



WOLTURNUS

Handbikes

For leisure, recreational purposes
and competitive sports





Handbikes for Champions

» A Woltornus handbike gives you so much freedom as well as physical and mental strength. I'm proud and thankful to have Woltornus as a sponsor.

Jetze Plat, professional handbike rider

Since 2002, when the first athletes, competing with Woltornus sports products, reached the podium at the Paralympic Games, we have been working enthusiastically alongside top athletes, on building the best sports wheelchairs and handbikes in the world. We are deeply inspired by these athletes and find it hugely satisfying to help every athlete to achieve best possible results by providing him/her with the best handbike on the market.

Woltornus manufactures handbikes for leisure, recreational purposes and elite sports. Our products are renowned for their aerodynamic design, speed and unrivalled durability.

Competing on their custom-made Woltornus handbikes, top athletes from Austria, the Netherlands, France, Germany and Denmark have won medals at the Paralympic Games as well as National, European and World Championships.

SPORTS AT WORLD-CLASS LEVEL: WOLTORNUS PRO HANDCYCLING

With the start of the 2017 season, Woltornus launched its very own handcycling team: Woltornus Pro Handcycling! The newly formed team consists of three of the world's best professional handbikers, who have achieved great results in handbike races all over the world. In the upcoming season, the top athletes Jetze Plat from Holland, Patrick Gabriel from Germany and Michael Jørgensen from Denmark, will support each other to perform at their best at international handbike races.

The Woltornus Pro Handcycling Team's mission is to become a main player on the international handbike scene, inspiring people with disabilities to follow their dreams.

At the same time the team will improve the handbike equipment, by sharing their knowledge and experience and developing the equipment together with Woltornus. Furthermore, the team's mission is to win handcycling races with a real team spirit, fair play and positive energy.



Fighting side by side at international races: Patrick Gabriel (GER), Michael Jørgensen (DEN), Jetze Plat (NDL), Photo Credit: Darren Wheeler

HANDBIKE

MODELS



RACEBIKE 2017 Edition

- › Customized handbike for competitive use
- › Developed with the Wolturnus Pro Handcycling Team
- › Recumbent position



RACEBIKE K

- › Customized handbike for competitive use
- › Kneeling position
- › Suitable for riders with full upper-body function



ANTARAS

- › Customized handbike for cyclists, who ride for exercise and fun
- › Seated or recumbent position
- › Adjustable seat depth, back angle & leg length



