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Plastic Media Product Brochure

Plastic Random Packing

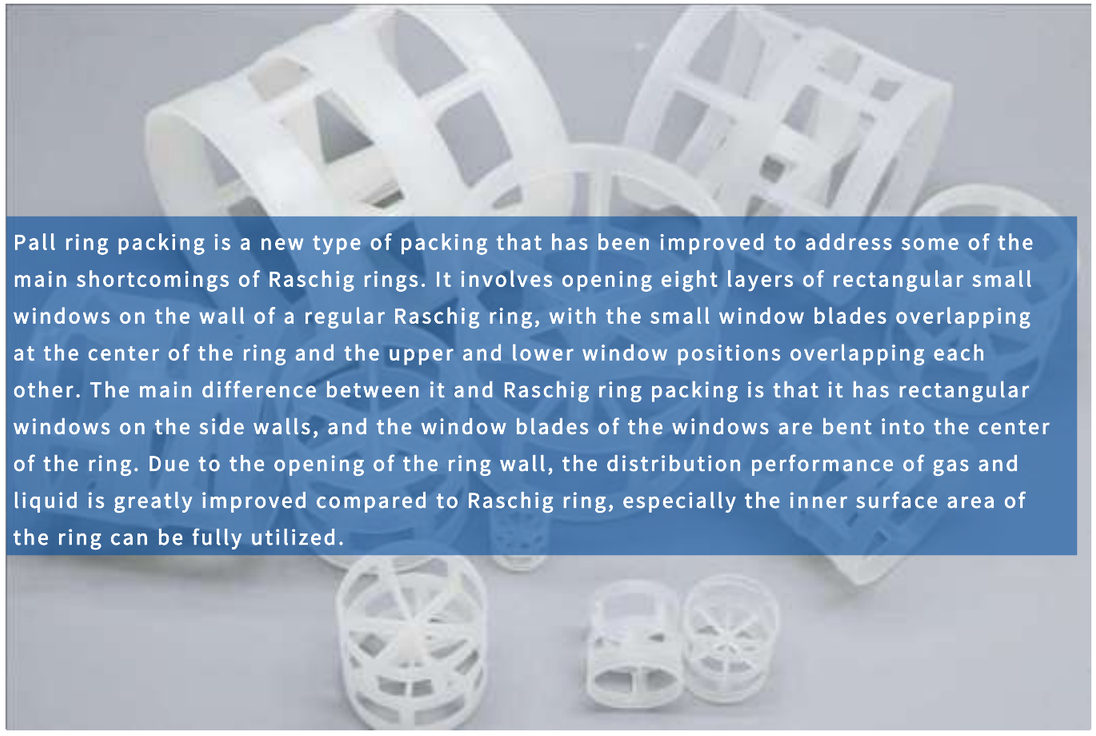
Pingxiang Rongjian Environmental Protection Chemical Packing Co., Ltd

DIRECTORY

Plastic Pall Ring - Technical Features

The materials of plastic pall rings include PP, RPP, CPVC, PVDF, PVC, PTFE, FEP, PFA, etc. Plastic pall ring packing is particularly suitable for medium and low temperature (60-150 degrees) distillation, absorption, and washing towers in industries such as petroleum, chemical, chlor alkali, gas, environmental protection, as well as carbon dioxide degassing towers, ozone contact reaction towers, and other reaction towers as contact packing.

Due to the openings on the ring wall, the utilization efficiency of the space and surface inside the ring is greatly improved, resulting in low airflow resistance and uniform liquid distribution. It has the advantages of high flux, low resistance, high separation efficiency, and high operational flexibility. Under the same pressure reduction, the processing capacity can be more than 50% larger than that of Raschig ring. Compared with Raschig ring, this type of packing has the characteristics of high production capacity, strong resistance, and high operational flexibility. Under the same pressure drop, it can be processed 50% -100% higher than Raschig ring, and 50% -70% lower than Raschig ring. The gas flux of pall ring can be increased by more than 50%, and the efficiency of mass transfer equipment can be improved by about 30%. Ball ring is a widely used packing material.



Pall ring packing is a new type of packing that has been improved to address some of the main shortcomings of Raschig rings. It involves opening eight layers of rectangular small windows on the wall of a regular Raschig ring, with the small window blades overlapping at the center of the ring and the upper and lower window positions overlapping each other. The main difference between it and Raschig ring packing is that it has rectangular windows on the side walls, and the window blades of the windows are bent into the center of the ring. Due to the opening of the ring wall, the distribution performance of gas and liquid is greatly improved compared to Raschig ring, especially the inner surface area of the ring can be fully utilized.

Product parameters

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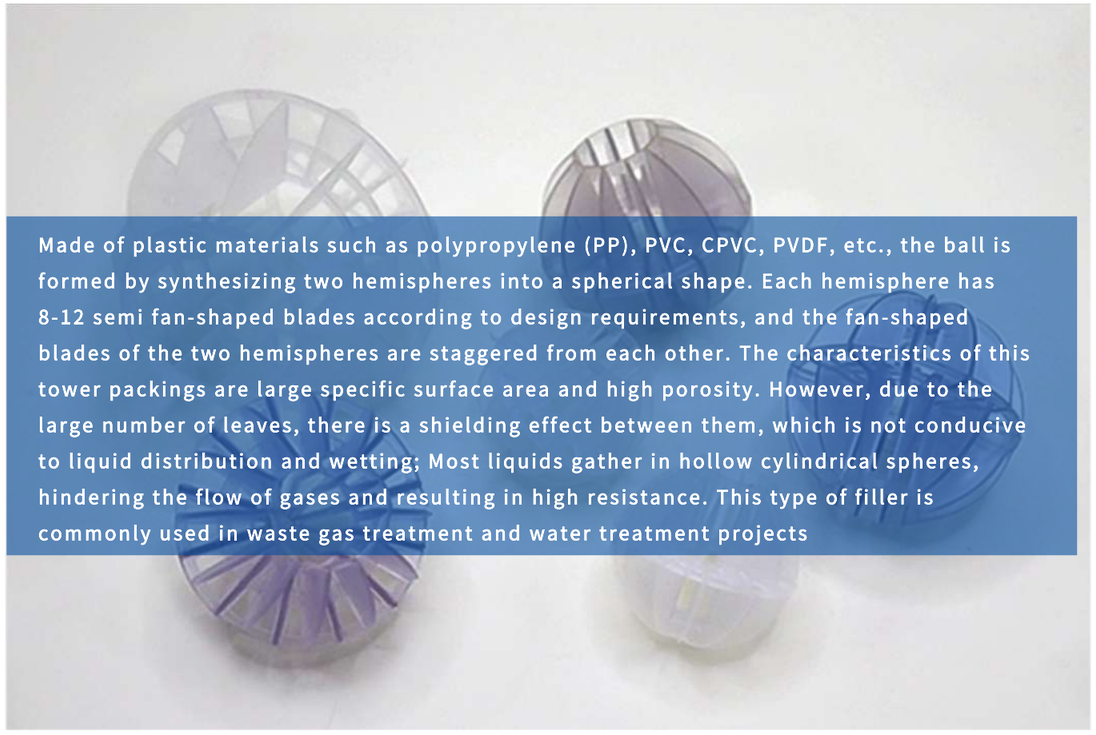
specifications mm	External diameter * high * thick mm	specific area m2/m3	void volume %	Accumulation of the number n/m3	Accumulate weight kg/m3	Dry filler factor m-1
φ16	16*16*1	320	88	214000	108	376
φ25	25*25*1.2	213	90	53500	68	285
φ38	38*38*1.4	151	91	15800	60	220
φ50	50*50*1.5	100	91.2	6500	45	127
φ76	76*76*2.6	73	92	1930	48	94
φ100	100*100*3.0	58	94	900	40	86

Plastic Polyhedral Hollow Ball - Technical Features

Polyhedral hollow balls are processed from polypropylene (PP). Mainly used for the removal of gases such as oxygen, chlorine, carbon dioxide, etc. in cooling towers and purification towers. The appearance is spherical, and the main specifications are φ 25mm φ38mm、φ50mm、φ76mm、φ100mm。 High air velocity, multiple blades, low resistance; The specific surface area is large, which can fully solve the problem of gas-liquid exchange; It has the advantages of low resistance and high operational flexibility.

characteristic:

1. High air velocity, multiple blades, low resistance;
2. The specific surface area is large, which can fully solve the problem of gas-liquid exchange;
3. Polyhedral hollow balls have the characteristics of high production capacity, low resistance, and high operational flexibility.
4. A processing device that is lightweight, high-strength, has a large free space, high temperature resistance, corrosion resistance, good surface hydrophilicity, low wind resistance, low power consumption, large specific surface area, and is suitable for various solvents.



