



Scorpion trikes – comfortably suspended recumbent trikes from HP VELOTECHNIK. The perfect blend of riding dynamics and comfort!



Ready for your next adventure? Your Scorpion will take you there!









Your latest passion? Carving bends.



You're right on track: Take a seat on the Scorpion. Sit back and relax. Put your feet up. Enjoy the spectacular views. Then push the pedals and accelerate dynamically. Ahead lies total riding pleasure!



The daily grind is yesterday news. Time for more pleasure in life!

The next adventure is closer than you think. Your Scorpion trike will take you there!

Easy-to-access, back-friendly seat, both front wheels always in view. Add to that the impressively solid road holding even with lots of luggage. Your Scorpion will be happy to lure you on an extra tour. The agile trike combines innovative trike technology, the finest materials and a long heritage of trike building craftsmanship by the expert engineers at HP VELOTECHNIK.



The Scorpion with powerful electric drive: On the road in style!

It is a great feeling to be able to call up a burst of extra power at any time. If you are interested in electric assist, the Scorpion E-Trike should be your first choice.

Whether automatic gear-changing, dual batteries, electric reverse gear or support for rehab use, we can equip every model with electric drive for speeds up to 25 km/h (16 mph). For the USA we can even accelerate our models up to 32 km/h (20 mph, meeting the Class I electric bicycle status). Depending on your requirements, you can choose between STEPS bottom bracket motors from SHIMANO or whisper-quiet rear wheel motors from NEODRIVES.

You always benefit from the advantages of the Scorpion E-Trikes given their impressive driving dynamics and full stability at a standstill. These world class trikes have wellbalanced weight distribution, large batteries with a low center of gravity under the seat. The full luggage capacity is coupled with an extended range thanks to the streamlined, energy-saving seating position.

With the swift Scorpion fs 26 S-Pedelec you can even accelerate up to 45 km/h (28 mph, US Class 3 electric bicycle).

With powerful electric drives, sophisticated chassis and impressively stable road handling the *Scorpion* will let you discover ultimate driving pleasure in every curve and every turn!





You're right on track here!

The Scorbion class from HP Velotechnik offers plenty of riding fun for traveling, touring, city and off-road use

Whatever your pace, whatever your style: On the following pages you will find your personal favorite with ease. The team of expert engineers at HP VELOTECHNIK created nine different models to offer you the entire world of premium trikes that match virtually any activity you can even think of - epic rides, daily commuting, E-Trike rides, off road fun, special needs or sportive challenges, you name it.

Every Scorpion is hand-built to order by dedicated technicians in HP VELOTECHNIK's workshop in Kriftel near Frankfurt, Germany. Information on optional features can be found not only in this catalog but also by using the online recumbent configurator at www.hpvelotechnik.com. For competent advice and extensive test rides. your HPVELOTECHNIK dealer looks forward to your visit!

Scorpion – the lightweight, sporty trekking trike

 Low, flat seat for little air resistance and outstanding braking performance • Very high pedal position over the seat for the most efficient use of pedaling forces • Outstanding tipping stability • 26-inch rear wheel for an optimally smooth ride • Luggage capacity: up to 35 kg (77 lbs) in 4 bags Maximum payload 150 kg (330 lbs) • Comfortable rear suspension (elastomer-free), energy-efficient No-Squat design P. 8 • Seat and wheels quick to detach



Scorpion fx – the medium high, foldable travel trike with rear suspension

- Medium seat height, upright seat for easy mounting and a clear view in traffic
- Medium pedal position above the seat offers good support for pedaling forces
- Good tipping stability
- Compact 20-inch rear wheel
- Luggage capacity: up to 63 kg (139 lbs) in 8 bags Maximum payload 140 kg (308 lbs)
- Comfortable rear suspension (elastomer-free), energy-efficient No-Squat design P. 12 • Foldable in 60 seconds without tools



Scorpion fx 26 – the medium high, foldable travel trike with rear suspension for globetrotters

- Medium seat height, upright seat for easy mounting and a clear view in traffic, very good ground clearance • Medium pedal position above the seat offers good support for pedaling forces · Good tipping stability 26-inch rear wheel for a smooth ride
- Luggage capacity: up to 63 kg (139 lbs) in 8 bags
- Max. payload 150 kg (330 lbs) • Comfortable rear suspension (elastomer-free),
- energy-efficient No-Squat design s. **18**
- Foldable in 60 seconds without tools



Scorpion fs 26 Enduro – the full-suspension mountain-trike

- Medium seat height, flat seat for good ground clearance and excellent riding dynamics
- High pedal position over the seat for the efficient use of pedaling forces
- Excellent tipping stability
- MTB tyres for serious off-road use
- Luggage capacity: up to 35 kg (77 lbs) in 4 bags
- Max. payload 110 kg (243 lbs, off-road), 140 kg (310 lbs, on road)
- Comfortable, integrated all-wheel suspension AntiDive geometry, HP stabilizer system
- P. 36 • Foldable in 60 seconds without tools



Scorpion fs 26 S-Pedelec – full-suspension e-trike for up to 45 km/h (28 mph)

- Medium seat height, flat seat for good ground clearance and excellent riding dynamics
- High pedal position over the seat for the efficient use of pedaling forces
- Excellent tipping stability
- 26-inch rear wheel for a smooth ride
- Luggage capacity: up to 35 kg (77 lbs) in 4 bags
- Maximum payload 140 kg (310 lbs)
- · Comfortable, integrated all-wheel suspension
- AntiDive geometry, HP stabilizer system • Foldable in 60 seconds without tools
- е **40**



Scorpion plus 26 – full-suspension SUV-trike: higher, wider, more comfortable!

- High and an upright riding position for excellent overview and well balanced riding dynamics, low pedal position
- Wide and open frame design for easy access even for
- smaller riders from 1,49 m (4'10")
- Good tipping stability
- 26-inch rear wheel for a smooth ride
- Luggage capacity: up to 63 kg (139 lbs) in 8 bags
- Max. payload 150 kg (330 lbs)
- Comfortable, integrated all-wheel suspension
- AntiDive geometry, HP stabilizer system
- Foldable in 60 seconds without tools

P. 46



Scorpion fs 20 – the compact, full-suspension action trike

• Medium seat height, flat seat for good ground clearance and excellent riding dynamics

- High pedal position over the seat for the efficient use of pedaling forces
- Excellent tipping stability
- Compact 20-inch rear wheel
- \bullet Luggage capacity: up to 35 kg (77 lbs) in 4 bags
- Maximum payload 130 kg (286 lbs)
 Comfortable, integrated all-wheel suspension
- AntiDive geometry, HP stabilizer system • Foldable in 60 seconds without tools



Scorpion plus 20 – the upright, compact full-suspension trike for daily use.

- High and an upright riding position for excellent overview and well balanced riding dynamics, low pedal position
- Wide and open frame design for easy access even for smaller riders from 1,49 m (4'10")
- Good tipping stability
- Compact and sturdy 20-inch rear wheel • Luggage capacity: up to 63 kg (139 lbs) in 8 bags
- Max. payload 150 kg (330 lbs)
- Comfortable, integrated all-wheel suspension AntiDive geometry, HP stabilizer system
- Foldable in 60 seconds without tools



- **Scorpion fs 26** the dynamic, full-suspension speed trike
- Medium seat height, flat seat for good ground clearance and excellent riding dynamics
- High pedal position over the seat for the efficient use of pedaling forces
- Excellent tipping stability
- 26-inch rear wheel for a smooth ride
- \bullet Luggage capacity: up to 35 kg (77 lbs) in 4 bags
- Maximum payload 140 kg (310 lbs)
- Comfortable, integrated all-wheel suspension AntiDive geometry, HP stabilizer system

• Foldable in 60 seconds without tools P. 30

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Adventure awaits!

Experience the ultimate thrill of recumbent cycling with us! What could be more exciting than combining business with pleasure? That's why we couldn't resist adding a spectacular photo shoot to our trade show visit in the USA. Just imagine – our stunning

Scorpion set against the magnificent red mountains of Sedona! The trike's vibrant colors perfectly complement Arizona's picture-perfect landscapes that seem straight out of a classic road movie. And wait, there's more! These dream colors on dream trails aren't just available as photos – scan the QR code on the right to watch the amazing video footage too!



On the move again: This perfectly introduces our 2026 product innovation: The Scorpion fx 26, the new champion of our travel trike line and a true luggage power-house! Discover what makes this model, the ninth addition to our renowned Scorpion series, truly exceptional by turning to page 14.

Curious about how much of this adventurous spirit exists in other Scorpion models? Feel free to explore our catalog thoroughly. Then it's just a small step before your dream panorama transforms into reality.

Intrigued? Experience it yourself! Your local HP VELOTECHNIK dealer eagerly awaits your visit.

Yours, Daniel Pulvermüller and Paul Hollants

Pick your ge P. **48** Overview of



Sporty low seat, agile chassis, powerful acceleration: Scorpion

Your Scorpion gives momentum to the asphalt jungle!

The best role models can be found in nature. The *Scorpion* sets new standards when combining stable road holding and reassuring safety with impressive maneuverability and a sporty temperament.

I 50% riding pleasure. More and more active people are leaning back and discovering the unique sitting comfort and energy saving aerodynamics offered by a HP VELOTECHNIK recumbent. The sporty *Scorpion* lets you experience how fun, cornering stability, and touring capability can go together in this ultimate performance trike. The *Scorpion* comes standard with an integrated design including an extra stiff Spaceframe, advanced rear triangle and an elevated pedal position. What you get? Maximum efficiency!

Just a glance at the Scorpion lets you know that the stable track and low center of gravity provide secure road-holding for optimum control at all speeds. The robust wheels are placed further forward for better braking performance. Having both front wheels in your field of view at all times lets you easily avoid road obstacles. The large 26" rear wheel with its low rolling resistance gives the rider a spirited ride in any conditions. Your *Scorpion* has a door-friendly track width (83cm or 33 inches) letting you roll your "new-best-friend" through most standard doors. Unless you decide to turn around for another ride, that is. After all, the highly agile speedster only needs a 5.4 m (17'9") turning circle.

It has never been easier for you to accept our invitation to try out the comfortable seat since the crossbar on the robust, lightweight aluminum frame sweeps elegantly backward to allow getting onto the trike easily: Simply stand in front of the seat and gently lower yourself down. While you enjoy panoramic views, the comfortable swingarm reacts to bumps on the rocky road lightning-fast. HP VELOTECHNIK's tried-and-tested *No-Squat* technology ensures that your pedaling forces do not impair the suspension. The rear wheel transmits your pedaling force to the road as direct forward propulsion without need for complicated differential gears. Instead, your *Scorpion* can use the full range of modern bicycle drivetrain technology.

And if you want to go full speed ahead? Simply smile at any head wind. Accelerate. And look forward to carving the next corner ...







Desire makes the route seem shorter. So does the right position. When riding the *Scorpion*, you offer minimum wind resistance without hunching over. This makes you quick – and your trips enjoyable. Even at a relaxed pace, you still cut a fine figure.

You're right on track. Lean back in the airy *ErgoMesh* seat or the adjustable *BodyLink* hard shell seat. They are both good for your bottom, your spinal discs, and your family planning. As flexible as life itself, they provide comfortable support for dynamic sprints.

Everyday is a thing of the past. Lean back and relax. The *Scorpion* makes your commute to work a deeply enjoyable trip. When heading off into the blue, you can finally see the sky again. And can breathe deeply. Could there be any better exercise bike?







The frame is adjusted to your leg length by shortening or extending the front boom in the main frame.



Easy to transport: HP VELOTECHNIK has developed open wheel mounts which allow the front wheels to be simply detached together with the brake disc by loosening just one bolt (HP Performance hubs standard on Scorpions).

Technical Data

vvarrantv on trame IU vears	- BodyLink 28 cm (11") $41-49^{\circ}$ - ErgoMesh $31 cm/12"$ (H5 42cm/16.6") $41-49^{\circ}$ (H5 41-5 - ErgoMesh Premium $31 cm/12"$ (H5 42cm/16.6") $36-50^{\circ}$ Bottom bracket height $41-52 cm (16.1-20.5")$ Suspension travel 8 cm (3") Ground clearance 10 cm (4") (statically compressed) Wheel size (FW) 20" (ISO 406) Wheel size (RW) 26" (ISO 559) Max. tire width 5 cm (2") Wheelbase 128 cm (50") Track width 78 cm (31") Width
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Protects your clo-The Scorpion's famed indirect steering with Advanced thes and the chain: Steering Geometry (A.S.G.) combines smooth straight-The drivetrain is line stability with impressive maneuverability, offering intuitive and predictable handling at all speeds. Com-The special guide fortably-positioned handlebars beneath the seat, adjustable in width and angle, relieve the strain from your tubes made from wrists and neck muscles. Two handlebar heights available. Maintenance-free, sealed cartridge bearings on the friction for an effihandlebars and self-lubricating rod end bearings on the tie rods. The wheel mounts are positioned in the frame with sturdy, adjustable A-head headsets.

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create minimum

cient. auiet ride.

HP VELOTECHNIK's seat systems provide an exemplary ergonomic connection at the key interface between the rider and the trike. The breathable ErgoMesh seat (photo) offers outstanding adjustment possibilities thanks to the integrated OrthoFlex® technology. In the high-end range, the flexible ErgoMesh Premium seat comes up with a variety of unique features (see page 59). Both seats are also available as XL-version with 5 cm (2") more width and 3 to 4 cm (1.2" to (1.6")) more backrest height or as HS-seat with 11 cm (4.3") higher seat position. As a sporty version we offer the BodyLink hard shell seat.

The stable luggage rack for loads of up to 25 kg (55 lbs) has been optimized to withstand the high lateral forces to which trike riders are subjected. Riding dynamics benefit from its low pannier center of gravity. Low side bars hold your bags securely. Your luggage enjoys full suspension without the need for complicated swivel joints or even a load support on the rear wheel swingarm. This enables agile suspension and protects your equipment

Ideal for light luggage: With the Top Load Rack, which can be attached to the luggage carrier as an option, you can significantly expand the loading capacity of your Scorpion



The Scorpion has a very safe braking action due to the low center of gravity and the long wheelbase. The standard disc brakes ensure maximum braking power even in bad weather. The front wheels are controlled separately so that you can selectively brake the inner wheel when cornering. Due to HP VELOTECHNIK's sophisticated steering geometry, the steering is not affected by braking or sudden bumps on your trail. On request, we build your Scorpion trike with mechanically or hydraulically coupled front brakes with one-hand operation and a rear disc brake.

HP VELOTECHNIK's adjustable suspension provides superior ride comfort. You can choose either from oil dampened steel spring or leight weight air shock units. Unlike simple elastomer buffers, these durable shock absorbers work reliably unaffected by any temperature changes. The quality of a trike's suspension becomes particularly clear when carrying a great deal of luggage or riding uphill. The Scorpion's suspension utilises HP VELOTECHNIK's tried-and-tested No-Squat suspension concept: An effective combination of an exceptionally stiff rear end with the sophisticated positioning of the single swingarm pivot and the durable, large ball-bearing-mounted chain roller. It reliably prevents drive forces from affecting the suspension and unpleasant pedal kickback. Your benefit: Comfortable vibration absorption and unparalleled power transmission!

Great for transporting children or hauling heavy loads: Your Scorpion can tow a multi-track trailer weighing up to 40 kg (88 lbs).

Raised seat, easy access and plenty of space for many bags: Scorpion fx







Globetrotter with a panoramic view A travel partner for heavy tasks: Scorpion fx

HP Velotechnik's Scorpion fx 20 and Scorpion fx 26 touring tricycles offer remarkable stability with folding capability, specifically designed to meet touring cyclists' requirements. Unlike their sportier relatives, the *Scorpion* and *Scorpion fs*, these models feature a significantly higher and more upright seat position. This design choice facilitates easy entry and exit while providing excellent visibility of both the road ahead and the surrounding landscape.

The elevated seating creates space for a Lowrider rack behind the seat, accommodating large panniers. This feature, combined with the sturdy luggage rack, allows for carrying up to 50 kg (110 lbs) of gear with an advantageously low center of gravity. The following six pages will demonstrate how accessories like the *Side Bag Mount* and *Add-on Bags* can expand your faithful travel companion's carrying capacity even further.



Tailwind on demand: You can upgrade your *Scorpion fx* with a powerful electrical auxiliary drive. The optional unique HP VELOTECHNIK dual battery system underneath the seat doubles the range up to 478 km (297 miles), see *p. 52*.



Unfolds pure riding pleasure: Scorpion fx 20

Sometimes space is of the essence – as is time. This is what makes it so satisfying when highly intelligent solutions can save you both. A Swiss pocketknife for example. Or our practical *Scorpion* fx 20.

Amazing space savings. Thanks to HP VELOTECHNIK's patented, self-lokking folding hinge, it is easier than ever to fold up your trike. With a few movements, this luxurious touring trike can be turned into a compact package that can be easily transported in your car. In just 60 seconds, the comfortable seat can be removed without using any tools and the *Scorpion fx 20*'s rear wheel can be folded forward. A ratchet strap hidden behind the seat ties together the two halves of the frame to make the bike easy to carry when folded.

Another 90 seconds and the front wheels have been removed using one single Allen wrench. The agile speedster will now even fit in the trunk of some of the most tiny cars.

Or in your apartment: Don't let anyone ever tell you again that you don't have room for any more beautifull trikes!





Wider is better: The wider the track, the greater the tipping stability and the faster your trike can corner. A wide track also allows a bigger steering angle for a small turning circle. So that your trike still fits easily through doors and gates, HP VELOTECHNIK has developed narrow hubs for a low overall width of just 83 cm (33"). The Scorpion fx touring trike series has a medium high, upright seat for a clear view in traffic combined with a medium pedal height. The seat position makes it easy to get on and off the trike and offers outstanding triking fun even for first-time users.

Ideal for heavy loads: A lowrider rack for two front or rear wheel bags weighing up to 25 kg (55 lbs) can be additionally attached to the Scorpion fx's luggage rack. Good road holding thanks to the low center of gravity close to the body.



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Seat removed, rear wheel folded forward ($L \times W \times H$): $103 \times 83 \times 69$ cm ($40 \times 33 \times 27^{\circ}$) front supported $77 \times 83 \times 97$ cm ($30 \times 33 \times 38^{\circ}$) back supported Wheels on the side: 104 x 83 x 60 cm (41 x 33 x 24") Without wheels, fenders, rack: 75 x 74 x 60 cm (29.5 x 29 x 24")





On unfolding the *Scorpion fx 20*, the robust folding hinge locks into place automatically. The safety catch can be conveniently operated from above. Stainless steel axle with zero play for precise folding over and over again.



The optional quick frame adjustment with quick release levers can be used to quickly adapt the bike to different leg lengths. By pushing in the boom tube, you can also make your *Scorpion fx* even more compact for transport.

Technical Data

Seat - BodyLink - ErgoMesh Bottom bracket height Suspension travel Ground dearance Wheel size Max. tire width Wheelbase Track width Width Length Turning circle Weight Max. payload Frame material Powder coating (anti-corrosion coat + colored coat + clear coat) Rider height approx Warranty on frame	38cm/15"(H5:49/19.3") 38cm/15"(H5:49/19.3") 38-46 cm (15"-1 8.5 cm (3.3") 13.5cm (5.3") (stat. 20" (ISO 406) 5 cm (2") 107 cm (40") 78 cm (31") 83 cm (33") 165-201 cm (5'6"- 4.50 m (14'5") out from 16.5 kg (36.4 140 kg (308 lbs) Aluminum 7005 T Pearl orange, Cool grey metallic or custom color 1.57-2.00 m (5'2"	41–55° 8") . compressed) 6'7") er wheel !lbs) 6
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More suspension travel, more ground clearance, more freedom on the roads: Scorpion fx 26

The luggage champion for your grand tour!

No mountain too high, no desert too hot, and no long-distance cycling route too challenging? Then unleash the extraordinary *Scorpion fx 26* and discover your ultimate three-wheeled adventure companion!

The impressive Scorpion fx 26 delivers performance that speaks volumes. With a remarkable 150 kg (331 lbs) payload capacity–10 kg (22 lbs) more than the Scorpion fx 20 – you'll have the freedom to pack everything your adventure demands.

Experience grand comfort with a total of 10 cm (4") of super plush suspension at the rear wheel – our engineers have added an extra 15 mm (0.6") of suspension travel compared to the *Scorpion fx 20*. And with 25 mm (1") additional ground clearance, rough trails become just another reason to smile.

Add to this the large 26-inch rear wheel as your flywheel. Feel firsthand what cycling enthusiasts mean by "length runs": superior smoothness while the large rear wheel effortlessly conquers roots and potholes. Simply ride relaxed!

Great performance – small pack size. As assertive as your *Scorpion fx 26* is on your tours, it remains just as manageable before and after your ride. It gladly fits in the trunk of most cars thanks to HP VELO-TECHNIK's ingenious flat fold with self locking hinge. The design allows the rear frame and wheel to rotate almost 90 degrees when folded. For long-distance transport, you can make it even more compact with just a few simple steps.

Call your local dealer today to arrange a personal demonstration and test ride to experience these benefits and more!











+60s

Unfolding full pleasure

Experience the sophisticated folding technology of the *Scorpion fx* 26! Thanks to HP VELO-TECHNIK's ingenious flat fold with self locking hinge, this premium trike with its impressive large rear wheel transforms into a travel-ready companion in just seconds. The design allows the rear frame and wheel to rotate almost 90 degrees when folded.

