



Arsenal Emirates Stadium

On Budget & on time we look at the various SAS products inside Arsenal's new home
Back Cover



Porsche Supercup 2007

Team SAS compete in the Porsche Supercup supporting the Formula One World Championships
Page 10



SAS Project Photography

View a full page of all the latest images of SAS completed projects
Page 9



I N S I D E R

Metal Ceilings • Partitioning • Room Comfort • Architectural Metalwork

March 2007 Issue 2

SAS Reading, Maybole & Apollo Park attain ISO 9001

With the SAS International ISO roll out started in 2006 all facilities are now gaining accreditation in ISO 9001 (quality), ISO 14001 (Environmental) and ISO 18001 (Health and Safety).

On the 7th November 2006 SAS Maybole received ISO 9001 for the first time. Incredibly Apollo Park attained their 2007 certificate on the 9th February 2007. The first issued at the new factory having only been resident for a matter of weeks. Reading received their ISO 9001 accreditation from assessors BSI for the first time in 2006.

Bridgend were the first SAS facility to gain ISO 9001 assessed by BSI in the late nineties. Over the past few years West Brom received accreditation for 14001 through a different assessing organisation. All standards will be assessed by BSI across the company. Thanks to all teams in SAS facilities who have contributed to attaining these standards.

If you require more information regarding the ISO 9001 standard go to page 6 for an easy to understand guide.



FM 504171 FM 23840 FM 54954 ISO 9001
The product is manufactured to a quality management system BS EN ISO 9001:2000 and is approved by BSI at SAS International Reading, Bridgend, Apollo park and Maybole.

SAS Coolceil attains CPA carbon saving award

SAS International has been recognised for its innovation in integrated chilled ceiling and beam systems by the Construction Products Association. SAS CoolCeil was chosen as one of only seven products to be featured in the energy and carbon saving category of the 2006 edition of Construction Products Innovation and Achievement (CPIA).

Only 31 products nationwide, were chosen from numerous entries across the industry for the 2006 publication, which annually showcases the most innovative products and processes created by the construction products industry during the previous twelve months.

"We're very pleased to have been chosen for the CPIA publication.

SAS International has led the way in the development of chilled ceilings and beams over the last 10 years", said JB Staunton, Room Comfort Brand Manager. "Incorporating the latest innovations in this sector, SAS CoolCeil offers an energy efficient, discreet, practical and aesthetically pleasing solution."

Commenting on the achievement, Simon Storer, External Affairs Director for the Construction Products Association said: "The standard of new and exciting products from across the industry continues to raise the bar and this year is no exception. The industry has not always been good at trumpeting its own achievements, however CPIA shows how the construction products industry is continuously developing and creating innovative products and processes which make a significant impact on the whole life cycle cost of a building."



Mark Jones with Simon Storer from Construction Products Association

133,000m² for Ciudad De La Justicia, Barcelona.



The export department was able to secure the ceilings for the Palaces of Justice in Barcelona. System 140 was specified for the project the hook on system does not have an exposed grid. The architects (David Chipperfield) wished to achieve the effect of a continuous plane ceiling.

In order to meet the design requirements and new perforation layout had to be designed and tooled for. Bridgend were able to turn the new tooling round quickly to meet delivery requirements.

Since December we have been shipping on average 6,000m of tiles a week to Barcelona. The project is due to finish this summer, by then nearly 100 loads of tiles will be manufactured and dispatched by Bridgend for this project.

New factory at Bridgend

SAS International completed the purchase this year of an industrial unit adjacent to their Bridgend works of 110,000 Sq ft.



SAS International is the worlds largest manufacturer of custom made metal ceilings and plans to significantly increase outputs and increase our range of associated building products.

Extension to Apollo Park

An extension to the Apollo Park factory is currently with planning awaiting planning permission.

The 30,000 sq ft extension will provide additional storage and production space. The extension should be complete by the end of 2007.



Every quarter a representative from an area of the SAS Group will report on Company activities, any important news and what to look out for in the forthcoming quarter.

The recent period has continued to be positively challenging in all areas, in supporting the increasing sales whether it be in the estimating, technical or sales order processing departments. We are actively involved in a number of major prestigious UK and overseas projects; working closely with our customers and mutual clients endeavouring to convert these opportunities. Please refer to page 9 to see some of the recently completed projects.

'Partnering' i.e supply chain agreements are becoming more and more prevalent in our industry. This is a procurement trend that cannot be ignored and we have successfully negotiated exclusive supply agreements with several contractor customers and directly with principal developers such as Land Securities. Further agreement arrangements are under discussion.

Mark Jones
Commercial Director

In the first quarter of 2007 there has been no let up in the level of activity in the commercial market. Our initial analysis of construction starts by the end of the year will in London alone will result in circa 1.2 million sqm of ceilings to be delivered by the end of 2009.

Last report I spoke about the increased activities in education and going through 2007 this will bring much opportunity for both product manufacturing and product installation for SAS Project Management. Phil Taylor has been allocated the responsibility for managing the education prospects.

Since the last newsletter two new people have joined market research which has strengthened the current team.

At time of writing, D minus 17 days for CUEBS 'go-live' at Reading and Apollo Park, 22 days at Bridgend and Maybole sites, it is fair to say that the ramp-up to these critical dates has impacted on the day-to-day running of the business and we would like to take this opportunity to thank all personnel who have been directly or indirectly involved in progressing the project to this point.

I would like to welcome Sean McFadden to the estimating department. Sean replaces John Attack who recently retired. Also, Louise Chaney has transferred into the Reading Sales Order Processing Department replacing Laurence Knight who is on maternity leave.

This means the team can continue their support work to the sales executives providing opportunities and appointments.

On the chilled side City lawyers Eversheds have taken space at Land Securities 1 Wood Street. There is potential for 20,000sqm of active Integrated Service Modules (ISM's). This highlights the growing intentions of clients and tenants of high spec commercial buildings to utilise energy efficient heating and cooling products. The driver? The recently revised Part L legislation enforced by the government.

In Ireland the market is buoyant. Plenty of opportunities exist and our base in Dublin has begun to open new doors with professional teams who historically have not used SAS.

Phil Smith
Sales Director

The past few months SAS Maybole has reached 20 years of age, installed a new CNC and been accredited to ISO 9001.



On 13th October 1986, the then Douglas Manufacturing was acquired by SAS and has been fondly known over the years as CAPS (Commercial Acoustic Products Scotland).

John Gemmel
Maybole Works Director

Amazingly 5 employees there on day one are still in employment with the Company and over the next few years a number of employees will also achieve the 20 year service level. A new CNC punching machine was installed in October to assist in production volumes which have increased significantly over the past few years.

Then in November we successfully obtained ISO 9001 accreditation following our BSI audit. Our next objective during 2007 is accreditation to ISO 14001 in line with the Group wide objective. The New Year has seen us start with a healthy order book increasing weekly demands on the business particularly on customer service levels. Over the forthcoming months further investment/expansion is planned to enable us to further increase capacity/efficiency to meet the demand expectations from our worldwide market.

Project Management played a large part of the successful transition from the Kelvin Way units in West Bromwich to the new facility at Apollo Park. Steve Burlton, Contracts Director and the SAS PM team managed the fitting out of the new factory and the refurbishment and dilapidations work in vacating five units at Kelvin Way after approximately 25 years occupation.

The Baskerville House project in Birmingham has been completed providing 16,000 square metres of high quality office space for Targetfollow Ltd, conditioned with SAS Coolceil chilled ceilings and integrated chilled beams.

Coolceil ceilings are spreading far and wide in the UK and the docks area in Felixstowe is an unlikely location in which SAS PM is putting the final touches to a three storey office and UK headquarters for the China Shipping Company.

