



Ceramic
Media
Product
Brochure



Ceramic Random Packing

Pingxiang Rongjian Environmental Protection Chemical Packing Co., Ltd

DIRECTORY

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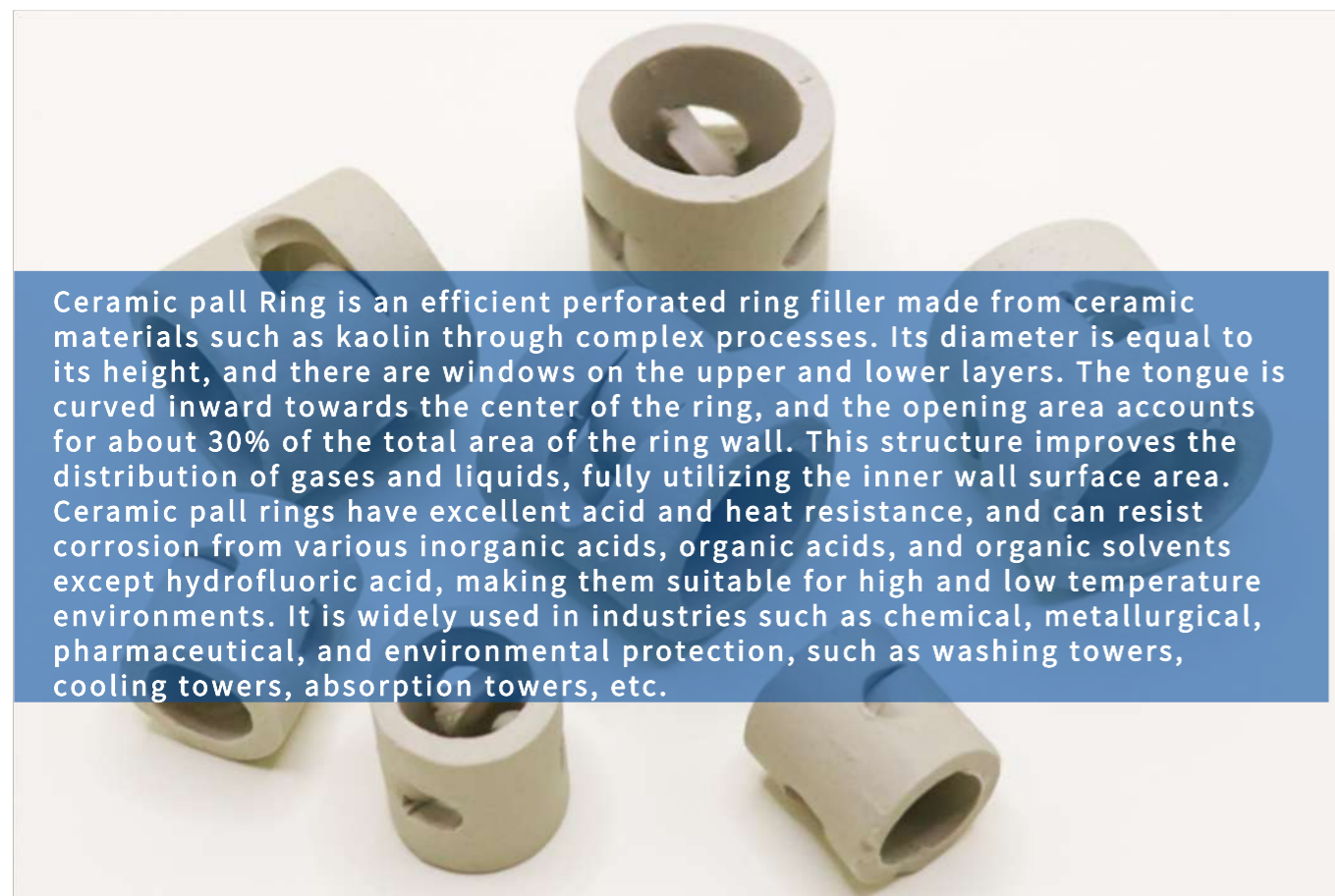
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Ceramic Pall Ring - Technical Features

Ceramic Pall Ring is a commonly used packing material in industries such as chemical and environmental protection, mainly used in tower equipment to promote the contact efficiency between gas and liquid. The design of ceramic pall rings increases the contact area between gas and liquid phases, thereby improving mass transfer efficiency. Its high porosity reduces resistance and helps improve processing capacity. Ceramic materials have high hardness and strong compressive strength, which can maintain stability under high pressure and extend their service life. Ceramic materials themselves have excellent high-temperature resistance, which can maintain structural stability in high-temperature environments and are not easily deformed or damaged. Ceramic pall rings have good resistance to most acids, bases, and other chemicals, making them particularly suitable for use in highly corrosive media. Its unique design can effectively reduce the resistance drop when fluid passes through, reduce energy consumption, and improve overall work efficiency. In order to meet different application requirements, ceramic pall rings offer a variety of specifications and size choices, which can be optimized and configured according to specific process conditions.



