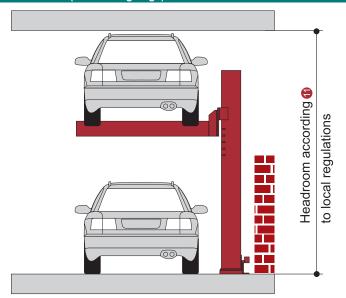


#### Indac Parking Systems Pvt. Ltd.

Shop No.3, Narayan Complex, Sr. No.25/6/2/1, Hingane Khurd, Sinhgad Road, Pune 411 051

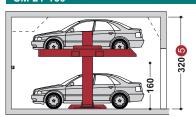
Phone: +91 79722 17162 E-mail: info@indacparking.com

## Garage without door (basement garage)



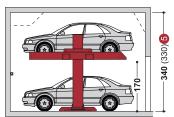
Before lowering the platform, the vehicle parked on the lower parking space must be driven off.

# SM 21-160



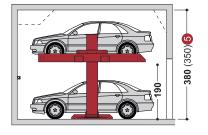
320		150	150	-
Heigh	t	Car height upper	Car height lower	

#### SM 21-170

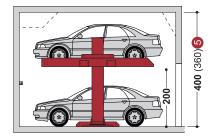


Height	Car height upper	Car height lower	ì
340	160	160	_
(330)	150	160	_

#### SM 21-190



Height	Car height upper	Car height lower	
380	180	180	
(350)	150	180	



	Height	Car height upper	Car height lower	
_		 		
_	400	 190	190	
	(360)	150	190	

## PRODUCT DATA

**SM 21** 2000 kg<sup>1</sup>

Loadable up to 2000 kg.

A system for all height Subsequently adjustable

#### Dimensions

All space requirements are minimum finished dimensions.

Tolerances for space requirements 10.03 Dimensions in cm.

SP (single platform) = 2 vehicles

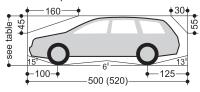
#### Suitable for

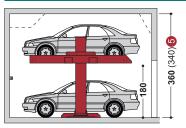
Standard passenger cars

Station wagon, SUV, van according to clearance and maximal surface load.

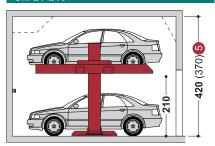
	Standard	
Width	190 cm <b>4</b>	
Weight	max. 2000 kg	
Wheel load	max. 500 kg	

#### Clearance profile





, Height ,	Car height upper	Car height lower	
360	170	170	
(340)	150	170	



Height	Car height upper	Car height lower	
420	200	200	
(370)	. 150	200	

- Standard type
- 2 System available in 2.0 T only.
- To follow the minimum finished dimensions, make sure to consider the tolerances according to building standards.
- Maximum car width for platform width 200 cm.
  - If a higher ceiling height is available, higher cars can be parked.
- For dividing walls: cutting through 10 x 10 cm.
- 6 Potential equalization from foundation grounding connection to
- system (provided by the customer).

- 10 cm wide yellow-black markings must be applied by the customer to the edge of the platform in the access area to mark the danger zone in front of the supporting surface of the upper platform edge (see "load plan" Page 4)
- Variable steel pillar bases in two sizes (see "load plan" Page 4)
- For convenient use of your parking spaces and due to the fact that the cars keep becoming longer we recommend a length of 540 cm.
- Must be at least as high as the greatest car height +5 cm.

