



THE COMPETENCE CATALOG

- ▶ for powered goods handling and transport technology



EXPRESSO Deutschland GmbH

Antonius-Raab-Str. 19 | 34123 Kassel / Germany

Phone: +49 (0)5 61 95 91-0 | Fax: +49 (0)5 61 95 91-2138

E-mail: info@expresso.de | www.expresso-group.com

WELCOME TO EXPRESSO

EXPRESSO's manual and powered transport & handling equipment simplifies and optimizes work procedures worldwide. They are used wherever future-oriented, efficient, and individual logistics are required. All our products are manufactured using a modular system, enabling us to provide individual, customer-specific solutions. Since 1953, our products are highly convincing, thanks to their safety features, quality, ergonomics, and precise workmanship. Their long service life and permanent availability underline their outstanding economic advantages.

POWERED GOODS HANDLING AND TRANSPORT SYSTEMS

This Competence Catalog for powered goods handling and transport systems shows you a representative selection from our current product range. You are also welcome to specify your individual handling or transport task, for which we can find an optimum solution in close cooperation with you. We look forward to hearing from you.

THE EXPRESSO TEAM WILL BE HAPPY TO WORK TOGETHER WITH YOU.



TABLE OF CONTENTS



TABLE OF CONTENTS

About us

EXPRESSO Deutschland GmbH | Product division | National and International | Philosophy |
Intelligent and individual | DYNAMIC product division | Individual customer solution 6

Contact

We are here for you | Quality products worldwide | The EXPRESSO Group 20

lift2move

Main features | Accessories / special fittings | Handling possibilities and examples |
lift2move with 2 lifting pillars | Wheelbase versions | Tray Stacker | Stationary versions | Technical data 26

Multi-Performance Lift

Main features | Load handling attachments | Handling possibilities and examples | Technical data 58

BalanceLift Systems

Main features | Lifting cylinder | Control options | Suspensions / Support systems |
Application examples | Quick-exchange grippers | Special lifting systems | Technical Data 70

touch2move drive unit

Features drive unit kit | Application examples | Technical Data 96

Compact LEO tugs

Main features | Versions | Technical Data | Application examples | Optional accessories 112



► **WE SET THE STANDARDS THAT
ARE USED TO EVALUATE OTHERS**

EXPRESSO DEUTSCHLAND GMBH





WELCOME TO EXPRESSO – YOUR TRADITIONALLY INNOVATIVE PARTNER



For more than 60 years we have been supporting people worldwide with solutions for handling valuable and heavy goods. In close cooperation with our customers, we develop individual and professional products for use in trade and industry. Our high-quality manual and powered transport equipment and goods handling solutions close the gap between manual labour and the use of forklift trucks. They increase the efficiency of work sequences because they simplify, assist, and accelerate operations. Hereby, supporting the health of working personnel is a central theme during every product development.

OUR DRIVING FORCE IS THE PERSON, NOT THE MACHINE.

Our innovative products make a lasting contribution to improved ergonomics and higher efficiency of the equipment used, as well as helping to maintain employee health. Hereby, environmental aspects are taken into account with every decision. Energy and raw materials are used efficiently and in accordance with ecological considerations, thus helping to preserve our environment.

EXPRESSO – YOU CAN HANDLE IT



The use of ergonomic, powered transport and goods handling equipment represents an elementary relief for workers, and ensures a uniform working speed. This supports personnel well-being, which also benefits the company, because: “Only the best is good enough for employees”.

EXPRESSO – YOUR COMPETENCE PARTNER FOR TRANSPORTING, LIFTING, AND HANDLING

EXPRESSO is a premium manufacturer for industry, logistics, and trade. Apart from universal branded products that are in reliable service worldwide, we also offer unique, individual solutions for every location where goods must be moved or handled. Our activities are divided into three product groups and one service group:

CLASSIC: MANUAL TRANSPORT EQUIPMENT



These intelligent products are designed to assist your manual work, and to make goods handling safer, easier, and more efficient. They include:

Hand trucks: Unrivalled in terms of handling, quality, and individuality, EXPRESSO's hand trucks have become firmly established worldwide in countless sectors.

Four-wheel carts: Large loads can be transported efficiently, ergonomically, and safely with our four-wheel carts.

Baggage cart systems: Thanks to their outstanding functionality, quality, and efficiency, EXPRESSO's baggage carts and customized depot systems provide reliable service in airports and railway stations worldwide.

DYNAMIC: POWERED HANDLING AND TRANSPORT SYSTEMS



The powered solutions in this group are intended for effortless lifting, handling, and moving goods of all types.

lift2move: This mobile lifting aid is particularly suited for lifting and moving individual goods, parcels, and equipment from one place to another.

Multi-Performance Lift: This universal, precise lifting aid can be fitted with a wide range of load handling attachments for all standard handling operations.

BalanceLift: Effortless load handling without electric power thanks to a vacuum-operated lifting cylinder with customized load handling attachments and grippers operated mechanically or with compressed air for different goods.

touch2move: This ingenious drive unit with sensor handle technology serves for the precise control of the most varied transport systems.

Compact LEO tugs: It combines EXPRESSO's unique, patented touch2move drive units with the principles of powered ground transport equipment using tiller handle control.



The demands placed on working equipment are just as individual as the persons using them. Regardless of whether the equipment must be application or user-oriented, or both – EXPRESSO offers a perfect solution for every need.

LOGISTIC: LOADING TECHNOLOGY



Our extensive range of loading technology equipment provides everything that assists, simplifies, and makes vehicle loading/unloading safer. The range includes products that can be stowed in a vehicle, as well as solutions for loading ramps. In the latter case, our engineers will develop an optimum, individually tailored solution to suit the situation on site. All products and solutions are featured by top quality, long service life, and utmost safety.

Loading ramp safety: Safety on loading ramps is ensured by special wheel chocks, signal lamps, the STOP TRUCKS truck immobilizer, barriers, guide rails, and safety supports & chocks.

Loading systems: Our loading systems include ramps, levellers, platforms, dock boards, dock plates, mobile dock boards, gate seals, ramp buffers, as well as wheel ramps and lifting devices.

EXPRESSO SERVICE



Safety inspection: Accident Prevention Regulations require that working equipment is subjected to regular safety inspections. On request, EXPRESSO service technicians carry out the necessary inspections on your premises.

Maintenance: On request, EXPRESSO service technicians carry out the necessary maintenance work on your premises, including the replacement of worn parts. During maintenance, the service technician also makes sure that the equipment is in good working order. Any damaged or worn parts are replaced immediately, thereby putting the equipment back into its original functional condition.

Maintenance contracts: This comprehensive service concept for maintenance, service, and customer care for our powered handling equipment ensures that the equipment has a long service life, and your operations always run smoothly.

Original EXPRESSO spare parts: Should a damaged or worn part have to be replaced, every component is also available as a spare part. On request, an EXPRESSO service technician will carry out the replacement on your premises.

NATIONAL AND INTERNATIONAL

QUALITY FROM GERMANY – AVAILABLE WORLDWIDE

Since 1953 we have been developing and manufacturing branded products that are unique in design, construction, and production. Our modular system permits us to design specific solutions that are precisely matched to our customers' applications.

Every product in our comprehensive range is highly convincing thanks to its safety, quality, and precise workmanship. Long service life and permanent availability underline the outstanding economic advantages.

Our quality management system makes sure that the uniform high product quality is maintained. EXPRESSO is certified to DIN EN ISO 9001.

HEADQUARTER



EXPRESSO Deutschland GmbH is headquartered in Kassel. This central location in Germany ensures easy access by road and rail, as well as fast and flexible logistics.

SUBSIDIARIES



With subsidiary companies in France, Austria, the Czech Republic, and Singapore, EXPRESSO serves its customers throughout Europe and in East Asia – directly, in accustomed perfection, and with optimum service.

SALES PARTNERS



With sales partners in more than 30 countries, we are able to sell our quality products all over the world.

ERGONOMY AS MOTOR FOR EFFICIENCY

Employees are the most valuable asset of most companies, and preserving their health has an immediate positive effect of productivity.

Although humans are able to perform many kinds of physical work – every day and for long periods – but a time always comes, when such work involves a risk to health. Ergonomic working aids prevent these risks. They help to avoid accidents, injuries, and absenteeism due to sickness. Thanks to optimized and safe working conditions, employee health becomes a long-term productivity factor.

Therefore, an investment in ergonomic goods handling and transport equipment like vacuum lifters or battery-powered lifting aids not only provides relief for the workers, but also ensures a uniform working speed. For the benefit of employees, and for the benefit of the company.

PRODUCTIVITY



If strenuous work can be carried out by every employee, this increases flexibility when deploying your workforce. This helps to optimize your workflow, and increases productivity.

ERGONOMICS



EXPRESSO products help you to arrange the working conditions in your company in such a way that the work results are optimized. Because we attach great importance to user-friendliness, the improved “man-machine interface” results in relief for your employees.

OCCUPATIONAL SAFETY



By using our safe and high-quality working equipment, safety and health hazards for employees can be reduced significantly. What’s more, the use of this equipment complies with the legal regulations for safety at work.

EXPRESSO DYNAMIC: INTELLIGENT IDEAS FOR YOUR HANDLING TASKS

During development of our powered products, our attention is focussed on the human operators as well as the company. Unique goods handling & transport systems greatly simplify strenuous work, and make it more precise and controllable. This is beneficial for the employees, as their health is preserved. And because the tasks are completed easier, faster, and more safely, the company also benefits.

In an environment that is increasingly influenced by specialization and international competition, working efficiency becomes increasingly important – but reaching this goal should never be done at the expense of people. A forward-looking and sustainable measure is the implementation of universal and individual solutions from EXPRESSO. This permits companies to obtain a decisive competitive edge.

EXPRESSO offers numerous specific and convincing advantages:

HIGH-QUALITY PRODUCTS



- ▶ Due to ergonomic design, every EXPRESSO product is matched perfectly to its function and its operator.
- ▶ EXPRESSO's products offer a high safety level, whereby all safety standards and the German "Regulation on Occupational Health and Safety" are complied with.
- ▶ Our modular approach enables different load handling attachments to be mounted to the equipment using quick-exchange couplings, thereby creating a completely new application profile in minimum time.
- ▶ "Made in Germany" underlines our claim for top product quality.

CUSTOMER-SPECIFIC ENGINEERING



- ▶ Individual customized solutions are created on the basis of detailed goods handling analyses.
- ▶ In order to provide a customized solution, our experts prepare a precise specification on the customer's premise.
- ▶ In a test phase, function and accuracy of the equipment are checked during operation. If necessary, corrections are made until the customer is 100% satisfied. Only then are we satisfied as well.
- ▶ We stand for punctual, reliable, and correct delivery.

INDIVIDUAL APPLICATIONS



- ▶ EXPRESSO's solutions relieve workers from strenuous tasks, thereby preventing absenteeism due to sickness.
- ▶ Our professional customer care department is ready to provide competent help at any time.
- ▶ Our maintenance services ensure that our products are permanently available.
- ▶ Our qualified employees are well acquainted with your line of business, and understand your needs. In well-attuned teams, they produce results to ensure that your operations are more efficient and productive.

SUSTAINABILITY



- ▶ In order to conserve our environment sustainably, we observe our voluntary commitment to a responsible use of resources. We use raw materials and energy efficiently, and according to ecological aspects.
- ▶ Within our company, we attach great importance to open communication and a working environment of mutual esteem and trust. We try to create a climate in which our employees feel comfortable.
- ▶ We deal fairly with our competitors, and observe the unwritten rules of the market.



Also you can decide for ergonomics, higher productivity, and top quality "Made in Germany".
EXPRESSO – intelligent logistics solutions for your future.

COMPLEX TASKS – INGENIOUS SOLUTIONS

lift2move



THE MOBILE LIFTING AID FOR INDIVIDUAL GOODS HANDLING

These mobile, battery-powered lifting aids are able to handle goods weighing up to 405 kg. Moreover, the lifters are extremely rugged and have an appealing, ergonomic design. Due to their low weight, they are easily moved and manoeuvred.

A wide choice of wheelbases, pillar heights, platforms, forks, and attachments is available for lifting, lowering, turning, tipping, gripping, holding, and positioning. Investments for this equipment pay for themselves quickly, because the lifts take over strenuous tasks from the users, i.e. greatly reduce the risk of injuries and health problems, and productivity is increased thanks to fatigue-free working.

Multi-Performance Lift



THE UNIVERSAL LIFTING AID FOR ALL STANDARD HANDLING OPERATIONS

These universal lifting aids are ideally suited for increasing the efficiency and ergonomics of standard handling tasks in the industrial, trade, and service sectors with loads up to 125 kg. Typical application areas of these lifts are lifting, manipulating, and transporting e.g. standard containers. The product range is complemented by numerous accessories, such as assembly assistants for easier loading of machines & shelves or for emptying containers.

With its extremely wide application range, this universal lifting aid makes a decisive contribution towards optimized logistic operations.

BalanceLift



THE SOLUTION FOR EFFORTLESS LIFTING

With an extensive range of vacuum-operated, pneumatic, and mechanical gripping attachments, the BalanceLift is a highly flexible solution for handling goods weighing up to 300 kg. Hereby, the goods are handled conveniently by means of the up/down control unit or with a balancer. In this way, the operator always has perfect control of the load – without any physical effort. Various carrier systems are available for the BalanceLift: The BalanceLift can be used e.g. with the ceiling-mounted BalanceRail overhead rail system or with the free-standing and individually configurable BalancePort gantry system. An alternative flexible solution is provided by the mobile BalanceStand crane boom.

touch2move



AN INGENUOUS DRIVE SYSTEM FOR ALL CONVENTIONAL AND INDIVIDUAL TRANSPORT SOLUTIONS

Thanks to the touch2move drive technology, transporting heavy goods is not only more efficient, but also much safer. Simply by touching the sensor handles, the loaded vehicle “obeys” the operator’s natural movements, and automatically adapts to his/her walking speed – also on ramps and inclines. Thanks to its two independent braking systems, the vehicle stops reliably as soon as the handles are released.

The touch2move drive concept can be fitted to practically to all four-wheel trolleys and other transport carts, thereby converting them into „walkie“ type ground transport vehicles.

Transport trolleys fitted with touch2move drives improve your in-house logistics, help to optimize your operational planning, and thus contribute significantly to increased productivity.

LEO tug



THE TUG WITH THE INGENUOUS TOUCH2MOVE DRIVE SYSTEM

Designed as a towing vehicle, the LEO combines EXPRESSO’s unique, patented touch2move drive units with the principles of powered ground transport equipment using tiller handle control.

The ergonomic sensor handles and a powerful drive motor ensure optimum manoeuvrability for convenient and effortless towing of one or more trolleys/carts, also with particularly compact outer dimensions. Thanks to its high battery capacity and the optional battery exchange system, the LEO tug is suitable for continuous operation, e.g. in three shifts.

The gains in mobility together with saved time and space lead to increased productivity and safety for companies.

INDIVIDUAL CUSTOMER SOLUTION

EXPRESSO'S TRANSPORT & HANDLING SYSTEMS ARE USED BY VOLKSWAGEN AG

Volkswagen AG places great importance on protecting and preserving employee health. Apart from comprehensive health management and a preventive health-care program, the prevention of accidents and occupational illness is a central issue. Therefore, ergonomic working equipment is always used to assist and simplify work procedures.

Consequently, many of EXPRESSO's products such as the mobile lift2move lift, the powered touch2move transport system, LEO tugs, and also the BalanceLift for "floating" goods handling are found in various production sites of Volkswagen AG.

APPLICATION EXAMPLE: USE OF THE BALANCELIFT IN THE KASSEL VW FACTORY IN BAUNATAL

In the following example, Volkswagen AG was searching for an ergonomic solution for handling 420 components per day in the Kassel factory, and again decided to cooperate with EXPRESSO.



MARIO XOURGIAS, VOLKSWAGEN AG, WERK KASSEL:

"In my department, we handle 420 components every day, each with a weight of 12 kg. Before the BalanceLift was installed, these components had to be lifted manually onto a conveyor – a considerable physical effort. It was an unpleasant part of our work, and quite a physical strain."

PREVIOUS PROCEDURE

For many years, the previous working method in the transmission department of Volkswagen AG in Baunatal was extremely strenuous. For further processing, the transmission components were lifted out of a mesh pallet, carried a distance of about 2 meters, and then deposited on a conveyor at a lower level. This meant that the employees not only had to lift the components, but were also forced to bend down when depositing them on the conveyor. Mario Xourgias: "Because of the high physical strain for the workers, we started searching for an ergonomic solution."

TRANSMISSION HANDLING WITH THE BALANCELIFT

With EXPRESSO's BalanceLift, the workers at Volkswagen AG were provided with an alternative to their previous strenuous activity. The balancer grips the transmission component in the mesh pallet, and transfers it to the conveyor in a single smooth operation. The employee only has to guide the BalanceLift from the mesh pallet to the conveyor.

Since installing the BalanceLift, work has become far less strenuous. "At the end of a working shift, we now feel much less tired than before, when our work involved so much physical effort", says Mario Xourgias. Learning how to use the new balancer was quick and simple. "At first, we had to develop a feeling for the new equipment – after that, everything worked like a charm", adds Mario Xourgias. "I now recommend every colleague to use the balancer".



Effortless: With the BalanceLift, Mario Xourgias transfers the transmission component from the high mesh pallet to the lower conveyor without effort.



In combination with the overhead BalanceRail system, the BalanceLift permits workers in the transmission department of Volkswagen AG to handle large numbers of components efficiently, ergonomically, and safely.

Workers maintain an ergonomic posture while depositing the components safely on the conveyor.



**▶ CONTACT US –
WE ARE HERE FOR YOU!**

CONTACT



CONTACT



EXPRESSO DEUTSCHLAND GMBH WE ARE HERE FOR YOU!



Our Customer Center is located in the Industrial Estate Waldau in Kassel, in the center of Germany. Our customers appreciate the excellent Autobahn and rail connections, which are also our guarantee for fast and flexible distribution.

On weekdays, our Customer Center is staffed until 18:00 hours. Our employees will also be happy to arrange an individual appointment with you. Outside the office hours, you can leave a message on the phone answering machine, and we will come back to you as soon as possible. We look forward to hearing from you.

EXPRESSO DEUTSCHLAND GMBH | ANTONIUS-RAAB-STR. 19 | 34123 KASSEL / GERMANY



We are always pleased to inform you about the comprehensive options provided by our modular product range. Simply call us or send a fax or an e-mail.
Phone: +49 (0)561 95 91-0 | Fax: +49 (0)561 95 91-21 38 | E-mail: info@expresso.de

CONTACT

QUALITY PRODUCTS WORLDWIDE

EXPRESSO INFORMATION / RECEPTION



Phone: +49 (0)5 61 95 91-0
Fax: +49 (0)5 61 95 91-21 98
E-mail: info@expresso.de

HANDLING AND TRANSPORT SYSTEMS



Phone: +49 (0)5 61 95 91-21 37
Fax: +49 (0)5 61 95 91-21 38
E-mail: dynamic@expresso.de

MANUAL TRANSPORT EQUIPMENT



Phone: +49 (0)5 61 95 91-22 92
Fax: +49 (0)5 61 95 91-21 98
E-mail: classic@expresso.de

BAGGAGE CART SYSTEMS



Phone: +49 (0)5 61 95 91-22 36
Fax: +49 (0)5 61 95 91-21 98
E-mail: classic@expresso.de

LOADING TECHNOLOGY



Phone: +49 (0)5 61 95 91-21 92
Fax: +49 (0)5 61 95 91-21 98
E-mail: logistic@expresso.de

EXPRESSO SERVICE



Phone: +49 (0)5 61 95 91-21 99
Fax: +49 (0)5 61 95 91-21 98
E-mail: service@expresso.de

THE EXPRESSO GROUP – A STRONG TEAM

EXPRESSO DEUTSCHLAND GMBH



Antonius-Raab-Str. 19
D-34123 Kassel / Germany
Phone: +49 (0)561 95 91-0
Fax: +49 (0)561 95 91-21 98
E-mail: info@expresso.de
Internet: www.expresso.de

EXPRESSO FRANCE SAS



6 rue Frédéric Bartholdi
F-67319 Wasselonne / France
Phone: +33 (0)3 88 04 20 30
Fax: +33 (0)3 88 04 20 39
E-mail: info@expresso-france.com
Internet: www.expresso-france.com

EXPRESSO TRANSPORTGERÄTE GMBH



Perfektastr. 61 / 3
A-1230 Vienna / Austria
Phone: +43 (0)1 332 41 41-0
Fax: +43 (0)1 332 41 41-71
E-mail: office@expresso.at
Internet: www.expresso.at

EXPRESSO ČESKÁ REPUBLICA S.R.O.



Kateřinská 135
CZ-460 01 Liberec / Czech Republic
Phone: +420 482 322 523
Fax: +420 482 322 523
E-mail: info@expresso.cz
Internet: www.expresso.cz

EXPRESSO SYSTEM TECHNOLOGY PTE LTD



37, Kallang Pudding Road
Tong Lee Building Blk B
03-08, Singapore 349315
Phone: +65 6746 8303
Fax: +65 6746 8072
E-mail: info@expresso.sg
Internet: www.expresso.sg

EXPRESSO SALES PARTNERS



The contact data of our sales partners
is provided on EXPRESSO Internet site
www.expresso-group.com.



▶ **THE BATTERY-POWERED,
MOBILE LIFTING AID**



Who says lifting heavy loads strains the back?

LIFT2MOVE



INDIVIDUAL STANDARDS FOR INCREASED PRODUCTIVITY



EXPRESSO's mobile lifting aids provide individual handling solutions that are matched precisely to your goods, the location, the operator, and the specific handling task.

Customized load handling attachment in the shape of forks, prong, roller platform, hook attachments, and grippers permit ergonomic loading of machines, shelves, filling & conveying systems, centrifuges, pallets, roller tables, etc. at your workplaces.

Thanks to their user-oriented application possibilities, our mobile lifts increase productivity. These intelligent goods handling solutions enable complex and physically demanding operations to be carried out simply, safely, ergonomically, and therefore efficiently.

Everything is possible with lift2move: Lifting, lowering, rotating, turning, gripping, tipping, holding, order picking, positioning, pushing, pallet loading, ... and lots more.



Our experts design and build every handling system in close cooperation with the end user. EXPRESSO's handling consultants first examine and discuss the task on your premises, and then prepare an individual handling analysis. Within a few days, you will receive a detailed offer for the corresponding handling concept.

LIFT2MOVE



VARIABLE LIFT PILLAR HEIGHTS

with overall lengths up to 3000 mm for optimum adaptation to working height.



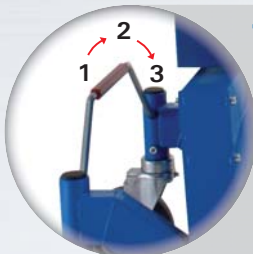
TWO-SPEED REMOTE CONTROL

Removable remote control with spiral cable for flexible operation close to the lift – the lifting operation is always in view for precise positioning of the load.



PUSH HANDLE

Height and reach of the ergonomic push handle adjust easily for adapting to individual operator preferences and sizes.

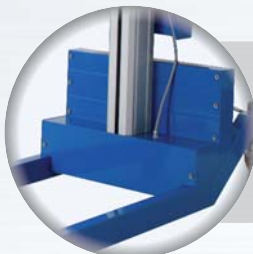


THREE-STAGE PARKING BRAKE

Stage 1 = locks the rear castors in driving direction to fix/stabilize them for extended straight-ahead travel.

Stage 2 = brake in the “normal” position, with freely swivelling castors for easy manoeuvring.

Stage 3 = “parking position” with rear castors locked & braked for secure stand during loading/unloading.



MOTOR BRAKE / SELF-LOCKING DRIVE UNIT

Automatically self-locking drive unit permits the loaded carrier to be positioned and secured with pin-point accuracy.



CASTORS

Non-marking swivel castors ensure high manoeuvrability of the lift. A wide range of castors and wheelbases is available.



