

THE Connector



Customer Collaboration



Derek Smith
RSC Operations Director



RSC offers industry leading treatments as well as full technical support to their Primes & Sub-Primes. Customers have recently been facing issues with obsolescent materials as well as REACH restrictions, which is becoming more of a problem with the ongoing withdrawal of Substances of Very High Concern (SVHC). The Aerospace & Defence industries have been affected by these changes as a number of common treatment processes use chromates, which will now require authorisation. RSC has stepped in to work closely with its customers to find both short and long term solutions, helping to keep the wider supply chain operational.

RSC has been a member of the Aerospace & Defence Chromate Reauthorisation (ADCR) Consortium since September 2021, which permits RSC to use chromates for treatments required by its key customer base. Moving forward, RSC along with its Prime customers are pro-actively working together and collaborating to remove these harmful substances where possible, using innovative processes to find alternative surface coating solutions.

EFFECTIVE COLLABORATION



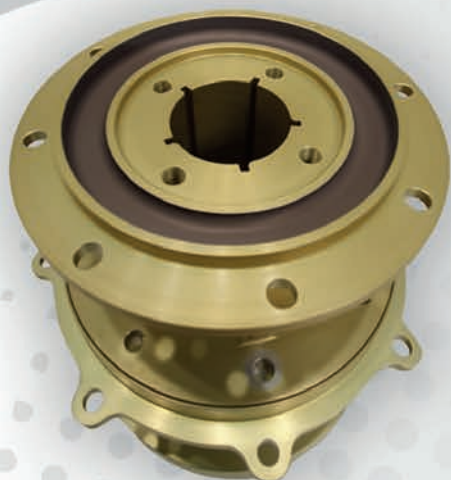
Effective collaboration requires trust, respect, honesty and openness between both parties. Starting with an NDA, the mutual work leads on to discussions around requirements, restrictions and potential solutions to achieve a common goal that benefits both companies, as well as the wider industry. This is only made possible through open and productive communication between the teams of both businesses.

Collaboration on Multiple Surface Coatings

RSC was recently approached by a customer about a machined casting that requires multiple masking ops which were put in place to reduce the logistics and additional machining operations associated with multiple coatings. Whilst there were several masking aids on the market, none were successful due to the aggressive nature of the chemicals as well as the 'leeching' of wet chemicals. The team at RSC worked tirelessly to find a way of using the masking aids successfully in this challenging chemical environment. Eventually a solution was found to achieve crisp, accurate masking that allowed for 4 separate coating operations, enabling RSC to deliver a complete conforming product to customer.

Mil-Spec Challenges

RSC also engaged with a UK Aerospace & Defence customer around the use of their non-Hexavalent coating. Whilst this process had been awarded a Mil-Spec accreditation, there was a problematic clause within it that required electrical resistance testing. The customer was struggling



to get repetitive, robust results which left concerns around product performance. Working within the parameters of the customer specification, RSC trialled different methods and over several months perfected a process to achieve the results required by the Prime. RSC are now one of the only companies in the UK on the Approved Vendor List, made possible by the bespoke solution that remains the Intellectual Property of RSC.

Surtec Seal

The chemists at RSC were recently tasked with reducing the Dichromate Seal in global prime products. The customer required a process that uses REACH compliant chemicals whilst still achieving

robust salt spray results, previously only made possible by Dichromate based seals. Various methods were trialled using a host of non-Hexavalent processes to overcome the issues. After some in-depth trials, the team discovered that by impregnating the unsealed anodise with REACH compliant chemicals and a customer-approved seal, the product was conforming to the strict criteria. The component was then tested by an independent laboratory to confirm the results and is now used on product in the field. The process will be used on similar products, revolutionising future treatments for this customer with REACH compliant materials.

Challenges on Historic Performance

Several Prime customers are now in communication with RSC about the removal of Alocrom 1200 and Chromic Anodise from their process requirements. While there have been many alternatives, they have all come with lower performance values in comparison to Hexavalent processes.

RSC have again collaborated with Global Primes on problematic 2000 series alloys & high copper content materials, ensuring the smooth transition from legacy processes to new, safer practices that ensure companies also minimise their environmental impact.

Dorset based charity Ducks & Drakes Cancer Trust was founded in 2012 by Andrew Drake and his family. It was set up to help save lives and promote wellbeing by raising awareness of bowel cancer in young people aged 18 to 30 in Dorset as well as the wider UK. The charity also helps to support Bowel Cancer patients and their families through the provision of specialist medical equipment and financial aid.



