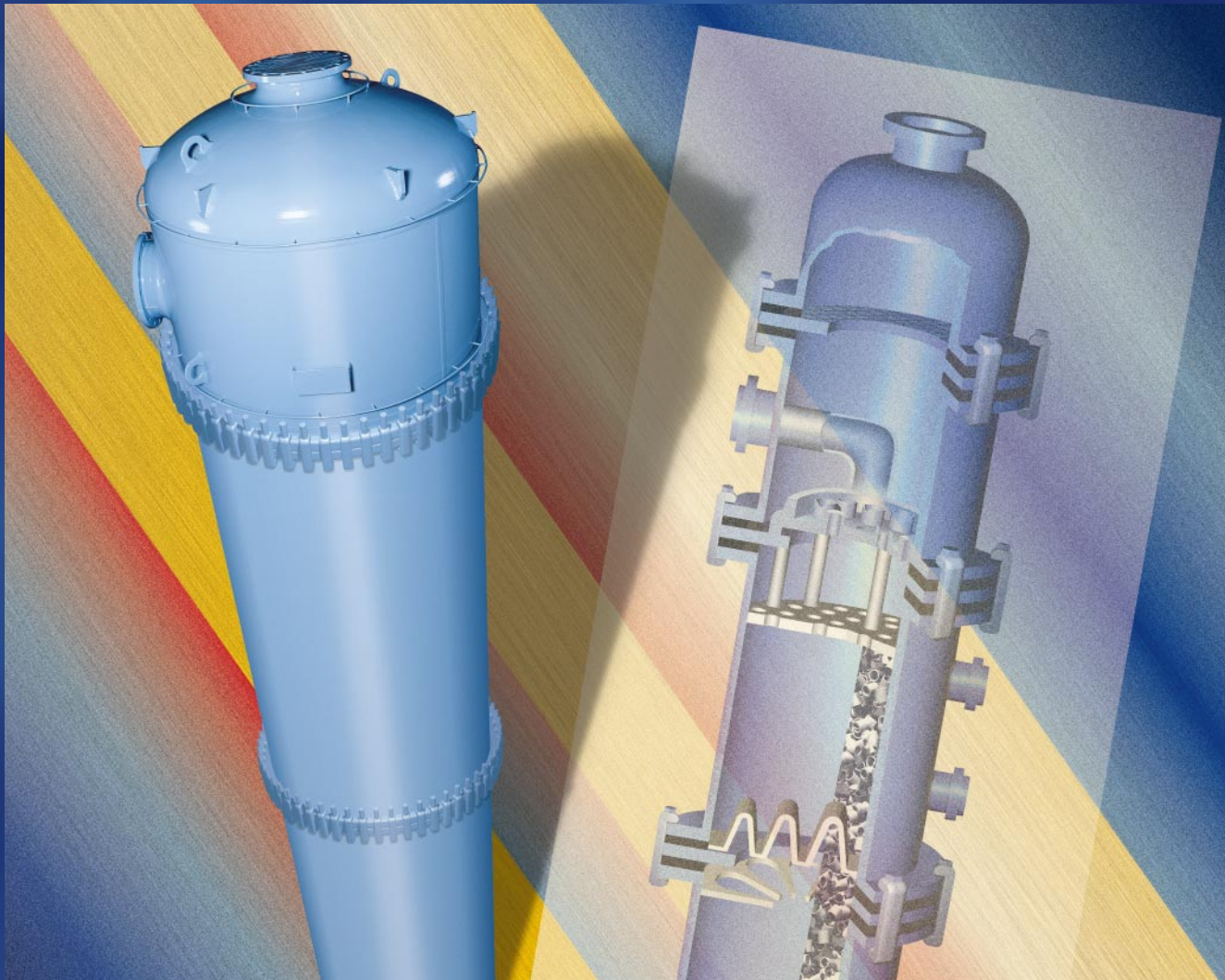




Glasteel[®] Column Systems



Praeger, Inc.

