



TO CALCULATE 100% EFFECTIVE DUCT LENGTH, ASSUME A MINIMUM OF 2.5 DUCT DIAMETERS FOR 2500 FPM OR LESS. ADD 1 DUCT DIAMETER FOR EACH ADDITIONAL 1000 FPM.

EXAMPLE: 5000 FPM = 5 EQUIVALENT DUCT DIAMETERS

IF DUCT IS RECTANGULAR WITH SIDE DIMENSIONS a AND b , THE EQUIVALENT DUCT DIAMETER IS EQUAL TO

$$\sqrt{\frac{4ab}{\pi}}$$

	No Duct	12% Effective Duct	25% Effective Duct	50% Effective Duct	100% Effective Duct
Pressure Recovery	0%	50%	80%	90%	100%
<u>Blast Area</u> <u>Outlet Area</u>	SYSTEM EFFECT FACTORS				
0.4	2.0	1.0	0.40	0.18	—
0.5	2.0	1.0	0.40	0.18	—
0.6	1.0	0.66	0.33	0.14	—
0.7	0.8	0.40	0.14	—	—
0.8	0.47	0.22	0.10	—	—
0.9	0.22	0.14	—	—	—
1.0	—	—	—	—	—

AMERICAN CONFERENCE
OF GOVERNMENTAL
INDUSTRIAL HYGIENISTS

SYSTEM EFFECT FACTORS
FOR OUTLET DUCTS
(Adapted from AMCA 201)

DATE

1-88

FIGURE

6-16