continuum

Powder Without Limits: How to Work with Continuum Powders

Your guide to sourcing high-performance metal powders tailored to your platform, process, and performance goals.

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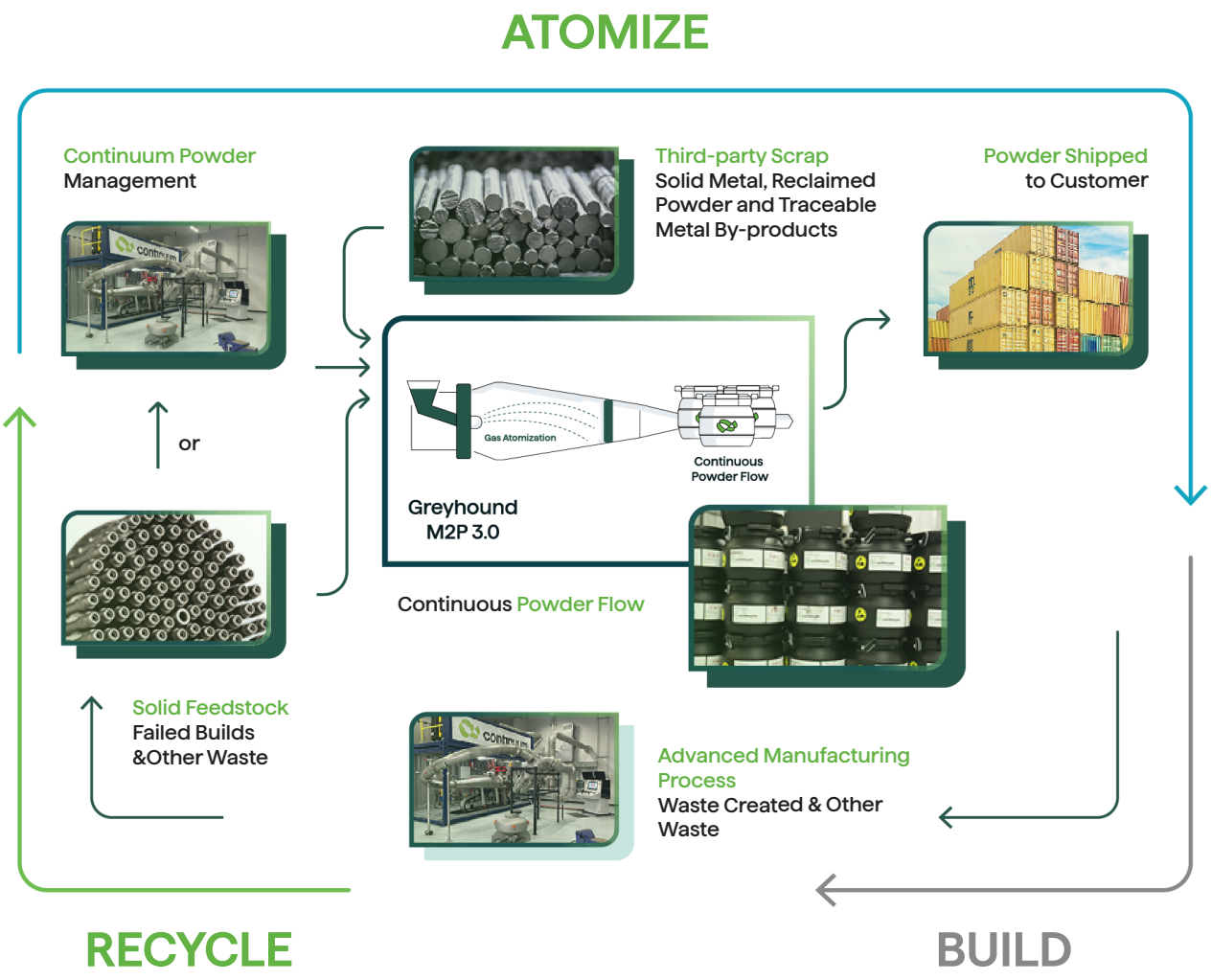
Introduction: Simplifying the Powder Supply Chain

Securing a reliable supply of high-quality metal powder shouldn't be complicated. Yet, many manufacturers still face unpredictable lead times, inconsistent quality, and limited flexibility when it comes to powder specifications. Whether you're an OEM qualifying materials for your system or a manufacturer producing mission-critical components, you need a partner who can deliver the right powder, every time.

