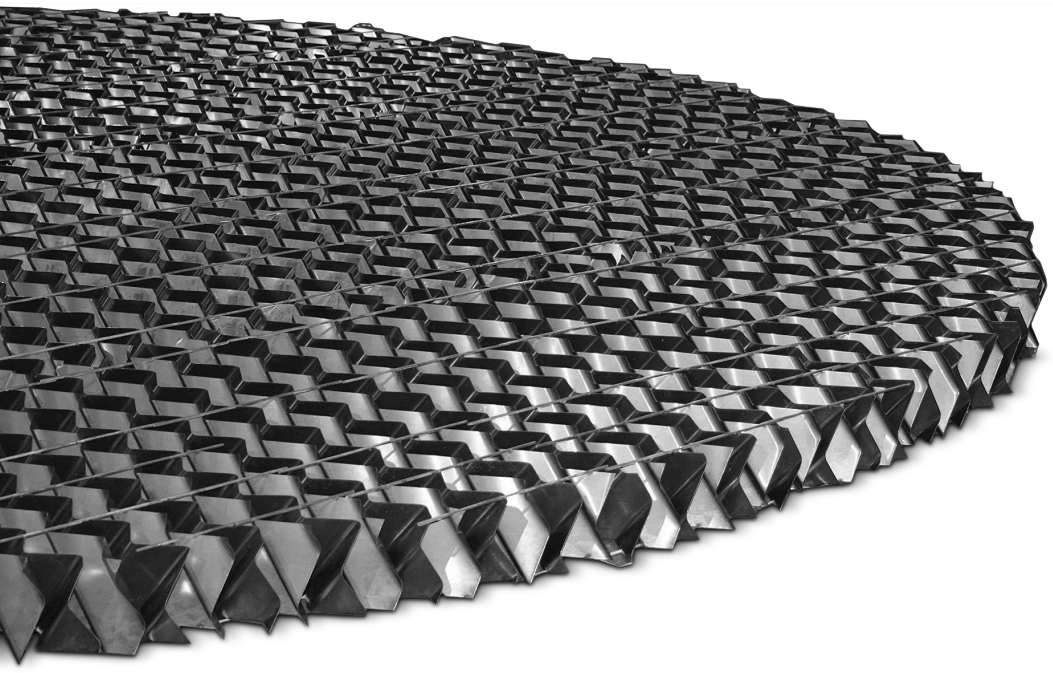
PROFLUX®
Severe Service Grid Packing

KOCH-GLITSCH

YOU CAN RELY ON US.

Engineered to withstand harsh conditions.

The high performance severe service grid packing from Koch Glitsch combines the efficiency of structured packing with the robustness and fouling resistance of grid packing. You get the best of both worlds in a packing that outperforms both of its predecessors in severe services.



PROFLUX® severe service grid is a rugged assembly of sturdy corrugated sheets welded to heavy gauge rods. The combination of welded rod assembly and corrugated sheets of increased material thickness provides a very robust design that resists damage from tower upsets or erosion. The gaps between the sheets provide improved fouling resistance.

Advantages

- Increased layer height significantly reduces the installation and removal time.
- Corrugated sheet structure provides better efficiency and de entrainment compared to conventional grid packing.
- Spacing between the sheets eliminates contact points where solids can potentially collect.
- Welded rod construction provides superior durability compared to conventional structured packing and bolted grid packing.
- Fabricated in standard size panels that can be easily removed and cleaned.

Typical Services

- Crude Vacuum Tower Wash Bed
- Ethylene Plant Quench Towers
- FCC Main Fractionator Slurry PA

Physical Characteristics

PROFLUX® Packing Size	40X	45	64
Specific surface area	13.1 ft^2/ft^3 [43 m^2/m^3]	13.4 ft^2/ft^3 [44 m^2/m^3]	19.5 ft^2/ft^3 [64 m^2/m^3]
Bulk density	9.9 $lbs./ft^3$ [159 kg/m^3]	10.4 $lbs./ft^3$ [166 kg/m^3]	15.1 $lbs./ft^3$ [241 kg/m^3]
Panel length (maximum)	60 in. [1524 mm]	60 in. [1524 mm]	60 in. [1524 mm]
Panel width (center to center)	14.6 in. [371 mm]	14.6 in. [371 mm]	13.4 in. [340 mm]
Panel height	5.5 in. [140 mm]	5.5 in. [140 mm]	5.5 in. [140 mm]

