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AZUB TRIcon

Folding Trike

By Brian Zupke



RTR Trike Review





Above and left: Hand-crafted in the Czech Republic, the AZUB TRIcon trike exemplifies old-world craftsmanship, combined with the most modern design and components.



AZUB TRIcon Trike Review

If I only had three words to describe the recumbents manufactured by AZUB, they would be “amazing engineering” and “performance.” This is the third AZUB recumbent I have reviewed, and while I really liked the others, this is the most impressive of the three. Any recumbent that is comfortable and performs well gets high marks in my book, but they get extra points if they have

a small storage footprint. I’ve ridden a few bikes that pack up compactly, but AZUB’s TRIcon is the first recumbent trike I’ve seen that folds up small enough to fit into my Honda Civic’s tiny trunk. That, combined with its comfort, stability and speed make this a truly great trike.

The TRIcon is a tadpole (two wheels in front, one in back) and AZUB gives you the

ability to fold it a couple of different ways, based on how small a package you want to end up with. The quickest way to fold the TRIcon is to remove the seat by loosening two quick-release levers, then the quick-release on the handlebars and rotate them flat, then disengage the hinge pin and lift the rear wheel up and over the front portion of the frame as it rotates 90-degrees and folds flat between the front wheels. The plastic tubing protecting the chain helps guide the chain during the fold, keeping it from getting tangled and minimizing your exposure to grease.

For more compact storage, you can remove the front wheels by loosening the quick-release on each wheel, which allows the wheel to slide out of the disk brake pads and come off the trike. If that’s not enough, you can also remove the back wheel, and the rear fork will fold over on itself, making an even smaller bundle.

The AZUB website has a video showing all the folding options. I could fit the entire trike in my Civic’s trunk without having to remove the pedals or the rear wheel. It really was easy to fold. It only took about four minutes to load the TRIcon into my trunk, or to unload it and set it up again to ride.

When designing a foldable trike, manufacturers often have to make tradeoffs in comfort or performance. This is definitely not



the case with the TRIcon; no ridability was lost in this trike. If you took it out for a spin, unless you happened to notice the hinge in the frame, you'd never guess the trike folds into a package the size of a large suitcase.

The TRIcon has a well-constructed TIG-welded aluminum frame with a high-quality finish. It's a really nice-looking machine. The test trike was white, but it is also available in orange-yellow, blue, red, green, olive green, beige, black, pink, and yellow. AZUB offers a neat option where you can mix and match the components in different colors. For the TRIcon, each of the following components can be any of the colors listed above: main frame (front and rear part separately at the folding hinge), front boom, rear fork, bars, seat frame, standard carrier, and lower carrier.

The TRIcon weighs in at about 40 lbs., which is typical of trikes with rear suspension. Since it has a low rolling-resistance, the trike rides a lot lighter than I thought it would, even when I when I added panniers loaded with 20-30 lbs of gear. The only time I noticed the extra weight was going up steep hills, but since the trike is geared on the low side, climbing was still easy – I just managed at a slower speed.

The slick Schwalbe Durano tires can be inflated to a fairly high pressure (85-115 PSI). With the tires fully inflated, the trike had very little rolling resistance and was very fast, but that also meant every bump in the road and rough patch vibrated in the handlebars and pedals. (The rear suspension kept the seat fairly vibration free.)

As I mentioned earlier, the wheels can be removed when folding the trike. To do this, loosen the quick release and the wheel (including the axle) will drop out from the frame. If the trike has disk brakes, the disk slides right out from the pads. Putting the wheels back on is a snap – just align the disks with the pads and slide the disk in until the axle is resting in its cradle, then tighten the quick-release.

The test trike was equipped with mechanical disk brakes on the front wheels, with a separate brake lever for each brake. They performed superbly. Very little effort was required to use them – I could apply full stopping force with just my pinkies. As with most tadpole trikes, applying only one brake caused the it to drift toward



Above: Our test trike was fitted with the optional Suntour Epicon air shock with a lock-out feature.



