

Medical Industry

Application Profile



UtiliTrak® delivers stability and smooth operation

Custom five-wheel carriage increases load capacity needed for “easy-to-guide” vertical motion

Challenge

MPE, Inc., a Milwaukee, WI based contract manufacturer of custom, high-value carts, consoles, tables and assemblies for medical and electronic OEM's, required a vertically mounted linear guide system to easily raise and lower a support shelf on a cart designed for a portable ultrasound device. It needed to be cost efficient and provide smooth operation and stability when the cart was in the fully-raised position.

Application Description

The adjustable top shelf of the cart supports a 45 lb. ultrasound device. The cart uses a pair of gas springs as the actuators, which are connected to the top shelf casting to counterbalance the weight of the ultrasound device. When the device is on the shelf, its weight is neutralized, allowing the top to be easily raised and lowered.

Solution

A custom 5-wheel carriage and a hardened steel raceway UtiliTrak mounted to each side of the cart was chosen to provide guidance and extra stability for this application. The custom carriage features five inline 52100 carbon steel DualVee® guide wheels, offset from each other, providing a longer bearing contact surface and an increased load capacity. Achieving precise parallelism to eliminate binding of two mounting surfaces can be difficult and expensive. UtiliTrak solves that problem by compensating for slightly out of parallel mounting surfaces and still provides smooth travel. According to MPE's Vice President, Dave Barta, the bearings and longer carriage minimized friction and binding and provided a smooth vertical operation.

Products Used

- UtiliTrak SW Series
 - Custom 5-wheel carriage
 - Carbon steel raceway

Contact us to discuss your specific linear motion needs: 888.580.8272
– or visit us online at www.bwc.com

(Catalogs may be downloaded directly from www.bwc.com)