

IMFORMATION JUNE 2025

IMF GOLF DAY- see pages 14 & 15 For the report







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IMF DIARY

DISTANCE LEARNING ENROLMENT DATES

22 Aug 2025 for Start 5 Sep 2025 8 Jan 2026 for Start 16 Jan 2026

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

Please email training@materialsfinishing.org

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

UPCOMING EVENTS







It's really quite nice to be enjoying warm summer weather here in the UK, more akin to what I'm used to in my new home in Cyprus. I'm finally getting most things sorted over there, and I anticipate being resident there by the autumn. Theres something quite nice about having a swimming pool in your garden!



What's not so nice is having a military base only 60km up the road, especially with all the unrest in the Middle East, and the possibility of random strikes against the British military. Hopefully all the tensions in the region will continue easing and the world will soon be a safer place again.

One spin off from all the military involvement is an increased involvement from the surface engineering industries in the increased production of armaments: not really something to shout too loudly about, but a bit of respite from industry doom and gloom.

Being a regular commuter between the UK and the Eastern Mediterranean I do find it a bit difficult to keep totally up to speed with business activity in the materials finishing industries, but if Indestructible is a prime example, then things overall are not looking too unhealthy!

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Industry does seem to be a bit of a whipping boy for government, with recent changes in taxation, and everincreasing legislation, and I suppose I'm a bit amazed at the





resilience being shown. Long may this continue, as we must still recognize that industry making things is key to the long-term prosperity of UK plc!

We must hope that the recent apparent lull in REACH activities continues, and that the recent sense being shown, not only in the UK, but also in Europe, on authorisations and restrictions will continue to be the norm.

The move to net zero across multiple industries will be another challenge for business leaders, but this will be an essential activity not only to clean up our act but also to make our living safer and healthier. What does worry me a bit, is that here in the West we make sterling efforts only for these to be overshadowed by counter activities in the Far East.

So enough feeling down; Summer's here and we can all look forward to enjoying a holiday break! So can I take this opportunity to wish you all a great holiday, either here in the UK or abroad, allowing us all the re-build ourselves for the challenges coming in the autumn.

Graham Armstrong June 2025







2025 AGM

To be held at

The Manor Hotel, Meriden

CV7 7NH

19th November 2025

Email helen@materialsfinishing.org

For more details







THE SOUTHERN BRANCH

The Life and Times of a Small Electroplating Company

Phil Alexander

Presented to the IMF Southern Branch,

Tuesday 3 June 2025

Report: Clive Arnold

ern Branch, Prop: P.C. Alexander B.Sc. M.I.M.F. M.M. Alexander B.Sc. (HONS)

M&P PLATING

A long standing member of the IMF and Southern Branch Committee, Phil Alexander operated a small electroplating company in Farnborough, Hampshire during the approximate period 1995 – 2005. Phil partnered with his Wife, Mary, in this enterprise.

Phil told their interesting story to an attentive online audience. The subject "pressed a button" with the viewers with many positive comments and questions. As a result, we will provide a more detailed article in the next edition of IMFormation.

In the meantime we have further interesting webinar presentations in prospect including Materials in Space, Coatings on Air, and experiences of electroplating training.







Distance Learning Courses Email training@materialsfinishing.org For more information

> Applications due by the 21st August 25 Payment required by the 4th September 25





EDUCATION & TRAINING (i)

DISTANCE LEARNING A

Foundation Module Basic Surface Finishing

Develops fundamental understanding from 29 Units of which a student studies 15, including 7 mandatory units. One of three core technology blocks are chosen, either **Electroplating** (8,9,10 & 18); **Organic Coating** (19, 20, 21, 22, & 23); or **Aerospace Finishing** (19, 21, 23, 24 & 25), each comprising 5 units plus 3 optional units relevant to the student or their employer – all units are listed below.

