

## two-wheel recumbents.

## PVELOTECHNIK















Speedmachine, Grasshopper fx and Streetmachine Gte – fast and comfortable recumbent bikes from HP VELOTECHNIK. Recline in style!



### New bike? Recline in style!

Fast and comfortable, recumbent bikes from HP VELOTECHNIK promise a joyous ride for extensive tours, fast excursions or on the way to work.

**Browsing this complete catalogue** of our two-wheel recumbents, you will easily find your personal favorite. The team of expert engineers at HP VELOTECHNIK has developed three models with a wide range of applications: sporty with the *Speedmachine*, flexible for commuting with the foldable *Grasshopper fx* or ready for your bikepackin adventure on the *Streetmachine Gte*.

**Bicycles from HP VELOTECHNIK** are as unique as their owners. Our modular system gives you full choice. On the following pages, we will explain the special characteristics of each of our recumbents. We design them to satisfy your expectations of your personal dream bike, and we are passionate about helping you realize that dream.

**Your new recumbent bike is hand-built to order** by dedicated technicians in HPVELOTECHNIK'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 <u>www.hpvelotechnik.com</u>. For competent advice and extensive test rides, your HPVELOTECHNIK dealer looks forward to your visit!

## Find out what makes your HP VELOTECHNIK recumbent unique:

The chassis – No Squat technology Page 9

E-bikes: The ease of riding – the basics of electric drives Pages 28 to 33

Pure ergonomics – comfortable seats from HP VELOTECHNIK: ErgoMesh, ErgoMesh Premium and BodyLink Pages 34 to 39

Recumbent adventurers: Au déTour du Monde, Agence Future, Tom Richter, Michel Leisner Pages 40 to 43

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**Speedmachine** – Lower. Faster. Further. A joy ride you can take every day!

- Low seat height for outstanding aerodynamics, also ideal for smaller persons
- Sporty steering geometry
- High pedal position above the seat for outstanding performance and aerodynamics
- 26" rear wheel for smooth running
- Rack with platform for 2 large bags up to 25 kg (55 lbs) plus lowrider option for 2 large bags up to 25 kg
  Comfortable suspension, optionally with integral suspension system in the steerer tube P. 2







- **Grasshopper fx** small package, great ride. The foldable trekking recumbent
- Medium seat height for good aerodynamics, also ideal for smaller persons
- Agile, manoeuvrable steering geometry
- Raised pedal position above the seat
- for efficient performance

• Foldable in 60 seconds without tools

- Compact 20" rear wheel
- Rack with platform for 2 large bags up to 25 kg (55 lbs)
- plus lowrider option for 2 large bags up to 25 kg
- Comfortable full suspension

p. 12



- Streetmachine Gte the comfortable touring bike
- Very high seating position for outstanding visibility with very good driving dynamics
- $\bullet$  Steering geometry for smooth straight-running
- Slightly raised pedal position above the seat
- for good performance and easy ascent
- 26" rear wheel for smooth running
  Rack with platform for 2 large bags up to 25 kg (55 lbs) plus lowrider option for 2 large bags up to 25 kg
- Comfortable full suspension

е **20** 

### Into the future with high speed and comfort

For many companies, 30 years is a reason to make plans for a big celebration. At HP VELO-TECHNIK, we prefer to do what we have been doing since our foundation in 1993: make big plans and then celebrate innovative designs with you. To find out which exciting ideas there have been in the last twelve months, just take a look for yourself on the next pages!

As a motor vehicle manufacturer certified by the Kraftfahrt-Bundesamt (German Federal Motor Transport Authority), we are launching the already fast Speedmachine as an S-pedelec with an EU-wide type approval. This means that in many European countries the usual hurdles to registration are removed. If one adds such exemplary liberal road traffic regulations as in Switzerland and Belgium, the S-pedelec will help the mobility change. HP VELOTECHNIK is also committed to do this in Germany.

Experienced touring cyclists smile at this speed discussion. What counts for them is gently gliding through the countryside, enjoying the panorama and knowing that thanks to an ergonomically optimised vehicle they will be completely relaxed when they get off their bike in the evening. One of our most beautiful ergonomic inventions has so far been excluded from the Grasshopper fx: the ultra-comfortable ErgoMesh Premium seat. Now, thanks to a small change in the frame construction, it is possible to mount it. The best thing to do is to make an appointment with your specialist dealer and test this seat feeling for yourself! Our trade partners will also be happy to show you the numerous other equipment options.

Yours, Daniel Pulvermüller und Paul Hollants





Your latest passion? Getting up to speed!







## Speedmachine: A joy ride you can take every day

**Lower, faster, further:** The *Speedmachine* is more agile, more efficient and more comfortable than you would ever have thought possible. It's an ergonomic machine dedicated to absolute speed.

You have probably never ridden a bike this fast or this comfortable. In fact you probably assumed that gain meant pain. But the *Speedmachine* rewrites the rules. By combining a super-oversized aluminum frame, a full suspension ride and a totally ergonomic riding position with perhaps the smallest frontal area on the planet, we have created a machine to give you incredible performance along with total comfort.

**Remember, at racing speeds** it's not the weight that slows you down, it's the effort of pushing through the atmosphere. On the *Speedmachine* your body is an arrow, cutting through the air with ease and giving you a seriously unfair advantage. And in this riding position your entire body is supported, so that your weight is distributed over the largest possible area.

**Of course,** you have to leave behind some companions you were familiar with in the old days when riding an upright bike: saddle pain, numb wrists or a tense neck are a

thing of the past with the *Speedmachine*. No pressure points! Recall miles of looking down on the small stretch of tarmac right ahead of your front whee!? Now start enjoying the beauty of the entire

"Well thought out, comfortable, fast – the Speedmachine is a successful mixture of exercise machine and touring bike. The bike can be accelerated dynamically, moved through bends with pleasure and braked excellently." tour magazine

landscape with the panoramic view from your recumbent seat!

**Our suspension system is fully integrated** into the frame design, it is fully tunable for performance and works completely independently of your pedaling force.

We call this No Squat, and it is a system that has been perfected over thousands of miles of extreme roads by our team of test riders. What it means is, if you accelerate uphill, you accelerate. And because it isolates you completely from the road, your energy goes entirely into forward motion. It works, so that you don't have to.

We haven't neglected the accessories either. We can offer an integrated luggage rack, proper mudguards and the best lighting system you can buy. Our *BodyLink* or *ErgoMesh* seats ensure the perfect fit.

**Ready for some extra speed?** Call your HP VELOTECHNIK dealer to arrange a test ride today!





**Look ahead:** push the limits of cycling with the *Speedmachine*. The perfect machine for the cyclist who wants to reach new levels of speed and comfort. Our medium short wheelbase design provides excellent handling and comfort characteristics.

**Efficient, fast and comfortable,** the Speedmachine comes with superb options: integral steering tube suspension, adjustable ergonomic seat, suspended rear rack, powerful disc brakes, ... and yes, even built-in *Fahrvergnügen!* 

**Recline in style.** Lean back in the airy *ErgoMesh* seat, in the flexible ErgoMesh Premium seat or in the adjustable *BodyLink* hard shell seat. Read on pages 28 to 33 how beneficial they all are for your bottom, your spinal discs, and your family planning.





The Speedmachine with touring equipment: Ready for your next epic ride?



**Great design is also about the details.** Taking into account thousands of miles of customer experience, we have developed the *Speedmachine* as an elegant sports bike that combines the dynamics of a racing bike with the everyday suitability of a touring bike, perfect for fast extended tours with luggage.





## Speedmachine

## The full story on riding comfort: Suspension technology to enjoy

The Speedmachine with its integrated suspension design excels when heavily loaded. The stable lowrider rack for large panniers under the seat, the steering geometry optimized for high running smoothness and the efficient aerodynamics of the low seating position make this bike a sporty traveling companion. Particularly important on long-distance tours with luggage: the certainty that a comfortable, reliable suspension technology offers the absolutely best in handling, performance and driving dynamics.





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, highstrength plastic. It rotates with ease around two sealed, individually replaceable cartridge bearings. The roller has a middle bar on which the chain rests, like on a chainwheel, and which guides the chain quiety through its movements.



The HP VELOTECHNIK No-Squat technology represents optimized chassis design. The engineers designed the frame and suspension to combine outstanding comfort with the

efficient transmission of 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.

**HP VELOTECHNIK'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 bike and rider, a loss never to be recovered. On the full-suspension HP VELOTECHNIK recumbents 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 recumbent'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 rear suspension** utilizes 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 bike. 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.

**HP VELOTECHNIK recommends** setting the suspension 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 recumbent rider, you benefit from a further physical advantage over the conventional upright cyclists: In the laid back position, and thus place few downward forces on the suspension.

The engineers at HP VELOTECHNIK determine the chassis geometry and the optimum position of the drive chain specifically for each model.

What do you feel? Impressive comfort and 100 percent performance thanks to maximum power transmission.



The core element: Shock unit with hydraulic oil damping for the rear wheel swingarm. 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 bike to the rider's weight.



**On request,** your recumbent can be equipped with the lightweight air shock system by ROCK SHOX. 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.







Alternatives for the cockpit: The Tiller steering handlebars combine a relaxed arm position with good aerodynamics. The hands lie loosely in front of the chest.



Comfortable ergo-bars under the seat for relaxed arms and wrists. Large steering angle through indirect steering. Maintenance-free bearings with sealed industrial bearings and self-lubricating rod ends.

