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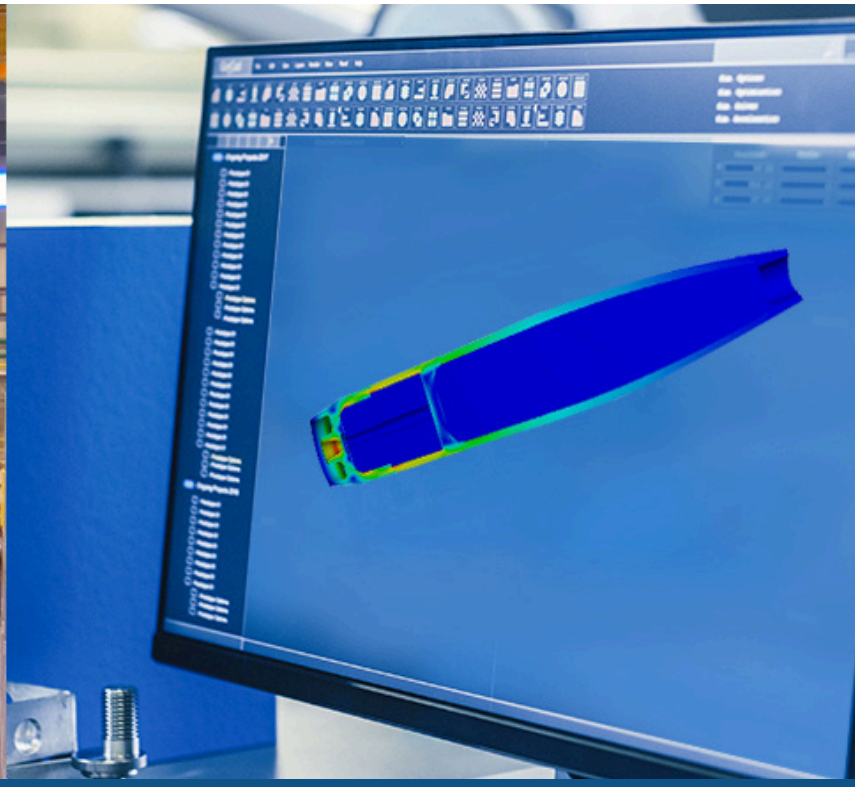
Defense Manufacturing Demands a Domestic Strategy

Reshore Your Line or Risk Your Next Contract



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Reshoring Isn't a Reaction. It's Risk Management.

Why Defense Manufacturing is Coming Home

For defense manufacturers in 2025, global supply chains have become a high-stakes gamble. Rising tariffs, stricter ITAR enforcement, and increasing pressure from primes to secure domestic production have pushed offshore production from an advantage to a liability.

If you're still sourcing parts or equipment offshore, you already know the pain: production delays, compliance headaches and service timelines that simply don't line up with defense priorities. The once-reliable advantages of overseas manufacturing, such as lower labor, flexible sourcing, are disappearing fast. And the costs of staying global are catching up.

64% OF MANUFACTURERS ARE ACTIVELY RESHORING OR PLANNING TO RESHORE IN 2025 DUE TO COMPLIANCE, COST, OR RELIABILITY PRESSURES.

Reshoring Initiative, 2025

Meanwhile, defense primes and the DoD are demanding more. Traceability. Domestic sourcing. Shorter lead times. Tighter specs. It's not about being the most affordable. It's about being the most reliable partner in the room.

Reshoring is no longer just an idea worth exploring. It's a critical strategy for manufacturers who want to protect their contracts, meet today's standards, and stay ahead of the next disruption.

