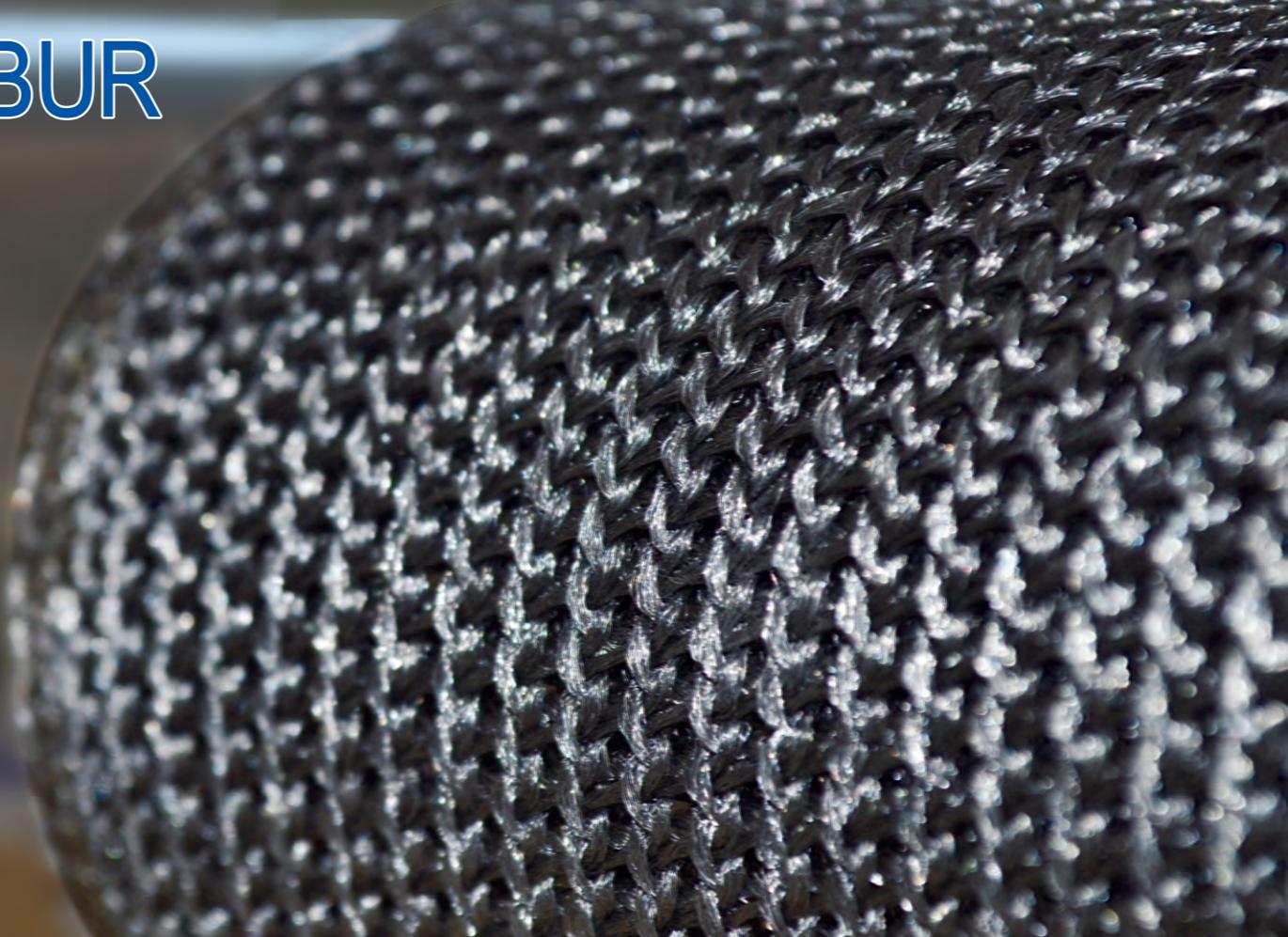


We not only provide products, but also can provide better technical support and service for users to develop products and experience products



METAL FIBER BURNER

In this rapidly changing world,Huitong and the customers are close cooperated partners.
We combine each other together to overcome challenges and make contribution to the world.



HUNAN HUITONG ADVANCED MATERIALS CO.,LTD.

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HUNAN HUITONG ADVANCED MATERIALS CO.,LTD.

