

KCAB Wedge Type Seismic Anchor Data

The Seismic Certification programs written and used by Kinetics Noise Control use the model **KCAB Wedge Type Anchor** data listed in Table P10.2.1-1 below. The various terms and dimensions referenced in this document are defined in Figure P10.2.1-1. Any anchors that are substituted and/or supplied by others must be evaluated and approved by the Design Professional of Record. The data listed in Table P10.2.1-1 is drawn from **ICBO** report data. All relevant factors for proper installation of these anchors are defined in documentation provided by Kinetics Noise Control.

The data provided in Table P10.2.1-1 is based on concrete with a minimum compressive strength of **3,000 psi** and a minimum embedment depth equal to **8** anchor diameters.

Table P10.2.1-1: KCAB Wedge Type Seismic Anchor Basic Capacities
(Reference: Figure P10.2.1-1)

Anchor Size ³ (in)	Minimum Embedment (in)	Basic ASD Tensile Allowable ¹ (lbs)	Basic ASD Shear Allowable ¹ (lbs)	Minimum Spacing ² (in)	Minimum Edge Distance ² (in)
1/4	2	280	400	4	3-3/8
3/8	3	588	1,018	6	4-7/8
1/2	4	874	1,769	7	6-3/4
5/8	5	1,317	2,640	8	8-1/4
3/4	6	1,668	4,225	10-1/4	9-3/4
7/8	7	2,264	6,210	12-5/16	9-1/8
1	8	2,535	8,328	14-5/8	13-1/2
1	9	2,730	8,328	12	13-1/2
1-1/4	10	5,105	9,918	15	12-15/16

1) For Non-California projects these values may be inflated by 33-1/3% for seismic and wind applications. For California Non-OSHPD projects these values must be reduced by 20%. For California OSHPD projects the allowable loads for lightweight, 2,000 psi, concrete must be reduced by 20% to simulate cracked concrete. In this case the values listed here do not apply.

2) Minimum spacing and edge distance are required to develop the maximum listed allowable loads.

3) If the Clearance Hole Diameter is greater than or equal to 1/8" more than the Anchor Size, fill the clearance space with grout or epoxy, or use the appropriate Kinetics Noise Control model TG Grommet.

