

Surface protection for WÖHR Autoparksysteme

Parklift 411 | 421



1 General Remarks

1.1 Classification of parking systems

WÖHR Car Parking Systems are machines as defined by the machine directive 2006/42/EC, Appendix 1 and the EN 14010.

The surface protection – hereafter described in detail – is based on functional and technical assessments of the individual parts in order to take into account necessary, commonly encountered corrosive individual loading in accordance with DIN EN ISO 12944-1. The corrosion protection is therefore defined in various ways.

The classification of parking systems takes place based on DIN EN ISO 12944-2:

Corrosivity category C3 moderate (inside: production rooms with high degree of damp and some air pollution or outside: urban and industrial atmosphere, moderate pollution by sulphur dioxide. Coastal areas with low salt content).

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).

Note: C2 applies to all moving parts such as gear wheels, gear racks, cylinders chains and pinion located either above or below entrance levels.

Design specifications:

In our capacity as manufacturer of parking systems, we cannot be aware of the site conditions – neither of the installation site in question, nor of its surroundings. We are therefore not in position to assess whether any other corrosivity categories may be applicable to the installation location in terms of corrosion protection.

In the event that the environmental requirements relating to the installation site are **higher** than those specified in this data sheet, then the architect/investor/ordering party either need to take a shorter protection duration term of the relative surface protection issues into account. The measures proposed in the section „**Damage minimisation**“ can also be implemented by the customer for ventilation or pit drainage.

1.2 Length of protection/repair

The length of protection in compliance with DIN EN ISO 12944-1 is medium (M) 7 – 15 years. The length of protection does not constitute a “warranty period”. The length of protection is a technical term designed to help the client stipulate a repair programme. The warranty period is generally shorter than the length of protection. A repair may well be required earlier than foreseen by the length of protection due to fading, pollution, wear, abrasion or other reasons (cf. DIN EN ISO 12944-5, Itm. 5.5). This also does not constitute a defect covered by the warranty.

1.3 Coatings systems

Coatings with powder-based paints have been tested as medium on the basis of DIN EN ISO 12944-6 C2. The requirements were fulfilled and verified in batteries of tests.

Coatings with zinc in compliance with DIN EN 10326 and DIN EN ISO 1461.

1.4 Rust level

In compliance with DIN EN ISO 4628-3, we guarantee a rust Level of Ri 3 until expiry of agreed warranty period on coated surfaces of the side beams and middle panels under the condition that parking system is properly cared for and maintained.

Partial coating damage (up to 1% of the total system surface) is possible depending on the mechanical, climatic and chemical loads. The function and safety of the parking systems is not compromised as a result, meaning that coating damage does not constitute a reason for a claim or a warranty defect, as long as the degree of rusting of Ri 3 is not exceeded in the parking system within the warranty period.

1.5 Cleaning and Maintenance

Please refer to the data sheet “Cleaning and Maintenance of WÖHR Car Parking Systems”. As part of our service activities our local Partner offers cleaning and maintenance measures against surcharge for car parking systems of WÖHR.

1.6 Damage minimisation (to be performed by the customer)

Premature corrosion on the coating is prevented by:

1. Removal of pit water and contamination in the pit sump as well as in the drainage channel by deploying submersible pumps or connecting to the wastewater system
2. sufficient ventilation (avoidance of high relative humidity, above 80%)
3. the regular and appropriate reconditioning of any visible surface alterations
4. performing regular and appropriate cleaning of both the top surface of the platform and of the pit floor (please consult the cleaning and maintenance section herein)
5. Limited moisture entry (e.g. removal of snow from the wheel arches and the vehicle surface)

1.7 Wear and tear

Through utilization, abrasion and usage a natural wear occurs on the platform upper side, this does not constitute a warranty defect.

1.8 Warranty periods

Warranty periods are guaranteed according to the offer conditions.

1.9 Notes

The manufacturer reserves the right to construction or model modifications and/or alterations. Furthermore, the right to any subsequent part modification and/or variations and amendments in procedures and standards due to technical and engineering progresses in the art or due to environmental regulation changes, are also hereby reserved.

