Stardust Technology (Guangdong) Co., Ltd
星尘科技（广东）有限公司

High Quality Rare Refractory Metal Spherical Powder

COMPANY PROFILE
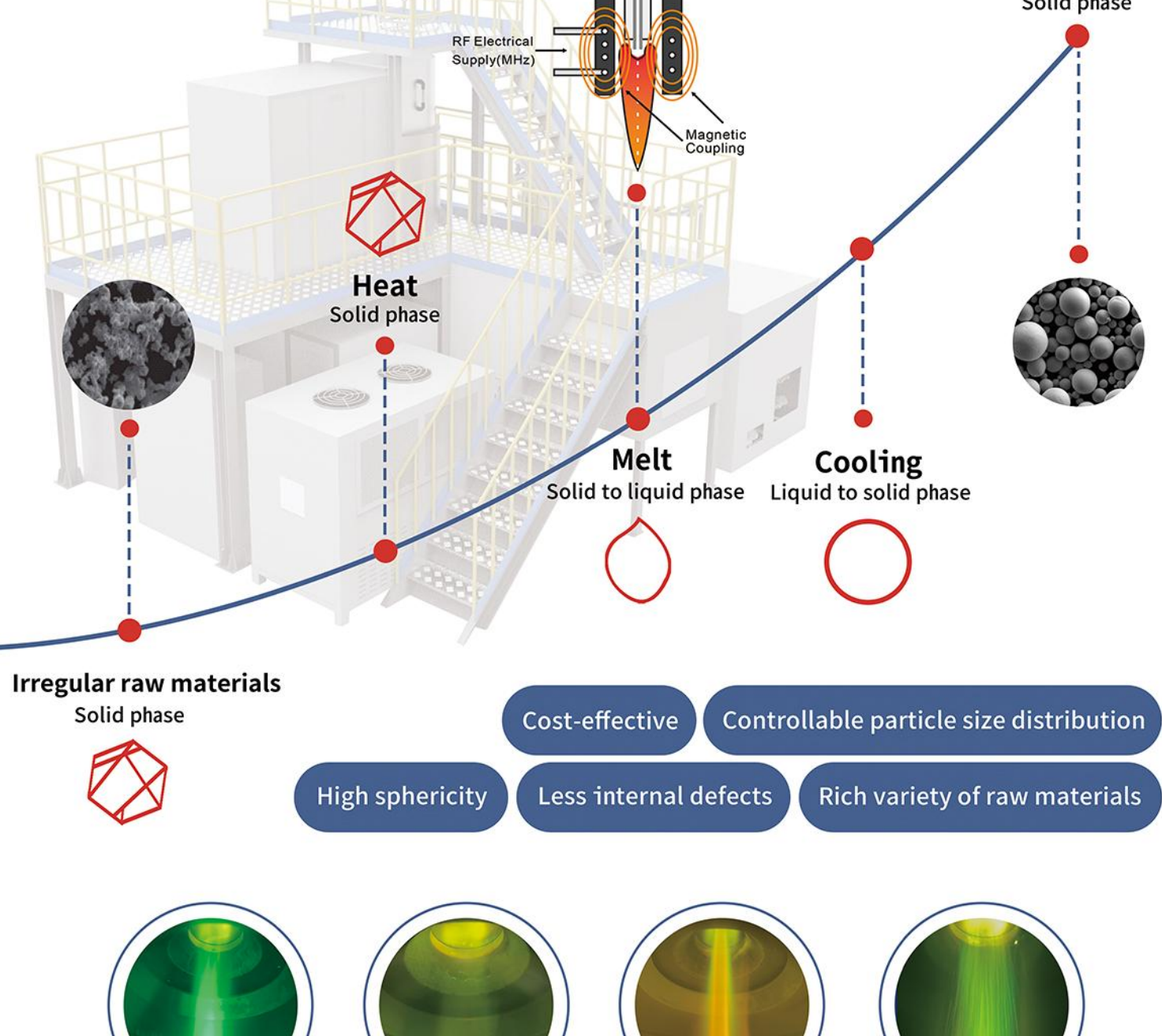
30 years / Technical Accumulation
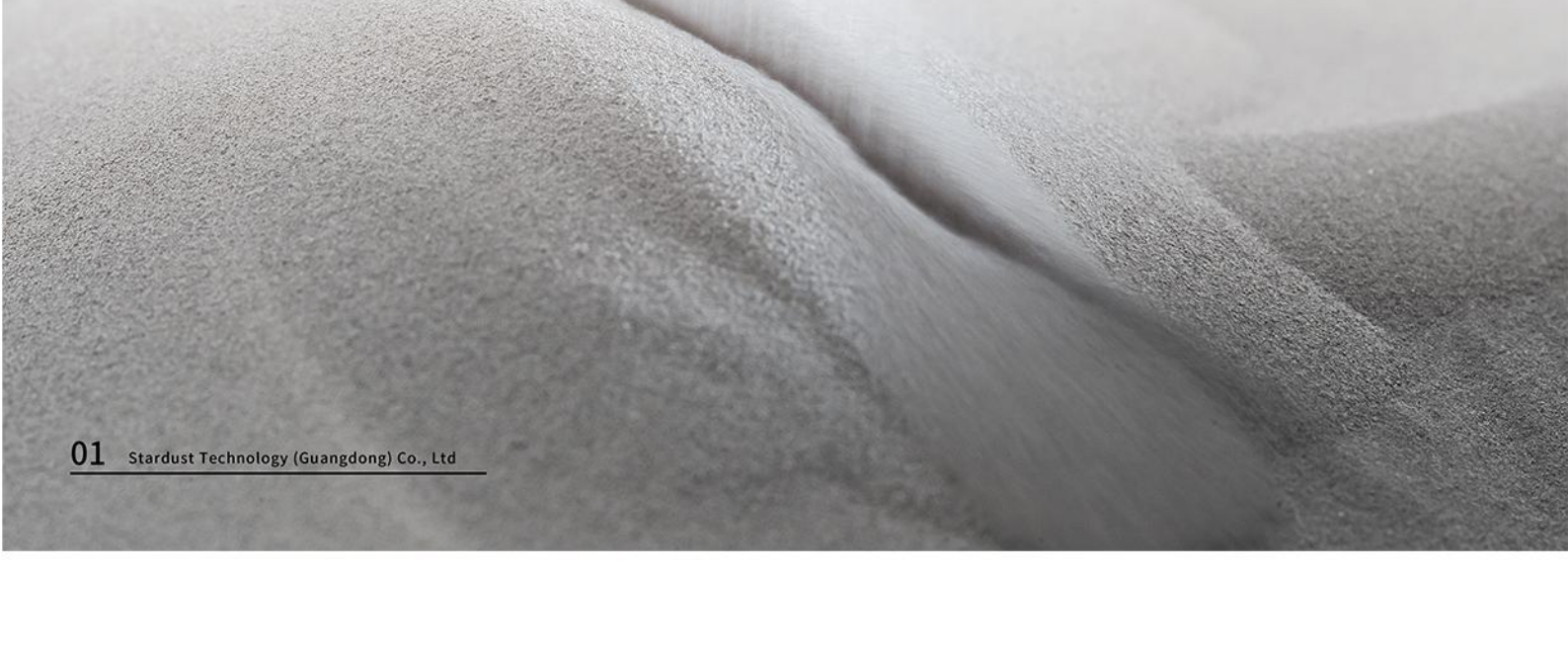**20 items / Patent Technology**
10 items / National Standard

