

# AS 9100 QUALITY

## ONWARDS & UPWARDS

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**THE MANUFACTURER**  
OF THE YEAR AWARDS 2010

On the 24th of January Castle Precision hosted a visit from the Manufacturer magazine, hosts of the Manufacturer of the Year Awards. The day provided the first opportunity for the judges to truly evaluate the company they had chosen to be this years UK winners and they were not disappointed. In a recent article in The Manufacturer, editor Will Stirling said "Spending a day here, you can see why the senior judges picked out Castle Precision...Congratulations are richly deserved."

The day was an overriding success as we showcased Castle to the world.

As terrific as it is to pay homage to our achievement, this is now 2011 and the time has come to look forward. So what lies ahead for Castle's 2011?

Castle's 2011 will be defined and driven by the pursuit of higher standards through three major programmes: AS9100 Rev C, SC21 Silver and Rolls-Royce's JTPE programme. These initiatives are crucial and will or have already become a major part of Castle's continuous improvement programme. Whilst being three entirely separate initiatives, the strong parallels between them will allow Castle to efficiently achieve multiple goals this year.

The first and most important project is the AS9100 Rev C.

AS9100 is the quality management standard by which the defence, aerospace and space industries are governed. The standard which applies

BSI audit process that we will go through on a three year cycle. The new style audits will home in on all of our key processes as well as taking into account our on time delivery



*Castle's Home Award Ceremony*

to all organisations operating within these sectors worldwide is currently being up issued from the current Rev B to Rev C. This will require a new journey towards compliance in what is already one of the most demanding standards in industry and will mark one of the biggest shakeups of the global aerospace sector in recent memory.

The new Rev AS9100:2009 is a mandatory upgrade and was prepared by the International Aerospace Quality Group (IAQG) to considerably tighten up the standard. This has meant that the breadth, depth and scope of the standard has been increased at every level. One significant area of change will be to the

and quality measures.

In the development of the new standard, the IAQG was supported by a consortium of leading aerospace, defence and space companies including: Airbus, Bae Systems, Bombardier Aerospace, Boeing, Goodrich, Rolls-Royce and many others.

There is no doubt that the new revision has raised the bar and will challenge many companies to become compliant within the 18 month timescale. Castle itself has set a target to be fully compliant by the end of 2011, a full six months before the deadline. In order to achieve this, every department in the company will be involved in introducing new systems, procedures & measures.

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## OUR 60TH YEAR

This year Castle Precision celebrates its 60<sup>th</sup> year. The Company was established on the 2<sup>nd</sup> of June 1951 as the Textile Engineering Company by Jack and Leah Tiefenbrun. This key date in the company's history was thought to have been lost and only recently unearthed along with the Company's first hand

written books (accounts). To mark the occasion the Company is organising a number of events which will begin on the founding day. To kick off the events the company is looking for a group of six volunteers from the workforce to form an anniversary committee. The committee will come together for a brainstorming

session before being allocated a budget to organise an event for the whole workforce to enjoy and commemorate the achievement.

Anyone wishing to volunteer should notify Laura Gibson before the 21<sup>st</sup> of March.

*To help us celebrate our 60th year we would welcome any suggestions you may have for workforce and customers events.*

## ONWARDS & UPWARDS CONT

### Supply Chain 21 Silver

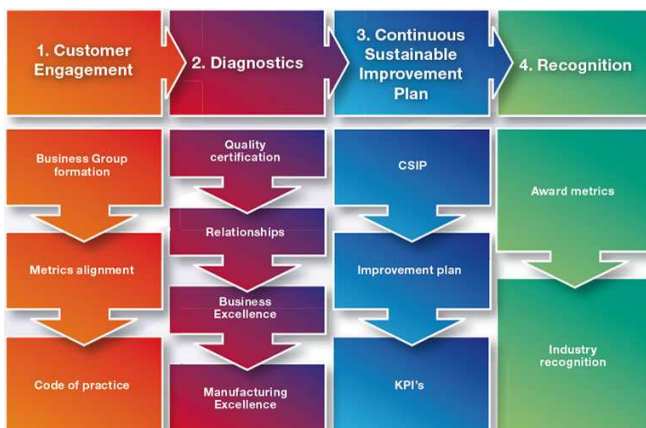
For those who have recently joined the company and missed our SC21 journey so far – the Supply Chain 21<sup>st</sup> Century programme is aimed at promoting excellence within the aerospace and defence supply chains. The

95% plus quality metrics. Today the SC21 initiative is core to our continuous improvement programme.

At this current moment Castle is one of only approx 50 companies in the UK to have received an SC21 award.

meeting at Bombardier Aerospace in Ireland, it was announced that the standards were being raised from their already considerable height.

