_____WE

EXPAND YOUR PARKING CAPACITY

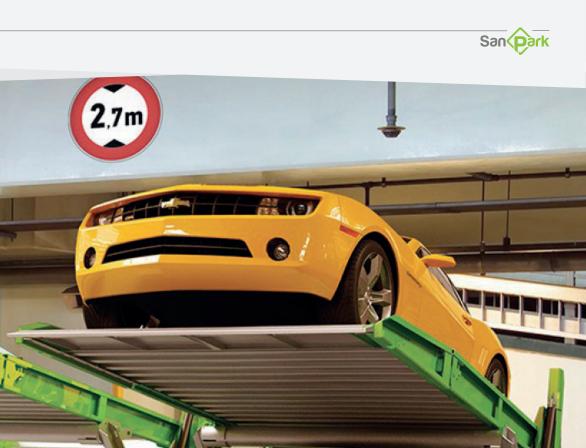


OPTILIFT

Sanpark

Stacker mechanical parking system for 2 sedan vehicles

DATA SHEET



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GENERAL DESCRIPTION

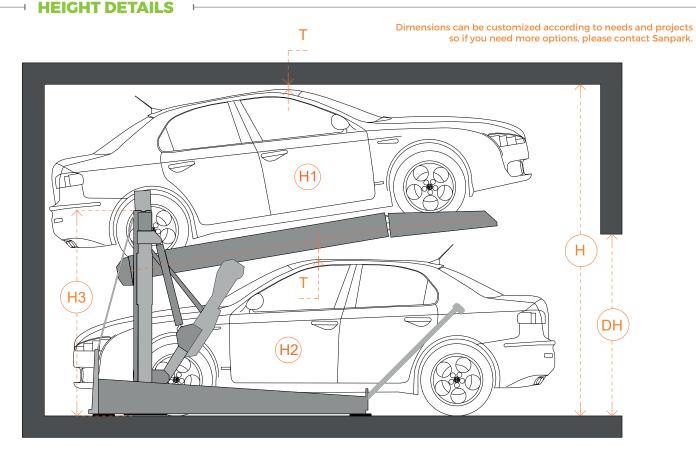
- Optilift is a dependent parking system for an indoor or outdoor application and it allows 2 vehicles to be parked on top of each other in a parking space that merely allows 1 vehicle under normal conditions. Its angular design allows parking two sedans in a limited parking height.
- The height, and width of the platform can be customized according to the customer's request (see "Height Details and Width Details", page 3 and 6).
- The lifting capacity of the platform is 2500 kg.
- Sanpark provides clear instructions at every operating point. The operating key is installed in front of the columns or on the outside of the door reveal.

- I Hot-dip galvanization is applied to the main construction.
- It is safe and secured with an automatic electromagnetic mechanic position locker.
- All dimensions are minimum and tolerance for dimensions +3/-0 cm.





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All dimensions are given in cm.

- The Left and top parts of the table below indicate a vehicle height at the lower level and upper levels. Various combinations of these dimensions determine the total clear height. Various versions are available upon request so please contact to have technical support if it is necessary.
- Optilift height (H3) is 200 cm.
- Door clear height should be at least 10 cm more than your car height. (DH)
- Clearance height (T) between vehicle and ceiling shall be minimum 5 cm. The clearance height is included to the following table.

		Uppe	er-Level	Vehicle	Height	(H1)	
		140	145	150	155	160	
Ð	140	270	275	280	285	290	e
/ehic 12)	145	275	280	285	290	295	Clearance tr (H)
Lower-Level Vehicle Height (H2)	150	280	285	290	295	300	
wer-l Hei	155	285	290	295	300	305	Required Heig
Γc	160	290	295	300	305	310	ц

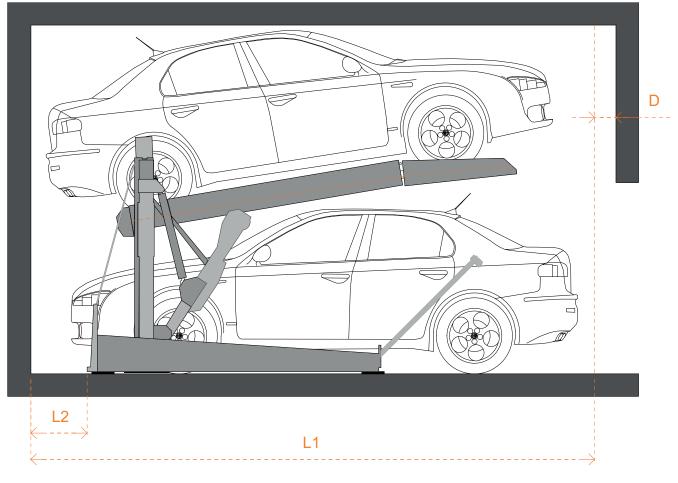
Operation

With the help of "Hold-to-Run" device which automatically returns to the "off" position after release, OPTILIFT's users securely operate the system.

