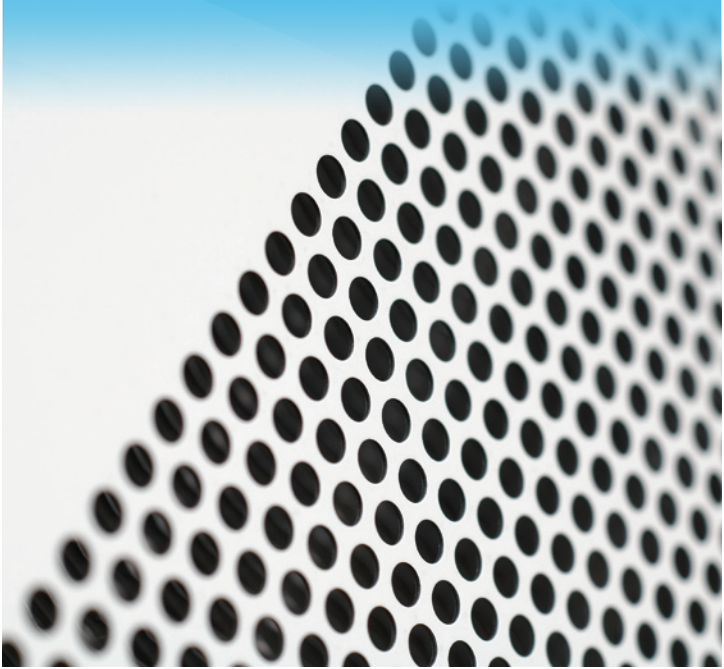
Testing and Balancing Guide 2008



Care for Indoor Air

Halton
CARE FOR INDOOR AIR

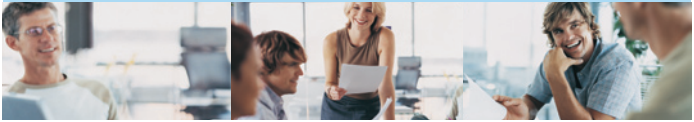
Chilled beams	
ABC	3
ABD	3
ABE	3
ABH	4
AHH	4
ACC	5
ACE	5

Units to be used

qv= [cfm] (cubic feet per minute) = Nozzle jet airflow rate

leff= [Inch] = length of the heat exchanger

Δpm= [in. w.c.] (Inches of water column) = measured pressure inside supply air plenum



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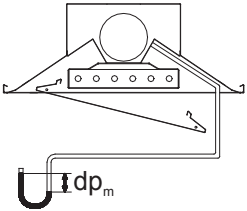
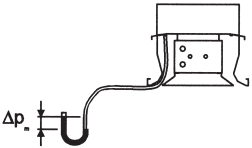
ABC



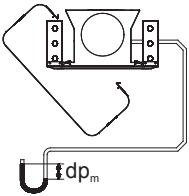
ABC	k
ABC/A	0.65
ABC/B	0.88
ABC/C	1.17
ABC/D	1.77
ABC/E.J	0.43
ABC/F.K	0.59
ABC/G.M	0.87

ABD



ABD	k
ABD/A	0.60
ABD/B	0.84
ABD/C	1.13
ABD/D	1.70

ABE



ABE	k
ABE/A	0.63
ABE/B	0.82
ABE/C	1.07
ABE/D	1.51

$$q_v = k \times l_{eff}\sqrt{\Delta p_m}$$

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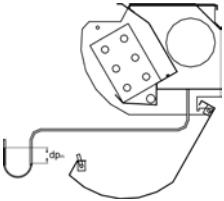
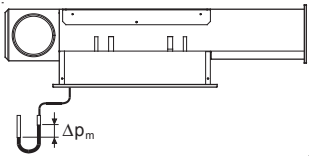
ABH



ABH	k
ABH/F.K	0.62
ABH/G.M	0.88

AHH



AHH	k
AHH/A	1.79
AHH/B	2.57
AHH/C	3.53

$$q_v = k \times l_{eff}\sqrt{\Delta p_m}$$

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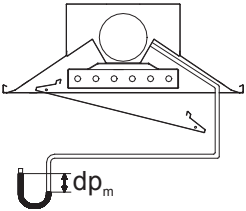
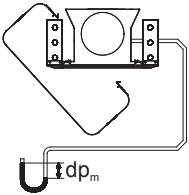
ACC



$$q_{v1} = k \times l_{eff} \sqrt{\Delta p_m}$$

ACC	k
ACC/A	0.65
ACC/B	0.88
ACC/C	1.17
ACC/D	1.77
ACC/E.J	0.43
ACC/F.K	0.59
ACC/G.M	0.87

ACE



ACE	k
ACE/A	0.63
ACE/B	0.82
ACE/C	1.07
ACE/D	1.51

$$q_{v1} = k \times l_{eff} \sqrt{\Delta p_m}$$

HAQ

a = HAQ position

$$q_{v2} = a / 0.09 \times \sqrt{\Delta p_m}$$

HAQ airflow rate

$$q_v = q_{v1} + q_{v2}$$

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