# THE INNER STRENGTH.



A Phoenix Mecano Brand



# THE INNER STRENGTH.





Every movement needs an impulse.

The force that provides the drive — yet which is often not seen. DEWERT is this "inner strength". In the hospital and care sector, our drive technology makes a valuable contribution towards improving the quality of life and care for dependent persons. When built into medical products, our motor drives, controllers and control keypads support patient's mobility and health.

Reliable, safe and comfortable. Worldwide. For over 30 years. With the "inner strength" of DEWERT.

# COMPLETE CONFIDENCE

#### Dear Customers!

We at DEWERT are certain that good cooperation is based on trust: trust in both the product and its designer. That's why we strive from the outset to be a professional, authentic and visionary partner. We will work together to design and implement new ideas to ensure that your products are successful.

This brochure summarizes our drive systems and components. Besides the standard versions listed here, we also develop individual drive solutions for our customers. We would be happy to talk with you personally about this.

I hope you enjoy reading this brochure and look forward to working together with you.

Sincerely,

Dirk Flören I Manager of Sales at DEWERT







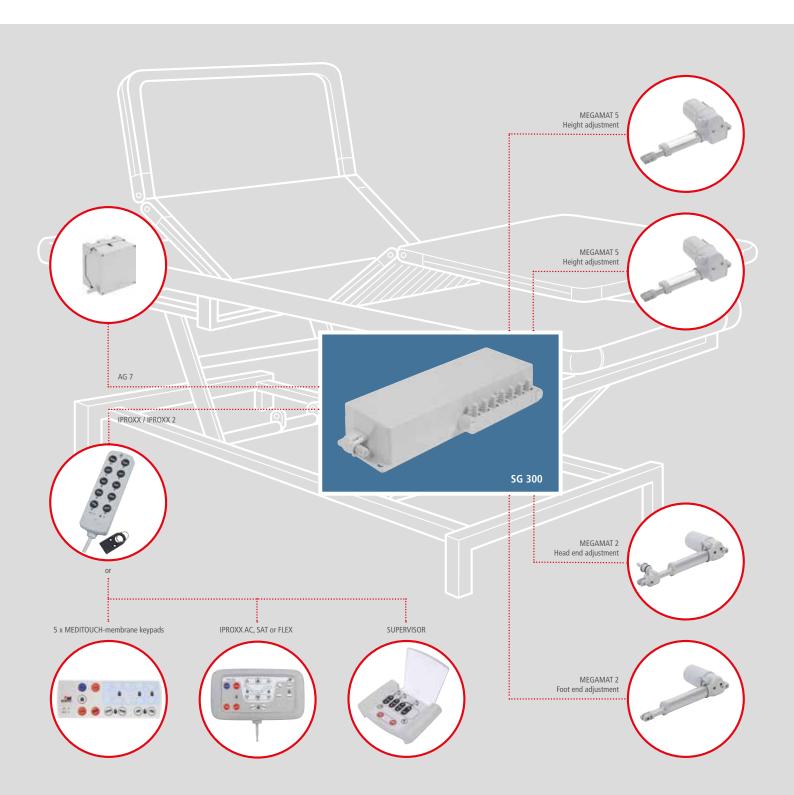
The cornerstone for the company DEWERT was laid 30 years ago in Kirchlengern, Germany. Our headquarters and development centre are still located here.

German entrepreneurship, technical perfection and cuttingedge vision contribute to make our drive systems and DEWERT into a world-renowned brand. In 1992, DEWERT joined with PHOENIX MECANO AG. This synergy in this affiliation allowed us to successfully move forward and expand the company. We have thus been able to continually grow in the global market.

Through our numerous subsidiaries and affiliated companies, DEWERT is now represented in over 40 countries. DEWERT products are still being developed at the company headquarters in Kirchlengern. In 1993, a modern, high-capacity manufacturing site for the European market was opened in Kecskemét Hungary.



