



Electric Tractors

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AGV

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UT-System: UT-Lift

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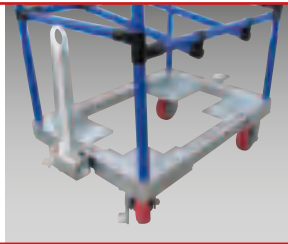
Vehicles with double axle Steering

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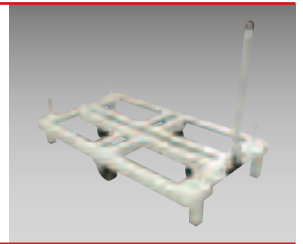
Modular Carts with reinforced Base Frame

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Special reinforced Base Frame

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UT-Drive Lifting Systems

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Electric Tractors UT1500/UT2000



UT1500 the electric tractor suitable for towing 1500kg (2000kg with **UT2000** version) and designed for moving safely and quickly in wide spaces, ensures better productivity and efficiency.

Intensive use

The high number of scheduled working handlings and the demand for precision and readiness of logistic handling, need multi-purpose and versatile tools able to guarantee high quality. Fast and strong **UT1500** and **UT2000** are suitable to difficult routes and hard work rhythm of warehouses and factories on flat floors. The possibility to equip the machines with quick battery change, allows them to work on several shifts.

Productivity increase

UT1500 and **UT2000** answer the modern concept of logistics, goods handling and people's transport which require more and more skilled and specific devices to reach the best compromise between working time, working quality/precision and operator's safety/satisfaction. In handling of unpacked goods or single pieces without pallets or loading units UT1500 and UT2000 produce a significant productivity increase. In fact, at the same time, it can be produced higher quantities of goods and saved a lot of time and human resources.

Driving comfort

Comfortable driving position thanks to: easy accessibility of the operating control unit, limited platform height and comfortable adjustable backrests (3 optional versions on request). In accordance with ergonomic standards the operator can drive for long periods in safe and correct position. Accessories, such as bookrest for documents or wire basket, make daily operations easier. The driving positions (standing, with backrest or sitting position) answer the various handling needs and the frequent stops, getting-off and getting-on the vehicle.



Maximum safety for operator, goods and environment

The modern concept of safety is not only about operators, but about the complete system. **UT1500** and **UT2000** are designed in compliance with work protection regulations, e.g. on: industrial injuries, limited vibrations, industrial health, common protection etc. Above all they are designed in compliance with ethic responsibility and reliability, through which job satisfaction and human resources appraisal can increase.