Stardust Technology (Guangdong) Co., Ltd. is a national high-tech enterprise specializing in the research and development, production and sales of high-end refractory powder materials. The company takes radio frequency plasma powder technology as its core competitiveness and is committed to providing customers with integrated solutions for powder preparation, modification, and application.

Our company's products cover high-end rare and refractory metals such as tungsten, molybdenum, tantalum, niobium, vanadium, titanium rhenium, chromium, as well as their alloys and compound spherical powders. We also provide professional technical services such as radio frequency plasma spheroidization, 3D printing and hot isostatic pressing. The company has passed quality management system certifications such as ISO9001:2015, ISO13485:2016, and its products are widely used in fields such as aerospace defense and military industry communication and electronics,nuclear energy industry and biomedicine.
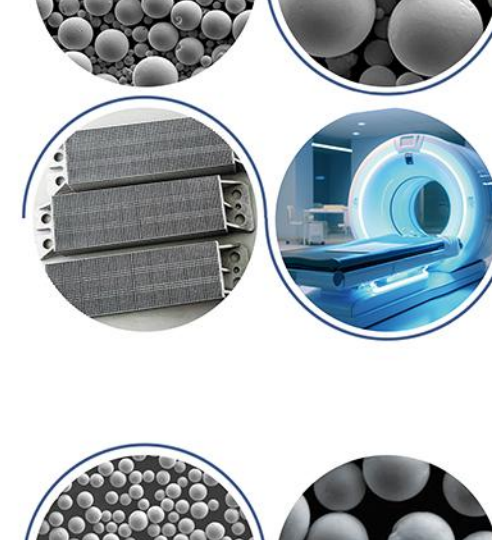
CORE TECHNOLOGY

