Q-PAC® Tower Packing

is the heart of your wet **scrubbing**/ air **stripping** equipment. Rather than build or operate your system on old specs calling for outdated packings, choose Q-PAC® over conventional, round packings for the most cost-effective emission control.

Q-PAC's unique drip point technology leads to the most effective mass-transfer with lower capital and O&M costs.

**Visit us online for Q-PAC® data and numerous case studies. Then call Lantec for a free packed bed design.**

[www.lantecp.com/qpac](http://www.lantecp.com/qpac)

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*US Patent #5,458,817
Worldwide Patents Pending*
What Q-PAC® Can Do for Your Design

Amazingly Low Pressure Drop
Q-PAC® saves electric power by reducing blower load.

A Major Advance in Packed Tower Technology
High-capacity Q-PAC® creates exciting new possibilities in packed tower design. Its patented structure uses drip points and gas turbulence to create millions of small droplets, multiplying the surface area for gas-liquid contact with minimal resistance to gas flow. Q-PAC® provides the most efficient mass transfer with low pressure drop.

Cost Savings Example - Odor Control Scrubber for H₂S Removal

<table>
<thead>
<tr>
<th>Traditional Design</th>
<th>Modern Design</th>
<th>(metric) Traditional Design</th>
<th>Modern Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing Type:</td>
<td>2” Pall Rings</td>
<td>Q-PAC®</td>
<td>50 mm Pall Rings</td>
</tr>
<tr>
<td>Air Flow Rate:</td>
<td>45,000 acfm</td>
<td>45,000 acfm</td>
<td>75,000 Am³/h</td>
</tr>
<tr>
<td>Tower Diameter:</td>
<td>12 ft</td>
<td>9 ft</td>
<td>3500 mm</td>
</tr>
<tr>
<td>Superficial Velocity:</td>
<td>&lt; 400 ft/min</td>
<td>&gt; 600 ft/min</td>
<td>&lt; 2.2 m/s</td>
</tr>
<tr>
<td>Tower Height:</td>
<td>22 ft</td>
<td>22 ft</td>
<td>6700 mm</td>
</tr>
<tr>
<td>Packed Height:</td>
<td>10 ft</td>
<td>10 ft</td>
<td>3000 mm</td>
</tr>
<tr>
<td>Packing Pressure Drop:</td>
<td>&gt; 5” WC</td>
<td>&lt; 3.5” WC</td>
<td>&gt;15 mbar</td>
</tr>
<tr>
<td>Packing Volume:</td>
<td>1,130 ft³</td>
<td>640 ft³</td>
<td>29 m³</td>
</tr>
<tr>
<td>Recirculation Flow Rate:</td>
<td>750 gpm</td>
<td>500 gpm</td>
<td>170 m³/h</td>
</tr>
<tr>
<td>System Cost:</td>
<td>$140,000</td>
<td>$94,000</td>
<td>$140,000</td>
</tr>
<tr>
<td>Savings:</td>
<td>n/a</td>
<td>$46,000 (33%)</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Outstanding Resistance to Fouling
Q-PAC’s uniformly spaced bar-and-rod design and self-cleaning properties minimize plugging by mineral scale or biological growth. That means less down time for maintenance.

Higher Gas Velocity, Smaller Equipment
Q-PAC® can be used at higher gas velocities than old-style tower packings. Scrubbers and gas-cooling towers can be designed at well above conventional velocities without sacrificing efficiency. Capital costs can be cut by building smaller-diameter columns, often with smaller pumps and mist eliminators.

Capacity-Boosting Upgrades
Older equipment using conventional packings can be retrofitted with Q-PAC® to obtain additional capacity at a fraction of the cost of another tower.

Lower Packing Cost
Q-PAC®'s low weight per cubic foot reduces packing costs, especially when specialty thermoplastics are needed for heat and corrosion resistance.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Void Fraction</th>
<th>Weight Polypropylene</th>
<th>Weight PVDF</th>
<th>Number of Pieces</th>
<th>Packing Factor</th>
<th>Drip Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.25” x 3.75”</td>
<td>96.3%</td>
<td>2.1 lb/ft³</td>
<td>4.1 lb/ft³</td>
<td>33/ft³</td>
<td>7/ft</td>
<td>11,000/ft³</td>
</tr>
</tbody>
</table>

Q-PAC® Physical Characteristics

Dimensions: 3.25” x 3.75”
Void Fraction: 96.3%
Weight:
- Polypropylene: 2.1 lb/ft³
- PVDF: 4.1 lb/ft³
Number of Pieces: 33/ft³
Packing Factor: 7/ft
Drip Points: 11,000/ft³

Dimensions: 8.25 cm x 9.5 cm
Void Fraction: 96.3%
Weight:
- Polypropylene: 33.7 kg/m³
- PVDF: 65.8 kg/m³
Number of Pieces: 1165/m³
Packing Factor: 23/m
Drip Points: 388,000/m³
Lantec sells a line of plastic, ceramic, and metal media for use in various applications including:

- Wet Scrubbing
- Air Stripping
- VOC Control
- Biotreatment
- Mist Elimination
- Distillation

For two decades, Lantec has developed technical expertise in numerous applications involving tower packings. Lantec continues to develop new lines of packings and offers leading edge knowledge and support for its products.

LANPAC® offers excellent mass transfer at high liquid loadings.

HD Q-PAC® structured media offers ultra-high surface area.

NUPAC®: very high surface area random packing.

MLM® offers high heat recovery with low ∆P.

Saddles: low cost ceramic media.

Low cost metal tower packing.

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