Company profile

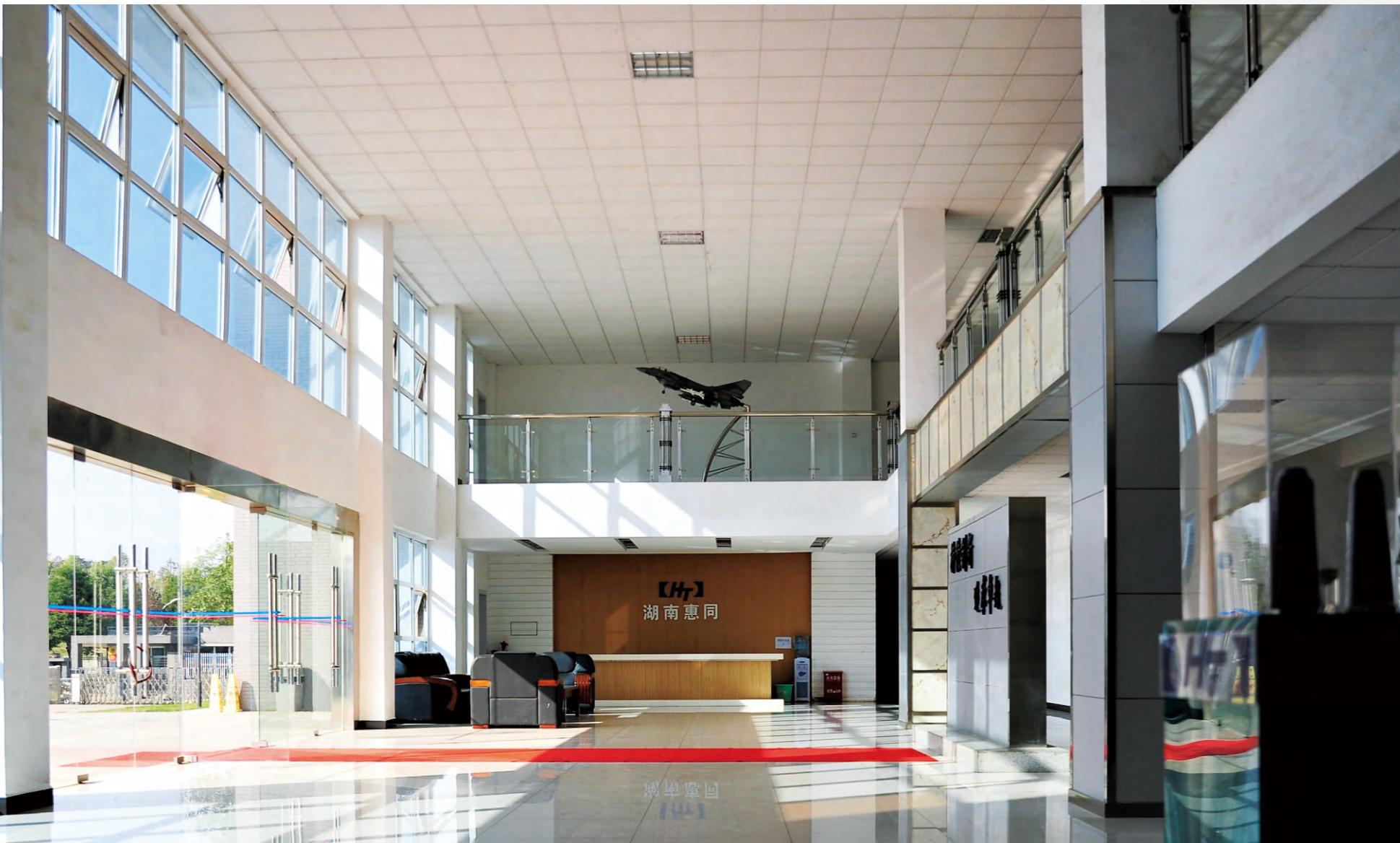
Huitong was founded in 2002.

The predecessor of HT is Metal Fiber Factory of Changsha Mining and Metallurgy Research institute, The history of producing metal fiber and the RD of metal fiber products is over 30 years.it completed the shareholding reform in October 2006 and was successfully listed on the new third board on November 16.2015.stock code is 833751.

At present,the company has a registered capital of 62 million yuan and more than 300 employees,We have two factories. One is in Yiyang city and the other is in Changsha city.Yiyang factory is located in the national high-tech development zone of Yi yang city,and Changsha factory is located in Lugu national high-tech development zone,each covering an area of more than 66667m². Our products cover nearly 200 kinds of metal fiber and related product,export to the United States. Mexico,Germany,France,Italy,Japan,South Korea,southeast Asia and other regions.The average annual turnover of the company is over 25 million USD.