TECHNICAL DATA

Code	UT1500			UT2000		
Traction	electric			electric		
Driving	standing/on board			standing/on board		
Loading capacity Q (t)	15			20		
Wheelbase y (mm)	740			740		
Curb weight incl. battery (kg)	266			266		
Tyres (solid/super-elastic/pneumatic/ polyurethane rubber)	SE			SE		
Front wheels dimensions	Ø 240			Ø 250		
Rear wheels dimensions	Ø 150x50			Ø 150x50		
N° front wheel (x= traction)	1			1		
N° rear wheel (x= traction)	2			2		
Rear wheel track b ₁₁ (mm)	560			560		
Operator's protection height (cab) h ₆ (mm)	1160			1160		
Seat height h ₁₀ (mm)	/			/		
Tow hitch height h ₁₀ (mm)	100			100		
Platform height (unloaded) h ₁₁ (mm)	160			160		
*Platform height from the floor h ₁₁ (mm)	50			50		
Loading platform length l ₃ (mm)	430			430		
Loading platform width b ₃ (mm)	650			650		
Total length l ₁ (mm)	1110			1110		
Total width b ₁ (mm)	650			650		
Working aisle width (mm)	850			850		
Intersecting aisle width (mm)	2000			2000		
Minimum rack width between two working aisles (mm)	800			800		
90° turning radius W _a (mm)	2230			2230		
Speed (loaded)	1:20	13 Km/h	4%	1:20	13 Km/h	4%
	1:32	8 Km/h STD	10%	1:32	8 Km/h STD	12%
	1:26	10 Km/h	6%	1:26	10 Km/h	6%
Speed (unloaded)	1:20	13 Km/h	4%	1:20	13 Km/h	4%
	1:32	8 Km/h STD	10%	1:32	8 Km/h STD	12%
	1:26	10 Km/h	6%	1:26	10 Km/h	6%
Max. grade (loaded)	1:20	13 Km/h	4%	1:20	13 Km/h	4%
	1:32	8 Km/h	10% STD	1:32	8 Km/h	12% STD
	1:26	10 Km/h	4%	1:26	10 Km/h	6%
Service brake	electromechanical			electromechanical		
Parking brake	electromechanical			electromechanical		
Emergency brake	electromechanical			electromechanical		
Driver detection sensor	mechanical			mechanical		
Traction motor, Capacity KB 60min (Kw)	1.2			1.5		
Battery	24V 120Ah			24V 120Ah		
Battery tension U (V)	24V			24V		
Battery capacity K5 (Ah)	120Ah			120Ah		
Battery weight (Kg)	120			120		
Transmission	1:20	13 Km/h	4%	1:20	13 Km/h	4%
	1:32 STD	8 Km/h	10%	1:32 STD	8 Km/h	12%
	1:26	10 Km/h	4%	1:26	10 Km/h	6%
Average noise db (A)	< 70			< 70		
Tow hitch	manual			manual		
Steering gear	mechanical			mechanical		
Vibrations to the operator	3.51 m/s ²			3.5 m/s ²		

* Performances refer to the vehicle in perfect conditions, with charged battery and regular maintenance.

LOGISTICS

AGV



The mobile precision robot

- Robot cells feeding
- Automated stock picking of parts
- Departments automated feeding
- Logistic tasks in lean production
- Control and monitoring

Compared to other **AGV** models **RMX** is revolutionary, indeed it can be used both in automation and in manual handling without safety implications. Previous **RMX** versions are successfully used since more than three years and have led to the following innovations:

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1. Easy application in every kind of company without layout changes. **RMX** is small and turns around itself. Furthermore no human work is required for the guide path tape installation;
2. Extremely precise positioning. Its aim is also to feed robots, assembly machines and other automated tools;
3. Direct and intuitive route planning. **RMX** uses a patented, durable and simple guide path tape;
4. Direct and intuitive route changes. Guide tapes can be installed or removed by everybody just as a normal adhesive tape;
5. Steady at work on three shifts. The battery recharges while working;
6. Occupational health and safety. **RMX** is provided with anti-collision sensors and programmable (depending on load) acceleration and deceleration ramps;
7. Job satisfaction. Using **RMX** is extremely easy and leads to time saving;
8. Modern monitoring technology. **RMX** is steered via WI-FI by a remote computer, which puts it in touch with the needs of workers and eventual further automated tools or **RMX**;
9. Steady monitoring. The WI-FI network can be connected to the company network and the internet and **RMX** can thus share images through a camera (optional accessory);
10. Wide range of accessories for loading, unloading, transporting and storing every kind of: pallet; container; bulk goods; boxes. Thanks to skilled staff **RMX** can be personalised;
11. Low operating costs. Motion transfer and electronics on board are studied to reduce consumption and maintenance costs;
12. Scalability and expandability answer the highest needs. Up to ten **RMX** can work in the same space.