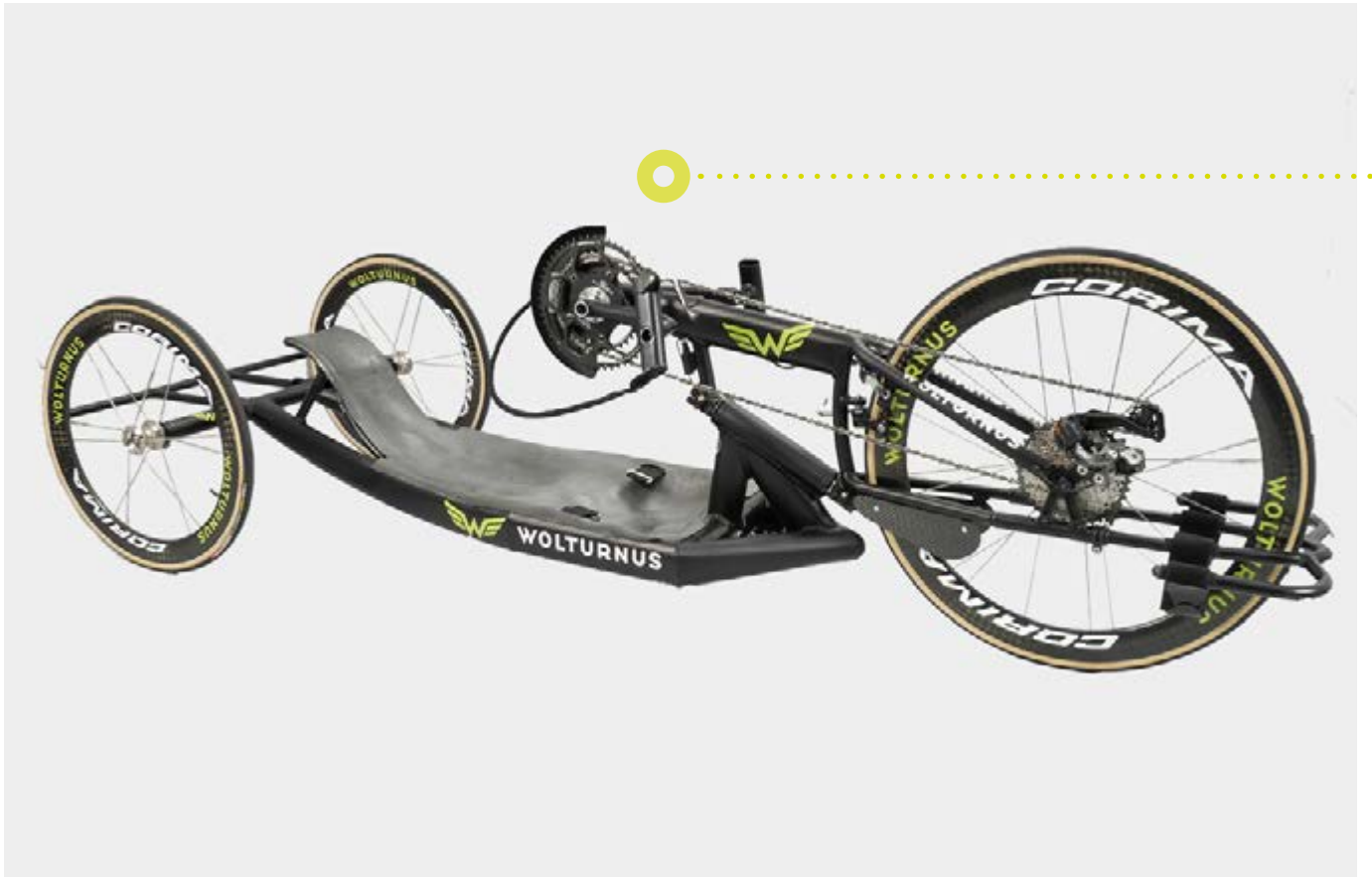
ANTARAS JUNIOR

- › Customized handbike for children and young adults
- › Seated or recumbent position
- › Adjustable seat depth, back angle & leg length



FATBIKE

- › Customized handbike for all terrains
- › Electrical support
- › Adjustable seat depth, back angle & leg length



Strong and lightweight, for competitive sports

The Wolturnus Racebike 2017 Edition is the brand new, improved version of the Wolturnus Racebike and has been developed together with the Wolturnus Pro Handcycling Team.

The Racebike 2017 Edition is the brand new, advanced version of the Wolturnus Racebike. With a starting weight of 9 kg (time trial version), this custom-made handbike breaks all weight records.

Just as the original Racebike model, the Racebike 2017 Edition combines low weight and stability with perfect tuning and aerodynamic design. The design focuses on optimal rigidity between the crank and back. This ensures that all your strength is transferred into speed.

However, the 2017 Edition has even more to offer: it is 400g lighter than previous models, the frame is in general 10% stiffer and the frame tubes are slimmer and lighter. The overall design has been optimized to improve the bike's aerodynamics even further.

As every single Racebike is fully adapted to its user, the gear shifter and brakes can be positioned individually.

Wolturnus offers the following upgrade options: Di2 electronic shifter, ceramic speed bearing upgrade, SRM Powermeter, Corima wheels.

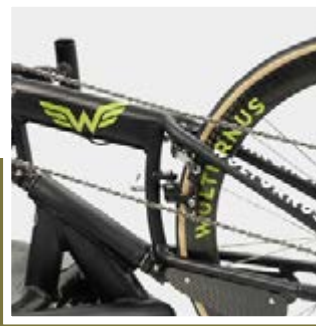
Specifications

- › Customized handbike
- › Recumbent position
- › Aerodynamic design with low point of gravity for min. wind resistance and max. speed
- › Fully-welded anodized frame
- › Corrosion resistant, impact resistant and scratch resistant
- › Designed in accordance with UCI regulations
- › Weight from 9 kg



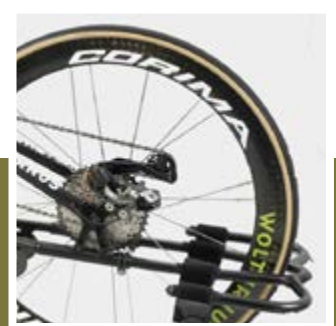
› CARBON SEAT & BACK

Equip your 2017 Edition with a custom-made carbon seat and back, to facilitate weight reduction.



› STIFFER HEAD TUBE

The Racebike 2017 Edition has a stiffer front frame and head tube construction.