SAS PM are involved in the Building Schools for the Future roll out programme. Neil Webb is currently looking at new projects in Lancashire, Bristol, Devon and Edinburgh. Designers seem to be dropping drab mineral fibre ceilings and using SAS System 600 acoustic lighting rafts developed by Richard White and his design team. System 600 can be adapted to suit most budgets.

System 600 projects completed by SAS PM include the Hadley Learning Centre in Telford, Lewisham Young People's Centre, Grace Academy in Solihull, and Horbury High School in Wakefield.

After four years under the stewardship of SAS International, even the longest serving employees of HCP are feeling fully integrated within the SAS organisation, despite our geographic location.

Our day to day contact with SAS facilities at Bridgend, Maybole and Apollo Park has been key to the integration and we thank them for adapting to the manufacture of our products and the inevitable 'special requests'. 2007 saw logistics, contract surveying, contract review and marketing also be integrated into the SAS group.



The latest SAS PM project is Maggie's Centre, Hammersmith. Maggie's Centres are being set up around the country to help cancer sufferers cope with their illness, and are generally day centres which patients can visit. SAS PM were awarded the design and installation of the complicated aluminium internal and external soffits, contractor ROK were anxious to combine roofing and soffit packages, so SAS PM teamed up with Reading company Robseal Roofing to provide a complete weathertight and aesthetic solution.

Project Management lose the services of Ben Broers at the end of March when he retires, but welcome Chris Ellingham who is joining from Sales and Marketing to take up a new challenge. Tom Hodgkins has joined the team as contracts manager based in Spain on the Torre Repsol project. Tom is married to former Export Sales assistant Maria Diaz and currently live just north of Madrid.

David Bland
Operations Director

Since 2005, we have launched a 'radiant heated ceiling tile' for the UK market. As a standard product the panel drops into a 24mm T-grid in lieu of the ceiling tile(s). Last year saw significant success particularly in the education and healthcare sectors with new orders received for PFI, Procure 21 and LIFT projects.

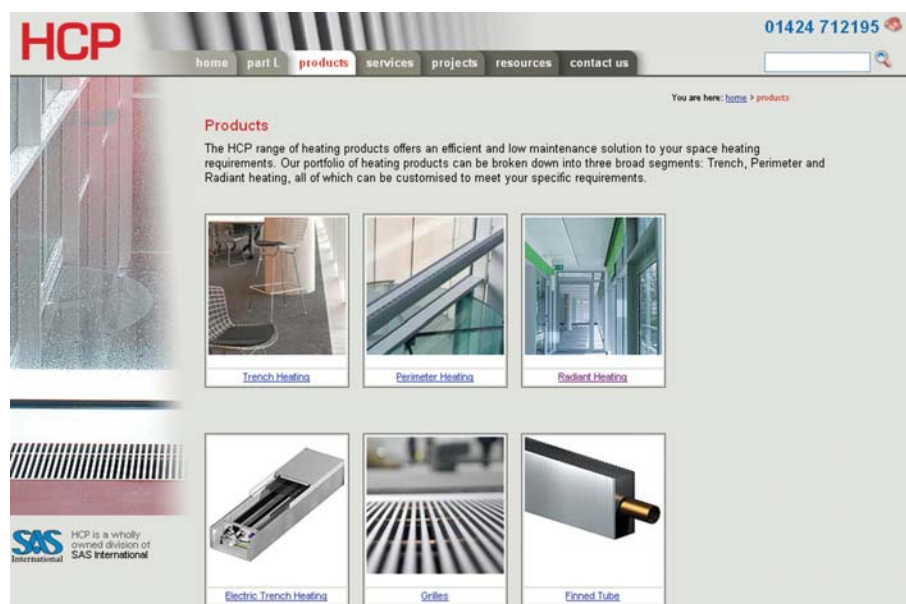
With this new radiant product we have been invited to join the European association (EMCP) and join a supply chain partnership with the UK's largest M&E healthcare provider. Radiant heating is now the second highest selling product at HCP after trench heating.

March 2007 saw the first HCP sales meeting of the year with all of our British representation meeting at Reading. The event focussed on the new and developing opportunities within naturally ventilated office buildings and the considerable government investment in health and education.

By the way, have you visited the new look HCP website yet?

John Hunt
HCP Sales Manager

NEW HCP Website launched for 2007



HCP, the specialist heating division of SAS International, has recently revamped its website. Alongside being much easier to navigate around, the site's new look and feel is much more visually appealing to visitors.

Detailed product information with relevant performance statistics are provided, there is a new search function, which enables visitors to locate the relevant information quickly and CAD drawings are available to download on demand.

Downloadable case studies of up to date and relevant projects now feature prominently and have proved to be one of the most visited areas.

The importance of increasing energy efficiency and decreasing carbon emissions, a whole section has been dedicated to the revisions to part L of the Building Regulations.

The website address is www.hcp-sasint.co.uk. Please take a moment to check the new website out and let me know if you have any comments about the site.

John Staunton
Room Comfort Brand Manager

SAS supports educational design

SAS International is proud to be a member of The British Council for School Environments (BCSE). The BCSE is made up of local authorities, schools, construction companies, architects and others involved in, and concerned about, the design and build process in the education sector.

Currently the United Kingdom is in the midst of the largest investment in school buildings since Victorian times. Through initiatives such as Building Schools for the Future (BSF), the government has allocated billions of pounds for the rebuilding and refurbishment of schools over the next 10-15 years.

The BCSE was created to support everyone involved in both education and the construction and management of schools; enabling the opportunity to design and deliver buildings that are capable of providing innovative learning environments.



Malcolm Stamper
SAS Brand Manager

SAS Sponsor Architects for Aid



SAS International is proud to announce that for the next year we are corporate sponsors of Architects for Aid.

Architects for Aid (A4A) are a charity established by to take on post disaster reconstruction and development. They work with local, national and international aid organisations, charities and non-government organisations, aiming to promote capacity building, livelihood creation and skill sharing.

A4A work from the foundations up, empowering people to help themselves better and to rebuild. They work on about a dozen projects at any given time where they are giving people the skills and means to help rebuild their lives and communities.



Mogonjet School, Kenya. Andrew Powell (A4A Head of Project Architecture) interacting with beneficiaries.



Maxwell Hutchinson, Chairman and founder of A4A

Architects give their time for free and the funds raised go straight back into projects which feed into local economies. They locate, train and provide architects who are vital in these projects – they are on the ground worldwide assessing damage, showing how to mitigate risk or designing a solution that is sustainable. The principle people at A4A are:

Maxwell Hutchinson is a past president of the RIBA as is the founder and chairman of Architects for Aid. On Boxing Day 2004 he was caught up in the Tsunami in Sri Lanka. He saw first hand the devastation and horror that a natural disaster brings. In the aftermath he realised that better planning of shelter was needed to speed the recovery in areas hit by such events and knew that architects' skills should be used to help. He founded A4A to sponsor projects and train architects to make a difference where it really matters.

Jack Pringle is the current president of the RIBA, Sir Norman Foster Foster + Partners, Peter Murray former Editor of Building Design, Dr David Mitchell Director of medicine at St Mary's Hospital, Paddington, Stewart McColl chairman of the SMC Group. Dr Victoria Harris is the full-time chief executive and set up A4A in June 2005 with Maxwell Hutchinson.

For the next issue of SAS Insider we will look at projects that A4A are contributing towards. Architects for Aid please contact Malcolm Stamper at Reading.

Malcolm Stamper
SAS Brand Manager

SAS exhibit at Passenger Terminal EXPO, Barcelona

SAS attendend the 2007 Passenger Terminal EXPO last week in Barcelona. SAS was supported by our Spanish distributors Acadinsa and Sistesul. The EXPO is the world's leading international conference and exhibition dedication to airport terminal design and technologies.