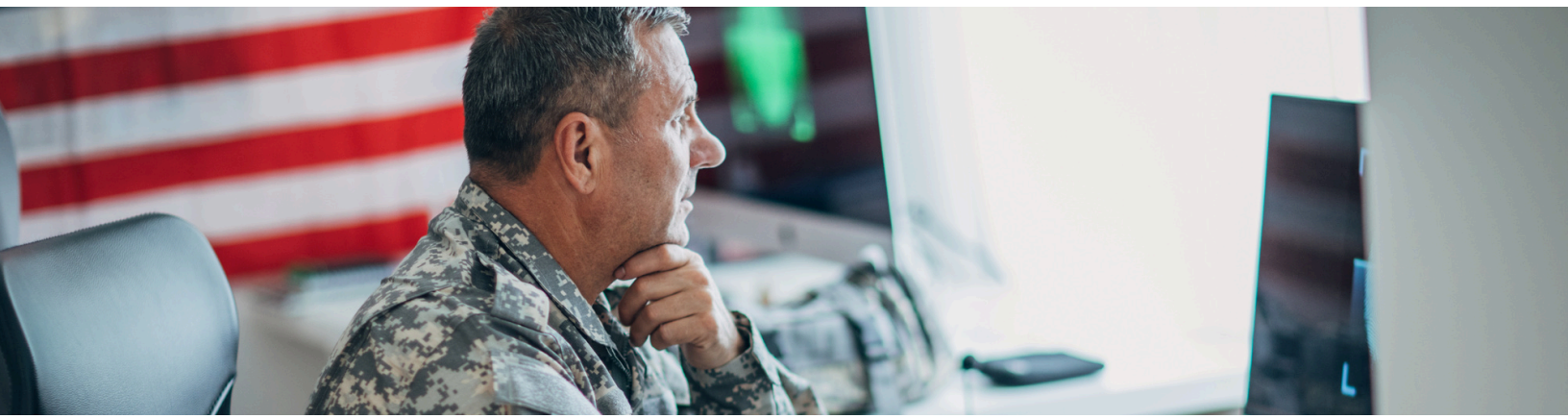
Let's explore what's changed, why defense suppliers are reshoring now, and how to make the shift in a way that strengthens, not strains, your operation.

The Evolution of Reshoring and Why It Matters More Than Ever for Defense

The process of reshoring, also called onshoring or backshoring, refers to bringing back operations that were previously moved to low operating cost (LOC) countries like China, Eastern Europe, or South America.

For decades, the defense manufacturing sector followed broader industrial trends: chasing lower wages, fewer regulatory hurdles, and more affordable logistics. Starting in the late 1970s, these regions offered what seemed like unbeatable cost advantages, especially for labor-intensive operations. Offshore production surged, and by 2010, it had reached its peak.

But what looked efficient on paper didn't always hold up under real-world pressure.



As geopolitical dynamics shifted and the true costs of offshoring became clearer — missed deadlines, inconsistent part quality, communication breakdowns, IP theft, currency fluctuations, tariffs, and trade barriers — manufacturers, especially those in defense, began to reevaluate. The trade-off between flexibility and control was no longer favorable, and the perceived savings of low-cost production gave way to higher risks and diminished reliability.

