

The logo for MUTRADE, featuring the word "MUTRADE" in a bold, sans-serif font. The "M" and "TRADE" are in black, while the "U" is in orange.

MUTRADE

MUTRADE INDUSTRIAL CORP.

Starke 1127/1121

Two Post Parking Lift



Introduction

Starke 1127 and Starke 1121 are wholly new designed stackers by Mutrade with more ideal structure that offers 100mm wider platform than Hydro-Park 1127/1123 but within smaller installation space. Each unit provides 2 dependent parking spaces with the platform moving vertically only, ground car has to be moved to use the upper space of platform. Suitable for permanent parking, valet parking, car storage, or other places with attendant. In case of short time user only possible on lower platform, or with attendant or valet parking both levels are possible for short time user. When used indoor, operation can be achieved by wall-mounted key switch panel. For outdoor usage, control post is also optional.

- Parking 2 cars above each other
- Lifting capacity 2100kg (Starke 1121) or 2700kg (Starke 1127).
- Standard platform width 2200mm, which can be maximized to 2500mm.
- Car heights on ground up to 2050mm.
- Direct drive by German structure cylinder.
- Mechanical anti-falling locks protect platform from falling all the way, and enable multiple stopping heights.
- Synchronization chain keep platform level under all conditions.
- 24v control circuit protects users from electric shock
- Galvanized waving plates ensure the platform in excellent performance of rust and skid resistance
- Anti-rust bolts & nuts passing 48hrs Salt Spray Test.
- Akzo Nobel powder coating provides long lasting surficial protection
- Top class quality guarantee (CE certified by German TUV)

General Parts



- 1 Limit switch
- 2 Control box
- 3 Power pack
- 4 Hydraulic cylinder
- 5 Primary post
- 6 Carriage
- 7 Galvanized waving plate
- 8 Subsidiary post
- 9 Front support

Features

TUV compliant, which is the most authoritative certification in the world

Certification standard 2006/42/EC and EN14010

Low usage cost

When the platform moves down, it will be driven by gravity, so there is no electricity consumption for hydraulic power pack

Wider platform

The standard Starke 1127/1121 provide 2200mm usable width, which can be maximized to 2500mm to extremely allow users park their cars in the easiest way.

Less space occupied

When the platform usable width is wider, the overall width of Starke 1127/1121 is still less to save more space.

Modular connection, innovative sharing post design

The Starke two post car parking lift owns sharing post design. Combine multiple units at your will based on usage

Flexible operation location

Operation panel can be placed on the wall or proper position closing the lift

New hydraulic system which owns Ashkenazi structure

The hydraulic system adopts German top-level product structure design, which is stable and reliable, avoid the maintenance troubles, and its lifetime is twice as long as that of the old one

Galvanized pallet

Far more beautiful and durable than observed, lifetime more than doubled. Galvanized waving plates ensure the platform in excellent performance of rust and skid resistance.

Zero accident security system

All-new upgraded security system, really reaches zero accident

Dynamic locking device

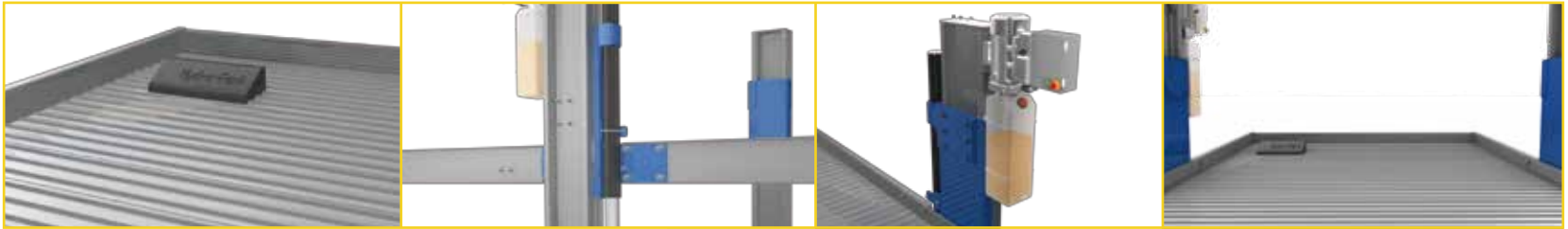
The moving platform can be held by mechanical locks on the post to protect cars from falling

More stable electric motors

Newly upgraded power pack unit system

Starke

1127/1121



Further strengthened main structure of the equipment

The thickness of the steel plates and the weld joints have increased by 10% compared to the predecessor

