



ROSS & CATHERALL

# Delivering Unmatched Expertise with High-Volume Production of Hf-Based Alloys

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Over 35% of Our Manufacturing Capacity  
Strategically Aligned to Hf-Based Alloys

Turning **Metals** into **Motion**

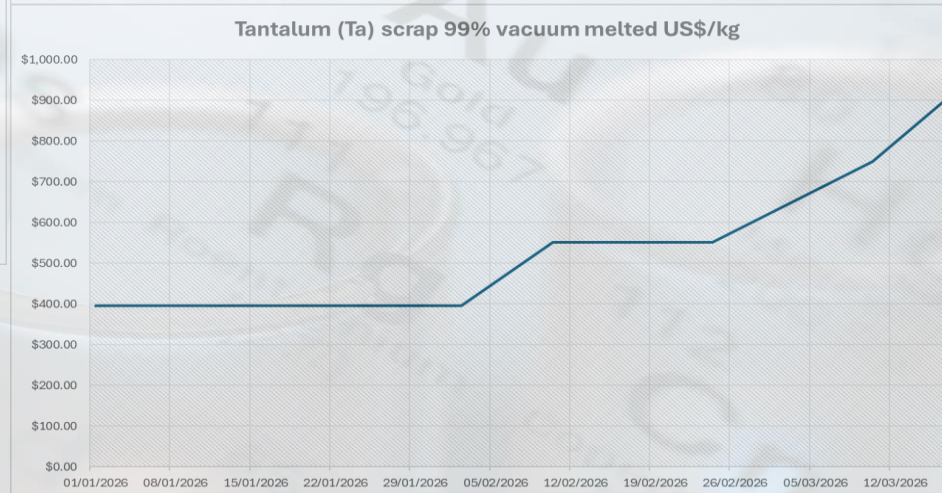
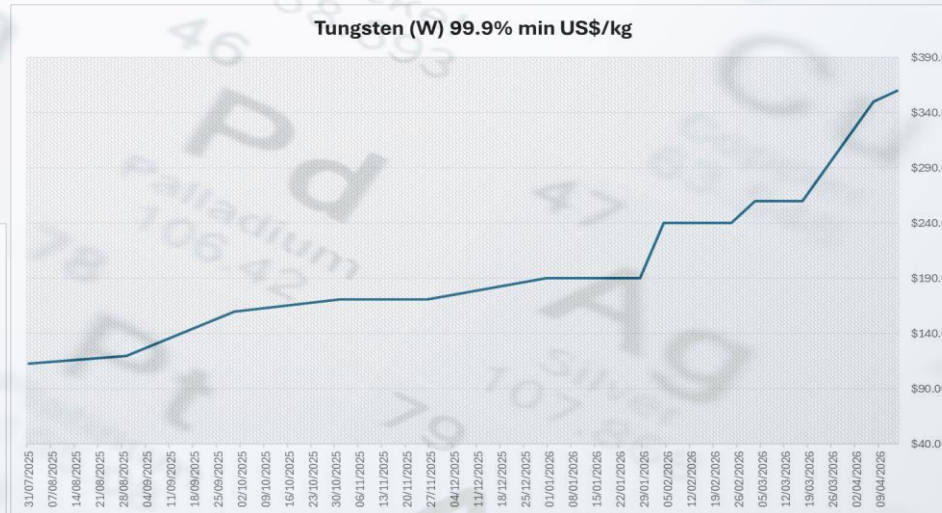
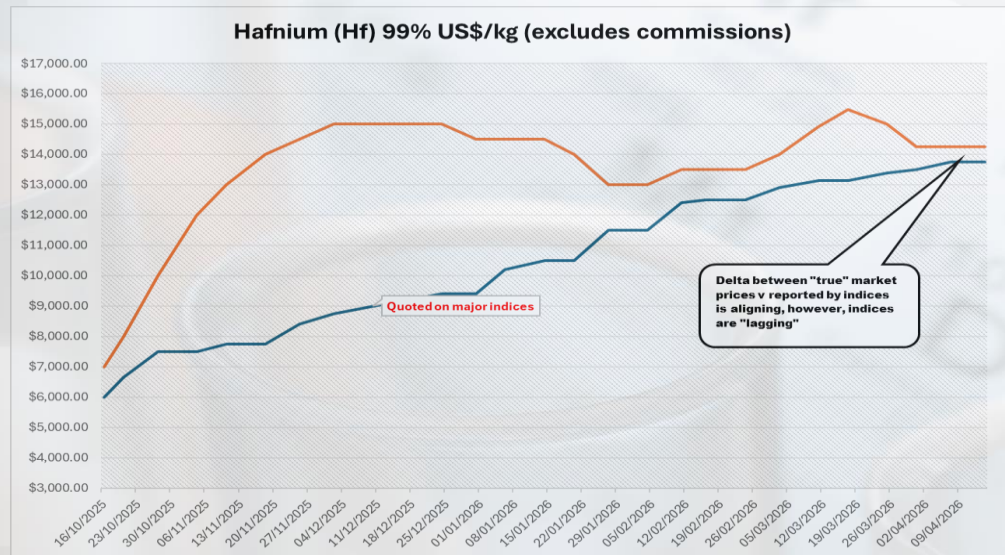