SEVEN BASIC VERSIONS

with payloads from 85 up to 405 kg for user-oriented and customized handling solutions

lift2move

85 125 175
225 285 345
405

ELECTRIC SPINDLE DRIVE

Protected by a brush strip, the precision spindle drive with smooth-running ball bearings and safety slip clutch ensures highly accurate positioning, safe and reliable working, and continuous, maintenance-free operation.



STANDARD AND CUSTOMIZED LOAD PLATFORMS

Individually adapted load carriers and manipulators for safe and efficient handling solutions, e.g. platforms, forks, gripping, turning, and tipping devices are implemented in close cooperation with you. All load carriers & attachments are highly functional, are made of top-quality materials, and can be exchanged easily to suit the application, thus ensuring extremely flexible use.



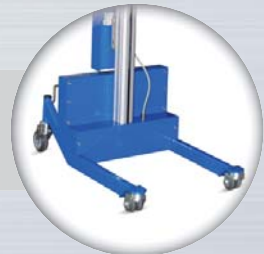
POWER-PAC BATTERY PACKS WITH CHARGE INDICATOR

and capacities to suit the application permit regular and interim charging without memory effect. Fitted with quick-release mounting as standard. Optional: Additional battery pack(s) as replacement, e.g. for continuous (multi-shift) operation.



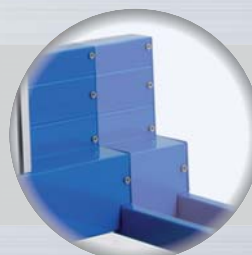
RUGGED, HIGH-STABILITY CONSTRUCTION

for optimum stability (non-tipping) for safe and quick manoeuvring under all operating conditions.



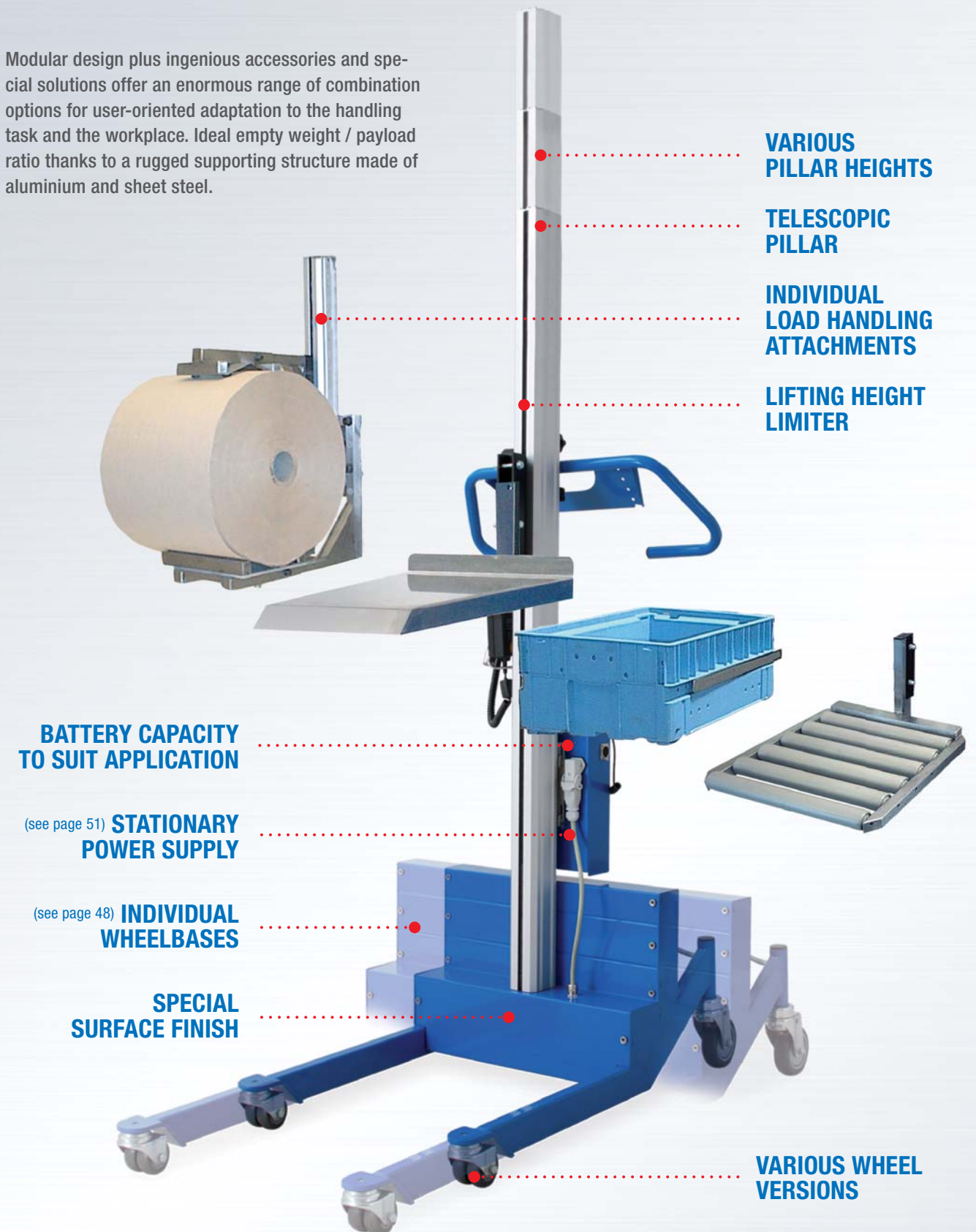
FLEXIBLE WHEELBASE DESIGN

with variable lengths, heights, and widths for optimum adaptation to the location and the handling task.



MODULAR CONSTRUCTION FOR UTMOST FLEXIBILITY

Modular design plus ingenious accessories and special solutions offer an enormous range of combination options for user-oriented adaptation to the handling task and the workplace. Ideal empty weight / payload ratio thanks to a rugged supporting structure made of aluminium and sheet steel.



VARIOUS PILLAR HEIGHTS

TELESCOPIC PILLAR

INDIVIDUAL LOAD HANDLING ATTACHMENTS

LIFTING HEIGHT LIMITER

BATTERY CAPACITY TO SUIT APPLICATION

(see page 51) **STATIONARY POWER SUPPLY**

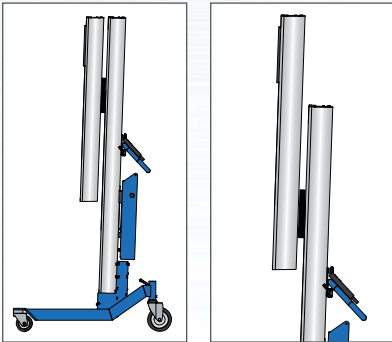
(see page 48) **INDIVIDUAL WHEELBASES**

SPECIAL SURFACE FINISH

VARIOUS WHEEL VERSIONS

EXTRAS ...

... FOR YOUR CUSTOMIZED LIFTER.



TELESCOPIC PILLAR

with separate motor and control unit offers extra lifting height for minimum equipment height.



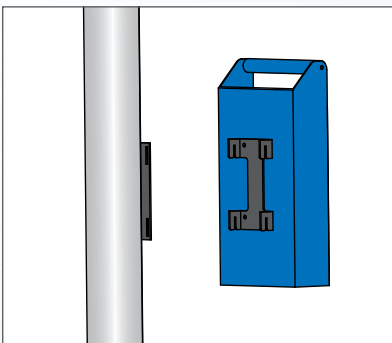
LIFTING HEIGHT LIMITER

is positioned on the lifting pillar as required for your door clearances or loading heights.



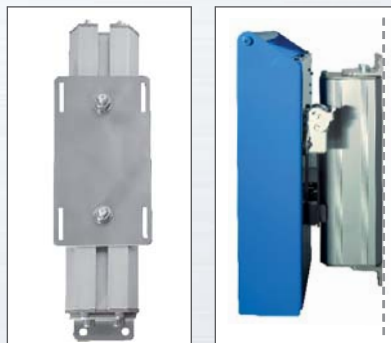
ADDITIONAL LIFTING HEIGHT ADJUSTMENT

provides extra lifting height with most load platform versions.



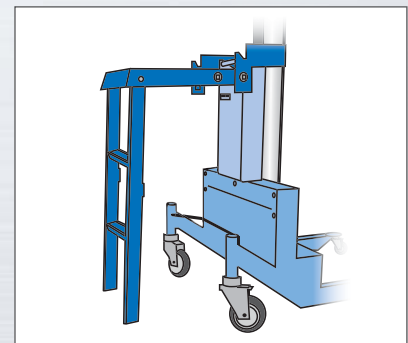
ADDITIONAL BATTERY PACK

with quick-exchange system for continuous operation (in combination with standard battery).



WALL BRACKET

for battery provides a secure and tidy storage location for the battery pack, and serves as charging station.



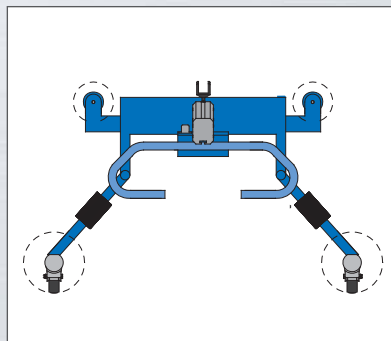
TWO-TREAD STEPLADDER

can be folded down as required, or folded up and secured when moving the lifter.



SPECIAL SURFACE FINISH

is possible in any RAL colour – unlacquered version also available.



WHEELBASE VERSIONS

can be matched precisely to the requirements of your working procedures (see page 48).



WHEEL VERSIONS

Depending on floor conditions, various rollers & castors are available, including electrically conducting versions.

LIFT2MOVE

PLATFORM

For individual handling operations.



PLATFORM WITH QUICK-EXCHANGE SYSTEM

For fast and convenient tool-free mounting of different attachments for individual handling operations.



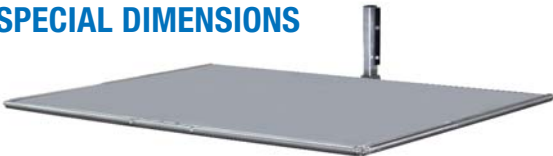
PLATFORM WITH THREE LOADING ROLLERS

Greatly simplifies loading/unloading the goods.



PLATFORM WITH SPECIAL DIMENSIONS

Extra large platform with three loading rollers (customer-specific dimensions possible).



HANDLING POSSIBILITIES AND EXAMPLES

PLATFORM WITH LOAD RESTRAINTS

With loading rollers on both sides, and variably insertable retaining brackets.



PLATFORM WITH LOAD RESTRAINTS

With raised edges for individual goods handling.



DUAL PLATFORM

Two platforms with loading rollers on both sides; a quick-release clamp permits the upper platform to be removed easily.



DUAL PLATFORM

Two platforms with loading rollers on both sides; the upper platform folds upwards.



LIFT2MOVE

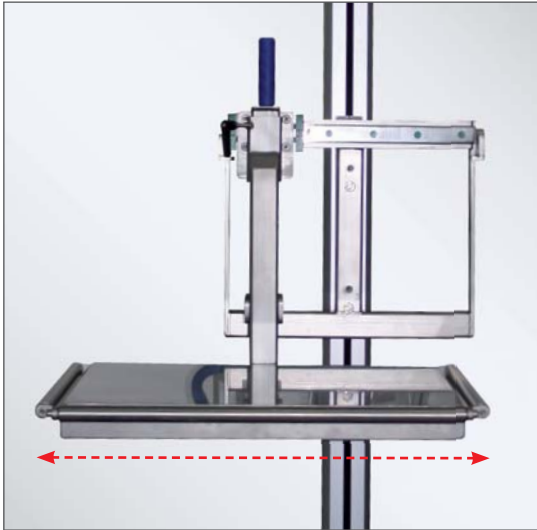
SLIDING PLATFORM

With loading rollers on three sides; can be moved forwards / backwards manually.



SLIDING PLATFORM

With loading rollers on three sides; can be moved left / right manually.



PLATFORM / FORK COMBINATION

Folding platform with chamfered front edge; fork separation is adjustable.



PLATFORM / FORK COMBINATION



Manually adjustable fork separation, with removable platform for handling individual goods or pallets.



HANDLING POSSIBILITIES AND EXAMPLES

SELF-CLAMPING FORK

For gripping / handling metal containers.



PLATFORM / FORK COMBINATION

Folding platform with loading rollers on three sides, and fork for handling crates.



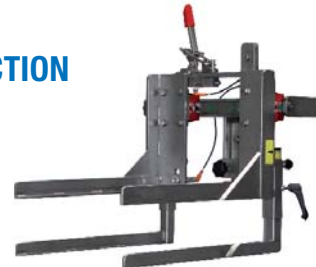
PLATFORM / FORK COMBINATION

Folding platform with fall retainer, and fork with attachment for wheeled dollies.



FORK WITH CLAMPING FUNCTION

Adjustable fork with tray-handling clamps.



PLATFORM WITH VEE BLOCK

Manually positionable platform with removable / rotatable vee block for handling rolls and cylindrical items.



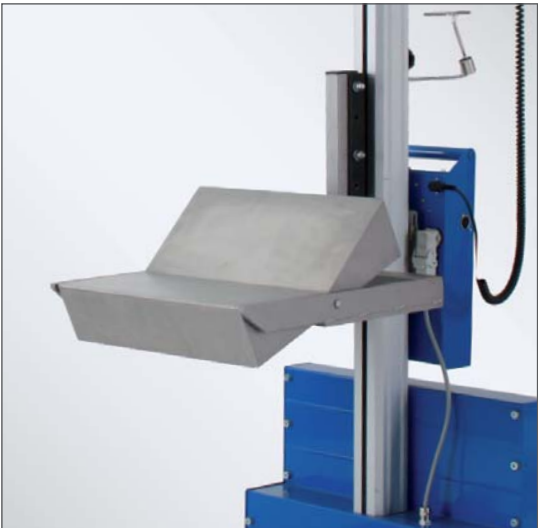
PLATFORM WITH VEE BLOCK

Platform with removable / rotatable vee block for handling rolls and cylindrical items.



TILTABLE VEE BLOCK

Vee block can be tilted forwards for easy loading / unloading of rolls and cylindrical items.



ROLL GRIPPER

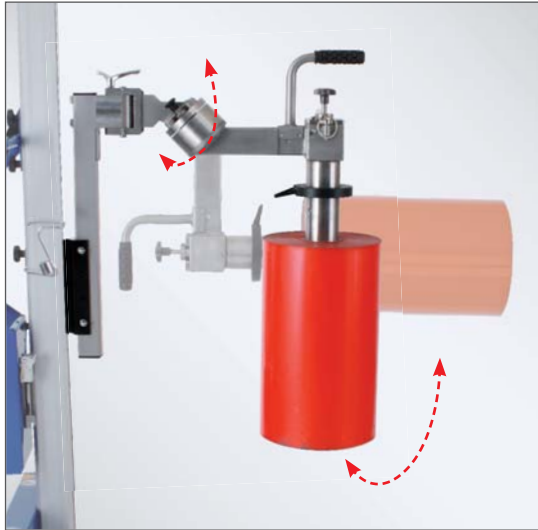
Mechanical gripper for handling rolls, padded grips protect the goods.



HANDLING POSSIBILITIES AND EXAMPLES

ROLL MANIPULATOR

Pivotable spindle with 90° rotation angle around center of gravity for picking up and handling rolls with hollow core.



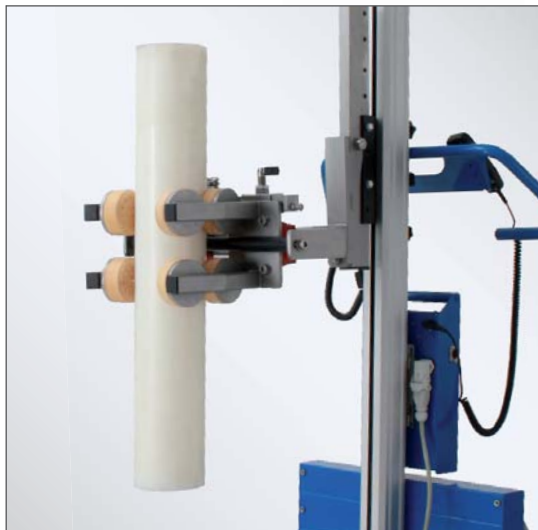
ROLLER FORK

With adjustable forks for handling rolls with different diameters.



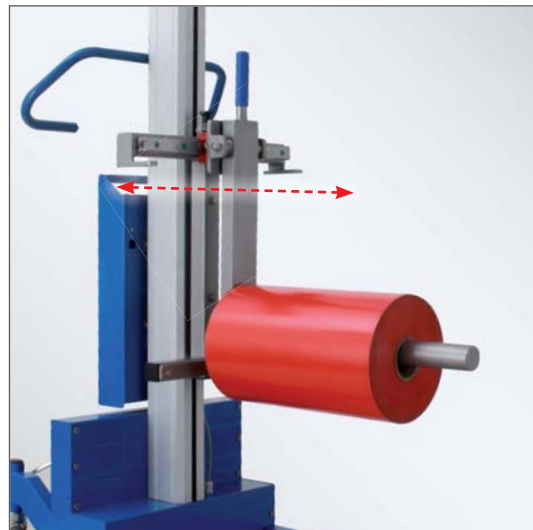
GRIPPER WITH CLAMPING FUNCTION

Manually or electrically operated gripper for handling cylindrical items.



ADJUSTABLE ROLL SPINDLE

Manual left / right spindle positioning (optional transport rollers greatly simplify spindle insertion / removal).



LIFT2MOVE

DOUBLE-FORK

Flat profiled forks for simultaneous lifting / stacking of two crates.



LOADING FORK WITH PUSHER DEVICE

Dual stainless steel fork with roller tracks and securing catch for standard crates; lower fork with manual pushing device.



DRUM HANDLER

With guiding / retaining rails on the lower fork, securing brackets at the sides, plus catch at the top to secure the drum.



LOADING FORK

Loading fork with securing end stops for handling wheeled dollies.



HANDLING POSSIBILITIES AND EXAMPLES

COIL HANDLER

Pivotable, rotatable, and lockable gripper for handling coils and rolls.



ROTATABLE CLAMPING FORK

Manually rotatable & lockable clamping fork for handling components, control units, etc.



ADJUSTABLE LOADING FORK

Rotatable / adjustable fork with sliding carriage for handling components.



ROTATABLE HANDLING FORK

Handling fork for tipping and positioning mesh containers, roller containers, etc.



LIFT2MOVE

ROTATABLE ROLL HANDLER

Manually rotatable handler with variable angle and load fixing attachment for rolls & cylindrical items.



PLATFORM WITH ADJUSTABLE ANGLE

Permits convenient filling / emptying of containers. Platform fitted with securing device plus loading rollers on three sides.



COMPONENT GRIPPER

Gripper with manually or electrically operated quick-release clamp for component handling.



FLASK GRIPPER

Gripper for handling glass flasks can be positioned left / right with manual locking.



HANDLING POSSIBILITIES AND EXAMPLES

TIPPING PLATFORM

Electrically tippable platform with end stops for handling crates and standard containers (joystick operation).



ELECTRIC EMPTYING DEVICE

Device can be positioned manually left / right, plus electrically operated emptying function (joystick operation).



ROTATABLE HANDLING FORK

Crate gripper with electrical 360° rotation (joystick operation).



HANDLING FORK WITH EMPTYING CHUTE

Electrically rotatable fork with chute for emptying standard crates (joystick operation).



TIPPABLE CANISTER GRIPPER

With roller platform for convenient loading of the canisters, plus securing bracket and 360° rotation (joystick operation).



ROTATABLE PLATFORM

With side retaining walls and electric rotating module for handling crates & baskets.



lift2move in unlacquered version.



WHEEL-MOUNTING FORK

Loading fork offset to one side and fitted with adjustable / rotatable supports for wheel mounting.



FORK WITH ADJUSTABLE SECURING DEVICE

For handling large grinding wheels with different diameters & thicknesses.



HANDLING POSSIBILITIES AND EXAMPLES

UNIVERSAL BOOM

With adjustable / rotatable load hook.



UNIVERSAL BOOM

With adjustable chain slings and individual loading hooks.



UNIVERSAL BOOM

With adjustable spreader and slings.



WEIGHING PLATFORM

Platform with electric weigher and function display.



HANDLING POSSIBILITIES AND EXAMPLES

ROLLER PLATFORM

With rollers for easy loading / unloading of the goods, plus load securing stops for safe transport.



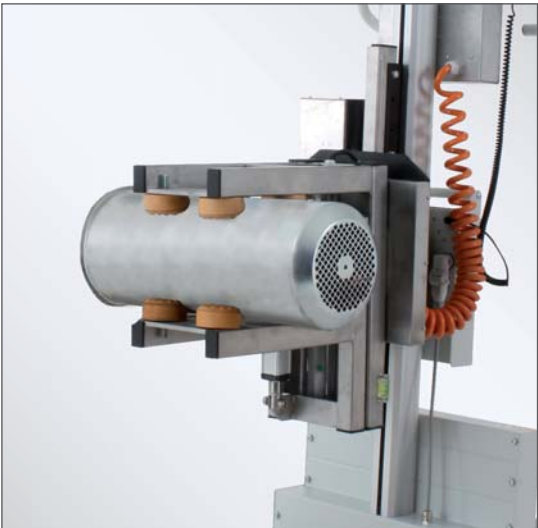
ROLLER PLATFORM

With additional guides for transporting electrical components.



ELECTRIC GRIPPING / TURNING UNIT

With gripping and 360° rotation function for handling engine components and other equipment.



CLAMPING FORK FOR STANDARD CONTAINERS

With manually operated clamp.



Special lift2move wheelbase with a braking mechanism that is controlled via the push handle.



LIFT2MOVE – VERSIONS WITH 2 LIFTING PILLARS

In addition to the proven single-pillar lift2move version, the product range also includes versions with two pillars. These extend the standard payload ranges (85, 125, 175, and 225 kg) with additional payloads of 285, 345, and 405 kg.

Special features are the reinforced wheelbases and the two lifting pillars, each of which is fitted with a drive unit. This combination permits the higher payloads to be handled easily and safely. The lift2move versions 285 and 345 are fitted with one load carriage per lifting pillar, while the lift2move 405 has two carriages per pillar.

The photos show application examples:

lift2move
WITH 285 / 345 KG PAYLOAD



lift2move with two lifting pillars and one load carriage per pillar. Application: Boom with a load hook & chain can be positioned left and right.

lift2move
WITH 405 KG PAYLOAD



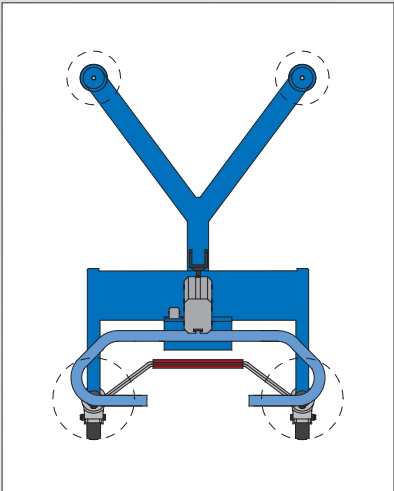
“Mega Lift” with two lifting pillars and two load carriages per pillar, plus a specially reinforced wheelbase. Application: Fork with load attachment points.

LIFT2MOVE – WHEELBASE VERSIONS

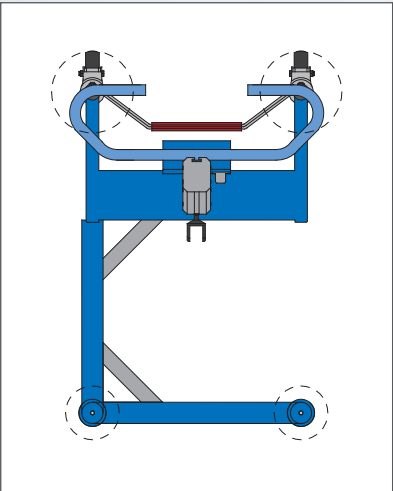
LIFT2MOVE – WHEELBASE VERSIONS

Apart from the standard lift2move wheelbases, also the individually engineered versions provide optimum stability thanks to the dual-strut design with its generous leg space for the operator. The wheelbase can be matched precisely to the requirements of your working procedures. This ensures safe, fast transport and manoeuvring without restricting the operator's natural movements, thereby increasing working safety.

