



FabTrol MRP

Managing Risk White Paper

FabTrol MRP is developed by FabTrol Systems, Inc. in close association with CSC



software and solutions
for structural engineers

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Chapter 1

Managing Risks in a Growing Fabrication Market

The construction industry has been strong for the past ten years, despite a decline in 2005. Government and industry forecasts are strong through 2008, especially for Scotland, Wales and the North. The 'Olympic Factor' and government spending plans are expected to further strengthen this trend. This is consistent with what we are hearing from individual steel fabricators. Most of the clients we talk to are busy, making money, and optimistic about the future, with order books now around six months.

<i>Construction Output</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>
<i>Total new work (% changes yr on yr)</i>	<i>Actual</i>	<i>Actual</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>
New Housing	12,770	12,985	12,950	13,300	13,695
	14.0%	1.7%	-0.3%	2.8%	3.0%
Public Non-Housing	8,062	7,270	6,985	7,075	7,175
	10.8%	-9.8%	-3.9%	1.3%	1.4%
Infrastructure	5,852	5,290	5,580	6,025	6,335
	-13.1%	-9.6%	5.5%	8.0%	5.1%
Industrial	3,371	3,580	3,940	3,860	3,785
	10.0%	6.3%	10.0%	-2.0%	-2.0%
Commercial	12,756	12,980	13,850	14,575	15,225
	5.5%	1.0%	7.4%	5.2%	4.5%
Total RM&I	37,440	37,340	36,500	37,270	38,160
	-0.1%	-0.3%	-2.3%	2.1%	2.4%
Total All Work	80,251	79,355	79,800	82,105	84,375
	3.1%	-1.1%	0.6%	2.9%	2.8%

(Source: Construction Products Association. The sector has an annual turnover of £40 billion and accounts for 40% of total construction output)

Preparing for expected growth

To thrive in a cyclical industry like steel fabrication, it is imperative not only to weather the tough times effectively but to capitalise fully on the market's strong cycles. This means finding ways to avoid or remove potential barriers to your success.

With business picking up, what problems are most likely to get in your way? Identifying the most common risk factors and discussing ways to address them are the focus of this white paper.

Common causes of lost opportunity

In talking with hundreds of fabricators over the past 30 years, here are the problems that seem to give companies the most trouble when the market is hot:

Losing - or failing to find - good people

Steel fabrication is a highly specialised and knowledge-intensive discipline, one that tends to depend heavily on specialists. Good fabricators need a variety of expertise: experienced estimators who understand how shops work, project managers who can solve problems effectively, fitters and welders who do their jobs correctly.

Getting the appropriate people for key positions can be tough, especially in a low unemployment environment. Although the demand for talented people is growing, the pool of qualified candidates, particularly in steel fabrication, is generally not, especially in areas like Northern Ireland. There is a real risk of not being able to find or develop the right people, and that can be a substantial constraint on growth. Even worse is the productivity hit associated with losing a really key contributor. Few things can slow down a busy shop faster than the wrong spot gone empty.

Here are some ideas on avoiding or mitigating this risk:

Translate knowledge into systems — Make sure your core processes are standardised, repeatable, and documented. This reduces the level of expertise required to get tasks done and makes it easier to get new staff up-to-speed.

Look East — Eastern Europe is proving to be an ever popular source for skilled labour with the added benefit of companies keeping a lid on wages.

Focus on employee retention — According to a recent government survey as many as 20% of the UK workforce is dissatisfied with their jobs. The top causes of dissatisfaction?

1. Poor relationship with immediate supervisor or manager,
2. Lack of support for balancing work and family,
3. Lack of trust throughout organisation,
4. Lack of cooperation and teamwork throughout organisation.

Understanding and addressing key decision factors like these can help build the morale, loyalty, and effectiveness of your staff.

Develop from within — Some companies focus too much on recruiting new people and forget about the potential for internal staff development. Do everything you can to promote a culture of mobility in your company, encouraging bright, capable people to grow into higher-level positions.

Use proven tools — Look for ways to leverage the industry's best practices and solutions. Using tools or methods with established training opportunities and an existing pool of trained users can ease recruitment and shorten the learning cycle.

Look for industry-specific recruiting outlets — Websites are good places to start, as well as the classifieds in industry related publications e.g. Contract Journal.

Encourage communication — It is important for any company to encourage communication. Companies that make communication between personnel and management difficult, or take the view that if personnel have a problem they will say something, can often delude themselves into thinking their workforce is content when it is not. It only takes one small problem and one disgruntled employee to feel aggrieved for an entire workforce to develop a destructive 'them and us' attitude.

