

The IMF 2025 Golf day will be On the 21st May At Harbourne Golf Club Please contact Helen@materialsfinishing.org For further details







DIARY

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IMF DIARY

DISTANCE LEARNING START DATES

Apply by 27th August for start date 6th September 2024.

Please note that all course fees must be paid in full before any course materials can be released.

Please contact Karen Yates by email karen@materialsfinishing.org

You can find details of courses and qualifications on our website- <u>https://materials-finishing.org/</u>

UPCOMING EVENTS

Southern Branch Zoom Seminars

1st October – Modern Cleaning Processes

12th November - Metals from Space

Times and logon details will be available nearer the time.



You will remember that in my column in June, I noted that I was planning a business trip to China, this has now been completed and I've had a few weeks to recover and my body and mind back into UK time.

One forgets what a large country China is, and to visit clients in such diverse places as Shenyang, Zhuzhou and Shenzhen involves an awful lot of travelling! The country is really set up for this with numerous airports throughout



the country and regular flights operated by several internal airlines. I have to say its quite an experience, being the only Englishman on a full Airbus A321 amongst over 150 Chinese. What is interesting is that food is still served on all the flights, something we have forgotten about in Europe with our "low cost" airlines.

One particular travel experience was the "high speed" train from Zhuzhou to Shenzhen, where a three-hour journey was in complete comfort travelling at an average speed of 305km/hour (190 mph). UK railways could learn a lot; the train arrived and departed to the second and was almost, dare I say, better than the Japanese bullet trains!

Being a typical Englishman, my grasp of any language, never mind Chinese is very limited; in fact, I only really know how to say "hello" (Ni hāo), but the majority of the people I met spoke really good English, including a majority of



hotel staff and most of the business contacts.

The China I saw is really vibrant with a large number of impressive shopping malls featuring many designer shops, lots of restaurants and all well populated. There is a majority of electric cars, particularly taxis and "Ubers" and compared to my last visit in 2018, there





seemed to be much less air pollution?

Now being back in the UK, I'm beginning to get a grip on the changes in the political landscape which initially doesn't feel as bad as I feared! I'm not really happy with loosing my pensioners winter fuel payment, although I have to admit it was a nice, but un-necessary bonus which paid for a few Christmas presents!

I have been really disturbed by the protests over the past week or so following the shocking death of the three little girls in Southport. Whilst this was terrible, I don't think it was a valid reason for the fighting and wilful damage caused. The news of this has obviously spread around the world as a very bad image of the UK, to such an extent that my company's distributor in Singapore has asked me if its safe for him to visit Birmingham in October!

Now that we are in the holiday season, I'm really appreciating the easier commute from home in Herefordshire up to Birmingham, and the much-reduced traffic on the M5 and M42. It doesn't seem, however, to have had much effect on the overall scale of business, with orders and enquiries continuing apace. I think that nowadays, there are no factory closures as happened in the past: I remember the "Birmingham holiday fortnight" really well as the city emptied as we all went away. Probably better now with staggered holidays?

So on that note, I hope you have, or have had, a really enjoyable holiday, and return refreshed for busy times ahead!

Graham Armstrong August 2024





Thumbs Up or Thumbs down....The IMF is going YouTube style

Coming soon to the website will be "The IMF Educational Tasters" which will be accessed via LinkedIn to those who are not Members and wish to view it and also via "Important Information" on the website.

The idea is to offer tasters of what we present in our courses with the hope that those who are not Members will be encouraged to join and learn more about our great industry.

If the video is liked then the *c*an be clicked and likewise if it proves to be uninteresting then the *c*an be clicked.

Clicking the icons will give feedback to the IMF and show that what we are trying to do is worthwhile or not.

A lot of work goes into producing these videos so I am hoping it will prove to be a positive move and help the IMF.

John Burgess



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We can help you decide on which advanced cleaning equipment to use whether to work with existing machines or to upgrade to an advanced single or multi -tank solution. We help clients evaluate processes to select a solution that delivers suitably fast, effective cleaning cycles. Fully committed to supplying the highest quality cleaning equipment, such as the Miele aqueous range offering slimline and bespoke heated tanks to superior solvent cleaning solutions.

After installing a new cleaning system into one of Fraser Technologies leading aerospace clients they commented to say

"We've worked with Fraser Technologies for many years, and I knew they would deliver on this 100% cleanliness success rate challenge. They always provide a professional, hands-on approach, helping towards a solution at every stage. They offer an excellent level of support, with ongoing improvements, problem-solving workshops and they are always available when we need them.'