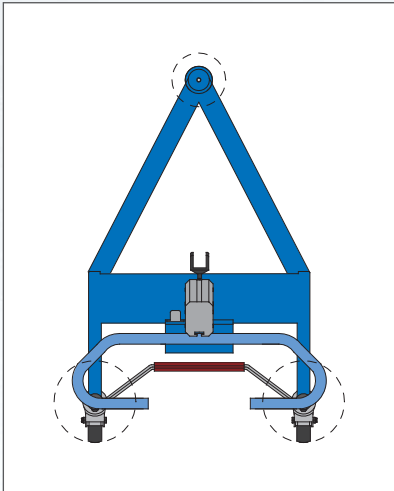
Shown below is a range of wheelbase versions:



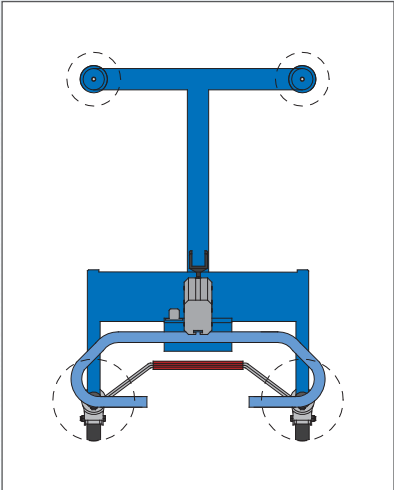
Y-wheelbase



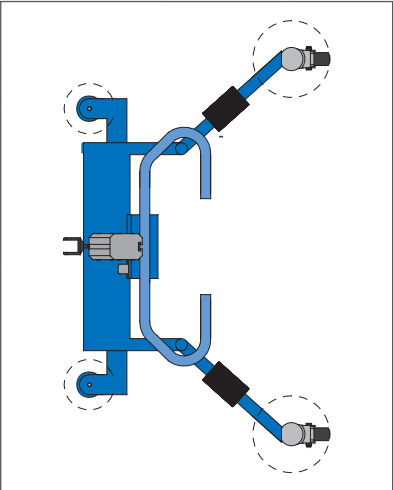
L-wheelbase



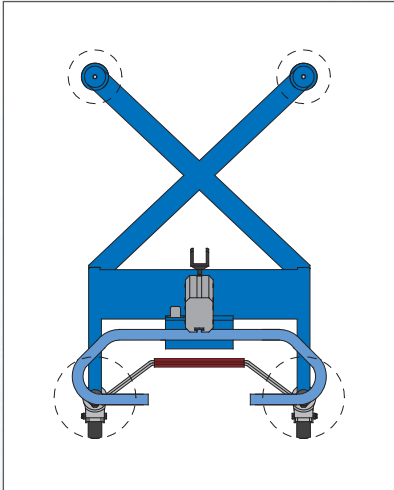
A-wheelbase



T-wheelbase



Omega-wheelbase



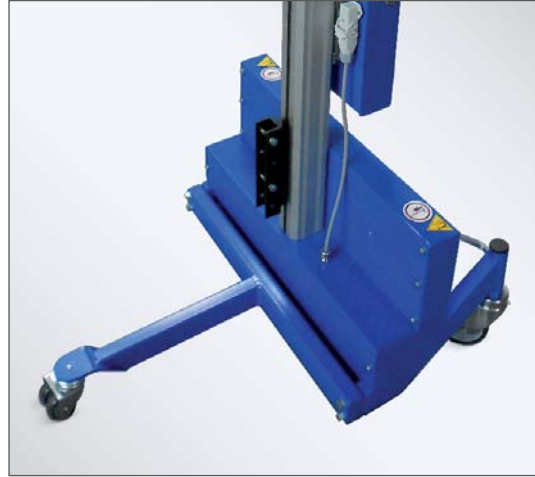
X-wheelbase

APPLICATION EXAMPLES

SLIMLINE

Customized lift2move wheelbase with just one front strut for support.

Suitable for working areas with limited entry access.



SHORTLINE

Customized lift2move wheelbase without front struts, "reversed design" with extra counterweight.

Suitable for applications in which it is not possible to drive under an object during work operations.



WIDELINE

Extra wide lift2move wheelbase for increased stability against tipping over with off-center loads.

Suitable for working operations in which pallets, machines, etc. must be straddled.



LIFT2MOVE – TRAY STACKER

DE-STACKING DEVICE TRAY STACKER

The Tray Stacker TS-250 permits simple and effortless de-stacking of wheeled trolleys with folding cartons and a max. payload of 250 kg.

The de-stacker works with two separate hydraulic cylinders – a lifting cylinder that is actuated with a pedal, and a lowering cylinder that is controlled via a manual valve. The loading fork is attached to the two hydraulic cylinders by means of a steel rope that is guided over rollers.

The photos show the de-stacking procedure with the Tray Stacker:



Approach

When approaching the stack on level ground, the fork enters below the top trolley.



Insertion and lifting

When the fork is completely inserted, the top trolley is raised hydraulically to separate it from the trolley underneath. This is done by pumping the lifting cylinder upwards with the pedal.



Moving and lowering

When the upper trolley is completely clear of the stack, the lifter can be moved to another location, where the trolley is lowered by means of the manual valve.



LIFT2MOVE – THE STATIONARY VERSIONS

LIFT2MOVE – THE STATIONARY VERSIONS

This lift2move version can be firmly mounted (floor or wall) in the location where it is in continuous use.

The stationary version is ideally suited for workplaces in which products or materials must be raised to different heights. For example, when stocking roller shelves and test racks, for feeding a machine, or handling tools, this stationary lifting aid provides ergonomic and efficient assistance. Also these versions of the lift2move product range offer all the advantages that make working procedures safer and more efficient.



Unlacquered version with two lifting pillars, and separately positionable forks.



Stationary lift2move with gripping / turning device



Stationary wall-mounted lift2move



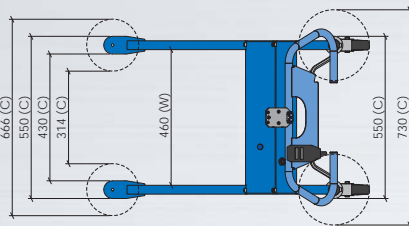
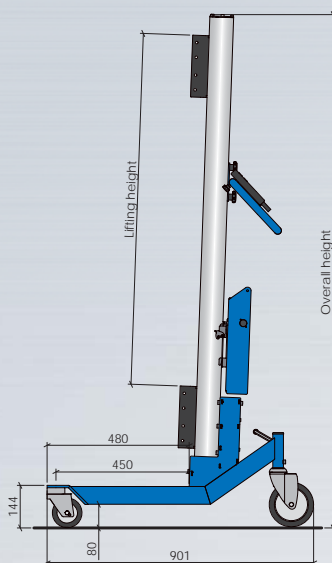
Stationary lift2move as complete production line



Power supply and remote control unit

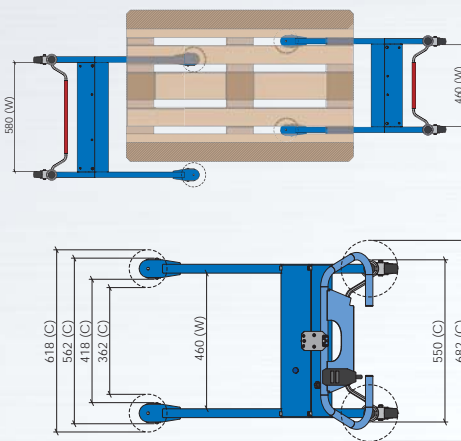
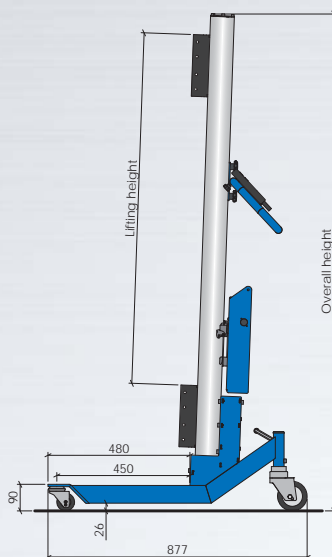
TECHNICAL DATA

lift2move 85 with wheelbase 1



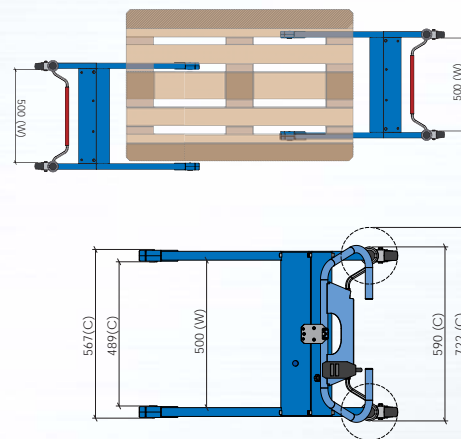
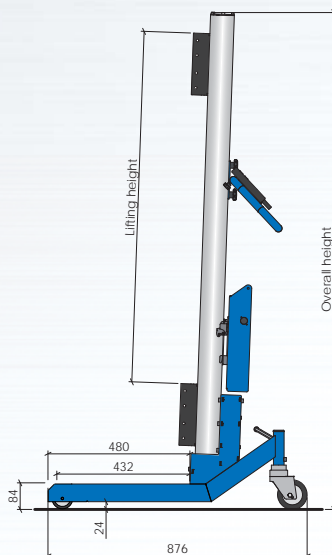
Overall heights	<u>1732</u> , 1982, 2232 mm
Lifting heights	<u>1192</u> , 1442, 1692 mm
Overall lengths	<u>901</u> , 1001, 1101 mm
Widths (W)	<u>460</u> , 500, and any dimension between 400 and 1300 mm
Battery data	<u>7.2 Ah / 24 V</u> , 12 Ah / 24 V
Wheel sizes	100 / 150 mm (front / rear)
Lifting speed	ca. 115 mm/s (empty) ca. 92 mm/s (full load)
Payload	85 kg
Empty weight	40 kg
Charging voltage	230 VAC, 50 Hz

with wheelbase 2 (suitable for pallets)



Overall heights	<u>1681</u> , 1931, 2181 mm
Lifting heights	<u>1192</u> , 1442, 1692 mm
Overall lengths	<u>877</u> , 977, 1077 mm
Widths (W)	<u>460</u> , 500, 580, and any dimension between 400 and 1300 mm
Battery data	<u>7.2 Ah / 24 V</u> , 12 Ah / 24 V
Wheel sizes	60 / 100 mm (front / rear)
Lifting speed	ca. 115 mm/s (empty) ca. 92 mm/s (full load)
Payload	85 kg
Empty weight	40 kg
Charging voltage	230 VAC, 50 Hz

with wheelbase 3 (suitable for pallets)

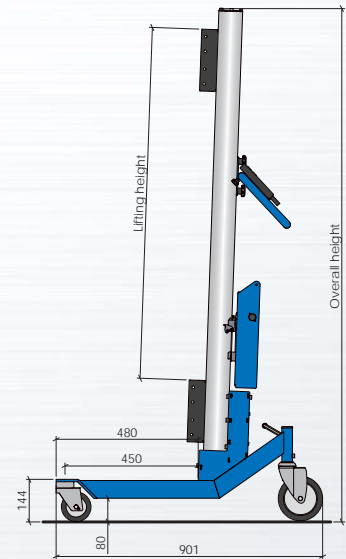
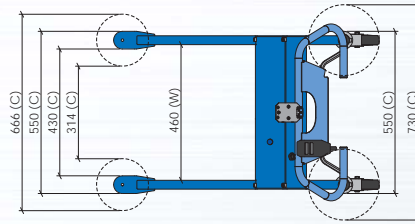


Overall heights	<u>1680</u> , 1930, 2180 mm
Lifting heights	<u>1192</u> , 1442, 1692 mm
Overall lengths	<u>876</u> , 976, 1076 mm
Widths (W)	460, <u>500</u> , and any dimension between 400 and 1300 mm
Battery data	<u>7.2 Ah / 24 V</u> , 12 Ah / 24 V
Wheel sizes	75 / 100 mm (front / rear)
Lifting speed	ca. 115 mm/s (empty) ca. 92 mm/s (full load)
Payload	85 kg
Empty weight	40 kg
Charging voltage	230 VAC, 50 Hz

For different widths for "W", the dimensions for "C" change accordingly (underlined values refer to the basic version, special dimensions possible on request).
Technical details are subject to change in the interest of constant product improvement.

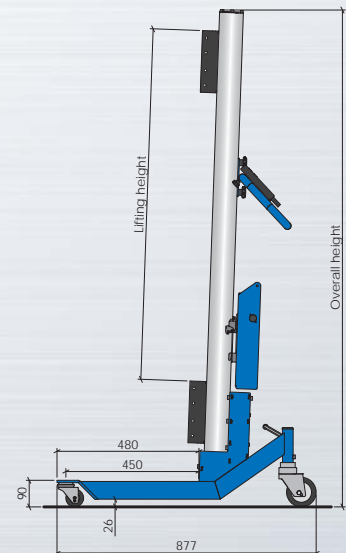
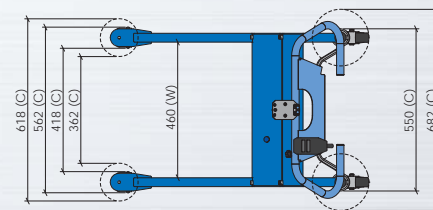
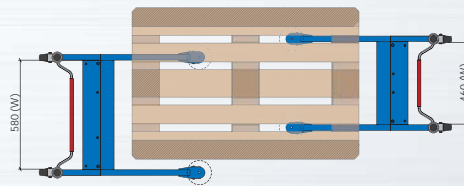
Overall heights	1732 , 1982, 2232, 2432, 2732 mm
Lifting heights	1192 , 1442, 1692, 1892, 2192 mm
Overall lengths	901 , 1001, 1101 mm
Widths (W)	460 , 500, and any dimension between 400 and 1300 mm
Battery data	7.2 Ah / 24 V , 12 Ah / 24 V
Wheel sizes	100 / 150 mm (front / rear)
Lifting speed	ca. 95 mm/s (empty) ca. 80 mm/s (full load)
Payload	125 kg
Empty weight	40 kg
Charging voltage	230 VAC, 50 Hz

lift2move 125 with wheelbase 1



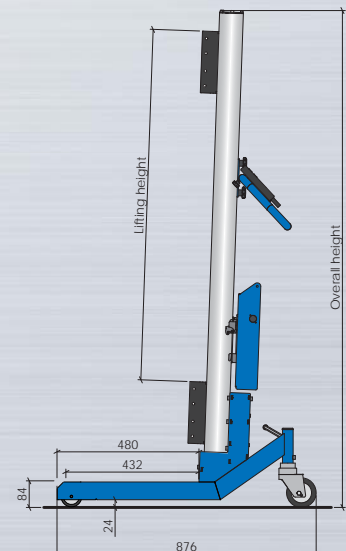
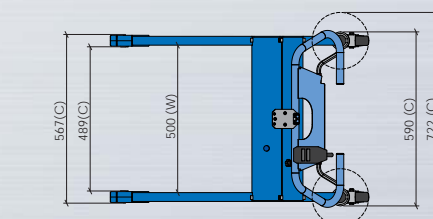
Overall heights	1681 , 1931, 2181, 2381, 2681 mm
Lifting heights	1192 , 1442, 1692, 1892, 2192 mm
Overall lengths	877 , 977, 1077 mm
Widths (W)	460 , 500, 580, and any dimension between 400 and 1300 mm
Battery data	7.2 Ah / 24 V , 12 Ah / 24 V
Wheel sizes	60 / 100 mm (front / rear)
Lifting speed	ca. 95 mm/s (empty) ca. 80 mm/s (full load)
Payload	125 kg
Empty weight	40 kg
Charging voltage	230 VAC, 50 Hz

with wheelbase 2 (suitable for pallets)



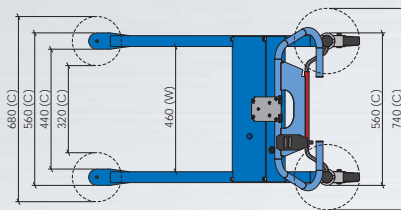
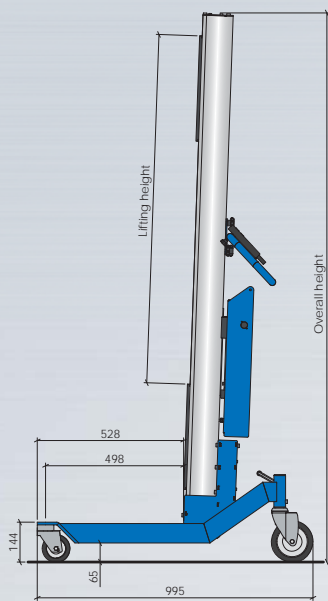
Overall heights	1680 , 1930, 2180, 2380, 2680 mm
Lifting heights	1192 , 1442, 1692, 1892, 2192 mm
Overall lengths	876 , 976, 1076 mm
Widths (W)	460, 500 , and any dimension between 400 and 1300 mm
Battery data	7.2 Ah / 24 V , 12 Ah / 24 V
Wheel sizes	75 / 100 mm (front / rear)
Lifting speed	ca. 95 mm/s (empty) ca. 80 mm/s (full load)
Payload	125 kg
Empty weight	40 kg
Charging voltage	230 VAC, 50 Hz

with wheelbase 3 (suitable for pallets)



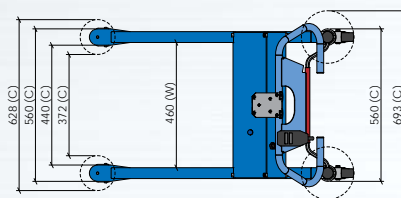
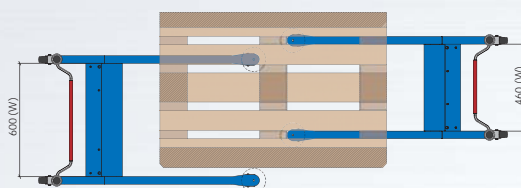
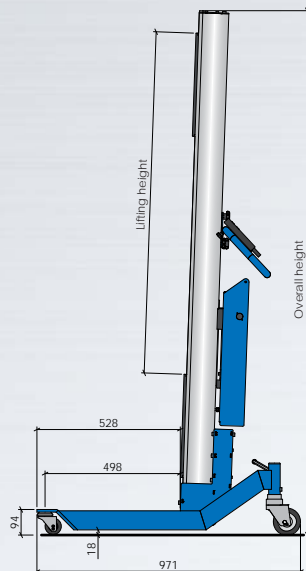
TECHNICAL DATA

lift2move 175 with wheelbase 1



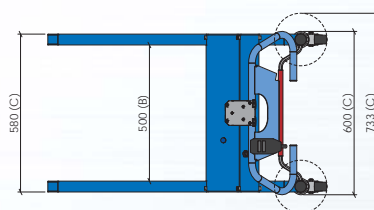
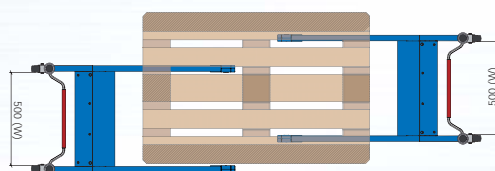
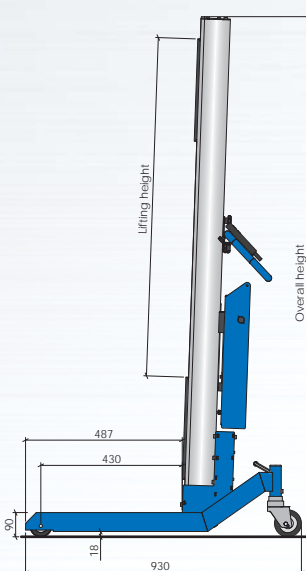
Overall heights	<u>2000</u> , 2500, 3000 mm
Lifting heights	<u>1360</u> , 1860, 2360 mm
Overall lengths	<u>995</u> , 1195 mm
Widths (W)	<u>460</u> , 500, 600, 1200, and any dimension between 460 and 1300 mm
Battery data	<u>17 Ah / 24 V</u> , 34 Ah / 24 V
Wheel sizes	100 / 150 mm (front / rear)
Lifting speed	ca. 108 mm/s (empty) ca. 80 mm/s (full load)
Payload	175 kg
Empty weight	83 kg
Charging voltage	230 VAC, 50 Hz

with wheelbase 2 (suitable for pallets)



Overall heights	<u>1950</u> , 2450, 2950 mm
Lifting heights	<u>1360</u> , 1860, 2360 mm
Overall lengths	<u>971</u> , 1171 mm
Widths (W)	<u>460</u> , 500, 600, 1200, and any dimension between 460 and 1300 mm
Battery data	<u>17 Ah / 24 V</u> , 34 Ah / 24 V
Wheel sizes	60 / 100 mm (front / rear)
Lifting speed	ca. 108 mm/s (empty) ca. 80 mm/s (full load)
Payload	175 kg
Empty weight	83 kg
Charging voltage	230 VAC, 50 Hz

with wheelbase 3 (suitable for pallets)

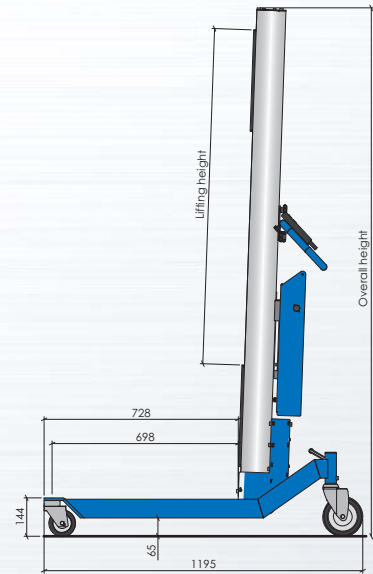
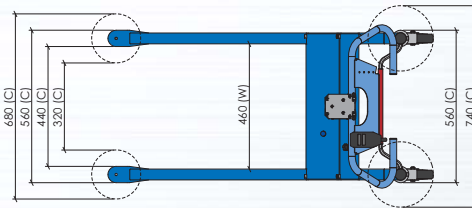


Overall heights	<u>1952</u> , 2452, 2952 mm
Lifting heights	<u>1360</u> , 1860, 2360 mm
Overall lengths	<u>930</u> , 1080, 1230 mm
Widths (W)	<u>460</u> , <u>500</u> , 600, and any dimension between 460 and 1300 mm
Battery data	<u>17 Ah / 24 V</u> , 34 Ah / 24 V
Wheel sizes	80 / 100 mm (front / rear)
Lifting speed	ca. 108 mm/s (empty) ca. 80 mm/s (full load)
Payload	175 kg
Empty weight	83 kg
Charging voltage	230 VAC, 50 Hz

For different widths for "W", the dimensions for "C" change accordingly (underlined values refer to the basic version, special dimensions possible on request).
Technical details are subject to change in the interest of constant product improvement.

