Technical specifications / Tender text
WÖHR Autoparksysteme GmbH
PARKLIFT 462 S / PARKLIFT 462 D

Construction project:

Installation of a car parking system

Preliminary technical notes

1. The principles underlying the execution of this project are:
   1.1 Garage regulations of the relevant federal states in the latest version.
   1.2 The EC Machinery Directive no. 2006/42/EC, Annex 1, and the DIN EN 14010
   1.3 A conformity test by TÜV SÜD
   1.4 The project execution drawings produced by the architects

2. By submitting a bid, the tenderer confirms that the relative garage dimensions as well as the driving aisle widths are in full compliance with the Garage Regulations in force, with the project execution guidelines designated by the tenderer and with the system itself, as offered by the tenderer.

3. The required load capacities compliant to the DIN 1991-1-1, page 3, amount to 2.0 t for each parking place.

Technical specifications

General:

– Car parking system for the independent parking of 2 passenger vehicles on top of each other (the top platform can also be used as a parking space under determined requirements – see Data Sheet).

– For the relative dimensions please consult the WÖHR Parklift 461/462/463 Data Sheet and the dimensions specified for the pit, for system height and for system width.

– This is a car parking system featuring 3 horizontal platforms.

– For the lower 2 platforms, a brink wedge for vehicle positioning is included for each parking space.

– The platforms are moved via a key blocking device, operated with keys with the same lock (two keys provided for each parking space).

– **WÖHR Parklift 462 S:** 1 single top platform for customer performed floor filling (flush with the floor, can be driven over when lowered), 2 single platforms for 2 cars on top of each other.

– **WÖHR Parklift 462 D:** 1 double top platform for customer performed floor filling (flush with the floor, can be driven over when lowered), 2 double platforms for 4 cars on top of each other.

Corrosion protection:

The classification of the parking systems to the DIN EN ISO 12944-2 reads:

Corrosivity category C3 medium (interior: production rooms with high humidity and some air pollution. Exterior: urban and industrial atmospheres, moderate pollution by sulphur dioxide. Coastal areas with low salinity.
Note: C3 applies to structural elements located above drive-in levels.

Corrosivity category C4 high (interior: chemical plants, swimming pools, coastal shipyards and boatyards. Exterior: industrial areas and coastal areas with moderate salinity).
Note: C4 applies to structural elements located in parking system pits.

Corrosivity category C2 low (interior: unheated buildings where condensation may occur, e.g. depots, sports halls). **C2 applies to all moving parts** such as cog wheels, racks, chains and bevel gears located either above or below the drive-in levels.

– Drive plates with a zinc-aluminium-magnesium alloy coating of approx. 16 µm on both sides (compliant to the DIN EN 10346)

– Contact plates, cover plates and any possible platform extension sections to be hot dip galvanised with a zinc coating of approx. 45 µm (compliant to the DIN EN ISO 1461)

– Side wall plates and central wall plates to be hot dip galvanised compliant to the DIN EN ISO 1461, with a zinc coating of approx. 55 µm

– Screws, nuts and flat washers of the drive plate mount: Fastening of the drive plate mount to the side and middle wall plates to be performed using zinc flake coated self-tapping screws with a zinc coating of approx. 12–15 µm, or an equivalent alternative; nuts and flat washers to be hot dip galvanised compliant to the DIN 50961, with a zinc coating of approx. 5–8 µm

– For further details see additional sheet Surface Protection

Hydraulic power pack:

It is possible to power several Parklift systems with a single hydraulic power pack unit, provided that they are installed side by side in a row. Each Parklift is operated separately via its own individual control unit. Coordination with WÖHR is required.

The hydraulic power pack will be housed in the maintenance shaft.

Hydraulic circuit pipes and electrical cables must be laid-in internally to the system (not fixed onto the walls or running along the floor – this to prevent corrosion hazards!)

Preparation works to be performed by the customer:

1. Mains power supply cabling up to the main switch and connection to the main switch (electrical works to be compliant to the specifications on the WÖHR Parklift 461/462/463 Data Sheet).

2. In compliance with the DIN EN 60204, all systems are to be hooked up onsite to an equipotential bonding safety lead-out connection, with grounding spaced at a maximum distance of every 10 m.

