



ROSS & CATHERALL

Elements rising!

Export controls impact prices

Turning Metals into Motion

Market Disruption Overview

Tariff uncertainty disrupts Minor Metals Markets

- Ongoing tariff uncertainty continues to destabilise minor metals trade
- China remains central to sourcing, processing, and exporting
- Export volumes have reduced due to:
 - Stricter export controls
 - Additional country specific restrictions

Supply Chain Impact

Export restrictions create artificial shortages

- End-user requests now required for export approval
- Delays and rejections common
- Result is **artificial shortages**, even when physical supply exists.
- Global demand now exceeds available export supply

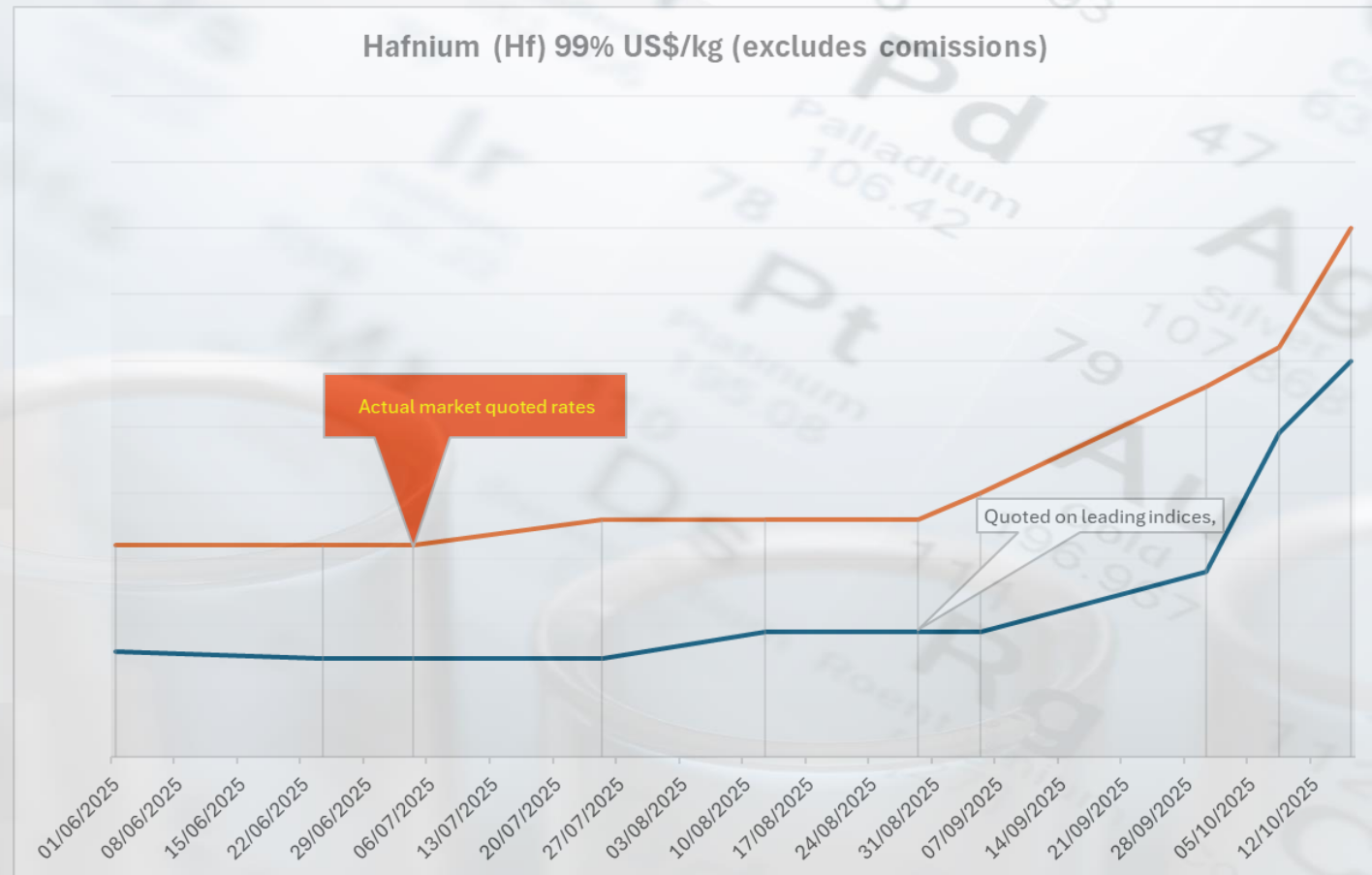
Market Pricing Disconnect

Indices lag real-time movements

- Traditional indices (e.g., LME, Argus Metals) are not reflecting rapid price shifts
- Daily price increases observed across multiple elements
- Example: Hafnium (Hf) surged ~50% in one week

Indices lag real-time movements

Example Hf



Use your revert to reduce increased costs

- Revert is a valuable input containing high value elements:
 - **Hafnium (Hf), Tantalum (Ta), Tungsten (W), Nickel (Ni), Cobalt (Co)**