SAS and more than 200 other leading suppliers to the airport industry exhibited at this year's event, and networked with some of the world's key players in airport development and refurbishment.



The stand designed in house and manufactured by Maybole included ISM's hung under an Ultramirco perforated ceiling. Bulkheads, column casings and wall cladding finished the impressive presentation.

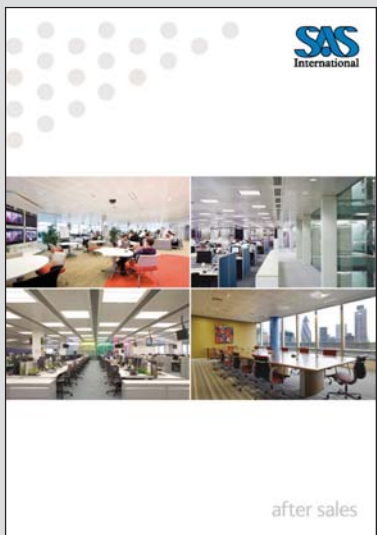
John Staunton
Room Comfort Brand Manager

Woodley Hammers Football Club

SAS International (Reading) are pleased to be the kit sponsor for a local U7's football team Woodley Hammers. Formed in 1973, the newest crop of footballing talent includes Abdul Hanid's son Qusim. Abdul runs the Reading 5-a-side team and welcomes any inter-company match.



The woodley hammers in their new kit



NEW “after sales” brochure

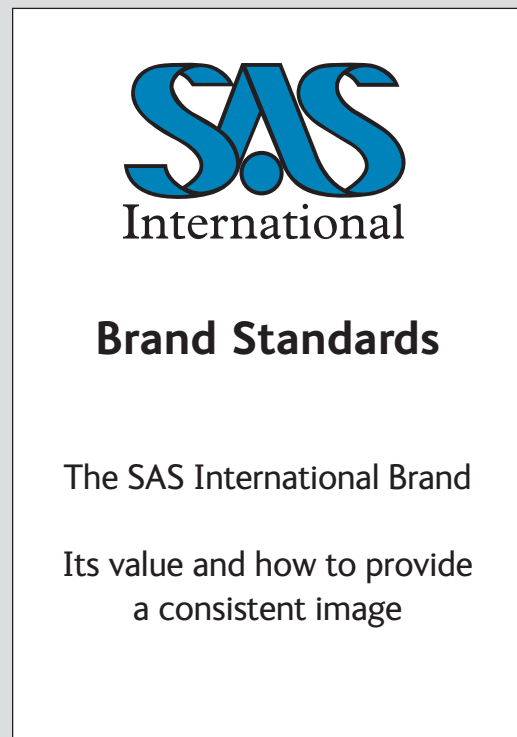
The After Sales brochure has been updated and printed by the Marketing department. The new brochure reflects the new design that all SAS brochures will take.

After Sales provides a specialist repair, maintenance and alteration service for our customers and their facilities.

Copies of the brochure, both electronically and hard copy, are available from the Marketing department.

Andrew Jackson
Marketing Manager

Brand Standards Launched



New corporate brand standards were published on the 13th March to ensure that we are consistent in how we present SAS International to the market and all stakeholders.

The brand guidelines set out basic mandatory principles to ensure that consistency is achieved across all four sites.

The brand guidelines cover basic principles on:

The SAS Logo: Its correct use, size, colour and other corporate colors.

The corporate font: The correct font and templates to use for all written communications.

Secondary Brands: When and how the use of our other brands should be used.

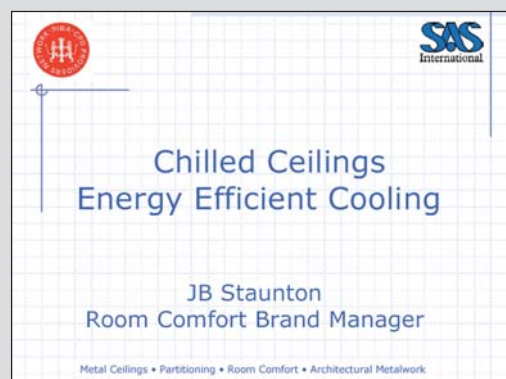
Communications: Highlights all areas of written and verbal communication both internally and externally.

It is appreciated that adapting all our communications, internal and external will take time and patience, once complete we can be confident that we are not mixed messages to our customers.

To ensure that we are presenting and using the correct brand image on documents and forms please proof any forms, new and reordered, through the marketing department. If you have any questions please do not hesitate to contact the Marketing Department at Reading.

Working together we can create a strong brand name for SAS International.

Malcolm Stamper
SAS Brand Manager



New RIBA CPD's

Two new CPD (Continued Professional development) presentations are now available from Marketing. CPD's cover our range of Room Comfort chilled products including Chilled Ceilings, Beams and Integrated Service Modules. A total of six CPD's are now available to be presented to Architects and M&E Consultants. If you require a CPD presentation please contact the Marketing Department at Reading.

John Staunton
Room Comfort Brand Manager

Insider Feedback

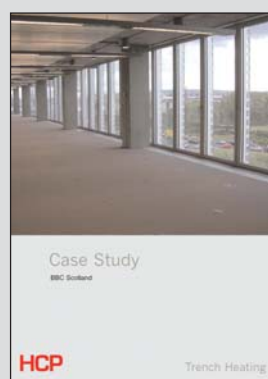
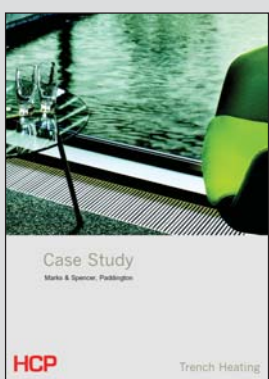
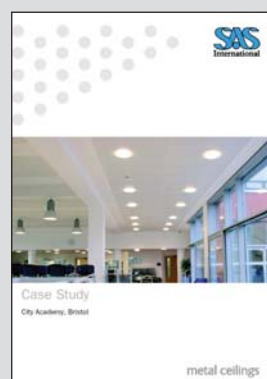
Since the first issue of the SAS Insider at the end of 2006, there has been a small amount of feedback. Some comments highlighted that the size and colour of the text/font used was too small and light, so it's been changed. Hopefully it will be clearer for all to see!

Everyone seemed happy with the overall content. Most people seemed very interested in who will be the next "volunteers" for the "SAS...meet the

team" section on the inside back cover. Get your answers ready...you will be chosen.

In every issue we try and ensure the entire group including every facility is represented fairly and accurately. If you as a reader or contributor to the Insider feel that you have a story or picture to contribute please send to Andrea England in the Marketing department in Reading.

Case studies Available



Case Studies

Over the past few months the Marketing department have put together 24 case studies on recent projects. The case studies include a mix of products over the main product areas of Metal ceilings, Room Comfort and Architectural Metalwork. In addition case studies have been put together for HCP's range of heating products.