Innovating & Developing Cooperating & Win together





Status

Being a leading enterprise with international competence in metal fiber industry Huitong is the earliest domestic company which engaged in RD, production and sales of the metal fibers and metal fiber products. It has been known as the "cradle of metal fibers and metal fiber products in China". The company maintains good positive relations with many domestic universities, such as the National University of Defense Technology, Central South University, Huzhou University of Science and Technology etc. It has also other companies in project development. The company has completely independent intellectual property rights, and its technology and quality are at the advanced level of industry, and a number of technologies have been in the leading position in the world.

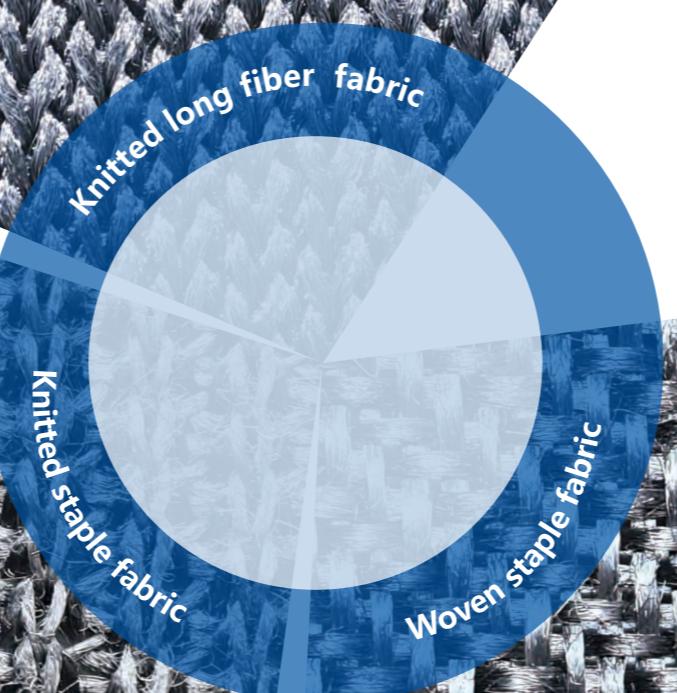
- ※ The only one domestic enterprise who has developed conductive plastic masterbatch and made it industrialized.
- ※ Passed the certification of General Electric(GE) in the conductive plastics production.
- ※ The first national enterprises which produce metal fiber shielding materials in military defense.
- ※ The unique domestic enterprise which produces metal fiber heating wire.
- ※ The earliest enterprises who research and produces metal fiber heat-resistant fabrics which used for metal fiber burner.
- ※ The largest enterprise which produces conductive blended spun yarn
- ※ The largest enterprise which produces Fiber used for DPF automobile.

Our strengths

Huitong has mastered the whole processing technology from primary raw materials, high-temperature fabrics to burning heads which ensure the product quality and stability can be effectively controlled.

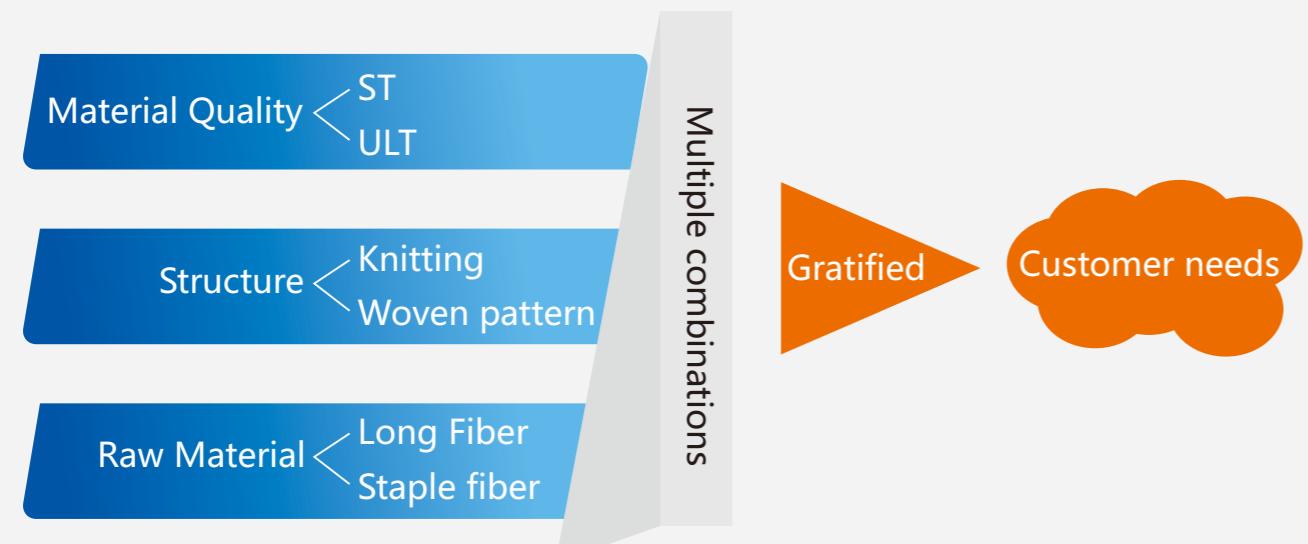
- ※ Master the core technology of production of special performance raw materials
- ※ Possess the patent for high temperature fabrics (patent NO.CN201310063660.X)
- ※ With combustion test conditions <3000KW, it is convenient to assist users in developing products with various power and special requirements.
- ※ With more than 10 years of product development and application experience, we can provide good technical support for support for product development.
- ※ Guided by ISO9001 certification, we strictly control the product and process quality.

