KineAssist®

Enabling Advanced Recovery

KineAssist® – Mobility eXtreme (MX)

For the last decade, researchers and engineers from the Rehabilitation Institute of Chicago, Northwestern University and HDT have worked together to bring clinicians a novel therapy system for gait and balance recovery. This system, called the KineAssist – Mobility eXtreme (MX) provides clinicians with evidence based tools and treatment guidelines to get patients back in the community confidently and doing more than they did before (Brown et al.). The research supporting the system has been presented both nationally and internationally at several conferences in recent years.*

The KineAssist-MX Walking & Balance system offers unique benefits to patients and their care providers.

KEY FEATURES

- Ability to safely challenge patients in real life environments, such as over ground walking, step climbing, standing balance and dynamic balance therapy
- Efficient use of clinician's time
- Protect patients from the consequences of losing their balance which builds confidence in their abilities while they increase strength and stamina
- Easily adapts to the environment and integrates with a wide range of existing practice settings
- Provides objective, standardized outcomes data
- Treadmill surface moves in direct response to the user's intention
- Scientifically-tested challenge-based training protocols
- Rapid fall recovery for resumption of training
- Documentation of progression
- Combined intervention protocols incorporated in a single session
- Body-weight support at the hip allowing for natural gait
- Novel force-field environments
- Provides ability to impose perturbations

Intertek

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HDT GLOBAL

KINEASSIST – MOBILITY EXTREME (MX) SPECIFICATIONS

ORDERING INFORMATION		
HDT Part Number	HDT-R000454	
PERFORMANCE SPECIFICATIONS		
Maximum patient weight	350 lbs	158.8 kg
Continuous body weight support	≤175 lbs	≤79.4 kg
Hip range of motion		
Vertical from treadmill surface	18.5" – 58.5"	46.99 – 148.59 cm
Lateral	±4"	± 10.16 cm
Pelvic width*	11.5" – 22.4"	29.2 – 56.9 cm
Maximum treadmill speed	Up to 6.7mph	3m/s
COMMUNICATION BUS	CAT5 Ethernet Port, open or site to site VPN (with required security), wireless optional	
POWER REQUIREMENTS	115 VAC, 15A, 50/60 Hz or 230 VAC, 15A, 50/60 Hz	
PHYSICAL CHARACTERISTICS		
L x W x H	92" x 48" x 86"	233.7 x 121.9 x 218.4 cm
With lift chair installed (either right or left side)	92" x 67" x 86"	233.7 x 170.18 x 218.4 cm
Space requirements	128" x 96" x 96"	325 x 244 x 244 cm
Weight	1289 lbs	584.7 kg
With lift chair	1439 lbs	652.7 kg

** Narrower width with optional extra small harness*

PUBLICATIONS

Capo-Lugo C, Mullens, C, Brown DA: Maximum walking speeds obtained using treadmill and overground robot system in persons with post-stroke hemiplegia. *J. Neuroeng Rehabil.* 2012 Oct 11;9:80. doi: 10.1186/1743-0003-9-80.

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Hidler, J and Brown, DA: Robotic Devices for Overground Gait and Balance Training in *Neurorehabilitation Technology* by Dietz, Volker; Nef, Tobias; Rymer, William Zev (Eds.), Springer, 2012.

Breger, J, Collins N, Deshpande A, Johnston L, LeJeune J, Palit P, Potter K, Hedman L, Brown DA: Validity of the K-9 & BESTest balance measures in community-dwelling stroke survivors. 2012 Combined Sections Meeting of the APTA, Chicago, IL

Capo-Lugo CE, Mullens C, Brown DA: Maximum walking speeds obtained using treadmill and overground robotic system in persons with post-stroke hemiplegia. 2012 Combined Sections Meeting of the APTA, Chicago, IL

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Foster LW, Goodlow K, Brown DA, Lewis E, Roth E, McKenna V, Alexander A, Berkowitz M: Gait and balance training in stroke subjects utilizing the KineAssist®. 2011 Combined Sections Meeting of the APTA, New Orleans, LA.

Burgess JK, , Brown DA: Variations in loading type cause timing changes in paretic leg extensor muscles during pedaling. 2010 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2010. Online.

Bartloff J, Bitting J, Lueke A, Sbertoli C, Sofen L, Walsh J, Johnston C, Hilliard MJ, Brown DA: After effects of slow isokinetic walk speed training on self-selected gait velocity in person with chronic post-stroke hemiparesis. 2010 Combined Sections Meeting of the APTA, San Diego, CA.

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