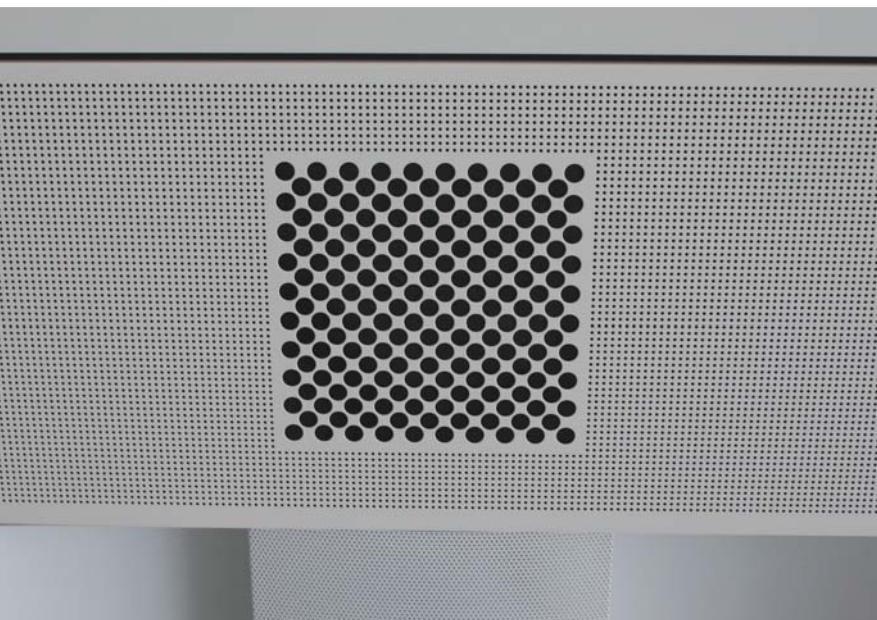
Copies of the case studies, both electronically and hard copy, are available from the Marketing department.

Malcolm Stamper
SAS Brand Manager

Energy Efficiency: 75 St Stephen's Green, Dublin

Located in the heart of Dublin's central business district, 75 St Stephens Green, formerly known as Colmstock House, is considered to be one of the best addresses in the city. Built in the 1960's, the building was occupied by the Irish Justice office until 2004, when it was acquired by Shelbourne developments.

Extensive refurbishment and extension work was undertaken in 2005/2006, and the building now boasts nearly 10,000m² of state-of-the-art offices. The building has a low floor to ceiling height compared with modern standards and the developers wanted to maximise the feeling of height. Irish architects Burke Kennedy Doyle and Associates specified SAS CoolCeil chilled ceilings throughout the six floors.



As the original façade and mullions were left in place the building didn't conform to current space planning and partitioning grids, the chilled ceiling panels needed to be manufactured to bespoke dimensions. The panels feature a perforated surface, which allows sound to pass through and be absorbed by the acoustic pads in the rear of the panel.

"Chilled ceilings offer a space saving and energy efficient alternative to traditional air conditioning systems" says JB Staunton, Room Comfort Brand Manager, "Our award winning chilled ceilings are becoming more popular as companies and individuals strive to reduce their energy and carbon consumption and carbon consumption".

Bridgend manufactured the bulk of the materials for this project including the chilled ceiling panels and the accompanying System 330 tiles. Maybole contributed by producing the 'C profiles', noggins, trims hanger brackets and bulkhead panels; and West Bromwich provided the trims.

SAS Project Management organised the installation of the chilled ceilings and overcame some challenging on-site difficulties. Noteworthy was the hollow-pot construction of the ceiling slab, which is similar in nature to the design of an egg carton.

Not only did this mean that special fixings had to be used in the concrete, the lengths of the chilled ceiling supporting rods were different at each edge of the panel. In some instances distances between the top of the panel and the ceiling was less than 8.5cm.

The buildings surrounding St Stephens Green are occupied by global corporations e.g. Barclay's Bank, MBNA Bank, Bank of Scotland and KPMG, and by government departments such as Foreign Affairs, Justice and Public Works. The broad expanse of this development also faces the Green and the more secluded Iveagh gardens is found to its' rear and the speculative nature of this project has proved successful with four of the six floors already occupied in this landmark building.



John Staunton

Room Comfort Brand Manager

75 St Stephen's Green Timeline

1960's	Construction of original building
2004	Acquisition of property by Shelbourne developments
November 2004	Initial enquiry made to SAS
January 2005	Start of redevelopment
October 2005	Official instruction by Shelbourne developments
November 2005	Start of manufacture of products
February 2006	SAS Project management start setting out on-site
November 2006	Completion by SAS project management

75 St Stephen's Green Facts

- Originally built in 1960's replacing a row of six Georgian houses
- Consists of six storeys plus basement area
- Government put building up for sale due to decentralisation policy
- Bought by Shelbourne Developments in 2004 for €52.3m. (£35.9 m)
- Considered to be one of Dublin's most prestigious addresses
- Extension of 3,000m² added to rear of building
- Redevelopment took nearly 2 years
- Spaces in basement for 65 cars and 60 bicycles
- Finished building offers nearly 10,000m² of state-of-the art offices

ISO 9001 Facts

What does ISO stand for?

International Standards Organisation

What standards are there?

The main standards SAS are involved with are

ISO 9001: Quality Management System
 ISO 14001: Environmental Quality System
 ISO 18001: Health and Safety Quality System.

ISO 9001 Overview

Customers are getting more sophisticated, better informed and their expectations are growing. For any business, the only way to keep up is to offer a real commitment to quality. In fact any organisation, whatever their size or industry sector can give themselves a real future in a marketplace by using a well planned and documented quality management system (QMS) such as ISO 9001. Benefits of registration are:

Greater responsibility and quality consciousness amongst internal staff
 Better use of time and resources
 Reduced wastage and product failure
 Greater consistency and traceability of products and services.

What is an ISO 9001 Quality management system? QMS

"A quality management system is a well documented system that ensures consistency and improvement of working practices, including the products and services produced. They are based on standards, which specify a procedure for achieving effective quality management. ISO 9001 is the most commonly used international standard that provides a framework for a quality management system in 44 countries."

Why bother with 9001

Customers are increasingly demanding it, sometimes as a 'licence to work'.
 Preparation for Customer Audits.
 Keeping up with / beating the competition.
 Marketing value and customer perception.
 Genuine desire for improvement.
 Focuses on preventing problems re-occurring, improving the Quality System and continuous improvement.
 CE marking requires that organisations have a recognised quality management system. It was a legal requirement that our products carried the CE mark from January of 2006.

BSI/ISO JARGON BUSTER

Non-Conformance Report

A paper record of mistakes made in the process.

Corrective Action

A term used to describe how to fix any problems in the process.

Internal Audit

An informal check by SAS staff to ensure the process is working.

Pre-Audit

A visit BSI Auditor to check ISO progress.

Audit

An official audit conducted by a BSI assessor.

QMS/EMS

Quality Management System and Environmental Management System.

Andrew Jackson
 Marketing Manager



We need your help! Without news, views and pictures from all the different SAS facilities it can be difficult to put together a fully loaded up to date issue of the SAS Insider.

If you make a contribution your name will be included in a draw for a pair of tickets to a Porsche Carrera Cup GB race at a track of your choice:-

Brands Hatch	1st Apr 2007
Rockingham	22nd Apr 2007
Thruxton	6th May 2007
Croft	3rd Jun 2007
Oulton Park	24th Jun 2007
Donington Park	15th Jul 2007
Snetterton	29th Jul 2007
Brands Hatch	19th Aug 2007
Knockhill	2nd Sep 2007
Thruxton	14th Oct 2007

Dates for the UK races are as listed. Please send all contributions with photography to sasinsider@sasint.co.uk



SAS Apollo Park, Oldbury Fit-Out Complete

Covered in the last issue of the Insider the new Apollo Park factory was handed over at the end of 2006. The fit out of the offices took place over the first quarter and was conducted by Project Management.

Since its hand over in August, the factory and offices have undertaken a complete fit out. SAS Project Management have overcome all aspects of the new fitout as well as the delapidation work at Kelvin way our old factory.

The new offices feature SAS partitioning and doors throughout and also a SAS System 330 chilled ceiling, which is supplemented by integrated HCP radiant headed panels.

Not only does this provide excellent room comfort to those people working in this environment, it gives customers the opportunity to visit and experience these systems in a live working situation.