### **Technical Data**

Seat	Height	Angle
- BodyLink	0	37–45°
- ErgoMesh		37–45°
- ErgoMesh Premium .		
Pedal axel height	• •	
Suspension travel (f/r)		
Wheel size (f / r)	· · /	
Tire width max		
Wheelbase	117 cm / 46"	
Length	180-210 cm	/ 71" - 83"
Height		
Handle bar width		
Weight (with pedals)	from 13,5 kg / 3	30 lbs
Payload		
Frame		
Powder coating		
(anti corrosion coat	Carmine red	or
+ colored- + clear coat)	custom color	
Rider height (ca.)		5'3"-6'6"
Warranty on frame		

Plenty of space for your luggage and it is all fully suspended. The result: fast suspension action and minimized vibration stress for your equipment. The rear rack is a rigid construction made from 12 mm(1/2") alloy tubing, perfect choice for carrying your panniers. Well integrated: A protection for your taillight and a flag holder.

HP VELOTECHNIK's seat systems create an ergonomic connection. You have a choice between three systems: The highly flexible ErgoMesh Premium with its revolutionary versatility, the classic airy ErgoMesh seat, or the BodyLink hard shell seat as a sporty alternative. The Aero handlebars ensure a sporty, stretched arm position and optimum aerodynamics. Plenty of space between handlebars and upper body for easy boarding. Large steering angle and precise curve control.

Protection for the chain and your trousers: the drivetrain is almost completely covered. Our special low friction chain tubes guarantee an efficient power transmission and silent action.

A great benefit for dynamic sprints: the stiff frame directly transmits your leg power to the road.



handles fine even when braking hard. The disc brakes offer great stopping power, allowing for a fast yet safely controllable downhill ride. Safety plus: No more rim wear.

to 40 kg. (88 lbs). Perfect for children's transport or the very big tour.

rebound. You can accelerate powerfully - even on the mountain. On request we mount the ultra-light air spring element of ROCKSHOX. The spring rate can be adjusted to the payload with a shock pump. Equipped with adjustable hydraulic rebound damping and lockable compression damping, it excels in our tests.

| Minimum weight combined with Our optional suspension fork is tube. Due to the fork's compact design, the chain can run closely to the frame and smoothly above the front wheel. Sharp turns are easy without interfering with the chain.

# Take a **ride**

on the green side

A tour with the Grasshopper fx unfolds pure driving pleasure.

Grasshopper<sup>f</sup>



**Time for refreshing new perspectives.** The *Grasshopper fx* brings action into the bike world. For a long time cycling primarily meant one thing: hump up and step down. The *Grasshopper fx* accelerates forward, suspends downwards – and folds to the side.

**You do not want to miss out.** Who likes riding upright against the wind, anyway? Your *Grasshopper fx* glides smoothly like an arrow on the street. Off-road the 110 mm suspension travel handles roughnesses with ease. Meanwhile, You enjoy panoramic views.

**Everyday life was yesterday.** The *Grasshopper fx* turns the ride to work into a fun tour. As you drive into the green you will finally see blue skies again. Take a deep breath. Fancy a leap forward?

## A Grasshopper fx - just as exciting as your new love. Ready for the change?

**Tempting!** This fancy machine invites you to ride it. Take a seat; you immediately feel comfortable. Rest your feet easily on the pedals. A firm push and you accelerate surprisingly fast. It is not like anything you have experienced before, but after a few minutes you are getting the hang of it and you begin to feel confident and in control. Now you test its agility. You notice how relaxed you are and how smooth the road feels. You realize how free of strain your body feels and begin to appreciate the wide screen panorama view while riding - laid-back and absolutely enjoying it.

A space-saving miracle. With its two smooth running 20" wheels, the Grasshopper fx is also the most compact model in our two-wheel product portfolio. Fully unfolded, the *Grasshopper* fx has a length of 1.60 m – shorter than your old upright bike! The medium seat height of 54 cm makes the Grasshopper fx perfect for smaller drivers: You have a good overview in traffic and can put your feet down safely at traffic lights. And if you need a bit of support, you can order an electrical power assist system to help you along.

Your Grasshopper fx indulges you with comfort. The full suspension also increases riding safety, as control and traction are improved. To find the perfect

position, choose from three seats: BodyLink, ErgoMesh or ErgoMesh XL all are individually adjustable.

You have everything under control with the three steering systems that we have developed for the Grasshopper fx. The most relaxed way to place your hands is the under seat steering at hip level. For the Above seat steering you can choose between the Aero handlebar with a forward arm position and the Tiller handlebar. This enables an almost equally streamlined sitting position with a relaxed arm position. It can be folded forward to get off the vehicle easily.

It is the details that enhance the experience. Take time to get to know our comprehensive range of accessories. Your HP VELOTECHNIK dealer will be happy to help. The Grasshopper fx looks forward to your test ride!

## Technical Data

Handle bar width 56 cm / 22" Weight (ind. pedals) from 15,2 kg / from 33.5 lbs Max. payload max. 130 kg / 287 lbs Frame material Aluminum 7005 T6 Swingarm bearing maintenance free Powder coating Magic green or (anti-corrosion coat + Blue shade grey colored coat + dear coat) or custom color Rider height a 1,58–2,00 m / 5'2"-6'6" Warranty on frame 10 years
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## small package, great ride!

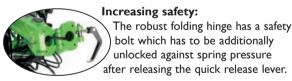


True size shows up even in little ones. The seat is removable by guick release and can be stowed in the optional protective cover with carrying straps. The frame folds to the side and is secured with quick release straps.

#### **Dimensions folded:**

96x50x70 cm with under seat steering or Aerobars (38"x20"x28") 96x60x70 cm with tiller steering (38"x24"x28")



















Your luggage also rides fully suspended: strap your gear to our robust rear rack made of 10 mm tube. The low side bars keep your bags secure up to a weight limit of 25 kg. The rack also gives features protection for your rear light and a mount for your safety flag.

On request your Grasshopper fx can be equipped with the ultra light air damper Monarch RL from ROCKSHOX. Practical: The suspension characteristic can be adjusted to the payload simply with a shock pump. Equipped with an adjustable hydraulic rebound damping and lockable compression stage, it convinces with the best response. HP

HP VELOTECHNIK's seat systems create an ergonomic connection. You have a choice between three systems. First, their is the highly flexible *ErgoMesh Premium* with its revolutionary versatility, then the classic airy *ErgoMesh* seat with an ergonomic cushioning that provides extra lateral support when cornering and a practical seat pocket integrated into the backrest of the seat. For extra safety both seats are equipped with reflective stripes on the sides. Alternatively, you can choose our comfortable *BodyLink* seat. It fits your body like a glove. All seats fit onto the same frame mounts and can be removed from the bike within 15 seconds by quick release levers.

Above seat steering for best possible aerodynamics. All operating elements are thus in view as usual. You have the choice between the *Aero handlebars* with a sporty, forward-facing arm position (Fig. p. 14) or the rear-facing, inclination-adju-stable *Tiller handlebar* (Fig. p. 13). Alternative comfortable ergonomic handlebars under the seat. Wrists and neck muscles are relieved. Length and angle adjustable. The handlebars located far back allow even smaller riders to place both feet securely on the ground. The large steering angle due to the indirect steering makes the *Grasshopper* fx very manoeuvrable. Maintenance-free bearings with seat led industrial bearings and self-lubricating rod ends. Whether *Aero*, *Tiller* or under seat handlebars:You always have your *Grasshopper* fx perfectly under control.

Creat Report

Protection for chain and trousers; the drive train is almost completely covered. Our special low friction chain tubes guarantee an efficient power transmission and minimize noise.

Perfect for heavy loads: Additional low rider rack under the seat. The low center of gravity offers great road handling. Max load 25 kg.

Our No-Squat suspension design offers complete comfort with no performance loss. The combination of a very stiff rear frame with the sophisticated positioning of the wing arm pivot point, the large ball-bearing chain idler and the rear shock with hydraulic damping effectively prevent compression due to driving forces and unpleasant pedal rebound. When you push on the pedals all your energy is transferred into motion. High-quality SPINNER Grind 20" suspension fork with adjustable spring preload and exchangeable steel springs. It offers optimum response and excellent road holding even on stony paths. Powerful disc brakes are fitted as standard. These ensure reliably high braking power even on long downhill runs or in wet conditions and protect the rims from wear.

Your Grasshopper fx pulls trailers (single or multi track) up to 40 kg / 88 lbs weight. This is ideal for child transport or for filling up at the supermarket.



## Lay back, put your feet up and enjoy: Have a look at some of our press reviews

"Highly recommended! With the *Grasshopper*, HP VELOTECHNIK has achieved a great success. Everything is right with this touring bike: riding pleasure and performance, quality, technology, ergonomically perfect sitting, equipment according to your wishes and personal advice.

If you have never ridden a recumbent, you should try a *Grasshopper*. It makes you want to jump into the green!" (AKTIVRADFAHREN)

"The optical harmony of this two-wheeler synthesis of comfort and technology is impressive.

The two-piece Airflow seat is also perfect – rarely has the back on a recumbent remained so dry! I feel like I'm on a beach chair! The gaze wanders into the distance, the head gently leans against its support.

The *Grasshopper* is a very high-quality, sporty touring bike with almost optimal ergonomics for almost any surface. And one more real reason to try out cycling while lying down." (RADTOUREN)

"The combined bump-sucking ability of the *Grasshopper*'s front and rear suspension was quite impressive. Cobblestones pretty much ceased to exist and all but the nastiest potholes were reduced to nothing but a barely audible thud.

The Grasshopper is a very well designed and well executed fully suspended recumbent. HP VELOTECHNIK has a great reputation for quality and customer service. No matter what bike you considered before buying the Grasshopper, you most likely won't be disappointed. It's a very versatile and competent new addition to the HP VELOTECHNIK family."