Dependent Parking To be able to park in or out the vehicles at the top level, the vehicle at the lower levels must be parked out first. 4



\rightarrow LENGTH DETAILS



All dimensions are given in cm.

- Maximum vehicle length dimensions can be like the following table. In case of shorter and longer versions, please consult Sanpark.
- In case of a garage door installation, doors (D) shall be coordinated between the customer and the door manufacturer.
- Optilift's columns shall be at least 50 cm (L2) away from the wall to provide enough clearance for vehicles.

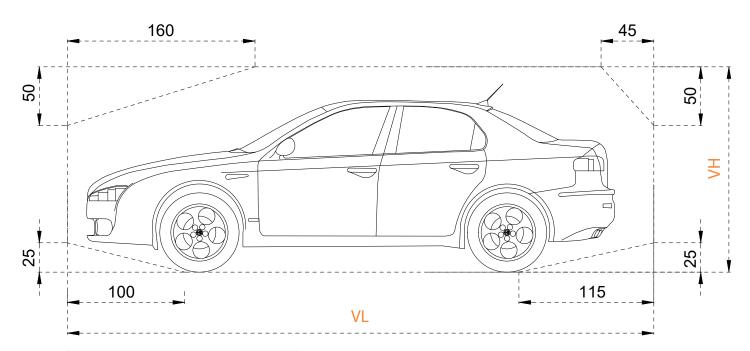
Lower-Level Vehicle Height (H2)	Clear Length of Parking (L1)
140 cm	600 cm
145 cm	625 cm
150 cm	650 cm
155 cm	675 cm
160 cm	700 cm

OPTILIFT LENGTH DIMENSIONS

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----- VEHICLE DETAILS, CLEARANCE & DIMENSIONS



Vehicle Length (VL)	see "Length Details", page 4	
Vehicle Height (VH)	see "Height Details", page 3	The overall vehicle height including
Vehicle Width	see "Width Details", page 6	roof luggage rails and antenna mounts must not exceed the max.
Vehicle Weight	2500 KG	vehicle height dimensions specified
Wheel Load	625 KG	
Vehicle Types	Saloon, Estate	

The following car heights shared as a guide to help you to select the platform distance and construction dimensions;

