



We are almost at the end of 2011, a busy and significant year for SAS International. We have seen the opening of the new Reading and Barking SAS Direct depots and the expansion of its fleet of lorries, the launch of the SAS Direct website, the continuing expansion at Maybole (the scene of a visit by First Minister Alex Salmond in June), and the completion of a range of big projects in Europe, the Middle East and Australia.

The Project Management team deserves a special mention, having had a very positive year, completing two of the three case studies this issue. They have recently started work on the design and installation of of 40,000m² of suspended metal ceilings for the headquarters of Repsol in Madrid, and also London's new Blackfriars Station.

Much to reflect on then, but no matter what our achievements are, business planning for the future is critical, which is why we are investing in staff development, including continuous improvement training programmes based at Bridgend. We hope you will enjoy our double page lean training feature – and there's news of the SAS Apprenticeship Programme too.

Our focus on training, and our high standards all-round, were commented on by Madeleine Moon MP after her visit to the Bridgend facility this autumn. She went on to choose SAS as her 'Made by Britain' campaign nomination. The company achieved the unique feat of having no less than three nominations in all, with parliamentary colleagues Adrian Bailey (Apollo Park) and Rob Wilson (Reading) deciding SAS represented manufacturing at its best in their areas too.

Meanwhile, a new Architectural Metalwork brochure has been added to our literature range, to be joined soon by a corporate brochure. Both brochures emphasize the versatility of our products, and are showcases for our manufacturing capabilities whatever the degree of design complexity.

The Westfield Stratford City case study in this issue is just one example of how our products fulfil design and functionality demands.

On the matter of the newsletter itself, I would also like to thank you for your feedback from October's issue, all of which has given us food for thought. Insider has doubled in size over the last couple of issues, and there are more and more staff contributions which we especially welcome.

Finally, as this is a December issue, we have included a 2012 Team SAS wall calender within this issue and it's good opportunity to wish all my colleagues at SAS a very merry Christmas and a safe and prosperous New Year.

Malcolm Stamper, Group Marketing Manager

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Your Insider

Insider is published every quarter and brings you news from every part of the SAS group. We would like to have your feedback and contributions, including your views about the changes we have made to this publication. Our email address is sasinsider@sasint.co.uk

MPs look to SAS for best of British manufacturing



Two SAS International facilities played host to visits by MPs in October, when Madeleine Moon came to Bridgend and Apollo Park welcomed Adrian Bailey, leading to public recognition of SAS's manufacturing excellence with the announcement of the 'Made by Britain' campaign nominations in November.

The 'Made by Britain' campaign aims to promote the best in British manufacturing, and was a chance to show the MPs that high quality manufacturing was a reality in their constituencies. As reported in the October issue of SAS Insider, the campaign was launched by Business Secretary Vince Cable earlier this year, challenging each MP to nominate a local example of manufacturing innovation and quality.

Both MPs, along with Rob Wilson who represents Reading East, chose SAS International as their nominations for their respective constituencies.

Explaining his choice, Rob Wilson said, "The company has experienced record turnover growth with export orders increasing 127%. I am particularly impressed with the company's focus on and investment in skilled UK labour, which is key to ensuring both manufacturing and the UK economy remain strong."



After looking around the Bridgend facility, Ms Moon commented: "It's been interesting and encouraging that a UK manufacturing company like SAS International is doing so well both in the UK and overseas. I can see the high standard SAS manufacture their products to and commend their focus on staff training. Both are good examples of how UK manufacturing businesses stay competitive."

She went on to nominate SAS "for their excellent and innovative metal products manufactured at their state of the art factory in Bridgend." She added: "SAS have evolved over the last 40 years into world leaders in the design and manufacture of suspended metal ceilings and provide customers with a quality bespoke design service. This company invests in its products, its workforce, and customer satisfaction to ensure that only the best is acceptable."

Clearly impressed by what he had seen at the Apollo Park site, which like Bridgend has been refurbished and extended, Adrian Bailey described the reasoning behind nominating SAS: "Its high quality products have resulted in a high growth rate particularly in export markets. The company also sources a very high proportion of its supplies from other British manufacturers. It currently has a turnover of about £100million and employs over 800 staff throughout the country and has ambitious expansion plans. It is an excellent example of a resourceful business with good products and good business practices excelling even in a difficult economic situation."

SAS International is the only company in the country to receive more than one nomination.

New brochure highlights sustainable and practical advantages of metal

SAS's informative new Architectural Metalwork brochure has just been printed for distribution in the New Year.

Few other companies offer such a wide range of Architectural Metalwork products. From acoustic panels to solar shading, bespoke ceilings to bulkheads, creative design - backed up by forty years of manufacturing and design solutions worldwide - drives all our innovations in this field.

With whole life costing a major consideration for a building project these days, research has shown that, based on a 20 year lifespan, real cost savings of 47% can be achieved by using SAS Architectural Metalwork products compared with non-metal alternatives.

SAS International's sustainable, design-led solutions feature in a range of commercial, education and healthcare developments as well as in large-scale infrastructure projects such as airports.

As Andrew Jackson, SAS International Director, says, "This brochure showcases just how far SAS International has evolved in its 40 year history. SAS International today means specifiers benefit from our extensive design expertise, flexibility and solution led innovative approach to bespoke manufacturing."

















Discussing the hottest construction topics in Dubai



SAS Director Andrew Jackson presented five different seminars at the Middle East's largest construction show in Dubai at the end of November.

With over 2000 exhibitors from 70 countries, the Big 5 was an opportunity for visitors to find out about the latest developments in the construction industry and for experts to take part in topical discussions about the latest technologies.

In 'Building for the Future', Andrew considered how developers can specify materials that will achieve long term value: costings over the full lifecycle of a building are a particular concern in the current economic climate. This was accompanied by a look at the increasing emphasis on acoustic performance in creating a comfortable workplace.