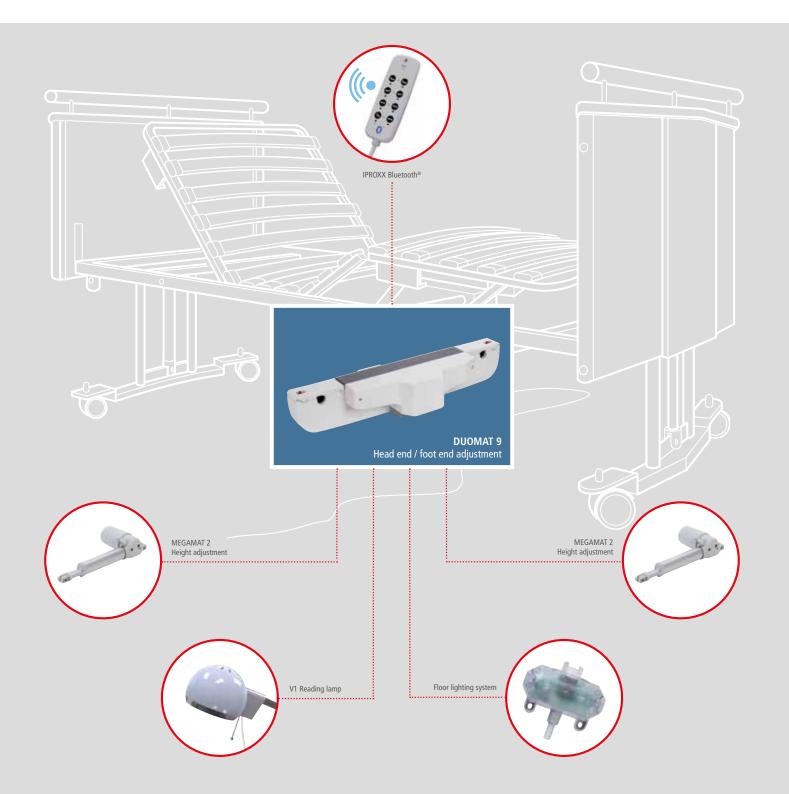
# **EXPERIENCE AND KNOWLEDGE**



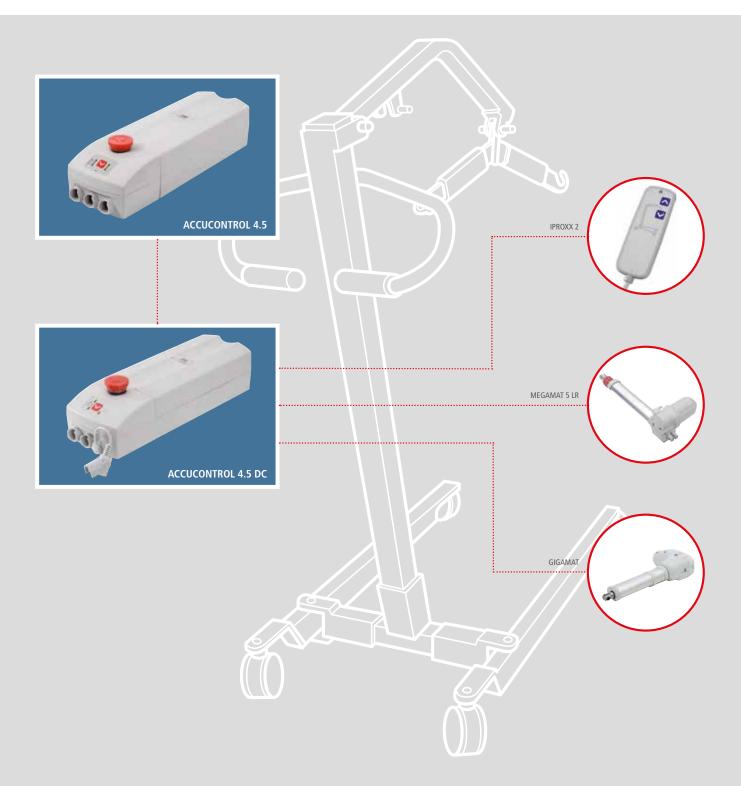


Our drive systems provide a variety of solutions for medical sector applications. The usage and combination options are shown here, based on our application examples described in the following pages.

