

– For immediate release –

Eurobike trade fair (4 to 7 September): HP VELOTECHNIK with Neodrives Z20 by ALBER



Elegant, functional and with double range thanks to double battery: HP VELOTECHNIK's Scorpion fx with Neodrives Z20.

Pictures: HP VELOTECHNIK

Recumbents – powered by Neodrives!

Strong commitment to the rear engine: HP VELOTECHNIK presents German specialists ALBER as new drive partner / System Neodrives Z20 also with reverse gear

FRIEDRICHSHAFEN. Recumbent bike and rear motor: it simply fits together. That's why HP VELOTECHNIK is equipping all 15 series with the Neodrive Z20 from Alber as of November, replacing its previous premium manufacturer GO SwissDrive. The change had become necessary for the Hessian recumbent bike manufacturer after the Swiss announced their withdrawal from the market at the beginning of 2019. The new system is shown at the Eurobike trade fair at the booth of HP VELOTECHNIK (Foyer East, FO 103) and tested at the demo booth FG-O 401.

"We searched with great intensity and promptly for a system that was at least equal with the others," reports Paul Hollants, Managing Director of HP VELOTECHNIK, and sees himself on the same wavelength as ALBER: "No motor is as powerful and at the same time as harmonious as a rear hub motor. The fact that the Swabians have been found so quickly is a pleasure for partner Daniel Pulvermüller for several reasons: "Whether it's a recumbent bike or a trike, this form of cycling is characterised by its quiet, enjoyable gliding through the countryside. The whisper-quiet rear

motor fits this better for many than the usually clearly audible geared motors on the bottom bracket." ALBER also has great experience as a motor manufacturer in the field of medical mobility aids: "This is an excellent addition to our rehab bikes. We expect this to give us many new impulses in this segment". The fact that the constructive exchange has already begun can be seen in the presentation of the models for 2020 in an absolute technical peculiarity of the trikes: HP VELOTECHNIK was the first manufacturer of everyday bikes to implement reverse gear in cooperation with GO SWISSDRIVE. "It is precisely this feature that ALBER will now make available to us," says Pulvermüller. "For HP VELOTECHNIK customers, the easy manoeuvring with the trike is a decisive point."

Andreas Binz, head of the neodrive business unit at ALBER GMBH, explains: Rear motors are gearless motors with no friction; a further advantage of the rear motor is the low maintenance associated with it in terms of gears and chain. "This is because the power is transmitted directly to the rear wheel, so that not a single bit of it is lost via the chain

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[Page 2 to press release HP VELOTECHNIK: ALBER is the new engine supplier]

or sprocket." On the other hand, this means that the chain and sprocket package last on average four times longer than with mid-engines. In addition, the recuperation function of the engine allows energy to be recovered, for example during longer downhill journeys.

Additional information for editors about models from HP VELOTECHNIK and other motor systems:

In addition to the new *Neodrives Z20* from ALBER, the recumbent bike manufacturer HP VELOTECHNIK also equips its trikes with the *Steps E5000* and *Steps E8000* bottom bracket motors from SHIMANO. Until the use of a 45 km/h system from ALBER, which the Albstadters had already introduced in a first version, the *Scorpion fs 26 S-Pedelec* will continue to be offered with the engine from GO SWISSDRIVE. As a manufacturer with a modular system (free configurability of practically all components), HP VELOTECHNIK can also retrofit its bikes with motors.

HP VELOTECHNIK builds three two-wheeler models (*Streetmachine Gte*, *Speedmachine*, *Grasshopper fx*) as well as tricycles in two designs: *Gekko* and *Scorpion*. Both have the "Tadpole Trike" construction in common. This means that they have two wheels at the front for steering and one at the rear for propulsion. Advantages are among others: The rider always has the width of his vehicle in view. The stable tricycles prove their tipping stability especially in complex driving situations such as braking in curves.

The *Scorpions* are manufactured in eight series. They all have rear wheel suspension and six are even fully suspended (developed by HP VELOTECHNIK based on the McPherson suspension system used in automotive engineering). The spectrum ranges from the very sporty model to the vehicle, which – with special equipment – can be excellently used in the rehabilitation sector. The trikes can be equipped with different seats in different heights (28 cm – 57 cm/11" – 22.5"). With the exception of one model, all *Scorpions* can be folded within about one minute to make them as small as possible for transport in cars and trains or for space-saving storage. Another basic difference in design: the different size of the rear wheel (20" or 26"); the front wheels are always the same size (20").

