



ROWHEELS REV SERIES FREQUENTLY ASKED QUESTIONS

HOW DO ROWHEELS WORK?

Rowheels (REV-LX and REV-HX) are manual wheelchair wheels that are geared at the center such that you pull or row to propel forward. Pulling on on the handrims moves the wheelchair forward and pushing on the handrims moves the wheelchair backwards. Turning is similar to standard propulsion; to turn right you *pull* on the left handrim and to turn left you *pull* on the the right hand rim

DO ROWHEELS REV WHEELS WORK WITH MY WHEELCHAIR?

Currently, REV wheels are compatible with most models of manual wheelchairs from Quickie, TiLite, Invacare/Top End, Colours, Per4Max (everyday), Kuschall, Motion Composites and Ki Mobility. If you have a chair from a different manufacturer, read through the [COMPATIBILITY CHECK](#) section of the website for more info. We have had some difficulties with frames that have welded side guards or suspension systems.

WHAT WHEEL SIZES ARE THE ROWHEELS REV WHEELS AVAILABLE IN?

REV wheels will be available in the four most common sizes which are 26" (590 mm), 25" (559 mm), 24" (540 mm) and 22" (501 mm).

WILL REV WHEELS ADD WIDTH TO MY CHAIR?

Currently, REV wheels will add less than an inch of width to your chair (approximately 5/16" per wheel and 5/8" TOTAL width to your chair)

HOW MUCH WEIGHT WILL ROWHEELS REV WHEELS ADD TO MY CHAIR?

Each Rowheel® REV-HX/LX wheel will add about 2.5 pounds of weight relative to a standard 32 steel spoke wheel but you probably wont notice the difference. Remember that your own weight can fluctuate by a few pounds from one week to the next and studies have shown that adding one or two pounds of wheel weight has no effect on the effort required to propel your chair. Since using Rowheels allows you to use your stronger back muscles while minimizing or eliminating the factors that lead to shoulder injury and pain, the benefits far outweigh any minor issues associated with their added weight. Using high pressure rated tires and making sure they are properly inflated is of much greater importance to reducing propulsion effort/rolling resistance.

CAN I CAMBER ROWHEELS' REV WHEELS?

Yes. Currently Rowheels can be cambered up to 6 degrees but we recommend that users not go beyond 2° to 3° of camber in order to avoid rubbing with their chair frame or side guard.

WHO CAN USE ROWHEELS?

The rule of thumb for determining whether a user can maneuver a Rowheels-equipped wheelchair is as follows:

- If you can go backwards on a standard manual chair, you are a likely candidate for using Rowheels.
- If have limited trunk control, proper set-up of your chair will be required. This will include moving your hips slightly forward for stability and making sure you are sitting comfortably in your chair and can touch the center of your wheels with your fingers



With regards to the medical conditions and diagnoses that can benefit from using Rowheels, in general we can say that manual wheelchair users with Multiple sclerosis, Muscular Dystrophy, Cerebral Palsy, Polio, ALS, CVA/hemiplegia/TBI, paraplegia, and tetraplegia are amongst the type of users that could benefit from using Rowheels.

DO REV WHEELS COME IN DIFFERENT COLORS?

Currently REV wheels are available with white, black and red hubs but we also offer custom hydrographics design options.

CAN I PERFORM A CURB JUMP WITH ROWHEELS?

Rowheels' functionality is similar to that of push wheels in that once a user adapts to the rowing/pulling propulsion method, he/she should be able to perform the same maneuvers possible with push propulsion. With sufficient practice, advanced skills such as curb jumping can be performed using the REV-HX wheels. Curb Jumps should be attempted with anti-tippers at all times, in the presence of a spotter and only after sufficient practice. [Watch our demonstrative video.](#)

ARE ROWHEELS' REV-LX AND REV-HX WHEELS QUICK RELEASE?

Yes, REV wheels use a push-button quick release mechanism and can be easily taken off and on your chair.

CAN I STILL USE STANDARD PUSH WHEELS ON MY WHEELCHAIR IF I AM USING ROWHEELS?

Yes. Rowheels quick release axle does not require any modification to your chairs camber tube/axle receiver.

ARE ROWHEELS COVERED BY INSURANCE AND THE VA?