Cuttings

As Phil Smith mentioned in his report the education sector is growing quickly in the UK. Obviously marketing activity will reflect the areas of growth within the construction and specification market. Below are two editorial pieces highlighting the use of SAS product in education projects. Copies are available from Marketing at Reading.

82 specifier.healthcare and education

What to specify

The vibrant screen-printed school cafeteria shown opposite will lead to grumbles that 'it was never like that in my day'. The rest of these education and healthcare-related products are pretty good, too ...



Movers and makers

- Playworld Systems has brought out a 2007 catalogue for its range of playground and recreation equipment. The catalogue also contains several product launches. Products range from those suitable for pre-school children to outdoor equipment for adults; standardised and bespoke systems are available.
- Publisher Taylor & Francis has released a book called *Cost Planning of PFI and PPP Building Projects*. The author, Abdelhalim Bousabaine, explains the history of the PFI, the rationale behind the procurement method and the arguments for and against it. The book calls for a change in the way whole-life value is perceived.
- Ceiling systems maker AMF Ceilings has changed its name to Knauf AMF. This follows the purchase of the company by Knauf Group in 2003. The name will appear on company's literature, although the logo will be retained.
- Humidification specialist HygroMatik has developed an online duct and room humidification calculator, available at www.hygroamatik.co.uk. This will help engineers to design and specify the correct humidification system for buildings.
- The Concrete Block Association has published a set of technical data sheets following changes to British Standards and Building Regulations last year. There are 15 sheets covering construction, thermal and acoustic performance, and good site practices such as safe handling. The sheets can be downloaded from the CBA website at www.cba-blocks.org or obtained directly from the organisation.

Lighting rafts

SAS International has announced that its System 600 acoustic lighting rafts are now available as a range of standardised designs. Previously the products were available only as a bespoke solution; the company says the standardised approach should reduce costs. The acoustic rafts can be suspended from exposed ceilings, making them suitable for use with naturally ventilated buildings. The system is available in a number of configurations including curved, flat, angular or bespoke, and is available with a choice of acoustic treatments to reduce reverberation times. The lighting rafts can be specified to carry services including cabling and PA, fire detection and control systems.

SAS International
www.sasint.co.uk
www.building.co.uk/enquiries 301

BUILDING MAGAZINE 16 03 2007

JANUARY 2007 NEWS



VERSATILE CEILING SYSTEM CHOSEN FOR NEW ACADEMY

LEADING ARCHITECTS BDP'S WORK ON THE RECENTLY COMPLETED GRACE ACADEMY, AT SOLIHULL IN THE WEST MIDLANDS, INCLUDED THE SELECTION OF SAS'S ADVANCED SYSTEM 600 METAL SUSPENDED ACOUSTIC CEILING RAFTS. THE CO-EDUCATIONAL CITY ACADEMY FOR 11-18 YEAR OLDS IS DESIGNED TO ACCOMMODATE OVER 1,350 PUPILS.

This environment required a robust solution which also met the demands for acoustic performance, increasingly recognised as an important factor in new school buildings. The absorption performance provided by the ceiling rafts was key to reducing reverberation times, or 'echo' in the school, thereby improving the 'speech intelligibility' - essential for effective pupil / teacher communication.

In the individual classrooms, laboratory areas, corridors, the Lecture Theatre and the Assembly Hall, acoustic ceiling rafts were chosen. Perforations in the rafts allow sound to travel through to acoustic pads, achieving acoustic absorption. Additionally reflected sound from the open structural soffit is absorbed into the top of the acoustic pads. Luminaires were suspended between the flat rafts to add to the clean, modern look creating a comfortable lighting environment.

In the remaining areas of the building swing down SAS System 150 tiles were specified. In potential high humidity areas, kitchens and changing rooms, the tiles were painted on both sides to avoid long term water damage. SAS System 150 is a traditional metal suspended ceiling system with tiles that pivot and slide within the suspension grid providing access to large areas of the ceiling void.

With the exposed concrete slabs between the SAS System 600 rafts and the open soffit, sustainable natural mass cooling can also be achieved. This ability to moderate temperature is now part of the system that architects BDP is developing for all future schools projects.

Increased design flexibility and significant capital and installation savings are some of the benefits of this approach. Max Fawcett of BDP commented: "We recognised that the durability of SAS's metal system also meant that it provided a more sustainable solution in terms of whole life cycle costs."

The washable polyester powder finish on the SAS ceiling systems offers a hygienic, wipe-clean solution, ideal for easy maintenance. Mineral fibre can be more difficult to maintain - both in terms of being easier to damage or tamper with, and more difficult to clean.

The new £20m Academy replaced Whitesmore School in Chelmsley Wood, and this provided the opportunity to specify the most modern solutions which BDP has successfully employed.

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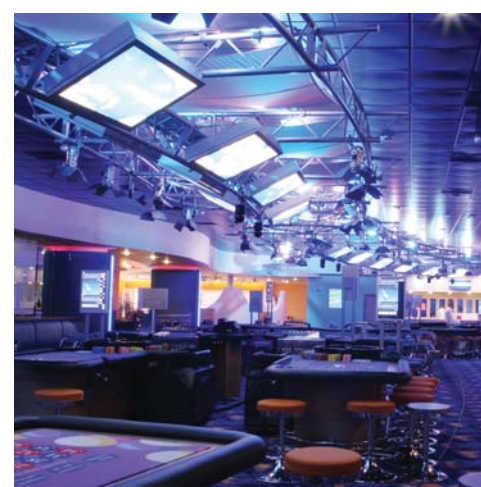
Specifiers Review...

...highlights recent comments specifiers have made about SAS products/projects.



GRACE ACADEMY, SOLIHULL:
 Product: SAS System 600,
 SAS System 150
 Architect: BDP

Max Fawcett of BDP commented: "We recognised that the durability of SAS's metal system also meant that it provided a more sustainable solution in terms of whole life cycle costs. The washable polyester powder finish on the SAS ceiling systems offers a hygienic, wipe-clean solution, ideal for easy maintenance. Mineral fibre can be more difficult to maintain - both in terms of being easier to damage or tamper with, and more difficult to clean."



GALA CASINO, BRISTOL:
 Product SAS System 130
 Architect: In Haus Solutions

Jenny Bedell-Harper commented: "With the internal shell of the ceiling we wanted a surface that provided a sheen, so you can see the glow of the lighting gently cast around. We could only achieve this with a metal tile. This was especially important to make the most of the Casino's large, centrally hung, lighting feature. We also liked the perforations on the SAS ceiling tiles which added to the effect."



DLR LONDON CITY AIRPORT, LONDON:
 Product: SAS System 150, SAS Bulkheads
 Architect: WestonWilliamson

Geoff Bee, Project Director said: "We chose SAS International's solution because we liked the product and knew it would perform well in this environment. Coating the tiles both sides meant that they would easily withstand moisture, and being exposed to debris that could occur in this particular situation."



ASHBURTON LEARNING VILLAGE, CROYDEN:
 Product: SAS System 130
 Architect: Penoyre & Prasad LLP

Noam Raz, the project architect, commented: "The tiles are comparatively robust to help withstand pupil abuse and can be clipped in place. This clip system also provides good and easy access to service voids when required."

Malcolm Stamper
 SAS Brand Manager

Apollo Park - Environmental Planning, Control and Prevention

Even before the start of the build at SAS Apollo Park environmental implications were considered. This resulted in a state of the art building management system which enabled separate office climate control and the breakdown of individual usages of gas and water consumption throughout the plant.

A variable speed compressor only works to produce the air demand requirements of the factory or shift opposed to normal compressors that run at full speed and exhaust the air that is surplus to requirements. This is a critical energy saving solution as the compressor motor is the single biggest energy consumer in the factory (this solution is also underwritten by the Carbon Trust).