Powerful and reliable solutions are our top priority. Perhaps this will give you some impulse towards implementing new concepts. We would be happy to advise you along the way.



# EXPERIENCE AND KNOWLEDGE







#### **STANDARDS**

DEWERT products comply with all of the relevant primary and product-based standards. These include the European regulatory standards for the registration, evaluation, authorization and restriction of chemicals (REACH), the Machinery Directive 2006/EC, CE Marking (EMC Directive 2014/30/EU and 2014/35/EU) and electrical magnetic compatibility (EMC). Moreover, DEWERT complies with European Directive 2011/65/EU (RoHS) which regulates the concentration and reduction of pollutants in electronic devices.



#### **ENERGY EFFICIENCY**

We keep our responsibility for the environment and sustainability continually in mind as we design and produce our drive systems. Considering the necessity for climate protection and efficient drive solutions, we are continuously improving the energy efficiency of our products.



#### **WIRELESS TECHNOLOGY**

DEWERT's microprocessor controllers, featuring FURNIBUS interfaces, provide the foundation of our intelligent drive systems for modern high-end applications. This technology makes it possible to implement many functions in software within a short development cycle. The network-based connection via Bluetooth provides wireless data transfer; this sets a new standard of convenience for our users.



#### **EMERGENCY CALL**

The patient only needs to push a button to get help in an emergency.

The flexibility of nurse calling systems permits individual segments to be integrated into existing call systems. That is simple and saves money.



#### **CUSTOMER REQUESTS**

Customer satisfaction is our main corporate quality goal. As a system-wide partner for motorized drives, controllers and control keypads, DEWERT provides customized drive solutions, as well as standard configurations, for the hospital and care sector. We would be happy to talk to you personally about the solution that best fits your needs.



#### **WEIGHING SYSTEM**

Load-weight cells are excellent for use in bed scales because of their very low height and compact dimensions. DEWERT provides a variety of customized load-weight cells that can be integrated into pivoting roller bearings.

# RELIABLE AND COMPETENT

"Speed and reliability are a must for acute situations. DEWERT provides easy-to-use components that anyone can handle."

Lutz Schulte | intensive care caregiver





## **MEGAMAT XS**



The little powerhouse. The turned guidance profile and the extremely small motor housing are ideal for use in home-care beds with front motors and as a slave drive.

#### **Standard configurations**

#### Performance data

Load capacity max. 3000 N push, max. 3000 N pull

Adjustment speed <sup>1</sup> max. 30 mm/s Stroke length max. 350 mm

Fitting dimension min. 145 mm + stroke

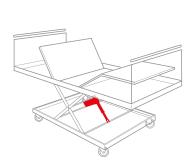
Duty cycle 2/18 min. or 10 %, max. 5 switching cycles per minute

Motor voltage maintenance-free 24 V DC motors

<sup>1</sup> depending on drive configuration at constant 24/29 V DC without load

#### SINGLE DRIVES

# **MEGAMAT 2 · MEGAMAT 2** Easy





This versatile, low-cost drive improves the tried and tested MEGAMAT technology and offers a very large range of configuration options.

The MEGAMAT 2 Easy is structurally identical but offers only basic functionality.