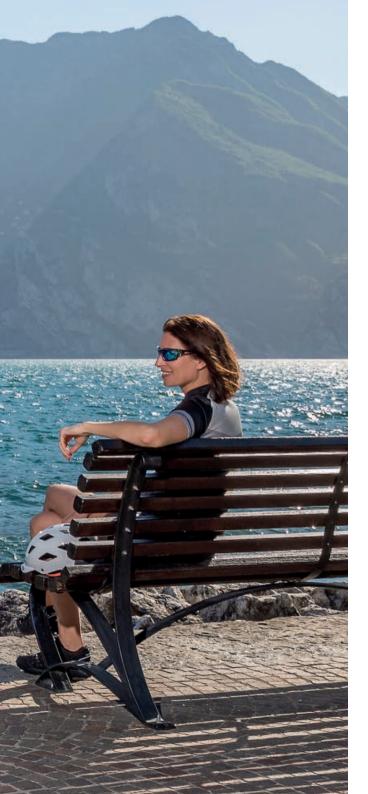
(BENTRIDERONLINE.COM)

The Grasshopper fx was awarded the Eurobike Award for particularly innovative design and above-average product quality. The jury at the iF – INTER-NATIONAL DESIGN FORUM, consisting of trade journalists, design experts and sports scientists, evaluated efficiency, ergonomics, utility value, weight, safety, environmental compatibility and workmanship.













**The evolution reveals:** A small change of your posture can lead to a boost in performance and comfort. The *Streetmachine Gte* combines the knowledge of more than 25 years of development work in a travel and touring bike that is unparalleled.

Whether you like to enjoy cycling your favourite path by the lake, excercise your body on the slopes in the hillside or commute on the way to work – lean back, relax, and enjoy your bike with a view.

## Your Streetmachine Gte is as versatile as the way from Paris to Bangkok, from NY to LA.



Our optional above seat steering for the *Streetmachine Gte* is adjustable in height as well as in angle. To get on the bike with ease, it can simply be folded forwards. Whether bike computer, GPS or simply your smartphone with the Bangkok guide app – everything can be mounted perfectly and precisely in the driver's field of vision.



The optional electric drive by NEODRIVES supports you up to 25 km/h (16 mph), in the USA up to 32 km/h (20 mph; Class I eletric bicycle). The whisper-quiet rear wheel hub motor has 5 support levels, boost function and 40 Nm peak torque. Range is up to 136 km (84 miles). Downhill, you can use the rucuperation function and charge the light Li-lon battery with its 5576 Wh / 36 V.



Always the right gear for a smooth start: PINION'S *Cl.12* internally geared transmission can be shifted even when standing still. It's a great combo with the NEODRIVES electric drive. The 12 gears in the special alloy housing are always upfront. Useful detail: our extra-long twist grip for quick shifting manoeuvres.

**The plan** for your next cycling adventure is already on your mind? The *Streetmachine Gte* is your faithful companion; designed and built to offer highest standards of comfort and sophistication. And it has a whole host of features that set it apart from other bikes of its type.

A Streetmachine Gte does exactly what you want it to do with the minimum of input. It practically rides itself, leaving you free to concentrate on the road ahead, or just to relax and enjoy the scenery.

**Keep an eye on things.** The *Streetmachine Gte* is our recumbent bike with the highest sitting position. Sitting at a hand's width above most road users you have good view through car windows in city traffic.

The Streetmachine Gte is a real treat with relaxing comfort. The full suspension gives you safety, as control and road grip are improved. To find the perfect position on the bike, you can choose between above or under seat steering and three seats: the breathable *ErgoMesh* seat, the flexible *ErgoMesh* Premium seat or the sporty *BodyLink* hard

shell seat, which can be precisely adjusted to your back.

With our modular system you can adjust your bike perfectly to your needs. Dust, dirt, water, heat, cold - the elements are giving an adventure bike a hard time. That is why globetrotters prefer equipment which they can rely on. For the Streetmachine Gte you get highly reliable equipment specially designed for the most demanding use. Just like our two fully encapsulated drivetrains: the classic ROHLOFF Speedhub with 14 gears in the rear hub, or the almost as finely graded 12-speed internally geared transmission from **PINION** upfront.

If you have ridden other recumbents you might just be surprised how good they can be. If you have never ridden one, prepare to be amazed.

### **Technical Data**

Seat	Height	Angle
- BodyLink	63 cm (25")	$39-47^\circ$
- ErgoMesh		$39-47^\circ$
- ErgoMesh Premium	66 cm (26")	$34-48^\circ$
Pedal axle height	69 cm / 27"	
Suspension travel	5/11 cm / 2"/4" f/i	r
Whell size	20" / 26" f / r	
Tire width max	5 cm / 2"	
Wheelbase	104 cm / 41"	
Length	160-189cm/63"-	<b>74</b> ½"
Height	110 cm / 45 <sup>1</sup> /2"	
Handle bar width BodyLink	60 cm / 23 <sup>1</sup> / <sub>2</sub> "	
Handle bar width ErgoMesh	65 cm / 25½"	
Weight (incl. pedals)	from 14,6 kg / 32.2 ll	os
Payload	max. 130 kg / 286 l	bs
Frame material	aluminium AL7005 T	6
Powder coating	Pearl orange or	
(anti-corrosion coat +	Silver grey	
colored coat + clear coat)	or custom color	
Rider height	I,64–2 m/5'4"–67	*11
Warranty on frame	10 years	





The Streetmachine Gte has been designed to create what is probably the best long distance touring bike you can buy. The ride is exhilarating – fast and controllable – yet you can carry enough gear for a world tour with minimum compromise to handling.





mount.

All your luggage rides fully suspended. Our

plenty of space. The side frame provides a

safe hold for large panniers. Integrated

guard bracket for your taillight and flag

robust rear rack made of 12 mm tube gives

Protection for the chain and your trousers; the drivetrain is almost completely covered. Our special low friction chain tubes guarantee an efficient power transmission and minimize noise. Comfortable ergobars for under seat steering. Your hands, wrists and neck can relax. The direct connection to the front wheel allows for precise steering. The standard handlebars are 60 cm (23.6") wide and their ends are slightly bent forward. As an option, you can order your bike with extra wide (65 cm / 25.6") handlebars with straight ends. The extra wide handle bars allow for a tighter turning circle, however, the wide arm position slightly increases the aerodynamic drag on your bike. If you choose to order your *Streetmachine Gte* with our *ErgoMesh* seat, we will allways mount the extra wide handlebars. Optional above seat steering with foldable TERRACYCLE Glideflex stem.

machine

HP VELOTECHNIK uses comfortable recumbent suspension forks. The high-grade SPINNER *Grind2* forks allows to mount disc brakes. They guarantee incredible braking performance when going downhill. Lowrider rack: perfect place to put heavy bags. The low center of gravity gives great road handling. Integrated holder for kickstand, optimum position in the middle of the bike. Our No-Squat suspension design offers complete comfort with no performance loss. The combination of a very stiff rear frame triangle with the sophisticated positioning of the swing arm pivot point, the large ball-bearing chain idler and the hydraulically damped rear shock effectively prevent compression due to driving forces and unpleasant pedal rebound.You can accelerate powerfully – even on the mountain.

Suitable for trailers (single or double track) of up to 88 lbs weight.

### Perfect break-time lecture: Read the media's opinion on the Streetmachine Gte

**"The Streetmachine Gte** is based on a concept perfected over many years. This can be seen in the well thought-out, top-class equipment as well as in the solid driving characteristics. For the long distance as a touring bike a serious alternative." TREKKINGBIKE **"HP VELOTECHNIK knows** how to build first-class recumbents. The bullet below me is probably one of the best things you can buy. Because the further developed *Streetmachine Gte* is a perfectly made, extremely harmoniously and competently composed noble tourer. An outstanding recumbent, absolutely recommendable!" AKTIV RADFAHREN

"The Street Machine Gt should make the change to a recumbent bike tasty even for die-hard touring cyclists. One is relaxed, the view of the surrounding countryside is unique, the technology and equipment of the bike are convincing. The Street Machine Gt meets all requirements for a perfect touring bike. Actually, you just have to say goodbye to the beloved diamond frame shape, and nothing stands in the way of a new love." RADTOUREN

"No other model embodies the history and success of HP VELOTECHNIK more comprehensively and better than the touring *Streetmachine*. Paul Hollants and Daniel Pulvermüller started their own recumbent production with it. The fact that the bike has long grown up shows not only the mature, very high-quality workmanship, but also the fine equipment including the liaison of PINION gearbox and GO SWISSDRIVE rear engine. Thus the Streetmachine embodies not only the beginnings, but also the future. (...) Conclusion: Congratulations to HP VELOTECHNIK! For the anniversary and for this bike. With the *Streetmachine Gte*, the company proves that it is ideally positioned for the future." AKTIV RADFAHREN

**"Finally, there is a recumbent bike** suitable for touring that is perfect for world tours with useful equipment: The recumbent professionals from HP VELOTECHNIK have hit the nail on the head with the *Street Machine Gt.*" OUTDOOR

"Those who distrust the claims that recumbents can be fast, but also mountain capable, that they are certainly manoeuvrable and safe, can be convinced of all this by this engineering performance. The *Streetmachine* is a wonderfully comfortable high-speed bike." FRANKFURTER ALLGEMEINE ZEITUNG

"The Street Machine Gt sets a new standard in riding culture and running characteristics in recumbent construction. Whether in the city or overland, on slippery paths or dirt roads, with or without luggage, cycling can hardly be faster and more comfortable. Even on sandy tracks along the German coast we got along surprisingly well. This is not a matter of course for recumbents. This and the many small, well thought-out details show how mature this bike is." FRANKFURTER RUNDSCHAU