Fields of application and functions

- Machine tools
- Assembly
- Moulding
- Logistics and storage (also in areas as hospitals, laboratories, etc.)
- Optimisation of production process

Optional Accessories

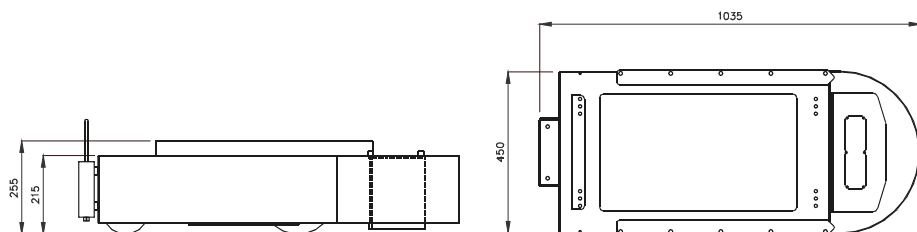
- Lifter
- Free or power roller conveyors
- Towing system
- Camera
- Acoustic and optical anti-collision sensors
- Light batteries
- Adaptor for various applications



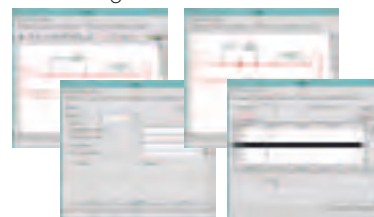
TECHNICAL DATA

Technical data

- Max. load capacity: 60kg
- Max. Speed: 0.5m/s
- Weight (incl.: accumulators): 54kg
- Engines: low consumption 24V
- Processor on board: Digital Signal Processor 16bit
- Standard accumulators: n° 2x12V - 18bAh - 6.3kg
- Data transmission: Standard WI-FI 802.11g, 2.4GHz
- Steering: optical recognition, reflective adhesive tape

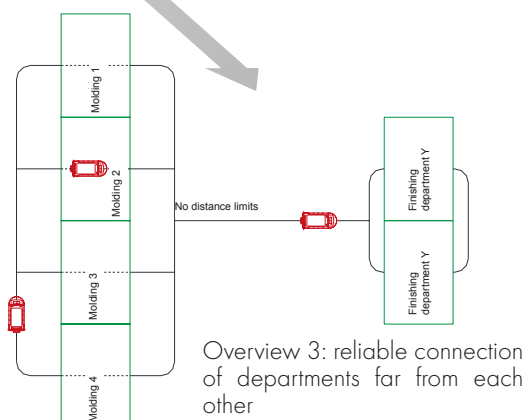
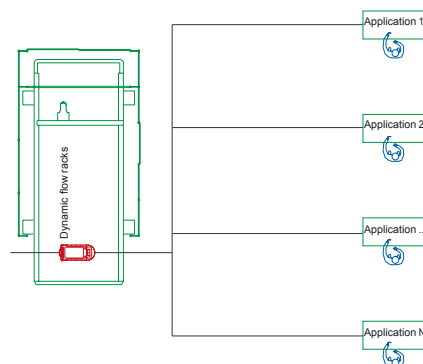
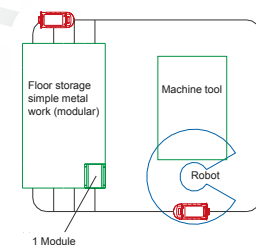
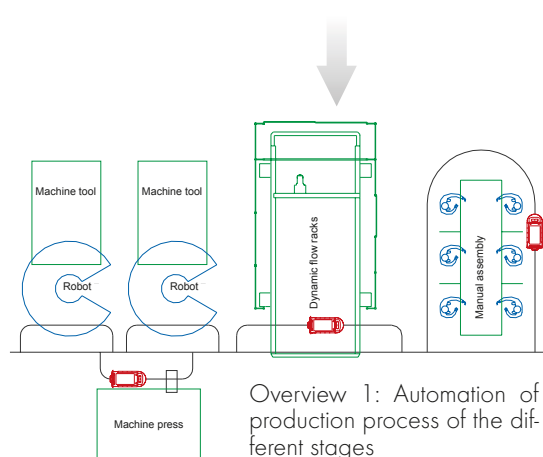
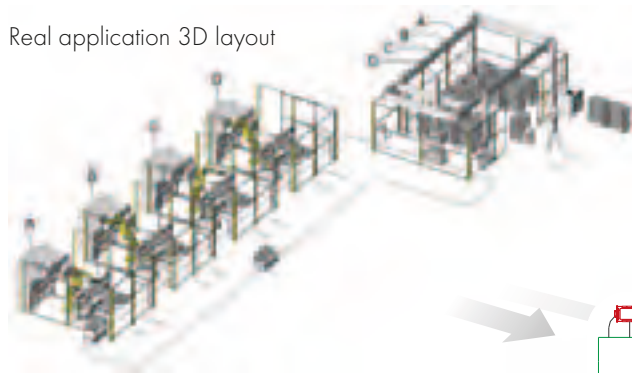


