



Indac Parking Systems Pvt. Ltd.

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PRODUCT DATA

S21

2000 kg¹ / 2500 kg²

Loadable up to 2500 kg. A system for all height. Subsequently adjustable.

Dimensions

All space requirements are minimum finished dimensions.

Tolerances for space requirements ⁺³/₀.³
Dimensions in cm.

SP (single platform) = 2 vehicles

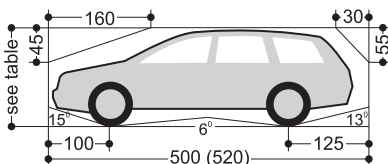
Suitable for

Standard passenger cars

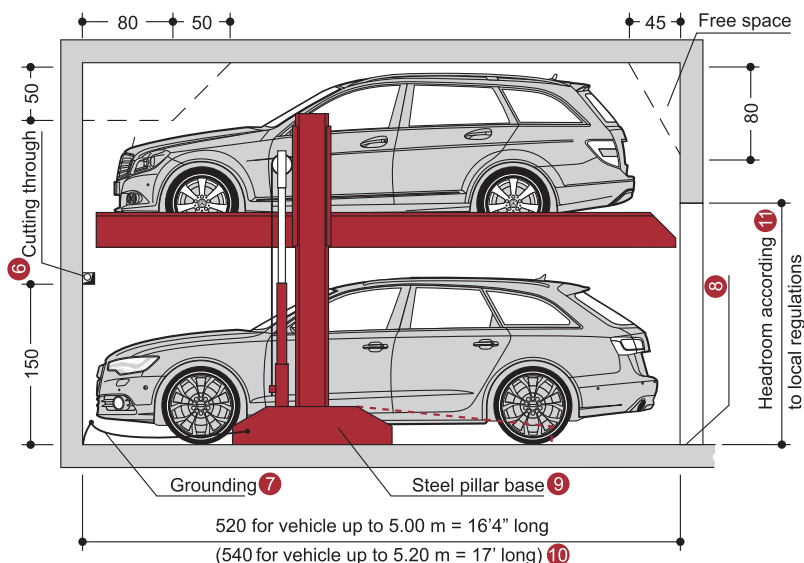
Station wagon, SUV, van according to clearance and maximal surface load.

	Standard	Special ²
Width	190 cm ⁴	190 cm
Weight	max. 2000 kg	max. 2500 kg
Wheel load	max. 500 kg	max. 625 kg

Clearance profile

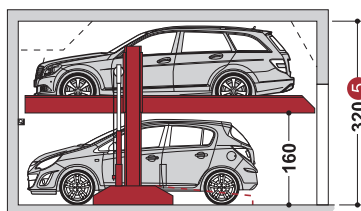


Garage without door (basement garage)



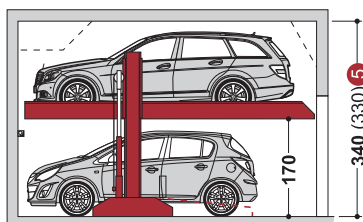
! Before lowering the platform, the vehicle parked on the lower parking space must be driven off.

S21-160



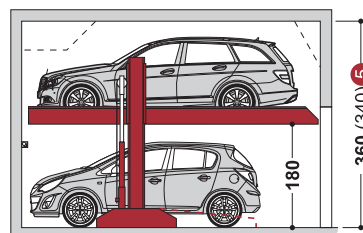
Height	Car height upper	Car height lower
320	150	150

S21-170



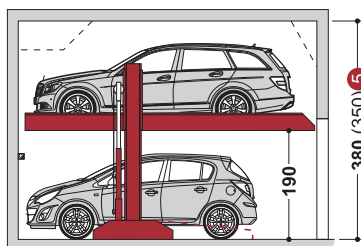
Height	Car height upper	Car height lower
340 (330)	160 150	160 160

S21-180



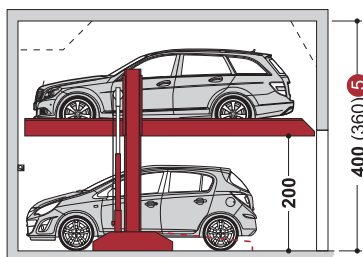
Height	Car height upper	Car height lower
360 (340)	170 150	170 170

S21-190



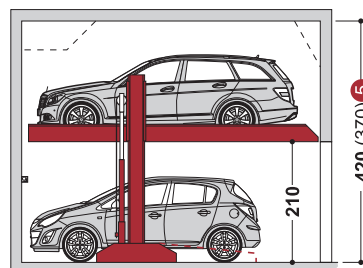
Height	Car height upper	Car height lower
380 (350)	180 150	180 180

S21-200



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

S21-210



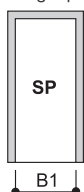
Height	Car height upper	Car height lower
420 (370)	200 150	200 200

- Standard type
- System can be upgraded to 2.5 T with special changes.
- To follow the minimum finished dimensions, make sure to consider the tolerances according to building standards.
- Car width for platform width 230 cm. If in case wider platforms are used then it is possible to park wider cars.
- If a higher ceiling height is available, higher cars can be parked.
- For dividing walls: cutting through 10 x 10 cm.
- 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.