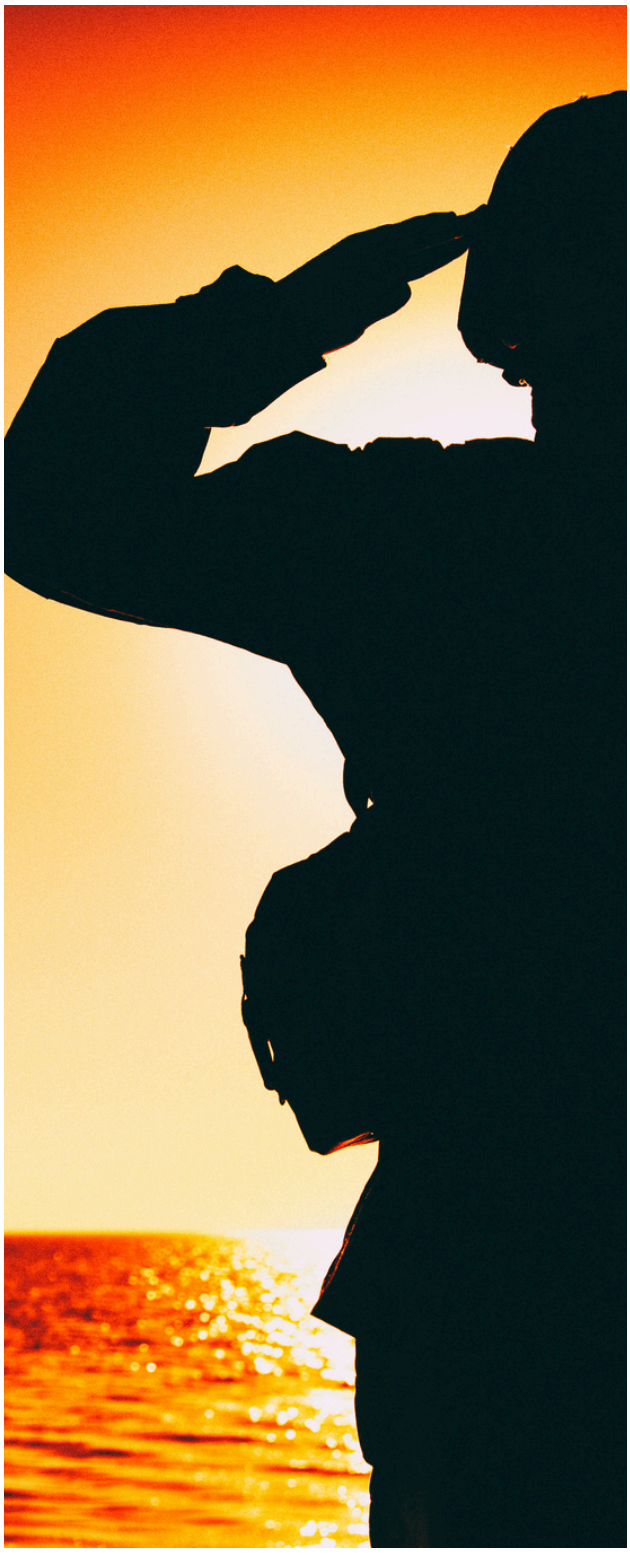
The labor gap was shrinking, too. In China, wages rose more than 80% between 2008 and 2011 alone. Meanwhile, North America's workforce was gaining value, becoming more productive, adaptable, and technically skilled, especially in sectors like aerospace, defense, and advanced manufacturing where quality standards leave no room for error.

At the same time, automation was leveling the playing field. As robotics and advanced press technologies became more accessible, the labor advantage that LOC countries once held began to erode. Tasks that were once offshored could now be handled more efficiently and more securely by North American workers trained to operate high-precision systems. And in defense, where compliance, repeatability, and tight tolerances are non-negotiable, that control matters.

Back in 2020, a Thomas Industrial survey showed 64% of manufacturers were already considering reshoring. Today, that number is even higher, and the reasons have only multiplied: rising tariffs, ITAR compliance pressures, defense-specific procurement requirements, and the need for total supply chain visibility.

To be fair, reshoring isn't without challenges. But for defense manufacturers, especially, the risk of not reshoring is often greater. Think lost contracts, compliance failures, and missed mission deadlines.

That's where a Total Cost of Ownership (TCO) analysis comes in. It's the best way to compare true cost, not just what you pay up front, but what you lose in quality, delivery time, service, and compliance risk.



Is Reshoring Right for You?

- You build components or systems for military use
- You're facing long lead times or rising offshore costs
- Your customers are asking for U.S.-based sourcing
- You need tighter control over quality, compliance, or service

If you checked even one, it's time to reassess.

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What is Total Cost of Ownership?

And why defense manufacturers can't afford to ignore it.