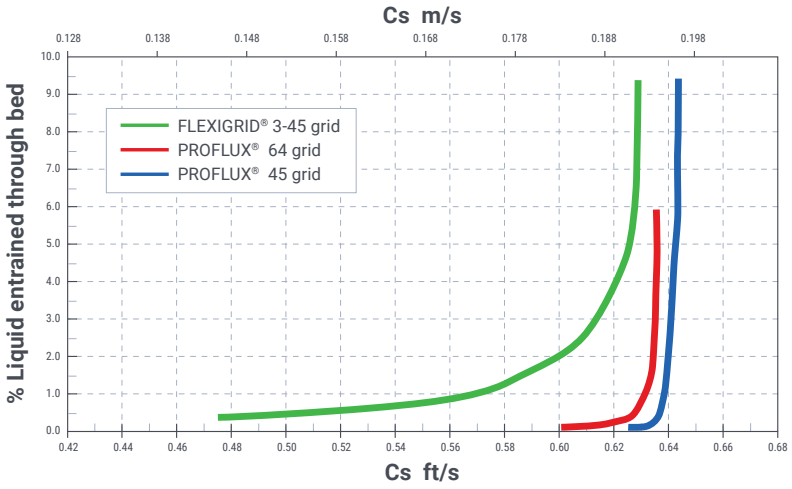


Figure 1. De-entrainment Efficiency

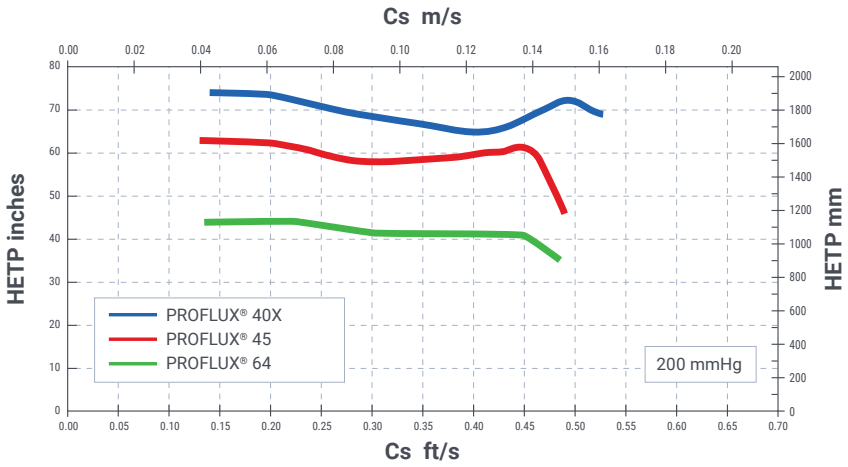


Figure 2. Efficiency

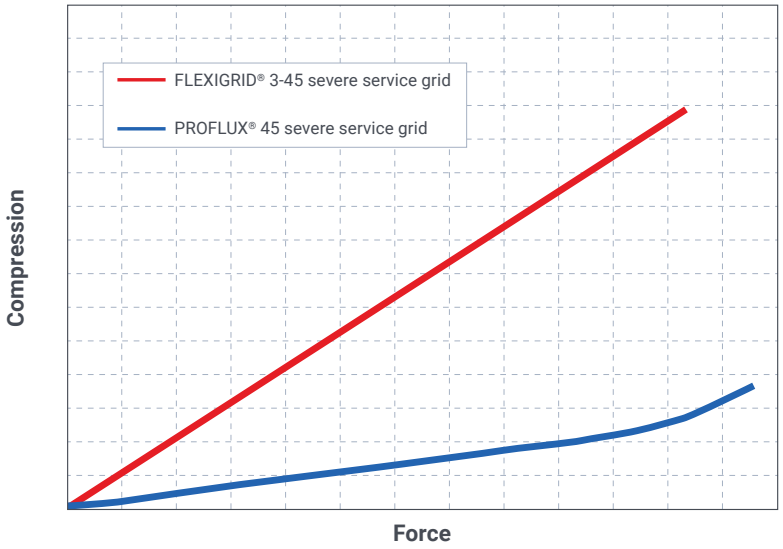


Figure 3. Strength Comparison of Grid Packings

Capacity

Tests performed under conditions similar to a typical vacuum crude tower wash bed show, in comparison with conventional grid packings, that PROFLUX® severe service grid packing can operate at higher Cs values before significant entrainment occurs. Figure 1 shows the entrainment levels as a function of tower throughput for two sizes of PROFLUX severe service grid packing compared to FLEXIGRID® grid packing. Greater capacity compared to conventional grid or structured packing allows increased flow rates in existing vacuum towers or a reduction in vessel diameter for new units.

Separation Efficiency

The high efficiency of PROFLUX severe service grid, as demonstrated in testing (Figure 2), gives the refiner an option to use a more robust packing throughout the entire wash bed and run at higher operating rates, versus the current practice that uses a combination bed of conventional grid and structured packing.

Strength Comparison

PROFLUX grid packing was engineered to endure harsh conditions. Tests show that it has superior resistance to compression than conventional grid packings (Figure 3).

Reliability

With more than 200 references, PROFLUX grid has proven to be a reliable fouling resistant option. The welded construction provides superior durability in severe service applications. Panels can be through bolted to provide uplift resistance. The spacing between the corrugated sheets eliminates contact points that could serve as potential sites for coking or accumulation of solids. The lack of horizontal surfaces allows free drainage of liquid and ensures the entire surface of the packing is wetted. This is critical to minimize coke formation. Tests using a precipitating salt solution have shown that the fouling resistance of PROFLUX grid is superior to conventional grid packings of similar surface area. The construction of PROFLUX grid permits easy removal, cleaning, and re-installation.

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