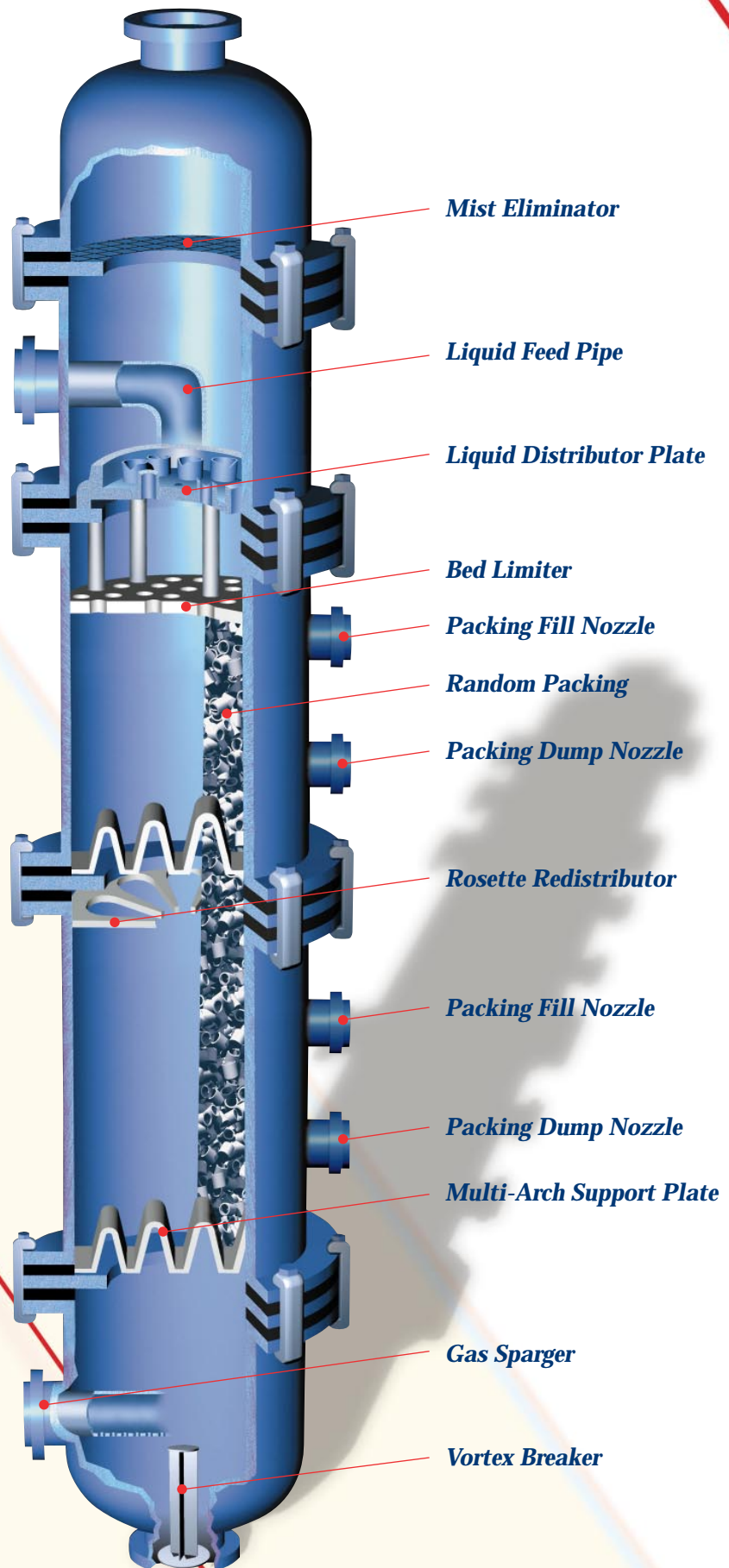
A Unit of Robbins & Myers, Inc.

Column Systems

Designed and built to withstand highly corrosive and reactive environments. Pfaudler packed Glasteel columns efficiently handle process operations such as: distillation, absorption, stripping and extraction.

Glasteel packed columns are built to your complete process specifications and designed in accordance with ASME Code.

Pfaudler supplies the columns as complete systems with all internals including random or structured packing.



Glasteel Column

Pfautler pioneered the development and use of Glasteel as a material of construction. Advanced enameling technology is used to produce glass lining for column shells, bonnets and support rings.