Further seminars examined how bespoke architectural design can be realised through the use of metal, combining aesthetics with key performance criteria, and also the challenge of fulfilling the demands for quality fit-outs at a time when companies are trying to reduce costs and landlords, wishing to maximise yields in prime areas, try to balance the demands of tenants and investors.

Finally, using regional and global transport hubs as examples, he addressed the need to ensure passenger comfort and security at airports and railway stations in the face of the predicted huge growth in passenger and cargo volumes.

Maybole at 25

SAS International's Maybole factory passed a major milestone this year: SAS has been part of the South Ayrshire community for a remarkable twenty-five years.

There was a small internal celebration at Maybole in October, during which three employees who have been there since the beginning – Jim McEvoy, Jim McMillan and Sammy Robertson - received well-deserved certificates. A larger celebration is planned once the expansion project has been completed.



Best Practice recognition for innovation and training

Two recent SAS International developments were shortlisted for AIS Best Practice Awards.

A finalist in the Training Innovation category, the Step Training Programme is a new initiative for Bridgend-based employees, who have the opportunity to participate in a series of continuous improvement training programmes (see article on page 12).

In the Product Innovation shortlist was the Emac Hanger, a competitively priced alternative to galvanised angle or suspension wire. Used in all types of suspended ceiling, they are supplied ready to use and reduce onsite wastage. SAS has invested in has invested in new machinery which produces over 40 Emac Hangers per minute.

Commenting on the shortlisting, SAS Marketing Manager Malcolm Stamper said, "We were delighted to be finalists in two categories in the Best Practice awards and this recognition is something the entire company should be proud of."

The Association of Interior Specialists (AIS) represents the interests of companies involved in the manufacture and supply of all aspects of interior fit out and refurbishment. To become a member, a company must demonstrate the quality of its workmanship and business.

The AIS awards celebrate outstanding innovation in the field of commercial interiors and are judged by a panel of experts. The awards are open to all members, regardless of size.

SAS's Telegraph lines

An article on the transformation of air conditioning through chilled ceiling and chilled beam technology appeared in The Sunday Telegraph in August, complete with illustrations showing how the systems cool a room.

Penned by SAS Director David Leatherbarrow, the article was published in the newspaper's Iconic Architecture supplement and explained how the systems require less energy than the old-style variable air volume and fan coil units, meaning that they are increasingly being used to meet the sustainability standards of the current Building Regulations. The full article can be found at http://ecoreport.co.uk/2011/08/change-in-the-air



A mile of HCP Heating for Dublin's new airport

HCP recently supplied over 1,400 linear metres of Perimeter Heating to the new Terminal 2 at Dublin Airport, Ireland.

The floor mounted straight and curved perimeter heaters with double heating elements were encased in brushed stainless steel metal casings.

HCP was closely involved with the design, with Maybole manufacturing the casings and Apollo Park manufacturing the heating elements. Perimeter Heating systems provide continuous heating along walls and walkways and are used to combat cold down draughts and condensation often found at glazed elevations.



Presenting the global essence of SAS International

A new corporate brochure has just been launched, showing potential clients, as well as the many architects and clients with whom the company already works closely, what SAS International does and the prestigious projects it has designed and manufactured for.

In addition to introducing the company, the brochure focuses on the main product areas, SAS Direct,

and how it addresses sustainability. It also highlights the key services available from SAS International's Project Management Team.

Striking photographs feature throughout, including of projects from around the world. The brochure will prove an effective showcase for the high standards and global reach achieved by SAS International in over forty years of manufacturing interior fit-out solutions.





On-site tooling at Bridgend

A new tool room at the Bridgend facility means SAS can now manufacture all cold rolled metal SAS products in-house. Ceiling suspension grid, Tee Grid, International White Tee Grid, Stud and Track, Drylining products and MF grid are available at SAS depots nationwide.









SAS Direct's first birthday

SAS Direct was celebrating its first year at its Reading HQ in November.

The new base shows that, even at a time of downturn in the construction industry, SAS Direct has been taking ambitious steps to grow its business. The past twelve months have seen its number of depots in the UK increase from three to five, as well as an expansion in its existing facilities and an increase in its product range. There are plans for further depots in the future.

Driving the expansion is the company's emphasis on product innovation, flexibility and accessibility. Among the

new interior fit-out solutions launched in the last year are the Emac Hanger and Horizon, the new range of mineral fibre suspended ceiling systems.

The expansion has led to a significant increase in employee numbers, including new depot managers. "It's been an extraordinary year for us" commented Paul Golden, Managing Director at SAS Direct. "To expand so rapidly at such a challenging time for the interior fit out and construction industry is a great achievement and it doesn't stop there; we have plans for further expansion and aim to keep the momentum going throughout 2012 and beyond."







SAS Direct seals its reputation for the best in acoustic solutions



Office workers can look forward to quieter and more productive workplaces with SAS Direct's launch in September of its new glass door drop seal.

An independent test proved that the use of the seal on a glass partitioning door results in a significant reduction in unwanted noise.

The test was carried out on SAS International System 8000. For the best acoustic performance the drop seal should be used in conjunction with an aluminium threshold plate.

The commercial working environment of today calls for quality acoustics, so the seal is an important development. It comes in the wake of the recent 'Guide to Office Acoustics', produced by The Association of Interior Specialists, to promote best practice in the design and installation of acoustic solutions in offices.

SAS Direct squares its partitioning with customer demands

New to the SAS International product range, available from SAS Direct, are square profile door frames and wrap around window frames for the System 3000 and 4000 office partitioning systems.