Ceramic pall Ring is an efficient perforated ring filler made from ceramic materials such as kaolin through complex processes. Its diameter is equal to its height, and there are windows on the upper and lower layers. The tongue is curved inward towards the center of the ring, and the opening area accounts for about 30% of the total area of the ring wall. This structure improves the distribution of gases and liquids, fully utilizing the inner wall surface area. Ceramic pall rings have excellent acid and heat resistance, and can resist corrosion from various inorganic acids, organic acids, and organic solvents except hydrofluoric acid, making them suitable for high and low temperature environments. It is widely used in industries such as chemical, metallurgical, pharmaceutical, and environmental protection, such as washing towers, cooling towers, absorption towers, etc.

Product parameters



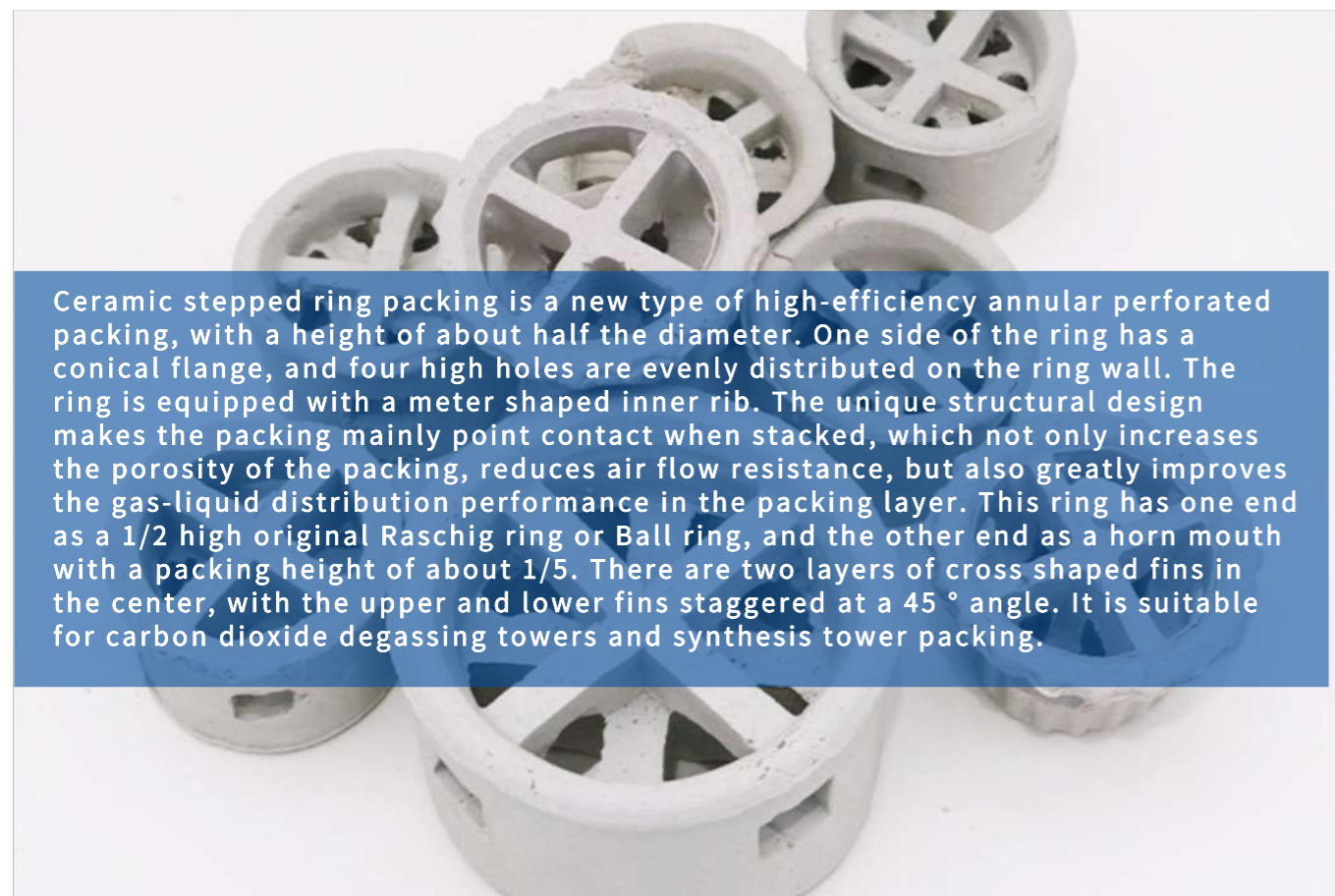
specifications	Bythick	specific area	void volume	Accumulation of the number	Accumulate weight	Dry filler factor
mm	mm*mm*mm	m ² /m ³	%	n/m	kg/m ³	m
φ25	25*25*3	238	73	53500	600	565
φ38	38*38*4	197	75	13400	570	365
φ50	50*50*5	120	78	6800	550	252
φ80	80*80*8	75	80	1930	520	146