"But now get out of town, the 'Gt' stands for 'Gran Turismo'. A bumpy dirt road leads into the countryside, and the bike once again shows how well it combines comfort and safety. The enormous manoeuvrability is maintained in every speed range, the bends can't be tight enough for me: With the *Streetmachine* also finding curves is fun, a rare compliment for a touring bike." RADLMAGAZIN

**"Big tours,** speed on long distances, travelling with luggage – these are the domains of the *Street Machine Gt*. In view of the good workmanship and the high-quality equipment, the price is appropriate for a full-suspension bike that combines fun, speed and comfort with good handling." DRAHTESEL

"The Street Machine was my personal favorite. Already at my second tour I dared to ride on a BMX track and it didn't go that badly there. Conclusion: The Streetmachine is the perfect entry-level device for sporty recumbent cycling." ARGUS DRAHTESEL

**"The Street Machine Gt really shines** when it's burdened down with a heavy load. The bike's handling seemed barely phased by a load of almost 75 pounds. As Yoda would say, 'Tour, she will!'" BENTRIDERONLINE.COM

"With it's Euro-Style ergonomics, extremely smooth HP Velo full suspension, and a host of custom upgrades, the *Street Machine* is the finest SWB USS recumbent available today – the ultimate recumbent magic carpet ride." RECUMBENTCYCLISTNEWS

**"Comfortable and safe**, the *Street Machine* sets the standard for full-suspension short wheelbase recumbents." CYCLING PLUS

More reviews at www.hpvelotechnik.com

## A short history of evolution



Street Machine Classic



Street Machine Gt



After various experiments with two and three-wheelers, Paul Hollants and Daniel Pulvermüller design a compact recumbent with suspension in 1991. They thus combine the comfort of the conventional long wheel base recumbent with the performance and aerodynamics of a short wheel base design. The interested parties are queuing up. In 1993 Hollants and Pulvermül-

In 1993 Hollants and Pulvermuller found the recumbent bike manufacturer HP VELOTECHNIK and launch the Street Machine Classic, one of the first series-produced recumbent with suspension on the market.

Long before bike suspension technology appear on the MTB, a MCU elastomer spring on the rear wheel provides comfort. The brazed steel frame is fitted with a rigid glassfibre seat.

Introduced in 1999, the Street Machine Gt quickly established itself as a classic recumbent. The bike gets its characteristic curve in the frame. A hydraulically dampened rear shock is now integreated in the frame.

**No-Squat:** The mechanical engineer Pulvermüller calls his design *No-Squat*, emphasizing that the suspension is unaffected by drive forces. Even today not all bicycle manufacturers take it for granted. The steering geometry for very smooth straightrunning even with a lot of luggage is given its final tweaks.

The "evolution" version Streetmachine Gte comes with an even stiffer, lightweight aluminium frame in 2005. The ergonomics of the newly developed BodyLink seat creates enthusiasm. Since then, the recumbent bike from HP VELOTECH-NIK has undergone continuous evolutionary development.

The electric motor has found its way onto the bicycle. The Streetmachine Gte does not close itself off from this either. In 2018 it was launched with the excellent combination of a whisper-quiet hub motor plus the internally geared transmission by PINION.







**E-drive** 

## Whether 25 or 45 km/h: With our extra power, you can turn your recumbent into an electro speedster!

Would you like to extend the action radius of your recumbent? Smile as you climb the local hills with a trailer? Or how about a quick and relaxed ride to work? Choose our e-drive: just pedal and let the powerful motor give you up to three times more drive power. It is an easy choice as our system is one of the most powerful and lightest on the market.

Two systems, two worlds: 25 km/h – or 45 km/h? We can install the Z20 rear hub motor from Neodrives on any of our three single-track recumbents on request. This makes them a *Pedelec* (*Pedal Electric Cycle*) in Europe. The Pedelec trike with power drive support reaches a speed up to 25 km/h (16 mph) resp. for USA 32 km/h (20 mph, Class I electric bicycle). You can ride these bikes without registration, helmet or license plate.

**Speedmachine: the Z20 RS system.** Turn your recumbent into an S-Pedelec! This premium drive gives you extra thrust up to a maximum speed of 45 kilometers per hour (28 mph). The power package with its EU type approval is only permitted in combination with the full-suspension Speedmachine.

**Especially notable:** that perfect bike-riding-feeling with the recumbent does not change with the motor. Due to the HP VELOTECHNIK programming there is no stuttering, no noise, and no complicated throttle. The e-drive is very safe: the support only starts when pedaled and ends subtly as the recumbent reaches the pre-programmed maximum speed. The light weight of the bicycle allows a normal riding feeling, even when the battery is drained.

The gearless hub motor from NEODRIVES silently unfolds its power like no other. Since the drive energy is generated directly at the rear wheel, there are no transmission losses in the drive train. Your chain, sprockets and chainrings are not stressed by the engine. This protects these drive parts, which on average will last up to four times longer than mid-engines. A particular advantage of a hub motor system in contrast to bottom bracket motors is that they can recover energy when riding downhill. Just push a button on the control unit and the motor operates as a generator. This charges the battery and can increase your range.

This technology is called recuperation. 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.

**Tailwind at the touch of a thumb:** The remote control of the innovative NEODRIVES system is mounted directly on the handlebar grip. All settings can be controlled by thumb via touch fields intuitively without having to look.

**The right "touch":** You can also navigate immediately on the clearly designed color display of the *Speedmachine S-Pedelec*. Thanks to the touchscreen, you can call up the menus quickly and directly.

The mega trend "electric bike" shows its best side with our recumbent bikes: the streamlined sitting position saves you valuable energy and the generous battery capacity is used efficiently. Electrified? Your specialist dealer will be happy to advise you!



## **NEODRIVES Z20: 25 km/h tail wind – and even** the longest ride turns into a continuous pleasure

Ergonomics multiplied by efficiency. The ergo-

nomics of the recumbent are legendary: After a long day on the bike, you can easily avoid the aches and pains of upright cyclists, such as tingling in the hands, pressure points on the buttocks or aching intervertebral discs. You will only feel your leg muscles. Or not – if you outfit your recumbent with one of our electric drives! It supports you exactly where it would otherwise be challenging.

Normally, you can easily reach 25 km/h (16 mph) on your single-track recumbent, where the motor support ends. A few powerful turns of the pedal and you're ahead of the upright cyclists with your Grasshopper fx, the Speedmachine or the Streetmachine Gte.

And the motor? Does it then lie down and rest all day long? Yes – and no! Because if you're riding with a lot of luggage, for example, and maybe even on high-percentage mountain passes, you'll be most grateful for the boost from the battery at every meter of altitude. Nevertheless, you can be sure: If you are above the limit of 25 km/h resp. for USA 32 km/h (20 mph, Class I electric bicycle), your bike rides again almost like an unmotorized recumbent.

We have developed our single-track recumbent models Grasshopper fx, Speedmachine and Streetmachine Gte for very different areas of use. The full-suspension and foldable Grasshopper fx is a universalist, the Speedmachine is a fast randonneur for panorama fans and the Streetmachine Gte is a touring bike with (almost) no limits. In all this, even the pleasure amplifier electric motor does not change anything. The characteristics and peculiarities of the three models remain one to one. Only when riding, especially with luggage, you can look forward to the ease of cycling all day long. It's not for nothing that the battery has a range of up to 136 kilometers (84 miles).

With the pre-programmed maximum speed of 25 km/h, in Europe your E-recumbent can be ridden without registration, helmet, or license plate.

**The Z20 system is highly flexible** in many respects. To match the high-quality electrical engineering, we offer you two gearing choices as an option: The *Shimano XT 30* derailleur system with 3x10 very finely tuned gears or the robust *C1.12* bottom brakket gearbox from PINION with an enormous gear ratio range of 600 percent.

The NEODRIVES motor delivers its torque particularly powerfully and directly to the road. As a hub motor, it scores with a highly sensitively tuned ride. Engines of this type are particularly popular with those who want to escape the asphalt jungle of the cities on their recumbent and set off on a grand tour: The power plant in the rear wheel works practically inaudibly - you experience pure nature and relaxed gliding through the landscape instead of moving through the world with the noise of grinding technology, as is familiar with some bottom bracket motors.

### Handling made easy: Remote Control and smart display

**Always within reach:** The designers at NEODRIVES have equipped the Remote Control operating unit with five buttons. They are ergonomically arranged so that the control is easy to grasp even during the first ride. In other words, you can't miss the large plus and minus buttons for switching through the five support levels.

If you're looking for detailed information on your riding performance, you'll quickly find your way around the functional display (2.4"). Data such as range, battery indicator, motor support, distance traveled or average speed can be called up directly in the various menus.



A question of positioning: The placement of the display on your e-recumbent depends on the choice of handlebar. We offer the *Above seat steering* for all single-track models. On this, the display is mounted centrally near the stem.

The Under seat steering, which is otherwise available as an option for each of our single-track models, is only possible in combination with an electric motor on the *Street*machine Gte. This setup offers either space on the side next to the handle, and thus providing comfortable space when getting on. Or you can opt for with the "Top View" mount above the handlebar end shifter for a position directly in the field of view (right picture)



## **E-drive**



## **E-drive**



## Speedmachine S-Pedelec – the most electrifying way to go 45 km/h (28 mph) on two wheels

We designed the Speedmachine as a vehicle that already stands for the maximum development of speed without a motor. In the Speedmachine S-Pedelec, we combine this fea-

ture with the most powerful of our e-drives. The Z20 RS from NEODRIVES is the most powerful and refined you can imagine for motorization in the rear wheel of a recumbent. Result?