› CORIMA WHEELS

There are Corima® Carbon wheels available for your Racebike.



Fast and strong kneeling handbike

The Racebike K is a customized kneeling position handbike. It is suitable for riders with full upper-body function and designed in accordance with UCI regulations.

The Racebike K is a kneeling position handbike for competitive use, particularly suitable for leg amputees and athletes with full upper body function.

The special frame design allows an ideal seating posture and best possible aerodynamics. The frame is made of heat-treated aluminium 7020, resulting in maximum stability and stiffness. However, with a total weight of approximately 10 kg, the frame is at the same time extremely lightweight.

The configuration of the handbike, based on the optimal seating posture, allows the maximum transfer of power from the athlete to the bike, facilitating to climb mountains with minimal effort.

The anodization of the frame leads to a corrosion resistant, impact resistant and scratch resistant surface. Alternatively, the users can choose between a wide range of powder coatings.

As every single Racebike K is fully adapted to its user, the gear shifter and brakes can be positioned individually and there is a large selection of accessories available for the Racebike K.

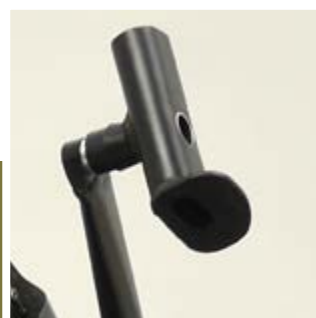
Specifications

- › Customized handbike
- › Kneeling position
- › Suitable for leg amputees
- › For athletes with full upper body function
- › Corrosion resistant, impact resistant and scratch resistant
- › High stability and low weight
- › Individual choice of gears
- › Designed in accordance with UCI regulations
- › Weight from 10 kg



› POSITION

The position is adapted according to each individual athlete's measurements and requirements.



› POWER PLATES

Alu stop plates on handles with power plates, securing an ideal grip.



› FRAME DESIGN

The special frame design allows an ideal seating position and best possible aerodynamics.



Adjustable handbike

... for exercise, recreation and fun

The Antaras is the perfect handbike for athletes who want to exercise once in a while or on a regular basis. The Antaras allows continuous adjustments, according to changing requirements and needs.

With the Wolturnus Antaras, the riders have the possibility to choose a handbike, with a range of adjustable elements. This allows the users to adapt their seating posture continuously.

The Antaras handbike has an adjustable seat depth and back angle as well as an adaptable leg length. Moreover, it can be used with a seated or a recumbent position.

The backrest of this handbike is designed ergonomically to give the athletes the necessary support, harnessing all their energy for propulsion. The Antaras is also suitable for users with limited balance.

The 7020 aluminium frame, provides an ideal stiffness-to weight ratio. The Antaras has a minimum total weight of 14 kg, depending on your choice of equipment and accessories. Additionally, the Antaras handbike is also suitable for heavyweight users.

The anodization of the frame leads to a corrosion resistant, impact resistant and scratch resistant surface. Alternatively, the users can choose between a wide range of powder coatings.

Specifications

- › Customized handbike
- › Seated or recumbent position
- › Adjustable seat depth, leg length and back angle
- › Frame construction with optimum stiffness-to-weight ratio
- › 27 gears
- › Maximum user weight 150 kg
- › Weight from 14 kg



› ADJUSTABLE BACK

An adjustable back, allows the continuous adaption of the seating posture.



› ADJUSTABLE SEAT

Adjustable seat straps allow the modification of the seat depth & height over the floor.



› SHIFTER ON FRAME

As a standard the Antaras is equipped with the shifter, mounted on the frame.

DID YOU **KNOW**

That our handbikers are
Paralympic, National,
European &
World Champions





Make your dreams come true



Secure and adjustable for growing children

An adjustable handbike for children and young adults, allowing a high degree of flexibility as it is possible to adapt it in line with the needs of the young, growing athletes.

Antaras Junior is a handbike for children and young adults that offers lots of fun, lots of exercise and the freedom to ride along with friends and family. The handbike has an adjustable seat depth and back angle, allowing to continuously adjust the seating position as the user is growing. Additionally, the Antaras Junior is equipped with an adjustable leg length.

Antaras Junior can be used with a seated or recumbent position.

As a standard, the Antaras Junior comes with an adjustable strap seat and strap back. The breathable back upholstery is double-layered, and filled with foam. It secures steady ventilation.

The frame is made of 7020 aluminium, resulting in a minimum total weight of 11,5 kg.