3. Acceptance certification performed by an expert, if not formally included in the offer.

4. Guard-rails, safety fences and barriers applicable to the structural frame, as required under the DIN EN ISO 13857.

5. Parking place numbering, if required.

6. Warning stripes along the pit edges, 10 cm wide, yellow/black, compliant to the ISO 3864.

7. The quality of the concrete must be compliant to the static requirements of the building, with minimum grade C20/25 concrete for the dowel fastening sections.

8. Maintenance shaft with shaft ladder, wall opening for hydraulic lines and access to the pit. Shaft ladder must be installed after completion of the shell construction for dimensional inspection. Safeguard of access with a steel door.

9. Circumferential drainage channel at the pit edge with connection to the sewerage system.

10. Circumferential drainage channel outside the pit for draining large quantities of water from the yard area.

11. Drainage channel in the pit area (10 x 2 cm with sump 50 x 50 x 50 cm). Sideways slope only into the drainage channel, not possible in the remaining pit section. Lengthways slope is provided according to specified construction dimensions. Sump covered with grating. When installing a sump pump, refer to manufacturer's dimensions. Installation of an oil and/or petrol separator unit in the drainage connection to the sewerage system is recommended. Coating of the pit flooring is recommended, in the interests of environmental conservation.

12. Waterproofing and floor filling (max. 250 kg/m^2) of the top platform.

13. Circumferential angle at the pit edge.

14. Lighting in the maintenance shaft and in the pit as well, if necessary, sufficient lighting of the driving aisle and the parking places.

15. A ventilation system designed by a specialist company is required for trouble-free operation of the system.

16. For mounting:
    - crane and crane operator
    - for mounting in underground garages or rooftop areas, mobile crane with crane operator (radius minimum 5 metres)
    - minimum hook height of 700 cm over entry level, crane load approx. 1400 kg

Scope of operations			**UP**	**TP**
Item 1.00.				
Car parking system for **two cars** featuring platforms with horizontal access.				
(Select the values or fill in any differing construction dimensions)				
Pit depth: front (A) / middle (B) / rear (C)	___ / ___ / ___	cm		
Clear height (H):	___	cm		
Vehicle height lower platforms:	___	cm		
Vehicle length:	500	cm		
Parking space width:	230	cm		
Platform load:	2,0	t		
including installation and freight costs, free delivered to the installation site including electrical installation operations from the power pack onwards including inspection certification by a technical expert				
WÖHR Parklift 462- ___ / ___ / ___ **S** or its equivalent	___	Piece(s)	€ _____	€ 0,00
Item 1.10.				
Car parking system for **four cars**, otherwise, as described under item 1.00.				
WÖHR Parklift 462- ___ / ___ / ___ **D** or its equivalent	___	Piece(s)	€ _____	€ 0,00
Item 1.20.				
Hydraulic power pack	___	Piece(s)	€ _____	€ 0,00
Net total price **plus 19 % VAT**				**€** 0,00

Item 1.20.1 Surcharge for the lockable main switch	___ Piece(s)	€ _____	€ 0,00
Item 1.20.2 Surcharge for lay-in of the feed cables from the main switch to the power pack	___ Piece(s)	€ _____	€ 0,00
Item 1.30. * Contingency item * Surcharge for a larger platform width _____ cm	___ Piece(s)	€ _____	€ 0,00
Item 1.40. * Contingency item * Surcharge for a larger platform width _____ cm	___ Piece(s)	€ _____	€ 0,00
Item 1.50. * Contingency item * Surcharge for increase of the platform load to 2.6 t for each parking place Single unit	___ Piece(s)	€ _____	€ 0,00
Item 1.60. * Contingency item * Surcharge for increase of the platform load to 2.6 t for each parking place Double unit	___ Piece(s)	€ _____	€ 0,00
Item 1.70. * Contingency item * Surcharge for fixing with HILTI Hit injection plug	___ Piece(s)	€ _____	€ 0,00
Item 1.80. * Contingency item * Surcharge for the stipulation of a system maintenance and repair contract covering the performance of a one-time yearly maintenance intervention consisting in one general system inspection, overall replacement of consumables/wear and spare parts as well as the one-time yearly cleaning of the platform surfaces	4 years	€ _____	€ _____
Net total price, including contingency items plus 19 % VAT			**€** 0,00