



Natural freedom of movement
through high-end simplicity

Dynamic arm support Dowing²



- Position independent balancing system creates a constant vertical force.



- Large reach and natural freedom of movement due to unlimited rotational extension arms.



- The gravity compensation is continuously adjustable from 0 to 100%.



- Parking possibility of the arm fitting in the lowest position allows to remove the arm safely.

Natural freedom of movement through high-end simplicity

Dowing² is designed for users requiring support of their arm while performing activities.

Dowing² typically supports users who work and stay indoors while sitting in a (working) chair or at a table. The device may be deployed at home, in the workplace or for therapy purposes in clinical and home settings.

All-round arm support

Dowing² is intended for the optimized performance of essential Activities of Daily Living (ADL) including eating, drinking, facial care, computer use and numerous other activities. Dowing² is a valuable contribution on the work spot for persons who are disabled or limited in performing manual labour activities. Further, it may play a valuable role as a therapy device supplying gravity compensation during exercises in clinical settings. The intended use of Dowing² also includes the application as an ergonomic aid for persons who are at risk for Complaints of Arm Neck and-or Shoulder (CANS), overload or strong fatigue due to challenging work conditions.

Dowing²'s user

Dowing² is primarily designed for persons having a need for assistance due to a lack of muscle force. Depending on the specific disability Dowing² can diminish the effects of excessive muscle functioning (guide spastic movements). Further, Dowing² will redistribute

pressures and forces of the arm and shoulder and can possibly decrease pain in the shoulder girdle. Dowing² can be used one or two sided.

About the use of Dowing²

It is possible to use Dowing² in various environments like home, workplace, school or institutional setting. Dowing² can be mounted on a table or work chair for which specific clamps are available. Switching from one side to another is very easy.



- Mounting clamps for table and (working) chair.

Innovations

- High quality bearings combined with precisely manufactured parts are used to ensure smooth movements.
- Inclined extension arms allow free movements over the table top without hitting objects.
- Large reach and natural freedom of movement due to unlimited rotational extension arms.
- The gravity compensation is continuously adjustable from 0 to 100%.
- Innovate brake system to minimize the impact of quick and unwanted upward movements (in unloaded conditions).
- Position independent balancing system creates a constant vertical force.
- Low inertia effects through the use of light weight materials.
- Parking possibility of the arm fitting in the lowest position allows to remove the arm safely.
- The rotation block can be used to adjust the Dowing² in the horizontal plane.
- Dowing² comes with a fully adjustable arm fitting with elbow support and wrist support.
- Mounting clamps for table and (working) chair.

Easy and ergonomic adjustment of the amount of gravity compensation

Dowing² supports the execution of numerous daily activities. In general it is desirable for users to use their remaining capacities as much as possible. The device adds force to the user's arm when moving in the vertical plane. No more force should be added than strictly

needed. This principle is called 'Assist as needed'. To ensure that the right amount of assistance is generated, the force can easily be changed with the adjustment knob. The compensation indicator shows the amount of assistance.

The large horizontal movements hardly require any effort. The construction enables easy and quick reach of the mouth and face and easier task performance at the workplace.

Dowing² returns the natural freedom of movement to the user.



- Dowing² comes with a fully adjustable arm fitting with elbow support and additional wrist support.



Solutions for persons with disabilities or challenging working conditions

Focal Meditech BV is developer, manufacturer and distributor of state-of-the-art technical and ergonomic aids. Its product package is especially in the domain of Mechatronics.

Focal specialises in dynamic arm supports, eating aids, 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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