

ADDITIVE MANUFACTURING SOLUTIONS

MEDICAL | AEROSPACE | ENERGY | MOTORSPORTS | INDUSTRY | MICROTECHNICS

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Additive manufacturing's success is undeniable. Whether the goal is to reduce an aircraft's weight to improve its fuel efficiency, to expedite a product's time-to-market with fast prototyping, to custom-make a medical implant to a patient's anatomy or to simply eliminate parts in a complex assembly by using geometries that could only be produced by 3D printing, the technical advantages that additive manufacturing brings are almost countless and always astonishing. Some experts even say we aren't even scratching the surface of the current possibilities.

As a leading distributor of high performance alloys in various shapes: round bars, flat bars, tubes, plates, sheets, thin strips and so on... STAINLESS has now taken advantage of its almost century long experience in the business to supply a new range of metal powders and wires with the same sense of quality and technical expertise it always and consistently used with its historical activities. STAINLESS is serving the most demanding markets – medical, aerospace, energy, etc – in over 40 different countries.

WE STAND OUT WITH...

- A comprehensive choice of material grades
- Powder sizes to fit all AM machines
- Wires for WAAM process (Wire and Arc Additive Manufacturing)
- Available in stock, whatever the volume
- Custom-made chemical composition
- Our Technical Expertise

TECHNICAL EXPERTISE

Our material experts provide guidance on material selection, powder particles size distribution, and chemical compositions for all additive manufacturing available processes and more:

- Laser Powder Bed Fusion processes,
- S Electron Beam Powder Bed Fusion
- Binder jetting Process
- <> MIM
- <> WAAM

CUSTOMIZED SOLUTIONS

- Technical support, R&D
- ♦ Metallurgical training
- > Dedicated stock management

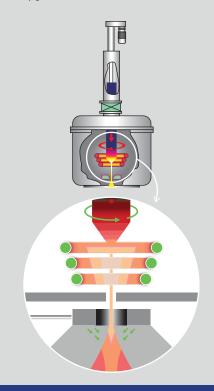
ONE PROCESS, HUNDREDS OF POSSIBILITIES

All our powders are manufactured with the same process to ensure highest purity, flowability and spreading, as well as stable chemistries.

THE EIGA PROCESS

The Electrode Induction melting Gas Atomization process consists of a rotating electrode melted into an induction coil – no contact whatsoever. A very thin film of liquefied metal comes down the cone-shape electrode and is led through the gas nozzle where the metal is atomized into extremely fine particles, which then solidify in an atomization tower.

Such process enables very pure powders with very fine micro structure, free of ceramic impurities and with low oxygen contents.





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STAINLESS powders and wires portfolio (from US and European world-class partners) offers a very large range of alloy grades. Those listed below are simply the most commonly used so far:

POWDERS			
BASE ALLOY	ALLOY FAMILY	ALLOYS	SIZE EXAMPLES
Titanium	Titanium alloys	Ti-6Al-4V ELI (Grade 23)	
		Ti-6Al-4V (Grade 5)	
	Pure Titanium	CP Ti Gr4	
		CP Ti Gr2	5-25 µm
Aluminium	Aluminium Alloys	AlSi10Mg	
		AlSi12	5-35 µm
Nickel	Nickel based alloys	Inconel 718	
		Inconel 625	5-45 μm
		Inconel 720	
		Inconel 88	15-45 µm
Cobalt	Cobalt Alloys	CoCr28Mo6	45-106 μm
Fe	Stainless Steels & Steels	316L	
		17-4PH	45-250 μm
		15-5PH	
		AISI420	
		Maraging 300	
	High Speed Steels & Tool steels	AISI M4	On demand
		A11	
Cu	Copper alloys	CuAl5Ni5Fe5	On demand

WIRE		
ALLOYS		
304L		
316L		
347		
441		
410NiMo		
17-4PH		
15-5PH		
DUPLEX 2205		
DUPLEX 2209		
INCONEL 625		

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