- Its strategic use helps manage costs and raw material availability
- Our flexible furnace options allow you to optimise:
 - Cost efficiency
 - Delivery timelines
- Adapt the melt sizes to meet both your budget and production needs
- In-house revert processing ensures:
 - Closed-loop material security
 - rapid conversion into new alloy
- Minimises risk and maximises turnaround speed
- Eight furnace options support:
 - On-time, in-full delivery
 - High quality standards
 - Technical expertise
 - Strategic location



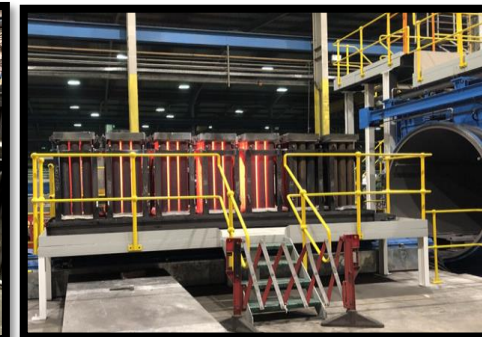
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Various Melting options to maximise your available revert

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) *	

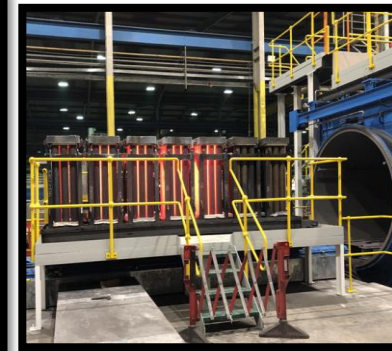
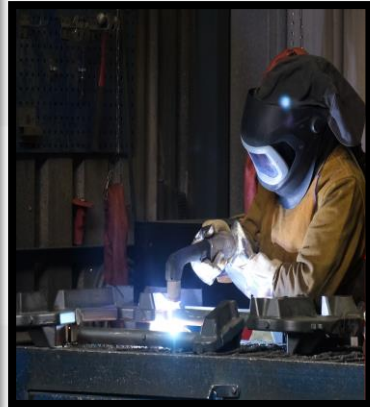
* Furnace yields approx. +/- 10% of stated capacity, * 3 x 7200kg & 6000kg furnace bodies ^ New furnace commissioned Q4 2023

With eight VIM furnaces and a dedicated revert processing cell, we are fully equipped to meet your diverse alloy volume requirements—delivering a truly sustainable circular economy for your revert stream



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Reduce impacts from minor metal increases – utilise your revert!



