MEASUREMENT GUIDE

DUKE

Rev. 1 –2021/05

MEASUREMENT GUIDE

ENGLISH

DUKE

MEASUREMENT GUIDE

INTRODUCTION

This guide has the sole purpose of helping the person in charge of filling up the order from, indicating, section by section, the reference points to take measurements from, with some advice, too, so that the delivered wheelchair corresponds to what requested.

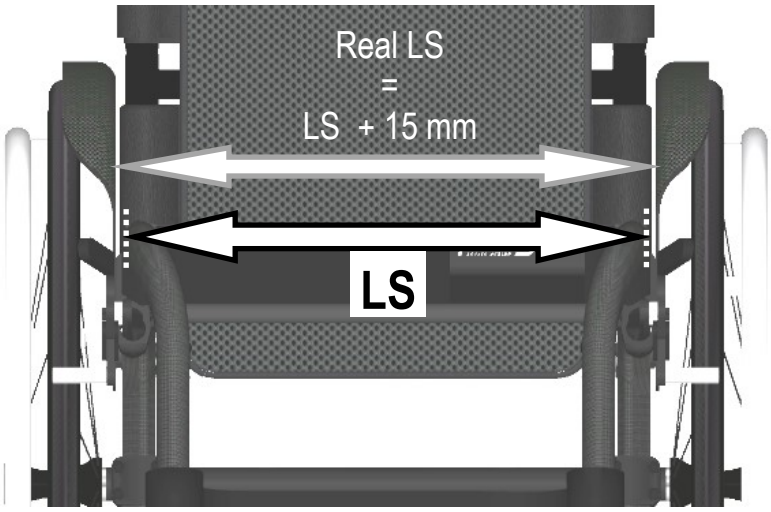
The pieces of information in this guide are exclusively technical and regards the device; it does not and it does not intend to provide postural advices.

MEASUREMENT GUIDE

SEAT WIDTH (LS)

The distance between the outer sides of the frame

33 36 39 42 45 48 cm.



The real width, in other words, the room between the two fixed side guards, approximately results 15 mm wider.

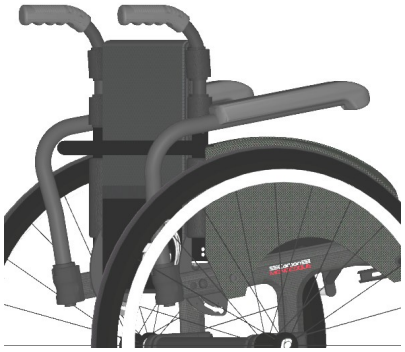
Real LS = LS + 15 mm

FIXED SIDE GUARD SPACING

The standard structure id provided with side guards fixed to it, thus, it is possible to ask for a wider real LS up to 1 cm 1 each side (total 2 cm).
For instance, write the note:
"space the side guards to have real seat width 41.5" (if LS = 39).

Hereafter, some useful information according to the choice of side guards or armrest.

REMOVABLE SIDE GUARDS
Not spaceable
Real LS = LS +10 mm



REMOVABLE ARMREST
Not spaceable
Real LS = LS +10 mm

TUBULAR ARMRESTS
See side guards.

MEASUREMENT GUIDE

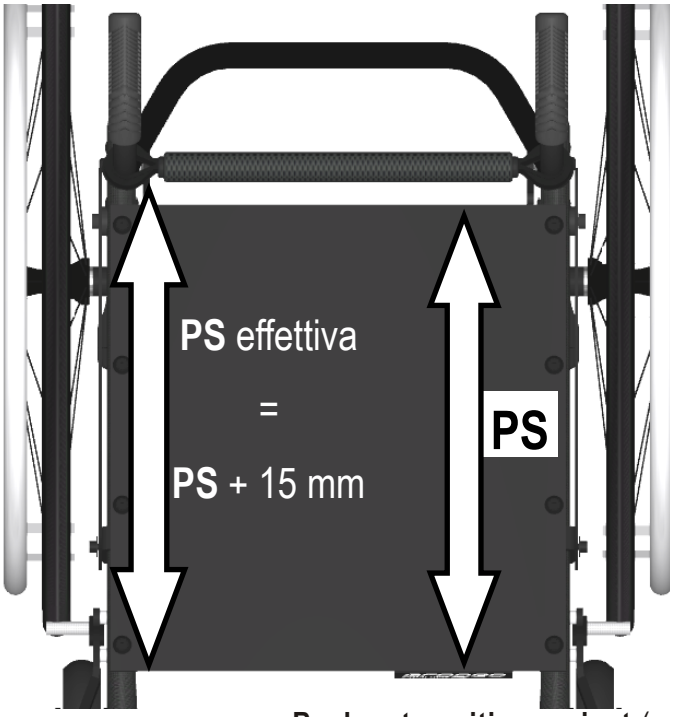
SEAT DEPTH (LS)

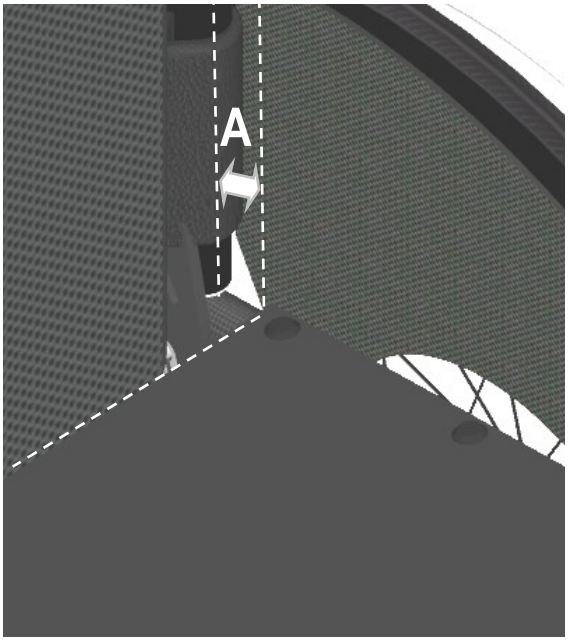
The distance between the backrest tube and the front side of the seat canvas

35 37.5 40 42.5 45 47.5 50 cm.

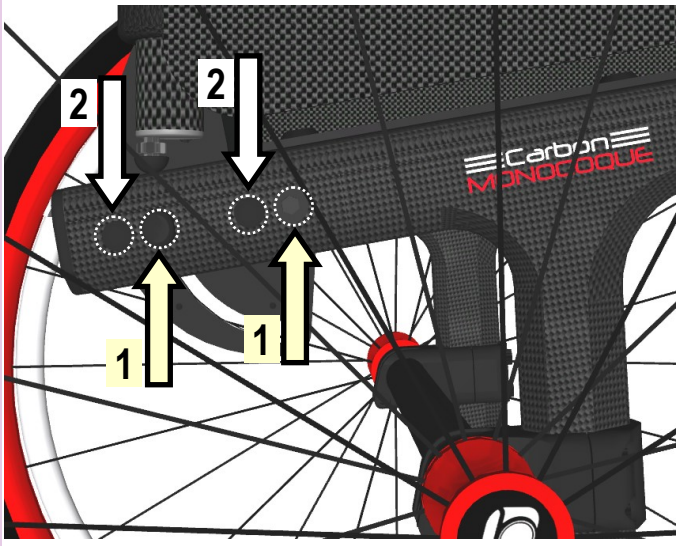
The length of the seat canvas corresponds to the seat depth that is indicated in the order form.
However, the real seat depth (from the backrest tube to the front side of the canvas) approximately results 15 mm longer. That is due to gap **A** between the rear side of the canvas and the backrest tube.
Example:

Seat depth in the order form	40 cm
Length of the seat canvas	40 cm
Real seat depth	41.5 cm





Backrest position variant (not present in the order from)



The backrest of the wheelchair can be fixed in two positions. The standard position is through the fixing points **1**, while the fixing points **2** lies 1.5 cm behind.
The seat depth above mentioned is considered with the backrest fixed through the points **1**.
If the backrest is mounted through the points **2**, the seat depth increases by 1.5 cm. and the setting becomes 1.5 cm. more active.
See also chapter “setting”.
You can ask for the backrest fixed in position **2** by writing a note, but you can also change the position after sale.

Note: if you ask for PS 50, the bakrest is fixed in position 2.
(Real PS = 47.5 + 1.5 + 1.5 = 50.5 cm)

MEASUREMENT GUIDE

FOOTPLATE DISTANCE (DP)

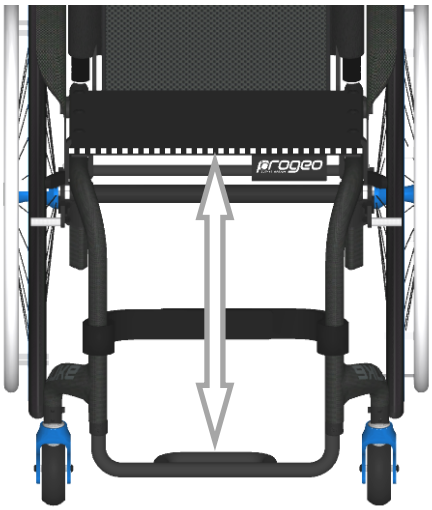
The distance between the front side of the seat canvas (not of the cushion) and the rear side of the footrest plate

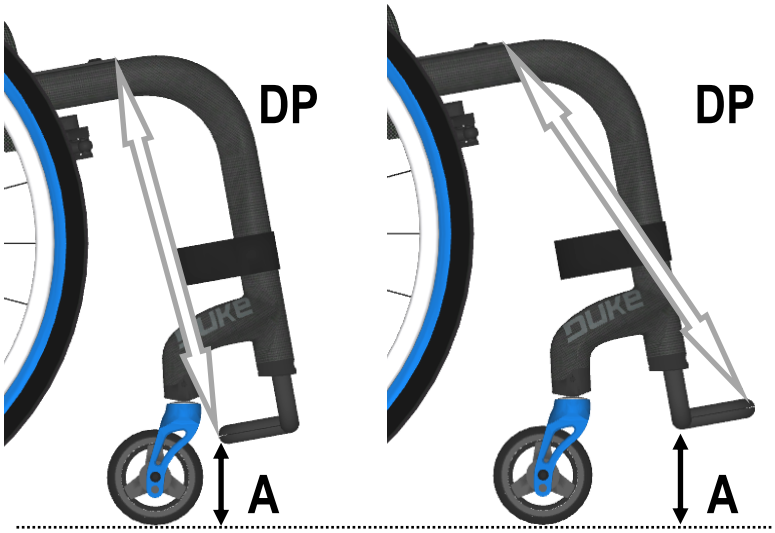
When taking measure, consider the seat canvas straight.

In the two examples here below, we can see the reference point of the internal and external footplate.

In both cases, the measure is taken form the rear side of the plate, regardless the position of the plate.

Warning: the footplate distance is very important and it can affect the front and rea height of the wheelchair the minimum front height, in fact, should be at least 4-5 cm greater than DP to allow for enough room **A** between the lower side of the footplate and the ground.





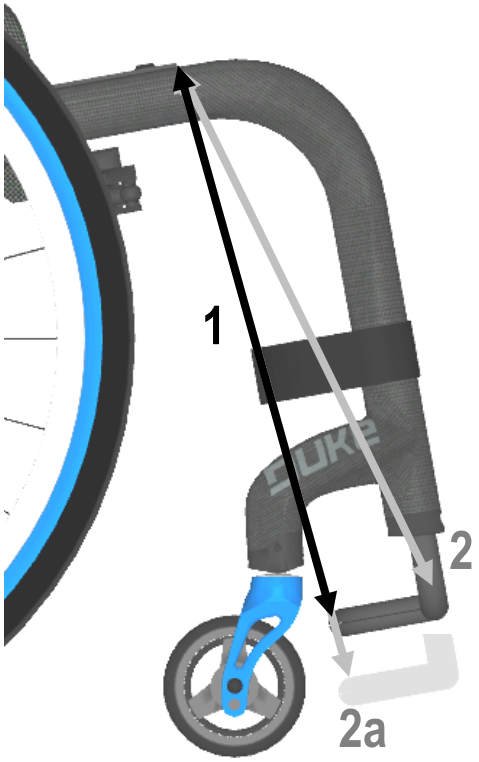
In the picture aside, we show a possible mistake and its consequence.

The measure **1** is the correct one according to what above explained; on the other hand, the **2** takes as reference the front side of the plate and it will result longer than **1**.

If you write the measure **2** in the order from, the wheelchair will be assembled following that length but the reference point will be the rear side of the plate, consequently, you will end up with the situation **2a**, that is, a DP longer than you expected.

The difference can even be a few centimetres.

All footplates, however, are height adjustable.



SETTING (point of balance)

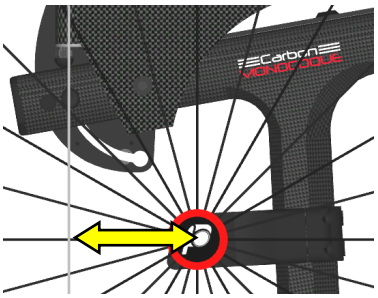
The distance between the axis of the backrest tube in its lower side and the centre of the rear wheel

PRUDENTIAL – STANDARD – ACTIVE

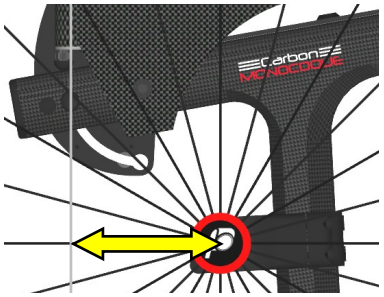
A prudential setting reduces the risk of tipping back, but makes the wheelchair less dynamic and longer.

On the other hand, an active setting improves the manoeuvrability of the wheelchair and it makes it shorter.

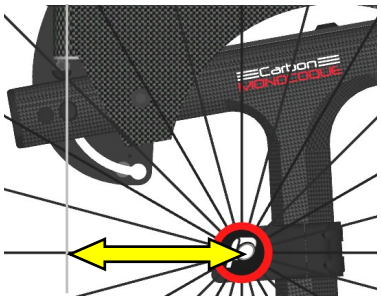
The three settings are determined by as many rear wheel plates; to change setting, you need to substitute the rear wheel plate.



Prudential: **A** = 7.5 cm approx.

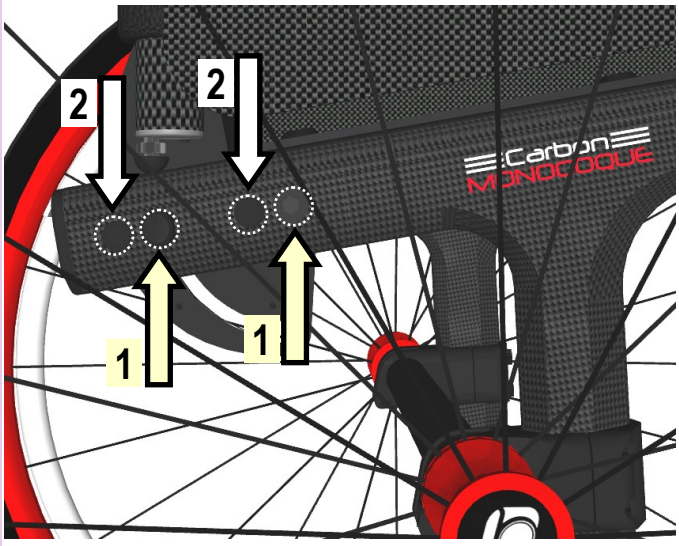


Standard: **A** = 9.0 cm approx.



Active **A**:= 10.5 cm approx.

Backrest position variant (not present in the order from)



The backrest of the wheelchair can be fixed in two positions. The standard position is through the fixing points **1**, while the fixing points **2** lies 1.5 cm behind.

The above mentioned settings are considered with the backrest fixed through the points **1**.

If the backrest is mounted through the points **2**, the settings above mentioned become 1.5 cm. more active, but the seat depth increases, too. See also chapter “seat depth”.

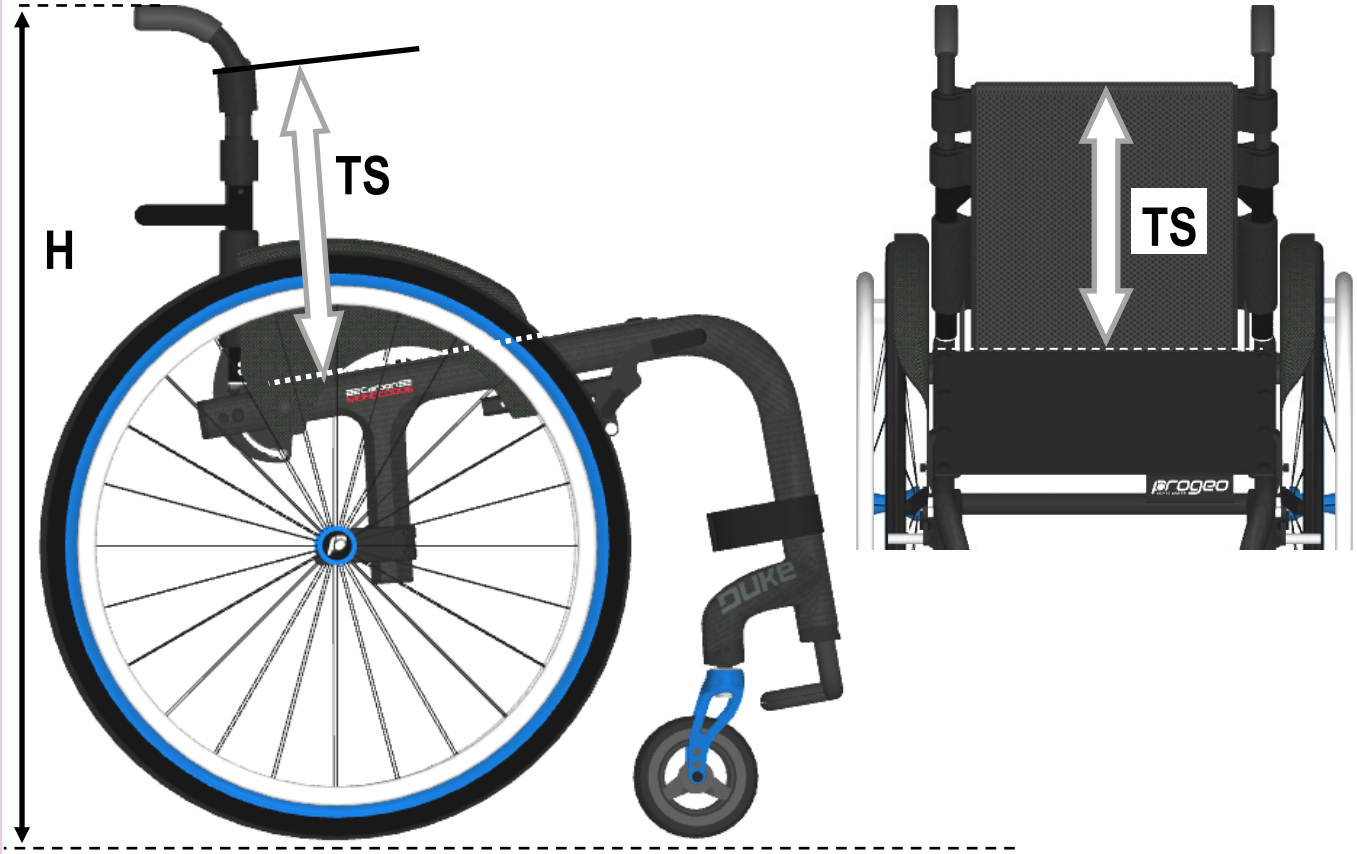
You can ask for the backrest fixed in position **2** by writing a note, but you can also change the position after sale.

MEASUREMENT GUIDE

BACKREST HEIGHT (TS)

The distance between the rear side of the seat canvas (not of the cushion) and the upper side of the backrest upholstery

from 27 to 47 cm (every 1,5 cm)



The backrest height also determines the height **H** from the ground to the push handles.

To quickly calculate such height, **H** = rear height + backrest height + 3 cm

If the use is frequently pushed by an attendant, consider his/her tallness and the possible need to provide the wheelchair with adjustable push handles.

BACKREST ANGLE

The angle between the backrest tube and the seat.

From 74° to 94°

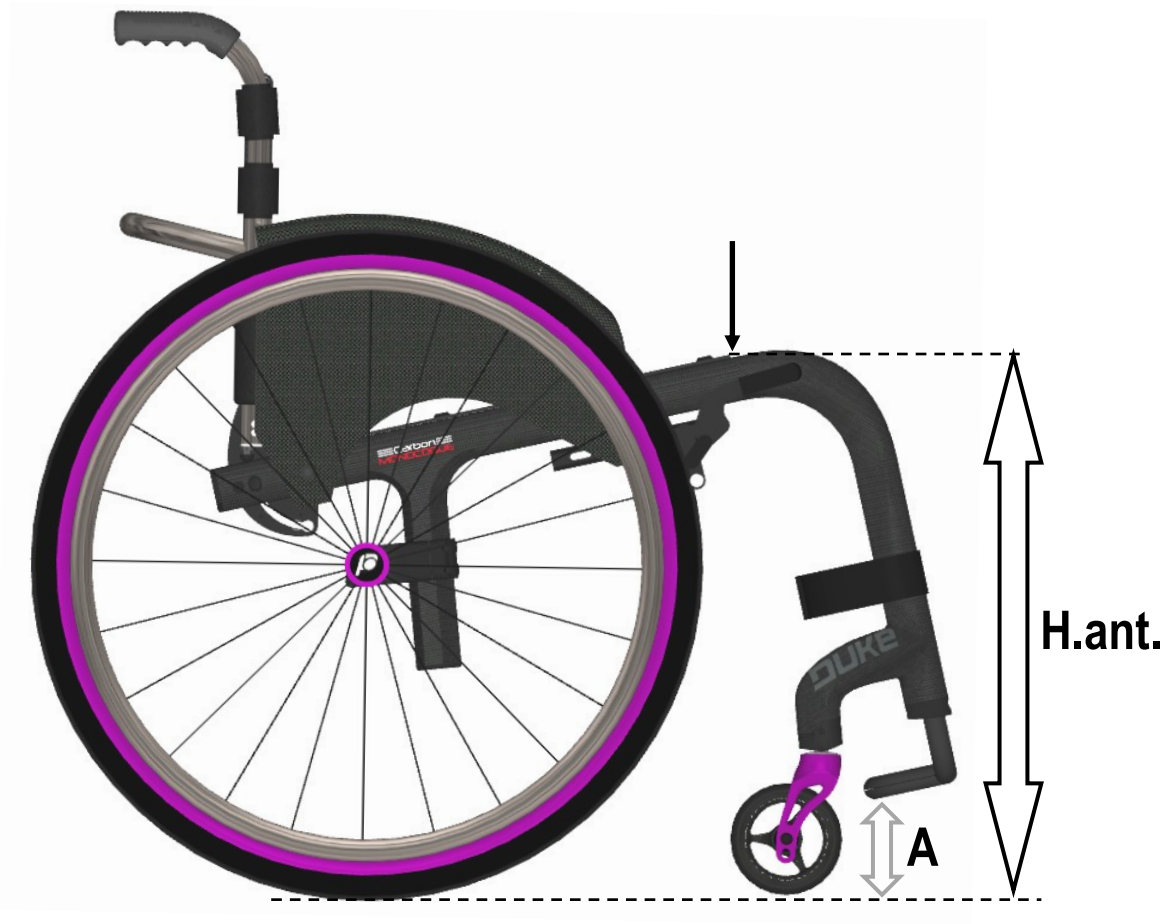
The backrest is usually assembled at 90° with respect to the floor and it is adjustable.

However, you may ask for the backrest assembled to a certain inclinations within the range indicated.

In that case, just write a note such as " backrest angle open to max (= 94°)".

FRONT HEIGHT (H. ant.)