Page 1

- -Section
- Dimensions

-Car data Page 2 Width

dimensions Page 3

Entrance

Load data Installation

Electrical installation

Page 4 Technical

To be provided by the customer

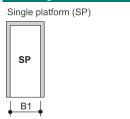
- Description

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# Width for basement garage

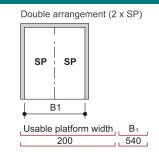
270

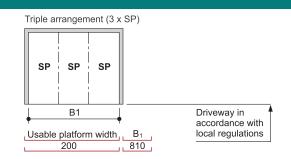
## Dividing walls



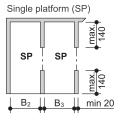
Usable platform width B<sub>1</sub>

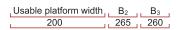
200

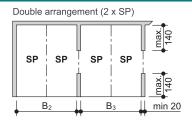


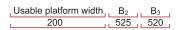


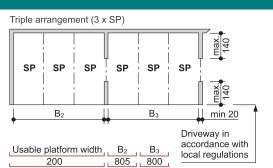
# Columns in system zone



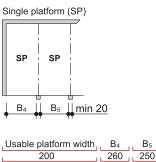


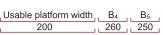


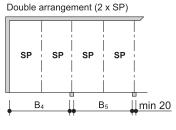




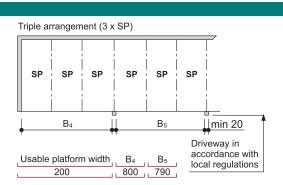
#### Columns outside system zone





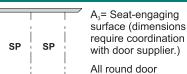






## Widths for garage with door in front of car parking system

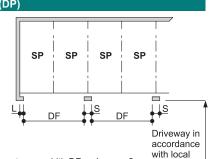
# Single platform (SP SP SP



dimensions require coordination between door supplier and local agency of INDAC Parking Systems

Usable platform width, Door entrance width DF, \_\_\_\_S 207⁵ 11<sup>2</sup>

# Double arrangement (DP) SP SP



Usable platform width, Door entrance width DF, regulations 200 415 22<sup>5</sup> 45

\*= standard width (parking space width 2.00 m)

# Please note:



End parking spaces are generally more difficult to drive into. Therefore, we recommend our wider platforms for end parking spaces. Parking larger vehicles on standard width platforms may make getting into and out of the vehicle difficult. This depends on the type of the vehicle, approach and above all, on the driver's skill.

Page 1

Section Dimensions Car data

Page 2 -Width dimensions

Page 3 Entrance

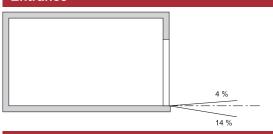
Load data Installation Electrical installation

Page 4 Technical

data To be provided by the

customer - Description SM 21 | V1 | April 2021 Page 3 of 4

#### **Entrance**



The illustrated maximum entrance angles must not be exceeded. Incorrect entrance angles will cause serious maneuvering and positioning problems on the parking system for which the local agency of INDAC Parking Systems accepts no responsibility.

#### Page 1 Section Dimensions

Car data

Page 2 Width dimensions

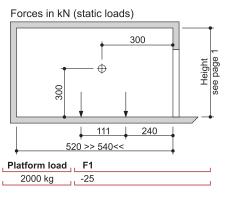
Page 3 -Entrance

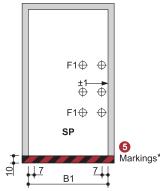
-Load data

- Installation -Electrical installation

Page 4 Technical To be provided by the customer - Description

# Load data





Units are anchored to the floor.

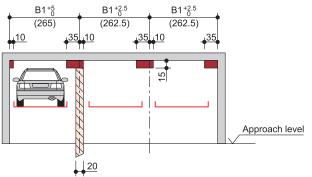
Drilling depth: approx. 9 cm to 15 cm. Floor and walls are to be made of concrete (quality minimum C20/25).

\*=Colors used in this illustration are representative

Special foundations are required with asphalt floor or paving blocks.

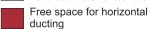
#### **Installation data**

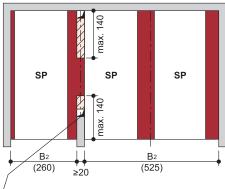
Free space for longitudinal and vertical ducts (e.g. ventilation)



 $B_1$ ,  $B_2$  = (See table on page 2)

Free space for vertical pipelines, ventilation branch canals





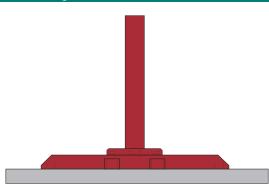
Example for ventilation branch canal and/or vertical pipelines.

Free space only applicable if vehicle is parked forwards = FRONT FIRST and driver's door on the right side

( ) = Dimensions in brackets illustrate an example for usable platform width 230 cm.

# **Electrical installation**

#### Installation diagram



Electrical data (to be provided by the customer)						
No.	Qunatity	Description	Position	Frequency		
1	1	Electrical meter	in the supply line			
2	1	N.A.				
3	1	Power supply line (5 x 2.5 mm², copper 3 PH + N + PE) with marked wire and protective conductor.	from electrical meter to main power point	1 per unit		
4	1	Main power point: 4 pole RCBO (or MCB + ELCB), 16 Amp IDN (sensitivity/leakage current) 100 mA	defined at plan evalation near to hydraulic unit	1 per unit		
5	1	Power supply line (5 x 2.5 mm², copper 3 PH + N + PE) with marked wire and protective conductor.	from main power point to hydraulic unit	1 per unit		
6	every 10 m	Foundation earth connector	corner pit floor			
7	1	Equipotential bonding from foundation earth connector to the system		1 per system		