#### **Standard configurations**

#### Performance data

Load capacity max. 6000 N push, max. 3000 N pull

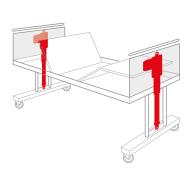
Adjustment speed <sup>1</sup> max. 28 mm/s Stroke length max. 425 mm

Fitting dimension min. 163 mm + stroke

Duty cycle 2/18 min. or 10 %, max. 5 switching cycles per minute

 $<sup>^{\</sup>rm 1}$  depending on drive configuration at constant 24/29 V DC without load

### **MEGAMAT 4**





This drive features great power and very smooth running characteristics. The many options allow it to be adapted to individual requirements.

#### **Standard configurations**

#### Performance data

Load capacity max. 6000 N push, max. 4000 N pull

Adjustment speed <sup>1</sup> max. 24 mm/s Stroke length max. 500 mm

Fitting dimension min. 190 mm + stroke

Duty cycle 2/18 min. or 10 %, max. 5 switching cycles per minute

Motor voltage maintenance-free 24 V DC motors

<sup>1</sup> depending on drive configuration at constant 24/29 V DC without load

#### SINGLE DRIVES

# **MEGAMAT 5**



This very powerful drive is compact because of its horizontally turned guidance tube. Almost all special MEGAMAT 2 equipment can also be used with the MEGAMAT 5. This mix of power and diversity makes it unique.

#### **Standard configurations**

#### Performance data

Load capacity max. 8000 N push, max. 3000 N pull

Adjustment speed <sup>1</sup> max. 9.5 mm/s

Stroke length max. 400 mm (6000 N) , max. 300 mm (8000 N)

Fitting dimension min. 163 mm + stroke

Duty cycle 2/18 min. or 10 %, max. 5 switching cycles per minute

 $<sup>^{\</sup>mbox{\tiny 1}}$  depending on drive configuration at constant 24/29 V DC without load

# **GIGAMAT**





Designed for extreme loads.
This high-performance drive offers
double the mechanical performance
compared to a conventional
MEGAMAT-class drive.

#### **Standard configurations**

#### **Performance data**

Load capacity max. 10000 N push, max. 7000 N pull

Adjustment speed <sup>1</sup> max. 19.3 mm/s Stroke length max. 550 mm Fitting dimension 210 mm + stroke

Duty cycle 2/18 min. or 10 %, max. 5 switching cycles per minute

 $<sup>^{\</sup>mbox{\tiny 1}}$  depending on drive configuration at constant 24/29 V DC without load

## **MEGAMAT FBR**



A new member of the MEGAMAT family – the MEGAMAT FBR.
A rotation drive which stands out thanks to its refined appearance and effectiveness. The four thread inserts for M5 screws enable a secure attachment of the MEGAMAT FBR.

#### **Standard configurations**

#### Performance data

Load capacity max. 6 Nm, clockwise / anti-clockwise rotation

Torque transfer standard hexag. steel shaft SW 10 acc. to DIN EN 10278

Adjustment speed <sup>1</sup> 70 U/min

Duty cycle 2/18 min. or 10 %, max. 5 switching cycles per minute

Motor voltage maintenance-free 24 V DC motors

<sup>1</sup> depending on drive configuration at constant 24/29 V DC without load

#### SINGLE DRIVES

# **MEGAMAT PR**



This rotation drive with optional Hall sensor is ideal for retrofitting manual crank mechanisms on hospital beds with a motor.

#### **Standard configurations**

#### Performance data

Load capacity max. 10 Nm, clockwise / anti-clockwise rotation

Torque transfer standard hexag. steel shaft SW 10 acc. to DIN EN 10278

Adjustment speed <sup>1</sup> 65 U/min, 75 U/min, 120 U/min

Duty cycle 2/18 min. or 10 %, max. 5 switching cycles per minute

 $<sup>^{\</sup>mbox{\tiny 1}}$  depending on drive configuration at constant 24/29 V DC without load

#### **DOUBLE DRIVES**

## **DUOMAT 8**





The double drive for easy tool-free attachment.

With outstanding comfort and many configuration details: the optional floor lighting system for improved usage in hospital furniture.