Monitoring software



Overview of typical applications

Real application 3D layout



Standard Kit for one application

- N°1 RMX-P30 (load capacity 30kg)
- N°1 PC for steering and monitoring via-radio
- N°1 WI-FI radio connection
- N° 2 bases for the charge
- N°1 bases for the PC
- 50m reflective adhesive tape
- N°1 graphics software for simplified programming



UT-LIFT Electric Lifter for containers and trolleys



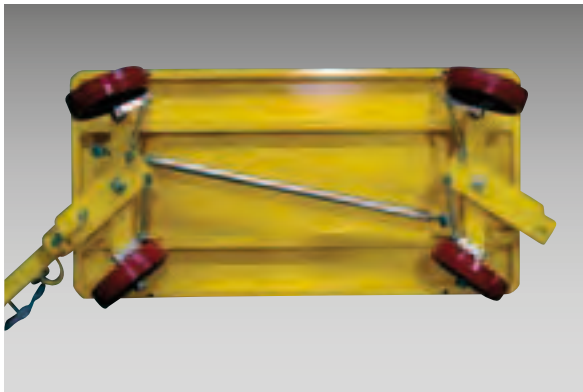
In accordance with ergonomic standards KLT are can be placed at the right height. Height adjustment is always possible through a sensor. Control panel is available both manual and automatic. Load capacity 200kg. Right, left and front load.

VERSIONS



Code	HM 990	HM 990
Load capacity	150 Kg	150 Kg
Platform width	610 mm	610 mm
Platform length	450 mm	450 mm
Total width	632 mm	632 mm
Total length	700 mm	700 mm
Total height	1140 mm	1140 mm
Lifting stroke	600 mm	600 mm
Weight	92 Kg	100 Kg
Price €		

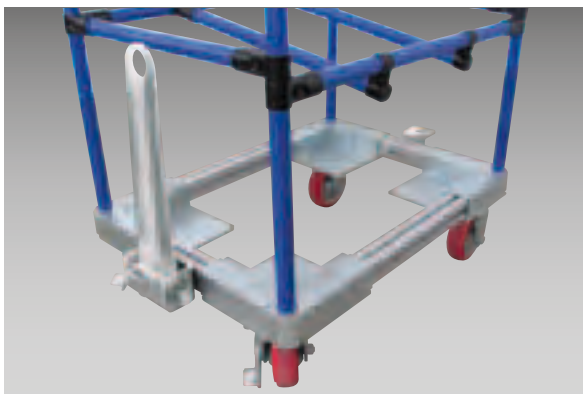
Vehicles with double axle steering



Painted steel chassis with drawbar (front side) and tow hitch (back side). At its corners the loading platform is equipped with elements, which firmly hold 1200x800mm EUR-Pallets.

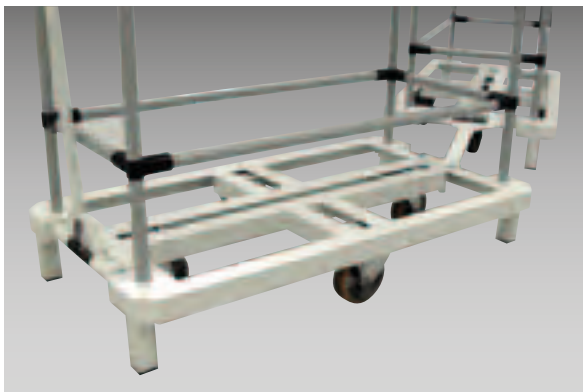
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Made-to-measure vehicles



Made-to-measure painted steel chassis with four or six castors. The base frame is made of aluminium square pipes 45x45mm. It is mainly used for lifting modular structures and creating heavy-duty modular trolleys.