Spherical — Solid phase
Cooling — Liquid to solid phase
Melt — Solid to liquid phase
Heat — Solid phase
Irregular raw materials — Solid phase

- High sphericity
- Cost-effective
- Less internal defects
- Controllable particle size distribution
- Rich variety of raw materials

HIGH QUALITY RARE REFRACTORY METAL POWDER

Spherical Tungsten Powder

Product Specifications	15-45μm	15-53μm	45-105μm	53-150μm
Liquidity	<20s/50g		>4.5g/cm³	
Purity	>99.95%			
Sphericity ratio	>90%			
Oxygen content	<300ppm			
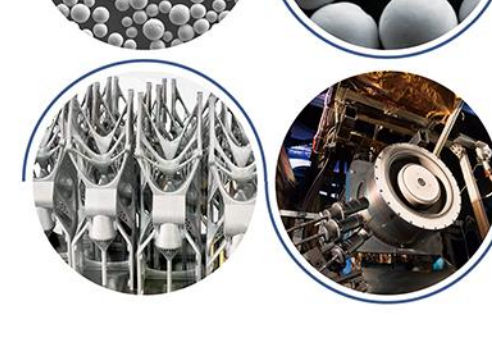
Spherical Molybdenum Powder

Product Specifications	15-45μm	15-53μm	45-105μm	53-150μm
Liquidity	<20s/50g		>4.5g/cm³	
Purity	>99.95%			
Sphericity ratio	>90%			
Oxygen content	<300ppm			
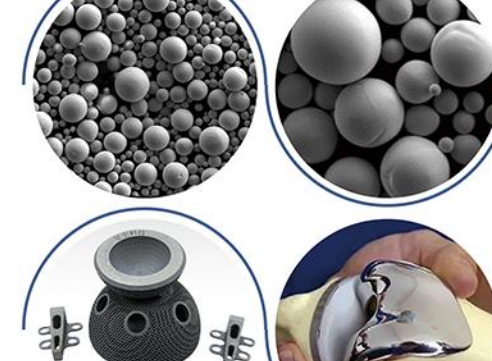
Spherical Tantalum Powder

Product Specifications	15-45μm	15-53μm	45-105μm	53-150μm
Liquidity	<20s/50g		>8g/cm³	
Purity	>99.95%			
Sphericity ratio	>90%			
Oxygen content	<300ppm			

Spherical Niobium Powder

Product Specifications	15-45μm	15-53μm	45-105μm	53-150μm
Liquidity	<20s/50g		>4.5g/cm³	
Purity	>99.95%			
Sphericity ratio	>90%			
Oxygen content	<300ppm			
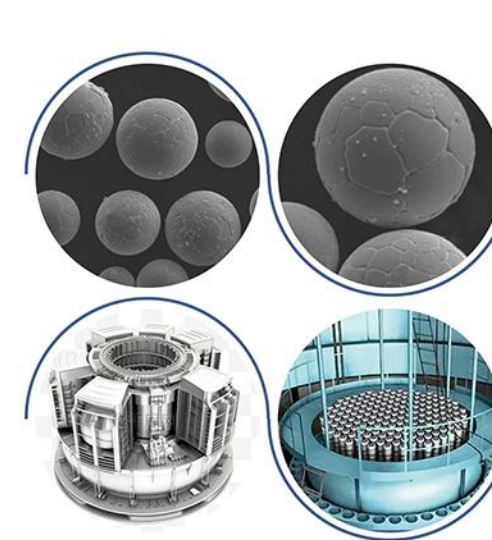
Spherical Rhenium Powder

Product Specifications	15-45μm	15-53μm	45-105μm	53-150μm
Liquidity	<20s/50g		>8g/cm³	
Purity	>99.95%			
Sphericity ratio	>90%			
Oxygen content	<300ppm			

Spherical Vanadium Powder

Product Specifications	15-45μm	15-53μm	45-105μm	53-150μm
Liquidity	<20s/50g		>4.5g/cm³	
Purity	>99.5%			
Sphericity ratio	>90%			
Oxygen content	<1000ppm			

Spherical Chromium Powder

Product Specifications	15-45μm	15-53μm	45-105μm	53-150μm
Liquidity	<20s/50g		>4.5g/cm³	
Purity	>99%			
Sphericity ratio	>90%			
Oxygen content	<1000ppm			

