## Measuring the Wheelchair & User

<table>
<thead>
<tr>
<th>Step</th>
<th>User Measurement</th>
<th>Wheelchair Measurement</th>
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</table>
| 1    | **Seat width (SB)**<br>The seat width determines the user’s comfort and performance. It must be wide enough to ensure good weight distribution, but narrow enough to allow easy manipulation of the wheelchair. | • Let the person sit on a flat surface.  
• Position vertical blocks left and right of the hips and measure the distance between the blocks.  
• Add approximately 2 cm to cater for winter clothing for the wheelchair measurement.  
• Remove the seat cushion.  
• Measure the distance between the outer edges of the seat cover at the rear of the wheelchair.  
• Ultra-Light / Compact: For the seat width add 0.5 cm to the measured distance.  
• Measure the distance between the outer edges of the seat cover at the rear of the wheelchair.  
| 2    | **Seat depth (ST)**<br>A correct seat depth measurement enables an even distribution of the user’s weight across the whole seating base, thereby avoiding pressure points and skin irritation in the area behind the knee. | • Let the person sit on a flat surface.  
• Measure the distance from the rear most point of the buttocks/lower back to the hollow at the back of the knee.  
• Subtract approximately 4 cm (depending on user’s physique and the legrest angle) to give the wheelchair measurement.  
• Remove the seat cushion.  
• Measure the distance from the front edge of the backrest tube (without upholstery) to the front edge of the seat cover.  
| 3    | **Leg length (UL)**<br>The leg length measurement establishes the correct height for the footplates, which will enable part of the body weight to be taken by the feet. Footplates must have at least 2 cm clearance above the ground. | • Let the person sit on a flat surface.  
• Measure the distance from the heel of the shoe to the hollow at the back of the knee.  
• Subtract any cushion thickness to give the wheelchair measurement.  
• Remove the seat cushion.  
• Measure the distance from the back edge of the footplate to the front edge of the seat cover (without sagging of cover).  
| 4    | **Front seat height (SHv)**<br>A correct seat height measurement will ensure the optimum driving efficiency and can give more clearance to fit underneath tables. | • Let the person sit on a flat surface.  
• Measure the vertical distance from the ground to the hollow at the back of the knee.  
• This measurement should not be less than the leg length (UL) + 4 cm to allow sufficient footplate clearance above the ground.  
• Subtract any cushion thickness to give the front seat height (SHv) wheelchair measurement.  
• Remove the seat cushion.  
• Measure the vertical distance from the floor to the top of the front edge of the seat cover (without sagging of cover).  
| 5    | **Rear seat height (SHh)**<br>Rear seat height is determined by the front seat height, the seat angle and the seat depth. |  
• Rear seat height is determined by the front seat height, the seat angle and the seat depth.  
• Remove the seat cushion.  
• Measure the vertical distance from the floor to the top of the rear edge of the seat cover (without sagging of cover).  
| 6    | **Backrest height (RH)**<br>The backrest height depends on the user’s degree of disability. A correct backrest height should maintain a good posture whilst allowing the permitted freedom of movement. | • Let the person sit on a flat surface.  
• Measure the vertical distance from the seat platform to the scapulas.  
• If more trunk support is required, measure from the seat platform up to the required level of support.  
• If less trunk support is required reduce the backrest height in order to improve activity.  
• Remove the seat cushion.  
• Remove back cover.  
• Measure the distance from the top of the seat frame to the top of the backrest straps. |