Metal fiber heat-resistant fabrics

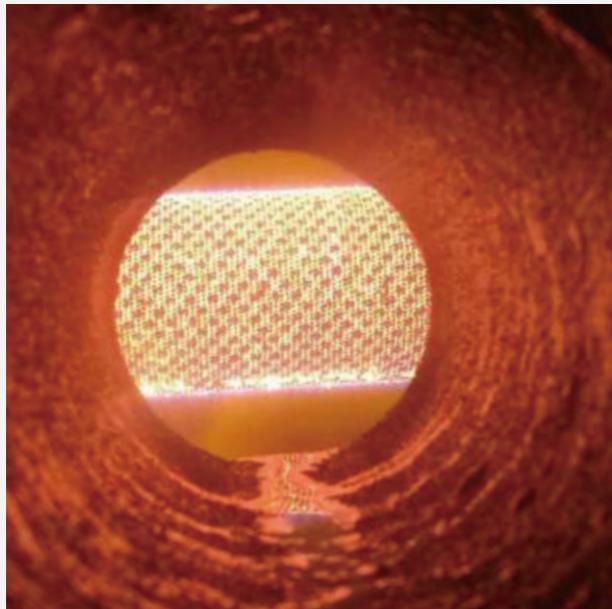


High Temperature alloy fabric

Huitong already posses a variety of production and processing technologies for high-temperature alloy fabrics.



ULT series

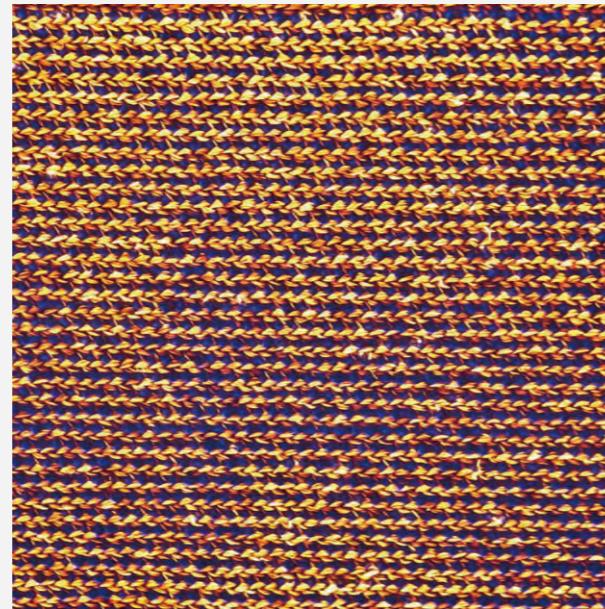


Special alloy formula, excellent performance in high temperature environment, stable work in the infrared region.

Woven series

HT patent fabric has excellent high temperature oxidation resistance and fire back resistance, and has a wide range of applications.

Knitted series



3D rich structure makes it have appropriate shielding rate, and the temperature gradient of the inner and outer surface of the fabric is large, thus ensuring the stability of combustion.