Made of plastic materials such as polypropylene (PP), PVC, CPVC, PVDF, etc., the ball is formed by synthesizing two hemispheres into a spherical shape. Each hemisphere has 8-12 semi fan-shaped blades according to design requirements, and the fan-shaped blades of the two hemispheres are staggered from each other. The characteristics of this tower packings are large specific surface area and high porosity. However, due to the large number of leaves, there is a shielding effect between them, which is not conducive to liquid distribution and wetting; Most liquids gather in hollow cylindrical spheres, hindering the flow of gases and resulting in high resistance. This type of filler is commonly used in waste gas treatment and water treatment projects

Product parameters

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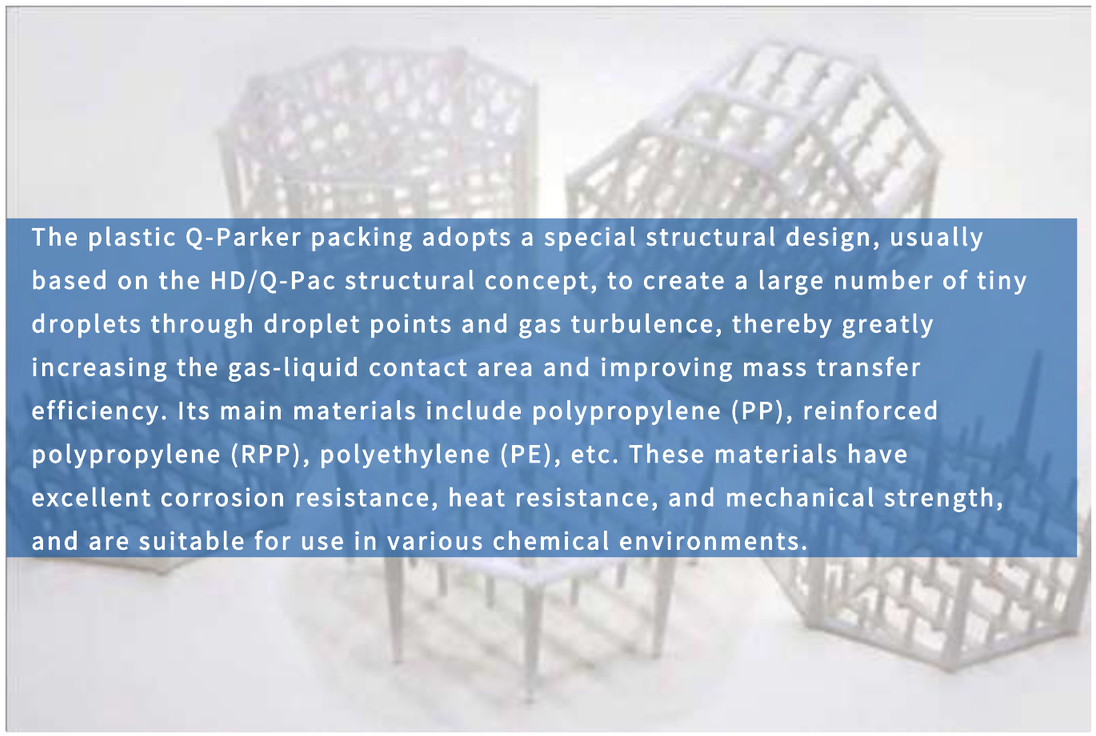
size (mm)	specific area (m2/m3)	void volume (%)	Accumulation of the number pieces/m³	Accumulate weight (Kg/m³)	Dry filler factor (m1)
25	460	90	64000	64.0	776
38	325	91	25000	73	494
50	237	91	11500	52	324
76	214	92	3000	75	193
100	330	92	1500	56.0	155

Plastic Q Parker - Technical Features

High porosity: Plastic Q Parker packing has a high porosity, usually above 90%, which allows gases and liquids to pass smoothly through the packing layer, reducing pressure drop and minimizing fan energy consumption.
Efficient mass transfer: Its unique structural design significantly increases the gas-liquid contact area, thereby improving mass transfer efficiency.
Anti scaling and anti blocking: The surface of the packing is smooth and easy to clean, reducing the risk of scaling and blocking and lowering maintenance costs.
Easy to operate and install: Plastic Q Parker fillers are usually designed in bulk or modular form, making them easy to install and disassemble, and facilitating equipment maintenance and upgrades.
application area
Pre treatment of seawater desalination: During the seawater desalination process, plastic Q-Park packing can be used to pre treat scrubbers, improve gas-liquid contact efficiency, and reduce energy consumption.
Wastewater treatment: In the field of wastewater treatment, it can be used for oil-water separation, biological treatment, and other processes to improve treatment efficiency.
Gas cooling tower: As a packing material for gas cooling towers, plastic Q Parker can enhance gas-liquid heat exchange and improve cooling efficiency.
Other industrial applications: In addition, it can also be used in aquariums, water treatment in the aquaculture industry, and oil-water separation of stainless steel.



The plastic Q-Parker packing adopts a special structural design, usually based on the HD/Q-Pac structural concept, to create a large number of tiny droplets through droplet points and gas turbulence, thereby greatly increasing the gas-liquid contact area and improving mass transfer efficiency. Its main materials include polypropylene (PP), reinforced polypropylene (RPP), polyethylene (PE), etc. These materials have excellent corrosion resistance, heat resistance, and mechanical strength, and are suitable for use in various chemical environments.

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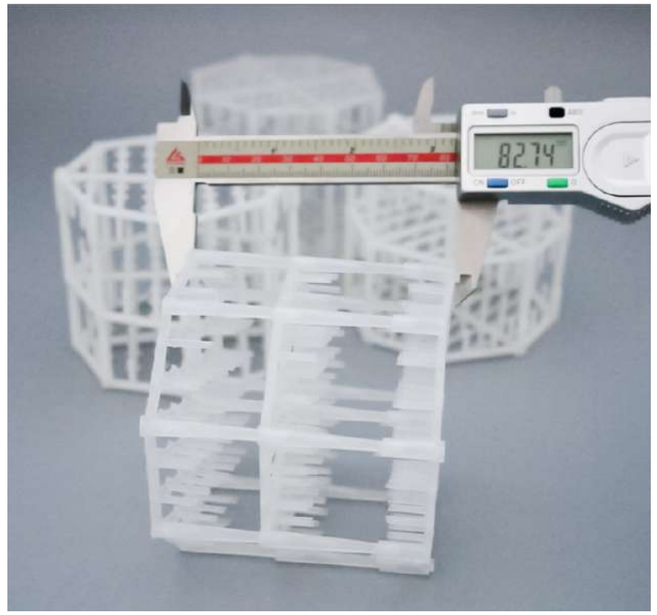
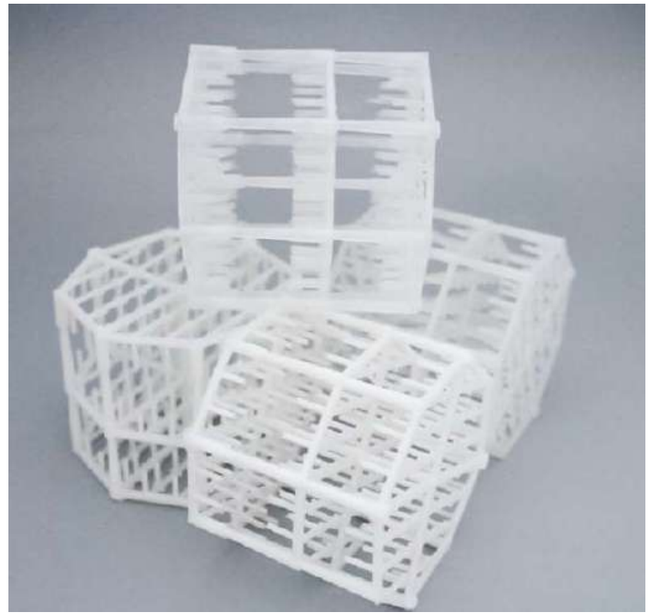
Product parameters

size mm	A bit of the number	void volume %	Accumulation of the number pieces/m3	Accumulate weight Kg/m³	Dry filler factor m-1
82.5*95	388	96.3	1165	33.7	23



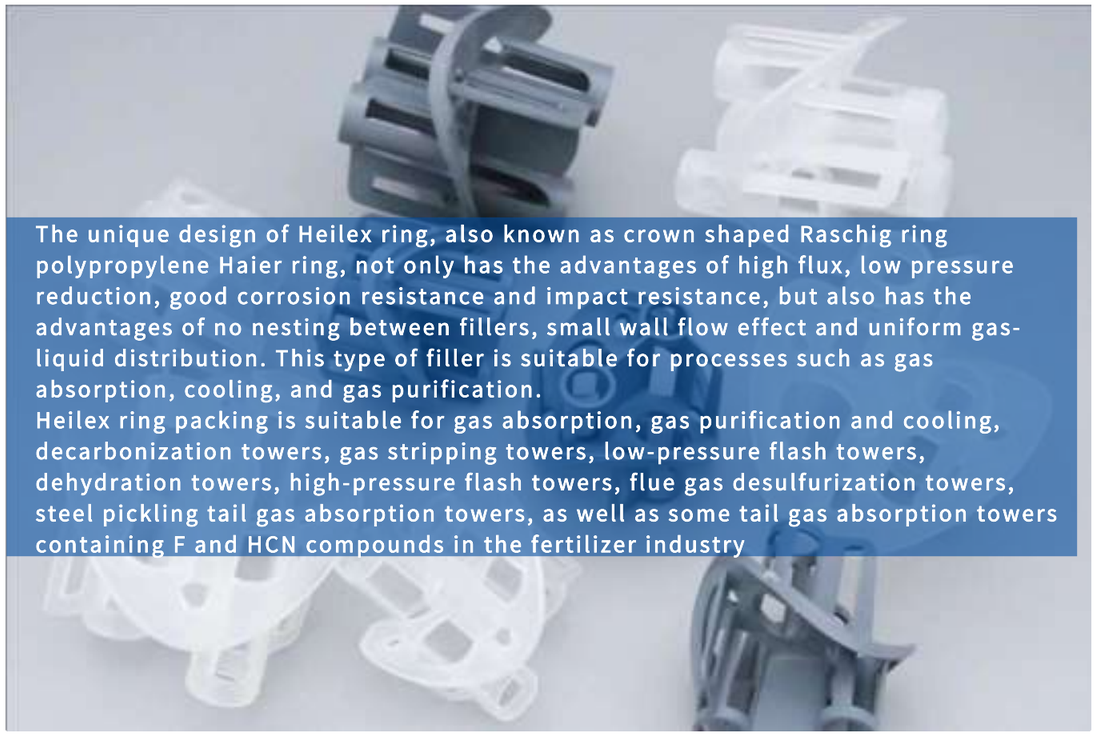


Plastic Heilex Ring - Technical Features

Plastic Heilex ring materials include PP polypropylene, RPP reinforced polypropylene, CPVC reinforced polyvinyl chloride, PTFE polytetrafluoroethylene, PE polyethylene, PVC polyvinyl chloride, PVDF polytetrafluoroethylene, PTFE polytetrafluoroethylene, etc.