Right: Indexed seatback struts make adjusting the seat angle a simple matter, quite a nice touch, and a part of AZUB's Ideal Position System (IPS).

Below: Sturdy pannier rack is but one of the well-considered options available from AZUB when ordering your TRIcon recumbent trike.





Above: Dependable, well-modulated braking power comes from a pair of Avid BB7 mechanical disk brakes, each brake includes a parking feature.



Left: Another nice option included on our test rig was this Sigma BC16.12 cycling computer, attached to a sturdy king-pin mount.

Below: Quick-release levers allow easy removal and installation of the two front wheels.



that side, necessitating a slight turn in the opposite direction to compensate. It took little effort and concentration to apply both brakes evenly to keep the trike from drifting. Hard braking made it fairly easy to lock up a single wheel, but applying both brakes evenly resulted in a very rapid deceleration and stop. Hard braking may also cause the rear wheel to lift off the ground, but this is less likely if you are carrying weight on the rear rack. In addition to the mechanical disk brakes, AZUB offers drum or hydraulic disk brakes for the TRIcon. (AZUB also offers an option to have both brakes controlled by the same brake lever.)

The bottom bracket is on the end of the telescoping boom and is slightly higher than the seat bottom. I found the leg position to be very comfortable, and there was plenty of clearance between my heels and the ground. This position also came in handy when I was resting – with my leg extended fully out, the back of my thigh would rest on the cross member of the frame (the bar that supports the wheels).

To adjust the bottom bracket for different-sized riders, simply loosen the two quick-release levers that hold the boom length secure, move the front boom, and then tighten the quick-releases. Small adjustments don't require adding or removing sections of chain, however larger adjustments may. An alternative to resizing the boom is to move the seat instead. The ability to adjust both the boom and the seat position allows for a very wide range of rider sizes.

The test trike was equipped with a triple chain ring (52/40/30) and a 9-speed, 11-34 cassette which produces a very reasonable range of gears for both climbing and cruising speeds. While climbing, I could easily maintain a comfortable pedal RPM (about 60) at 2.5 MPH without feeling like I was mashing the pedals. In the top gear, I could maintain a comfortable cadence while going about 25 MPH. It wasn't until 35-40 MPH that the pedals spun out. For most riders, the gear range will meet their needs. AZUB offers several different component groups with derailleurs, internal hubs and even the Schlumpf two-speed-drive crankset. You can also get the BionX electric assist if you want to extend your reach, or use it as an equalizer when riding with faster people.

The chain is routed by a single pulley under the seat, so it is very close to the frame. This minimizes potential contact with the rider's leg. The top and bottom portions of the chain run through plastic tubing, so even if

your leg does come into contact with it, you won't be getting chain tattoos.

The test trike was equipped with bar-end shifters. The shifter for the rear derailleur can be set to index shifting or friction shifting. The advantage of index shifting is that it allows you to change gears quickly in a precise manner, whereas the friction shift mode may require you to "feel around" for the right position for a specific gear. On the other hand, index shifting requires the derailleur to be kept in proper adjustment, while friction shift is more forgiving. Since I normally ride with index shifting, I deliberately did most of my riding in the friction shift mode and was able to shift gears quickly up or down. The shifter for the front derailleur is friction shift only, and it was easy to shift to any of the three chain rings. While it was pretty easy to get up to cruising speed quickly from a standstill, the trike performed best when I eased off the pedals for a fraction of a second each time I shifted into a higher gear.

Bar-end shifters take up room on the handlebars. Accessories, such as a bike computer or smart phone mount, cannot be attached there. However, AZUB offers an accessory mount that attaches to the king-pin

on either side (or both). The test trike had a bike computer on this mount. I actually ended up preferring this location over the handlebar mount, as it was easy to see and reach. Plus, accessories there are less likely to get banged up while riding. The mount on the test trike did not match the one in the picture on the AZUB accessory's page in the Price list PDF file, but it worked well.

The TRIIcon has under-seat-steering (USS), with the handlebars anchored to the main tube. Their position can easily be adjusted by loosening the stem and adjusting the center piece of the handlebar assembly. I found that bars set just about vertically were pretty comfortable for me. Large "cogs" on each bar hold the bars tightly in place until the folding process is underway. The benefit of the fixed angle settings from the cogs is that it allows putting the handlebars quickly back into place after you unfold the bike.