Ceramic Step Ring - Technical Features

Ceramic stepped ring packing is a high-performance annular perforated packing with significant technical characteristics. It absorbs and improves the design of Raschig and Bauer rings, with a height to diameter ratio of 1:2 and a tapered flange at one end, enhancing mechanical strength and optimizing gas-liquid distribution. Due to structural asymmetry, the fillers are mainly in point contact during stacking, increasing porosity, reducing air flow resistance, and promoting liquid surface renewal, thereby improving mass transfer efficiency.

Ceramic step rings have excellent acid and heat resistance, and can withstand corrosion from various inorganic acids, organic acids, and organic solvents, making them suitable for high-temperature environments. Its wide range of applications covers industries such as chemical, metallurgical, gas, and environmental protection, playing an important role in equipment such as drying towers, absorption towers, and cooling towers. Ceramic step rings not only improve the mass and heat transfer efficiency of the equipment, but also reduce pressure drop and energy consumption, making them easy to clean and maintain.



Ceramic stepped ring packing is a new type of high-efficiency annular perforated packing, with a height of about half the diameter. One side of the ring has a conical flange, and four high holes are evenly distributed on the ring wall. The ring is equipped with a meter shaped inner rib. The unique structural design makes the packing mainly point contact when stacked, which not only increases the porosity of the packing, reduces air flow resistance, but also greatly improves the gas-liquid distribution performance in the packing layer. This ring has one end as a 1/2 high original Raschig ring or Ball ring, and the other end as a horn mouth with a packing height of about 1/5. There are two layers of cross shaped fins in the center, with the upper and lower fins staggered at a 45 ° angle. It is suitable for carbon dioxide degassing towers and synthesis tower packing.