In just a few simple steps, your Scorpion fx 26 compacts into an incredibly space-efficient package measuring just 111 x 83 x 66 cm. Want even more portability? Remove the frontwheels and the trike-fenders and watch it shrink to an astonishing 93 x 74 x 54 cm! Even with all your accessories-luggage rack and fenders included – the folding magic happens without removing a single wheel. And forget chain worries! Our sophisticated chain management system with flexible guard tubes ensures perfect positioning every time.

Here's the game-changer: HP VELOTECHNIK'S innovative self-locking folding hinge means you'll easily go from compact transport mode to exhilarating ride set-up. As the frame stays in position after unfolding, you can conveniently close the safety latch with one hand. Turn your trike riding dreams into reality with the ultimate blend of comfort, style and performance! The ErgoMesh Premium mesh seat gives you the most flexible seat comfort you can imagine. The seat bottom part and backrest can be adjusted independently of each other, the seat cover can be adjusted using the eight tensioning straps. There are also four additional Othoflex support cushions inside the seat cover that you can cut to size and position to suit your individual shape.

The Scorpion fx 26 has a very safe braking action due to the low center of gravity and the long wheelbase. The standard disc brakes ensure maximum braking power even in bad weather. You can also choose the option with a coupled brake, which decelerates both front wheels simultaneously, including a parking brake function on the rear wheel.

For additional luggage space, supplement the luggage rack with our Lowrider option. Additionally you can use the Top Load platform, which bolts onto the luggage rack. This allows you to carry bulky or voluminous items such as a sleeping mat or tent on your trike while using your rack and Lowrider for your heavier panniers.

Complete charge: 9 x panniers = 63 kg payload





Technical Data



The perfect blend of great riding dynamics and comfort: Scorpion fs.

It's good to know, that even if things get rough ahead of you, you can still stay laid back and relaxed. When developing the awardwinning design of the *Scorpion fs* foldable touring trike, HP VELO-TECHNIK's engineers used the latest chassis technology from the automotive sector to provide the most comfortable full suspension for yor ride. But they did not compromise by simply using retro-fit solutions on existing frames: The whole vehicle was

developed from scratch to incorporate an impressively sensitive full suspension in a sleek and lean design delivering superior performance. The wishbone axle geometry and HP VELOTECHNIK's unique *Stabilizer System* with its anti-roll bar integrated into the frame design allows full use of the ample suspension travel. It is finely tuned to perfectly respond to the forces of the road. The low seat and far higher pedal position of the *Scorpion fs* highlight the agile trike's sporty character. The Scorpion fs is optionally available with a 20-inch rear wheel for compact dimensions when folded and maximum traction or a 26-inch rear wheel for a uniquely smooth ride and even easier obstacle traversing. You will experience the result of this brilliant engineering as soon as you speed up and take your first corner: The exciting synthesis of optimum road holding and maximum ride pleasure.

The Scorpion fs with a 20-inch rear wheel: Best perspectives for your adventures!

Scorpion⁵20

The Scorpion fs with a 20-inch rear wheel: Compact design, powerful traction, and a smile on your face uphilf

24 1 2



The Scorpion fs turns even rocky roads into rewarding destinations

Manhole covers, cobblestones, and gravel tracks: Many bike trails offer a ride on the rough side. Now you can look forward to this: When the ride conditions become more demanding and you need not only a fast-reacting suspension but also, and in particular, predictable handling, maximum steering precision, and ultimate stability at speed, your *Scorpion fs* is completely in its element.

The comfortable MacPherson struts on the front wheel suspension offer 6 cm (2.4") of suspension travel with optimised damping for vibration absortion precisely where you need it. The robust, dirt-protected MacPherson struts are held out to the sides by the solid frame cruciform and are connected via adjustable wishbones with maintenance-free bearings. With this design, our engineers were able to keep the unsprung masses extremely low. This in turn enables the sensitive responses of the *Scorpion fs*'s chassis and the impressively low weight of this full-suspension trike of 17.5 kg (38 lbs). The suspension preload can be adjusted; the spring stiffness and progression can be simply adapted to your needs.

Added safety for fast cornering: The unique HPVELOTECHNIK Stabilizer System with its anti-roll bar under the frame reduces the compression of the MacPherson strut on the outside of the bend and reliably prevents the trike and rider from excessively tilting outwards due to centrifugal forces. Control in threshold areas has been noticeably improved and tipping stability vastly enhanced. The anti-dive kinematics prevent the negative dive effects on braking. The design of the camber and track geometry ensures that the steering mechanism offers straight-line stability over the entire suspension travel and remains easily accessible and free from impairment when braking (*brake steer*) or traversing obstacles (*bump steer*). The entire chassis is designed using our *No-Squat* suspension concept and transmits all of your drive energy to the road without any loss of power. You will feel it immediately: In the precise steering, the sporty handling, and the direct feedback from the road.

In return, you enjoy complete comfort on rough trails – so that you can lean back and relax while dynamically accelerating.







Lightweight aluminium wheel carrier with shock boot on the suspension strut. Blasted and black matte anodized finish. Housing gaskets over the tie rod's outer ball in the area of the wheels at risk from spray water.



Smooth-running hubs for quick assembly in HP VELOTECHNIK's open wheel mount system. No axle protrusion. Replaceable deep groove ball bearings.



Large, efficient chain roller. The chain lies quietly across the integrated middle bar, as on a chainwheel. Replaceable deep groove ball bearings.

Precision can be measured, passion for detail must be felt



Stable HP VELOTECHNIK folding hinge with a self-locking safety catch. Stainless steel precision axle. Two adjustable centering pins.

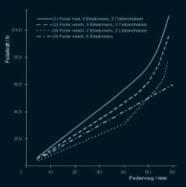


Scorpion⁵20





The MacPherson struts are supported in the frame by elasticated strut bearings, which continually protect them against lateral forces. The tangible benefit to you: Impressively sensitive responses and outstanding suspension comfort even at high frequencies.



By adjusting the preload, replacing the steel springs, or varying the MCU/spacer arrangement inside the spring, the suspension properties can be easily adapted to your requirements in relation to spring stiffness, damping, and progressiveness so as to provide good bottom-out prevention. Unlike simple elastomer buffers that become noticeably embrittled in the cold, this technology allows comfortable suspension even at low temperatures.

A decisive functional feature: The blue stabilizer bar under the wishbones is the core element of the unique *HP Stabilizer System*, which effectively reduces the trike's tilt when cornering quickly.

The Scorpion fs with a 20 inch rear wheel: A tiny package bursting with riding fun





Optimized protection with elegant contours: In designing the trike fenders, HP VELOTECHNIK has created special mudguards for use on trikes. The inner surface and bottom edge are lowered down to improve rider protection against spray, especially when cornering. The mounting elements are protectively installed on the inside of the fender. The rounded profile with a width of 60 mm (2.4") makes it possible to attach large, comfortable tires with a width of up to 50 mm (2"), such as the SCHWALEE Marathon Plus. Robust, full-suspension luggage rack for two large rear wheel panniers weighing up to 25 kg (55lbs). The luggage rack (including platform) is specially optimized to withstand the high lateral forces to which trikes are subjected and securely screwed to the main frame. The rack does not have to be removed to fold the trike.







For transportation, the Scorpion fs can be easily folded up into a compact package measuring just $112 \times 83 \times 63$ cm (44 $\times 33 \times 25^{\circ}$, L \times W \times H) with the luggage rack in just 60 seconds. Once the wheels have been removed, the folded dimensions are even further reduced to $112 \times 74 \times 46$ cm (44 $\times 30 \times 18^{\circ}$). Without the luggage rack, the length reduces to 90 cm (35''). The folded Scorpion fs is secured using the ratchet strap attached to the frame to make the trike easy to carry.

Technical Data

Seat - BodyLink - ErgoMesh 41–49°(41–54°)		Angle 41–49°
- ErgoMesh Premium Bottom bracket height Suspension travel FW/RW Ground clearance sed)	.40–45 cm (16– .6 / 8 cm (2.4 / 3	·18") ")
Wheel size Max. tire width Wheelbase Track width Width Length Turning circle wheel	5 cm (2") 111 cm (44") 78 cm (31") 83 cm (33") 172–206 cm (5"	
Weight from Max. payload Frame material Powder coating (anti-corrosion coat +	130 kg (246 lbs) Aluminum 7005 Blue shade grey	matt,



The position of the bottom bracket above the seat enables efficient power transmission and, together with the low seat, highlights the *Scorpion* fs's sporty character.

Size matters: Scorpion fs with a 26-inch rear wheel



Scorpion⁵26

Looking for the speed king? Scorpion fs 26

Long wheelbase; clear contours; large, smoothrunning wheels; elegantly integrated independent suspension: The dynamic appearance of the *Scorpion fs 26* leaves a lasting impression.

Even your first look at the *Scorpion fs 26* will get your pulse racing. The powerful 26-inch rear wheel and striking chassis suspension make it unmistakably clear: This speed trike is hungry for asphalt and adrenalin!

But the succinct design features also provide impressively stable road holding and make it extremely easy to traverse obstacles.

The best conditions for exciting trips are therefore at your fingertips. The advanced steering geometry (ASG) system enables you to control the trike smoothly and precisely and gives it a small turning circle despite the wheel size expanding the distance between the front and rear axles. The *Scorpion fs* 26's long wheelbase also offers a incredibly smooth ride, more safety, and greater ride pleasure – size matters!

The bestseller from HP VELOTECHNIK

The Scorpion fs 26 is always the right choice! The striking, full-suspension speed trike is for good reasons the best-selling model in HPVELOTECHNIK's trike line-up.

In just a few simple steps, it only takes a minute for you to fold up your Scorpion fs 26 into a space-saving package with dimensions of $123 \times 83 \times 62$ cm (L x W x H, 48 x 33 x 24"). If you remove the wheels as well, the dimensions reduce even further to a compact 93 x 74 x 54 cm (37 x 29 x 21").

The responsive full-suspension chassis combined with dynamic handling characteristics and smooth 26" rear wheel technology create the foundation for two unparalleled trike variants: the trail-conquering *Scorpion fs 26 Enduro* off-road model and the high-performance *Scorpion fs 26 S-Pedelec* featuring electric assistance of up to 45 km/h (28 mph). Feeling intrigued by these velocity machines? Call your HP VELOTECHNIK dealer today to experience these speed champions during an exhilarating test ride!









The HP VELOTECHNIK No-Squat technology represents optimized chassis design. The engineers designed the Scorpion fs 26's chassis to combine outstanding comfort with the efficient transmission of



The core element: On request, your trike can be equipped with a lightweight ROCK SHOX air shock for the rear suspension. This enables you to infinitely select the spring stiffness over a large range using an air pump. The hydraulic oil damping can be adjusted to the temperature and ride conditions. A blocking option is also included

The standard shock unit is a coil over rear shock with hydraulic oil damping made by DNM. By rotating the spring, you can precisely adjust the suspension preload without the need for any tools in order to adapt the chassis to your payload and riding style. Several easily replaceable steel springs can be used to adapt the trike to the rider's weight.

The compact shock length of just 150 mm (6") enables the rear wheel to be positioned directly behind the rider. The benefit to you: Greater traction on hills and agile riding dynamics.

pedaling forces to the road. The key to this is the agile, adjustable suspension and the avoidance of any adverse effects from the drive unit in the chassis:

Pedal kickback refers to the pedals jolting when the chain suddenly tightens or slackens when the suspension activates. HP VELOTECHNIK'S chassis geometry ensures that there is no noticeable change to the chain length during compression.

Compression occurs when pedaling if dynamic forces combine to create a resultant force that causes leverage to take effect at the swingarm's pivot point. For this reason, many trike and bike designers, initially attempt to place the pivoting point within the chain's play. In practice, even such simple designs often suffer from undesired pogo-style oscillations, which have to be compensated for by high levels of damping in the shock. However, simple rubber or elastomer buffers are unable to provide such levels as they only have very low, non-adjustable damping. If the damping is too high on the other hand, the suspension responds poorly and a great deal of drive energy is lost - energy which was meant for your propulsion!

HPVELOTECHNIK's chassis design not only considers the primary chain forces but also the reaction force on the rear wheel where power is transmitted to the road – after all. your trike should dynamically accelerate when you pedal. Consideration is also given to the variable inertial forces of the masses comprised by the trike, rider, and luggage.

The HP VELOTECHNIK engineers individually determine the chassis geometry and optimum drive chain routing for each model. This means, for example, that the Scorpion fs 26 does not simply use the same frame as the Scorpion fs 20 but with an extended rear wheel swingarm. Instead, the full-suspension frame was created meticulously from scratch for the optimum implementation of the 26-inch wheel concept.

What do you feel? Impressive comfort and 100 % propulsion thanks to maximum power transmission.





See how the Scorpion fs 26 performs at nigh speed in our short movie "The

Dream Rider" filmed on the world cup luge track at Oberhof, Germany,

Scan the QR-Code or type: https://youtu.be/S PoOB9RhQg



The large HP VELOTECHNIK chain roller with a weight of just 88 g (3.1 oz) maintains the chain at the distance from the swingarm pivot specified by the designer so as to avoid any troublesome suspension rocking. The chain roller is made from durable, fiber-reinforced, high-strength plastic using an injection molding procedure. It rotates with blissful ease around two sealed. individually replaceable cartridge bearings. The roller has a middle bar on which the chain lies, as on a chainwheel, and which guides the chain guietly through its movements.



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ODio

Gets your pulse racing even just to look at

Your endorphin level highlights the pure riding pleasure



Scorpion fs 26: Everyday becomes ever more extraordinary

You don't necessarily need Alpine passes, hairpin bends, or luge tracks to enjoy the *Scorpion fs 26's* impressive ride dynamics. HP VELOTECHNIK's agile speed trike demonstrates its strengths whether on your commute to work or during spontaneous weekend tours. A glance at the performance data makes it clear: This trike represents ultimate performance and fulfills the highest demands for product exclusivity and versatility thanks to the broad range of optional features. See this for yourself by testing the ideal trike for people who aspire to have the everyday become ever more extraordinary.



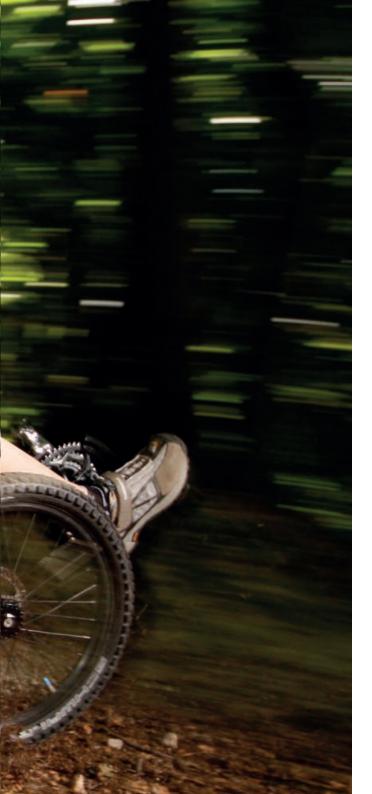


The HP VELOTECHNIK seat systems provide an exemplary ergonomic connection as the key interface between the rider and the trike. The ergonomically shaped *BodyLink* seat (see image) can be individually adjusted and equipped with a headrest. The *Airflow* seat cushion ensures optimum ventilation.

The stable rack for two panniers weighing up to 25 kg (55 lbs) has been optimized to withstand the high lateral forces to which trikes are subjected. The panniers are positioned down low with an optimum center of gravity, and close to the rider to the side of the rear wheel. I4 mm (0.6") tube. Ideally, you should accessorize it with the Top Load attachment, which is attached to the luggage carrier. This platform can carry up to a 10 kg (22 lbs) payload, particularly suitable for more substantial loads.







Rough rider The Scorpion fs Enduro brings trike action to the bike park

With the Scorpion fs Enduro trike HP VELOTECHNIK paves new ways, in the true sense of the word: the trike with chassis technology derived from automotive engineering, MacPherson struts and stabilizing anti-roll bar turns off-road trails into action loaded play-ground for the adrenaline addicted speedfan.

Based on the proven chassis of the *Scorpion fs 26* the *Enduro* trike has been configured with carefully chosen components. Tough offroad tires with especially strong snake bite protection deliver good grip. (SCHWALBE *Smart Sam:* front 20" x 2.35", rear 26" x 2,1"). With these big knobby tires there is no point in adding fenders. The blue platform pedals turn your leg power into direct propulsion. For even more power, you can optionally mount the extra rigid *GX* cranks by SRAM. Off road the load capacity is at 110 kg (243 lbs), on the road the trike, weighing in from 20,5 kg (45 lbs) will take up to 140 kg (310 lbs).

Enduro goes e-trike. Like all other models in the HP VELOTECHNIK range the *Scorpion fs Enduro* can also be equipped with the powerful Pedelec-System from NEODRIVES or SHIMANO *STEPS* with *Di2*. Through the electric motor support of up to 25 km/h (16 mph) (20 mph for USA-version) it's not only that steep climbs become less daunting, but the exciting world of mountain biking becomes accessible to a wider audience. For extra long trips the double battery option from HP VELOTECHNIK instantly doubles the maximum range.



"The trip on the Scorpion is vastly different from anything I have ever experienced on a bike. I am rummaging through the foliage as during a truck-trial (....) Trike trial is more fascinating, than to blast through the terrain with an electric full suspension bike. It is exciting, exhilarating and a refreshing new style." Christoph Listman, head of testing, BIKE 02-14







Video-Link: Franziska Meyer, German Enduro-Champion 2015, rides the Scorpion Enduro at the Bikepark Rabenberg, Germany. Scan the QR-Code or type into your webbrowser: https://youtu.be/2mu7g37t9xs











Officially beautiful

The Scorpion fs Enduro was awarded with the sought-after EUROBIKE Award for outstanding design and quality.

Relaxation in the cockpit

Even in the roughest of terrains you will benefit from the comfortable seating position, intuitive control and the outstanding road holding our recumbent trikes are famous for.

Array of colours

Impressing with the metallic green finish in the daytime – showing off with glimmering yellow at night.

Striking arguments

The grippy 26" rear wheel paired with a versatile SCHWALBE MTB tire featuring strong side wall protection made for a powerful and reliable accelerator.

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Sophisticated chassis technology

Precise cornering and controlled braking.

Perfect on rooty and stony tracks: HP VELOTCHNIK's indi-

vidually suspended wheels supported by MacPherson suspension struts with anti-roll bar stabilising system result

in perfectly controlled riding performance. Your advantage:



The Scorpion fs 26 S-Pedelec up to 45 km/h (28 mph): Good night, resting time!

Leave later, arrive faster: With powerful electric assist you are always on the move with ease.

Scorpedeled



Tail wind on request: Scorpion fs 26 S-Pedelec with an electric motor for up to 45 km/h (28 mph)

In the groundbreaking class of fast electric bikes, HP VE-LOTECHNIK's *Scorpion fs 26 S-Pedelec* focuses on secure and stable road handling for a multi-track vehicle with innovative chassis technology from the automotive engineering sector. The touring trike's low center of gravity and the solid rider support in the ergonomically-designed recumbent seat enables dynamic acceleration. While all our trikes can be equipped with an electric motor to become a Pedelec with supported speeds of up to 25 km/h (16 mph) within the EU or 32 km/h (20 mph, US Class 1), only the *Scorpion fs 26 S-Pedelec* has been engineered for a maximum motor supported speed of 45 km/h (28 mph). In the USA this trike meets all requirements for a Class 3 electric bicycle.

Thanks to the efficient recumbent position, the low air resistance extends the rechargeable battery's range, especially at the high assisted speeds of up to 45 km/h (28 mph). At such high speeds, a well-designed, full-suspension chassis is extremely important.

The Scorpion fs 26 is the perfect base vehicle for powerful motorization and high speeds of over 25 km/h (16 mph). The *S-Pedelec* is driven by a powerful and almost noiseless rear wheel hub motor with a rated peak power of 1000 watts. The German manufacturer NEODRIVES claims an efficiency of more than 85 %. The standard equipment of the *Scorpion fs 26 S-Pedelec* includes a push assist with up to 6 km/h (4 mph), even without pedalling. It has to be started with an initial movement by the rider.

Plenty of energy is supplied by a Li-lon battery with a capacity of 627 Wh. A range-extending energy recovery system enables the recuperation function, which uses the motor as a generator when driving downhill. Even more energy for up to 120 high-speed kilometres (75 miles) is provided by the optional supplemental battery. Like the first battery, it is located deep under the seat to ensure a balanced center of gravity. Once one "tank" is empty, you can exchange the two batteries in two easy steps.

Practicality: The trike, which can carry a load of up to 140 kg (309 lbs), can also be folded compactly for transport in an average automobile in just a few steps. HPVELOTECHNIK's self-locking folding hinge makes the process child's play.

