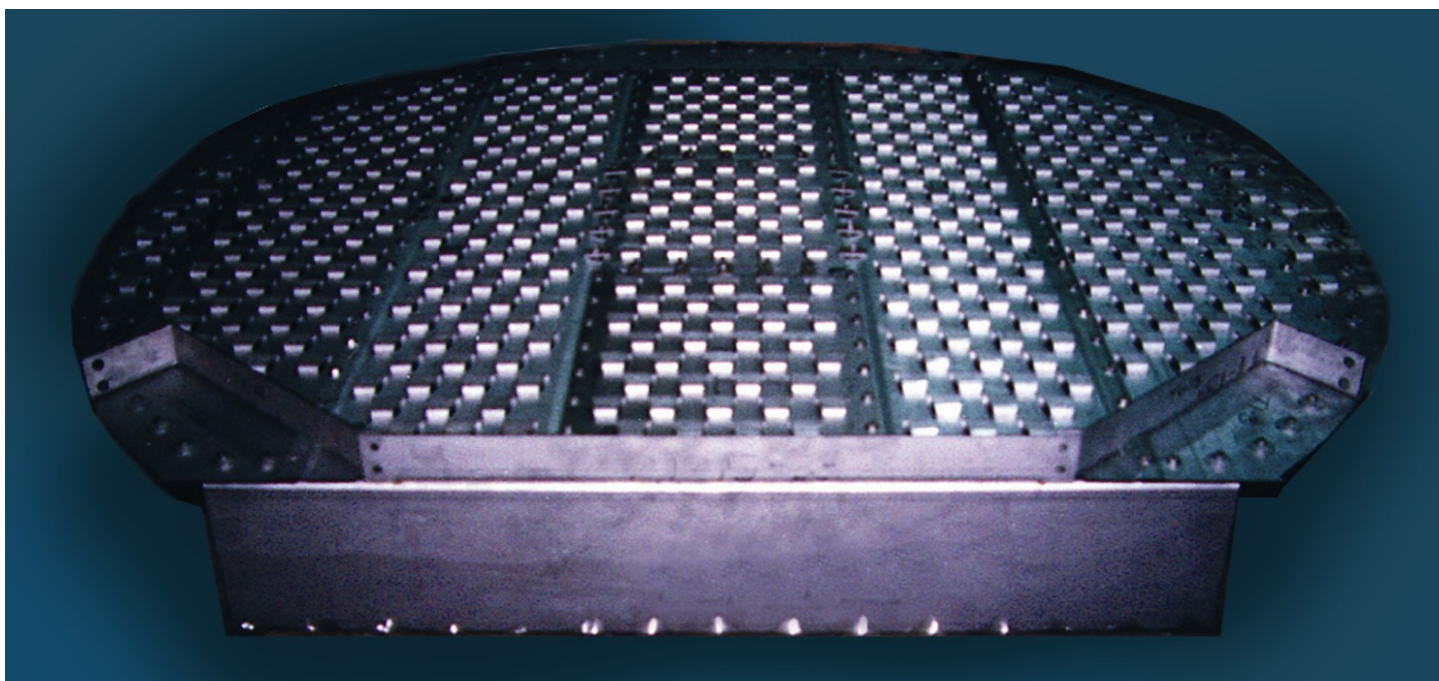




Simply Better

The PROVALVE® valve tray by Koch-Glitsch combines the best features of moving valve trays and fixed valve trays.

The result: A reliable, long-lasting tray that simply works better.

The key to the PROVALVE tray is its unique valve design. The tapered valve cover imparts a forward-lateral push to the liquid across the tray, improving liquid distribution while at the same time protecting the tray deck from fouling. The sheltered valve design also provides greater open area and better turndown than conventional sieve trays.

Process Advantages

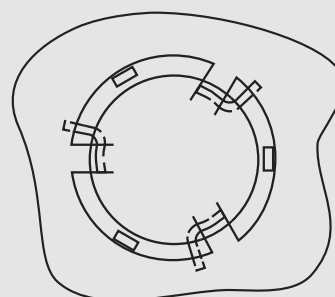
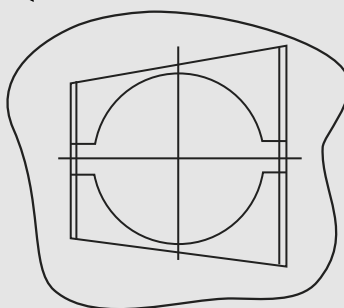
- ▶ Improved capacity over sieve or valve trays
- ▶ Lower pressure drop than sieve or valve trays
- ▶ Turndown equal to typical moving valve trays
- ▶ Equal or better efficiency than conventional valve trays

