



MEDICAL - MATERIAL HANDLING

VASCULAR GRAFTING MATERIAL

Smooth-running actuated solution for vascular grafting.



SMOOTH MOTION



PRECISION



LOW NOISE

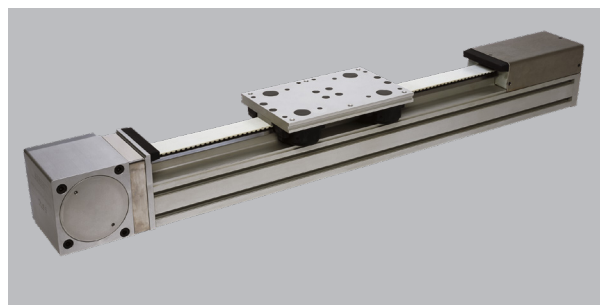


ACTUATED SOLUTION

An actuator guides a tape carrier parallel to a rotating mandrel. The tape is wound onto the mandrel which ultimately produces a tube of material. The whole mandrel is then baked in an oven and the resultant tube is released from the mandrel.

SOLUTION

Build a system that could accurately control the winding of vascular grafting material within precise limits at a slow speed. Proper winding is critical to ensure the material functions correctly following surgery.



DLS Belt Driven Linear Actuator

CHALLENGE SOLVED

A combination of HepcoMotion® DLS actuator, GV3 linear guide, and MCS machine frame was used to meet the demanding functions of this application. A 1.5 meter long DLS (Driven Linear System) guides the tape carrier, using precision ground slides and double row bearings to achieve smooth, consistent motion. The GV3 slide performed an adjustment motion for each mandrel length and ensures process uniformity. The entire machine structure was built with the MCS aluminum frame system for ease of assembly.