The distance between the front side of the seat canvas
(not of the cushion) and the ground
from 44.5 to 53 cm



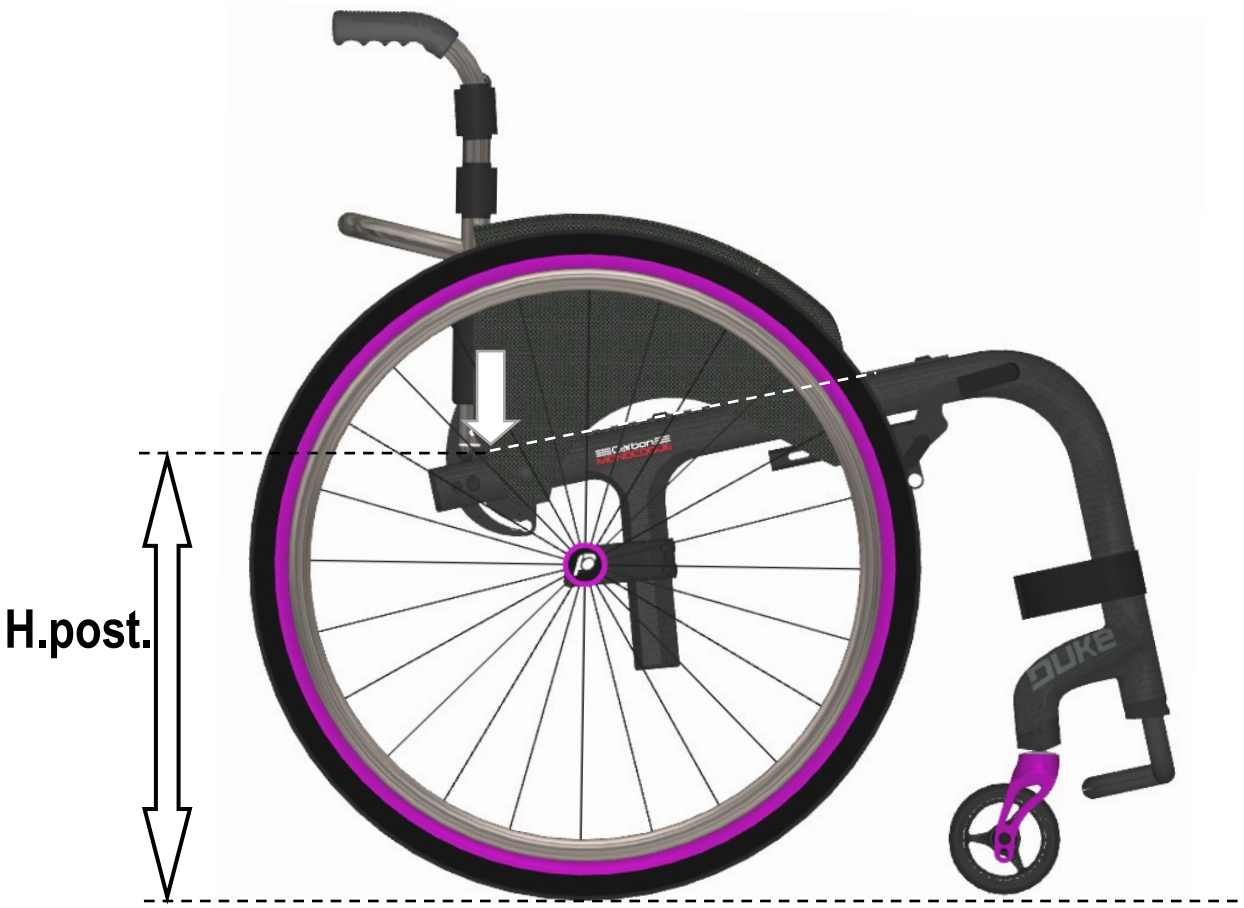
Check the footplate distance and remember that the front height should be at least 4-5 cm greater to allow for enough room **A** between the footplate and the ground.

The front height, in combination with the rear height, determines the seat inclination.

Note: the front height is the result of the combination frame/fork/caster and the adjustment is limited to the caster positioning on the fork (1 or 2 positions).

REAR HEIGHT (h. post.)

The distance between the rear side of the seat canvas
(not of the cushion) and the ground
from 38 to 46 cm (with 24” rear wheels)



The rear height, in combination with the front height, determines the seat inclination.

HAND RIM DISTANCE

The distance between the wheel rim and the hand rim

3 or 4 cm

In the order form you can choose the hand rim at 3 or 4 cm from the wheel rim.

That measure can change by several millimetres according to the type of hand rim, but, in any case, the difference between the two positioning is approximately 1 cm.

Notes
The Ergopara hand rim has only one positioning.
The rear wheel Spinergy Flex Rim has an integrated hand rim.

Hand rim at 3 cm

Hand rim at 4 cm

CAMBER

The angle of the rear wheels

With cambered rear wheels, the wheelchair improves in manoeuvrability and in side stability, but it becomes wider.

Seat width (LS) + 17 cm

Minimum encumbrance with standard rear wheels, hand rims at 3 cm.

With 2°: LS + 20 cm
With 4°: LS + 23 cm

The encumbrances indicated take as reference the configuration with standard rear wheels and hand rims at 3 cm.

Such values may change according to the final configuration of the wheelchair.

FRONT FRAME

90° / low, high / short, medium, long

The front frame of the wheelchair develops according to the seat depth PS.

Each of the three lengths of the frame is intended for two PS.

- SHORT FRAME for PS 35 and 37.5
- MEDIUM FRAME for PS 40 and 42.5
- LONG FRAME for PS 45 and 47.5

The front fixing of the seat canvas is just before the curve of the frame on point:

- **A** (for the shorter PS of the two intended)
- **B** (for the longer PS of the two intended).

The outer side of the 90° high o r low frame approximately lays :

13.0 cm (point **A)**
10.5 cm (point **B)**

off of the canvas, considering the two lines perpendicular to one another.

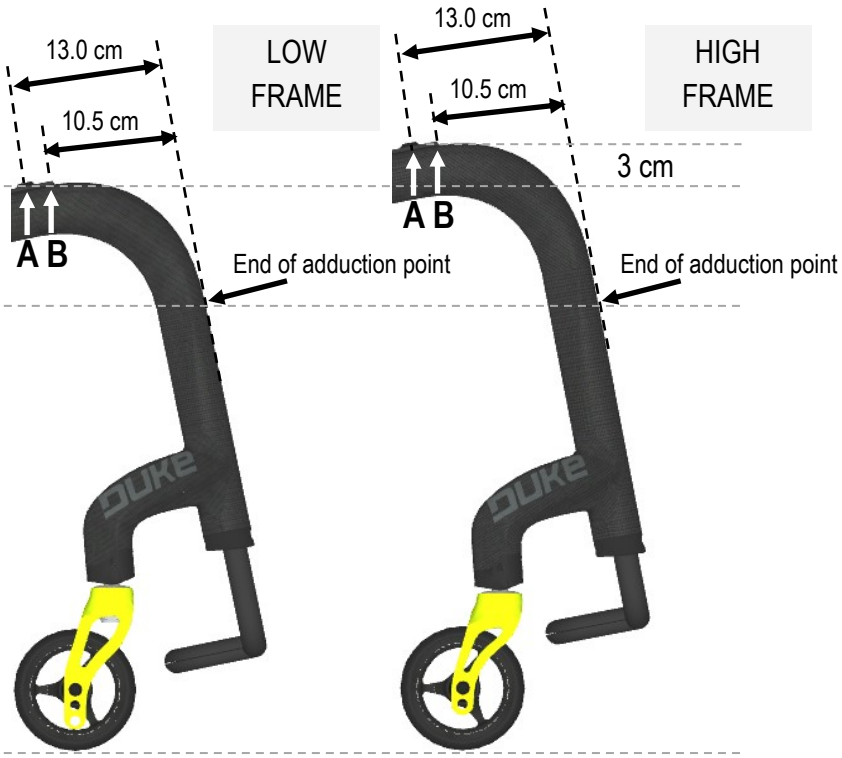
The difference in height between the low and high frame is 3 cm.

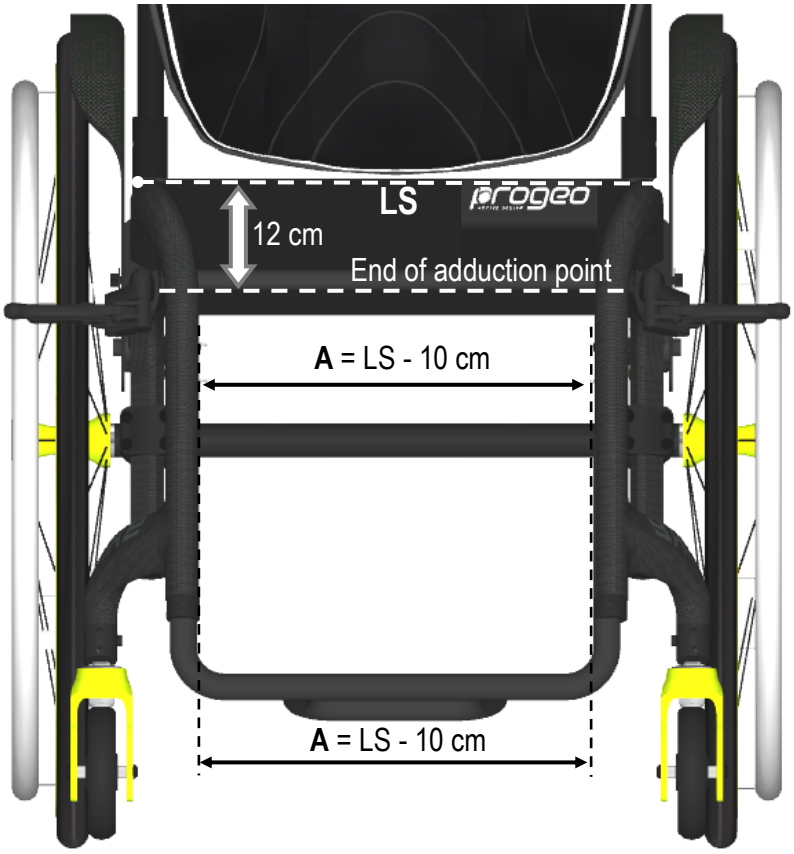
The high frame allows for the greater front height, whereas, the low frame allows for the shorter footplate distance.

The right and left frames go down in convergence for approximately 12 cm , then they become parallel with a resulting 2.5 cm adduction each side.

The room **A** for the feet is always equal to seat width LS - 10 cm.
Example: with LS 42; **A**= 32 cm

The bent point of the low and high frame is the same. The 3 cm difference in height between the two frames is from the end of adduction point down.





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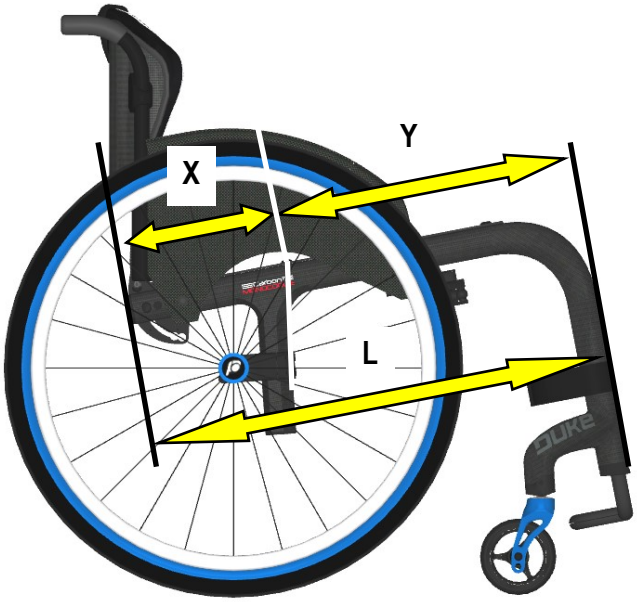
FRONT FRAME

90° / low, high / short, medium, long



Short, medium and long frame.

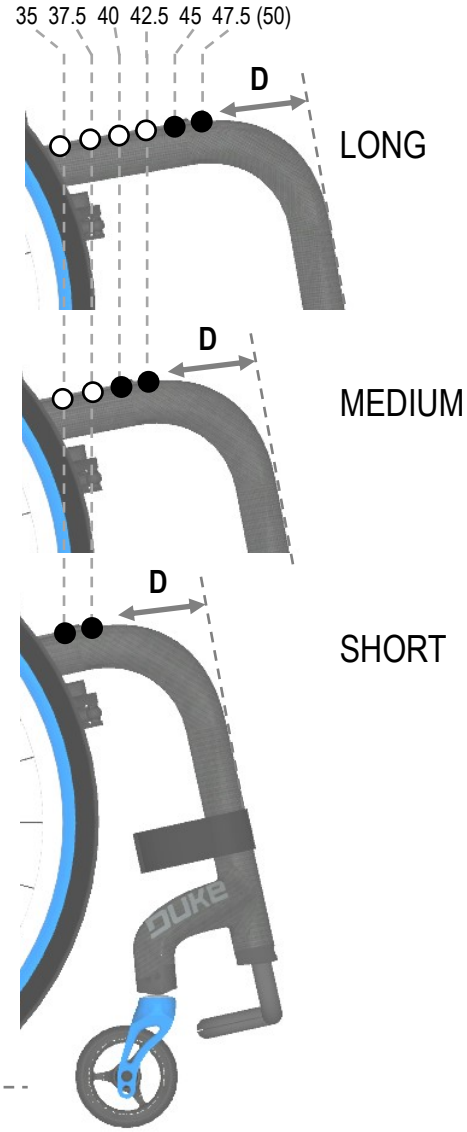
The length **L** is:

- **55** cm for the short frame (for PS 35 and 37.5)
- **60** cm for the medium frame (for PS 40 and 42.5)
- **65** cm for the long frame (for PS 45, 47.5 and 50)

The part **X** , from the post to the rear end of the frame is the same for all three frames.
The part **Y**, from the post to the outer line of the front frame, is the variable.

Variant not present in the order from.

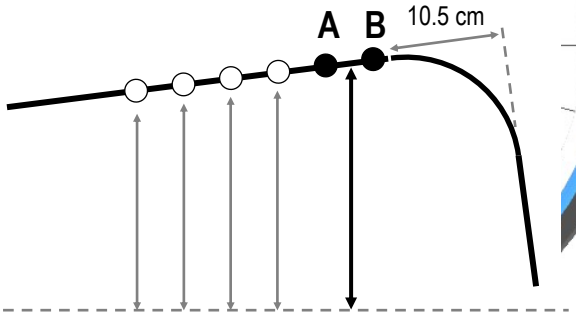
Should be necessary to develop a front side of the wheelchair longer than what above explained, you can ask for a longer frame. Such variant is clearly not possible if the frame is already meant to be "long". In other words, you can ask for a PS 37.5 cm with a medium or even long frame.
Ask for this variant by writing a note such " PS 37.5 with medium frame".
This way, the distance **D** between the front side of the canvas and the outer line of the front frame, will increase by 5 or 10 cm with respect to the 10.5 or 13.0 cm mentioned in the previous page.
The chart reports the values **D** for all combinations "frame length/PS" (on grey background, the default configuration).



	35	37.5	40	42.5	45	47.5 (50)
SHORT	13.0	10.5	—	—	—	—
MEDIUM	18.0	15.5	13.0	10.5	—	—
LONG	23.0	20.5	18.0	15.5	13.0	10.5

WARNING: when you ask for a frame longer than that by default, the front height of the wheelchair still refers to the point where the seat canvas is normally fixed, that is, between the point **A** and **B** here indicated with the black circles.
The front height will always result a little lower; the entity of the difference depends on the requested elongation and on the seat inclination, too.

In the drawing aside, the black circles indicated where the front height will be taken from, while the white circles indicate shorter PS; you should notice that the front height corresponding to the white circles is lower than that of the reference point.



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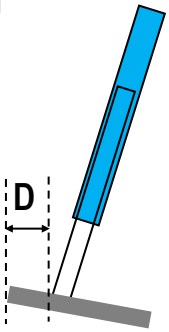
FOOTPLATES

Internal, 2/3 internal, 2/3 external, external



All footplates are adjustable in height, angle (except for the tubular footplate) and position.
In this section, we indicate all different positions for each model of footplate and the offset **D** from the line of the outer side of the footplate tube to the external part of the plate.

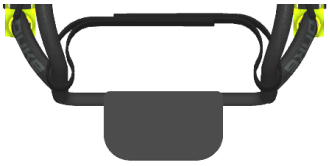
TUBULAR ALUMINIUM FOOTPLATE WITHOUT PLATE

INTERNAL
D ≈ 0 cm

EXTERNAL
D ≈ 6 cm

TUBULAR ALUMINIUM FOOTPLATE WITH PLASTIC PLATE

INTERNAL
D ≈ 0 cm



EXTERNAL
D ≈ 8 cm

ALUMINIUM FOOTPLATE

INTERNAL
D ≈ 0 cm

2/3 INTERNAL
D ≈ 2 cm

2/3 EXTERNAL
D ≈ 6 cm

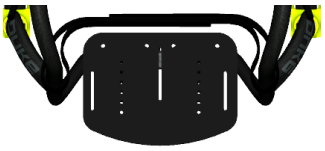
EXTERNAL
D ≈ 8 cm

CARBON FOOTPLATE

INTERNAL
D ≈ 0 cm

EXTERNAL
D ≈ 11 cm

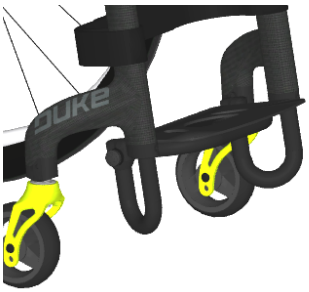
FLIP-BACK ALLUMINIUM FOOTPLATE



IINTERNAL
D ≈ from 0 to 6 cm

U-TUBE ALLUMINIUM FOOTPLATE (for short footplate distance)

INTERNA



Note: this is the default assembly, but other positions are possible:
⇒ more external up to have D ≈ 15 cm
⇒ More internal up to have the footplate 6 cm behind the front side of the frame .
To ask for a footplate position different from the default one, contact Rehateam s.r.l..

MEASUREMENT

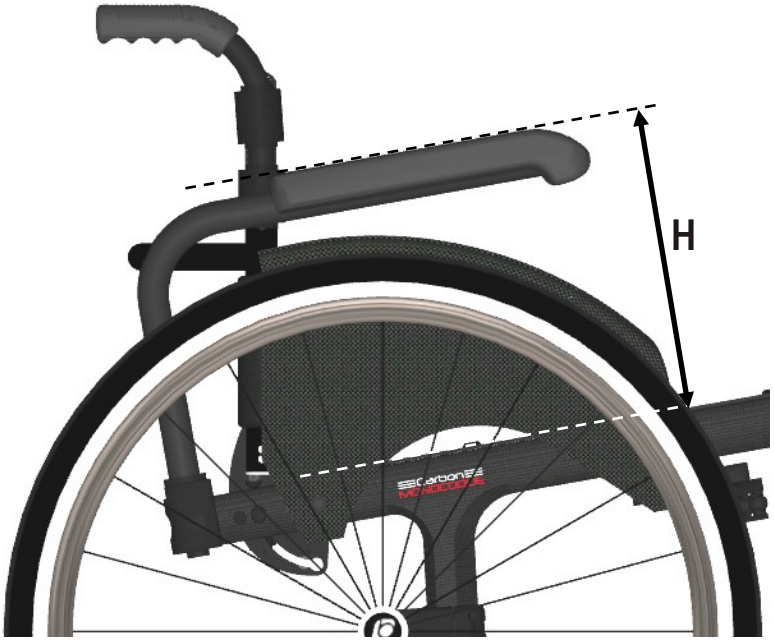
ARMREST HEIGHT

The distance from the seat canvas (not of the cushion) to the upper side of the pad

The choice of the height of the armrest is not present in the order from, but you can write a note indicating the measure you need.

Without any note, the armrests are assembled at a height we believe suitable.

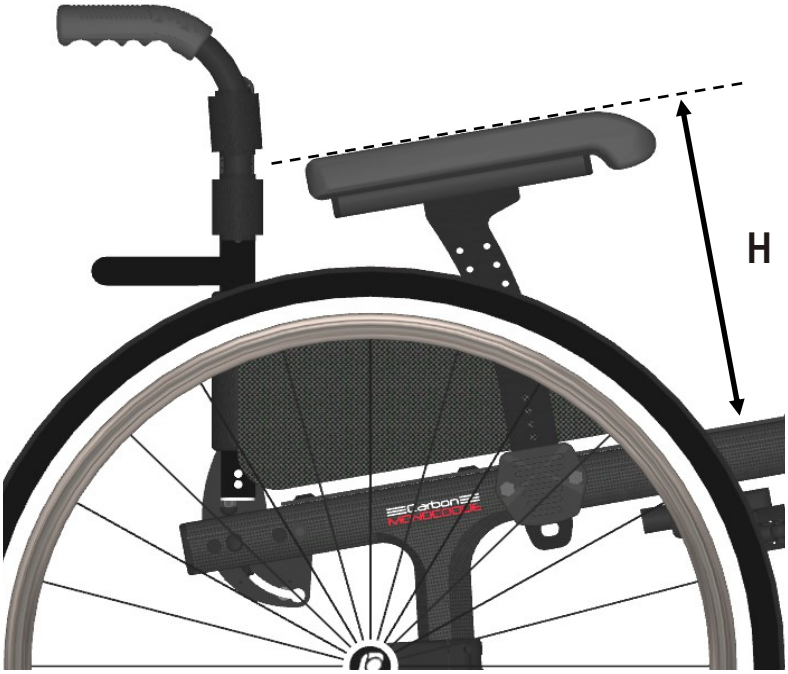
The minimum height of the armrest may depend on the rear height of the wheelchair.



TUBULAR WITH STEEL SUPPORT AND SAFETY LOCK

Swing away and removable

Adjustable only with tools.



REMOVABLE WITH BLADE SYSTEM

Removable

Adjustable only with tools.

TOTAL WIDTH OF THE WHEELCHAIR (LT)

The distance between the outer side of the hand rims

The minimum total width of the wheelchair LT clearly depends on the seat width LS, but also on other parameters and components.

In standard configuration, with standard rear wheels, hand rims at 3 cm, 0° camber and fixed side guards (not spaced):

LT = LS + 17 cm

This is the minimum LT

Now, we list parameters and components that increase the total width of the wheelchair, indicating the extent of the increment.

CAMBER 2°	+ 3 cm
CAMBER 4°	+ 6 cm
HAND RIM DISTANCE 4 cm	+ 2 cm
SPINERGY WHEELS (LX—LXL)	+ 1 cm
OFF ROAD WHEELS	+ 5 cm
FAT WHEEL	+ 12 cm
REMOVABLE ARMRESTS (BLADE SYSTEM)	+ 0~1* cm

(* with low rear height)

The values refers to each case individually with reference to the minimum LT; according to the final configuration of the wheelchair, some cases may be concomitant, but the total width may not be equal to the sum of the corresponding values. All values are to be consider indicative.

The two versions (7° and “zero”) have the same encumbrance.

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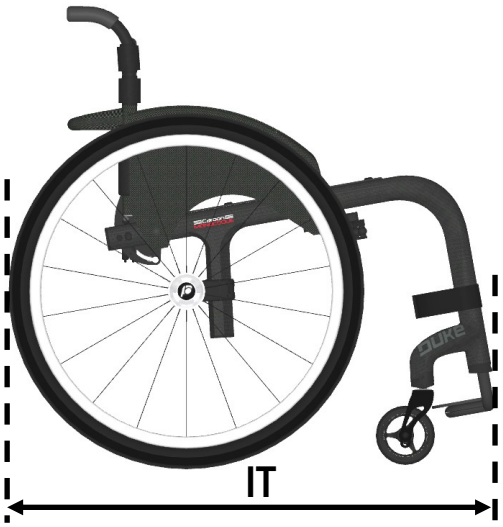
TOTAL LENGTH OF THE WHEELCHAIR (IT)

The distance from the rearmost point of the rear wheels to the external side of the footplate

The total length IT of the wheelchair depends on several parameters. To have a first evaluation of the total length, the following chart helps to make a quick calculation with a good tolerance, starting from the standard configuration for each of the three frame lengths.

The standard configuration has these values:

- 8° seat inclination (height 49/43 with PS 40)
- Standard setting (point of balance)
- 24" rear wheels
- Footplate position: internal.



SHORT FRAME 35 37.5	MEDIUM FRAME 40 42.5 (35 37.5)	LONG FRAME 45 47.5 50 (35 37.5 40 42.5)
76.5 cm	81.5 cm	86.5 cm

Between brackets, the possible PS on specific request, see chapter "*frame*".