EVERY 30 MINUTES

someone dies from bowel cancer in the UK



16,000 EVERY YEAR



90% OF CASES

of bowel cancer can be treated if diagnosed early

Andrew Drake "Drakey" very sadly died aged 30, following a 6 year fight with bowel cancer. Prior to that he was a fit and healthy young farmer. Andrew suffered symptoms for a long time without going to the Doctor, so when he was eventually diagnosed, the cancer was advanced. Andrew admitted that he was too embarrassed to go to the Doctor so was determined to raise awareness of the symptoms of bowel cancer so that no other young person would leave visiting the GP too late. Andrew and his family set up The Ducks and Drakes Cancer Trust not long after his first diagnosis with the help of close friends.

The symptoms of bowel cancer can be:

- Bleeding from your bottom and/or blood in your stools
- A change in bowel habit lasting for 3 weeks or more especially to looser or runny stools
- Unexplained weight loss
- Extreme tiredness for no obvious reason
- A severe pain or lump in your tummy
- If you are experiencing any of the above symptoms or are worried that you might have bowel cancer, visit your GP immediately

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We are so grateful that FGP has kindly agreed to sponsor Ducks and Drakes Cancer Trust's main fundraising event of the year, our annual music festival – #DUCKFEST22 which is being held this year on 5/6 August. Sponsorship like this does so much to help our charity continue its mission to help raise awareness and fund support for local bowel cancer patients. Thank you Nigel and FGP.

Nettie Drake

(Andrew's mother and charity co-founder).

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For more information about bowel cancer and the Ducks and Drakes Cancer Trust, please visit www.ducksdrakescancertrust.org.uk

To find out more about DUCKFEST22 visit www.duckfest.co.uk

New Investment

FGP Group has recently added to its fleet of 65 CNC machines with a Hardinge Talent 51 3-Axis lathe.



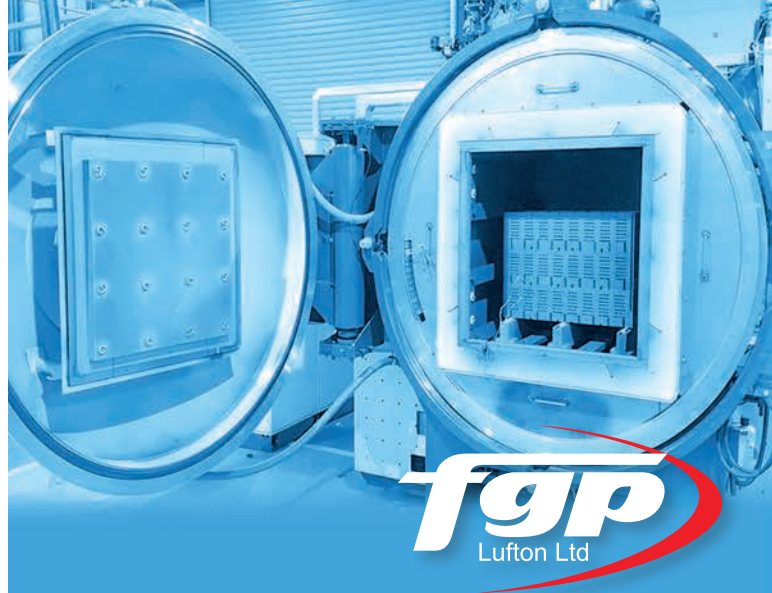
As a Partner of Choice with local machine specialists YMT, the new asset was sourced, delivered and made operational within just two weeks. The Group continues to focus on investment, expansion and growth into 2022, with additional capability across all sectors of the business.



Turnaround Times

- 5 days standard with 3 day and 24h options available
- Dual processes available from 8 days with fast track subject to agreement
- All customers' requirements are negotiable with direct communication with the RSC Production team

For all enquiries please contact derek@rsc.uk.com



Special Processing

Nadcap
Approved
Processes



1. ELECTRON BEAM WELDING

A precise fusion welding technique that takes place in a vacuum chamber, using a beam of high energy electrons to heat and join materials.

2. HEAT TREATMENT

FGP Lufton have 5 furnaces capable of processes to most international standards, including AMS 2750 and AMS 2769. The process is carried out in a vacuum and quenched by nitrogen or argon, with treatments such as magnetic and non-magnetic annealing, brazing, precipitation and stress relieving.

3. P/T & DYE PEN NDT

Non-destructive testing is widely used in aerospace to detect surface defects and structural damage in components. FGP Lufton conform to all international standards including ASTM E1417 and currently include supply to Honeywell, Safran, MBDA and Cobham Flight Refuelling.

4. VACUUM BRAZING

This process allows the joining of dissimilar materials using brazing paste in a vacuum furnace. The furnace is capable of accurate control at every stage of the heating and cooling cycles, resulting in a reduction in residual stress.