The Continuum Powder Lifecycle Management Process



Continuum Powders Was Built to Make That Possible

Our team combines metallurgical expertise, modern atomization technology, and a customer-first approach to deliver consistent, high-performance powders for additive and advanced manufacturing. From proven alloys in our **OptiPowder** portfolio to custom materials tailored to your specific platform or application, we make the process simple, transparent, and collaborative.

OptiPowder **Ni718**

OptiPowder **Ni625**

OptiPowder **M247/M247LC**

OptiPowder **Ti64 Grade 5**

OptiPowder **Ti64 Grade 23**

OptiPowder **NiCu 400**

OptiPowder **CuNi 70-30**

OptiPowder **AerMet 100**

OptiPowder **SS316**

OptiPowder **SS17-4PH**

OptiPowder **C300**

OptiPowder **CoCr F75**

The Continuum Approach: From Scrap to Spec

At the heart of every engagement is Continuum's **Greyhound Melt-to-Powder (M2P)** platform — an advanced gas atomization process capable of producing tight particle size distributions, excellent flowability, and low inclusion levels.

Supporting it is our **OptiVantage Quality Framework,** which ensures that every batch meets the highest standards for chemistry, cleanliness, and consistency.

Image Continuum Melt-to-Powder Atomization Platform – The Greyhound

Our vertically integrated process gives customers direct access to end-to-end expertise — from material selection and scrap sourcing to analytical verification and logistics coordination. The result is more than just metal powder. It's assurance that the material you receive will perform exactly as intended.

Step-by-Step Guide

Every customer engagement is unique, but our process is designed to be as straightforward as possible. Here's how we typically work together.

Step 1 - Define Your Need

The process begins with understanding your goals.

Do you need an established alloy like **Inconel 718, M247, Cobalt Chrome F75,** or **Ti64 Grades 5 & 23.**

Or are you developing a custom composition or particle size distribution optimized for a specific AM process such as **laser powder bed fusion (LPBF), metal binder jetting (MBJ), directed energy deposition (DED), metal injection molding (MIM),** or **hot isostatic pressing (HIP).**

Our technical and commercial teams work with you to clarify what's needed — from the alloy chemistry and flow behavior to the end-use performance targets and certification requirements.

Step 2 - Material Consultation

Once your needs are defined, our metallurgists and application engineers engage directly with your team to confirm technical parameters and supply considerations.
This collaborative stage includes:

- Reviewing your process and performance requirements
- Evaluating powder feasibility and production route
- Defining target PSD ranges, apparent density, and flow characteristics
- Aligning on packaging, delivery, and logistics details

"Our goal isn't just to supply powder — it's to supply assurance."

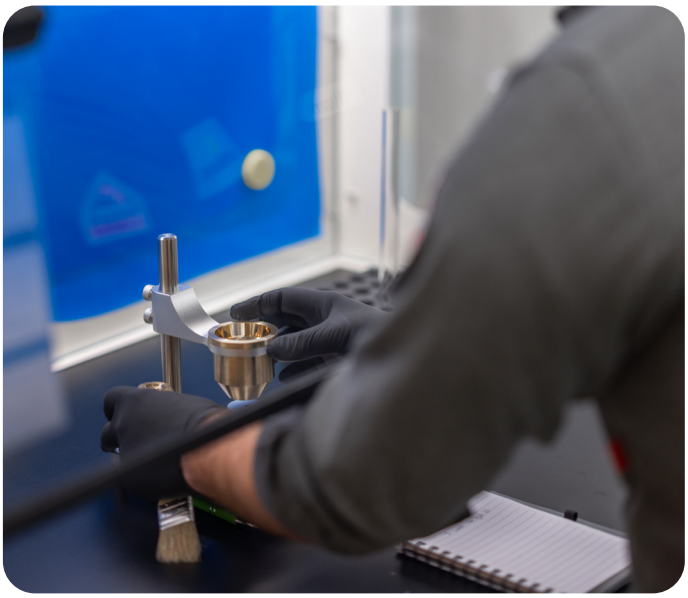
— Rizk Ghafari, COO, Continuum Powders

Whether you're developing a new AM platform or scaling a production program, this stage ensures that the powder we produce fits seamlessly into your process.