Volkswagen Tiguan167 cmVolkswagen T-Roc160 cmVolkswagen T-Cross159 cmVolkswagen Passat152 cmDacia Sandero150 cmDacia Duster170 cmRenault Clio145 cmRenault Captur158 cmFiat/Abarth 500150 cmFiat Panda156 cmTesla Model 3145 cmFord Kuga169 cmFord Kuga169 cmFord Puma156 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm		
Volkswagen T-Roc160 cmVolkswagen T-Cross159 cmVolkswagen Passat152 cmDacia Sandero150 cmDacia Duster170 cmRenault Clio145 cmRenault Captur158 cmFiat/Abarth 500150 cmFiat Panda156 cmTesla Model 3145 cmFord Kuga169 cmFord Puma156 cmMercedes A-Class146 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Volkswagen Golf	149 cm
Volkswagen T-Cross159 cmVolkswagen Passat152 cmDacia Sandero150 cmDacia Duster170 cmRenault Clio145 cmRenault Captur158 cmFiat/Abarth 500150 cmFiat Panda156 cmTesla Model 3Tesla Model 3145 cmFord Kuga169 cmFord Puma156 cmMercedes A-Class146 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Volkswagen Tiguan	167 cm
Volkswagen Passat152 cmDacia Sandero150 cmDacia Duster170 cmRenault Clio145 cmRenault Captur158 cmFiat/Abarth 500150 cmFiat Panda156 cmTesla Model 3Tesla Model 3145 cmFord Kuga169 cmFord Puma156 cmMercedes A-Class146 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Volkswagen T-Roc	160 cm
Dacia Sandero150 cmDacia Duster170 cmRenault Clio145 cmRenault Captur158 cmFiat/Abarth 500150 cmFiat Panda156 cmTesla Model 3Tesla Model 3<	Volkswagen T-Cross	159 cm
Dacia Duster170 cmRenault Clio145 cmRenault Captur158 cmFiat/Abarth 500150 cmFiat Panda156 cmTesla Model 3145 cmTesla Model X169 cmFord Kuga169 cmFord Puma156 cmMercedes A-Class146 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Volkswagen Passat	152 cm
Renault Clio145 cmRenault Captur158 cmFiat/Abarth 500150 cmFiat Panda156 cmTesla Model 3145 cmTesla Model X169 cmFord Kuga169 cmFord Puma156 cmMercedes A-Class146 cmMercedes G-Class198 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Dacia Sandero	150 cm
Renault Captur158 cmFiat/Abarth 500150 cmFiat Panda156 cmTesla Model 3145 cmTesla Model X169 cmFord Kuga169 cmFord Puma156 cmMercedes A-Class146 cmMercedes G-Class198 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Dacia Duster	170 cm
Fiat/Abarth 500150 cmFiat Panda156 cmTesla Model 3145 cmTesla Model X169 cmFord Kuga169 cmFord Puma156 cmMercedes A-Class146 cmMercedes G-Class198 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Renault Clio	145 cm
Fiat Panda156 cmTesla Model 3145 cmTesla Model X169 cmFord Kuga169 cmFord Puma156 cmMercedes A-Class146 cmMercedes G-Class198 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Renault Captur	158 cm
Tesla Model 3145 cmTesla Model X169 cmFord Kuga169 cmFord Puma156 cmMercedes A-Class146 cmMercedes G-Class198 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Fiat/Abarth 500	150 cm
Tesla Model X169 cmFord Kuga169 cmFord Puma156 cmMercedes A-Class146 cmMercedes G-Class198 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Fiat Panda	156 cm
Tesla Model X169 cmFord Kuga169 cmFord Puma156 cmMercedes A-Class146 cmMercedes G-Class198 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm		
Ford Kuga169 cmFord Puma156 cmMercedes A-Class146 cmMercedes G-Class198 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Tesla Model 3	145 cm
Ford Puma156 cmMercedes A-Class146 cmMercedes G-Class198 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Tesla Model X	169 cm
Mercedes A-Class146 cmMercedes G-Class198 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Ford Kuga	169 cm
Mercedes G-Class198 cmMini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Ford Puma	156 cm
Mini Hatch145 cmHyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Mercedes A-Class	146 cm
Hyundai Kona156 cmOpel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Mercedes G-Class	198 cm
Opel/Vauxhall Corsa149 cmVolvo XC40166 cmSkoda Octavia147 cm	Mini Hatch	145 cm
Volvo XC40 166 cm Skoda Octavia 147 cm	Hyundai Kona	156 cm
Skoda Octavia 147 cm	Opel/Vauxhall Corsa	149 cm
	Volvo XC40	166 cm
Hyundai Tucson 167 cm	Skoda Octavia	147 cm
	Hyundai Tucson	167 cm

Peugeot 208	146 cm
Peugeot 2008	155 cm
Peugeot 3008	163 cm
Toyota Corolla	144 cm
Toyota Yaris	151 cm
Toyota RAV4	169 cm
Toyota Camry	145 cm
Citroen C3	161 cm
Porsche Macan	163 cm
Opel Calibra	132 cm
Porsche Cayenne	168 cm
BMW 3-Series	143 cm
BMW iX	170 cm
BMW X5	175 cm
Volvo XC 90	178 cm
Land Rover Discovery	189 cm
Land Rover Range Sport	180 cm

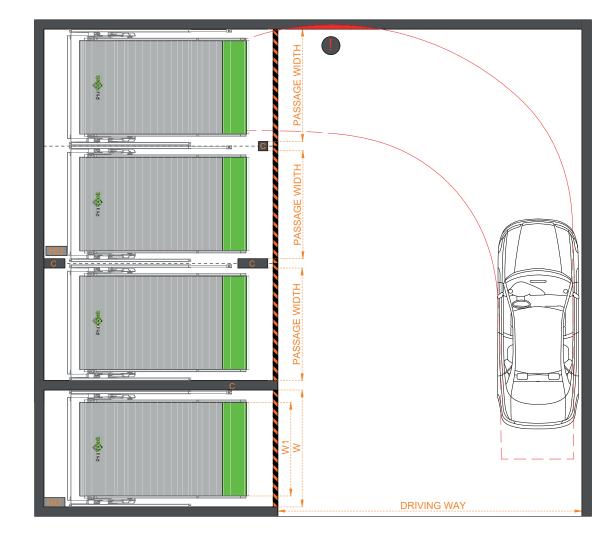
All vehicle heights may vary due to the wide range of models and manufacturing year.

