speed governor and simulates all stroke training. The Isokinetic Wall Mount Swim Bench (*Model #84 with two #101 Mini Gyms*) goes for \$895 plus shipping. ❖