The shape of polypropylene Heilex ring not only has the advantages of high flux, low pressure, good corrosion resistance and impact resistance, but also has the characteristics of no nesting between tower packings, small wall flow effect, and uniform gas-liquid distribution. This type of filler is suitable for gas absorption, cooling, and gas purification.

The desulfurization tower adopts Haier ring packing, which has the characteristics of simple structure, high strength, not easy to block, easy replacement, and good desulfurization effect. A larger specific surface area is beneficial for increasing gas processing capacity, while a higher porosity increases gas flow rate. The unit volume quantity is small, making it easy to clean and replace packaging. Haier ring packing has a smooth surface, strong self-cleaning ability, and is not easy to adhere to debris. If debris adheres, it is easy to remove. During major repairs, the maintenance workload is not significant. Polypropylene Haier ring fillers have high chemical stability and mechanical strength, are not easily deteriorated or broken during normal use, are easy to install and disassemble, and have a long service life



The unique design of Heilex ring, also known as crown shaped Raschig ring polypropylene Haier ring, not only has the advantages of high flux, low pressure reduction, good corrosion resistance and impact resistance, but also has the advantages of no nesting between fillers, small wall flow effect and uniform gas-liquid distribution. This type of filler is suitable for processes such as gas absorption, cooling, and gas purification.

Heilex ring packing is suitable for gas absorption, gas purification and cooling, decarbonization towers, gas stripping towers, low-pressure flash towers, dehydration towers, high-pressure flash towers, flue gas desulfurization towers, steel pickling tail gas absorption towers, as well as some tail gas absorption towers containing F and HCN compounds in the fertilizer industry

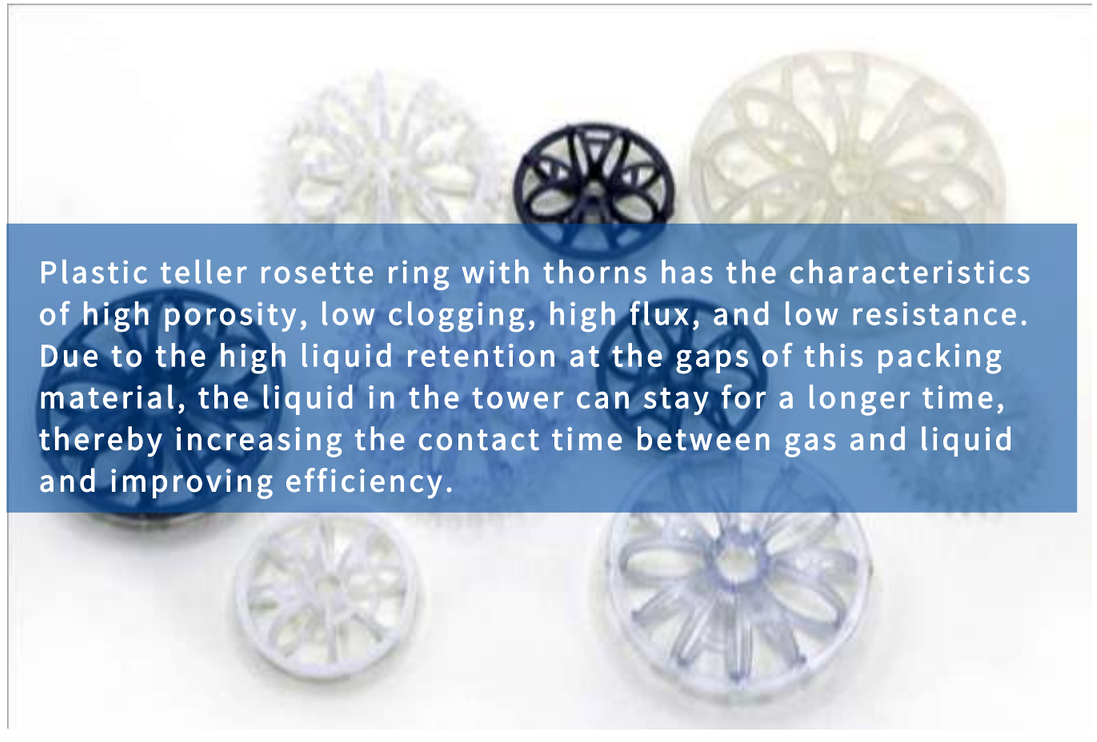
Product parameters

specifications mm	Accumulation of the number A / m3	specific area m2/m3	void volume %	Dry filler factor M-1
50×50	8000	110	94	133
76×76	3420	92	94.5	105
100×100	1680	76	95	76

Plastic Teller Rosette Ring - Technical Features

The materials of plastic rosette include PP polypropylene, RPP reinforced polypropylene, CPVC reinforced polyvinyl chloride, PTFE polytetrafluoroethylene, PE polyethylene, PVC polyvinyl chloride, PVDF polytetrafluoroethylene, PTFE polytetrafluoroethylene, etc

The main characteristics of rosette rings are high porosity, low clogging, high flux, and low resistance, which are made up of many circular rings. Due to the high liquid holding capacity at the gaps of the packing, the liquid retention time in the tower can be longer, thereby increasing the contact time between gas and liquid and improving the mass transfer efficiency of the packing. Polypropylene packing has the characteristics of high porosity, low pressure drop and mass transfer unit height, high flooding point, sufficient gas-liquid contact, low specific gravity, and high mass transfer efficiency. It is commonly used in gas washing and purification towers.



Product parameters

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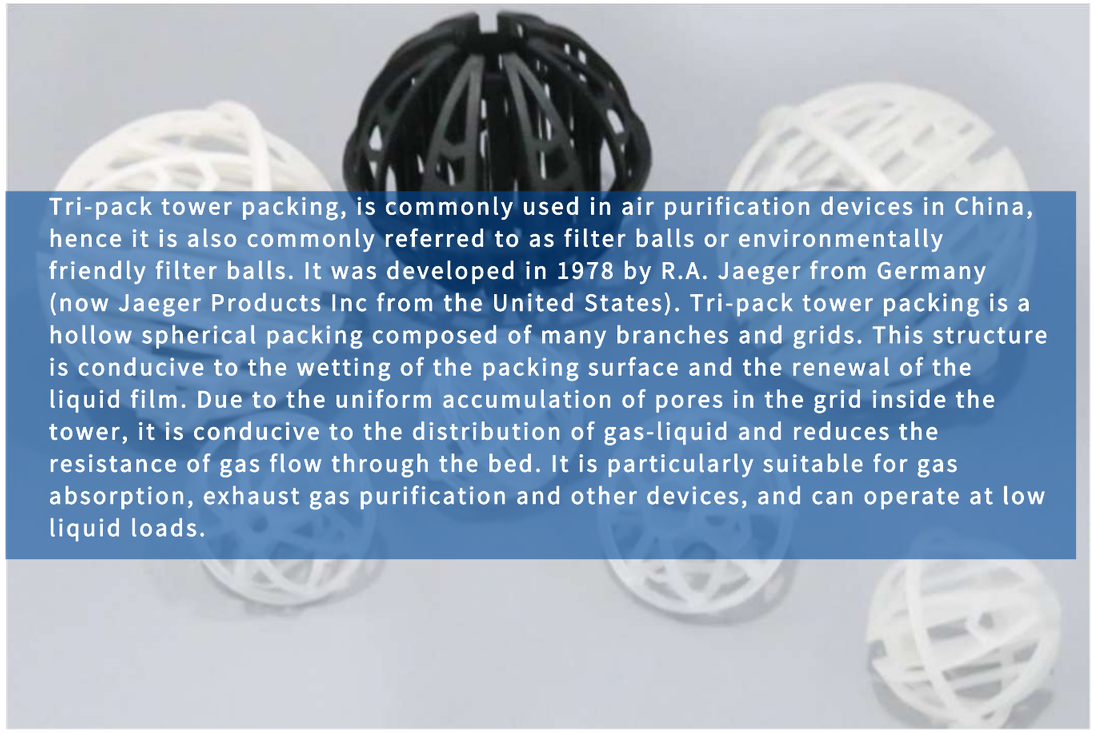
specifications mm	External diameter * high * thick mm	Accumulation of the number n/m3	Heavy accumulation Kg/m3	specific area m2/m3	void volume %
Dg25	25*9*(1.5*2)	170000	90	195	82
Dg47	47*19*(3*3)	32500	111	185	88
Dg51	51*19*(3*3)	23500	103	180	98
Dg59	59*19*(3*3)	17500	72	150	92
Dg73	73*28*(3*4)	8000	80	127	89
Dg95	95*37*(3*6)	3600	78	94	90
Dg145	145*48*(3*6)	1100	48	65	95

(The above data are based on polypropylene PP.)