Having seven different manufacturing disciplines together under one roof means we can also take advantage of power factor correction. On our electrical side we are balancing the reactive power which is a widely recognised method of reducing an electrical load and minimising wasted energy, improving the efficiency of a plant and reducing the electricity bill.

We have also installed the most environmentally friendly heating throughout the factory manufactured by Ambi Rad. All lighting in the offices and toilets is controlled by motion sensors. Dust extraction units filter and pump the air back internally to reduce heat loss. A well insulated building also reduces thermal loss or solar gain. The paintline uses a five stage chrome free pre-treatment process which reduces the environmental impact.



Paint line

After two and a half months of manufacturing at Apollo Park we are well under way to achieving accreditation to ISO 14001 under BSI. With stages one and two already audited during February 2007 the planned date for the final stages: three and four, has been pencilled in for 12th April. This is when certification can be achieved.

To implement the Environmental Management System all processes have had to be reviewed for inputs and outputs.

From this a better knowledge was gained of all the requirements, legislation, necessary controls and significant aspects. As part of the implementation SAS had to work closely with Sandwell Council, Severn Trent and the Environmental Agency.

This was to ensure that we developed adequate controls, recording and emergency planning for emissions to air, stack monitoring, effluent monitoring, spill control and waste management.

As part of these pollution prevention controls daily checks are made and recorded of all emissions to the atmosphere from the paintline.

As part of our permit from Sandwell Council and due to the increase in door production, we are processing an application for our timber activities which will also be assessed by the council to determine whether we require an additional permit due to the possible release of dust particles.

Other pollution prevention activities include the installation of an oil interceptor for the truck wash which Severn Trent were kept fully informed of all planning. Numerous spill kits and bunds are situated around key areas.



Wood dust extractor

Daily checks are also made to the effluent discharge which is also fitted with an automated dosing facility.

Our waste segregation program controls all recyclables (wood, cardboard, aluminium and steel). All hazardous or special waste is controlled and segregated (oil, chemical containers, paint tins, oily rags, electrical equipment and aerosol tins).



Waste Control Skip

The SAS International Apollo Park Environmental Policy is:-

"The company is fully committed to reducing energy usage, minimising waste, preventing pollution and encouraging recycling whenever practical.

We shall comply with relevant environmental legislation and other requirements, establish targets and review these targets to continually improve our environmental performance."

Our policy helps us develop our objectives and targets.

- During the course of 2007, we aim to reduce energy by 5% (During Jan and Feb, Gas has reduced by 28% and electricity has reduced by 31%).



Cardboard waste

- We aim to recycle more than 14 tonnes of cardboard (currently recycle 4 tonnes)
- Reduce the amount of doors going to landfill to below 1% by re-using where possible (currently hitting 0.88%)
- Reduce the amount of general waste going to landfill to below 280 tonnes (to date 34.15 tonnes sent).



Our future plans involve reviewing what other waste we can recycle to further reduce waste to landfill and also to look at becoming FSC (Forest Stewardship Council) accredited. The FSC trademark provides international recognition to organisations that support the growth of responsible forest management.

Steve Horner

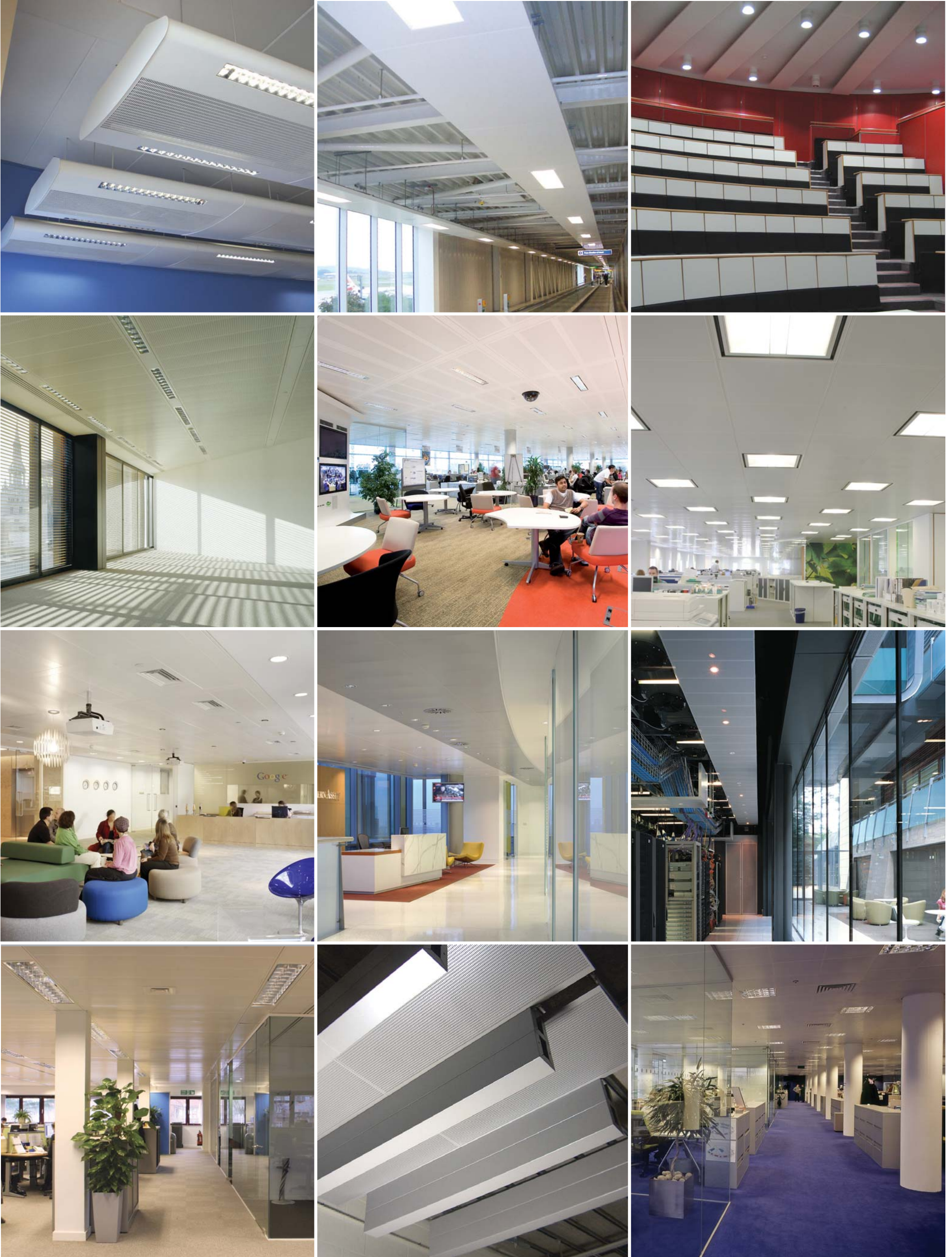
Apollo Park Works Director



Overview of paintline



Overview of entire factory



Top Left to Right: 1. Merton College, London. 2. Edinburgh Airport, 3. Grace Academy, Solihull, 4. 10 Gresham Street 5. Chiswick Park. 6. 30 Warwick St, London. 7. Google, Buckingham Palace Road. 8. Western Asset Management, London. 9. Wellcome Trust, Cambridge. 10. 10 Bricket Road, St Albans. 11. Baffles Mock Up. 12. Pfizer UK, Surrey.

Porsche Supercup 2007



Team IRWIN SAS



SAS Partner with Irwin Industrial Tools To Compete in Porsche Supercup

The Porsche Supercup is the fastest international single-make cup and has been supporting the FIA Formula One World Championships since 1993. It's a professional and high-ranking race series, which enjoys acceptance and appreciation far and wide, and each of the 11 Supercup races during 2007 will precede Formula One races.