Features of the Scorpion fs 26 S-Pedelec base model:

NEODRIVES Z20 RS Power electric drive • SRAM 30-42-52/11–36 drivetrain with bar end shifters • hydraulic disc brakes, coupled at the front, individually activated at the rear • SCHWALBE Marathon Plus 47 mm tires • luggage rack for two panniers up to 25 kg (55 lbs) • LED light system with B&M IQ-X E headlight and brake light • WingBling turn indicators (extra option for US) • B&M E mirror • Weight from 37 kg (82 lbs) • Standard colors: Cool grey metallic or pure orange matt



Technical Data

System	NEODRIVES Z20 RS			
Available for	Scorpion fs 26 S-Pedelec			
	(outside EU: All 26" trikes)			
Support up to	45 km/h (28 mph)			
Push assist up to	6 km/h (4 mph)			
Range	up to 60 km (37 miles) at level 3			
(flat road, 20 $^\circ$ C, smooth	(up to 120 km /75 miles with additional battery,			
ride at 39 km/h/24 mph)	with additional battery limited folding function)			
Force amplification	5 levels: 0/80/160/240/320/400 %			
(individually adjustable)	(m)			

Max.torque 40 Nm (at the rear wheel) Nominal peak power 1000 VV $\,$



- Rechargeable battery BMZ 48V Li-Ion removable, with lock Energy content 627 Wh Battery weight 4,2 kg (9.3 lbs) Battery life 800 – 1000 charging cycles Charger BMZ 4 A (quick charger) Charging time 4,5 hours no memory-effect Charger weight 1,08 kg (2.4 lbs) Drivetrain SRAM 30-speed bar end shifters
 - 52-42-30 / 11-36
- Features USB, Bluetooth

Operating requirements:

WINNER

WARD 201

The fast Scorpion fs 26 S-pedelec has an EU type approval as a moped (L2e-P), which is valid for EU countries and Switzerland. The EU driving permit for it is included in the car driving license. To learn more about the legal requirements for operating the Scorpion fs 26 S-Pedelec in your homestate, please contact your state authorities or your local HP VELOTECHNIK retailer.





A new definition of curve acceleration









The Trike with SUV-Genes: Scorpion plus

A trip into the countryside, a long distance journey or just a ride into town – no matter where you want to go your Scorpion plus will take you there. With this versatile SUV-trike you will attract attention everywhere. The genes of this trike combine convenience and safety with maximum riding pleasure.

Higher, wider, more comfortable: The designers at HP VELOTECHNIK have applied what the SUV-class demands in the construction of trikes. We want you to have an exceptional view in almost every situation. A seat height of 57 centimeters (22.5") is a unique highlight for this type of bike.

Thanks to the wider frame, it has never been easier to position yourself in a trike. The wide construction achieves impressive tilting stability. Experience the dynamic culture of the chassis of the *Scorpion fs*-class up close to sense the harmony with the solid performance of this SUV trike. Whether compact 20" rear wheel or the smooth running 26" wheel: The DNA of the "Generation Plus" will guarantee a highly refined riding pleasure

The Scorpion plus SUV genes will mutate in just one aspect: Despite its wide frame it can be folded to very manageable dimensions in just one minute. For this purpose, our designers have reinforced the patented quick-folding hinge. And as such, this redesign now increases the maximum load to 150 kgs (330 lbs)!

















Scorpion plus 26: Let the engine run and enjoy life everyday

The backbone of the SUV-trike is the spacious frame. The geometry is based on the striking silhouette of the *Scorpion* with its large 26" rear wheel. Discover the advantages of SUV features with a wider and higher seating position and the irresistible benefits of a trike: a smoother ride, less rolling resistance and better aerodynamics.

Curious? At first glance, the *Scorpion plus 26* is about 10 centimeter (4") higher and wider than its sporty cousin, the *Scorpion fs*. The frame design allows smaller riders from 1.49 centimeter (4'11") to easily mount the stylish full suspension trikes: Have a seat, turn the pedals, and treat yourself to luxurious comfort.

For experts, the actual design of the *Scorpion plus* becomes clearer on closer inspection. For example at first glance the seat position appears to be moved forward to the cross frame. In fact the seat position is further back. This allowed HP VELO-TECHNIK engineers to optimize the center of gravity and give the higher vehicle unprecedented stability.

Your extra bonus: The carriers can hold up to 50 kg (100 lbs.) of luggage while leaving enough space for an optional *E*-assist or two water bottle cages. At the top, the optional *Top Load* platform offers space for light luggage. Thanks to the improved quick-folding hinge, the maximum payload has been increased from 140 to 150 kg (309 to 330 lbs.).



Scorpion plus 20: Big times for small wheels

Small is beautiful! A smaller rear wheel is great for longer rides and you'll notice this immediately when you're on the road with your trike by train or car. When folded, the Scorpion plus 20 saves a smooth 16 centimeters (6") in length compared to the big brother. Fully folded, the pack size is only 81 x 91 x 83 centimeters $(32 \times 36 \times 33", L \times W \times H)$, so you can find a transport place virtually everywhere. When riding, the trike is still very maneuverable: The turning radius is only 4.75 meters (15' 7"), thanks to the shorter wheelbase in comparison to the Scorpion plus 26.

A 20-inch rear wheel means more space elsewhere. With the Scorpion plus 20 you can transport your luggage comfortably. Even larger bags fit easily on the extra wide platform carrier. The carrier, specially designed for this model, does not only take the four bags of up to 50 kilograms (110 lbs). It also widens. You can safely rest a bigger package on the integrated platform luggage carrier. But no matter what you put on your Scorpion plus 20, the loads do not get in the way of other attachments such as a rechargeable battery and water bottles. This also applies to the quickrelease bracket for walking aids from our "Comfort and Ability" range!

If one day you want to carry very bulky loads, you will appreciate your Scorpion plus 20 as a willing packhorse. You can safely use a wide trailer or wherever the two front wheels lead, it follows without any problems.

By the way, the folding process for both 'generation plus' remains as simple as for the other members of the Scorpion family: You only have to open up three quick releases, take off the seat, open the safety lock on the frame - and simply fold the rear end between the front wheels.









Technical Data Scorpion plus

Scorpion plus 20 Seat Height Angle - BodyLink 43 cm / 17" 46-54° - ErgoMesh Premium . 46cm/18.1"(HS 57/22.4") 41-55° Bottom bracket height 37-43 cm Suspension travel .. 6 / 8 cm (FW/RW) (2 / 3") Ground clearence . 15.5 cm (6", statically compressed) 15.5 cm (6", statically compressed) Wheel size FW 20" (ISO 406) Wheel size RW 20" (ISO 406) Max. tire width 5 cm (2") Wheelbase 110 cm (43") Track width 86 cm (34") Length 168-200 cm (5'6"-6'7") Turning circle 4.75 m (15'7") outer wheel Weight from 18.8 kg (41 lbs) Payload max. 150 kg (330 lbs) Frame material Aluminum 7005 T6 Powder coating Cool grey metallic or Magma red / black (anti-corrosion coat colored coat + clear coat) or custom color Rider height ca. 1.49 – 2.00 m (4'11"–6'7") Warranty on frame 10 years

Scorpion plus 26 Height Angle $46 - 54^{\circ}$ 43 cm (17") 46cm/18.1"(HS 57/22.4") 41-55° 37–43 cm 6 / 8 cm (FW/RW) (2 / 3") 20" (ISO 406) 26" (ISO 559) 5 cm (2") 120 cm (47") 86 cm (34") 91 cm (36") 186-218 cm (6'1"-7'2") 5.35 m (17'7") outer wheel from 19.5 kg (43 lbs) max. 150 kg (330 lbs) Aluminum 7005 T6 Cool grey metallic or Magma red / black or custom color ca. 1.49 – 2.00 m (4'11"–6'7")

10 years







Stay mobile: Define your own way with the Scorpion plus 20

Despite often being regarded as mutually exclusive, at HP VELOTECHNIK we like to point out how ergonomics and refined design can be elegantly combined. With the *Scorpion plus 20*, we designed a trike that provides a solution for those who seek ultimate comfort as well as for people with special needs, all built into a versatile and adaptable vehicle with a host of practical functions.

Many people with mobility issues never believed they would be able to ride a bike. But, clearly said: Does anyone have to give up riding because of getting older? Or because of needing accommodation for a handicap? Or because he has to go through a sports rehab? We give a simple answer to all these questions: Not anymore! *Scorpion plus 20* is the solution for how to stay mobile and enjoy the freedom to ride!

Another feature besides having outstanding tilt stability is the ability to access the trike even more easily than the medium high *Scorpion fx* or lower, more sporty *Scorpion fs* trikes. Our developers have made major changes to the geometry to allow just that. The two crossbar elements of the main frame's cruciform now lean forward acting like open arms, inviting users to take a seat with a single movement. The wishbone and stabilizer system were also radically overhauled for this comfort model: Just like the contours of the frame crossbars, they are swept forward to create more space between the wheel and the frame.

It is now possible to easily utilize the extra space between the wheel and the frame. The rider moves right to the edge of the seat and takes his place. Now he comfortably lifts a leg across the front boom and puts his feet on the pedals. Just as easy is getting off the trike: Once both feet are placed securely on one side, no-one has to balance around front boom and pedals.

With a Scorpion plus it is as easy as it gets: Take a comfy seat, pedal at your own pace, and explore new horizons!









Great technology should also look great – clean, tidy and functional. What we firmly believe is that the quality and innovation of the trikes manufactured in our German recumbent factory should also carry over to the accessories. This is especially applicable to people with special needs. Our "Comfort and ability segment" has greatly expanded. Well known accessories just like footrest, hand rest or the quick-lock bracket for walking aids turn to be highly functionally designed recumbent artifacts.







Little helpers by HP VELOTECHNIK to steer you on your way

ErgoPedal and Handrest are equipped with a hook and loop spring fastener featuring a functional snap mechanism. One tug on the fastening – and the hand or foot is released.

The ErgoPedal with safety release can be easily clipped into conventional clipless pedal (SHIMANO *SPD*). Your benefit is that the adjustable trigger on the safety binding ensures that it opens reliably in the event of an accident. It also gives an enormous advantage to anyone doing a sports rehab after a knee surgery. The platform is anodized and width-adjustable. Available in one package with the pedals, you can use the clipless pedals after your recovery to keep on riding.

The ErgoPedal with calf brace provides even more support. This new enhancement is adjustable in many ways, however, the big difference to the ErgoPedal with safety release is that it is firmly attached to the pedal. The quick release bracket for walking aids provides a new and especially important benefit. The design is similar to that used for garden tools, however, we have decisively modified the principle for our trikes with a stainless steel safety clip. The bracket is suitable for tube diameters from 20 to 30 mm (0,8" to 1,2"). Crutches can be pushed in, securely clipped into place and pulled out again with just one hand. And if you like, you can use this accessory as a multifunctional bracket: Any umbrellas or fishing rods to carry along?

Scorpion

Handbike

Olympic honors

Hands-On-Cycle is a revolutionary concept in which just one special unit turns a pedal bike into a hand operated trike from HP VELOTECHNIK: fully encapsulated, with full suspension, optionally equipped with an electric motor and many functional and elegant extras, this was all it took to convince the most successful female cyclist of all time.

It caused quite a stir in the media: Kristina Vogel wants to cycle again! The double Olympic champion and 17-time world champion in track cycling, paraplegic since her serious training accident in 2018, felt ready again after five years without a bike so now she was able to expe-













rience the wind in her hair, the clicking of the chain when changing gear and the centrifugal forces when cornering again.

There is no question that she was in need of a handbike to achieve this. But not just any bike. For Kristina, style, maximum functionality and – of course – speed is key to great design. An intensive exchange of ideas began between her and the HPVELO-TECHNIK team. The *Scorpion fs 20* with the *Hands-On-Cycle* makes quite an impression. The combination of a sporty tricycle and HP VELOTECHNIK's elegant, fully encapsulated handbike unit is unique in the field of hand-propelled vehicles.

We arranged an appointment at the HP VELOTECHNIK development workshop to test whether the bike fits her or not. This was not easy, because Kristina has a more than a full schedule. In addition to her job as a cycling trainer at the School of the Federal Police, she participates on talk shows, flies around the world to comment on the World Cycling Championships on TV, beams into the camera at advertising shoots for cosmetics or glamorously opens the Sports Press Ball as a dance partner on her wheelchair.

She makes the transition from wheelchair to the net seat of the *Scorpion* with energy and power which left us impressed. Now it's a matter of millimetrical fine tuning. Kristina is small, she is close to the 162 cm which is the minimum height spec for *Hands-On-Cycle*. Her legs lie flat on the frame tubes. "Can you do something about this?", she asks.

We did. This is one of the perks of a specialist bike manufacturer. And so the pro's feedback turned into a win-win situation for everyone. We did the second fitting at the eve of *Eurobike* 2023, now with *Foot plates* and *Calf braces*. It fits! The next day, our booth at the world's leading trade fair for the cycling world was packed like never before. TV, radio, newspapers – everyone wanted Kristina with the *Hands-On-Cycle*.

At the photo shoot a few weeks later at Kristina's home, she really gets her *Scorpion fs 20* going. She steers it swiftly along the forest paths in the Berlin countryside. Standard handbikes with their powered front wheel don't have that much grip on soft ground. She rolls even greater on asphalt and comes back with the experience of many pedelec riders: "It's a pity that the motor cuts out at 25 km/h." There is a flash of the former "speed queen" of track cycling: Kristina wants more!



Hand drive

Hands-On-Cycle – fully enclosed and fully integrated

In the Hands-On-Cycle, 20 years of experience in tricycle construction merge with technical sophistication and convincing design to create a uniquely elegant, compact and comfortable composition. In practice, this means that handcycling has never been so safe and inclusive for people with disabilities.

Thanks to Hands-On-Cycle, you can (once again) take off on bike tours and excursions with family and friends. And in the utmost comfort: The *Scorpion plus* models and the *Scorpion fs 20* (photo), which also has full suspension, roll casually over bad roads thanks to the rear-wheel drive with plenty of grip. Our trikes also have an amazingly small turning circle and plenty of space for loading luggage.

Unique safety advantage: HP VELOTECHNIK packs the hand drive, including gears and chain into a closed housing. This prevents rotating and oily drive parts from coming into contact with your upper body and arms.

Built-in convenience: The unit can be easily raised and lowered thanks to the quick-release fastening. When fully upright, it locks into place and you can easily hold on to it to get on and off.

Powerful plus: As an option, we can also equip your hand bike with an electric motor. The rear wheel hub motor Z20 from NEODRIVES supports you with up to 25 km/h (16 mph).



Casual comfort: The ergonomically positioned handles close with a flat rest, which prevents your hands from slipping. You thus avoid having to grip the handles tightly without interruption. This noticeably relieves the strain on your arms.

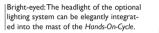
The cockpit: The Hands-On-Cycle provides a clear view of the trike's most important operating and control units. It offers space for additional devices, for example, you can mount your smartphone holder there.

The mast of the Hands-On-Cycle is made of aluminum and has a resistant powder coating in Blue shade grey matt. At the heart of the complex design is a cardan joint. Thanks to its sophisticated mechanics, Hands-On-Cycle manages to combine steering and drive in one element in an extremely efficient space-saving design.

Four-way adjustable

Hands-On-Cycle can be continuously adjusted for people with a height of 1.62 to 2.00 m* (5'3" to 6'6") and arm lengths of 70 to 94 cm* (27" to 37"). Optimization is possible in all three dimensions. The length adjustment range of the handson-cycle unit in the main frame is 6 cm (2.3"); the footrest can be extended by up to 14 cm (5.5"). The mast has an adjustment angle of 22°. The grip width can be varied between 52 and 62 cm (20.4" and (24.4"). Another possibility for adjustments is offered by the flexible seat systems from HP VELOTECHNIK. We recommend the *ErgoMesh Premium*.

 * Approximate value; consult with a specialist dealer as to whether and how Hands-On-Cycle can be used for your personal indications and a test ride are necessary in any case.



Wishful thinking: Hands-On-Cycle is fully integrated into HP VELOTECHNIK's modular system. Just as with the trikes with pedals, you can choose from various gears (chain or hub) as well as braking systems (hydraulic, optionally coupled).

> The hand drive, with integrated footrest is installed in the main frame instead of the usual recumbent front boom. The additional weight is only 7.5 kg (16,5 lbs). Like all outriggers in HP Velotechnik bikes, *Hands-On-Cycle* is length-adjustable. In addition, the footrest is adjustable for length.

Compact for transport

The basic models for *Hands-On-Cycle*, *Scorpion* fs 20 and *Scorpion plus* 20 and 26, are foldable. And remain so even with the hand drive mounted. The difference: The folding size becomes larger, and an additional handle is required: Before you can fold the main frame, the hand drive mast must first be folded to the side.



Hands-On-Cycle



All data from your engine, always perfectly in view.



What is already difficult for many cyclists is often even more complex for hand bikers: giving hand signals when turning. Our optional WingBling turn indicators make it easy.



Hands-On-Cycle is prepared for options such as the foot plates. Another option is the *Lower leg fixation*. Both have Velcro straps to fix the feet and legs.

Technical Data

Length Width Height	83 cm (2'7")
Folded dim (LxBxH)	105 x 83 x 98 cm (3'4"x 2'7" x 3'2")*
Turning circle Weight Riders size	from 25 kg (55 lbs)

* Folded dim. may increase depending on accessories



Chassis

The Scorpion's sting: Advanced suspension technology you can enjoy

Let's start with the best bit: There's no need to read the small print on this page to enjoy the luxurious comfort offered by your Scorpion. All the latest vehicle technology expertise comes pre-installed into your HP VELOTECHNIK trike. Lean back, relax, and enjoy the smooth ride and the scenery around you! Now look forward to the next pothole: Your roughest trails have just become even more inviting to enjoy what German engineers call *Fahrvergnuegen*! Read along to find out the details:

HPVELOTECHNIK's refined suspension system treats you to relaxing comfort. It increases safety by improving control and road holding. And the best part: You save energy – an effective suspension lets you go faster! All unsprung jolts convert part of the propulsion energy into an upward or downward movement of the trike and rider, never to be recovered. On the full-suspension HP VELOTECHNIK trikes on the other hand, only the wheels follow the contours of the rocky road. Even riding along dirt tracks becomes a pleasure!

Important: The quality of a trike's suspension becomes particularly clear when carrying a great deal of luggage or riding on hills. Compare the suspension technology of the vehicles in which you are interested under different ride conditions: Paved streets, undulating roads, and dirt tracks. Load the luggage rack (and the lowrider if available) with heavy bags and check the suspension when riding on hills in low gears. It will quickly become apparent if your pedaling force is converted into undesired pogo instead of powerful propulsion.

The Scorpion trikes' rear suspension uses HP VELOTECHNIK'S *No-squat* suspension concept: The combination of an exceptionally stiff rear frame with the sophisticated positioning of the single swingarm pivot, the large, double ball-bearing-mounted chain roller effectively prevents drive forces from affecting the suspension and avoids unpleasant pedal kickback. Whereas a well-designed suspension should react sensitively to even slight bumps on the road, the frame and swingarm bearing must be built as rigidly as possible so that you can precisely control and dynamically accelerate the trike. The rear swingarm pivots with durable maintenance-free bearings on a precision-machined axle. The elegant triangular design of the rear swingarm creates a slender, robust framework to which the shock unit is connected with a harmonious flow of force. You can choose from either a steel spring or an air shock unit, both tried-and-tested in the MTB sector. Their spring stiffnes and oil damping rate have been finely tuned by our expert engineers.

A big benefit: Whereas simple elastomer buffers become noticeably embrittled at low temperatures, HP VELOTECHNIK's shocks remain reliable and comfortable!

When using the basic DNM DV-22 shock with its steel spring, the oil damping rate is permanently fixed. By adjusting the preload, you can compensate for approximately 10 kg (22 lbs) of change to the payload. In the case of larger changes, you can simply adapt the chassis to the payload by switching to a softer or harder steel spring.

The optionally available ROCK SHOX air shock has external damping adjustment, allowing you to adjust the suspension/damper settings in line with your style and road

conditions. You can even block the suspension. Instead of using steel springs, this ultra-lightweight shock uses air to set the spring rate and has a progressive characteristic curve for excellent bottom out protection. With an air shock pump, you can easily change the pressure and optimize the suspension characteristics.

HP VELOTECHNIK recommends setting the suspension so that your chassis compresses about a third of the total available suspension travel when you get on. This ensures that there is enough negative suspension travel for rapid de-compression in the event of sudden potholes and the total suspension travel is comfortably used in the event of harsh impacts without any hard jolts.

Why does a chassis with efficient suspension design need any damping at all? Mainly, to quickly stop oscillation caused by

bumps on the road so that the chassis is quickly ready for the next bump. Furthermore: The dynamic forces change depending on where the center of gravity is, which is determined by the size and weight of the rider and luggage. A further influence: If a rider works hard and moves his/her upper body unevenly, the suspension can be subjected to additional forces. As a trike rider, you benefit from a further physical advantage over the conventional upright cyclists: In the recumbent position, you pedal forward and thus place few downward forces on the suspension. On the *Scorpion* unwanted effects are suppressed during the the decompression cycle by an oil stream inside a refined hydraulic damper. If you select the lightweight air shock from ROCK SHOX, you can alter the rebound damping settings with an adjusting wheel and optimize your chassis to your specific ride situation. A good setting for maximum comfort is achieved when the rear wheel decompresses completely after a shock and then oscillates only once. Your trike will react to the slightest bumps as quickly as a *Scorpion* can sting.

Did the Scorpion hit its mark? Convince yourself by taking an extensive test ride. Your HP VELOTECHNIK dealer looks forward to your visit!











