成功超声

2008
The first high-power focused Sonochemical dispersion equipment appeared.

2010
The first high-power Sonochemical CNC power source appeared.

2012
The second-generation Sonochemical CNC power source appeared, and the second-generation high-power Sonochemical special transducer was successfully developed.

2013
The special ultrasonic graphene dispersion series equipment appeared.

2014
The first 100t graphene production line was delivered and carried out the acceptance.

2015
The high-power Sonochemical equipment passed the national innovation fund acceptance.

2016
The first 500t graphene production line was delivered and carried out the acceptance.

2017
The graphene production line obtained the national invention patent authorization.

Hangzhou Success Ultrasonic Equipment

Established in 1995, the company is a national high-tech enterprise. Located in Hangzhou Yinhu Sci-tech City as the national high-tech industrial park, We are the first who widely apply the ultrasound to the industrial field in China.

Over the past twenty years, the company has been engaged in application, research & development and production of high-power ultrasonic transducers, provided transducers, ultrasonic generators and other core parts and technical support for our clients, and possessed dozens of national patents. The ultrasonic series products have obtained the CE Certification (European Union).

Hangzhou Success Ultrasonic Equipment Co., Ltd., together with the national key graphene manufacturer, firstly applied the ultrasonic equipment to the industrial graphene production process, which had a good assistant effect on production of high-quality graphene materials with large scale and low cost. The ultrasonic-assisted graphene production equipment developed by the company has gained the national patent (ZL201520215434.3), regarded as the project supported by the national technical innovation fund (Project Approval Code: 12C26213302840); in addition, the ultrasonic series products have obtained the CE Certification (European Union). The company can ensure that the whole process from project research & development, production and testing to moving towards the market is carried out in strict accordance with the international prevailing standard, so as to achieve the international recognized product quality and make products meet the requirements specified in safety/health/environmental protection/sanitation series product standards.

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HANGZHOU SUCCESS ULTRASANIC EQUIPMENT

New-generation Ultrasonic Sonochemical Treatment Technology SINCE 1995.

Hangzhou Success Ultrasonic Equipment Co., Ltd

Experimental-level Sonochemical Equipment

Introduction to Quick Use

Product patent **ZL201520593797.0**

Performance Characteristics

- The typical application includes homogeneity, emulsification, dispersion, depolymerization & wet grinding (the particle size decreases), cell disruption & disintegration, extraction, and degasification.
- With PLC and Digital Display, it can track the frequency automatically and the user can easily observe the actual operating frequency.

Technical Parameters

Equipment Model	YPS17B-HB	YPS15B-HB	YPS11B-HB
Power	1000W	500W	500W
Frequency	20KHz	28KHz	40KHz
Amplitude/Power Adjustment Range	50%-100%		
Handling Capacity	0.5-5L	0.2-2L	0.2-2L
Effective Immersion Depth of the Emitter Head	80mm	150mm	80mm
Standard Emitter Head Diameter	Φ16mm	Φ14mm	Φ8mm
Standard Configuration	Ultrasonic Main Device + CNC Driving Power Source + Experiment Holder		
Optional Configuration	Soundproof Box + Alarm Output + Remote Control + Corrosion Resistance TIP		

Sonochemical Pilot Cycle System

Higher Cost Performance

Product patent ZL201510170107.5
ZL201520215434.4

Performance Characteristics

- This series refers to all items on ultrasonic liquid treatment research & test, including effective combination of ultrasonic generator, stainless steel reaction vessel and flow control system. It is able to effectively treat above 5L samples. Configuring the peristaltic pump, temperature detection and pressure detection, so as to better control of the flow direction and flow rate , simulate the on-site operating condition, monitor the system operation and carry out the data collection. The achievements obtained though this system can be easily duplicated to industrial production lines.

Technical Parameters

Equipment Model	YPM11B-MB	YPM12B-MB
Frequency	20KHz	
Amplitude/Power Adjustment Range	20%-100%	
Processing Capacity of the Equipment	5-10L	
Design Temperature	＜100℃	
Circulation Speed	0-1t/h	
Outline Dimension	1x1.5x0.5m³	
Reaction Vessel Material	SS304	SS316
Standard Configuration	YPS61B-MB Circular Reaction Vessel + Peristaltic Pump	
Optional Configuration	Temperature Detection + Pressure Detection+ Solid-liquid mixer	

Sonochemical Production Line

Perfect Combination of Industry and Research

Product patent ZL201510170107.5
ZL201520215434.4

Product Features

The combined production line is for continuous ultrasonic treatment of liquid materials in flowing state, can control the flow(speed) and treatment degree, easy for installation and cleaning. This line can also be equipped with soundproof system and explosion simulation system. According to more than 20 years experience, for different types of application, we will offer the technical support based on the final effect of the industrial production, and we have set up 100 tons and 500 tons Graphene production lines successfully.