**From 0 to 45 in 8.29 seconds.** And with an energy consumption that any other S-Pedelec can only dream of. In a recumbent like the *Speedmachine S-Pedelec*, the outstanding aerodynamic properties of this type of bike come into their own.

Your safety plus in highspeed mode: The low center of gravity keeps the Speedmachine S-Pedelec perfectly manageable. The battery is mounted centrally and low under the seat. Even when fully loaded with up to four panniers, you are always safely on track and dynamically staying on course.

The speed pedelec is driven by a powerful and almost noiseless rear wheel hub motor with a maximum power of 1000 watts. The German manufacturer NEODRIVES claims an efficiency of more than 85 percent. The standard equipment of the Speedmachine S-Pedelec inclu-



des a starting aid, which pushes the vehicle up to 4 km/h (2.5 mph), even without pedalling.

**All-round equipment:** According to EU classification, a twowheeled S-Pedelec is a light motor vehicle. For as much safety as possible when moving in traffic, the European bodies have made numerous specifications. The *Speedmachine S-Pedelec* is therefore equipped from the manfactury with, for example, a hydraulic disc brake (MAGU-RA *MT5e*), the *IQ-XE* lighting system and a large rearview mirror (both from BUSCH&MÜLLER). The basic equipment also includes the *Rear rack*, the PLETSCHER *Esge Zoom* kickstand, and *Marathon Plus* tires from SCHWALBE.

Your performance advantage, even without authority regulation: The Speedmachine S-Pedelec is always fully suspended, and we install the otherwise optional *Concept* suspension fork as standard. The reason: Our engineers are convinced that such a fast vehicle must shine in every driving situation and even on rough surfaces with a solid road holding. The perfect complement to this, so that you have your vehicle quickly and safely under control, is the *Above seat steering with Aerobar* with the stem forward.

**Nevertheless, individuality is not neglected!** A technical delicacy is the 12-speed internal gear transmission *C1.12* from PINION, which we can place on request instead of the derailleur prominently in the boom. The ROCKSHOX *Monarch RL* suspension element for the rear wheel also offers a noble upgrade option.

You also enjoy the freedom of choice when it comes to the seats. The three models *BodyLink*, *ErgoMesh* and *ErgoMesh Premium* are available in the standard size, the *ErgoMesh* also in the wide *XL* version. For more luggage we offer the *Lowrider*. This allows you to store two additional panniers. And if you want to give your speed vehicle your own color touch, you can choose from more than 200 RAL and custom colors instead of the standard powder coating in Carmine red or Silver grey: Whether Colza yellow (photo) or British Racing Green – the favorite color inspires a little more!

You have questions about the Speedmachine S-Pedelec? Your specialist dealer will advise you and invite you to the first rendezvous!

### Technical Data E-drive 45 km/h

System	NEODRIVES Z20 RS	
	US: Class 3 electric bicycle	
Support up to	45 km/h (28 mph)	
Push assist up to	4 km/h (2.5 mph)	
Range*	up to 60 km (37,5 mi, support level 3)	
Force amplification	5 levels: 0/80/160/240/320/400 %	
Max. torque	40 Nm (at the rear wheel)	
Rated power	400 W	
Maximum power	1000 W	
Battery	BMZ 48V Li-Ion, removable, with lock	
Energy contents	651 Wh	
Battery weight	4.2 kg (9.2 lbs)	
Battery life	800-1000 charging cycles	
Charger	BMZ 4 A	
Charging time	4,5 hours	
	without memory effect	
Charger weight	1,08 kg (2.4 lbs)	
Display	Color display, center of handlebars	
Drivetrain	Shimano XT 30 speed	
	Trigger shifters (Above seat steering)	
	26": 52-42-30 / I I-36 T.	
Gearing	PINION C1.12 (12-speed	
(alternativ)	internally geared transmission)	
Extras	Bluetooth- and	
	USB interface	
<sup>k</sup> Range as stated by manufacturer NEODRIVES:		

 Range as stated by manufacturer NEODRIVES: 100 W rider input, support level 1, flat terrain, smooth roads, 70 kg (154 lbs) payload incl. rider
 \*\* Total weight Speedmachine S-Pedelec: 28.5 kg (62.8 lbs); max. payload 120 kg (265 lbs)

#### Operating requirements:

The fast Speedmachine S-Pedelec (SPE) has an EU type approval as a moped (L1e-B), 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 SPE in your homestate, please contact your state authorities or your local HP VELOTECHNIK retailer.



## 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 Speedmachine, their Streetmachine Gte or their Grasshopper fx 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*<sup>®</sup> cushions.



#### 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

NET SEAT

premium 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

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.



# **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*<sup>®</sup> 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*.

For larger riders, we offer both the *ErgoMesh* and the *ErgoMesh* Premium seat in a larger XL version. The width and depth of the seat pan of the *ErgoMesh* increase by 5 cm (2") each to 43 (17") and 30 cm (12"), the backrest is 59 (23") instead of 55 cm (21.6") high. The XL version of the *ErgoMesh* Premium has 3 cm (1.2") more back rest height and seat pan depth, and the width has increased by 5 cm (2") to 46 cm (18").

#### 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 decree 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 recumbent in the car. You can leave the seat on the bike 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 bike 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**



The anatomically-shaped hard shell seat and back rest can be separately adjusted using quick release levers. After loosening the four screws in the center, the seat can be infinitely adjusted to your back length. It can also be completely removed in 15 seconds - a practical feature when it is raining or you

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 bet ter than any futuristically designed bike saddle. Do recumbent riders love for longer?

The height and tilt angle of the optional 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 I 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 cana

### 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.



## Little escapes Au déTour du Monde

Ariane Amann Ariane Amann and Xavier Mérour and Xavier flew to Mongolia and brought along Mérour on a two recumbents.

the world

journey around The Far Eastern country, one they always wanted to visit, was the starting point of a 16,338 km long journey home. It led them through 16 countries back to France. The two had taken 12 months off to escape western everyday life in order to get to know the rhythm and way of life of people on long distance bike tours.



Green vastness, Mongolia





# Adventure





Hooray, tarred roads! Xinjiang China



Winter in Eastern Anatolia

Ariane und Xavier think the bike speed is ideal for a year of travel: slow enough not to pass unnoticed what is worth discovering and fast enough to efficiently move forward. And actually it is enough for them to lean back in the recumbent and drive off and get involved with the unknown. The German physician and the French agricultural engineer are particularly interested in agriculture and nutrition. This topic, on which they report in regular dossiers, formed the central theme of their journey predominantly through rural areas.

As they slowly returned to their homeland, the two were thrilled by the diversity of cultures and amazed at how much the direction of their journey influenced the experiences of the individual countries: in China they already felt a bit more like in the "West" compared to Mongolia!

**On their way** they experienced pleasant early summer days in the Mongolian plains, the scorching heat in the Chinese desert, they fought with the clinking Caucasian cold and were happy to catch up with spring in western Turkey. For Ariane and Xavier the most demanding country of the trip was Mongolia, with its sometimes catastrophic tracks and poor infrastructure. But also the over 3000 meter high pass roads of Kirghistan or the icy roads of the Caucasus were challenging terrain.

Along the way, the two got to know the everyday life of the respective cultural circles and had the opportunity to really dive into it: milking or shearing sheep, baking bread and pouring silver. Most impressive during the unforgettable encounters along the way: The immovable courage to live of the people in these countries and their ability to seize the day.

Ariane Amann explains why they chose the *Streetmachine Gte* as their touring bike: "We wanted an uncomplicated means of transport that would be robust, all-terrain and easy to repair, so that they could make easy progress far off the tourist tracks. The reclined position with its incomparable comfort quickly convinced us during a test tour. The *Streetmachine Gte* fully met our expectations and impressed us with its noticeably optimal power transmission from the first pedal stroke. We also liked the long-lasting and clear design of HP VELOTECHNIK.

**On stony ground** the suspension was fully used. We also benefited from the easy handling of the *Streetmachine Gte*, which proved to be surprisingly manoeuvrable and allowed the feet to be put down occasionally to balance the bike on sandy tracks. We were able to attach a 6 litre water bag to the lowrider easily in order to leave as much storage space as possible for food, which was important for desert passages.

**Fortunately,** the first contact with the people along the way was often due to the attraction of our recumbent, because we hardly went unnoticed on the *Streetmachine Gte*. After numerous passes we can confirm that the reclining position offers an incredible perspective for looking around and taking photos, especially when driving uphill".

**The fascinating photographs** and travel reports of Ariane and Xavier inspire to explore the world on a Streetmachine Gte.

**More links** to long-distance cycling tours can be found at *www.hpvelotechnik.com* – we have selected a few of our personal highlights for the next couple pages.



Bridges? Mongolia



Animal oncoming traffic, Xinjiang China

### 53,997 kilometers to Kriftel

Around the globe in two and a half years: Michel Leisner

"I just wanted to see where the bike I'm riding was actually built." It must have been the understatement of the year with which globetrotter Michel Leisner introduced himself when visiting HP VELOTECHNIK in Kriftel. "53,997 km" showed the speedometer on its *Streetmachine Gte*. He was on the road for two and a half years and in the end had traveled around the globe to 32 countries – and then rang the doorbell at the manufactory's incoming goods department with such a modest request on a Wednesday afternoon. If we'd known, we would have given him a big reception. Shortly afterwards, he received it, after all, from friends, acquaintances and the press in his home town of Würzburg (Bavaria). In Kriftel it remained with a coffee, a photo and the memory of a young man who knew exactly (and still knows) where his path should lead him. Who wants to read more about how he defied sandstorms, overcame icy passes or had to "leave" his mobile phone to crooks in South America, can have a look at the Facebook page "Recumbent World Tour".







