

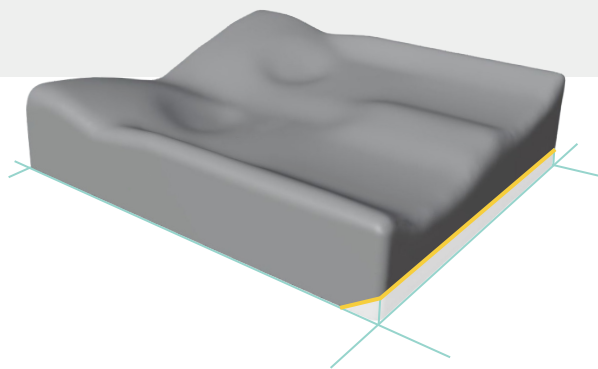
CUSHION MODIFICATION and ACCESSORY OPTIONS ●●●●

The following is an at-a-glance reference to the cushion shape modifications and accessories available through Matrix Seating Systems, to help understand changes being made and their purpose.

Please reference the CUSHION MODIFICATION DECISION TREE to help determine whether one or more cushion modifications or accessories may be needed.

UNDERCUTTING (FRONT UNDERCUT)

Undercutting removes material from the front underside of the cushion to create space beneath the distal thighs. It reduces pressure at the front edge, improves circulation, prevents the cushion from pushing the pelvis backward, allows better foot placement for foot propellers, and accommodates limited knee extension or contractures.



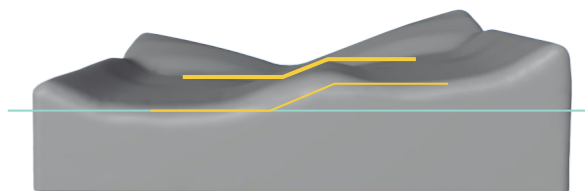
PRESSURE RELIEF ZONE (aka SOFT SPOT)

A pressure relief zone is a strategically targeted area within a seating system that provides increased immersion, softer support, or reduced loading to protect vulnerable regions. It redistributes pressure away from high-risk bony prominences to reduce discomfort, improve blood flow, and help prevent skin breakdown or pressure injury. Common areas include the ischial tuberosities, sacrum, coccyx, and trochanters.



PELVIC OBLIQUITY BUILD UP (CORRECTIVE or ACCOMMODATIVE)

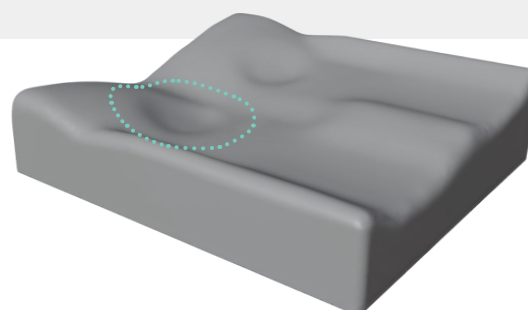
A pelvic obliquity build-up is a customized adjustment added to one side of a cushion to correct or accommodate uneven pelvic height. It helps level a reducible obliquity or safely support a non-reducible one to improve alignment, comfort, and pressure distribution.



DIGITAL OFFLOAD

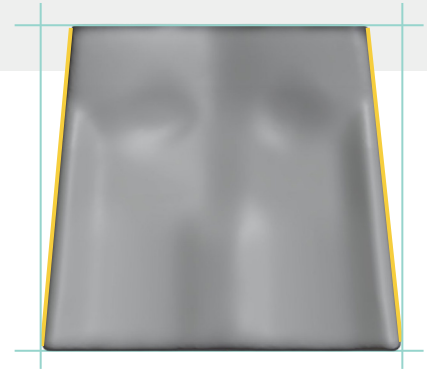
A digital offload is a precisely designed area of offloading created within a 3D printed or digitally modeled cushion to reduce pressure over sensitive or high-risk anatomical regions.

Material is eliminated from the cushion for offloading as opposed to solely using a softer density/firmness for pressure relief.



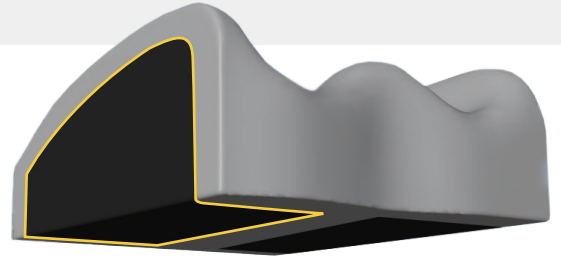
TAPERED CUSHION

A tapered cushion is designed so the front or rear of the cushion narrows to better fit the wheelchair frame and match the client's individual body dimensions.



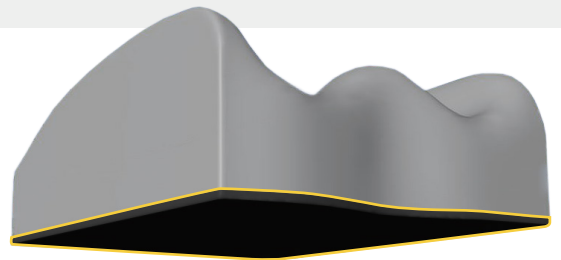
LATERAL THIGH REINFORCEMENT

Lateral thigh support reinforcement adds ABS to the outer edges of the cushion, increasing the rigidity of the lateral adductors and enhancing overall postural stability.



