

GIGANTEX

GIGANTEX COMPOSITE TECHNOLOGIES

2020



GIGANTEX

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Product Specifications are subject to change without notice.

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Although GIGANTEX is new to the medical industry, it has been known as one of the most innovative and quality producers of composite bicycle components and other industrial products for 22 years. In bicycle industry, GIGANTEX has been the first company started the designs and then mass production of these products:

1. Carbon fiber crank arm sets in the world.
2. Bike frame carbon seat stays in Asia
3. Ergonomic carbon road racing handlebars
4. Carbon bike rims and wheels in Asia
5. Other small bike accessories such as carbon bottle cages, saddles, etc..

In pursuing the medical business, GIGANTEX's persistence is the same, to utilize its long time experiences in R&D, quality assurance system, process engineering, management and, most importantly, the innovative minds to create a revolution to this industry. Consequently, other than some other OEM products such as superlight carbon spine board, ambulance stretcher and baby cart base GIGANTEX has been making since 2005, GIGANTEX started the superlight carbon wheelchair design in 2007. Now, it is the time to reveal these essences of our development, MF012 and MF015 super light carbon fiber



wheelchairs to fulfill our mission statement:

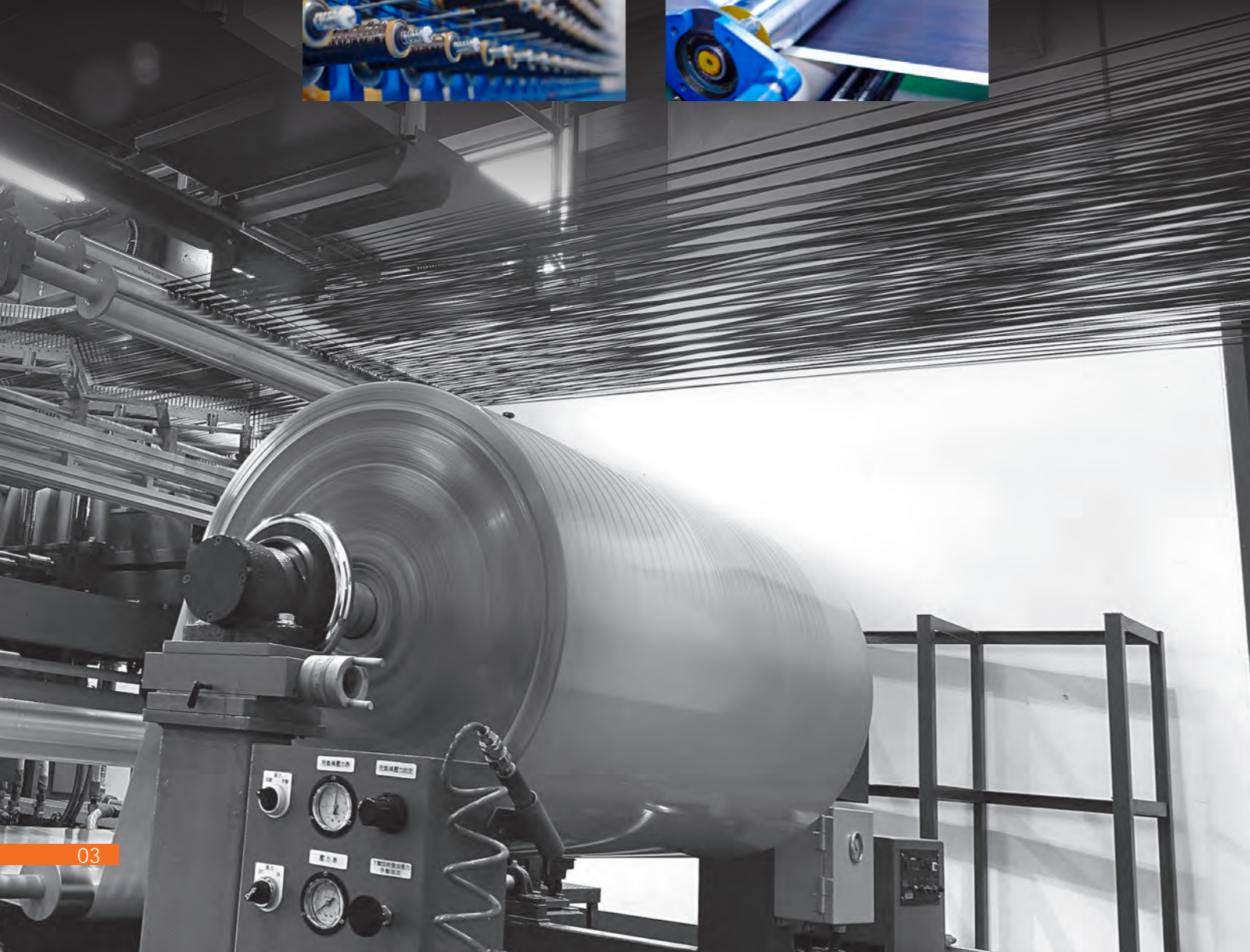
1. Provide the consumers the most affordable, lightweight, strong and ergonomic carbon fiber wheelchairs..
2. To do more to improve the quality of life for the disabled by offering our products.
3. Become the best carbon fiber wheelchair maker in the world.