Width for basement garage

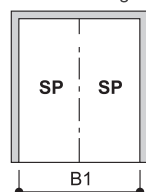
Dividing walls

Single platform (SP)



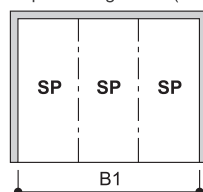
Usable platform width	B ₁
200	230
210	240
220	250
230*	260
240	270
250	280

Double arrangement (2 x SP)



Usable platform width	B ₁
200	460
210	480
220	500
230*	520
240	540
250	560

Triple arrangement (3 x SP)

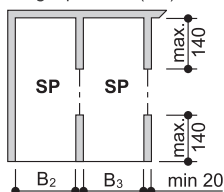


Usable platform width	B ₁
200	690
210	720
220	750
230*	780
240	810
250	840

Driveway in accordance with local regulations

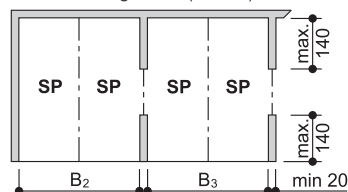
Columns in system zone

Single platform (SP)



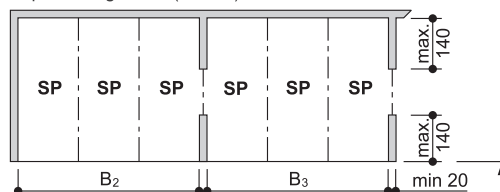
Usable platform width	B ₂	B ₃
200	225	220
210	235	230
220	245	240
230*	255	250
240	265	260
250	275	270

Double arrangement (2 x SP)



Usable platform width	B ₂	B ₃
200	455	450
210	475	470
220	495	490
230*	515	510
240	535	530
250	555	550

Triple arrangement (3 x SP)

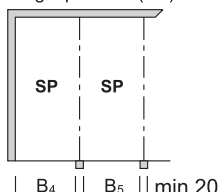


Usable platform width	B ₂	B ₃
200	685	680
210	715	710
220	745	740
230*	775	770
240	805	800
250	835	830

Driveway in accordance with local regulations

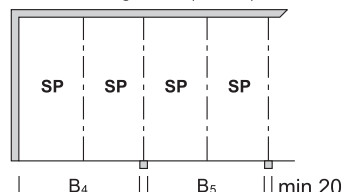
Columns outside system zone

Single platform (SP)



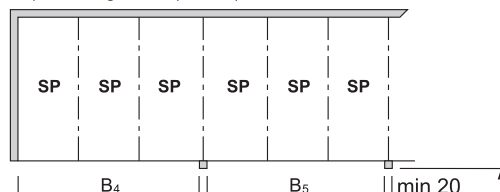
Usable platform width	B ₄	B ₅
200	220	210
210	230	220
220	240	230
230*	250	240
240	260	250
250	270	260

Double arrangement (2 x SP)



Usable platform width	B ₄	B ₅
200	450	440
210	470	460
220	490	480
230*	510	500
240	530	520
250	550	540

Triple arrangement (3 x SP)

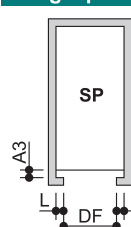


Usable platform width	B ₄	B ₅
200	680	670
210	710	700
220	740	730
230*	770	760
240	800	790
250	830	820

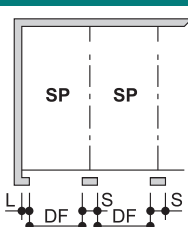
Driveway in accordance with local regulations

Widths for garage with door in front of car parking system

Single platform (SP)



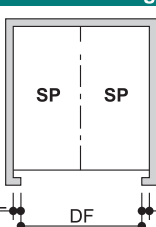
Usable platform width	Door entrance width DF	L	S
200	207 ^s	11 ^s	22 ^s
210	217 ^s	11 ^s	22 ^s
220	227 ^s	11 ^s	22 ^s
230*	237^s	11^s	22^s
240	250	11 ^s	22 ^s
250	250	15	30



A₃ = Seat-engaging surface (dimensions require coordination with door supplier.)

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

Double arrangement (DB)



Usable platform width	Door entrance width DF	L	S
200	415	22 ^s	45
210	435	22 ^s	45
220	483 ^s	22 ^s	45
230*	475	22^s	45
240	500	20	40
250	520	20	40

Driveway in accordance with local regulations

* = standard width (parking space width 2.30 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, entrance and above all, on the driver's skill.