In the SPMS version, the drive meets the eco-design directive (standby power consumption < 0.5 W).

#### **Standard configurations**

#### Performance data

Load capacity max. 4500 N on each side

Adjustment speed 1 max. 6.5 mm/s

Stroke length back rest: 87 mm , leg rest: 69 mm

Fitting dimension installation length: 714 mm, component height: 119 mm

axle distance: 581 mm (+/- 3 mm) axle diameter: 25 mm

Duty cycle 2/18 min. or 10 %, max. 5 switching cycles per minute

Control unit relay control

Motor voltage maintenance-free 24 V DC motor

#### **DOUBLE DRIVES**

# **DUOMAT 9**





The successor to the DUOMAT 7. Featuring SMPS and a plug-in power cord – so it can be used around the world. A modern housing design, increased mechanical stability and the many configuration details and options: all this makes our drive even more attractive to use.

#### **Standard configurations**

#### Performance data

Load capacity max. 6000 N on each side

Adjustment speed <sup>1</sup> max. 6.5 mm/s

Stroke length back rest: 87 mm , leg rest: 69 mm

Fitting dimension installation length: 714 mm, component height: 119 mm

axle distance: 581 mm (+/- 3 mm), axle diameter: 25 mm 2/18 min. or 10 %, max. 5 switching cycles per minute

Duty cycle 2/18 min. or 10 %, max. 5 switching cycles per i

Control unit relay control with microprocessor technology

 $<sup>^{\</sup>mbox{\scriptsize 1}}$  depending on the drive configuration and the control components which are used

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#### LIFTING COLUMNS

# **GAMMA COLONNE**



Extremely robust and quiet running. With high-quality linear guide. Optionally equipped with potentiometer. Designed for use in hospital and care beds.

#### **Standard configurations**

#### Performance data

Dynamic load capacity max. 2000 N as central load, max. 350 N at 400 mm lever arm length

Static load max. 1000 N at 400 mm lever arm length

Adjustment speed <sup>1</sup> max. 14.5 mm/s Stroke length: 400 mm Fitting dimension 370 mm

Duty cycle 2/18 min. or 10 %, max. 5 switching cycles per minute

 $<sup>^{\</sup>mbox{\tiny 1}}$  depending on drive configuration at constant 24/29 V DC without load

# INTELLIGENT AND SAFE

"Taking care of my patients requires lots of strength and concentration every day. I'm glad there are intelligent drive systems that make my work easier."

Anne Hansen | private caregiver





#### **CONTROL UNITS**

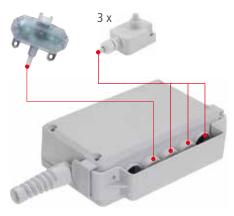
# **CU 155**

# **CU 155**

### Out-of-Bed

## **ECS**







Very compact control unit with many connection options (max. 4 drives). Power supplied from external source (DC).

**Connection options:** 

Drives: 1-4

Operating elements: 1

When used with the IPROXX 2 Out-of-Bed and the required number of external limit switches, the CU 155's Out-of-Bed version provides an alarm system which improves patient safety.

**Connection options:** 

Limit switch: 3 (with Y-cable can be expanded

to max. 6)

Operating elements: 1 Floor lighting: 1 (cascadable) ECS (Easy Control System) control unit for a maximum of 4 drives, with external SMPS (PD 14 / PD 15), designed for direct installation on MEGAMAT 2 and MEGAMAT 2 EASY. Single-fault protection. The ECS control unit is a component of the EASY DRIVE system.

**Connection options:** 

Drives: 1-4

Operating elements: 1

# MCL II + III SG 300



# **ACCU-CONTROL 4.5**







Control unit for max. 4 drives, with integrated SMPS. Designed for direct fitting to MEGAMAT 2 and MEGAMAT 5. Single-fault protection. The MCL III version features an external SMPS (PD14 / PD15).