High temperature resistant metal fibre alloy fabric

Knitted long fiber fabric



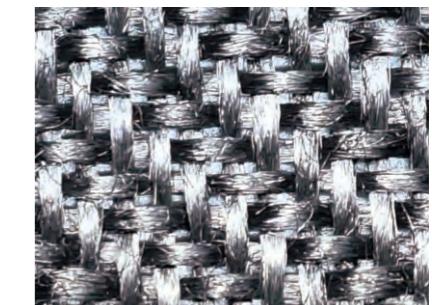
F-ULT type: Huitong Patent Fabric, Excellent high-temperature oxidation resistance, tempering resistance and thermal shock resistance, stable and uniform structure, wide range of application.

Knitted staple fabric



K-ULT TYPE: knitted short fiber type, general-purpose fabric good high temperature oxidation resistance type, anti-resonance, unique short fiber feather, good infrared radiation ability can adapt to most working conditions.

Woven staple fabric

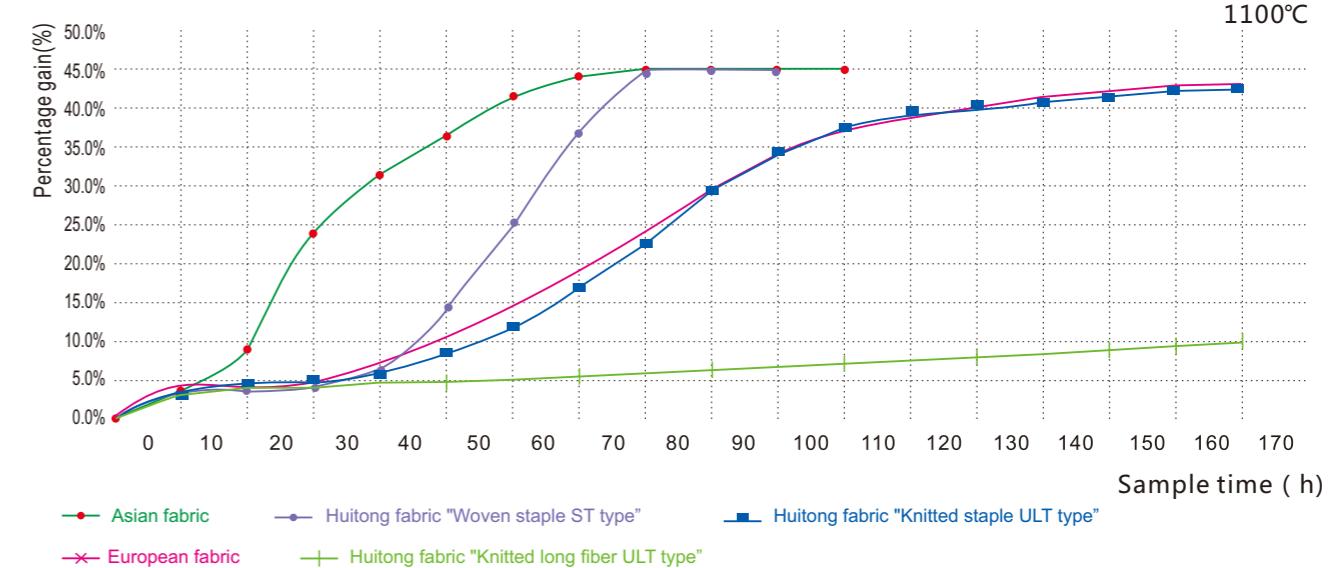


Economy,high processing efficiency.