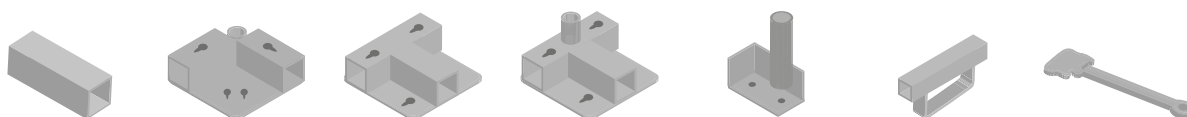
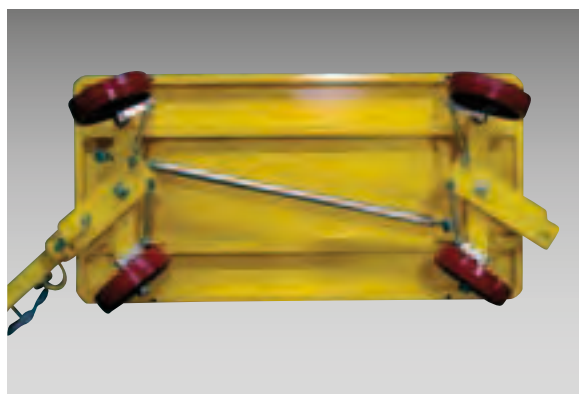
Special reinforced base frame



Through our experience in logistics and mechanics, we can manufacture customised base frames on request. Painted steel chassis with drawbar (front side) and tow hitch (back side). Pipe fittings welded to the base frame for unlimited developing modular structures.

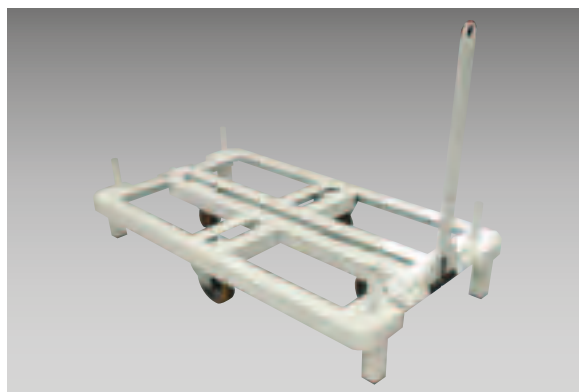
VERSIONS

Loading platform	1250x820 mm
Platform height	ca. 320 mm
Loading capacity	ca. 1000kg with 6 km/h
Steering system	4 solid rubber castors 200x50mm; steering axis
Drawbar	Hole 35mm, Length 600mm
Speed	6 km/h (on straight-line), 4km/h (on curves)
Max. Length	4-5 modules
Price €	



Code	BR-B4545	BR-01	BR-02	BR-03	BR-04	BR-05	BR-06
Material	Steel t 3mm	Steel t 3mm	Steel t 3mm	Steel t 3mm	Steel t 3mm	Steel t 3mm	Steel t 3mm
Dimensions (mm)	45x45x6000 mm	160x160 mm	160x160 mm	160x160 mm	160x80 mm	260 - 190x80 mm	300-600 mm
Price €							

Loading platform	On request
Platform height	ca. 320 mm
Loading capacity	ca. 800kg with 6km/h
Steering system	On request
Speed	6 km/h (on straight-line), 4km/h (on curves)
Max. Length	4-5 Modules
Price €	



LOGISTICS

UT-DRIVE MICRO70



- Loading capacity 70kg. Lowbuilt legs allow to fit under pallets
- Three lifting heights
- Entirely made of aluminium and steel
- Front castors Ø 50mm. Rear castors Ø 125mm with brakes
- High battery capacity with charger, incl. cable (V230/120AC)
- Overload protection
- On request: automatic load, release and rotation systems

