CONCRETE GRINDING LTD
Global Flooring Solutions

PROBLEMS WITH OVERLAYS IN VNA AISLES

Considering the use of a screed overlay material in your VNA warehouse?

The use of screed overlay materials in areas requiring strict flatness tolerances needs very careful consideration. We have a company within our group – **CG Flooring Systems Ltd**, that are experts in the application of industrial screeds, but there are some situations that do not suit screeds. i.e. narrow aisles, where flatness needs to be carefully controlled in defined wheel tracks.

When correctly specified and applied, industrial grade screeds can be an ideal method of upgrading and re-surfacing large, random traffic areas. However, the same products can cause more problems than they solve if they are not installed correctly. Listed below are the main potential problems with overlay materials if they are used in an attempt to upgrade floor flatness in narrow aisles:-

- **Delaminating and cracking**

The main reasons for delaminating, or cracking, which often lead to floor surface break up are:

a) poor or insufficient surface preparation;
b) existing oil /chemical contamination;
c) poor detailing at floor joints, or 'bridging over' of floor joints;
d) high relative humidity of the concrete sub-floor;
e) movement in the concrete sub-floor;
f) incorrectly specified materials;

- **Time required**

The time required for the preparation, priming and installation of a typical overlay system could be extremely disruptive in a busy warehouse. Each aisle could be shutdown for days, rather than hours.

- **Flatness tolerances**

Laying any overlay system to specific flatness tolerances is extremely difficult and, due to the nature of the work, most installers will only be aware of some form of '3 metre straightedge' specification. This type of specification is very rarely checked properly and should not be considered as a suitable control for defined movement floor flatness.

A Profileograph survey should be used to check suitability of floor flatness for defined movement in narrow aisles. Contact **Face Consultants Ltd** on 01484 600090.

- **Total thickness of overlay system**

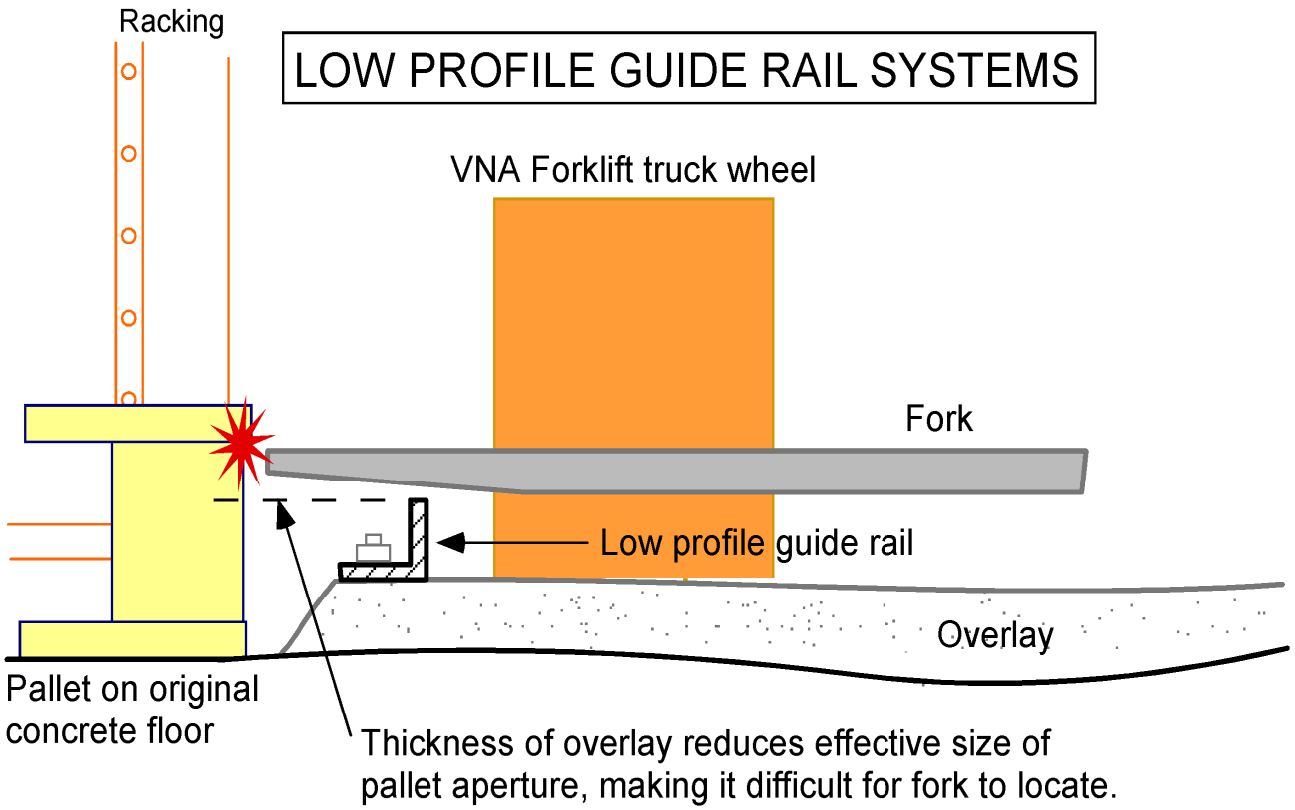
Screed quotations are usually based on a £/m^2 rate for a specified nominal thickness, e.g. 6mm. There will usually be an added cost of £'x'/m^2 for every additional millimetre of thickness required. e.g. to fill up a particularly low area of floor.