Your wish: Extra power! Turn your Scorpion into an E-Trike

No other type of bicycle is as perfectly compatible with electric motors as recumbent trikes. Why, is obvious: The ease of pedaling in the ergonomic sitting position makes the ride even more pleasant. The built-in aerodynamic advantage of your recumbent trike can also be leveraged electrically. Less drag means more range. As a unique safety advantage our E-Trikes can be equipped with a turn signal!

Depending on which electric drive system on the trike you pedal, a powerful motor supports you up to three times your pedaling power, depending on the system. With a smile on your face, you can climb the local mountain with a trailer or drive to work quickly and effortlessly.

Especially remarkable is that the perfect pedaling experience does not change with the motor. Thanks to HP VELOTECHNIK programming and impeccable engineering, there is no stuttering, no noise, and no delicate throttle. The e-drive is very safe and the support only starts

when you want it to. It starts as soon as you pedal and ends subtly through electronic sensors when the trike reaches 25 km/h (16 mph) respectively for USA 32 km/h (20 mph, Class I electric bicycle). Higher supported speeds can be reached with our *Scorpion fs 26 S-Pedelec* (see page 36).

This pre-programmed top speed allows your *E-Scorpion* to legally conform to a Pedelec (*Pedal Electric Cycle*) in Europe. It can be ridden in most EU countries without registration, helmet, or license plate. Once over 25 km/h (16 mph), the trike basically rides like a normal *Scorpion*.

The light weight of the trike allows a normal riding feeling, even when the battery is drained. When climbing, the trike has the advantage that it keeps its track even at slower speeds. If you stop at a traffic light, you don't need to set foot on the ground!

You have the choice, because these four different drive systems provide extra power on your *Scorpion*: either the extremely quiet hub

motor from NEODRIVES in the rear wheel or one of the three bottom bracket motors from SHIMANO'S STEPS series. They all reinforce how HP VELOTECHNIK's unique power forward design enhances your riding experience.

Each of these four powerhouses has its own character – just like you. This enables us to offer you a solution that is exactly tailored to your needs. All systems have in common the low centre of gravity of the battery. The *Scorpion* can also accommodate a second battery.

Just like a mini-dashboard the ergonomically arranged, easy-to-read operating elements facilitate the rider's technical monitoring. You reach your destination relaxed, no matter if you want to leave the traffic jam behind or take a big tour with heavy luggage.

E-Trikes

SHIMANO STEPS: Versatility is the key

250W

20mph

Maximum bandwidth: With the *EP801 Cargo, EP5* and *E5000* systems, we use the most advanced motors from the SHIMANO STEPS motor range to fit to our trikes. Each system has it's specific advantages. The very compact *E5000* integrated into the front boom is ideal for the price-conscious. The *EP5* already offers 50 percent more power. The *EP801* high-end system impresses with a maximum power of 600 W and a torque of 85 Nm. We install the *EP801* in the *Cargo* version. It provides full power practically after the first pedal stroke.

Automatic comfort: You can combine all engines with fully automatic gearing. The *EP801 Cargo* comes with two highlights: the continuously variable *Trekking Automatiq* from ENVIOLO and the 10-speed *Cues Di2* derailleur from SHIMANO, which always engages the most efficient gear when riding thanks to *Autoshift Technology*. As with the *EP5*, the proven *Nexus Di2* 8-speed hub gear system is also available for the *E5000*. The *EP5* can also be optionally equipped with the 5-speed automatic hub *Nexus Di2*. The Result: You let the machine work and dedicate yourself to relax to enjoy the surroundings!



You prefer to have it in your own hands? Then choose from our manual gearing systems. If you mostly ride on flat terrain, go for the 8-speed derailleur, which also comes with an attractive price. Fans of high-end technology, on the other hand, will enjoy the legendary 14-speed hub gear from ROHLOFF, the Speedhub.

The slim silhouettes of the motors blend discreetly into the multi-award-winning design of the *Scorpions*. The large chainrings provide lower chain forces at high torque, which has a positive effect on the lifespan of the chain and sprocket compared to many other bottom bracket motors. The forces of rider and motor go directly to the chainring, even at speeds above the pedelec support limit of 25 km/h (16 mph) or, for US Class I electric bikes, 32 km/h (20 mph). Your power arrives at the rear wheel without noticeable power loss.

With a range of up to 191 km (118 miles), the STEPS system delivers a powerful result from the efficient energy management of the standard 418 Wh lithium battery.

The range increases by almost a third if you alternatively choose the optional battery with 630 Wh capacity, which we supply with 4 A quick charger. The externally identical batteries can be easily removed by unhinging them and removing them off from the side. They snap back into place just as quickly and easily. If you have a wall outlet available once you have reached your parking spot, you can even recharge the battery without removing it from the trike.

Additionally, all those who want to be on the safe side when it comes to range can choose the optional second battery, which always comes with 630 Wh capacity. This backup power source travels safely on the special mount under the seat. To supply the system with power, you can replace a battery with the second one by switching them from side to side during a short stop.

Top: The displays are always located at the end of the handlebar. On the large, high-contrast black-and-white-display, the control button for the light is positioned directly below it.

Center: The battery is located under the seat with a favorable low center of gravity on the right or left side, depending on the model.

Bottom: The STEPS motors are positioned right at the front in the beautifully shaped front boom with a forged brakket from HP VELOTECHNIK.







SHIMANO STEPS E5000

By far the most affordable electric motor in our modular system comes in a particularly small housing. This fits elegantly on the bottom bracket boom of your Scorpion, which is specially forged for the STEPS motors.

With its harmonious characteristics and

a well-dosed torgue of 40 Newton meters, the E5000, in combination with the shifting options we have selected, is the ideal companion for comfort-oriented riders.

Comfort meets versatility: The large surface of the black-and-white display (6,9 cm / 2.7") ensures good readabi-



lity with its high-contrast display. The system impresses with its very easy handling, including the practically integrated light button. Wireless connectivity to smartphone apps and a variety of bike computer functions underline the versatility of the STEPS E5000 build by Shimano.

SHIMANO STEPS EP5

Surprising: The system is located in the mid-price segment, but is very powerful. A torque of 60 newton meters means an increase of 50 percent compared to the E5000 motor.

This expands the range of use of your trike immensely and ensu-

res a wide range of applications in everyday life. The EP5 delivers plenty of power both on hills and as a towing machine in front of a children's trailer or cargo trailer.

Comfort fans choose the Nexus Di2 hub, with either 5 or 8 gears. You will already appreciate the advantages of the

fully automatic gearing, which can be activated at the push of a button, after the first lap. When stopping at traffic lights, for e xample, the noworry package automatically engages a low gear. Otherwise, too, the Nexus Di2 always shifts into the most efficient gear. To ensure that the shifting process is smooth and without jolts, the system automatically reduces the assistance for a moment.



SHIMANO STEPS EP801 Cargo

The flagship: The SHIMANO EP801 catapults the topic of e-mobility into a new dimension. All modules have been revised and equipped with new software. The top system impresses with a torque of 85 newton meters. It goes without saying that HP VELOTECHNIK includes a large color display (7.1 cm / 2.8") with numerous bike computer functions.

SHIMANO's new technologies enable fully automatic gear changes for the first

time on a derailleur. The system always selects the most efficient gear when riding thanks to the Autoshift technology. But it can do even more. Freeshift technology detects braking: parallel to deceleration, thus the chain is shifted to a lower gear.

Ingenious additional feature: Via our app, you can program the motor

with two completely individually tunable profiles. This is perfect if you want to get the bike ready for different areas of use or riders in seconds at the touch of a button on the display.

We chose the Cargo version of the EP801 with care. It allows you to get full power from the motor practically with the first pedal stroke. The maximum assistance ratio is a whopping 400 percent.



E-Trikes



NEODRIVES Z20: Innovative German power for connoisseurs

The typical features of rear wheel hub motors are that they are incredibly silent, dynamic and versatile. An outstanding choice for this

type of drive is the NEODRIVES Z20: Optimized for dynamic riding, it comes with a futuristic design and an energy efficiency of 85 percent coupled with easy-use features.

The stats of the NEODRIVES Z20 speak for themselves. The maximum degree of support is 300 percent. When accelerating, the motor increases its maximum power output to up to 450 watts. With a 576 Wh battery, you can achieve ranges of up to 136 kilometers (84 miles). The whisper-quiet rear-wheel drive is a gearless motor. Thus engine power is not lost to the chain or sprocket. This protects these drive parts,

which will last up to four times longer on average than with bottom bracket motors. To ensure the highest quality standards, the motors are made in Germany. A particular advan-

tage of a hub motor system in contrast to bottom bracket motors is that they can recover energy when riding downhill, and therefore increase your range. This technology is called recuperation. Just push a button on the control unit and the motor operates as a generator. This charges the battery and also protects the pads of your disc brakes. The drive also protects the environment and your wallet. With modern green electricity, a full charge of riding pleasure costs you only pennies per day.

Unique in the recumbent bike sector: The Scorpion with hub motor has a reverse gear for maneuvring. Reverse travel at up to 3 km/h (1.86 mph) is activated via a submenu in the control unit and started with an initial movement by the rider.

Tailwind with a thumb: The remote control of this innovative system is mounted directly on the handlebar grip. The most important settings can be controlled by using your thumb. The developers have arranged the five buttons ergonomically in such a way that their size and positioning are intuitive right from the start. In other words, the large plus and minus buttons for switching through the support cannot be missed.

The NEODRIVES Z20 also makes it easy to take a closer look at data such as: remaining range, battery charge level, motor support, daily distance travelled or average speed. Thanks to the convenient user interface, the menus on the 2.4-inch display can be scrolled quickly and easily.

HP VELOTECHNIK trikes give you the choice of positioning the NEODRIVES display either next to the handlebars (picture on the left) or the "Top View" above the handlebar end for best readability.

To reinforce the high quality, we offer you two options for gearing choices: The SRAM 30 derailleur system with 3×10 very finely tuned gears, and the robust *C1.12* bottom brakket gearbox from PINION with an enormous gear ratio range of 600 percent.







Which E-Drive fits best?

Four motors in the range up to 25 km/h pedal assistance, each with several drivetrain options, optimally cover your demand for additional electrical energy.

Smooth and comfortable: The STEPS E5000 has a very harmonious feel with a torque of 40 Nm. In combination with the 8-speed SRAM X4 derailleur, you have a good companion for relaxed tours in moderately demanding terrain. If, on the other hand, you often drive in hilly terrain or in the city with frequent starts and stops, the STEPS EP5 with 60 Nm and the Nexus Di2 automatic transmission from SHIMANO is the perfect choice. The rear hub shifts fully automatically and thus offers maximum comfort and safety: You can fully concentrate on the road without having to think about shifting gears.

If you want endless power on the mountain or want to turn your trike into a packhorse, you will quickly become a fan of the *EP801 Cargo* system

with 85 newton meter. Regardless of the torque specifications, which can only be compared to a limited extent, the most important factor for many people is how much thrust the engine develops at low speeds. Here, the *EP801 Cargo* version and the *Z20* hub motor go head-to-head. Beyond all power comparisons, the *Z20* scores with a highly sensitively tuned driving behavior. Nature lovers will appreciate the practically inaudible power plant in the rear wheel.

In contrast to hub motors, the bottom bracket drive doesn't know the meaning of overheating when driving slowly on a very steep mountain. On those uphill grades, you are always well protected with SHIMANO *STEPS*. By the way: comfortable uphill riding is an established engineering domain of our stable trikes.

All four systems offer impressive ranges. Invest even less thought into the location of your next power outlet with our optional extra battery. NEODRIVES wins the comfort rating in this exciting area. Instead of switching batteries, you simply switch a single cable. Standard mount for the NEODRIVES display: the display beside the handlebar. A great solution for riders who do not want the display constantly in view, and which also gives people with Comfort and Therapy accessories on their trike easier entry and



The Top-View mount on the end of the handlebar brings the NEODRIVES display closer, but allows less space for entry and exit if the Stand-Up Aids are mounted. One-Hand-Left users will also experience reduced folding capabilities with the display mounted on the left side.

exit.

The SHIMANO STEPS System (on the picture E5000) requires the display to have the Top-View mount — with all the advantages of this mounting position, but without any of the drawbacks: There are no restrictions for any of the accessories!



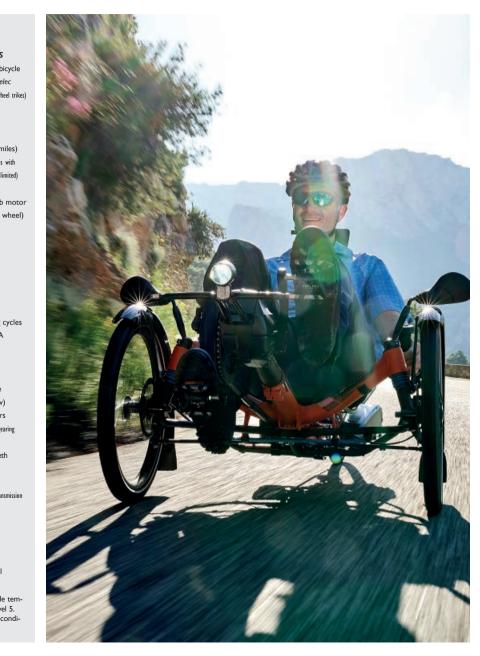
All E-Drives in comparison

E-Trikes

Technical Data

System	SHIMANO STEPS E5000	SHIMANO STEPS EP5	SHIMANO STEPS EP801 Cargo	NEODRIVES Z20	NEODRIVES Z20 RS
	US: Class I electric bicycle	US: Class I electric bicycle	US: Class I electric bicycle	US: Class I electric bicycle	US: Class 3 electric bicycle
Available for	all Scorpion-Models	all Scorpion-Models	all Scorpion-Models	all Scorpion-Models	Scorpion fs 26 S-Pedelec
	excl. S-Pedelec	excl. S-Pedelec	excl. S-Pedelec	excl. S-Pedelec	(Outside EU: all 26" rear wheel trikes)
Support up to	25 km/h (16 mph)	25 km/h (16 mph)	25 km/h (16 mph)	25 km/h (16 mph)	45 km/h (28 mph)
Push assist up to	6 km/h (4 mph)	6 km/h (4 mph)	6 km/h (4 mph)	6 km/h (4 mph)	6 km/h (4 mph)
Reverse gear	-	-		up to 3 km/h (1,8 mph)	
Range*	up to 189 km (117 miles)	up to 184 km (114 miles)	up to 191 km (118 miles)	bis 136 km (84 miles)	up to 60 km (37,5 miles)
	(up to 463 km / 288 miles with	(up to 460 km / 286 miles with	(range with additional battery tbc.,	(up to 290 km / 180 miles with	(up to 120 km / 75 miles with
	additional battery, folding limited)	additional battery, folding limited)	folding limited)	additional battery, folding limited)	additional battery, folding limited)
Force amplification	3 levels: Eco / Normal / High	3 levels: Eco / Trail / Boost	3 levels: Eco / Trail / Boost	5 levels	5 levels
Noise level	silent bottom bracket motor	silent bottom bracket motor	very silent bottom bracket motor	extremely silent hub motor	extremely silent hub motor
Max. torque	40 Nm (at the front motor)	60 Nm (at the front motor)	85 Nm (at the front motor)	40 Nm (at the rear wheel)	40 Nm (at the rear wheel)
Rated power	250 W	250 W	250 W	250 W	400 W
Maximum power	420 W	500 W	600 W	450 W	1000 W
Rechargeable battery	SHIMANO 36V Li-Ion (Gene-	SHIMANO 36V Li-Ion (Gene-	SHIMANO 36V Li-Ion (Gene-	BMZ 36 V Li-Ion	BMZ 48V Li-Ion
	ration 1), removable	ration 2), removable	ration 2), removable	removable	removable
Support	up to 200 %	up to 300 %	up to 400 %	up to 300 %	up to 400 %
Energy content	.418 Wh	418 Wh	418 Wh	576 Wh	627 Wh
Battery weight	2,6 kg (5.7 lbs)	2,6 kg (5.7 lbs)	2,6 kg (5.7 lbs)	3,5 kg (7.7 lbs)	4,2 kg (9.2 lbs)
Battery life	800-1000 charging cycles	800-1000 charging cycles	800-1000 charging cycles	800-1000 charging cycles	800-1000 charging cycles
Charger	Shimano (2 A)	Shimano (2 A)	Shimano (2 A)	BMZ fast charger 4A	BMZ fast charger 4A
Charging time	.6,5 hours (3,5 hours 80%)	6,5 hours (3,5 hours 80%)	6,5 hours (3,5 hours 80%)	4 hours	4,5 hours
Charger weight	0,5 kg (1.1 lbs)	0,5 kg (1.1 lbs)	0,5 kg (1.1 lbs)	0,85 kg (1.9 lbs)	1,08 kg (2.4 lbs)
Additional weight	ca. 8,2 kg (18.1 lbs)	ca. 8,4 kg (18,5 lbs)	ca. 8,1 kg (17.9 lbs)	ca. 8,7 kg (19.2 lbs)	-
Display	Black/white display	Color display above	Color display above	Black/white display above	Color display above
	above handlebar	handlebar (Top View)	handlebar (Top View)	handlebar (Top View)	handlebar (Top View)
	(Top View)			or side of handlebars	or side of handlebars
Drivetrain	SRAM X4 8 speed derailleur	SRAM X4 8 speed derailleur	Shimano <i>Cues Di2</i> 10 speed derailleur	SRAM 30 speed derailleur gearing	SRAM 30 speed derailleur gearing
	gearing, twist shifter	gearing, twist shifter	gearing (electric) with button	bar end shifters	bar end shifters
	20": 44 / 11- 34 teeth	20": 44 / 18 teeth	20": 50 / 1 I-43 teeth	20": 60-52-40 / 11-36 teeth	52-42-30 / I I-36 teeth
	26": 38 / 11- 34 teeth	26": 44 / 23 teeth	26": 44 (SFN: 38) / 11– 43 teeth	26": 52-42-30 / 11-36 teeth	
Drivetrain	SHIMANO Nexus Di2 8 speed,	Shimano Nexus Di2,	ROHLOFF Speedhub 14 speed	PINION CI.12	PINION CI.12
(alternatively)	automatic rear wheel	automatic rear wheel	(rear wheel internal gear hub) or	12 speed internal gear transmission	12 speed internal gear transmission
	internal gear hub	internal gear hub	ENVIOLO Trekking Automatiq		
		(5 or 8 speed)	(stepless planetary gearbox)		
Extras	optionally with big battery pack	optionally with big battery pack	optionally with big battery pack	USB interface	Touchscreen
	(630 Wh) and fast charger (4 A;	(630 Wh) and fast charger (4 A;	(630 Wh) and fast charger (4 A;	Bluetooth interface	USB interface
	2,5 hours: 50%); on option	2,5 hours: 50%); on option	2,5 hours: 50%); on option	on option: additional	Bluetooth interface
	additional battery (630 Wh)	additional battery (630 Wh)	additional battery (630 Wh)	battery (576 Wh)	on option additional
	Bluetooth interface	Bluetooth interface	Bluetooth interface		battery (651 Wh)

* Range as stated by manufacturer: SHIMANO STEPS E5000, EP5 and EP801 Cargo: support mode Eco, flat terrain, 23 km/h, system weight 105 kg (231 lbs), outside temperature 23°, without electric gearing and light (standard battery with 418 Wh); EP801 Cargo with Eco mode on Level 3 (27 Nm) and start of support with Level 5. NEODRIVES Z20: 100 W rider input, support level 1, flat terrain, smooth roads, 70 kg (154 lbs) payload incl. rider; NEODRIVES Z20 RS: support level 3 in optimal conditions (flat terrain, temperature 20°, even ride, pedalling power driver 80 W, speed 39 km/h (24,2 mph); with support level 5 up to about 40 km (24.9 miles).



Seating systems

Take a seat and enjoy: Seating systems from HP VELOTECHNIK offer pure ergonomics

The comfortable seat is a major advantage of a recumbent. Recumbent riders who rave about their *Scorpion* will tell upright bicycle riders who suffer from permanent pressure points when sitting, about two unbeatable benefits. The first is comfortable seating and the second back-friendly ergonomics.

The relaxed feel of the comfortably reclined position is an important benefit of your HP VELO-TECHNIK trike. The seat position has more of an impact on how your ride feels than any other component.For exactly these reasons, HP VELOTECHNIK gives top priority to the design of the seat as the central contact point between rider and bike.

Imagine getting off your bike after a long and energetic day of riding and your only ailment is the achiness in your thighs. You can relax and forget any concerns about bruises on your bottom, numb private parts, painful spinal discs, or a stiff neck. The secret lies in the perfect fit. The premise for powerful pedaling without pressure points is an ergonomically optimized recumbent seat in which the entire upper body can be supported over a large area.

Since everyone is built differently, we have developed three seat systems: the sporty hard shell seat *BodyLink*, the breathable mesh seat *ErgoMesh* and the flexible mesh seat *ErgoMesh Premium*. This allows you to optimize your bike for a wide range of uses.

Sit back and experience how all three seat systems can flexibly adapt to your body shape. On the following pages we will show you what modern recumbent seating systems are capable of and what accessories you can use to equip your individual oasis of well-being.

Test it for yourself: Your HP VELOTECHNIK dealer will happily show you the great ergonomics offered by these seats!

NET SEAT

ErgoMesh

Cool comfort that breathes: Mesh seats ensure the best possible air circulation on the contact surfaces. When you lean back, you can feel how pleasantly the *ErgoMesh* seat surface adapts to your back and buttocks. The ergonomically optimized support with a maximum of individual adaptability succeeds thanks to up to eight tension straps as well as four *OrthoFlex*[®] cushions.