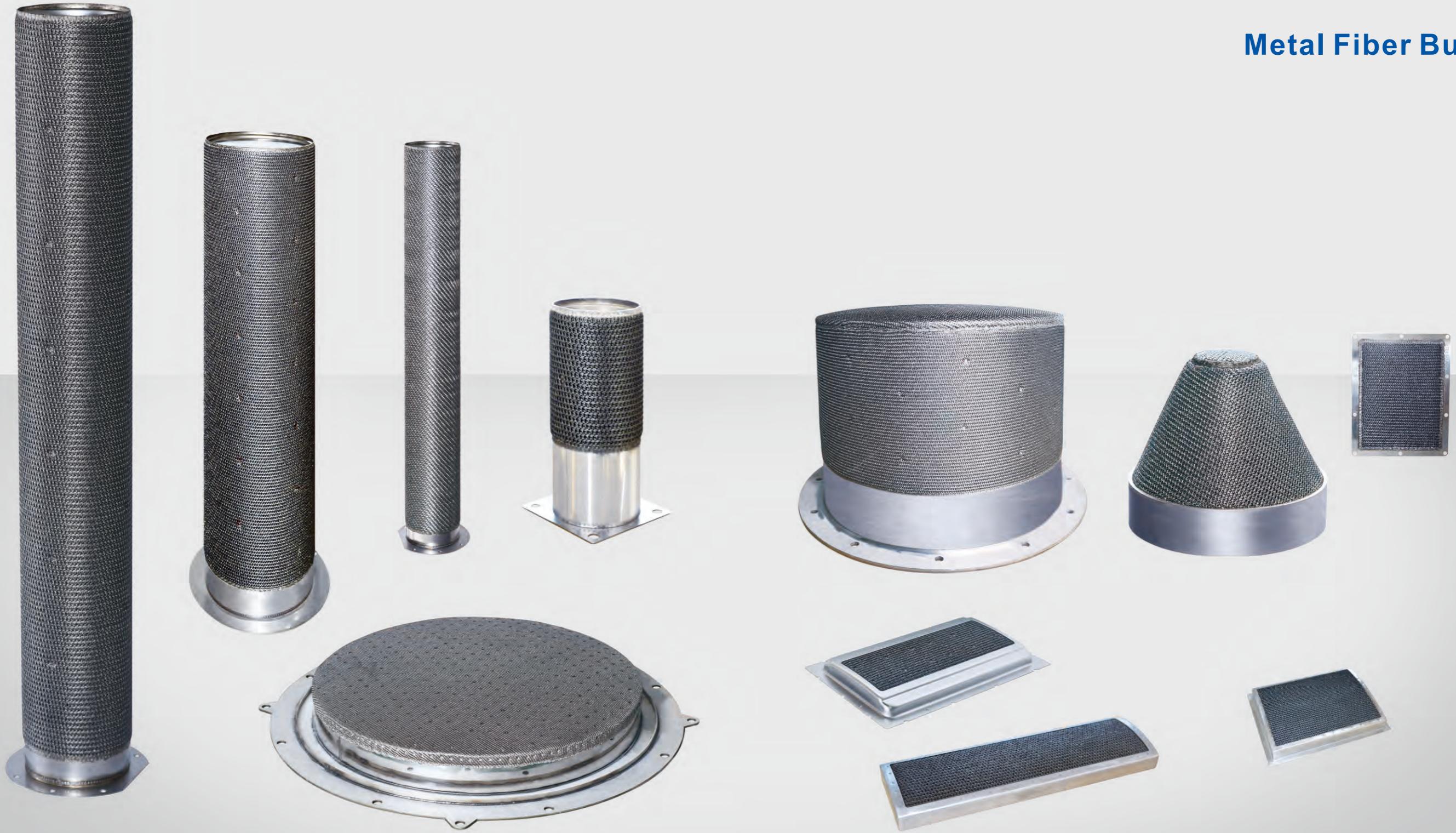
Projects	Brand name	F1400/290-ULT			K1400/290-ULT			W1500/240-ULT		
		Material Quality	FeCrAl LT	FeCrAl LT	Material Quality	FeCrAl LT	FeCrAl LT	Material Quality	FeCrAl LT	FeCrAl LT
	Weight(kg/m ²)		1.4		1.4		1.5			
	Mean permeability (L/m ² *S)	2900±300		2900±300		2400±350		May Adjust according to the customer demand		
	Width of width(mm)	1000±5		1000±5		1200±5		The maximum width shall not exceed 1200 mm		
	Fabric thickness(mm)	1.9±0.15		1.9±0.15		1.9±0.15		YG (B)141D digital fabric thickness gauge		
	Service temperature (°C)				≤1100, limiting temperature 1250					

The above data is only for type selection reference, the actual product data is agreed with technical documents

Life comparison of metal fiber fabrics



Metal Fiber Burner



Products

Metal Fiber Burner

Huitong began to develop metal fiber high-temperature fabrics and burner heads in 2008. In 2010, it completed the finalization of the latest generation of high-temperature fabrics. Since then, burners of different specifications and application fields have been gradually developed. So far, Huitong burners have been widely used in various fields at home and abroad.

Huitong burner has been put into the market for more than ten years, and has rich application experience. We can not only provide excellent burners, but also develop suitable solutions for customers.