GIGANTEX was founded in May 1st, 1998. It was a management buyout which was considered to be non-typical at that time. It started from five major managers and the other 13 employees to current 180 employees. Thanks to this unique arrangement, most of the team members have considered GIGANTEX is not only a working place but also a family where we share our hardships, joys and successes. At this moment, over 85% of the basic and key managers have been with GIGANTEX for at least 15 years. This is the most precious asset to GIGANTEX and it is also the best driving force to move ahead.

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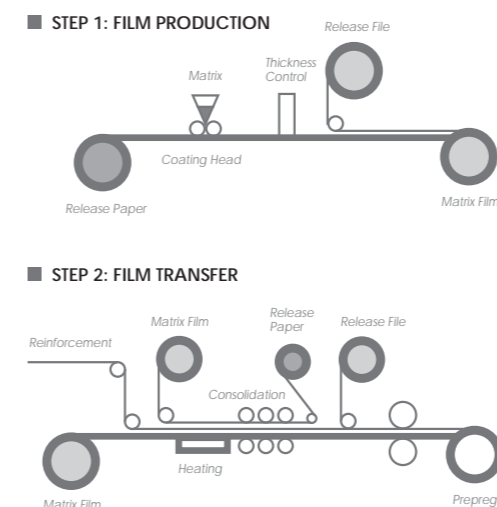