Gentle metallic touch, excellent surface finishing

After applying AkzoNobel powder, color saturation, weather resistance and its adhesion are significantly enhanced

Rich color

Great care is taken with the treatment of lacquer face, in order to improve the quality of products on surface looking to the maximum extent

Strong adhesion

The weather resistance of the spray powder has better performance under special technology, which can stand wear and tear

Superior chains provided by Korean chain manufacturer

The life span is 20% longer than that of the domestic chains

Galvanized screw bolts based on the European standard

Longer lifetime, much higher corrosion resistance

Unique hydraulic centralized control (optional)

Perfect shared power pack unit solution

Laser cutting + robotic welding

Accurate laser cutting improves the accuracy of the parts, and automated robotic welding makes the weld joints more firm and beautiful

Stärke

1127/1121

Specifications

General

Model	Starke 1127	Starke 1121
Vehicles parked per unit	2	2
Rated capacity	2700kg	2100kg
Available car length	5000mm	5000mm
Available car width	1950mm	1950mm
Available car height	2050mm	2050mm
Drive mode	Hydraulic cylinder	Hydraulic cylinder
Operation	Key switch	Key switch
Lifting speed	<55s	<55s
Descending speed	<45s	<45s
Power supply	100–480V, 1/3P, 50/60Hz	100–480V, 1/3P, 50/60Hz
Finishing	Power coating with Akzo Nobel powder	Powder coating with Akzo Nobel powder

Hydraulic

Model	Starke 1127	Starke 1121
Pump motor power	2.2Kw	2.2Kw
Pump flow	2.6ML/r	2.6ML/r
Pump working pressure	16-17MPa	16-17MPa
Hydraulic cylinder	Italian Aston seals	Italian Aston seals
Hydraulic oil	L-HV 46#	L-HV 46#
Balance chain	LH1066	LH1066

Electrical

Model	Starke 1127	Starke 1121
Power switch	Schneider	Schneider
Circuit breaker	Schneider	Schneider
RCCB	Schneider	Schneider
AC contactor	Schneider	Schneider
Transformer	Schneider	Schneider
Relay	Schneider	Schneider
Thermal relay	Schneider	Schneider
Indicator	Schneider	Schneider
Buzzer	Schneider	Schneider
Limit switch	Schneider	Schneider
Key switch	Schneider	Schneider
Emergency stop button	Schneider	Schneider

Safety devices



Mechanical anti-falling safety lock on each post holds the platform to prevent falling

New and unique carriage mechanism keeps the platform always horizontal no matter forward or reverse parking

24v electric lock release has no harm for operator

Electric protection for power over load or under voltage.