**Connection options:** 

Drives: 1-4

Operating elements: 1-2

The control unit with connection options for up to 5 drives and many configuration options. Removable rechargeable battery for mains-free operation. With single-fault protection.

Connection options:

Drives: 1-5

Operating elements: 2-3 depending on control unit type Battery-powered control unit and power supply for mobile applications. Single-fault protection. The ACCUCONTROL 4.5 DC's rechargeable battery can be charged directly by means of a cable. Dismantling is not necessary.

Indicators: optical charge level indicator, deep discharge protection, wear indicator

Connection options:

Drives: 1-2

Operating elements: 1

# **IPROXX**

# **IPROXX 2**

# **IPROXX 2**

#### Out-of-Bed







Single-fault protection handset technology, combined power-on / charge level indicator, customized membrane design on request.

**Keys:** max. 10; suitable for max. 4 drives, incl. reset function

**Configuration options:** integrated mechanical or programmable multi-stage locking function, FURNI-BUS interface

The new generation of the IPROXX handset. The IPROXX 2 combines the sturdiness and versatility of the IPROXX handset with a slim, elegant design.

**Keys:** max. 11; suitable for max. 4 drives, incl. reset function

**Configuration options:** integrated mechanical or programmable multi-stage locking function, FURNIBUS interface

Handset for the Out-of-Bed system, as a set with a special version of the CU 155 control unit; with from one to six external limit switches or customer's own silicone rubber switches; customer-specific membrane design available on request.

Keys: max. 8

**Configuration options:** integrated mechanical locking function

# IPROXX Lifter IPROXX 2 Lifter



# **IPROXX** Maxi







Single-fault protection handset for patient lifter, only in set with the ACCUCONTROL 4.5 control unit. Customized membrane design on request.

**Keys:** max. 6, suitable for max. 2 drives **Configuration options:** FURNIBUS interface, charge level and wear indicator on the "Professional" model The IPROXX 2 SMP is a single-fault-protected handset with an integrated multi-level locking feature that makes the use of the SUPERVISOR controller unnecessary. A supplemental mode is available for disabling and enabling individual key pairs, so the best comfort level can be achieved for each patient.

Green LEDs indicate the available functions. This is an especially affordable solution when used together with our Easy system. Special handset with extra-large keys for users with limited movement or sight.

Keys: max. 8

# **IPROXX**

AC

FLEX

SAT

# **LOCKING DEVICE**







The alternative to the SUPERVISOR. The **IPROXX AC** can lock or release up to 5 drives.

The **IPROXX FLEX** is the alternative to control keypads and is fitted to the sides of the beds. A flexible 600 mm goose neck is used for the mount.

The **IPROXX SAT** is fitted to the head end of the bed, and the flexible 1000 mm goose neck allows it to be positioned directly above the patient. The patient is then in a comfortable position to operate the drive system as required.

Depending on the version, the functions range from a handset with basic functions to a control panel with blocking functions, shock position, etc.

Control keypad for locking or release of drives.

**Keys:** max. 3 rotary switches + 3 keys Configuration options: direct control of drives, FURNIBUS interface, customized design on request

# **LOCKING PANEL**









For permanent installation in bed fronts. Locking and releasing of up to 4 drives. Extra flat.

Keys: max. 15

**Configuration options:** press of key to reach shock position, charge level indicator, error control indicator, customized design on request

For locking and releasing of up to 4 drives. Customized bed position can be saved. Press of key to reach shock position. Charge level indicator, error control indicator.

Kevs: max. 15

Configuration options: FURNIBUS interface

For locking and releasing of up to 4 drives. Customized bed position can be saved. Press of key to reach shock position. Charge level indicator, error control indicator.



# FAST AND COMPETENT





Reliable operations.
Intelligent functionality.
Convenient handling.

Drives, control units and control keypads: With the "inner strength" of DEWERT.