NET SEAT

ErgoMesh Premium

Comfort with maximum flexibility: The *ErgoMesh Premium* is just as airy and adaptable as the *ErgoMesh* seat – but in terms of flexibility and adjustment options it even surpasses it. With the *Seat-O-Flex* hinge developed by HP VELOTECHNIK, you can adjust the angles of the backrest and seat surface independently of each other on this premium seat.



SHELL SEAT

BodyLink

Hard shell, efficient power development: The advantage of a shell seat is its ultra-precisely defined shape. Our sophisticated technology nevertheless offers highly flexible adjustments. This makes the anatomically shaped *BodyLink* the perfect abutment for the best possible power transmission when pedaling. Sporty riders on the hunt for new speed records appreciate this.



OrthoFlex® - perfectly tailored ergonomics for the mesh seat

The basic elements of the OrthoFlex® technology are four highly breathable cushion blocks made of open-pored polyurethane material. They can be individually cut to size. You simply insert these 3D cushions into the side pockets of the seat, align them according to the shape of your back and close the pockets with velcro. This fixes the four elements in a non-slip position. If the alignment is not yet as desired, one is easily able to readjust the cushions while sitting: Simply take a seat in *ErgoMesh* or



ErgoMesh Premium, open the velcro fastener and optimize the cushion position.

OrthoFlex® was originally developed with orthopaedic specialists for use in the *Gekko fxs* children's bike that grows with the child. But why should only the youngest benefit from such smart technology? Combine the advantages of the simplest handling and maximum flexibility to get the greatest possible adaptality.

Enjoyment depends on the right position

ErgoMesh seat

ErgoMesh – the breathable mesh seat

The ErgoMesh seat incorporates a high-strength aluminum frame, which is anatomically designed for ergonomic back support. Seven tension straps and four OrthoFlex® pads are used for individual adjustment.

The washable seat cover has a two-layer construction. Our engineers have chosen a very air-permeable mesh fabric as the base material. In combination with the broad tension straps, it has the right level of elasticity to prevent bruising from your belt or thick clothing seams. On top of this is a 3D knitted fabric with a cut to fit the body. The abrasion-resistant material wicks away sweat and is therefore used on the main contact areas. Its contours define the areas where you insert the four OrthoFlex® elements from the side. And finally, the cut shape of the 3D knitted fabric in combination with the discreet blue contrasting topstitching gives the ErgoMesh seat its sporty, dynamic look.

The ErgoMesh even has one advantage over the ErgoMesh Premium: an integrated zip pocket. Placed on the upper edge of the backrest, keys and the (very) small belongings fit in to that pocket - or the optional rain cover. If you need more storage space, simply equip the ErgoMesh with the optional Add-on bags.



on the Scorpion fx

This is what ErgoMesh and ErgoMesh Premium have in common

Even though the frame shape of ErgoMesh and ErgoMesh Premium is fundamentally different, they are like twins in many ways. Find out which comfort options and accessories you can use to upgrade both seats to a unique oasis of well-being; here shown on the ErgoMesh Premium.



ErgoMesh Premium – the best of two worlds

The premium version: For the first time in recumbent mesh seat design, the *ErgoMesh Premium* allows the angle of inclination of the seat and backrest to be adjusted independently. By that it combines the best of two worlds: the ergonomically adjustable fit of a partially flexible hard shell seat with the airy comfort of a mesh seat.

The frame is made of high-strength aluminum tubes and gives the premium seat its unmistakably defined contour. For outstanding comfort the *Ergo-Mesh Premium* combines a unique material mix of six different woven and knitted fabrics. This makes the seat both highly breathable and comfortable. In addition the seat is highly adjustable.



ErgoMesh Premium seat

Unique: Seat-O-Flex

The Seat-O-Flex joint is the linchpin for your best possible comfort. Before all other innovations in this superlative seat, the developers at HP VELOTECHNIK were convinced that for maximum flexibility, the seat and backrest should be freely adjustable and independent of each other. Adjusting the angle of the seat as a whole, you can already do this with the ErgoMesh. With it the rider can choose either the aerodynamic reclining position or the upright position for a wider field of vision. But the rigid overall construction also means that in a very upright position it offers less support to the front. Also at a very flat angle some people feel pressure from the front edge of the seat. You will enjoy the new freedom with the Seat-O-Flex technology in the ErgoMesh Premium seat by your ability to adjust the backrest and seat completely independently from each other. Experience this unbelievable comfort and find out how much difference 14 deeree backrest angles can make.

Multi section design

In order to provide optimum support for the back and buttocks, the ErgoMesh Premium seat is divided into eight large cushion zones. The individual sections are separated by ventilation channels. The structure combines aesthetics and functionality by providing the greatest possible air supply precisely in those areas where the body sweats most.

Seat with contour

The aluminum frame (6061 T6) with its elaborately shaped 3D outline defines a new standard for recumbent seats. The design challenges that the engineers overcame were outstanding. The front edge of a recumbent seat has to fulfil two seemingly contradictory tasks: it must provide firm support to the front, but at the same time offer comfortable freedom of movement for the thighs when pedaling. The *ErgoMesh Premium* delivers on that perfect shape for maximum support.

Details make the difference: A glance at the upper seat mount on the ErgoMesh Premium shows that in contrast to the ErgoMesh seat and BodyLink, the mount with its characteristic long slits can be folded away flat. This makes transport easier and saves space.

Package measure: 68 x 41 x 24 cm (26.8" x 16.1" x 9.4")

Small is beautiful

You have two options for transporting the bike in the car. You can leave the seat on the trike and, after releasing a quick release, simply fold it forward. This will make your *Scorpion* nice and flat. If you want to transport the trike folded, remove the seat. You'll then also have two choices. With the seat folded, the *ErgoMesh Premium* becomes short and compact. Or it can also be fully opened. With a height of 16 cm (6.3"), the flat stretched seat leaves plenty of room in your car for your trike and your luggage.



Package measure (L x W x H): 89 x 41 x 16 cm (35" x 16.1" x 6.3")

Premium upholstery

The construction of the ErgoMesh Premium seat is characterized by a complex material mix. The seats made of simple foam used on some recumbents can sometimes offer a pleasantly cushiony feeling during the first seat test - but they usually prove to be too soft on long rides, and leave the pedalist in his own sweat. The ErgoMesh Premium, on the other hand, has a multi-laver structure tailored to the frame: Between the widemeshed nylon base mesh and the abrasion-resistant surface knitted fabric, a second, 12 mm thick spacer knitted fabric ensures a very high level of breathability combined with a

very good cushioning effect and firm support for your back.

BodyLink seat



ward. A back muscles. TH use recumbents: est benefits of a nor does not restric does not restric e Sommer has dou iju-ter than any fut pe Do recumbent r

The rider is the benchmark. In the recumbent position, the pressure on the spinal discs is a third of that when bent forward. Active sitting and pedaling strengthens the back muscles. The urologist Prof. Porst advises people to use recumbents:" This means of transport offers all the benefits of a normal bike but with the added benefit that it does not restrict the blood flow around your genitals." The sports medicine specialist and urologist Prof. Frank Sommer has done the research: The recumbent seat is better than any futuristically designed bike saddle. Do recumbent riders love for longer?

The height and tilt angle of the head rest can be adjusted.Washable cushion with reflective strips and webbing for inserting battery-powered rear lights. A great bag:The microbag has a 1 liter capacity for storing life's most important little items. Detachable from the seat, it can also be used as a practical hip bag.

The blue, ripstop-nylon rain cover can be stored in the microbag behind the seat.



Optimum ventilation with the Airflow seat cover. The breathable mesh fabric is combined with a comfortable cushion. Air flows through large openings in the spinal canal.

This seat is completely tailored to you: BodyLink – ergonomics are flexible!

The BodyLink seat by HP VELOTECHNIK is tailored to the natural S-shape of the spine: The combination of a rigid, anatomically-shaped hard shell seat and a slightly curved back rest with a flexible connecting section offers you perfect support over a large area. The two-part design allows the upper and lower parts to be aligned steplessly and independently of each other within a defined angular range.

With two quick-release levers you can fix the position of the lumbar support in your lower back area and at the same time the height of the front edge of the seat. With the third quick release, you can set the angle of the backrest in seconds: upright in the city, flat and fast in the country. The appeal is in the variety. At the same time, the *BodyLink*'s narrow backrest, compared to mesh seats, gives you plenty of freedom to move your upper arms, even in the upright position. An excellent basis for dynamic driving maneuvers and lots of driving fun.

On the practicality side, you can stipulate your seat size with millimeter-precision; the length of the *BodyLink* is infinitely adjustable. For shorter riders, an adaptor moves the seat forward by about 4 cm (1.6"). HP VELOTECHNIK manufactures the innovative recumbent seat from fiber-reinforced plastic with a lightweight foam core and a reflective side edge for improved visibility in the dark. The standard version is padded with EVA foam, while the optional *Airflow seat cushion* provides immediate and pleasant ventilation.



High or wide – the main thing is to sit casually!

Change your level more often: The orthopedically convincing seat systems from HP VELOTECHNIK are available in several heights. Thanks to the quick-release fastening, they can be removed in 15 seconds and thus interchanged in no time at all.

In addition to the design of the *Scorpion*, it is above all, the seat height that determines the character of your vehicle. Low seating allows sporty, dynamic driving with maximum tipping stability. High seating allows easy entry and exit and offers a good elevated view, but requires adapted cornering speeds.

The suffix HS in the name stands for high seat. Mounted on HP VELOTECHNIK's highest trike, the foldable *Scorpion plus*, the airy *ErgoMesh HS* as well as the flexible *ErgoMesh Premium HS* offer a seat height of 57 cm (22.4"). This is higher than your office chair! When you get home, the high seat puts you comfortably at eye level with drivers in traffic. For the sporty drive on the weekend,

touring on a lower seat like the *BodyLink* ensures low air resistance, efficient use of pedaling power and maximum stability in fast bends. Suitable for the high seats, the optional long handlebar offers an 8 cm (3.1") higher grip position. This is ideal also for smaller riders on lower seats. *HS* seats are available for all *Scorpion* models except for the *Scorpion fs 26 S-pedelec*.

Big is beautiful: Both the *ErgoMesh* and the *ErgoMesh Premium* seat are available in a lush XL version. The 38 cm (15") wide *ErgoMesh* grows to a width of 43 cm (17") as *ErgoMesh XL* or *HS XL*. The seat depth increases by 5 cm (2") and the backrest height by 4 cm (1.6"). The *ErgoMesh Premium* seat (41 cm / 16.1" wide) has a 46 cm (18.1") wide seat surface as *ErgoMesh Premium XL* or *HS XL*, with an increase in seat depth and backrest height of 3 cm (1.2") each.



Seat widths

ErgoMesh seat: 38 cm (15") width 25 cm (9.9") seat pan 55 cm (21.6") back rest

ErgoMesh Premium seat: 41 cm (16.1") width 24 cm (9.4") seat pan 63 cm (24.8") back rest



ErgoMesh XL seat: 43 cm (17") width 30 cm (11.8") seat pan 59 cm (23.2") back rest

ErgoMesh Premium XL seat: 46 cm (18.1") width 27 cm (10.1") seat pan 66 cm (26") back rest



Seating systems



Perfect break-time reading: The Scorpion news

"The new Scorpion fs speaks for itself. (...) When put on our cobblestone test track, it really had the wow factor: The full suspension irons out all bumps with subtle precision and eagerness." AKTIV RADFAHREN

"Thanks to the smaller wind resistance area, recumbent riders need to use less energy to travel at the same speed as an upright rider with a larger wind resistance area. To top off this blatant injustice: the recumbent rider is also seated more comfortably. Comfort that turns the *Scorpion*'s speed into a relaxed experience. (...)

The *Scorpion* is most impressive when abruptly changing direction on a slalom course, at high cornering speeds, and when braking with the quickest possible deceleration. Simply pull on the handlebar or apply the brake on one side only; until you have learned to corner more quickly by correctly applying the brake on the inside of the bend, the award-winning chassis is extremely forgiving. After all, *Scorpion* riders want one thing above all: fun." FRANKFURTER ALLGEMEINE ZEITUNG

"Ride to the top and the grandiose view of the Danube opens out in front of you. (...) The bottom brakket with the large 60 tooth chainring has already started to descend, the *Scorpion* picks up speed by itself.

The under seat steering lies firmly in my hands, two fingertips touch the brake levers for the two disc brakes on the front wheels.

Four pedal rotations with full pressure from my back and the *Scorpion* accelerates like a rocket. Click, click, move the thumb lever for the rear shifter right forward, full speed ahead!

We're taking off; my heart jumps for joy! At the bottom, I encounter a gravel parking lot – the perfect place to stop: I hit the lot at an angle, the right wheel rumbles over the ground, the rear brilliantly absorbs the grassy cross-ridge in front of me. There is no risk of skidding despite the loose ground and no sensation of tipping.

Hard on the brakes and the Scorpion stops like a Porsche, standing still in a huge cloud of dust – I thump my thighs with joy. Brilliant!" AKTIV RADFAHREN **"The Scorpion is** a comfortable travel and touring trike with an aluminum frame. As it only has one rear wheel, HP VELOTECHNIK does not need a differential and can use the suspended rear wheel swingarm of two-wheeled recumbents. That offers ride comfort. The short wheelbase enables cornering maneuvers like those with a go-cart." ABFAHREN

"Don't let anyone say that trikes are for beginners or old ladies: The *Scorpion* trike enables riders to climb hills that defeat many mountain bikers." PM MAGAZIN

"HP VELOTECHNIK has put a great deal of expertise as a recumbent manufacturer into the *Scorpion*: With the full-suspension rear axle, special racks, and disc brakes on two front wheels, the exotic vehicle is perfect for both long trips and short everyday journeys." TREKKINGBIKE

"The HPVELOTECHNIK Scorpion is one of the finest trikes available. (...) This trike rides like a refined tadpole that has been built for years. HPVELO-

Tedmik und Moor

TECHNIK is serious about recumbent design and the *Scorpion* demonstrates this – and shows that they are very serious about the trike market. The *Scorpion* is one impressive trike." RECUMBENTCYCLISTNEWS

"I think the best way to sum up the *Scorpion* is that it is smooth: the transmission is quiet, the steering is light and easy-action, and the suspension does its job without drama. It rolls along willingly, and those fat frame tubes really lend it a solid feel." VELOVISION

"The Scorpion is beautiful. It's very slick and very modern with a sort of "practical performance" look. (...) In fact the word "solid" is a word that I've often used to describe HP VELOTECH-NIK's bikes and it also applies to their first trike. The *Scorpion* has that same secure, dependable and silent personality that the Street Machine Gte, Speedmachine and Spirit all have. It's hard to describe but it's very confidence inspiring. It definitely will give you faith enough to launch out on any journey without worry of your 'bent letting you down." BENTRIDERONLINE "The test verdict: Outstanding. Innovative technology

Radiafahren Innovation

meets recumbent. We were impressed with the HP VELOTECHNIK *Scorpion fs* right from minute one. The sporty ride properties, the excellent comfort, and the great workmanship are all-round impressive. There is a definite risk of getting addicted to this bike!" AKTIV RADFAHREN

"With the Scorpion, HP VELOTECHNIK rings to the market a so-



phisticated, expertly-made touring trike, which impresses riders with sophisticated technology, well-selected components, a safe ride, and a whole lot of riding fun! A test ride is a must!" AKTIV RADFAHREN



The recumbent manufacturer HP VELOTECHNIK has been named Germany's best bike manufacturer by the sector association VSF for five

time. The bike dealers that are members of the VSF assessed their most important suppliers in categories such as product quality, delivery quality, customer service, and complaint handling. HP VELOTECHNIK received particular praise for its high quality and outstanding customer service.





Sylvia, Myrtle the turtle and the big freedom

Sylvia Halpern can easily be called an icon in the US recumbent scene. She has been on tour with a Scorpion fs 20 for more than ten years now – and has been completely thrilled for just as many years.

She is just as much at home at major events like the Tater Tot Recumbent Rally as she is in demand as a guide for budding globetrotters. In 2007, she set out on the journey for the first time – and lost 45 kilos over the course of the next five years. So in 2012, the then 51-year-old switched to the streamlined and sporty *Scorpion fs 20*. Of course, it was not yet clear where "Myrtle the Turtle" would take her – as she lovingly calls her vehicle. In

"Just stay in a hotel on the route? Impossible!"

Adventure





the meantime, the inseparable couple has visited countries on every continent. Whether Mexico, Colombia or Morocco, Thailand, New Zealand or Italy: In countless videos and blog entries she has recorded her impressions and unique pictures tell of the encounters.

The trike travel expert from Portland, Oregon is especially appreciated for her precise advice. For those who are going on a big trike trip for the first time, her tour diaries are a real treasure trove. Maybe it's because, in addition to technical tips, she has countless personal pieces of advice at her fingertips and loves to share her experiences. In this way, she conveys exactly what you won't find anywhere else. Details on organization, for example, or tips for accessories, where she shares all her experience.

With her travels, Sylvia has become increasingly independent and practically lives completely her project, which she now calls "Truck, Trike an Trailer". Because for her and Myrtle, their new home is now an American truck with a large camping trailer. Two impactful events kindled the decision of moving to widest mobility. One was the Corona pandemic: "I couldn't travel like I used to. Just stay in a hotel on the route? Impossible!"

The other has to do with her Scorpion: in 2019, the little turtle got a motor from the SHIMANO STEPS series. This opened up a whole new world for Sylvia. Planning routes and taking the topography into account, for example? Was yesterday! Whether mountains or wild terrain – now the whole world is at the feet of the electrified turtle and its pilot.





Triking into a new life

Dominik Ehrich: The fighter and the Scorpion

For the mountain rescue team at the Kitzsteinhorn, November 23rd, 2008 is a day like any other. Skier buried under an avalanche. Mission. Search. Digging through the snow. Located – rescued and flown out by helicopter.

For Dominik Ehrich it is the day that changes his life. He is lucky – in a way. Because he has been buried under the white masses just a couple of minutes too long. The experts say that after being buried for more than 15 minutes in an avalanche oxygen starvation starts to become critical. For Dominik it has been 17 minutes.

Three weeks later the doctors wake him from the artificial coma. The athlete has become a helpless, bed-ridden nursing case. Training with the ski squad? Never again. Biking up to the Kampenwand? Forget it! Dominik is suffering from ataxia, as the doctors call it. His muscles are powering with their counterparts simultaneously. But what can you expect when leg extensor and leg flexor (muscles) block each other?

"Five years after the accident I wanted to find out where I stand. Biking on Teneriffa, with mountains, muck and dirt." **His doctors oracled then**: "You are lucky if you don't end up in a vegetative state!" But that is no option for Dominik. He is an athlete. For one and a half year he fights in a wheelchair. Begins to re-program his body step for step. The doctors are impressed. In their eyes a life without a wheelchair would be a huge success for Dominik. But his mind is already set on bikes again. And on the Kampenwand. But reality means the walking frame. For one and a half years again. Then he casts the frame aside and exchanges it for crutches.

Only speaking defies him even after six years. That's why he writes. Short messages for his vis-à-vis. Articles for newspapers, bike magazines. He completes an internship at "BIKE" magazine. Then the turning point: for "FAHRRAD NEWS" he tests four trike models. On these the self confessed motion-junkie (Dominik on Dominik) can run riot. And he falls in love with the *Scorpion fs 26* by HP VELOTECHNIK.







"I triked into a new life, and the Scorpion has been and still is a real emotional support"

The trike offers the perfect kick: "The cyclic pedalling motion has a harmonizing effect on both halves of the brain" he says. Nerve re-generation becomes enhanced. And his lungs, almost caved in then, work more and more powerful. But the best is: "This completely new motion- and speed feeling: to master a new piece of sports equipment perfectly in spite of all restrictions, gives an unbelievable sense of achievement."

He masters the Scorpion well enough to feel confident to fly to Teneriffa for four month. Writing coverage and scouting the island. The trike of his choice: the terrain going *Scorpion fs Enduro* by HP VELOTECHNIK. When he comes back in Mai 2014 he talks of "we" and "my green friend". Lets see – maybe he introduces the Kampenwand to his green friend one day ...



"Sometimes I wish I could beam myself back into this open, wild world ..."



3 Wheels, 3 Kites, and 3 Months of Adventure

A company that builds exceptional bikes, always meets people with exceptional ideas. When Matthias Ramsel presented us with his wish how to use one of our *Scorpions*, we were somewhat perplex. We had to ask, "How should this work?" since it was obvious that what Matthias was planning has never been conceived from the designers of this trike and was and is far removed from it's intended use and any warranty.

Matthias ideas were challenging – not only from a technical point of view, but also on a personal level. To prove his competence, Matthias calmy showed us some photos of his last bike tour – which took him from German Hesse a few thousand miles far into the Himalaya.



Video-Link: Matthias Ramsel (Rider, Adventurer, Kite-Triker) with moving images from Mongolia https://www.youtube.com/user/springpatt Or QR-Code scan



Matthias next project: A "Transmongolian-Kite-Trike-Tour". While sitting on one of our trikes he aspired to "fly", e.g. let himself be pulled by kite from Russia over the Mongolian plains right into Beijing. Mongolia had two distinctive advantages for his plans: reliable, strong western winds to carry him forward and empty, dusty high plains witout trees, telephone poles, or other obstacles.