Plastic Tri-pack - Technical Features

The plastic tri-pack ball is made of plastic materials such as PP, PVC, CPVC, PVDF, etc. It is spherical in shape and has a reinforced ring along the entire circumference in the middle of the ball. There are twelve ball petals on each side, arranged radially along the central axis. It is suitable for devices such as carbon dioxide degassing towers and contact reaction towers. Tri-pack balls have good corrosion resistance, large gaps, high flux, low resistance, low energy consumption, light weight, easy loading and unloading, reusable, and low operating costs The characteristic of Tri-pack is that it has a body without any large surface, but is composed of many grid shaped branch rods connected and combined into a hollow ball. This type not only has a high porosity but also a large free cross-sectional area in all aspects, with very little anisotropy. Due to the combination of many grid shaped branches and rods, which provide many converging and dispersing edges for the flowing liquid, not only can the surface of the packing be well wetted, but also many droplets can be formed in the liquid, which can promote the surface renewal of the liquid and facilitate mass transfer between the gas-liquid phase. It can be widely used for gas absorption, purification, and also for defoggers



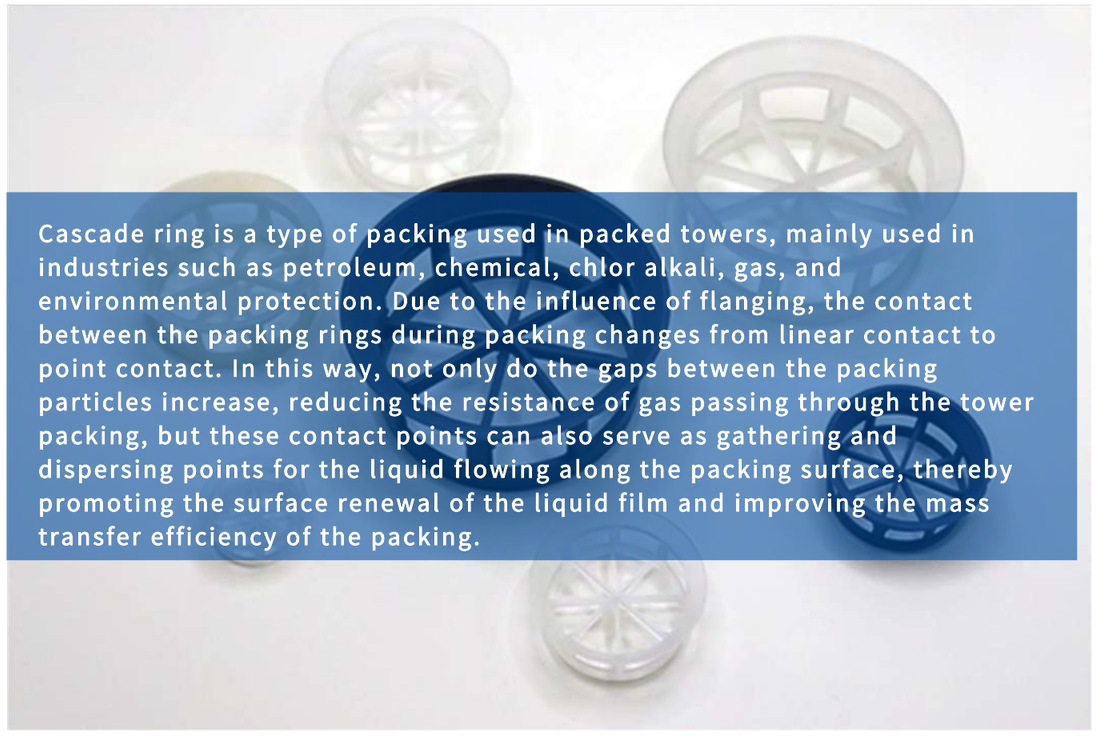
Tri-pack tower packing, is commonly used in air purification devices in China, hence it is also commonly referred to as filter balls or environmentally friendly filter balls. It was developed in 1978 by R.A. Jaeger from Germany (now Jaeger Products Inc from the United States). Tri-pack tower packing is a hollow spherical packing composed of many branches and grids. This structure is conducive to the wetting of the packing surface and the renewal of the liquid film. Due to the uniform accumulation of pores in the grid inside the tower, it is conducive to the distribution of gas-liquid and reduces the resistance of gas flow through the bed. It is particularly suitable for gas absorption, exhaust gas purification and other devices, and can operate at low liquid loads.

Product parameters

size mm	specific are a m2/m3	void volume %	Accumulation of the number pieces/m3	Accumulate weight Kg/m³	Dry filler factor m-l
25	85	90	81200	81	28
38	70	92	25000	70	25
50	48	93	11500	62	16
95	38	95	1680	45	12

Plastic Cascade Ring - Technical Features

Plastic cascade ring materials include PP polypropylene, RPP reinforced polypropylene, CPVC reinforced polyvinyl chloride, PTFE polytetrafluoroethylene, PE polyethylene, PVC polyvinyl chloride, PVDF polytetrafluoroethylene, PTFE polytetrafluoroethylene, etc.
The aspect ratio of the cascade ring is only half of that of the pall ring, and a tapered flange is added at one end of the ring to reduce the resistance of gas passing through the bed and it increases the flux, and the strength of the packing is also high. Due to its structural characteristics, the packing layers are mostly in point contact with each other. This not only increases the porosity and reduces the pressure drop, but also forms a collection or dispersion point for the liquid to flow along the surface of the packing, promoting the renewal of the liquid film surface and the mixing of the liquid, making the gas-liquid distribution uniform, increasing the gas-liquid contact surface and improving the mass transfer efficiency. It is generally made of plastics, ceramics, and metals. Different materials result in different structures. The internal reinforcement structure of the cascade ring is the same as that of the pall ring; The internal reinforcement structure of plastic cascade ring is similar to that of plastic pall ring, and can also be divided into meter shaped and cross shaped.



Cascade ring is a type of packing used in packed towers, mainly used in industries such as petroleum, chemical, chlor alkali, gas, and environmental protection. Due to the influence of flanging, the contact between the packing rings during packing changes from linear contact to point contact. In this way, not only do the gaps between the packing particles increase, reducing the resistance of gas passing through the tower packing, but these contact points can also serve as gathering and dispersing points for the liquid flowing along the packing surface, thereby promoting the surface renewal of the liquid film and improving the mass transfer efficiency of the packing.

Product parameters

model	specification and dimension mm	Accumulation of the number A / m3	specific area m2/3	void volume %	Dry filler factor m-1
Dg16	16×8×1.0	290000	370	85	602
Dg25	25×12.5×1.2	81500	228	90	312.8
Dg38	38×19×1.4	27200	132.5	91	175.5
Dg50	50×28×1.5	10740	114.2	92.7	143.1
Dg76	76×38×2.6	3420	90	92.9	112.3

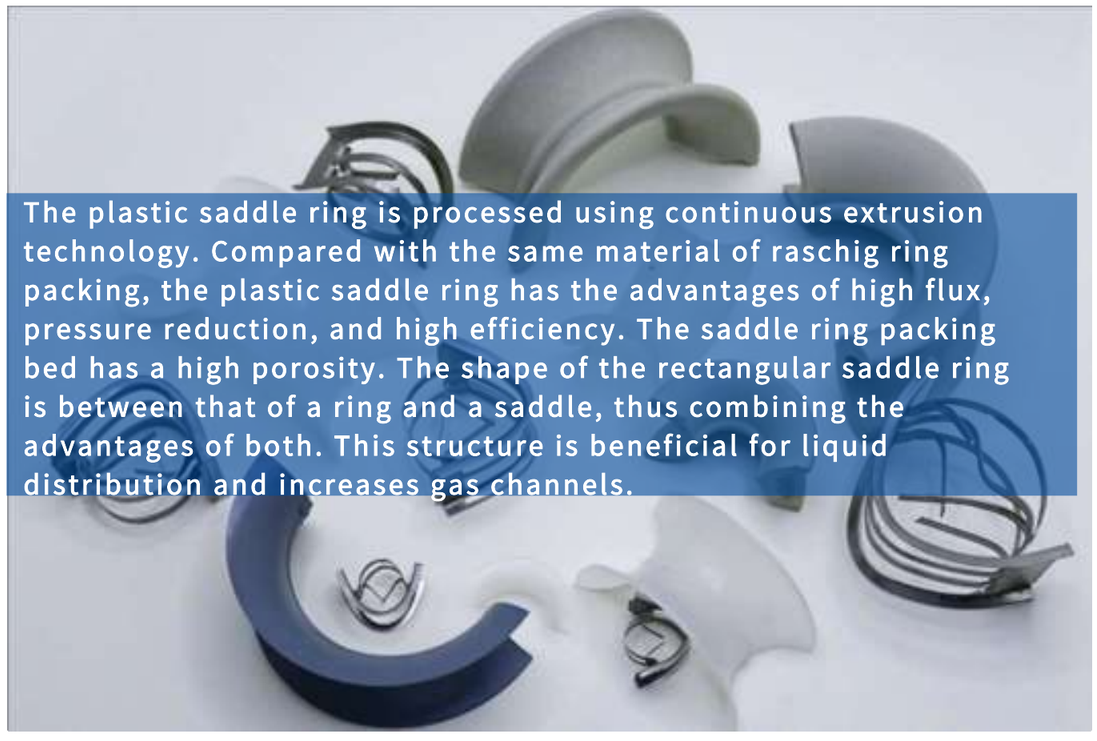
Plastic Saddle Ring - Technical Features

Plastic saddle ring materials include PP polypropylene, RPP reinforced polypropylene, CPVC reinforced polyvinyl chloride, PTFE polytetrafluoroethylene, PE polyethylene, PVC polyvinyl chloride, PVDF polytetrafluoroethylene, PTFE polytetrafluoroethylene, etc.