The young users have the possibility, to choose from a total of four anodization colors as well as eight powder-coating colors. Alternatively, there is the possibility to provide the Antaras Junior in a unique color of individual choice.

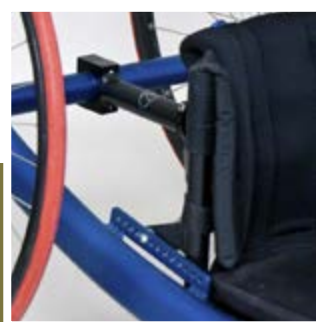
Specifications

- › Customized handbike
- › Seated or recumbent position
- › Adjustable seat depth, leg length and back angle
- › High stability and low weight
- › Ergonomic back with optimal support
- › Many colors to choose from
- › Weight from 11,5 kg



› ADJUSTABLE LEG LENGTH

The Antaras Junior footrest construction allows a continuous adjustment of the leg length.



› ADJUSTABLE BACK ANGLE

A simple mechanism allows the adjustment of the back angle.



› SPECIAL COLORS

Choose between a wide color range, or even order the Antaras Junior in a color free of choice.





Wolturnus Fatbike

for ultimate outdoor action

The Wolturnus Fatbike is the newest product of the Wolturnus handbike range. It allows outdoor enthusiasts to experience an entirely new way of handcycling!

The Fatbike gives handcyclists entirely new opportunities, independent of challenging weather and ground conditions. This handbike, featuring oversize tires, is ideal for riding on unstable terrain like snow, gravel, sand and mud.

The Fatbike is an off-road handbike, with an adjustable seat and back upholstery as well as an adjustable back angle, which makes it possible to adapt it to the individual user. As a special feature, the Wolturnus Fatbike is equipped with the Wing Back ILSA - a patented unique multi-adjustable back system, to give maximal upper body support during off-road riding.

As a standard, the Fatbike comes with electrical support. The 250 W motor has a range of up to 60 km and adds around 8 kg of extra weight to the Fatbike. The Fatbike has a ground clearance of 20 cm and comes with a 26" front wheel and 20" rear wheels. It is made of 7020 aluminium, which makes the frame extremely rigid.

Powerful disc brakes for the front and rear wheels as well as a gear system with 11 gears, make the Fatbike a great sports equipment for users at all experience levels.

Key features

- › Off-road handbike
- › Oversize tires for various terrains
- › 20 cm ground clearance
- › 250 W motor, with up to 60 km range
- › Shimano XT gear system
- › Disc brakes for front wheel and rear wheels
- › Weight from approx. 18 kg (without motor)
- › Max. user weight 140 kg
- › Danish design and manufacture



› WING BACK ILSA

The Wing Back ILSA helps the user to achieve symmetry and stable seating comfort.



› "FAT" TIRES

Oversize tires for ultimate off-road action on all kind of grounds.



› DISC BRAKES

Powerful disc brakes for the front wheels and the rear wheels.

Make your dream handbike come true

with accessories that suit you!



Bumper



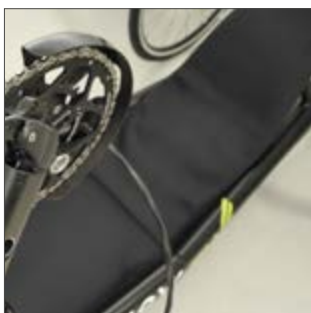
Neck support



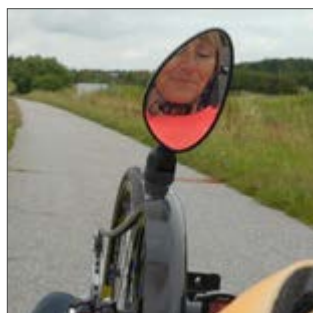
Safety belt



Bottle cage in carbon fiber



Seat and back cushion



Mirror



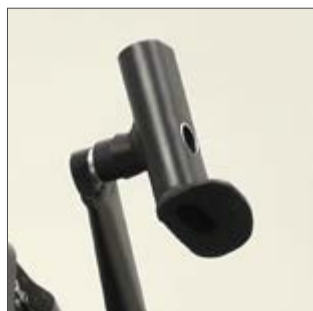
Wireless computer or computer with candece sensor