Auto locking system in case electrical failure

Emergency stop button can be pressed to stop platform moving at once

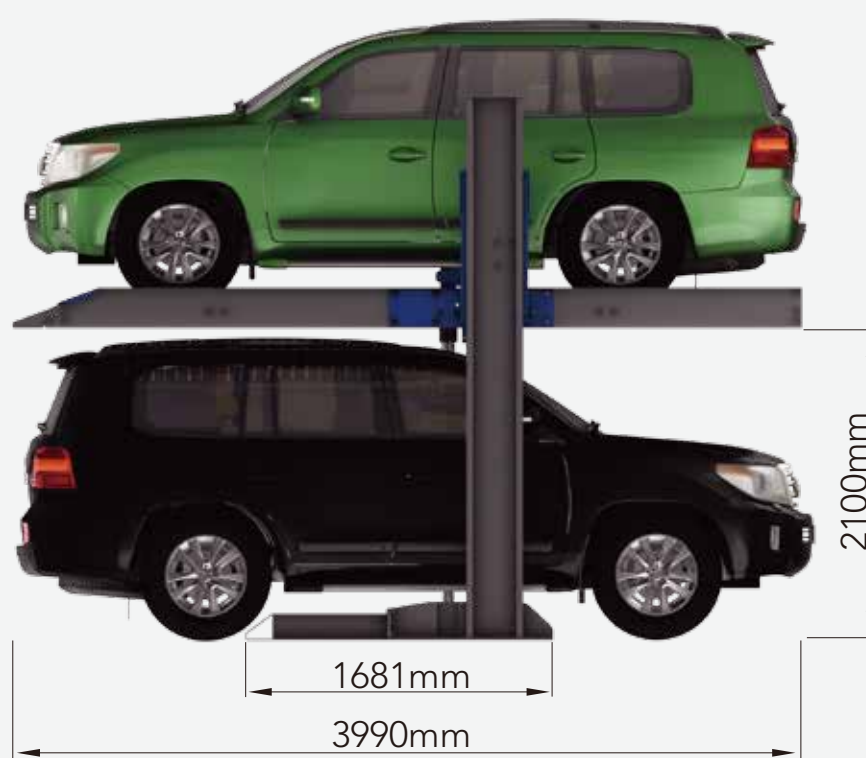
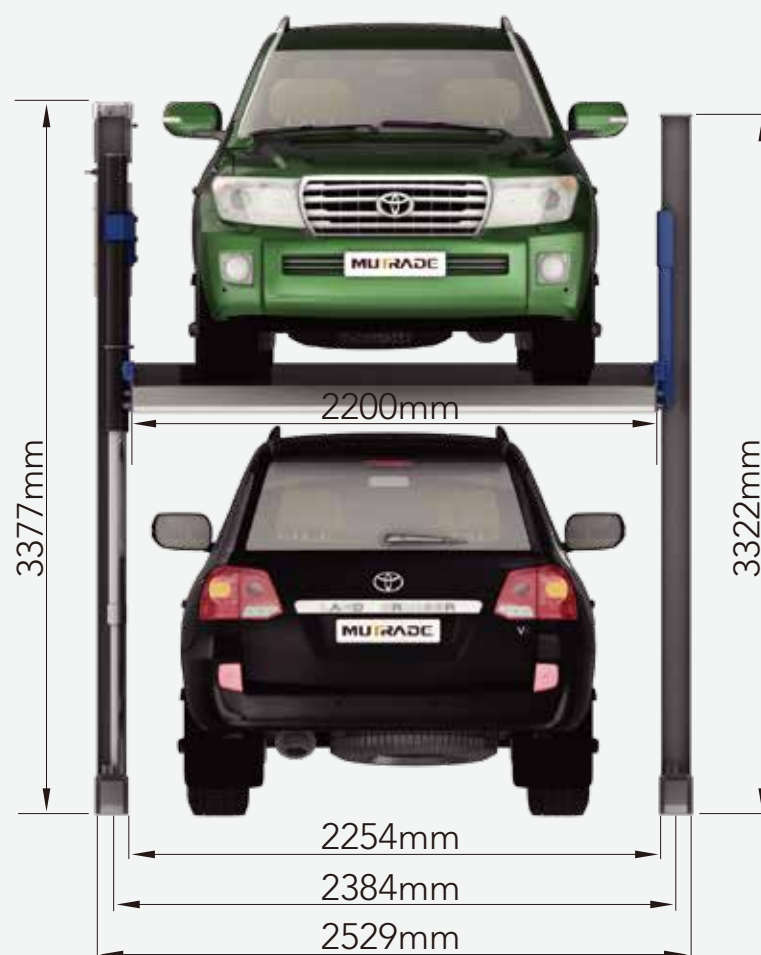
Pressure relief valve & throttle valve

