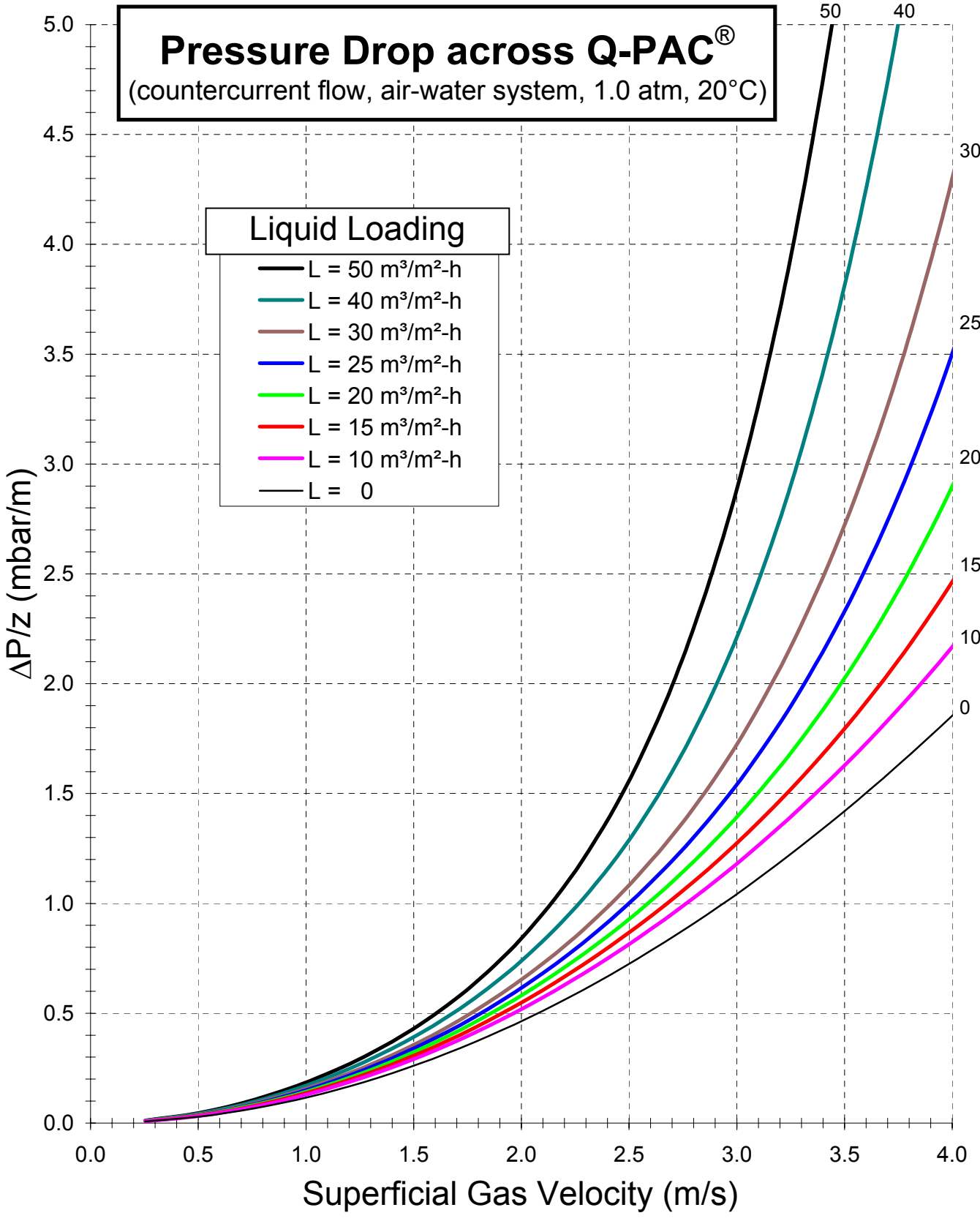


Pressure Drop across Q-PAC[®]