To meet the current market trend for square profiles, SAS's 75mm and 100mm square stop door frames complement the existing radiused and wrap-around frames. Alongside these a liner for square windows has been introduced, giving contractors a full range of profile options.





SAS gets the thumbs-up from its customers

SAS International customers recently replied to a Satisfaction Survey, which revealed that most are more than happy with the service they receive.

The majority of the participating companies had been customers for more than three years, and 73% were either satisfied or very satisfied with SAS International

When asked to compare similar products on the market, none of the respondents thought SAS International's were inferior to those of any of our competitors, with nearly half thinking they were better.

The great majority of respondents said they would recommend SAS products to others.

Project Management builds Confidence in SAS International



Congratulations to the SAS Project Management team who recently achieved the Building Confidence accreditation, increasingly recognised as the standard for supplier excellence within the construction industry.

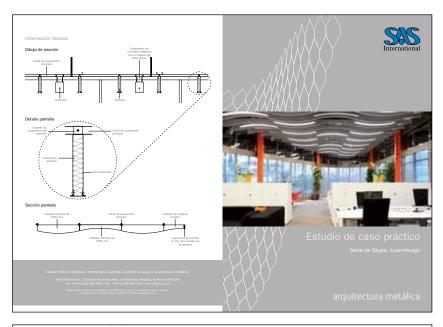
Accreditation proves SAS Project Management has the commitment and capability to meet the latest supply chain standards and followed an onsite audit by Achilles, a company which acts as a neutral third party in evaluating and monitoring suppliers on behalf of major organisations across the globe.

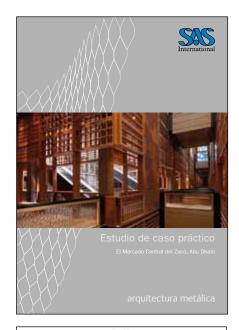
Information on suppliers is gathered via a questionnaire and enables businesses to make better procurement decisions through choosing the most suitable supplier for their needs in a transparent manner.

SAS en Español

In a sign of the increasingly global reach of SAS International's export market, prospective clients and industry professionals from Spanish-speaking countries can now read over 30 of the company's recent case studies in their native language.

Profiles of the Skype HQ project in Luxembourg (featured – in English – in SAS Insider issue 17) and The Souk in Abu Dhabi's Central Market have been translated into Spanish. The core pages of the SAS website have been online in both French and Spanish for two years. Copies of the case studies are available from Marketing.















Learning by doing: apprentices at Maybole

SAS International has joined the Apprenticeship Programme (Mechanical, Manufacturing, Engineering), aiming to grow the skills base of the business.

Two apprentices started in August and are based at Maybole, which is undergoing an exciting expansion. Stephen Woods, 20, and Kenneth Russell, 17, both attend college on a day release basis.

For the first year of their placement, both will spend three months in the relevant areas of the business – Brake-press, CNC, Welding and Dressing, Paint-line and the Engineering Department. The time spent in each of the main areas will allow both apprentices the opportunity to gain a basic understanding of how the business performs and operates in terms of standard processes, practices and principles.

On completion of their first year Stephen and Kenneth will be transferred onto a relevant shift pattern and allocated a "Mentor" to coach and guide them through the next stage of the programme. This stage is intended to give both individuals the chance to familiarize themselves, and become involved with, the technical aspects of producing specialist product.

Stephen had almost completed his first year of study at the local college when he came to SAS for a work placement. During his week with the company he showed himself to be a suitable candidate for an Apprenticeship, which led to the company offering him a position. Kenneth joined SAS straight from school after applying directly to the company for an Apprenticeship placement.

Designed by the Sector Skills Councils, apprenticeships are work-based training programmes leading to recognized qualifications.

Maybole expansion on target

The expansion of the factory at Maybole is on course for completion early in the New Year. The first two photos were taken in November. As an indication of progress, the bottom right photo shows the scene a few weeks earlier.

The new extension adds capacity to production of SAS International's range of Architectural Metalwork products and allows further investment in new equipment and processes, to help fulfil orders in both the UK and overseas.

SAS International has been supporting the Maybole community for twenty-five years. The current development will secure existing jobs and is also likely to create around fifty new jobs when fully operational.







Why are 'metal' ceilings used?



In an age when the construction industry faces increasing demands, in terms of both design and sustainability, it is vital that all options are considered when specifying a ceiling solution. Metal ceiling systems are both durable and versatile and meet the most stringent of design briefs.

With a lifespan of over 25 years, they retain a residual value and are recyclable, thus avoiding costly landfill charges. Both steel and aluminium can be continuously recycled without any loss of value or properties, which helps them to count towards LEED and BREEAM credits. Their surfaces are inherently hardwearing and prove to be hygienic and low-maintenance options for long-term use. Key advantages in a fit-out are the reduced wastage and installation speed.

Every ceiling, like every building, is different, so a tailored approach is desirable. Ceiling systems are able to fulfil various specification and sector demands — acoustics, design, durability, paint finish and more. Their versatility means there is a solution for every location.

There are four main types of system — clip-in tiles, lay-in tiles, linear and tartan grid tiles and acoustic rafts or modules.

Clip-in Tiles are supported by a concealed suspension grid from which they can be demounted or hinged downwards. Designed to make access for cleaning easy, they are especially suited to hospitals or food preparation areas.

Traditional, modular lay-in tiles can be customised by using differing grid suspension options. The range includes traditional tee grid and flush aluminium finishes, with the tiles laid in directly. They are a good solution for flexible office space, as linear recesses for partitioning prevent the ceiling plane from damage.

Linear and Tartan Grid Tiles offer the flexibility to manufacture tiles in both millimetre and panel sizes up to 1500 x 1500mm. Able to meet any building's grid size, they are ideal for offices. The supporting profile and tiles can be provided in an array of shapes to allow waveform or radial designs to be created. For optimum room comfort, these systems can incorporate a Radiant Chilled Ceiling System, which can help a building achieve a higher BREEAM rating.

