



# The natural freedom of movement

**Dynamic arm support Darwing**

V.12.09



- User Floor can fix the Darwing in place by means of the position lock. This makes telephone calls a relaxing activity.



- Darwing allows Floor to let her arm hover above the keyboard. She regains control over the mouse and reduces the number of mistakes.

## A revolution in arm support

Darwing, the dynamic arm support, has been developed for people who have only minimal muscle strength in their arms. Darwing offers support when performing countless everyday activities, such as eating, drinking, brushing one's teeth, typing or attending to facial care. Using Darwing is simple. The arm is placed in the forearm splint, without the need for it to be secured in any way. Darwing operates on the basis of compensation of the weight of the arm. This is called 'balancing the arm'. Movement in all directions hardly requires any effort anymore. Darwing returns the natural freedom of movement to the user.

### Assist as needed

Darwing users have some grip function, but only minimal muscle strength in their arms. This may be caused by a muscular disease such as Duchenne or Steinert disease, by a spinal cord injury or by a progressive neurological disorder. In many instances, the existing arm supports do not suffice for demanding users. It is nevertheless desirable to continue using one's own arms for as long as possible. The superior functionality of Darwing now provides a solution. This is not only cost effective, but also beneficial to self-esteem and health. For as long and as much as possible, one's own postural and musculoskeletal system are relied on. Darwing provides the additional strength needed to reach, but not more than that. Darwing fully adheres to the principle of 'assist as needed'.

### Eating

For people with a muscle disorder, eating is one of the most difficult activities. This is because the hand needs to perform a difficult movement from the plate to the mouth. Darwing adapts the degree of weight compensation to the position of the arm. The effect of this is that the user experiences the same amount of force when he lifts the arm to his mouth as when he holds the arm in a lower position. Darwing makes it possible to freely perform extremely delicate arm movements, which enhances the mealtime experience.

### Reaching far

Darwing is capable of making substantial movements backwards and forwards, as well as up and down. Darwing also permits large lateral movements. Furthermore, it features a mechanism to bring the shoulder

forward, thus enabling maximum reach. The range within which movement is possible with Darwing is exceptionally big.

### Compact design

Users of other arm support models are often hindered by the suspension mechanism of the forearm splint. The suspension mechanism impedes reaching across a table, or gets in the way. Darwing has an extremely compact forearm splint that takes up virtually no space and does not interfere with movement. In addition, Darwing has been designed in such a way that it does not occupy extra space on a wheelchair, since that may be inconvenient when passing through a doorway.



• The range within which movement is possible with Darwing is exceptionally big.

• Darwing does not occupy extra space on a wheelchair.

## Technology

Darwing balances the arm in a much more intelligent way than previous generations of arm supports. But that's not all. Darwing is an arm support that allows the user to make adjustments himself with regard to the degree of compensation and all kinds of other settings. To that end, Darwing features a small display with an easy-to-operate joystick or button controls.



*Six technological innovations return a natural freedom of movement to the user:*



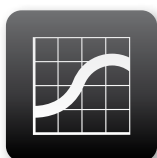
### Double balancing mechanism

The upper arm and the forearm are being supported independently from each other



### Task-specific support

User can adjust the support himself to suit the need of the moment



### Position-dependent weight compensation

The degree of weight compensation depends on the position of the arm



### Activities memory

Settings for recurring activities can be stored in the memory



### Carrying angle stabiliser

Optimal balancing angle in all circumstances, automatically or manually



### Position lock

Any desired position can be locked in place to support certain activities

## Would you like to know more?

Watch the film and read more at [www.darwing.nl](http://www.darwing.nl), send an e-mail message to [info@focalmeditech.nl](mailto:info@focalmeditech.nl) or call Focal Meditech at +31 (0)13 533 31 03





## Solutions for people with complex care needs

Focal Meditech BV is a developer, manufacturer and distributor of contemporary technical aids. Devices that can make life a little better for people with a disability. The product range primarily concerns the field of mechatronics. Focal specialises in dynamic arm supports, eating devices, personal robots, special controls and tailor-made devices. The products meet the highest standards of quality and are the result of a close collaboration between the R&D department and device users.

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