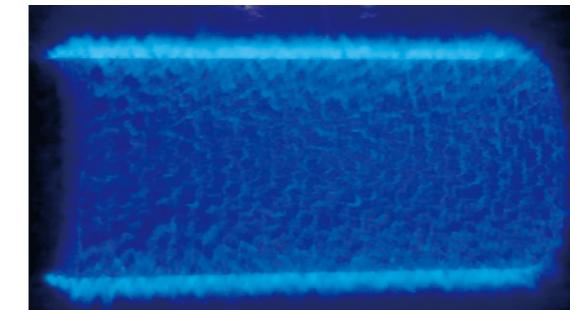


Characteristic

- ※ Low pollutant emission
- ※ Low combustion noise
- ※ Strong adaptability to shape
- ※ Thermal shock
- ※ Good security
- ※ Wide adjustment
- ※ Long service life
- ※ Anti clogging

We offer you:

- ※ Burner with uniform flame distribution and stable combustion.



- ※ Made from a variety of Superalloy fabrics Tailored structural dimensions.



Column head



Flat Burner



Conical burner

Main Application

- ※ Hot-water/Steam boiler
- ※ Wall mounted heater / water heater
- ※ Drying equipment
- ※ Industrial furnace
- ※ Engineering heating equipment
- ※ Industrial thermal equipment

- ※ The whole process of quality control, ensure the reliability of each burner



Raw Material



High temperature alloy cloth

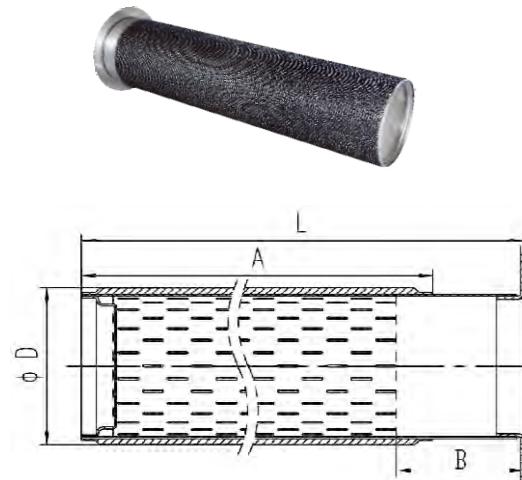


Burner

According to your needs, we can provide customized metal fiber burners and solutions.

Column type

The classical structure makes full use of the heat released by combustion.



Diameter(mm)	Length(mm)	Rated input(KW)
39	30-280	10-30
54	30-380	30-50
65.2	30-460	50-120
71	30-500	60-200
85.6	30-600	100-350
102	50-700	200-500
144	50-1200	350-1400
204	50-1500	700-2800
249	50-1800	700-3500
304	—	—
404	—	—

※ Conventional parameter for Type Selection

Tests and applications

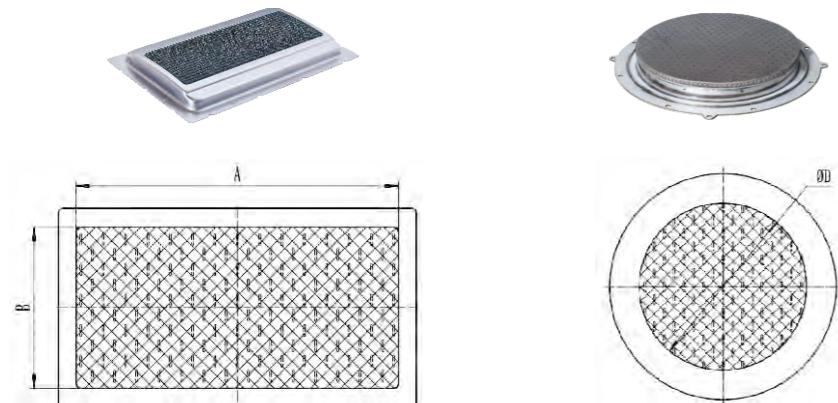


- ✖ Fast fabric life test
 - ✖ Fabric air permeability test
 - ✖ Fabric thickness test
 - ✖ Raw material composition testing
 - ✖ Testing of mechanical properties of raw materials
 - ✖ Burner working condition test
 - ✖ Fast burner life test
 - ✖ ICP composition analyzer
 - ✖ Burner reliability test
- (Uniformity,Reliability, cold air permeability)

B、 Non combustion zone
A、 Combustion zone

Flat type

The simple structure and convenient installation makes combustion space greatly reduced.



