
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 1055, page 3, amount to 2.0 t for each parking place
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Technical specifications

General:

- Car parking system for the dependent parking of two passenger vehicles on top of each other.
- For the relative dimensions please consult the WÖHR Parklift 411/6 Data Sheet and the dimensions specified for system height, length and width.
- This is a car parking system featuring 1 horizontal platform and 1 hydraulic cylinder. The lower parking place is on the floor right underneath.
- A wheel stop for vehicle positioning is included for the parking place on the platform.
- The platforms are moved via a hold-to-run control device with automatic reset upon release, operated with a keyed-alike turn-lock (with two keys provided for each parking place lock).
- **WÖHR Parklift 411/6 S:** 1 platform for 2 cars parked one on top of the 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 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, contact plates, cover plates and any possible platform extension sections to be hot dip galvanised with a zinc coating of approx. 45 my (compliant to the DIN EN ISO 1461).
- Side wall plates to be hot dip galvanised compliant to the DIN EN ISO 1461, with a zinc coating of approx. 55 my.
- Screws, nuts and flat washers of the drive plate mount: Fastening of the drive plate mount to the side wall plates to be performed using zinc flake coated self-tapping screws with a zinc coating of approx. 12–15 my, 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 my.
- For further details see additional sheet Surface Protection 2017

Hydraulic power pack:

It is possible to power up to max. 8 Parklift systems with a single hydraulic power pack unit, provided that they are installed side by side in a row (e.g. as is the case in an underground car park). Each Parklift is operated separately via its own individual control unit. It is therefore possible to either raise or lower the Parklifts simultaneously.

The hydraulic power unit must be accessible via the entrance and sheltered from wind and weather (not in residential buildings). Space requirements: length 100 cm, height 140 cm, depth 35 cm.

Hydraulic circuit pipes and electrical cables must to 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 411/6 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 at a distance of 50 cm from the front edge of the platform, 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. Possible wall breakthrough works compliant to the WÖHR Parklift 411/6 Data Sheet.
9. Sufficient lighting of the driving aisle and of the parking places if necessary.



Scope of operations	UP	TP
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Item 1.00.

Car parking system for **two cars** featuring one platform with horizontal access.

(Select the values or fill in any differing construction dimensions)

Clear height above the entrance level (H):		cm
Vehicle height:	upper level	cm
	lower level	cm
Vehicle length:		500 cm
Parking place 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 411/6- or its equivalent	S	___ Piece(s)	€ _____	€ _____
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Item 1.10.

Hydraulic power pack	___ Piece(s)	€ _____	€ _____
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Net total price plus 19 % VAT	€ _____
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Item 1.20.1

Surcharge for the lockable main switch	___ Piece(s)	€ _____	€ _____
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Item 1.20.2

Surcharge for lay-in of the feed cables from the main switch to the power pack	___ Piece(s)	€ _____	€ _____
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Item 1.30. *Contingency item*

Surcharge for a larger platform width cm	___ Piece(s)	€ _____	€ _____
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Item 1.40. *Contingency item*

Surcharge for increase of the platform load to 2.6 t for each parking place Single unit	___ Piece(s)	€ _____	€ _____
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Item 1.50. *Contingency item*

Surcharge for measures aimed at the reduction of structure-borne sound insulation, compliant to the DIN 4109 Single unit	___ Piece(s)	€ _____	€ _____
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Item 1.60. *Contingency item*

Surcharge for increased noise abatement measures. Sound insulation level 2 - 27 dB(A) Single unit	___ Piece(s)	€ _____	€ _____
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Item 1.70. *Contingency item*

Surcharge for fixing with HILTI Hit injection plug	___ Piece(s)	€ _____	€ _____
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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	€ _____	€ _____
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Net total price, including contingency items plus 19 % VAT	€ _____
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