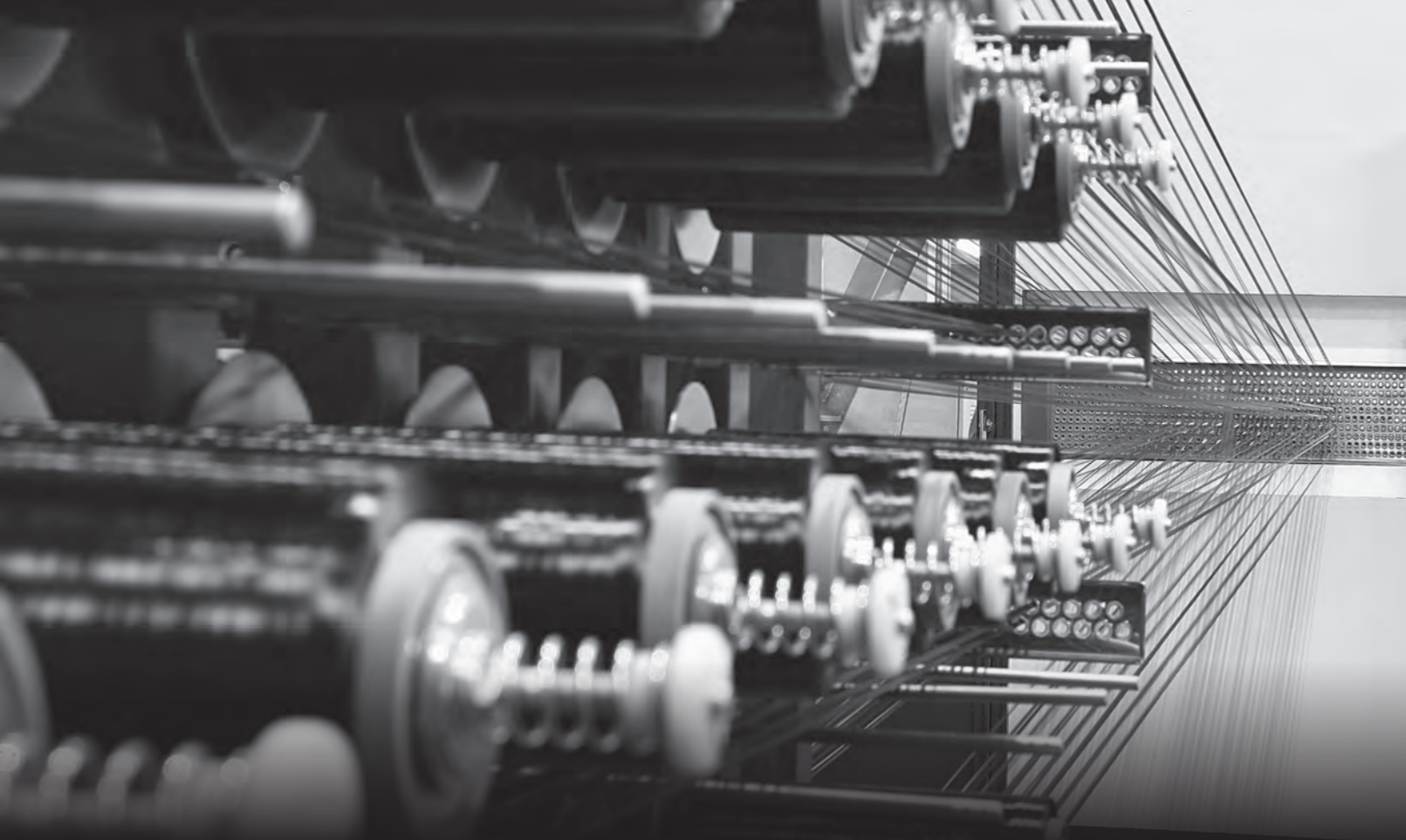


TECHNOLOGY FAMILIES

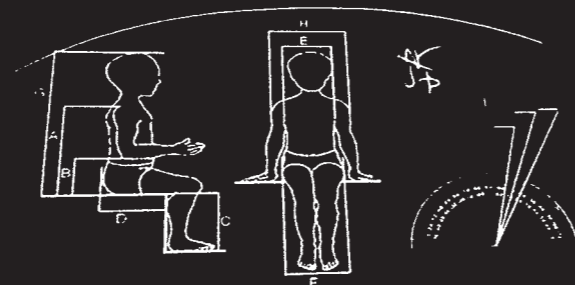
At GIGANTEX, we believe the quality is the only factor to continue our growth and success. For this concept, we have built the state-of-art composite manufacturing facilities, we keep our key and experienced employees to manage the R&D and to monitor production process, we strictly execute ISO9001-2015 and ISO13485-2016 system on daily basis which is supervised by our experienced QA staffs.

And, to extend our quality control, we have moved further to do vertical integration. In 2010, we built a prepreg process line in our second factory. This arrangement has enabled us to cut the prepreg cost by 20% compared from outsourcing it which we used to do before. Furthermore, it gives us more freedom to make whatever specifications, from FAW 50 to 200 grams and different types of carbon fibers, we need to precisely design the laminations. Of course, the most essential part is that we are able to control the quality of our critical raw material, the carbon fiber prepreg, by doing it in house.





GIGANTEX are among the best composite manufacturing companies in Asia. Its 20 years of RD, QA, management and manufacturing experiences give her a lead to any others in the bicycle, automobile, industrial application and now medical industries. The wheelchair design and development started from 2007, after 10 years hardworking, our wheelchair design has finally reached to a mature status. It was also a 2017 iF Design Award winner.



MF012/015 is made of advanced carbon fiber, which can be molded into any shape. It looks like a simple structure, but in fact is a technical marvel. Carbon fiber is an amazing material, ideal for high-load smooth, curved shape and ergonomic requirements, after years of development and the actual test, the result is to be the strongest ever and lightest wheelchair. In the past, moving stationary wheelchair is a troublesome thing, but not anymore, because MF012/015 is the lightest wheelchair in the world, most people can easily click on by one hand.



ISO9001



ISO13485



Strength-to-Weight Ratio

Under the same strength premise, the carbon fiber wheelchair is generally only 1/3 of the weight of the alloy wheelchair. And, of course, its driving quality is much better than its counterparts.

High Impact Durability and Fatigue Strength

Through the carbon fiber lamination design and fiber type selection, it is no doubt that a tough and yet shock-absorbing wheelchair can be made.

Can be Formed into More Ergonomic Shapes

The formability of carbon fiber material enables us to design the wheelchair into a more ergonomic shape. After all, we are all fed up with the traditional dull piping structure design.

CAD allows us to take advantage of the versatility of carbon fiber.....

PATENT AUTHENTICATION

| Patent Description | Country Applied | Application Date | Application Number | Patent Type | Patent Number |
|--------------------------------------|-----------------|------------------|--------------------|--------------------|----------------|
| Multifunctional stretcher | Taiwan | 2011.1.13 | 100200766 | Utility Models | 0 |
| Patient carrying device | China | 2012.11.20 | 201220616380.8 | Utility Models | 202892251U |
| wheelchair frame | Europe | 2014.10.06 | 002551804 | Designs | 002551804-0001 |
| wheelchair frame | Taiwan | 2014.09.23 | 103305600 | Designs | D170369 |
| foldable wheelchair | Taiwan | 2014.06.24 | 103211162 | Utility Models | M490313 |
| | Taiwan | 2014.06.24 | 103121743 | Granted Inventions | I55525 |
| damping wheelchair | Taiwan | 2014.06.24 | 103211163 | Utility Models | M490314 |
| | China | 2014.07.21 | 201410347229.2 | Granted Inventions | 201410347229.2 |
| foldable wheelchair | Taiwan | 2015.07.17 | 104123273 | Granted Inventions | I577363 |
| wheelchair frame | Europe | 2016.7.28 | 003321975 | Designs | 003321975 |
| adjustable wheelable | Taiwan | 2015.07.17 | 104211596 | Utility Models | M5143686 |
| | China | 2016.07.11 | 201620723204.2 | Utility Models | 201620723204.2 |
| wheelchair with replacable tilt tube | Taiwan | 2016.07.15 | 105122334 | Granted Inventions | I605810 |
| handwheel assembly for wheelchair | Taiwan | 2016.03.17 | 105108206 | Granted Inventions | - |
| | Taiwan | 2016.03.17 | 105203646 | Utility Models | M525735 |
| foldable crutch | Taiwan | 2015.12.21 | 104142437 | Granted Inventions | I577367 |