Two pieces of marked coursework are required and on passing an examination a student is awarded the **Foundation Certificate.**

| Unit 1 * | Surface Finishing | Unit 16 | Alloy Plating & Composites |
|----------|--|---------|---|
| Unit 2* | Corrosion | Unit 17 | Printed Circuit Board Processes |
| Unit 3 * | The Environment & Surface Finishing | Unit 18 | Electroplating - Care & Maintenance of |
| Unit 4 * | Health and Safety | | Solutions & Product Quality |
| Unit 5 * | Cleaning and Pre-treatment | Unit 19 | Conventional Paint Processes |
| Unit 6 * | Sacrificial Coatings | Unit 20 | Electrophoretic Paint Processes |
| Unit 7 * | Services | Unit 21 | Paint Application Methods |
| Unit 8 | Surface Improvement | Unit 22 | Coating Powders & Application |
| Unit 9 | Principles & use of Electroplating - double unit | Unit 23 | Testing Paint & Powder & Coatings |
| Unit 10 | Plant and Equipment | Unit 24 | Chemical Conversion Coatings and |
| Unit 11 | Copper, Silver and Gold Plating | | Sol Gel Coatings |
| Unit 12 | Nickel Plating | Unit 25 | Anodising of Aluminium & Alloys |
| Unit 13 | Chromium Plating | Unit 26 | Vacuum Coating Processes |
| Unit 14 | Zinc & Cadmium Plating & Passivation | Unit 27 | Duplex Coatings of Galvanising plus Paint |
| Unit 15 | Electroless Plating | Unit 28 | Electroforming |
| | | Unit 29 | Nanotechnology |

* Mandatory units

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On achievement of the **Foundation Certificate** candidates may wish to progress to the **Technician level modules**, please see over the page for details.



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D TUTORED MODULES

Technician Modules

Develops in-depth knowledge for key finishing technologies and their application and best practice methods.

| Principles of Electroplating | Broad introduction to electroplating technology | | |
|------------------------------|--|--|--|
| Electroplating Practice | Industrial application of major metals and supporting pre-treatments for electroplating and electroless deposition | | |
| Paints, Lacquers & Varnishes | Application methods, equipment, curing, drying and testing of solvent and water based industrial finishing processes | | |
| Powder Coating | Application methods, testing, environmental, health & safety topics | | |
| Environment, Health & Safety | Legislation information on environmental, health & safety topics | | |
| Materials Science | Manufacture, properties and examination of materials which require various forms of coating or treatment to meet service life needs | | |
| Automotive Surface Finishing | Applications specific to the automotive industry | | |
| Electroforming | How electroforming can be used to manufacture components and tooling | | |

On successful completion of four marked assignments and passing an examination, a student is awarded a **Technician Module** certificate.

Passing two Technician modules leads to the award of Technician Certificate.

Passing four Technician modules leads to the award of Advanced Technician Certificate.

For more comprehensive details of all modules offered please refer to the IMF website **www.materialsfinishing.org** where you find the full syllabus for each module.

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JOHN BURGESS MEMORIES (PART 3)

Moving South & a complete breakdown

As my wife & I had always enjoyed the New Forest we decided that if there was ever an opportunity to move south, we would take it.

M&T had a satellite distribution office in London and the opportunity for a position of Tech Service representative became available.

I decided to "go for it" and got the job so we were on the move down South and after much hunting for a house we finally settled down in Bracknell. This was around Christmas time, but the move was not the best so to speak and to say it was fraught with issues was an understatement.

As we all know learning your way around London can be a nightmare especially when the invention of Sat Nav hadn't even been thought about so a plan was needed to make life easier. The journey into London was around 25 – 30 miles so I picked several companies that were in one area and went out early Sunday morning (6-00 am) to learn my way around.



The biggest problem I found was learning which way was North, South, East & West so after talking to Barry Gay he introduced me to a super London street atlas (which I still have to this day) and also a good compass which was duly stuck on the window. Eventually you get to know the landmarks so the other issue is the traffic which was not as bad as now but could still be a nightmare. At least there was no congestion charge or LEZ & ULEZ so that was one nightmare avoided.

To say I met some characters was an understatement and being a "Brummie" mickey taking of my accent was fair game. (No

modern ideologies in those days). "Cor blimey mate where did you say you come from" was the most common but I soon learnt that if you gave back as much as you received it soon stopped and I think that once they realised that I did know something about the industry I soon became accepted.

The work was varied. One day would be trouble shooting the next day would be collecting samples for analysis and the day after could be an installation but it was always interesting.

Early in the new year I was in a large zinc platers in Slough and they were





having issues of poor throw. The zinc solution was a medium cyanide solution with a volume of around 2-3000 ltrs and we had to make a rather large addition of sodium cyanide.