Acoustic lighting rafts or modules are directly suspended from a flat structural soffit or within coffers which allow free

air movement to the structural slab for natural thermal mass cooling. Available with a range of acoustic treatments, they can be designed in curved, flat or angled profiles, and are a good choice for an educational setting.

Where necessary, a bespoke ceiling is the answer to the challenge of providing a visually effective design while maximising available space. The Manchester Airport Terminal 1 retail refurbishment is a good example. The design and specification of the tile was crucial to the overall look. When each tile was laid next to the other, a free flowing pattern was produced, weaving across the ceiling. The pattern was enhanced by blue backlighting.

In summary, metal has all the qualities that allow designs following a range of client criteria to be realised, manufactured and installed.

SAS International in the digital age

The internet and social media are helping SAS International to connect to the outside world as never before.

Linkedin helps many of us to keep in close touch with architects, clients and other professionals. This networking platform, which also hosts thousands of special interest and sector forums, has over 120 million members worldwide. We currently have 121 contacts on Linkedin. Being part of this network helps us to keep informed about what is going on in our industry, while other benefits include the ability of our associates to refer potential clients to us and all-round increased visibility for our company and brand.

Our Facebook page is proving an excellent vehicle for internal communications – for posting up the latest Insider, for instance. Well over 200 people engage with us through this site. What's more, with its vast worldwide user base, having a Facebook presence is a valuable word-of-mouth marketing tool and can drive web traffic to our main website.







On Twitter, meanwhile, we have over 1300 'followers'. Twitter is a networking service which enables users to send and read text-based posts (known as 'tweets'), up to a limit of 140 characters. With the click of a button, anyone interested in keeping up-to-date with the company's activities can 'follow' it and receive its tweets.

SAS International's growing number of Twitter followers means our news reaches a wide audience – even wider when any of our followers 'retweets' a message from us to their own followers. You can follow us @sasintgroup or @sas_direct.

These social media platforms have moved on from being fringe interests and have earned their place as part of our more traditional, mainstream marketing activities You can find links to all our social media sites on our latest news page at www.sasint.co.uk/news

Training the individual, advancing the company

An exciting new skills development initiative involving all Bridgend employees is up and running, reflecting the company's determination to invest in training.

SAS International had identified the benefits a continuous improvement training programme would bring in terms of further developing employees' skills as well as their knowledge of the industry and the whole manufacturing process. For the customers, the outcome would be even better delivery services and product quality. To this end, senior managers played a key role in designing a programme to meet the company's objectives.

Occupational Effectiveness Programme (OEP), a bespoke weeklong training course developed to help improve personal and professional skills in the workplace, is one of a number of new programmes. With more than 250 employees attending over five days, the programme takes learners on a 'learning journey'. Personal skills were developed through Advanced Communications, Teamworking, Problem Solving and more, while the professional skills aspect looked at use of resources. quality assurance and the SyteLine system. The course included an in-depth look at the supply chain from suppliers to customers, enabling attendees to see how the whole company functions and to understand its vision and goals. There was also a focus on different management and leadership styles and how they have a bearing on meeting business objectives.

Alongside the Bridgend training, the company is rolling out staff training across the group in the form of Institute of Leadership and Management (ILM) courses. Courses have taken place at various different levels, starting at Level 2, to suit the needs of first line team leaders, supervisors and managers. In the Level 2 course, for example, attendees have been helped to develop their leadership skills along with a range of techniques to get the best out of a team.

Senior Managers and Directors have recently started on a training scheme too – watch out for more details in the next Insider.

Further specialist courses completed by employees are Introduction to Six Sigma, Six Sigma Green Belt Programme, 3D CAD Inventor Training, RADAN Software Training (intermediate), and Fanuc Wire Eroding.

Measuring the outcomes of the training activities is an integral part of the evaluation process, which in turn assists the planning of future training.

Candidate evaluations so far have been very positive. Open communication across all levels is helping to energise staff, making them feel more empowered to express opinions and innovate. Early indications suggest that employees now have a better understanding of the company's aims and organisation.





Congratulations to the following people from across the group who have recently gained an ILM qualification through the training programmes:

Level 2 Award in Team Leading	Level 3 Award in Leadership		Level 5 Award in Leadership and Management	
Anna Narewska	Darren Parry	David Jones	David Edwards	Jim McEvoy
Przemyslaw Narewski	Mark Williams	Ivor Allison	Ian Finylas	Julie Heath
Mark Holloway	Paul Bowden	Paul Dolan	Xenia Porteus	Malcolm Stamper
Ed Fagan	Ian Davies	Dave Wintle	Rhys Jones	
Mathew Teare	Nicholas Biggs	Steve Harvey	Geraint Lewis	
Dan Blackborough	Gary Grant	Simon Mason	Jason Lewis	
Paida Sedze	Christopher Morris	Davie Heath	Robert Benes	
Leah Nicholls	David Smiles	Dave McGregor	Delphine Alvarez	
Charysse Gibbs	Martin Edwards	Alan Green	Robert Legg	
Sarah de Bank	Dave Bateman		Carl Smith	

Getting LEAN

Integral to the next phase of SAS international training is the introduction of tools and techniques to develop a culture of lean manufacturing. Bridgend recently became the first SAS workplace to start a lean improvement programme. In future issues we aim to look at how it has enabled teams to improve their work environment.

Lean is essentially about flexible, motivated team members continuously solving the challenges of how to maximise customer value with fewer resources. A lean thinking organisation is one that strives to:

- Continually improve its Value Streams
- Deliver customers' needs competitively safely, precisely and innovatively
- Eliminate waste from all processes
- · Learn and grow by engaging its people
- · Be resilient and adapt to changes

All Bridgend employees will be involved in training programmes, which show how personal and skills development can be transferred to the workplace.