YES! Both Rowheels' REV-HX & REV-LX wheels are covered by insurance, including Medicare, the VA, and private insurance through HCPCS billing code E2227. Reimbursement documents can be filled out by either a your doctor/ medical staff or Physical Therapist . Insurance companies make their own determination on coverage or reimbursement based on individual consideration. If you suffer from shoulder pain or are beginning to exhibit signs of shoulder injury, talk with your doctor or therapist to see if Rowheels are right for you.

WHAT ARE THE DIFFERENCE BETWEEN ROWHEELS' REV-LX AND REV-HX WHEELS?

- Similar to pulling on a lever, REV-LX wheels are geared down (low gear) to provide users with a mechanical advantage that translates into a 25% reduction in the effort/force required to propel when compared to standard push wheels.
- REV-HX wheels are the fastest manual wheelchair wheels on the market! Using a high gear version of Rowheels patented geared hub, REV-HX wheels turn 30% faster than the handrim. This results in a responsive and quick set of wheels.
- The LX's low gear design and exceptional ergonomics make wheelchair mobility easier and healthier than ever before. Going up inclines, through carpet or uneven terrain requires less effort using REV-LX wheels. If you have reduced upper body strength or mobility, the REV-LX can keep you mobile and active without needing to rely on powered alternatives.
- If you are an athlete looking to train and exercise and/or a wheelchair user with good upper body



strength looking to relieve shoulder pain, improved posture, gain stamina or improve upper body strength, the REV-HX is the answer. With HX wheels you can achieve this without worrying about compromising or damaging your shoulders like you would using standard push wheels.

	REV-LX	REV-HX
GEAR RATIO	0.75:1.0	1.31:1.0
SPEED/ACCELERATION	LESS	MORE
RESPONSIVENESS	LESS	MORE
GOING UP AN INCLINE	LESS EFFORT	MORE EFFORT
GOING OVER CARPET/ROUGH TERRAIN	LESS EFFORT	MORE EFFORT
IDEAL FOR ACTIVE USERS WITH GOOD STRENGTH		√
IDEAL FOR USERS WITH LIMITED STRENGTH	√	
ADDED WEIGHT PER WHEEL	3 POUNDS	2.5 POUNDS
ADDED WIDTH PER WHEEL	0.31 INCHES	0.31 INCHES
QUICK-RELEASE	YES	YES
AVAILABLE WHEEL SIZES	22", 24", 25", 26"	22", 24", 25", 26"
MAX RECOMMENDED CAMBER	3 DEGREES	3 DEGREES

I HAVE BEEN PUSHING MY CHAIR FOR MANY YEARS, IS IT DIFFICULT TO SWITCH TO PULLING/ROW WHEELING FULL TIME?

If you are currently a wheelchair pusher, when you first start using the Rowheels it'll take a good 15 to 30 minutes in an open space to begin getting comfortable with the modality change from pushing to pulling. From what we have seen, those who have been pushers for multiple decades take about 2 to 3 days to become completely proficient using Rowheels and that transition period become shorter and shorter the less time you have been pushing a chair. If you are a new wheelchair user, there is little to no adjustment.

WHAT ARE THE ADVANTAGES AND HEALTH BENEFITS TO USING ROWHEELS?

Rowheels are the only manual wheelchair wheels that can potentially eliminate the risk of propulsion related shoulder injury and pain. Rowheeling/pull propulsion strengthens your upper back and shoulder muscles, stabilizing the shoulder joint. That means your posture will prove and you'll be able to use your manual wheelchair without worrying about damaging your shoulders, allowing you to stay physically active. Because using rowheels does not require the use of the muscles you typically use for pushing, those muscles can rest and be put to better use in your activities of daily living.

CAN I SWITCH BETWEEN PULLING AND PUSHING ROWHEELS' REV-LX AND REV-HX WHEELS?

Yes. We designed our wheels to allow for the tire sidewalls to be available to push off of. To enhance this option, both our standard and upgrade Schwalbe™ tires use 2grip™ sidewall technology. The ability to pull and push seamlessly between handrim and wheel makes going up inclines easier. You cannot disengage the geared hub system or switch it to pushing. [Click here for more info on the pull-push technique.](#)



HOW CAN I TELL THE DIFFERENCE BETWEEN A REV-LX AND REV-HX WHEEL SET?

The way to tell between a REV-LX and a REV-HX wheel is that the REV-LX wheels have a silver wheel hub and the REV-HX wheels have a black wheel hub. From the front you can see the outer ends of the silver hub of the LX peak out under the spoke/finger guard.



REV-HX



REV-LX