





# Marco Know-How resources

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Marco AB has gained through its 70 years of trading a vast experience in the sale and manufacture of lift tables. Development and modelling, design and production are activities totally undertaken in-house at the Ängelholm Plant.

An efficient and flexible production system enables Marco to satisfy customers' particular requirements for tailor made lift tables. Customisation and special solutions are a frequent occurrence within Marco's design and production.

**MarcoLift** is the short-name to identify the lift table products marketed and manufactured by Marco AB. The production range includes a very comprehensive selection of standard models up to 20 tons lifting capacity in different sizes.

**MarcoLift** lift table products are properly configured to satisfy demanding market requirements as regards efficiency, quality, environmental work comfort and operational safety.

**MarcoLift** lift tables are manufactured according to the CE Machines Directives, 98/37/EC, AFS 1994:48 and satisfy the recommendations of the European Standards EN 1570 for lift tables.

**Design** – all modelling and design activities are supported by a 3D PC-software, providing exceptional possibilities for advanced customisation.

**Production/machining** – a large portion of components assembled on the lift tables consists of steel sheet items achieved through machining operations.

**Production/welding** – heavy demands are made on welding techniques and know-how to attain the quality reliability required on our lift tables.

**Production/assembly** – dedicated teams at every assembly workstation are responsible for the assembly of the finished product.

**Production/inspection and testing** – this is the last workstation where final testing and inspections are carried out before shipment.





### MarcoL<sup>i</sup>ft – at your service

Α

**MarcoLift** lift tables occupy a very distinct place in production and goods handling areas where it is necessary to bridge fixed and movable level differences.

Lift tables take care of cumbersome loads, stationary loads, different types of goods and load carriers.

Lift tables increase productivity, rationalise manufacturing activities and provide the working place with necessary environmental comfort and ergonomic solutions to reduce the risk of injuries.

**MarcoLift** lift tables can be included both in robot controlled or in other fully automated logistic systems as well as independently standing and functioning units in production systems.

**MarcoLift** lift table can be suited to fulfil your special needs and requirements.

When investments in lift tables are made, it is recommended to carry out a detailed task analysis to avoid limitations in future applications and assure that the expected utilisation scope is fulfilled.

**MarcoLift** lift table products are constantly developed with a view to increased application use and safety. It is important to consider the lift table as essential equipment in continuously improved productivity savings and providing ergonomical production environments.

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### MarcoL<sup>i</sup>ft single scissors

**MarcoLift single scissors** – is a lift table with a set of single scissors. It is the basic model of the lift table range.

**MarcoLift single scissors** have multi-purpose applications and are normally used to solve issues with handling, difference in levels, production and logistic areas need to be put on a par.

The Standard **MarcoLift single scissors** have the following features:

- lifting capacity up to 10000 kg
- stroke 500 mm 2000 mm
- platform size up to 3000 mm x 2000 mm.

The main support steel structure consists of rectangular steel profiles to assure the highest stability and resistance.

Customised solutions to particular requirements can be provided.







### MarcoL<sup>i</sup>ft high-lift

**MarcoLift single scissors** has a limited stroke. In most cases, the maximum stroke is equal to the platform length divided by 1.5. Higher strokes are achieved by designing the lift table with a multiple set of vertically mounted scissors.

**MarcoLift high-lift** can be used for example as work platforms, pallet loaders, elevators, disabled persons lifts and pallet stackers.

If compared with a traditional elevator **MarcoLift high-lift** is a rational and cost saving solution.

The Standard **MarcoLift high-lift** has the following features:

- lifting capacity up to 4000 kg  $\,$
- stroke 800 mm 4300 mm
- platform size up to 3000 mm x 1200 mm.

Customised solutions to particular requirements can be provided.





### MarcoL<sup>i</sup>ft long-load

When handling long and cumbersome items the lift table type **MarcoLift long-load** can offer the best solution.

**MarcoLift long-load** is designed with two or a multiple sets of scissors placed end to end to achieve the requested platform length and lifting capacity. In principle, this range consists of a combination of several **MarcoLift single scissors**.

The lifting stroke of the scissors set is created by a controlled synchronism to perform a parallel lifting motion.







