



ROSS & CATHERALL

# Secure your Q3 alloy demand

Utilise our increased melt capacity

Turning Metals into Motion



# Current market conditions to date – May 2025

- Market conditions from March 2025 have changed radically for manufacturers since the introduction of trade tariffs by the US government on trading partners across the globe
- These have intensified with a 50% introduction to E.U. countries for exports to the U.S. (reduced again within 48 hours to 10% until July) China tariffs reduced to 30% – was 145% - markets are concerned with the uncertainty and unpredictability
- Superalloys use elements sourced globally; however, key elements such as, W, Ta, Cr, Hf are sourced from China due to the location of processing facilities – for example 80-85% of Tungsten (W) is sourced from China
- Ultimately, US based superalloy manufacturers are faced with a twofold increase, market fluctuations (that R&C must also pay) and the tariffs.
- Many superalloys contain Tungsten (W), ranging from 1% to over 10%, with the MarM, Rene, and GTD families of alloys being the most affected

Ross & Catherall can provide alloy volumes with consistent and stable pricing

# Ross & Catherall are NOT impacted by the Chinese tariffs

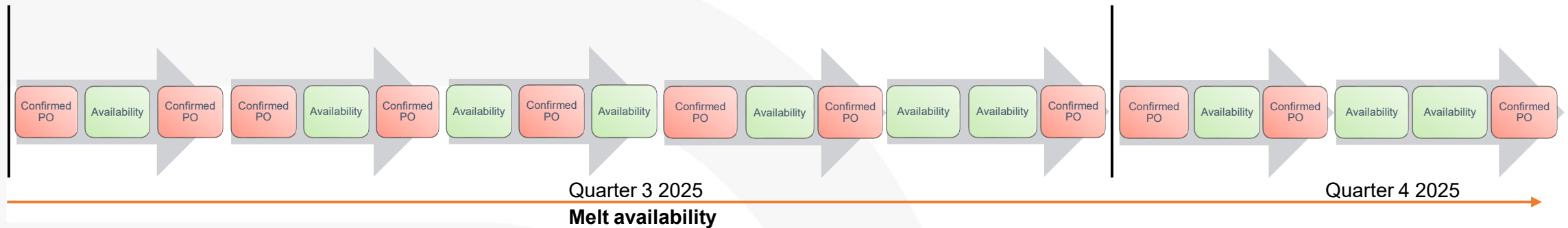
- Increased alloy volume from customers across all sectors continues to grow as customers reduce reliance on US suppliers due to the tariffs impacting costs
- Customers have reported delayed shipment, increased costs (tariff costs being passed on) and in some instances receipt of letters advising of “force majeure”
- Ross & Catherall have increased melting and production capabilities to meet the demands from customers
- Securing your forward requirements now with Ross & Catherall can help mitigate tariff impacts and market uncertainty, as prices can be fixed for the next quarter or throughout 2025.

**Remember, your revert can also help mitigate the cost impact of the element markets and the tariff charges. It has value and contains all the elements you need for your future alloy demands. So, utilise, recycle, and reduce your superalloy costs by using your valuable internal revert.**

# How we can you remove the tariff impacts on your business

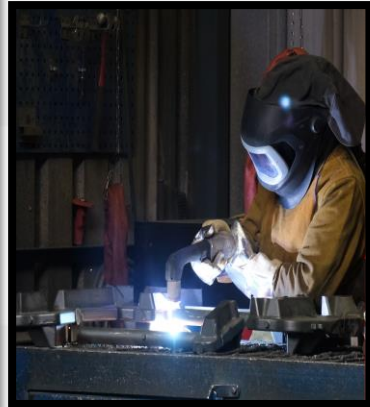
- Our facility boasts the most flexible melting capabilities of any major OEM-approved superalloy melting facility globally. We offer melting capacities across 8 melting furnaces.
  - Remove the concerns of revert availability by utilising our multiple capacity furnace options
  - Choose from 500kg (1,100lbs), 2800kg (6,200lbs), 4000kg (8,800lbs), 6000kg (13,200lbs), 7200kg (15,800lbs)
- Additionally, our in-house revert processing facility ensures a fully "closed" revert loop, maximising recyclability, and sustainability in your supply chain.
- By taking proactive steps now, you can navigate these challenges effectively and ensure a more stable and cost-effective future alloy supply. If you have not secured your alloy demands, and/or your current supplier cannot meet your requirements then maybe we can help? We have available melting capacity in June and throughout July & August
- **If you wish to reduce delivery concerns and price instability from your current suppliers due to the tariffs, we can fix prices at the point of order for your alloy demands**

# Increased melt capacity through 2025



- Customers can utilise the additional melt capacity from our latest 4t furnace, increasing the melt volume range from 500kg (1,110lb) to 7200kg (15,800lbs)
- Element prices are rising; trade tariffs are already impacting element cost increases and alloy costs. Secure your 2025 alloy requirements now to reduce cost spikes
- Our lead-times for melting to despatch is approx. 4-6\* weeks, including “spot orders”
- We continue to remain as proactive as possible, with regards to ensuring your alloy demands are met, however, commitment for melting with a confirmed PO must be provided to “lock-in” melting slots
- Revert containing melts should have the required revert delivered to R&C on time<sup>^</sup> to make “furnace ready” to meet the melting schedule
- Melt slots will be allocated based on first received receipt of PO confirmation