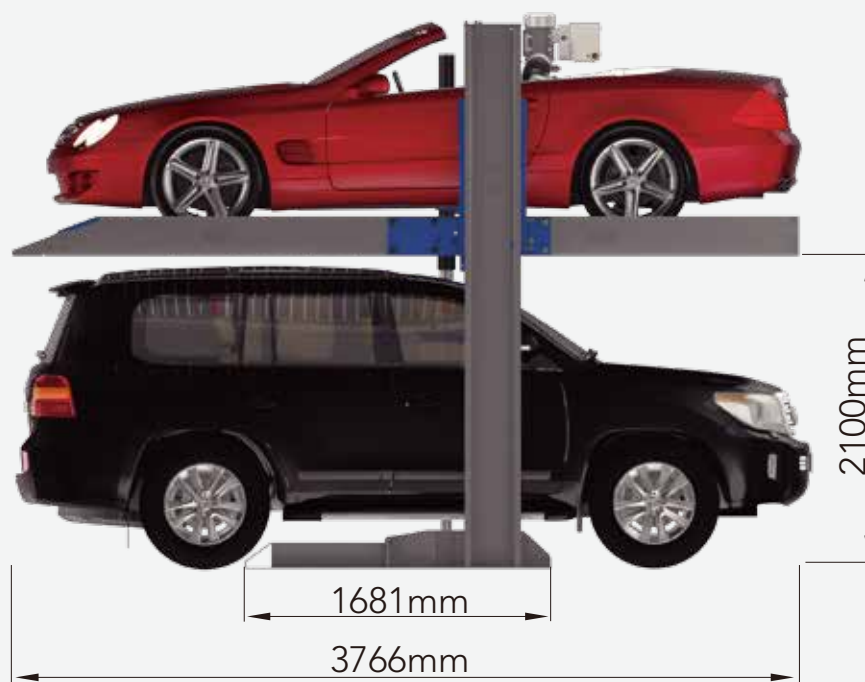
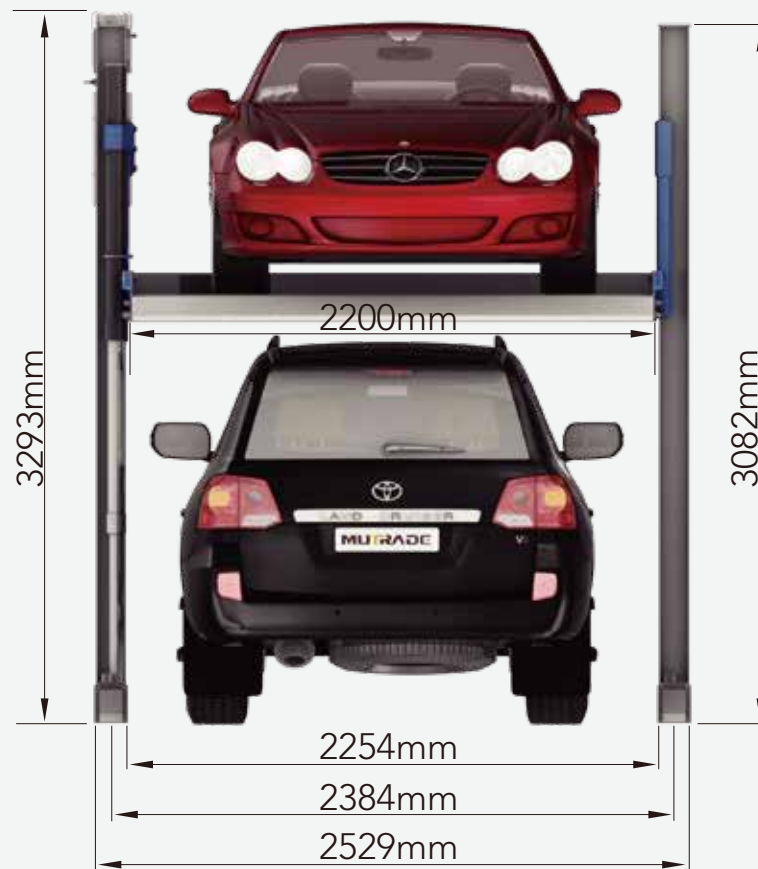
Limited switch in the top of the post. When the platform goes to the appointed height, it will automatic stopped to avoid the wrong operation

Synchronization chain keeps the platform always in balance

10 Electric protection for power over load or under voltage

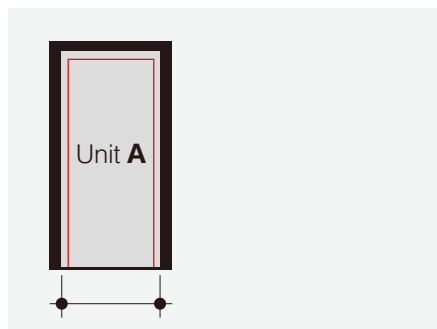
> Starke 1127



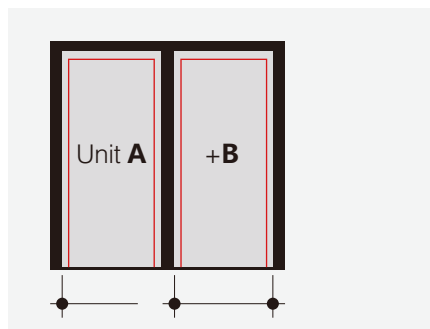


Width calculation

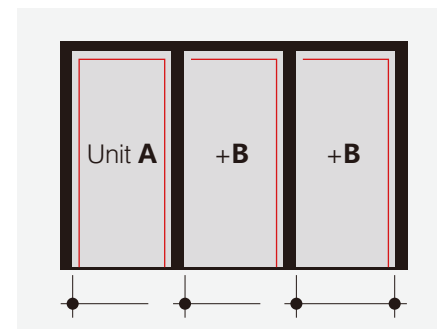
> Width dimensions single unit (2cars)