Chain guard in carbon fiber



Carbon seat plate



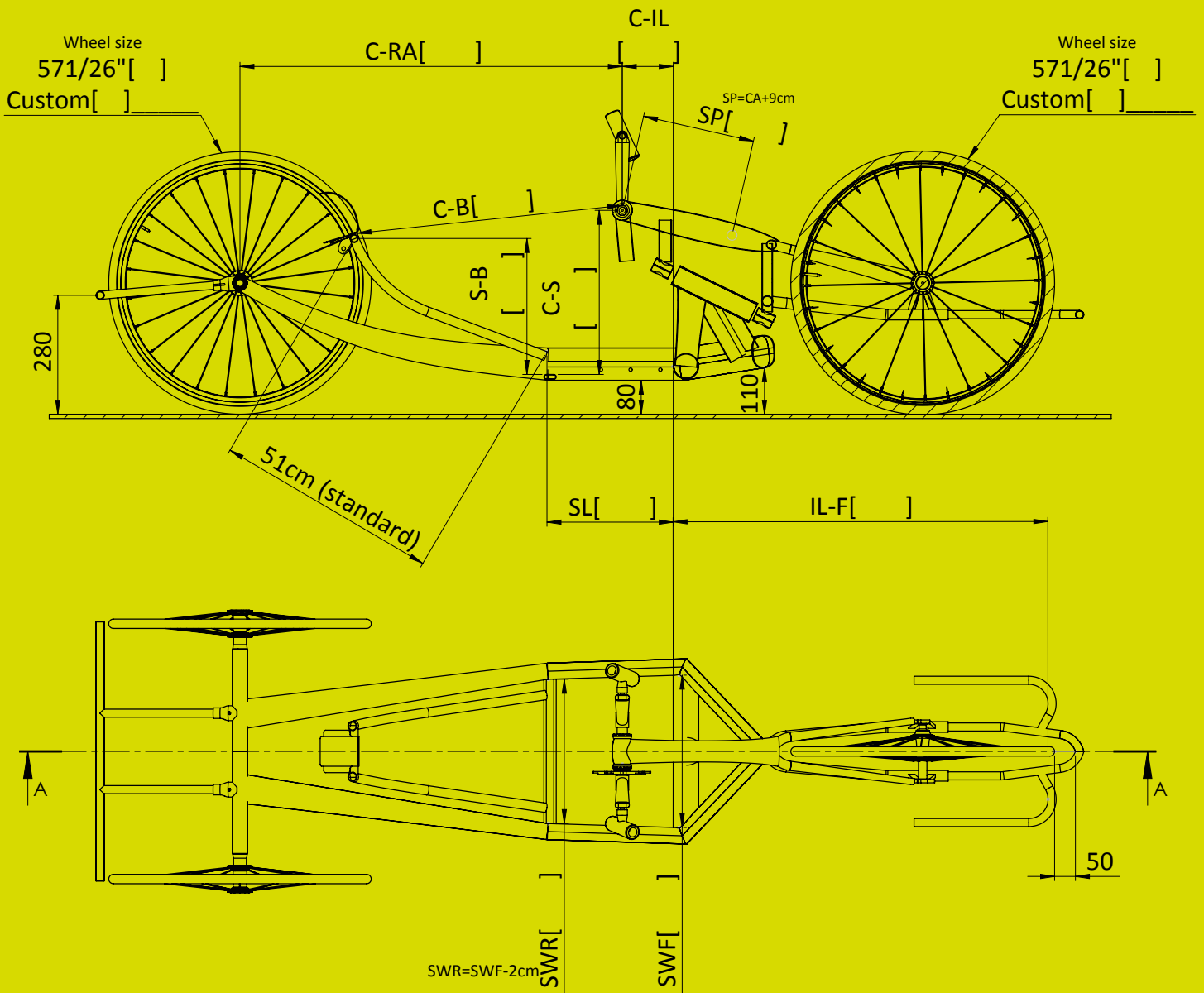
Alu stop plates on handles w. power plates



Electronic gear shifter



Cycling clothes with logo



Handmade & customized down to the last millimeter

There is a vast number of measurements, which have to be defined during the fitting process. However, Wolturnus handbikes have hardly any pre-configured measures, as each Wolturnus handbike is a customized handbike.

The riders' body measurements and individual requirements are decisive!

Getting fitted for a Wolturnus handbike

All our handbikes are custom-built and therefore it is very important, that the fitting of the handbike is executed by experienced consultants. We are able to deliver your new Wolturnus handbike only 5 weeks after the start of the production.



Are you wondering how YOU can get a perfectly fitted Wolturnus Handbike? There are basically two options for everybody, who want to get measured up for a handbike:

1 Contact your local dealer to make an appointment:

We work with experienced dealers, who received an intensive training in measuring handbikes. Feel free to contact us in order to find a dealer in your country.