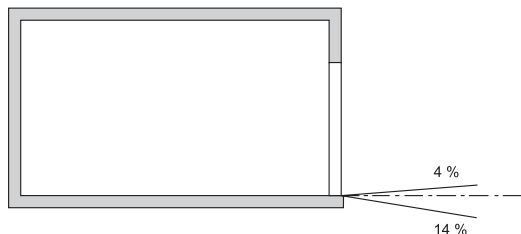
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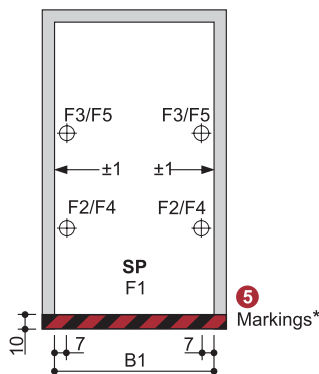
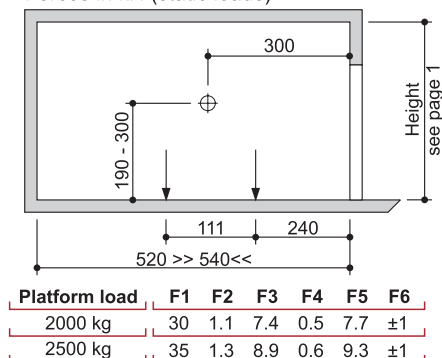
Entrance



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.

Load data

Forces in kN (static loads)



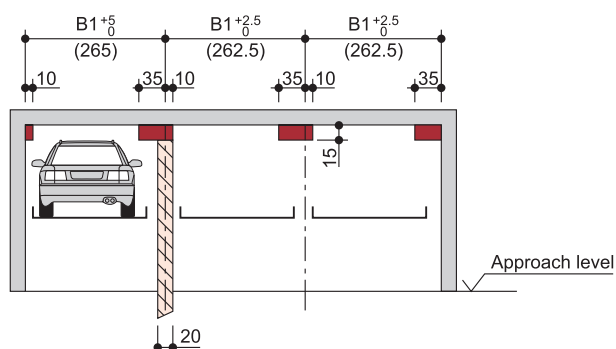
Units are anchored to the floor.
Drilling depth: approx. 9 cm to 15 cm. Floor and walls are to be made of concrete (quality minimum C20/25).

*=Colors used in this illustration are representative

Special foundations are required with asphalt floor or paving blocks.

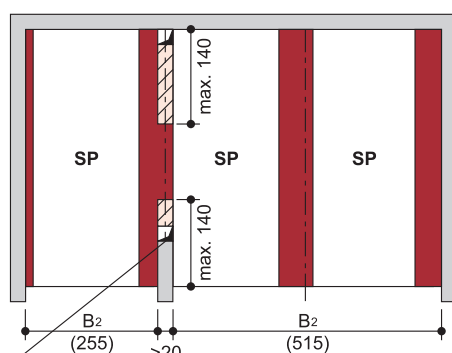
Installation data

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



B₁, B₂ = (See table on page 2)

- Free space for vertical pipelines, ventilation branch canals
- Free space for horizontal ducting



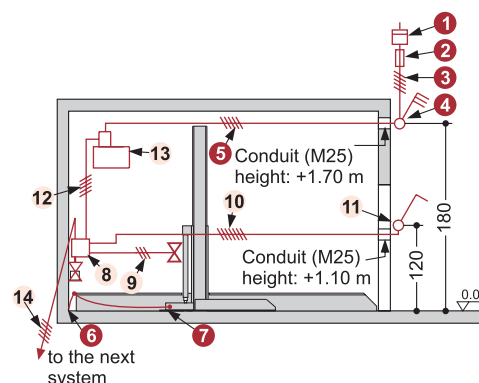
Example for ventilation branch canal and/or vertical pipelines.

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.	Quantity	Description	Position	Frequency
1	1	Electrical meter	in the supply line	
2	1	N.A.		
3	1	Power supply line (5 x 2.5 mm ² , 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 evaluation near to hydraulic unit	1 per unit
5	1	Power supply line (5 x 2.5 mm ² , 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 ² (PH + N + PE)
10	Control line 5 x 0.75 mm ² with marked wire and protective conductor
11	Operating device
12	Control line 5 x 0.75 mm ² with marked wire and protective conductor
13	Hydraulic unit 1.5 kW, three-phase current, 415 V / 50 Hz
14	Control line 5 x 0.75 mm ² with marked wire and protective conductor

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Technical details

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.

Environmental conditions

Environmental conditions for the area of multiparking systems: Temperature range 5°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. This is also to be considered prior to start installation.

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 (±10%) 50 Hz (±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 prior to installation of car parking systems.

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.

Parking systems consist of

- 2 steel pillars with base plates (mounted on the floor)
- 2 sliding platforms (mounted on to the steel pillars 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 cylinders
- Solenoid valves
- 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 at wall valve
- 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.

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