

Why Structured Packing is Useful to Process Plants?



It is best used in low irrigation and low pressure applications such as chemical reactors and distillation and absorption plants. **Kimre Packed tower Scrubber** is designed for chemical scrubbing of contaminants from gas streams. Tower packing is used in cooling towers to provide high surface area for steam condensation.

Structured packing materials are made of grids or woven mesh made of embossed metal or plastic. Also made of thin crimped vertical sheets made of metal, plastic or ceramic stacked parallel to each other.

Common applications of structured packing include:

- Natural Gas Dehydration: Natural gas must undergo dehydration prior to passing through pipelines. Otherwise water vapor freezes and damages the pipelines at low temperatures
- Offshore Drilling: The increased liquid spread from structured packing helps the constant effects of tilt and motion to be counterbalanced
- Styrene Manufacturing: Styrene is used in the manufacturing of disposable cups plates, packaging, latex, and many other common products. Styrene is manufactured with a distillation column with structured packing as styrene

polymerizes at high temperatures. Low-pressure drops and low bottom temperature are characteristic of structured packing that prevents polymerization, producing purer styrene during manufacturing

Kimre's KON-TANE Scrubber and tower packing is an interlaced, structured monofilament. It's designed to create maximum surface area for mass transfer in the vapor phase.

Structured Packing Is Available In A Variety Of Materials And Designs. These Include:

- **Knitted:** Consists of multiple strand wires knitted into a high-density mesh. And offers a large surface area, efficient mass transfer and higher pressure drop
- **Gauze:** Wire gauze material has very small openings for maximum surface area. It is preferred for low liquid rate applications and areas that need the lowest possible pressure drop. Ideal for processing pharmaceuticals, temperature-sensitive materials, and specialty chemicals
- **Grid:** come in two types- stamped blades and corrugated sheet packing that's connected to panels. This is the ideal option for fouling services like wastewater management and fractionation
- **Sheet metal:** Consists of textured metal material in bundles. Used in wastewater treatment functions and vacuum and atmospheric distillation services

Why Structured Packing Is a Great Option:

- A large surface area: There must be ample chance for vapor and liquid to make contact in **tower packing**. For ideal results, do this by spreading the liquid into a thin film, which is best done by structured packing more than any other method
- Low-pressure drop: structured gauze packing is ideal for volatile chemicals as it offers a very low-pressure drop
- High capacity: the tightly organized internal structure allows more efficiency and more volume than other packing types
- High efficiency: Offers excellent efficiency for filtering and separation; more filtering can be done with shorter columns
- Maximized liquid and gas flow: Designed to handle larger flow volume, making it better for high flow rates

Contact Kimre's KON-TANE for **packed tower scrubber and tower packing** now!

Source: https://www.skreebee.com/read-blog/72701_why-structured-packing-is-useful-to-process-plants.html