Product parameters

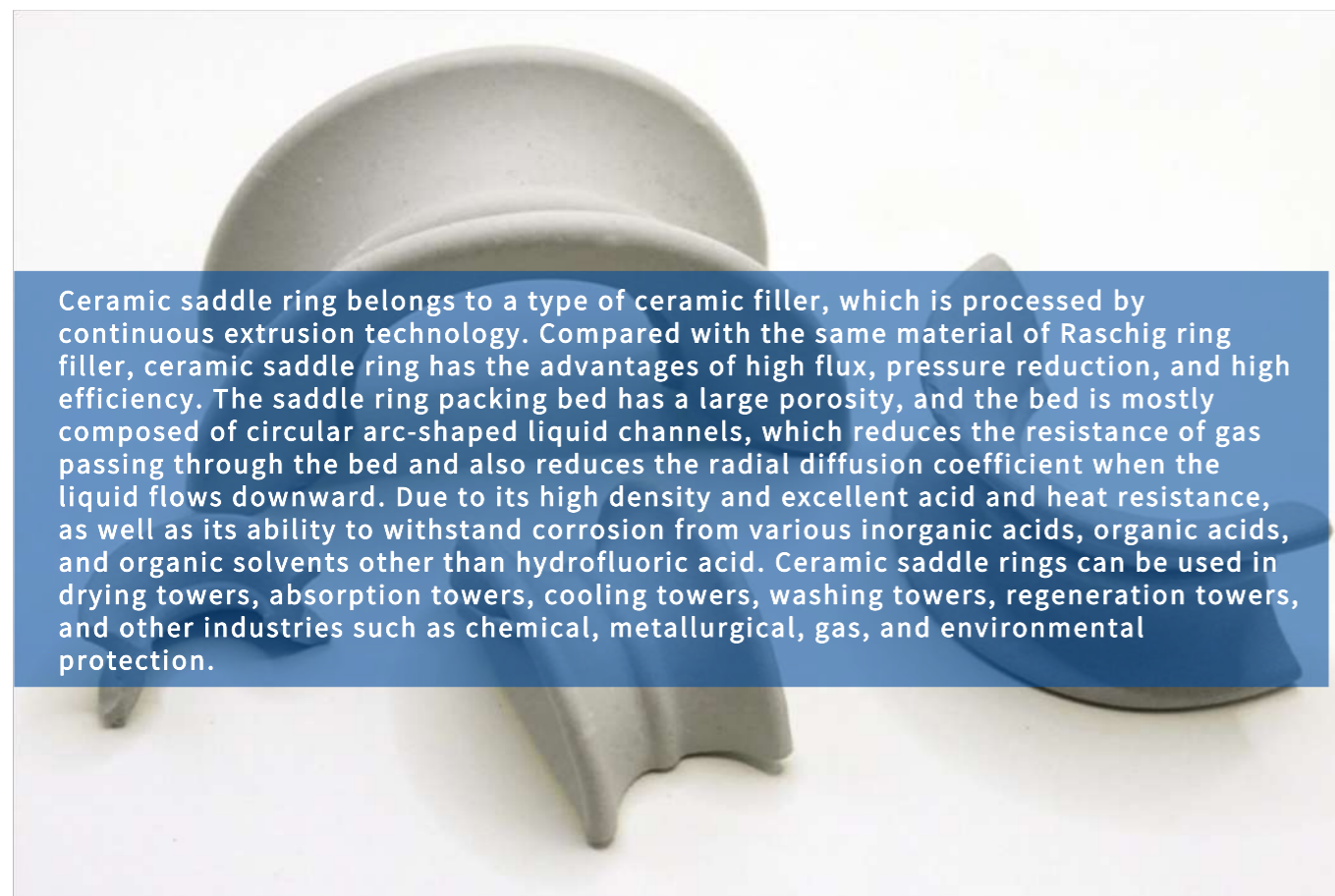
model	size mm	specific area m ² /m ³	void volume %	Accumulation of the number Pcs/m ³	Accumulate weight kg/m ³	Dry filler factor m-1
φ25	25×15×3	210	73	72000	650	540
φ38	38×23×4	153	74	21600	630	378
φ50	50×30×5	102	76	9100	580	232
φ76	76×46×9	75	78	2500	530	158



Ceramic Saddle Ring - Technical Features

Ceramic saddle ring is a high-performance ceramic filler, and its unique technical characteristics make it widely used in multiple industrial fields. It uses high-quality kaolin as raw material and is formed by high-temperature calcination at 1400 degrees, with excellent acid and heat resistance. The saddle structure design of the ceramic saddle ring not only increases the porosity, but also reduces the resistance of gas passing through the bed layer, improving mass transfer efficiency. This structure enables the packing to form complex flow channels inside the tower, increasing the fluid contact area and improving reaction efficiency.

Ceramic saddle rings have low water absorption, high density, and excellent corrosion resistance. They can withstand corrosion from various inorganic acids, organic acids, and organic solvents, ensuring long-term stable operation of the equipment.



Ceramic saddle ring belongs to a type of ceramic filler, which is processed by continuous extrusion technology. Compared with the same material of Raschig ring filler, ceramic saddle ring has the advantages of high flux, pressure reduction, and high efficiency. The saddle ring packing bed has a large porosity, and the bed is mostly composed of circular arc-shaped liquid channels, which reduces the resistance of gas passing through the bed and also reduces the radial diffusion coefficient when the liquid flows downward. Due to its high density and excellent acid and heat resistance, as well as its ability to withstand corrosion from various inorganic acids, organic acids, and organic solvents other than hydrofluoric acid. Ceramic saddle rings can be used in drying towers, absorption towers, cooling towers, washing towers, regeneration towers, and other industries such as chemical, metallurgical, gas, and environmental protection.

Product parameters

size mm	thickness (mm)	specific area (m ² /m ³)	void volume (%)	Dry filler factor (m-1)	bulk specific weight (kg/m ³)
1" (25mm)	3-4	250	74	320	700
3/2" (38mm)	4-5	164	78	170	600
2"(50mm)	5-6	120	77	130	510
3" (76mm)	8-10	95	77	127	500

