Tender specification KLAUS Multiparking
MultiBase U20 EB

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 supplier 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 EN 1991-1-1, per parking space: 2.0 t

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Specification

General:
Multiparking system providing independent parking for 2 cars (EB) on top of each other – on special conditions the upper platform may be used as parking space. Dimensions according to product data sheet MultiBase U20 EB and the pit dimensions, widths and heights taken as basis. The parking bays are accessed horinzotally (installation deviation ± 1 %). Operation via operating device with key interlock using master keys.

MultiBase U20 EB – 2 platforms for 2 cars and 1 upper platform (on special conditions the upper platform may be used as parking space)

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

- Platform profiles coated with zinc-aluminium-magnesium according to DIN 10326
- Cover plates and optional platform extensions hot-dip galvanized according to DIN EN ISO 1461, layer thickness min. 45 µm
- Side members coated with zinc-aluminium-magnesium according to DIN 10326
- Cross members hot-dip galvanized according to DIN EN ISO 1461, layer thickness min. 55 µm
- Access plates, hot-dip galvanized in accordance with DIN EN ISO 1461 film thickness min. 55 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.

To be performed by the customer

1. Electrical supply to the main switch / Foundation earth connector:
   Suitable electrical supply to the main switch 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. Safety grids on the systems are, if necessary, optionally available against surcharge.

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:
   In the middle of the pit a floor drain with connection to the cable network or a pump sump is to be provided. The water is to be drained with a pump to be provided by the customer. From the pit corners/bearing surface of the lifting columns an incline to the floor drain/pump sump is necessary.
   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. To divert large amounts of water from the court area, we recommend that the customer install a water drainage channel around the periphery of the pit.

6. Marking:
   In compliance with DIN EN 14010, 10 cm wide yellow-black markings compliant to ISO 3864 must be applied by the customer to the edge of the pit in the entry area to mark the danger zone.

7. Wall cuttings:
   Any necessary wall cuttings according to product data sheet MultiBase U20 EB.

8. Concrete quality:
   Floor and walls below the drive-in level are to be made of concrete (quality minimum C20/25).

9. Operating device:
   The customer must provide a cable duct (Helfamin-tube DN 40) from pit floor to operating device. The location of the control element must be specified according to the project (control stand, house wall, etc.).

10. Installing vertical columns:
    In general, a crane must be supplied by the customer for installation of the telescope columns. Hook clearance min. 700 cm over access level, crane load approx. 1400 kg.

11. Maintenance manhole:
    A separate maintenance manhole with manhole cover, ladder and a connecting passage to the pit must be installed by the customer. In multiple systems, a shared maintenance manhole may be sufficient, depending on the project.

12. Lighting:
    The customer must comply with DIN 67528 „Artificial lighting of parking areas and parking houses“ for the parking structure lighting. The intensity of illumination in the pit and in the maintenance manhole must be min. 80 Lux.

13. Ventilation:
    To achieve a constant exchange of air, reduce humidity, prevent condensation, and reduce vehicle moisture (due to rain, snow, ice, etc.), it is recommended that the customer consult specialized engineers for heating, ventilation, and climate control and install a ventilation system. This will reduce or prevent the hazard of corrosion and its attendant failures.

Multiparking system for 2 cars
MultiBase U20 EB-425

Multiparking system for 2 cars with platforms for horizontal accessing and 1 upper platform (on special conditions the upper platform may be used as parking space)

Pit depth: 425 cm

Vehicle height: bottom 165 cm

Vehicle length: 500 cm

Usable platform width: 230 cm

Platform load: 2,0 t

incl. freight, unloading, installation
incl. electrical wiring from lockable main switch
incl. expert acceptance

Hydraulic unit, low-noise

Option:
Extra costs for KLAUS MultiBase U20 EB-495
(car height at bottom up to 200 cm)

– Dimensions acc. to manufacturer specifications –

Optional position
Extra costs for larger platform width _____ cm

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

* Optional position*
Platform coating in AluLongLife

* Optional position*
Extra costs for additional noise protection measures to protect against structure-borne sound according to DIN 4109-1, EB system

* Optional position*
Extra costs for additional increased noise protection measures to protect against structure-borne sound according to VDI 4100, EB system

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.