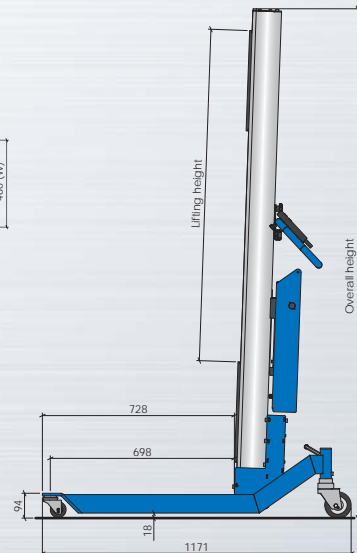
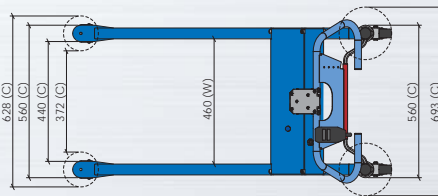
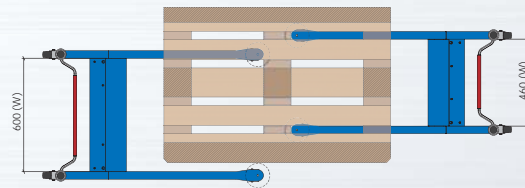
Overall heights	<u>2000</u> , 2500, 3000 mm
Lifting heights	<u>1260</u> , 1760, 2260 mm
Overall lengths	995, <u>1195</u> mm
Widths (W)	<u>460</u> , 500, 600, 1200, and any dimension between 460 and 1300 mm
Battery data	<u>17 Ah / 24 V</u> , 34 Ah / 24 V
Wheel sizes	100 / 150 mm (front / rear)
Lifting speed	ca. 100 mm/s (empty) ca. 75 mm/s (full load)
Payload	225 kg
Empty weight	83 kg
Charging voltage	230 VAC, 50 Hz

lift2move 225 with wheelbase 1



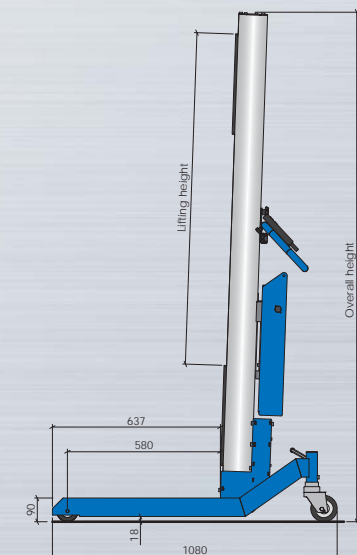
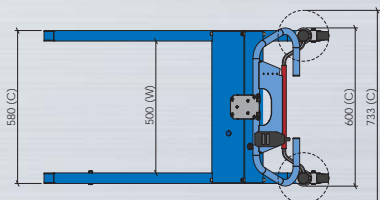
Overall heights	<u>1950</u> , 2450, 2950 mm
Lifting heights	<u>1260</u> , 1760, 2260 mm
Overall lengths	971, <u>1171</u> mm
Widths (W)	<u>460</u> , 500, 600, 1200, and any dimension between 460 and 1300 mm
Battery data	<u>17 Ah / 24 V</u> , 34 Ah / 24 V
Wheel sizes	60 / 100 mm (front / rear)
Lifting speed	ca. 100 mm/s (empty) ca. 75 mm/s (full load)
Payload	225 kg
Empty weight	83 kg
Charging voltage	230 VAC, 50 Hz

with wheelbase 2 (suitable for pallets)



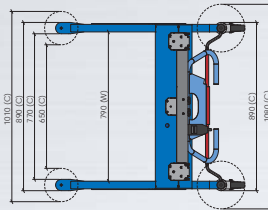
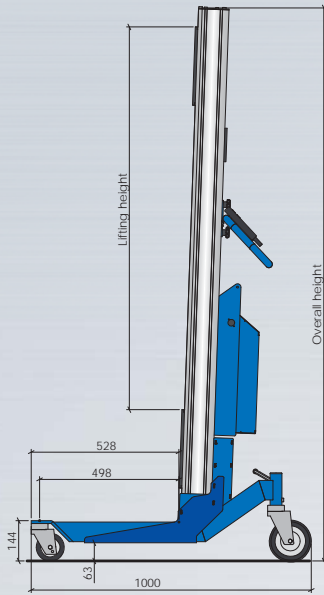
Overall heights	<u>1952</u> , 2452, 2952 mm
Lifting heights	<u>1260</u> , 1760, 2260 mm
Overall lengths	930, <u>1080</u> , 1230 mm
Widths (W)	<u>460</u> , <u>500</u> , 600, and any dimension between 460 and 1300 mm
Battery data	<u>17 Ah / 24 V</u> , 34 Ah / 24 V
Wheel sizes	80 / 100 mm (front / rear)
Lifting speed	ca. 100 mm/s (empty) ca. 75 mm/s (full load)
Payload	225 kg
Empty weight	83 kg
Charging voltage	230 VAC, 50 Hz

with wheelbase 3 (suitable for pallets)



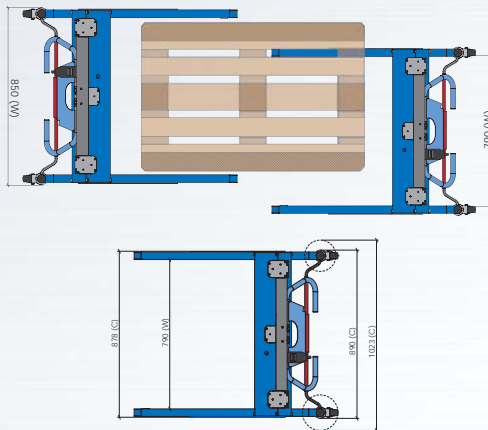
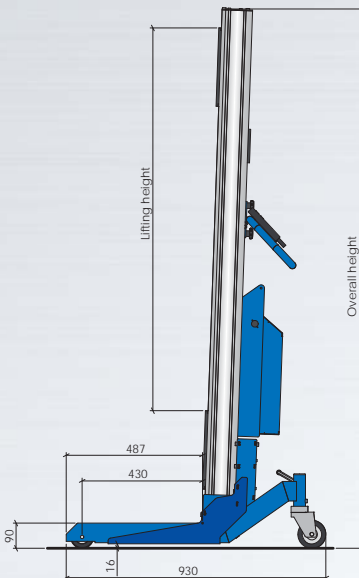
TECHNICAL DATA – 2 LIFTING PILLARS

lift2move 285 with wheelbase 1



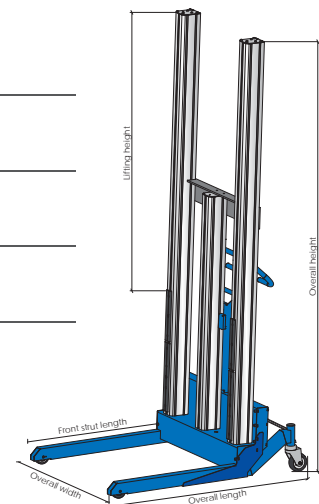
Overall heights	2000, 2500, 3000 mm
Lifting heights	1350, 1850, 2350 mm
Overall lengths	1000, 1200 mm
Widths (W)	790, and any dimension between 790 and 1300 mm
Battery data	34 Ah / 24 V
Wheel sizes	100 / 150 mm (front / rear)
Lifting speed	ca. 29 mm/s (empty) ca. 23 mm/s (full load)
Payload	285 kg
Empty weight	135 kg
Charging voltage	230 VAC, 50 Hz

with wheelbase 3 (suitable for pallets)



Overall heights	1952, 2452, 2952 mm
Lifting heights	1350, 1850, 2350 mm
Overall lengths	930, 1080, 1230 mm
Widths (W)	790, 850, and any dimension between 790 and 1300 mm
Battery data	34 Ah / 24 V
Wheel sizes	80 / 100 mm (front / rear)
Lifting speed	ca. 29 mm/s (empty) ca. 23 mm/s (full load)
Payload	285 kg
Empty weight	135 kg
Charging voltage	230 VAC, 50 Hz

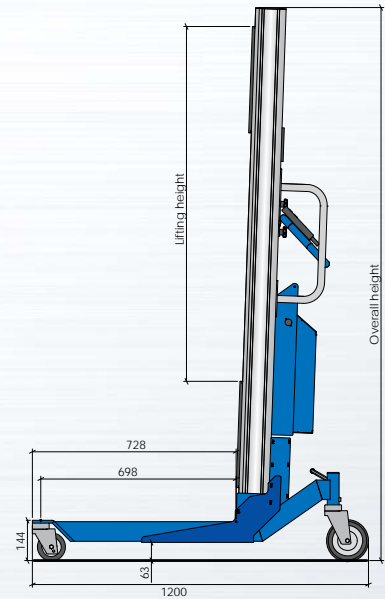
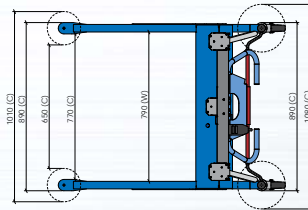
Notes for your individual lift2move



2 LIFTING PILLARS – TECHNICAL DATA

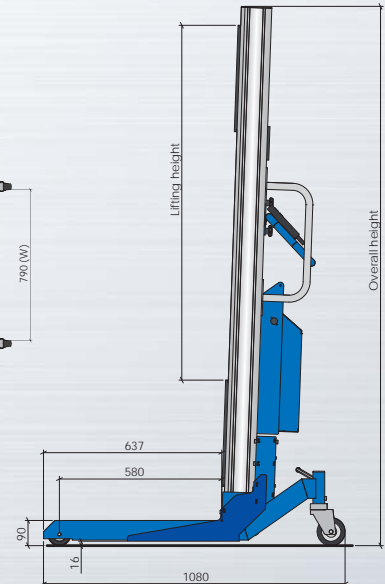
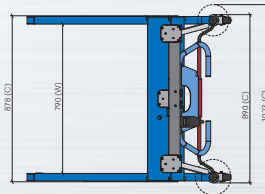
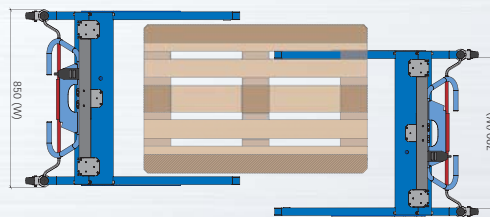
Overall heights	2000, 2500, 3000 mm
Lifting heights	1250, 1750, 2250 mm
Overall lengths	1000, 1200 mm
Widths (W)	790, and any dimension between 790 and 1300 mm
Battery data	34 Ah / 24 V
Wheel sizes	100 / 150 mm (front / rear)
Lifting speed	ca. 26 mm/s (empty) ca. 20 mm/s (full load)
Payload	345 kg
Empty weight	140 kg
Charging voltage	230 VAC, 50 Hz

lift2move 345 with wheelbase 1



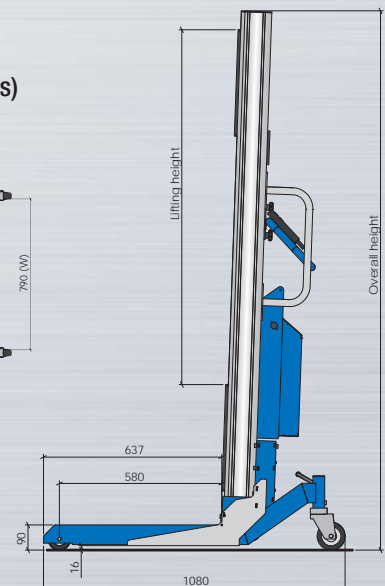
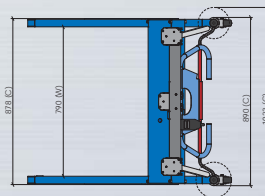
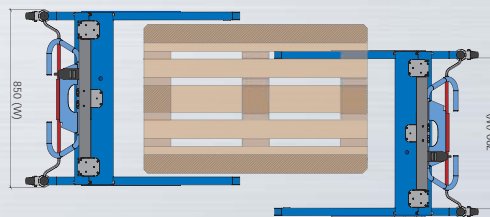
Overall heights	1952, 2452, 2952 mm
Lifting heights	1250, 1750, 2250 mm
Overall lengths	930, 1080, 1230 mm
Widths (W)	790, 850, and any dimension between 790 and 1300 mm
Battery data	34 Ah / 24 V
Wheel sizes	80 / 100 mm (front / rear)
Lifting speed	ca. 26 mm/s (empty) ca. 20 mm/s (full load)
Payload	345 kg
Empty weight	140 kg
Charging voltage	230 VAC, 50 Hz


with wheelbase 3 (suitable for pallets)



Overall heights	1952, 2452, 2952 mm
Lifting heights	960, 1460, 1960 mm
Overall lengths	930, 1080, 1230 mm
Widths (W)	790, 850, and any dimension between 790 and 1300 mm
Battery data	34 Ah / 24 V
Wheel sizes	80 / 100 mm (front / rear)
Lifting speed	ca. 26 mm/s (empty) ca. 20 mm/s (full load)
Payload	405
Empty weight	150 kg
Charging voltage	230 VAC, 50 Hz

lift2move 405 with wheelbase 3 (suitable for pallets)



A photograph of a long aisle in a data center. On the left side, there is a long row of white server racks. The racks are slightly angled, creating a perspective that leads the eye down the aisle. The floor is a light-colored, speckled tile. The ceiling has recessed lighting fixtures. The overall lighting is bright and even.

**Who says that small
can't be strong?**

**▶ UNIVERSAL LIFTING AID FOR
STANDARD HANDLING OPERATIONS**

MULTI-PERFORMANCE LIFT



MULTI-PERFORMANCE LIFT



UNIVERSAL APPLICATIONS – THE MULTI-PERFORMANCE LIFT



This universally applicable device is a perfect supplement for EXPRESSO's product range for individual, user and application-oriented handling technology.

The Multi-Performance Lift provides lifting heights between 975 and 1725 mm, positions every load with high precision, and ensures uniform working conditions in terms of speed and physical effort.

Lifting, handling, and transport of e.g. standardized containers weighing up to 125 kg is simplified, thereby increasing the efficiency and ergonomics of goods handling operations in industry, commerce, and the services sector. The lifts are complemented by numerous accessories, such as assembly assistants for easier loading of machines and shelves or for emptying containers. Of course, every lifting aid comes with EXPRESSO's standard safety features, like the automatic parking brake. Individual versions and adaptations for special applications are designed in close cooperation with our customers.



These basic lift versions fit perfectly into EXPRESSO's range of ergonomic, individual goods handling equipment. Ideal for standard lifting operations in your company. We will be happy to inform you personally and in detail about the Multi-Performance Lift. We look forward to hearing from you via phone, fax or E-mail.

Phone: +49 (0)5 61 95 91-0 | Fax: +49 (0)5 61 95 91-2138 | E-mail: dynamic@expresso.de

MULTI-PERFORMANCE LIFT



THREE DIFFERENT VERSIONS

for universal applications with lifting heights of 975, 1475, and 1725 mm, and payloads up to 125 kg. Manufactured acc. to Machine Directive 2006/42/EC (CE conformity), with ESD protection acc. to VDE DIN EN 61340, and ingress protection IP41 (splash water).



CONTROL UNIT

“Basic” with Up/Down buttons and LED indicator for battery status. The control unit is connected via a spiral cable, permitting the lifting/lowering operations to be controlled conveniently and safely from all sides. **Optional:** Programmable control unit “Comfort” with 9 target buttons.



PUSH HANDLE

The tubular frame offers numerous gripping possibilities for persons with different heights. Therefore, lift guidance is safe and easy. Servo-control ensures smooth and safe load transport & handling.



SAFETY MONITORING SYSTEM

for switch-off in case of system faults, overload, or obstructed load handling attachment.



FOOT PEDAL

serves to actuate the directional lock and the parking brake of the rear castors.



SWIVEL CASTORS

at front and rear are non-marking, and ensure high manoeuvrability of the lift, e.g. to reach the destination quickly and safely.



MAIN FEATURES

ELECTRIC SPINDLE DRIVE

Protected by a brush strip, the precision spindle drive with smooth-running ball bearings and safety slip clutch ensures highly accurate positioning, safe and reliable working, and continuous maintenance-free operation with a constant lifting speed of 100 mm/s with loads up to 100 kg.



ON-BOARD 24 V BATTERIES

with electronic monitoring, and battery status indicator LEDs in operating panel. The 24 VDC, 7,2 Ah AGM (absorbent glass mat) batteries are maintenance free and have a maximum charging time of 8 hours.



BATTERY CHARGING UNIT

with charging plug and cable, permitting the battery to be charged everywhere.



14 STANDARD LOAD-HANDLING ATTACHMENTS

with load capacities up to 125 kg for lifting, lowering, turning, positioning, swivelling, manipulating and rotating the load



EXCHANGEABLE BATTERY PACK (OPTIONAL)

is mounted on the lift mast by means of four hooks, and is connected securely to the lift motor with a bayonet connector.



LOW-PROFILE WHEELBASE

Ideal for driving under pallets and shelves, plus a small turning radius for easy and precise manoeuvring.



MULTI-PERFORMANCE LIFT



Standard version
with "Basic"
operating unit



Multi-Performance Lift 1750

Order no. 1489 15 520

Multi-Performance Lift 1500

Order no. 1489 15 510

Multi-Performance Lift 1000

Order no. 1489 15 500

OPTIONAL VERSION WITH "COMFORT" OPERATING UNIT (9 TARGET BUTTONS)



Multi-Performance Lift 1000

Order no. 1489 15 500.500

Multi-Performance Lift 1500

Order no. 1489 15 510.500

Multi-Performance Lift 1750

Order no. 1489 15 520.500



Multi-Performance Lift 1000 with battery exchange system

Order no. 1489 15 500.503

Multi-Performance Lift 1500 with battery exchange system

Order no. 1489 15 510.503

Multi-Performance Lift 1750 with battery exchange system

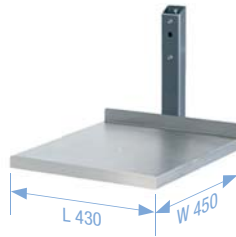
Order no. 1489 15 520.503

LOAD HANDLING ATTACHMENTS

PLATFORM P1

Order no.
0489 14 254

Stainless steel, can be lowered to the floor between the outriggers of lowered wheelbase.

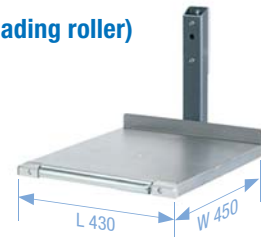


Multi-Performance Lift type	Loading height	Payload
1000	40 - 1015 mm	100 kg
1500	40 - 1515 mm	100 kg
1750	40 - 1765 mm	100 kg

PLATFORM P2 (with loading roller)

Order no.
0489 14 125

Stainless steel, can be lowered to the floor between the outriggers of lowered wheelbase.

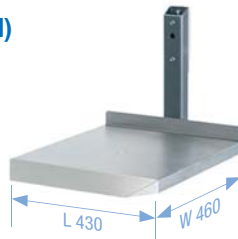


Multi-Performance Lift type	Loading height	Payload
1000	40 - 1015 mm	50 kg
1500	40 - 1515 mm	50 kg
1750	40 - 1765 mm	50 kg

PLATFORM P3 (bevelled)

Order no.
0489 13 745

Stainless steel, can be lowered to the floor between the outriggers of lowered wheelbase.

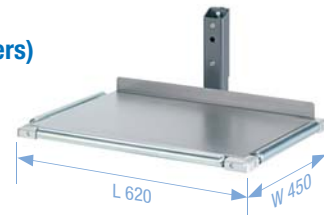


Multi-Performance Lift type	Loading height	Payload
1000	40 - 1015 mm	100 kg
1500	40 - 1515 mm	100 kg
1750	40 - 1765 mm	100 kg

PLATFORM P4 (with 3 loading rollers)

Order no.
0489 13 658

Stainless steel, 3 loading rollers for easy loading/unloading from three sides

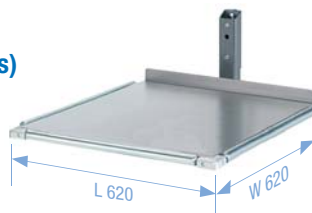


Multi-Performance Lift type	Loading height	Payload
1000	144 - 1119 mm	2 x 50 kg
1500	144 - 1619 mm	2 x 50 kg
1750	144 - 1869 mm	2 x 50 kg

PLATFORM P5 (with 3 loading rollers)

Order no.
0489 14 251

Stainless steel, 3 loading rollers for easy loading/unloading from three sides

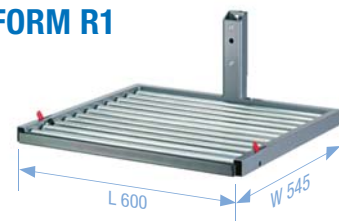


Multi-Performance Lift type	Loading height	Payload
1000	144 - 1119 mm	2 x 50 kg
1500	144 - 1619 mm	2 x 50 kg
1750	144 - 1869 mm	2 x 50 kg

ROLLER PLATFORM R1

Order no.
0489 14 364

With rollers and safety bracket for convenient loading/unloading of goods weighing up to 100 kg

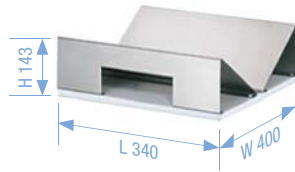


Multi-Performance Lift type	Loading height	Payload
1000	170 - 1145 mm	100 kg
1500	170 - 1645 mm	100 kg
1750	170 - 1895 mm	100 kg

MULTI-PERFORMANCE LIFT

VEE BLOCK V1

Order no.
0489 14 175

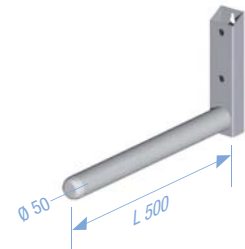


For cylindrical parts up to 600 mm Ø. Only for use with P1 - P3 and universal platform, which can be lowered to the floor between the outriggers of lowered wheelbase.

Multi-Performance Lift type	Loading height	Payload
1000	60 - 1035 mm	100 kg
1500	60 - 1535 mm	100 kg
1750	60 - 1795 mm	100 kg

SPINDLE D1

Order no.
0489 14 812

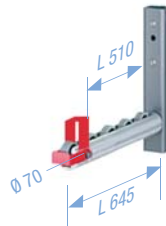


For rolls with hollow core of at least 50 mm Ø

Multi-Performance Lift type	Loading height	Payload
1000	150 - 1125 mm	75 kg
1500	150 - 1625 mm	75 kg
1750	150 - 1875 mm	75 kg

ROLLER SPINDLE R2.510

Order no.
0489 13 659

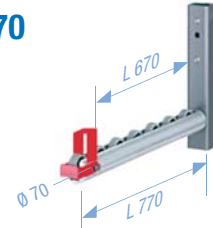


For rolls with hollow core of at least 70 mm Ø; transport rollers greatly simplify spindle insertion/removal.

Multi-Performance Lift type	Loading height	Payload
1000	150 - 1125 mm	80 kg
1500	150 - 1625 mm	80 kg
1750	150 - 1875 mm	80 kg

ROLLER SPINDLE R2.670

Order no.
0489 14 579



For rolls with hollow core of at least 70 mm Ø; transport rollers greatly simplify spindle insertion/removal.

Multi-Performance Lift type	Loading height	Payload
1000	150 - 1125 mm	65 kg
1500	150 - 1625 mm	65 kg
1750	150 - 1875 mm	65 kg

ROLL HANDLER RW70

Order no.
0489 RW70

For convenient turning of rolls (with hollow core of 70 mm Ø) from the vertical to the horizontal.



Multi-Performance Lift type	Loading height	Payload
1000	140 - 1115 mm	100 kg
1500	140 - 1615 mm	100 kg
1750	140 - 1865 mm	100 kg

ROLL HANDLER RW76

Order no.
0489 RW76

For convenient turning of rolls (with hollow core of 76 mm Ø) from the vertical to the horizontal.



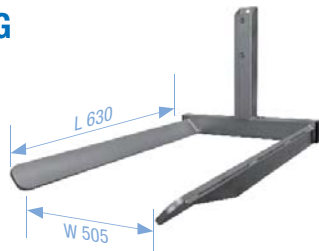
Multi-Performance Lift type	Loading height	Payload
1000	140 - 1115 mm	100 kg
1500	140 - 1615 mm	100 kg
1750	140 - 1865 mm	100 kg

LOAD HANDLING ATTACHMENTS

ROLLER FORK RG

Order no.
0489 13 1702

Fork with bevelled prongs for handling rolls with 400...600 mm Ø.