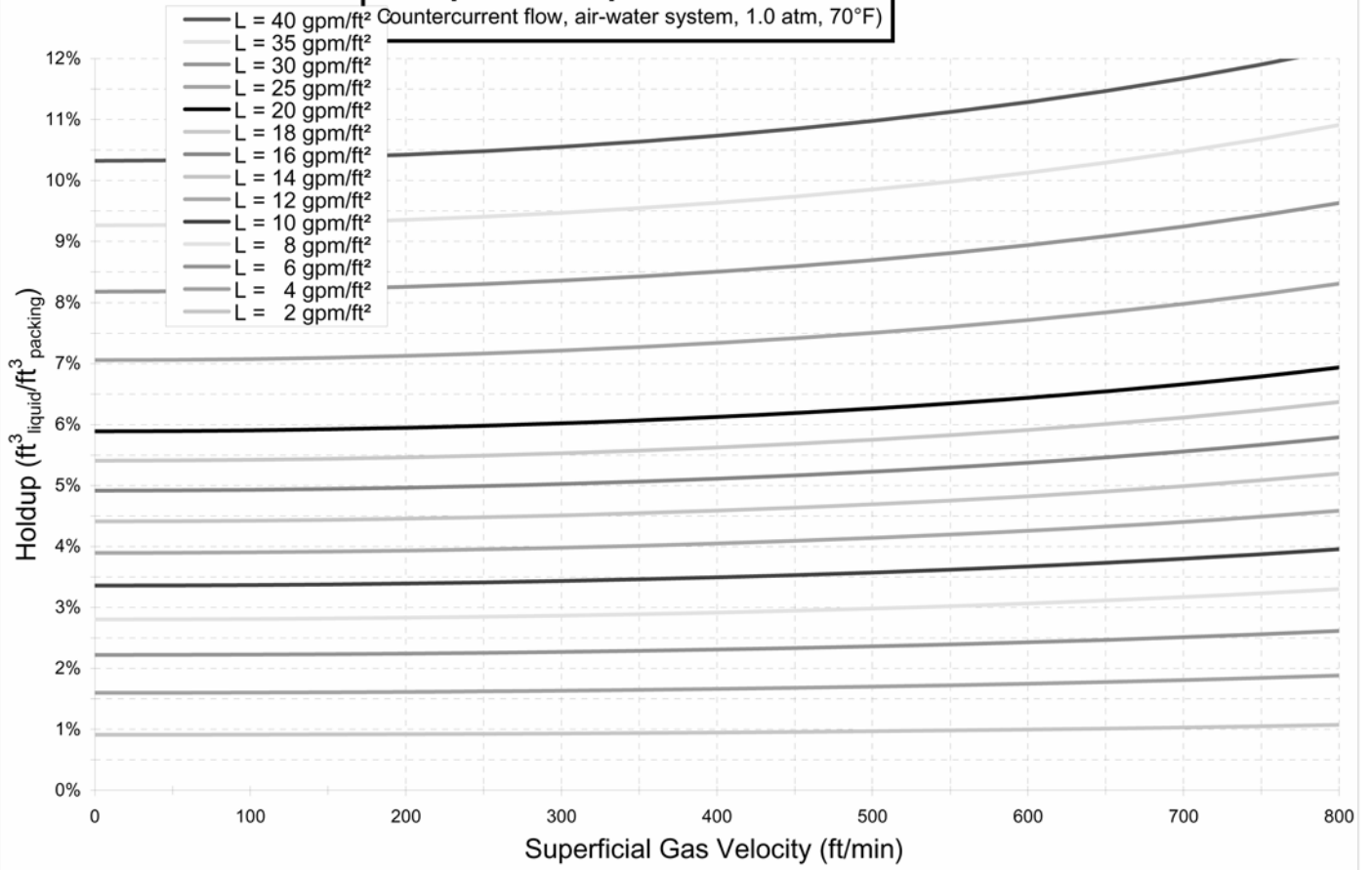
(countercurrent flow, air-water system, 1.0 atm, 20°C)

- Liquid Loading**
- L = 50 m³/m²-h
 - L = 40 m³/m²-h
 - L = 30 m³/m²-h
 - L = 25 m³/m²-h
 - L = 20 m³/m²-h
 - L = 15 m³/m²-h
 - L = 10 m³/m²-h
 - L = 0