### The Standard **MarcoLift long-load** has the following features:

- lifting capacity up to 8000 kg
- stroke 900 mm 2000 mm
- platform size up to 6000 mm x 2000 mm.

Customised solutions to particular requirements can be provided.



### MarcoL<sup>i</sup>ft loading dock

**MarcoLift loading dock** is used on loading docks for the unloading and loading of vehicles.

**MarcoLift loading dock** operates between the different levels of the vehicle and the loading dock.

It is designed for use in extremely difficult environmental and operational conditions and can also be provided for external use.

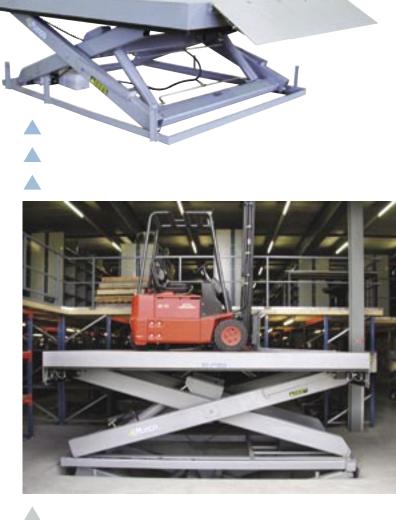
**MarcoLift loading dock** are designed and equipped to withstand environmental and load stresses which frequently occur as point loads when vehicles cross the lift table.

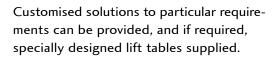
The Standard **MarcoLift loading dock** has the following features:

- lifting capacity up to 10000 kg
- stroke 1600 mm 2000 mm
- platform size up to 3000 mm x 2400 mm.

As standard the loading dock tables are equipped with following:

- platform in chequer plate
- oilfilled minus side of the cylinders
- reinforced platform with more profiles
- service access hatch in platform
- adjustable bottom stops for greater stability in lowered position
- lifting lugs
- two component paint finish to 120 my thickness









## MarcoL<sup>i</sup>ft low-profile/ MarcoL<sup>i</sup>ft U-shaped low-profile



**MarcoLift low-profile** is the solution for safe and economical material handling in production lines, co-ordinated logistic systems and as an independently standing workstation for handling equipment in out-of-line tasks.

**MarcoLift low-profile** has a total vertical lift stroke, an important requirement when the lift table is in-

stalled in a production line co-ordinated logistic system.

MarcoLift low-profile, thanks to its low height, requires no pit in the floor. This makes it more adaptable and suitable for different application uses. It provides the operator with goods or work

pieces at the right working height.

**MarcoLift low-profile** makes the working place ergonomically comfortable.

The power pack for **MarcoLift low-profile** and **MarcoLift U-shaped low-profile** are separately sited from the lift table so as not to limit the lift table operation.

**MarcoLift low-profile** can also be supplied in stainless steel.

- The Standard **MarcoLift low-profile** has the following features:
- lifting capacity up to 2000 kg
- stroke 800 mm

– platform size up to 1400 mm x 1250 mm.

Customised solutions to particular requirements can be provided.

A variant type is MarcoLift Ushaped low-profile adapted for pallet handling.

The pallet, crate or container can be positioned on the lift table directly from the floor level by means of a pallet truck avoiding the need of an access ramp.

Standard **MarcoLift U-shaped low-profile** has the following features:

- lifting capacity up to 2000 kg
- stroke 800 mm
- platform size up to 1400 mm x 1250 mm.



Customised solutions to particular requirements can be provided.





# MarcoL<sup>i</sup>ft U-shaped with roller conveyor

**MarcoLift U-shaped with roller conveyor** is principally intended to be supplied for use in a working line co-ordinated production system.

In a production system, positioning and collection of pallets or other load carriers can be performed by the lift table. The goods are loaded/unloaded by a fork lift or pallet lifter on to the lift table, then after reaching the correct level, transfers the goods to the working line coordination production conveyor system via the use of a gravity or motor driven roller conveyor mounted on the lift table.

Due to the lift table low height no pit is required in the floor thus reducing installation costs.

The power pack is usually sited separately from the lift table so as not to limit the tilt table operation.