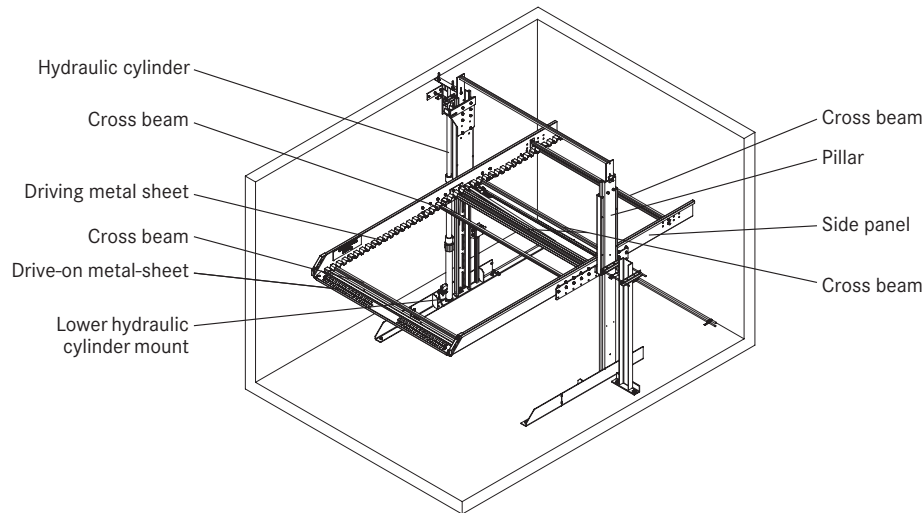
2 Surface protection Parklift

2.1 Platform surface protection

For systems: Parklift 411, 421

- **Driving metal sheets, drive on sheets, cover plates and, if applicable platform extension**
Galvanised as per DIN EN 10326 with approx. 20 µm zinc layer (optionally hot-dipped galvanised as per DIN EN ISO 1461 with approx. 45 µm zinc layer). WÖHR recommends hot-dip galvanised surface protection in countries with snowfall.
- **Side panels**
Galvanised as per DIN EN 10326 with approx. 20 µm zinc layer (optionally hot-dipped galvanised as per DIN EN ISO 1461 with approx. 55 µm zinc layer). WÖHR recommends hot-dip galvanised surface protection in countries with snowfall.
- **Cross beam**
Partially galvanised as per DIN EN 10326 with approx. 20 µm zinc layer, partially hot-dipped galvanised as per DIN EN ISO 1461 with approx. 55 µm zinc layer
- **Screws, washer and nuts for the installation of the driving metal sheets**
Sheet mounting for the side panels of self-channelling screws. Washers and nuts electrolytically galvanised as per DIN 50961, approx. 5–8 µm zinc layer.

2.2 System-relevant surface protection



	411	421	
Pillar	■	■	
Strut for pillar	△	■	
Hydraulic cylinder	◐	◐	
Torsion bar/synchro shaft	●	●	
Chain sprocket/pinion	△	△	
Chain/rack	▲	▲	
Dowelling for unit mount	△	△	
Screws, nuts, washers	△	△	
Hydraulic tube, hydraulic screw connections, bolts	△	△	
Lower hydraulic cylinder mount	■	■	
Mounts pillar/side panel	■	■	
Mounts torsion bar/side panel	●	●	
Mounts hydraulic cylinder/side panel	●	●	
Solenoid valves	Alu	Alu	
Hydraulic unit	●	●	

2.3 Symbol legend

- hot-dipped galvanised as per DIN EN ISO 1461, approx. 55 µm zinc layer (localised layer thickness as minimum value)
- hot-dipped galvanised as per EN 10327, approx. 20 µm zinc layer (continuously galvanised)
- △ galvanised as per DIN 50961, zinc layer approx. 5–8 µm

- ▲ without coating
- ◐ painted with one-coat paint, thickness of layer approx. 80 µm, colour yellow (RAL 1003)
- pickled, greased sheet metal, badge cleaned, phosphated, powder-coated based on epoxy resin, layer thickness approx. 60 – 80 µm, colour pebble grey (RAL 7032)