The smooth arc-shaped side of the plastic saddle ring packing is located inside the packing bed, increasing the gap between the packing materials and making it more conducive to the flow and diffusion of gas and liquid in the packing layer. It has the characteristics of pressure reduction and high mass transfer efficiency.

Characteristics of plastic saddle ring packing: low resistance, high flux, high gas-liquid mass transfer efficiency. The saddle shaped structure ensures that it does not overlap or become overhead when stacked, nor does it cover the mass transfer surface with each other. It is uniform and the operation is stable. Suitable for absorption operations in desulfurization, decarbonization, and production of nitric acid and nitrate.

In towers, absorption towers, cooling towers, washing towers, regeneration towers, and heat exchangers.



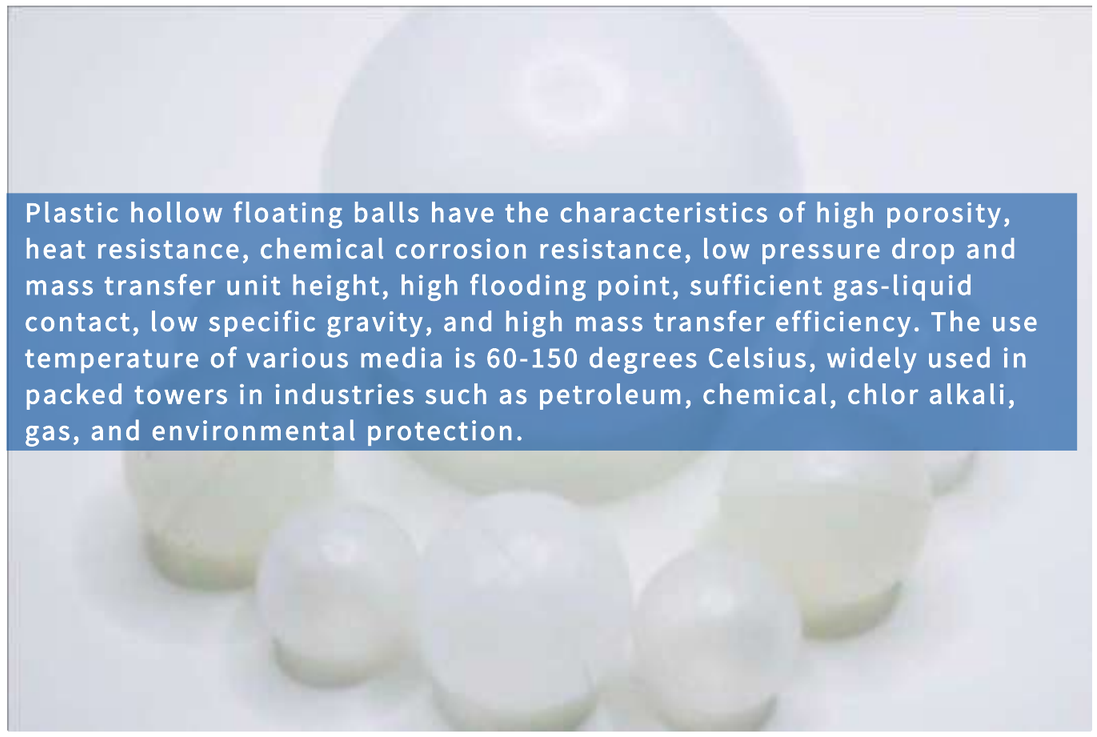
The plastic saddle ring is processed using continuous extrusion technology. Compared with the same material of raschig ring packing, the plastic saddle ring has the advantages of high flux, pressure reduction, and high efficiency. The saddle ring packing bed has a high porosity. The shape of the rectangular saddle ring is between that of a ring and a saddle, thus combining the advantages of both. This structure is beneficial for liquid distribution and increases gas channels.

Product parameters

specifications mm	Diameter x height x wall thickness mm	specific area m2/m3	void volume %	piled weight kg/m3	Accumulation of the number per/m3	Dry filler factor m-1
φ25	25×13x1.2	288	85	102	97680	467
φ38	38×19x1.2	265	95	91	25200	309
φ50	50×25×1.5	250	96	75	9400	282
φ76	76×38×3.0	200	97	59	3700	220

Plastic Hollow Floating Ball - Technical Features

Plastic hollow floating ball are usually made of materials such as high-density polyethylene, which has a slightly higher density than water but a lower surface tension. Therefore, a floating ball that floats in water will be supported by the buoyancy and surface tension of the water. This characteristic allows the filling float to remain in the upper layer of the water, thereby improving the buoyancy and stability of the water. In addition, the hollow structure of the packing float ball also has the function of preventing sludge sedimentation. Sludge usually settles to the bottom in water and forms a sludge layer. This sludge layer will hinder the flow of water and reduce the oxygen content of the water. Plastic hollow floating balls have the characteristics of high porosity, heat resistance, chemical corrosion resistance, low pressure drop and mass transfer unit height, high flooding point, sufficient gas-liquid contact, low specific gravity, and high mass transfer efficiency. The operating temperature in various media is 60-150 degrees Celsius, widely used in packed towers in industries such as petroleum, chemical, chlor alkali, gas, and environmental protection. Plastic hollow floating balls have the characteristics of stable center of gravity, overlapping edges, and good coverage effect. They can be widely used in various horizontal acid storage tanks, condensate storage tanks and desalination tanks in water treatment, greatly reducing heat loss, reducing acid mist and carbon dioxide and oxygen pollution in the air, protecting the health of operators, achieving the effects of maintaining water quality, saving energy, and purifying the environment. Suitable for various horizontal acid storage tanks in petroleum, chemical, chlor alkali, gas, smelting, environmental protection, power and other enterprises, as well as condensate storage tanks and desalination tanks in water treatment, greatly reducing the pollution of acid mist, carbon dioxide and oxygen in the air to water quality.



Product parameters

diameter mm	grammes per square metre g	Accumulation of the number Individual / m 3
25	1.5	41000
38	4.5	22000
50	8.0	10500
70	16.0	4800
80	32	2100
100	40	1000

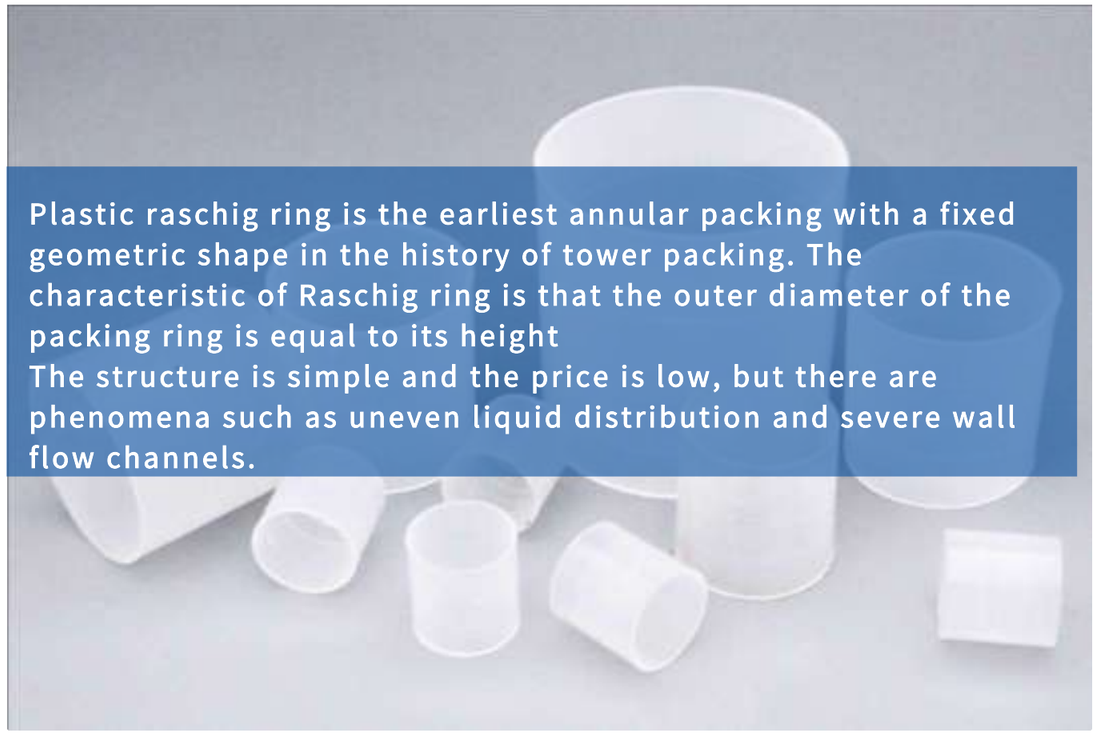
Plastic Raschig Ring - Technical Features

Plastics: polyethylene (PE), polypropylene (PP), polyvinyl chloride (PVC), polyvinylidene fluoride (PVDF), chlorinated polyvinyl chloride (CPVC), reinforced polypropylene (RPP), etc. Metals: carbon steel, stainless steel 304, 304L, 410, 316, 316L, etc

Drying towers, absorption towers, washing towers, regeneration towers, etc. used in industries such as chemical, metallurgical, and gas oxygen production.