The *Gekkos* are manufactured in four series. With the exception of the *Gekko 26*, the unsuspended trikes can be folded within ten seconds without parts having to be removed or tools being used. Compared to the *Scorpions*, the *Gekkos* are clearly lighter and much cheaper (from 1,990 euros on). The basic difference in design: the different size of the rear wheel (20" or 26"); the front wheels are always the same size (20"). The *Gekko fs* has been designed as a "growing child's bicycle" in which both the frame and the seat can be continuously adjusted to body sizes from 1.15 to 1.80 meters (3'9" – 6").

Technical data Neodrives Z20

Support:	up to 25 km/h (16 mph)
Nominal power:	250 W
Maximum power:	short-term up to 700 W
Starting aid:	up to 4 km/h (2.5 mph)
Force amplification:	up to 300 % (5 steps)
Recuperation:	Function available (2-stage)
Range*:	up to 145 km (91 mi)
Max. Torque:	40 Nm (measured at rear wheel)
Motor weight:	approx. 4 kg (8.8 lbs)
Battery:	36 V Li-Ion (removable, with lock)
Capacity:	17 Ah
Energy content:	612 Wh
Weight battery:	3,5 kg (7.7 lbs)
Additional weight:	total system ca. 8,7 kg (19.2 lbs)
Charging time:	approx. 4 h (after 50% charging time approx. 80%)
Display:	Colour display (2")
Extra:	Touchscreen (can be used in wet conditions and with gloves, USB interface)
Surcharge engine:	2.890,- / 2.990,- € (one -/ multi lane)
Available:	for models with 26" rear wheel from November in specialists shops, other models from Spring 2020 for USA only: all models, starting in Spring 2020

* According to manufacturer at 100 W rider power and favorable conditions: Driving in support level 1, flat terrain, 70 kg payload including rider.

Further information (only for editorial offices) from Alexander Kraft (Press Officer HP VELOTECHNIK), 06192-97992283 or 0160-99858794; alexander.kraft@hpvelotechnik.com.

Download the press release:
https://www.hpvelotechnik.com/presse/Pressemitteilung_HP_Neodrives_Z20_EB_2019_e.pdf

High-resolution photos for the press release can be downloaded at
<https://photos.app.goo.gl/dtAKpDS4F4At2SdR8>

Background information HP VELOTECHNIK

HP VELOTECHNIK, founded in 1993 by Paul Hollants and Daniel Pulvermüller, manufactures approx. 2,000 recumbents per year in the factory in Kriftel near Frankfurt with 35 employees (including four trainees) and is thus market leader in Europe. The bikes are built individually by hand according to the customers wish and sold in specialist bicycle shops. The signs are pointing to growth: recumbents are sold in Germany and Europe; an increasing share is exported to more distant regions such as the USA, Australia or Japan. This successful business strategy was honoured in 2017 with the "Hessian Export Prize", which is jointly awarded by the State of Hesse and the Hessian Chambers of Crafts and Industry and Commerce.

HP VELOTECHNIK has developed 15 recumbent models that cover the entire range from everyday bikes to racing bikes. All models are available with powerful electric motors on request. Recently, the trikes from the *Scorpion* series caused a sensation, winning the renowned "Eurobike Award" design prize three times in a row. Most recently, in 2013 the *Scorpion fs Enduro* and in 2014 the *Scorpion plus 20* as a therapy trike. The *Scorpion fs 26 S-Pedelec*, a vehicle in the fast class with up to 45 km/h pedal support, last won this prize at the Eurobike, the world's most important bicycle trade fair, in 2018.

Even as schoolchildren, the company founders Hollants and Pulvermüller became national winners of the JUTEC Youth and Technology competition of the Association of German Engineers – the foundation of the development from a garage laboratory to one of Germany's most innovative bicycle companies. Since 2006 HP VELOTECHNIK has been awarded as one of the three best bicycle manufacturers in Germany by the industry association VSF several times. Information at www.hpvelotechnik.com