The opening weekend of the 2007 Porsche Supercup will take place at the Bahrain Grand Prix in Sakhir on Saturday 13 April. A further ten races in Europe will follow, taking in the likes Spain, Germany and Great Britain, with the final race of the season being held at the Grand Prix de Belgique, Spa-Francorchamps (Belgium) on Sunday 16 September.

The races will be viewed by over 2.6 million spectators and will be broadcast live on over 11 different television channels, reaching over 22 million viewers worldwide.

History

As the fastest international one-make-cup, professional teams and drivers compete in identical Porsche 911 GT3 cars under the same technical conditions.

The field of participants comprises of a mixture of famous driver personalities and ambitious talented youngsters, all putting their abilities to the test on race Sunday before the Formula One race.

For each event practice sessions of 30 to 45 minutes and a qualifying of 30 to 45 minutes are planned. Races are contested over approx. 70 kilometres and take off from a standing start.

Who are the drivers ?

Porsche invites journalists, motor sport personalities and other celebrities to take up the challenge and drive two VIP Carrera with starting numbers one and two. Even international motor sport aces find it extremely difficult to beat the Supercup specialists in the unfamiliar 911. Likewise, motorsport world champions often find themselves regularly ending up in the uncustomed mid-field.

Who watches the Porsche Supercup ?

At the Grand Prix circuits during 2006 an average of 125,000 spectators witnessed the action from the grandstands at each round. With over 283 reports and more than 180 hours of television broadcast, the Porsche Mobil Supercup reaches more than 22 million spectators on the television sets world-wide. On TV, Porsche Mobil Supercup is broadcasted live on Eurosport 2. Eurosport 1 shows a summary in between its "Motorsports Weekend" programme.

SAS Driver: Marc Hynes



Marc Hynes is no stranger to driving

MARC HYNES
Age: 28
Residence: UK

Marc is one of Britain's leading racing drivers. In the mid-nineties he won the Formula Vauxhall Junior and Formula Renault titles. In 1999 he won the British Formula Three title - ahead of current Formula One driver Jenson Button.

CV

- 2006** LMS GT2, Team LNT, Panoz. GPMasters test, development and 2 seater driver.
- 2005** LMS GT2, Team LNT, TVR. Sebring 12hrs.
- 2003** International F3000, BNC Lola Zytec, British GP support race. LMP 900 Sports Car, Taurus Sports Lola Judd.
- 2002** Dallara Nissan World Series development driver for Dallara, 2000km F3 testing 1000km for ManorMotorsport, VG Racing (Spanish F3 series).
- 2001** Formula 1 test driver, British American Racing. Indy Lights testing with PacWest, F3 testing.
- 2000** International F3000, WRT.
- 1999** British Formula 3 CHAMPION 6 race wins. British Grand Prix F3 support race WINNER pole position, fastest lap. Marlboro Masters of Formula 3 WINNER fastest lap, lap record. Macau GP.
- 1998** British Formula 3, Promatecme Renault 8th. Marlboro Masters of Formula 3 Finalist.

1997 British Formula Renault Sport, Manor Motorsport CHAMPION 8 race wins.

Williams Formula 1 Team Test Driving. Williams Touring Car Test Driving. BRDC McLaren Autosport Young Driver of the Year Nominee. F3 Testing Promatecme.

1996 Formula Vauxhall - Martin Donnelly Racing. 5th.

1995 British Formula Vauxhall Junior, Martin Donnelly Racing. CHAMPION British Formula Vauxhall Winter series. CHAMPION BRDC McLaren Autosport Young Driver of the Year Nominee.

1990 - 1994
National and International level Karting. Multiple Karting CHAMPION

SAS Teambuilding

SAS will bring together a team of senior construction professionals from across the industry to experience each of the nine European Porsche Supercup/F1 Weekends.

At each race meeting a team of 4 different construction professionals will come together from different disciplines allied to the SAS business.

- Clients
- Contracting
- Quantity Surveying
- Architecture and design
- Mechanical and electrical engineers

The team will gain an insight in the process of competing in a Porsche Supercup race; planning, engineering, marketing and decision making. Experiencing testing, qualifying and racing in this highly competitive environment will involve their commitment throughout.

In return, they will broaden their core management skills, which may transfer to the skills required for success in our industry.



The race outfit behind Team SAS is Team Parker Racing. For the past 10 years Team Parker Racing have had numerous success on the track racing in Porsche and Caterham Championships.

For the 2007 Porsche Supercup Team Parker Racing has joined forces with another championship winning team Redline Racing, between them they have won every Carrera Cup title since its launch in 1993.

Team Parker Racing CV

- 1997** Team Formed, competed in Formula Vauxhall Junior 3rd class b
- 1998** Caterham Championship (3rd)
- 1999** Caterham Championship (3rd)
- 2000** Caterham Championship
- 2001** Caterham British and Eurocup (1st)
- 2002** Caterham British and Eurocup (1st), Nurburgring 24hr 1st in Class
- 2003** Porsche Carrera Cup (1st)
- 2004** Caterham Championship (1st)
- 2005** Porsche Carrera Cup (1st), Caterham Championship, Seat Championship.
- 2006** Porsche Carrera Cup(1st) Caterham Championship (1st).

2007 Race Season

- | | |
|---------------------|---|
| 13th-15th April | Bahrain Grand Prix, Sakhir (Bahrain) |
| 11th-13th May | Gran Premio de España, Barcelona (Spain) |
| 25th-27th May | Grand Prix de Monaco, Monte-Carlo (Monaco) |
| 29th June-1st July | Grand Prix de France, Magny-Cours (France) |
| 6th July-8th July | British Grand Prix, Silverstone (Great Britain) |
| 20th-22nd July | Großer Preis von Deutschland, Nürburgring (Germany) |
| 3rd-5th August | Magyar Nagydij, Budapest (Hungary) |
| 24th-26th August | Turkish Grand Prix, Istanbul (Turkey) |
| 7th-9th September | Gran Premio d'Italia, Monza (Italy) |
| 14th-16th September | Grand Prix de Belgique, Spa-Francorchamps (Belgium) |

Meet HCP... Hastings

Q&A

How did you end up working at HCP and what is your current role ? **The best thing about working at HCP ?** **And the worst ?** **If you could change one thing about working at HCP what would it be ?** **First job ?** **Hobbies ?** **Your proudest achievement and why ?** **The last CD you bought or music downloaded ?** **Favourite food ?**