The Standard MarcoLift U-shaped with roller conveyor has the following features:

- lifting capacity 2000 kg
- stroke 800 mm
- platform, space for load carrier 1380 mm x
  850 mm or 1380 mm x 1050 mm.

Customised solutions to particular requirements can be provided.



### MarcoL<sup>i</sup>ft pallet handler

**MarcoLift pallet handler** applied in work places where it is necessary to gain better access to the goods thus creating an ergonomically proper working place. The pallet handler is combined with a suitable type of MarcoLift lift table. This latter is for example provided with a tilt function to improve accessibility to the material.

The operator has always a storage for not machined and machined items. Down-time is minimised.

Lift table operation and pallet stop is carried out by means of an electrical control unit.

### MarcoLift pallet handler can easily

be moved by a fork truck to another working place. The pallet handler is served by a fork truck.

The standard **MarcoLift pallet handler** including lift table has the following features:

- lifting capacity 1000 kg
- stroke 1030 mm
- platform size 1500 mm x 800 mm.

Can be designed to other pallet sizes and to particular customer requirements.



# MarcoL<sup>i</sup>ft vehicle carrier

**MarcoLift vehicle carrier** is designed to transport vehicles between different building floors levels, e.g. retail premises, showing-rooms and car parks.

This lifting table is intended for the transport of vehicles and not of persons.

**MarcoLift vehicle carrier** can only be utilised with equally distributed loads and not as a conventional lifting table.

A particular training for lift operation and use is required.

Installation is performed according to the current ruling safety directions.

**MarcoLift vehicle carrier** has the following features:

- lifting capacity up to 2500 kg
- stroke up to 7000 mm  $\,$
- platform size up to 7500 mm x 2500 mm.

Customised configuration and sizes can be provided.





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# MarcoL<sup>i</sup>ft tilt table

**MarcoLift tilt MT** is a lift table fitted with a tilt unit with 45° or 90° tilt angle.

**MarcoLift tilt MLU** is a **MarcoLift U-shaped low-profile** model provided with a built-in tilt function with a 40° tilt angle.

The tilt function is mainly applied in work places where it is necessary to gain better access to the goods thus creating an ergonomically proper working facility. Typical application examples are the control function at incoming and outgoing goods delivery and as production working stations. The load can be carried by pallets, crates or boxes.

The power pack is usually sited separately from the lift table so as not to limit the tilt table operation.

**MarcoLift tilt MT** is a combination of lift table and separate tilt unit.

**MarcoLift tilt MT** has the same features of those of the chosen lifting table. The tilt unit has a height of 180 mm. Tilt angle 45° or 90°.

The tilt unit can also be delivered, without the lift table, as separate units.

Customised solutions to particular requirements can be provided.



**MarcoLift tilt MLU** is a **MarcoLift U-shaped low-built** model provided with a built-in tilt function with a 40° tilt angle.

The lift table is served by a fork lift truck or pallet truck at floor level. No pit in the floor is required thus reducing installation costs.

The Standard **MarcoLift tilt MLU** has the following features:

- lifting capacity 800 kg
- stroke 800 mm
- platform, space for load carrier 1200 mm x
  850 mm, or 1200 mm x 1050 mm.

Customised solutions to particular requirements can be provided.





## MarcoL<sup>i</sup>ft low-cost

**MarcoLift low-cost** are lift tables available in two different models that can be compared with MarcoLift single scissors M1 and MarcoLift lowprofile ML.

**MarcoLift low-cost** is available only as standard models with regards to size, configuration and colour. It can not be supplied with extra equipment or be customised.

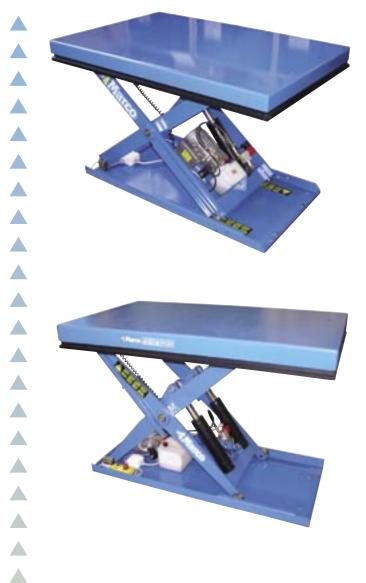
**MarcoLift low-cost** is not intended for continuous work in production lines or similar systems.