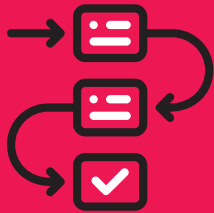
5. TORCH WELDING

TIG welding is a fusion process used to form quality and spatter-free weld seams. It's suitable for stainless steels, aluminium and nickel alloys as well as thin sheet metals.

6. TORCH BRAZING

This procedure uses a hot gas torch to melt filler and join two components. This is a manual task that requires skill and is used for more specialised processes.

MPS90



**Chris
Eckersley**

**Production
Manager**

WHAT IS IT?

Master Production Schedule 90 is a project designed to improve:

- Delivery Schedule Adherence (the number of operations we start on time)
- Productive Hours
- Delivery Performance
- Capacity

The front-end support functions (Sales, Procurement, Planning & Engineering) must ensure the shop floor has what it needs to start any given job on time, as even minor delays can have detrimental effects on wider operations and delivery performance.

The Group embarked on MPS 90 in August / September of 2021 with updates and improvements coming at regular intervals along the way.

We updated the SCIPE dashboards in each department to illustrate the machine work requirements for the next 10 days, helping the operators to plan ahead and organise their workload more efficiently.

Since its launch it's proven to be a valuable tool that also helps to drive better conversations at Production meetings. Steadily we're seeing positive changes to how we operate on a daily basis at every level of the business. Since the roll out, Delivery Schedule Adherence (DSA) has been improving month on month, up on average 7% from the initial baseline assessment.

Our average productive hours since September have increased by 1,000 hours per month based on the Q4 2021 average.

Moving into 2022 we will be working back towards our pre-Covid levels of 10,000 productive hours per month. The MPS90 program will be essential to our success as we ingest new work with new machines, new employees and embark on new projects.



ELECTROLESS NICKEL PLATE NOW OPERATIONAL AT RSC LUFTON

NADCAP APPROVED



What is Electroless Nickel plating?

Electroless Nickel Plating (ENP) is the deposit of a nickel-alloy coating by chemical reduction – without the electric current that is used in electroplating processes!

In contrast to an electroplating solution, ENP doesn't require an external source of current, it utilizes a chemical reducing agent built into the bath. The process provides a continuous build-up of deposit, since the metal being plated is itself a catalyst for the plating reaction.

Electroless Plating is metal (nickel) deposition by a controlled chemical reaction (reducing nickel ions to metallic nickel) with a chemical reducing agent such as sodium hypophosphite.

Electroless nickel plating creates a perfect, uniform anti-rust protective coat with the most common thickness between 25-75 microns, it allows ferrous

substrates to withstand extreme temperatures and environments including attacks by chemicals, saltwater and abrasive substances.

The majority of ENP for engineering purposes is a nickel phosphorus deposit containing 2 to 14% phosphorus. The higher the phosphorus content the greater the corrosion resistance, however the compromise on increased phosphorus content is a decrease in hardness, which can be improved by heat-treatment.

Primary uses for Electroless Nickel Plating:

- ▶ Anti-corrosion 30%
- ▶ Wear/hardness 25%
- ▶ Magnetic properties 18%
- ▶ Deposit uniformity 11%
- ▶ Conductivity 6%
- ▶ Lubricity 5%

RSC Supporting Community Sports Comeback

Derek Smith
RSC Operations Director



Over the last 2 years COVID has had a devastating effect on local community sports clubs, so more than ever it is key that we all play some part in retaining these activities for the community.

We now see our Minis and Juniors returning, which is great as we can offer these youngsters the chance to get active again, socialise and enjoy the experience that only sport can give.

Below, as President of Yeovil Rugby Club, I am pleased to have attended a day when both our First and Second teams played at the Dorchester Road facility. We are lucky to have such great support, my thanks go out to RSC.

Yeovil Rugby Club have issued the following statement:

"YRC would like to express our thanks to RSC, who have confirmed and secured the sponsorship of all the senior Men's match game balls for the duration of the season. Their continued support whilst we rebuild is unprecedented".



Image (Left to Right) - Brandon Brown (Club Captain), Derek Smith (Club President & RSC Director), Rob Burnell (1st Team Captain), Paul Mchugh (Chairman).



FGP Group in collaboration with Ivory Ltd have launched a Senior Leadership Development Programme (SLDP) for the Cell Leaders and Management figures within the business. The programme covers 8 modules designed to assess the participants and agree individual development plans, tailored to bolster their strengths and help with areas of improvement.

AIM: The aim of the FGP SLDP is to enhance the performance of senior managers in their current roles & prepare them to take greater responsibility, to underpin the growth of the business.