OPTILIFT

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WIDTH DIMENSIONS



The following figures demonstrate the required width for parking areas and their correspondence to clear platform width.

OPTILIFT WIDTH REQUIREMENTS

Installation Width (W)	Clear Platform Width (W1)
250 cm	200 cm
260 cm	210 cm
270 cm	220 cm
280 cm	230 cm

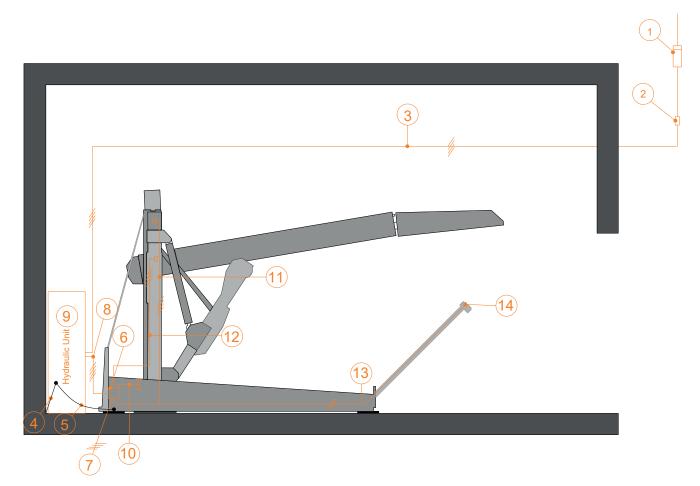
- E HU indicates a hydraulic power pack and its minimum length E While planning Optilift next to a wall, it is significant to take and width are 30 cm. In case of using one hydraulic pack for more than one optilift, its length increases to 45 cm, and its width increases to 40 cm. Its overall height does not change and it is 115 cm.
- The minimum clear platform width is 200 centimeters for a limited space. We recommend 230 centimeters for convenient parking.
- Optilift columns can be aligned with several types of building columns (C) and in all situations, the passage width between two columns of the building cannot be less than the clear platform width.

- into consideration that turning the vehicle in one maneuver may cause a crash so please take advice from Sanpark in a such situation, shown in the illustration above.
- While setting driving lane width, please check local regulations. We advise 650 cm driving lane width so that drivers can park their vehicles conveniently without additional maneuvering. The deriving lane width can be reduced according to the project needs but this reduction may lead additional maneuvering. Please request a consultation for planning the project.

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----- ELECTRICITY INSTALLATION DIAGRAM



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During installation, it is required to appropriately connect electrical components with the wiring diagram supplied by the manufacturer in accordance with local regulations.

ELECTRICAL DETAILS (In the customer responsibility)					
NUMBER	QUANTITY	DEFINITION	FREQUENCY		
1	1	Electricity meter			
2	1	3x Safety fuse 16A & Circuit breaker 3x 16A 1x Supply cable 5x2.5 mm² with marked wire and protective conductor 1x			
3	1				
4	1	Foundation Earth Connection (distance between grounding max. 10m)			
5 l Equipotential bonding in accordance with DIN EN 60204 grounding of the steel structure is necessary, provided by the customer		1 x per system			

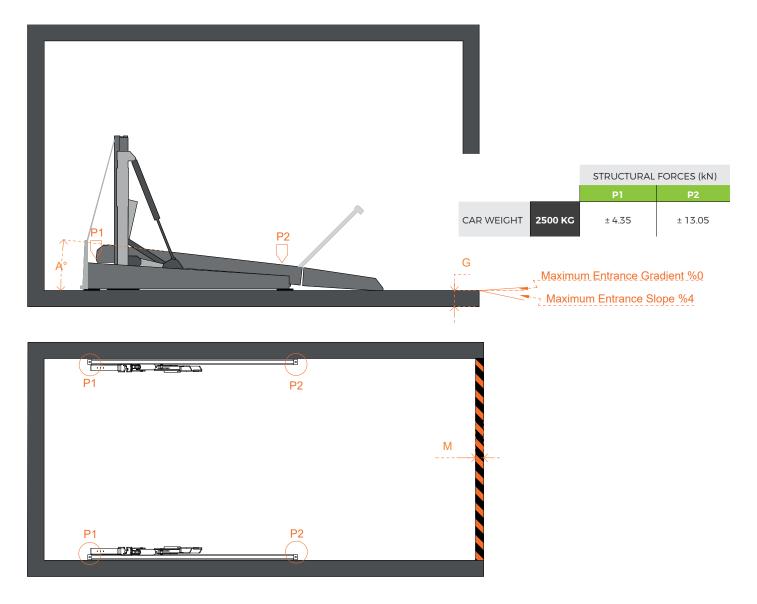
ELECTRICAL DETAILS (In Sanpark responsibility)

