

# **Tender specification KLAUS Multiparking MultiVario 2082 EB / MultiVario 2082 DB**

## **Preliminary technical remarks**

1. Basis for the design are
    - 1.1 the garage regulations (GaVo) according to the building regulations in the latest version,
    - 1.2 the EC Machinery Directive 2006/42/EC, Appendix 1, and the DIN EN 14010
    - 1.3 the architect's workshop drawings
  2. The bidder confirms upon submission of the bid that the garage dimensions and the driveway widths comply with the GaVo, the relevant implementation guidelines to be specified by him and the system offered by him.
  3. Required surface loads according to DIN 1055, page 3, per parking space: 2.0 t
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## **Specification**

### **General:**

Multiparking system providing independent parking spaces for 2 cars (EB) or 2 x 2 cars (DB) on top of each other. Dimensions according to product data sheet MultiVario 2082 and the pit dimensions, widths and heights taken as basis. Variably adjustable Multiparker which can be adjusted subsequently depending on the existing building dimensions and the heights of the cars to be parked. Operation via operating device with hold-to-run-device using master keys.

MultiVario 2082 EB - 2 platforms for 2 cars on top of each other

MultiVario 2082 DB - 2 double-width platforms for a total of 4 cars

### **Corrosion protection:**

Corrosion protection according to DIN EN ISO12944-2, corrosive category C3 moderate

- Platform profiles, cover plates and optional platform extensions hot-dip galvanized according to DIN EN ISO 1461, layer thickness approx. 45 µm
- Side members and optional extensions hot-dip galvanized according to DIN EN ISO 1461, layer thickness approx. 55 µm
- Central side members (only DB) and cross members hot-dip galvanized according to DIN EN ISO 1461, layer thickness approx. 55 µm. Central side member, optionally grey powder coating (Epoxy / Polyester base) ) RAL 7040, dry film thickness approx. 60 – 80 µm
- Access plates, hot-dip galvanized in accordance with DIN EN ISO 1461 film thickness approx. 55 µm, and additional orange powder-coating (Epoxy / Polyester base) RAL 2000, dry film thickness approx. 60-80 µm
- Fastening screws for platform profiles, stainless steel V4A
- Hydraulic tubes, screwed joints, bolts, screws, nuts and washers electrogalvanized
- Other steel components, shot-peened (particle cleanliness SA 2,5) and grey powder coating (Epoxy / Polyester base) RAL 7040, dry film thickness approx. 60-80 µm

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### **Hydraulic unit:**

The hydraulic unit is used to drive several Multiparkers if they are arranged next or opposite (separated by the driveway only) to each other. The system is controlled with the control unit on for each Multiparker. The Multiparkers can be lifted or lowered together. The hydraulic unit installed is supported rubber-bonded metal. However, we still recommend separating the garage body from the residential house.

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### **To be performed by the customer:**

1. Electrical supply to the main switch / Foundation earth connector:  
Suitable electrical supply to the main switch and the control wire line must be provided by the customer during installation. The functionality can be monitored on site by our fitters together with the electrician. If this cannot be done during installation for some reason for which the customer is responsible, the customer must commission an electrician at their own expense and risk.  
In accordance with DIN EN 60204 (Safety of Machinery. Electrical Equipment), grounding of the steel structure is necessary, provided by the customer (distance between grounding max. 10 m).
2. Safety fences:  
Any constraints that may be necessary according to DIN EN ISO 13857 in order to provide protection for the park pits for pathways directly in front, next to or behind the unit. This is also valid during construction. Railings for the system are included in the series delivery when necessary.
3. Numbering of parking spaces:  
Consecutive numbering of parking spaces.
4. Building services:  
Any required lighting, ventilation, fire extinguishing and fire alarm systems as well as clarification and compliance with the relevant regulatory requirements.
5. Drainage:  
For the front area of the pit we recommend a drainage channel, which you connect to a floor drain system or sump (50 x 50 x 20 cm). The drainage channel may be inclined to the side, however not the pit floor itself (longitudinal incline is available). For reasons of environmental protection we recommend to paint the pit floor, and to provide oil and petrol separators in the connections to the public sewage network.
6. Strip footings:  
If due to structural conditions strip footings must be effected, the customer shall provide an accessible platform reaching to the top of the said strip footings to enable and facilitate the mounting work.
7. Marking:  
According to DIN EN 14010, a warning that identifies this danger area must be placed in the entrance area that conforms to ISO 3864. This must be done according to EN 92/58/EWG for systems with a pit (platforms within the pit) 10 cm from the edge of the pit.
8. Wall cuttings:  
Any necessary wall cuttings according to product data sheet MultiVario 2082
9. Operating device:  
Cable conduits and recesses for operating device see product data sheet MultiVario 2082.
10. Concrete quality:  
Floor and walls below the drive-in level are to be made of concrete (quality minimum C20/25).