Open to all employees, the Lean Business Improvement Techniques course is designed to help an established team to develop lean ways of working based around the adoption of Continuous Improvement working practices. Spread over five days, the training combines classroom-based theory with office floor practice. The first two days are spent in the classroom, covering areas including:

- Lean principles and approach
- · Specific Lean tools
- Lean Continuous Improvement and the Lean Daily Management System
- Identification of Wastes in the team's own work area.

Videos, case studies and simulation activities are among the range of training techniques used to engage the participants.

The next two or three days are spent back in the workplace, applying what has been learned over the first two days. The focus is largely on solving problems and resolving wastes identified earlier, and launching the team's own Lean Daily Management System as a framework for Continuous Improvement activities.

The culmination is a presentation given by team members themselves to their Team Leader and Senior Manager, describing what they have learned and how it can be applied in the workplace.

Further employees are taking part in LEAN Expert and LEAN Facilitators courses, both of which will lead to ILM qualifications.

LEAN Expert is a three-day course for managers and supervisors. It enables them to build on the Introduction to Lean covered earlier, gain a deeper understanding of lean principles, identify how they can be applied to workplace processes and find out how to implement the Lean Daily Management System.

The Facilitators course is a two-day extension, designed for managers who will be helping to sustain Continuous Improvement and the Lean Daily Management System across the business. It enables participants to train others in the principles and tools of Lean, help teams and their leaders to improve their performance using Lean approaches, lead cross-functional events and demonstrate business benefits.

Rob Benes and Geraint Lewis have been appointed full time Lean Facilitators. Over the coming issues we aim to look at some of the Lean improvement they and individual factory teams have been able to implement.







LEAN – success from workshops

So far we have held four workshop improvement sessions. Here are the outcomes:

Roll forming Team 1

Problem – Machine not cleaned down.

Solution – Cleaning station to be made, and a 'clean and inspect' process developed.

Predicted Results – A reduction in downtime and an improvement in machine maintenance.

Roll forming Team 2 / Soenen Team 1 (Perforators)

 $\label{lem-Note} \mbox{Problem-Not enough tools for all machines resulting in increased set-up time.}$

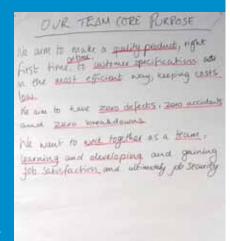
Solution – Shadow boards have been designed for each machine to reduce motion waste, and rules put in place to ensure adherence.

Predicted Results – Reduction in set-up time.

Soenen – Team 2 (Perforators)

Problem – Perforator tools not located in place of work resulting in increased set-up times and potential Health and Safety risks.

Solution – Perforator tools used most frequently have been moved nearer to the machine, alongside special tools. Predicted Results – Reduction in set-up time and increased safety due to the reduced distance to push tools.



Westfield, Stratford City

A successful result in an Olympic challenge



SAS International worked closely with the developers of the largest urban shopping centre in Europe, Westfield Stratford City, to supply the majority of the metal interior solutions in what was a demanding challenge with a tight timeline for the Project Management team.

The 1.9 million square foot retail and leisure destination, just a javelin's throw away from the main Olympic site, opened its doors to the public in September.

Various types of metal ceiling and architectural metalwork products were used in the interior, but all had to contribute to a natural curve effect and move fluidly with the building grid shape.

Straightforward access to the ceiling voids was important to allow for ongoing maintenance and any future upgrade. As with any large open spaces, fire detection and control systems were required and could be installed in the linear ceilings. The ceiling void was also the location for air conditioning and other services.

An attractively structured Tubeline ceiling system, in both circular steel and aluminium, features on all three levels of the curved atrium. Sections of Tubeline were divided by six metre high bulkheads to help break the straight tubes, enabling them to curve with the building and add texture. The Tubeline system covers 26 miles which is, rather appropriately for the Olympic site, the distance run in a marathon.

SAS International is one of the few manufacturers with the capability to produce Tubeline in such quantities. By controlling the design, manufacture and installation SAS could surmount the challenge of providing differing widths. With SAS's Project Management team overseeing all the stages, cost and installation time were kept to a minimum.

SAS International also worked on the public access walkway, open 24 hours a day, between Stratford Station and the Olympic Park. Careful thought had to be given to ensure it was durable and merged seamlessly with the modern retail environment. Aluminium ceiling panels, parallelogram in shape, were the ideal the solution. They allow the ceiling to neatly follow the shape of the building floor plate.

In addition to providing the interior metal products, SAS was also responsible for the architectural metalwork on the exterior. Developer Westfield's in-house design and construction team asked for a bespoke external cladding system to blend fully with the exterior balustrades and interior metalwork. To add to the complexity of the project, the external bulkheads had to be designed specifically to ensure no water could penetrate.

The project as a whole involved exacting performance criteria. Metal was specified over other materials because of its durability – the retail centre will see huge numbers of visitors every day and is intended to remain functional and visually appealing well into the future. Indeed, with 70% of spectators to the Olympic Park passing through Westfield Stratford City, it truly is the gateway to the 2012 London Olympic Games.

Richard White of SAS's Project Management team commented: "A huge amount of engineering work was required for this project. We worked closely with Westfield to design systems and solve intricacies. The result in this case is a finish which answers aesthetic and performance demands."

Congratulations must go out to all sites and staff at Reading, Bridgend, Apollo Park and Maybole who were involved in the delivery of the project.

Santiago de la Compostela Airport

Santiago de la Compostela Airport tripled in size in September with the opening of a new terminal, which completes the airport's €230 million modernization programme. SAS International is justly proud of the ceiling system it designed specifically for the airport in Spain's north west.