Total width required	Clear platform width
2529	2200
2629	2300
2729	2400
2829	2500



Total width required	Clear platform width
4913	2200
5113	2300
5313	2400
5513	2500



Total width required	Clear platform width
7297	2200
7597	2300
7897	2400
8197	2500

> Notes

Clear platform width of 2200 mm for car widths of 2000 mm. For large touring sedans we recommend a clear platform width of at least 2300-2500 mm. According to ISO 3864 the floor has to be marked with 100 mm wide yellow-black at a distance of 500 mm from the platform edge by the purchaser (to be performed according to local regulations.)

The lowering speed of an empty platform is considerably lower than a loaded one.

It is not possible to have channels or undercuts and/or concrete haunches along the floor-to-wall joints. In the event that channels or undercuts are necessary, the system width needs to be reduced or the installation width needs to be wider.

The manufacturer reserves the right to construction or model modifications and/or alterations. Furthermore, the right to any subsequent part modification and/or variations and amendments in procedures and standards due to technical and engineering progresses in the art or due to environmental regulation changes, are also hereby reserved.



Powder coating is applied as a free-flowing, dry powder. It is typically applied electrostatically and is then cured under heat to allow it to flow and form a "skin". It is usually used to create a hard finish that is tougher than conventional paint.

Scope of application

Suitable for residential buildings, office buildings and business premises, hotels
Only for long-term users that have been instructed on how to use the system
For frequently changing users (e.g. for office, hotel and business premises or similar):

- only parking on ground level
- performance of technical system adjustments in necessary
- consultation with Mutrade is mandatory

Electrical installation preparation

Cabling preparation to be performed by the customer:

- Up to the main switch to be in place prior to starting the installation operations
 - Connection to the main switch during installation
 - System functional check testing can be performed by the electrician provided by the customer
- Grounding and potential equalization:

- To be performed by the customer compliant to local regulations
- Connections required every 10 meters

Temperature

The installation is designed to operate between +5° and +40°C. Atmospheric Humidity: 50% at +40°C. If the local circumstances differ from the above please contact Mutrade.

Parking

- Drive the car backward onto the appropriate position of the platform. Collision with the control arm and side beams shall be avoided.
- Put the brake on after vehicle parked on the targeted position to avoid any accidental movement.
- Open the car door carefully to avoid any collision. Pay attention to the waving

plates and side beams in case any falling down of person.

- Turning UP to lift the car to the appropriate position, and the platform will be locked automatically.
- Before another vehicle parked under platform, please check and make sure the nether vehicle is lower than platform height, to avoid any damage.

Protection against corrosion

Independent of a maintenance workings has to be carried out according to Mutrade Cleaning and Maintenance Instruction regularly. Clean up galvanized parts and platforms of dirt and road salt as well as other pollution (corrosion danger)!

Noise protection

Insulation figure of the construction of min. $R_w = 57 \text{ dB}$
Walls which are bordering the parking systems must be done as single wall and deflection resistant with min. $m = 300 \text{ kg/ m}^2$
Solid ceiling above the parking systems with min. $m = 400 \text{ kg/ m}^2$
At differing constructional conditions

additional sound absorbing measures are to be provided by the customer
The best results are reached by separated sole plates from the construction.

Fire safety

Each and every fire safety requirement and all possible mandatory item(s) and equipment(s) (fire extinguishing systems and fire alarm systems, etc.) are to be provided by the customer.

Railings

If walkways are arranged directly to the side or behind the systems, railings have to be provided acc. EN ISO 13857 by client acc. to local requirements, height min. 200cm.

Maintenance



- > Do lubrication on guide rail and guide pulley once per month.



- > Do lubrication on balance chain once per month.



- > Change all the hydraulic oil three months after first operation; and change oil every nine months after first changing.



- > Frequently check the screw nuts of bolts fixing the electromagnet and locking plate, if any screw nut is loosening please fasten it asap.



- > If any noise comes out from electromagnet, please replace it asap.



- > The seal in hydraulic cylinder should be replaced every two years.



- > The roller and sliding block should be replaced every two years.



- > The valve element in solenoid valve and filter in power unit should be cleaned every half year.



- > Before operation, please check the connector of electromagnet, if it's loosening please fasten it; then do testing on top limit switch and photocell sensor, if it cannot work please fix the problem, and if cannot fix it please replace it.