Multi-Performance Lift type	Loading height	Payload
1000	140 - 1025 mm	100 kg
1500	140 - 1525 mm	100 kg
1750	140 - 1775 mm	100 kg

UNIVERSAL PLATFORM UP (foldable)

Order no.
0489 13 656

Bevelled, foldable platform with adjustable fork prongs for handling containers.

The platform can be lowered to the floor between the outriggers of lowered wheelbase.



Multi-Performance Lift type	Loading height	Payload
1000	115 - 1090 mm	50 kg
1500	115 - 1590 mm	50 kg
1750	115 - 1840 mm	50 kg

BOOM AL

Order no.
0489 14 825

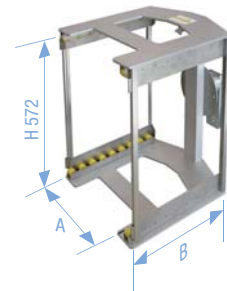
For all tasks in which the load must be accessed from above.



Multi-Performance Lift type	Loading height	Payload
1000	270 - 1245 mm	80 kg
1500	270 - 1745 mm	80 kg
1750	270 - 1995 mm	80 kg

PLATFORMS WITH ROTATING MODULE WP 3, 4, 6, 7

Order no.
0489 15 015 (WP 3)
0489 15 020 (WP 4)
0489 15 030 (WP 6)
0489 15 035 (WP 7)



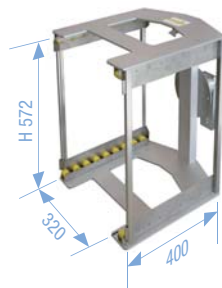
For magazines/containers that must be rotated through 180° during processing.

Rotation platform WP 3: A 380 / B 400
Rotation platform WP 4: A 400 / B 460
Rotation platform WP 6: A 460 / B 535
Rotation platform WP 7: A 530 / B 535

PLATFORMS WITH ROTATING MODULE WP 1

Order no.
0489 14 575

For magazines / containers that must be rotated through 180° during processing.



Multi-Performance Lift type	Loading height	Payload
1000	144 - 1119 mm	50 kg
1500	144 - 1619 mm	50 kg

Multi-Performance Lift type	Loading height	Payload
1000	144 - 1119 mm	50 kg
1500	144 - 1619 mm	50 kg

HANDLING POSSIBILITIES AND EXAMPLES



Bevelled platform P3



Spindle D1



Roll prong R2.670 with safety catch



Universal platform UP



Boom AL



Rotation platform WP



Roller platform R1



Platform with loading roller (P4 / P5)



Platform with Vee block V1



Order-picking aid at working height



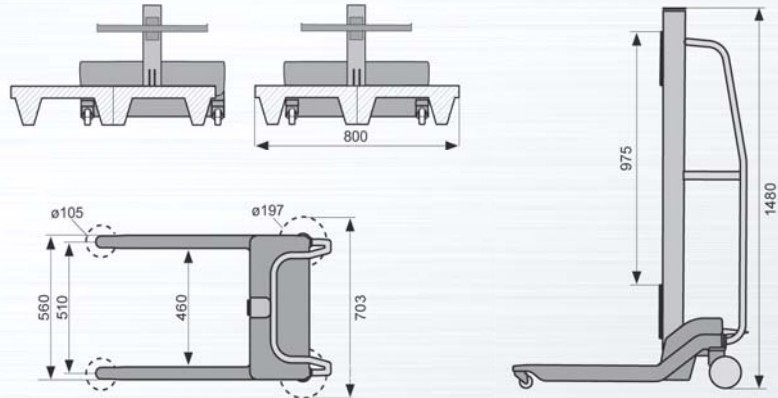
Wheelbase fits under pallets



Order picking with containers

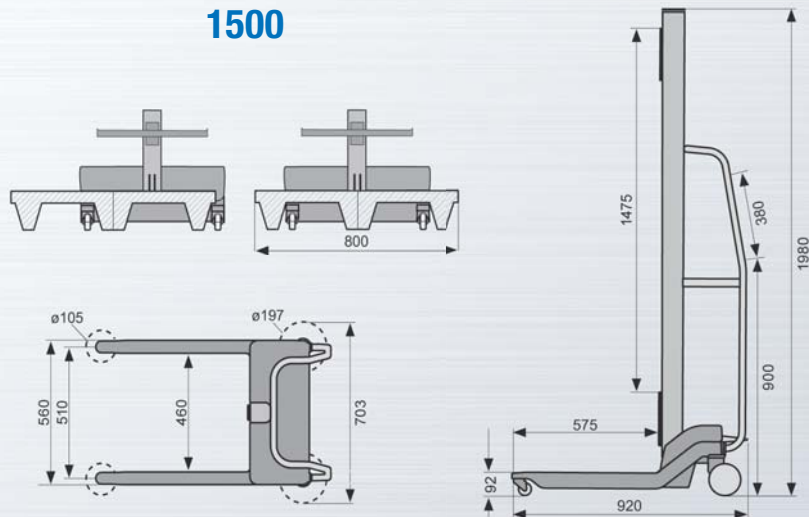
Overall height	1480 mm
Lifting height	975 mm
Overall length	920 mm
Widths	560 mm / 460 mm (inside / outside edges)
Battery data	7,2 Ah / 24 V
Wheel sizes	60 / 125 mm (front / rear)
Lifting speed	40 / 60 / 80 / 100* mm/s (* preset value)
Payload	125 kg
Empty weight	42 kg
Power supply (input)	100...240 V, 50...60 Hz, 700 mA, 60 VA
Power supply (output)	24 V / 1,5 A / 30 VA

Multi-Performance Lift 1000



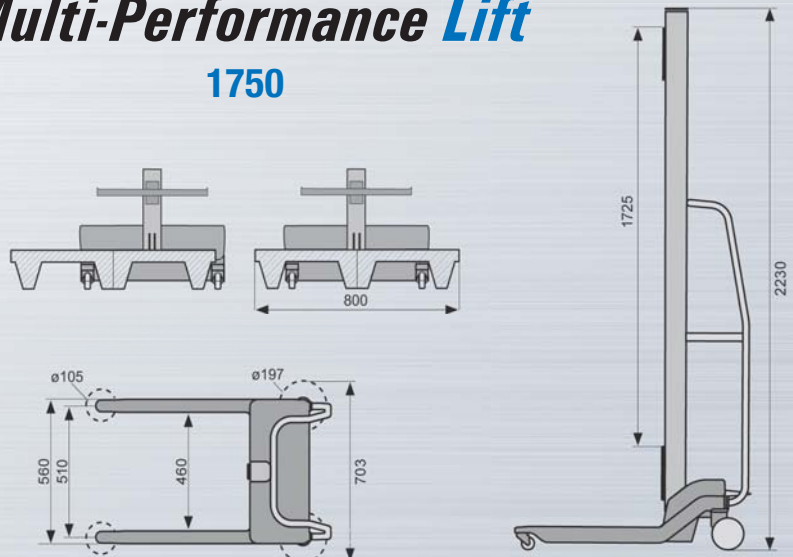
Overall height	1980 mm
Lifting height	1475 mm
Overall length	920 mm
Widths	560 mm / 460 mm (inside / outside edges)
Battery data	7,2 Ah / 24 V
Wheel sizes	60 / 125 mm (front / rear)
Lifting speed	40 / 60 / 80 / 100* mm/s (* preset value)
Payload	125 kg
Empty weight	46 kg
Power supply (input)	100...240 V, 50...60 Hz, 700 mA, 60 VA
Power supply (output)	24 V / 1,5 A / 30 VA

Multi-Performance Lift 1500



Overall height	2230 mm
Lifting height	1725 mm
Overall length	920 mm
Widths	560 mm / 460 mm (inside / outside edges)
Battery data	7,2 Ah / 24 V
Wheel sizes	60 / 125 mm (front / rear)
Lifting speed	40 / 60 / 80 / 100* mm/s (* preset value)
Payload	125 kg
Empty weight	50 kg
Power supply (input)	100 - 240 V, 50 - 60 Hz, 700 mA, 60 VA
Power supply (output)	24 V / 1,5 A / 30 VA

Multi-Performance Lift 1750





► **EFFORTLESS LOAD HANDLING WITH
NATURAL WORKING MOVEMENTS**

BALANCELIFT SYSTEMS



**Who says profits can't
be raised as easily?**

BALANCELIFT SYSTEMS



BALANCELIFT – PNEUMATIC LIFTING CYLINDER FOR ERGONOMIC LOAD HANDLING



BalanceLift – effortless load handling without electric power

An enormous range of vacuum, pneumatic, magnetic, and mechanical load handling attachments and gripping devices offers application-oriented solutions for handling the most varied goods weighing up to 300 kg, and with lifting heights up to 4 m. Simple, continuous and precise manoeuvrability via up/down controls or with the balancer function (without control buttons – the load is balanced automatically). In this way, the operator always has perfect control of the load – without any physical effort, and with natural working movements. This increases productivity, and contributes towards maintaining employee health.

Load handling is pneumatic, i.e. without a connection to electric power. All that is needed is a compressed air supply (6 bar). Because compressed air is only required for lifting, this type of energy supply is extremely cost effective. Moreover, the BalanceLift offers flexible mounting options: In combination with BalanceRail overhead rails, floor or wall-mounted crane booms, with the mobile BalanceStand or BalancePort, or mounted in existing customer installations, the BalanceLift system optimizes the necessary handling tasks at the workplace.



In close cooperation with the end user, our experts design and build customer-specific vacuum, pneumatic, magnetic, and mechanical load handling attachments.

EXPRESSO's handling consultants first examine and discuss the task on your premises, and then prepare an individual handling analysis. Within a few days, you will receive a detailed offer for the corresponding handling concept.

BALANCELIFT LIFTING CYLINDER



BALANCELIFT LIFTING CYLINDER

for individually adapted handling solutions, and payloads up to 300 kg. Lifting heights between 0,3 and 4,0 m are possible, with horizontal or vertical mounting, depending on the conditions on site.



POWER SUPPLY

Works only with compressed air (no electric power), can therefore also be used in explosion-hazarded areas. Only compressed air is required for lifting, therefore highly cost effective.



SPIRAL HOSE

The compressed air is supplied to the gripping unit via a flexible spiral hose. This ensures very convenient and ergonomic load handling operations.



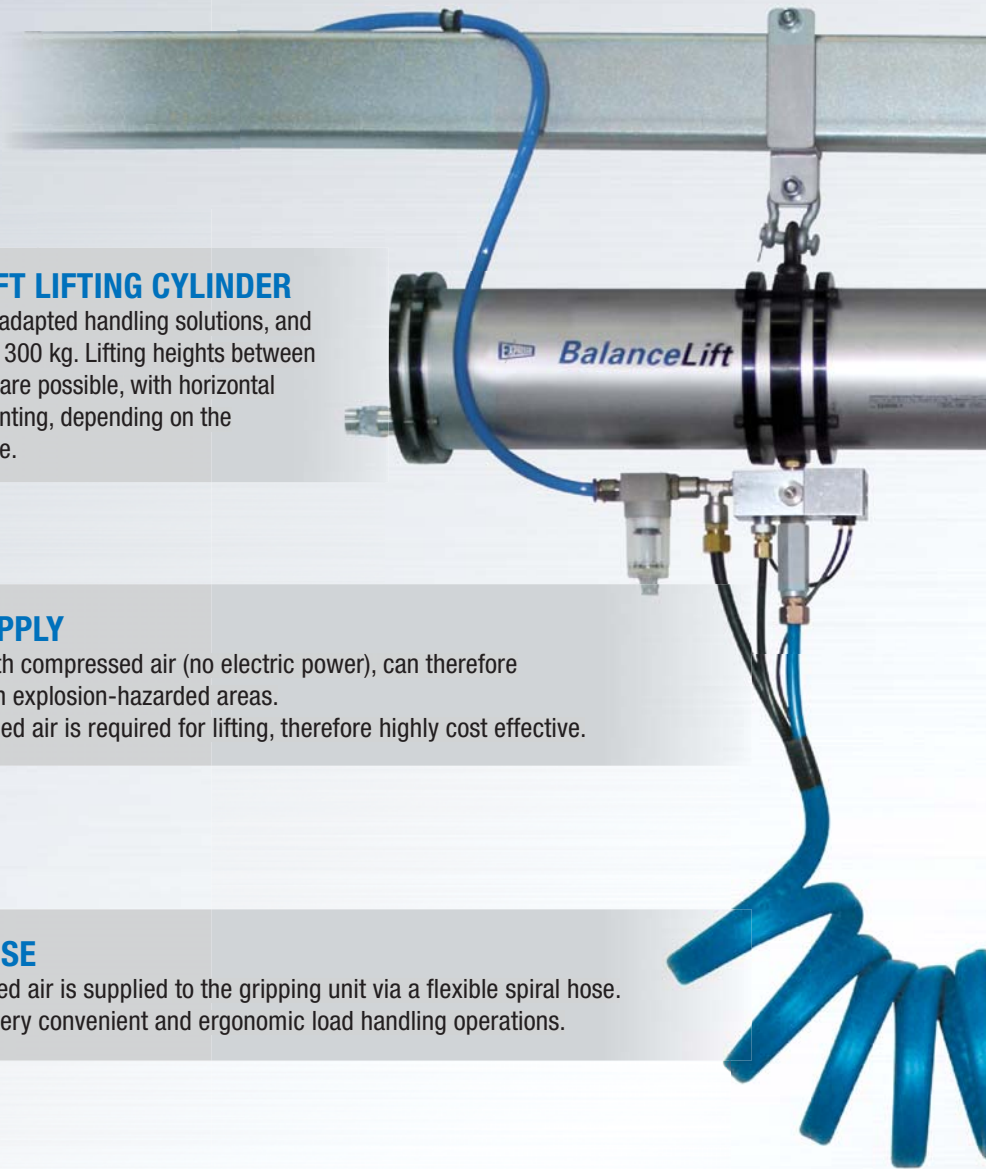
CONTROL OPTION "VARIO"

The "Vario" is suitable for handling different loads (no pre-adjustment to load weight) – load control is by means of up/down buttons in the gripping unit. Depending on application and gripper, additional controls are possible, e.g. for vacuum on/off or for pneumatic clamping/releasing.



CONTROL OPTION "BALANCE"

Thanks to intuitive touch control of the gripper, this option is ideal for handling uniform goods. With this version, the control unit is pre-adjusted to the weight of the load to be handled. Depending on application and gripper, additional controls are possible, e.g. for vacuum on/off or for pneumatic clamping/releasing.





SUSPENSION & SUPPORT

The BalanceLift can be mounted to the following suspension & support systems: Overhead rail system (BalanceRail), mobile crane (BalanceStand), aluminium gantry system (BalancePort), wall or pillar mounting, or installed in existing customer equipment.



ANTI-JUMP SAFETY FUNCTION

All BalanceLift versions are fitted with the anti-jump safety function that prevents the load handling device jumping upwards if the load suddenly becomes detached.



HOISTING ROPE WITH SWIVEL

The plastic-sheathed hoisting rope controls the lifting operation, has a high tensile strength, and is wear-resistant. The swivel prevents the rope becoming twisted.



GRIPPING TOOLS

can be customized to suit individual requirements. A wide range of vacuum, pneumatic, mechanical, and magnetic gripping devices is available for different handling tasks. The vacuum gripper with bellows suction cups is able to pick up goods with different surfaces (e.g. cartons, sheet metal, wood, gas cylinders, etc.) safely and quickly.



GUIDELINES

Manufactured acc. to Machine Directive 2006/42/EC (CE conformity), on request with ESD protection to VDE DIN EN 61340, and suitable for use in various explosion-hazardous areas.



BALANCELIFT LIFTING CYLINDER

AN INNOVATION FOR PARTICULARLY SAFE AND EFFICIENT WORK PROCEDURES

“MINI” VERSION

Compact lifting cylinder with only one chamber for pulleys and piston. Thanks to its compact design, it is ideally suited for BalanceRail or BalancePort applications, and for wall or pillar-mounted swivel cranes.

Horizontal and vertical mounting is possible for various weight ranges and lifting heights.



- ▶ Aluminium cylinder
- ▶ Compressed air operated rope hoisting system (block & pulley principle)
- ▶ Hoisting rope is moved by a piston via pulleys
- ▶ Anti-jump safety function
- ▶ Overload protection prevents excessively high loads being lifted
- ▶ Own weight 4...16 kg, depending on version

“COMPACT” VERSION

Lifting cylinder with two separate chambers for piston and hoisting rope. The pressure chamber is separated from the pulleys. This version is suitable for use in combination with mobile BalanceStand swivel cranes.

Horizontal and vertical mounting is possible for various weight ranges and lifting heights.



- ▶ Aluminium cylinder
- ▶ Compressed air operated rope hoisting system (block & pulley principle)
- ▶ Hoisting rope is moved by a piston via pulleys
- ▶ Anti-jump safety function
- ▶ Overload protection prevents excessively high loads being lifted
- ▶ Own weight 4...16 kg, depending on version

“FULLSCALE” VERSION

Hoisting rope is not wound up. Therefore, this system is significantly longer than the other two versions (the lifting stroke corresponds roughly to cylinder length). When mounted vertically, this version is particularly suited for rooms with high ceilings.

Horizontal and vertical mounting is possible for various weight ranges and lifting heights.



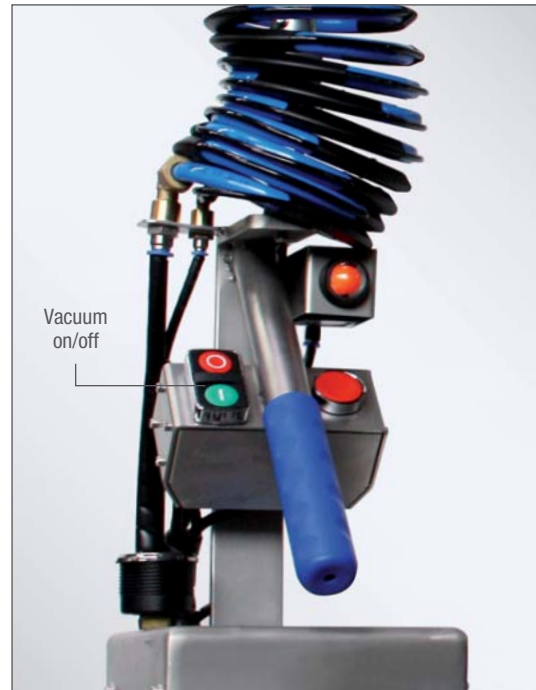
- ▶ Aluminium cylinder
- ▶ Compressed air operated rope hoisting system
- ▶ Hoisting rope is actuated directly
- ▶ Anti-jump safety function
- ▶ Overload protection prevents excessively high loads being lifted
- ▶ Own weight 4...16 kg, depending on version

EFFORTLESS HANDLING OF LOADS USING NATURAL WORKING MOVEMENTS

BALANCER CONTROL UNIT

In connection with a customer-specific load handling attachment (vacuum, pneumatic, magnetic or mechanical gripping device), the Balancer control unit permits freely suspended handling of one or two defined uniform loads in large quantities (order picking, palletizing, assembly, etc.).

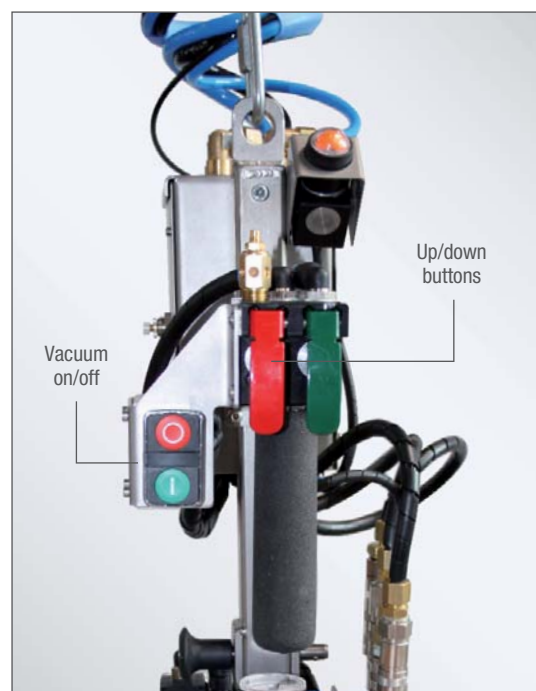
Lifting operations with the Balancer control unit are carried out simultaneously with the operator's natural working movements, also in direct contact with the load. Because no buttons need to be pressed for lifting / lowering, the operator is always in perfect control of the load handling operation.



VARIO CONTROL UNIT

The Vario control unit is used for lifting and lowering different goods with the BalanceLift and a customized vacuum, pneumatic, magnetic or mechanical gripping device.

By means of up/down buttons, loads within the specified weight range can be handled, easily, quickly, and ergonomically.



BALANCELIFT SYSTEMS

FLEXIBLE INSTALLATION POSSIBILITIES: BALANCE- STAND, PILLAR / WALL-MOUNTED SWIVEL CRANES

BALANCESTAND (mobile or stationary)

Mobile swivel crane for utmost flexibility

With its height-adjustable telescopic mast, the mobile BalanceStand is an ideal carrier system wherever utmost flexibility is required when using a BalanceLift. The BalanceStand can be transported easily to different operating sites by means of a forklift truck or a pallet jack. An even greater working range is obtained with an articulated boom.

Payloads are max. 100 kg with a 2 m boom, and 65 kg with a 3 m boom. Alternatively, the BalanceStand is also available for floor, wall, or pillar mounting.



PILLAR / WALL-MOUNTED SWIVEL CRANE (mobile or stationary for fixed wall or floor mounting)

The crane booms are light and strong, and together with the carriage, the smooth movements of sliding and swivel joints ensure highly convenient and ergonomic load handling.

The pillar of the swivel crane is fixed to the floor with heavy-duty anchors, and the wall-mounted version bolts easily to existing walls or supports. Subsequently, the boom and its two braces, which connect the swivel joint and the boom tip, are aligned.

Customer-specific solutions can be implemented with telescoping booms (picture at right) as well as individual heights and lengths.

The mobile version is mounted on a base plate that can be transported with a forklift.



FLEXIBLE INSTALLATION POSSIBILITIES: OVERHEAD RAIL SYSTEMS, BALANCEPORT, BALANCERAIL

BALANCEPORT

(stationary, but not anchored)

Individually adaptable carrier system

The innovative BalancePort gantry system is a lightweight modular aluminium structure that permits individual logistic solutions that are perfectly matched to the application and on-site conditions. Thanks to its low weight, high stiffness, and strength (without the need for constructional changes to ceilings or walls) the self-supporting BalancePort is ideally suited for temporary and frequently changing workplaces. Together with the BalanceLift and chain hoist, the BalancePort can handle payloads up to 300 kg.

Alternatively, systems with a steel structure for fixed floor mounting are also available.



BALANCERAIL

(stationary)

Smooth-running rail system for your handling tasks

The BalanceRail overhead rail system can be mounted easily on existing support structures (e.g. BalancePort or steel / concrete supports) or installed in suitable ceilings. Its smooth operation is highly convincing.

Thanks to the carriage with its dual ball bearings, the BalanceLift moves smoothly and easily along the BalanceRail overhead rail system.