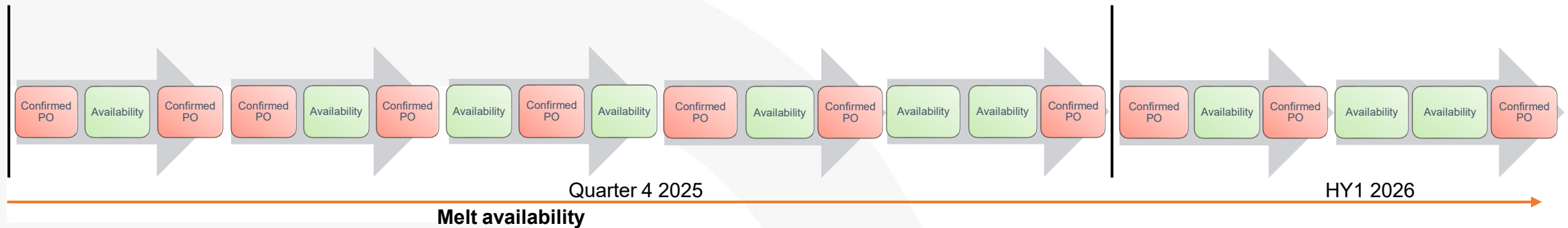
* OEM specification approval dependent

- Stabilise Your Supply Chain with Sustainable Revert Solutions
- Trade tariffs have introduced volatility in the availability and pricing of critical elements used in superalloys.
- Our solution? Maximise the use of revert, up to 70%* in your melt.
- Revert isn't just scrap, it's a high-value resource containing essential elements like Hf, Ta, W, Ni, and Co. Derived from finished cast components, revert retains the exact composition needed for superalloy cast bar production.
- Our in-house revert processing facility enables a closed-loop system, using customer supplied revert to meet precise specifications and final compositions. This not only supports sustainability but also helps mitigate the impact of export restrictions, such as the tightening supply of Hafnium (Hf), which is driving up global prices.

Secure your Q4 alloy requirements now!

- As demand continues to grow across all **sectors**, Ross & Catherall is well-positioned to support increased alloy volume requirements. Thanks to our **expanded melting and processing capacity**, we can meet rising customer needs with confidence.
- We maintain a **secure supply and stock of elemental materials**, and while our pricing reflects current market conditions, we are not experiencing the same cost pressures as some competitors - thanks to **stable supply chains** and **minimal impact from tariffs**.
- If your alloy volumes are increasing, or if your current supplier is unable to meet your needs, we can help. We have available melting capacity in Q4 2025 and are open into 2026.

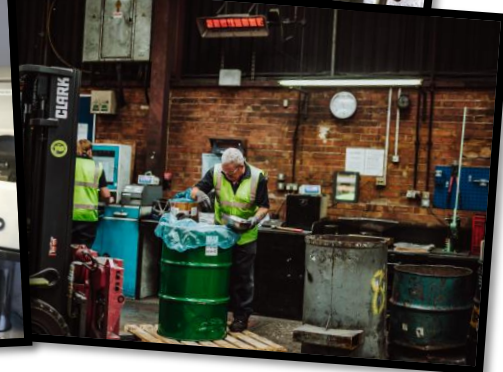
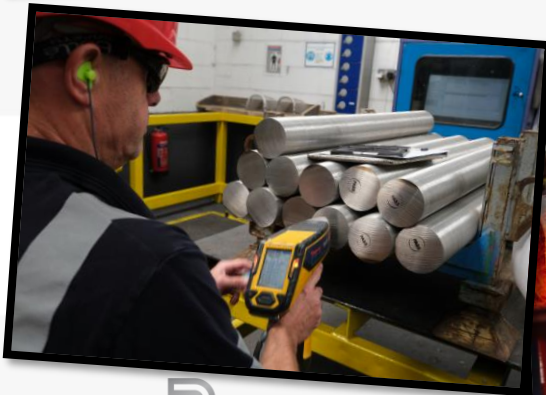
Additional melting capacity introduced



- 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)
- Some key element prices are rising; trade tariffs are already impacting element cost increases and alloy costs. Secure your future alloy requirements
- 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 with increased production hours, however, commitment POs for melting must be provided to “lock-in” melting slots
- Revert containing melts must have the required revert delivered to R&C on time[^] to make “furnace ready” to meet the melt date advised. Alternate ratios will be required if revert is not available 2 weeks prior to the confirmed melt date
- Melt slots will be allocated based on first received receipt of PO confirmation

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



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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"



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SERVING THE GLOBAL INVESTMENT CASTING COMMUNITY FOR OVER 50 YEARS