2 Make an appointment, with our Wolturnus consultant, in our factory in Denmark.

Before the fitting

To prepare for the fitting, your consultant needs to know:

- › Your weight, height and handicap
- › Your intention with the new handbike (leisure vs. competitive sports)

The fitting

Do you already have a handbike? Then it is a good idea to bring it with you to the fitting with your consultant.

During the fitting, all important measurements for your new handbike will be determined. No matter which of the Wolturnus handbike models you are interested in, the most important measurements are: the seat width, the length and shape of the backrest, the leg length as well as the crank length and width.

Discussion of options

There are quite a lot decisions to make, configuring your Wolturnus handbike. Your consultant will assist you with the choice of options and accessories.

Technical Drawing

As a follow up on the consultation, we will make a drawing of your new Wolturnus handbike, including all measurements taken.

Come to Denmark, to get measured up for your Wolturnus handbike:

If you decide to come to Denmark to get fitted for your new Wolturnus handbike, we recommend to plan enough time, to be able to stay with us for 2 days.

DAY 1:

One of our consultant will conduct the measurement and advice you regarding the choice of equipment and accessories, according to the intended use of your handbike. Afterwards, we will weld the frame of the new handbike.

DAY 2:

On the second day of your stay, you will be able to try the newly welded frame and herewith the expected seating posture.

Do you need help?

You are welcome to contact the Wolturnus customer service or your local dealer, for a pre-consultation. If required, we will be happy to provide you with a quotation for your new Wolturnus handbike.

E-mail: info@wolturnus.dk // Phone: +45 96717170



A design team with up to 25 years of experience in working with bikes

The Wolturnus design team

Our design team comprises both specialists from the cycling industry and wheelchair users, who have competed in elite sports at the highest level for years. Our product series are, therefore, based on intensive development, deep insight into your needs and knowledge from extreme sports in which our wheelchairs and handbikes have excelled since 2002.

Customised solutions - made in Denmark

All Wolturnus handbikes are handmade in Denmark. Because we produce them ourselves, we have the unique opportunity to custom-build special solutions for individual customers, precisely adapted to meet their needs and wishes.

Geometry and accessories are key

The geometry of a handbike is key to best performance. Based on your body shape and posture, we design a frame that minimises rolling resistance and maximizes stability. Based on your body shape and weight, we specify the dimensions of the frame tubes. It doesn't matter if you weigh 70 kg or 100 kg - we make sure to optimize the handbikes geometry according to your needs. Mounted accessories are carefully considered because any increase in weight influences the way the handbike handles. We are able to provide you with a fully welded handbike!

Focus on frame rigidity

The stiffness-to-weight ratio is key to the way a handbikes handles. Aluminium is a lightweight metal with extremely high strength and rigidity.

All our frames are made of 7020 (AlZn4.5Mg1) aluminium. This is the strongest aluminium alloy that can be welded. It is more rigid than any titanium alloy. It is the preferred alloy for armoured vehicles, motorbikes and bicycle frames. Our unique Sigma Tubing technology optimizes strength during the manufacture of large tubes with thin walls. Together, these achieve an extreme stiffness-to-weight ratio. The result is ultimate stability.

High-strength TIG welding

Wolturnus always employs TIG (Tungsten Inert Gas) welding. Combined with a protective argon-helium gas compound, this prevents grains from developing during the welding process. This ensures that the material retains its maximum strength.

Hardening and precise alignment ensure ultimate handling

Any tension that has arisen during the welding process is eliminated by heat-treating the frame at a very high temperature. The frame is then measured and any necessary adjustments are made to ensure that the final product is per-

fectly aligned. Finally, the frame is hardened by a process of precisely calculated temperature changes that restore maximum strength to every single microgram of aluminium.

Corrosion-resistant. Impact-resistant. Scratch-resistant.

Anodizing enables integral coloring. It increases resistance and hardens the surface. A layer of aluminium oxide is added to the aluminium surface. Aluminium oxide is one of the world's hardest materials. It measures 9.7 on the 10-point Moh scale of relative hardness. (Diamonds: 10. Glass: 5.6.) The treatment results in an extraordinarily hard-wearing and maintenance-free surface. It ensures the ultimate in corrosion-resistance. It creates a colored, durable surface that is resistant to dents and impacts.

Quality control

At Wolturnus, there is a strict quality control of all products and processes during development and manufacturing. We optimize our production processes on a continual basis, in accordance with new knowledge and new experience.



WOLTURNUS

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