BALANCELIFT GRIPPING DEVICES

MECHANICAL GRIPPER FOR CRATES

Loading fork for horizontal transfer of crates

Vario control unit with up/down buttons



MECHANICAL GRIPPER FOR PARCELS

Load attachment with self-locking / releasing mechanism (ballpoint principle) for handling packaged tiles, adjustable for different parcel sizes

Vario control unit with up/down buttons



MECHANICAL GRIPPER FOR CRATES

Load attachment with self-locking/releasing mechanism (ballpoint principle) and positioning aid for easy handling of containers

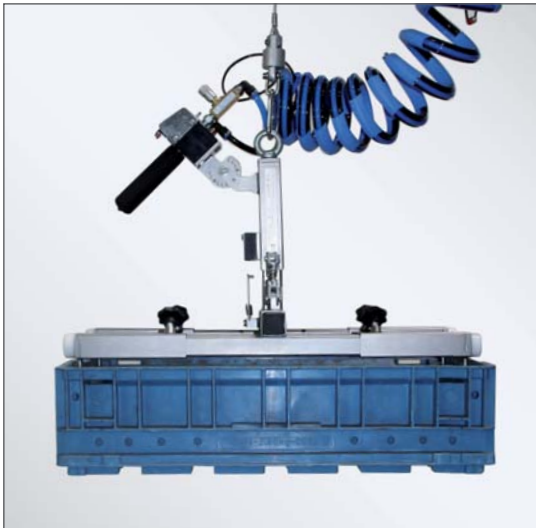
Vario control unit with up/down buttons



MECHANICAL GRIPPER FOR CRATES

Adjustable load attachment with self-locking / releasing mechanism (ballpoint principle) for different crate sizes

Vario control unit with up/down buttons



APPLICATION EXAMPLES

MECHANICAL HOOK GRIPPER

Loading hook for canisters

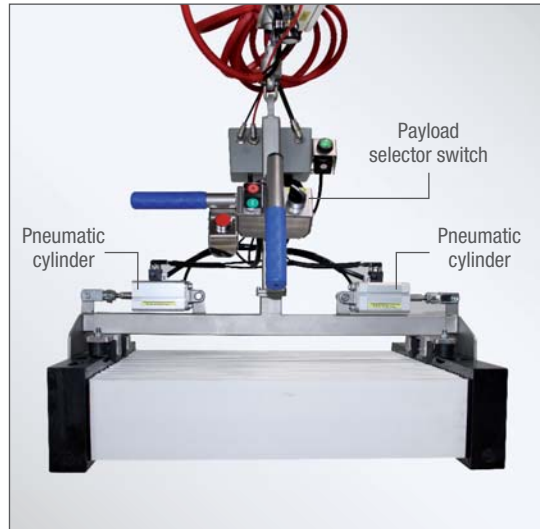
Vario control unit with up/down buttons



PNEUMATIC GRIPPER FOR MODULES

With pneumatic cylinders for closing / releasing the gripper, for horizontal transfer of filter modules

Balancer control unit with clamping/releasing buttons, and selector switch for two defined payloads



PNEUMATIC GRIPPER FOR COMPONENTS

Component gripper with pneumatic cylinders for closing / releasing, and 90° swivelling of the gripper, incl. counterbalancing function

Balancer control unit with clamping/releasing buttons and joystick for control of the swivelling function.



PNEUMATIC GRIPPER FOR BAGS

Bag gripper with pneumatic cylinders for closing / releasing the clamping jaws

Vario control unit with up/down buttons and clamping/releasing buttons for two-handed operation

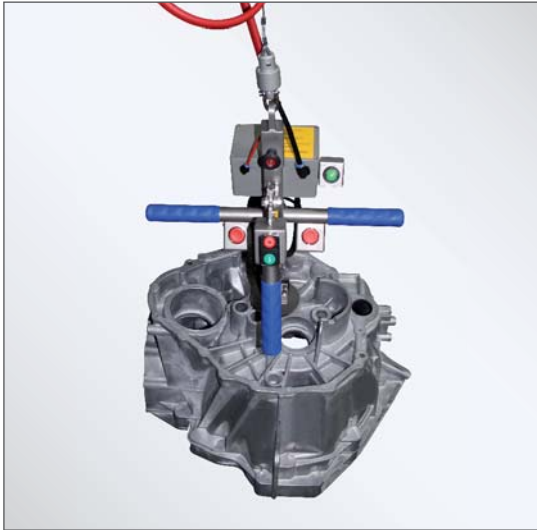


BALANCELIFT GRIPPING DEVICES

PNEUMATIC GRIPPER FOR COMPONENTS

Gripper for horizontal transfer of uniform components

Balancer control unit with clamping/releasing buttons



PNEUMATIC GRIPPER FOR DRUMS

With pneumatic cylinders for clamping / releasing, plus 180° swivelling, incl. counterbalancing function

Vario control unit with up/down buttons, clamping/releasing buttons and joystick for control of the swivelling function



VACUUM GRIPPER FOR CARTONS

Vacuum gripper for horizontal transfer of cartons

Vario control unit with up/down buttons and vacuum on/off buttons



VACUUM GRIPPER FOR GAS CYLINDERS

Vacuum gripper for horizontal transfer of gas cylinders

Vario control unit with up/down buttons and vacuum on/off buttons



APPLICATION EXAMPLES

MECHANICAL HOOK GRIPPER

For picking up drums by their hand recess

Vario control unit with up/down buttons



MECHANICAL GRIPPER FOR DRUMS

Load attachment with self-locking / releasing mechanism (ballpoint principle) for horizontal transfer of drums

Vario-control unit with up/down buttons



VACUUM GRIPPER FOR CARTONS

Adjustable vacuum suction cups for different carton sizes

Vario control unit with up/down buttons and vacuum on/off buttons



VACUUM GRIPPER FOR CARTONS

Carton gripper with multiple suction cups. Utmost flexibility through automatic deactivation of cups that are not in contact with the load to be handled.

Vario control unit with up/down buttons and vacuum on/off buttons

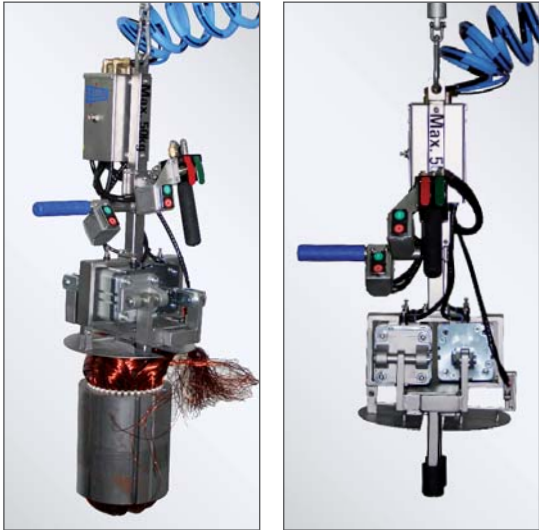


BALANCELIFT GRIPPING DEVICES

PNEUMATIC GRIPPER FOR ARMATURES

With pneumatic cylinders for clamping the motor armatures from inside.

Vario control unit with up/down buttons and clamping/releasing buttons



PNEUMATIC GRIPPER FOR EURO PALLETS

For clamping/releasing, plus 180° swivelling of the pallet, and counterbalancing function.

Vario control unit with up/down buttons, clamping/releasing buttons and joystick for control of the swivelling function.



PNEUMATIC GRIPPER FOR COMPONENTS

With counterbalancing and clamping / releasing function, plus 90° swivelling of the gripper

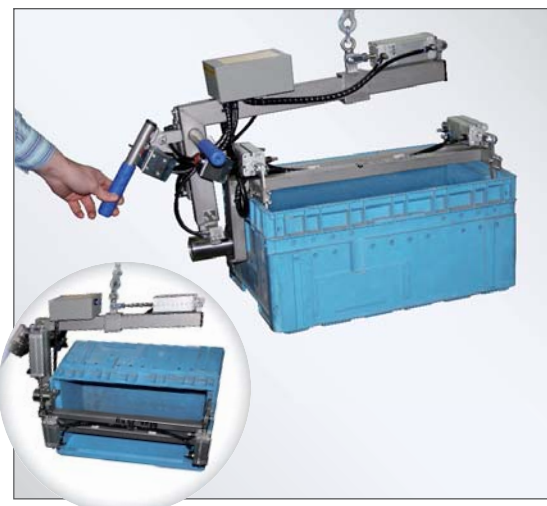
Vario control unit with up/down buttons, clamping/releasing buttons and joystick for control of the swivelling function



PNEUMATIC GRIPPER FOR CONTAINERS

With 120° swivelling function for emptying. Container is picked up via clamping slots that permits the containers to be closely stacked

Vario control unit with up/down buttons, clamping/releasing buttons and joystick for control of the swivelling function

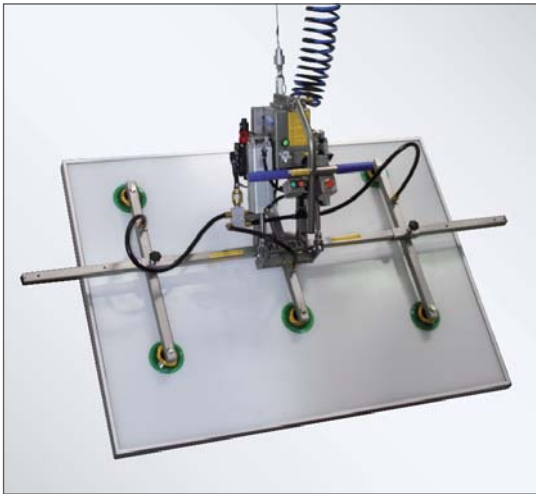


APPLICATION EXAMPLES

VACUUM GRIPPER FOR SOLAR PANELS

Vacuum gripper for handling solar panels with 90° swivelling mechanism for horizontal and vertical lifting / depositing

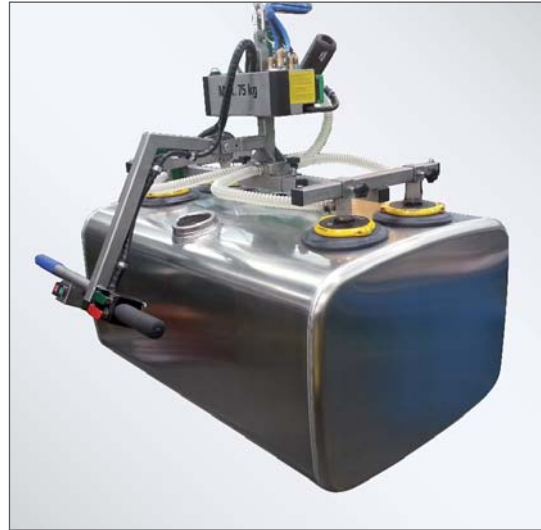
Vario control unit with up/down buttons, vacuum on/off buttons, and joystick for control of the swivelling function



VACUUM GRIPPER FOR TANKS

Vacuum gripper for lifting and horizontal transfer of tanks

Vario control unit with up/down buttons and vacuum on/off buttons



VACUUM GRIPPER FOR BUCKETS

With counterbalancing and pneumatic 135° tipping function for emptying the buckets

Vario control unit with up/down buttons, vacuum on/off buttons, and joystick for control of the tipping function



VACUUM GRIPPER FOR DRUMS

Vacuum gripper for horizontal transfer of buckets and drums

Balancer control unit with vacuum on/off buttons



BALANCELIFT GRIPPING DEVICES

VACUUM GRIPPER FOR GAS CYLINDERS

With counterbalancing and pneumatic 90° swivelling function

Vario control unit with up/down buttons, vacuum on/off buttons, and joystick for control of the swivelling function



VACUUM GRIPPER FOR CARTONS

For lifting cartons with vacuum suction pads, and additional adaptable pallet fork for horizontal transfer of cartons & pallets

Vario control unit with up/down buttons and vacuum on/off buttons



VACUUM GRIPPER FOR BAGS

Suction unit for horizontal transfer of bags

Vario control unit with up/down buttons and vacuum on/off buttons



MAGNETIC GRIPPER

For lifting uniform metal pipes, and with pneumatic 90° swivelling function and counterbalancing

Balancer control unit with magnet on/off buttons, and joystick for control of the swivelling function



QUICK-EXCHANGE GRIPPERS

QUICK-EXCHANGE GRIPPERS

The basic vacuum unit is fitted with a quick-exchange system for four different gripping devices. It is operated by means of a Vario control unit with up/down buttons and vacuum on/off buttons.

- ① Vacuum gripper for cartons
- ② Hook gripper for handling canisters
- ③ Vacuum gripper for handling bags
- ④ Vacuum gripper for drums



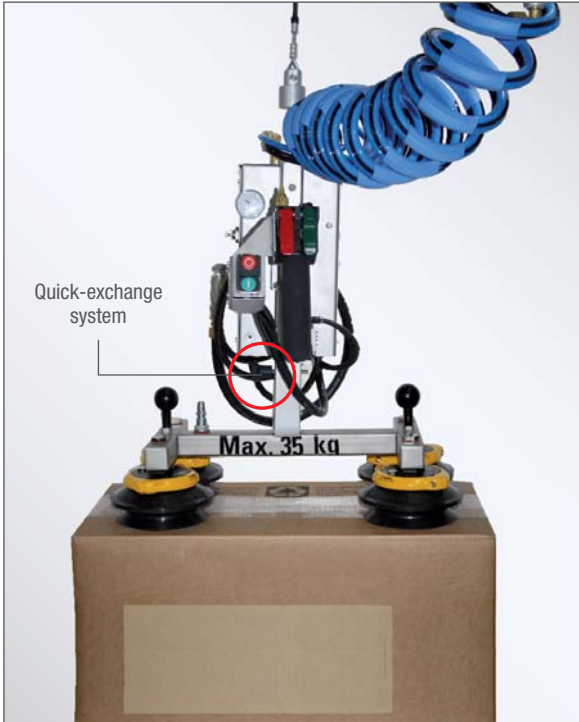
BALANCELIFT QUICK-EXCHANGE GRIPPERS

QUICK-EXCHANGE GRIPPERS

The basic vacuum unit is fitted with a quick-exchange system with various gripping devices for horizontal transfer of differently sized cartons / crates.

Control option:

Vario control unit with up/down buttons and vacuum on/off buttons.



SPECIAL LIFTING SYSTEMS

CHAIN HOIST

Versions with electric bogie (Fig. 1), and with hook suspension (Fig. 2). Easy and little maintenance thanks to modular design, patented safety clutch prevents load falling in case of clutch failure, lifting capacity 125...500 kg; lifting height up to 3 m, other lifting capacities and heights are possible.



ELECTRIC BALANCER

Electric drive with brushless servomotor, flexible design for operating controls and handles. Optional: Rotary leadthrough for control cable and compressed air line; lifting capacity up to 600 kg. Working range 3 m; operating voltage 230 V (normal power outlet)



PRODUCTION LINE

Stationary lifting system as complete production line, individually configurable.



LIFTING COLUMN

Suspended on bogie in overhead rail systems. Individually adaptable grippers. Smooth lifting stroke without play, high loading capacity, also with offset loads, continuously adjustable hoisting speed, lifting capacity up to 1000 kg. Other lifting capacities and heights are possible.

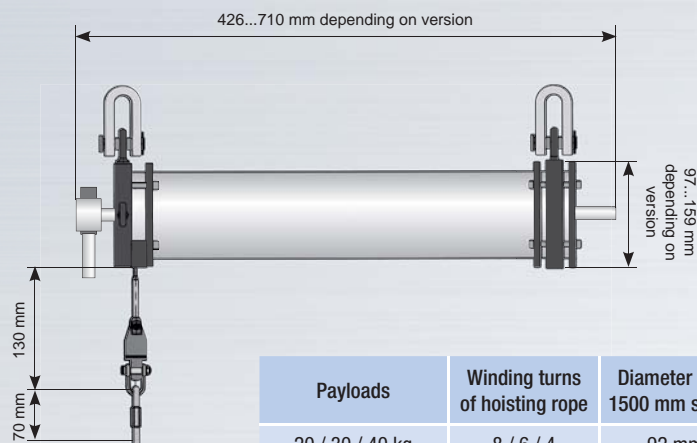


TECHNICAL DATA

BalanceLift

“Mini” version

Values are based on standard lifting stroke lengths of 1500 mm with horizontal mounting.

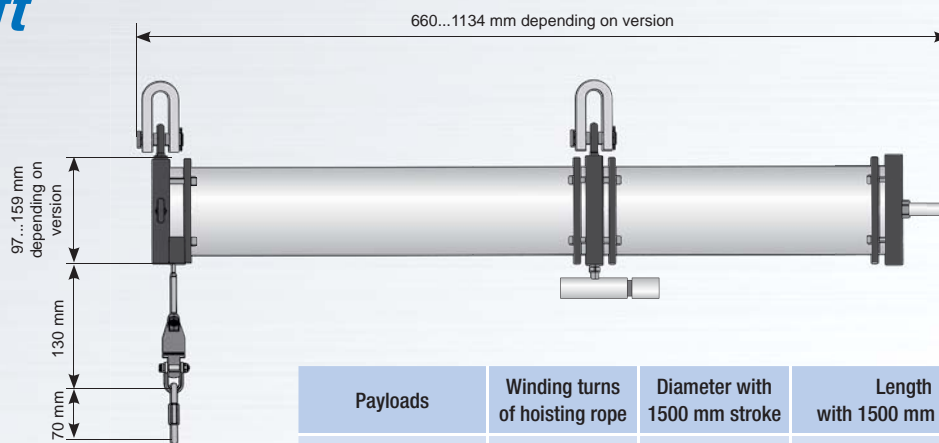


Payloads	Winding turns of hoisting rope	Diameter with 1500 mm stroke	Length with 1500 mm stroke
20 / 30 / 40 kg	8 / 6 / 4	92 mm	426 / 490 / 617 mm
35 / 45 / 65 kg	8 / 6 / 4	114 mm	459 / 523 / 650 mm
75 / 100 / 150 kg	8 / 6 / 4	159 mm	519 / 583 / 710 mm

BalanceLift

„Compact“ version

Values are based on standard lifting stroke lengths of 1500 mm with horizontal mounting.

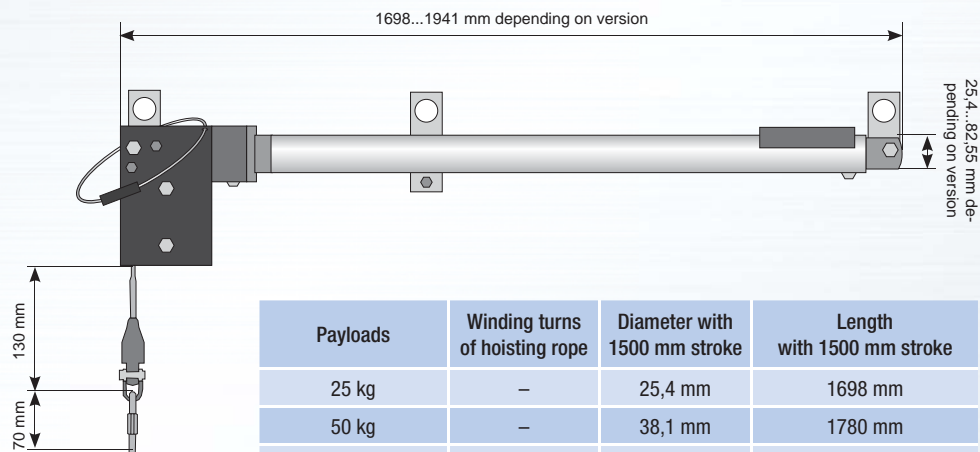


Payloads	Winding turns of hoisting rope	Diameter with 1500 mm stroke	Length with 1500 mm stroke
20 / 30 / 40 kg	8 / 6 / 4	92 mm	660 / 785 / 1039 mm
35 / 45 / 65 kg	8 / 6 / 4	114 mm	721 / 848 / 1102 mm
75 / 100 / 150 kg	8 / 6 / 4	159 mm	753 / 880 / 1134 mm

BalanceLift

„Fullscale“ version

Values are based on standard lifting stroke lengths of 1500 mm with horizontal mounting.

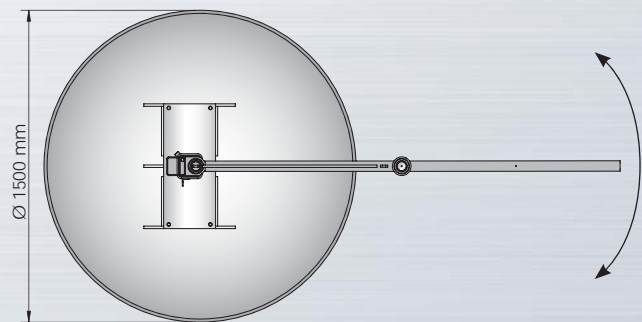
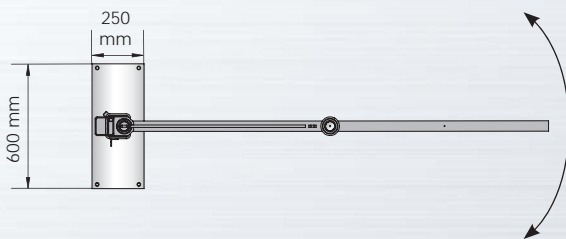
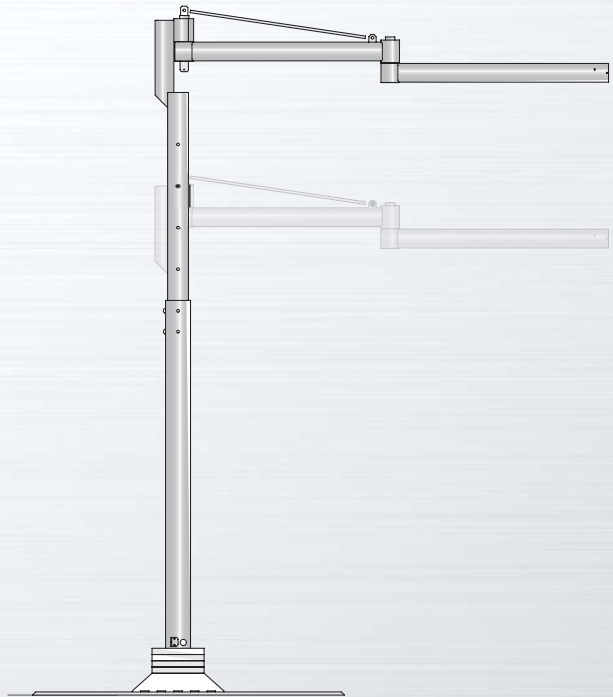
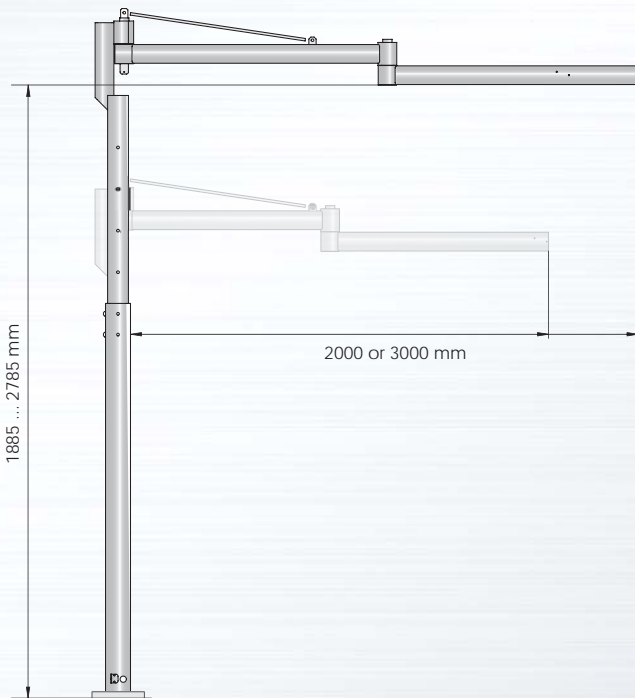


Payloads	Winding turns of hoisting rope	Diameter with 1500 mm stroke	Length with 1500 mm stroke
25 kg	–	25,4 mm	1698 mm
50 kg	–	38,1 mm	1780 mm
100 kg	–	50,8 mm	1817 mm
150 kg	–	63,5 mm	1817 mm
300 kg	–	82,55 mm	1941 mm

BalanceStand

“Stationary” version
(fixed floor mounting)

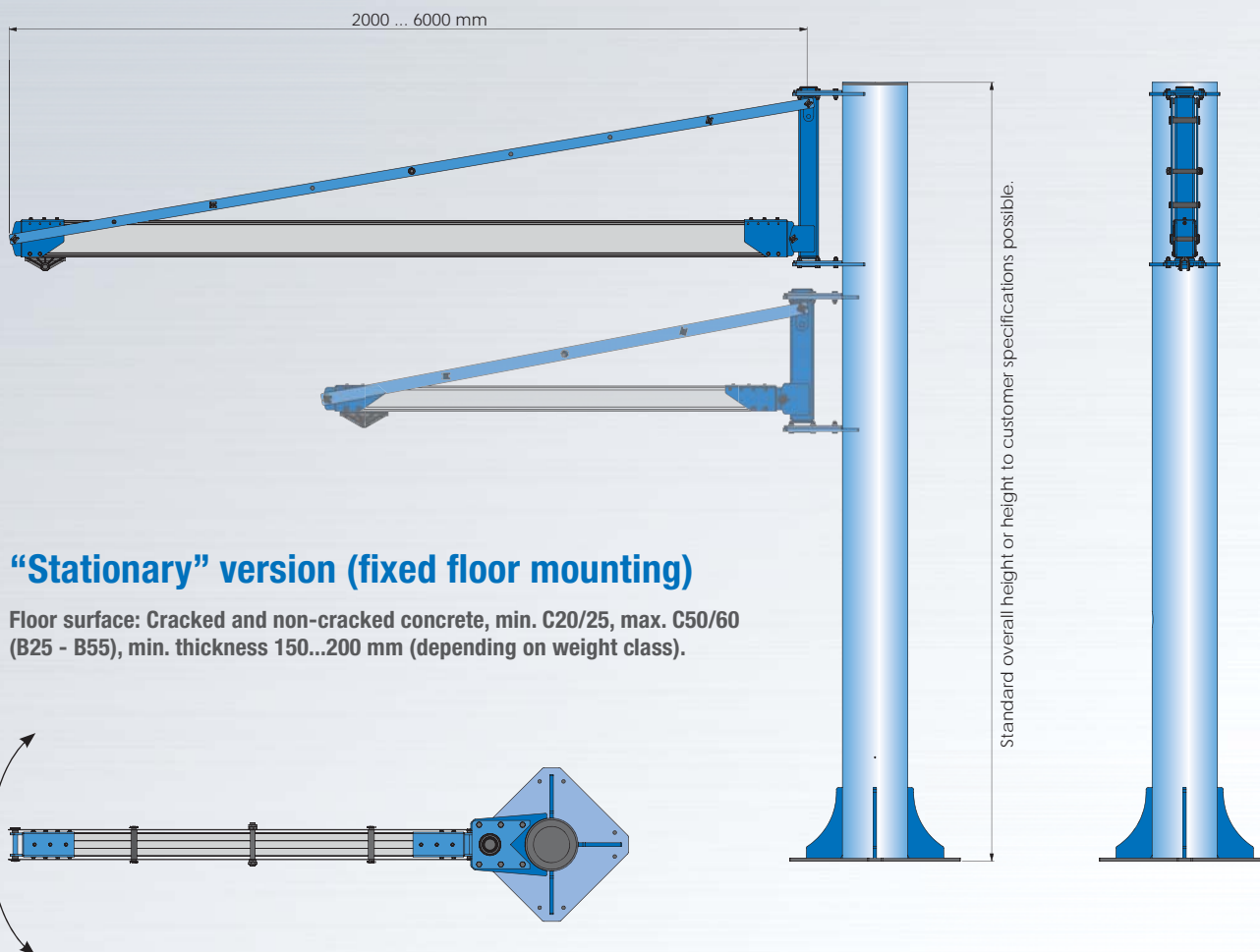
“Mobile” version
(with transportable base plate)



Images on this page are examples.