Velotechni

A bike rider who has the wind as a friend ... This did sound great – but it had a hitch. As every triker knows, you have to have both your hands on the handlebars, especially at high speeds over uneven terrain. At the same time, to steer a kite you need another two hands.

The solution Matthias presented to us was not a biological sensation but a very unique and logical technical idea: The *Scorpion* would be steered with the pedals with straps running from the pedals to the handlebar allowing even the smallest movement to steer the trike. If the kite is pulling you forward, you do not need to pedal.

Nice theory, possibly disastrous. The first tests on the flat beaches in Holland proved, however, it works! Mostly! Even an experienced adventurer like Matthias will have the occasional setback. But, it does not stop him.

Finally Matthias took-off with one *Scorpion fs,* three "Flysurfer" kites, and lots of baggage to Novosibirsk, Russia.

Then ... silence. No word from Matthias. Of course: No telephone poles also means a lack of internet. What he did have makes for a great adventure: sandstorms, ice rain, temperatures from -5 to +45°C, and after a number of roll-over "events", a broken handlebar.

In the end we received a victory message: Arrival! Totals: 90 days on the trike, 5000 km (3106 mi) from which 1200 km (745 mi) were "flown" in Kite-Drive mode within 32 days, top speed with baggage 53 km/h (33 mph). And one small detour of 2000 km (1242 mi) due to a strict Chinese border officer. But isn't Lake Baikal instead of Beijing a very nice arrival point, as well?

What comes next? During wintertime, Matthias has already run tests in the snow of an deserted air field on top of the "Wasserkuppe", Hesses highest mountain. He tried out a new combination of trike, kite and a couple of old cross-country skis – yep, it also could work on snow! South Pole or bust?

Tourblog: <u>www.kite-trike-tour.blogspot.de</u>





"For most people, this could have been a nightmare, but for me, my dream became reality."

Behind the scenes



Recline in style



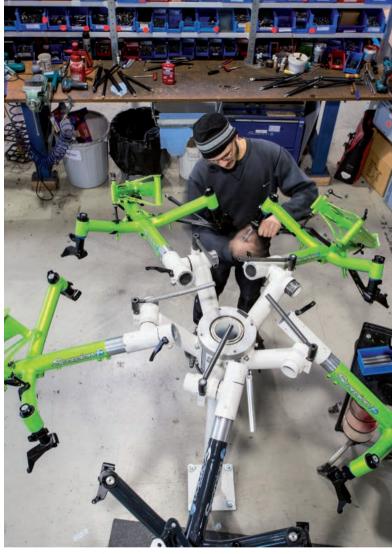
Their shared passion for innovative bike technology brought founders of HP VELOTECHNIK, Paul Hollants and Daniel Pulvermüller, together early on. Already as students they became the winner of a national engineering competition with their fully suspended tricycle velomobile, which was the foundation stone for an impressive development from a garage lab to one of the most advanced bike and trike manufacturers in Germany. While still studying industrial engineering and mechanical engineering at the Technical University of Darmstadt, Hollants and Pulvermüller started their own business in 1993. The company name HP VELOTECHNIK is composed of the surnames of the founders and also alludes to the English name of the still exotic vehicles of that time: Human Powered Vehicles.



"HP VELOTECHNIK stands for innovative, reliable recumbent technology on two or three wheels: fast bikes and trikes on which one can enjoy the panoramic views with laid-back comfort and style. Ergonomics and refined design act at the forefront. Forget about pressure points in the nether regions, sore wrists or a stiff neck. No matter whether you are commuting or are on a grand cycle journey – on our bikes and trikes you feel good, look good and make good progress."



Paul Hollants, one of the two founders of HP VELOTECHNIK, public relations and business management director



During pre-assembly the freshly powder coated enduro frames take a round trip on the carousel. Here the folding hinges and the suspension are assembled.



Outstanding design. Hollants and Pulvermüller are convinced: great technology has to look great – sleek, lean, structured and functional. That is why HP VELOTECHNIK'S products have been distinguished with multiple renowned design awards.



A front wheel finds it's place on the forged high tensile strength wheel carrier of the Scorpion fs Enduro chassis. For this model blue bellows protect the strut.

Today, the engineers at HP VELOTECHNIK have more than two decades of experience on the design and optimization of bikes, trikes and accessories for active people. With over 35 expert engineers, skilled mechanics and dedicated customer service specialists, HP VELOTECHNIK manufactures around 2000 bikes and trikes per year and is one of the leading manufacturers delivering premium recumbents to Europe and the USA. All signs point to future growth: An increasing proportion is exported to more distant regions such as Australia, Japan or South Africa.

In the spacious recumbent factory in Kriftel close to Frankfurt, Germany, the trikes are elaborately hand built by specialised technicians. A welding shop enables own prototyping, Computer-controlled test stands assist in the quality assurance of the ach. They strictly believe in well engineered, long lasting, high qualibikes and trikes. The focus is on the design of innovative cycles and matching accessories and the assembly according to customer requirements using the comprehensive modular system. The basis of success of the developments are thereby the extensive riding experiences of thousands of customers all over the world.

Before an idea becomes part of reality HPVELOTECHNIK's skilled engineers perform accurate reseach and tests. They team up with cooperating universities to ensure the latest technical approty products instead of fast product cycles.

Based on the same principles, HP VELOTECHNIK exclusively distributes their premium products through a well-trained network of specialised cycling stores. These retailers ensure an excellent advice, extended test rides and a premium after-sales service.



CEO Daniel Pulvermüller gets his hands dirty during prototype production. The series frames made of highstrength aluminum alloy are welded and heat treated by dedicated frame builders in partner factorys.





The experience of many years of precise craftsmanship confirm: attention to detail is the base for perfection.

About 1500 different components are awaiting their assembly in an individually configured bike in the recumbent maker's stores.

HP VELOTECHNIK: Pure recumbent passion to enjoy!

The centerpiece: The lightweight, rigid frame is made from high-strength, large diameter tubes of 7005 T6 aluminum alloy. The CNC-machined tubes, custom press forged folding hinges and laser-cut plates are linked through precise craftsmanship with impressive finely scaled, heavy-duty welding seams in the TIG process.

Tricycles are exposed to high torsional forces when cornering, accelerating and braking, particularly with a heavy luggage load. In order to efficiently bring your pedaling force on the road any time and to optimize driving safety in extreme conditions, the engi-



neers at HP VELOTECHNIK minimize flexing of the frame. An example: HP VELOTECHNIK's high-strength aluminum main frame tube with a solid 2 mm wall thickness provides a 34 % increase in torsional stiffness compared to a steel tube of similar weight and a wall thickness of I mm. You will feel it at once: the precision of the steering, the sporty handling and safe braking.

Each frame undergoes a heat treatment process to remove stresses from bending and welding and to achieve its maximum strength. The frame is perfectly smoothened before receiving an inside and outside anti-corrosion coating. For a uniquely brilliant finish, the frames then are painted by hand with a tough powder coating. Depending on your chosen color, it will be either a deep rich multilayer color or a combination of base color and clear coating. Besides the offered standard colors, all *Scorpion* models can be painted in your preferred custom color!

Measuring realtime material stresses for FEM analysis in the 3D CAD model.



Inhouse testing banks for rigorous functional

and fatigue strength tests of components.

Overload testing during prototype test rides on the road and in more extreme situations

des Computerized pressure distribution analyons sed on a *BodyLink* seat for the ideal shape.



Trike development at HP VELOTECHNIK

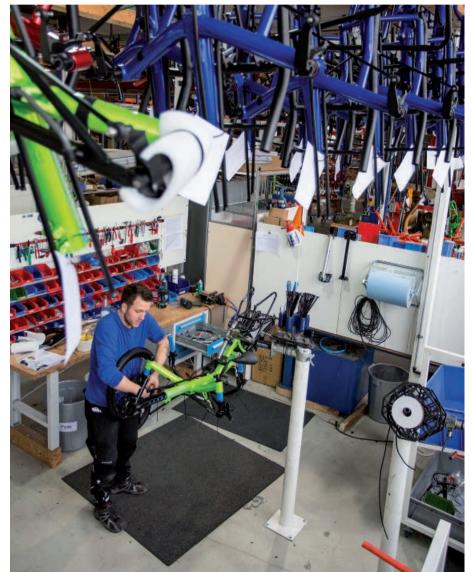
The focus is on people. At HP VELOTECHNIK trikes are designed on the basis of your needs, modern construction methods and ergonomical sense, down to the smallest detail. Modular, orthopaedically designed seating systems such as the highly adjustable *BodyLink* seat or the well ventilated *ErgoMesh* seat in various heights, widths and lengths help creating a perfect link between you and the bike.



"A driving sensation like in formula I, enormous stability on snow or gravel or with luggage facing a hill climb – who ever has tested our touring trikes has quickly been fascinated by the driving pleasure. And you don't even have to take your feet off the pedals for your snack break!"

CEO Daniel Pulvermüller, engineering and production director

An individually configured Scorpion fs Enduro trike is assembled in the workshop.







Top: Well greased? The folding joints of a Scorpion fs are thoroughly inspected by trained Mechanics. More than 25 apprentices have learned their trade at HPVELOTECHNIK. The scope of apprenticeships covers bicyle mechatronics as well as wholesale and export merchants.

Left: Tuesday is barbecue day. Now things are inspected on the Grill which has been welded to a double-seater-sofa-tandem by the apprentices during one of their projects.

Right: Once a year it is open day at the factory. Paul Hollants explains to the public how the wheels get to roll.

HPVELOTECHNIK is committed to the advancement of cycling in the following associations:



Optional features and accessories from HPVELOTECHNIK: With a Scorpion trike, you'll be ready for the challenge

Optional features for true individuals: Do you have your own notion of your ideal bike technology? Our modular system enables us to build your trike to meet your needs and desires. A whole range of reliable features and components is available for your Scorpion, all of which have been specially developed to excel in everyday use. For example, the Streamer front fairing extends the bike season to all year round by protecting you from the elements. With our torsionally-rigid luggage racks, your bags are positioned securely on the frame where they enjoy full suspension instead of swinging from side to side on the fork or handlebars.

On this and the next double page, let yourself be inspired by what is traditionally called an accessory. However, on a trike like the Scorpion these amenities will truly add to your complete riding pleasure. Or can you imagine setting off on a tour as casually with a traditional upright bike as with a coffee mug on the Side Bag Mount of a tricycle?

For the drivetrain and brakes, we use reliable, easy-tooperate components from the cycling world's most prestigious manufacturers. We even combine these to create unconventional solutions, such as a one-handed brake and shifter operation.

If you want to go beyond the optional features shown on the next pages of this brochure and equip your Scorpion in line with your own ideas, we will gladly supply your dealer with the complete trike technology in the form of our frame kit.

Our highly competent dealers are there to give you comprehensive advice. Disc brakes and hub gears can make noise; tires, shocks, and chain drives can wear out. Your dealer knows the advantages and disadvantages of the various components, can tell you the maintenance intervals, and will gladly help you tailor your Scorpion's features to match its intended use, your riding style, and your needs. With the extensive HP VELOTECHNIK worldwide dealer network, you can rely on perfect service in your vicinity. Check our dealer database at www.hpvelotechnik.com for details.

Years of fascinating riding pleasure await you!

Luggage





The stable Rear rack for two panniers up to a 25 kg (55 lbs) load is optimal for the high lateral forces when riding a tricycle. Your panniers ride low and close to the rider. next to the rear wheel. The advantage of the Scorbion series with the smaller 20inch rear wheel is that the platform for larger panniers is integrated above the rear wheel. The rack is made of aluminum t ubes (12 mm and 10 mm / 0.47" and 0.39") with black powder coating.

Always on top: Might you also want to load the Scorpions with the large 26-inch rear wheel? No problem. With the Top Load attachment it's so easy. With this platform solution mounted to the basic Rear rack (tubing in 14 mm / 0.55"), you can store up to 10 kilos (22 lbs) - and your tent or a basket rides along with the best suspension in the industry.



Ideal for heavy loads: On the four models Scorpion fx 20 and 26 as well as Scorbion blus 20 and 26, an additional lowrider carrier for up to two additional bags (up to 25 kg / 55 lbs) can be mounted on the luggage rack. This allows the center of gravity to move a little lower and improves road performance even more. The models with a 20-inch rear wheel already have an integrated platform for placing bulky loads over the rear wheel



The universal side bag holder Side Bag Mount fits small bags as well as a variety of different attachments with up to a 5 kg (11 lbs) payload. This ranges from waterproof handlebar bags such as those from Ortlieb to drink holders. The black anodized aluminum tube with 22 mm diameter can be attached to the ErgoMesh seat and the ErgoMesh Premium seat in various positions.



ErgoMesh and ErgoMesh Premium can be equipped with two removable, functional luggage pockets, the Add-on bags. Separated neatly, they accommodate the optional seat rain cover as well as the small everyday items. Both bags are made of water-repellent Cordura® and have a protected zipper. They each offer a pack content of 1.4 litres. The left pocket made for stashing the protective cover has an airy mesh fabric on the side, so that the contents can start to dry while

is a great bag for the little tour. It offers one liter (61 CUI) of storage space for the When you remove the sturdy Cordura® from the seat, it transforms into a practical hip bag thanks to the supplied elastic strap.

you continue your journey. For the BodyLink, the Microbag important little things in life. bag made of reinforced

Weather protection gear





elegant lines: HP VELOTECHNIK has developed fenders especially for tricycles with our *Trikefender*. The inner side and the lower edge are pulled down to improve the splash protection to the rider, especially when cornering. The mounting elements are attached to the inside of the bike and are well protected. The rounded profile with a width of 60 mm (2.36") makes it possible to mount tires up to 50 mm (1.97") wide like the SCHWALE Big Apple.

Optimized protection with

If you like off-roading, you will appreciate our practical *Rear mudguard Enduro* for the rear wheel of the *Scorpion* fs 26 *Enduro*. The wide and strong construction with an aluminum support protects the neck and back of the head from splashing water and flying debris.



Rain cover for the BodyLink seat is made of blue ripstop nylon – so your seat stays dry after a rain storm. You can always have the "little blue" with you, it can be rolled or folded narrowly and then easily fits into the backrest (ErgoMesh seat) or into the BodyLink Microbag.

Protection against the wind

and rain: The *Streamer* front cover from HP VELOTECHNIK keeps your feet warm and your legs dry. The cover's angle and height are adjustable. The rain cover can be easily removed using the quick release lever and rolled up for transportation. Teardropshaped for low wind resistance. Weight approx. 2.2 kg (4.8 lbs). Made of transparent, break-resistant plastic.





Highlight (picture left): The SON hub dynamo lighting system for your *Scorpion* has unmatched efficiency and is extremely light. Always ready for use, even in rain and snow. The ultra bright 100 lux LED headlamp B&M *IQ-X* brings extra safety with daytime running lights (*Licht 24*). B&M *Toplight 2C plus* taillight. Parking lights in front & rear. Twin-wire cable in the frame.

Eyro Light Set (picture right): The 30 lux battery-powered light set from B&M has a USB charging port with a charging cable is included. The rear light *Toplight 2C permanent* is also from B&M and is powered by 2 AA batteries.

Send a signal! With our WingBling turn indicator, cyclists now can easily show their intentions in traffic. Advantage: It is not only the communication with other road users that makes the WingBling a unique accessory to your trike. It also makes your ride safer: In sharp corners you leave your hands at the handlebars instead of using hand signals.







What the handbrake does in the car is done by the *Parking brake* (picture left) on the tricycle: safe parking even on sloping ground assured by a SHIMANO V-Brake with a large thumb lock lever.

Coupled front brake (picture right): Designed for all those who want to effectively control both front wheels at the same time with one brake pull. HP VELOTECHNIK offers this both as an option

for the mechanical disc brake AviD BB7 and for the hydraulic disc brake Cargo Duo by RIDEREVER.





With the extra-large viewing window of the B&M E Rear mirror, you can see what's going on behind you. The field of view is easily adjustable, but remains in position even on rough surfaces. Mounted on the kingpin or with bar end bracket on the handlebar; optionally available on the left, right or both sides.





The classic rear mirror for cyclists: *Mirrycle* with slim design and round field of vision. Mounted at the end of the handlebar, when using bar-end levers with a bar-end attachment. You can also use it as a bike computer holder. Mounting on both sides is possible.

Safety is not a fashion statement: Many recumbent riders enjoy using a flag to increase visibility in traffic; it belongs on their ride like a bell or horn. With our logo and eyecatching design, you'll bring a new level of attention to the road for everyone. Silver Reflective with orange Print.

Comfort options



Hand rest: a real increase in comfort for all trike drivers. The hands steer lightly without having to support the weights of the lower arm. The comfortably padded Hand rests can be individually adjusted to all angles and inclinations. Also available with the possibility to fixate the lower arm – an ideal add-on for the one-hand operation of brakes and drivetrain.



Sporty: The SeatWings hip supports for the BodyLink seat offer optimum lateral support in fast curves. Your upper body remains freely movable so that you can dynamically lean into the curves. The flexible carbon supports are padded with breathably materials.



Very small, but a great time saver for those who frequently remove their seat: Although the Adjustable seat stop reduces the adjustment angle by 4°, it makes it easy to find a seat position once it has been selected. Suitable for ErgoMesh Premium, ErgoMesh and BodyLink seats.



The Airflow seat cushion provides optimum ventilation for the BodyLink molded seat. The breathable spacer fabric is combined with comfortable cover. Large openings in the spinal canal allow for an air exchange.



Front Boom Quickadjust: Just open two quick releases and you can adjust your Scorpion to different lengths. Developed by HP VELO-TECHNIK, the Front Boom Quickadjust gives you the advantage to easily change the length of the trike for transport or at any time a "shorter" trike is needed. Adjustment range approx. 15 cm (5.9").



Headrests

The Headrest for the ErgoMesh net seats can be adjusted in height and inclination in seconds thanks to its quick-release construction. The mesh upholstery is washable.

The Headrest for the BodyLink seat can be adjusted in height and inclination. The padding is made of mesh material with reflective stripes and a strap for inserting a battery rear lights and is also washable.





Walking aid mount: Easy insertion, safe transport and fast removal of walking aids. The practical fastener adjusts seamlessly to diameters from 20 to 31 mm (0.78 to 1.18 inches). HP VELOTECHNIK's stainless steel clip fixates the walking aid and releases it again with a non-fumbling one hand operation.

Rehab options



Everything from a single source: People who need all the controls on their bike on one side of the handlebars can choose the One-hand operation option: Thanks to custommade manufacturing, we can install engine control, gear shift, brake, plus parking brake and light with turn signals left or right.



Pedal with heel strap: The alternative for those who do not want or may not be able to use SPD® system pedals. Easy entry with any kind of shoe through the automatically selfrighting positioning. One hand tightening allows for safe and efficient pedaling. One grasp is enough to release the shoe again when needed.



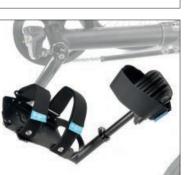
The Standing-up support provides two grips, one positioned at each side above the left and right front wheel. They provide a firm grip and come in handy to lift yourself up from the seat or to support when getting into your trikes. The standing-up support can be easily removed with one screw.



The ErgoPedal with safety release allows fixation and an adjustment to the angle and the width of a foot. Practical large, one-hand operated hook-and-loop fasteners featuring an integrated steel spring. The SPD[®] pedal allows some lateral movement to ease the load on the joints when pedaling and offers real emergency exit options.



Comfortable and save: HP VELOTECHNIK has developed Support belts that are extremely easy to use for optimum stabilization of the upper body and pelvis: The large range width can be adjusted by using the ratchet strap. Suitable for the ErgoMesh mesh seat.



The ErgoPedal with calf brace is especially for users with functional impairments of feet and lower legs. This allows simultaneous active and passive movements which can mobilise with every turn of the crank. Angle, width and height of the lower leg support are adjustable. This version does not rely on an SPD® pedal for stability reasons.

Additional accessories



You will not be anonymous with the *Airzound* compressed air horn: the horn emits up to 115 dB, but you can also lower it to a tame 30 dB. The air chamber of the light plastic bottle (400 ml / 24 CUI, fits in standard bottle holders) can be filled very easily with a normal air pump.



Everything in view and always within easy reach: The Universal Mount is the most practical answer to the question: Where do I put my mobile phone on the trike? Simply fasten the handlebar holder of your mobile phone, GPS device or other digital helper on the black anodized holder (approx. 7 cm / 2.75" long. 22 mm / 0.86" tube diameter) above the handlebar end.



Monarch RL air shock from ROCKSHOX. Practical: The spring stiffness can be easily adjusted to the payload using a shock pump. Equipped with adjustable hydraulic rebound damping and a blockable compression stage, it boasts the best response recorded in our tests. 262 g (9.2 oz) weight saving compared to the steel shock DNM 22.



front with the easy-to-fasten Speedometer mount for computers, you ensure tidy conditions on the bottom bracket. So you always have your speedometer in front at the wheel in view. This is also ideal for plug-in battery lights.

With the small version for the



Immobiliser: Push out the handle, pull out the key - and the powerful AXA Frame lock effectively locks the rear wheel. The AXA accessory Chain for Frame lock (I m / 39" long) is recommended as an extra to securely lock the trike.



