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Style and vigour inspired by passion.

Example

ELAN 25L 5 *For dark tone add suffix D

Size side — Spring set

Foot example: élan, size 25 left, spring rating 5

Max. user weight:	125kg
Activity level:	3
Size range:	25cm-30cm
Component weight:	1.2kg
Build height:	170mm sizes 25-26 175mm sizes 27-30
Heel height:	10mm
Clinician's manual:	938317

[1]Component weight shown is for a size 26cm without footshell

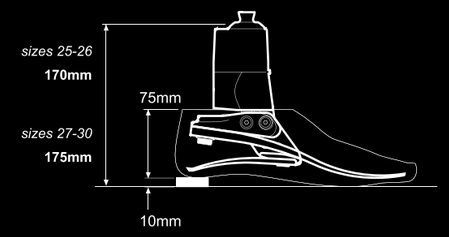
Selection

Activity	User Weight								
	44-52	53-59	60-68	69-77	78-88	89-100	101-116	117-125	kg
	100-115	116-130	131-150	151-170	171-195	196-220	221-255	256-275	lbs
3	1	2	3	4	5	6	7	8	Spring set

Users at Level 2 and 4 activity who would benefit from this foot will require softer or stiffer springs as appropriate for the individual.

Spring set recommendations are for trans-tibial users. For trans-femoral we suggest selecting a spring set one level lower.

THE QUEEN'S AWARDS FOR ENTERPRISE: INNOVATION 2010



WARRANTY
36 months for élan foot,
12 months for foot shell

CE

The élan is the only microprocessor controlled foot that silently and intelligently senses terrain type and progressively responds using a hydraulic ankle with a truly compliant, high energy e-Carbon foot.

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élan

Using microprocessors to control the degree of ankle movement during stance phase is just the beginning of the story of a truly revolutionary MPC foot. The élan uses the control system in a much more intelligent way!

It responds to terrain by moving the energy response between the powerful hydraulic actuator and the responsive e-Carbon foot springs to create subtle assistive movements to suit different slopes and speeds.

Richard: *"The élan gives you extra assistance up the hills and up the slopes. You don`t have to clamber over the toes, you progress through the foot, through mid-stance and you roll on the toes rather than having to climb up over the forefoot."*

Jean François: *"It is like someone is behind me and just pushing me to assist , pushing in the back to make the ramp less difficult."*

natural response, increased comfort*

The human body has a natural walking speed that is determined by how efficiently the muscle can convert calories and energy into actual movement, it operates to achieve this balance as energy efficiently as possible.

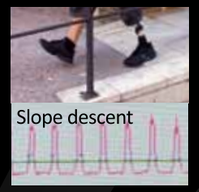
The élan has a programmable speed boost that modifies the foot response for trans-tibial users to actively encourage additional energy return from the e-Carbon springs and a faster roll-over action.

terrain changes

The élan works intuitively because it senses every step and as no two are the same, the élan moves with the changes. On ascending a ramp or stairs heel stiffness increases and the toe moves upwards for energy efficient ascent and should speed or steepness increase the élan will moderate the foot to accommodate the change. Coming down a slope the heel softens and the toe stiffens to safely support and control descent.

In swing-through the dorsiflexed toe position works like a real foot to assist clearance and maintain the joints of the lower back in a sympathetic position.

Richard: *"It is life changing, because once you are used to it, and you know how it adapts, you can do simple things on your prosthetic side that you couldn`t do with a fixed ankle."*



power

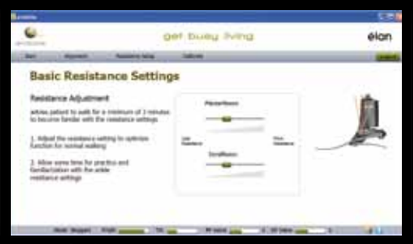
The élan's integral battery requires a daily charge but should this not be possible then the foot default mode operates like the award winning *echelon* foot.

programming

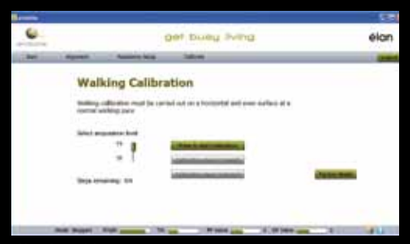
Using Bluetooth connectivity and auto-adaptive learning, the élan's intelligent software calibrates the foot to individual gait characteristics. Sensor feedback means that adjustment of the élan can easily be optimised. A wireless connection allows minute programming adjustments to be made on-screen. The clinician has full control of the set-up parameters and, while the user walks around in their preferred gait style, the élan's vector display graphics make accurate programming even easier.

Activity	élan mode	Resistance	Spring effect
Walking on level ground	Additional dorsiflexion ground clearance in swing phase.	Basic resistance settings	Toe-up for ground clearance, balanced spring response
Walking fast	*Assist* Added momentum in the 'step to step' transition of the gait cycle *(transtibial only)*	Plantarflexion resistance increased, dorsiflexion resistance decreased for ease of rollover	Stiffer heel action, softer toe action, increased energy storage and return
Walking uphill on a moderate to steep incline	*Assist* Enables easier ramp ascent	Progressively changes; increasing plantarflexion resistance and reducing resistance to dorsiflexion	Stiffer heel action, softer toe action, increased energy storage and return
Walking downhill	*Brake* Helps forward momentum and provides greater knee stability and security	Progressively changes; decreasing plantarflexion resistance and increasing resistance to dorsiflexion	Softer heel action, stiffer toe action, decreased energy storage and return
Low battery power	*sleep* Reverts to Basic Resistance settings	Functions like echelon foot but without MPC dynamic control	Toe-up for ground clearance, balanced spring response

Getting started

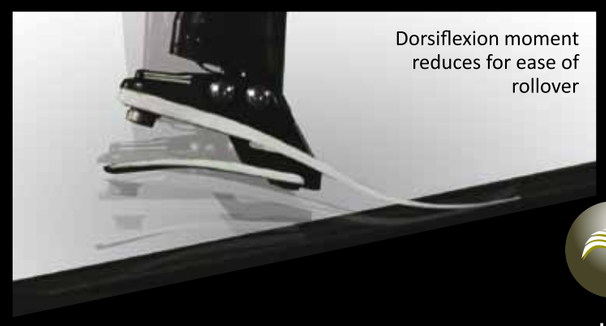


Ease of adjustment



élan's calibration

Ascending ramps the hydraulic stiffens to get maximum lift from the heel



Dorsiflexion moment reduces for ease of rollover

Descending ramps the plantarflexion softens and, with spring compression, enhances stability

In late stance higher dorsiflexion moments support body mass for safe descent

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*Portnoy S, et al. (2011) Outdoor dynamic subject-specific evaluation of internal stresses in the residual limb: Hydraulic energy-stored prosthetic foot compared to conventional energy-stored prosthetic feet. Gait & Posture, Volume 35, Issue 1, Pages 121-125