



Inventor of the Plasma Atomization Process

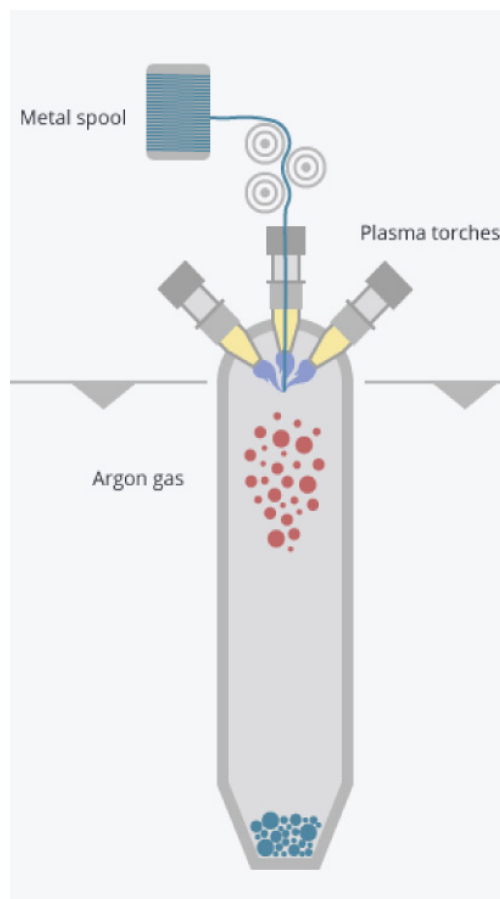
PLASMA ATOMIZED SPHERICAL METAL POWDERS

SIZE CUTS FOR Ti-6Al-4V GRADE 5 & 23:

- 🌀 - 25 μm /+ 5 μm
- 🌀 - 45 μm /+ 15 μm
- 🌀 - 53 μm /+ 20 μm
- 🌀 - 106 μm /+ 45 μm
- 🌀 - 250 μm /+ 106 μm

*Custom materials
& size cuts
available upon request.*

PLASMA ATOMIZATION PROCESS:



HIGHLY SPHERICAL/FLOWABLE

LITTLE TO NO SATELLITES

FULLY DENSE

EXCELLENT PACKING DENSITY

BATCH TO BATCH CONSISTENCY

IDEAL PSD FOR ADDITIVE
MANUFACTURING

CUSTOM SIZE DISTRIBUTION

HIGH TRACEABILITY

INDUSTRIAL CAPACITY

Applications:

- Additive Manufacturing
- Metal Injection Molding
- Thermal Spray

Industries:

- Biomedical
- Aerospace

TSXV: PYR • OTCQB: PYRNF

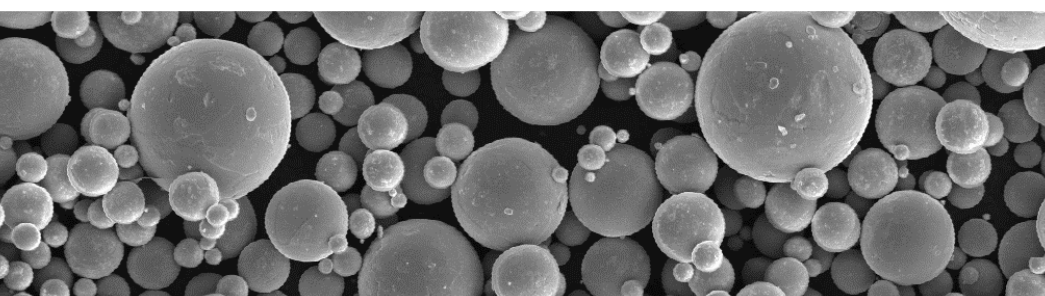
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The Plasma Atomization Process in 4 steps



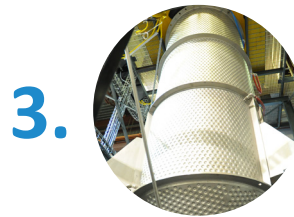
Wire feed offers optimal traceability

Plasma atomization uses wire as a feedstock, which is ideal for **traceability** from the ingot to the final powder product. Tight quality control of the wire chemistry ensures **batch-to-batch consistency**.



The best atomization method, period

As opposed to conventional gas atomization, plasma atomization uses three plasma torches to instantaneously melt and atomize the wire in a single step. The intense heat of the plasma maintains the droplets well above their melting point throughout multiple phases of breakup, which increases the yield of **very fine particles**.



A smooth cool-down: spherical powders

Once droplets are formed, they require some time to assume the most stable shape: **a sphere**. The cooling tower provides a low velocity and low turbulence environment that allows the particle to spheroidize perfectly.



Purity

A **chemically pure powder** is collected at the bottom of the reactor. The powder is sieved and then undergoes multiple analyses before being blended and packaged.

PyroGenesis Additive, a division of PyroGenesis Canada Inc., specializes in providing plasma atomized spherical metallic powders for the Additive Manufacturing industry.

PyroGenesis Canada Inc. is a world-renowned high-tech company operating in the field of high temperature processing of materials and waste, which counts the US Navy and the US Air Force amongst its discerning client base.



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