SPHERICAL ALLOY POWDER

Spherical Tungsten Alloy Powder

W-Ni-Fe

Product Specifications	50-90(?)%	30 Wt	10 Wt	70 Wt
Purity	>99.95%	Liquidity	<20s/50g	
Oxygen content	<300ppm	Bulk density	>4.5g/cm³	
		Tap density	>4.5g/cm³	
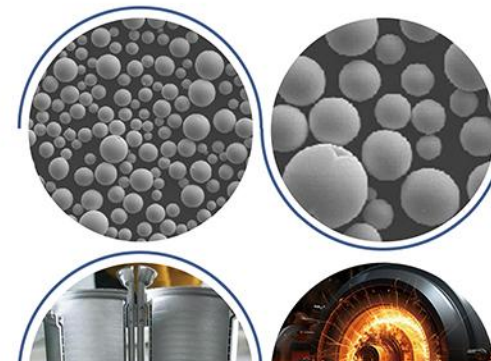
Spherical Tantalum Alloy Powder

Ta10W

Product Specifications	Ta Ti	Ta-Mo	Ta-10W	Ta-2.5W
Purity	>99.99%	Liquidity	<20s/50g	
Sphericity ratio	>90%	Bulk density	>8g/cm³	
Oxygen content	<300ppm	Tap density	>8g/cm³	

Spherical Niobium Alloy Powder

Nb521

Product Specifications	Nb521	C103	Nb-47	Nb-Ti-W
Purity	>99.99%	Liquidity	<20s/50g	
Sphericity ratio	>90%	Bulk density	>4.5g/cm³	
Oxygen content	<300ppm	Tap density	>4.5g/cm³	

REFRACTORY HIGH ENTROPY ALLOY POWDER
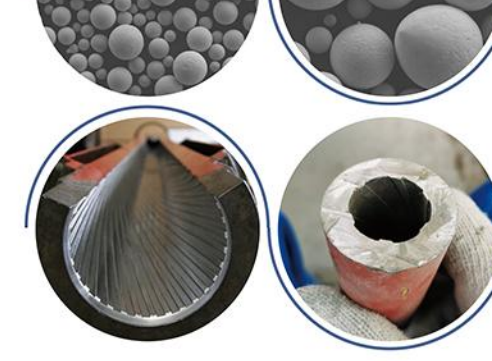
W-Mo-Ta-Nb

Product Specifications	15-45μm	15-53μm	45-105μm	53-150μm
Liquidity	<20s/50g		>8g/cm³	
Purity	>99.95%			
Sphericity ratio	>90%			
Oxygen content	<300ppm			
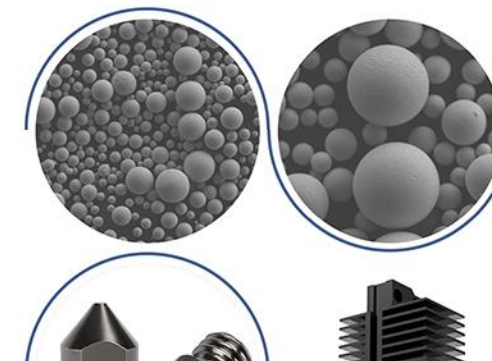
W-Mo-Ta-Nb-V

Product Specifications	15-45μm	15-53μm	45-105μm	53-150μm
Liquidity	<20s/50g		>8g/cm³	
Purity	>99.95%			
Sphericity ratio	>90%			
Oxygen content	<300ppm			
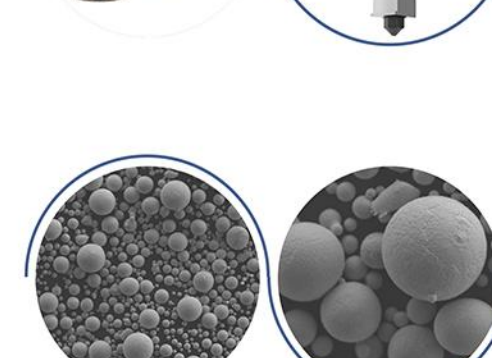
W-Mo-Ta-Nb-Zr