SAS **Project** Management developed and manufactured a new open cell ceiling system, Tricell, which was installed in the departure lounge. Open cell ceilings are usually square, but for this system SAS came up with a unique three sided layout to fit within the Y-shaped lounge, providing a geometric form that can be readily repeated - and producing a striking finish.

Meanwhile, System 700 was the ceiling of choice for the main terminal and baggage hall. This newly designed linear slat system is constructed with each slat lining up neatly with the next, so forming a perfect row (and a clean, simple eye-pleasing appearance).

System 700 was also used on the building's exterior. The result is continuity of design and, more importantly in a location where the slats are exposed to high winds, strength and durability.

Both Tricell and System 700 allow air to pass through the ceiling plane, meeting the requirements of a large open space and enabling the installation and operation of fire detection and control systems.

The ceiling void can also house air conditioning and other services.

Energy saving was a key priority for the new terminal's designers, as was integration with the surrounding environment. The roof was designed with a broad skirting to minimise the impact of the sun during hot weather; the materials used on its exterior, and their colour, help to keep heat absorption levels low. Inside, double-height spaces mean more natural and less artificial light than would otherwise be the case.

As much of the existing greenery as possible was preserved so that the characteristics of the landscape around the airport remained. English oak, white willow and other authentically Galician tree species were planted. The new car park building's roof is green in more ways than one, with its grass landscaping treatment.

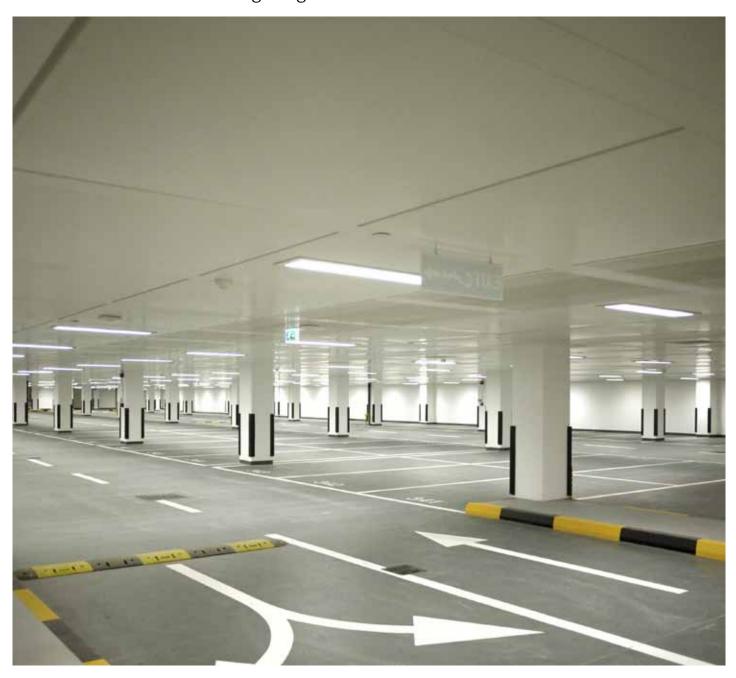
This is project was a notable example of the innovative approach which has established SAS as one of the world's leading interior solutions manufacturers, with a reputation for providing a tailored, design-led solution for each client and a quality manufactured final product.





Abu Dhabi Financial Centre

A comfortable temperature and easily-cleaned surfaces were the prime considerations for SAS International's metal ceiling design for Abu Dhabi Financial Centre's VIP South Car Park.



The four high-rise towers of the Financial Centre (ADFC) form part of a development comprising an International Stock Exchange, high rise office towers and substantial retail space. The ADFC towers are Grade A buildings meeting highest quality of finishing, and their energy efficiency has gained them LEED Gold pre-certification.

When this first stage of the Sowwah Island programme is complete, hotels, restaurants, shops and offices will be linked to Abu Dhabi main city by a bridge and a railway.

ADFC's car parks provide around 5200 parking places. Architects Gensler were seeking a suitably air-conditioned climate for visiting VIPs. The suspended metal ceiling encloses the necessary air conditioning and MEP services with a mix of plain and perforated metal panels. The service panels allow air return while the differing sized perforations (39% open area in the central area of the tile and 25% open area towards the edges) provide a gradient finish.

As the metal forms a washable surface, the interior can be kept spotlessly clean.

SAS International worked closely with the architect to design and manufacture the oversized metal System 330 ceiling panels to meet the requirement for them to give a proportionate scale relative to the large single 16,000m² floor plate for the two car parks.

In addition, SAS International took charge of all the handling, packaging and shipping of the panels, drawing on its extensive experience in producing offsite modular systems.

This was the latest in a growing list of major Middle East projects involving SAS International's Middle East offices, including The Souk in Abu Dhabi's Central Market and Aldar's headquarters. Trust Tower, a 59-level office building designed by Foster + Partners and due to open next year, will feature an SAS International-supplied bespoke metal ceiling system.

A one-two for Team SAS after a nailbitingly competitive Porsche Carrera Cup campaign.

The SAS/Redline team won its fourth Porsche Carrera Cup GB title on the final weekend of racing at Silverstone in October. The drivers' championship was won by James Sutton, who clinched the title ahead of team mate Michael Meadows.

Sutton, who has now won the crown for a second time, held off the challenges of Meadows and Stephen Jelley in the course of an extremely hard-fought season. Meadows had been leading the championship going into the final weekend of racing, and his title hopes were only dashed in the final race after a front tyre puncture, following a string of consistently good performances.

For Sutton, the title was an enormous achievement: "There were more drivers than ever to beat and that made it very special for me."