The third major programme this year will be the Rolls-Royce Journey to Process Excellence (JTPE).



programme is partly run by the prime contractors, including our customer Selex Galileo who nominated us to begin the SC21 process 18 months ago.

In July of 2010, Castle became the first sub contractor in Scotland to be awarded with the highly prestigious SC21 Bronze Award. The award signified class leading quality and delivery performance in the aerospace sector with 90% plus on time delivery and

Our journey towards Silver status will follow a similar format to our Bronze accreditation. The company will follow its Continuous Sustainable Improvement Plan (CSIP) and then, as before, Castle will complete the manufacturing excellence assessment audit which looks at the company across the board. Our previous benchmark logged the 4<sup>th</sup> highest score from all the companies that Selex Galileo had audited. We fully expect to beat our previous scores and we will need to, as at a recent SC21

The company has been invited to join Rolls-Royce's supplier development JTPE programme for a second year. With new supplier development leaders and a full understanding of the programme, the company has big aims this year. The company is aiming to at least be recognised as one of the top six suppliers on the programme and join the select few for the end of year conference at Frankfurt. So far Castle has completed the first stage of diagnostics with the analysis this year being focused on one offload and one contract part. With the company having recently won a ten year Long Term Agreement with one of these components and seeing 30% increases in manufacturing quantities in the other – both projects merit serious analysis and investigation.

*The Company has been invited to join Rolls-Royces supplier development JTPE programme for a second year.*

## CROSS APPRENTICE VISITS

Castle Precision and Rolls-Royce are working together to develop their respective apprentices. In an effort to give both sets of apprentices a wider appreciation of the engineering landscape, Castle and Rolls-Royce Inchinnan organised a series of cross visits between the plants. By visiting one another, Rolls-Royce apprentices get to develop an understanding of how one of their subcontractors in their global supply chain works and Castle apprentices in

turn have the opportunity to see how one of our customers operates as well as seeing where many of our components end up. Whilst visits between sites are nothing new, the unique factor here is that the visits are apprentice led, with apprentices giving tours to other apprentices. The project has been a fantastic success with thanks going to Rolls-Royce Apprentice Development Leader, Steve Brodie, for facilitating the visits.

Mr Brodie said "Our

apprentices took a great deal from the visit to Castle, including the cleanliness of the facility, the use of IT in the workshop and your apprentices' high level of knowledge...

I think these types of events provide an excellent opportunity for apprentices to practice certain business skills, dealing with customers and suppliers in a safe and friendly format."

## WEBSITE DEVELOPMENT

Every 5 years Castle updates its two main mediums – the Company brochure and website. Having successfully completed the new brochure last year the Company is now developing its new website. Apart from the general update, the new website will have several new features including a virtual

site tour, an enhanced news bar, improved security, better site structure and various others features. The site is in the early stages of development and the company is looking to gather feedback from various sources (customers, suppliers, employees) on the effectiveness of our previous website and then identify what

improvements, features or innovation could be brought into the new site.

Any employee who feels they can add value to the development of the new website should request a questionnaire from Yan Tiefenbrun.



*Current Website Above Is Due An Evolutionary Step.*

## MUSICAL MACHINES

The first quarter of this year has seen Castle take delivery of several new machines: a Guyson bead blasting machine, a Massa VTL, a Mori-Seiki NL lathe and a Doosan Puma 600 lathe (still to be delivered). The new Guyson, Massa and Mori have been brought in to satisfy immediate requirements whilst the new Puma replaces two older machines.

Information on our new NL was provided in the October 2010 Newsletter

edition whilst the other machines are fairly standard additions. The smallest delivery here is also the most novel and worth an overview.

The Guyson pencil bead blaster uses ultra fine micro beads for cleaning, preparing or finishing small precision components. The system was brought in primarily to deal with our small complex defence components, deburring the difficult to reach areas. With an envelope measuring 600x460x495

(W x D x H) the system should be versatile enough to satisfy a range of components and requirements.



*Moving Machines—Just Like That Annoying Sliding Puzzle Game You Could Never Solve!*



## SITE SECURITY

The company takes site security and the safety of its personnel very seriously. As such the company will be upgrading its site security in the coming months.

The first stage of upgrades will comprise of new automated gates and turnstiles at the front of the facility.

The new security system will ensure minimal exposure/open time by utilising our biometric fingerprint login to allow quick access to the workforce without the need for keys.

The system is being installed by Broughton Controls. Expect the project to kick off mid May.

**BROUGHTON**  
controls limited

Sample system shown below.