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Many factors come into play when choosing the best chemistries solution to your unique cleaning application. Fraser Tech offer a range of high quality, eco friendly solvent and aqueous chemistries as part of our wider solutions. With many older solvent chemistries being removed or restricted in use due to H&S or environmental reasons, the Opteon™ range of products is now a very real and cost effective long-term option for many applications.

Fraser Technologies Commitment to Innovation and Quality

Fraser Technologies has built its reputation on a steadfast commitment to innovation and quality. They are certified under ISO 9001, which guarantees a robust quality management system, ensuring that their products and services consistently meet customer and regulatory requirements. Additionally, their compliance with ISO 14001 underscores their commitment to



environmental management.

Sustainability and eco-friendly practices are not just buzzwords for Fraser Technologies; they are integral to the company's ethos. The company places a strong emphasis on developing and supplying products that are safe for both users and the environment. This includes sourcing and recommending cleaning fluids with low global warming potential and no ozone depletion potential, as well as designing equipment that maximizes efficiency and minimizes waste.

The Fraser Tech Advantage; Expert Support and Service

Fraser Technologies prides itself through its exceptional support and service offerings. Understanding that each client's needs are unique, the company provides a comprehensive suite of support services designed to ensure optimal cleaning performance and customer satisfaction including, evaluation and cleanliness testing, process audits and optimization, in house cleaning trails and demonstrations, just in time delivery and tailored service plans.

Contact Fraser Technologies today to discover how their innovative solutions can meet your cleaning needs and drive your success.

For more information, please contact us: Tel: 01506 443058 | E-mail: sales@frasertech.co.uk | www.frasertech.co.uk

METALS FROM SPACE

A Zoom presentation by Dr. John Arnold (Tuesday 12th November 2024)

We normally think of metals as being obtained by mining into the Earth's crust. However, some civilizations, most notably the ancient Egyptians, relied on iron from meteorites, reminding us that metals exist beyond the Earth. In the future asteroids may be mined for them. The red colour of the planet Mars is due to an oxide of iron, spread across its surface. But how did metals get to these various locations? Why are many meteorites rich in iron?

Elements up to iron are made in the cores of stars as they fuse lighter nuclei together. It has generally been assumed that heavier elements then form in the



extreme non-equilibrium conditions of the exploding star – the supernova. It is now being increasingly suggested that colliding neutron stars have also been a major source of heavier elements such as gold and platinum.

In my presentation I will survey various aspects of metals across the universe, how they are distributed, and what this may mean to the future of humanity.

The colour of Mars is due to an iron oxide, dusted across its surface. The nebula is a supernova remnant, where a star once exploded spreading chemical elements across space

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Dr John Arnold, Leeds Astronomical Society



SOUTH WEST METAL FINISHING (i)

It's well-known that industrial developments in the aerospace arena take a long time, but as a leading West Country surface treatment specialist can attest, the end result makes the effort worthwhile.

The R&D team at South West Metal Finishing (SWMF) knew they had a potential winner when they started developing an innovative process to improve the surfaces of components manufactured using additive layer manufacturing (ALM or AM).

That was in 2014, and the disruptive technology of AM itself was in its early days, especially for aerospace applications.

SWMF realised that the complexity possible with AM design called for a revolutionary approach to post-production surface treatment. So, building on its extensive experience in surface coatings and treatments, the Exeter-based specialist set to work on a new chemical immersion treatment to enhance the surface of AM parts. "We call it 'chemical milling'," said Sean Hammond, Group Director of Sales and Marketing. The industry knows it as Almbrite[™].

Three years into development, NATEP gave SWMF the opportunity in 2017 to test Almbrite[™] in an industrial setting as the industry partner in Project Fusion, an 18-month project led by Bristol-based AVPE with Airbus as the end-user.

Typhoon and Tempest

The objective of Project Fusion was to develop Airbuscertified Class 2 components manufactured using AM technology with modified post-AM machining, non-destructive testing (NDT) and surface treatment processes.

And now, five years after Project Fusion's successful completion, Almbrite[™] is a patented process that has taken SWMF onto some of the biggest current and future programmes, including the Eurofighter Typhoon and more recently the next-generation Tempest project, which is expected to make heavy use of AM parts.

In addition, the company is working with two major manufacturers of AM powders and machines on a test programme to develop the Almbrite[™] process for more materials.

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AM-manufactured bracket after Almbrite treatment

Receiving patents was 'massive' AM-manufactured bracket after Almbrite treatment

Hammond said receiving patents for the process earlier this year was "massive for us". It has led to expansion of SWMF's own capacity at its Marsh Barton site in Exeter. The company plans to license the process where applicable.

The Almbrite[™] process comes into its own with near-net-shape AM parts whose sealing faces must be machined to fine tolerances for fitting and joining. Almbrite[™] can achieve an average roughness (Ra) of 3.2 microns on titanium and aluminium parts. Bettering that is possible, said Hammond, but can be a challenge.