Poorly used shop capacity

Steel fabricators have flexibility in resources but not in facilities or equipment. You may be able to add or lay off shop workers as required to adjust to the available work - assuming you can find the right people. Adding new bays or beam lines is an expensive undertaking, though, and you have to balance the short-term demand for more shop work with the risk of excess capacity in future down cycles.

However, there is an alternative to increasing your overall capacity to take advantage of the strong market. You can increase your effectiveness at using that capacity. Here are some ideas on how to get more work done through efficiency gains, rather than adding expensive new facilities, equipment, or staff:

Recognise and avoid bad jobs — This seems obvious, but it catches fabricators all the time, particularly companies going through rapid growth. Every shop is better suited to some types of work than others, and fabricators tend to develop relationships with customers who have ongoing demand for those sorts of projects.

When the market heats up, though, it can be tempting to take on new opportunities, even if they are outside your company's core competencies. More work is good, of course, both to book your capacity and establish a healthy order book; however being less selective about that work can backfire. Sometimes companies end up squandering their capacity on jobs they can't do well or make money on, and then missing out on better-fitting projects because their shops are tied up.

Make sure your sales team expands into other markets or work types only when it makes good strategic sense. Sometimes there is a good reason why those off-the-beaten-path jobs are available.

Shorten schedules — What's the best way to get more jobs done without adding capacity?

Reduce the amount of time that each job takes. If you can pull-in the delivery schedule for each of your jobs by a week, that's significant extra capacity available to take on additional work.

There are many opportunities for schedule compression, depending on the situation in your company, but many come from newer technologies. Faster shop floor equipment can get individual processing tasks done sooner.

Electronic data exchange - such as transferring job data from your detailing package into your fabrication management software automatically - can save entry time, avoid costly errors, and get jobs into production sooner. Likewise, an integrated approach to material planning, purchasing, and inventory management can speed-up the procurement process and streamline the project life cycle.

Minimise rework — Busy companies trying to get more work out of the door are vulnerable to quality problems. Poor quality is doubly defeating, since it not only jeopardises the company's reputation but requires more rework and correction - again, wasting precious shop capacity that would be better used on the next job. Proper QA procedures that are built into the process, not just inspected after production, and effective staff training are key to getting things right the first time. Good procedures, or even automated tools, for ensuring the proper drawing revisions are distributed and followed, can help too.

Underbidding on tough jobs

Similar to chasing the wrong type of work is the problem of winning a really bad tender. This could be bidding too high and losing out on a desirable project. More often, though, this issue comes up with jobs you do win, but at a price you come to regret. A blown bid ties up your shop on jobs you can't make money on, and ultimately keeps you from being able to take on good, profitable work.

The common theme here is underestimating the amount or degree of difficulty of the labour requirements. That could involve failing to recognise unusual connections or the amount of full-pen welding or light miscellaneous metal, or even just applying your standard price-per-ton measure without catching the fact that the design uses lighter-weight beams.

Proper estimating standards and processes are essential. Bill of material and labour analysis tools, such as recap reports, are also helpful. You need to be able to know your true costs and project your actual margin, so that you know the work is worth your time and the price is sufficient to make money.

Failure to ramp up

One of the toughest mistakes to recover from in a hot market is the failure to see it coming and get ready. There is no better time to develop new capacity, hire and train staff, or implement new tools than just before business picks up.

It is still early enough to capitalise on the coming year's forecasted growth to ramp up effectively; however, it will be increasingly important that any process or capacity improvements be quick to implement and train on and have minimal impact on productivity.

Invariably one of the key resource issues in a hot market is the availability of experienced detailers. This can obviously be averted by recruiting internally, however building relations with experienced sub-contract detailers can be a more flexible means of managing this expensive resource.

Maximising opportunity with FabTrol MRP software

If you are looking for proven ways to increase productivity and minimise the risks associated with a hot market, you may want to evaluate our market-leading fabrication management software.

FabTrol MRP is a fully integrated solution for estimating, drawing and material management, production control, and shipping. It has helped nearly 1,000 steel fabrication companies make the most of their market opportunities over the past 20 years.

Here are a few of the ways that our product can help you get the most from your workload:

- Standardise your processes based on established best practices, proven in the industry over 20 years,
- Automate and integrate the importing and handling of more information, more accurately across all your business functions,
- Bid and win more jobs with timesaving tools like instant detail parts, cut-and-paste assemblies, and more,
- Avoid bad estimates with consistent labour standards and full visibility of your true hard costs,
- Capitalise on the fact that more and more sub-contract detailers are familiar with FabTrol MRP, providing you with greater access to a finite resource with the confidence that the information remains consistent and reliable.
- Shorten project schedules with easy data exchange and system-wide integration,
- Shorten the implementation cycle with on-site installation and training services.

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