Change of the length with respect to the standard configuration.

	Value	Increment	Value	Reduction
Seat inclination	12°	+ 1.5 cm	4°	- 1.5 cm
Setting	Prudential	+ 1.5 cm	Extreme Active	- 3 cm - 1.5 cm
Rear wheels	26" 25"	+ 2.5 cm + 1.25 cm		
Footplate distance DP	50 45	+ 2 cm + 1 cm	35 30	- 1 cm - 2 cm
Position of tubular footplate	External without plate External with plate	+ 6 cm + 8 cm		
Position of aluminium footplate	External 2/3 external 2/3 internal	+ 8 cm + 6 cm + 2 cm		
Position of carbon footplate	External	+ 11 cm		
Other footplates	See chapter "footplate position"		See chapter "footplate position"	

Examples:
Medium frame (81.5), prudential (+1.5), aluminium footplate internal (+2): **IT** = 81.5 + 1.5 + 2 = 85.0 cm
Long frame (86.5), active (-1.5), DP 45 (+1), aluminium tubular footplate with plate external (+ 8): **IT** = 86.5 - 1.5 + 1 + 8 = 94.0 cm

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EGO CUSTOM

Rev. 1—2021/05

EGO CUSTOM

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INTRODUCTION

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MEASUREMENT GUIDE

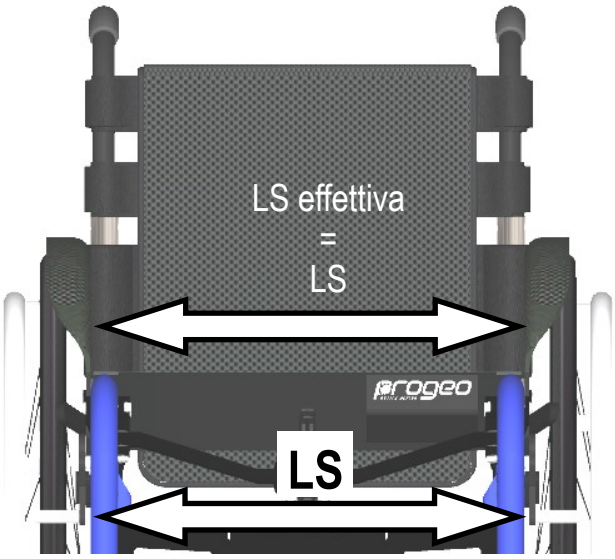
SEAT WIDTH (LS)

The distance between the outer sides of the frame

33 36 39 42 45 48 cm.

The width you choose in the order form corresponds to the distance between the outer sides of the frame.
The real width, in other words, the room between the two fixed side guards, is equal to LS.

Real LS = LS



FIXED SIDE GUARD SPACING

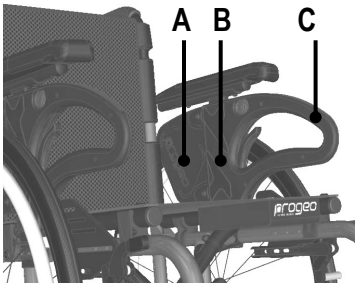
You can ask for a real LS wider than LS up to 1.5 cm each side (total 3 cm).
For instance, write the note: *"space the side guards to have real seat width 41" (if LS = 39).*

Hereafter, some useful information according to the choice of side guards or armrest.

REMOVABLE SIDE GUARDS
Not spaceable
Real LS = LS +10 mm

TUBULAR ARMRESTS
They are provided with side guards.
See fixed or removable side guards.

REMOVABLE ARMRESTS
Not spaceable
Real LS = LS +10 mm



PROGEO ARMRESTS
Spaceable 1 cm each
Real LS between:
- skirt guards **A** = LS + 25 mm
- central body **B** = LS
- the points **C** = LS + 10 mm

MEASUREMENT GUIDE

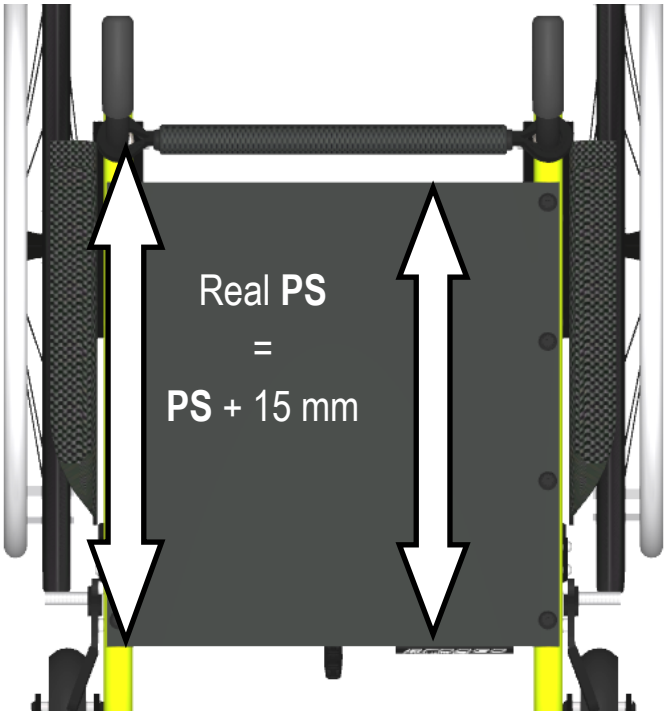
SEAT DEPTH (LS)

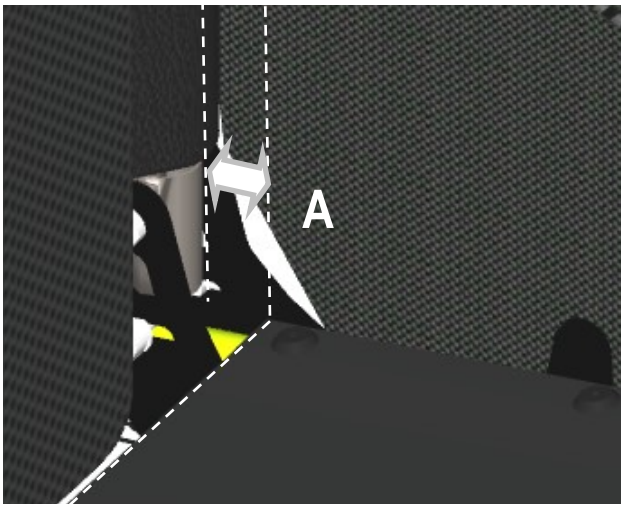
The distance between the backrest tube and the front side of the seat canvas

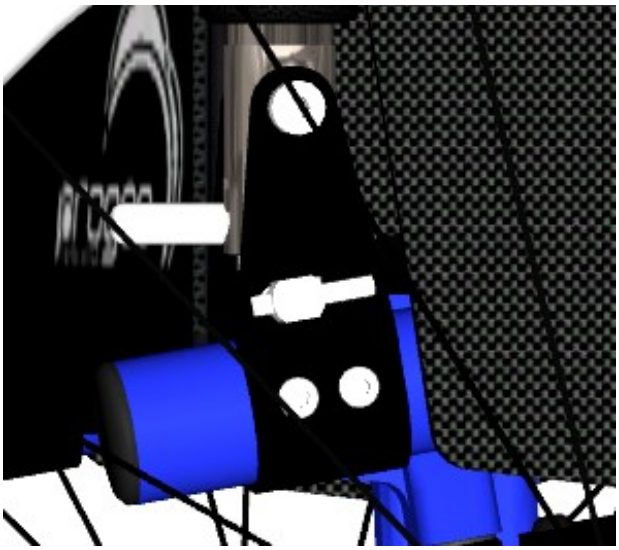
35 37.5 40 42.5 45 47.5 cm.

The length of the seat canvas corresponds to the seat depth that is indicated in the order form.
However, the real seat depth (from the backrest tube to the front side of the canvas) approximately results 15 mm longer. That is due to gap **A** between the rear side of the canvas and the backrest tube.
Example:

Seat depth in the order form	40 cm
Length of the seat canvas	40 cm
Real seat depth	41.5 cm







MEASUREMENT GUIDE

FOOTPLATE DISTANCE (DP)

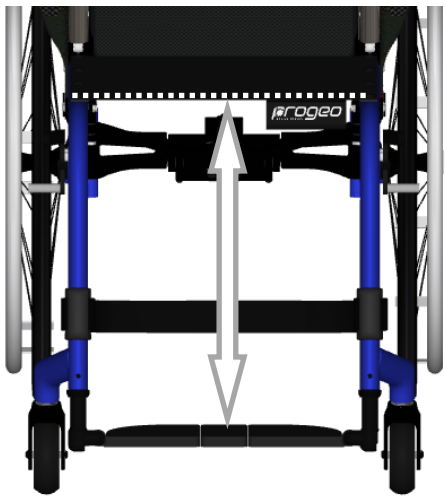
The distance between the front side of the seat canvas (not of the cushion) and the rear side of the footrest plate

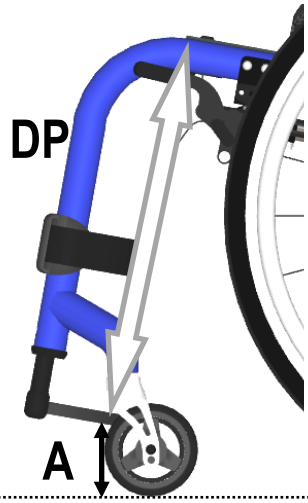
When taking measure, consider the seat canvas straight.

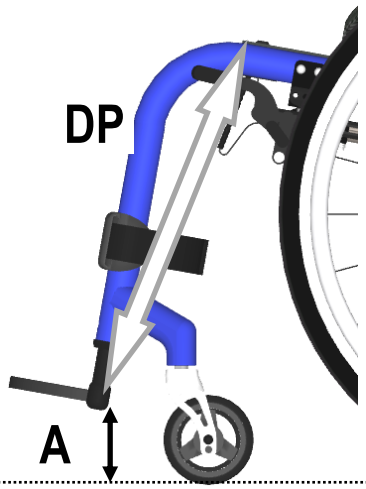
In the two examples here below, we can see the reference point of the internal and external footplate.

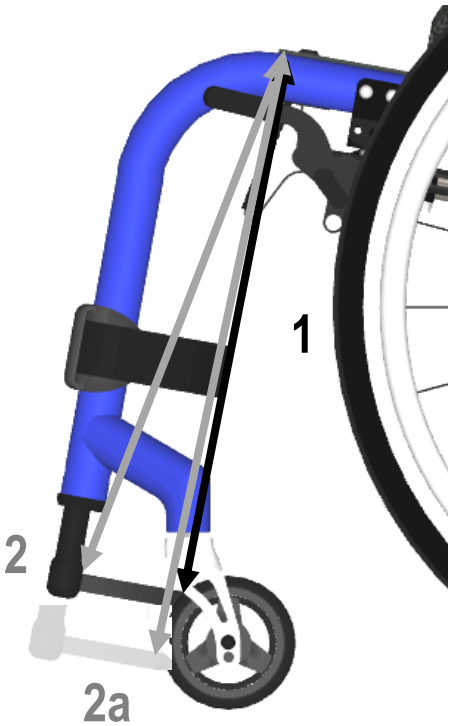
In both cases, the measure is taken form the rear side of the plate, regardless the position of the plate.

Warning: the footplate distance is very important and it can affect the front and rea height of the wheelchair the minimum front height, in fact, should be at least 4-5 cm greater than DP to allow for enough room **A** between the lower side of the footplate and the ground.









In the picture aside, we show a possible mistake and its consequence.

The measure **1** is the correct one according to what above explained; on the other hand, the **2** takes as reference the front side of the plate and it will result longer than **1**.

If you write the measure **2** in the order from, the wheelchair will be assembled following that length but the reference point will be the rear side of the plate, consequently, you will end up with the situation **2a**, that is, a DP longer than you expected.

The difference can even be a few centimetres.

The footplate distance is adjustable in inclination and, limitedly, in height (usually, from + 1.5 to – 1.5 cm with respect to the requested DP)

Should you need more adjustment, contact Rehateam s.r.l. to evaluate if it is feasible.

NOTE: should you need a DP shorter than what indicated in the order from, contact Rehateam s.r.l. to evaluate if it is feasible.

MEASUREMENT GUIDE

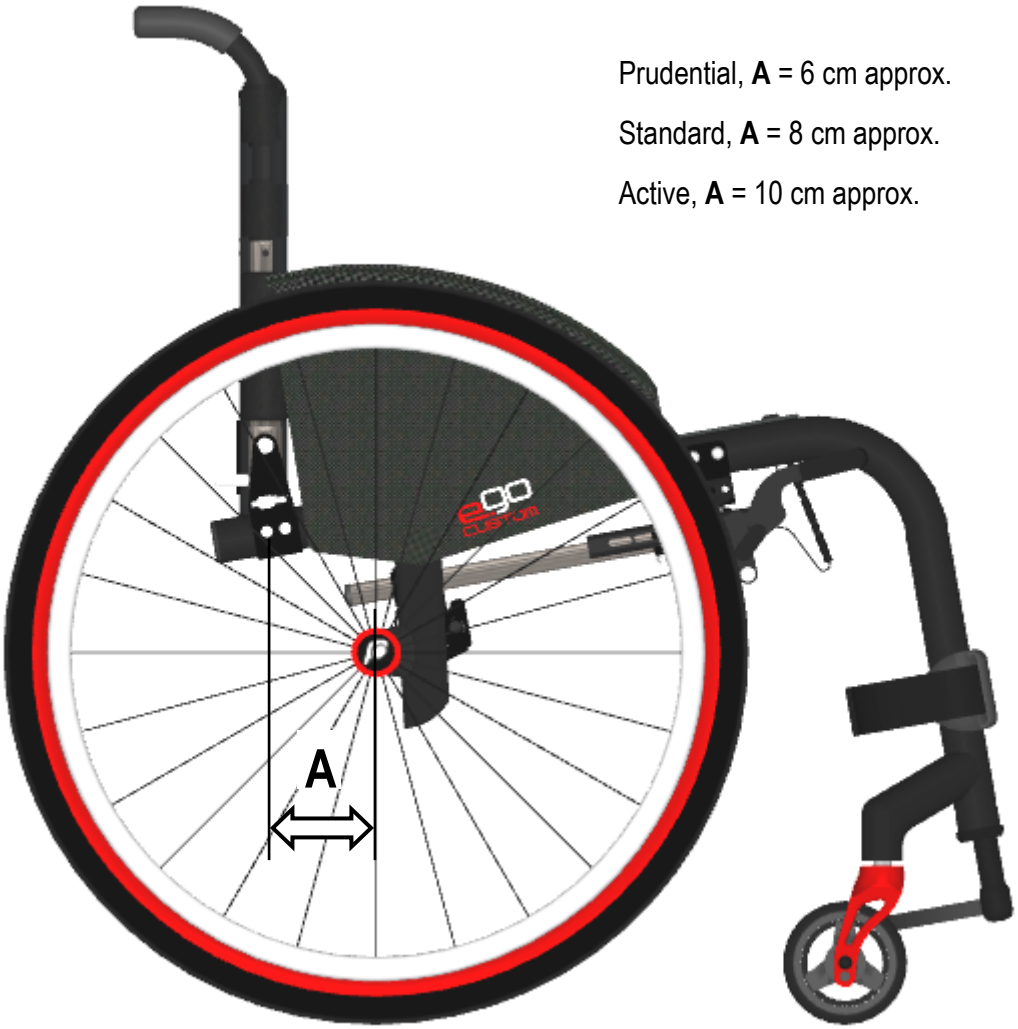
SETTING (point of balance)

The distance between the axis of the backrest tube in its lower side and the centre of the rear wheel

PRUDENTIAL – STANDARD – ACTIVE

A prudential setting reduces the risk of tipping back, but makes the wheelchair less dynamic and longer.

On the other hand, an active setting improves the manoeuvrability of the wheelchair and it makes it shorter.



Prudential, **A** = 6 cm approx.

Standard, **A** = 8 cm approx.

Active, **A** = 10 cm approx.

NOTICE: the frame is welded to measure, thus, there is no adjustment*.

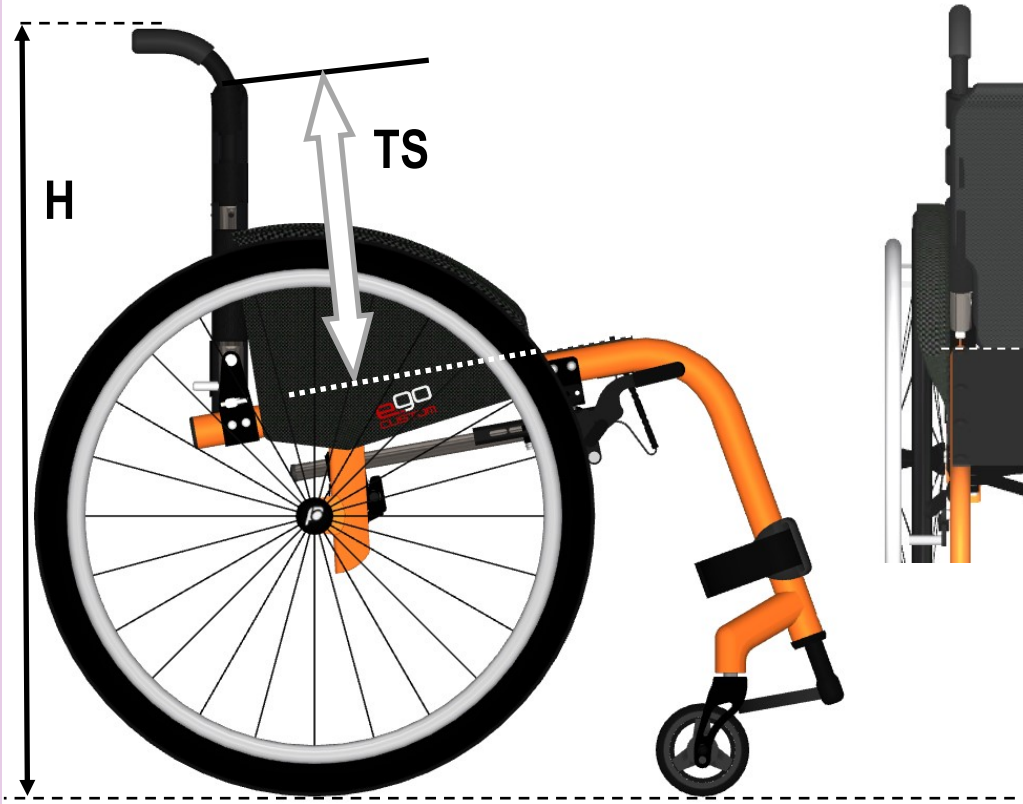
* However, the backrest support may be moved backward to make the setting more prudential, but you will increase the seat depth.

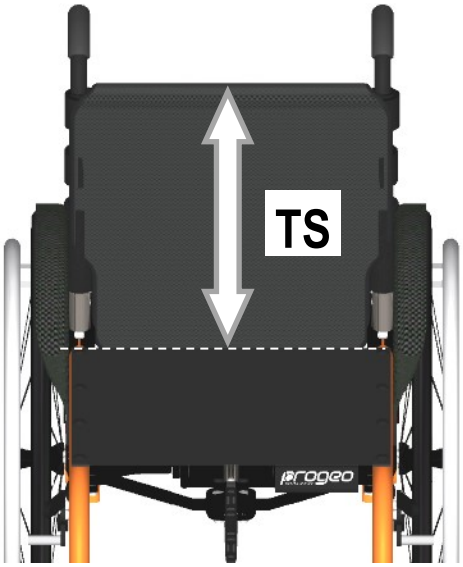
MEASUREMENT GUIDE

BACKREST HEIGHT (TS)

The distance between the rear side of the seat canvas (not of the cushion) and the upper side of the backrest upholstery

from 27 to 47 cm (every 1,5 cm)





The backrest height also determines the height **H** from the ground to the push handles.

To quickly calculate such height, **H** = rear height + backrest height + 3 cm

If the use is frequently pushed by an attendant, consider his/her tallness and the possible need to provide the wheelchair with adjustable push handles.

BACKREST ANGLE

The angle between the backrest tube and the seat.

From 78° to 94°

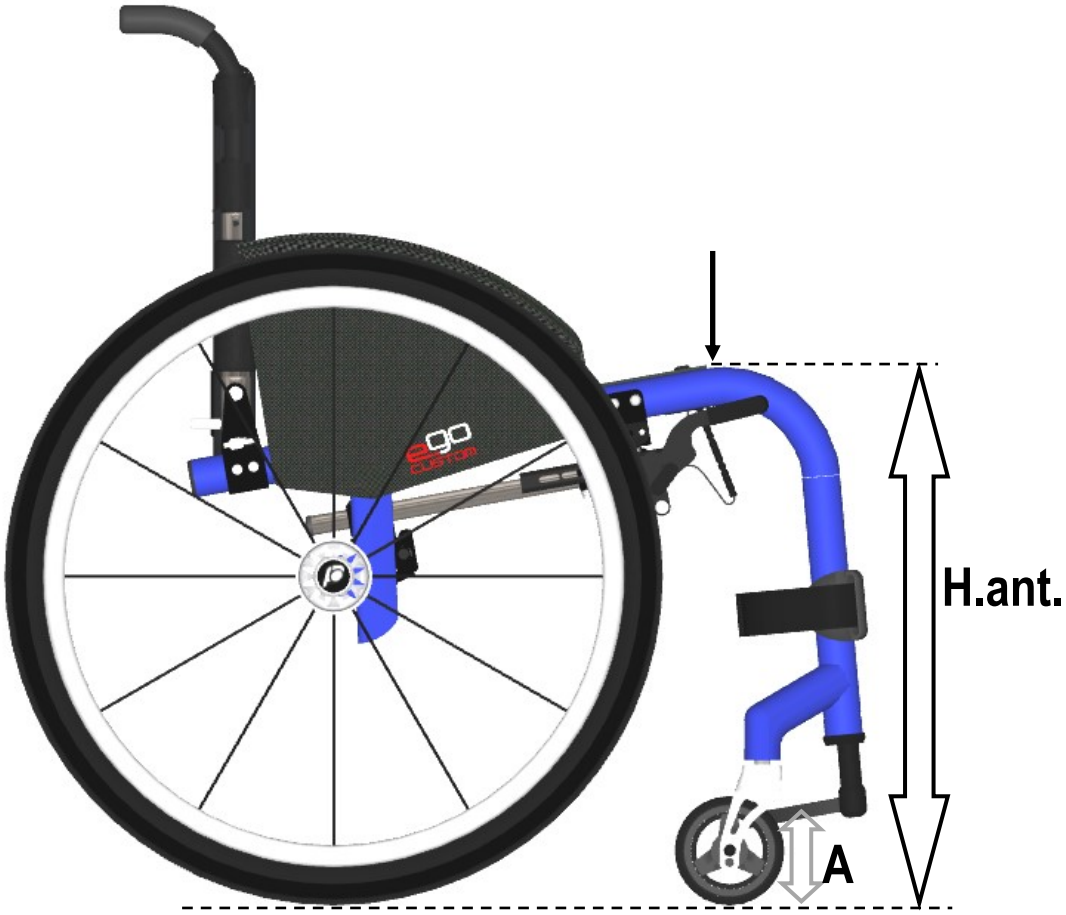
The backrest is usually assembled at 90° with respect to the floor and it is adjustable.

However, you may ask for the backrest assembled to a certain inclinations within the range indicated.

In that case, just write a note such as " backrest angle open to max (= 94°)".

FRONT HEIGHT (H. ant.)