Simon Leonard, boss of the team, which is based in Cleveland, said "It is what we've worked for all year and the boys have done a fantastic job... James and Michael have driven superbly. Without the support and backing of SAS none of this would be possible. We wanted to win both the drivers' and teams' championships and it all came together very well."

The two cars finished all bar one of their 38 starts, scoring five wins and twenty podium places.





My Work: Jim McMillan, Brake Press Operator

As a Brake Press Operator at Maybole, I spend most of my hours either forming or setting up for the next job. On occasion I may have to cut tools for aperture tiles or work between two machines for curved panels.

Brake pressing, along with welding and fabrication, was what I did when I started with the company twenty-five years ago. I had served my apprenticeship as a sheet metal worker at Mair & McCartney, a company in Ayr. I then moved to Douglas Engineering in Maybole as a sheet metal worker. I took up employment with SAS when they bought Douglas Engineering and asked me to stay on.

In my time at SAS, the biggest change I've seen is the volume of work today compared to what it was twenty-five years ago. Of course, the building of the new extension is a major development too.

What do I enjoy most? Well, for me it's about the people I work with. All the staff and my colleagues are friendly. I like the odd night out with the lads and the banter between us is great.

One of the biggest challenges in the job is trying to get each product correct first time. And also keeping an eye on the younger operators...





Bridgend football

SAS International has become the proud shirt sponsors for Bridgend Town Football Club for the 2011/2012 season. They have a long and rich history in the local community.

Formed in the early 1920s and originally playing in the Welsh section of the Southern League, they enjoy a long and rich heritage in their community. Now in the Welsh League First Division, they are lying in third place in the table and harbour serious ambitions to reach the Welsh Premier Division.







Goalkeeping hero comes to Bridgend

Staff at Bridgend played host to former Wales international footballer Neville Southall when he paid a surprise visit recently. The Llandudnoborn legendary goalkeeper chatted with some lucky SAS employees. Southall's 92 Welsh caps are a national record, and with Everton he won two league titles and two FA Cups.

Christmas shutdown

SAS International closes for the Christmas holiday at midday on 23rd December, reopening on Tuesday 3rd January.

The factories will be closed during the same period, except for Apollo Park which closes on 22nd and Maybole which reopens on 5th January.

Staff payday will be on 21st December.

New Faces



STEVIE SIMS is the newest addition to SAS Direct's growing team. He has joined as Glazing Manager at SAS's Birmingham depot and will be responsible for developing the glass and glazing service in the West Midlands.

He brings experience gained from over twenty years in the glazing industry, having started as a trainee glazier and progressing to supervisory and management roles. Before joining SAS Direct, he was Contracts Manager at E.G.I., where he oversaw both partitioning and glass contracts.

"I'm delighted to be joining such an ambitious company" comments Stevie. "I'll be taking a proactive approach visiting customers and sites and will continue to build on the company's success, further strengthening our position in the glazing market."

The appointment reflects the increasing demand for SAS Direct's fully glazed partitioning systems which has led the company to expand its glass and glazing services nationwide.

We would also like to welcome the following, who joined SAS over the recent months.

SAS International

Reading

Daniel Rushton - Contracts Manager

Juergin Dieris - Product Manager

Ireland

Brendan Flood - Office Manager

Apollo Park

Leigh Beaumont - CAD Technician

Mark Goddard – Production Manager

Chris Harper – Administrator

Mark Hinson - Planning and Scheduling Manager

Bridgend

Patricia Barnard - IT Trainer

SAS Direct

Barking

Connor Fowle - Warehouse Operative

Andy Clacey - Glass Fitter

Jo Treston-Smith – Branch Administrator

Birmingham

Melisa Oakley – Sales Coordinator

Burgess Hill

Nigel Lace – Glass Administrator

Leeds

Steven Clegg – Glass Fitter

Andy Clacey - Glass Fitter

John Sharp – Warehouse Operative

Long Service Awards 2011

Congratulations to all those who have become Long Service Award Winners recently.

Name	Location	Service	Starting Job	Current Job
Jim McEvoy	Maybole	25 years	General Administrative Clerk	Commercial Manager
Jim McMillan	Maybole	25 years	Production Operator	Break-press Operator (See 'My Work' feature on page 18)
Sammy Robertson	Maybole	25 years	Production Operator	CNC Operator
Paul Bowden	Bridgend	15 years	Line Operator	Supervisor
John Coyne	Maybole	15 years	Production Operator	Welder
Mark Hamilton	Maybole	15 years	Production Operator	Break-press Operator
Nicola Keegan	Maybole	15 years	Production Operator	Break-press Operator
Archie McMillan	Bridgend	15 years	Production Operator	Dresser
Owen Palmer	Bridgend	15 years	Production Operator	Production Operator
John Skilling	Maybole	15 years	Production Operator	Production Engineer
Richard Taylor	Maybole	15 years	Production Operator	Engineering Manager
John McKay	Maybole	10 years	Production Operator	Break-press Operator
Hugh McNeil	Maybole	10 years	Production Operator	CNC Operator
David Paton	Maybole	10 years	Production Operator	CNC Operator

Wear it Pink Day photos

A big well done to everyone who took part in Wear It Pink Day at SAS International Reading.

The day was superbly arranged by Charysee Gibbs from Marketing and raised a total of £370.78. For those not based at Reading, here are two photos to give you a flavour of the day.





Movember moustaches

Here are the 'before' and 'after' photos of the Bridgend men who raised over £1000 by taking part in Movember, the month-long event which raises awareness and funds for men's health issues. Their gallant facial hair-growing efforts were dedicated to the memory of Peter Russell, who was the very first SAS employee at Bridgend.





Good car-ma for Paul

National Sales Manager Paul Aubrey completed the journey of a lifetime in November, driving a 37 hp Hindustan Ambassador over 2000km through southern India in two weeks.