# Geopolitical Issues – W, Ta & Hf at record highs

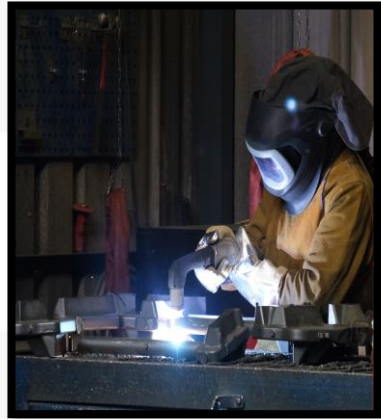
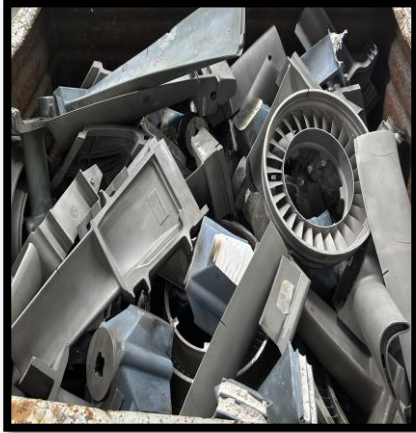
- The Middle East conflict has driven a rapid surge in metal market volatility, with several critical elements affected
- Tungsten and tantalum have seen sharp price increases
- Hafnium remains at record highs
- We maintain a secure supply of Hafnium (Hf)
  - Pricing reflects current market conditions; however, we are not experiencing delivery issues of Hf as some competitors— thanks to our stable supply partners
- If your alloy volumes are increasing, or if your current supplier is unable to meet your needs, we can help



# Key Element Prices - High Temperature Alloys



# Release Your Revert to Reduce Virgin Elemental Costs



## — Optimising Cost, Delivery, and Revert Efficiency

- Our solution: use up to 70% revert in your melt\* to reduce dependency on volatile raw material markets
- Revert is a high-value resource, containing critical elements such as Hf, Ta, W, Ni, and Co — retaining the exact chemistry required for superalloy cast bar production
- Our in-house revert processing enables a secure closed-loop system, using customer revert to meet precise specifications and final compositions
- This approach strengthens sustainability, reduces reliance on constrained elements, and mitigates risks such as tightening Hafnium (Hf) supply and rising global prices

# Superalloy Manufacturing Excellence



With more than five decades of experience and ongoing innovation in vacuum-melted superalloy production, Ross & Catherall maintain a distinguished position in the investment casting industry, delivering high-quality superalloy cast bar stick tailored to your specifications.

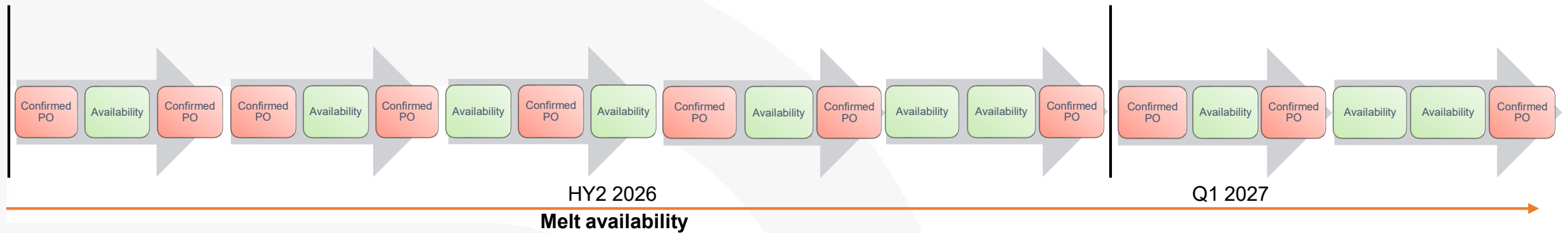
- Over 35% of Our Manufacturing Capacity Strategically Aligned to Hf-Based Alloys ✓
- World's largest selection of VIM furnace capacity options utilising the latest melting technology ✓
- Markets served: Aerospace, IGT, Additive Manufacturing, Space Exploration, and biomedical sectors ✓