The distance between the front side of the seat canvas
(not of the cushion) and the ground
from 38 to 54 cm



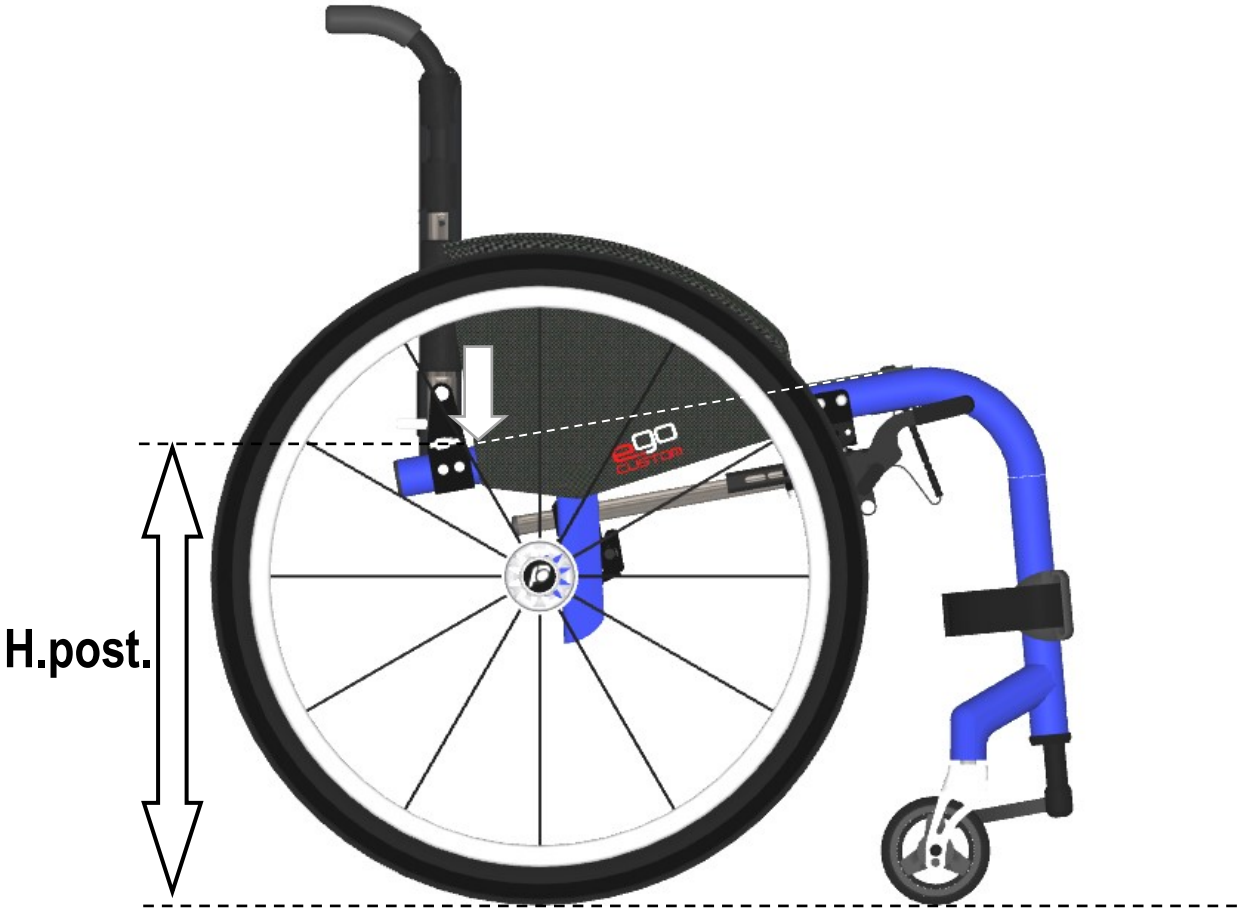
Check the footplate distance and remember that the front height should be at least 4-5 cm greater to allow for enough room **A** between the footplate and the ground.

The front height, in combination with the rear height, determines the seat inclination.

NOTICE: the frame is welded to measure, thus, there is no adjustment.

REAR HEIGHT (h. post.)

The distance between the rear side of the seat canvas
(not of the cushion) and the ground
from 38 to 45 cm (with 24” rear wheels)



The rear height, in combination with the front height, determines the seat inclination.

NOTICE: the frame is welded to measure, thus, there is no adjustment.

MEASUREMENT GUIDE

HAND RIM DISTANCE

The distance between the wheel rim and the hand rim

3 or 4 cm

In the order form you can choose the hand rim at 3 or 4 cm from the wheel rim.

That measure can change by several millimetres according to the type of hand rim, but, in any case, the difference between the two positioning is approximately 1 cm.

Notes
The Ergopara hand rim has only one positioning.
The rear wheel Spinergy Flex Rim has an integrated hand rim.

Hand rim at 3 cm

Hand rim at 4 cm

MEASUREMENT
GUIDE

CAMBER

The angle of the rear wheels

With cambered rear wheels, the wheelchair improves in manoeuvrability and in side stability, but it becomes wider.

Seat width (LS) + 17 cm

Minimum encumbrance with standard rear wheels, hand rims at 3 cm.

With 2°: LS + 20 cm

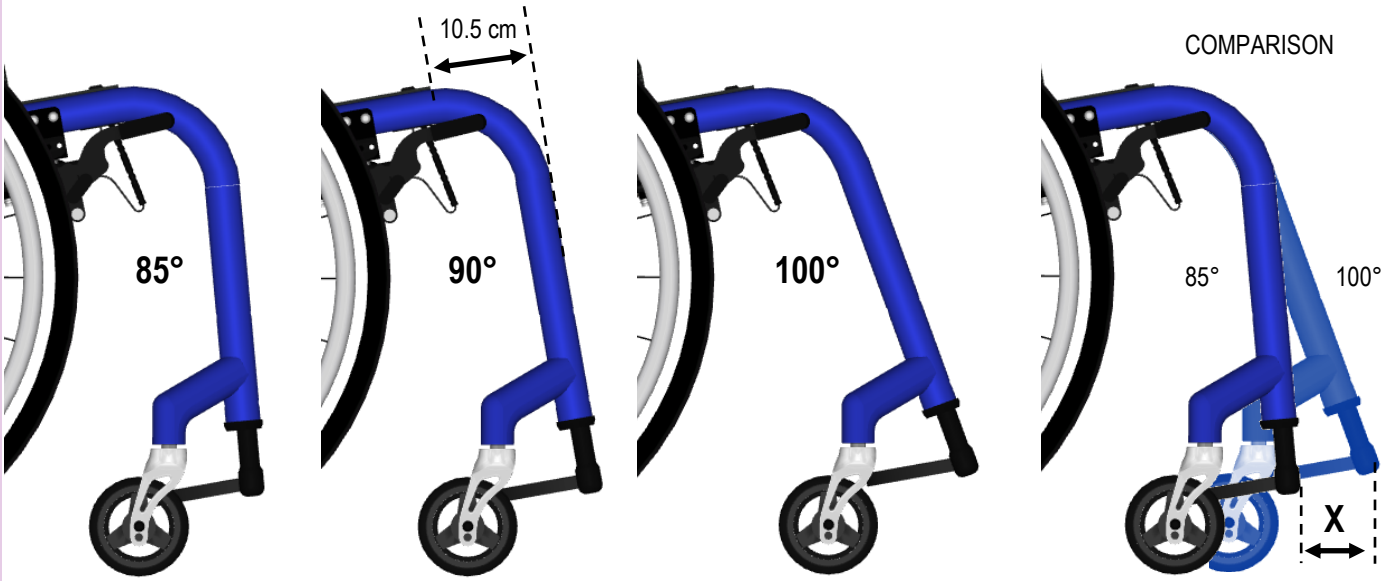
The encumbrances indicated take as reference the configuration with fixed side guard (not spaced), standard rear wheels and hand rims at 3 cm.

Such values may change according to the final configuration of the wheelchair.

FRONT FRAME

Aluminium 85° 90° 100°

The front frame of the wheelchair proportionally develops according to the seat depth PS, therefore, the longer the PS, the longer the frame.



The front fixing of the seat canvas is just before the curve of the frame.
The outer side of the 90° frame approximately lays 10.5 cm off of the canvas, considering the two lines perpendicular to one another.
For the 100° frame, this measure, obviously, increases as you do down (longer footplate distance), whereas, with 85° frame, it decreases. The chart here below, reports the increase (+) or the reduction (-) of this measure according to the frame angle and footplate distance DP.

	ANGLE **100°**	ANGLE **85°**
DP 35 cm	+ 4.5 cm	- 2.0 cm
DP 40 cm	+ 6.0 cm	- 3.0 cm
DP 45 cm	+ 7.5 cm	- 4.0 cm

Follows next page

FRONT FRAME

Aluminium 85° 90° 100°

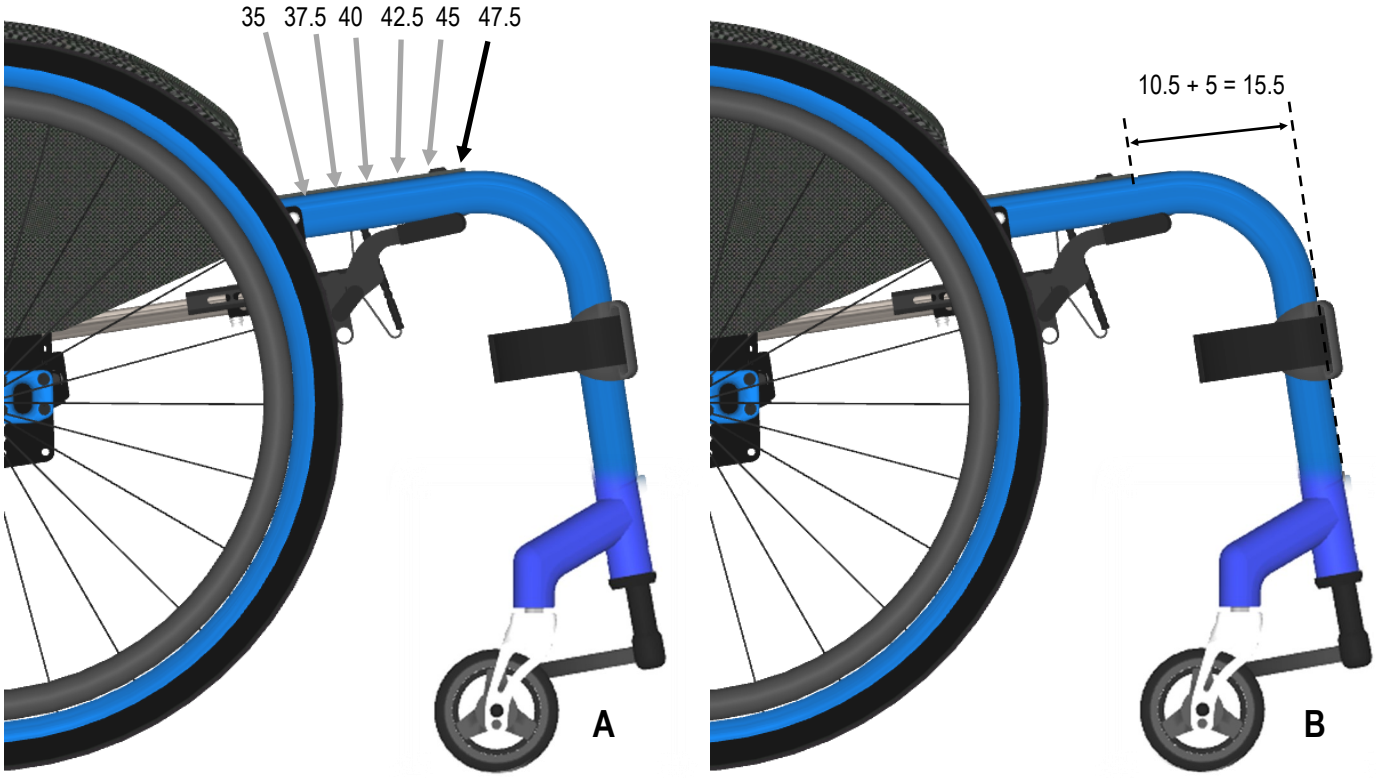
Variant not present in the order form.

Should be necessary to develop a front side of the wheelchair longer than what above explained, you can ask for a longer frame (90° or 100°); in other words, you can ask for a PS 40 cm with a 42.5 cm frame (or up to 47.5 cm that is the maximum seat depth).

The seat canvas will be fixed more backward accordingly, and the above mentioned reference of 10.5 cm will increase by 2.5 cm for each size of elongation.

Ask for this variant by writing a note such “PS 40 with a 45 frame”.

This variant is clearly not possible if the PS is 47.5 cm.



The picture **A** shows the 47.5 frame an the point where the seat canvas for each seat depth can be fixed.

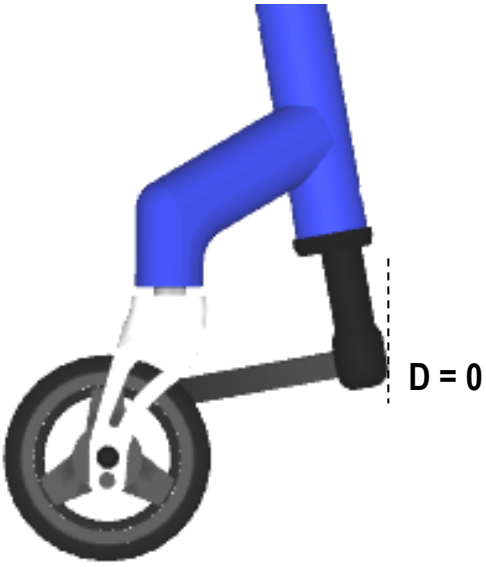
The picture **B** shows the example of PS 42.5 with a 47.5 cm frame and you should notice that the outer side of the frame approximately lays 15.5 cm off of the canvas (the 5 cm are the difference between 47.5 and 42.5).

FOOTPLATE

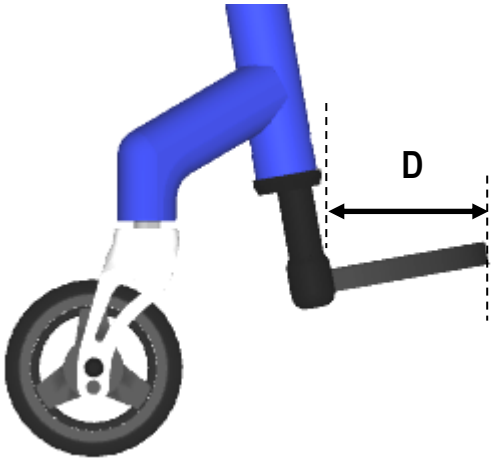
Internal, external

The footplate is adjustable in height, angle and position.
In this section, we indicate the two positions of the footplate and the offset **D** from the line of the outer side of the footplate tube to the external part of the plate.

ONE PIECE ALUMINIUM FOOTPLATE
WITH AUTOMATIC CLOSURE (COMPACT)



INTERNAL
D ≈ 0 cm



EXTERNAL
D ≈ 9.5

MEASUREMENT
GUIDE

ARMREST HEIGHT

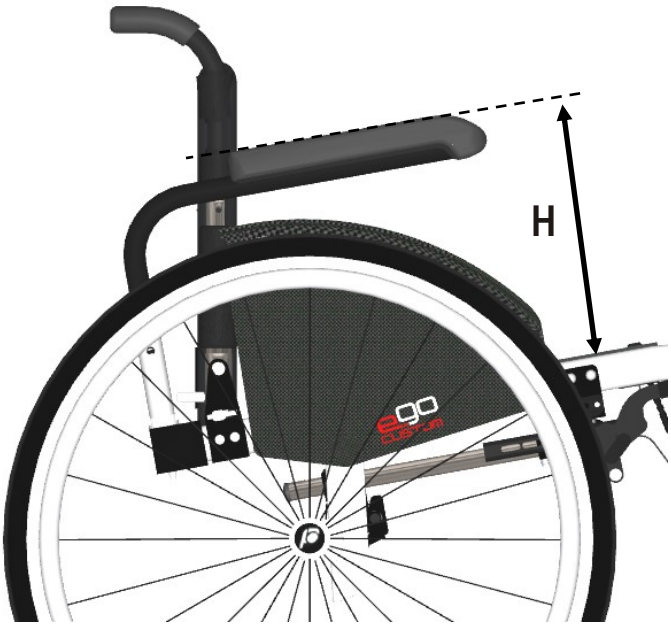
The distance from the seat canvas (not of the cushion) to the upper side of the pad

The choice of the height of the armrest is not present in the order from, but you can write a note indicating the measure you need, unless the armrest are height adjustable with no tools. Without any note, the armrests are assembled at a height we believe suitable.

The minimum height of the armrest may depend on the rear height of the wheelchair.

For each armrest, it is indicated the minium total width LT according to the seat width LS, considering standard rear wheels, hand rim at 3 cm and 0° camber.

See also *"total width of the wheelchair (LT)".*



TUBULAR WITH STEEL SUPPORT AND SAFETY LOCK

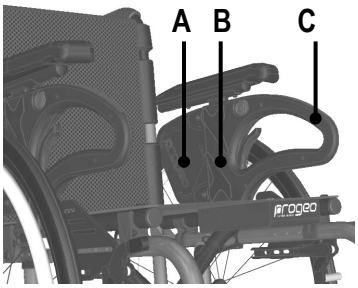
Swing away and removable
Adjustable only with tools.

LT = LS + 17 cm

REMOVABLE WITH A BLADE SYSTEM

Removable
Adjustable only with tools.
H. min. 18 cm
H. max. 24 cm

LT = LS + 17~18* cm
(* con altezza posteriore bassa)



PROGEO REMOVABLE

Removable
Adjustable without tool.
H. min. 23.5 cm
H. max. 34 cm

LT = LS + 19 cm

TOTAL WIDTH OF THE WHEELCHAIR (LT)

The distance between the outer side of the hand rims

The minimum total width of the wheelchair LT clearly depends on the seat width LS, but also on other parameters and components.

In standard configuration, with standard rear wheels, hand rims at 3 cm, 0° camber and fixed side guards (not spaced):

LT = LS + 17 cm

This is the minimum LT

Now, we list parameters and components that increase the total width of the wheelchair, indicating the extent of the increment.

CAMBER 2°	+ 3 cm
HAND RIM DISTANCE 4 cm	+ 2 cm
SPINERGY WHEELS (LX—LXL)	+ 1 cm
OFF ROAD WHEELS	+ 5 cm
FAT WHEEL	+ 12 cm
REMOVABLE SIDE GUARDS (* with low rear height)	+ 0~1* cm
REMOVABLE ARMRESTS (BLADE SYSTEM) (* with low rear height)	+ 0~1* cm
PROGEO REMOVABLE ARMRESTS	+ 2 cm

The values refers to each case individually with reference to the minimum LT; according to the final configuration of the wheelchair, some cases may be concomitant, but the total width may not be equal to the sum of the corresponding values. All values are to be consider indicative.

MEASUREMENT GUIDE

TOTAL LENGTH OF THE WHEELCHAIR (IT)

The distance from the rearmost point of the rear wheels to the external side of the footplate

The total length IT of the wheelchair depends on several parameters. To have a first evaluation of the total length, the following chart helps to make a quick calculation with a good tolerance, starting from the standard configuration for each seat depth.

The standard configuration has these values:

- 8° seat inclination (height 49/43 with PS 40)
- Standard setting (point of balance)
- 24" rear wheels
- Footplate position: internal.

	Seat depth **PS**					
	35	**37.5**	**40**	**42.5**	**45**	**47.5**
ANGLE **85°**	73 cm	75.5 cm	78 cm	80.5 cm	83 cm	85.5 cm
ANGLE **90°**	76 cm	78.5 cm	81 cm	83.5 cm	86 cm	88.5 cm
ANGLE **100°**	82 cm	84.5 cm	87 cm	89.5 cm	92 cm	94.5 cm

Change of the length with respect to the standard configuration.

	Value	Increment	Value	Reduction
Seat inclination	12°	+ 1.5 cm	4°	- 1.5 cm
Setting	Prudential	+ 2 cm	Extreme Active	- 4 cm - 2 cm
Rear wheels	26" 25"	+ 2.5 cm + 1.25 cm		
Footplate distance DP	50 45 angle 90° 50 45 angle 100°	+ 2 cm + 1 cm + 3 cm + 1.5 cm	35 30 angle 90° 35 30 angle 100°	- 1 cm - 2 cm - 1.5 cm - 3 cm
Footplate position	Internal	+ 9.5 cm		

Examples:
PS 42.5 with 100° frame (89.5), prudential (+2): **IT** = 89.5 + 2 = 91.5 cm
PS 45 with 90° frame (86), active (-2), 26" wheels (+2.5), DP 45 (+1),footplate external (+9.5): **IT** = 86 - 2 + 2.5 + 1 + 2.5 = 97 cm

MEASUREMENT GUIDE

ENGLISH

MEASUREMENT GUIDE

JOKER ENERGY

Rev. 01—2021/05

progeo ACTIVE DESIGN

JOKER ENERGY

MEASUREMENT GUIDE

INTRODUCTION

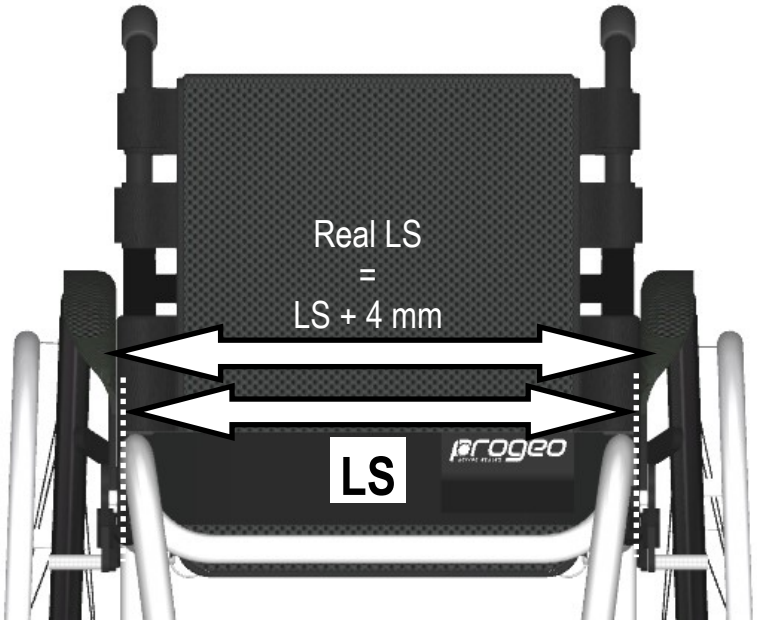
This guide has the sole purpose of helping the person in charge of filling up the order from, indicating, section by section, the reference points to take measurements from, with some advice, too, so that the delivered wheelchair corresponds to what requested.

The pieces of information in this guide are exclusively technical and regards the device; it does not and it does not intend to provide postural advices.

SEAT WIDTH (LS)

The distance between the outer sides of the frame

33 36 39 42 45 48 cm.



The width you choose in the order form corresponds to the distance between the outer sides of the frame.
The real width, in other words, the room between the two fixed side guards, is equal to LS + 4 mm.

Real LS = LS + 4 mm

FIXED SIDE GUARD SPACING

You can ask for a real LS wider than LS up to 1.5 cm each side (total 3 cm).

For instance, write the note: *"space the side guards to have real seat width 41" (if LS = 39).*

MEASUREMENT GUIDE

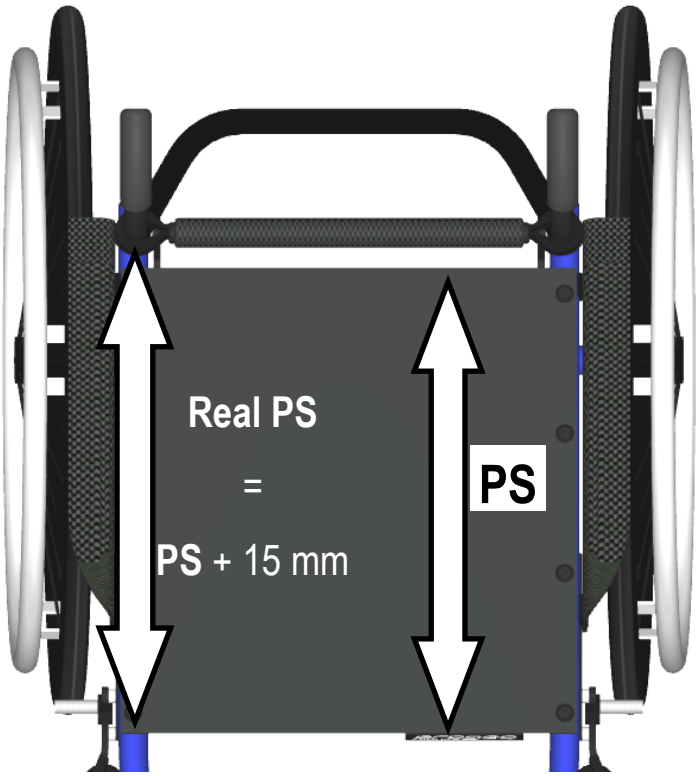
SEAT DEPTH (LS)

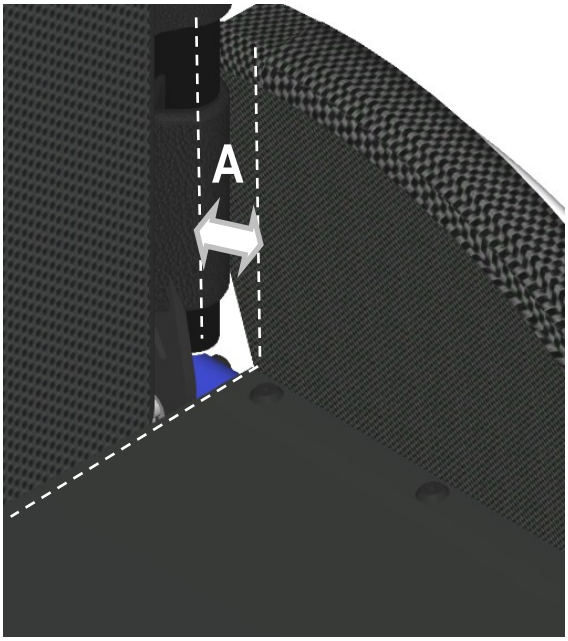
The distance between the backrest tube and the front side of the seat canvas

35 37.5 40 42.5 45 47.5 50 cm.