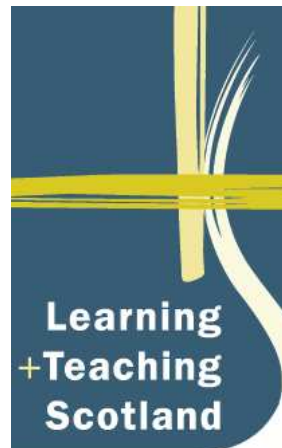


## LTS & EDT PROJECTS

The last newsletter edition explored Castle's increased social responsibility as Manufacturer of The Year, especially in the development of the next generation of engineers. As part of that commitment the Company has been involved in various projects including a manufacturing careers advice video for Learning Teaching Scotland (LTS)

and a school Eco-Project with the Engineering Development Trust (EDT).

The company has now completed its role in both projects and on behalf of LTS, EDT and Castle; we would like to thank all of those involved.



## THE STRATHCLYDE CONNECTION

Castle has been selected to feature in Future SME. The programme run by Strathclyde University is designed to develop a new advanced model for European SME's to adopt as best practice. The 4 year project (2009-2013) has 26 partners across eight countries and aims to lead SME's to a sustainable and globally competitive platform. The case study on Castle was focused on our IT system and the philosophies behind it. The focus emphasises our position as a leading SME not just in the UK, but Europe wide.

As well as being involved in the Future SME programme, Castle Precision and Strathclyde University are working together on a number of joint projects.

On the 14<sup>th</sup> of March, a group of students will be visiting the facility as part of their Manufacturing Systems Design & Management class. Our involvement in the class will be to help students understand how manufacturing systems operate in the real world.

This real world connection has become a point of focus for Castle. The Company sees Strathclyde as a world class institution that should be leveraged towards creating a potential future competitive advantage. If we are to achieve this goal, the education providers must first recognise the real world requirements and shift their focus to support the current industry needs.



### Quick History

*The University of Strathclyde began in 1796*

*It was formed by John Anderson, a professor of natural philosophy at Glasgow University*

*By the 1890's, it had established itself as a major technological institution.*

*Today Strathclyde is the third largest University in Scotland with a world class reputation for engineering.*

## VIGILANCE IS THE KEY

For the first time in Castle's history, our IT system was infected with a virus. The incident occurred late last year and marks the first downtime in the systems operation.

The virus came through the system on a USB and affected all of our Microsoft Operating Systems. The malware (Conficker A) is highly sophisticated and has previously had serious impact worldwide. Media reports that the French Navy, the UK Ministry of Defence, the House of Commons and The Greater Manchester Police Force have all been affected by the virus, citing damages and disruption of up to £1.5m. The incident at

Castle was contained after an all weekend shutdown and a determined effort by the IT department supported by Michael McGill and Jim Finlay. The Company estimates that the total cost of the damage and lost production amounted to around £50k.

The Company has enforced a complete new set of working procedures, centrally shut off access to all USB and CD ports (apart from authorised personnel), introduced new anti-virus software and various other procedures.

All employees should take the time to familiarise themselves with these new procedures which can be found in your Company

News\_Castle Procedures\_Removable Media Policy file.

It is vitally important that everyone remains highly vigilant to ensure the integrity of our system. As always, anyone who sees unauthorised individuals, such as visitors, trying access our system with any external memory device (USB, Laptop, CD, Smartphone, Flash memory, camera etc) should STOP them immediately and direct them to your supervisor to determine the validity of their action and then to the IT Department for virus checking.



**STOP**  
*It doesn't get any clearer than that!*



*New Employee Portraits See Left*

## SMILE PLEASE!

For incorporation into the Production Control System and to provide a more personalised customer experience, we will be taking a portrait photo of everyone in the Company.

We are looking to offer a more customer focused and personalised experience and one of the ways we can achieve this is by showing the customer all of the individuals involved on their project, in the form of a photo. The images can then be inserted into

presentations and other documentation.

On the Production Control and Personnel Systems, we will also use photos of individuals when clocking in, in the Company organisation chart and generally anywhere else on the system where employees names are found.

The photos were taken between the 7<sup>th</sup> and 11<sup>th</sup> of March by photographer Andrew Lee, who was also

responsible for all the photography in Castle's recent brochures.

Thank you to everyone for their co-operation and for brushing up so well for the photos. We were astonished to have found that we have more camera shy creatures than national geographic. It seems even the rare dodo can be photographed more easily than certain employees.

See Above.

## ENERGY MANAGEMENT

As well as pursuing our three major programmes this year (AS9100, SC21, JTPE), there are several separate tier two programmes and improvement initiatives that are also in progress.

Today more than ever the company is aware of its environmental responsibilities. The company has pressed forward in this area with initiatives in waste reduction, recycling and utility management which culminated in the attainment of our 14001 Environmental standard in February 2010. Since attaining the standard just one year ago the company has transferred two thirds of its general waste to recyclable waste, introduced PIR high efficiency lighting across the facility, replaced all inefficient heaters and compressors site wide, brought in a composting initiative, prepared and now conform to future WEEE waste regulations...and the list

goes on. But as we look towards the future, it is important to identify avenues forward to offer a step change improvement in this area.