Step 3 - Development and Qualification

For customers requiring custom alloys or process-specific tuning, Continuum conducts a small-scale atomization to validate results before full production. Each sample undergoes comprehensive testing in our analytical labs — including chemistry verification, morphology inspection, and flow analysis — to confirm that it meets your expectations.

We then provide a trial batch for qualification on your target system, whether at your facility or through one of our OEM partners. This iterative collaboration helps minimize risk and accelerate time to full qualification.

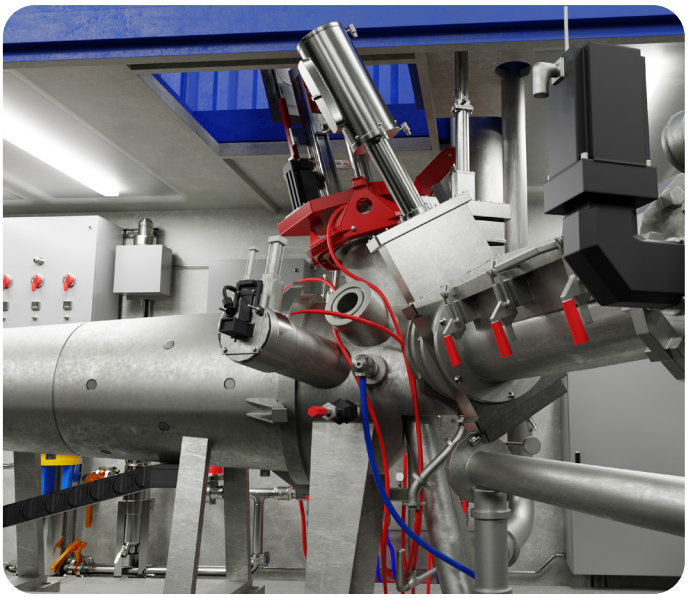


Step 4 - Production and Delivery

Once approved, Continuum ramps to full-scale production through our Greyhound M2P system. Each production batch is:

- Manufactured under tightly controlled process parameters
- Verified through the OptiVantage Quality Framework
- Delivered with complete documentation and traceability

Our team coordinates shipping and logistics to ensure timely global delivery, with packaging tailored to your production environment.



Step 5 - Continuous Support

Your relationship with Continuum doesn't end at delivery.
We provide ongoing partnership and support to ensure your success:

- Batch consistency monitoring and repeat order assurance
- Responsive communication for technical or logistical questions
- Collaborative planning for new materials or future qualifications

If your production needs evolve, we're ready to adapt — whether that means fine-tuning PSDs, sourcing alternative feedstocks, or developing new alloys for next-generation systems.

What You Can Expect

Working with Continuum means gaining a partner focused on performance, precision, and reliability.
Our customers choose us because we provide:

Speed
Rapid turnaround from specification to shipment.

Partnership
Direct collaboration with our metallurgists and engineers.

Quality
ASTM-grade assurance backed by in-house analysis

Assurance
End-to-end visibility, documentation, and support.

Flexibility
Tailored powder characteristics for any AM platform.

"Every partnership begins with a conversation — and ends with a powder that performs exactly as promised."

— Rob Higby, CEO, Continuum Powders

OptiPowder Portfolio:

Ni718 | Ni625 | M247/247LC | CoCr F75 | Ti64 | Ti6Al4V | SS316 | SS17-4PH | C300 | CUSTOM