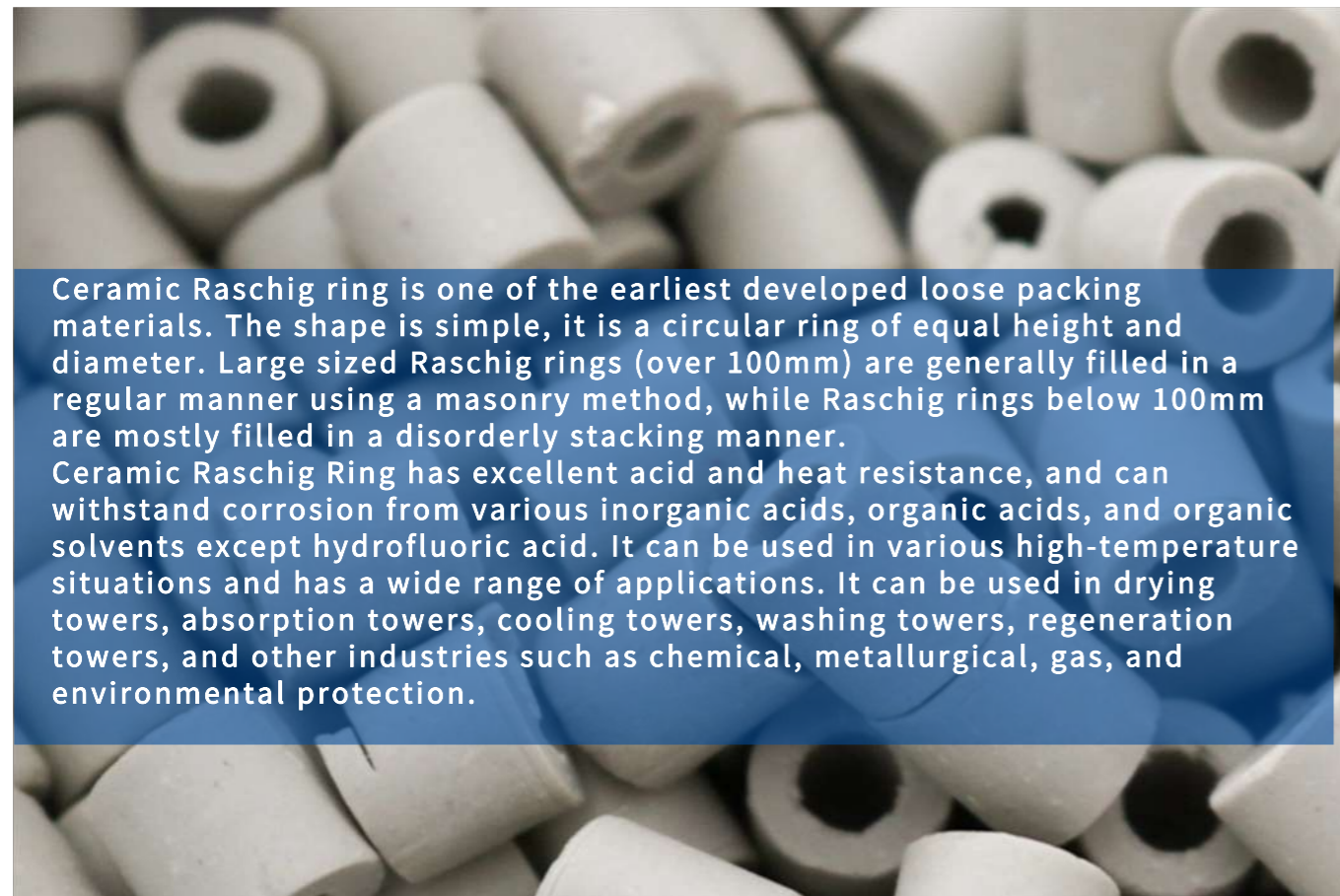


Ceramic Raschig Rings

– Technical Features

The basic shape of ceramic Raschig rings is circular, with a simple geometric structure that is easy to produce and install. This design enables it to form a relatively uniform distribution during the filling process. Ceramic materials themselves have strong resistance to acids, alkalis, and other chemical substances, which makes ceramic Raschig rings very suitable for use in corrosive media operating environments. Ceramic materials can maintain stability at extremely high temperatures without softening or deformation, making them suitable for processes that require operation under high temperature conditions. Despite its simple structure, the design of ceramic Raschig rings allows for a relatively large specific surface area, which helps to improve the contact efficiency between gas and liquid, thereby enhancing mass transfer efficiency.

The Raschig ring provides a moderate porosity, which is not only beneficial for the uniform distribution of fluids, but also reduces resistance losses and lowers operating costs. Although ceramic materials are relatively brittle, improving manufacturing processes can enhance their compressive strength, allowing them to be used under certain pressure conditions without easily breaking, and with lower production costs and longer service life.



Ceramic Raschig ring is one of the earliest developed loose packing materials. The shape is simple, it is a circular ring of equal height and diameter. Large sized Raschig rings (over 100mm) are generally filled in a regular manner using a masonry method, while Raschig rings below 100mm are mostly filled in a disorderly stacking manner.