OBJECTIVES:

- Enhances leadership & management skills to ensure senior managers can run their own teams with confidence & meet their responsibilities to the wider business.
- Emphasises performance management & development of team members including coaching conversations, mentoring & wellbeing.
- Develops a clear understanding of environment in which business is operating & stakeholders it must satisfy.
- Promotes importance of collaboration & communication to the success of the business.
- Stimulates career ambition & loyalty to the Group.



HR ANNOUNCEMENTS

CURRENT VACANCIES

- **Customer Relations Manager** (FGP Systems)
- **Machinist (Turner)** (FGP Systems)
- **Methods Engineer** (FGP Systems)
- **Grinder** (FGP Systems)
- **Treatments Cell Lead** (RSC)
- **Treatments operator** (RSC)
- **Paint Sprayer**(RSC)

ADDITIONS TO THE TEAM

- **Alan Paggett, Production Scheduler** (FGP Systems)
- **Ethan Thompson, Inspector** (FGP Systems)
- **Toby Barron, Inspector** (FGP Systems)
- **Ian Napleton, Group Compliance Manager** (FGP Systems)
- **Phil Hall, Machinist** (FGP Systems)
- **Shaun Creek, Grinder** (FGP Lufton)
- **Marta Serafin, Technical Process Engineer** (RSC)



Congratulations

Craig Philips & partner
on the arrival of their baby boy

Richard Samways & wife
on their wedding

Good Luck

Sam Trew in his new role
as Inspector



1. Favourite 90's TV Show?

Friends

2. First Job?

Washed up in a café in town
on a Saturday.

**3. When you're not working,
how do you spend your time?**

Being a mum to my little girl.

4. Tea or coffee?

Coffee

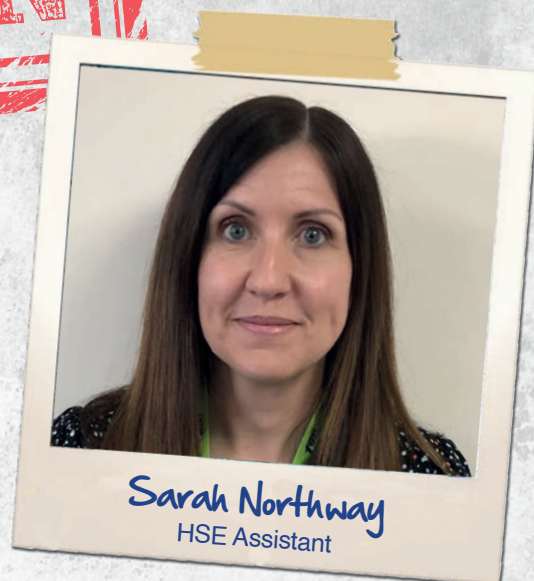
**5. Something you say you'll
do, but never do?**

Go to the gym next week!!

6. Summer or Winter?

I like both

7. Android or Apple?



TRAINING CENTRE NEWS

INNOVATION, TECHNOLOGY & DEVELOPMENT



*Innovation, Technology
& Development Centre*

**Andrew
Johnson**

Apprentice Supervisor



WE NEED YOU

To encourage your Daughters, Sons, Nieces, Nephews etc. to apply for this year's Apprenticeship vacancies. We currently have five positions available over our Group sites. Please see website and social media for more details.

COBOT UPDATE

SHOP FLOOR TRIALS

Following successful 'pick and place' bench training, we have now moved to shop floor trials with the challenges ahead laid before us: picking and placing parts in chucks and vices, opening/closing doors and pressing start buttons.

We accepted these challenges with great enthusiasm and set about demonstrating the Cobots versatility on the Goodway GLS and Citizen L32. A three stage door lift proved no problem for the Cobot once we had entered an 8kg load setting to the arm. Resetting the roll box was our next task and yet again, this was achieved through the versatility of movement of the articulated joints. By far the most impressive function was the button press, which really utilised the high sensitivity of the gripper tool.

We then moved our attention to the VMC 600 milling machine, setting up a complex sequence of events:

1. Place component in the vice
2. Close machine door and press the start button
3. Pick the previous component from inspection area and place in tray
4. Open machine door and remove part
5. Place on inspection table
6. Pick new billet from tray
7. Repeat



BUSINESS AS USUAL IN THE TRAINING CENTRE

Ed Mee has now settled into his new role as Apprentice Master and is busy teaching this year's cohort the skills required to succeed. Ed says "It's been a pleasure stepping into the role of Apprentice Master, I've enjoyed getting to know and teach the Apprentices, even picking up some new skills myself in the Innovation, Technology & Development Centre".

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