

## Rheo™ Knee

The Rheo™ microprocessor knee is truly unique in its design. It utilizes a magnetorheo©logic fluid actuator; which in principle means it uses a magnetically influenced fluid within the knee to vary resistance within the knee.

The knee axis cylinder contains a special magnetic hydraulic fluid which is influenced by the microprocessor. Based upon movements of the wearer and stresses and reactions from the ground conditions, the microprocessor determines what level of knee control is required; the system then influences the magnetic resistance of the fluid which in turn influences resistance and stability of the knee.



Response is exceptionally smooth and fast and MR resistance is activated only when the individual needs it most, allowing more natural and effortless motion.

## Key Benefits and Features Unique to the Rheo™

### Adapts to Individual's Walking Pattern

The onboard microprocessor uses an integrated learning matrix to constantly monitor the person's walking patterns. As the individual's life style changes to become more or less active, the internal microprocessor will adapt and ensure the knee is operating at maximum efficiency.

### Natural and Efficient Motion

The magnetic hydraulics allow for a very smooth and natural gait due to the fluid action of the knee. For walking long distances or at higher walking speeds, the Rheo™ knee will provide effortless motion which will reduce energy consumption and provide for a more natural and enjoyable walking experience.

### Versatile and Adaptable

The Rheo™ knee is adaptable to any style or model of prosthetic foot allowing the wearer to enjoy the functions and features of prosthetic feet that may have been used on previous prosthetic devices.

### Proximal Weight Distribution

Although the Rheo™ is the heaviest of all the microprocessor knee designs, it is important to note that the majority of the weight is from the magnetic fluid which is distributed in the knee axis at the top of the knee. With the majority of the weight being located close to the knee center and close to the residual limb, combined with the smooth natural action of the Rheo™ knee, there is little negative effect from weight of the Rheo™ compared to other microprocessor knees.