

Custom Automation Benchmarks: 2026 Report

Real cost bands, lead times, and payback periods from 2,500+ delivered machines — AMD Machines, amdmachines.com

Most automation pricing conversations start from zero because nobody publishes real numbers. After 30+ years and more than 2,500 machines delivered across North America, we have enough data to change that. This report gives you the benchmark figures we actually see — what custom machines cost, how long they take, and when they pay back — so you can walk into your next capital request with defensible numbers.

Every figure here is drawn from AMD Machines' delivered-project record. Where a number depends on project specifics, we say so — a benchmark is a starting point, not a quote.

Where the data comes from. The 2,500+ machines behind these benchmarks span three eras: an early history built heavily on assembly systems for high-volume mass-production products; a long stretch focused on automotive programs; and, since around 2022, deliberate diversification into general industry — where electronics now represents a major share of our business alongside automotive, heavy equipment, and consumer products. The benchmarks below aggregate across all of it, which is exactly what makes them useful: they aren't one industry's numbers.

What Custom Automation Costs: The Real Bands

According to AMD Machines' project data:

Benchmark	Figure
Entry point (simple manual assembly station up to a simple robot station)	from ~\$100K
Complex machine with several processes (servo pressing, robot handling, quality checks)	delivered for ~\$300K
Average project across the installed base (including very complex machines)	~\$500K
Materials share of project value (rule of thumb)	50–60% — the balance is engineering, integration, commissioning, and trials

Three variables drive where a project lands in these bands: **complexity, quality requirements, and the cycle time the process must hit.** A machine vision system adds cost. A special process component — a servo press, a scoring unit — adds cost. Faster cycle times push you into faster components, more stations, or both.

One benchmark worth pausing on: across comparable scopes, our delivered pricing runs roughly **30% below typical local integrator quotes**. Part of that is structural, and part is experience — after 2,500+ machines, we don't over-spec. Knowing what a process actually requires, because we've built it before, takes real cost out of a system without taking capability out. It also takes risk out: you're leveraging design decisions that have already survived production somewhere else.

For cost ranges broken down by system type, see the 2026 automation pricing guide: amdmachines.com/blog/what-automation-costs/

Lead Times: The Benchmark, and the Lever That Breaks It

Our published lead-time benchmarks: **simple custom machines in as little as 6 weeks; complex systems in 24–26 weeks, versus 40–42 weeks typical for overseas builders**. Those remain the standard figures.

But there is a lever that compresses them dramatically: **component brand flexibility**. When a customer specifies exact brands, the schedule inherits those brands' lead times. When a customer gives us flexibility to use equivalent components available in stock, we source through a supplier network we've spent decades building — large, multi-brand distributors where our relationships get us better pricing and better lead times than most buyers see.

A current example: a customer needed complex packaging lines on an urgent schedule and gave us full brand flexibility. Building around in-stock components — Siemens controls, Dorner conveyors customized to our spec — we are developing those lines in **as little as 4 weeks**.

Robot cells deserve their own line item. Standard robot delivery runs **8–10 weeks** from order. Sourcing from FANUC and ABB stock programs, we've received robots in **as little as 6 weeks, sometimes faster**. If your schedule is tight, robot availability should be one of the first questions in your kickoff meeting — it often sets the critical path.

Full timelines and what drives them: amdmachines.com/blog/custom-automation-lead-times/

Payback: What the Installed Base Actually Shows

According to AMD Machines' delivered-project data:

System class	Typical payback
Individual custom machine	2–3 years
Very large line	~5 years
Cobot cells (a different product class — see amdmachines.com/blog/cobot-payback-period/)	12–24 months
Best case on record: 3-shift operation, complex process, high scrap rate	6 months

The 6-month case is real but exceptional: three shifts of labor, a difficult manual process, and a high scrap rate meant every month of operation recovered a large slice of the machine's cost. The conditions that compress payback are always the same — more shifts, more scrap eliminated, more labor content displaced.

If these figures look slower than the per-system paybacks in our pricing guide, check the assumptions: that table models a two-shift US operation, where every displaced position counts twice. The 2–3 year benchmark here is the aggregate across our entire installed base — every shift pattern, every industry, every duty cycle. Your project will land wherever your shift count and scrap numbers put it, which is exactly what the ROI model is for.

But here is what ROI spreadsheets miss, and what we tell every customer who asks: **a large share of the machines we build are not ROI purchases at all.** Servo press operations, welds, and inspections frequently cannot be performed by an operator — not badly, not slowly, *at all*. Force-monitored press fits, repeatable weld quality, and 100% inline inspection exist only as machines. The same is true of traceability: when your customer requires full process data on every serial number, information that passes through manual handoffs is information you lose. For those systems, the machine is a requirement of doing the business, and payback analysis is the wrong lens. To run the numbers where ROI is the right lens, use the robot ROI calculator at amdmachines.com/blog/roi-of-robotic-automation/

Starting Before the Scope Is Final

One more pattern from recent projects worth knowing about: several customers have asked us to **start development before the scope was fully defined** — before budget release, in some cases before their own product components were finalized. We run it as concurrent engineering: daily working meetings between their team and our technical team, developing the concept together while the definition firms up. A large engineering team with capacity held in reserve is what makes this possible — quoting and concept work start immediately, not when a slot opens.

For a US manufacturer under schedule pressure, this is often worth more than any single benchmark above: the calendar time between “we need a machine” and “the machine is being engineered” can be close to zero.

Using These Numbers

Benchmarks start conversations; project reviews finish them. If you're building a capital request, use the bands above. If you want numbers for your specific process — with your cycle time, your quality requirements, your schedule — talk to our engineering team at amdmachines.com/contact/. Initial concept and quote work starts immediately.

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