Raschig ring has excellent acid and heat resistance, and is resistant to various inorganic acids, organic acids, and organic solvents except hydrofluoric acid corrosion. It can be used in various high-temperature situations.

Due to the high porosity, large gaps, high flux, and low resistance of the Rascal ring packing, the gas and liquid inside the packing tower can freely pass through. The gas and liquid distribution inside the packing layer is relatively good, especially the inner surface of the packing ring is easily wetted by the liquid. Regardless of its orientation, the liquid sprayed on the packing flows along the outer wall or the inner wall. In this way, the dispersion of the liquid increases, and the utilization rate of the inner surface of the filler is improved. Therefore, not only does it have a large throughput capacity and low pressure drop, but the mass transfer and separation efficiency of the tower is also high.



Plastic raschig ring is the earliest annular packing with a fixed geometric shape in the history of tower packing. The characteristic of Raschig ring is that the outer diameter of the packing ring is equal to its height
The structure is simple and the price is low, but there are phenomena such as uneven liquid distribution and severe wall flow channels.

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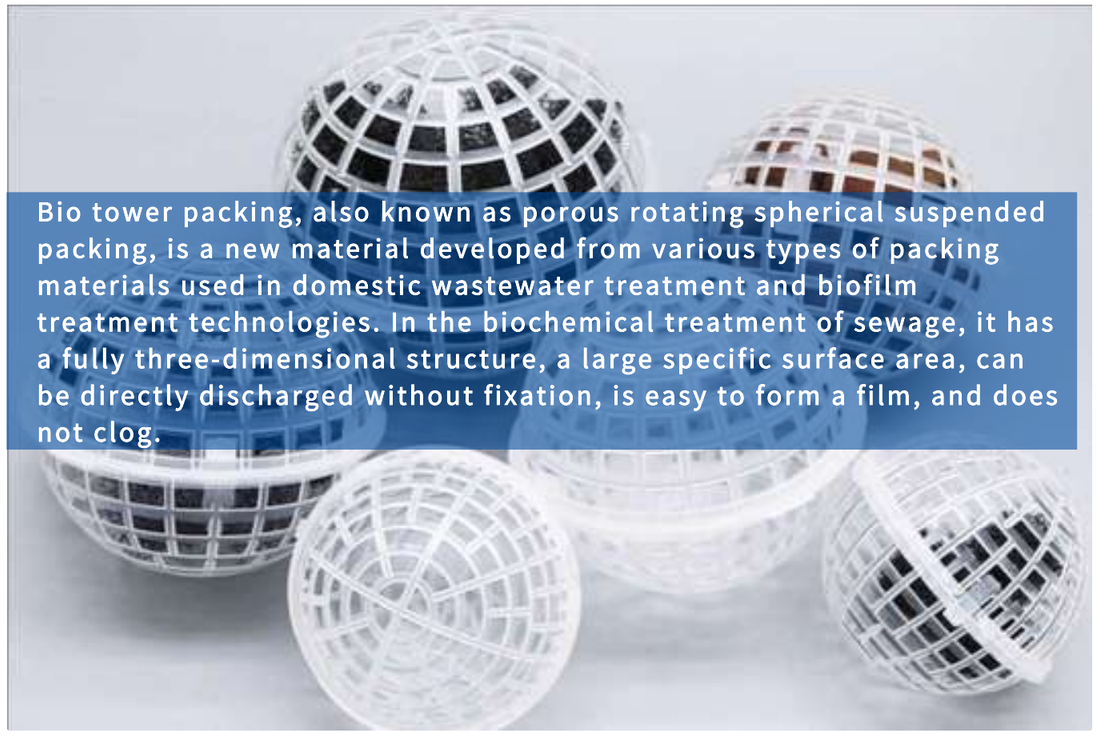
Product parameters

model	specification and dimension	Accumulation of the number no/m3	specific are a m2/m3	void volume %	Dry filler factor m-1
Dg16	16×16X1	180000	188	91.1	275
Dg25	25×25×1.2	53500	175	90	239
Dg38	38×38×1.4	15800	155	89	220
Dg50	50×50×1.5	6500	93	90	127

Plastic Bio Ball - Technical Features

1. Full three-dimensional structure and high specific surface area: The plastic bio ball adopts a full three-dimensional structure design, greatly increasing the specific surface area, and providing abundant attachment space for microbial growth. This design enables microorganisms to be more evenly distributed on the surface of the tower packing, thereby improving the efficiency of biodegradation.
2. Direct placement without fixation: Compared to traditional tower packings that require complex fixation and installation processes, plastic bio ball can be directly placed into the treatment tank without additional fixation facilities, greatly simplifying the construction process and reducing installation costs.
3. Easy to hang and non clogging: Its unique material and structural design make it easy for microorganisms to form stable biofilms on the surface of the packing, while effectively preventing clogging and ensuring the long-term stable operation of the treatment system.
4. Diversified microbial environment: There are multiple dissolved oxygen environments and microbial attachment surfaces inside the plastic bio ball packing, which promotes the diversity of microbial communities, making simultaneous nitrification and denitrification possible and further improving treatment efficiency.
5. Efficient organic matter degradation ability: Due to the abundant microbial population, plastic bio ball can degrade certain organic matter that is difficult to treat by activated sludge methods, expanding the treatment range and improving treatment efficiency.
6. Self purification and sludge reduction: In the fluidized bed system, the remaining biological sludge is degraded by microorganisms that feed on it, achieving sludge reduction and self purification, reducing the difficulty and cost of subsequent treatment.



Bio tower packing, also known as porous rotating spherical suspended packing, is a new material developed from various types of packing materials used in domestic wastewater treatment and biofilm treatment technologies. In the biochemical treatment of sewage, it has a fully three-dimensional structure, a large specific surface area, can be directly discharged without fixation, is easy to form a film, and does not clog.

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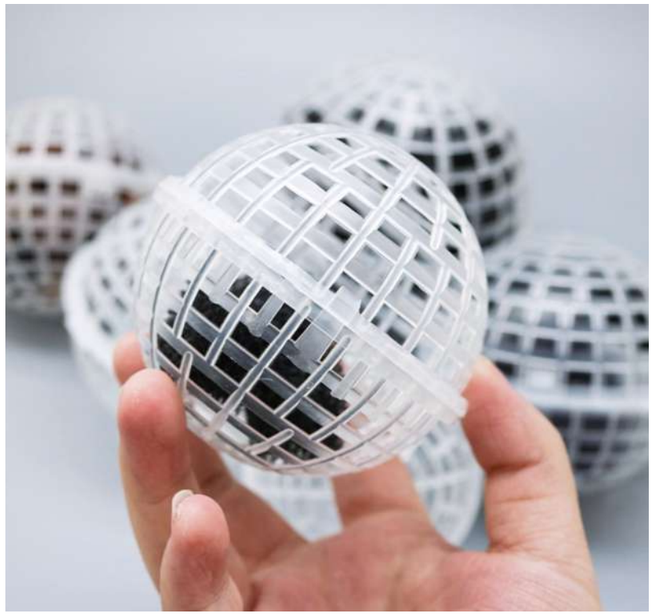
Product parameters

Physical parameters of the polyurethane suspension ball					
specifications	material quality	structure	weight	proportion	Accumulation coefficient N/M
φ150	PP/PE/ polyurethane	Hollow ball	40~45G	0.96	300
φ120	PP/PE/ polyurethane	Hollow ball	30~35G	0.93	570
φ100	PP/PE/ polyurethane	Hollow ball	19-23G	0.93	1000
φ80	PP/PE/ polyurethane	Hollow ball	14-17G	0.97	2000

