

# WÖHR COMBILIFT 543

## Specification

General:	<p>Car parking system for independent parking of cars above and aside each other on three levels. For dimensions please see data sheet <a href="#">Combilift 543</a> with its dimensions for height, length and width.</p> <p>This car parking system has minimum two parking spaces on the upper level (UL) and two parking spaces on the lower level (LL). There is always one parking space less on the entrance level (EL) than on the upper level (UL) and on the lower level (LL). This empty space is needed for shifting the EL-parking spaces in order to be able to lower a UL-parking space or to lift a LL-parking space to the EL. The smallest grid is two for five cars and we recommend not to exceed ten for 29 cars.</p> <p>Depending on the building structure and the number of parking spaces needed several grids can be added to each other.</p>
Design and description	<p>The Combilift 543 consists of a steel structure, lifting and shifting installations and lower, entrance level and upper platforms.</p> <p>The upper and lower platforms are mounted on hoisting slides. They are lowered and lifted by hydraulic cylinders, which are located at the rear pillars in the middle of the parking spaces. The upper and lower platforms are mechanically locked in the upper end position and electro-mechanically unlocked before lowering.</p> <p>On each side of the lower and upper platforms there is a carrying chain which is deviated by chain wheels at the platform ends. In the front the carrying chain is mounted at the pillars, in the rear at the fundamental rail of the pillar.</p> <p>The front and rear pillars of the steel structure are mounted on the pit floor, the upper and lower platforms are moved along the front pillars. The running rails of the EL-platforms are mounted at the pillars.</p> <p>The EL-platforms run on rails and are shifted by a travelling gear motor. The gear motor mounted at the rear cross bar drives the EL-platforms by means of a gearwheel and a gear cutting at the rear rail. The electric power supply is ensured by a trailing cable.</p>
Components:	<p>Steel structure consisting of: Two front and two rear pillars in row arrangement, two front and two rear cross bars, one rear pillar with hoisting slide and fundamental rail each. The pillars are fixed with dowels to the building structure.</p> <p>LL-platform consisting of: Two side panels, three cross bars, ten driving plates, one bevelled ramp, one buffer, one adjustable front wedge, screws, nuts etc.</p> <p>EL-platform consisting of: Two side panels, three cross bars, ten driving plates, one bevelled ramp, one buffer, four rollers, one adjustable front wedge, screws, nuts etc.</p> <p>UL-platform consisting of: Two side panels, three cross bars, ten driving plates, one bevelled ramp, one buffer, one adjustable front wedge, screws, nuts etc.</p> <p>Drive LL-platform consisting of: One hydraulic cylinder, two carrying chains, four chain wheels each.</p> <p>Drive EL-platforms consisting of: One gear motor (0.09 kW), one gearwheel each.</p> <p>Drive UL-platform consisting of: One hydraulic cylinder, two carrying chains, four chain wheels each.</p>
Hydraulic power pack:	<p>The UL- and LL-platforms are driven by one hydraulic power pack.</p> <p>The electric motor with pump is mounted rubber-bonded-to-metal. The hydraulic power pack consists of an oil tank with appropriate filling for the entire system, gear pump, electric motor (1.5 kW [3:0 kW for Comfort Type], 230/400 V, 50 Hz), switch box with motor contactor and thermal relay already wired for connection, pressure relief valve and one hydraulic hose reducing the noise transmission to hydraulic pipes.</p>
Safety details:	<p>Slack chain switches monitor the carrying chains concerning slack or break. Mechanical fixing device in the upper end position.</p> <p>The system is only allowed to be operated with doors. The doors are locked electro-mechanically and can only be opened when the selected parking space has reached its parking position and all openings are safely closed.</p>
Doors:	<p>Because of the empty space the entrance area to the Combilift has to be safeguarded according to the local safety regulations. Standard version with manually operated sliding doors (sheet metal filling with ventilating slots) in front of each grid. For systems in underground car parks doors with sheet metal filling (hot-dipped galvanized as per DIN EN 10326 NA 275 g/sqm, approx. 20 µm zinc layer). For above ground systems doors with powder coated sheet metal filling (layer thickness approx. 60 – 80 µm, RAL 7030, colour stone grey).</p> <p>As an option, electrically operated doors (24 W) can be supplied at additional charge.</p>

Control: 1) Standard version:  
Sliding doors manually operated, operating device with text display, keypad and key interlock (key is locked until door is completely closed).

Operation at a central operating device mounted in front of the system, e.g. at columns. Start of system control with identical keys\* (two keys per parking space). Selection of parking space via keypad and start button. All movements of the system are automatic. The user is guided by text display.

2) Special equipment – at additional charge –

a) Sliding doors electrically operated:

Operating device with text display, keypad and key

b) Radio remote control (only with electrically operated doors)

c) Interface for magnetic card scanner provided by customer (please contact WÖHR)

For system operation see „1) Standard version“.\*

\* for b) Selection of parking space additionally via radio remote control.

for c) Start of system control with magnetic card.

Note:

If key-lock of building interlock provided by customer is used, please contact WÖHR!

Electric wiring: WÖHR provides the wiring starting at the switch cabinet. The switch cabinet must not be installed within the system. The entrance area has to be in sight of the switch cabinet.

Standards: WÖHR Car Parking Systems are machines according to the Council Guideline governing machinery 2006/42/EC, Annex 1 and EN 14010.

Corrosion protection: For details please see enclosed information Surface protection 2011, No. 023-0021.

Provided by customer:

1. Electric work and fuses up to the switch cabinet.
2. Acceptance by authorised inspector, if required together with a fitter, if not included in offer.
3. Additional corrosion protection, if required by architect/customer.
4. Railings and safety fences according to EN ISO 13857 concerning the building structure.
5. Concrete quality according to the static requirements of the building, but for the dowel fastening we require a concrete quality of min. C20/25.
6. Drainage of pits, if required by customer.
7. With control according to 2a) and 2b) a lighting has to be provided in the system which has to be wired to the control. In the control a contact free of voltage is installed for 230 VAC, max. 500 W. This lighting is switched on with every selection of a parking space and switched off 60 seconds after the door has been closed.

Enclosure: Surface protection 2011, Nr. C023-0021.

The manufacturer reserves the right to modify or alter above specifications.

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