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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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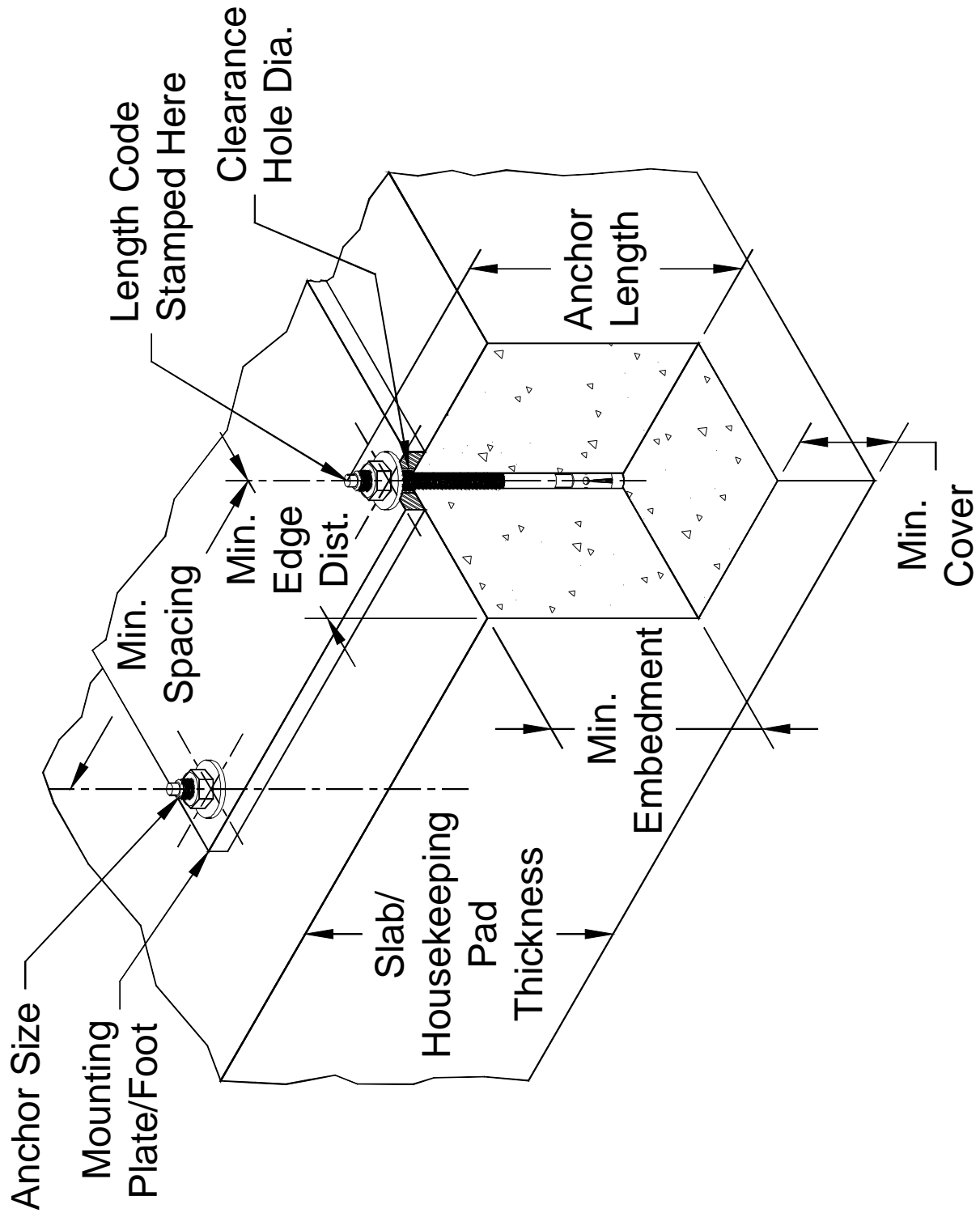
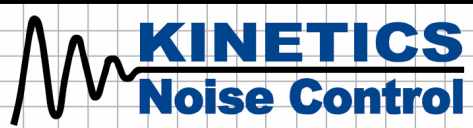


Figure P10.2.1-1: KCAB Wedge Type Seismic Anchor Installation Guide.

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DUBLIN, OHIO, USA • MISSISSAUGA, ONTARIO, CANADA

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 International: 614-889-0480
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Table P10.2.1-2: Anchor Length by Length Code Stamp (Anchor Size Independent)

Length Code Stamp	Anchor Length (in)	Length Code Stamp	Anchor Length (in)
A	1.5 to 2.0	K	6.5 to 7.0
B	2.0 to 2.5	L	7.0 to 7.5
C	2.5 to 3.0	M	7.5 to 8.0
D	3.0 to 3.5	N	8.0 to 8.5
E	3.5 to 4.0	O	8.5 to 9.0
F	4.0 to 4.5	P	9.0 to 9.5
G	4.5 to 5.0	Q	9.5 to 10.0
H	5.0 to 5.5	R	10.0 to 11.0
I	5.5 to 6.0	S	11.0 to 12.0
J	6.0 to 6.5	-----	-----

Table P10.2.1-3: Anchor Size vs. Tightening Torque for Standard Weight Concrete

Anchor Size (in)	Anchor Tightening Torque (ft-lbs)
1/4	8.00
3/8	25.00
1/2	55.00
5/8	90.00
3/4	175.0
7/8	250.0
1	300.0

Table P10.2.1-4: Minimum Cover Requirements per ACI 318-02

Minimum Cover (in)	Concrete Exposure Condition Cast-in-Place & Nonprestressed
3	Cast-in-place and permanently exposed to the ground.
1-1/2	Exposed to the ground or weather.
3/4	Slabs, walls, or joists not exposed to the weather or ground.
1-1/2	Beams or Columns not exposed to the weather or ground.
3/4	Shells or folded plate members not exposed to the weather or ground.

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