Pfautler Glasteel columns combine the inert properties of glass with the structural strength of steel. Glass lining offers many advantages over other lining materials:

- Highly resistant to strong acids, powerful oxidizers and organics except for fluoride elements.
- Glass is essentially inert, so it cannot adversely affect product purity or flavor.
- Glass is impermeable, eliminating cross contamination.

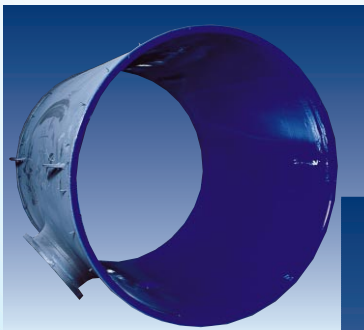
- The fire polished surface of the glass lining provides anti-stick properties, thus minimizing fouling factors.

Glasteel columns are available in:

- Sizes ranging from 6 inch to 78 inch diameter.
- Single shell or jacketed design.
- Wide range of pressure ratings to meet various process requirements.
- Temperature ratings ranging from -20° F to +450° F.

Glasteel columns are designed and fabricated in accordance with ASME Code requirements.

With all these features and benefits, you now have the flexibility to minimize cost, improve product purity and column performance efficiency.



No matter what the application, Pfautler can provide solutions to meet your process requirements.



Packing

Pfautler works closely with various packing suppliers to provide the best random or structured packing solution to your process.

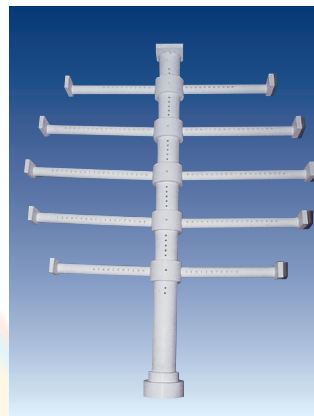
Random packing is available in different sizes and shapes to provide high surface contact area for mass transfer while minimizing pressure drop. Random packing is available in various materials of construction such as: fluoropolymers, alloy and ceramic. Selected material is dependent on compatibility with process chemistry. The same design parameters are considered when selecting structured packing.



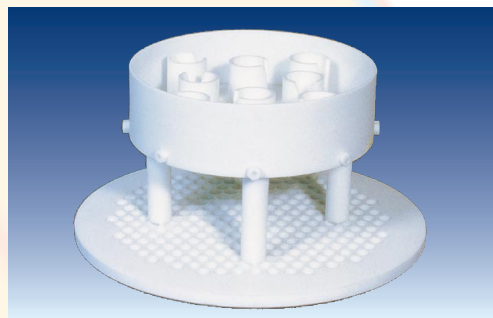
Traditional Random Packing



Orifice riser distributor combines a standard orifice and weir type distributor to handle a wide range of liquid flow rates. This unique design results in low pressure drop and reduced liquid entrainment.



Ladder distributor provides uniform liquid distribution over the column packed bed.



Combination distributor and bed limiter prevents column packing from rising and obstructing the function of the distributor in upset conditions and reduces the number of support rings in the column.

Column Internals

Column internals are customized to each application. Optimization is the goal when retrofitting existing columns or constructing new units.

Column internals are constructed of fluoropolymers, alloy or ceramic, and are provided in a wide variety of designs and configurations.

Each of the following are reviewed to maximize column performance:

- Maximum capacity.
- Uniform liquid distribution.
- Resistance to plugging or fouling.
- Proper turndown capability.
- Minimum pressure drop.
- Minimal distributor height to allow more packed bed height.
- Cross-mixing capability.