Complete protection: HP VELOTECHNIK offers a lightweight *Chainwheel disc* instead of the ram protection. This saves 150 g (0.33 lbs) of weight on the sporty SRAM 30 gears as well as rear wheel hub motor sets from NEODRIVES.



Driving forward

Even with electric assist on the rise, a bicycle is defined as an apparatus which is mainly driven by human power. No other invention is able to do this as efficiently. The symbiotic combination of man and machine has inspired bicycle designers for the last 200 years. The history of the bicycle began with German engineer Drais' *Dandy Horse* and now extends to high end derailleurs with automatic shifting.

HP VELOTECHNIK's engineers have narrowed down the giant selection available today to find a selection of outstanding drive train systems, integrating them into our recumbents to perfectly satisfy your needs. This means that you always have the right option for your dream bike once we custom build your trike to your specifications.

Derailleurs or internal gears: Not only is there modern technology at work, but also two different philosophies which go beyond the ideas of 8, 14, 24, or 30 gears. Internal gear hubs allow you to shift while standing still. Derailleur shifting has its advantage with small changes between evenly spaced gears. Both internal gears and derailleur shifting can even be combined in our Tripleshift drivetrains. As a further advantage for recumbents, you can use all the chain rings with all the cassette cogs since the chain is so long, that it makes every gear combination ridable.

The following pages focus on an overview of the shifting systems you desire. Your HP VELOTECHNIK dealer is ready to help to find the perfect set-up for your needs.



STURMEY ARCHER + SRAM / SHIMANO

Tripleshift 24 / 30 speed

Reliable Combo: Recumbent enthusiast's first love: The combination of a 3-speed internal gear hub plus derailleur shifting. The reliable internal gear hub from British pioneers STURMEY ARCHER allows not only changing gears when standing still, but it also expands the range of the derailleur shifting. The 24-speed gearing is equipped with twist shifters, the 30-speed (MICROSHIFT XLE) is operated with bar end shifters.

Sram

Sram 30 30 speed

The Elegant Racer: Are you looking for performance? Then the lightweight SRAM 30 with a triple crankset and 10 speed cassette is just right for you. The wide gear range and precision shifting ensure flexibility when you need it. The ergonomic barend shifters are a comfortable fit to your fingers and provide a reassuring ,,click" when operated.

Shimano

Cues Di2 10 speed

No more shifting cable: The gearing *Cues Di2* we offer exclusively in combination with the bottom bracket motor *STEPS EP801 Cargo*. This electric derailleur automatically shifts to the appropriate gear when riding and shifts back when braking. Of course, you can still shift through 10 gears at the touch of a button and with extreme precision and speed.







Technical data

24 or 30 sp. internal plus derailleur gearing

24 speed: gearing 20": 46 / 11 - 34 / 26": 39 / 11 - 34
24 speed: development 20": 1,49 - 8,53 m / 26": 1,69 - 9,64 m
30 speed: gearing 20": 46 / 11 – 36 / 26": 39 / 11 – 36
30 speed: development 20": 1,50 - 8,68 m / 26": 1,67 - 9,67 m
Shifter 24 speed: SRAM long twist shifter
30 speed: bar end shifter
Cassette Shimano CS-HG50 (24) / CS-M77 (30)
Rear Derailleur Swm X4 (24) / Microshift XLE (30)
Combination with motor No

30 speed derailleur gearing

Combination with motor .. NEODRIVES Z20 and Z20 RS

10 speed derailleur gearing

Gearing (20") 50 T / 11 – 43 T
Gearing (26") 44 T (SFN: 38 T) / 11 – 36 T
Development (20") 1,81 m - 7,09 m (5'9" - 23'3")
Development (26") 2,10 m - 8,20 m (6'9" - 26'9")
SFN: 1,88 m – 7,36 m (6'2" – 24'1")
Shifter Shimano Di2 with button
Cassette Shimano CS-LG400
Rear Derailleur SHIMANO Cues Di2 (electric)
Combination with motor SHIMANO STEPS EP801 Cargo

SHIMANO

Nexus 5/8 speed

The No-Worries-Package: The perfect selection for all those who prefer not to think too much about technology when cycling. We offer the 8speed Nexus Premium hub as a mechanical gear system. In combination with the SHIMANO STEPS motors, the Nexus hubs even become fully automatic gear systems: you can have the Nexus Di2 with 5 or 8 gears, both of which automatically select the right gear ratio!

Rohloff

Speedhub 14 speed

The World Tourer: Since 1998, the ROHLOFF Speedhub has become a mechanical legend. Countless world tourers have relied on the nearly indestructible internal gear hub with 14 evenly spaced gears. One of the reasons for its reliability is that the gears rest in a sealed oil bath. Your advantage: the extra-long HP VELO-TECHNIK twist shifter exclusive to HP VELOTECHNIK recumbents. Trekking Automatiq

ENVIOLO

Infinitely happy: With this technology, you never have to think about shifting gears again. Once set to your desired cadence via app, the planetary gearbox does everything else by itself. We offer the powerful *Trekking Automatiq* together with the SHIMANO *STEPS* motor *EP801 Cargo*. The stepless transmission with 380% spread lets you pedal on evenly relaxed on the mountain.

PINION

CI.12 12 speed

The Extraordinary: The completely enclosed PINION 12-speed internally geared transmission integrated up front in the bottom bracket reliably propels you forwards with ease. HP VELOTECHNIK's extra-long twist shifter is easy to use. It is the perfect companion to the hub motors.











a philosophy decision, but an ergonomic decision. That is why we offer both for our discerning riders. Twist shifters are solid, reliable, and a mark on the grip indicates the current gear. HP VELOTECHNIK has developed an extra long twist shifter for both ROHLOFF and PINION, tailored for the riders needs. Bar end shifters fit perfectly to the tip of your thumb and require less energy for a precision shift.

5 or 8 speed rear wheel internal gear hub

 Gearing (20")
 38 Z / 24 Z (5 speed) / 44 Z / 16 Z (8)

 Gearing (26")
 38 Z / 30 Z (5 speed) / 44 Z / 22 Z (8)

 Development (20")
 2,36 m - 6,20 m (5 sp.) / 2,19 m - 6,64 m (8 sp.)

 Development (26")
 2,33 m - 6,66 m (5 sp.) / 2,12 m - 6,44 m (8 sp.)

 Shifter
 Di2 with button

 Property
 When using *JTEPS* e-drive available with automatic shifter *Nexus Di2*. Manual switching also at the push of a button

 Combination with motor
 SHIMANO E 5000, EPS and EP801 cargo

14 speed rear wheel internal gear hub

Combination with motor .. SHIMANO STEPS EP8

Development (26") .. 2,05 m — 7,79 m (6'9" – 26'9") Shifter — Property fully automatic, stepless gear changing

Stepless gear changing

Gearing (20") 44 T / 18 T

Gearing (26") 44 T / 22 T

Combination with motor .. SHIMANO STEPS EP801 Cargo

Development (20") .. 1,89 m - 7,20 m (5'9" - 23'3")



Special Edition

The Scorpion Special Edition: Ready to Ship!

Six pre-built models, available at short notice with an attractive price advantage

One visit to the dealer – and your new *Scorpion* is on its way. The *Special Edition* models from HP VELOTECHNIK are the perfect offer for those who make quick decisions: six trikes are waiting for you, covering many areas from the fast touring trike to the comfortable everyday mobile for silver surfers. Your extra bonus? Compared to the same equipment from our modular system, you save money!

Good things take time: Usually the bikes are manufactured in our factory individually and according to your individual wishes and that takes time. Our six *Special Edition* models, on the other hand, can be delivered on short notice. Nevertheless, you can be certain: Each of these trikes has been elaborately handmade by us in Kriftel!

Take a look at the six models: six trikes with different equipment for six different applications. Among our overall eight *Scorpion* series, we have identified your favorites. This starts with the non-motorized *Scorpion* fs 20 and the *Scorpion* fs 26. Both can also be had with a SHIMANO *STEPS EP801 Cargo* system. In the comfort models *Scorpion plus* 20 and *Scorpion plus* 26, you are supported by the new SHIMANO *STEPS EP5* motor including an automatic transmission.

The equipment selected by us for all six Special Edition models includes high-quality components for everyday use that we have carefully matched to the respective area of use. This ensures maximum driving enjoyment and maximum driving pleasure for many years.



We are equipping four of the Special Edition models with STEPS motors from SHIMANO. The two Scorpion Plus models are fitted with the EP5 (pictured left), while the Scorpion fs 20 and Scorpion fs 26 are powered by the EP801 (main picture). All of them have automatic gearing. In combination with the EP5 we use a S-speed hub, with the EP801 the Cues Di2 derailleur selects the appropriate gear from the 10 gears. That airy ride feeling: The breathable fabric of the *ErgoMesh* seat can be adjusted to your back shape with multiple wide tension straps. You can stow all your most needed things in the practical zipper pocket in the backrest. The seats are also available in the wider XL version. The *Scorpion plus*-comfort models are equipped with *ErgoMesh HS* seat which is 11 cm (4.33") higher.

Turn your Scorpion into a carry-all:We deliver all trikes of the Special Edition with a robust Rear rack for two large rear panniers up to 25 kg (55 lbs).

Pennant: With t

Enjoy optimum protection that also looks elegant: HP VELOTECHNIK has developed the *Trikefender* mudguards especially for use on tricycles.

The Eyro battery light from B&M can be recharged via a USB charging socket. The rear light B&M Toplight Flat S senso is equipped with two AA batteries. Of course, the Eyro also lights up when stationary. On the motorized models, lighting is supplied from the e-bike battery.

No compromises: The heart of the Special Edition series, the frame, is the most intricate development in the trike segment from HP VELOTECHNIK: full suspension and foldable. Chassis technology with automotive engineering ensures outstanding stability even when braking around corners.

With the *Marathon Plus* from tire specialist SCHWALBE, you benefit from built-in puncture protection.



It's up to you:The ROCKSHOX Monarch RL shock can be optimized for maximum comfort regardless of the payload using the supplied pump.



We equip the motorized Special Edition models with the lighting system IQ-X/Akku from German specialists Busch&Müller (headlights up to 150 Lux, taillights B&M *Toplight 2C DC*). Switching on and off is easy thanks to an optically highlighted button.



What the handbrake does in the car is done by the Parking brake on the trike: safe parking even on sloping ground assured by a SHIMANO V-Brake with a thumb lock lever.



You always have an eye on what's going on behind you in the extra large field of vision of the B&M E Rear mirror.



This much freedom of choice is a must: Our most variable seat, the *ErgoMesh Premium*, is available as an optional extra.

Touring models without motor

Commuting models with SHIMANO motor STEPS EP801

Scorpion fs 20 SE color Colza yellow: drivetrain SHIMANO *Cues Di2* 10 speed, 36 V Li-Ion battery (630 Wh), push assist up up to 6 km/h, hydraulic disc brake SHIMANO *Deore XT* (separate brake per front wheel), lighting system *IQ-X* (headlight B&M *IQ-XE* up to 150 Lux, rear light B&M *Toplight 2C*) **\$ 12,760.00**

Scorpion fs 26 SE color Pure orange matt: drivetrain SHIMANO *Cues Di2* 10 speed, 36 V Li-Ion battery (630 Wh), push assist up to 6 km/h, hydraulic disc brake SHIMANO *Deore XT* (separate brake per front wheel), lighting system *IQ-X* (headlight B&M *IQ-XE* up to 150 Lux, rear light B&M *Toplight 2C*) ... \$ 12,830.00

Comfort models with SHIMANO motor STEPS EP5

Six times the right one – Equipment Summary

The six bikes of the Special Edition series differ strikingly. But they all rely on a high-quality aluminum frame and the McPherson front suspension. The ROCKSHOX *Monarch RL* shock works precisely and sensitively in the rear, and thanks to the supplied high-pressure pump, it can be adjusted individually. Standard equipment includes:

- Rear rack
- Mirror B&M E
- SCHWALBE Marathon Plus tires
- Trikefender mudguards
- Parking brake
- Flag

For the seat, choose between the breathable *ErgoMesh* and the flexible *ErgoMesh Premium* (\$ 369 surcharge). Both are individually adjustable: Eight tension straps (respectively seven with the *ErgoMesh*) and four *OrthoFlex®* pads are used for individual adjustment. Both seats available in standard or wide *XL* versions.

Have you found your favourite among the Special Edition series? We have saved the best for last: Even if you buy an off-the-shelf vehicle, you won't be missing out on individuality and perhaps even a touch of extravagance! Make your trike city-ready with the Universal Mount for Smartphone or GPS device or with our new Side Bag Mount fit for the big tour! You have special needs? Do you need an Ergo safety pedal? No problem: Our extensive additional equipment, tried and tested over many years, also fits perfectly to the Special Edition models. Your dealer will be happy to explain which accessories perfectly complement your bike.

You have the full range of equipment options and special accessories with an individually built *Scorpion* trike from our modular system. You will find all the details on the next four pages.

The choice is yours! Our modular kit for your dream trike:



Basic models

□ Scorpion (SCO) light-weight, fast Sports-Trike, 26" rear wheel\$ 4,890.00
Scorpion fx 20 (SCF) foldable, medium high-seated Travel-Trike, 20" rear wheel
Scorpion fx 26 (SCL) foldable, medium high-seated Travel-Trike, 26" rear wheel
Scorpion fs 20 (SFS) foldable, full suspension Touring-Trike, 20" rear wheel
Scorpion fs 26 (SFL) foldable, sull suspension Action-Trike, 26" rear wheel
Scorpion fs 26 Enduro (SFN) foldable, full suspension Mountain-Trike, 26" rear wheel\$ 7,290.00
□ Scorpion fs 26 S-Pedelec (SFE) E-assist up to 32 mph (45 km/h), 26" rear wheel
Scorpion plus 20 (SPS) foldable, high seated, full suspension Comfort-Trike, 20" rear wheel\$ 7,520.00
Scorpion plus 26 (SPL) foldable, high seated, full suspension Comfort-Trike, 26" rear wheel\$ 7,620.00

Basic configuration Option no upcharge Option with upcharge Not available	sco	SCF	SCL	SFS	SFL	SFN	SFE	SPS	SPL
Frame									
Colors									
□Front boom black anodized\$ 0,00	۲	\bullet	۲	ullet	ullet	ullet	ullet	ullet	•
□ P eeka blue\$ 0,00	\circ	-	-	-	-	-	-	-	-
□Anthracite grey metallic matt \$ 0,00	\circ	-	-	-	-	-	-	-	-
□Pearl orange \$ 0,00	-	Ο	Ο	-	-	-	-	-	-
□Cool grey metallic\$ 0,00	-	0	-	-	-	-	-	0	0
□Colza yellow RAL 1021 \$ 0,00	-	-	-		-	-	-	-	-
□Blue shade grey matt\$ 0,00	-	-	-	0	-	-	-	-	-
□Pure orange matt RAL 2004/swing arm Black \$ 0,00	-	-	-	-	~	-	-		-
Cool grey metallic / swing arm Black \$ 0,00	-	-	0	-	0	-	0		-
□Magma red/swing arm Black\$ 0,00	-	-	-	-	-	-	-	0	0
Green metallic / swing arm Black \$ 0,00	_	Ξ	_	Ξ.	_	-	_	_	_
Single custom color main frame and rear swing arm powder coating .\$ 239.00		-	-	-			-	-	-
RAL-color ca.:, front boom: black anodized	_	_	_	-	_	_	_	-	_
Double custom color main frame powder coated according to\$ 349.00		-	-				-		-
RAL-color ca.:, front boom / swing arm: Front boom									
□Front boom without derailleur tube (for hub gears only) \$ 0.00 □Front boom with derailleur tube regardless of shifting option,) C		_		
Not for STEPS or PINION	0	0	0	0)	0		0	0
□Front boom carbon saves 170 g of weight,\$239.00 not for STEPS or PINION			-						-
□Front boom quickadjust compensates extra chain length when .\$289.00 front boom is adjusted, quick release levers	•								•
Front boom quickadjust without chain compensation \$69.00 with QR-levers									
Suspension									
Rear wheel suspension									
DNM DV-22 spring / oil, spring available with various spring rates \$ 0.00 (soft / standard / hard)	٠	•	•	•	•	•	•	•	•
ROCKSHOX Monarch RL lightweight air shock, adjustable\$ 359.00	-								
hydraulic rebound damping, lock-out, incl. damper pump									
Front wheel suspension									
□Front suspension & stabilizer standard payload up to 90 kg / 198 lbs . \$ 0.00 □Front suspension & stabilizer hard payload from 90 kg / 198 lbs \$ 42.00	_	_	_						

 Basic configuration O Option no upcharge Option with upcharge Not available 	sco	SCF	SCL	SFS	SFL	SFN	SFE	SPS	SPL
Seat									
Seats									
□ErgoMesh mesh seat with OrthoFlex technology, prepared for \$ 0.00 optional Add-on bags, 3 cm / 1.2" higher position than BodyLink seat								0	
ErgoMesh XL 5 cm / 2" wider and 3 cm / 1.2" longer than <i>ErgoMesh</i> seat \$ 0.00								0	
ErgoMesh HS II cm / 4.3" higher position than <i>ErgoMesh</i> seat \$ 0.00	0		0			-	-	0	0
ErgoMesh HS XL II cm / 4.3" higher than ErgoMesh XL seat \$ 0.00	0	0	0	$\overline{\mathbf{O}}$	0	_	_	\overline{O}	0
ErgoMesh Premium with OrthoFlex technology, seat and back\$ 379.00 surface independently adjustable	-	-	-	-	-	-		-	
□ErgoMesh Premium XL 5 cm / 2" wider and 3 cm / 1.2" longer\$ 379.00									
than ErgoMesh Premium seat									
□ErgoMesh Premium HS cm / 4.3" higher than ErgoMesh Premium seat\$ 379.00						_	_		
□ErgoMesh Premium HS XL cm / 4.3" higher than ErgoMesh Premium XL .\$ 379.00						_	_		
□BodyLink adjustable, body-contoured seat									
BodyLink seat with brackets for small riders (4 cm / 1.6" to the front)\$ 199.00							_		
Accessories									
Headrest for BodyLink seat flexible, with cushion, adjustable\$ 175.00 in height and angle		•							
Headrest for ErgoMesh seat adjustable in height and angle,\$219.00									
with quick release lever	_		_		_		_		_
Airflow seat cushion for <i>BodyLink</i> seat, breathable fabric, sewn \$ 99.00									
□SeatWings hip support for <i>BodyLink</i> seat, carbon fiber, flexible,\$359.00 padded									•
Rain cover for all HP VELOTECHNIK seats, Ripstop nylon, blue \$ 39.00									
□ Seat angle adapter to adjust the backrest in a more upright\$ 129.00 position, with quick release, for <i>ErgoMesh Premium</i> seats only							-		
Adjustable end stops allow exact positioning of the seat									
Two adjustable end stops for ErgoMesh Premium seats only \$58.00									
Steering	_	_	_	_	_	_	_		_
□Long handlebars 6 cm / 2.4" higher grip position, required for \$ 25.00 high ErgoMesh seats (ErgoMesh HS, HS XL)	•	-	•			-	•	•	•
Handrests	_	_	_	_	_	_	_	_	_
Handrests left and right comfortable hand support, adjustable, \$ 189.00 mounted on handlebar, removable cushion	-	-	-	-	-	-	-	-	
□Handrest one side with retaining strap adjustable in position .\$ 135.00	-	-	-				-		-
and angle, mounted on handlebar 🛛 🖬 left 🖵 right	_		_	_	_	_			_
□Handrests left and right with one retaining strap hand\$ 269.00 fixation allows arm movement when mobility is limited, retaining	-	-	-		-		-	-	
strap with easy entry function on one side \Box left \Box right									
Tires									
SCHWALBE Tryker 40 mm, high wear-resistance, low rolling \$ 0.00 resistance, precise steering	•	•	•	•	•	-	-	•	•
□SCHWALBE Marathon Plus 47 mm, very good puncture protection . \$59.00 higher weight	•	-				-	•		
□SCHWALBE Kojak 35 mm, very low rolling resistance, only for \$ 59.00 drivetrain SRAM 30 speed and PINION						-	-		
SCHWALBE Smart Sam front wheel 60 mm, back wheel 54 mm, \$ 0.00 offroad tread	-	-	-	-	-	•	-	-	-



Choose the components of your Scorpion with ease by using our comprehensive, clearly structured online configurator. Simply scan the QR-Code with your tablet-computer or type into your web browser www.hpvelotechnik.com/produkte/konfigurator