Model Selection Guidance

Equipment Model	YP-GS10	YP-GS25	YP-GS50	YP-GS100	YP-GS200	YP-GS300
Annual Output of Graphene (8h/day)	10 t	25 t	50 t	100 t	200 t	300 t
Rated Power of One Equipment	3000W/set					
Total Rated Power	18000W= 3000Wx6 sets	36000W= 3000Wx12 sets	72000W= 3000Wx24sets	144000W= 3000Wx48sets	288000W= 3000Wx96sets	432000W= 3000Wx144sets
Frequency	20KHz±1KHz					
Input Voltage	220V/380V 50Hz					
Total Installation Area	5 M²	10 M²	20 M²	40 M²	60 M²	80 M²
Features	Adopt the Mod-bus technology based on the network. All operating mode parameters can be remotely controlled by the machine room.					

Three-step Method of Sonochemical Application

Revolutionary Technical Breakthrough

Product patent ZL201410288598.9
ZL201610152950.5

Sound intensity invariance Technology | Operating Condition Simulation Technology | Application Derivation Technology

Production Line equipment

A series of serial parallel structures are used to realize continuous ultrasonic machining of pipeline system. Lots of ultrasonic heads can be work together according to the application of control and effect.

Constant Sound Intensity

Constant Sound Intensity

Lab-scale Equipment

After the ultrasonic treatment (circulated), the experimental results are obtained, compared and analyzed, and then the equipment selection can be carried out according to the best treatment effect.

Pilot-scale Equipment

The ultrasonic pilot cycle equipment is simulated in Pipeline ultrasonic treatment process, and the key parameters such as amplitude, power, flow rate, temperature and so on in industrial application are obtained by simulating the process of pipeline ultrasonic treatment.

Practical application case of Ultrasonic Sonochemistry (1)

Graphene Equipment

- Before ultrasonic: Graphite Abrasives
- After ultrasonic: Graphene
- Qty of ultrasonic machine: 144 sets
- Volume: 720L
- Output: 1 ton/8 hour

Graphene equipment:

Used for Graphene Disperse, the expanded graphite is dispersed into graphene, with ultrasonic sonochemical treatment, it can increase the Preparation efficiency, this technology is one of the most important part of Graphene Production and Application.

Coating Dispersion

- Before ultrasonic: size bigger than 10 μm
- After ultrasonic: about 1 μm
- Qty of ultrasonic machine: 6 sets
- Volume: 60L
- Output: 600L/h

Coating dispersion:

By Ultrasonic treatment, the large solid particles in the coating are dispersed into small ones, so as to achieve the effect of homogeneous coating, Instead of existing mechanical or chemical dispersion methods, Environmental protection and energy saving.

Practical application case of Ultrasonic Sonochemistry (2)

Biodiesel Production

- Before ultrasonic: Pre catalytic material
- After ultrasonic: biodiesel
- Qty of ultrasonic machine: 1 set
- Volume: 300L
- Effect: Yield increase 30%

Biodiesel production:

Without changing the original process of biodiesel production, it can increase the output of 20-30%, reduce the amount of catalyst, with ultrasonic treatment, it can increase the production efficiency.

Swage Treatment/ High Power Cleaning

- Before ultrasonic: Press printing and dyeing wastewater, microbial degradation
- After ultrasonic: Microbial disruption
- Qty of ultrasonic machine: 1 set
- Volume: 1000L
- Effect: Microbial failure and water content reduction during pressure filtration

swage treatment:

The Ultrasonic Sonochemical machine, will be equipped after Biodegradation, with ultrasonic cavitation for cell disruption, the ultrasonic sonochemistry can increase the treatment efficiency and reduce the water content of sludge.

high power cleaning:

Different with Ultrasonic Cleaning Machine, Ultrasonic Sonochemistry applies Focusing cleaning principle, Energy concentration, can increase the cleaning effect of Solid particles.

Practical application case of Ultrasonic Sonochemistry (3)

Silicon Carbide Disaggregation

- Before ultrasonic: Agglomerated particle
- After ultrasonic: Completely dispersed
- Qty of ultrasonic machine: 12 sets
- Volume: 60L
- Output: 1-2 ton/h

silicon carbide disaggregation:

In the field of solid-liquid dispersion, the material after dispersion will be reuniting again with the effect of Static electricity and Van Edward force, Ultrasonic Cavitation will disperse them and increase the contact area of solid and liquid, further improve production efficiency.