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**If the following positions are not listed in the bid, the following services are also to be provided by the customer:**

11. Complete wiring of the single components acc. to circuit diagram
12. Costs for expert acceptance
13. Lockable main switch
14. Control line from main switch to unit

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Multiparking system for 2 cars  
MultiVario 2082 EB

Multiparking system for 2 cars with variably adjustable platforms, which depend on the existing building dimensions and the heights of the cars to be parked.

This system can be installed in different variants. Platform distance and platform slope can be adjusted individually to the building requirements. For this system, the pit and height dimensions can be selected fluently and flexibly. The optimum application starts at a pit depth of 175 cm and a height of 325 cm measured from carriageway level. There will no longer be fixed grid dimensions. Any cm that is available is used for the system and its comfort. Due to the wide variability of the system we can now provide one basic product data sheet. For this purpose we provide the designers and our customers with our "proDesigner" software. You can access this software on our homepage, or directly via <http://prodesigner.multiparking.com/>. Taking all the designing specifications and the desired comfort, the software will create an individually designed product data sheet.

If the system is to be used for different purposes in the future, and provided that the building dimensions are still suitable, we can adjust the system at any later date with reference to parking options, platform distances, or comfort (platform slopes).

Vehicle length: 500 cm

Usable platform width: 230 cm

Platform load: 2.0 t

incl. freight, unloading, installation  
incl. electrical wiring from hydraulic unit  
incl. expert acceptance

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Multiparking system for 4 cars  
MultiVario 2082 DB

Multiparking system for 4 cars

Usable platform width: 460 cm

Otherwise as described for Multiparking system for 2 cars

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Hydraulic unit, low-noise

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Extra costs for lockable main switch

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Extra costs for control line from main switch to hydraulic unit

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\*Optional position\*  
Extra costs for larger platform width \_\_\_\_\_ cm

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\*Optional position\*  
Extra costs for increase of platform load to 2,5 t per parking space, EB system

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\*Optional position\*  
Extra costs for increase of platform load to 2.6 t per parking space, DB system

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\*Optional position\*  
Extra costs for increase of platform load to 3.0 t per parking space, EB system

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\*Optional position\*  
Platform coating in AluLongLife

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\*Optional position\*  
Platform coating in AluLongLife

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\*Optional position\*  
Extra costs for additional noise protection measures to protect against structure-borne sound according to DIN 4109, EB system

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\* Optional position \*  
Extra costs for additional noise protection measures to protect against structure-borne sound according to DIN 4109, DB system

## **Tender specification KLAUS Multiparking MultiVario 2082 EB / MultiVario 2082 DB**

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\*Optional position\*

Extra costs for additional increased noise protection measures to protect against structure-borne sound according to DIN 4109-10, EB system

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\*Optional position\*

Extra costs for additional increased noise protection measures to protect against structure-borne sound according to DIN 4109-10, DB system

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\*Optional position\*

Extra costs for fixing in waterproof concrete with glue dowel

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Extra costs for conclusion of a system service contract SSVP "PLUS" with cleaning and care, incl. maintenance 1 per year, all spare and wear parts, and cleaning and care of the platform surface.

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