Submersible Transducer Multi Function For Custom Exist Tank Tube

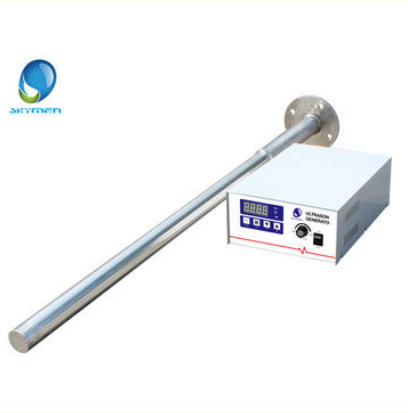
Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Skymen
- Certification: CE ROHS
- Model Number: JM-1036
- Minimum Order Quantity: 1
- Price: Negotiation
- Packaging Details: wood case
- Delivery Time: In Stock
- Payment Terms: T/T
- Supply Ability: 5000PCS per month

Product Specification

- Ultrasonic Cleaning Power: 2160W
- Dimension: 51*1520mm(diameter*height)
- Material: SUS304/SUS316
- Generator: 1pcs
- Application: Clean, Emulsification, Separation, Homogenization, Extraction, Catalysis, Defoaming, Stirring
- Power Supply: AC220~240V 50Hz AC110-120V 60Hz
- Highlight: **submersible ultrasonic transducer**, **ultrasonic extraction equipment**



Our Product Introduction

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Product Description

Professional food grade Immersible transducer bar with generator for custom exist tank tube

What is immersible transducer bar?
Ultrasonic immersible transducer bar are also called submersible transducer probe. Compared with traditional ultrasonic bar, they have a wider range of application and longer life span. Industrial applications using ultrasonic bar for cleaning, extraction, chemical reaction, anti-scaling, water treatment, etc., are very mature and widely used technologies.
Ultrasonic transducer bar use the alternating period of positive and negative pressures in the transmission process of ultrasonic waves. When its phase is in the positive phase, the media molecules are squeezed to increase the original density of the medium. In the negative phase, the medium molecules are sparse and discrete, and the medium density is Decrease. Ultrasonic transducer bar can generate ultrasonic waves around 360°, and the energy output is not affected by changes in the load level, temperature, etc. Ultrasonic transducer bar generally include high-power ultrasonic transducers, horns, and tool heads.), used to generate ultrasonic vibrations and emit this vibration energy into the liquid. The transducer converts the input electrical energy into mechanical energy, ie ultrasonic waves. The manifestation is that the transducer moves back and forth in the longitudinal direction with an amplitude of typically several micrometers. This kind of amplitude power density is not enough and cannot be used directly. The horn magnifies the amplitude as designed, isolates the reaction solution and the transducer, and also fix the entire ultrasonic vibration system. The tool head is connected to the horn, and the horn transfers the ultrasonic energy vibration to the tool head. The tool head then transmits the ultrasonic energy into the chemical reaction liquid.

Advantage

1. Ultrasonic cavitation occurs around the vibrating rod, and the ultrasonic energy is distributed very evenly around the rod.
2. The power output of the ultrasonic vibrator is not affected by the changes in the liquid level, tank capacity, and temperature difference, and the power output is stable and uniform.
3, ultrasonic transducer bar work life span is more than 1.5 times as traditional ultrasonic transducers box;
4. Ultrasonic transducer bar with round tube design makes it easy to install and use
5. ultrasonic immersible transducer bar is absolutely waterproof, safe to use.

Features:
1. With high ultrasonic power
Multi frequency optional
1mm SUS304 material
60W industrial ultrasonic transducer
it can work continuously
with separate generator control
multi function: Clean, emulsification, separation, homogenization, extraction, catalysis, defoaming, stirring
long working life

Model	JM-1003	JM-1006	JM-1012	JM-1018	JM-1024	JM-1036
Parameter*Length	51*180	51*300	51*550	51*750	51*1000	51*1520
Transducers	3	6	12	18	24	36
Ultrasonic power	72-180W	144-360W	288-720W	432-1080W	576-1440W	864-2160W
Material	SUS304/SUS316L					
Thickness	1MM					
Voltage	AC 110V/220V					
Features	small volume, easy to carry					

Application

ultrasonic transducer bar widely used to cleaning
Due to its unique round tube design features, ultrasonic vibrators are particularly suitable for the cleaning of various types of pipelines. The principle is to convert electrical energy into ultrasonic energy and transfer it to scale, water, and the inner wall of the pipeline in accordance with its own laws, so that it can be obtained energy of. The oscillating waves generated during the

transmission of ultrasonic waves cause resonance in the scale, water, and the inner wall of the

pipe. Because of the different oscillating frequencies of the scale, water, and the inner wall of

the pipe, the water molecules in the pipe undergo a fierce collision, giving rise to powerful

impacts and impact on the heat exchange surface. The layer of dirt on it is crispy, peeled off,

detached, crushed, and discharged together with the drainage of the equipment, thus achieving

thorough cleaning of the inner wall of the pipeline by the ultrasonic transducer bar. In addition,

the ultrasonic transducer bar can also be used for the cleaning of the tank body, and can be freely placed at any position of the cleaning tank. it is very flexible and

convenient to the ultrasonic immersible transducer bar, and the occupied volume space is very small, and the cleaning is comprehensive, thoroughly