The length of the seat canvas corresponds to the seat depth that is indicated in the order form.
However, the real seat depth (from the backrest tube to the front side of the canvas) approximately results 15 mm longer. That is due to gap **A** between the rear side of the canvas and the backrest tube.
Example:

Seat depth in the order form	40 cm
Length of the seat canvas	40 cm
Real seat depth	41.5 cm





MEASUREMENT GUIDE

FOOTPLATE DISTANCE (DP)

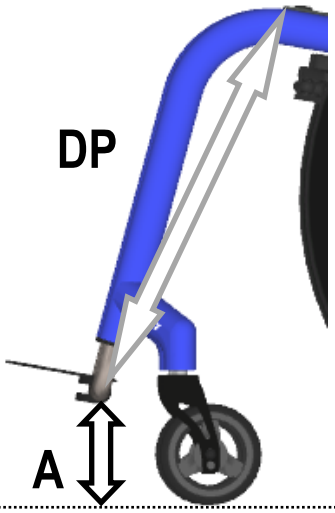
The distance between the front side of the seat canvas (not of the cushion) and the rear side of the footrest plate

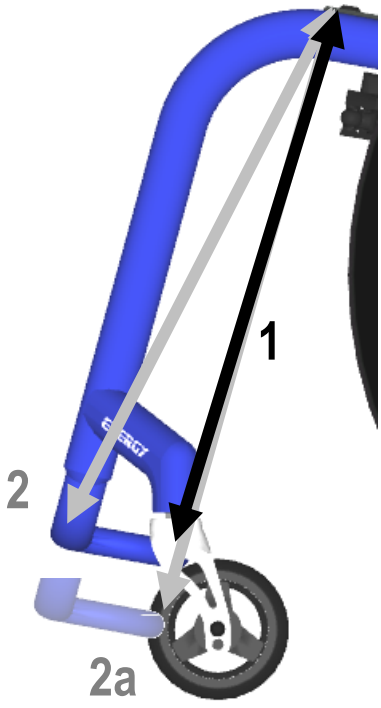
When taking measure, consider the seat canvas straight.

In the two examples here below, we can see the reference point of the internal and external footplate.

In both cases, the measure is taken form the rear side of the plate, regardless the position of the plate.

Warning: the footplate distance is very important and it can affect the front and rea height of the wheelchair the minimum front height, in fact, should be at least 4-5 cm greater than DP to allow for enough room **A** between the lower side of the footplate and the ground.





In the picture aside, we show a possible mistake and its consequence.

The measure **1** is the correct one according to what above explained; on the other hand, the **2** takes as reference the front side of the plate and it will result longer than **1**.

If you write the measure **2** in the order from, the wheelchair will be assembled following that length but the reference point will be the rear side of the plate, consequently, you will end up with the situation **2a**, that is, a DP longer than you expected.

The difference can even be a few centimetres.

The frame with adjustable footplate is provided with height adjustable footplate.

The frame with welded footplate does not allow for adjustment.

NOTE: should you need a DP shorter than what indicated in the order from, contact Rehateam s.r.l. to evaluate if it is feasible.

WITH WELDED FOOTPLATE there is no adjustment

SETTING (point of balance)

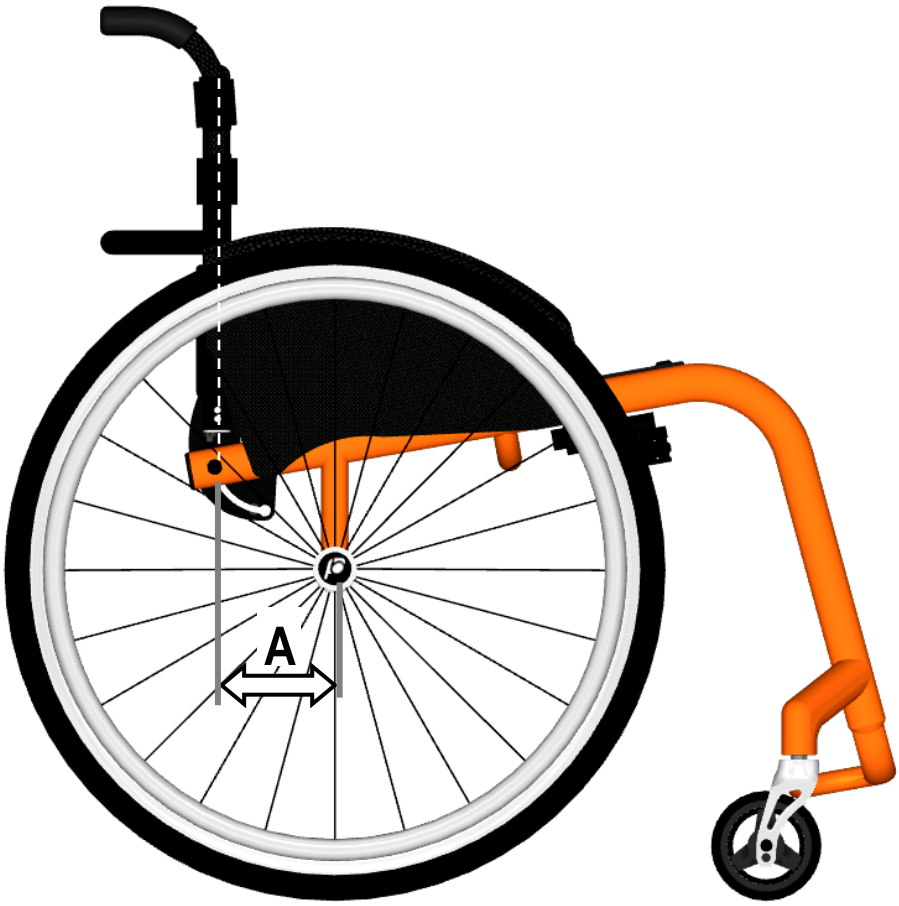
The distance between the axis of the backrest tube in its lower side and the centre of the rear wheel

VERU PRUDENTIAL - PRUDENTIAL

STANDARD – ACTIVE- EXTREME

A prudential setting reduces the risk of tipping back, but makes the wheelchair less dynamic and longer.

On the other hand, an active setting improves the manoeuvrability of the wheelchair and it makes it shorter.



The pre-determined settings are the following:

Very prudential	**A** = 7.5 cm approx.
Prudential	**A** = 9.0 cm approx.
Standard	**A** = 10.5 cm approx.
Active	**A** = 12.0 cm approx.
Extreme	**A** = 13.5 cm approx.

However, in the order form, you can indicate a setting with a value **A** different from the pre-determined ones; for instance, a setting a bit more active then Standard, may be 11 cm (instead of 10.5); just write a note indicating that value **A**.

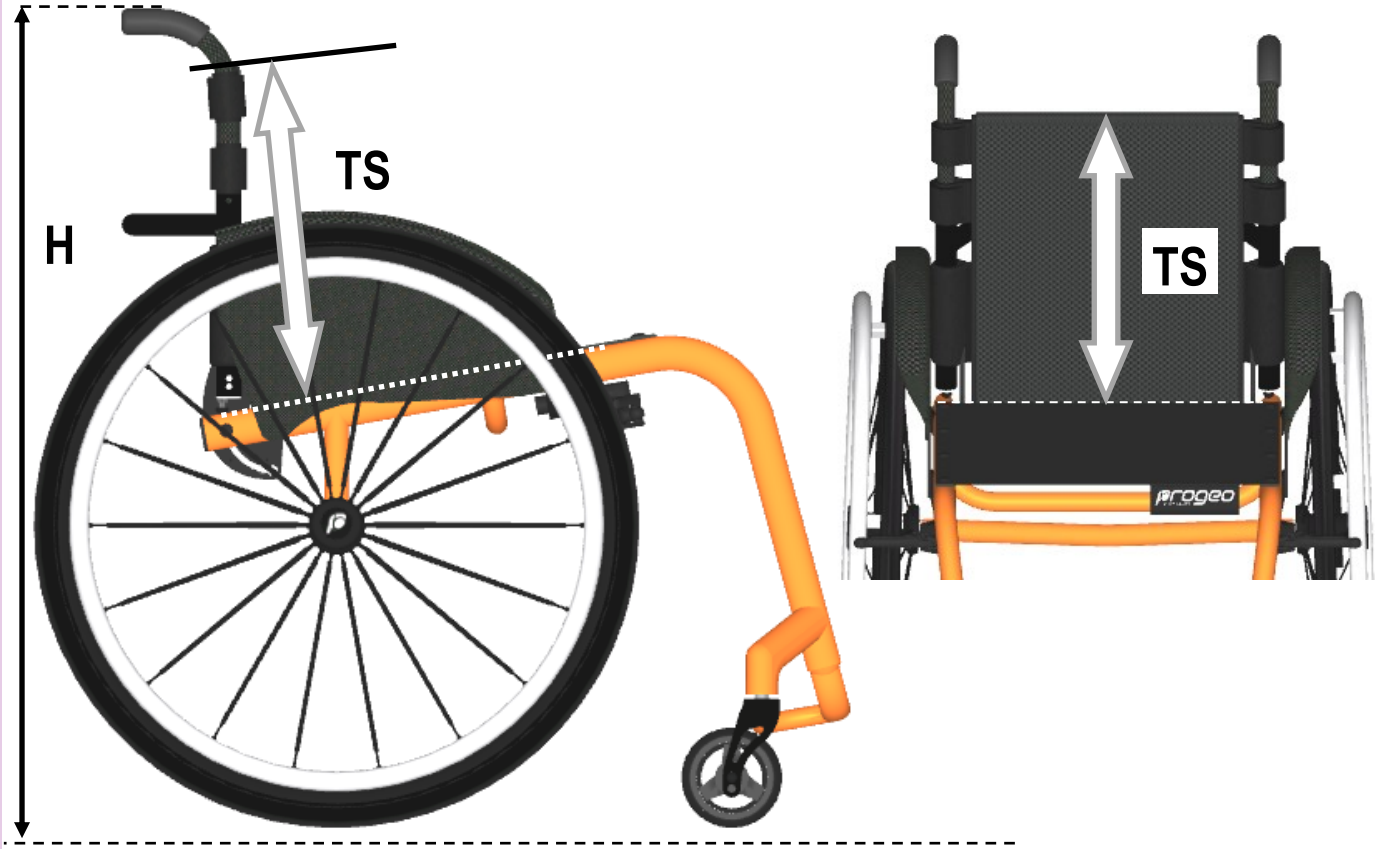
Should you need a setting more prudential than “very prudential”, contact Rehateam s.r.l. because the feasibility depends on the configuration of the wheelchair.

NOTICE: the frame is welded to measure, thus, there is no adjustment.

BACKREST HEIGHT (TS)

The distance between the rear side of the seat canvas (not of the cushion) and the upper side of the backrest upholstery

from 27 to 47 cm (every 1,5 cm)



The backrest height also determines the height **H** from the ground to the push handles.

To quickly calculate such height, **H** = rear height + backrest height + 3 cm

If the use is frequently pushed by an attendant, consider his/her tallness and the possible need to provide the wheelchair with adjustable push handles.

BACKREST ANGLE

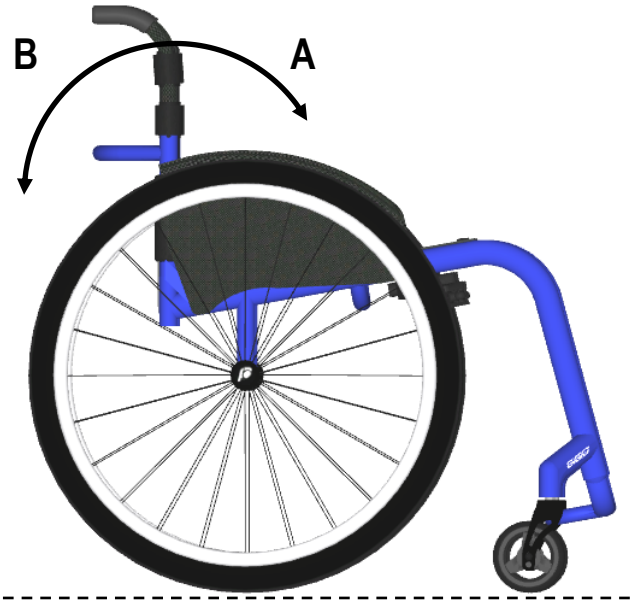
The angle between the backrest tube and the seat.

From 74° to 94°

The backrest is usually assembled at 90° with respect to the floor and it is adjustable.

However, you may ask for the backrest assembled to a certain inclinations within the range indicated.

In that case, just write a note such as " backrest angle open to max (= 94°)".



Version with welded backrest

You have to indicate the backrest angle with respect to the seat **A** or with respect to the ground **B**.

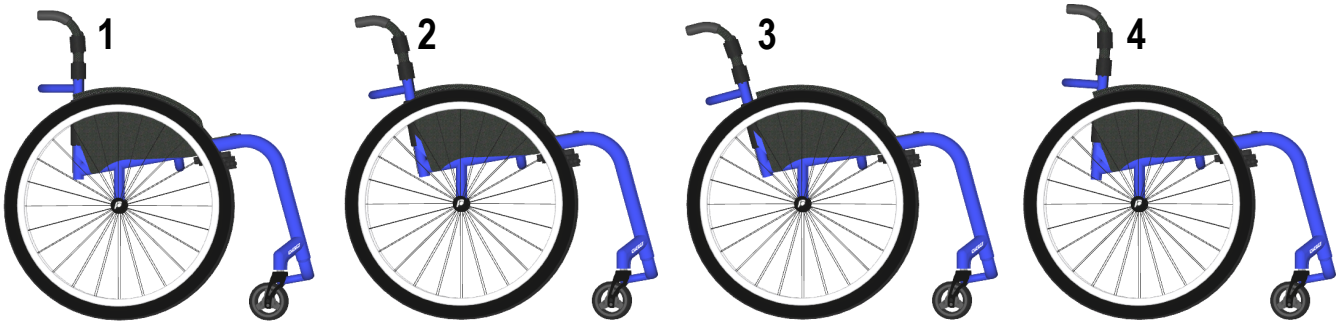
Hereafter four examples.

1 = 90° to the ground

2 = 90° to the seat

3 = 5° wider than 90° to the seat

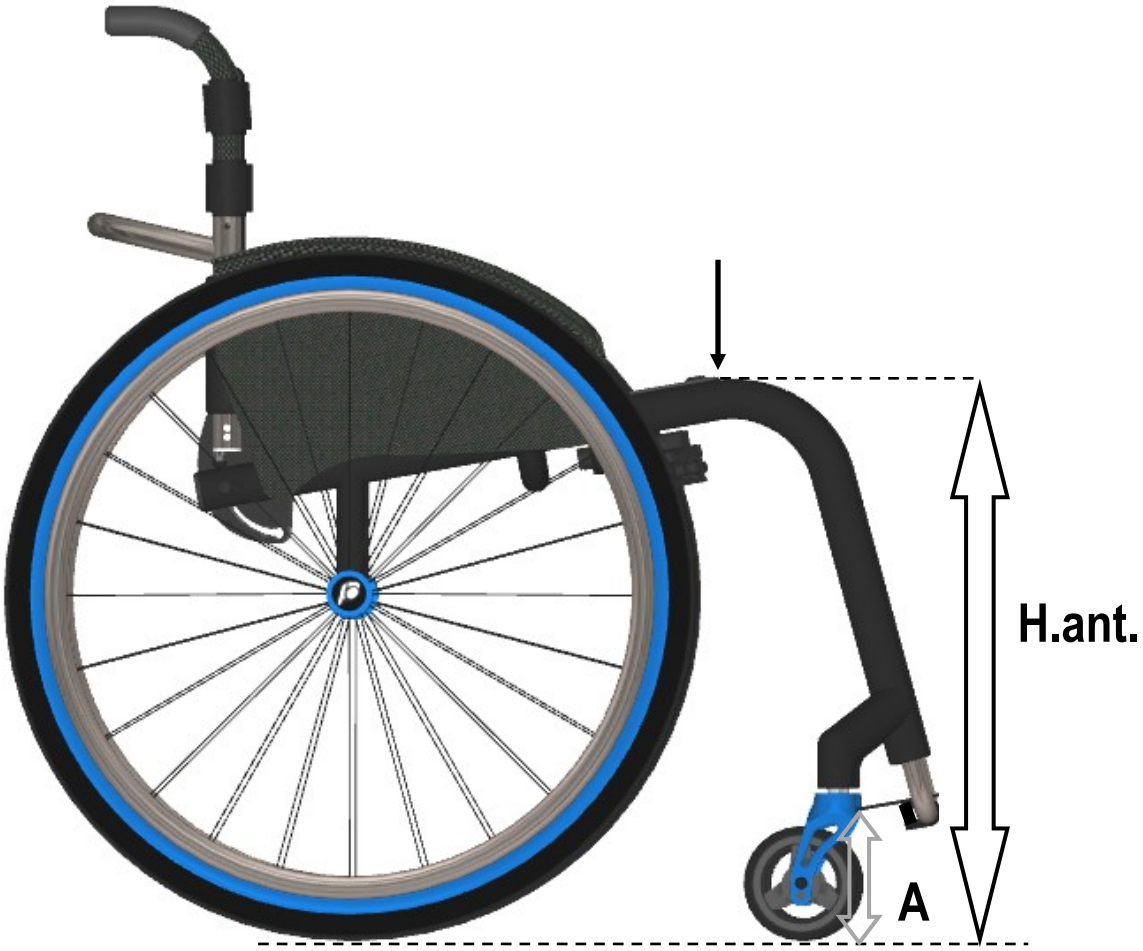
4 = 15° closer than 90° to the seat



WITH WELDED BACKREST there is no angle adjustment

FRONT HEIGHT (H. ant.)

The distance between the front side of the seat canvas
(not of the cushion) and the ground
from 36 to 54 cm



Check the footplate distance and remember that the front height should be at least 4-5 cm greater to allow for enough room **A** between the footplate and the ground.

The front height, in combination with the rear height, determines the seat inclination.

NOTICE: the frame is welded to measure, thus, there is no adjustment.

REAR HEIGHT (h. post.)

The distance between the rear side of the seat canvas
(not of the cushion) and the ground
from 36 to 52 cm (with 24” rear wheels)

The rear height, in combination with the front height, determines the seat inclination.

NOTICE: the frame is welded to measure, thus, there is no adjustment.

HAND RIM DISTANCE

The distance between the wheel rim and the hand rim

3 or 4 cm

In the order form you can choose the hand rim at 3 or 4 cm from the wheel rim.

That measure can change by several millimetres according to the type of hand rim, but, in any case, the difference between the two positioning is approximately 1 cm.

Notes
The Ergopara hand rim has only one positioning.
The rear wheel Spinergy Flex Rim has an integrated hand rim.

Hand rim at 3 cm

Hand rim at 4 cm

CAMBER

The angle of the rear wheels

0° 2° 4° 8° 12°

With cambered rear wheels, the wheelchair improves in manoeuvrability and in side stability, but it becomes wider.

Seat width (LS) + 17 cm

Minimum encumbrance with standard rear wheels, hand rims at 3 cm.

With 2°: LS + 20 cm

With 4°: LS + 23 cm

With 8°: LS + 30 cm

With 12°: LS + 38 cm

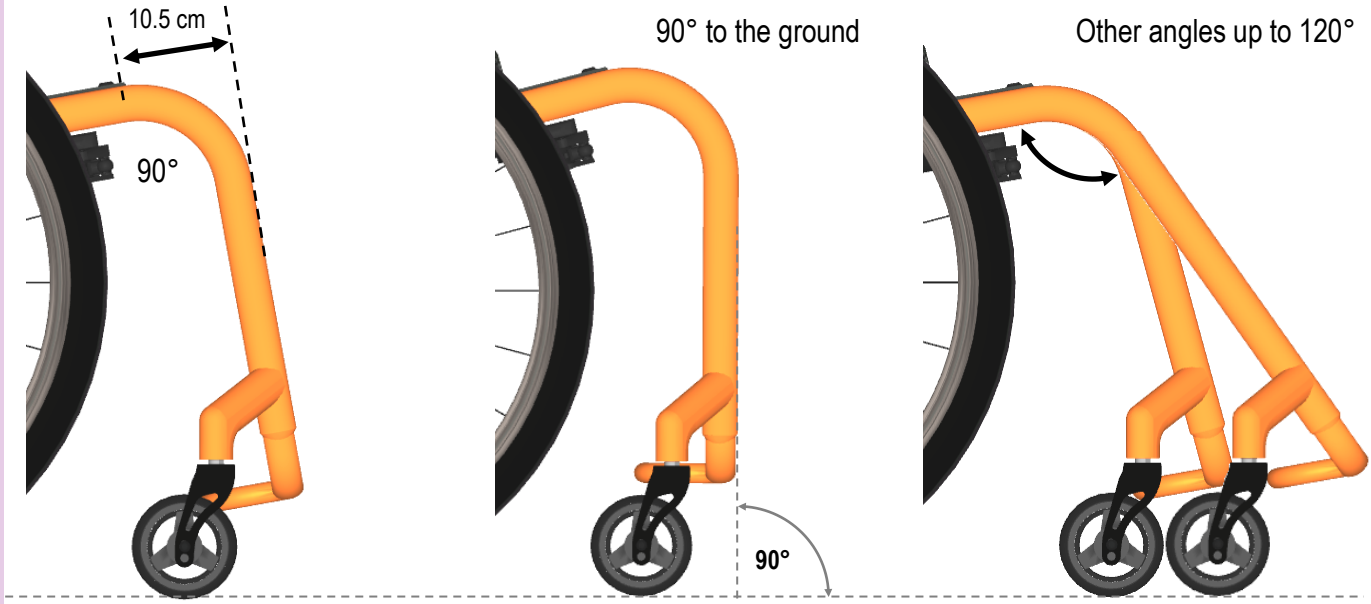
The encumbrances indicated take as reference the configuration with standard rear wheels and hand rims at 3 cm.

Such values may change according to the final configuration of the wheelchair.

FRONT FRAME

customized

The front frame of the wheelchair proportionally develops according to the seat depth PS, therefore, the longer the PS, the longer the frame.



The front fixing of the seat canvas is just before the curve of the frame.
The outer side of the 90° frame approximately lays 10.5 cm off of the canvas, considering the two lines perpendicular to one another.
For wider frame angles, this measure, obviously, increases as you do down (longer footplate distance), whereas, with closer angles, it decreases. The chart here below, reports the increase (+) or the reduction (-) of this measure according to the frame angle and footplate distance DP.