As it was late everyone agreed to return to the issue the following day so I started my 20 mile journey home on a very cold snowy evening.

At the time, I was driving a Ford Cortina Mk 3 and I used to keep a packet of Polos in the tray by the gear change. I duly popped one into my mouth and almost instantly my brain thought that I tasted "bitter almonds". Bitter almonds is associated with cyanide and I thought what have I done.I knew I had washed my hands before

leaving the factory but no amount of telling myself could convince me that I had not ingested cyanide.

I stopped the car and got out in the cold night, looked at my watch and thought, in 5 minutes I would never see my wife and son again.

I managed to drive home with sweat pouring off me, the window down at a temperature of around 1° C and running into the house screaming that I needed to get to the nearest hospital. We had no idea where the hospital was and fortunately the new next door neighbour took us and I was duly seen almost immediately.



Of course if the brain was working logically then I would have already expired but logic was not working and eventually I was told the I as having a panic attack which gives very similar symptoms (palpitations, sweating etc).

This was the start of a long period in my life that I would prefer to forget so I decided that I would get off the road and move to an internal job.

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Next time: I do get down to the south coast and a visit to China in 1981



HMG PAINTS (i)



HMG Paints Employees Prepare for Three Peaks Challenge Benefiting 2025 Charities

On Thursday 19th June, staff from Manchester based family business HMG Paints will be setting their sights high as they take on the British Three Peaks Challenge. This challenge, which takes course over 3 full days, will see staff raise funds for their three chosen charities of 2025.

This upcoming challenge follows a proud history of staff-led fundraising efforts, including successful fundraisers such as the Manchester to Scarborough bike ride for Macmillan Cancer Support in 2016, and more recently, 2024's ambitious Scotland North Coast 500 fundraiser for Francis House Children's Hospice.

This challenging event will see 12 members of staff from HMG scale three of the UK's highest mountains, totalling in at around



10,000 ft. The climb will see staff at HMG visit Ben Nevis in Scotland, standing at 4,413 ft, England's highest mountain Scafell Pike, reaching 3,560 ft, and Wales' highest peak Snowdon, hitting 3,560 ft.

"The Three Peaks Challenge is something that has been on my bucket list for a while now, and I'm looking forward to it," said Brian Dowling, HMG Paints' Health, Safety & Environment Manager. "Any support for our fundraiser would be much appreciated."

With every step taken from staff at HMG, the team will raise funds for staff-selected charities, picked out internally for the upcoming year, including Cancer Research, funding-life saving research aimed towards cancer; Francis House



HMG PAINTS (i)



Children's Hospital, providing palliative care and support for seriously ill children; and Memories by Hudson, supporting parents who have lost newborns with comforting gifts.

Josh Hibbert, Marketing Assistant at HMG Paints, added, "It's inspiring to see the dedication of our team taking on such a tough challenge for these amaz-



ing causes. We're all in this together, and every donation, big or small, makes a real difference for the three charities we have chosen to support this year."

HMG are incredibly proud to support these organisations throughout the year, and the team are committed to pushing their limits to help these causes as they prepare to take on one of the UK's formidable challenges. A fundraiser has been setup by the team lead-



ing up to the climb, which is already halfway towards reaching the initial goal, a testament to the incredible support the climb has received so far from HMG staff, suppliers and customers.



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GOLF DAY (i)



The IMF golf day this year had a change of venue to Harborne Golf Club in Birmingham. The Harry Colt designed course encouraged accuracy over length and not unlike many of his other designed courses such as Royal Portrush the venue for the 2025 Open Championship.

Alongside the change in venue a slight change in the playing competition. Previously the 1st position would have been for the team with the lowest score but to allow for more individuals and pairs to play the competition was a Betterball Stableford with individuals being drawn with a ghost card on completion of the round.

Unlike previous years the weather could

not have been better, the sun shone, and the winds were light with the odd passing shower later in the afternoon allowed for a great day of golf. The course played superbly well, with the greens catching many out as they were running at 8 on the stimpmeter. Quick for this time of the year.

The day included both Longest Drive and nearest the pin. The longest drive was won by Conor Bourke (Indestructible Paints Ltd) with a superb drive that just held onto the furthest part of the 12th fairway. The nearest to the Pin on the 3rd won by Mark Smith.