With complex parts, such as heat exchangers, whose internal and external surfaces have the same roughness, being able to pump the solution through the object, however fine the bore is, allows that surface to be smoothed, reducing the chance of turbulence in gas or air flows and regaining "anything from 70-80% of a part's fatigue life".

Attractive to manufacturers

That's a key advantage, he said, and probably one of the most attractive things to manufacturers.

AM-manufactured bracket after Almbrite treatment

"That means either the part as designed has better fatigue life, or the desired fatigue life based on surface finish originally catered for is enhanced, so designers might be able to make a thinner wall section or design it differently to reduce weight or material usage or both.

"Forget aesthetics: from the point of view of mechanical advantage, this has to be one of key elements to having a process such as this."

Since its involvement in the NATEP project, SWMF has seen the uptake of its now-patented process by various top-tier aerospace manufacturers, while others, including the "F1 fraternity", are interested. And it will only increase, Hammond predicts, as the use of AM itself expands.







HMG PAINTS (i)

HMG Paints have scored a new partnership ahead of the new football season with FC United of Manchester. The partnership see's HMG become "Official Paint Partner" of FC United. As part of the partnership HMG Paints will provide its paints and protective coatings for use at Broadhurst Park in Moston which is home to FC United and Moston Juniors FC, with additional support provided for numerous community projects being ran by the club.

FC United is a supporterowned, not-forprofit, semiprofessional, community football club and exists to provide affordable football for all. In 2025, the club will celebrate 20 years since it was formed in 2005 by Manchester United supporters. It will also celebrate 10



years since the club built its own ground in Moston, North Manchester. Since its formation, FC United has continued to be a force for good, taking pride in its commitment to support the local community. The club provides and hosts a range of accessible and inclusive opportunities supporting education, employability, health and wellbeing, sport, fitness and social inclusion

HMG Marketing Manager Paddy Dyson added: "We're proud to have partnered with the club as they celebrate a landmark season. FC United's commitment to the local community and fans perfectly aligns with our values as a business, and we already have several staff who live near the stadium and attend matches so it's a natural fit to support a community asset."

As a community facility, Broadhurst Park is used every day by local people and hosts a range of activities. It's well-appointed function room and







meeting spaces are regularly used by community groups, schools, businesses and other organisations. The Function room is also hired out in the evenings and weekends for functions for people to celebrate weddings birthday's, anniversaries and christenings. HMG Paints are also one of many local business to host their Christmas Parties there!

FC United's Commercial Manager Paul Haworth explained "As a club, we are extremely proud to have Broadhurst Park as a facility for fans and local people to use and enjoy. We want to take care of it. Joining forces with HMG Paints allows us to ensure the stadium looks and remains in pristine condition. As you could imagine, our purpose-built 4,400 capacity home has quite a lot of paintwork, and we would have really struggled without the support of HMG Paints. They've been amazing."

In preparation for the new season and FC United's first home match on Tuesday 13th August, the club's volunteers have been busy applying HMG Paint to various parts of the ground, inside and out. As part of the partnership Broadhurst Park will be one of the first stadiums in the country to feature HMG's new HydroPro range of cladding, floor and wall coatings along with long established products.

On Bank Holiday Monday 26th August, for FC United's home match with Ashton United, the club will be offering free tickets for residents living in North Manchester. On the day HMG Paints will be proud Match Sponsors of FC's 'North Manchester Day', highlighting a joint commitment to supporting people living and working in the area.

HMG Paints, located on Collyhurst Road, Cheetham Hill was formed in 1930 and is a familyowned manufacturer of industrial, commercial vehicle, decorative and specialist products.

To celebrate the partnership FC United supporters can enjoy 10% off any purchase when using promo code 'FCUM10' at <u>shop.hmgpaint.com</u>.

To see a full list of HMG Paints products, all of which are Made in Britain accredited, and services visit <u>www.hmgpaint.com</u>. Via the website you can also find out more about the company's history and partners. HMG's products are available nationwide via its network of distributors.

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If you require further information on the press release, please contact: Stephen Dyson HMG Paints Communications <u>sdyson@hmgpaint.com</u> or <u>marketing@hmgpaint.com</u> www.hmgpaint.com 0161 205 7631



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JOIN US!

