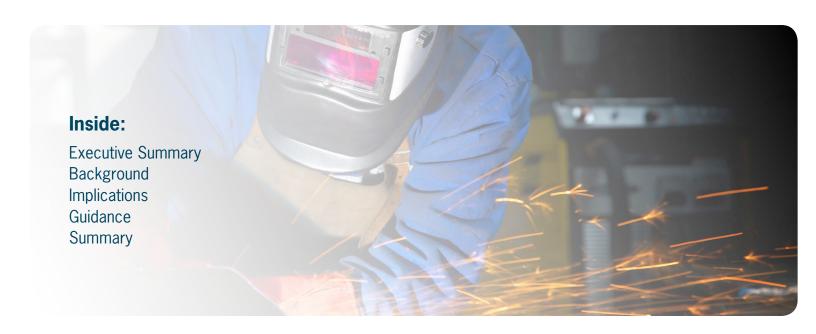


Metal Fabrication of the Future





Executive Summary

Structural change is underway in the metal fabrication industry. Productivity and revenues are growing while the number of companies is shrinking. While industry revenues are beginning to return to pre-recession levels, not all companies are reaping the benefits of this resurgence.

New strategies are needed for metal fabricators to flourish. Prior inefficiencies, technologies and processes can no longer be tolerated as lower margins and increased competition make these unacceptable luxuries. New strategies are needed to drive increased scale, productivity, markets, specialization and customer insights.

Leading firms are utilizing these new strategies to realize profit margins significantly above traditional industry averages, even during times of structural change.

Is your firm positioned to adopt these new strategies and emerge as leaders in your industry?









Background

The metal fabrication business in North America has been undergoing a multi-decade period of change. Much of this, sadly, has resulted in the closing of many companies, the movement of work to lower cost locales (e.g., non-union shops or offshore operations), and ruthless cost cutting. The economic collapse of 2008 did not help matters and caused even further discomfort.

Since then, metal fabricators have adopted three common strategies.

Some have taken a 'hunker down' approach to business. Here, businesses halt investments, control costs, discontinue certain underperforming operations and hope the market will return again to a period of normalcy.

Others have adopted a strategy of mimicking others in the space. This resembles a sort of crowd-sourced strategy where everyone follows everyone else. There is no explicit strategy to it. It is merely aping. The third approach involves the realization that markets have permanently and structurally changed. Businesses must alter their strategies and adopt new approaches, technologies, processes, etc. that better align with the metal fabrication market of today.



From our vantage point, we believe the metal fabrication market has been materially and permanently changed. Therefore, we do not believe that hope (i.e., a return to a nostalgic era of normalcy) is a viable strategy. Domestic demand is rebounding according to

industry and government sources. However, the rising tide isn't lifting all boats. Competition for domestic orders is more intense than ever with resulting profit margins being quite thin for all but the best managed and focused firms.

The business strategy questions each metal fabricator must now ask include:

- > Are we selling into the right geographic and vertical markets?
- > How do we alter our cost structure to be competitive and profitable?
- > Do we have the right workforce? Skills? Culture?
- > Can we sell into new markets?
- > How do we differentiate ourselves?
- > Do we really know which customers are truly profitable?
- > Do we need to rationalize our products and services? Should we eliminate some low performers?
- > What should we be doing to bring in results like the current industry leaders?



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What Industry Research is Indicating . . .

Understanding today's metal fabrication market is tricky. Research indicates conflicting data. According to the June 2012 Precision Metalforming Association (PMA) business conditions report, many fabricators believe their business is going to shrink as average daily shipping schedules continue to decline. However, the last several issues of the PMA's Business Conditions report identify a 5-6 month upward swing in a handful of key measurables.

Furthermore, according to Bureau of Labor Statistics data, the industry had approximately 64,000 companies (and 1.75 million employees) in 2001. In 2011, the industry had only approximately 58,000 companies (and 1.35 million employees). Revenue numbers for the industry appear to be rebounding from 2008 lows.

These numbers suggest that:

- > This previously fragmented industry is undergoing consolidation, while the number of companies is declining, revenues for those remaining are near previous levels.
- > Businesses are utilizing more technology and less labor.
- Sovernments measure business productivity based on revenue/employee. If revenues are holding constant or growing and employee counts are declining, then productivity is increasing.
- > For companies to grow in traditional markets, like automotive, size and scale is a distinct advantage. Small companies are susceptible to downward cost pressure and commodity fluctuation in these segments.
- > Growth is occurring in selected segments. For example, the energy sector is producing significant growth for small companies.

We understand that creating a new strategy in a volatile, dynamic time is difficult to complete. Worse, any strategy may be short lived as more change factors surface. Regardless, a new strategy is needed if only to deal with challenges like:

COST	Commodity pricing fluctuations fuel surcharges
CUSTOMER	Unmanageable demand patterns Lead time reductions International competition Enhanced estimating requirements Changes in customer profiles and expectations
ASSET	Legacy shop equipment Legacy IT equipment (asset group)
ENVIRONMENT	Aging and new workforce requirements Continued rigor around compliance -Industry -Customer -Governmental

Metal fabrication is an industry in transition just as many of its customers are having to transition, too. To meet the demands of the new economy, new strategies are required for metal fabricators who desire more direction than just 'hope' or that a 'hunker down' plan can deliver.



Implications

Changing industries, especially capital intensive industries like metal fabrication, are especially tough on established companies. Companies with large investments in plant and equipment cannot easily move to new product lines, markets and more. Change in these industries may require retraining of the workforce, investment in new tooling/plant/equipment, etc. Yet, it is this change, a change to become a more dynamic enterprise, that metal fabricators must embrace.