Who rides a Streetmachine, may also nibble at a scorpion

No matter if she was weighing melons in Cambodia or istructing daddy to push the bike: Lara is the boss!













### The world in a trailer

#### Lara, Denise and Tom: A family journey through Asia on recumbents

"The world in a reclining position": Tom Richter could hardly have found a prettier title for his first world tour on the *Streetmachine*. The Berlin native travelled 809 days, 42,000 kilometers, 41 countries. He came home with fascinating impressions and experiences. Fascinating enough to mount his recumbent seat for a second major tour a few years later – but now in a trio! Besides partner Denise, their four-year-old daughter Lara was on board a cozy trailer. Adventures with such young offspring? "We agreed that Lara would decide how fast it would go. And how far," says Tom Richter. After all, Indonesia, Singapore, Malaysia, Thailand, Cambodia, Laos, Vietnam and China were on the agenda as a complete package. All the different cultures were no problem for Lara, she became friends with even the strangest animals. Who did not really get along with the three Germans on six wheels was the Chinese immigration authority. "But it was an incredible experience without Beijing," enthuse Lara, Denise and Tom. Anyone who wants to get an impression of their journey, check *http://asien.tour-en-blog.de/* 

### The future has 2 wheels

Science and Visions: The Agence Future project explores the future with the help of two Streetmachines

For the initiators of Agence Future, social scientist Maya van Leemput and photographer Bram Goots, it was clear that if they wanted to put their science project on wheels, they needed Streetmachines. Their goal: to ask the most diverse people around the world what their expectations, fears and hopes are for the future. "We will cover extreme distances and we need to stay fresh and alert throughout the whole time," explains Goots. Their journey across five continents was not planned as a pleasure trip, rather they knew they were going to be busy with research, giving lectures and writing articles. "When we camp in the evening, we can't spend hours massaging acidic muscles or stretching our backs to relieve them of the pain that a day on a conventional bike would bring." Ergonomics, a lot of luggage load and comfort thanks to the suspension including No-Squat technology: these were their reasons for choosing the Streetmachine and a partnership with HP VELOTECHNIK. By the end of the project, Maya and Bram had interviewd 382 people in 25 countries. Their resume: The future is diverse. With the bike you will be well on the way.



New Delhi, African tracks or Danish rain: a street machine always gets you through.





# **Features**

### **Optional features and accessories for Speedmachine, Grashopper fx and** Streetmachine Gte: as versatile as your next bike trip

Equipment options for individualists: Do you have your own idea of the perfect bicycle technology? With our modular system, you can configure your recumbent bike to suit you perfectly. Choose from our extensive range of reliable equipment parts for your recumbent bike, which we have developed especially for tough everyday use. With our rigid luggage carriers, for example, your bags hang safely and fully suspended on the frame instead of swaying on the handlebars or seat.

One of the most important effects on handling is steering. We have developed three different handlebars for our recumbents. They all have their own characteristics and advantages, and need to be applied based on the configuration: for example, a wide mesh seat excludes a under seat steering.

If you would like to have your recumbent built according to your own ideas outside the equipment options listed on the next pages of this catalogue, we will supply your dealer with the complete recumbent bike technology with our frame kit.

In any case, please consult your dealer for more detail. Disc brakes and hub gears can cause noise; tires, suspension and drivetrain components can wear out. Your dealer knows the advantages and disadvantages of the various components, will inform you about the maintenance intervals and will be happy to coordinate the specification of your recumbent with you to suit your intended use, your riding style and your needs.

#### Luggage







For all three two-wheel models we build specially shaped racks from high-strength aluminum tubing with 2 mm thick walls and a diameter of 12 mm. This means that your luggage is fully suspended. which allows for optimum suspension performance and at the same time protects the material. The construction offers plenty of space for your equipment and gives the panniers a secure hold with the side bars. Intelligently integrated: A protective bar for your rear light and a flag holder.

Space on your bike is valuable: the water bottle set leaves you more space in your panniers. It is mounted within reach at the rear of the seat. double function of the double holder: you can also place the horn AirZound there. With its up to 115 dB, it even wakes up sleepy truck drivers.

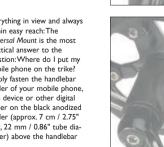






For the BodyLink: the Microbag as a great bag for the little tour. It offers one liter (61 CUI) of storage space for the important little things in life. When you remove the sturdy bag made of reinforced Cordura® from the seat it transforms into a practical hip bag thanks to the supplied elastic strap.

The small version for the 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. Also ideal for plug-in battery lights.



#### Steering





We offer the Tiller steering for Speedmachine and Grasshopper fx. It combines a relaxed arm posture with very good aero-dynamics. Advantage during dynamics. Advantage during transport: The Tiller handlebar is considerably narrower than the Aero steering. An additional advantage on the Grasshopper fx is that you can easily fold this handlebar forward to get in

nomics and your individual comfort. The Aero steering ensures a sporty, stretched arm posture and optimal aerodynamics.It also offers

digital equipment directly in their field of vision.



The Under seat steering is usually considered to be more comfortable. However, these handlebars are not compatible with all options of our modu-lar system: on *Grasshopper fx* or Speedmachine, the Under seat steering excludes the combination with ErgoMesh XL seat as well as motor. For the comfortable ErgoMesh XL seat on the Streetmachine Gte we offer the Extra wide under seat steering as a special design.



# Features



#### **Comfort options**



Monarch RL air shock from ROCK SHOX. Practical: The spring stiffness can be simply 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.



With the Carbon fibre front boom, you have a deep black highlight always in view. Weight reduction compared to the aluminium front boom: 170 grams.



Front Boom Quickadjust: Just open two quick releases and you can adjust your Scorpion to different lengths. Developed by HP VELOTECHNIK, 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").



Sharp turns are easy without interfering with the chain: Our optional CONCEPT suspension fork is equipped with an integral suspension system in the steerer tube. Due to the fork's compact design, the chain can run closely to the frame and smoothly above the front wheel. The fork combines minimum weight with great torsional stiffness. You can adjust the fork individually. It is extremely low maintenance and it comes with 50 mm spring travel.



The Headrest for the ErgoMesh net seats (left) 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 (right) 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.



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.







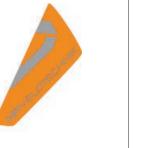
Highlight (picture left): The SON hub dynamo lighting system. Unbeatable efficiency and extremely bright. Always ready for use, even in rain and snow, when tire-driven dynamos slip. Ultra bright 100 lux LED headlamp B&M IQ-X provides extra safety with daytime running lights B&M Toplight Flat S taillight with brake light. Parking light front & rear. Price efficent alternativ: SHUTTER PRECISION SD-8

Eyro Light Set (picture right): The 30 lux battery-powered light set from B&M has a USB charging port; a charging cable is included. The rear light Toplight Flat S is also from B&M and is powered from 2 AA batteries. The advanced dusk and dawn sensor turn the lights on automatically.

Panoramic view to the front, good rear view: You are always on the safe side with Mirrycle's proven rear-view mirror. We mount it on the left, right or both sides on request. Advantage for you: The barend fastening is practically usable as a computer holder.

Safety is not a fashion statement: Many recumbent riders prefer using a Flag to increase visibility in traffic; it belongs on their bike like a bell or horn. With our reflective HP VELOTECHNIK design the flag fosters awareness and security.







All two-wheelers from HP VELOTECHNIK come standard with disc brakes. The showpiece is the hydraulic SHIMANO XT, but the mechanical BB7 from AVID also has its specific benefits.

You will not be ..unheard" of 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.





Functional fenders: The fenders from SKS, which are equipped with a deflector, extend far down close to the road. With their width of 55 millimetres (2.2"), they provide good protection against splash water even with wider tires.



The Rain cover fits for all the seat systems of HP VELOTECH-NIK. It 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 (Ergo-Mesh seat), into the BodyLink Microbag or in the luggage pocket Add-on bags that we offer optionally for the Ergo-Mesh and the ErgoMesh Premium seat. Their in the contents can start to dry while you continue your journey.

The lighter solution: For triple chain ring sets we offer a chainwheel disc instead of the chain guard. This saves 150 grams (0.33 lbs) of weight. Only available in combination with SHIMANO XT 30 or with NEODRIVES motor.





## Come on, honey, let's go. There's lovely rain outside!

#### Streamer front fairing: Efficiency rules.

Want to go faster, further and with less effort? Stay warm and dry in cold weather? A recumbent can give you a serious aerodynamic advantage, but you can get even more benefit by using a well designed front fairing.

**The Streamer front fairing** from HP VELOTECHNIK will fit almost any recumbent and many tricycles. It is designed to improve your riding comfort and efficiency, protects you from the elements and helps you slip through the air with minimum effort. And it looks great!

**Constructed** from strong, see-through plastic with unique lightweight aluminium mounting hardware, it gets its strength from good design and the use of high-tech materials. It is easy to fit and removable in seconds for transportation or storage.

A single quick release lever releases the windshield and supporting stays, leaving two discreet brackets mounted on the frame. The windshield can then be rolled up for travelling.

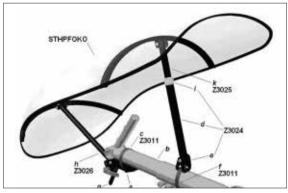
**The Streamer is a highly efficient** teardrop shape which offers a minimal frontal area and directs air gently around your body without blasting it into your face. The greatest benefits are felt at higher speeds, so that the faster you go, the more benefit you get, but even at a cruising speed of 15 km/h (10 mph) there is a noticeable decrease in wind drag. The effect of head winds is greatly reduced and side winds are felt as almost beneficial.