Product Specifications	15-45μm	15-53μm	45-105μm	53-150μm
Liquidity	<20s/50g		>8g/cm³	
Purity	>99.95%			
Sphericity ratio	>90%			
Oxygen content	<300ppm			
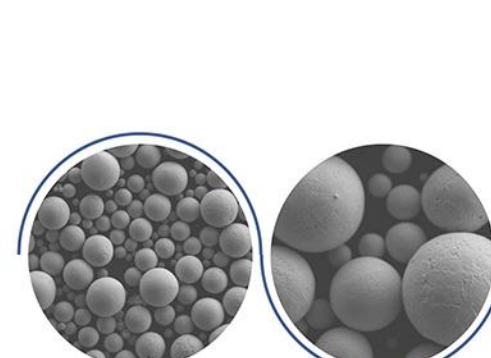
W-Mo-Ta-Nb-Ti

Product Specifications	15-45μm	15-53μm	45-105μm	53-150μm
Liquidity	<20s/50g		>8g/cm³	
Purity	>99.95%			
Sphericity ratio	>90%			
Oxygen content	<300ppm			

Ta-Nb-Zr-Ti

Product Specifications	15-45μm	15-53μm	45-105μm	53-150μm
Liquidity	<20s/50g		>8g/cm³	
Purity	>99.95%			
Sphericity ratio	>90%			
Oxygen content	<300ppm			

OTHER CUSTOMIZED SPHERICAL POWDERS

Customization	Ti-Ta	TiZrHf	TaNbW	TaNbHfTi
Product Specifications	15-45μm	15-53μm	45-105μm	53-150μm
Liquidity	<20s/50g		>8g/cm³	
Purity	>99.95%			
Sphericity ratio	>90%			
Oxygen content	<300ppm			

3D PRINTING SERVICES

Ta
Tensile strength: 494.78MPa
Yield strength: 462.85MPa
Elongation rate: 49%
Density reduction: 99.5%

Ta10W
Tensile strength: 800.94MPa
Yield strength: 751.02MPa
Elongation rate: 25.1%
Density reduction: 99.5%

Nb521
Tensile strength: 709.55MPa
Yield strength: 692.19MPa
Elongation rate: 20.7%
Density reduction: 99%

Printouts Display

APPLICATION FIELD

- Aviation
- Biomedical
- Nuclear Energy Industry
- National Defense Military Industry
- Communication Electronics

QUALITY SYSTEM

Certified with ISO9001:2015, ISO13485:2016.
And registered as the only domestic master document for medical tantalum powder

PATENT CERTIFICATE

19 patents have been applied for.
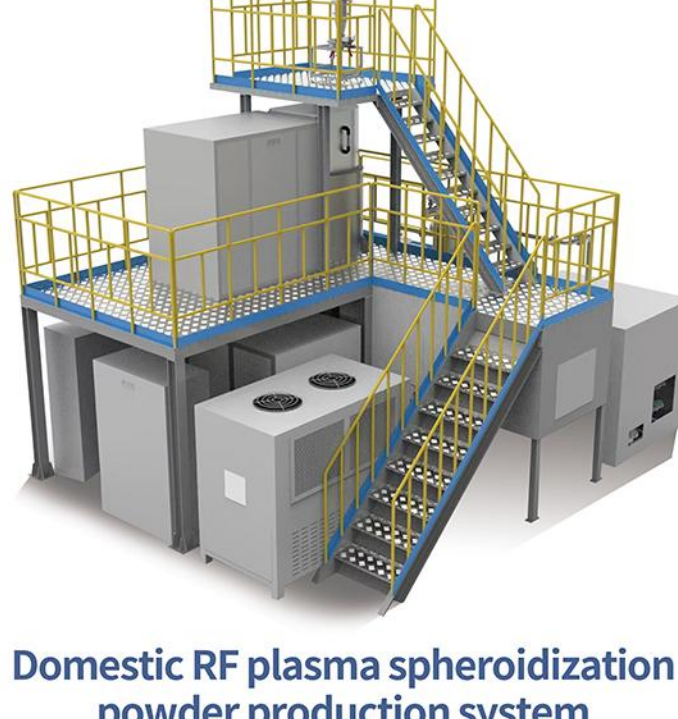Covering raw materials, new processes, and new equipment

STANDARD SYSTEM

Developed over 10 national, industry, and group standards for products

ADVANCED EQUIPMENT

Domestic RF plasma spheroidization powder production system
100KW

RF plasma spheroidization powder production system
40KW

RF plasma spheroidization powder production system
15KW

3D PRINTING EQUIPMENT

GDINM-M650

EOS M 290

EP-M300D

AMC-M150B

PARTNER

Partners covering the globe

Stardust Technology (Guangdong) Co., Ltd

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