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Caplex® PRO-003

The PRO-003 is a two degree-of-freedom tethered prosthetic foot. Building off of Humotech's single degree-of-freedom designs, this device features an additional degree of freedom to enable actuation of not only plantarflexion and dorsiflexion, but also inversion and eversion. PRO-003 is suitable for prosthetic foot users, either people with amputation or people without amputation using a simulator boot.

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PROPERTY

SPECIFICATION

Active Degree of Freedom

Two forefoot digits each actuated by cable

Force Sensors

2x Inline load cells for forefoot torque applied, accurate within +/- 1%

Angle Sensors

2x optical encoders for forefoot digit angles, 4096 CPR (16384 PPR)

Range of Motion (Sagittal Plane)

Plantarflexion: 30 degrees
Dorsiflexion: 30 degrees

Range of Motion (Coronal Plane)

Inversion/Eversion: greater than +/-39.3 degrees

Maximum Torque (Coronal Plane - Inversion/
Eversion)

+/- 42 Nm

Device Weight (without Tether)

Worn Weight at size 28 foot length 1260 grams (each brass weight adds 100grams)

Device Dimensions

Length L10.57 in (269 mm)
Width 4.58 in (116 mm)
Total Height 7.56 in (192 mm)
Build Height 4.41 in (112mm)

Passive degree of freedom
Vertical stiffness

Heel is a compliant fiberglass bar Heel 1 - 40 N/mm
Heel 2 - 48 N/mm
Heel 3 - 110 N/mm

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Technical Specifications

PROPERTY

SPECIFICATION

Forefoot specs
Maximum torque & axial
length
(Plantarflexion)

Forefoot A - 176.1 Nm 150.8 mm from axis
Forefoot B - 161.3 Nm 138.1 mm from axis
Forefoot C - 146.4 Nm 125.4 mm from axis
Forefoot D - 131.6 Nm 112.7 mm from axis

Passive Degree of Freedom

Heel is a compliant Fiberglass bar
Coming soon. See PRO-002 specs for comparable
stiffnesses.

Usage Limits

Body Weight at Walking Speed 119.3 kg (263 lbs)
1.25 m/s (3.3 mph)

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Technical Specifications Continued