The bars' position can't be moved forward or backward, but you can adjust the boom length and seat position – effectively moving the rider closer to or further from the handlebars.

When I first rested my hands on the handlebars, they seemed stuck out to the



sides a bit far. However, after a few minutes of riding, I came to appreciate that design decision as the position was very comfortable. Furthermore, the handlebar position didn't overstretch my arms in sharp turns yet still kept my fingers away from the front wheels.

The TRIIcon has dual drag link steering, as opposed to direct knuckle steering. Drag link steering provides a mechanical advantage, which means it requires less effort to turn the trike. The TRIIcon was easy to steer – I could maintain control using just my pinkies. On level ground, it pretty much wanted to go straight. However, if the road was slanted then the trike had the normal tendency to drift toward the downhill side. The position of the handlebars resulted in my arms being in a very relaxed position, so I could drop one hand from the bars without sending the trike veering. Pedaling without holding the handlebars caused the steering to jump around a little, though I'm sure smoother pedal rotation on my part would help that

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Above and below: The TRIcon folds just behind the steering headset, Quick release on the ends of the handlebar base allow adjustment of the bars as needed.



problem. Typically, if I needed to ride with no hands, I'd simply coast and if the trike started to drift, I'd lean my leg against the handlebars to keep my line on the road.

The TRIcon seat is made of mesh fabric stretched over a tubular frame. It was very comfortable, even on century rides. The mesh fabric helped keep me cool in hot weather or when sweating due to physical exertion. The seat bottom is mounted to a sliding bracket on the main tube and secured by two quick-release levers. The seat can be moved forward/backward about eight inches. The seat back is supported by two telescoping rods that are secured to a triangle support welded to the main tube. The rods are connected to the support by a single quick-release lever that allows the seat angle to be easily adjusted. The seat back has a tilt range of about 30 degrees. A neat feature is that the support rods "remember" the seat's tilt position when you take the seat off. The rods are threaded and have nuts that act as stops. When you put the seat back on, it settles to the same position as it was previously. The telescoping rods are also inscribed with inch marks so you can manually note the seat's tilt position. This is useful if you have multiple riders who use the trike. The seat bottom-bracket doesn't have a threaded stop, but since only the top quick-release needs to be loosened to remove the seat, the seat's forward/backward position is preserved.

There is a fair amount of room behind the seat to mount water bottles or other gear on the seat back. Using zip ties, I mounted 5 water bottle cages on the seat back, and there was still more room for additional gear. When I added panniers to the mini-rack, they took up some of the space behind the seat, but there is still room for several water bottles.

A really nice feature on the TRIcon is its rear suspension. AZUB offers several different shocks (air shocks as well as a basic spring/oil shock). The review trike was equipped with an Epicon air shock, in which the pressure can be adjusted with a tire pump. The Epicon also has a lock feature that lets you disable the shock with a flip of a switch. The shock did an excellent job on rough roads. Since, like most tadpoles, the TRIcon had no front suspension, my hands and feet bounced around a bit, but it wasn't bothersome. I rode it over a local pot-hole-filled monstrosity that calls itself a road, and I felt like I was sitting in one of those therapeutic massage chairs they have at the mall. A few times I tensed for bumps I saw coming but never ended up feeling. The TRIcon is a comfy ride.



An understandable concern about bikes and trikes with full suspension is the possibility of the “pogo effect.” That’s when some of the energy from pedaling ends up causing the shock to compress and decompress instead of going to the wheels. I never observed this while riding the TRIcon, even when pushing hard at high pedal-RPMs.

AZUB offers two different rear racks for the TRIcon. The “standard” carrier is a full-sized rack that sits under the seat back, then comes up to extend rearwards over the rear wheel. It can be left on the trike when you fold it, unless you are going for the smallest fold size. The “lower” carrier is a half-sized carrier that sits under the seat back. It does not have to be removed when you fold the bike, no matter how you fold it.