Fischer Hands-on! Workshop Measuring with XRF







Date: Tuesday 8th October 2024 Time: 10-3 pm

Location: Fischer office, Pershore, WR10 2JL

Agenda details:

- The Fundamentals of XRF
- Developing an application (DefMA structure) and influences affecting readings
- The Importance of Calibration
- Getting Hands-on!
- Interpreting Data making measuring meaningful!
- Question and Answer Session

To join us for this event please register by contacting

Georgina McWhirter

Email: gmcwhirter@fischergb.co.uk Phone: 01386 577370

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Dear Esteemed Colleagues,

We are proud to announce the next edition of the EDNANO workshop that will be held in Florence (Italy) from 10 to 12 April 2025. This conference, devoted to the electrodeposition of nanostructures and their applications, will be a joint event between EDNANO-16 and EAST.

Oral and poster sessions will take place at the University of Florence on the Morgagni Education



Center, close to the city centre, Thursday 10th and Friday 11th April 2025.

In addition to the scientific appointment, also social events are planned: a social dinner in a renowned Tuscan restaurant and an excursion to a prestigious Florentine museum on the morning of the 12th April. Further detailed information will be communicated later.

Registration will open September 16th, 2024.

All information on EDNANO-16 can be found at the link: www.ednano-16.unifi.it .

Important dates:

16/09/2024	Abstract Submission and Registration opens
15/01/2025	Abstract Submission deadline
12/02/2025	Abstract acceptance communication
20/02/2025	Registration deadline
10-12/04/2025 EDNANO-16 Congress	

We look forward to seeing you in Florence,

Kind regards,

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Walter Giurlani & Massimo Innocenti the EDNANO-16 organizing committee EDNANO-16 website





SURFACE WORLD 2025 (i)



SURFACE WORLD 2025: Learn, Connect and Shape the Future – Under One Roof, Over Two Days

Surface World 2025 is more than just a typical trade show – it's an event that's all about transforming the surface finishing industry. Set to take place on Wednesday 26th and Thursday 27th February, it's a two-day gathering where professionals from the



industry come together to learn, connect, and shape the future. This two-day event is more than just a showcase of products; it's a platform for innovation, learning, and networking. Attendees can expect to see the latest advancements in surface finishing technologies, from state-of-the-art machinery to cutting-edge techniques that are pushing the boundaries of what's possible in the industry.

Surface World 2025 provides the perfect opportunity to get hands-on experience with the

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newest technologies and ideas shaping the future of surface finishing. From environmentally friendly coatings designed to minimise ecological impact or delving into the intricacies of advanced automation systems streamlining production processes, participants can explore diverse innovations first-hand. With a vast array of specialist experts from within the industry and interactive demonstrations taking place on the exhibitor's stands, attendees will





SURFACE WORLD 2025 (ii)



have the chance to gain valuable insights and knowledge that can help them stay ahead of the curve in this fast-paced industry. Networking plays a crucial role at Surface World 2025, offering attendees a valuable

opportunity to expand their professional connections within the surface finishing industry. Beyond merely exchanging business cards, this event provides a dynamic platform for forging meaningful partnerships and exploring collaborative ventures. Attendees will have the chance to engage with like-minded professionals, share insights, and cultivate relationships that can lead to new opportunities for growth and innovation. Whether it's discovering potential collaborators for projects or finding mentors to offer guidance, the networking opportunities at Surface World 2025 are bound to leave a lasting impact on attendees' careers and businesses.

Surface World 2025 represents a pivotal moment for the surface finishing industry. It's a chance for professionals to come together, share ideas, and shape the future of the industry. Whether you're a seasoned veteran or just starting out in the industry, there's something for everyone at Surface World 2025.

So mark your calendars and get ready for an unforgettable experience at Surface World 2025. It's sure to be an event that will leave a lasting

impact on the surface finishing industry for years to come. Surface World 2025 – Hall 11, NEC, Birmingham – 26th & 27th February 2025 For more information about Surface World 2025, please contact



Nigel Bean: nigelbean1@aol.com





100 YEARS CELEBRATION

CELEBRATING

1925 - 2025

Join us as we celebrate **100 years** The IMF are 100 years old in 2025



In 2025 the Institute of Materials Finishing is celebrating our 100 birthday.

Founded in 1925 as the Electrodepositors Society to serve the electroplating industries, we became the Institute of Metal Finishing in the 1950's. In 2012 we re-badged ourselves as the Institute of Materials Finishing, to better reflect our involvement with all aspects of surface engineering.

Our celebrations begin in February 2025 at the Surface World exhibition, with a centenary dinner taking place on the first evening, Wednesday 26th February 2025.

Tickets will be £35 per person or a table of 10 for £300.

There will be a 3 course dinner followed by entertainment.

Please let Helen know soonest if you would like to attend by email: helen@materialsfinishing.org. Further events are being planned throughout 2025, which we are sure will interest and engage all our members. Please keep an eye out for announcements in future editions of IMFormation! Please try to join us as we mark our Centenary!

YEAR

Email: helen@materialsfinishing.org

