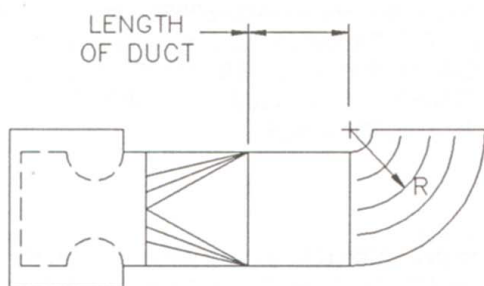


SYSTEM EFFECT FACTORS

R/D	NO DUCT	2D DUCT	5D DUCT
0.5	2.5	1.6	0.8
0.75	2.0	1.2	0.66
1.0	1.2	0.66	0.33
2.0	0.8	0.47	0.26

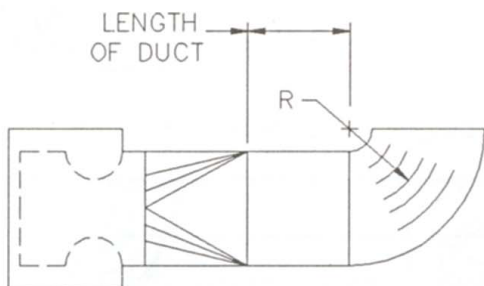
A. SQUARE ELBOW WITH INLET TRANSITION -- NO TURNING VANES.



SYSTEM EFFECT FACTORS

R/D	NO DUCT	2D DUCT	5D DUCT
0.5	0.8	0.47	0.26
1.0	0.53	0.33	0.18
2.0	0.26	0.22	0.14

B. SQUARE ELBOW WITH INLET TRANSITION -- 3 LONG TURNING VANES.



SYSTEM EFFECT FACTORS

R/D	NO DUCT	2D DUCT	5D DUCT
0.5	0.8	0.47	0.26
1.0	0.53	0.33	0.18
2.0	0.26	0.22	0.14

C. SQUARE ELBOW WITH INLET TRANSITION -- SHORT TURNING VANES.

$$D = \frac{2H}{\sqrt{\pi}}$$

THE INSIDE AREA OF THE SQUARE DUCT (H X H) IS EQUAL TO THE INSIDE AREA CIRCUMSCRIBED BY THE FAN INLET COLLAR. THE MAXIMUM PERMISSIBLE ANGLE OF ANY CONVERGING ELEMENT OF THE TRANSITION IS 15°, AND FOR A DIVERGING ELEMENT 7.5°.

AMERICAN CONFERENCE
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SYSTEM EFFECT FACTORS
FOR VARIOUS DUCT ELBOWS
(Adapted from AMCA 201)

DATE

1-88

FIGURE

6-19