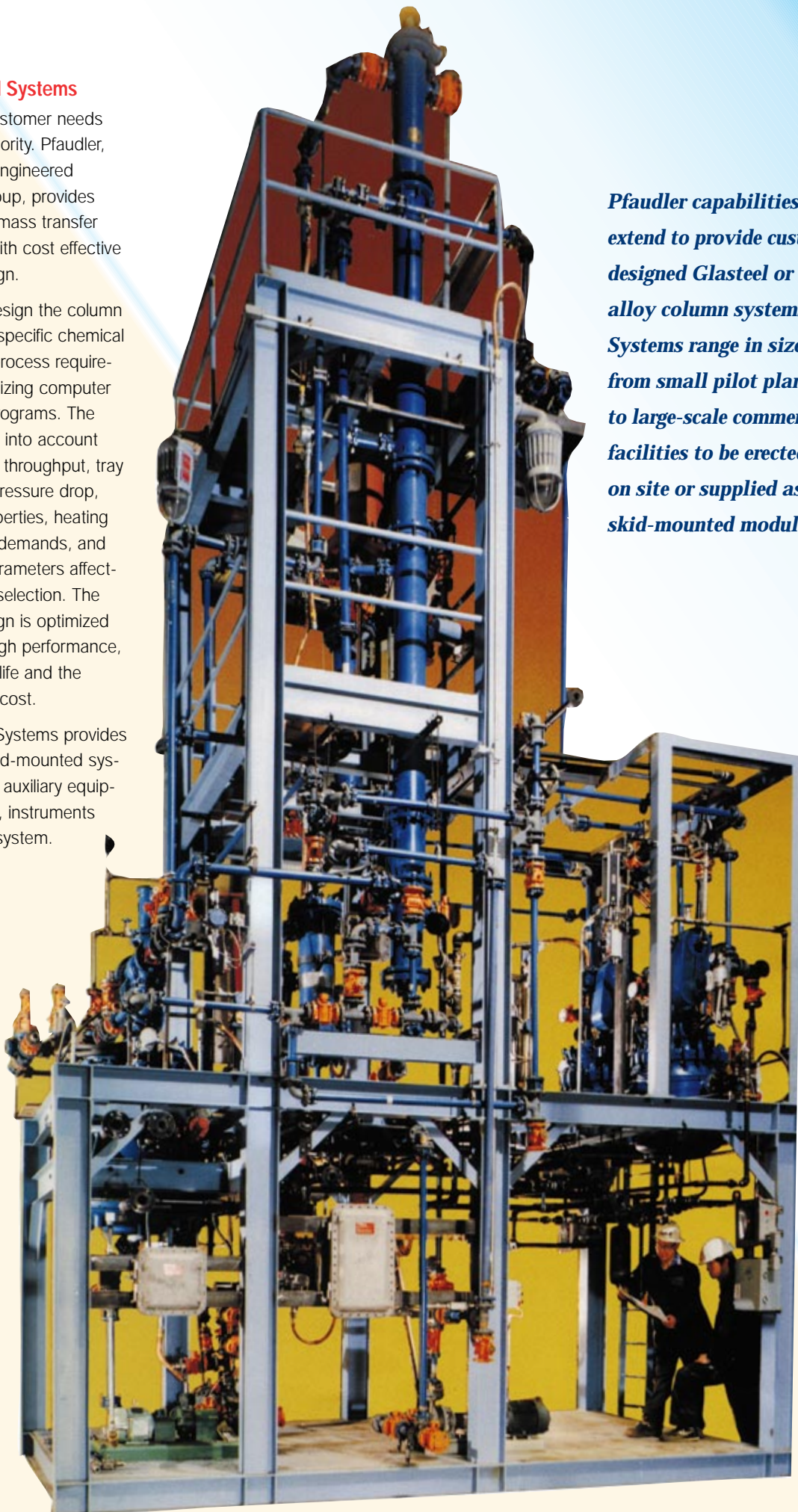
Engineered Systems

Satisfying customer needs is the first priority. Pfaudler, through its Engineered Systems Group, provides solutions to mass transfer processes with cost effective column design.

Engineers design the column to meet the specific chemical or physical process requirements by utilizing computer simulation programs. The design takes into account column size, throughput, tray hydraulics, pressure drop, packing properties, heating and cooling demands, and corrosion parameters affecting material selection. The column design is optimized to provide high performance, long service life and the lowest initial cost.

Engineered Systems provides complete skid-mounted systems with all auxiliary equipment, piping, instruments and control system.

Pfaudler capabilities extend to provide custom-designed Glasteel or alloy column systems. Systems range in size from small pilot plants to large-scale commercial facilities to be erected on site or supplied as skid-mounted modules.



SB14-100-3

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