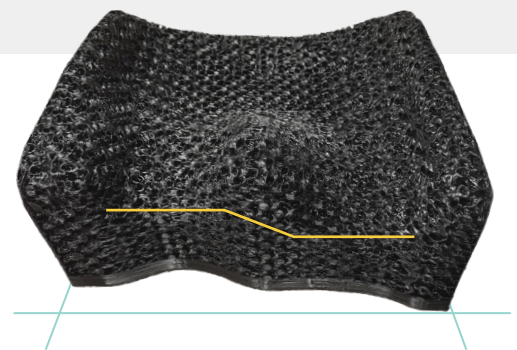
INTEGRATED RIGIDIZER

This component can help maintain cushion shape, improve stability, and reduce seat-sling hammocking. The integrated rigidizer is an ABS layer added to the bottom surface of a foam cushion or an internal reinforcement integrated within the base of an AIREZ cushion.



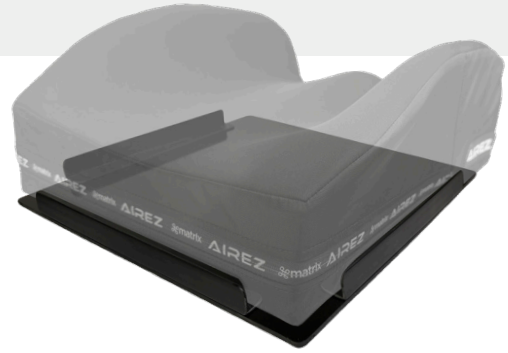
ONE-SIDE LEG LENGTH ADDITION

A one-side leg length addition is a custom cushion modification that adds material to one femoral side of the cushion to accommodate a true or functional leg length discrepancy. This adjustment ensures that each thigh receives appropriate support based on its individual length, helping maintain pelvic alignment, improve weight distribution, and enhance sitting stability and postural alignment.



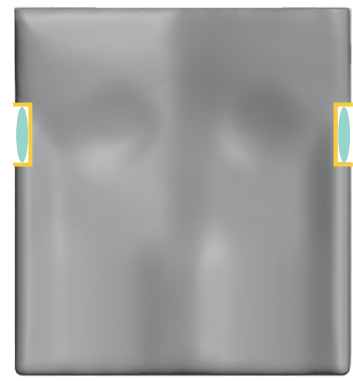
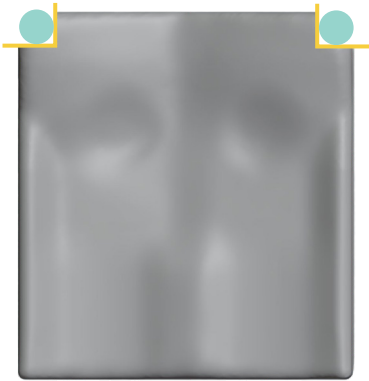
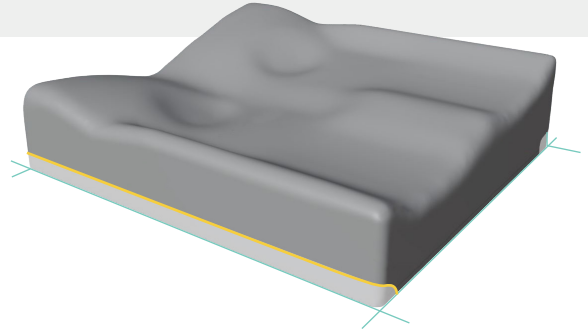
SEAT POSITIONING TRAY

The seat positioning tray is an ABS rigid base that mimics the cushion's underside and velcros securely onto the seat pan. Side and rear tabs guide the cushion back into proper alignment after removal, ensuring consistent positioning relative to the back support. The rigid base also helps prevent seat-sling hammocking, maintaining a stable and supportive seating surface.



NOTCHING THE CUSHION

A modification in which small cutouts or recessed areas are created in the cushion to accommodate wheelchair components including back canes, rails, and seat belts. These can allow the cushion to sit fully and securely on the seat pan without interference, preventing displacement and ensuring proper alignment with the back support and other wheelchair parts.



CUSTOM FOOT BOX

A custom seat box may be used when a client requires greater structural support, stability, and containment than a standard wheelchair seat frame can provide.

It creates a solid foundation for the custom seating system while accommodating significant postural asymmetries, fixed deformities, and complex positioning needs. Pressure relief zones can also be incorporated to offload vulnerable areas or existing pressure injuries, such as heel wounds.

- Cushion with continuous foot box pictured
- Separate custom foot boxes are also available
- May be elastomer or nylon material depending on needs for client and mounting needs/restrictions



Cushion Modifications and Accessories At-A-Glance V3 (1026)