Demulsification of Crude Oil

- Before ultrasonic: Demulsification of crude oil
- After ultrasonic: Crude oil, water in oil
- Qty of ultrasonic machine: 4 sets
- Volume: 100L
- Output: 1.5 ton/h

Demulsification of crude oil:

With ultrasonic cavitation, the ultrasonic sonochemistry can separate the water and oil from the crude oil, reduce the consumption of demulsifier, and its pollution problem. Easy operation, Fast processing speed, no need to change the processing technology, only set up our ultrasonic machines on the pipeline.

Practical application case of Ultrasonic Sonochemistry (4)

Oil Platform Assembly

- Before ultrasonic: Demulsification of crude oil
- After ultrasonic: no Living marine water
- Qty of ultrasonic machine: 14 sets
- Total flow: 5.6 ton/h
- Effect: kill ratio 99%

Oil platform assembly:

The cooling water on the crude oil platform is treated with ultrasonic machine to kill marine organisms, to reduce the attachment of marine organisms in the pipeline, and to avoid pipe blockage. The assembly equipment, with the ultrasonic equipment as the core, has the explosion prevention and classification society certification, and has been used in two seawater platforms in Bohai Sea.

Herb Extraction

- Before ultrasonic: Mixed liquid of herbal medicine
- After ultrasonic: The effective analysis liquid of Medicine
- Qty of ultrasonic machine: 4 sets
- Volume: 100L
- Output: 1.5 ton/h

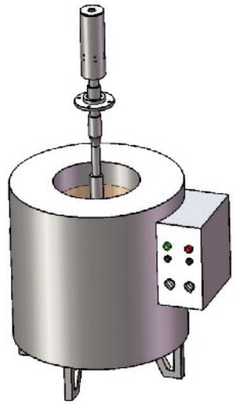
Herb Extraction:

Add ultrasonic equipment in the traditional process of Chinese medicine extraction, can greatly improve the extraction efficiency, and countercurrent extraction or high temperature extraction technology on existing auxiliary adding ultrasonic equipment, can further improve the leaching rate of the effective components of the medicine, to achieve energy saving effect.

Ultrasonic Metallic Aluminum Melt Treatment System

Improve the Metallic Material Characteristics

Product patent ZL200820168235.1
ZL200920313148.5
ZL201020146029.8



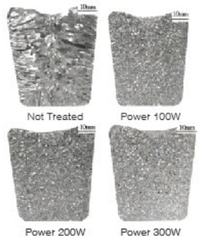
Schematic diagram

Product Features

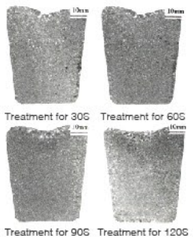
- The product is firstly created in China, with proprietary intellectual property rights;
- High Temperature Resistance: The maximum allowable temperature is 800℃;
- Corrosion Resistance: The high-strength titanium alloy tool head is adopted;
- High Power: The maximum power of a single radiation head may reach 2,500W;
- Significant Effect: In the aspect of micro-molecular interaction, there is direct and significant effect;
- Simple & Convenient Installation: Carry out the installation by adopting the standard flange plate connection method, with no need of changing the existing production equipment and process flow of the customer.

Case Application

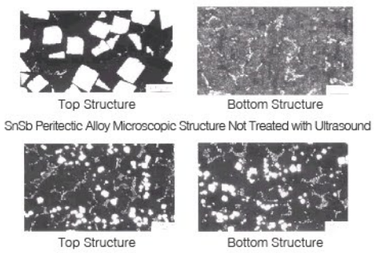
Pure Aluminum Solidification Structure Not Treated with Ultrasound



Pure Aluminum Solidification Structure Treated with Ultrasound at Different Powers



Ultrasonic Treatment for Different Times of Pure Aluminum Solidification Structure



SnSb Peritectic Alloy Microscopic Structure Not Treated with Ultrasound

SnSb Peritectic Alloy Microscopic Structure Treated with 600W Ultrasound

- Data from Mr. Zhai qijie's team, Foundry Research Institute, School of materials science and Engineering, Shanghai University.

Technical Parameters

Classification	20K Experimental Level		20K Industrial Level		
Model	YPR21B-ZB	YPR23B-ZB	YPR53B-ZB	YPR55B-ZB	YPR57B-ZB
Power	500W	1000W	1500W	2000W	2500W
Emitter Head Diameter	30(mm)	30(mm)	50(mm)	50(mm)	50(mm)
Input Voltage	220±10%(V)				

Qualification Certificate

Based on Customer Demands, Achieve Customer Satisfaction

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证书编号：2016(工)－018

有 效 期：二〇一六年十二月至二〇一九年十二月

高新技术企业
证书

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