A、 Length ≤1000

B、 Width ≤1000

Power : 1--14000KW

D、 Diameter ≤1000

Power : 1--14000KW





Infrared heating equipment



Fully premixed low nitrogen condensing boiler



Gas Oven



Hanging Stove



Ultra low nitrogen pure copper boiler



Fully premixed aluminum condenser boiler

Some misunderstands

Misunderstandings one : poor safety, easy to backfire and deflagration

The real situation:

- ※ When the structure design of the metal fiber burner and the matching heat exchanger is unreasonable or the debugging is improper, the unstable conditions such as serious overheating of the burner or combustion oscillation will occur.
- ※ It is necessary to adopt scientific furnace head design and ignition method. Different power burners have different requirements for ignition mode, so the power should be adjusted properly. If the design of combustion head is unreasonable, the ignition mode can not ignite the released combustible gas in time, which will cause deflagration.

Resolvent:

- ※ According to the adjustment range of furnace back pressure and output of different heat transfer structure, the matching combustion head and proper measures to eliminate combustion oscillation are designed, and the stable air-fuel ratio and output range can be adjusted before use to avoid tempering.
- ※ The design scheme of combustion head must be verified by outside test and working condition. Proper ignition power and back pressure design can avoid ignition and detonation.

Special reminder:

- ※ The protection of furnace end must be well done, and the slight damage of surface fabric may lead to tempering.
- ※ The combustion head requires uniform flame distribution, and the equipment manufacturer must have the test conditions of combustion testing conditions outside and inside the furnace.
- ※ The boiler must be debugged by professional worker. Improper debugging will easily break the furnace head to be damaged in a short time, or cause tempering and deflagration accidents in the subsequent use process.

Misunderstanding two: boiler efficiency decline

The real situation:

- ※ The mainstream low nitrogen combustion control technology will affect boiler efficiency to a certain extent. The traditional boiler simply replacing the metal fiber combustion machine will bring about 1% of the efficiency reduction, which is the inevitable result of increasing excess air. However, if the thermal supply management of heating project is not good, the heat loss caused by other reasons is often greater.
- ※ Different NOx emission requirements,will cause different efficiency.

Resolvent:

- ※ Any technology has a price. The implementation of refined thermal operation management, including the adoption of more energy-saving combustion control mode and the installation of new and more efficient flue gas waste heat recovery device, is conducive to reducing the heat loss of actual thermal operation.
- ※ Most importantly, the metal fiber fully premixed combustion mode greatly reduces the impact on the volume of the combustion chamber, re targeted design of the boiler heat exchange structure, improve the heat exchange efficiency of the boiler, is an effective way to play the advantages of this combustion mode proved by foreign time.

Misunderstanding three : poor combustion efficiency

The real situation:

- Although High Excess Air Coefficient is needed to achieve ultra-low nitrogen combustion, the combustion process is very sufficient, and the CO content can not be measured in most cases in traditional boilers. If the CO emission is too high, it is mostly caused by the bad air mixture of the combustion engine or the unreasonable arrangement of the heat transfer structure of the newly designed furnace.

Misunderstanding four : high operating costs

The real situation:

- The effective filter cloth only protects the burner, but also protects the valve group and heat exchange device related to combustion operation, especially the heat exchange form of stainless steel coil, which extends the service life of the whole boiler system.
- Huitong metal fiber fabric has independent intellectual property rights. Through comparative test, the service life of Huitong metal fiber fabric can reach the level of similar foreign products. With proper combustion and filtration methods, the service life of metal fiber furnace head can reach more than 10 years.
- Through comparative test, Huitong metal fiber furnace head has greater dust holding capacity and is more difficult to block under the same conditions.
- There are on-site operation and maintenance personnel on the boiler site, and the filter cleaning staff only need a little time.

Special reminder

- At present, there are many kinds of metal fiber fabrics on the market. Different types of metal fiber fabrics have different weaving methods, materials and fiber diameters, and their performances are quite different. They can adapt to different working conditions, different service life and different load adjustment ranges. It is very important to select the right burner. Improper selection is easy to cause uneven combustion, tempering, burner damage and other phenomena.
- When Huitong burner is used in the initial stage, it is normal for it to have a short yellow flame. The metal fiber superalloy cloth is added with protective medium in the process of production and processing, which can burn out rapidly under certain temperature conditions, without affecting the normal use of the burner and the emission test results.
- Metal Fiber burners do not belong to "Plug and play"products, new operating conditions and furnace structure, matching burners need to be tested and confirmed.



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Cooperating & Win together**