When defense suppliers think about reshoring, the instinct is often to compare unit prices. How much does this part cost to make here versus over there? But for mission-critical operations, that kind of math is dangerously incomplete.

The reality: unit price almost never tells the full story.

In fact, according to the Reshoring Initiative, over 60% of companies that explore reshoring underestimate their true costs by 20% or more, simply because they don't account for the complete cost of ownership.

That's where Total Cost of Ownership (TCO) comes in.

A TCO analysis captures every phase of the investment, not just what you pay up front, but what it costs to run, maintain, protect, and eventually phase out that operation or asset. For defense suppliers, it's the most accurate way to weigh domestic production against the real risks of staying offshore: downtime, compliance violations, service delays, and missed contract deadlines.

The TCO Formula: TCO = I + O + D + P – V

Let's examine each component.

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Every Dollar, Every Downtime, Every Risk — Count It or Pay for It

To simplify the math, you can use tools like the Reshoring Institute's free TCO Estimator, which factors in over 30 hidden costs to give you a more accurate picture of your total cost landscape.

I = Initial Cost

The up-front spend: new equipment, facility build-outs, installation, and integration. For defense programs, this can also include compliance verification and traceability systems, which are critical for ITAR and DFARS adherence.

O = Operational Cost

Ongoing costs to keep production running—training, utilities, compliance testing, and documentation. For defense programs, this also includes scheduled maintenance, emergency repairs, and system validation tied to contract requirements and traceability.

D = Downtime

Ongoing production costs: labor, training, utilities, scheduled maintenance, and unplanned service. If your machine goes down mid-production and the service tech is on another continent, that's an operational cost. And a big one.

P = Production Cost

Day-to-day costs like materials, labor, overhead, and consumables. In defense, this also includes compliance-driven expenses—testing, documentation, and quality control tied to contract specs.

V = Remaining Value

This is the salvage, resale, or repurposing value of equipment or facilities at end-of-life. Automation systems that can be reconfigured for future programs? That's value. Foreign-built presses with no local support? Less so.

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What Does a "Strong" TCO Actually Look Like?

A strong TCO isn't about hitting a set number. It's about knowing your investment supports uptime, compliance and long-term flexibility.

Here's what to look for:

- Reduces or prevents downtime
- Offsets labor shortages through automation
- Includes local, fast, and defense-savvy service support
- Can adapt to future contracts without major reinvestment
- Supports both compliance and continuous production

"You don't build defense programs on guesswork. If your TCO doesn't account for downtime and compliance risk, it's not a real strategy."

—Jeffrey Walsh, Director of Business Development, Macrodyne Technologies

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Reshoring Incentives: Where to Find Them in the U.S.A.

If you're reshoring operations that support defense, aerospace, or high-tech manufacturing, there's a good chance you qualify for grants, tax breaks, workforce subsidies, and other incentives, but most programs aren't heavily promoted.

State & Local Economic Development Agencies

- SelectUSA.gov – a federal resource connecting manufacturers with state and local incentive programs. www.trade.gov/selectusa
- Your state's Department of Economic Development (just Google "<State Name> reshoring incentives")

Federal Programs & Partners

- DoD's Industrial Base Analysis and Sustainment (IBAS) – Offers support for reshoring critical supply chains and scaling domestic defense production
- EDA.gov – The U.S. Economic Development Administration provides funding for infrastructure, facilities, and workforce development
- Manufacturing Extension Partnership (MEP) – Regional MEP centers offer strategic guidance, funding access, and tech transition help.

Defense Production Act & National Security Programs

If your products support U.S. national security, you may be eligible for Defense Production Act (DPA) Title III funding or other DoD-backed investments. These are often distributed through:

- DPA Title III Office
- Office of Local Defense Community Cooperation (OLDCC) – Especially for reshoring to areas near military bases or defense hubs

Pro Tip:

Many of these incentives aren't listed in one place. The best move is to connect with your regional Manufacturing Extension Partnership (MEP) Center or local economic development office early. They'll help you navigate what's available based on your location, industry, and hiring plans.

