



MITRO INDUSTRIES

COMPANY PROFILE PALL RING

The pall ring is considered world's most common random packing type. For over fifty years, random packings are effectively used to improve a tower's performance. Pall rings are used in a wide range of applications. Depending on your mass transfer challenge, we provide the solution

www.mitroindustries.com

WHY CHOOSE MITRO INDUSTRIES?

PRODUCT EXCELLENCE

Mitro Industries pall rings are renowned for their superior quality and performance. Backed by extensive research and development, these rings deliver unmatched efficiency and reliability, ensuring optimal results in any application.

COMPETITIVE PRICING

Despite their exceptional quality, Mitro industries offers PP, PVC, Ceramic & SS pall rings at competitive prices, making them accessible to a wide range of customers. By optimizing manufacturing processes and minimizing overhead costs, the company passes on the savings to its clients without compromising on quality.



EXCEPTIONAL SERVICE

In addition to top-notch products, Mitro Industries provides exceptional customer service and support. From technical assistance to after-sales care, the company is committed to meeting the needs of its clients promptly and efficiently, ensuring a seamless experience from start to finish.



PALL RING'S

WHAT ARE PALL RINGS?

Pall Ring is a random ring type packaging. They attempt to increase packaging usage by providing more edges to interrupt flow while reducing the volume of the annular packaging medium itself. Pall rings have the same cylindrical dimensions but have rows of windows that increase the size of the surface area. They are ideal for low voltage drop and high power applications. They have a random nature and relatively high liquid retention, which promotes high absorbency, especially if the reaction rate is slow. The cross-structure of Pall rings makes them mechanically strong and ideal for deeply packed beds.

ADVANTAGES OF PP PALL RING'S

EFFICIENCY

One of the primary advantages of pall rings is their high efficiency in mass transfer operations. The innovative design maximizes surface area while minimizing pressure drop, resulting in enhanced performance and reduced energy consumption.

DURABILITY

Constructed from Polypropylene, PVC, Ceramic & SS pall rings offer exceptional durability and corrosion resistance. They can withstand harsh chemical environments, ensuring long-term reliability and minimal maintenance requirements.

VERSATILITY

pall rings are available in various sizes and configurations to suit specific application requirements. Whether it's high temperature or aggressive chemical environments, these rings can be tailored to meet diverse processing needs.

STAINLESS STEEL

PALL RING

Pall ring's is one of the most common and well-known packing materials, SS Pall Ring is an industry-standard design media and is used widely in a variety of applications. By minimizing the number of contours and crevices that can cause liquid hold-up and potential entrainment, the SS pall ring geometry enables high gas and liquid transfer rates. The opened cylinder walls and inward bent protrusions of the SS pall Ring allow greater capacity and lower pressure drop than standard cylindrical rings.



Mitro Pall ring's design also maintains an even distribution and resists wall-channeling tendency. The interior and exterior contacting surfaces of the SS pall ring provide for the effective distribution of liquids and gasses and resist plugging, fouling and nesting. Mitro Pall rings are available in a wide range of materials.

BENEFITS

- Good liquid/gas distribution and high mass transfer efficiency
- High temperature applications
- Mechanically robust, less probability of breakage
- High resistance to fouling
- Multiple materials available

APPLICATIONS

- Steam stripping
 - H₂S, NH₃ & SO₂ absorption and stripping
 - Gas washing
 - Degassing
 - Air pollution control scrubbers
-

COMPATIBLE CHEMICALS

SS pall rings are suitable for a wide range of chemical applications, including:

- **Corrosive acids:** Sulfuric acid, hydrochloric acid, nitric acid, and phosphoric acid.
- **Alkaline Solutions:** Sodium hydroxide and potassium hydroxide.
- **Saline solutions:** Salt solutions and brine.
- **Organic Solvents:** Alcohols, ketones, hydrocarbons, esters, and chlorinated solvents.

SPECIFICATIONS

Sizes	Thickness	Nos/m ³
25 mm	0.4 mm	52000
38 mm	0.5 mm	13500
50 mm	0.6 mm	6500
75 mm	0.8 mm	1900



PP & PVC PALL RING

RANDOM PACKING

A Pall ring is designed from polypropylene which is a polymer material manufactured from propylene gas. This material is better known as polythene or food packaging bags. The actual molding process of this type of packing is its distinguishing feature. It is one piece molded out of polypropylene and is the most efficient type of ring packing for large scale as high flow greatly reduces slot velocity and pressure drop.



The PP ring is a one-piece molded product whose chemical and mechanical properties are not affected by any interactions with process fluids. This provides a less expensive design, longer life, lower operating costs, and more consistent end-product performance. The Pall ring is designed to provide a high heat exchange area as compared to other round ring types. A low-pressure drop coupled with high volumetric efficiency make the Pall ring perfect for almost all heavy liquids where slight solids content may be present.

BENEFITS

- Good liquid/gas distribution and high mass transfer efficiency
- High temperature applications
- Mechanically robust, less probability of breakage
- High resistance to fouling
- High temperature applications

APPLICATIONS

- Water treatment
 - Drinking water applications
 - CO₂, SO₂, HCl and HF absorption or stripping
 - Chlorine absorption in water or caustic
 - Odor control
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COMPATIBLE CHEMICALS

- The material should be resistant to the chemicals present in the process stream to avoid degradation.

OPERATING TEMPERATURE AND PRESSURE

- The selected material must withstand the process's temperature range and pressure conditions.

SPECIFICATIONS

Sizes	Nos/m ³
25 mm	51000
38 mm	13500
50 mm	6500
75 mm	1930
100 mm	970



CERAMIC PALL RING

The primary use of Raschig rings is to ensure the production of stronger and purer ethanol. Raschig Rings are highly applicable in the production of alcoholic beverages. Stacking these rings in the distilling columns assists ethanol vapour in moving to the condensing units while hindering vapours attained from other harmful substances from reaching these units.

Raschig rings are stacked in distilling columns while producing alcoholic beverages to assist in channelling ethanol vapour directly to the condensing units

Mitro Industries offer the best Ceramic Raschig Rings on the market. Small sized pickings held together as a column bed is supported by cross partition rings that are fixed at the bottom of the column.

To attain long lasting performance while offering the best services, the products are manufactured in compliance with all the industrial manufacturing standards.

These super quality rings are extensively applied in various random packaging activities, therefore, providing to be more useful.



BENEFITS

- Super efficient
 - Superior in quality standards
 - Sturdier in operations
 - Longer shelf life
 - Efficient in performance
 - Highly flexible
 - Dimensional accuracy
 - Quality assurance
 - Compact design
 - Long lasting
 - Non-corrosive
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APPLICATION

Raschig rings are highly applicable in distillation columns in the production of beverages. Used in plants handling liquids and gases for ensuring that chemical reactions, gas absorptions, and or stripping.

Borosilicate Glass Raschig rings are used in handling nuclear materials. Tanks and vessels containing fissile material solutions are laced with this type of rings to enable smooth and less risky operations. For example, Uranyl Nitrate enriched solutions need borosilicate glass raschig rings to prevent accidents.

SPECIFICATIONS

Sizes	D*H*T (mm)	Nos/m ³	Surface area (m ² /m ³)	Void Volume (%)	Drying Packing Factor (m ⁻¹)
15	15×15×0.4	250000	330	70	960
25	25×25×0.5	49000	190	78	400
50*50	50×50×0.8	6000	93	81	305
100	100×100×0.7	1000	70	70	170





THANK YOU

We don't just manufacture parts & products, We build relationships.
Mitro Industries is your trusted partner for precision engineering,
reliability, and customer satisfaction.

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