	FRAME ANGLE						
	75°	**80°**	**85°**	**95°**	**100°**	**110°**	**120°**
DP 35 cm	- 6 cm	- 4.5 cm	- 2.0 cm	+ 2.0 cm	+ 5.0 cm	+ 8.5 cm	+ 15.0 cm
DP 40 cm	- 7 cm	- 5.5 cm	- 3.0 cm	+ 3.0 cm	+ 6.0 cm	+ 10.0 cm	+ 17.0 cm
DP 45 cm	- 8 cm	- 6.5 cm	- 4.0 cm	+ 4.0 cm	+ 7.0 cm	+ 11.5 cm	+ 19.0 cm

When you choose the configuration “frame angle 90° to the ground”, that is the most compact, you do not need to calculate nor even indicate the inner angle of the frame because it will be the results of the subtraction “90° - SI (seat inclination)”. The seat inclination SI, on its turn, is given by the values H.ant, H,post, and PS. The resulting frame angle may be 78° rather than 81°. Rehateam s.r.l. will make the calculation.

If you choose a frame angle closer than 90°, consider that the SI should be at least “90° - the chosen angle”; for instance, with a 80° angle, minimum IS = 90° - 80° = 10°, otherwise the front frame will result tilted backward.

Follows next page

FRONT FRAME

customized

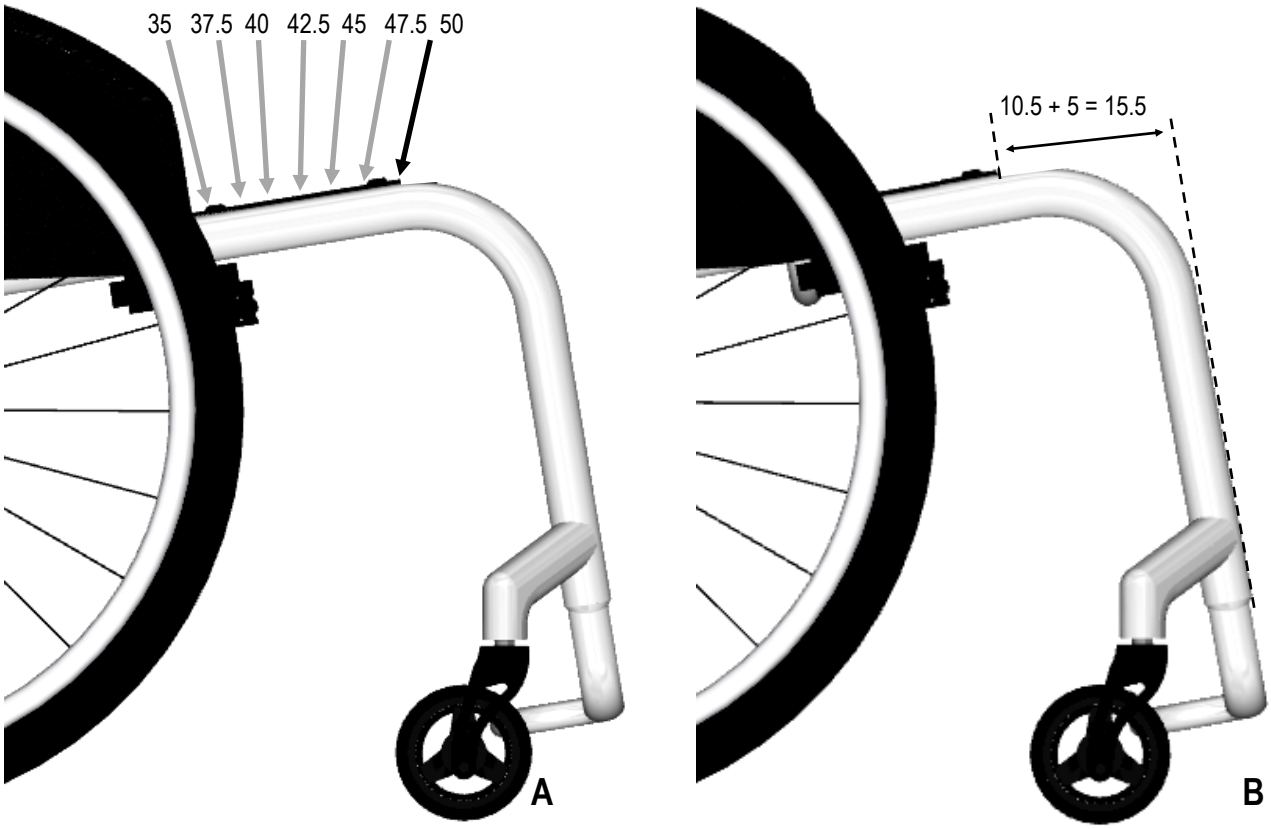
Variant not present in the order form.

Should be necessary to develop a front side of the wheelchair longer than what above explained, you can ask for a longer frame (any angle); in other words, you can ask for a PS 40 cm with a 42.5 cm frame (or up to 50 cm that is the maximum seat depth).

The seat canvas will be fixed more backward accordingly, and the above mentioned reference of 10.5 cm will increase by 2.5 cm for each size of elongation.

Ask for this variant by writing a note such “PS 40 with a 45 frame”.

This variant is clearly not possible if the PS is 50 cm.

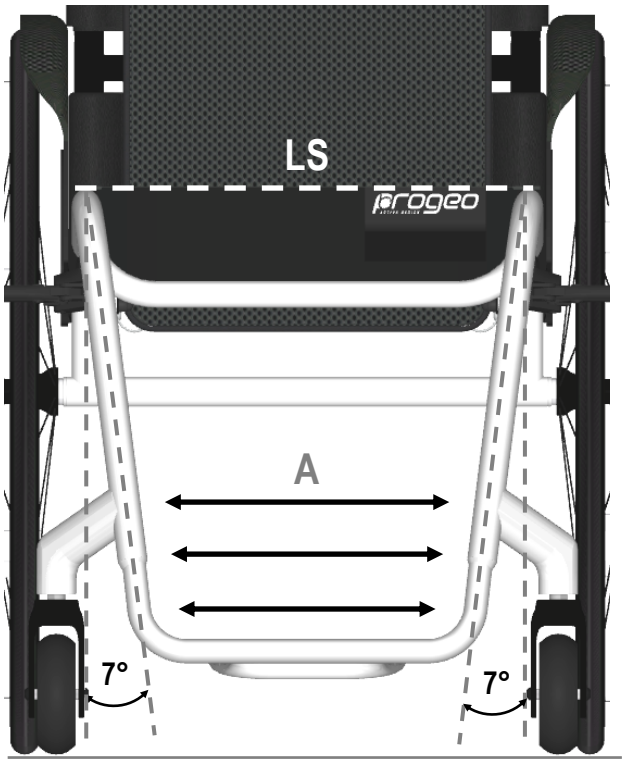


The picture **A** shows the 50 frame an the point where the seat canvas for each seat depth can be fixed.

The picture **B** shows the example of PS 40 with a 45 cm frame and you should notice that the outer side of the frame approximately lays 15.5 cm off of the canvas (the 5 cm are the difference between 45 and 40).

VERSION 7°

VERSION "ZERO"



The front frame has a 7°taper. As you can see in the image, the longer the footplate distance DP, the narrower the distance **A** between the two frames, in other words, the room for the feet.

This aspect is to be taken with great attention when the seat width LS is narrow.

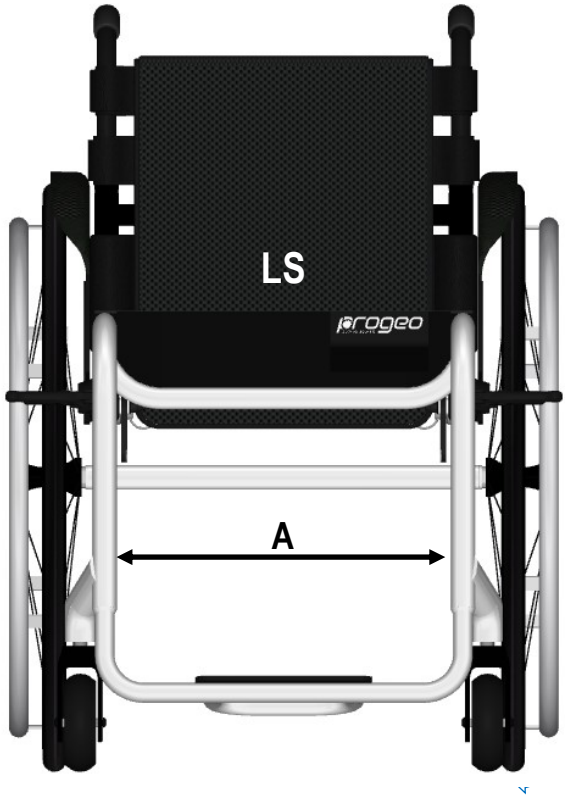
The chart hereafter shows the indicative values **A** in centimetres according to PS and DP.

		LS					
		33	36	39	42	45	48
DP	35~39	21	24	26	29	32	35
	40~45	20	23	25	28	31	34
	46~50	19	22	24	27	30	33

VERSION "ZERO"

The two frames are parallel, therefore, the room **A** for the feet is always equal to LS - 5 cm.

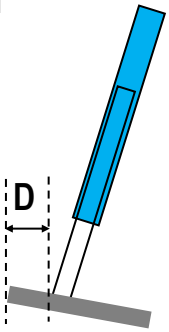
Example, with LS 39, **A** = 39 - 5 = 34 cm



FOOTPLATES

Internal, 2/3 internal, 2/3 external, external

Both for version 7° and “zero”



All footplates are adjustable in height, angle (except for the Carbon fix footplate) and position.
In this section, we indicate all different positions for each model of footplate and the offset **D** from the line of the outer side of the footplate tube to the external part of the plate.

WELDED FOOTPLATE WITHOUT PLATE

INTERNAL
D ≈ 0 cm

EXTERNAL
D ≈ 7 cm
(not present in the order from)

WELDED FOOTPLATE WITH PLATE

INTERNAL
D ≈ 0 cm

EXTERNAL
D ≈ 8 cm
(not present in the order from)

ALUMINIUM FOOTPLATE (adjustable)

INTERNAL
D ≈ 0 cm

2/3 INTERNAL
D ≈ 2 cm

2/3 EXTERNAL
D ≈ 6 cm

EXTERNAL
D ≈ 8 cm

CARBON FIBRE FOOTPLATE (adjustable)

IINTERNAL
D ≈ 0 cm

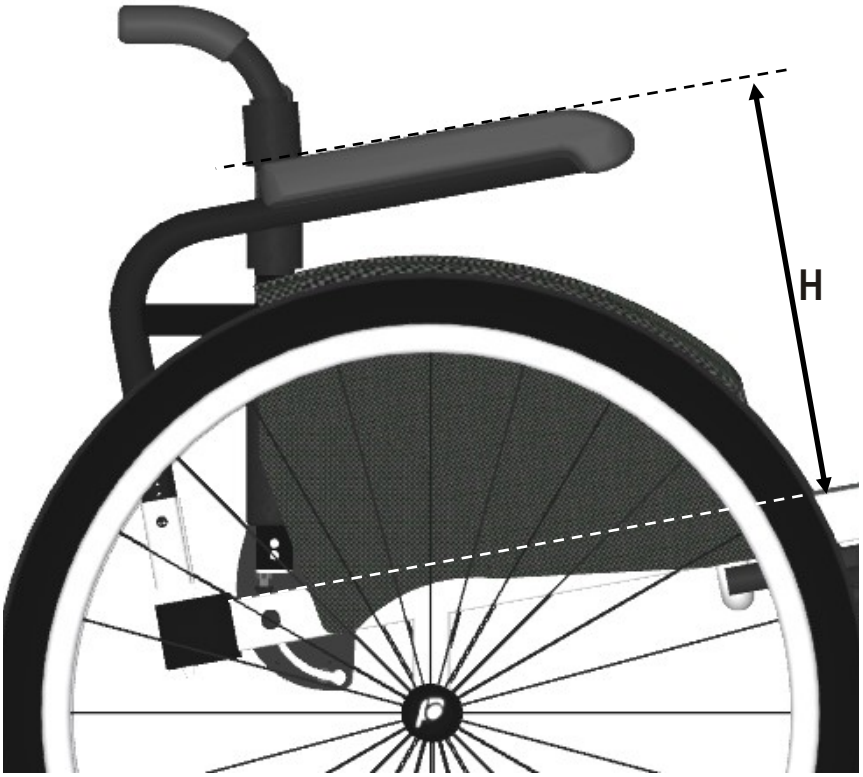
EXTERNAL
D ≈ 11 cm

CARBON FIBRE FIX FOOTPLATE (adjustable, but not in angle)

INTERNA
D ≈ 0 cm

ARMREST HEIGHT

The distance from the seat canvas
(not of the cushion) to the upper side of the pad



TUBULAR WITH STEEL SUPPORT AND SAFETY LOCK

Swing away and removable

Adjustable only with tools.

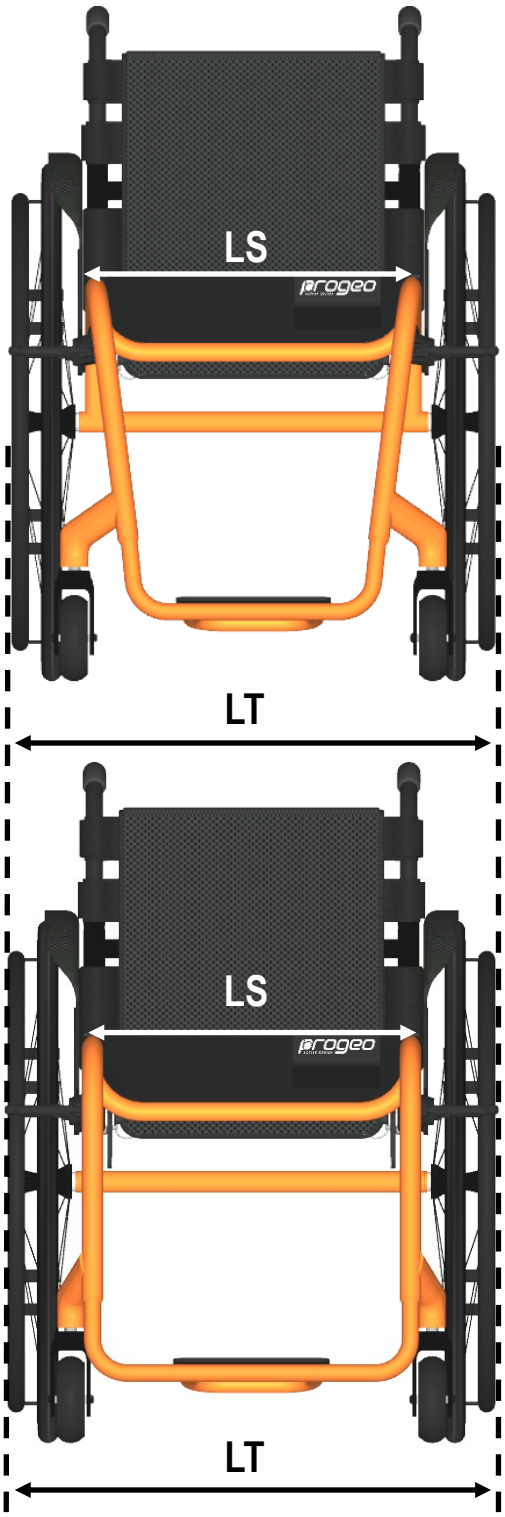
The choice of the height of the armrest is not present in the order from, but you can write a note indicating the measure you need.

Without any note, the armrests are assembled at a height we believe suitable.

The minimum height of the armrest may depend on the rear height of the wheelchair.

TOTAL WIDTH OF THE WHEELCHAIR (LT)

The distance between the outer side of the hand rims



The minimum total width of the wheelchair LT clearly depends on the seat width LS, but also on other parameters and components.

In standard configuration, with standard rear wheels, hand rims at 3 cm, 0° camber and fixed side guards (not spaced):

LT = LS + 17 cm

This is the minimum LT

Now, we list parameters and components that increase the total width of the wheelchair, indicating the extent of the increment.

CAMBER 2°	+ 3 cm
CAMBER 4°	+ 6 cm
CAMBER 2°	+ 13 cm
CAMBER 4°	+ 21 cm
HAND RIM DISTANCE 4 cm	+ 2 cm
SPINERGY WHEELS (LX—LXL)	+ 1 cm
OFF ROAD WHEELS	+ 5 cm
FAT WHEEL	+ 12 cm

The values refers to each case individually with reference to the minimum LT; according to the final configuration of the wheelchair, some cases may be concomitant, but the total width may not be equal to the sum of the corresponding values. All values are to be consider indicative.

The two versions (7° and “zero”) have the same encumbrance.

MEASUREMENT GUIDE

TOTAL LENGTH OF THE WHEELCHAIR (IT)

The distance from the rearmost point of the rear wheels to the external side of the footplate

The total length IT of the wheelchair depends on several parameters. To have a first evaluation of the total length, the following chart helps to make a quick calculation with a good tolerance, starting from the standard configuration for each seat depth.

The standard configuration has these values:

- 9° seat inclination (height 49/42 with PS 40)
- Standard setting (point of balance)
- 24" rear wheels
- Footplate position: internal.

	Seat depth **PS**						
	35	**37.5**	**40**	**42.5**	**45**	**47.5**	**50.0**
ANGLE **80°**	67.5 cm	70.0 cm	72.5 cm	75.0 cm	77.5 cm	80.0 cm	82.5 cm
ANGLE **85°**	70.5 cm	73.0 cm	75.5 cm	78.0 cm	80.5 cm	83.0 cm	85.5 cm
ANGLE **90°**	73.5 cm	76.0 cm	78.5 cm	81 cm	83.5 cm	86.0 cm	88.5 cm
ANGLE **100°**	78.5 cm	81.0 cm	83.5 cm	86.0 cm	88.5 cm	91.0 cm	93.5 cm
ANGLE **110°**	83.5 cm	86.0 cm	88.5 cm	91.0 cm	93.5 cm	96.0 cm	98.5 cm
ANGLE **120°**	90.5 cm	93.0 cm	95.5 cm	98.0 cm	100.5 cm	103.0 cm	105.5 cm

For other angles, calculate proportionally

Change of the length with respect to the standard configuration.

	Value	Increment	Value	Reduction
Seat inclination	13°	+ 1.5 cm	4°	- 1.5 cm
Setting	Very prudential Prudential	+ 3 cm + 1.5 cm	Extreme Active	- 3 cm - 1.5 cm
Rear wheels	26" 25"	+ 2.5 cm + 1.25 cm		
Footplate distance DP	50 45 angle 90° 50 45 angle 100°	+ 2 cm + 1 cm + 3 cm + 1.5 cm	35 30 angle 90° 35 30 angle 100°	- 1 cm - 2 cm - 1.5 cm - 3 cm
Welded footplate position	External without plate External with plate	+ 7 cm + 8 cm		
Aluminium footplate position	External 2/3 external 2/3 internal	+ 8 cm + 6 cm + 2 cm		
Other footplates	See chapter "footplate position"		See chapter "footplate position"	

Examples:
PS 42.5 with 100° frame (86), prudential (+1.5), aluminium footplate 2/3 internal (+2): **IT** = 86 + 1.5 + 2= 89.5 cm
PS 45 with 90° frame (83.5), active (-1.5), DP 45 (+1), aluminium footplate external (+ 8): **IT** = 83.5 - 1.5 + 1 + 8 = 91.0 cm

FRAME'S DRAWING

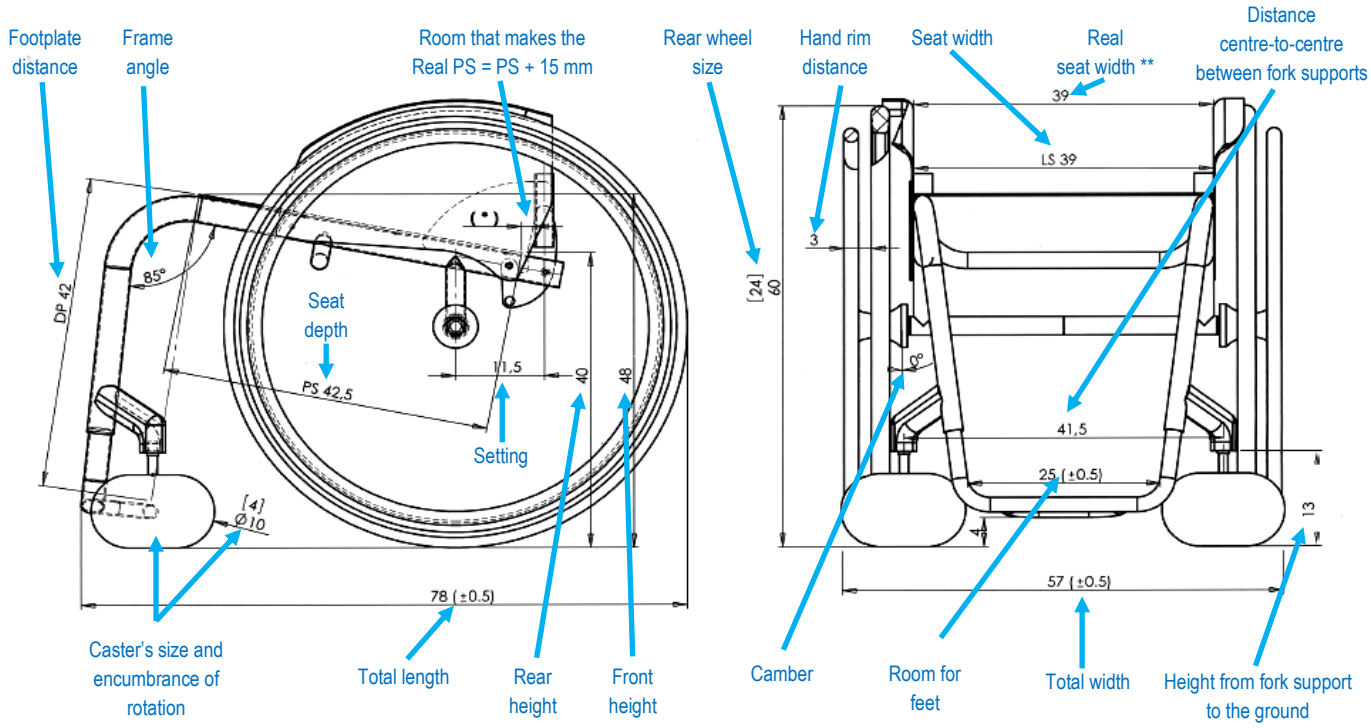
To be checked and signed for confirmation

NOTICE: the frame is welded to measure, thus, its measures are not adjustable.

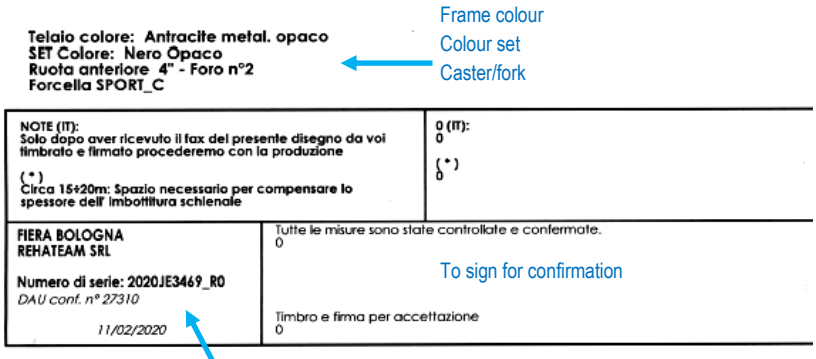
Each frame is individually designed according to the measures requested in the order form.

To avoid mistakes due to transcription of values both on the client's Rehateam s.r.l.'s side, Rehateam s.r.l. provides the client with a drawing reporting all measures of the frame.

The client has to carefully check such measures to verify that they are all correct and then he/she has to sign the drawing to confirm the order and start the production procedure.



** se questo valore è uguale a LS, aggiungere 4 mm

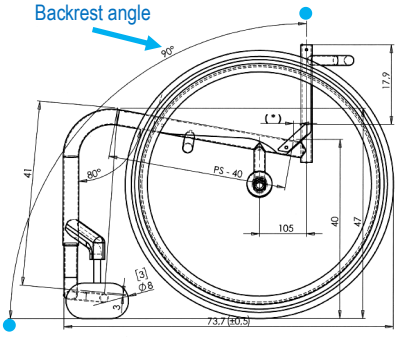


Frame colour
Colour set
Caster/fork

Name of client
Serial number of the wheelchair
Number of configuration
Date of drawing

Version with welded backrest.