To succeed, metal fabricators must embrace a new strategy that adopts at least one of the following components:

Increase scale

The largest metal fabricators have the advantage of scale. They can focus specific plants and equipment on larger numbers of similar work. They can utilize second and third shifts with the same physical plant and equipment and achieve a cost advantage from spreading their fixed costs over a larger number of projects. Scale is driving merger and acquisitions in this industry. Your firm must decide if it can organically grow the volume of work into its pipeline or will it need to acquire the sales, customers and backlog via acquisitions.

Expand into new markets

Some metal fabricators may choose to move into new or adjacent verticals so that they can expand sales and/or chase more profitable work. Fabricators that

previously specialized in one industry (e.g., automotive) may find new market opportunities in other sectors (e.g., aerospace). Multiple industries served by metal fabricators, such as automotive, heavy equipment, and construction, are seeking suppliers in tune with their needs who can deliver quality products. Other fabricators may choose to expand into new geographies. Local firms will become regional. Regional firms will become national players and national players will go global. Each of these transitions carries with it unique challenges but if growth is desired, then these challenges must be tackled.

Increase productivity

Newer machine tools are driving much of the productivity gains seen in the metal fabrication business. These tools permit more work to be done by fewer people and with greater accuracy. Better design tools reduce scrap. Productivity benefits go straight to the bottom line. The challenge many firms face is the ability to finance these capital acquisitions. Strengthening credit/banking relationships is a must-have activity of finance officials in today's metal fabricators. Productivity improvements can occur in other ways, too. IT personnel who are consumed with patching, maintaining and upgrading older on-premise software can be freed up to work on more strategic applications and projects should the firm switch to low capital-intensive, multi-tenant cloud services and software. Cloud services exists now for ERP, HR, office automation and CRM processes.

Increase customer insight to focus on best customers

Rarely do all customers have the same support costs, sales costs, etc. In fact, some of your customers are a delight to work with while others will suck the lifeblood from your firm. Businesses with poor, non-integrated systems cannot determine their true, fully loaded costs per customers. We believe that long-term success will accrue to firms that capture all costs and revenues pertaining to their customers over time. Lifetime customer value and profitability can be a hard metric to calculate but it will help you decide which customers to cull. Let your competitors have the pariahs of your industry.





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Guidance

We believe that this is the time for metal fabricators to:

- > **Benchmark** You might have an idea of how well your competitors operate but a thorough benchmarking of your operations might unveil some major surprises. In a consolidating industry, your firm cannot afford to be inefficient in any aspect of its operations. Benchmark your production processes, IT operations, accounting and HR processes, sales and other aspects of the business. Any process area that is not in the first or second quartile of performance must become an immediate area of concern.
- > Refresh technology This is actually a much broader mandate than you might first think. Shop floor technology is continuing to improve - especially tools that integrate with design technologies and other equipment/tools. But, changes in the technologies that your suppliers and customers use must also be considered. Do you possess the collaboration tools that make your firm easier to work with and partner with key customers? Are your estimating and quoting tools providing a competitive advantage? Do you make it easy for buyers to know what kinds of equipment you possess and what kinds of products your firm is especially suited to produce? Does your technology eliminate virtually all paper flowing between your firm and its suppliers, buyers, employees and others? Finally, look into the new cloud-based technologies for all operational aspects of your firm.
- > Reassess your human capital Skills shortfalls are common in the metal fabrication sector. New approaches to talent acquisition, training and retention cannot be postponed. If you need a great workforce, you have to be proactive in building it. Compounding matters is the realization that much of the current metal fabrication workforce is moving towards retirement. Knowledge and skill transfers from exiting employees to newer, less experienced workers will require new learning, knowledge management and other disciplines. Don't be surprised when you realize that newer generation workers have materially different expectations regarding performance, compensation, rewards, technology and more.

- > Make innovation scan and adoption a core competency Everyone within your organization should be involved in the identification and adoption of new technologies, new processes and new markets. Given the speed with which the industry and its supporting technologies are changing, firms must adopt a more proactive stance regarding change and innovation.
- > Acquire new analytics and insights Understanding business performance has always been a requirement for metal fabricators. However, today's business climate requires these analytics be taken to a new level of depth. It is not enough to simply understand which customers or product lines are most profitable based on simple gross margin measurements. You must also combine this analysis with external data that indicates growth or shrinkage within your customer's industry or predicts future cost changes for raw material inputs. Although this brings a new level of complexity to business analytics, modern technology tools have emerged to make this analysis much easier, faster, and cost effective.
- > Adopt a new customer focus Responding to customer needs and desires should be taken to a different level. It is not about reacting to needs through excellent service, but proactively serving customers in a way that makes their business better. Accomplishing this level of service requires not only delivering to minimum expectations for compliance and delivery performance, but developing a level of insight into their business so that your firm can deliver a delightful one-to-one experience. These new insights require a new level of systems, processes and data analytics. Delivering a compelling experience also requires your organization to be active within the customers and industries served so that you may enhance your methods for quoting and estimating, customer relationship management, program management and advanced engineering.



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Summary

Although structural change is underway in the metal fabrication industry, leaders are not standing still. They see this structural change not as a doomsday scenario, but an opportunity to take advantage of a fundamental shift, leapfrog competitors, and become a new leader in the industry.

These new leaders are developing an intense understanding of the market, leveraging modern technology, becoming more innovative, and addressing workforce challenges. This requires firms to make conscious choices, and take specific action to be more externally aware, incorporate analytical data in new ways, invest in new technologies, manage the workforce differently, and become more intimate with customers.

The result of these actions is evident with new leaders realizing double-digit year over year growth, and profit margins significantly above traditional industry averages. Leading firms are proving it is possible to prosper even though structural change is underway.



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