**Due to its open shape**, riding with the *Streamer* is extremely silent, avoiding any 'rolling thunder'. The aerodynamic advantage of the fairing depends on the position of fairing, rider an bike as well as on clothing. Carry our a testride before purchase on your bike to find out your specific benefit.

**The Streamer is ideal for commuters** as it makes cold weather cycling much more comfortable and enjoyable. The shelter it offers means that you can be warm without having to wear layers of bulky clothing. Rain is deflected from half of the body, so waterproof trousers and shoes are no longer necessary. The effect is to prolong the comfortable riding season to almost the entire year. Weather that would keep you hiding indoors becomes an invitation to ride!

The Streamer fairing makes you stand out from the crowd and makes you become more visible at night.

# Protection



Length 100 cm  $\bullet$  Width 55 cm  $\bullet$  material: transparent plastic (PETG)  $\bullet$  disc 1200 g  $\bullet$  Quickmount-adapter 985 g

The windshield gets most of its strength from its shape but complete rigidity is ensured by a pair of channel section aluminium spars which are located on widthways by strips of velcro. This mounting system means there is no drilling needed in the fairing, eliminating a potential breaking point. It also makes the fairing easy to break down for transportation.

Because of the rigidity of this system, the plastic screen can be made verry thin but does not vibrate, rattle or transmit any road noise. In normal use the windshield is almost indestructible, it will withstand severe knocks and even modest dropping without breaking. Abrasion can lead to scratching of the surface but this in no way affects its functionality as the rider is always looking over the top edge. The windscreen comes standard with edging tape all the way round.

The fairing is mounted onto the frame by two fully adjustable struts. The front one mounts under the bottom bracket of the front boom, and is held by a quick release lever. Please note that for a good view over the fairing your crank axle should not be higher than 18 cm above your seat base. The rear strut is a telescopic pressure fit and mounts onto the main boom of the bike by means of a rubber coated jubilee clip. Because of the positioning of the mounting brackets they are able to take large front or side loads without moving, making a structure that is extremely rigid.



### **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 bike 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 Tripple Shift drivetrains. 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

#### Tripleshift 24 24 speed

**Reliable Combo:** Recumbent enthusiasts first love: The combination of a 3-speed internal gear hub plus derailleur shifting. The reliable internal gear system from British pioneers STURMEY ARCHER allows not only shifts when standing still, but it also expands the range of the derailleur shifting. In the basic version with the 8-speed cassette X4 from SRAM you have a robust companion for all ways with 24 gears.



#### STURMEY ARCHER + SHIMANO

#### Tripleshift 30 speed

**Practical and elegant:** You would like to extend the popular combination 3-speed hub plus derailleur? Then simply combine the STURMEY ARCHER hub with one of the world's most widely used 10-speed derailleurs: the *Deore XT* from SHIMANO. This ensures a finely graduated power transmission. Your advantage: In combination with the gear hub you can shift through all 30 gears.

#### XT 30 30 speed

SRAM

**The Elegant Racer:** Are you looking for performance? Then the lightweight SHIMANO XT 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 noble classic among the drivetrains we offer with ergonomic barend shifters.



#### **Technical Data**

#### 24 speed internal plus derailleur gearing

#### 30 speed internal plus derailleur gearing

#### 30 speed derailleur gearing

#### SHIMANO

#### Nexus 8 speed

#### It's as simple as it can be: You want to enjoy cycling just as much as life? Worrying about the proper chainring and rear sprocket combinations only distracts you from your beautiful surroundings? Then choose the Nexus Premium for your drivetrain. This premium version of the SHIMANO Nexus 8speed hub gear is easy to operate with a twist grip even when standing still and is also extremely low-maintenance.

#### Rohloff

#### Speedhub 14 speed

#### The World Tourer: since 1998, the ROHLOFF Speedhub has become a mechanical legend. Uncountless world tourers have relied on the nearly indestructible internall 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.

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 NEODRIVES hub motor.

PINION

CI.12 12 speed





#### 8 speed internal gear transmission

#### 14 speed rear wheel internal gear hub

#### 12 speed internal gear transmission



**Open Choice:** Twist or barend shifters? This is not a philosophy decision, but an ergonomic. 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 goes once again a step further and has



developed an extra long shifter for both PINION and ROHLOFF, tailored for the recumbent riders needs. Bar end shifters fit perfectly to the tip of your thumb and require less energy to precisely shift.



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

Basic model	
Grasshopper fx (GHF) foldable trekking recumbent, 20" rear wheel	\$ 4,990,00
□ Streetmachine Gte (GTE) comfortable long distance tourer, 26" rear wheel	\$4,490.00
Speedmachine (SPM) low and fast touring recumbent, 26" rear wheel	\$ 4,590.00
Speedmachine S-Pedelec (SPE) E-assist up to 28 mph (45 km/h), 26" rear wheel	\$10,420.00

	<ul><li>Basic configuration</li><li>Option with upcharge</li></ul>	<ul><li>O Option, no upcharge</li><li>Not available</li></ul>		GHF	GTE	SPM	SPE
Frame							
Colors							
□Magic green			\$ 0.00	$\circ$	-	-	_
Blue shade grey			\$ 0.00	$\mathbf{O}$	-	-	-
Silver grey			\$ 0.00	-	Ο	$^{\rm O}$	0
□Pearl orange			\$ 0.00	-	Ο	-	-
Carmine red RAL 3002			\$ 0.00	-	-	Ο	0
Single custom color according to RA							
Double custom color main frame:	, front boom / sw	ving arm:	\$ 299.00				
Front boom							
Front boom without derailleur tub			\$ 0.00	•	•	•	_
Front boom with derailleur tube re STEPS or PINION)	gardless of shifting optio	n (not with	\$ 0.00	0	0	0	•
□Front boom carbon saves 170 g (1/3 1							
Front boom quickadjust compensate is adjusted, QR-levers	•		\$199.00	-	-	-	-
Front boom quickadjust without ch	nain compensation QF	R-levers	\$45.00				-
Seats							
Seats							
<ul> <li>ErgoMesh mesh seat w/ OrthoFlex tech</li> <li>ErgoMesh XL 5 cm / 2" wider and 3 ci only with above seat steering</li> </ul>			\$ 0.00 \$ 0.00		00		
ErgoMesh Premium with OrthoFlex te independently adjustable	echnology, seat and back	surface	\$ 359.00	-			
ErgoMesh Premium Seat, only with above		r than	\$ 359.00	-			
BodyLink adjustable, body-contoured s			\$189.00				
<b>BodyLink</b> seat with brackets for small	riders (4 cm / I.6" to the	front)	\$189.00				
Accessories							
Headrest for BodyLink seat flexible,	with cushion, adjustable	in height and angle	\$139.00				
Headrest for ErgoMesh seat adjusta	ble in height and angle, w	ith quick release lever	\$189.00				
Airflow seat cushion breathable fabric			\$89.00				
<b>Rain cover</b> for all HP VELOTECHNIK seat			\$ 25.00				
Adjustable end stops allow exact posi	tioning of the seat		\$19.00		-		
Suspension and steering							
Rear wheel suspension							
DNM DV-22 spring/oil, spring available v			\$ 0.00	•	•		•
RockShox Monarch RL lightweight air	r shock, adjustable rebou	ind damping, lockout	\$319.00				
Front fork						~	
Rigid fork     Suspension fork CONCEPT 50 mm sus     divertable			\$ 0.00 \$ 339.00	_	_		•
adjustable Suspension fork SPINNER Grind2			\$ 0.00	•	•	-	_
<b>Hard spring for suspension fork</b> for	ioads over 100 kg/ 220	ius, pre-installed	\$ 35.00				

	<ul> <li>Serienausstattung</li> <li>Option mit Aufpreis</li> </ul>	<ul><li>O Option ohne Aufpreis</li><li>nicht erhältlich</li></ul>		GHF	GTE	SPM	SPE
Steering							
□Above seat steering with Aerobar	direct		\$ 0.00	•	-	0	٠
□Above seat steering with tiller bar	non-foldable stem to the	e back	\$ 0.00	-	-	Ο	-
Above seat steering with tiller bar			\$ 55.00		-	-	-
Above seat steering adjustable in an folding stem	gle and length, with TERRA	ACYCLE Glideflex	\$ 339.00	-		-	-
Under seat steering indirect, adjusta or E-drive	ble, not compatible with	ErgoMesh XL seats	\$125.00	-	-	-	-
Under seat steering indirect, adjusta or E-drive	ble, not compatible with	ErgoMesh XL seats	\$169.00	-	-		-
Under seat steering direct, not com	patible with ErgoMesh XL	seats	\$ 0.00	-	•	-	-
□ Extra wide under seat steering ha (regular 60 cm), necessary for ErgoMest		raight ends	\$ 0.00	-	0	-	-
Tires							
SCHWALBE Marathon Racer 1.5" (40 rolling characteristics	mm), good puncture pro	otection, very good	\$ 0.00	•	•	•	-
SCHWALBE Marathon Plus 1.75" (47			\$ 39.00		E		•
CHWALBE Kojak 1.35 (35 mm), lightv XT 30 speed or PINION	veight, fast slick tire, only	with SHIMANO	\$ 39.00	1	-	-	-
Brakes							
SHIMANO BR-MT200 disc brakes hyd			\$ 0.00	۲	٠	٠	-
MAGURA MT5e disc brakes hydraulic			\$ 0.00	_	_	_	
AVID BB7 disc brakes mechanical			\$ 69.00				-
<b>SHIMANO XT</b> disc brakes hydraulic			<b>ֆ 357.00</b>	-		-	-
Drivetrain							
Gearing	1.0	1	<b>*</b> • • • •				
STURMEY ARCHER Tripleshift 24 spendor hub, SRAM X4 rear derailleur, SHIMANO (		0	\$ 0.00	•	•	•	-
			\$45.00				_
STURMEY ARCHER Tripleshift 30 Gai							_
internal gear hub, SHIMANO XT rear dei	ailleur and cassette 11–3	6 teeth,					
MICROSHIFT / STURMEY ARCHER barend sh		ering,					
SHIMANO XT twist shifters for above se	0	<b>-</b> Constant allows (III.com)	¢ 240.00				
SHIMANO XT 30 speed SHIMANO XT SHIMANO XT cassette 11–36 teeth, 3 sp			\$ 349.00		-	-	-
for under seat steering, SHIMANO XT tr							
Shimano XT 30 speed Shimano XT			\$ 299.00	_			_
SHIMANO XT cassette 11–36 teeth, 3 sp			•				
for under seat steering, SHIMANO XT tr	igger shifters for above s	eat steering					
<b>PINION C1.12 12 speed</b> front gear bo			\$2,070.00				-
chainwheel disc, HP chain tensioner, lor	ng twist shifter with unde	r seat steering,					
not compatible with Streamer	ما جمعه البيام معمادمد	EQ tooth	1 000 00				
ROHLOFF Speedhub 14 speed interna chainring, double sided chainwheel disc			00.007 ק ו		-	-	-
external mech box, long twist shifter w							
□ ROHLOFF Speedhub 14 speed interna	-		\$1,990.00	_			_
chainring, double sided chainwheel disc							
external mech box, long twist shifter w	ith under seat steering, b	lack					



