

Calculating Automation ROI: Automated Palletising Example



Define Your Project Scope

Start by mapping your current palletising process. Document labour hours, downtime, scrap rates, and safety risks. Then outline your future state with automation. Consider throughput requirements, available floorspace, and worker interactions to determine whether an industrial robot palletiser or a cobot palletiser is right for your operation. Identify higher-value tasks where staff can be redeployed to maximize overall gains.



The ROI Formula

Payback (years) = Total Investment ÷ Annual Savings & Gains



Total Investment

- Capital costs: Robots, end-of-arm tooling, safety systems
- Integration costs: Development, programming, training, commissioning
- Ongoing costs: Maintenance, consumables, software licenses
- Financing costs: Leasing or interest payments

For a standard palletising automation project, expect £50,000-£150,000 in total investment depending on complexity and scale.

Annual Savings & Gains

- Direct labour savings: Reduction in manual palletising labour costs
- Reduced scrap/damage: Fewer crushed boxes and damaged products
- Health & safety improvements: Lower insurance premiums and reduced absenteeism
- Throughput gains: Increased production capacity with 24/7 operation
- Consistency: Better stacking patterns and improved load stability

For SMEs, palletising automation typically generates £25,000-£75,000 in annual savings.



Palletising ROI Example

Total Investment

£100,000

Robot, tooling, integration, safety systems

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Annual Savings & Gains

£50,000

Labour, throughput, quality, health & safety

Payback Period = 2 Years

£100,000 ÷ £50,000 = 2 years



Why Palletising Has Strong ROI

Palletising consistently delivers strong ROI because the end of the line handles every product that flows through your factory. Even when no single product family justifies automation on its own, the combined volume at the palletising stage creates economies of scale. For SMEs, palletising automation often achieves payback in under 2 years, sometimes within 12 months, making it one of the safest automation investments.