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Home
Member Directory
Ask A Question
What's New
Articles
Conference
Seating
Mobility
Specialized Equipment
Assistive Technology
Clinical
Funding
Business/Practice
Other
Rehab News
Web Links
Calendar of Events
Network Member Login
Contact Us
Membership Requirements

## MEDTRADE 2006 ARTICLE 17

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# MEDTRADE 2006: The 27<sup>th</sup> Year Part 17

## MAGICWHEELS 866-624-4294

I saw this product when it was in its prototype phase. I had tried other, similar products to make wheelchair manual propulsion easier on level ground, but this one is different, it is mostly aimed at users who must go up and down ramps and hills. It does not have batteries or motors. Instead it uses a special gear mechanism they call *hypocycloidal reduction drive*, which reminds me of how a 10 speed bike functions. The 2:1 gear is sort of like low gear on the bike with the rider exerting half as much effort to move up the same grade. In addition this mechanism has an automatic hill holding function that offers downhill braking control. On the up and down grade if the user lets go of the wheels the chair automatically holds its position, quite a bonus.

The wheels weigh about 10 lbs and fit on most wheelchairs without increasing the overall wheelchair width (when a standard handrim is used). They are quick release but can be ordered with a bolt on axle. A 4 speed dual handrim system is also available. The rims can be equipped with quad extensions. Natural-Fit handrims are available.

The rider can use their palm to shift the chair from 1:1 ratio to 2:1 when approaching a hill or ramp. I drove this chair on level ground and did not find an obvious "assist" feel like I did when I first tried the Johnson and Johnson system several years ago, or the e-Motion or Quickie Xtender. The e-motion system offers power assist to the user and it is totally programmable. It adds 53 lbs to the weight of the chair and makes the chair about 2.5" wider. Xtender

has a choice of programming and with the new axles it does not add width to the chair, but does add 37 lbs.

The important thing, when considering this type of system, is to really know your user and what they want and need from this type of system. If they need a great deal of assist with pushing on level ground you might want to try one of the battery operated systems, remembering that if the battery dies they have to push all that extra weight with no assist. The MagicWheels only add 10 lbs to the chair.



**MagicWheels**

## **MULHOLLAND 800-543-469**

### **GAIT MASTER**

This walker features a gas spring system to lift the user to a standing position. The system has been designed for independent use, with all the parts approachable by hand with the user in place. Once standing the system can be locked off to hold the person upright, or left unlocked so that the upper frame moves up/down with the gate cycle. The rear caster brake levers, release on the flip-down rear pad, and the release on the thoracic supports are all reachable by the user.

The unit has a narrow base and bumper wheels to protect walls and furniture when used in smaller spaces. The standard unit comes with thoracic support, sternum pad, seat with flip-down

lumbar pad, rear caster swivel locks, rear parking brakes, bumper wheels.

<b>SPECIFICATIONS</b>	<b>GM I CHILD</b>	<b>GM ii ADULT</b>
<b>Max user wt</b>	160 lbs	220 lbs
<b>Seat ht range</b>	19"-30"	24"-37"
<b>Sternum support range</b>	7.5"-21"	35"-60"
<b>Unit weight</b>	32 lbs	45 lbs
<b>Overall length</b>	29.3"	33.7"
<b>Overall width</b>	24.3"	28" or 31.9" (adjustable)
<b>Turning radius</b>	37"	42.5"



The legs swing in as part of the folding process



The user transfers onto the straddle seat. Once seated the user or caregiver flips up the flip-down rear pad. The user can then activate the lever to bring the system and the user to standing.

### **WALKABOUT**

The Walkabout has been available for many years. It is an excellent weight relieving walker which offers users maximum support. I have used it in the past and often found it a challenge to adjust. The unit has been revised to have a single tracked support column that allows for easier adjustability by the caregiver or therapist fitting it to the child.



The center column accepts a posterior head support, torso panel, adjustable torso and hip support and seat. The new anterior/lateral support provides a more rigid support for very low tone users. These new supports adjust in width, depth and angle.

## **PDG PRODUCT DESIGN GROUP, INC.** **888-858-4422**

### **FUZE**

This new wheelchair series, which will be coming out in January, has a modular lightweight aluminum lower frame, allowing it to be configured as a T50 or T20 depending on the user's needs. The sleek open frame hardly even looks like a tilt in space frame, reflecting the use of designers from other industries to create this wheelchair.

The **T50** model offers 50 degrees of tilt with zero center of gravity shift. The actual pivot point is at the client's center of gravity. The effect is effortless tilt, the seated person is almost floating through the tilt range. Even when the chair is empty it tilts with ease. The rear wheel position moves separately from the seat position. The chair width is adjustable from 15"-20". Rear wheels are available in 12", 16", 20, 22" and 24". The adjustable caster housing allows for adjustments in wheel position for self propulsion as well as for seat height (13"-20). The armrest is a single post T style with a lever release.

The **T20** model tilts 20 degrees. The tilt pivot is at the front of the seat, near the knee. This type of tilt allows the front seat/floor

height to remain constant. This allows the users to use foot propulsion while in the slightly tilted position. When the chair is in tilt and the trigger is released the chair slowly releases back to the neutral position. It is important to note that when this chair is configured with a 13" seat/floor height and a large rear wheel, the frame will be slightly wider to allow the seat to dip down into the base frame.



**The Fuze T50 has an open frame look with sleek side frames, and really cool colors.**



The Fuze T20 has only 20 degrees of tilt and the pivot point is at the front of the seat.



The single post height adjustable arm has a lever release.