MarcoLift low-cost M1 has the following features:

- lifting capacity 500 kg, 1000 kg or 2000 kg  $\,$
- stroke 800 mm
- platform size 1200 mm x 800 mm or 1350 mm x 800 mm.

MarcoLift low-cost ML and MLU has the following features:

- lifting capacity 1000 kg
- stroke 750 mm
- platform size 1500 mm x 900 mm or 1500 mm x 1100 mm.



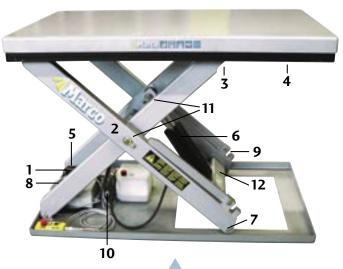


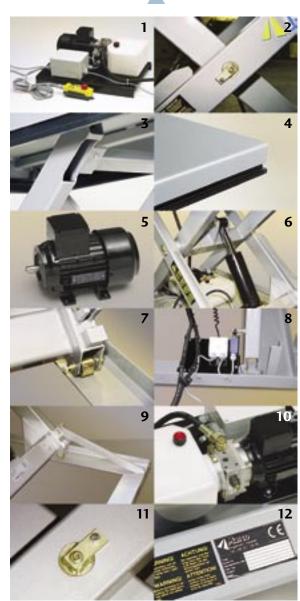


### MarcoL<sup>i</sup>ft components

All MarcoLift standard lift tables are manufactured with high quality components to enhance reliability, durability and safety in operation.

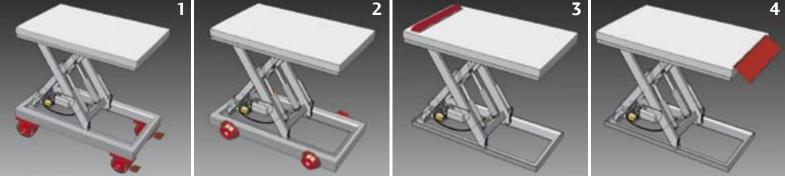
- A compact hydraulic power unit with transparent tank for easy oil level checking. The hydraulic unit is as standard provided with an overflow valve. Suction and return filters are built in the tank to minimise noise. The unit is IP65 with the motor IP55, splash and drip-proof.
- The square steel structure profile of the scissor arms gives superior lateral stability. Long bearings at all moving parts reduces bearing load; this, together with grease nipples for all pivot points and anodised pins, gives extended equipment life.
- Precision machined scissors arm pivot centres and machined profiled arms ensure smooth performance and geometrical motion accuracy.
- 4. Aluminium profiled safety frame to reduce the risk of entrapment.
- Cylinders are provided with cushioning to give bumpfree closing. Each cylinder is fitted with a hose burst valve to ensure immediate stop in the event of pipe or hose rupture.
- Fork-journalled rollers ensures perfect load balancing and eliminates transverse loads thus extending the operational life. All rollers are anodised.
- 7. Upper travel limit switch with easy adjustment of stroke.
- 8. Safety props for service and maintenance work.
- 9. Adjustable compensated flow control valve ensures constant lowering speed regardless of load.
- 10. Quick-change anodised pivot pins and bushes provide easy servicing of the lift table equipment.
- 11. CE-marked.
- In addition, the standard equipment includes:
- Electric components with protection class IP55
- 24 V control voltage
- Push-button box with 2m cable
- Constant pressure push button controls
- Motor protection to prevent overheating
- Lifting eye bolts/lugs for easy installation/transport
- Service hatch on the platform for lift tables exceeding 3 ton capacity







### MarcoL<sup>i</sup>ft equipment

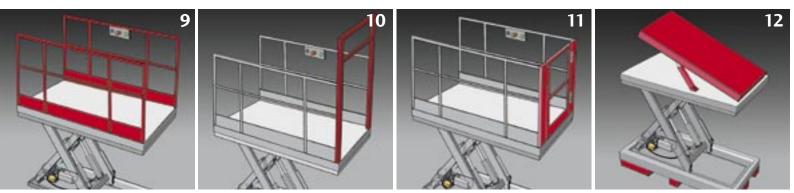


In addition to the standard equipment, it is possible to provide **MarcoLift** lift tables with a range of accessories to enhance safety, versatility, application and to simplify handling.