The trip also raised over £3500 for two charities, Adventure Ashram and the UK-based Rainbow Trust Children's Charity.

Accompanied by his father Les, Paul was taking part in the Karma Enduro rally, experiencing superb mountain scenery, rough roads, and a memorable rest day in the middle of a wildlife reserve. That stopover was also an opportunity for a visit by schoolchildren whose education is supported by Adventure Ashram.





Back on track: remarkable youngster's sporting success

Glass Surveyor Andy Wiskin's 16 year old son Jack has enjoyed a great year on the running track, picking up two sprinting gold medals at the National Disability Athletics Championships.

The achievements of the potential Paralympian from Warminster are all the more remarkable considering it was only last Christmas that he lost 80% of his sight following a life-saving operation to remove a brain tumour.

Jack recently met a host of Olympic and Paralympic stars at Twickenham where he picked up an Aviva School Sport Matters award.

Meet the team

The IT department is a group-wide resource, working with users across the company to ensure they have the technology to do their jobs effectively. Dealing with everything from PCs to printers to telephones, , the department is also responsible for the development of SyteLine (software for report writing, project management and support for new initiatives) and for providing ongoing help with everything IT-related.

We caught up with four of the seven members of the team to find out about the real-life IT Crowd...

Louise Evans

I am the group IT manager. I set our priorities through consultation with managers and directors, support my team, look at future developments and ensure that from an IT perspective SAS maintains and develops an IT infrastructure for the future. I also identify and justify developments, such as software upgrades, and do project management of new initiatives

I work closely with my team – plus Rob and Sarah - on the development and support of SyteLine and the server infrastructure, with Martin, Shaun, Chris and Steven on the support of the users and Patricia on Training. Patricia and Chris (Apollo Park) have recently joined us to strengthen our team. As our department is responsible for supporting a large number of end users I tend to speak to a sizeable cross section of colleagues. I work with all departments: there are over 250 users of SyteLine, and as we are central to Estimating, Sales Order Processing, Engineering, Finance and more our work touches on all parts of the business.

As for myself, I generally work normal office hours. But I do tend to travel about so my days can be considerably longer. Our facilities are good: our computer room is too small, but it will undergo a transformation in the New Year. I find the main challenges in an average working week are the unpredictable nature of user support requirements, juggling priorities and also trying to communicate with and manage staff spread over four sites.



Spare time? Looking after my family and home, going to the gym, following rugby (Ospreys and Wales) and athletics

Favourite food? I like almost everything, especially fish and Italian.

Martin Hobbs

I am an IT administrator, looking after all the SAS Direct branches except Reading which is Steve Green's area. I deal with the PC network, the telephone systems and, for those who have them, company mobiles. I aim to be proactive by providing tuition as well as help to staff.

I work mainly on my own, but can dip into the fantastic pool of knowledge of the IT team as a whole.

My hours are 8.30 to 5.30 except Friday when we go home half an hour earlier. I'm always available on my mobile and work out of hours if I need to change something without people logged in. I generally deal with a range of departments including Marketing, Technical and Accounts. I set up the new offices for SAS Direct.

The role of IT is becoming more and more important as we move towards a paperless office. Essentially, I make sure staff can do whatever they need to do to the best effect.

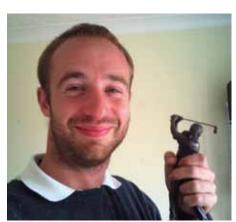
I don't think there is such thing as a typical working week in IT. One week we may have an intermittent internet connection at a site which means talking to Internet Service Providers and trying to sort out where the problem is. The following week I may be co-ordinating BT in the installation of new lines at a new site.

The most rewarding part of the job is helping people who don't feel confident about IT. I always welcome questions.

The facilities in our office are fine. With a kitchen and kettle, who needs more?

Spare time? Playing football golf, and spending time with my beloved PS3

Favourite food? Thai curry, Galaxy chocolate.





Steven Green

I'm an IT administrator, based at Reading, and my main responsibilities are configuring and maintaining PCs and laptops for both office and remote users, and resolving any IT problems. I'm always on hand to help other members of the team too.

I work the usual office hours, but often leave between 6–7pm and work the occasional weekend. I hope that in due course that finishing times for all offices will be standardised (in particular, the early finish on Fridays). I see our department as a whole as important to the company. Without us, IT problems would not be fixed: turning it off and back on again does not always work!

The biggest challenge is prioritising the workload to keep users happy.

Spare time? Travelling, cooking, playing on the Xbox.

Favourite food? Roast beef, French, Italian, Indian, Thai – most food except fish.

Patricia Barnard

I am the IT Trainer based at Bridgend and am currently responsible for the ongoing training of staff on applications, particularly Excel, Word, PowerPoint and SyteLine.

This is a new position within the company (before joining SAS I was an IT Assessor visiting companies similar to SAS to train their staff) and I am currently setting up the Excel course which will be running throughout December at Bridgend. After that is completed I will move onto SyteLine, and as the IT department develops further I will be responsible for transferring any skills required to the workforce.

I am looking forward to working with all departments. My current role is an ideal way to get to know everybody quite quickly. Excel is used by most office staff and I've been told that there has been a big appetite for training for some time. So we are confident that the training will be warmly welcomed.

I work from 8:30 until 5 pm Monday to Thursday and finish at 4 pm on Friday

I have only been with the company for a short time, and it has been quite a steep learning curve, but my main challenge at the moment is to set up the Excel training. I have been visiting all the staff at Bridgend to try to assess their skills and bring together suitable training.

Spare time? I enjoy visiting friends and spending time with family

Favourite food? I particularly like Italian and my Sunday roast. Food always tastes better if I don't have to wash up afterwards.





