## HiLine Corrosion Protection

## Semi-Automatic Parking System



TrendVario 4000, 4100, 4200, 4300

## 1. System-specific corrosion protection



## Platform base sections:

## StandardGrip:

Hot galvanized according to DIN EN ISO 1461, layer thickness min. $45 \mu \mathrm{~m}$.

## EasyWalk:

Hot galvanized according to DIN EN ISO 1461, layer thickness min. $45 \mu \mathrm{~m}$.

## AluLongLife:

Extruded aluminium section according to EN AW-6106 T6 (AIMgSi0,5).
Coverplates and poss. platform extensions: Aluminium EN AW 5754 H11 (AlMg3).
Special components:
We reserve the right to supply special components for a parking space, like, for example, cap types and stop plates for pit length equalization, intermediate plates/coffered plates, tyre/spoiler troughs or such of hot galvanized and additionally powder coated sheet steel.

## Side members:

Hot galvanized according to DIN EN ISO 1461, layer thickness min. $55 \mu \mathrm{~m}$.

## Acces plates:

Hot galvanized according to DIN EN ISO 1461, layer thickness min. $55 \mu \mathrm{~m}$.

Cross members:
Hot galvanized according to DIN EN ISO 1461, layer thickness min. $55 \mu \mathrm{~m}$.
Rail system (TrendVario 4000/4200):
Hot galvanized according to DIN EN ISO 1461, layer thickness min. $55 \mu \mathrm{~m}$.
Fastening screws for platform base sections: V4A stainless steel.
TrendVario 4000/4200: GF platform zinc plated.
Hydraulic tubes, screwed joints, bolts, screws, nuts and washers:
Zinc plated.
Door frame sliding door:
Frame construction with vertical centre stay bar made from aluminium extrusions. Anodized, layer thickness approx $20 \mu \mathrm{~m}$.
Other steel components:
For example, steel construction, roller seating, drive mount, bearing plates and other components hot galvanized according to DIN EN ISO 1461, layer thickness min. $55 \mu \mathrm{~m}$.
Exception for TrendVario 4100/4200/4300:
Steel pillar/sliding piece (rear area) shot-blasted (particle cleanliness SA 2.5) and grey powder coating (epoxide/polyester base) RAL 7040, dry film thickness approx. $60-80 \mu \mathrm{~m}$.

## 2. General information

KLAUS Multiparking premium parking systems are subject to the European Parliament's 2006/42/EG guidelines and the counsel of 17th May 2006 regarding machines (Machinery Directive) as well as DIN EN 14010 - safety of machines - equipment for power-driven parking of vehicles - Safety and EMW requirements regarding design, manufacture, assembly and activation. For the corrosion protection - described in detail below - DIN EN ISO 12944 applies. Individual components were assessed by us according to their functional and technical type and appropriate corrosion protection was specified. In accordance with DIN EN ISO 12944-2 "Corrosion category C 3, moderate". (exterior: city and industrial atmospheres, moderate pollution with sulphur dioxide, coastal areas with little salt exposure / inside: production facilities with high humidity and little air pollution). If exact details about the respective installation site and relevant local conditions are not available and we are unable to check these details ourselves, we cannot assess whether or not another corrosion category is applicable with regard to corrosion protection. (cf. DIN EN ISO 12944-2 appendix A). In this case, the architect or client needs to decide whether corrosion category C 3 is applicable. If there is no instruction given to this effect, the corrosion protection described in this document shall be observed.

## ■ Period of Protection / Maintenance / Level of Rust:

In accordance with DIN EN ISO 12944-1, the period of protection does not constitute a warranty period. The period of protection is a technical term to help the client to establish a program for maintenance work. As stated in DIN EN ISO 12944-1 point 4.4 the coating durability is rated as medium (M) 5-15 years. In general, the warranty period is shorter than the period of protection. As a result of pollutants, wear and tear, corrosion, bleaching, chalking - or for aesthetic reasons - maintenance may be necessary earlier than allowed for under the period of protection. (cf. DIN EN ISO 12944-5 point 5.5). This, however, does not constitute a breach of warranty. As part of the PLUS system service contract provided by our company, we guarantee, in accordance with DIN EN ISO 4628-3, a maximum rust level designation of Ri 3 within 4 years (2 years without system service contract) on the coated surfaces of the platform base sections, the supporting structure, the side members and central side members, provided proper on-site cleaning, maintenance, care and servicing are carried out. Once isolated damage to the corrosion protection by mechanical, chemical or other means does not impair the safety or functioning of a KLAUS Multiparking Parking System, it does not constitute a breach of warranty as long as rust level designation Ri 3 is not exceeded during the warranty period.

## - Coating System:

Our coating system is designed in accordance with DIN EN ISO 12944-5, Appendix A, Coating Systems for Corrosion Category C 3. The powder coating is tested following DIN EN ISO 12944-6, and the fulfilment of the requirements is evidenced in a test series. Galvanized surfaces are in accordance with DIN EN ISO 1461 and DIN EN 10346.

## - Wear and Tear / Minimization of Damage:

Through usage and other exterior factors, the surface of the platform base sections, the central side members, the side members and the supporting structure will exhibit signs of normal wear and tear that do not constitute a breach of warranty.
The following measures can help to reduce the damage of the corrosion protection coating:

- Keeping the pit dry

■ Sufficient ventilation

- Regular cleaning of the driving surfaces
- Timely and regular repair of damages to the corrosion protection coating
- Preventing the bringing in of snow and ice containing high levels of salt


## - Galvanized platform base sections:

Please note the following points for galvanized surfaces:
■ When using the platform base sections as parking spaces on KLAUS Multiparking Parking Systems, the zinc surface is subject to the extremely aggressive influences of water mixed with melting agents (e.g. road salt), particularly in the winter months. This inevitably leads to the zinc reacting with the melting agent mixtures.

- This results in white marks made up of various zinc compounds (zinc oxide, zinc hydroxides, zinc chloride, etc.), which, if not removed, become encrusted on the surface and are then very difficult to remove.
■ Especially during the first winter periods, it is necessary to wash off the road salt regularly in order to prevent this build-up. The washing and drying of the surfaces has a similar effect to weathering outdoors. This leads to the formation of a so-called patina and as a result prevents the protective zinc layer from being quickly degraded.
- Following these simple maintenance measures ensures long and reliable corrosion protection for your parking spaces, which can only be exceeded by exclusive solutions such as aluminium (AluLongLife profiles).


## Cleaning and Maintenance:

Within the framework of our PLUS system service contract, we offer cleaning and maintenance plans which can be found in our special information sheet entitled "The Cleaning and Maintenance of Parking Systems".

## - Claims for Defects:

For claim periods, please refer to our offer.
A warranty for wear and tear caused by usage is excluded.