What MEP Centers Offer:

- Help with reshoring and supply chain strategy
- Guidance on automation and advanced manufacturing tech
- Workforce development support and connections to local talent
- Support for ITAR and cybersecurity compliance (e.g., CMMC readiness)
- Access to funding, grants, and local/state incentives
- Lean manufacturing, ISO certification, quality systems support

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Reshoring Incentives: Where to Find Them in Canada.

If you're reshoring defense, aerospace, or advanced manufacturing operations in Canada, you may qualify for substantial government support. While many of these programs are not explicitly labeled as "reshoring" incentives, targeted funding is available for manufacturers who understand where and how to access it.

Federal Programs and Partners

Innovation, Science and Economic Development Canada (ISED)

Canada's central body for industrial growth—supports advanced manufacturing, clean tech, and strategic reshoring projects. ised-isde.canada.ca

Strategic Innovation Fund (SIF)

Offers direct funding for large-scale manufacturing projects with strong economic or strategic value. Defense and aerospace projects are high-priority. innovation.canada.ca

Industrial and Technological Benefits (ITB) Policy

Defense-linked reshoring efforts may qualify under ITB offsets—especially if tied to major federal procurements. tpsgc-pwgsc.gc.ca

Provincial Incentives & Regional Agencies

Ontario Made Manufacturing Investment Tax Credit

A refundable tax credit for capital equipment purchased for use in Ontario. Ideal for reshoring press or automation lines. ontario.ca

Investissement Québec / IQ Innovation Programs

Supports manufacturing modernization and automation projects in Québec, including defense-adjacent work. investquebec.com

Western Economic Diversification Canada / PrairiesCan / PacifiCan

Offers project funding and commercialization support for manufacturers in the West. prairiescan.gc.ca

Pro Tip: Many Canadian funding programs aren't labeled as "reshoring" incentives. Look for terms like "advanced manufacturing," "capital investment," or "innovation support" when searching. And don't underestimate the power of picking up the phone—your local economic development office can be your shortcut to funding.

Equipment-Specific Considerations: Choosing the Right Press for Mission-Critical Performance

If you're reshoring a production line, your press equipment decision isn't just about specs. It's about uptime, support, and long-term reliability. Whether you're relocating existing machinery or investing in a new system, it's critical to account for the full equipment lifecycle.

What to Factor In:

- **Installation:** Are there facility requirements (foundation, utilities, clearance)?
- **Maintenance:** Can you access local service techs who understand the equipment?
- **Downtime risk:** What happens if your press fails mid-cycle? Do you have support in-country — or are you waiting on overseas parts and techs?

In defense manufacturing, every minute of unplanned downtime is a liability. So is every component you can't trace. That's why many reshoring manufacturers are choosing to replace aging foreign-built presses with modern, domestic solutions—built, installed, and serviced in North America.

Why U.S.-Built Hydraulic and Servo Presses Make Sense for Reshoring

Hydraulic presses remain the go-to for defense and aerospace manufacturing thanks to their:

- Engineering flexibility (customized for exact part geometry and material)
- Repeatable precision (crucial for high-spec parts)
- Lower long-term maintenance and rebuild costs compared to mechanical presses
- Smaller footprint and ability to integrate with full automation cells

"You can't run defense programs on cheap equipment. Our presses are built to take a beating and keep producing with precision."

— Kevin Fernandes, President, Macrodyne Technologies

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What to Consider When Purchasing a Press for Defense Manufacturing

Frame Design & Tonnage Capacity

Built to withstand demanding cycles for heavy-gauge armor, structural components, and high-tolerance aerospace parts.

Load Conditions (Off-Center vs. Centered)

Defense components don't always load clean. Your press should match your real-world loading conditions—especially in automated or robotic lines.