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UT-DRIVE MAXI200



- Loading capacity 200kg (440lbs). Weight 113kg
- Entirely made of aluminium and stainless steel. More handiness and less maintenance
- Fork with fold-up platform
- Front castors Ø 125mm. Rear castors Ø 200mm with brakes
- High battery capacity with charger, incl. cable
- Overload protection
- Lowbuilt H version: legs 84mm
- Adjustable speed control
- On request: automatic load, release and rotation systems

UT-DRIVE 120



- Loading capacity 120kg. Three lifting heights: Short; Medium and Long
- 2 swivel, 2 fixed castors on ball bearings. Front castors with min. height 95mm, rear castors with central brake
- High battery capacity with charger, incl. cable (V 230/120AC)
- Automatic and adjustable overload protection with automatic reset
- Chain failure service
- Legs distance adjustable from 450mm to 750mm
- Control system Smart Fuse for loading, lifting and monitoring
- Removable control device. Two lifting speeds
- Shiftable detection devices for fast height adjustment
- Adjustable end stops for max. and min. height available
- Front legs are provided with sensors for stopping the platform
- CE-tested/certified
- On request: automatic load, release and rotation systems

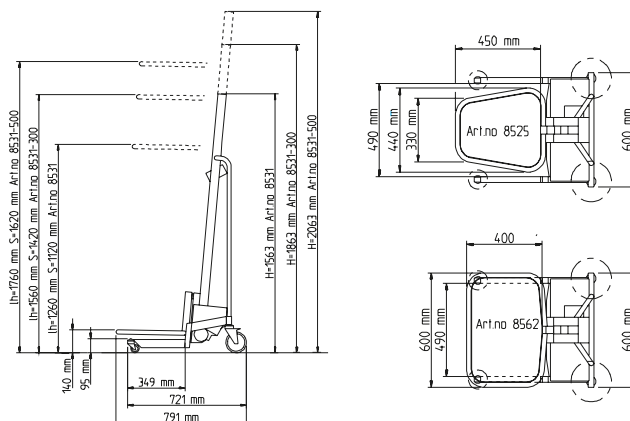
UT-DRIVE 150



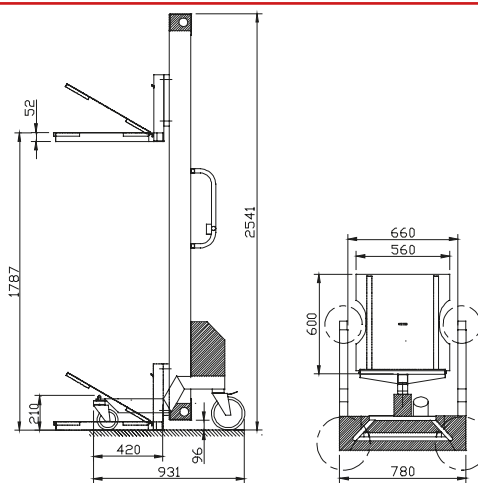
- Loading capacity 150kg (331 lbs). Two lifting heights: Short; Medium
- Swivel castors on ball bearings (height 90mm). Rear castors with central brake
- High battery capacity with charger, incl. Cable (V 230/120AC)
- Automatic and adjustable overload protection with automatic reset
- Chain failure service
- Legs distance adjustable from 460mm to 520mm
- Control system Smart Fuse for loading; lifting and monitoring
- Removable control device. Two lifting speeds
- Shiftable detection devices for fast height adjustment
- Adjustable end stops for max. and min. height available
- Front legs are provided with sensors for stopping the platform
- CE-tested/certified
- Ce cert. SAQ No: M 114-97 SEMKO No. 9702013
- On request: automatic load, release and rotation systems

