Features

- True independent adjustment of ankle angle, dorsiflexion and plantarflexion resistance
- High torque springs and simplified adjustment for improved clinical outcomes
- Facilitates effective orthotic management of biomechanical deficits associated with neurological disorders
- Made of 17-4PH stainless steel for superior durability and reliability

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<th>Features</th>
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<td>Ankle Alignment</td>
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| 1st Rocker Spring (Plantarflexion Resist) | Standard Torque Spring:  
  - 0-20 in-lb (2.2 Nm) Preload Torque Adjustment Range  
  - 0-16° Active ROM Maximum  
  High Torque Spring:  
  - 0-35 in-lb (3.9 Nm) Preload Torque Adjustment Range  
  - 0-10° Active ROM Maximum  
  Maximum Torque at Limit Stop  
  1,000 in-lb (113 Nm) |
| 2nd Rocker Spring (Dorsiflexion Resist) | 0-20 in-lb (2.2 Nm) Fixed Torque Range  
  0-16° Active ROM |
| 3rd Rocker Spring (Dorsiflexion Resist) | 0-60 in-lb (6.7 Nm) Preload Torque Adjustment Range  
  0-7° Active ROM Maximum  
  Maximum Torque at Limit Stop  
  1,000 in-lb (113 Nm) |

Patent Pending

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Theory of Operation: Gait Rockers & Triple Action™ Adjustment

The Triple Action™ Stance/Swing Control ankle joint provides adjustment features that largely correspond to the phases of the gait cycle. Adjustment features are purely independent, simplifying orthotic tuning and optimization.

1st Rocker Resistance Setting
The plantarflexion resist function may be precisely tuned for 1st rocker to control knee flexion and resist foot slap in early stance.

2nd Rocker Resistance Setting
The 2nd rocker spring acts to slow progression of the tibia through 2nd rocker, thereby stabilizing the knee in mid stance. The maximum range of 2nd rocker is determined by the RS3 setting.

3rd Rocker Resistance Setting
The dorsiflexion resist function is adjusted to set the angle at which the assertive 3rd rocker spring is recruited in late stance. The function acts to resist knee flexion through active resistance to dorsiflexion.

Alignment Setting
The alignment setting adjusts the ankle angle for foot clearance during swing and heel strike, while RS1 resists plantarflexion to maintain alignment.

The standard 1st rocker spring in the plantarflexion resistance channel (RS1) is adjustable over a 16° active range. A high torque spring is also included for larger patients, or those with high neuromuscular tone. A motion limiting pin inside the 1st rocker spring facilitates locking of the component at high torque settings.

The fixed 2nd rocker spring (RS2) slows the progression of the tibia over the foot in mid stance.

The recruitment angle of the 3rd rocker spring (RS3) is adjustable between 0° to 7° of dorsiflexion. The 3rd rocker spring is a high torque spring that provides assertive resistance to dorsiflexion in mid to late stance to stabilize the knee.

The ankle alignment feature (AS) pivots the component body to independently adjust the sagittal ankle angle, or null torque position of the stirrup. Ankle alignment is adjustable over a ±10° range centered about the angle of fabrication.