Mechanical Advantages

- ▶ Reliable, low-maintenance design
- ▶ Excellent fouling resistance
- ▶ Structural integrity
- ▶ Improved surge protection
- ▶ Easy and economical installation

PROVALVE® Valve vs. Conventional Valve

Direction of Liquid Flow ←



The PROVALVE tray offers the wide operating range of conventional valve trays...but with no moving parts. The valve design prevents the likelihood of valve leg or deck wear while eliminating the potential for popped, fouled or stuck valves. Unlike fixed valves punched from the deck, the PROVALVE fixed valve features a uniquely tapered cover that shelters each vapor opening to effectively suppress weeping, providing the high turndown capability of the PROVALVE tray. The proprietary cover also allows a larger

orifice size than is feasible on conventional sieve trays for a given set of process conditions — a distinction that promotes lower pressure drop and protects against vapor surges.

The cover, which extends beyond the orifice, deflects and directs the vapor to a greater degree than do moving valves or other punched-from-the-deck valves. This phenomenon yields a low, even spray height across the deck, suppressing jet flooding and permitting operation at greater vapor rates.

This lateral-forward push promotes uniform liquid and vapor distribution across the entire deck, boosting the tray's efficiency. The directed push prevents liquid backflow and keeps the liquid close to plug flow, which eliminates dead areas where solids can deposit and produces a cleansing action that prevents materials from fouling the tray deck.

PROVALVE trays use the same supports as standard valve trays, which minimizes installation cost and turnaround time in revamp situations. In new designs or retrofits, PROVALVE trays can replace any standard valve trays on a one-for-one basis.

It's simple:

The PROVALVE tray
performs better, lasts longer,
and is more reliable than
conventional trays.

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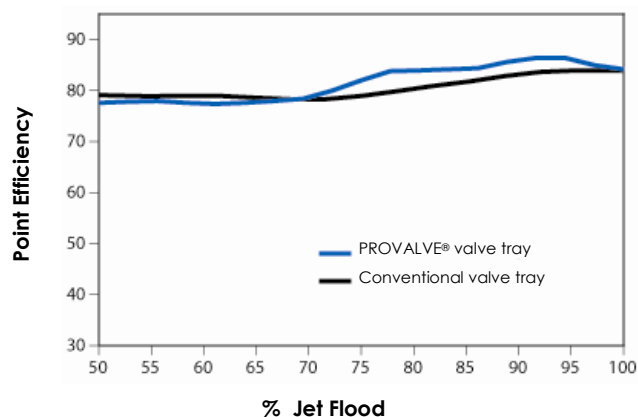
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PROVALVE technology is protected by various patents worldwide.

NOTE: The information contained in this bulletin is believed to be accurate and reliable, but is not to be construed as implying any warranty or guarantee of performance.

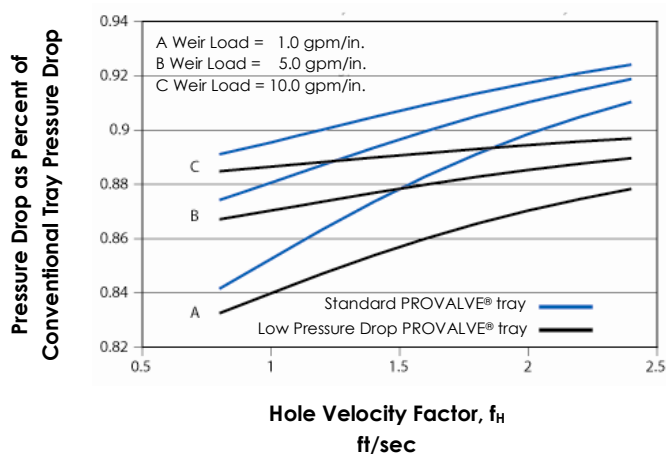
Efficiency as a Percentage of Jet Flood PROVALVE® valve tray vs. Conventional valve tray

C₆/C₇ Distillation Column
Total Reflux, 60 psia



Data reflects tests run on a stainless steel column with nine trays using a weir height of 2 in. and downcomer envelope + 0 in.

Relative Pressure Drop



For emergencies:

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or your local Koch-Glitsch office.

Asia Pacific: Contact your local Koch-Glitsch office.

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