The test trike came with the lower carrier. I was able to mount my Arkel panniers to it, but the back half of the panniers extended beyond the rack, so I had to adjust the mount brackets on the panniers. The low carrier put the bottom of the panniers very close to the ground. When



I went over low dips in the road (or entered steep driveways at speed) the bottom of the bags did scrape against the ground. It was nice not having to remove the rack to fold the trike, but if I was planning on using full-sized panniers, I’d get the standard carrier.

The TRIcon’s rear fork is simple, strong and elegantly engineered.

The TRIcon can haul a lot of gear, especially with the standard carrier, but if you want to carry more, they also have an under-



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Above: Running gear includes Schwalbe Durano 1.1" tires on Remerx Total Strong 6083 aluminum 406-18 rims with Novatec hubs in front and an AZUB hub in the rear. All three wheels are fitted with 36 stainless steel spokes. Below: The seat can be adjusted fore/aft, and the trike is equipped with an adjustable boom, so a large range of adjustment allows the bike to 'customize' to a perfect fit.



seat bag mount bracket that holds a small bag under the seat. You can also tow just about any trailer that attaches to the rear axle.


Now we get to the good part. How did the TRIcon ride?

When it came to 'evasive' maneuvering, the TRIcon performed extremely well. The trike was responsive, but not "twitchy" or over-responsive. I could dodge obstacles without fear of dumping the trike. On a curvy downhill road, I got up to 42 MPH, pedaling as fast as I could, and I still felt in full control of the trike.

Going up my favorite hill, climbing was almost effortless. In the lowest gear, I could mosey along at 2MPH with a comfortable pedal-RPM, without having to strain my knees. Heading back down the hill was a lot more fun. Thanks to the high-pressure tires, I found myself sailing along at 52 MPH. I was

a little incredulous when I saw my speed on the bike computer, because the trike was so stable and in control that I had thought I was going a lot slower. Rough patches of road didn't make the trike squirrely at all. When I started getting near the bottom of the hill (and the crossroad that had enough traffic that I really didn't want to blow the stop sign), I had no problem at all slowing down. It was easy to apply the brakes to both wheels evenly. Nothing locked up, drifted or bounced. When it comes to performance and stability, AZUB nailed it.



The TRIcon trike is now at the top of my Christmas list. I love that it fits in my Honda. It's comfortable, and it handles well enough to cut my risk of developing road rash seriously. This is a fantastic trike. If you are trike shopping, I'd definitely take the time to find a TRIcon to test drive. You won't be sorry you did. 

Base Price	\$3,924
Boom	Aluminum
Bottom Bracket Height	38cm
Brake Levers	Aluminum
Brakes	Avid BB7 Mechanical W/ 160mm Disk
Chain	KMC
Color	White
Cranks	Shimano 52-42-30, 170mm
Derailleurs (f/r)	3-Speed/SLX
Frame	Aluminum – Tig Welded
Ground Clearance	4.75 (approx)
Handlebar	Under Seat Steer
Headset	AZUB
Hubs (f/r)	Novatec/AZUB
Max. Load	275 lbs.
Overall Height	32"
Overall Width	32.5"
Pedals	Shimano Combo
Rear Cassette	Shimano 11-34 9-Speed
Rims	Remerx Powerstrong 6082 Aluminum, 406-18
Seat	Mesh
Seat Adjustment Range	180mm/30 degrees
Seat Angle	20-50 degrees
Seat Height	12"
Seat Width	14"
Shifters	Shimano Bar End
Spokes	36, Stainless
Steering	Dual drag link/USS
Tires	Schwalbe Durano 28-406 (20x1.10) 85-115 psi
Track	30" (approx)
Turning Radius	Approx. 9.5'
Weight	45.5 lbs.
Wheelbase	112 centimeters
Width	32.5"



Above: Chain management includes plastic tube run for nearly the entire length of the chain and a sturdy-looking idler pulley on the return stretch of chain.



Brake and shifter cables of the highest quality from Jagwire compliment the trike's overall top-notch spec.