MODELLI DISPONIBILI

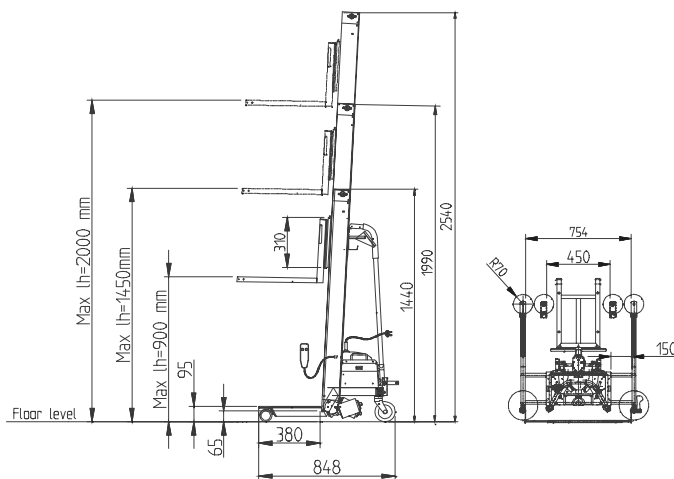
Max. load capacity	70 kg (155 lbs)
Min. lifting height 8525	Floor level
Max. lifting height 8525	1150 mm / 1450 mm / 1650 mm
Min. lifting height 8562	140 mm
Max. lifting height 8562	1260 mm / 1560 mm / 1760 mm
Min. lifting height 8516	320 mm
Max. lifting height 8516	1440 mm / 1740 mm / 1940 mm
Stroke	1120 mm / 1420 mm / 1620 mm
Weight (without platform)	30 Kg / 31 Kg / 33 Kg
Lifting speed	0,08 m/s with 70kg load
Charging voltage	230 V AC, 40 W
Battery voltage	24 V
Battery capacity	6.5Ah
Lifting capacity	70kg, 1m, 100 times
Price €	



Max. load capacity	200 kg (440 lbs)
Min. lifting height	Floor level
Max. lifting height	1787 mm
Stroke	1733 mm
Weight (without platform)	113 kg
Lifting speed	0.13 m/s with 200kg load
Charging voltage	240 V AC, 225 W
Battery voltage	24 V
Battery capacity	38 Ah
Lifting capacity	200kg, 1m, 100 times
Price €	



Max. loading capacity	120 kg (265 lbs)
Min. lifting height with platform	Floor/Pallet
Max. lifting height floor/pallet	SH=900/1010 ME=1450/1560 LO=2000/2110 mm
Min. lifting height with pin (116A)	310 mm
Max. lifting height	SH=1170 ME=1730 LO=2280 mm
Stroke	SH=870 ME=1420 LO=1970 mm
Weight (without platform)	SH=47 ME=50 LO=73 Kg
Lifting speed	0.1/0.06m/s
Battery	120/230 V AC 40 W
Battery voltage	24 V DC
Battery capacity 120	15 Ah
Lifting capacity	120 kg 1m 120times
Total height	SH=1440 ME=1990 LO=2540 mm
Castors	Front castors Ø75mm, Rear castors Ø125mm, Standard: Front castors and rear castors
Platform dimensions	360x500 mm / 600x500 mm
Price €	



Max. loading capacity	150 kg (331 lbs)
Min. lifting height with platform	Floor/Pallet
Max. lifting height floor/pallet	SH=875/985 ME=1425/1535
Min. lifting height with pin	310 mm
Max. lifting height	SH=1145 ME=1705
Stroke	SH=845 ME=1395
Weight	SH=47 ME=50
Lifting speed	0.08/0.048m/s
Battery	120/240 V AC 40 W
Battery voltage	24 V DC
Battery capacity 120	17 Ah
Lifting capacity	150 kg 1m 120times
Total height	SH=1440 ME=1990 mm
Castors	Front castors Ø80mm, Rear castors Ø125mm, Standard: Front castors and rear castors Ø125mm
Standard Platform	360x500 mm / 600x500 mm
Price €	

