



Mouldmaking UK - Survive or Die

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Introduction - Mould manufacturing in the UK

The mould making industry within the United Kingdom has traditionally grown up alongside the plastic moulding industry. In fact, the two industries are almost identical in the way that companies have spawned and grown up together, both being reliant on each other. This has been the strength and the weakness of the industries - when times are good, both prosper but when one industry suffers so does the other. This is because the majority of both types of companies are small - usually owner operated - with turnovers of less than £2 million employing around 10 - 30 people, they also have a small customer and supplier bases from which the turnover is generated.

Only a few moulding companies have grown into larger businesses (generating turnovers in the higher regions circa £10 million) and once these have reached a certain size they are usually swallowed up by the larger groups who dominate certain sectors. No mould maker has ever reached that stage to be swallowed up or a position of domination of any given sector.

The development of both mould makers and processors has followed a unique pattern. Both types of company have started out in exactly the same way and the start up phase has usually been lead by employees of both types of company having learned the trades then decide to move on and branch out into the respective industries via the setting up of their own companies engaged in mould making or processing.

This method of development within both industries has in my view been the reason why it is so fragile and at risk from internal and external competition, it is also the reason that investment in these sectors of manufacturing is lacking from the major institutions.

If you look at both sectors, almost all owners and managers have learned what they know from their previous employers but how many have learned the management skills that they need, how many have sales and marketing experience, how many fully understand the manufacturing process, how many understand the markets that they operate in?

I believe that it is this lack of skills or knowledge that has put these companies at the greatest risk in terms of survival.

Mould making

Why does it take anywhere between 12 to 20 weeks to manufacture a mould tool when in other countries it takes less than 6 weeks perhaps it is the lack of knowledge of what can

be done in the industry or to the process perhaps it is our reluctance to change perhaps it is our lack of training or knowledge we must be doing something wrong?

I believe that because all the decision makers have been very closely involved in running their businesses very few have looked outside the box or taken the time to consider where the industry must improve and have basically always done it this way just the same has in the past.

- Fact ! You can buy in almost everything to manufacture a mould from hot runner systems to complete bolsters ready made with delivery times of less than 4 weeks.
- Fact ! Developments in CAD/CAM and machinery have reduced manufacturing time.
- Fact ! Developments in rapid prototyping are reducing development and manufacturing time.
- Fact ! The skills and training that were once required by toolmakers is no longer required in fact computer aided manufacture is gradually reducing their role to that of machine minder.
- Fact ! A processor of plastic would not dream of investing in capital equipment based on running it only 8 hours a day the return on the investment would take years.
- Fact ! Any processor in their right mind would not have an operator running only one fully automated machine.
- Fact ! In Switzerland due to the very high cost of labour and shortage of labour toolmakers are required to run 2 to 3 machines and sometimes more.
- Fact ! In the Korean mould making industry that is better equipped compared to the UK 60 hours plus is the minimum standard working week.

How can we help the industry to look outside the box or step back and look at the ways and the changes needed to improve the industry before it dies.

Let us step outside for them and see if we look at the mould making process in a different way to see if we can provide some inspiration to the industry. I have broken down the process based on each phase that it takes to manufacture a mould tool from the start to the finish and also suggest possible areas for improvement, ideas and change.

Sales and Marketing

- Do you have a sales person responsible for dealing with customer inquiries or is it a partner or owner?
- Are they trained in selling?
- Do they know what questions to ask?
- Do they know what information to gather?
- Do they have checklists or questionnaires to be filled in by themselves or customers?