Effective energy management is a crucial aspect of the business. With 70 plus major CNC machine tools on a site that spans 90,000 sqft operating 24/7; an effective Energy Management System can cut a significant amount of cost from an operation like ours as well as carbon emission. As such the company will be perusing a new standard; EN16001 Energy Management, which represents the latest best practice in this field.

As part of that, the Facilities Department will be carrying out an extensive energy usage analysis.

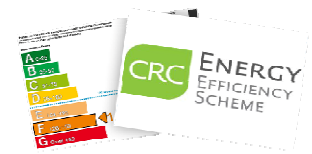
The first step will be to gather data. The Company will begin metering all the factories individually and then every machine within each section. The data from this will allow us to carry

out analysis on: machine utilisation against energy cost and spend on non-added value items such as heating and lighting. The information will identify anomalies with our energy consumption, highlight important target areas, show potential efficiency opportunities and help us to meet our environmental and carbon commitments.

The exercise, as well as highlighting a number of issues will be a major step forward in meeting the requirements of this new standard.

As well as being important to us, these standards are important to our customers, as are our suppliers standards to us. Managing our environmental impact will not be achieved by one company as a drop in the ocean but it will as a wave of supply chains.

*“Effective energy management is a crucial aspect of the business.”*



*“the Facilities Department will be carrying out an extensive energy usage analysis”*



INTEGRITY MATTERS

*Values development supported by Integrity Matters*

## VALUES DEVELOPMENT

As we mature as an organisation, it is important that we take some time, to develop and formalise certain aspects of the business that are not core to our engineering but are core to the Company. Company values are one such area. Whilst we have always been a Company with strong values and beliefs, these have never been formalised.

Values and principles define who we are, they are the basis for every single decision and action we take

as individuals. With so many individuals, a shared value set is crucial to an organisation, for guiding and ensuring the highest levels of behaviour and standards throughout the organisation. A truly shared value set gives a company consistency and unity.

The management team have been working together to define Castle's core values. These are the underlying historical values that have made Castle special and that we should carry forward into the future. In

addition to that the management team have defined some new values which were thought to be important enough to be added to the legacy values.

The process is still ongoing and more news on this topic will be provided in the next newsletter. Needless to say, this is an important part of the Company that takes time to get right and as the saying goes - good things come to those who wait.

## APPRENTICE AWARDS

Castle's apprentice PEP of the month award has now been running since November last year.

In addition to this the Company will now be running an Apprentice of the Year Award. The overall winner at the end of the year will receive an award, a small bonus and

be taken to Castle's box at Ibrox for one of the main fixtures. The overall winner will be judged against several categories including: attitude, pace of development, ability, timekeeping, general contribution, work ethic and PEP involvement to name a few. So far in the PEP log side, one

apprentice is streaming ahead, out logging his compatriots almost 5 to 1.

Apprentices who win this award single themselves out for future development and progression through the Company.

## FUNDRAISER ADJUSTMENT

In the last edition of the newsletter (December 2010), it was announced that the Movemeber Prostate Cancer fundraiser

brought in well over £300. In fact the actual figure raised was £624. On top of that we raised £832 for the local school for autistic

children; both figures were matched by Castle to raise a fantastic £1248 and £1664 respectively.

## TESTIMONIALS

Alistair J.Bowman  
Procurement Engineer  
Supply Chain  
Torness Power Station

"Two parts made urgently by "Castle Precision Engineering" were discussed and I was asked to feed back to you their thanks for your prompt response...

Once again CPE has responded to an urgent request in a professional manner strengthening their position as a key supplier to EDF Energy."

Jon Tudor  
Head of Events  
The Manufacturer

"Castle are worthy winners, this was clearly evident from yesterdays tour, both Will and I were

thoroughly impressed and delighted by what we heard and saw (and ate!)."

Jim Mather MSP  
Minister for Enterprise, Energy and Tourism  
The Scottish Government

"I was pleased to hear of your recent success in obtaining The Manufacturer of the Year Award 2010, as well as the award for the Best Small and Medium-Sized Enterprise. These awards are one of the most prestigious in the manufacturing calendar, and your win is testament to your employees as well as the dedication of yourself and your management team.

Again I wish to congratulate your successes

of this year and wish you the best for 2011."

Bobby Gechie  
Production Manager  
Woodward Aircraft Engine Services

"I would like to convey my thanks to yourselves and your workforce for the excellent response to our PO's. I understand we haven't given you a lot of work in comparison to your other contracts, but I've been very impressed by your diligence.

Your company will certainly be given every opportunity to bid for any work we may have. I will also have no hesitation in recommending you to other possible clients."



241 Drakemire Drive  
Castlemilk  
Glasgow

Phone: 0141-634-1377  
E-mail: sales@castleprecision.com

See us @ castleprecision.com