Ceramic Raschig Ring has excellent acid and heat resistance, and can withstand corrosion from various inorganic acids, organic acids, and organic solvents except hydrofluoric acid. It can be used in various high-temperature situations and has a wide range of applications. It can be used in drying towers, absorption towers, cooling towers, washing towers, regeneration towers, and other industries such as chemical, metallurgical, gas, and environmental protection.

Product parameters

size (mm)	thickness (mm)	specific area (m ² /m ³)	void volume (%)	Accumulation of the number per m ³	Accumulate weight (kg/m ³)	Dry filler factor (m-l)
6×6	1.6	712	62	3022935	1050	5249
13×13	2.4	367	64	377867	800	1903
16×16	2.5	305	73	192500	800	900
25×25	3	190	74	52000	650	508
38×38	5	121	73	15800	650	312
50×50	6	92	74	6500	600	213
80×80	9.5	46	80	1953	660	280
100×100	10	70	70	1000	600	172



Ceramic Intalox Saddle Ring - Technical Characteristics

The ceramic intalox saddle ring is made of high-quality ceramic material and has excellent high temperature resistance and corrosion resistance. It can withstand corrosion from various inorganic acids, organic acids, and organic solvents except hydrofluoric acid, and maintain stable performance in both high and low temperature environments. Ceramic intalox saddle rings have high mechanical strength and can withstand certain pressure without being easily damaged, making them suitable for long-term use. Its saddle shaped design ensures more thorough contact between gas and liquid. Its unique shape increases the specific surface area and improves fluid distribution, thereby enhancing mass transfer efficiency.

Due to its regular shape and size, ceramic intalox saddle rings are easy to install and replace, reducing maintenance difficulty and costs. Multiple specifications and sizes can be provided according to different application requirements, and flexible selection can be made based on specific application scenarios and process conditions.

Product parameters

size mm	thickness (mm)	specific area (m ² /m ³)	void volume (%)	Accumulation of the number (Pcs/m ³)	Accumulate weight (kg/m ³)
25mm	3-3.5	160	78	53000	650
38mm	4-5	102	80	16000	600
50mm	5-6	88	80	7300	580
76mm	8.5-9.5	58	82	1800	550



Ceramic intalox saddle ring is an improved chemical filler, which has been innovatively designed based on the rectangular saddle ring filler. The side profile has been changed from a smooth arc shape to a serrated or corrugated protrusion, significantly improving the porosity between the fillers. Its high surface area and excellent pore structure not only improve reaction efficiency, but also enhance liquid separation efficiency.