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MF012

Carbon Folding Wheelchair

Weight: 8 kg*

(* Includes:
wheelchair
frame set, front
fork/guide
wheel, rear
wheel)

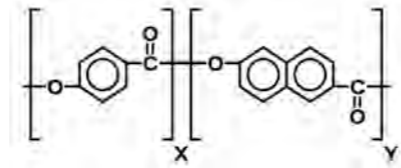


Key features of MF012 design are:

For a long time, the quest for lightweight, compact and handy wheelchairs has been confined by the industry conservativeness and by the limited knowledge of utilizing advanced materials to realize the dream. Therefore, currently only a few carbon wheelchairs are in the market. However, they are either too expensive for users to afford or too weak to meet the daily heavy duty uses.

GIGANTEX started its business since 1998 and mostly it endeavored in composite bicycle and other industrial applications. Not until 2005, GIGANTEX looked into the medical business seriously. GIGANTEX firstly worked on OEM base and brought the market the lightest carbon fiber spine board, ambulance stretcher and baby cart base. Their applications were constricted only to a certain group of users. The major population still could not enjoy the fruit of advanced technology which brought not only maintaining the life quality but rather improving it.

Consequently, in 2007, GIGANTEX decided to design and produce the light weight, compact and yet affordable carbon fiber wheelchair. After few years of experiences in refining the design, MF012, the iF Design Award winner, and MF015 the super light wheelchair come to the market.



It is made of advanced carbon fiber material that enables the structure stiffness and a special damping LCP fiber is employed to create the hardness. A perfect harmony is reached and can only be done with a long-term and experienced craftsmanship.

01 A structure harmony created by advanced high modulus carbon fiber blended with toughen liquid crystal polymer(LCP).



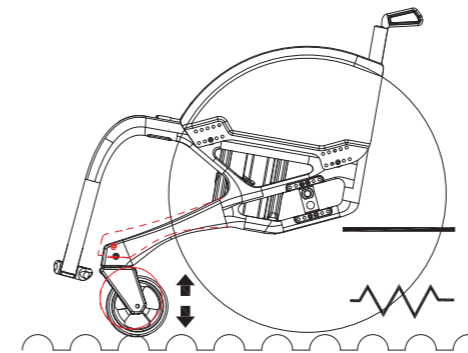
A delicate mechanism design that enables the user to fold this wheelchair in seconds.

02 Instant folding mechanism.



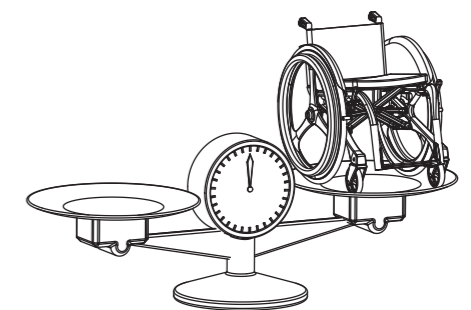
An integral base frame structure that gives this wheelchair a damping effect and thus provides the user comfort rides.

03 State-of-art tri-spoke carbon wheel with carbon handrail molded as a one-piece structure.



Patented tri-spoke carbon wheel with integrated carbon handrail bring a gentle touch while gliding it on the road.

04 Built-in suspension effect from frame geometry design.



At 8kg*, it is considered to be one of the lightest folding wheelchairs in the market.