#### Electrical data (included in delivery of INDAC Parking Systems No. Description 8 Terminal box 9 Control line 3 x 0.75 mm<sup>2</sup> (PH + N + PE)

10 Control line 5 x 0.75 mm<sup>2</sup> with marked wire and protective conductor 11 Operating device

12 Control line 5 x 0.75 mm<sup>2</sup> with marked wire and protective conductor Hydraulic unit 1.5 kW, three-phase current, 415 V / 50 Hz

14 Control line 5 x 0.75 mm<sup>2</sup> with marked wire and protective conductor

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#### **Technical data**

#### Range of application

Generally parking system is suitable for small/big length car for which the system is adjusted at the time of installation. In case of different car is to be parked, system adjustment/confirmation from INDAC Parking Systems shall be required. Suitable for installation in driveways, side margin of buildings, aisle etc.

#### **Environmental conditions**

Environmental conditions for the area of multiparking systems: Temperature range  $5^{\circ}$  C to +40° C. Maximum outside temperature of +45° C.

If the local circumstances differ from the above, please contact INDAC Parking Systems.

## To be provided by the customer

#### Safety fences

Any constraints that may be necessary in order to provide protection, for pathways directly in front, next to or behind the unit. To be provided prior to start installation of car parking systems.

#### Numbering of parking spaces

Consecutive numbering of parking spaces.

#### Building services

- Lighting, ventilation, fire extinguishing and fire alarm systems.
- Signages for parking guidance, flooring, pedestals, site painting.

#### Marking

The marking that identifies the danger area at entrance of parking platform should be made on the floor, with yellow and black stripes.

#### Wall cutting

Any necessary wall cutting according to page 1.

#### Electrical supply to the main power point

3 phase, 415 V ( $\pm$ 10%) 50 Hz ( $\pm$ 2%) 4 wire (3 PH + N + PE) electrical supply to the main power point and the control wire line (5 x 2.5 mm², copper 3 PH + N + PE) with marked wire and protective conductor must be provided by customer during installation.

#### Railings

If there are traffic routes next to or behind the installations, railings must be installed by the customer. Railings must also be in place during construction.

## **Description**

## General description

This system provides dependent parking spaces for 2 cars one on top of the other. The lower vehicle is parked directly on the floor. The vehicle parked on the bottom must be driven out before lowering the platform.

The upper vehicle is parked on the platform when it is resting on the floor with the wheels touching the wheel stopper-cross member.

The user is responsible for proper positioning of the vehicle on platform/floor.

Operation via operating device with hold-to-run-device using master keys.

The operating elements are usually mounted either in front of the

column or on the outside of the door frame.

Operating instructions are attached to each operator's box stand.

For garages with doors at the front of the parking system, the special dimensional requirements have to be taken into account.

#### Car parking systems consist of

- 1 steel pillars with base plates (mounted on the floor)
- 1 sliding platform (mounted on to the steel pillar with sliding bearings)
- 1 platform
- 1 mechanical synchronization control system (to ensure synchronous operation of the hydraulic cylinders while lowering and lifting the platform)
- 1 hydraulic cylinder
- 1 automatic hydraulic safety valve (prevents accidental lowering of the platform)
- Connecting elements, bolts, nuts, etc.

## Platforms consist of

- Platform base sections
- Wheel-stop cross member
- Access strip
- Side members
- Cross members
- Bolts, nuts, washers, distance tubes, etc.

# Hydraulic system consists of

- Hydraulic cylinder
- Solenoid valve
- Hydraulic pipes
- Hydraulic pipe fittings
- High-pressure hoses

#### Electric system consists of

- Operating device (Emergency Stop, lock, 1 master key per parking space)
- Terminal box on column
- Electromagnetic locking device

# Hydraulic unit consists of

- Hydraulic power unit (low-noise, installed onto a console with a metal mounting)
- Hydraulic oil reservoir
- Oil filling
- Internal geared wheel pump
- 3-phase-AC-motor (1.5 kW / 415 V, 50 Hz)
- Contactor (with thermal over current relay and control fuse)
- Pressure gauge
- Pressure relief valve
- Hydraulic hoses

# We reserve the right to change these specifications without prior notice.

INDAC Parking Systems reserves the right in the course of the technical progress to use newer or other technologies, system, processes, procedures or standards in the fulfillment of their obligations other than those originally offered.

Page 1
- Section
- Dimensions

Page 2

· Dimensions · Car data

-Width dimensions

-Entrance

-Load data -Installation -Electrical

installation
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- Technical

-To be provided by the customer

-Description