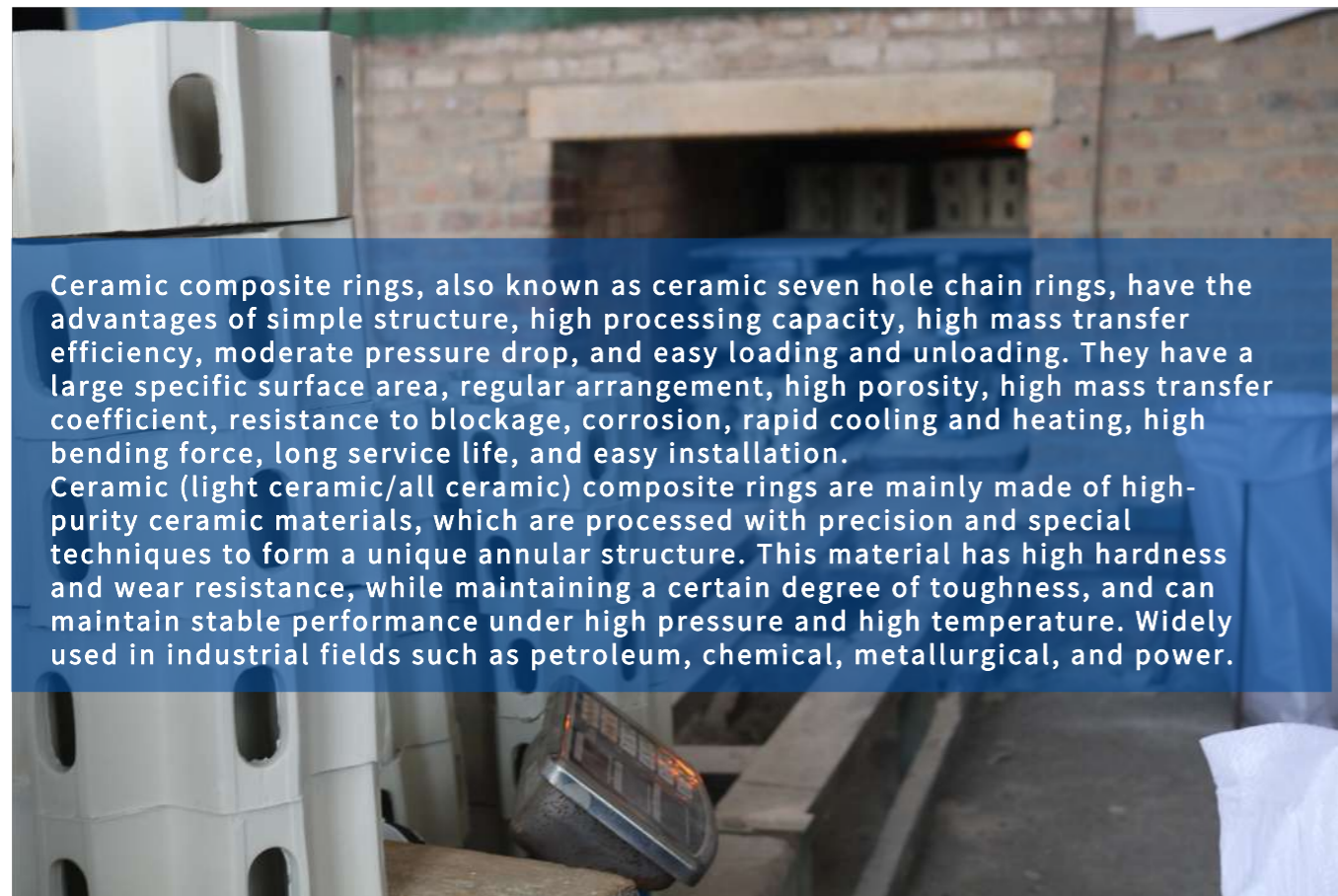
Ceramic intalox saddle rings have excellent high temperature resistance, acid and alkali resistance, and corrosion resistance. In addition to hydrofluoric acid, they can withstand the erosion of various inorganic acids, organic acids, and organic solvents. Widely used in sulfuric acid production, drying towers, absorption towers, cooling towers, washing towers, and waste gas treatment towers.



Ceramic Composite Ring - Technical Features

Ceramic composite ring is a new type of filler with unique technical characteristics. It has a light weight and low resistance, greatly reducing operational energy consumption. The ceramic composite ring has a high mass transfer coefficient and a wide effective area, greatly improving the absorption efficiency. It has strong aging resistance and corrosion resistance, and can operate stably in harsh environments for a long time, with a service life far exceeding that of plastic fillers. The ceramic composite ring has excellent heat resistance, with a fire resistance of up to 1400 °C, and is resistant to rapid cooling and heating, making it not easily damaged.