Capabilities at a Glance

- **Sales of Quality Powder –** From standard alloys in our OptiPowder portfolio to specialty materials sourced or produced to order, Continuum ensures every batch meets the highest standards for chemistry, cleanliness, and performance. Our rigorous OptiVantage Quality Framework provides full traceability and consistency across every shipment.
- **OptiVantage Quality Framework –** Every powder we deliver is backed by our comprehensive quality program, which combines analytical chemistry, morphology inspection, and process documentation to guarantee dependable, repeatable performance across builds and batches.
- **Alloy Development and Customization –** We atomize alloys that others can't or won't, enabling customers to push the boundaries of material science. Whether developing new compositions, tuning particle size distributions, or qualifying materials for unique additive or advanced manufacturing processes, our metallurgists collaborate closely with your team to achieve the desired results.
- **Tolling Services –** Continuum offers toll atomization as a sustainable pathway to reuse oversized or off-spec powders. By reclaiming valuable material and converting it back into high-performance feedstock, we help manufacturers reduce waste, control costs, and strengthen supply-chain resilience.
- **Greyhound M2P Gas Atomization –** Our proprietary Melt-to-Powder (M2P) platform delivers precise control over chemistry and particle size distribution, producing powders with exceptional flowability and low oxygen content — ideal for critical applications in aerospace, energy, and industrial sectors.
- **Analytical Chemistry and PSD Verification** Continuum's in-house labs provide detailed characterization for every batch, ensuring particle size distribution, chemical composition, and flow properties align with customer and process requirements.
- **Global Logistics and Support –** We coordinate end-to-end delivery to customers worldwide, offering tailored packaging, export documentation, and responsive communication to keep your production running smoothly and on schedule.

Continuum Powders

Your trusted partner for high-performance metal powders, tailored to your platform, process, and performance goals.
continuumpowders.com

Renishaw
Qualification of OptiPowder Ni718 for LPBF systems demonstrated the reliability and repeatability of Continuum's powder across multiple builds and platforms.

AmPd Labs
Binder jet qualification of OptiPowder M247 validated performance in demanding high-temperature applications.

Siemens Energy
Long-term collaboration ensuring consistent, application-ready powder for advanced energy components.

HP
Collaboration to qualify OptiPowder M247 for HP Metal Jet binder jetting systems, expanding access to high-temperature superalloys for aerospace and energy applications.

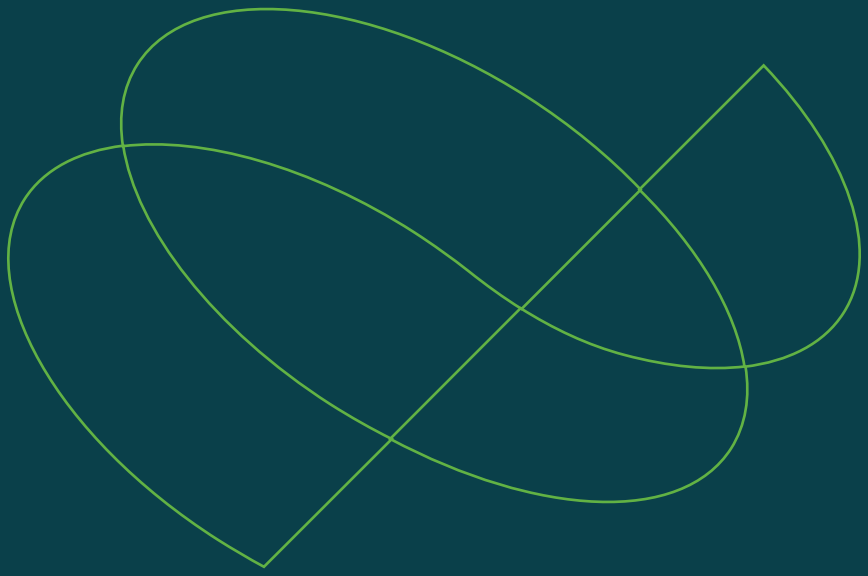
INDO-MIM
Qualification of OptiPowder Ni718 for binder jet production established a new benchmark for density and mechanical performance in nickel superalloy components.

Each project represents a different path — from off-the-shelf supply to custom alloy tuning — but all share a common foundation: **partnership, precision, and process integrity.**

Start Your Project

Whether you're an OEM seeking a qualified powder for your platform or a manufacturer developing critical components, Continuum Powders is ready to help you secure the right material for your needs.

Let's begin the conversation.
[continuumpowders.com/contact]
Or scan the QR code to connect directly with our team.



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