Application of Ultrasonic Vibration Rod in Extraction of Traditional Chinese Medicine
Ultrasonic submersible transducer bar can be used to extract the active ingredients of traditional Chinese

medicine. First, the extraction solvent is added to the container, and the Chinese medicinal

materials are crushed or cut into granules according to the requirements and placed in the

extraction solvent; the ultrasonic generator is turned on, the ultrasonic transducer bar is installed

on the top of the extraction tank, ultrasonic waves are sent to the extraction solvent, and the

ultrasonic waves are The 'cavitation effect' and mechanical effects of the extraction solvent can

effectively break the cell wall of the medicinal material, free the active ingredient and dissolve

it into the extraction solvent, and on the other hand, accelerate the molecular motion of the

extraction solvent and make the extraction solvent. The active ingredients in the herbs are rapidly contacted and mixed and mixed with each other.
Ultrasonic submersible bar extract the optimal temperature of 40-60 degrees Celsius, so there is no need to provide a boiler to provide steam heating, which is conducive to energy conservation and environmental pollution. More importantly, it has a protective effect on the active ingredients in herbs that are unstable to heat, easily hydrolyzed or oxidized. Ultrasonic tranducer bar generally operate in about 30 minutes to obtain the best results. The extraction efficiency is greatly improved compared to traditional techniques, and is not limited by the nature and molecular weight of Chinese herbal medicines. It is suitable for most types of Chinese herbal medicines and various types of ingredients. The extraction (including liquid-liquid extraction and solid-liquid extraction). Therefore, the use of immersible transducer bar for traditional Chinese medicine extraction has been more and more widely used by pharmaceutical companies.

Application of ultrasonic immersible transducer bar in Accelerating Chemical Reaction

The front end of the head of the ultrasonic vibrating rod tool head is closely attached to the outer wall of the kettle or into the kettle chamber of the kettle body. The ultrasonic transducer can send

ultrasonic waves to the chemical reactants in the kettle chamber. The liquid to be treated is due to

ultrasonic waves. The effect of cavitation can cause changes in the reactivity of the reaction

system, destroy the solvent structure of the chemical reactants in the kettle chamber, generate

instantaneous high temperature and high pressures sufficient to initiate chemical reactions, form

local high energy centers, and promote the smooth progress of chemical reactions. This is the use of

ultrasound. The submersible transducer bar are the main factors that catalyze chemical reactions.
The secondary effects of ultrasound, such as mechanical oscillation, emulsification, diffusion, and

crushing, are all conducive to the omni-directional and thorough mixing of the reactants. The

ultrasonic immersible transducer bar uses a high-power concentrating transducer, which can make the material to

undergo intense forced movement and accelerate. The diffusion of substances can replace traditional

mechanical stirring. Of course, in practical applications, the use of electric stirrers can

accelerate the reaction.
Application of ultrasonic vibrating rod in anti-scaling

We take the heat exchanger as an example. Ultrasonic immersible transducer bar are generally installed in the inlet of the heat exchanger. They are controlled by flange connections and control valves. It is possible to stop the production of ultrasound equipment during inspection and maintenance. The main principle is that ultrasonic waves transmit energy during resonance in the process of transmission, and energy molecules such as scale, water, and metal heat exchange surface obtain energy during the vibration process. The water in the heat exchange tube generates vibration and fierce collision while obtaining energy. The water molecules containing various inorganic salts, which are inherently unstable, generate numerous cavitation bubbles (cavitation) and form cavitation chambers for water molecules. When these bubbles rapidly expand and suddenly close, they generate localized impacts of thousands of atmospheric pressures and high-speed jets with speeds of up to 400 km/h and high energy of 5000k or more. These energies destroy the combination of positive and negative ions with acid radicals, destroying the formation of scale. Conditions to achieve anti-scaling.

Application of ultrasonic vibration rod in water treatment

Ultrasonic submersible transducer bar The energy-concentrating ultrasonic probe enables energy concentration, and powerful sound intensity can be obtained on the ultrasonic radiation end face. Due to the condensing effect of the horn, the acoustic energy density is greatly improved; the reaction can be accurately designed according to the size of the sound energy density. The probe's transmitting end face is generally designed to be removable, so that the probe with suitable size can be selected at any time according to the required sound intensity. At the same time, when the probe is seriously corroded by cavitation, only the end part needs to be replaced without having to change the price. Expensive whole vibrator. Ultrasonic immersible transducer bar can be used to treat a variety of refractory organic wastewaters and have been used to contain monocyclic aromatic compounds, polycyclic aromatic hydrocarbons, phenols, chlorinated hydrocarbons, chlorinated hydrocarbons, organic acids, dyes, alcohols, ketones, etc. Wastewater treatment research and achieved good results. In actual industrial wastewater, this equipment has been used to treat papermaking wastewater, printing and dyeing wastewater, tannery wastewater, coking wastewater, pharmaceutical wastewater, landfill leachate, etc., and achieved good results.

In addition, in some landscape lakes, river ultrasonic wave vibrators can also be used to eliminate algae and suppress algae. Ultrasonic mechanical effects, cavitation effects, thermal effects, and acoustic flow effects cause algal cells to break, break down chemical bonds in the material molecules, break and die on the outer wall of algae, and increase the disruption of algae vacuoles, cell death, or growth. Inhibition and other effects cause a series of biological effects. The cavitation causes the microbubbles present in the liquid to rapidly expand and then suddenly close, generating shock waves and jets to achieve the goal of eliminating algae's balanced water environment ecology. The low-intensity ultrasound destroys the structure and function of phycobilisomes, interferes with the synthetic pathway of chlorophyll, and thus achieves the purpose of inhibiting the growth of algae.

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