**1. Mobile Base Frame** – Provided with wheel the lift platform becomes a mobile lifting and handling equipment. The trolley frame consists of two swivel braked caster wheels and two fixed wheels.

**2. Flange Wheel Base frame** – Level differences in a track bound transportation system can be simply eliminated by utilising a flange wheel base frame. This equipment can be supplied with or without driving unit.

**3. Roll-off guard** – Prevents goods from rolling off the table when unloading and loading wheel borne loads. This option is advantageous on loading dock lift tables.



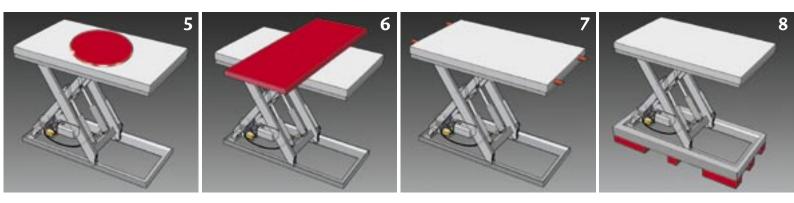
**9. Side barrier rails** – A 1100 mm high rail with a mid-rail and a 150 mm high toe kick-plate is a recommended option when the lift table is used by persons or as a goods lift between levels.

**10. Goal post barrier** – It used as an upper level barrier rail when the lift table is in the lowered position. In fully raised position, the goal post is sized to allow 2000 mm free clear entrance.

**11. Gate** – It is usually combined with the barrier rails and can be supplied with either electrical or mechanical locking or both.

**12. Tilt** – The lift table can be fitted with a hydraulic tilt platform with max. tilt angle of 90°.





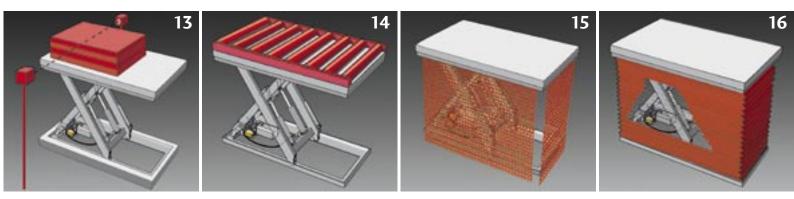
**4.** Load flap – For bridging the gap between the lift table and loading dock or vehicle. This option is mainly used on loading dock lift tables.

**5. Recessed circular turntable** – Recessed and integrated in the lift table top.

**6. Rectangular turntable** – Fitted on the lift table top and includes an inductive sensor to avoid trapping risks.

**7. Mechanical shotbolts** – Lift tables which operate above and below floor level, can be provided with shotbolts to withstand severe loading conditions and is essential when the lift table is driven over by vehicles.

**8. Pallet truck frame** – Enables the lift table be easily transported with a forklift or hand pallet truck.



**13. Photocell control** – For automatic lifting and lowering of the lifting table – by load recognition.

**14. Roller conveyor** – Roller conveyor or another conveyor type is often utilised in production systems where different levels are to be compensated.

**15 - 16. Bellows/Chain mesh/Roller curtain** – Protects the table from dust, dirt and debris in

exposed environments. The bellows are suitable for weather proofing the equipment in an outdoor environment.

The lift table can be enclosed in a chain mesh curtain to reduce the risk of injury or entrapment. The chain mesh curtain is also a useful protection against mechanical damage.



# MarcoL<sup>i</sup>ft Marco AB – Marco Group AB

**MarcoLift** is the short-name to identify the lift table products marketed and manufactured by Marco AB.

Marco AB belongs to the holding company Marco Group AB, a leading European manufacturer of lift tables.

Main offices and production facilities are located at Ängelholm, Sweden.

Several subsidiaries are present within the EU area. The subsidiaries are responsible for product marketing and sales within their own areas and develop of minor or detailed nonstandard designs as well.

Agents and distributors undertake the care of the remaining world-wide sale of **MarcoLift products**.

Most of the Swedish manufacture is exported.