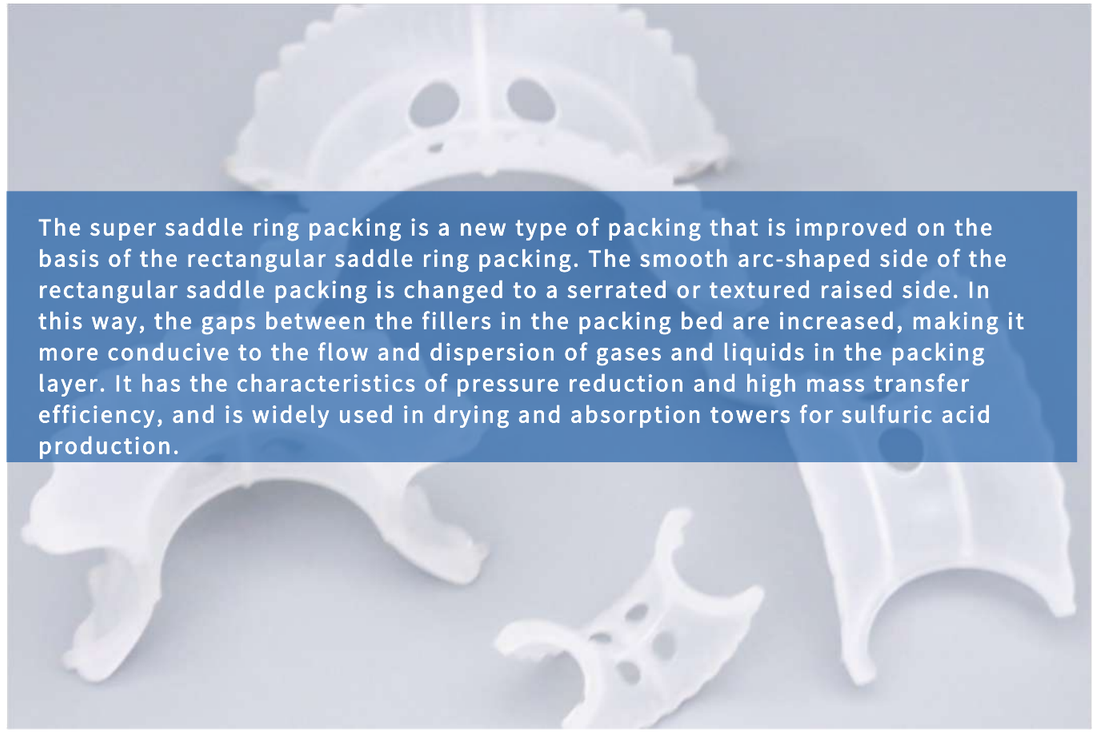


Plastic Super Saddle Ring - Technical Features

The super saddle ring mainly arc-shaped liquid channels in the filling layer. The gaps in the filling layer are more continuous than those in the annular filling material (especially compared to the Rascal ring material), which allows gas to flow mainly along the arc-shaped channels when flowing upward. Product features: It has the characteristics of high porosity, low pressure drop and mass transfer unit height, high flooding point, sufficient gas-liquid contact, small specific gravity, high mass transfer efficiency, reduced pressure, high flux, high efficiency, high load elasticity, and good pollution resistance. Widely used in plastic saddle rings for refining and extraction of dewaxing oil, demethanization, phthalic anhydride refining, etc.

Plastic super saddle ring is an efficient filler with a saddle shaped design and multiple excellent technical features. It has a large porosity, which makes the flow of gas and liquid in the packing layer smoother, reduces pressure, and improves mass transfer efficiency. The arc-shaped liquid channel design of the plastic saddle ring increases the gas-liquid contact area, promotes mass transfer efficiency, and is suitable for various chemical processes such as wax oil refining and extraction, demethanization, and phthalic anhydride refining.

This tower packing has good corrosion resistance and stain resistance, ensuring long-term stability and reducing maintenance costs. Its unique serrated or corrugated side increases the contact gap between the fillers, which is beneficial for liquid distribution and surface renewal. Plastic saddle ring packing is widely used in industries such as petroleum, chemical, and environmental protection due to its excellent performance and recyclability.



The super saddle ring packing is a new type of packing that is improved on the basis of the rectangular saddle ring packing. The smooth arc-shaped side of the rectangular saddle packing is changed to a serrated or textured raised side. In this way, the gaps between the fillers in the packing bed are increased, making it more conducive to the flow and dispersion of gases and liquids in the packing layer. It has the characteristics of pressure reduction and high mass transfer efficiency, and is widely used in drying and absorption towers for sulfuric acid production.

Product parameters

specifications mm	Diameter x height x wall thickness mm	specific area m2/m3	void volume %	bulk specific weight kg/m3	Accumulation of the number per/m3	Dry filler factor m-1
φ25	25×13x1.2	260	90	92	51200	390
φ38	38×19x1.2	178	96	75	25200	201
φ50	50×25×1.5	168	97	76	6300	184
φ76	76×38×3.0	130	98	64	3700	138

Liquid Covering Ball - Technical Features

The materials of the liquid covering ball mainly include high molecular weight materials such as polypropylene (PP), polyethylene (PE), polyvinylidene fluoride (PVDF), polyvinyl chloride (PVC), polyacrylonitrile (PAN), and chlorinated polyvinyl chloride (CPVC)

The liquid covering ball forms a physical barrier by covering the surface of the liquid, significantly reducing the evaporation area of the liquid and effectively reducing evaporation losses. This is particularly important for storing volatile liquids such as gasoline, solvents, etc. Covering the ball can prevent external pollutants from entering the liquid and reduce the volatilization of harmful substances in the liquid, which helps to protect the environment and workplace safety.

Usually made of high-density polyethylene (HDPE), polypropylene (PP), or other chemically resistant materials, these materials have strong resistance to most acids, alkalis, and other chemicals, making them suitable for long-term use in corrosive media. Although lightweight and easy to install, the liquid level covering ball has good mechanical strength and durability, can withstand certain pressure without being easily damaged, and is suitable for long-term stable operation. The liquid covering ball can maintain its physical properties unchanged over a wide temperature range, and can work normally from low to high temperature environments, making it suitable for applications in various climatic conditions.

The liquid covering ball is made of polypropylene PP as raw material, and is a circular plastic tower packing produced by foaming and shrinking. It is divided into two types: edge liquid surface covering ball and non edge liquid surface covering ball. The edge liquid covering ball has the characteristics of stable center of gravity, overlapping edges, and good coverage effect. Its function is to suppress the volatilization of acid mist, protect the health of operators, reduce atmospheric pollution and air pollution to water quality, effectively improve the quality of condensed water, and facilitate the safe operation of power generation units and heating units.

Widely used as a sealing material for concentrated hydrochloric acid and condensate water tanks in power systems; Various horizontal acid storage tanks for petroleum, chemical, chlor alkali, coal gas, smelting, environmental protection, power and other enterprises; Condensed water storage tanks and desalinated water tanks in water treatment; Greatly reduce the pollution of acid mist, carbon dioxide, and oxygen in the air on water quality.

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Product parameters

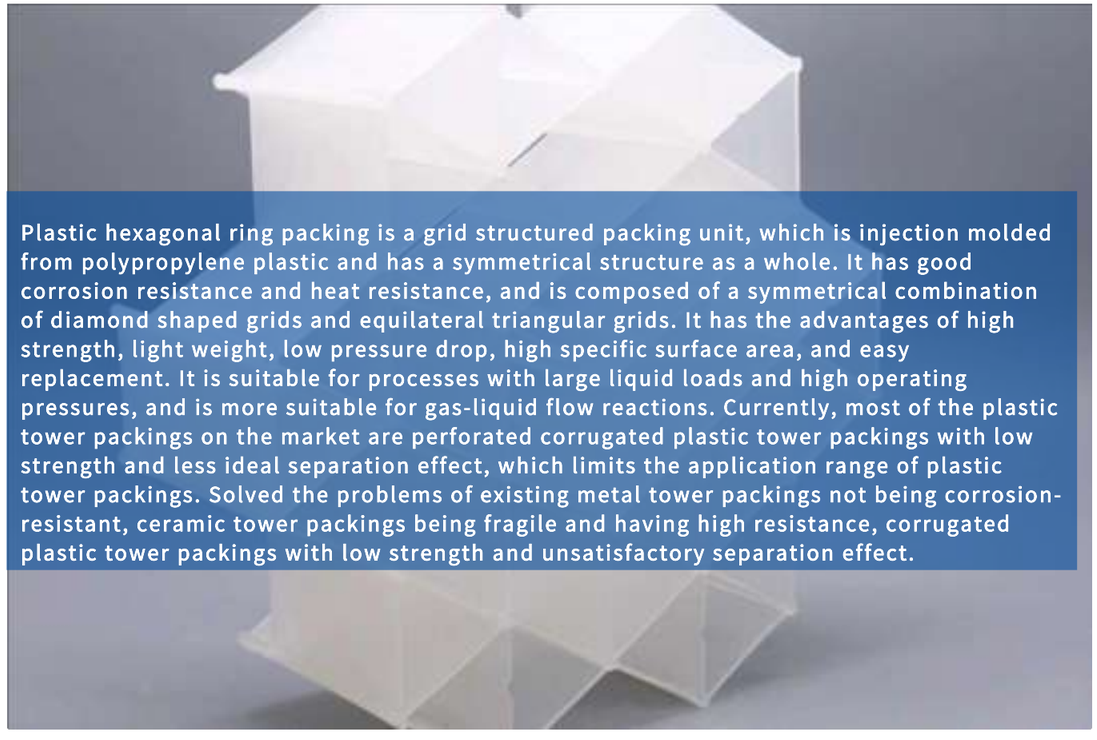
size mm	density G/m3	service temperature ℃	compression strength Mpa	Accumulation of the number n/m2	void volume %	fraction of coverage	ph
φ40	0.5	≤120	≤0.4	720	95	91	1-1.4
φ50	0.5	≤120	≤0.4	500	95	91	1-1.4
φ40	0.3	≤120	≤0.4	660	93	97	1-1.4
φ80	0.5	≤120	≤0.36	232	95	99	1-1.4
φ40	0.3	≤120	≤0.4	666	93	97	1-1.4
φ80	0.5	≤120	≤0.36	272	95	99	1-1.4
φ50	0.3	≤120	≤0.4	500	95	91	1-1.4

Plastic Hexagonal Ring - Technical Features

Technical features: The materials of plastic hexagonal ring include polypropylene (PP), reinforced polypropylene (RPP), chlorinated polyvinyl chloride (CPVC), polyvinyl chloride (PVC), and polyvinylidene fluoride (PVDF), etc

Plastic hexagonal ring packing is a commonly used packing material in coking desulfurization projects because it has a large specific surface area per unit volume, which allows for a large free volume of contact between the liquid and gas phases, and a large cross-sectional area for gas free flow. Due to its large specific surface area and high porosity, the product has strong adsorption and filtration functions, and has excellent desorption effects on impurities such as tar and dust. The product remains unchanged under long-term contact conditions with gas, oil, water, etc., and is resistant to acid and alkali corrosion. Therefore, the service life is extremely long.