Prices and options

	 Basic configuration Option with upcharge 	 O Option no Not availab 		sco	SCF	SCL	SFS	SFL	SFN	SFE	SPS	SPL	
Drivetrain													
Gearing													
STURMEY ARCHER Tripleshift 2- internal gear hub with SRAM X4 8 I speed chainring set	•		\$ 0.00	•	•	•	•	•	•	-	•	•	
STURMEY ARCHER Tripleshift 30 internal gear hub with MICROSHII SHIMANO XT cassette 11–36, bar	FT XLE 10 speed rear de	railleur and	\$219.00		•	•	•	•	•	-	-		
STURMEY ARCHER Tripleshift 3 3 speed internal gear hub with 1 derailleur and SHIMANO XT cass lightweight SRAM GX chainring s	MICROSHIFT XLE 10 speed ette 11–36, barend shifte	rear	\$ 469.00	•	-	•	-	•	•	-	-	•	
Dight weight skale GA chaining s Dight share a state of the state of t		gear hub,	\$ 49.00	•				•	•	-	•		
SRAM 30 speed SRAM GX rear derailleur, SRAM cassette PG 105 SRAM SL 500barend shifters			\$319.00	-	-	•	-	•	•	-	-	-	
SRAM 30 speed SRAM GX rear derailleur, SRAM cassette PG 105 SRAM SL 500 barend shifters			\$ 409.00	-	•	-	•	-	-	-	•	-	
ROHLOFF Speedhub 14 speed ROHLOFF chain tensioner and ex	ternal mech box, long tw	rist shifter				•		•	•	-	•	•	
DINION C1.12 12 speed front g long twist shifter, 46t crankset wi			52,370.00			-		-	-	-	-	-	
Pedelec / E-assist systems NeoDRIV DECORIVES Z20 and SRAM 30 20 mph (32 km/h), SRAM 30 dera 576 Wh, push assist forward and	speed electric assist up illeur gearing, Li-Ion batte		54,140.00	•	-	•	•	•	-	-	-	•	
TO WH, push assist for ward and INEODRIVES Z20 RS and SRAM to 28 mph (45 km/h), SRAM 30 di battery 627 Wh, push assist	30 speed electric assist	•	\$ 0.00	-	-	-	-	-	-	•	-	-	
20 mph (32 km/h), PINION C1.12 battery 576 Wh, push assist	front gear box, 36 V Li-l	•	6,040.00	•	•	•	•	•	•	-	•	-	
Dattery 576 WH, push assist for NEODRIVES Z20 RS and PINIC to 28 mph (45 km/h), PINION CI battery 627 Wh, push assist	N 12 speed electric ass		62,050.00	-	-	-	-	-	-	•	-	-	
2nd battery pack for NEODR incl. adapter, mounting hardware comfortably charging and switch restricts folding function	and wire extension for	576 Wh,\$	51,390.00	•	•	•	•	•	•	-	•	•	
restricts folding function 2nd battery pack for Neodr incl. mounting hardware (for open to main battery adapter), restric	eration battery has to be		51,990.00	-	-	-	-	-	-	-	-	-	
Display mount position choosa	÷		\$ 0.00	0	0	0	0	0	0	0	0	0	

 Basic configuration Option no upcharge Option with upcharge Not available 	000	ЗCF	SCL	SFS	ŝFL	SFN	3FE	SPS	ŝРL
Drivetrain (continued)	0,	0,	0,	•	0,	0,	0,	0)	0)
Pedelec / E-assist systems SHIMANO STEPS									
SHIMANO STEPS E5000 and SRAM X4 8 speed electric assist\$1,820.00						_	_		
up to 20 mph (32 km/h), SRAM X4 derailleur gearing, Li-Ion battery									
418 Wh, push assist									
SHIMANO STEPS E5000 and Nexus Di2 8 speed electric assist . \$2,150.00						-	-		
up to 20 mph (32 km/h), SHIMANO Nexus 8 speed Di2 automatic									
gear hub, Li-Ion battery 418 Wh, push assist									
SHIMANO STEPS EP5 and SRAM X4 8 speed electric assist up .\$2,710.00 to 20 mph (32 km/h), SRAM X4 derailleur gearing, Li-lon battery 418 Wh, push assist							-		
SHIMANO STEPS EP5 and Nexus Di2 8 speed electric assist\$3,080.00							_		
up to 20 mph (32 km/h), SHIMANO Nexus 8 speed Di2 automatic			_	_		_			
gear hub, Li-lon battery 418 Wh, push assist									
SHIMANO STEPS EP5 and Nexus Di2 5 speed electric assist \$3,150.00							-		
up to 20 mph (32 km/h), SHIMANO Nexus 5 speed Di2 automatic									
gear hub, Li-Ion battery 418 Wh, push assist									
SHIMANO STEPS EP801 Cargo and Nexus Di2 5 speed\$3,910.00							-		
electric assist up to 20 mph (32 km/h), SHIMANO Nexus 5 speed Di2 automatic gear hub, Li-Ion battery 418 Wh, push assist									
Shimano STEPS EP801 Cargo and Cues Di2 10 speed\$3,990.00							_		
electric assist up to 20 mph (32 km/h), Shimano Cues Di2 derailleur									
gearing, Li-Ion battery 418 Wh, push assist									
SHIMANO STEPS EP801 Cargo and ENVIOLO Automatiq\$5,090.00							_		
electric assist up to 20 mph (32 km/h), ENVIOLO hub with automatic									
internal stepless shifting, color display, Li-Ion battery 418 Wh,									
push assist									
SHIMANO STEPS EP801 Cargo and ROHLOFF 14 speed\$5,670.00							-		
electric assist up to 20 mph (32 km/h), ROHLOFF internal gear hub,									
Li-Ion battery 418 Wh, push assist									
□Big battery pack Sнімамо STEPS Li-lon battery 630 Wh,\$ 399.00							-		
incl. fast charger with 4 A, upcharge on small battery 418 Wh				_					
2nd battery pack for STEPS Li-lon battery 630 Wh, incl\$1,380.00		-			-		-		-
transport bracket mounted on frame (for operation, battery has to									
be switched to main battery adapter, may restrict folding function)									
Accessories									
□ Short cranks 6.1" (155 mm), recommended for riders under \$ 32.00 5'7" (175 cm)									-
□ Chainwheel disc instead of chain guard, 0.3 lbs / 150 g lighter, \$ 49.00 only with 30 gear options	•	-	•	-	•		-	-	
, , ,									

Even more choice for your dream trike:



 Basic configuration Option no upcharge Option with upcharge Not available 	sco	SCF	SCL	SFS	SFL	SFN	SFE	SPL	:
Safety equipment									Brakes
Lights									Hydraulic disc brakes (with HP VELOTECHN
□ Light wire routing only twin wire routed through the frame .,\$ 129.00 □ for hub dynamo □ for tire dynamo	-	F	•			•	- 1		SHIMANO BR-MT200 separate brak wheel brake
Lighting system rechargeable Eyro rechargeable headlight\$ 139.00 B&M Eyro, up to 30 Lux, rear light B&M Toplight 2C permanent, charging via USB connector, permanent light powered by battery	-	1	-		-	-	-	-	□ Riderever coupled coupled front b disc brake Avid BB7 with parking bra □ Hydraulic disc brakes coupled co
 Lighting system rechargeable Eyro rechargeable headlight\$ 165.00 B&M Eyro, up to 30 Lux, rear light B&M Toplight 2C permanent, charging via USB connector, permanent light powered by battery 	-	-	•	-	•	•		-	hydraulic disc brakes coupled co hydraulic disc brake SHIMANO XT hydraulic, separate bra SM-RT 26 discs, lever reach adjustabl
□ Lighting system SON xs-m disc dynohub IQ-X headlight\$ 899.00 B&M IQ-X, up to 100 Lux, rear light B&M Toplight 2C plus with front and rear parking lights	•	1	-			•	-		Mechanical disc brakes (with HP VELOTEC not with Hands-On-Cycle)
□ Lighting system IQ XS friendly for E-drive headlight B&M\$ 249.00 IQ XS friendly, up to 80 Lux, rear light B&M Toplight 2C DC,	-	•	•	-	•	•	- 1	•	Avid BB7 separate brake per front Avid BB7 coupled front brakes with rear disc brake, parking brake function
permanent light powered by E-bike battery Lighting system IQ-X for E-drive headlight B&M IQ-X,\$339.00 up to 150 Lux, rear light B&M Toplight 2C DC,	-	•	•	•	-	•	- 1	•	Parking brake
permanent light powered by E-bike battery							_		Luggage
Lighting system IQ-XE with horn headlight B&M IQ-XE, \$ 0.00	-	-	-	-	-	-	• -		Racks
up to 150 Lux, rear light B&M Toplight Line, permanent light powered by E-bike battery Indicator lights system HP VeLOTECHNIK WingBling \$789.00 two indicator lights, both front and back, only with E-drive	•	•		-	-	•	• •	• •	Rear rack 12 mm / 10 mm (0.47" / 0. additional lower tubes for optimized black powder coating, max. load 55 lb Rear rack 14 mm (0.55") aluminum
Mirrors									coated, flag tube, without platform, m Lowrider 10 mm (0.39") tube, black 55 lbs / 25 kg (requires installed rear
□ Rear mirror B&M E wide view angle, easy to adjust,\$109.00 knuckle mounting (SFE always left): □ left □ right	-	•	-	-	•	•	• -		□ Top Load rack additional luggage ra maximum load 22 lbs / 10 kg (require:
□ Rear mirror B&M E wide view angle, easy to adjust,\$109.00 barend mounting on handlebar: □ left □ right	-	-	-	-	-	-			not suitable for panniers Side Bag Mount mounting for hand
□Rear mirror B&M E both sides knuckle mounted left and right .,\$109.00 □Rear mirror B&M E both sides knuckle mounted left and right\$218.00		Ē	-						ErgoMesh seats, attached to the seat, per side, left and right
□ Rear mirror B&M E both sides barend mounting on handlebar\$218.00	-	-	-	-	-	-			Bags /Trailers
□ Rear mirror MIRRYCLE with barend mounting,\$85.00 also usable as computer mount: □ left □ right	-	•	•	-	•	•	- 1	•	□ Microbag topbag for <i>BodyLink</i> seat, o I liter volume (not compatible with r
□ Rear mirror MIRRYCLE both sides barend mounting\$ 170.00 left and right	•	1	-		-	•	- 1	••	 Add-on bags for mesh seat pair I bag water repellent, I bag ventilated Water bottle set HP VELOTECHNIK print,
Accessories									Trailer hitch WEBER with HPVELO
 Flag HP VELOTECHNIK double-sided print, with reflective strip \$ 33.00 Horn AIRZOUND XL adjustable 30 – I 15 dB, car valve,		F					-		Gadget mounts / device mounts Speedometer mount for computer incl. sensor bracket for front wheel
Grame lock AxA Victory with removable key, \$ 99.00 without chain, black		•			-	•	•		Universal mount for mounting on Ø 22,2 mm tube holder for accessor
Chain for frame lock AxA Victory length 100 cm / 39.4" \$ 39.00									holder / GPS devices or bell, max. load

Basic configuration Option no upcharge Option with upcharge Not available	sco	SCF	SCL	SFS	SFL	SFN	SFE	SPS	SPL
akes									
 Iydraulic disc brakes (with HP VELOTECHNIK brake lever roofing) SHIMANO BR-MT200 separate brake per front wheel, no rear \$ 0.00 wheel brake 	•	•	•	•	•	•	-	•	•
□ RIDEREVER coupled coupled front brakes, rear mechanical\$349.00 disc brake AVID BB7 with parking brake function □ Hydraulic disc brakes coupled coupled front brakes, rear\$0.00			-		-		-		
hydraulic disc brake SHIMANO XT hydraulic, separate brake per front wheel, SHIMANO .\$249.00 SM-RT 26 discs, lever reach adjustable, no rear wheel brake	-	•			•		-		
Acchanical disc brakes (with HP VELOTECHNIK SnakeSeal at the brake levers of with Hands-On-Cycle)									
□Avid BB7 separate brake per front wheel, no rear wheel brake \$85.00 □Avid BB7 coupled front brakes with one-hand operation,\$219.00 rear disc brake, parking brake function	•	•					-		•
arking brake SHIMANO rear wheel V-Brake with thumbshifter \$79.00	-	•				-	•		•
ggage									
acks		_		_				_	
□ Rear rack 12 mm / 10 mm (0.47" / 0.39") aluminum tube 6061T4,\$ 379.00 additional lower tubes for optimized center of gravitiy for bags, black powder coating, max. load 55 lbs / 25 kg	-	-	-	-	-	-	-	-	-
□ Rear rack 14 mm (0.55") aluminum tube 6061T4, black powder\$ 299.00 coated, flag tube, without platform, max. load 55 lbs / 25 kg	•	-		-			•	-	
□ Lowrider 10 mm (0.39") tube, black powder coating, max. load\$ 185.00 55 lbs / 25 kg (requires installed rear rack) □ Top Load rack additional luggage rack above the rear wheel,\$ 239.00	-			_	-	-	_		
maximum load 22 lbs / 10 kg (requires installed rear rack), not suitable for panniers		-	-	-	-	-	-	-	
□ Side Bag Mount mounting for handlebar bags, only for\$ 209.00 ErgoMesh seats, attached to the seat, max. load 5 kg / 11 lbs per side, left and right	•	•	•		•	•	•		-
ags / Trailers									
□ Microbag topbag for <i>BodyLink</i> seat, detachable, also as hip bag, \$55.00 I liter volume (not compatible with rear rack)	-	•			-		-		-
□ Add-on bags for mesh seat pair of bags, attached to backrest, . \$89.00 bag water repellent, bag ventilated, capacity approx. I,4 per bag									
Water bottle set HP VELOTECHNIK 2 x 0,61 clear PE-bottle\$ 105.00 with coloured HP VELOTECHNIK print, with bottle cages, mounted	-	-							-
Trailer hitch WEBER with HPVELOTECHNIK adapter, mounted\$219.00	-	-	-		-	-	-	-	-
adget mounts / device mounts Speedometer mount for computers, battery lights etc.,			•		•				-
 Universal mount for mounting on the handlebar end,	•	•	•		•	•	•	•	-



Choose the components of your Scorpion with ease by using our comprehensive, clearly structured online configurator. Simply scan the QR-Code with your tablet-computer or type into your web browser www.hpvelotechnik.com/produkte/konfigurator

Prices and options

	 Basic configuration Option with upcharge 	 Option no upcharge Not available 	sco	SCF	SCL	SFL	SFN	SFE	SPS	SPL
Pedals										
 Trekking pedals VP 199 Plattform pedals blue Rubber pad pedals Clipless pedals SHIMANO XT for normal or SPD shoes Clipless pedals SHIMANO XT 	PD-T8000	\$ 0.00 \$ 0.00 \$ 0.00 \$ 0.00 \$ 0.00 \$ 119.00	•	•			-	-	-	•
for normal or SPD shoes										
Special pedals (single special pedals come Pedal with heelstrap and foo easy entry and positive grip, adju 22–28 cm (8.7"–11") 27–3 Pedals with heelstrap and for easy entry and positive grip, adju 22–28 cm (8.7"–11") 27–3	ot clamp single sided ustable length, shoe size: 4 cm (10.6"–13.4") oot clamp left and rig ustable length, shoe size:	\$ 119.00 left 🖵 right	•	•	•		•	•	•	•
 ErgoPedal single sided adjust shoe size: 20–28 cm (7.9"–11") 27–3 ErgoPedal left and right adju shoe size: 20–28 cm (7.9"–11") 27–3 	4 cm (10.6"–13.4") 🔲 Istable position, easy ent	left 🖵 right	•	•	•		•	-	•	•
□ ErgoPedal with safety release SHIMANO PD-A530, adjustable po freedom of movement +/-3 deg □ 20-28 cm (7.9"-11") □ 27-3 □ ErgoPedal with safety release joint-friendly freedom of movem higher safety due to adjustable p □ 20-28 cm (7.9"-11") □ 27-3	sition and release force, jo rees, easy entry straps, sl 4 cm (10.6"–13.4") e left and right adjustabl ent +/-3 degrees, easy ent release force, shoe size:	bint-friendly hoe size: left	•	•	• •		•	-	•	•
 □ ErgoPedal with calf brace si easy entry straps, leg fixation ad shoe size: □ 20–28 cm (7.9"–11") □ 27–3 □ ErgoPedal with calf brace lee easy entry straps, leg fixation ad shoe size: □ 20–28 cm (7.9"–11") □ 27–3 	ljustable in length and po 14 cm (10.6"–13.4") If and right adjustable ljustable in length and po	sition, left 🖵 right position,\$739.00	•	•	•		•	_	•	•
Protection gear										
 Trikefender mudguards with e 60 mm width in front, incl. 53 m Rear mudguard Enduro Sks Streamer transparent front fai not compatible with PINION, SHII 	m rear SKS fender MUD-X, mounted at sea ring, incl. installation,	t, black \$69.00	-	-			-	-	-	-
Transport cover for folded H	PVELOTECUNIK trikog rip	¢ 135.00	_						- L	

Transport cover for folded HP VELOTECHNIK trikes, ripstop\$135.00 -

	 Basic configuration Option with upcharge 	O Option no upchargeNot available	sco	SCF	SCL	SFS	SFL	SFN	SFE	SPS	SPL
Comfort and ability options											
One-hand operation for brakes an											
One-hand operation with hy		,	-		-	-	-	-	-	-	-
coupled disc brake RIDEREVER fro											
BB7 with parking brake function	-	rivetrain									
options, not for STURMEY ARCHER		oft 🗔 vight									
Mounting the controls:		eft 🖵 right									
Standing-up aid											
□ Standing-up aid for HP VELOTE	CHNIK trikes without front s	uspension,\$ 124.50				-	-	-	-	-	-
support with grip for easy entry											
on the knuckle, price per side		ight 🗅 pair				_	_	_	_	_	_
Standing-up aid for HPVELOTE			-	-	-						
support with grip for easy entry											
on the knuckle, price per side		ight 🖵 pair									
Walking aid mounts											
□ Walking aid mount single sid	led automatic attachme	nt and\$ 129.00									
easy to operate safety clip, price	per side 🛛 🖬 left 🖵 ri	ight 🛯 pair									
Support belts											
Pelvic support belt for optima	l pelvis support on	\$ 349.00							_		•
HP VELOTECHNIK mesh seats, also			_	_	_	_	_	_		_	_
Chest support belt for optima		1\$ 349.00							_		
HP VELOTECHNIK mesh seats, also	available as XL version										
Hand drive											
Color: Blue shade grey matt, enclosed di	rive, height adjustable, leng	th									
adjustable, adjustable leg rest, parking b											
crank, restricts folding function and choi	,										
Hands-On-Cycle with Triplesh	ift 24 Sturmey Archer 3	speed\$3,420.00	-	_	_		_	_	-		
internal gear hub with SRAM X4 8	speed rear derailleur, tw	vist shifters									
□ Hands-On-Cycle with ROHLOF	F 14 speed internal gear	hub,\$6,130.00	-	-	-		-	-	-		
black, twist shifter											
Hands-On-Cycle w/ NEODRIVES			-	-	-		-	-	-	_	
E-drive up to 20 mph (32 km/h),	-										
MICROSHIFT XLE, triggershifter an battery 576 Wh, push assist	d cassette Shimano XT,	LI-ION									
Footplate for placing the feet, I	1	0	-	-	-		-	-	-		
Calf brace legs can be fixed, I	0		-	-	-		-	-	-		
Indicator lights system Wing		mbination .\$819.00	-	-	-	-	-	-	-		-
with electric drive, operable from	n the handlebar										



The Scorpion-family: A line-up of your favorites







Scorpion: Light and fast sports trike with low seat and 26 inch rear wheel from \$ 4,890



Scorpion fs 26 Enduro: The foldable, full-suspension Mountain-Trike from \$ 7.220



Scorpion fx 20: Foldable, medium high-seated travelling trike with 20" rear wheel from \$ 5,670



Scorpion fs 26 S-Pedelec: Electric support up to 28 mph (45 km/h) from \$ 11,890



Scorbion fx 26: Foldable, medium high-seated travelling trike with 26" rear wheel from \$ 5,770

Scorbion fs 20: Foldable full-suspension action

Scorpion fs 26: Foldable full-suspension action trike with 26 inch rear wheel from \$ 6.740

trike with 20 inch rear wheel from \$ 6,430



Scorpion plus 20: The foldable, high comfort trike with 20 inch rear wheel \$ 6,850











Scorpion plus 26: The foldable, high comfort trike with 26 inch rear wheel from \$ 6,950



Fast, convenient and informative: Selecting the components of your trike is easy with the online configurator at www.hpvelotechnik.com.The configurator provides detailed pictures, technical tips in english language and checks the interplay of your chosen equipment. With your personal configuration number, you can edit your saved component choice, print and call your dealer for advice.

Your custom Scorpion is individu-

ally built to order in our recumbent factory in Kriftel, Germany. You can choose the components according to your needs. By going through a personal consultation at a specialty shop in your area, extensive test rides, useful accessories and expert customer service, you will get a trike that fits you perfectly.

Your dealer is looking	forward to your visit:

Choose according to your heart's delight – please find all options, accessories and prices on the previous pages!

10 years warranty is offered by HP VELOTECHNIK for the frame of your new trike. We are proud of our products and strive to deliver the best sustainable, carefree riding pleasure. For details, check out the service section on our website www.hpvelotechnik.com, there you can also configure your dream bike in the online recumbent bike configurator!

Get expert advice and customer service in your area from our large network of retail partners. You will be advised on an individual basis and obtain valuable information on our sophisticated modular system of accessories and professional workshop services. In the mood for a quick test ride? Don't hesitate, simply contact your retailer!

MSRP in US\$ including US duties and shipping to US dealer, excl. local sales tax. Accessory prices are extra. Effective as of August 2025. Images with special equipment. Subject to alterations.

HP VELOTECHNIK GmbH & Co. KG • German recumbent engineering • Kapellenstrasse 49 • 65830 Kriftel • Germany • TR cc Frankfurt/M HRA 47004 Phone 011 49 61 92 - 97 99 2-0 • Fax 011 49 61 92 - 97 99 2-299 • sales@hpvelotechnik.com • Detailed information and dealer directory on the Internet at www.hpvelotechnik.com