

# Measuring the wheelchair user and the wheelchair

	User measurement*	Wheelchair measurement
<p><b>Seat width (SB)</b></p> <p>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.</p>	<ul style="list-style-type: none"> <li>▶ Let the person sit on a flat surface.</li> <li>▶ Position vertical blocks left and right of the hips and measure the distance between the blocks.</li> <li>▶ Add approximately 2 cm to cater for winter clothing for the wheelchair measurement.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Remove the seat cushion.</li> <li>▶ Measure the distance between the outer edges of the seat cover at the rear of the wheelchair.</li> </ul> <p>Ultra-Light / Compact: For the seat width add 0,5 cm to the measured distance.</p>
<p><b>Seat depth (ST)</b></p> <p>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.</p>	<ul style="list-style-type: none"> <li>▶ Let the person sit on a flat surface.</li> <li>▶ Measure the distance from the rear most point of the buttocks/lower back to the hollow at the back of the knee.</li> <li>▶ Subtract approximately 4 cm (depending on user's physique and the legrest angle) to give the wheelchair measurement.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Remove the seat cushion.</li> <li>▶ Measure the distance from the front edge of the backrest tube (without upholstery) to the front edge of the seat cover.</li> </ul>
<p><b>Leg length (UL)</b></p> <p>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.</p>	<ul style="list-style-type: none"> <li>▶ Let the person sit on a flat surface.</li> <li>▶ Measure the distance from the heel of the shoe to the hollow at the back of the knee.</li> <li>▶ Subtract any cushion thickness to give the wheelchair measurement.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Remove the seat cushion.</li> <li>▶ Measure the distance from the back edge of the footplate to the front edge of the seat cover (without sagging of cover).</li> </ul>
<p><b>Front seat height (SHv)</b></p> <p>A correct seat height measurement will ensure the optimum driving efficiency and can give more clearance to fit underneath tables.</p>	<ul style="list-style-type: none"> <li>▶ Let the person sit on a flat surface.</li> <li>▶ Measure the vertical distance from the ground to the hollow at the back of the knee.</li> <li>▶ This measurement should not be less than the leg length (UL) + 4 cm to allow sufficient footplate clearance above the ground.</li> <li>▶ Subtract any cushion thickness to give the front seat height (SHv) wheelchair measurement.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Remove the seat cushion.</li> <li>▶ Measure the vertical distance from the floor to the top of the front edge of the seat cover (without sagging of cover).</li> </ul>
<p><b>Rear seat height (SHh)</b></p>	<ul style="list-style-type: none"> <li>▶ Rear seat height is determined by the front seat height, the seat angle and the seat depth.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Remove the seat cushion.</li> <li>▶ Measure the vertical distance from the floor to the top of the rear edge of the seat cover (without sagging of cover).</li> </ul>
<p><b>Backrest height (RH)</b></p> <p>The backrest height is dependent on the user's degree of disability. A correct backrest height should maintain a good posture whilst allowing the permitted freedom of movement.</p>	<ul style="list-style-type: none"> <li>▶ Let the person sit on a flat surface.</li> <li>▶ Measure the vertical distance from the seat platform to the scapulas.</li> <li>▶ If more trunk support is required, measure from the seat platform up to the required level of support.</li> <li>▶ If less trunk support is required reduce the backrest height in order to improve activity.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Remove the seat cushion.</li> <li>▶ Remove back cover.</li> <li>▶ Measure the distance from the top of the seat frame to the top of the backrest straps.</li> </ul>

\* To be done by a specially trained person