05 Complete and throughout carbon wheelchair frame and wheels.

MF012

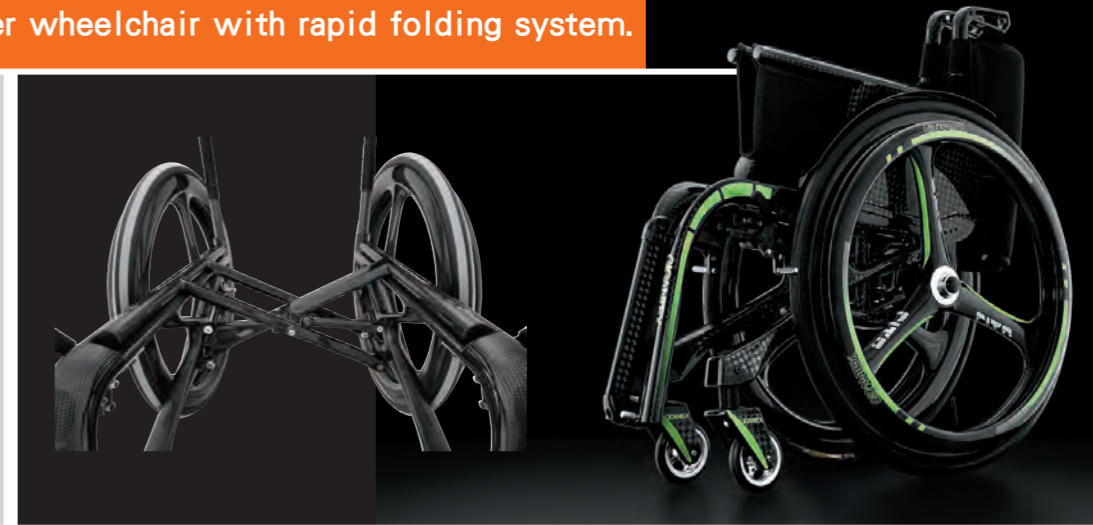
CE



To the disabled, wheelchair is a critical mean to sustain their daily lives. A lightweight, handy and pretty wheelchair provides not only their basic needs for moving around but also confidences to enjoy the outdoor lives.

Full carbon fiber wheelchair with rapid folding system.

"H" type folding structure, sturdy and convenient.



Adjustable push handles.



Adjustable center of gravity.

Extra support beams hidden under the main frame help to lower the center of gravity and also increase the stability.



Detachable anti-tilt device helps the user to accustom this superlight weight wheelchair at the initial use.



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MF015

Carbon Wheelchair

Weight: 6 kg*

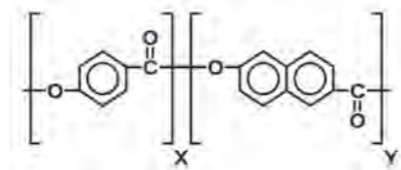
(* Includes:
wheelchair
frame set, front
fork/guide
wheel, rear
wheel)



Key features of MF015 design are:

The design concept of MF015 is different from MF012. While MF012 is mainly for senior yet still active disabled people, MF015 is aimed for young and active disabled. This extremely light weight wheelchair realizes the dream for those disabled who want to travel, work and upgrade their life qualities.

MF015 is definitely a good helper of the active disabled. Its light weight and ergonomic design enables it to perform like the feet of the user. It runs silently, agilely, smoothly and thus gives more maneuverability. It can be carried easily to anywhere which eliminates the inconvenience of disabled people.



It is made of advanced carbon fiber material that enables the structure stiffness and a special damping LCP fiber is employed to create the hardness. A perfect harmony is reached and can only be done with a long-term and experienced craftsmanship.

01 A structure harmony created by advanced high modulus carbon fiber blended with toughen liquid crystal polymer(LCP).



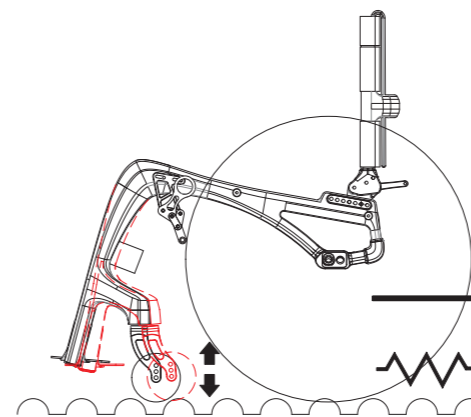
Wheel angle can be easily altered from 0°, 2° and 4° degree by changing the axle base.

02 Patented interchangeable wheel angle axle embodied.



Integrated one-piece construction that eliminates junctions which make the frame lighter yet stronger.

03 Ergonomic wheelchair base frame.



Ergonomic design that fits the user better than conventional piping structure.

04 Ergonomic wheelchair base frame.



Adjustable back support angle from 90 to 100 degree.

05 Adjustable seat back angle, 90 and 100 degree.

MF015



MF015 CE
registration number :
RPS / 473 / 2016



Adjustable push handles



Armrest



Double axles



Foldable seat back

Unique back support positioning system provides more lean back selections, 90 and 100 degree.



Agile guide wheel

The wheel angle can be adjusted into 0° 2° 4° upon request.



Detachable anti-tilt device as an option unit



MF015M

CE

MF015M CE
registration number :
RPS / 187 / 2018

Weight: 7.5 kg*
(* Includes: wheelchair
frame set, front fork/guide
wheel, rear wheel)



Foldable seat back

Unique back support
positioning system
provides more lean
back selections, 90 and
100 degree.



Travel light option



Detachable anti-tilt device as an option unit



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MF015M is an austere version of MF015 full carbon wheelchair. It is intended to provide a more affordable lightweight wheelchair to the users. At 7.5* kilograms per unit and when it is compared to the MF015 full carbon version, it weights about 1 kilogram more. However, it is still among the lightest categories. And, most importantly, at only 2/3 the cost of MF015, it is perhaps the highest CP value lightweight wheelchair in the world.

