

Simply replace your
random packing to
improve your tower's

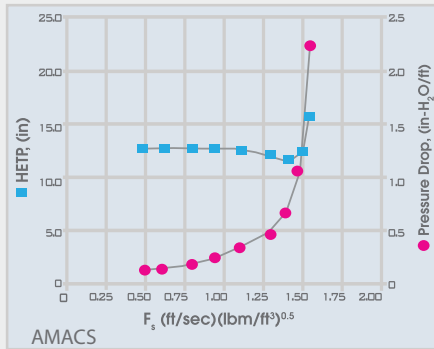
efficiency 25% or capacity 15%



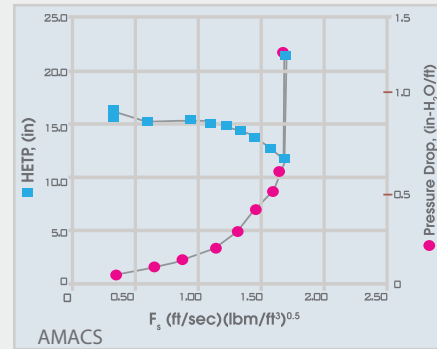
Independent Research and Analysis

What if we said by simply replacing your random packing with our SuperBlend 2-PAC® we could increase your towers efficiency 20% or capacity 15%? Believe it! Our results have been third-party verified by Separation Research Program (SRP) at the university of Texas.

AMACS SuperBlend 2-PAC® technology is a patented blend of high performance packing sizes placed in a single bed. AMACS blends two sizes of the best metal random geometry in the business, AMACS High Performance Packing. When combined, the patented blend achieves the efficiency benefits of the smaller packing size while retaining the capacity and pressure drop of the larger packing size.



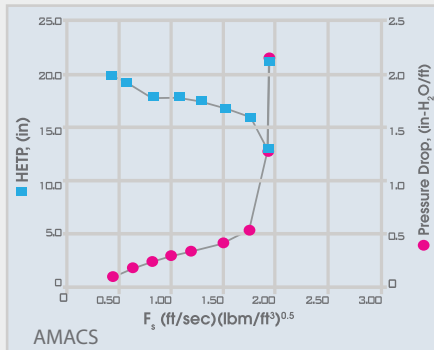
AMACS
SUPERBLENDED 2-PAC® BED
C₆/C₇ - 60 PSIA



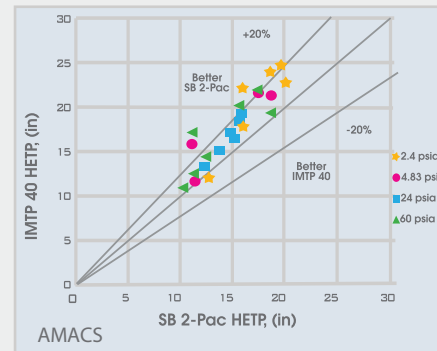
AMACS
SUPERBLENDED 2-PAC® BED
C₆/C₇ - 24 PSIA

Distillation Test Results of the SuperBlend 2-Pac® Blended Bed Technology

The distillation data presented below was developed in SRP's 18" OD (16.8" ID) test column with a 10' bed depth using the well known Cyclohexane/n-Heptane (C₆/C₇) chemical system at 60 psia, 24 psia, 4.83 psia and 2.40 psia. Analysis of the SRP results showed that the patented SB 2-Pac® blended bed has an impressive 15 to 20% HETP advantage over the IMTP® #40 packing while maintaining the same pressure drop and capacity.



AMACS
SUPERBLENDED 2-PAC® BED
C₆/C₇ - 4.83 PSIA



AMACS
PARITY PLOT DISTILLATION HETP
SB 2-PAC® VS. IMTP® 40

Mass Transfer Coefficient

Carbon Dioxide/Sodium Hydroxide absorption data is available, upon request, as the overall gas mass transfer coefficient, $K_G a$ vs. liquid rate.

Definition of Terms

$$F_s = V(\rho_G)^{0.5}, (\text{ft}/\text{sec})(\text{lb}/\text{ft}^3)^{0.5}$$

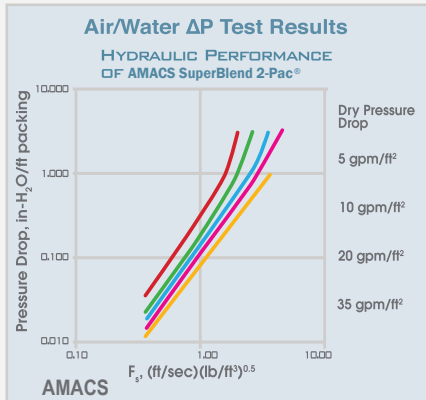
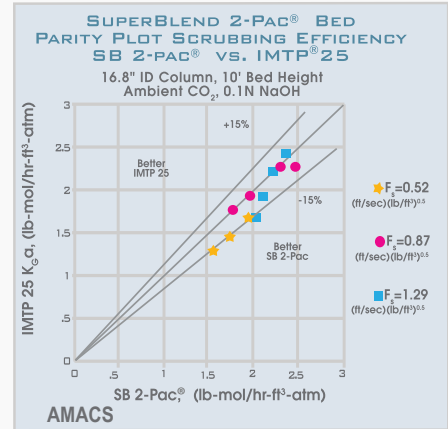
V = Gas velocity, ft/sec (based on tower cross-sectional area)

ρ_G = Gas density, lb/ft³

HETP = Height Equivalent of a Theoretical Plate, in (HETP varies with system properties)

$K_G a$ = Overall gas mass transfer coefficient, lb-mol/(hr-ft²-atm)
($K_G a$ varies with system properties)

F_p = Packing Factor for use with the Generalized Pressure Drop Correlation (GPDC) by Eckert, Chem. Eng. Prog., 66(3), 39 (1970) or Perry's Chemical Engineering Handbook



SuperBlend 2-Pac® Blended Bed Technology Reduces Pressure Drop

In the air/water test, SRP data indicates that the SB 2-Pac® blended bed provided the same pressure drop when compared to IMTP® #40 packing, tested under the same conditions.

This is good, solid independent research. Should you desire to review the original test data, simply call your local AMACS representative. Tell them you want to know how the patented SB 2-Pac® blended bed technology can improve your distillation tower's performance.

SuperBlend 2-Pac® GPDC - Packing Factor, F_p

Distillation-Air/Water, Avg.

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Blended Bed Technology Applications

AMACS SuperBlend 2-Pac[®] blended bed is recommended for the following types of process towers:

- Absorption and Stripping – where environmental pressures strain existing column capacities and efficiencies.
- Fine Chemical Distillation – where numerous theoretical stages and low pressure drops are the norm
- Refinery Fractionators – where maximum capacity and stable operations are required.
- Retrofit Opportunities – any mass or heat transfer tower limited by conventional or third generation random packing.



PROCESS TOWER INTERNALS

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SUPERBLEND 2-PAC[®] Technology