# In-house Revert Processing - Sustainability is possible using your in-house revert



- Our commitment to sustainability drives us to adopt environmentally friendly practices and reduce our carbon footprint, ensuring that our production processes are as sustainable as they are efficient
- Customer revert segregated, prepared & cleaned for melting
- Revert storage “closed-loop” guaranteed
- Revert ready for use in one of our 8 furnaces



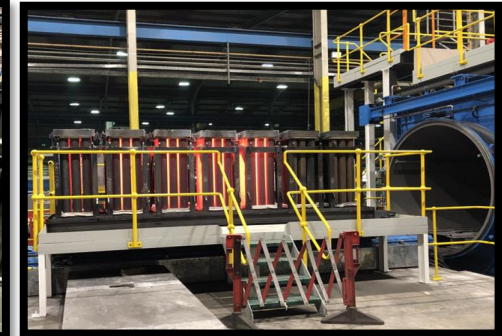


# Various Melting options to maximise your revert levels

Furnace capacities kgs (lbs)	Bar Diameters mm (inches)
500 (1,100)	75 (3"), 88 (3½"), 100 (4"), 125 (5"), 150 (6"), 175 (7")
2 x 2800 (6,200)	
4000^ (8,800)	
7200 (15,800) *	

\* Furnace yields approx. +/- 10% of stated capacity, \* 3 x 7200kg & 6000kg furnace bodies ^ New furnace commissioned Q4 2023

- We are confident that we can meet your varying volume alloy demands using any one of our 8 VIM furnaces, combined with our revert processing cell – guaranteeing a truly sustainable “circular economy” of your revert stream



# Superalloy manufacturing excellence



- Vacuum melting from 1968 ✓
  - 145 employees
- Over half a century of superalloy melting, development, manufacturing and processing experience ✓
  - World's largest selection of VIM furnace capacity options utilising the latest melting technology ✓
- Markets served: Aerospace, IGT, Additive Manufacturing, Space Exploration, and biomedical sectors ✓
  - Manufacturers of cast bar stick to the Investment Casting foundry sector ✓
  - Long history of product and process development ✓



# Superalloys for investment casting



## Ross & Catherall capabilities

- Technical, metallurgical & chemical specialists with long service industry knowledge and experience ✓
  - Fully accredited laboratory with ISO17025:2017 & Nadcap approvals ✓
- Largest volume capacity range of any superalloy manufacturer worldwide - 8 VIM furnaces ✓
- Invested and committed workforce with knowledge, experience and continuity in the sector ✓
  - Exact Chemistry control and bar cleanliness ✓
    - Low N <5ppm ✓
  - Low S & Super Low S < 3ppm and < 1ppm ✓

# What do Ross & Catherall provide?

- Supply chain confidence ✓
  - Known element prices/availability for all alloy requirements for 3,6,9 & 12 months (based on volume commitment)
  - Guaranteed melting slots and volume commitment\*
  - Latest furnace technology of any superalloy cast bar stick manufacturer worldwide
  - Known, programmed deliveries
- Flexibility ✓
  - Scheduled melting and delivery to align with your customers forecasts/demands\*
  - Largest range of melting furnace capacities from 500kg-7200kg (8 furnaces in total) – widest choice worldwide
  - Revert managed, prepared in-house and available to meet known melt demand
- Location ✓
  - Centrally located for deliveries worldwide
- In-house revert processing & preparation facility ✓
  - Revert managed and shipped from customers worldwide
  - Revert prepared, stored and available to meet known melt demand – readily available\*
  - Revert is utilised sooner and alloy cast bar stick is delivered in time, in full

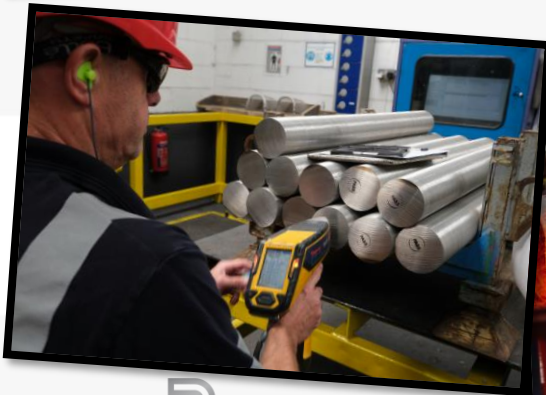


New 4t furnace commissioned October 2023



# Our people are our strength!

- Mastermelt principle melters - continuity of workforce with over 150 years\* experience and knowledge
- Senior Management Team - average tenure 10 years at Ross & Catherall, several with over 30 years industry experience
- Technical and Laboratory specialists, many with over 25 years industry experience in superalloy metallurgical development and chemical services
- Established programmes for investment in technical excellence, people, capability and plant capacity





# Ross & Catherall Limited

## Superalloy Manufacturing Excellence

- Vacuum melting since 1968
- World's largest selection of VIM furnace capacity options utilising the latest melting technology
- Aerospace, IGT, Additive Manufacturing, Space Exploration and biomedical sectors
- Supplying to the Investment casting and Additive Manufacturing industries
- Over 50-year history of product and process development
- Our expertise adds value to chemical elements to meet customers exacting "chemistries"



ROSS & CATHERALL

**SERVING THE GLOBAL INVESTMENT CASTING COMMUNITY FOR OVER 50 YEARS**