NUMBER	DEFINITION				
6	Branch Connector				
7	7 Control cable 5x2.5 mm2 lead-out to the system				
8	Control line 7x1 mm² + 2x1.5 mm² with marked wire and protective conductor				
9	Hydraulic Unit 2.6 kW, 3 Phase current,380V 50HZ with lockable main switch				
10	Control line 2x0.75 mm ² with marked wire and protective conductor				
11	Control line 4x 0.75 mm ²				
12	Control line 2x0.75 mm ² with marked wire and protective conductor				
13 Control line 3x0.75 mm ² with marked wire and protective conductor					
14	Operating Device				

14 Operating Device



- LOADS AND CONSTRUCTION DETAILS



- The systems are anchored into the ground. The drill hole depth in the floor plate is approx. 10 cm, in the walls approx. 8 cm.
- Optilift's platform has 7° (A) angle, which facilitates driving on the platform.
- Concrete quality according to the static requirements of the building. However, we require a slab thickness (G) minimum of 18 cm and a concrete quality of min. C20/25 to anchor the system. A special foundation is required with asphalt floors or paving stones.
- According to DIN EN 14010, the floor has to be marked with 10 cm wide yellow-black stripes (M) at the edge of the platform by the purchaser to point out the dangerous area. The marking must comply with ISO 3864.
- Maximum entrance gradient and slope details are specified in the illustrations below. Improper layout causes extreme difficulties and Sanpark does not accept any responsibilities.



TECHNICAL INFORMATION



Installation

Optilift requires crane and forklift for installation. It is under customer's responsibility to provide these vehicles.

The heaviest part is 70 kg so please consult local companies to hire proper crane and forklift. Please request a consultation for more detail about Optilift.

Usage Area

In order to park in or out of the vehicle at the upper level, the vehicle on the ground floor must be parked out first, which is why this system is advised to be used by permanent users. In case of short-time users (e.g. hotel, office, commercial building) we recommend the appointment of a vale for operation conveniently. Please request a consultation if required.

Ŷ↑	Hydraulic Unit
ΥT	Up to 6, Optilifts

Up to 6, Optilifts can be grouped as one so they can share the common hydraulic unit to reduce the overall price. In such a case, each group of systems cannot be operated separately. A separate power unit is recommended to reduce dependency. Please request a consultation for planning the project.

Temperature

Optilifit is designed to operate between -15° and +40°C at atmospheric humidity of 50 percent. If the local temperature is different from the above, please consult Sanpark.

Conformity Test

All our systems comply with EC machinery directive 2006/42/EC and TS/EN 14010:2009 +A1:2009.

Building application documents

All our systems generally require local approval. Please observe local regulations.



Maintenance

Regular maintenance by qualified personnel can be provided by an Annual Service Contract.



Care and Corrosion Protection

Due to the corrosion danger, apart from regular maintenance, all our galvanized equipment and platforms must be regularly cleaned up salt water, dirt, leak, any chemical substance, and sand. The garage and pits must be always ventilated well.



Railings

If passageways are directly next to the systems, railings have to be provided according to TS EN ISO 13857 by the client according to local requirements, height min. 200 cm.



Fire Safety

All fire safety requirement(s) and all possible mandatory item(s) and equipment(s) must comply with local regulations and must be provided by the customer.



Noise Protection

In compliance with DIN 4109-1 Noise protection: Maximum sound pressure level in living and sleeping areas 30 dB (A).

User noise like accessing the platform, the slamming of vehicle doors, the vehicle's engine, and brake noise are not subject to the requirements.

In order to provide 30 dB (A) in rooms the following conditions are required;

Additional Sanpark noise protection package according to quote.