To make sure you are only charged for what has been applied, you should perform accurate 'before and after' surveys of the floor levels. Contact **Face Consultants Ltd** on 01484 600090.

The diagrams below show how screed thickness can affect the guidance system of a VNA truck.

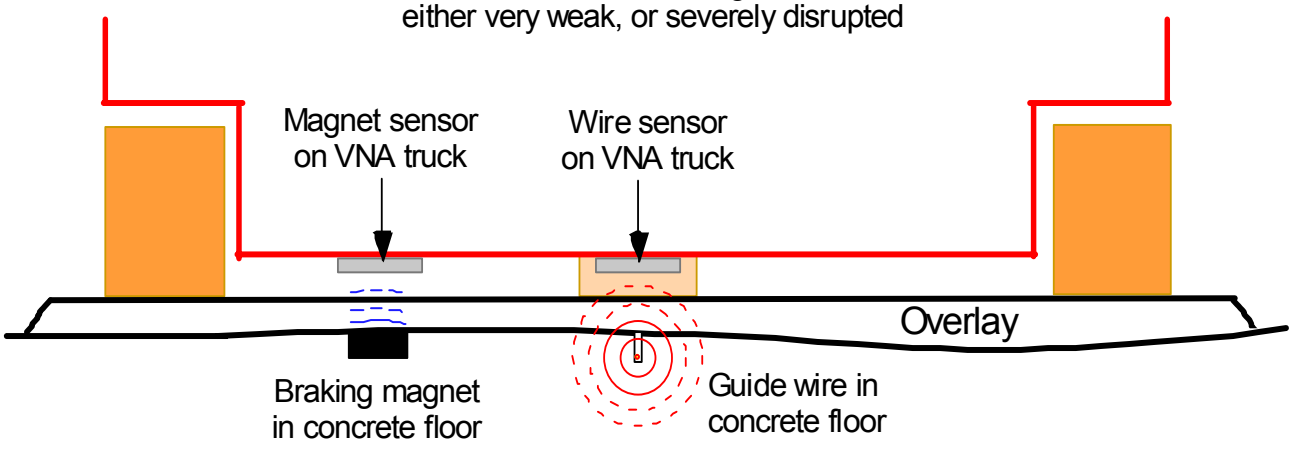
Dene House, North Road, Kirkburton, Huddersfield, West Yorkshire, HD8 0RW.
Telephone: 01484 600080 Facsimile: 01484 600095
E-mail: info@concrete-grinding.com Web: www.concrete-grinding.com

LOW PROFILE GUIDE RAIL SYSTEMS



WIRE GUIDANCE SYSTEMS

The thickness of the screed overlay could increase the distance between the truck and the guidance equipment to the extent where the signals are either very weak, or severely disrupted



Dene House, North Road, Kirkburton, Huddersfield, West Yorkshire, HD8 0RW.
Telephone: 01484 600080 Facsimile: 01484 600095
E-mail: info@concrete-grinding.com Web: www.concrete-grinding.com

CONCRETE GRINDING LTD
Global Flooring Solutions

OVERLAY IN A VNA AISLE – CASE STUDY

"SCREEDS","OVERLAYS","TOPPINGS"

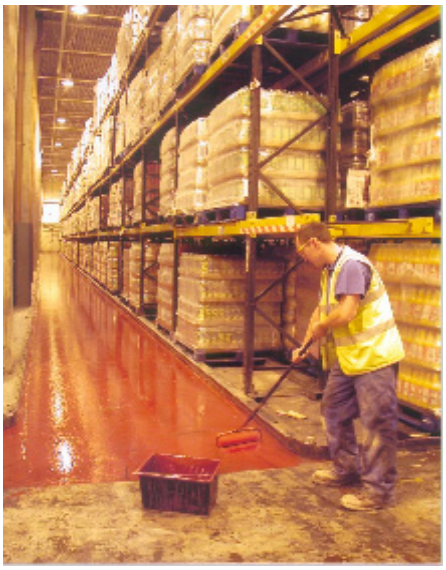
Call them what you like, but they all have the potential to "DE-BOND", "DE-LAMINATE" and "BREAK-UP" particularly when used in the high impact, heavily loaded territory of the VNA forklift truck.
The screed material in the photos (left and below) was installed in an attempt to provide Category 2 floor flatness tolerances, in 22 aisles 60 metres long. As the pictures clearly show, IT FAILED. Literally!

Not only was the original floor flatness made noticeably worse, the screed began to break apart within weeks of the narrow aisles being put into operation.

Potholes and loose chunks of screed material created huge maintenance problems to the client's fleet of VNA forklift trucks.

After a lengthy legal process, Concrete Grinding were called in to rectify the problems, and provide the client with the Category 2 floor that they required.

The first job was to completely remove the remaining screed material. (Right)



After the de-bonded screed material had been removed from each aisle, Concrete Grinding upgraded the full width of each aisle, using their unique LASER GRINDER process.

A profileograph survey confirmed that the Category 2 flatness requirement had been easily achieved, without the need to remove any stock and with minimal disruption to the ongoing warehouse operation.

The finished floor was then completed with a 2-coat system of water dispersed epoxy coating. (Left)

The client now has a floor to be proud of, with no potential for de-lamination and very low maintenance costs.

Dene House, North Road, Kirkburton, Huddersfield, West Yorkshire, HD8 0RW.
Telephone: 01484 600080 Facsimile: 01484 600095
E-mail: info@concrete-grinding.com Web: www.concrete-grinding.com