Wählen Sie die Ausstattung Ihres Liegerades komfortabel mit unserem übersichtlichen Online-Konfigurator. Scannen Sie dazu den QR-Code mit Ihrem Tablet-Computer oder tippen Sie www.hpvelotechnik.com/produkte/konfigurator

# Prices and options

	<ul> <li>Serienausstattung</li> <li>Option mit Aufpreis</li> </ul>	<ul><li>O Option ohne Aufpreis</li><li>nicht erhältlich</li></ul>		GHF	GTE	SPM	SPE	
Drivetrain (continued)				Ū	Ū	••	•,	Safety equipment
Pedelec / E-assist systems								Lights
REODRIVES Z20 and SHIMANO XT 3     25 km/h (16 mph), SHIMANO XT rear d     3 speed crankset, MICROSHIFT front der	erailleur, Shimano XT cas	sette 11–36 teeth,	\$3,320.00	-	•		-	Light wire routing or in the front boom and o
battery 576 Wh, push assist up to 4 kn seat steering, for <i>Streetmachine Gte</i> also end shifters and choice of display position:	n/h (2.5 mph), 4 A charger with under seat steering above handlebar grip 🖵 s	r, only for above g, MICROSHIFT bar- side of handlebar grip		_		_		□ Lighting system rech USB connector, rear ligh □ Lighting system SHU and rear parking lights,
■ NEODRIVES Z20 and PINION 12 spee (16 mph), 12 speed front gear box, 46 disc, PINION twist shifter, Li-lon battery 4 A charger, only for above seat steerin seat steering and choice of display position:	t. crankset with double si 576 Wh, push assist up t	ded chainwheel o 4 km/h (2.5 mph), Iso with under	\$4,820.00			-	-	to 100 Lux, rear light Bi through the frame Lighting system Son lights, lightweight 20" Sc daytime running lights, up light, twin cables routed
INEODRIVES Z20RS and SHIMANO X 45 km/h (28 mph), SHIMANO XT rear d	T 30 speed powerful ele	ectric assist up to	\$ 0.00	-	-	-	•	Lighting system batt XS friendly powered by
3 speed crankset, MICROSHIFT front der battery 651 Wh, push assist up to 4 kn	ailleur, Shimano XT trigge	er shifters, Li-Ion						twin cables routed thro
NEODRIVES Z20RS and PINION 12 s (28 mph), 12 speed front gear box, 46 disc, PINION twist shifter, Li-Ion battery	t. crankset with double si	ded chainwheel	\$1,630.00	-	-	-	•	by E-bike battery, up to through the frame Lighting system batt IQ-XE powered by E-bi
4 A charger								
Accessories								Mirrors
Chainwheel disc instead of chain gua and NEODRIVES only)	ırd, 150 g lighter (Shimano	O XT 30 speed	\$ 25.00	-	-		-	with barend mounting on handlebar
<ul> <li>Short cranks 155 mm (6.1"), recomm</li> <li>Clipless pedals SHIMANO XT PD-T normal and SPD shoes</li> </ul>								□Rear mirror MIRRYCL □Rear mirror B&M E □Rear mirror B&M E
								Accessories
Luggage								
Racks				_		_		Schrader valve up to ma
□ <b>Rear rack</b> 12 mm (0.47") tube, black with flag holder		0		2		-	•	
□ Lowrider 10 mm (0.39") tube, black p □ Lowrider 12 mm (0.47") tube, black p				-		-	-	Weather protection gea Mudguards Sks 20" w
Bags / Bottle cages								Пиdguards Sks 20"/2
Microbag topbag for BodyLink seat, de Add-on bags for mesh seat   pair of	of bags, attached to backro				H			<ul> <li>Streamer clear front f not with PINION</li> <li>Transport cover with</li> </ul>
repellent, I bag ventilated, capacity app <b>Water bottle set HP VELOTECHNIK</b> HP VELOTECHNIK print, with bottle cage	2 x 0.6 l clear PE-bottle	with colored	\$75.00		•			
								Kickstands
Mounts	a an hannan Babas Saul	noon hundlich fair	¢ 15 00			_	_	
Speedometer mount for computers for front wheel, mounted at the front	boom			_		-	•	
Universal mount for mounting on the for accessories such as mobile phone has seat steering, max. load 400 grams (0.88)	older / GPS devices or be		\$ 45.00				-	to position between the

		Serienausstattung Option mit Aufpreis	<ul><li>O Option ohne Aufpreis</li><li>nicht erhältlich</li></ul>		GHF	GTE	SPM	SPE
fety equipment								
Lights								
Light wire routing	only twin wires route	d through the frame.	with connectors	\$109.00				_
	d dynamo mounting sh							
	, 0		o 🛯 for tire dynamo					
Lighting system re	chargeable Eyro wit			\$119.00				_
	light B&M Toplight Flat							
Lighting system SH	IUTTER PRECISION SD	-8 disc dynohub l	Q-X with front	\$449.00				_
and rear parking light	s, LED headlight B&M I	IQ-X, with daytime r	unning lights, up					
to 100 Lux, rear light	B&M Toplight Flat S plu	us with brake light, t	win cables routed					
through the frame		-						
Lighting system So	ondelux disc dynohu	b IQ-X with front a	nd rear parking	\$729.00				_
lights, lightweight 20"	Schmidts original hub d	lynamo, LED headlight	t B&M IQ-X, with					
daytime running lights,	, up to 100 Lux, rear ligi	ht B&M Toplight Flat	S plus with brake					
	ed through the frame							
Lighting system ba				\$199.00				-
	by E-bike battery, up to	o 80 Lux, rear light B	&M Toplight 2C DC,					
twin cables routed th						_		
Lighting system ba				\$ 299.00		-		-
	to 150 Lux, rear light B	S&M Toplight 2C DC	, twin cables routed					
through the frame				¢ 0.00				
Lighting system ba				\$ 0.00	-	-	-	•
IQ-AE powered by E	-bike, up to 150 Lux, re	ar light bai iopligh	t Line, bai'i norn					
Mirrors								
with barend mounting on handleba	ar							
Rear mirror MIRRY	CLE also usable as com	puter mount, Mount	ing: 🛛 left 🖵 right	\$65.00				-
Rear mirror MIRRY	CLE both sides Mount	ting: left and right		\$130.00				-
Rear mirror B&M	E wide view angle, Mor	unting: left		\$ 0.00	-	-	-	•
Rear mirror B&M	E both sides Mountin	g: left and right		\$85.00	-	-	-	
Accessories			<u> </u>		_		_	
				\$ 39.00		-	-	-
	max. 5.5 bar (80 psi), n				_	_	_	_
□ Flag HP VELOTECH	<b>WK</b> double-sided print,	with reflective strip	••••••	\$ 29.00	-	-		
eather protection g	ear							
□Mudguards Sks 20"		mm) width, black, st	ainless steel stavs	\$149.00		_	_	_
□Mudguards Sks 20"					_			
Streamer clear from							_	_
not with PINION						_		
Transport cover wi	th carrying strap, for fo	olded Grasshopper fx		\$95.00		_	_	_
	· · · · · · · · · · · · · · · · · · ·							

<b>PLETSCHER Esge Comp Zoom</b> mounted on the rear swingarm, adjustable, black	\$ 49.00			-	-
<b>PLETSCHER Esge Zoom</b> mounted on the rear swingarm, adjustable, black	\$ 39.00	-	-		
<b>PLETSCHER Esge</b> mounted under the lowrider rack, safe stand for the bike due	\$ 39.00	-	Е.	-	-
to position between the wheels, aluminium, with plastic foot, black					



### **Recumbents for sport, tour and travel**

## **HP**VELOTECHNIK















**Speedmachine:** Sporty low touring bike with 26inch rear wheel, space for 4 large panniers, from **\$ 4,590** 

Streetmachine

fully suspended touring bike with

Gte: Comfortable

26-inch rear wheel

with space for 4

large panniers

from \$ 4,490



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		62	

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.

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