DE-59 is our hidden underground parking system on three levels. The new solution with offset columns offers more comfort when driving into the parking system. Upper platform can be covered with different pavement.

**EASY TO PLAN** with space saving construction.

**EASY TO INSTALL** with minimized parts construction.

**EASY TO USE** due to barrier free construction.
1. WIDTH OF PARKING SPACE / SYSTEM (IN CM)

A = system width
B = usable parking space width

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>265</td>
<td>230</td>
</tr>
<tr>
<td>275</td>
<td>240</td>
</tr>
<tr>
<td>285</td>
<td>250</td>
</tr>
<tr>
<td>295</td>
<td>260</td>
</tr>
<tr>
<td>305</td>
<td>270</td>
</tr>
</tbody>
</table>

1° Tolerance of dimensions on the construction site = 0 to + 3 cm

2. DIMENSIONS (IN CM)

D = pit depth
H = clear height (indoor version)
C1/C2 = vehicle height bottom / top

<table>
<thead>
<tr>
<th>D</th>
<th>C1</th>
<th>C2</th>
<th>H</th>
<th>C3</th>
</tr>
</thead>
<tbody>
<tr>
<td>360</td>
<td>150</td>
<td>150</td>
<td>475</td>
<td>150</td>
</tr>
<tr>
<td>380</td>
<td>160</td>
<td>160</td>
<td>495</td>
<td>150</td>
</tr>
<tr>
<td>400</td>
<td>170</td>
<td>170</td>
<td>515</td>
<td>150</td>
</tr>
<tr>
<td>420</td>
<td>180</td>
<td>180</td>
<td>535</td>
<td>150</td>
</tr>
<tr>
<td>440</td>
<td>190</td>
<td>190</td>
<td>555</td>
<td>150</td>
</tr>
<tr>
<td>460</td>
<td>200</td>
<td>200</td>
<td>575</td>
<td>150</td>
</tr>
</tbody>
</table>

2° The vehicle height with roof rails, antenna and other height increases must not exceed the listed max. vehicle heights.

3. TECHNICAL DATA

**Maximum vehicle weight**
- 2000kg / 500kg wheel load
- 2600kg / 650kg wheel load

**Height**
- In case of larger ceiling height, higher vehicles can be parked on the top platform accordingly.
- In outdoor installation car height on top is indefinite.

**System Length / Pit length**
- For a 500 cm car length a 530 cm system length is necessary.
- A pit length of 540 cm is recommended. This enables larger safety distances if new, longer vehicles are purchased.

**Dimensions**
- All dimensions are minimum finished dimensions in cm.
- Allow for tolerances to VOB Part C (DIN 18330, 18331) and additionally DIN 18202 (+ 30 mm / 0 mm).
4. ACCESS CONDITIONS

Maximum slope / rise
• Max. 5% slope ³
• Max. 10% rise ³

Drainage
• 1-2 % slope on the pit floor

Pit Floor
The pit floor should be built according to the drawing below. The four corners with the dimensions 50 x 100 cm must be even and leveled.

5. FORCES ON THE STRUCTURE

<table>
<thead>
<tr>
<th>Force</th>
<th>2000 kg</th>
<th>2600 kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>30 kN</td>
<td>42 kN</td>
</tr>
<tr>
<td>F2</td>
<td>6 kN</td>
<td>6 kN</td>
</tr>
</tbody>
</table>

• The forces apply to one pillar.
• If pillars are next to each other the figures double, as both pillars are fixed in one point.

7. ANCHORING

• Systems are anchored into the floor and rear wall. The hole depth is approx. 13 cm.
• The quality of the concrete in the structure (for the parking system) must be at least C20/25.
• The precise position of the load application points depends on the selected system. For precise values, please contact DE-PARK.

8. TYPE OF CONTROL

Interactive control unit:
We replaced the dead man’s control function from the turning key to a set of two interactive push buttons. This advancement provides additional comfort, security and functionality.

• The push buttons are illuminated so that the control unit can provide information on the system status.
• This new system allows the integration of many custom safety solutions.

6. ELECTRICAL ELEMENTS

Connected load of unit: 2x3 kW / 400 V / 50 Hz

Services provided in the system:
• Operator terminal including two interactive push buttons for raising and lowering.
• Emergency stop placed outside of the system’s range of movement.

To be provided from customer:

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Electric meter</td>
</tr>
<tr>
<td>2</td>
<td>Fuse or automatic circuit breaker according to DIN VDE 0100 part 430, max. 20 A</td>
</tr>
<tr>
<td>3</td>
<td>According to local power supply regulations 3 PH + N + PE</td>
</tr>
<tr>
<td>4</td>
<td>Main switch lockable</td>
</tr>
<tr>
<td>5</td>
<td>Connection for the protective potential equalization DIN 60204</td>
</tr>
<tr>
<td>6</td>
<td>Protective bonding all 10m</td>
</tr>
</tbody>
</table>

³ In case of higher values, safe access of the vehicle cannot be guaranteed by DE-PARK.
9. REQUIREMENTS

Maintenance, cleaning & prevention
- The systems must be serviced and cleaned regularly. This applies more so if the systems and the platforms are exposed to aggressive substances such as salt, water, dirt, operating supplies, sand, etc.
- Adequate drainage must be ensured.

Ventilation and Lighting
- The garage must be adequately ventilated.
- The parking spaces must be adequately illuminated on site as specified.

Ambient conditions
- Temperature range from -5 to +40 °C. Relative humidity max. 80%.
  Please contact DE-PARK in case of different conditions.

Marking tape on the edge of the pit
According to EN 14010 / ISO 3864, a 10cm wide, black & yellow warning marking must be attached to the edge of the pit.

Separating elements / Barriers
According to EN ISO 13857, separating elements or barriers must be installed in the pedestrian area / accessible areas around the parking system, including during installation.

Fire safety
The garage design must fulfill the regional fire safety provisions. The requirements can vary. Therefore the situation must be clarified and information obtained in advance by the customer and then agreed and coordinated.

Noise emissions
According to the noise insulation regulations for buildings to DIN 4109, a value of 30dB (A) must be complied with in occupied rooms and spaces. You receive a sound insulation package with the system for the required 30dB (A) insulation of the structure is also necessary. Sound reduction index min. Rw = 57dB.

10. CE AND CONFORMITY

The systems conform to ...
- EN 14010-2009-12 Safety of Machinery - Equipment for power driven parking of motor vehicles
- Machinery Directive 2006/42/EC

Design changes
We reserve the right to continuously develop our product on the basis of technical progress and to make changes and/or modifications to parts, assemblies or overall, to processes and to standards with no advance notice.

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