

New Strategic Options for Procurement Teams

New Approach to Device Integration Supports Capital Conservation Initiatives

Overview

The role of procurement teams in large manufacturing organizations was already evolving before the global pandemic hit. In addition to traditional responsibilities of directing, ordering and receiving processes, analyzing transaction data, managing vendor relationships, monitoring contracts and negotiating pricing agreements, procurement executives have been rapidly expanding their roles as enterprise-level strategists. With the growth of global markets and the rise of non-traditional competitors, senior leaders are looking to their procurement teams to identify new opportunities to reduce costs, improve margins and drive bottom-line success.

The impact of Covid-19 adds a new sense of urgency to that strategic role. Procurement professionals are being asked to maintain normal business operations, fulfill urgent requests from internal customers and mitigate supplier challenges — all against a backdrop of significant disruption to their operations.

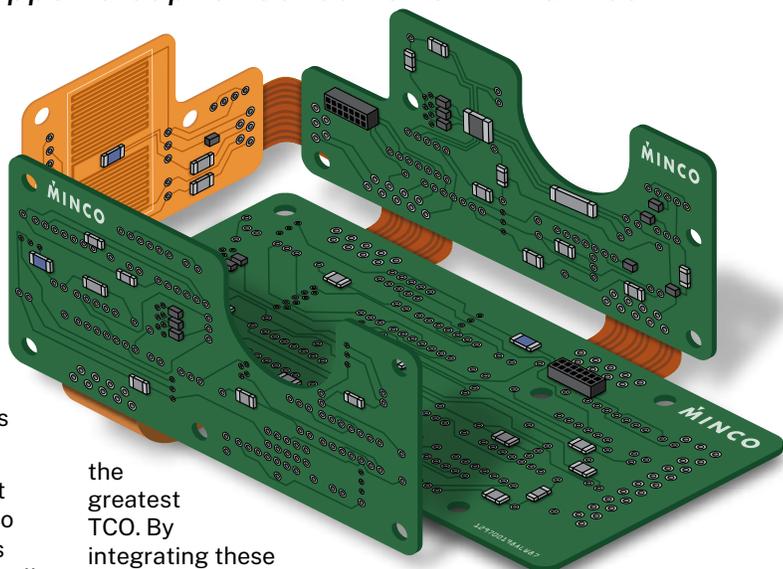
The most pressing post-pandemic challenge for procurement teams will be conserving capital while still maintaining robust, innovative manufacturing operations. More than 80% of manufacturers have identified capital conservation as a top-three challenge through at least mid-2021 according to an April 2020 survey of CFOs conducted by PWC — and procurement teams are at the center of that challenge.

Our Contribution: New Ways to Remove Costs While Improving Performance

Minco understands the challenge of conserving capital while continuing to drive innovation, maintain manufacturing output and generate healthy revenues. To help our customers with this challenge, we've expanded our thinking around integrated solutions.

We've identified new ways to drive down total cost of ownership (TCO) for our customers. Our approach is intended to reduce costs in three areas: (1) in the design and manufacture of the products we provide; (2) in our customer's manufacturing operations; and (3) in the field, after our customer's final product is in use.

The key to our new TCO approach is integration. While many of our customer agreements call for circuits, heaters and sensors as discrete parts, our most innovative offerings — packages that involve the integration of these individual products — offer



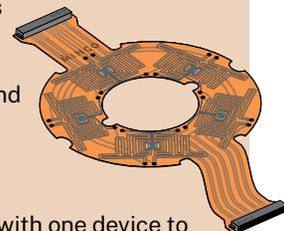
the greatest TCO. By integrating these components, Minco is typically able to reduce the design and manufacturing costs of our products. Perhaps even more important, our integrated offerings can bring new simplicity and speed to your manufacturing operations. Also, integration can improve performance in the field by reducing the number of potential points of failure.

Supporting Capital Conservation Strategies

Driving Lower TCO Through Integrated Design

Lower Heater, Circuit & Sensor Costs

Integrating discrete components typically results in simpler, more elegant designs, lower material costs and lower device manufacturing costs.



Greater Efficiency in Downstream Manufacturing

Providing your manufacturing teams with one device to install in your final assemblies simplifies training, speeds production and reduces the chance for human errors.

Greater Uptime & Lower Maintenance Costs

Integrated devices offer simpler designs with fewer potential points of failure; which can lead to greater MTBF, improved performance and lower maintenance costs.

Improved TCO Begins with E2E Collaboration

Through engineer-to-engineer (E2E) collaboration, we partner with customers to uncover new ways to improve the performance of critical systems. By applying expertise in thermal modeling, substrate composition and material stability, we're able to work alongside in-house design teams to create integrated solutions that are smaller, lighter and less costly. But more importantly, we're able to overcome the challenges presented by absolutely-cannot-fail applications.

Key #1 to Integration: Start Simple

In many cases, customers begin by asking Minco to design a single heater or sensor assembly. Through collaboration, we've discovered that we can integrate a heater or sensor with flex circuitry to create solutions that are more resilient and more effective. For example, an environment may need to remain thermally stable, so Minco flex engineers collaborate with Minco thermal solution engineers to design a product that exceeds our customers' initial requirements.

When Minco engineers familiarize themselves with a project, they can make cost-saving suggestions. One example might be the wires or flex leads connecting the heater to other components in the enclosure. Old-fashioned wiring bundles pose installation difficulties due to their bulk and the possibility of mis-wiring the rig. By combining the various wires into a flat package and adding connector plugs, these challenges are eliminated — it's impossible to connect the plugs the wrong way.

Key #2 to Integration: Involve Minco Early in the Process

The most impactful performance improvements, space reductions, cost savings and new capabilities are typically

discovered early in the design process. Engaging flex circuit, heater and sensing experts from the beginning keeps the focus on integration and provides runway for new ideas.

Case in point: A medical device manufacturer wanted Minco to create a thermal stabilization package for a rotating carousel of biomedical vials. The prototype consisted of a heater and tab sensor for each vial, and an assembly that involved dozens of wires. Minco's engineering team responded by suggesting a solution with surface mount temperature sensors embedded in the same piece of polyimide as the heaters themselves, with a high-density connector serving as a foolproof interface between the circuit and the main project electronics. This simple innovation saved the customer money on manufacturing and simplified and streamlined installation, resulting in further savings — and by making these adjustments in the prototyping phase, our customer was able to achieve valuable new design efficiencies.

Ready to Challenge the Status Quo?

Contact us today to begin developing innovative solutions to your design challenges

In today's competitive markets, manufacturers are always looking for ways to cut costs, reduce time to market, and improve product performance. This is particularly true of technical products in high-regulation fields like medical diagnostics, aerospace, power generation and military and defense where failure is simply not an option. Designers who work with these products, and others like them, recognize it takes a zeal to challenge the status quo in order to discover new innovations that can speed time to market and help maximize profitability.

If your procurement team and your engineers are ready to take that next step and achieve next-level TCO, Minco engineers are ready to talk.

Download Ebook "The Power of E2E Collaboration & Integrated Thinking"

Read our new ebook "[The Power of E2E Collaboration & Integrated Thinking](#)" to learn more about how Minco can integrate heaters, flex circuits and sensors into one component that can be smaller, more reliable and cost less. Every

company needs to drive revenue and sustain margins to thrive. But the willingness to change the status quo and find a better way is required to help companies make important leaps in their markets.