# Meeting Global Demand Across High Temperature Applications

- Over **35%** of Our Manufacturing Capacity Strategically Aligned to Hf-Based Alloys
  - Proven Expertise and Scalable Production Capacity in Hf-Based Alloys to Power Market Expansion
    - Hafnium based alloys include: MarM247, LC, LS, MarM002, R108, R80, R125, IN792+Hf, DS200+Hf, B1900+Hf
    - Flexibility delivered through eight Vacuum Induction Melting (VIM) furnaces, giving customers more capacity and scheduling options for all Hf based alloys
    - Advanced furnace technology engineered for high-integrity master alloy production, delivering specialised nickel and cobalt-based superalloy cast bar stick
- Capacity, Capability, and Confidence
  - With **eight furnace options** and a strong commitment to quality, technical expertise, flexibility, and strategic location, our melting capabilities and capacity ensure your order is delivered on time and in full
    - Remove the concerns of revert availability by utilising our multiple capacity furnace capacity configurations – select the melt size that best aligns with your requirements:
    - 500kg (1,100lbs), 2500kg (5500lbs), 2800kg (6,200lbs), 3500kg (7,700lbs), 4000kg (8,800lbs), 6000kg (13,200lbs), 7200kg (15,800lbs)



# Additional Melting Capacity Added in HY2



- 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)
- Key element prices are rising; Geopolitical issues are already impacting element cost increases and alloy costs
- Our lead-times for melting to despatch is approx. 4-6\* weeks
- 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<sup>^</sup> 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

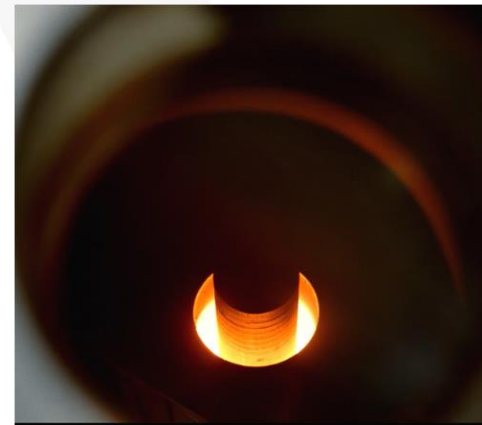


**We have available melting capacity in HY2 2026**

\*based on revert being available and furnace ready  
<sup>^</sup> As per revert specification document

# What Ross & Catherall Deliver to Your Process

- We are a technological, quality and service orientated supplier with the most flexible melting capabilities of any superalloy manufacturer worldwide
- Largest volume capacity options worldwide of any superalloy cast bar stick manufacturer - choice of 8 VIM furnaces ✓
- In-house revert processing & preparation facility ✓
- Located “centrally” to all major Aerospace & IGT producers ✓
- Proven Expertise and Scalable Production Capacity in Hf-Based Alloys to Power Market Expansion ✓
- Delivering Low N <5ppm ✓
- Delivering Low S & Super Low S < 3ppm and < 1ppm ✓
- Fully accredited laboratory with ISO17025:2017 & Nadcap approvals ✓



ROSS & CATHERALL

# 34<sup>th</sup> EICF Conference and Exhibition, Sevilla

Connecting the Investment Casting World



Meet the team at **booth #39**

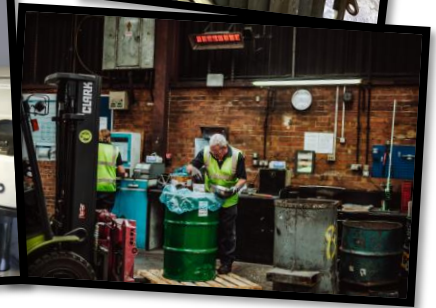
**Event:** 34<sup>th</sup> EICF Conference & Exhibition

**When:** 10th to 12th May 2026

**Destination:** Sevilla International Convention Center, Spain

# Crafted by Specialists. Delivered with Precision.

- Mastermelt principle melters - continuity of workforce with over 156 years\* experience and knowledge
- Senior Management Team - average tenure 12 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



## Our People Are Our Strength!