



COGRI GROUP



## High Performance Systems Need High Performance Floors.

Specialists in floors for ASRS, VNA, and Robotic Systems.

# Warehouse Floors for Robotics and Automated Systems

The employment of automated systems in warehouse fulfilment centres has grown exponentially over the past 10 years. With the need for increased pick rates and packing efficiency, reduced labour, and increased security requirements, it is no surprise that ASRS, AMRs, Cabots, G2P, and other automated systems are in popular demand.



# Floor Testing for Robotics

**Face Consultants** understand when planning for warehouse automation that the floor robotics work on can often be overlooked. This oversight frequently means that warehouse owners and operators realise too late how their productivity, efficiency, safety, and therefore, overheads are affected by the warehouse floor, at a detriment to their profit margins.

It is essential that floors using robotics comply with manufacturers' specifications such as flatness, levelness, curvature, and step transitions as well as surface gloss, friction, micro-roughness, and abrasion resistance.

VNA (Very Narrow Aisle) warehouses are increasingly being streamlined with automated systems. These can be used across all the warehouse or in defined aisles, therefore, allowing manual actions to be carried out across the rest of the warehouse. The floors must also meet the specifications laid out by manufacturers of automated systems, whilst floors using VNA trucks have various degrees of flatness required, relating to the height of the racking system the truck services.

## Specialist Experts in the Testing of Automated Warehouse Floors

**Face Consultants** are known throughout the world as experts in the testing of floors for automated systems in warehouses, distribution and fulfilment centres, manufacturing plants, and factories.

The Robotics All in One Profileograph measures 6 properties of floor flatness within a single pass. Face Consultants can identify the areas of the floor out of tolerance and work with specialist teams to carry out any necessary remedial works.

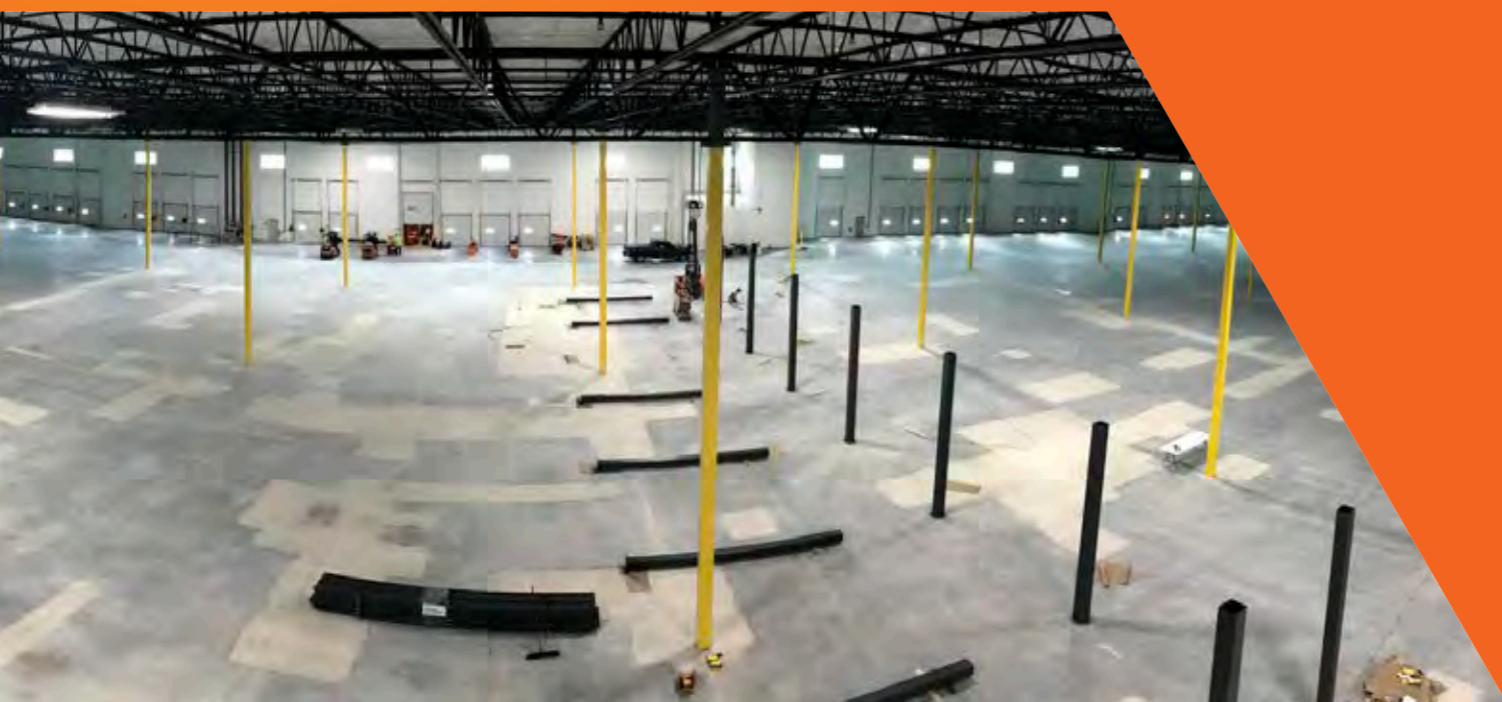


# Corrective Grinding

This is the process to bring areas of the floor that do not comply with the specification within compliance, ensuring the floor allows the operation to perform at optimum efficiency.

Whilst corrective grinding can appear to be a straightforward process, it's actually a challenging procedure that demands attention to detail, testing the skill of the technicians. Errors in grinding can be difficult to recover which can lead to excessive grinding and adversely impact a project's programme.

**CG Flooring Systems** understand what is required and have the experience and skill to grind new or existing concrete industrial floors into compliance, meeting the desired specification for the respective automated system, quickly and efficiently.



## Concrete Grinding for VNA Applications

With VNA operations increasingly becoming semi or fully automated, as with other systems, the floor on which they operate must be given careful consideration to ensure trouble-free performance. **Concrete Grinding Ltd** are specialists in upgrading floors to achieve the super or even ultra-flat specifications required for VNA applications to operate safely and efficiently. Depending on the extent of remedial work required, grinding can either be carried out manually or using our own semi-automated floor grinding system, the Laser Grinder.

Whether you are thinking of investing in automated systems, or are already using them, the **CoGri Group** of companies has the expert knowledge to ensure your warehouse floors will fully support your operation.





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