- Do existing customers know the information that you need to provide an accurate and 24 hour turn round of quotations?
- How many customers or potential new customers are visited each month?
- How successful is the sales function?
- How many new customers are obtained per year?
- How many are lost and what are the reasons?
- Do you talk to your customers?
- Do you target specific sectors or industries?
- What research have you carried out on these sectors or industries?
- Are they in decline or growing?
- Can they be moved off shore or do they need to be close to their customers?
- What are their requirements from suppliers?
- Can you learn from your suppliers selling methods or from other sales operations in totally different market places can you add value to your product or service?
- What marketing of the company do you do?
- Is it successful and can any other media or methods be used to promote the company?
- Do you advertise only when you need more work?
- How can you differentiate your company from competitors?
- How often are you in the local or trade press?
- Do you tell everyone that that you have installed new machinery, gained an order or customer?
- Do you tell everyone about your employees success promotion, qualification or new employees?
- Do you produce a newsletter for customers extolling the virtues of your company?
- How do you communicate to customers and how often?
- Do you tell customers about new technology or improvements you are making to your company?
- How clean is your facility? It's your showroom and salesroom

Quotations

- How quick do you turn round quotes?
- How accurate are they?
- What are the terms and conditions?

- What does the quotation cover?
- Do you suggest cost saving options or alternatives?
- How quick are your suppliers at quotations?
- Do you follow up quotations with a face to face meeting with the customer?
- Do you ask the reasons for unsuccessful quotations?
- Do you ask where you can make improvements or why you failed?
- Is there anything that you could do better for the customer?
- Do you celebrate successes and communicate failures to all employees?

Design and development

- What are the customer requirements?
- Do they have any special needs?
- Have you got all the information you need?
- Do they have a component drawing, model or CAD file?
- Is it a new design or is it an existing design that can be used or adapted?
- Have you made anything similar that can be reused from a design point?
- Can it be rapid prototyped?
- Can the design utilise certain of the shelf parts like bolsters or hot runner systems?
- Is a prototype mould required to test the design?
- What moulding knowledge is available to the design people?
- Do they understand the process and materials?
- Can a lower cost material be used without compromising the part?
- Can a potential processing issue be engineered out at the design stage?
- Do you make use of supplier's technical expertise?

Management

- Is everyone in the company aware of their responsibilities?
- Have your key personnel been trained to manage or have you picked the best toolmaker to supervise people?
- Do you lead by example?
- Do you plan production to reduce manufacturing time to a minimum?
- Do you have production meetings?

- How do you monitor production?
- What are the utilisation rates on your equipment?
- Are your investment decisions based on cost and time reduction or just nice to have equipment?
- Can the machinery be automated?
- Did investments achieve the required result?
- Can processes be sub contracted out?
- What standard items can be bought in off the shelf.
- Are your people motivated to suggest improvements or take decisions?

Manufacturing and production

- Is the manufacturing layout designed for production or just uses what space is available?
- Is the layout in a logical format to progress parts?
- Does the work flow through the department?
- What equipment can be automated?
- What handling methods are employed?
- How much wasted time can be eliminated?
- Is quality part of production?
- Is everything in its place?
- Are jigs and fixtures used?
- Do you have the right equipment?
- What are the machine utilisation rates?
- Is the shop kept clean and tidy?
- Does everyone clean up as they go?
- Does everyone work has a team?
- Can machinery be set up in cells?
- Can operators run more than one machine?
- Is one machine or operation holding back the production process?
- What can you do to reduce costs?

Quality, testing and validating

- Is quality a separate function from production? If so why?

- What quality systems are in place?
- Is the mould tested before delivery?
- Are checklists used at each stage of manufacture?
- What information is provided with the mould to assist the processors?
- Do you provide any guarantees or warranties?

After sales and servicing

- Do you keep in touch with the customer to see if the mould is performing?
- Can you learn from the mould to make it better the next time or improve it?
- Do you recommend servicing intervals for moulds?
- How close are you to the customer?
- Do you have a schedule to keep in touch with them?
- Can you do emergency repairs?
- Can you offer the customer another service such as product design?

The aim of this article is to provoke thought and hopefully be of some help to the UK mould making industry before it declines any further, there are some mould makers in the UK who are approaching world class standards who I can personally recommend having worked with these companies in the past.

My hope for the future is that the industry will prosper but unless it is prepared to change I can see nothing but the continuing demise of the industry.

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