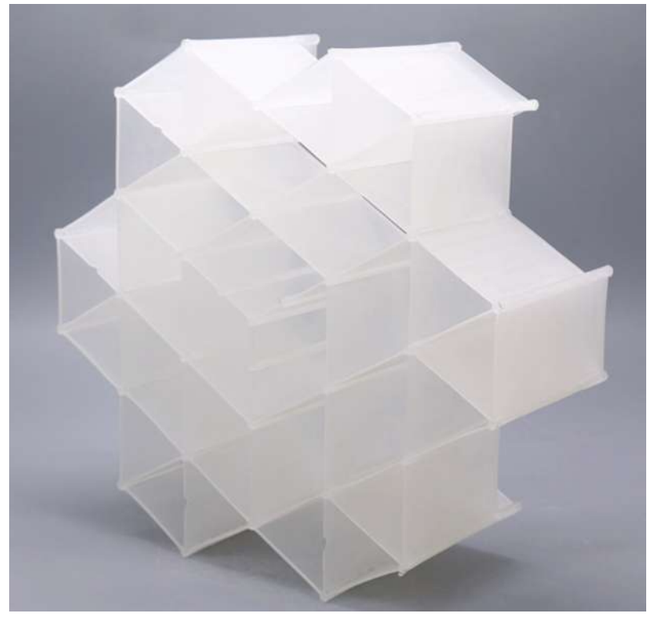
Plastic hexagonal ring packing is widely used in the coal chemical and fine chemical industries such as petrochemicals, coking plants, power plants, fertilizer plants, and synthetic AN. It is widely used in gas purification processes such as desulfurization, washing, dehalogenation, washing, distillation, absorption, drying, and reaction synthesis.



Plastic hexagonal ring packing is a grid structured packing unit, which is injection molded from polypropylene plastic and has a symmetrical structure as a whole. It has good corrosion resistance and heat resistance, and is composed of a symmetrical combination of diamond shaped grids and equilateral triangular grids. It has the advantages of high strength, light weight, low pressure drop, high specific surface area, and easy replacement. It is suitable for processes with large liquid loads and high operating pressures, and is more suitable for gas-liquid flow reactions. Currently, most of the plastic tower packings on the market are perforated corrugated plastic tower packings with low strength and less ideal separation effect, which limits the application range of plastic tower packings. Solved the problems of existing metal tower packings not being corrosion-resistant, ceramic tower packings being fragile and having high resistance, corrugated plastic tower packings with low strength and unsatisfactory separation effect.

Product parameters

Specification and dimension	Accumulation of the number (m^3)	Accumulation density (Kg/m^3)	void volume (%)	Specific surface area (m2 / m3)	Dry filler factor (m-1)
245*100mm	150	65	0.93	86	110



Engineering Cases

Case 1: Optimization of Hydrocracking Unit in Donghai Refining and Chemical Co., Ltd. Refinery

Solution: After technical evaluation, it has been decided to introduce 800 cubic meters of plastic pall rings from Pingxiang Rongjian Environmental Protection Chemical Packing Co., Ltd. as the tower packing material for the tower. This type of packing has excellent fluid distribution performance and mass transfer efficiency, which can effectively improve the flow state of fluids inside the tower.

Effect: After replacing the packing, the reaction efficiency of the hydrocracking unit is significantly improved, and the product quality is more stable. Meanwhile, due to the more uniform distribution of fluids, the energy consumption of the device has been effectively reduced, resulting in annual cost savings of millions of yuan. In addition, the corrosion resistance and wear resistance of plastic ball rings also extend the operating cycle of the device and reduce downtime for maintenance.

Case 2: Efficiency Improvement of Cooling Tower in Guangdong Southern Alkali Industry Co., Ltd

Solution:To improve the efficiency of the cooling tower, the chemical plant has decided to use 680 cubic meters of corrosion-resistant and high-throughput plastic teller rosette packing from Pingxiang Rongjian Environmental Protection Chemical Packing Co., Ltd. It has excellent heat dissipation and anti-aging performance, and can maintain efficient operation for a long time.

Effect: After replacing the packing, the heat exchange efficiency of the cooling tower is significantly improved, and energy consumption is reduced by about 20%. At the same time, the corrosion resistance of plastic ball rings also reduces downtime and maintenance time caused by packing corrosion, extending the service life of equipment.

Case 3: Renovation of Purified Water System by Kangtai Pharmaceutical Group

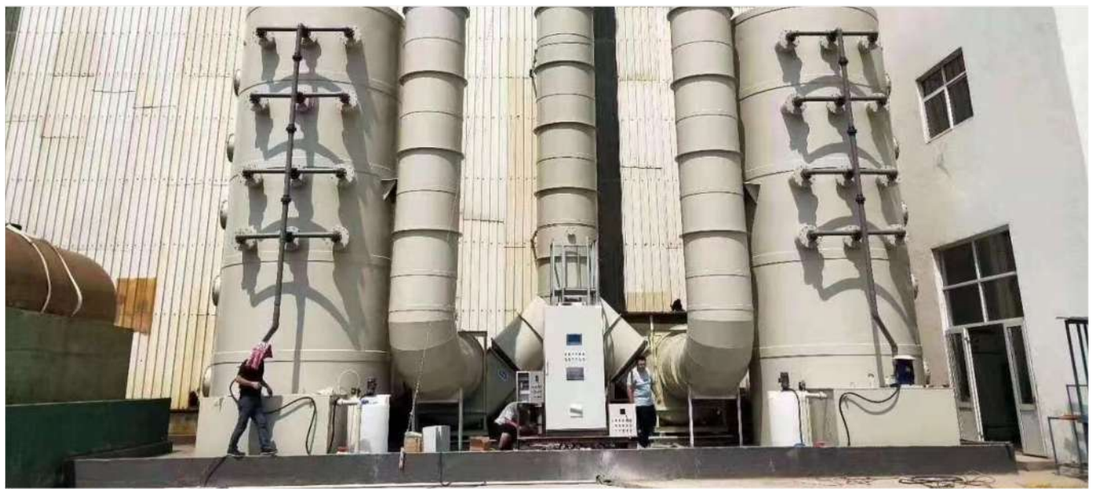
Solution: In order to improve the purity of water quality and production efficiency, the pharmaceutical factory has decided to purchase 950 cubic meters of plastic tri-pack balls from Pingxiang Rongjian Environmental Protection Chemical Packing Co., Ltd. as the filtration medium. This model has excellent filtration performance and anti pollution performance, and can maintain high filtration efficiency for a long time.

Effect: After replacing the packing, the water quality of the purified water system has been significantly improved, meeting GMP standards. At the same time, production efficiency has also increased by 20%, reducing wastewater discharge and lowering environmental pressure.

Case 4: Upgrading the sewage treatment aeration tank of Qingshuiyuan Environmental Protection Technology Co., Ltd

Solution:In order to improve the efficiency of oxygen transfer, the sewage treatment plant has decided to use 1000 cubic meters of plastic polyhedral hollow ball from Pingxiang Rongjian Environmental Protection Chemical Packing Co., Ltd. It has excellent specific surface area and gas distribution performance, which can enhance the contact area between gas and liquid and improve oxygen transfer efficiency.

Effect: After installing the packing material, the oxygen transfer efficiency of the aeration tank increased by 30%, and the treatment efficiency was significantly improved. Meanwhile, due to the excellent corrosion resistance of the packing, the downtime and maintenance time caused by packing corrosion are reduced, thereby lowering operating costs.



ABOUT US

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!

Production Workshop

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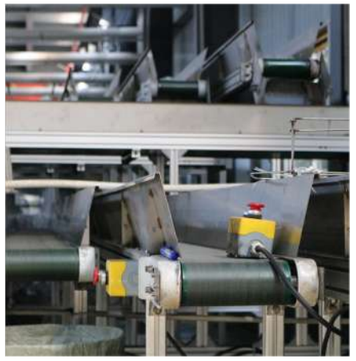




Proof of qualifications


证照编号：J1002002498

统一社会信用代码
91360305816264656

营业执照
（副本）1-1

名　　称　萍乡市荣建环保化工填料有限公司
类　　型　有限责任公司（自然人投资或控股）
法定代表人　陈芳
经营范围　陶瓷填料、塑料填料、金属填料、环保产品、环保设备生产、销售；（依法须经批准的项目，经相关部门批准后方可开展经营活动）。
注册资本　壹仟贰佰万元整
成立日期　2011年09月09日
营业期限　2011年09月09日至长期
住　　所　江西省萍乡市湘东区湘东镇工业园

登记机关

2020 年 07 月 29 日

国家企业信用信息公示系统网址：http://www.gsxt.gov.cn

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