WH210



25" Full carbon
three spoke wheels
3K finish

Like any other moving vehicle, the wheel plays a critical role. GIGANTEX started producing high-end carbon fiber bicycle wheels in 2000 and it has been known as the best carbon fiber bicycle wheel maker in Asia since then. By using the same technology and experiences, GIGANTEX offers various of wheel designs to the wheelchair users who hope to improve the driving quality.

- 1.A beautiful oxymoron design which blend rim, spoke and handrail all together. It is smooth, elegant and lightweight.
- 2.Exquisite manufacturing technologies are employed to create this marvelous wheel.
- 3.Minimum maintenance is required.

WH272



24" carbon / alloy wheels,
carbon push rim.
3K / 12K finish



This patented wheel combines alloy and carbon materials and is molded in one-piece. It gives the wheel set a smooth and nice touch..

- 1.Weight: 1.2 kg per pair.
- 2.Rim and handrail blended as one-piece structure.
- 3.Minimum maintenance is needed.

WH277



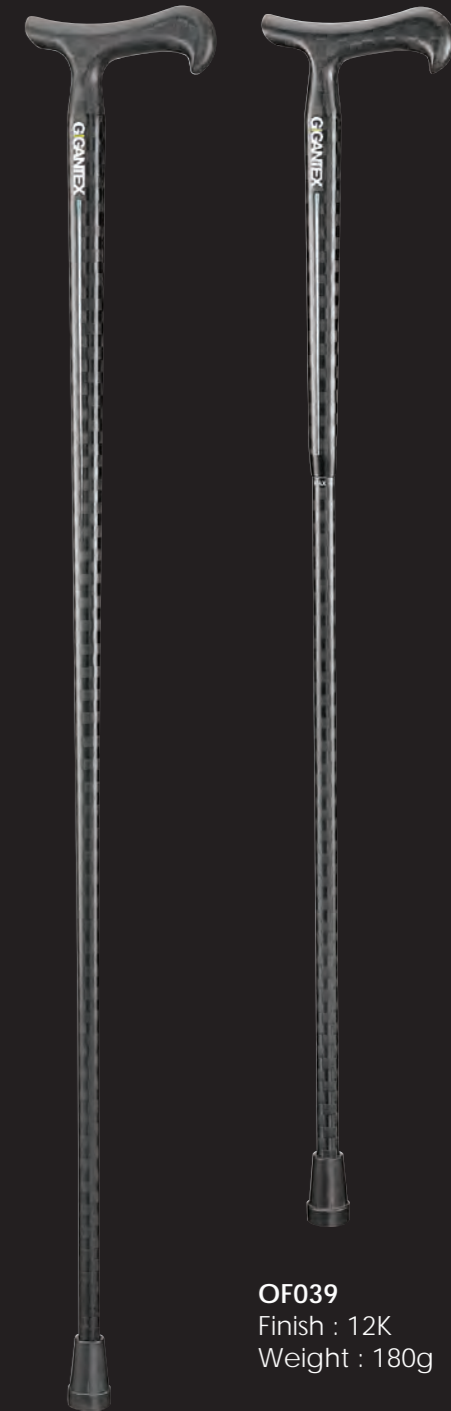
24" carbon three spoke wheels,
alloy push rim.
3K / 12K finish

It is not only a conventional tri-spoke carbon wheel design but also the lightest one among its peers. Standard or customized handrail can be fitted to give different grab feels.

WH269



WH269
24" Alloy wheels



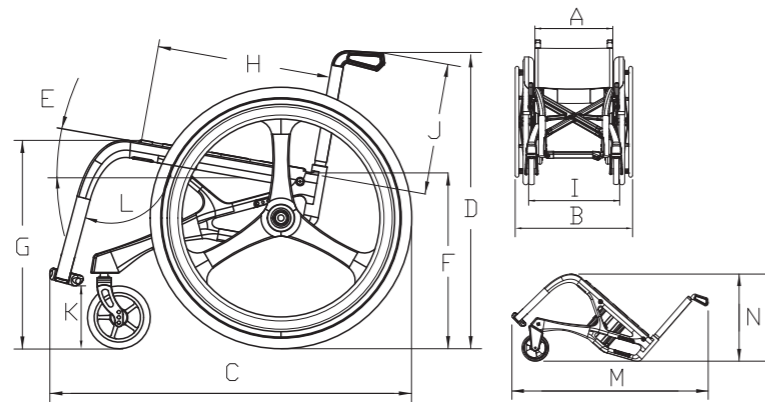
OF018
Length : 76 to 92cm
Finish : 12K
Weight : 100g