Possible overall heights	Height of telescopic mast	Empty weight	Payloads (2000 / 3000 mm boom)	Length of boom	Base plate diam.	Working radius	Power supply
2251 ... 3151 mm	1885 ... 2785 mm (adjustable in 100 mm steps)	about 450 kg (plus BalanceLift and gripper device)	max. 100 kg or max. 65 kg	2000 mm or 3000 mm	1500 mm	2040 mm (with 2 m boom) 3040 mm (with 3 m boom)	6 bar compressed air

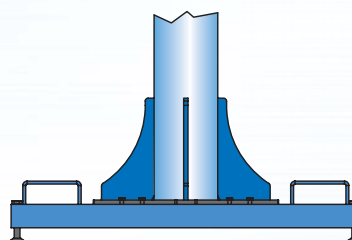
Pillar-mounted swivel crane



“Stationary” version (fixed floor mounting)

Floor surface: Cracked and non-cracked concrete, min. C20/25, max. C50/60 (B25 - B55), min. thickness 150...200 mm (depending on weight class).

“Mobile” version (with transportable base plate)



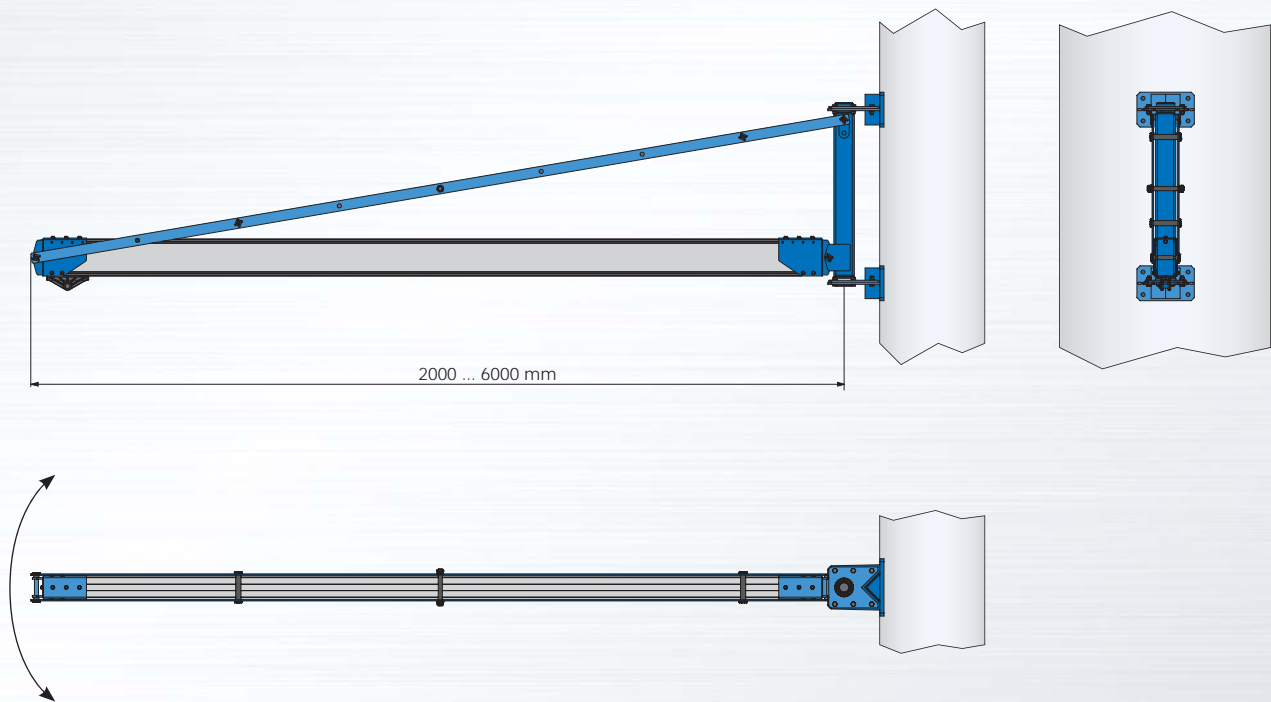
Standard overall height	Empty weight	Permissible payloads	Length of boom	Base plate (depending on weight class)	Transportable base plate	Swivelling angle	Power supply
3500 ... 4200 mm (depending on weightclass)	200 kg ... 670 kg (plus BalanceLift and gripping device)	125 kg / 160 kg / 250 kg / 320 kg / 500 kg	2000 ... 6000 mm	500 x 500 mm up to 800 x 800 mm	1200 x 1200 mm (80 mm thick)	270°	Electric power or compressed air

Images on this page are examples.

Individual design, version, and dimensions are defined in close cooperation with you.

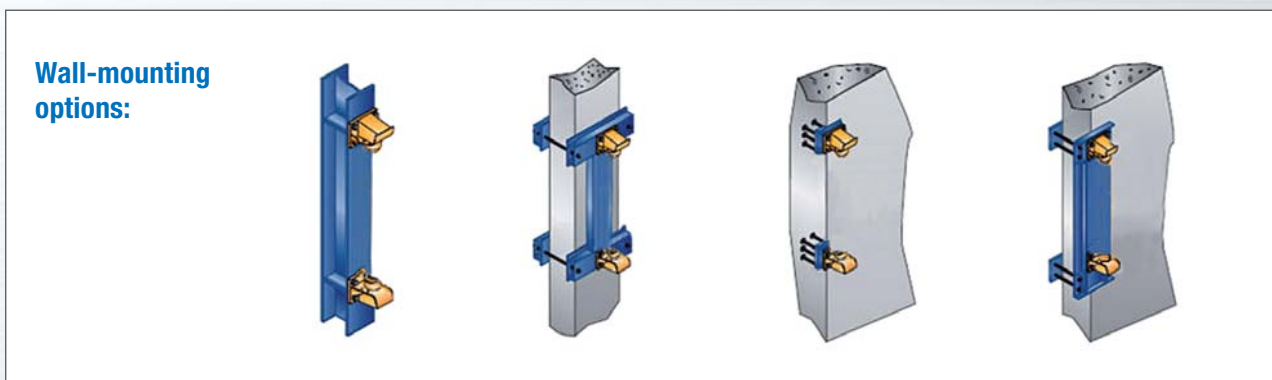
Technical details are subject to change in the interest of constant product improvement.

Wall-mounted swivel crane



“Stationary” version (fixed wall mounting)

Wall structure: Cracked and non-cracked concrete, min. C20/25, max. C50/60 (B25 - B55), min. thickness 250 mm.



Possible overall heights	Empty weight	Permissible payloads	Length of boom	Swivelling angle	Power supply
700 mm ... 1400 mm (depending on weightclass)	80 ... 200 kg (plus BalanceLift and gripping device)	125 / 160 / 250 / 320 / 500 kg	2000 mm ... 6000 mm	180° with wall mounting 270° with pillar mounting	Electric power or compressed air

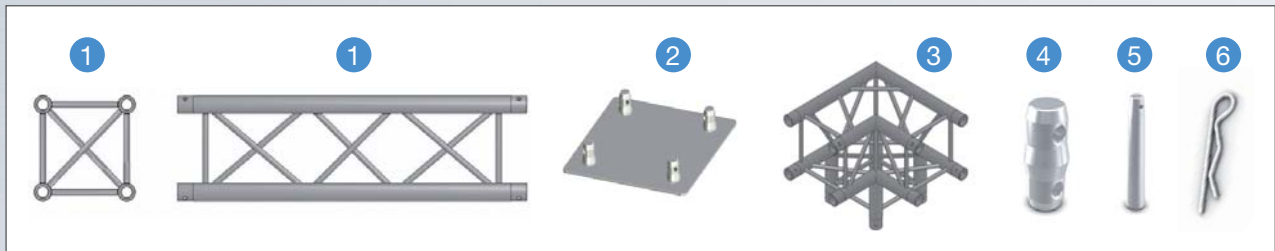
Images on this page are examples.

Individual design, version, and dimensions are defined in close cooperation with you.

Technical details are subject to change in the interest of constant product improvement.

TECHNICAL DATA

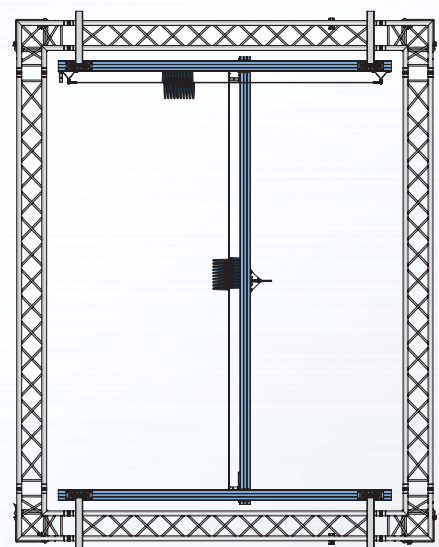
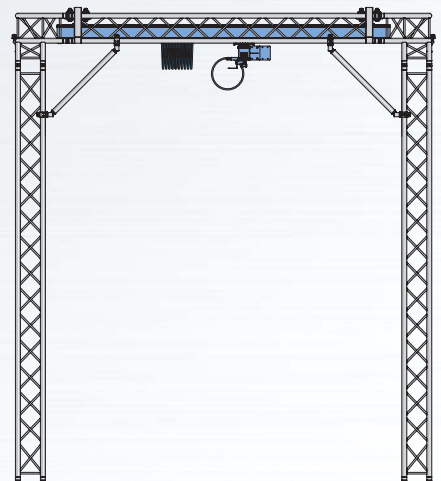
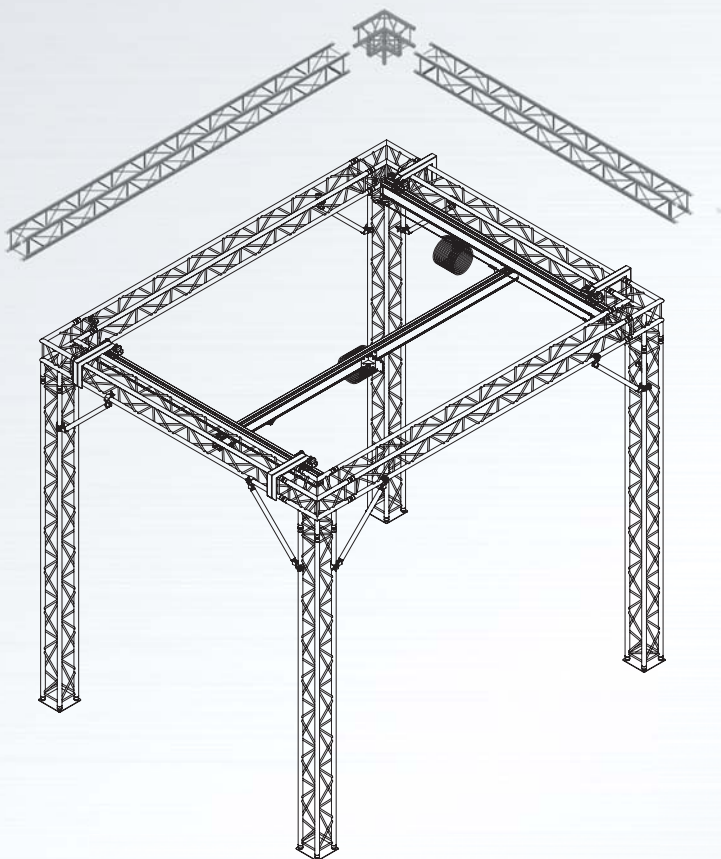
BalancePort



Overview of BalancePort components:

- 1 Overhead rail
- 2 Base plate with conical semi-studs
- 3 Overhead rail corner brackets
- 4 Conical overhead rail connectors
- 5 Securing pin
- 6 Safety clip

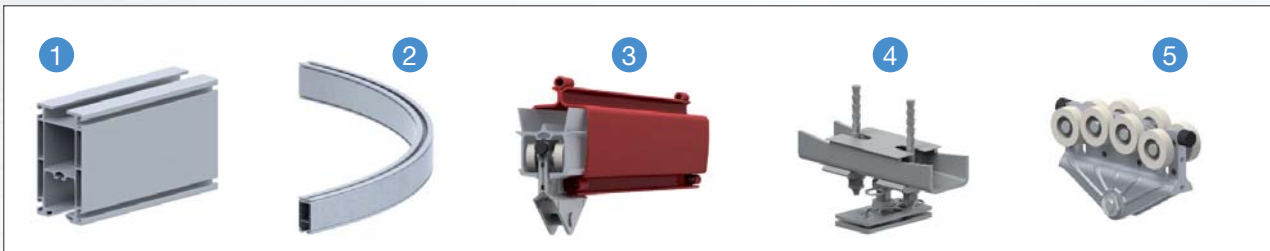
Images on this page are examples.



Individual design, version, and dimensions are defined in close cooperation with you.

Technical details are subject to change in the interest of constant product improvement.

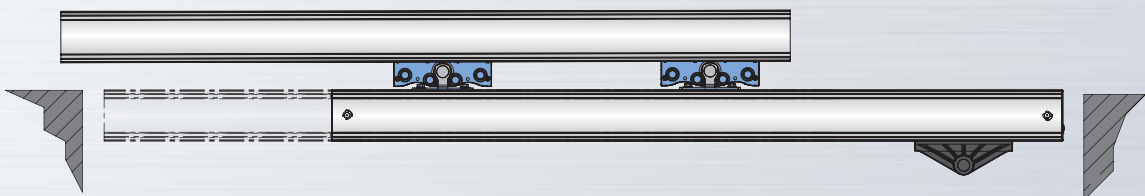
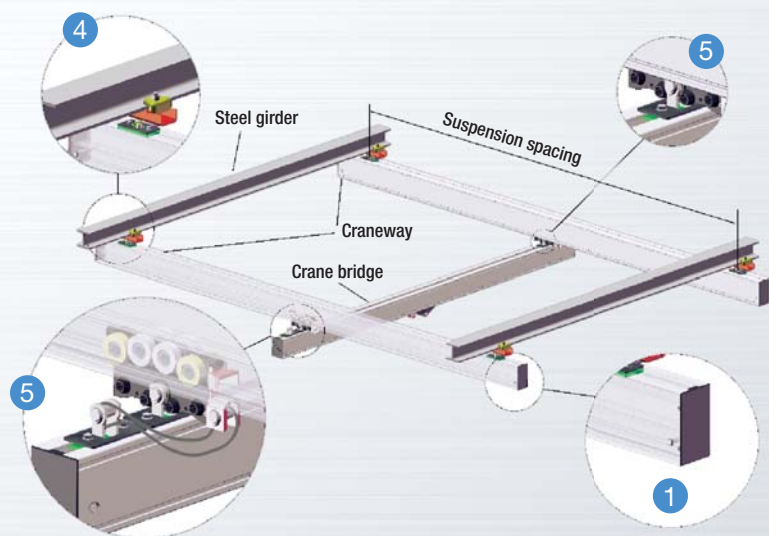
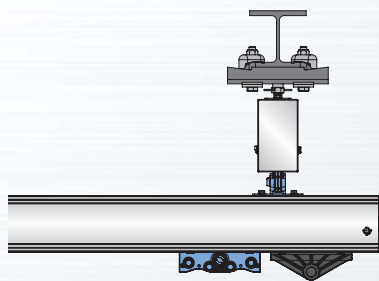
BalanceRail



Overview of BalanceRail components:

Images on this page are examples.

- 1 Rail cross-section
- 2 Curved rail segment
- 3 Insertion profile for optimizing existing systems
- 4 Rail suspension unit
- 5 Crane bogie



Individual design, version, and dimensions are defined in close cooperation with you.



▶ **INGENIOUS TRANSPORT SOLUTIONS
WITH A UNIQUE DRIVE SYSTEM**

TOUCH2MOVE DRIVE UNIT



**Who says things can't
be moved with ease?**

TOUCH2MOVE DRIVE UNIT



TOUCH2MOVE – THE PATENTED DRIVE SYSTEM



Thanks to the touch2move drive technology, logistics operations are optimized, and transporting heavy goods is not only more efficient, but also significantly safer. Simply by touching the sensor handles, the vehicle “obeys” the operator’s natural movements, and automatically adapts to his/her walking speed. Heavy loads are moved safely and ergonomically without effort – and the operator needs neither a driving license nor any special training.

The touch2move drive concept can be fitted to practically all four-wheel trolleys and other transport carts – it also complies with Safety at Work Regulations, and has the CE mark.



Every touch2move drive system is designed and built by our experts in close cooperation with the end user. EXPRESSO’s handling consultants first examine and discuss the task on your premises, and then prepare an individual handling analysis. Within a few days, you will receive a detailed offer for the corresponding handling concept.

TOUCH2MOVE DRIVE UNIT

DRIVE UNIT KIT – THE BASIS FOR YOUR INDIVIDUAL TRANSPORT SOLUTION

EFFORTLESS GOODS MOVEMENT

thanks to the unique and patented touch2move drive system with its stepless adaptation and control of driving speed. The drive unit adapts automatically to the operator's walking speed (speed range 0...6 km/h).

NO SPECIAL TRAINING, NO DRIVING LICENSE REQUIRED

No driving license is required to operate the vehicle, therefore it can be used flexibly and universally, e.g. also in areas without forklift trucks.

INNOVATIVE SOFTWARE

The software package permits the vehicle's driving characteristics to be individually adapted to the operator.

HUB MOTOR

Maintenance-free, gearless and brushless hub drive motor (200 W, max. 72 Nm) for utmost safety, efficiency, and reliability.

TWO BRAKING SYSTEMS

for utmost safety: Dynamic braking via the drive motor plus electromechanical parking brake.

COMPLIES WITH STANDARDS / GUIDELINES

CE conformity in accordance with Machinery Directive 2006/42/EC. Recommended by Inclusion Offices – subsidies possible.



TWO ERGONOMICALLY SHAPED SENSOR HANDLES

for sensitive vehicle control with capacitive hand detection, integrated button for On/Off, and multi-colour LED indicators for battery status and error messages.



OPERATING PANEL (OPTIONAL)

Operating panels in various versions, cable-connected remote control unit for passing through doors, and several other options.



MAINTENANCE-FREE BATTERIES AND 6-AMP CHARGING UNIT

Batteries with fleece technology: 2x12 V, 50 Ah, operating voltage 24 V.

Optional: 2 x 12 V, 34 Ah or 2 x 12 V, 100 Ah

6 A charging unit with electronic charging current monitor that prevents the batteries being overcharged.

Optional: Charging unit with max. 12 A charging current



ADAPTER PLATE (INCLUDED)

Serves as coupling interface for customer-specific attachments.



THREE DIFFERENT TYPES OF TYRE

Vulkollan tyres (Ø 216 mm / Ø 270 mm) or "unflattable" Airlex tyres (Ø 345 mm); for indoor applications, uneven floors, or outdoor use.



FOUR DIFFERENT WIDTHS

With widths of 500 / 600 / 700 / 800 mm, the touch2move drive unit adapts easily to individual requirements.



TOUCH2MOVE DRIVE UNIT

PLATFORM CART

Application area: Industry

Platform made of aluminium or derived wood, optionally with end walls and removable side walls.



SHELF TROLLEY

Application areas: Offices, warehouses

Steel structure with shelves of derived wood; also as wire-mesh cart or cabinet trolley.



SERVING CART

Application areas: Hospitals, gastronomy

touch2move drive unit in combination with serving carts, food trolleys or laundry carts.



MAIL DISTRIBUTION CART

Application area: Offices

Individual shelf arrangements, adapted precisely to customer needs.



APPLICATION EXAMPLES

OUTDOOR PLATFORM CART

Application areas: Industry, warehouses

Outdoor running gear with climbing wheels that permit obstructions up to 150 mm in height (e.g. curbs).



OUTDOOR MAIL DISTRIBUTION CART

Application areas: Industry, offices

File & mail distribution cart with weatherproof soft cover.



OUTDOOR PLATFORM CART

Application area: Hospitals

Outdoor version with weatherproof soft cover.



LOW-SIDED BOX CART

Application areas: Industry, warehouses

For uneven surfaces, e.g. paved or cobbled floors.



TOUCH2MOVE DRIVE UNIT

CENTRAL DRIVE UNIT WITH ONE MOTOR

Application area: Warehouses

Order-picking cart with central drive unit permits turning on the spot.



CENTRAL DRIVE UNIT WITH ONE MOTOR

Application area: Offices

Mail distribution cart with customer-specific shelving.



CENTRAL DRIVE UNIT WITH ONE MOTOR

Application area: Hospitals, gastronomy

Drive unit can be fitted e.g. to conventional food distribution trolley.