Tool Compatibility & Die Space

Can it handle large, multi-stage dies for forming, drawing, or coining operations used in weapons, casings, or composites?

Automation Integration

Will the press support unmanned operation, robotic part handling, or automated die changeover? This is where throughput and labor strategy meet.

Service, Repair, and Remote Support

Can downtime be resolved without crossing borders or waiting days? Who's servicing the press, and how fast can they get there?

Ancillary Equipment & System Connectivity

Consider how your press connects with material handling systems, safety zones, part inspection, and data capture. A standalone press isn't a solution. A full cell is.

Automation: The Reshoring Force Multiplier

Reshoring gets you closer to your customer. Automation keeps you competitive.

For defense manufacturers, the question isn't whether to automate. It's how fast you can do it. Labor shortages, cost pressure, and high-mix production demands mean the only way to reshore at scale is to eliminate unnecessary manual steps, tighten tolerances, and boost uptime. That's where automation delivers.

Modern press lines, equipped with robotics, transfer systems, sensors, and smart controls, aren't just more efficient. They're more repeatable, more compliant, and far less dependent on unreliable labor markets.

RESHORING ISN'T ENOUGH WITHOUT AUTOMATION.

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Automation's Impact on Reshoring Success

Reduces Labor Dependence

Fill the skills gap without increasing headcount.

Boosts Throughput

Keep production moving without sacrificing precision

Enables Lights-Out Operation

The solutions offered need to be based on sound market decisions so that they can have an impact.

Supports Traceability and Quality

Real-time data, inspection integration, and reporting

Accelerates ROI

Offset capital costs through efficiency, uptime, and fewer defects.

Reshoring isn't just about geography. It's about control. In defense manufacturing, that means having equipment you can trust, support teams you can reach, and systems built for repeatability, compliance, and uptime.

At the end of the day, **a press is either a strategic asset or a liability waiting to cost you time, money and contracts.**

What Does It Take to Reshore Automation?

Reshoring automation isn't just about moving equipment. It's about rethinking how production is designed, supported, and scaled locally.

For defense manufacturers, the stakes are even higher. Automation isn't just a nice-to-have. It's how you protect uptime, meet compliance requirements, and maintain competitiveness without relying on unreliable labor markets or foreign service providers.

Here's what it really takes to reshore automation effectively:

A System, Not a Robot

Too many manufacturers think automation means adding a robot. In reality, it means engineering a fully integrated cell that includes:

- Material handling (load/unload, stacking, transfer systems)
- Safety infrastructure (light curtains, fencing, zone control)
- Real-time inspection and quality monitoring
- Tooling and die-change automation
- Controls architecture and PLC integration
- Data capture and traceability systems (for DFARS, ITAR, CMMC)

You're not automating a step. You're engineering a process from input to output.

Local Capability and Support

Once reshored, your automation has to run without depending on offshore tech support or long-distance logistics. That means:

- Buying from North American suppliers
- Working with integrators who understand defense specs
- Building service and maintenance into your plan from day one

If your line goes down mid-cycle, can someone be onsite tomorrow? If not, you're still offshore where it counts.

Process Design from the Ground Up

Reshoring creates a rare opportunity: the chance to design for efficiency and precision from the start, not as an afterthought. Instead of retrofitting outdated processes, leading defense manufacturers:

- Design press and automation systems in tandem
- Align floor plans around product flow, not space constraints
- Integrate inspection, data collection and feedback loops into every cycle

This is what makes automation not just effective, but resilient.

A Shift in Mindset

The most overlooked part of reshoring automation? Mindset.

Offshore automation was often about saving costs.

Reshored automation is about building capability, protecting contracts, and owning your process.

It's not just a machine upgrade. It's a business advantage.

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LET'S TALK STRATEGY.

Whether you're in the early planning stages or ready to build, our team can help you explore how to bring production home without sacrificing speed, performance, or reliability.

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