The drawing also shows the welded backrest and its inclination with respect to the ground or with respect to the seat.



MEASUREMENT GUIDE

ENGLISH

MEASUREMENT GUIDE

NOIR 2.0

Rev. 1—2021/05

progeo ACTIVE DESIGN

NOIR 2.0

MEASUREMENT GUIDE

INTRODUCTION

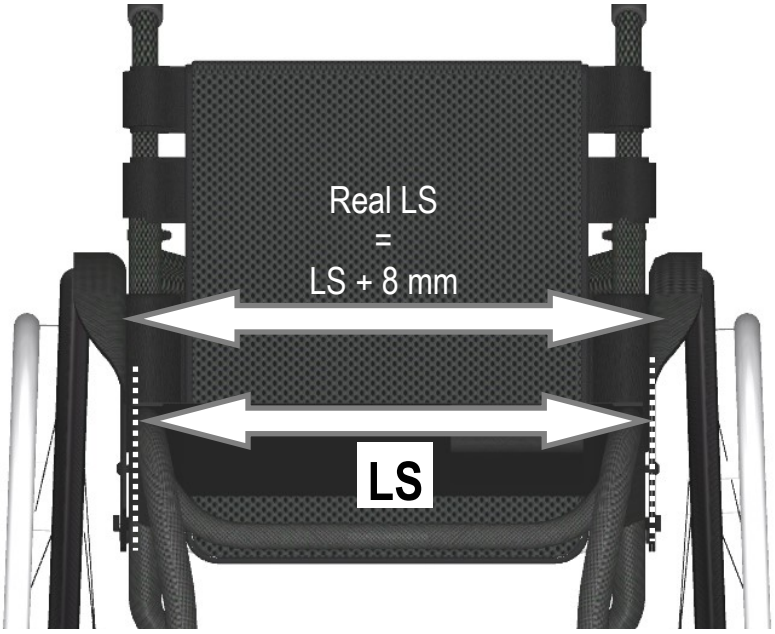
This guide has the sole purpose of helping the person in charge of filling up the order from, indicating, section by section, the reference points to take measurements from, with some advice, too, so that the delivered wheelchair corresponds to what requested.

The pieces of information in this guide are exclusively technical and regards the device; it does not and it does not intend to provide postural advices.

SEAT WIDTH (LS)

The distance between the outer sides of the frame

33 36 39 42 45 48 cm.



The width you choose in the order form corresponds to the distance between the outer sides of the frame.
The real width, in other words, the room between the two fixed side guards, is equal to LS + 4 mm.

Real LS = LS + 8 mm

FIXED SIDE GUARD SPACING

You can ask for a real LS wider than LS up to 1.5 cm each side (total 3 cm).

For instance, write the note: *"space the side guards to have real seat width 41" (if LS = 39).*

MEASUREMENT GUIDE

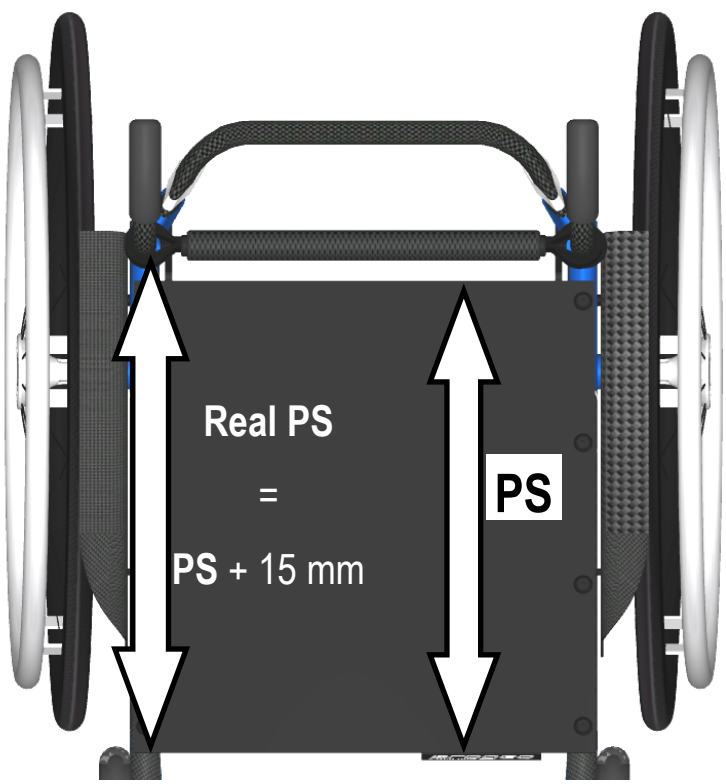
SEAT DEPTH (LS)

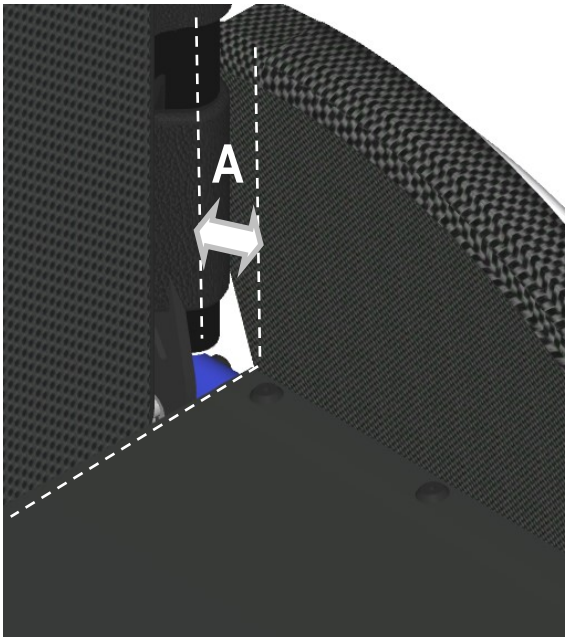
The distance between the backrest tube and the front side of the seat canvas

35 37.5 40 42.5 45 47.5 cm.

The length of the seat canvas corresponds to the seat depth that is indicated in the order form.
However, the real seat depth (from the backrest tube to the front side of the canvas) approximately results 15 mm longer. That is due to gap **A** between the rear side of the canvas and the backrest tube.
Example:

Seat depth in the order form	40 cm
Length of the seat canvas	40 cm
Real seat depth	41.5 cm





MEASUREMENT GUIDE

FOOTPLATE DISTANCE (DP)

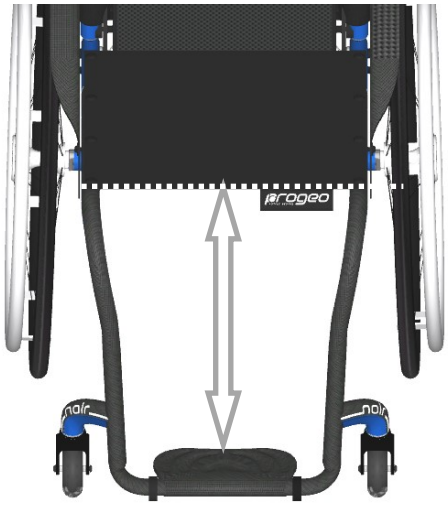
The distance between the front side of the seat canvas (not of the cushion) and the rear side of the footrest plate

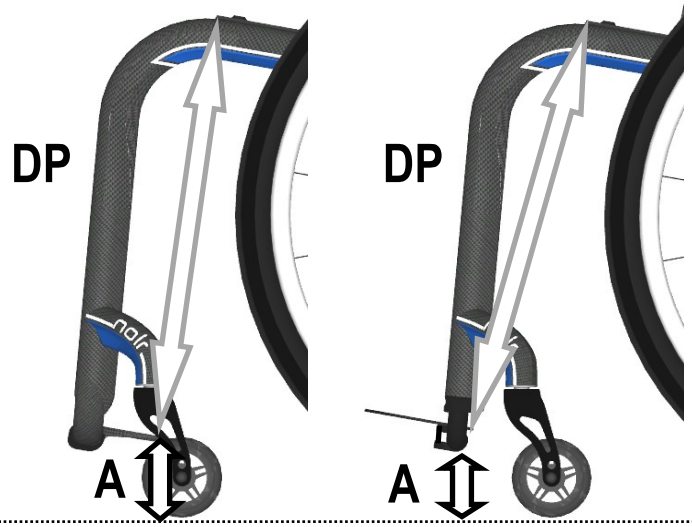
When taking measure, consider the seat canvas straight.

In the two examples here below, we can see the reference point of the internal and external footplate.

In both cases, the measure is taken form the rear side of the plate, regardless the position of the plate.

Warning: the footplate distance is very important and it can affect the front and rea height of the wheelchair the minimum front height, in fact, should be at least 4-5 cm greater than DP to allow for enough room **A** between the lower side of the footplate and the ground.





In the picture aside, we show a possible mistake and its consequence.

The measure **1** is the correct one according to what above explained; on the other hand, the **2** takes as reference the front side of the plate and it will result longer than **1**.

If you write the measure **2** in the order from, the wheelchair will be assembled following that length but the reference point will be the rear side of the plate, consequently, you will end up with the situation **2a**, that is, a DP longer than you expected.

The difference can even be a few centimetres.

The frame with adjustable footplate is provided with height adjustable footplate.

The frame with integrated footplate does not allow for adjustment.

NOTE: should you need a DP shorter than what indicated in the order from, contact Rehateam s.r.l. to evaluate if it is feasible.

WITH INTEGRATED FOOTPLATE there is no adjustment

SETTING (point of balance)

The distance between the axis of the backrest tube in its lower side and the centre of the rear wheel

VERU PRUDENTIAL - PRUDENTIAL

STANDARD – ACTIVE- EXTREME

A prudential setting reduces the risk of tipping back, but makes the wheelchair less dynamic and longer.

On the other hand, an active setting improves the manoeuvrability of the wheelchair and it makes it shorter.

The pre-determined settings are the following:

Very prudential	**A** = 7.5 cm approx.
Prudential	**A** = 9.0 cm approx.
Standard	**A** = 10.5 cm approx.
Active	**A** = 12.0 cm approx.
Extreme	**A** = 13.5 cm approx.

However, in the order form, you can indicate a setting with a value **A** different from the pre-determined ones; for instance, a setting a bit more active then Standard, may be 11 cm (instead of 10.5); just write a note indicating that value **A**.

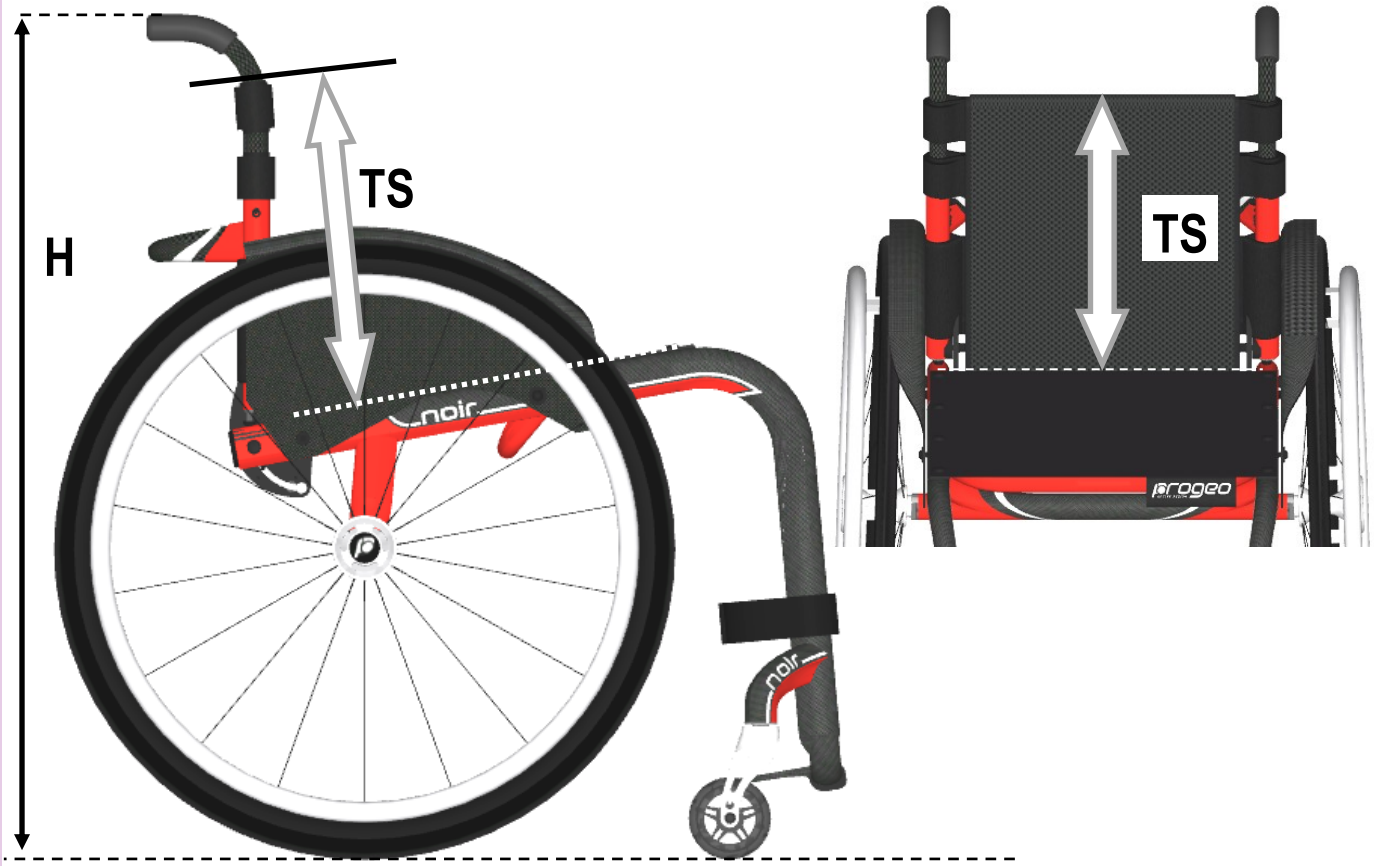
Should you need a setting more prudential than “very prudential”, contact Rehateam s.r.l. because the feasibility depends on the configuration of the wheelchair.

NOTICE: the frame is customised monocoque, thus, there is no adjustment.

BACKREST HEIGHT (TS)

The distance between the rear side of the seat canvas (not of the cushion) and the upper side of the backrest upholstery

from 27 to 47 cm (every 1,5 cm)



The backrest height also determines the height **H** from the ground to the push handles.

To quickly calculate such height, **H** = rear height + backrest height + 3 cm

If the use is frequently pushed by an attendant, consider his/her tallness and the possible need to provide the wheelchair with adjustable push handles.

BACKREST ANGLE

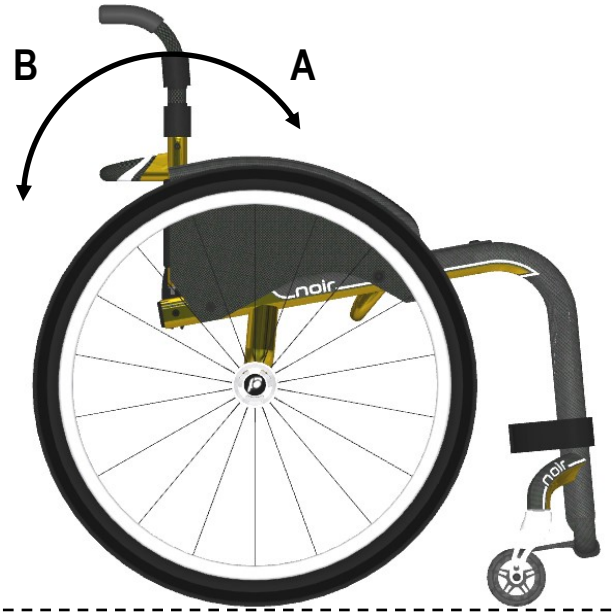
The angle between the backrest tube and the seat.

From 74° to 94°

The backrest is usually assembled at 90° with respect to the floor and it is adjustable.

However, you may ask for the backrest assembled to a certain inclinations within the range indicated.

In that case, just write a note such as " backrest angle open to max (= 94°)".



Version with integrated backrest

(not present in the order form)

Contact Rehateam s.r.l. for the feasibility according to the wheelchair's configuration.

You have to indicate the backrest angle with respect to the seat **A** or with respect to the ground **B**.

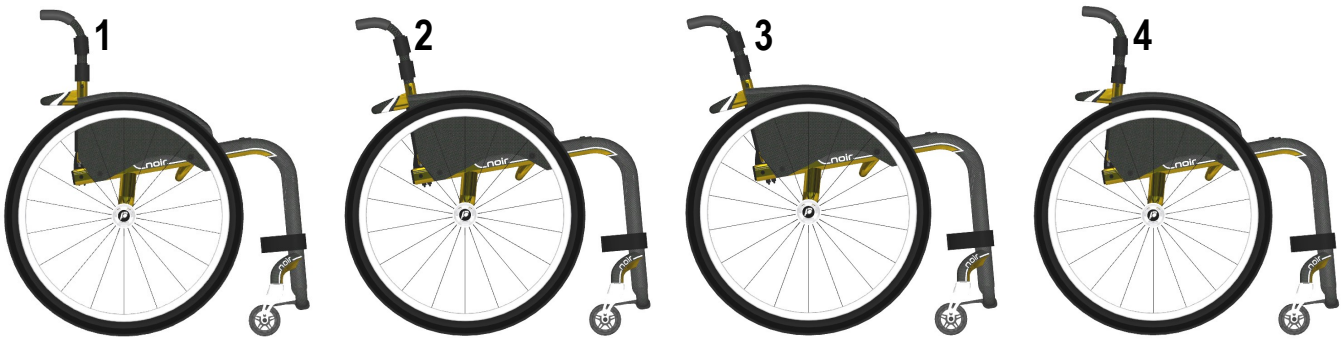
Hereafter four examples.

1 = 90° to the ground

2 = 90° to the seat

3 = 5° wider than 90° to the seat

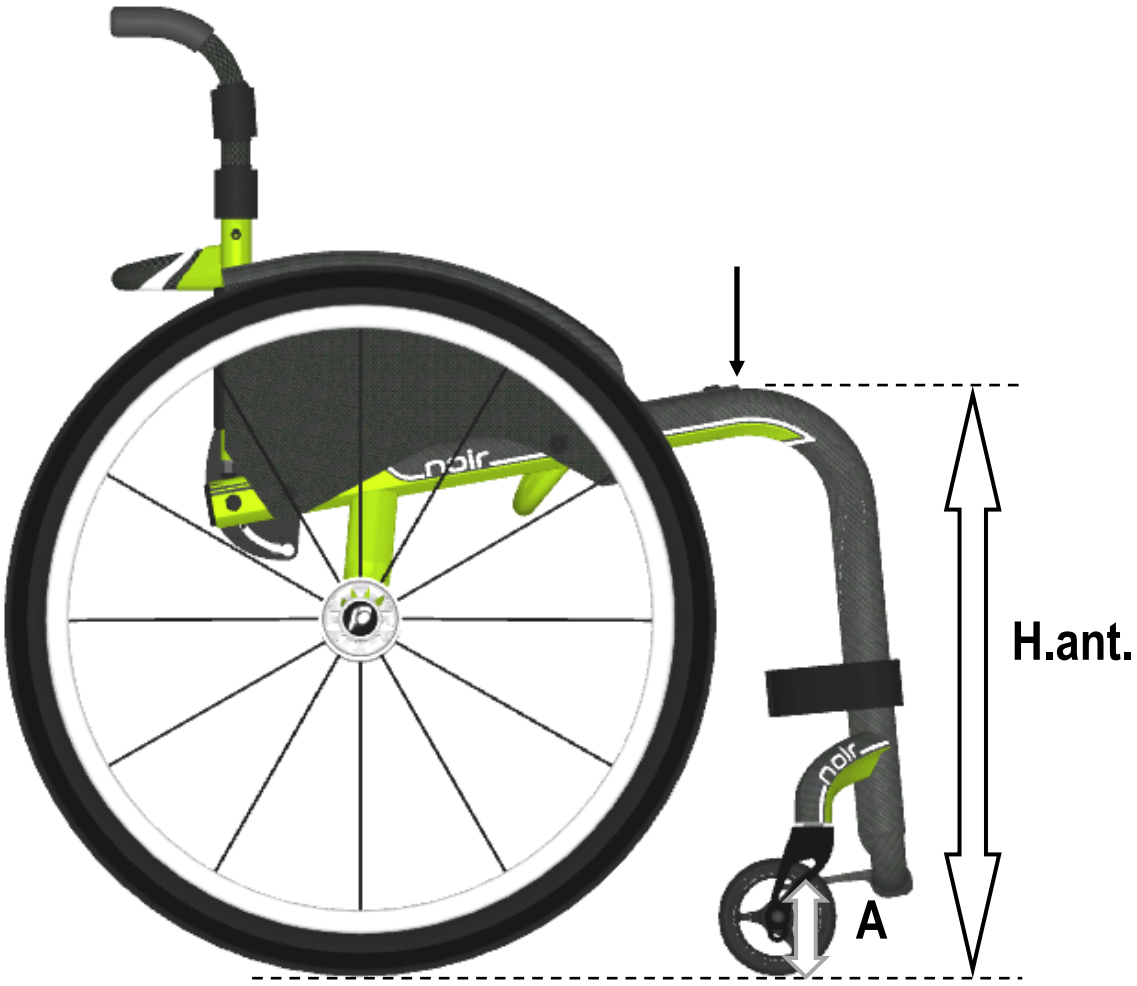
4 = 15° closer than 90° to the seat



WITH INTEGRATED BACKREST there is no angle adjustment

FRONT HEIGHT (H. ant.)

The distance between the front side of the seat canvas
(not of the cushion) and the ground
from 44 to 54 cm



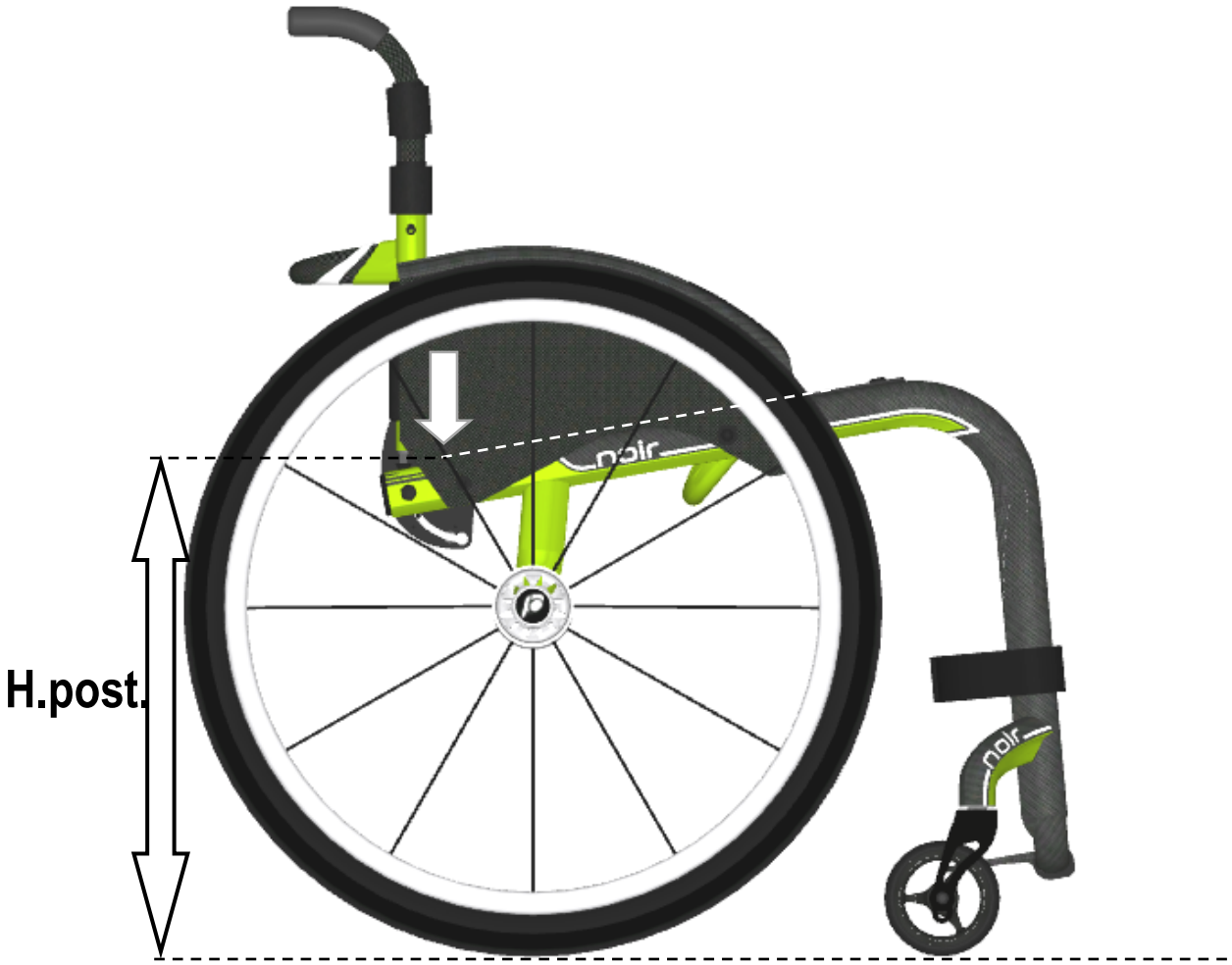
Check the footplate distance and remember that the front height should be at least 4-5 cm greater to allow for enough room **A** between the footplate and the ground.