OF039
Finish : 12K
Weight : 180g

MF012



MF012 CE
registration number :
RPS / 436 / 2016



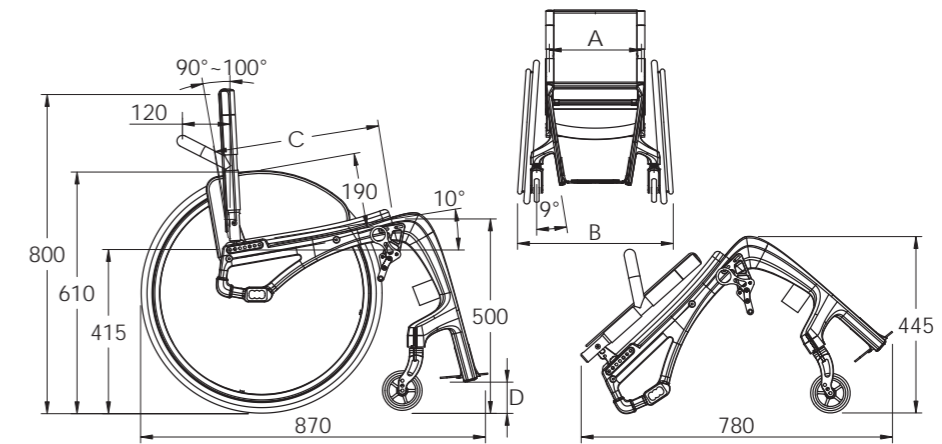
MF012 SPECIFICATION:

| Specification | 14" | 15" | 16" | 17" | 18" |
|----------------------|-----|-----|---------|-----|-----|
| Castors | | | 4.0" | | |
| Rear wheel | | | 25" | | |
| A Seat width | 350 | 375 | 400 | 425 | 450 |
| B Unfolding width | 573 | 598 | 620 | 633 | 645 |
| B Folding width | 325 | 330 | 335 | 340 | 345 |
| C Total length | | | 860 | | |
| D Total height | | | 775 | | |
| E Seat angle | | | 10° | | |
| F Seat height- Rear | | | 380 | | |
| G Seat height- Front | | | 500 | | |
| H Seat depth | | | 410 | | |
| I Inner width | 418 | 445 | 470 | 496 | 520 |
| J Back height | | | 380 | | |
| K Pedal height | | | 120~200 | | |
| L Pedal angle | | | 95° | | |
| M Frame length | | | 930 | | |
| N Frame height | | | 410 | | |
| O Maximum load | | | 100kg | | |

MF015



MF015 CE
registration number :
RPS / 473 / 2016



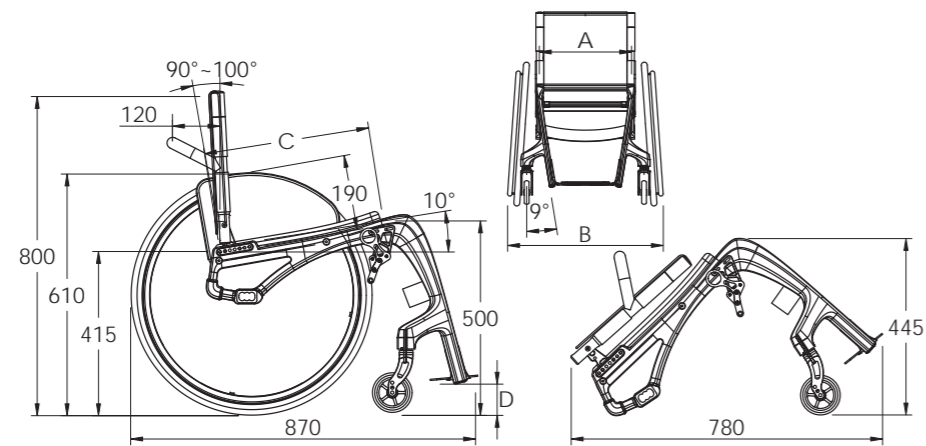
MF015 SPECIFICATION:

| Specification | 14" | 15" | 16" | 17" | 18" |
|-------------------------|-------------|-------------|-------------|-------------|-------------|
| Length x Width x Height | 870x600x800 | 870x625x800 | 870x650x800 | 870x675x800 | 870x700x800 |
| Castors | | | 5.0" | | |
| Rear Wheel size | | | 24" | | |
| A Seat width | 350 | 375 | 400 | 425 | 450 |
| B Total width | 600 | 625 | 650 | 675 | 700 |
| C Seat depth | | | 350-400 | | |
| D Pedal height | | | 80 | | |
| Side guard Height | | | 190 | | |
| Seat height- Front | | | 500 | | |
| Seat height- Rear | | | 415 | | |
| Back height | | | 800 | | |
| Total length | | | 780 | | |
| Frame height | | | 445 | | |
| Maximum load | | | 100kg | | |

