



Optimising Warehouse Operations Through Racking & Layout Solutions

Maximising Safety, Throughput & Flexibility
in Modern Supply Chains



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Maximising Safety, Throughput & Flexibility in Modern Supply Chains & Strategic Retrofit Solutions

As supply chains evolve, the warehouse is no longer a static storage facility - it is a dynamic operational hub where layout, flow, and racking infrastructure directly impact efficiency, scalability, and safety. In an era of rising e-commerce volumes, Just-in-Time (JIT) pressures, and high land costs, warehouse optimisation has become a business-critical focus.

This whitepaper explores how SOL Services supports clients across the UK in transforming underutilised or outdated warehouses into high-performing logistics assets. Through tailored racking systems, intelligent layouts, and integrated M&E services, SOL helps clients improve throughput, increase capacity, reduce safety risks, and futureproof their operations.



The Warehouse as a Strategic Asset

Warehouses are no longer passive storage zones - they are active contributors to business performance. Yet many facilities still operate with legacy layouts, inefficient storage, or misaligned racking that limits capacity and slows down order fulfilment.

According to a 2023 report by Prologis, improving warehouse layout and systems can deliver a 15–30% uplift in operational throughput without increasing footprint. With warehouse space at a premium across the UK, the most cost-effective expansion is often internal - through smart design and racking reconfiguration.



Key Benefits of Racking & Layout Optimisation

Improved Space Utilisation

Inefficient racking can leave significant vertical and horizontal space underused. By designing tailored systems - from pallet racking and cantilever systems to multi-tier mezzanines - SOL Services maximises every cubic metre of storage capacity.

On average, warehouse optimisation projects deliver 25–35% more storage capacity without increasing square footage.

Enhanced Operational Flow

Poorly designed layouts create bottlenecks, increase forklift traffic, and slow down picking and packing operations.

SOL Services works with clients to:

- + Define high-frequency pick zones
- + Create clear traffic lanes
- + Improve loading bay access
- + Integrate smart signage and wayfinding

These changes improve safety and reduce cycle times across fulfilment processes.



Key Benefits of Racking & Layout Optimisation

Increased Safety & Regulatory Compliance

Improperly installed or overloaded racking is a serious safety hazard. The HSE mandates regular inspections, load signage, and secure fixing of all racking.

SOL delivers fully compliant systems with:

- + SEIRS-certified installers
- + Load notices and safety barriers
- + Bollards, mesh backs, and anti-collapse features
- + Full RAMS and method statements

HSE statistics show racking collapses are a leading cause of warehouse injury claims - proper installation and ongoing inspection are vital.

Scalability & Adaptability

A well-designed racking system grows with your business. SOL Services plans for modularity, ensuring that layouts can be reconfigured or expanded as operational needs evolve - supporting seasonal changes, SKU diversification, and automation-readiness.



Services Delivered by SOL Services

SOL offers a complete end-to-end warehouse and racking solution, including:

Racking Installation & Alterations

- Pallet racking (adjustable, drive-in, push-back)
- Shelving systems
- Cantilever & heavy-duty racks
- Mezzanine floors
- Rack relocation, modification & dismantling

Mechanical & Electrical Integration

- Lighting upgrades
(LED, motion sensor, daylight harvesting)
- Small power and data for conveyor systems
- Emergency lighting and fire detection
- EV charging and energy efficiency retrofits

Associated Building Works

- Line marking, floor sealing, and bay numbering
- Fire safety works and compartmentation
- Welfare facility upgrades
- External fencing, gates, and hard standing

SOL's integrated delivery means fewer subcontractors, better coordination, and faster turnaround for busy logistics sites.



Case Study Snapshots

National Logistics Provider (2023)

Challenge:

Underutilised 50,000 sq ft space with poor pick-path layout

Solution:

Full redesign with new racking, lighting, and marked forklift lanes

Outcome:

28% increase in pick rate and 40% capacity gain without expansion

Regional Distributor (2024)

Challenge:

Racking collapse due to improper installation by third party

Solution:

Emergency response, safety inspection, reinstallation with load notices

Outcome:

Full compliance restored and operations resumed in under 72 hours

Conclusion

Warehouse and racking optimisation is not just about storage - it's about strategy. Smart layout and racking choices can unlock throughput, improve safety, and extend the life of existing facilities, all without major capital expenditure.

With SOL Services, clients gain more than just racks - they gain a long-term partner in operational efficiency.

