

BOCA 1996/SBC 1997 Ductwork Restraint Rules

The following information is based on the 1996 BOCA and 1997 SBC codes and does not take into account more stringent specifications or local requirements.

Prior to using this document, the appropriate peak velocity related acceleration (A_v) for the project in question must be determined. In addition, the project must be classified by "seismic performance category". Refer to the code or separate documentation for a detailed breakdown as to the definitions of various "seismic hazard exposure groups".

Effective Peak Velocity Related Accelerations	Seismic Hazard Exp Grp		
	I	II	III
$A_v < .05$	A	A	A
$.05 < A_v < .10$	B	B	C
$.10 < A_v < .15$	C	C	C
$.15 < A_v < .20$	C	D	D
$.20 < A_v$	D	D	E

Seismic Performance Category

Ductwork Exempt from Restraint Requirements

Ductwork of all types that does not require seismic restraint per code:

- 1) Any ductwork that is placed in a structure that falls into seismic performance category A or B (BOCA-1610.6 item 2 and SBC-1607.6 item 2).

High hazard ductwork systems that do not require seismic restraint per code:

- 1) No exceptions, must all be restrained (BOCA-Table 1610.6.4(1) and SBC-Table 1607.6.4A no applicable notes).

HVAC ducting systems that do not require seismic restraint per code:

- 1) Runs of ductwork supported by hangers where all rod hangers are a maximum of 12" long (from top anchor position to top of duct or from top anchor position to top of trapeze bar, whichever is longer). Adequate flexes at the equipment interfaces must be provided. Note that all hanger rods on the run must comply with the above to meet this criteria, and the swinging of the ducts must not interfere with other ducts and systems (BOCA 1610.6.4.2 and Table 1610.6.4(1) note d1 / SBC 1607.6.4.2 and Table 1607.6.4A note 4a).
- 2) Ductwork that is less than 6 square feet in area. The ductwork must also be located such that impacts with other ductwork or equipment will not occur during a seismic event, and adequate flexes at the equipment interfaces must be provided (BOCA Table 1610.6.4(1) note d2 and SBC Table 1607.6.4A note 4b).

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PAGE 1 OF 1

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DUBLIN, OHIO, USA • MISSISSAUGA, ONTARIO, CANADA

Toll Free (USA only): 800-959-1229
 International: 614-889-0480
 Fax: 614-889-0540
 World Wide Web: www.kineticsnoise.com
 Email: sales@kineticsnoise.com

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