The front height, in combination with the rear height, determines the seat inclination.

NOTICE: the frame is customised monocoque, thus, there is no adjustment.

REAR HEIGHT (h. post.)

The distance between the rear side of the seat canvas
(not of the cushion) and the ground
from 37 to 48 cm (with 24” rear wheels)



The rear height, in combination with the front height, determines the seat inclination.

NOTICE: the frame is customised monocoque, thus, there is no adjustment.

HAND RIM DISTANCE

The distance between the wheel rim and the hand rim

3 or 4 cm

In the order form you can choose the hand rim at 3 or 4 cm from the wheel rim.

That measure can change by several millimetres according to the type of hand rim, but, in any case, the difference between the two positioning is approximately 1 cm.

Notes
The Ergopara hand rim has only one positioning.
The rear wheel Spinergy Flex Rim has an integrated hand rim.

Hand rim at 3 cm

Hand rim at 4 cm

CAMBER

The angle of the rear wheels

0° 2° 4°

With cambered rear wheels, the wheelchair improves in manoeuvrability and in side stability, but it becomes wider.

Seat width (LS) + 17 cm

Minimum encumbrance with standard rear wheels, hand rims at 3 cm.

With 2°: LS + 20 cm

With 4°: LS + 23 cm

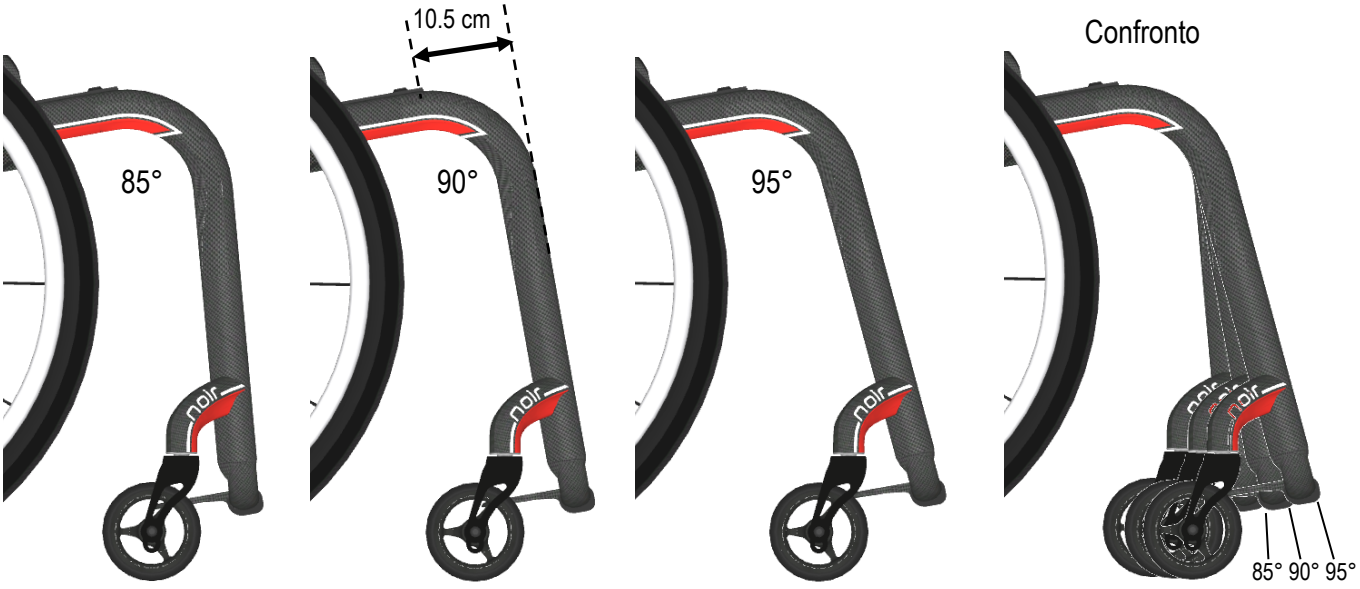
The encumbrances indicated take as reference the configuration with standard rear wheels and hand rims at 3 cm.

Such values may change according to the final configuration of the wheelchair.

FRONT FRAME

customized

The front frame of the wheelchair proportionally develops according to the seat depth PS, therefore, the longer the PS, the longer the frame.



The front fixing of the seat canvas is just before the curve of the frame.

The outer side of the 90° frame approximately lays 10.5 cm off of the canvas, considering the two lines perpendicular to one another.

For the 95° angle, this measure, obviously, increases as you do down (longer footplate distance), whereas, with 85° angle, it decreases.

The chart here below, reports the increase (+) or the reduction (-) of this measure according to the frame angle and footplate distance DP.

	FRAME ANGLE	
	85°	**95°**
DP 35 cm	- 2.0 cm	+ 2.0 cm
DP 40 cm	- 3.0 cm	+ 3.0 cm
DP 45 cm	- 4.0 cm	+ 4.0 cm

Follows next page

FRONT FRAME

customized

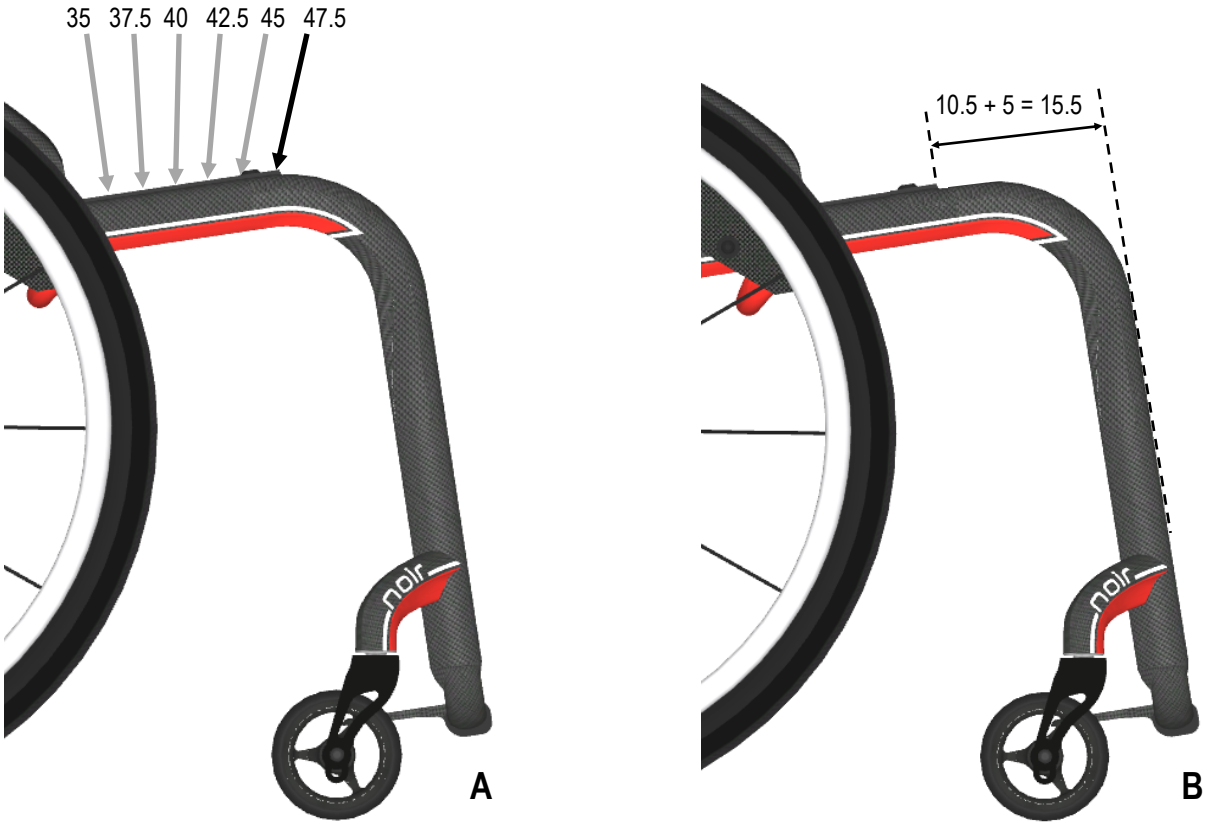
Variant not present in the order form.

Should be necessary to develop a front side of the wheelchair longer than what above explained, you can ask for a longer frame (any angle); in other words, you can ask for a PS 40 cm with a 42.5 cm frame (or up to 47.5 cm that is the maximum seat depth).

The seat canvas will be fixed more backward accordingly, and the above mentioned reference of 10.5 cm will increase by 2.5 cm for each size of elongation.

Ask for this variant by writing a note such “PS 40 with a 45 frame”.

This variant is clearly not possible if the PS is 47.5 cm.



The picture **A** shows the 50 frame an the point where the seat canvas for each seat depth can be fixed.

The picture **B** shows the example of PS 40 with a 45 cm frame and you should notice that the outer side of the frame approximately lays 15.5 cm off of the canvas (the 5 cm are the difference between 45 and 40).

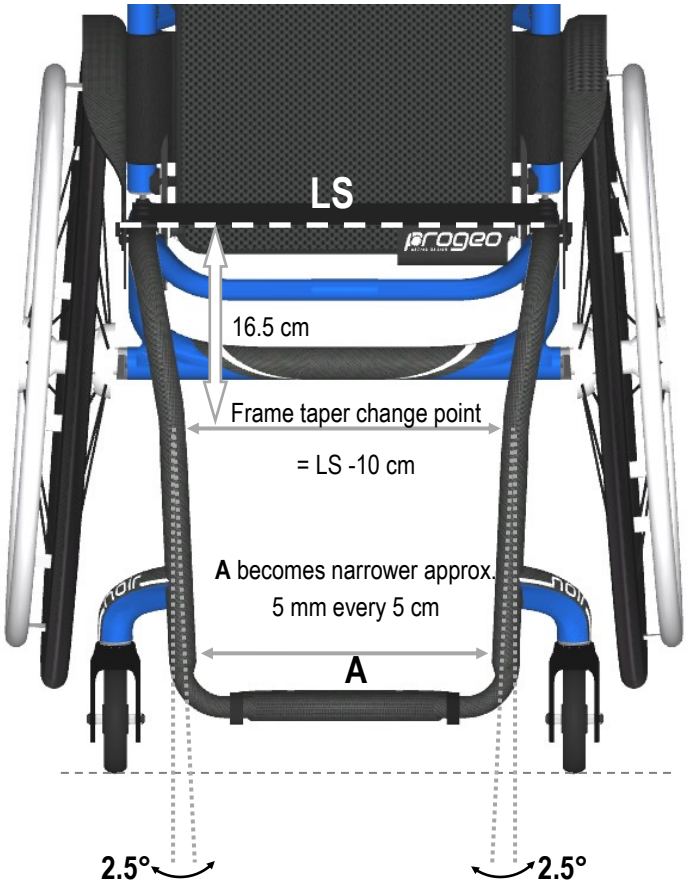
Follows next page

FRONT FRAME

The frame taper is 10° for approximately 16.5 cm, where the room between the two frame is approximately equal to LS - 10 cm.. From that point down, the taper is 2.5°; this way, the longer the footplate distance DP, the narrower the room **A** between the two frames, in other words, the room for the feet, 5 mm. every 5 cm.

This aspect is to be taken with great attention when the seat width LS is narrow.

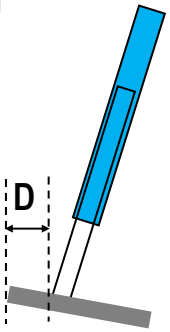
The chart hereafter shows the indicative values **A** in centimetres according to PS and DP.



		LS				
		33	36	39	42	45
DP	35	21.5	24.5	27.5	30.5	33.5
	40	21	24	27	30	33
	45	20.5	23.5	26.5	29.5	32.5

FOOTPLATES

Internal, 2/3 internal, 2/3 external, external



All footplates are adjustable in height, angle (except for the Carbon fix footplate) and position.
In this section, we indicate all different positions for each model of footplate and the offset **D** from the line of the outer side of the footplate tube to the external part of the plate.

INTEGRATED FOOTPLATE

INTERNAL
D ≈ 0 cm

ALUMINIUM FOOTPLATE (adjustable)

INTERNAL
D ≈ 0 cm

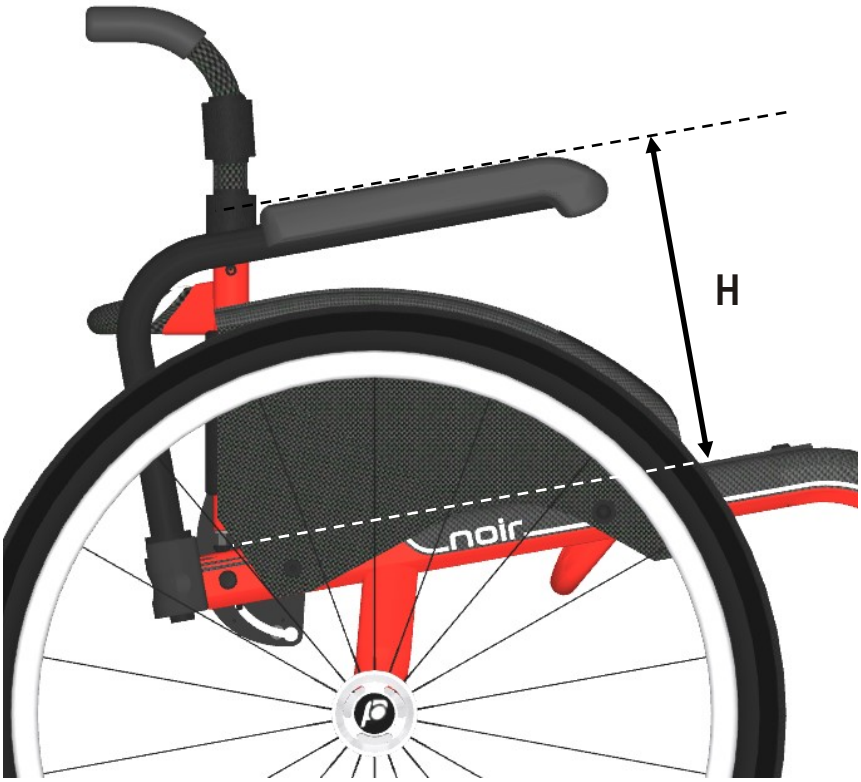
2/3 INTERNAL
D ≈ 2 cm

2/3 EXTERNAL
D ≈ 6 cm

EXTERNAL
D ≈ 8 cm

ARMREST HEIGHT

The distance from the seat canvas
(not of the cushion) to the upper side of the pad



TUBULAR WITH STEEL SUPPORT AND SAFETY LOCK

Swing away and removable

Adjustable only with tools.

The choice of the height of the armrest is not present in the order from, but you can write a note indicating the measure you need.

Without any note, the armrests are assembled at a height we believe suitable.

The minimum height of the armrest may depend on the rear height of the wheelchair.

TOTAL WIDTH OF THE WHEELCHAIR (LT)

The distance between the outer side of the hand rims

The minimum total width of the wheelchair LT clearly depends on the seat width LS, but also on other parameters and components.

In standard configuration, with standard rear wheels, hand rims at 3 cm, 0° camber and fixed side guards (not spaced):

LT = LS + 17 cm

This is the minimum LT

Now, we list parameters and components that increase the total width of the wheelchair, indicating the extent of the increment.

CAMBER 2°	+ 3 cm
CAMBER 4°	+ 6 cm
HAND RIM DISTANCE 4 cm	+ 2 cm
SPINERGY WHEELS (LX—LXL)	+ 1 cm
OFF ROAD WHEELS	+ 5 cm
FAT WHEEL	+ 12 cm

The values refers to each case individually with reference to the minimum LT; according to the final configuration of the wheelchair, some cases may be concomitant, but the total width may not be equal to the sum of the corresponding values. All values are to be consider indicative.

The two versions (7° and “zero”) have the same encumbrance.

MEASUREMENT GUIDE

TOTAL LENGTH OF THE WHEELCHAIR (IT)

The distance from the rearmost point of the rear wheels to the external side of the footplate

The total length IT of the wheelchair depends on several parameters. To have a first evaluation of the total length, the following chart helps to make a quick calculation with a good tolerance, starting from the standard configuration for each seat depth.

The standard configuration has these values:

- 9° seat inclination (height 49/42 with PS 40)
- Standard setting (point of balance)
- 24" rear wheels
- Footplate position: internal.

	Seat depth **PS**					
	35	**37.5**	**40**	**42.5**	**45**	**47.5**
ANGLE **85°**	70.5 cm	73.0 cm	75.5 cm	78.0 cm	80.5 cm	83.0 cm
ANGLE **90°**	73.5 cm	76.0 cm	78.5 cm	81 cm	83.5 cm	86.0 cm
ANGLE **95°**	76.5 cm	79.0 cm	81.5 cm	84.0 cm	86.5 cm	89.0 cm

Change of the length with respect to the standard configuration.

	Value	Increment	Value	Reduction
Seat inclination	13°	+ 1.5 cm	4°	- 1.5 cm
Setting	Very prudential Prudential	+ 3 cm + 1.5 cm	Extreme Active	- 3 cm - 1.5 cm
Rear wheels	26" 25"	+ 2.5 cm + 1.25 cm		
Footplate distance DP	angle 95°: 50 45	+ 2.5 cm + 1.2 cm	angle 85°: 30 35	- 2.5 cm - 1.2 cm
Integrated footplate position	Internal	0	Internal	0
Aluminium footplate position	External 2/3 external 2/3 internal	+ 8 cm + 6 cm + 2 cm		

Examples:
PS 42.5 with 95° frame (84), prudential (+1.5), aluminium footplate 2/3 internal (+2): **IT** = 84 + 1.5 + 2= 87.5 cm
PS 45 with 90° frame (83.5), active (-1.5), DP 45 (+1), aluminium footplate external (+ 8): **IT** = 83.5 - 1.5 + 1 + 8 = 91.0 cm

FRAME'S DRAWING

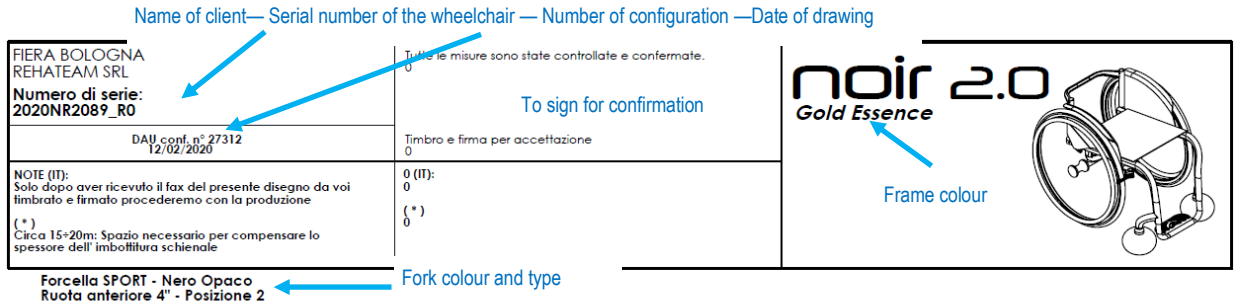
To be checked and signed for confirmation

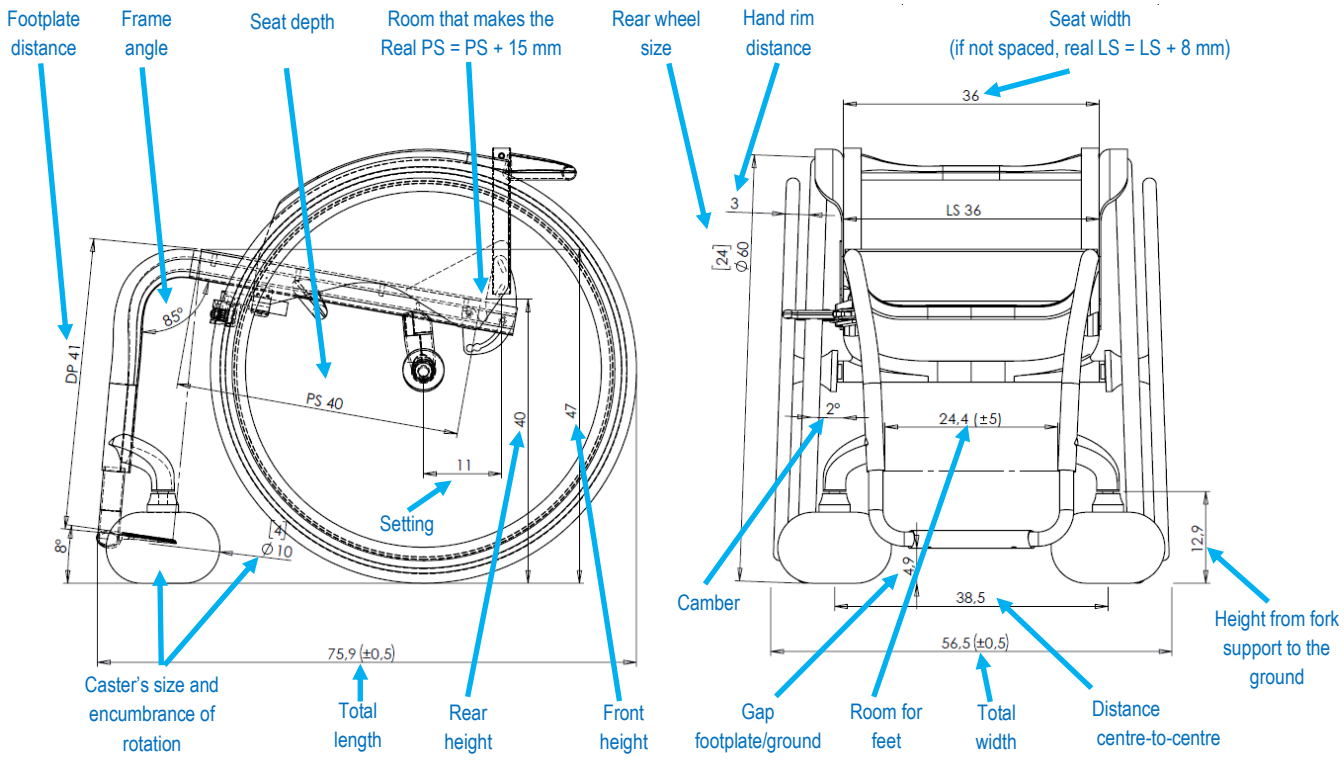
NOTICE: the frame is customised monocoque, thus, there is no adjustment.

Each frame is individually designed according to the measures requested in the order form.

To avoid mistakes due to transcription of values both on the client's Rehateam s.r.l.'s side, Rehateam s.r.l. provides the client with a drawing reporting all measures of the frame.

The client has to carefully check such measures to verify that they are all correct and then he/she has to sign the drawing to confirm the order and start the production procedure.





Version with integrated backrest.
The drawing also shows the welded backrest and its inclination with respect to the ground or with respect to the seat.