Robin		General Manager for HCP and have worked at HCP for 19 years. I had a choice either in IT or draughts person / contracting. So for my sins I opted for draughting / contracting	The people and locality to home	The nastiness within the sub contract industry we work in	To be totally independent and owner of the HCP business	Budgens supermarket – Shelf stacker	Fresh water fishing, and performance cars	Becoming a dad, it highlights what is important in life	Ray Lamontagne	Anything with lots of 'E' numbers and calories
John		11 years - Head of HCP Sales	Working with some exceptionally talented people. Always learning.	Car Parking (p.s. I pioneered parking in front of the skip!)	Location - Guildford's a great place	Roadie / Crew member for a band called 'The Wonderstuff'.	Live Entertainment, Football, Running	Under 12s Long Jump champion	Downloaded Leftfield - Song of Life	A fresh seafood platter and three bottles of Chablis
Alan		My current role is Contracts Manager, dealing with the smooth running of projects. This is my 10th year at HCP, I was initially employed as a welder on the shop floor and progressed through to the office	Going home clean every night! Oh, and the satisfaction of working on some prestigious buildings within Britain, including my latest contract at st pancras station	Having to drive down the A21 when I am returning from site visits, anyone who has traveled down this road will know what I mean.	See above, an office on the M6	I was an apprentice welder for a company football...did I in Oldham, I decided I had enough of producing the something everyday and went traveling for a year.	Football, football, Without trying to sound glib, I would say finally getting a chance to wear a shirt and tie all day rather than grubby overalls	Mika - Life in Cartoon Motion	Chicken Tikka Masala, Mushroom Rice, Keema Naan, Bombay Potatoes...all washed down with a cold pint of Stella...nuff said	
Colin		Currently my role is as a contract manager although I started here 18 years ago in the estimating department	Working with a great bunch of guys with a good sense of humor	Monday mornings	The introduction of a 'not now' button on the telephones	I was an accounts clerk for a wholesale meat distributor. On my first day I had to cross the warehouse floor between rows of pig and lamb carcasses!	Walking, photography, listening to music, working on my allotment and home brewing wine and beer	Stripping down the carburetor on a Honda 400/4, putting it back together and finding that it still worked!	Jamie T – Panic Prevention	Roast Lamb with new potatoes and plenty of fresh veg with a glass of red wine.
David		Contracts Manager, eighteen years. I intended to move house from S.E London to Bexhill-on-Sea. I got the job at HCP but never got round to moving house.	The pay	It's the distance from my home!	The addition of a cordon bleu canteen	A five year draughtsman's apprenticeship	Golf, gardening, antiques, Clarice Cliff, collecting and drinking wine	Working for HCP for eighteen year and living to tell the tale	Amy Winehouse – Back to Black	Steak and Kidney Pie in Wince, creamed potatoes, peas and gravy. Followed by Strawberries covered with Sugar and Cream. Washed down with a bottle of Sauternes
Malcolm		Senior Estimator – have worked here for 20 years – I used to work at the firm next door.	The job variety and its only 3 minutes drive from home	Having to give discount to customers	New computers for everyone	Table Tennis, Walking and surfing the net	Lab Technician in Research Laboratory	Passing my exams – I did not have to take them again	Snow Patrol & The Feeling	Anything Italian
Mike		Having completed my A-Levels I moved to Hastings, applied for a job as a Trainee Estimator, was interviewed by Mr. Dixon and got it! I have worked as Assistant Estimator for nearly two years	My colleagues, they're all great people. Especially the Boss!	As the newest member of the team, it's got to be making the teas	I would let every one have a flat screen monitor	HCP	Snooker, Golf and anything to do with Football	It might sound sad, but passing my driving test	Jamie T	A Great Big Fat Roast! (Beef preferably.)
Neil		Northern Sales Engineer, 3years, I combine my HCP sales time with SAS Project Management products.	Quality name and products	The industry we sell into is very short sighted, corrupt and cost driven.	I would like to work for them 4 stone lighter!!!!	Estimator	Playing cricket, golf & badminton, watching rugby and keep out of the way of my misses in the garden	Watching my three lovely daughters growing up into nice, hard working intelligent young women. (a bit corny but true)	I am slowly replacing my vinyl collection so the last lot of CD's I bought was an oldie. In through the outdoor by Led Zeppelin.	Fish or chicken.
Alan		Site Installations Manager, 11 years, second time around (previously employed for 10 years)	Still think HCP has a good name in the industry	Lack of HCP growth	Make it more of the SAS Group	Apprentice Sheet Metal Worker	Walking, travel, watching sports	Completing the CAA Tower fit out, because I didn't suffer a nervous breakdown	Evanescence – The Open Door	Anything Italian (although being of Spanish Descendancy)

Long Service Awards 2007 JAN-MAR 2007

Name	Month	Location	Length of Service				
Tony Criger	January	Bridgend	10 Years	Ricardo Dowick	February	Apollo Park	10 Years
Joseph Foster	January	Apollo Park	10 Years	Ian Clark	March	Maybole	20 Years
Craig Slater	January	Apollo Park	10 Years	Carl Brown	March	Bridgend	10 Years
Duncan Flavell	January	Apollo Park	10 Years	Darren Parry	March	Bridgend	10 Years
				Johathan Wood	March	Reading	10 Years



Emirates Stadium

London

Premiership football club Arsenal's new Emirates Stadium is a landmark building in north London. Forming part of a larger urban regeneration project in the area. With seating for 60,000, the recently completed football stadium is England's third largest facility. SAS were chosen to provide metal ceilings and architectural metalwork for the project, which was designed by architects HOK Sport.

Bridgend manufactured over 10,000m² of System 120 and System 150. System 150 has been used in the main hospitality circulation areas, above retail outlets, as well as above the management suites, offices, press workrooms, and changing rooms. Bridgend and Maybole manufactured System 330 and 'C' Profiles, it was used in all hospitality bars and restaurants and private boxes. West Bromwich in addition to manufacturing System 150 grid manufactured Tubeline that has been used in the general admission toilet facilities.



Tubeline in the general admission toilets



The "Arsenal red" bulkheads made at SAS Maybole

Maybole created bespoke architectural metalwork including a large sloping metal bulkhead incorporating flat screen TV's and concession signage running at high level continuously around the concourse areas with matching metal casings for the waste bin units all in Arsenal's distinctive team colour red.

Charles Cooke as HOK Sport explained "we used system 330 to create strips of service access within the large plasterboard ceilings in the restaurants and collected together all the ceiling mounted services on these strips to maximise the amount of uninterrupted plasterboard ceiling we would be left with. We choose Tubeline in the toilets as it provided us with a fully demountable ceiling system that dealt well with the radial shape of the rooms. The 'bespoke' metal bulkhead was achieved by utilising components from within the SAS product range this proved cost effective, quick to install and looked great."

The state-of-the-art stadium is an eye-catching oval structure. Its downward sloping roof canopies keep 'the atmosphere in the ground', key features include an undulating seating bowl and large external roof trusses, with the two primary trusses spanning a full 204m lengthwise across the all-important pitch. HOK Sport also incorporated a number of environmentally sustainable aspects in the design such as introducing a passive and mixed mode ventilation system, and maximising the opportunities for daylight within the building, as well as avoiding products containing PVC and only using FSC accredited timber sources.

The overall construction was carried out under a design-and-build contract by Sir Robert McAlpine, with MPG Contracts as the ceiling installer. The stadium opened as planned in July 2006 in time for the start of the 2006-07 football season.

Malcolm Stamper
SAS Brand Manager

Emirates Stadium Key Facts

The overall project cost is £390 million
The site of the new stadium is 17 acres.
The new stadium has a capacity for 60,000 spectators.
10,000 tons of steel reinforcement will be used in the stadium, which is the equivalent of the weight of over 300 team coaches.
SAS Tubeline was originally specified on the external part of the building as well as the WC's. However the Metropolitan Police decided in a riot situation SAS tubeline could be used as a weapon and stopped the specification.
3,000 tons of tubular steel will be in the main roof
To finance this highly complex project, Ashburton Properties, a subsidiary of Arsenal Holdings plc was formed and obtained a £260million senior loan facility from a stadium facilities banking group.

What will happen to the old stadium at Highbury?

Arsenal Stadium, Highbury will be redeveloped into 711 homes, facilities such as a gym, health centre, nursery and retail unit. The East and West Stand façades, together with the Marble Halls and other key elements of the current stadium such as the art deco Sunburst glazing panels will be retained and incorporated into the new scheme, named 'The Stadium - Highbury Square'. Highbury's Grade II-listed East Stand and opposing West Stand will be converted into high-spec apartments, many overlooking the pitch.



Paul Collins is proud of the SAS bins.



On site at Arsenal

The SAS Insider welcomes news and comments from everyone at SAS International and HCP. Please email sasinsider@sasint.co.uk. Contact Andrea England on 0118 929 0900 or any member of the marketing team.

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SAS INSIDER

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