Insulation figure of the construction of min R'w= 57 dB (in the customer's responsibility)

Walls that are close to the parking systems must be done as a single wall and deflection resistant with min. m'=300 kg/m2 (in the customer's responsibility)

The solid ceiling above the parking systems with min. m'= 400 kg/m2 (in the customer's responsibility)

At differing constructional conditions, additional soundabsorbing methods are in the customer's responsibility.



2 Steel columns with base plates. Mechanical Locking device 1 Platform 1 Hydraulic cylinder

Anchors, screws, connectors, bolts, etc. 1 Mechanical synchronization system.

Platform Components

Platform profiles Side beams Adjustable positioning aid Platform base sections Chamfered ramp Screws, nuts, washers, spacers, etc.

Hydraulic System Components Hydraulic cylinders

Solenoid valve Safety valve Screwed joints High-pressure hoses Attachments

Electrical System Components Emergency stop

Electro mechanic lock Distributor board Branch connector 1 Master key for each Optilift. Oil filling Internal gear Pump Coupling

Hydraulic Unit Component

Hydraulic power unit Hydraulic oil reservoir 3 phase AC motor (2.6 kW, 380 V, 50 Hz) Contactor Pressure relief valve Hydraulic hoses

SERVICES TO BE PROVIDED BY THE CUSTOMER



Warning Marking

According to DIN EN 14010, the floor has to be marked with 10 cm wide yellow-black stipes to indicate the operation area by the purchaser to point out the dangerous area.

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Barriers

In accordance with DIN EN 13857, barriers may be required in case of passageways in front of, behind, or next to the systems.



Earth Foundation

necessary.

The customer must earth the steel structure with a foundation earth connection and lay equipotential bonding according to local regulations.

Any conduit and wall opening work belongs to the

customer, yet Sanpark can assist during the planning phase in such cases. Please consult Sanpark if

The customer must run the supply cable to the master

Conduits and Wall Openings

Supply Cable to Master Switch

switch during assembly.



Parking Space Numbering Numbering the parking spaces.

Liahtina

It is in the customer's responsibility to check local regulations regarding the illumination of parking spaces.

OPTILIFT

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- Aller			AUSTRIA
	EG-BAUM		STERPRÜFBESCHEINIGUNG
	nach der Ma		inenrichtlinie 2006/42/EG unter der Nummer 2737
		Be	scheinigung Nr.: 21-MD-TEC-063-TAT-2021-033
l ≣ Me	Antragsteller	2	ŞANMAK MAKİNE SANAYİ VE TİC. A.Ş. Çalı Sanayi Bölgesi Çalı Mh 6. Sk. N.8 Nilüfer / Bursa
다. 	Hersteller	3	ŞANMAK MAKİNE SANAYİ VE TİC. A.Ş. Çalı Sanayi Bölgesi Çalı Mh 6. Sk. N:8 Nilüfer / Bursa
Ë	Design des Produkts	÷	Mehrschichtiger, elektrohydraulischer mechanischer Parklift
ا شهادة	Typ/Modell	:	# IDEALIFT H2W1, IDEALIFT H2W2, IDEALIFT H3W1, IDEALIFT H3W2 # # IDEALOW H2W1, IDEALOW H2W2, IDEALOW H3W1, IDEALOW H3W2 # # MAJORLIFT, MAJORTRIO, OPTILIFT, ROBUST-SLIMO # \$ USUBLIFT HWN, USUBLIFT HWN, USUBLIFT HYNC, SUBLIFT H2W1.
AT			# SUBLIFT HTWT, SUBLIFT HTWT, SUBLIFT HTWZ, SUBLIFT HZWT, # SUBLIFT H2W2, SUBLIFT H3W1, SUBLIFT H3W2 #
ФИК	Warenzeichen / Marke	:	SANPARK
СЕРТИ	Norm(en)/ Angewandte Regelwerke:	:	2006/42/EG Maschinenrichtlinie EN ISO 12100:2010 EN 14010:2003+A1:2009
FICADO	ausgestellt. Die in Anhang IV grundlegenden Gesundheits- u	/ au und	J auf Kundenwunsch gemäß Maschinenrichtlinie 2006/42/EG Artikel 12 3.b digeführten Geräte entsprechen der harmonisierten Norm und Anhang I den Sicherheitsanforderungen der Richtlinie. Sie bezieht sich nur auf das jeweilige rlagen, die zur Einsichtnahme vorgelegt werden.
E L	Technische Datei Nr	:	21-MD-TEC-063/TF-01
E.	MIT ¹ Dokument Nr		MD-2737-2100004
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