During the day some great scores were submitted. In the Pairs event 46 points for Paul and Gillian Holder (Holder Specialised Solutions) and 47 points for Tom Walker and Mark Smith was on for the win until the Ghost draw the random draw enabled Mick Bowler & Mark Smith to win with 48 Points a fantastic score for an 85% Betterball. The individual prize was also taken with a fantastic score, playing with a hand-icap of 20, Mark Smith finished with 44 Points.





GOLF DAY (ii)



A fantastic day was had by all at a great course and I'm sure this was echoed by all playing on the Day.

The IMF would like to thank Harborne Golf Club, the greens staff and the catering staff for their hospitality. The Players also would also like to thank Helen Wood at the IMF for all of the hard work she put into this golf day. Once

again it was enjoyed by all.

We look forward to next year and if you are an individual, pair or team of 4, keep an eye out for the dates once confirmed of the 2026 IMF golf day. Come and challenge the golfers from 2025 and see if you can match the great scoring from this year's IMF golf Day.









Revolutionising Vapour Degreasing: A Multi-Solvent System That Outperforms Traditional Cleaning Methods

Vapour degreasing is evolving, and our new multi-solvent cleaning system is leading the way. Designed to work seamlessly with Modified Alcohol, Hydrocarbon, and Perchloroethylene, this advanced equipment delivers superior performance and flexibility compared to traditional co-solvent methods. It meets today's demands for high-quality cleaning, faster cycle times, and improved environmental compliance across a range of industrial applications.

To meet these new performance standards, our advanced vapour degreasing (AVD) equipment has been developed with versatility and efficiency at its core, this advanced system is designed to deliver superior cleaning outcomes for a variety of components, contaminants, and materials.

Drawing on two anonymised realworld mini trials, we showcase how this cutting-edge cleaning system delivers exceptional flexibility, performance, and sustainability highlighting the multiple solvent options available.

Case Study 1: Reviving 'Failed' Electronics with Vapour Degreasing and Modified Alcohol

- Application: Flux-removal for mechanical electronic assemblies
- Solvent: Modified Alcohol
- Component Material: Aluminium, copper, potting compounds
- Contaminant Removal: Flux

 Previous process used : Co-solvent with HFE and hydrocarbon

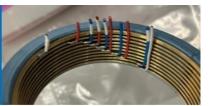
A manufacturer of mechanical electronic assemblies faced challenges with flux contamination across a range of aluminium, copper, and potting compound components. Their previous process used a cosolvent solution combining HFE and hydrocarbon, which delivered inconsistent results, especially for older or more complex assemblies.

During testing with our vapour degreasing system and Modified Alcohol solvent, the results were transformative. Even previously scrapped components, set aside after failing final quality control, were given a second chance.

Over 80% of these "failed" parts were cleaned to a standard that passed final inspection, helping the customer recover valuable stock and reduce waste. Additionally, cycle times and material compatibility exceeded expectations.

Case Study 2: High-Volume Metal Part Cleaning with Perchloroethylene Degreasing

- Application: Oil removal for a high volume of small metallic components
- Solvent: Perchloroethylene
- Component Material: Brass
- Contaminant Removal: Mineral Oils
- Previous process used: Older version of the vacuum degreasing machine



In high-volume manufacturing, throughput and solvent efficiency are just as important as cleanliness. A customer processing large batches of small brass components contaminated with mineral oil was using an outdated vacuum degreaser.

When these parts were tested in our upgraded system using Perchloroethylene, the cleaning performance was exactly as expected, outstanding. But beyond that, <u>the customer also</u> <u>saw significant improvements in</u> <u>solvent usage and overall</u> <u>operational efficiency, making the</u> <u>upgrade not only effective but</u> <u>cost-saving in the long run</u>.

Conclusion: A Smarter Approach to Vapour Degreasing

These two case studies demonstrate the wide-ranging benefits of our new advanced vapour degreasing (AVD) equipment. Whether you're cleaning delicate electronics, highvolume metal parts, or mixedmaterial assemblies, this flexible system delivers powerful, consistent results with reduced cycle times, lower solvent usage, and greater process reliability.

Book a Trial and See the Results for Yourself

Are you ready to update your cleaning process?

Whether you're focused on sustainability, speed, or solving complex cleaning challenges, we'll help you find the right solution.

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

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