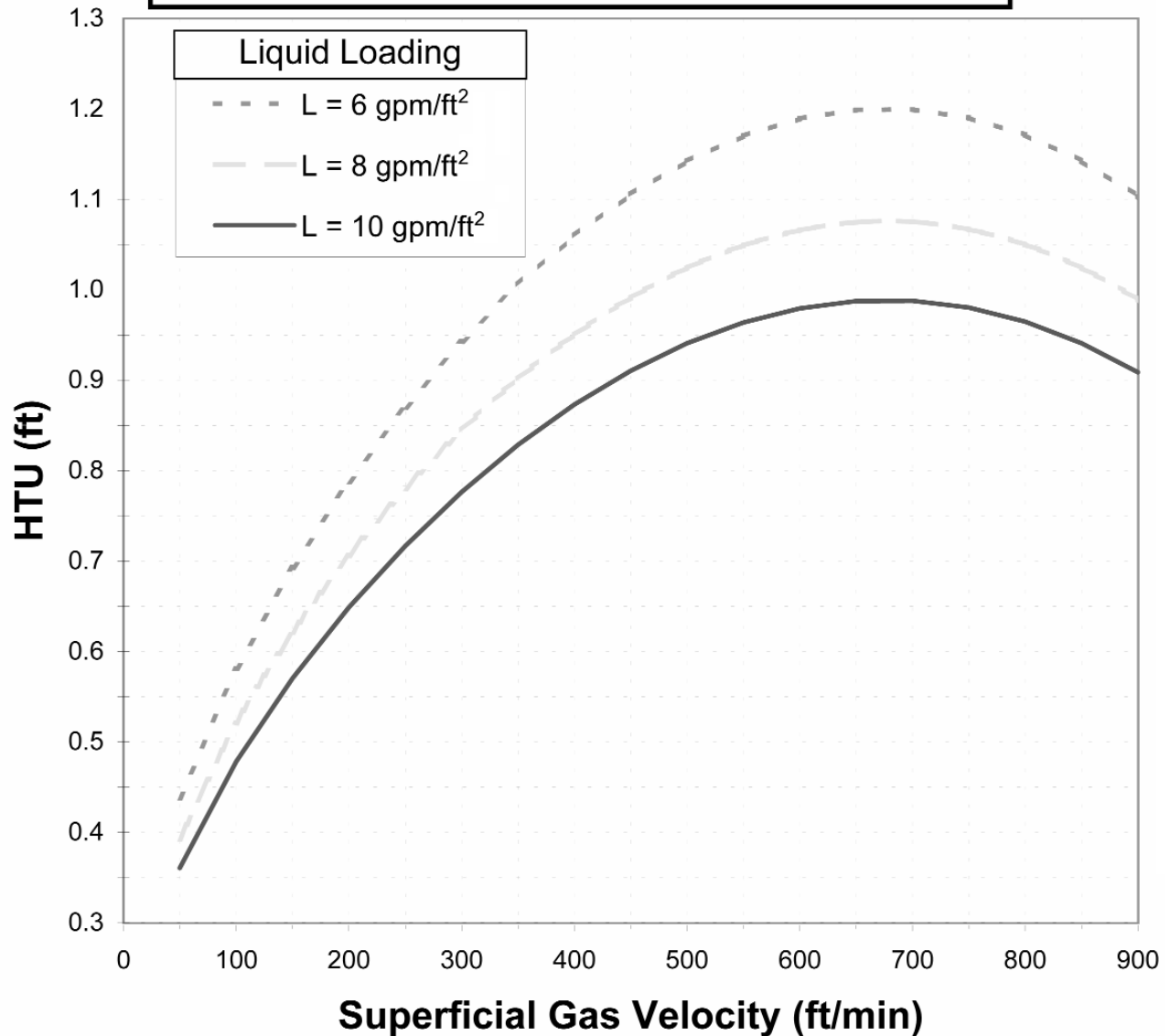
Liquid Holdup on 4" Q-PAC[®]

Countercurrent flow, air-water system, 1.0 atm, 70°F)



Height of Transfer Unit using 4" Q-PAC[®]

for scrubbing H₂S with NaOCl and NaOH added
to maintain pH 9.5~10, ORP 550~600 mV



기존 세정기의 충전 매체를 Q-PAC[®]으로 교체하면 세정기의 처리 용량(유량) 제고

예: 대기압, 21.1°C(70°F)에서 pH, 9.5~10과 ORP, 550~600mV를 유지하도록
NaOCl과 NaOH를 첨가한 물을 사용하여 H₂S를 99.9% 제거하는 경우

Superficial Gas Velocity v_g (ft/min)	Liquid Loading L (gpm/ft ²)	Pressure Gradient $\Delta P/z$ (in.WC/ft)	Packing Height z (ft)	Pressure Drop ΔP (in.WC)
800	8	0.49	7.5	3.7
800	6	0.41	8.5	3.5
800	4	0.34	10.0	3.4
700	8	0.34	7.5	2.5
700	6	0.29	8.5	2.5
700	4	0.24	10.0	2.4
600	8	0.23	7.5	1.7
600	6	0.20	8.5	1.7
600	4	0.17	10.0	1.7
500	8	0.15	7.5	1.1
500	6	0.13	8.0	1.1
500	4	0.11	9.5	1.1
400	8	0.09	7.0	0.7
400	6	0.08	7.5	0.6
400	4	0.07	9.0	0.6
300	8	0.05	6.0	0.3
300	6	0.05	7.0	0.3
300	4	0.04	8.0	0.3
200	8	0.02	5.0	0.1
200	6	0.02	5.5	0.1
200	4	0.02	6.5	0.1

Analysis of Flooding Points in a 10' Diameter Tower

(Vertical, counter current flow, 60,000 acfm air flow, 6 gpm per ft² liquid flow, 10 ft packing)

	2" Pall Rings	2" Tri-Packs	2-K Tellerettes	3.5" Tri-Packs	Q-PAC
Gas Velocity:	764 fpm	764 fpm	764 fpm	764 fpm	764 fpm
Pressure Drop*:	15.0" WC	12.0" WC	12.0" WC	5.4" WC	3.3" WC
% Flooding:	115	105	105	89	62

Q-PAC has the only practical design!