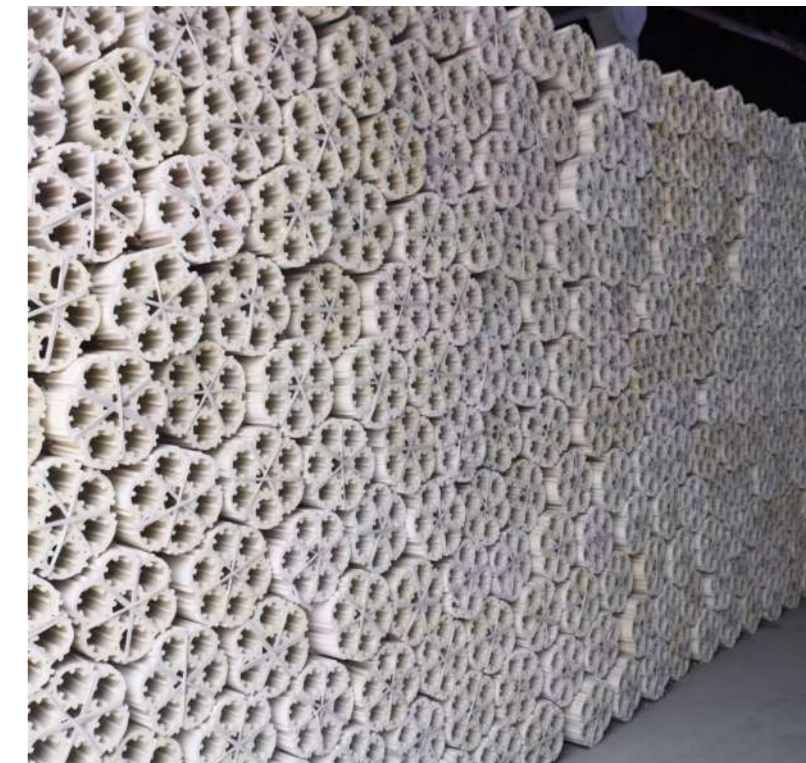
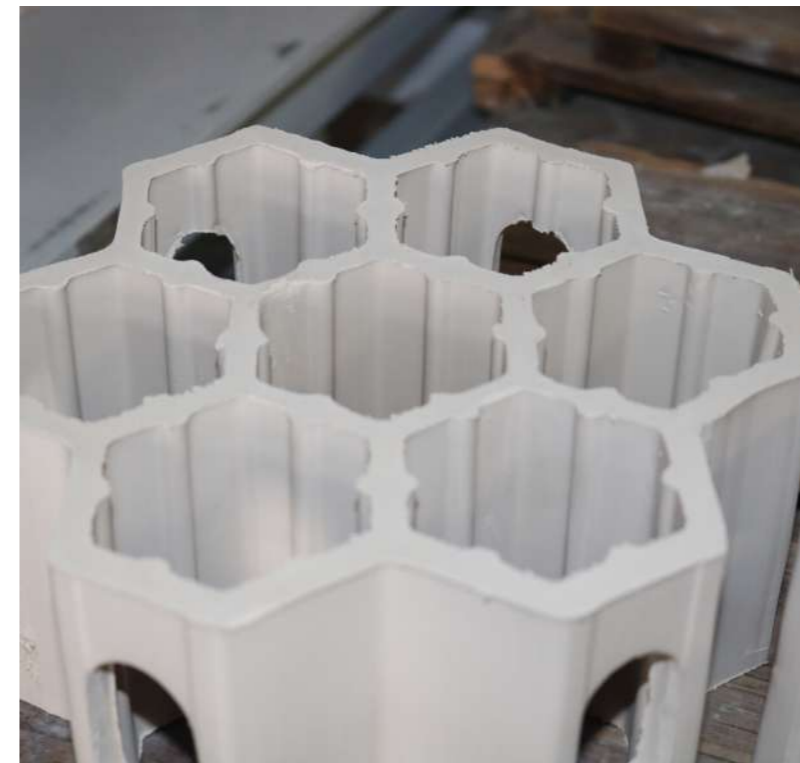
Due to its rule-based design and standardized production, ceramic composite rings are easy to install and replace, reducing maintenance difficulty and costs. Customization can be made according to different process requirements, adapting to different tower diameters and processing capacity requirements



Ceramic composite rings, also known as ceramic seven hole chain rings, have the advantages of simple structure, high processing capacity, high mass transfer efficiency, moderate pressure drop, and easy loading and unloading. They have a large specific surface area, regular arrangement, high porosity, high mass transfer coefficient, resistance to blockage, corrosion, rapid cooling and heating, high bending force, long service life, and easy installation. Ceramic (light ceramic/all ceramic) composite rings are mainly made of high-purity ceramic materials, which are processed with precision and special techniques to form a unique annular structure. This material has high hardness and wear resistance, while maintaining a certain degree of toughness, and can maintain stable performance under high pressure and high temperature. Widely used in industrial fields such as petroleum, chemical, metallurgical, and power.

Product parameters

product name	model	Right side distance mm	Accumulation gap mm	aperture mm	specific area (m ² /m ³)	void volume %	Accumulate weight Kg/m ³	The number of accumulation blocks n/m ³
Seven hole serial	X-0	220±25	20	65	118	85	280	200
Seven holes with tendon ring	X-1	220±25	20	65	128	75	320	200
Six diamond ring	X-2	220±25	20	65	135	72	340	200
Six diamond multi-tendon ring	X-3	220±25	20	65	132	75	300	200
Rotate the multi-tooth ring	X-4	220±25	20	65	148	73	348	200



Production workshop



Company Profile

The company has a team of young and energetic management and technical personnel with a pioneering spirit. Through continuous digestion and absorption of domestic and foreign environmental protection technologies, it has formed independent innovative core environmental protection products and equipment. The company's main products include ceramic ball packing, ceramic bulk packing, plastic bulk packing, metal bulk packing, microporous ceramic filters, microporous ceramic filtration devices, honeycomb ceramic heat storage bodies, carriers, membrane hanging bio ceramic particles and other equipment and products. Its stability and reliability have reached a good level compared to similar products at home and abroad. The purpose and pursuit of Rongjian people is to drive the future with technology, improve products with innovation, survive with quality, and ensure reputation. We sincerely hope to work together with friends from all walks of life to protect the beautiful environment of humanity!

Proof of qualifications