MF015M

CE

MF015M CE
 registration number :
 RPS / 187 / 2018









MF015M SPECIFICATION:

| Specification | 14" | 15" | 16" | 17" | 18" |
|-------------------------|-------------|-------------|-------------|-------------|-------------|
| Length x Width x Height | 870x600x800 | 870x625x800 | 870x650x800 | 870x675x800 | 870x700x800 |
| Castors | 5.0" | | | | |
| Rear Wheel size | 24" | | | | |
| A Seat width | 350 | 375 | 400 | 425 | 450 |
| B Total width | 600 | 625 | 650 | 675 | 700 |
| C Seat depth | 350-400 | | | | |
| D Pedal height | 80 | | | | |
| Side guard Height | 190 | | | | |
| Seat height- Front | 500 | | | | |
| Seat height- Rear | 415 | | | | |
| Back height | 800 | | | | |
| Total length | 780 | | | | |
| Frame height | 445 | | | | |
| Maximum load | 100kg | | | | |





| Item \ Model | MF012 | MF015 | MF015-M |
|--|-------|-------|---------|
| Chassis Color | | | |
| Glossy clear coat | ● | ● | ● |
| Matt clear coat | ○ | ○ | ○ |
| White or any color as instructed | ○ | ○ | ○ |
| Logo Color | | | |
| Yellow  | ● | ● | ● |
| Green  | ○ | ○ | ○ |
| Blue  | ○ | ○ | ○ |
| Red  | ○ | ○ | ○ |
| Chassis finish | | | |
| 3K Finish  | ● | ● | ● |
| 12K Finish  | ○ | ○ | ○ |
| Cushion color & Backrest color | | | |
| Black | ● | ● | ● |
| Seat width | | | |
| 14" (350 mm) | ○ | ○ | ○ |
| 15" (375 mm) | ○ | ○ | ○ |
| 16" (400 mm) | ○ | ○ | ○ |
| 17" (425 mm) | ○ | ○ | ○ |
| 18" (450 mm) | ○ | ○ | ○ |
| Backrest height | | | |
| Carbon-300 mm | - | ○ | - |
| Carbon-320 mm | ○ | ○ | - |
| Carbon-380 mm | ● | ● | - |
| Carbon-420 mm | ○ | - | - |
| Alloy-300 mm | - | - | ○ |
| Alloy-320 mm | - | - | ○ |
| Alloy-380 mm | - | - | ● |
| Side guard | | | |
| Carbon | ● | ● | ○ |
| Alloy | - | ○ | ● |
| Push handles | | | |
| MF012 Carbon push handles | ● | ○ | - |
| Backrest attachment | | | |
| 56 mm | - | ○ | ○ |
| 68 mm | - | ● | ● |
| 80 mm | - | ○ | ○ |



| Item \ Model | MF012 | MF015 | MF015-M |
|--|-------|-------|---------|
| 92 mm | ● | - | - |
| 104 mm | ○ | - | - |
| 117 mm | ○ | - | - |
| Forks and Castors | | | |
| Carbon fork with 4" PU tire | ● | - | - |
| Carbon fork with 4.5" PU tire (tire width: 29 mm) | ○ | - | - |
| Alloy fork with 4" PU tire (tire width: 20 mm) | ○ | ○ | ○ |
| Alloy fork with 4.5" PU tire (tire width: 29 mm) | ○ | ○ | ○ |
| Alloy fork with 5" PU tire (tire width: 34 mm) | ○ | ● | ● |
| Brakes | | | |
| Stick lever brakes | ● | ● | ● |
| Scissor brakes | - | ○ | ○ |
| Anti-tip bars | | | |
| Carbon | ○ | ○ | ○ |
| Rear wheels and Pushrim | | | |
| WH210-25" Carbon three spoke wheels, 3K finish | ● | ○ | ○ |
| WH269-24" Alloy wheels, 24H spokes | ○ | ● | ● |
| WH272-24" Carbon Pushrim / 24H spokes | ○ | ○ | ○ |
| WH277-24" Carbon three spoke wheels, Alloy pushrim | ○ | ○ | ○ |
| Camber | | | |
| 0° | ● | ○ | ○ |
| 2° | - | ○ | ○ |
| 4° | - | ● | ● |
| Backrest angle | | | |
| 90° | - | ● | ● |
| 100° | ● | ○ | ○ |
| Footrest height | | | |
| 60 mm (Rear wheel-24") | - | ○ | ○ |
| 70 mm (Rear wheel-24"&25") | - | ○ | ○ |
| 80 mm (Rear wheel-24"&25") | - | ● | ● |
| 90 mm (Rear wheel-24"&25") | - | ○ | ○ |
| 100 mm (Rear wheel-25") | - | ○ | ○ |
| 110 - 190 mm (Rear wheel-24") | ○ | - | - |
| 120 - 200 mm (Rear wheel-25") | ● | - | - |
| Armrest | | | |
| Carbon | - | ○ | ○ |
| Alloy | - | ○ | ○ |