CENTRAL DRIVE UNIT WITH ONE MOTOR

Application area: Hospitals

Sensor handles are fitted at both ends for highly flexible operation.



APPLICATION EXAMPLES

CENTRAL DRIVE UNIT WITH TWO MOTORS

Application area: Industry

Combines the manoeuvrability of a central drive unit with the extra power of two motors.



CENTRAL DRIVE UNIT WITH TWO MOTORS

Application area: Offices

Outdoor wheels and weatherproof soft cover for the shelves, e.g. for mail distribution in different buildings.



CENTRAL DRIVE UNIT WITH TWO MOTORS

Application area: Warehouses

Shelf trolley with lockable roller shutter.



CENTRAL DRIVE UNIT WITH TWO MOTORS

Application area: Industry

Heavy-duty load platform, e.g. for transporting standard and wire mesh pallets.



TOUCH2MOVE DRIVE UNIT

SCISSOR-LIFT PLATFORM

Application area: Industry

For transporting loads and for use as mobile workplace.



SCISSOR-LIFT PLATFORM

Application area: Industry

Regarding size and lifting height, the platforms are freely configurable. Optional accessories: Roller table, folding bellows, etc.



SCISSOR-LIFT PLATFORM

Application areas: Industry, warehouses

With wheels for outdoor use.



SCISSOR-LIFT PLATFORM

Application area: Warehouses

With foot-operated pump instead of electrohydraulic lifting.



APPLICATION EXAMPLES

PALLET JACK

Application areas: Industry, warehouses

Loads can be raised clear of the floor and transported effortlessly.



PALLET JACK

Application area: Industry

Special version for lifting and moving wheeled dollies.



PALLET JACK

Application areas: Industry, warehouses

Adjustable forks and customized undercarriage ensure perfect adaptation to customer requirements.



LIFT PLATFORM

Application area: Industry

With roller table for effortless handling of parts & components.



TOUCH2MOVE DRIVE UNIT

MAIL DELIVERY CART

Areas of use: Warehouses, offices, mail companies

Mail distribution, also in outdoor areas; with climbing wheels to overcome curbs, etc.



MAIL DELIVERY CART

Application area: Mail companies

Individual superstructure adapted precisely to customer needs.



MAIL DELIVERY CART

Application area: Mail companies

Variable stowage compartments for transporting letters and parcels.



MAIL DELIVERY CART

Application area: Mail companies

With additional compartments for pre-sorting the mail and stowing the delivering person's private items.



APPLICATION EXAMPLES

SPECIAL VERSION

Application area: Industry

Individually designed transport device for moving drums.



SPECIAL VERSION

Application area: Industry

Transport device with roller table and battery exchange system for 3-shift operation.



SPECIAL VERSION

Application area: Industry

Pusher unit for moving containers.



SPECIAL VERSION

Application areas: Offices, warehouses

Docking system in combination with mobile filing shelves.



TECHNICAL DATA

DIMENSIONS & WEIGHTS

Max. payload	500 kg
Empty weight	110 kg
Length	Individual platform length plus 390 mm for the sensor handles
Width	Depends on individual platform (500 / 600 / 700 / 800 mm)
Sensor handle height	1020 mm
Height of load platform	Depends on wheel size (290 / 345 / 420 mm)

MOTOR (VALUES REFER TO ONE MOTOR)

Motor type	Electronically commutated hub drive motor (gearless)
Voltage	24 V
Current drawn	11 A
Power	200 W
Speed	0...300 rpm
Nominal torque	16 Nm
Braking torque	72 Nm
Load capacity	300 kg (static), 150...250 kg (dynamic)
Protection class	IP 54 (splash water proof)

BRAKES

Regenerative brakes	Fitted as standard
Electromagnetic spring pressure multi-plate brake	Fitted as standard (is released electrically when both sensor handles are grasped – can also be released mechanically, if necessary)
Braking torque	50 Nm

BATTERIES

Maintenance-free fleece technology batteries, non-gassing	2 x 12 V, 50 Ah (34 Ah and 100 Ah optional)
Main fuse	80 A
Electronically controlled charging unit	6 A, with overcharge monitor (12 A optional)

Technical details are subject to change in the interest of constant product improvement.

SENSOR HANDLES / OPERATION

Capacitive hand detection	Fitted as standard
Driving direction and speed controlled via built-in pressure sensors	Fitted as standard
Left handle:	
Battery and status indication (LED green / yellow / red)	Fitted as standard
Start / Stop button	Fitted as standard
Right handle:	
Status & fault indicator (LED green/red)	Fitted as standard
Horn button	Fitted as standard
Up/down buttons	Optionally fitted

OPERATING PANEL (FITTED OPTIONALLY)

Emergency Stop button	Optionally fitted
Keyswitch	Optionally fitted
Hour meter	Optionally fitted
Keypad for additional functions (e.g. up/down)	Optionally fitted
Cable-connected remote control unit for passing through doors	Optionally fitted

AREAS OF USE

Indoors	On non-slip surfaces, ideal for areas without forklift trucks (various tyres available, depending on surface)
Outdoors	On firm surfaces (various tyres available, depending on surface)
Speed / handling characteristics	Individually adjustable
Forwards	0..6 km/h
Reverse	0..6 km/h

GUIDELINES

CE conformity in accordance with Machinery Directive 2006/42/EC.

Driving instruction / driving license: only familiarization, no license required.



Who says moving heavy weights can't be easy?

**▶ THE SMART DRIVE SYSTEM
THAT MOVES A LOT EASILY**

COMPACT LEO TUGS



COMPACT LEO TUGS



COMPACT LEO TUGS – SENSOR-CONTROLLED SYSTEM SOLUTIONS



The LEO is designed as a compact tug that combines EXPRESSO's unique, patented touch2move drive concept with the principles of motorized 'walkie' type transport equipment using tiller handle control. This trend-setting unit closes a handling gap that could previously be overcome only by means of bulky transport equipment such as forklifts and electric pallet trucks, or with considerable physical effort using manual pallet trucks. With sensor handles and a high-torque drive motor, the tug permits convenient and effortless towing and manoeuvring of one or more trolleys/dollies with loads up to 2500 kg. The gains in mobility together with saved time and space lead to increased productivity and safety for companies.



Our experts design and build every handling system in close cooperation with the end user. EXPRESSO's handling consultants first examine and discuss the task on your premises, and then prepare an individual handling analysis. Within a few days, you will receive a detailed offer for the corresponding handling concept.

COMPACT LEO TUGS



LEO 750

The compact overall dimensions of the single-handed tug permit optimum transport, manoeuvring, and parking with loads up to 750 kg. The automatic electro-mechanical coupling device and the manual tiller coupling provide flexible application possibilities.

LEO 2500

Simply by touching the sensor handles, the LEO 2500 “obeys” the operator’s natural movements, and permits the transport of loads up to 2,5 tons on docked trolleys / carts – without effort. By means of automatic hydraulic coupling devices, electrical pick-ups for wheeled dollies or with manual tiller coupling, load carriers can be moved safely and simply.



LEO+ 750 AND LEO+ 2500

Depending on version, the compact LEO+ drive module can be fitted with different motors. It can be mounted directly on transport and handling systems such as scissor platforms, pallet jacks or any other load carrier.

In combination with a docking system, the LEO+ is a particularly compact unit that requires little space and permits the load to be turned on the spot.

MOVING LOADS UP TO 2,5 TONS – WITHOUT EFFORT

The LEO drive concept is based on the established touch2move sensor technology for stepless adaptation & control of driving speed. Simply by touching the sensor handles, the drive module “obeys” the operator’s natural movements, and automatically adapts to his/her walking speed (speed range 0...6 km/h).

INTELLIGENT SOFTWARE

permits pushing or pulling the drive module with both hands or just one hand for precise, quick, and simple docking onto, manoeuvring or transporting different load carriers.

TWO ERGONOMICALLY SHAPED SENSOR HANDLES

Simple and precise operation thanks to the sensitive motor control, capacitive hand detection as a safety function, and multi-coloured indicator LEDs for battery charge and status signalling.

MAINTENANCE-FREE BATTERIES AND ELECTRONIC CHARGING UNITS

Batteries with fleece technology (operating voltage 24 V), and various capacities: 50 Ah, 65 Ah, 100 Ah. Charging unit with electronic charging current monitor that prevents the batteries being overcharged. Depending on the installed battery, the charging units deliver max. 6 or 12 A.

BATTERY EXCHANGE SYSTEM

Flexible use in multi-shift operation – non-stop use.

AC HUB MOTORS WITH TWO POWER RATINGS

Gearless motor with 72 Nm torque and Vulkollan tyres, or hub motor with planetary gear, 170 Nm torque, and polyurethane tyres.

TWO BRAKING SYSTEMS

for utmost safety: Dynamic braking via the drive motor plus electromechanical parking brakes that are applied automatically when the sensor handles are released.

COMPLIES WITH STANDARDS

CE conformity in accordance with Machinery Directive 2006/42/EC. Recommended by Inclusion Offices – subsidies possible.

NO SPECIAL TRAINING, NO DRIVING LICENSE REQUIRED

Intuitive operation – without special training or driving license. Therefore, the LEOs can be used flexibly and universally – especially in areas without forklift trucks.

CUSTOMER-SPECIFIC SOLUTIONS

Individually customized versions are designed in close cooperation with customers.

VERSIONS OF THE LEO TUG

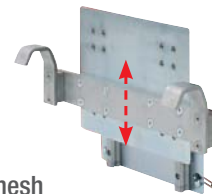
DOCKING SYSTEM LEO 750

Rotatable stainless steel adapter for coupling / uncoupling e.g. to a platform trolley by tilting the coupling unit electromechanically.



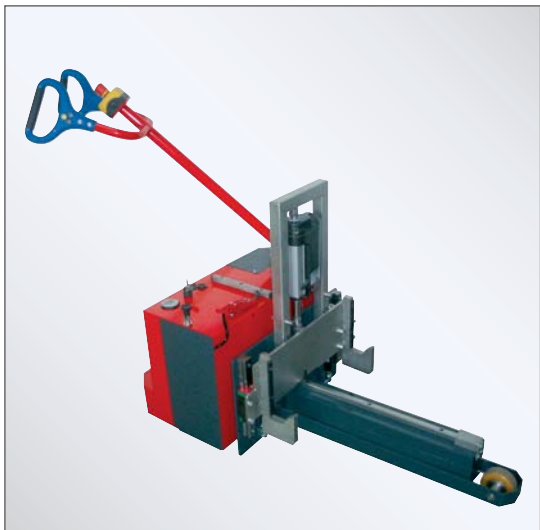
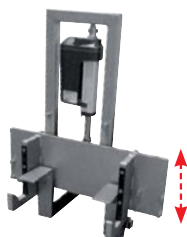
DOCKING SYSTEM LEO 2500

Electrohydraulic adapter for coupling / uncoupling a load carrier, e.g. for standard or mesh pallets, by moving the coupling unit with customized hook up and down.



DOCKING SYSTEM LEO+ 750 / LEO+ 2500

Electromechanical adapter, e.g. for load carriers with 4 castors.



DRIVE MODULE LEO+ 750 / LEO+ 2500

Powerful drive motor for a wide range of front-mounted appliances, e.g. in combination with a scissor-lift platform as a mobile assembly station.



TECHNICAL DATA

DIMENSIONS & WEIGHTS	LEO 750	LEO 2500	LEO+ 750	LEO+ 2500
Max. towed load on level ground (*= special version)	750 kg (*1,0 t)	2500 kg (*5,0 t)	750 kg (*1,0 t)	2500 kg (*5,0 t)
Empty weight (with batteries)	220 kg	600 kg	220 kg	225 kg
L x W x H [mm] without coupling unit	960 x 600 x 1140	1180 x 610 x 1140	920 x 640 x 1140	920 x 640 x 1140
MOTOR & DRIVE UNIT				
3-phase hub motor	without gearbox	planetary gearbox 36,04 : 1	without gearbox	planetary gearbox 34 : 1
Voltage	24 V	24 V	24 V	24 V
Power	0,2 kW	0,6 kW	0,2 kW	0,7 kW
Motor speed	0...200 rpm	0...4100 rpm	0...200 rpm	0...4100 rpm
Motor torque	72 Nm	170 Nm	72 Nm	170 Nm
Protection class	IP54	IP43	IP54	IP43
DRIVE WHEEL				
Diameter	216 mm	230 mm	216 mm / 270 mm	250 mm
Material	Vulkollan	Vulkollan	Vulkollan	Polyurethane
BRAKES				
Regenerative braking action with motor	Fitted as standard	Fitted as standard	Fitted as standard	Fitted as standard
Spring-operated multi-plate brake, electrically released when sensor handle is grasped	Fitted as standard	Fitted as standard	Fitted as standard	Fitted as standard
SENSOR HANDLES				
Capacitive hand detection (safety function)	Fitted as standard	Fitted as standard	Fitted as standard	Fitted as standard
Control of driving direction and speed	Fitted as standard	Fitted as standard	Fitted as standard	Fitted as standard
Signal horn button	Fitted as standard	Fitted as standard	Fitted as standard	Fitted as standard
Battery status indicator	Fitted as standard	Fitted as standard	Fitted as standard	Fitted as standard
Status & fault indicator	Fitted as standard	Fitted as standard	Fitted as standard	Fitted as standard
Up/down buttons for additional function	Optionally fitted	Optionally fitted	Optionally fitted	Optionally fitted
OPERATING CONTROLS				
Controller with battery charge indicator	Optionally fitted	Fitted as standard	Fitted as standard	Fitted as standard
Keyswitch to prevent unauthorized operation	Fitted as standard	Fitted as standard	Fitted as standard	Fitted as standard
Emergency Stop button	Fitted as standard	Fitted as standard	Fitted as standard	Fitted as standard
BATTERIES				
Maintenance-free lead gel-cell batteries	2 x 12 V / 50 Ah	2 x 12 V / 100 Ah	2 x 12 V / 65 Ah	2 x 12 V / 65 Ah
Operating voltage	24 V	24 V	24 V	24 V
Weight of batteries	30 kg	66 kg	40 kg	40 kg
Battery exchange system	Optionally fitted	Fitted as standard	Fitted as standard	Fitted as standard
Electronically controlled charging unit	6 A	12 A	12 A	12 A
AREAS OF USE				
Indoors: on non-slip, level surfaces	Fitted as standard	Fitted as standard	Fitted as standard	Fitted as standard
Outdoors: on firm surfaces	Fitted as standard	Fitted as standard	Fitted as standard	Fitted as standard
Driving speed	0...6 km/h	0...4,5 km/h	0...6 km/h	0...5,7 km/h
Driving instruction: Familiarization, no driving license required	Fitted as standard	Fitted as standard	Fitted as standard	Fitted as standard

Technical details are subject to change in the interest of constant product improvement.

LEO 750 TUG

ELECTROMECHANICAL DOCKING SYSTEM

For moving loads up to 750 kg without effort. With corresponding adjustment of the driving parameters, loads up to 1000 kg are possible.



ELECTROMECHANICAL DOCKING SYSTEM

Load carriers can be coupled / uncoupled conveniently via the up/down buttons in the sensor handle, without having to take one's hands from the handle.



ELECTROMECHANICAL DOCKING SYSTEM

Significant improvements in efficiency and ergonomics are achieved when using the LEO 750 for strenuous start / stop operations during order picking.



ELECTROMECHANICAL DOCKING SYSTEM

Automatic coupling of platform wagon trucks without tedious manual operations.



APPLICATION EXAMPLES

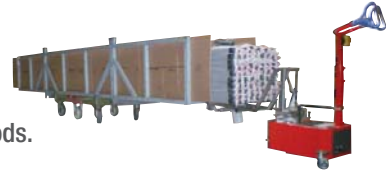
MANUAL TILLER COUPLING

With safety lever to ensure secure locking to the tiller handle.



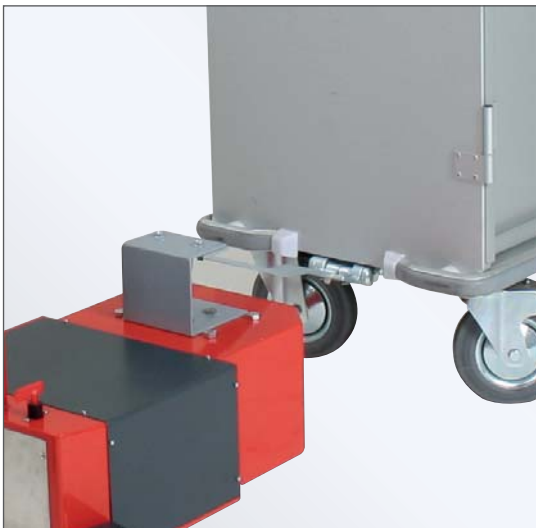
CUSTOMER-SPECIFIC DOCKING SYSTEM

Coupling to and moving transport carts for overlong goods.



MANUAL TILLER COUPLING

Individually adapted to food trolleys.



MANUAL ADAPTATION

For convenient coupling of e.g. mobile containers. The coupling mechanism is actuated from the normal operating position.



LEO 2500 TUG

ELECTROHYDRAULIC DOCKING SYSTEM

For moving loads up to 2500 kg without effort. With corresponding adjustment of the driving parameters, loads up to 5000 kg are possible.



ELECTROHYDAULIC DOCKING SYSTEM

Special version with ball head for lifting and moving wheeled dollies.



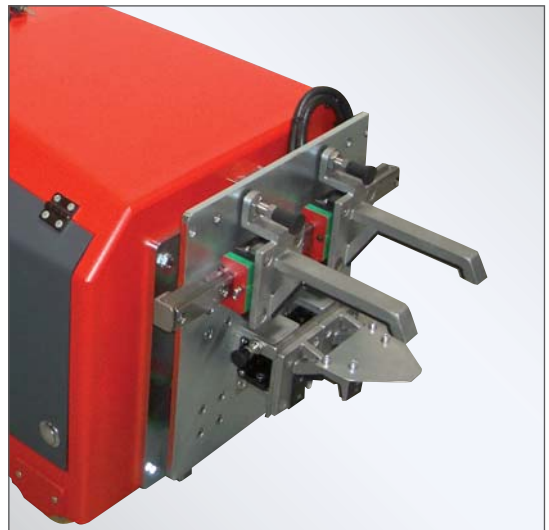
ELECTROHYDAULIC DOCKING SYSTEM

Automatic coupling to load carriers. The LEO 2500 and the load carrier form a rigid entity without an additional turning point.



ELECTROHYDAULIC DOCKING SYSTEM

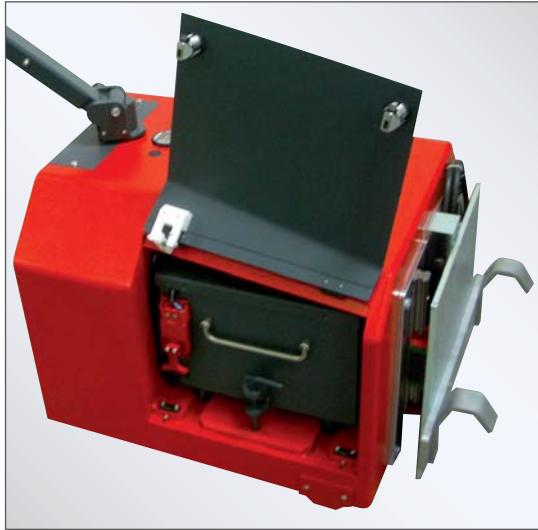
Special version for coupling to different load carriers.



OPTIONAL ACCESSORIES

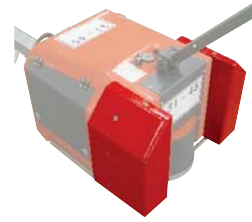
BATTERY EXCHANGE SYSTEM

Together with the battery supplied with the tug, the exchange battery system permits 3-shift operation.



ADDITIONAL WEIGHTS

The improved traction provided by the additional weights permits loads up to 5000 kg to be transported safely and without effort.



CUSTOMER-SPECIFIC DOCKING SYSTEM

Even difficult coupling requirements, e.g. with overhanging loads, can be solved with specially adapted equipment.



MANUAL TILLER COUPLING

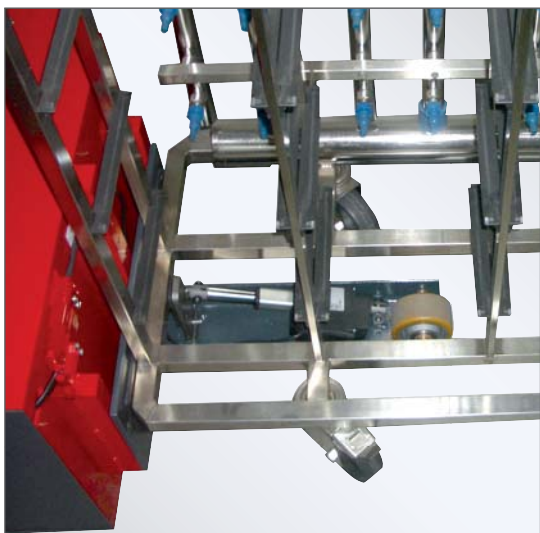
Bar coupling for attaching the tiller of platform trucks.



LEO+ 750 / LEO+ 2500 DRIVE MODULES

ELECTROMECHANICAL DOCKING SYSTEM

For coupling e.g. to transport trolleys with two castors. The LEO+ and the transport trolley form a rigid entity that can be turned on the spot.



ELECTROMECHANICAL PALLET JACK

In combination with a separate pallet jack, loads up to 1000 kg can be raised clear of the floor and moved without effort.



INDIVIDUAL FRONT-MOUNTED ATTACHMENTS

LEO+ as drive unit, e.g. for mobile scissor-lift platforms. The platforms can have customer-specific dimensions, and be fitted with ball or roller tables, etc.



ELECTROMECHANICAL DOCKING SYSTEM

Version with ball head for lifting and moving wheeled dollies for payloads up to 2500 kg.



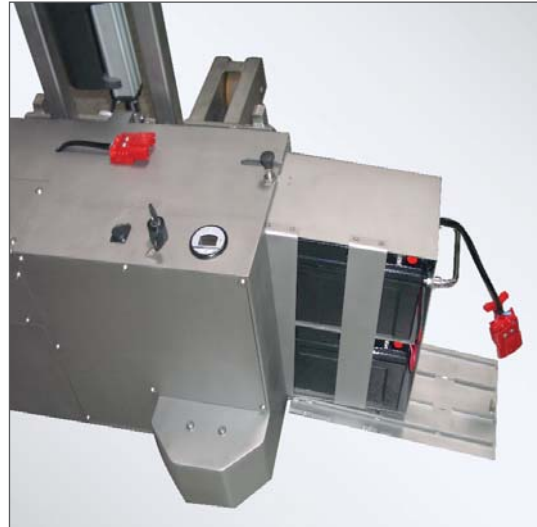
UNLACQUERED LEO+ DRIVE MODULE

The LEO+ can also be supplied in an unlacquered version, e.g. for use in the pharmaceutical or chemical industries.



STANDARD LEO+ DRIVE MODULE

The LEO+ is supplied with a battery exchange system as standard, which permits 3-shift operation.



CUSTOMER-SPECIFIC LEO+ DRIVE MODULE

Individual load handling attachments, e.g. for pallet jacks, can be developed in close operation with the customer.



OPTIONAL: LEO+ DRIVE MODULE

The operating tiller can be folded to save space. Operation is still possible with folded tiller.







EXPRESSO Deutschland GmbH

Antonius-Raab-Str. 19 | 34123 Kassel / Germany

Phone: +49 (0)5 61 95 91-0 | Fax: +49 (0)5 61 95 91-2138

E-mail: info@expresso.de | www.expresso-group.com



EXPRESSO Deutschland GmbH

Antonius-Raab-Str. 19 | 34123 Kassel / Germany

Phone: +49 (0)5 61 95 91-0 | Fax: +49 (0)5 61 95 91-2138

E-mail: info@expresso.de | www.expresso-group.com