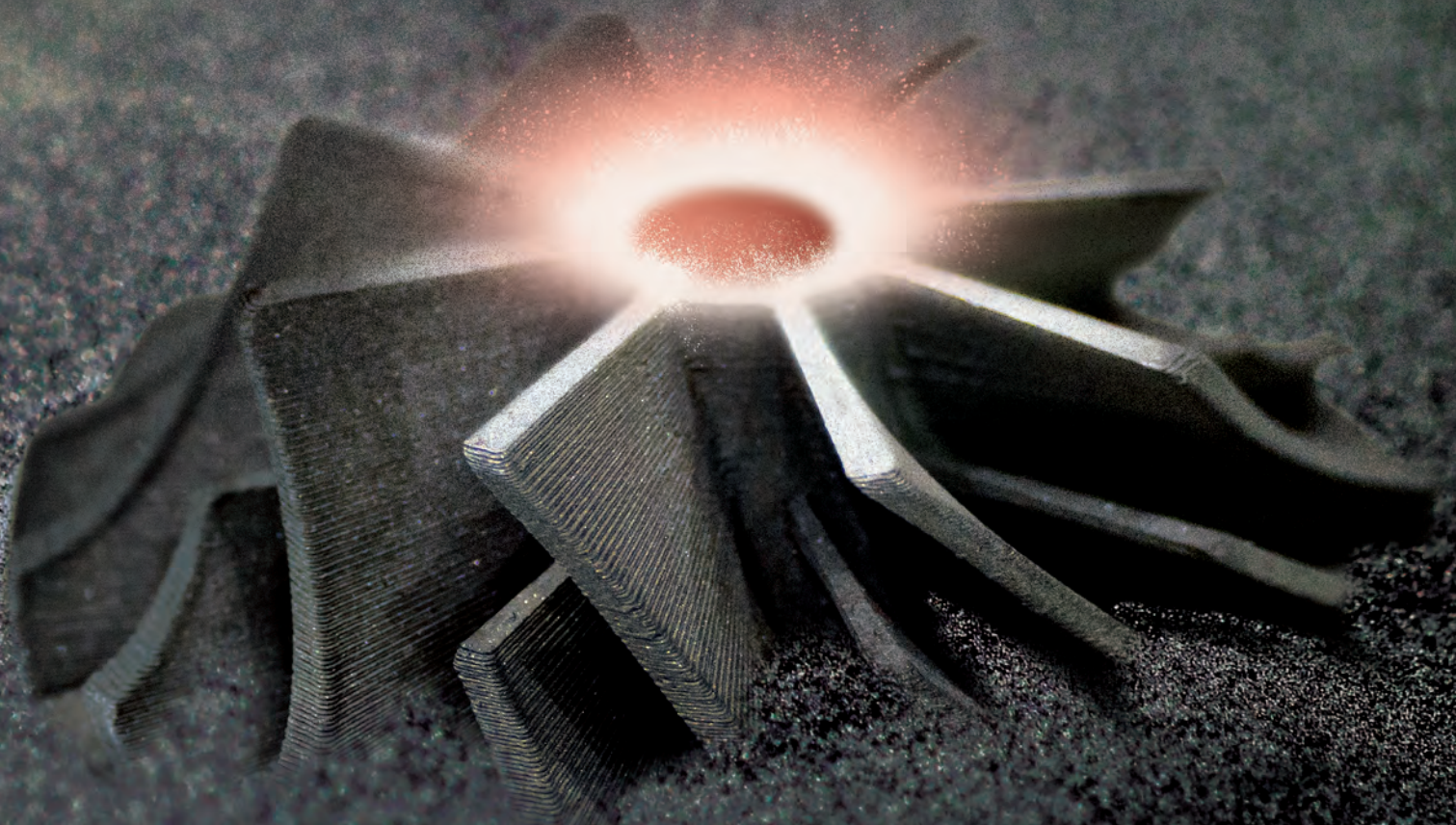


SUPERALLOYS FOR METAL ADDITIVE MANUFACTURING

TURNING **METALS** INTO **MOTION**



ROSS & CATHERALL

EXCEPTIONAL CAPABILITY IN THE WIDEST RANGE OF PROCESSES

A global leader

For over 60 years, Ross & Catherall Ltd, located in Sheffield, UK has earned an acclaimed worldwide reputation for quality and technical excellence in its production of nickel and cobalt-base superalloys for critical-use applications within the global investment casting industry.

This reputation has continued to grow in all of the sectors it serves, including Aerospace, Industrial Gas Turbine (IGT), Additive Manufacturing (AM) and Automotive, and it is synonymous within these sectors for its research and development capabilities, world class production methodologies, with emphasis on product quality and innovation, combined with continual investment in technology, facilities and people.

We ensure that the highest quality raw materials are used and guarantee the highest level of technical control, ensuring consistent production with repeatable, tightly controlled chemistries and metallurgical integrity.

We are entrusted with a wide range of industry accreditations and certifications with a proven reputation for supporting leading manufacturers with superalloys that meet the most stringent requirements.

We offer a full range of bar diameters and lengths suitable for all VIGA, EIGA & PREP powder manufacturing processes employing 7 furnaces ranging from 50kg, 500kg to 7200kg capacities.



A GLOBAL LEADER IN SUPERALLOYS USED IN THE ADDITIVE MANUFACTURING INDUSTRY

Six in-house production Vacuum Induction Melting (VIM) with a range of cast volume capacities, diameters and lengths.

- To meet the varied atomising powder production unit manufacturing requirements, we have several production furnaces ranging from 500kg to 7200kg.
- Cast bar diameters range from 41mm to 175mm with lengths cut to size to meet casting or atomiser melting furnace capacity.
- Alloys cast include: IN718, Hast X, IN939, F75 (CoCrMo), IN625 & IN100.

Specialty R&D Vacuum melting furnace for AM Powder development.

- Dedicated 50kg development furnace allowing small batch melts for evaluation prior to full scale production
- Rapid and cost-effective product development of new alloy chemistries, 2 new alloys signed off in 2020.
- Optimised product development capabilities with regards to properties, chemistries, gas levels and ratios.
- Low sulphur & low nitrogen alloys produced with Nitrogen levels approx. 5ppm and below achieved

Dedicated fully accredited in-house testing laboratories for testing and certification of supplied cast bars

- AS 9100 Rev D / ISO 9001: 2015
- ISO 14001: 2015
- ISO 45001: 2018
- ISO 17025: 2017
- Nadcap
- Leading Customer Approvals: Rolls Royce, Honeywell, GE, Safran, MTU, Mitsubishi, ITP Aero.

Laboratory Equipment:

- XRF
- Spark OES Spectrometer
- Glow Discharge MS
- Carbon & Sulphur Combustion
- Oxygen & Nitrogen Inert Gas Fusion Analyser



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