KUAB Type P Undercut Seismic Anchor Data

The Seismic Certification programs written and used by Kinetics Noise Control use the model ***KUAB Type P Undercut Anchor*** data listed in Tables P10.2.2-1, P10.2.2-2, and P10.2.2-3 below. ***Type P*** indicates that the anchor is a ***pre-setting*** or ***pre-positioning*** type of anchor. The various terms and dimensions referenced in this document are defined in Figures P10.2.2-1, P10.2.2-2, and P10.2.2-3. Any other anchors that are substituted and/or supplied by others must be evaluated and approved by the Design Professional of Record. The data listed in Tables P10.2.2-1 through P10.2.2-3 is drawn from ***ICC ES Report ESR-1546 (Issued August 1, 2004)***. All relevant factors for proper installation of these anchors are defined in documentation provided by Kinetics Noise Control.

The values in Table P10.2.2-1 are based on normal-weight concrete with a compressive strength of ***3,000 psi***, and are adjusted for seismic and wind loading applications in accordance with the provisions established in ***ACI 318-02 Appendix D***.

Table P10.2.2-1: KUAB Type P Undercut Seismic Anchor Capacities.
(Reference: Figure P10.2.2-1)

Undercut Anchor Model	Anchor Size[1] mm (in)	Req. Embed.[2] mm (in)	Seismic Tensile Allow. ASD[3] N (lbs)	Seismic Shear Allow. ASD[3] N (lbs)	Req. Spacing[2] mm (in)	Req. Edge Dist.[2] mm (in)	Length Code Stamp
KUAB-01	M10 (3/8)	100 (3.94)	19,424 (4,365)	8,869 (1,993)	300 (11.81)	150 (5.91)	I
KUAB-02	M12 (1/2)	125 (4.92)	24,284 (5,457)	12,856 (2,889)	375 (14.76)	188 (7.38)	L
KUAB-03	M16 (5/8)	190 (7.48)	48,567 (10,914)	23941 (5,380)	570 (22.44)	285 (11.22)	R
KUAB-04	M20 (3/4)	250 (9.84)	72,851 (16,371)	36797 (8,269)	750 (29.53)	375 (14.76)	V

1 - 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.

2 - Required embedment, spacing, and edge distance are required to develop the maximum listed allowable loads.

3 - These values *may not* be inflated by 33-1/3% for seismic and wind applications!

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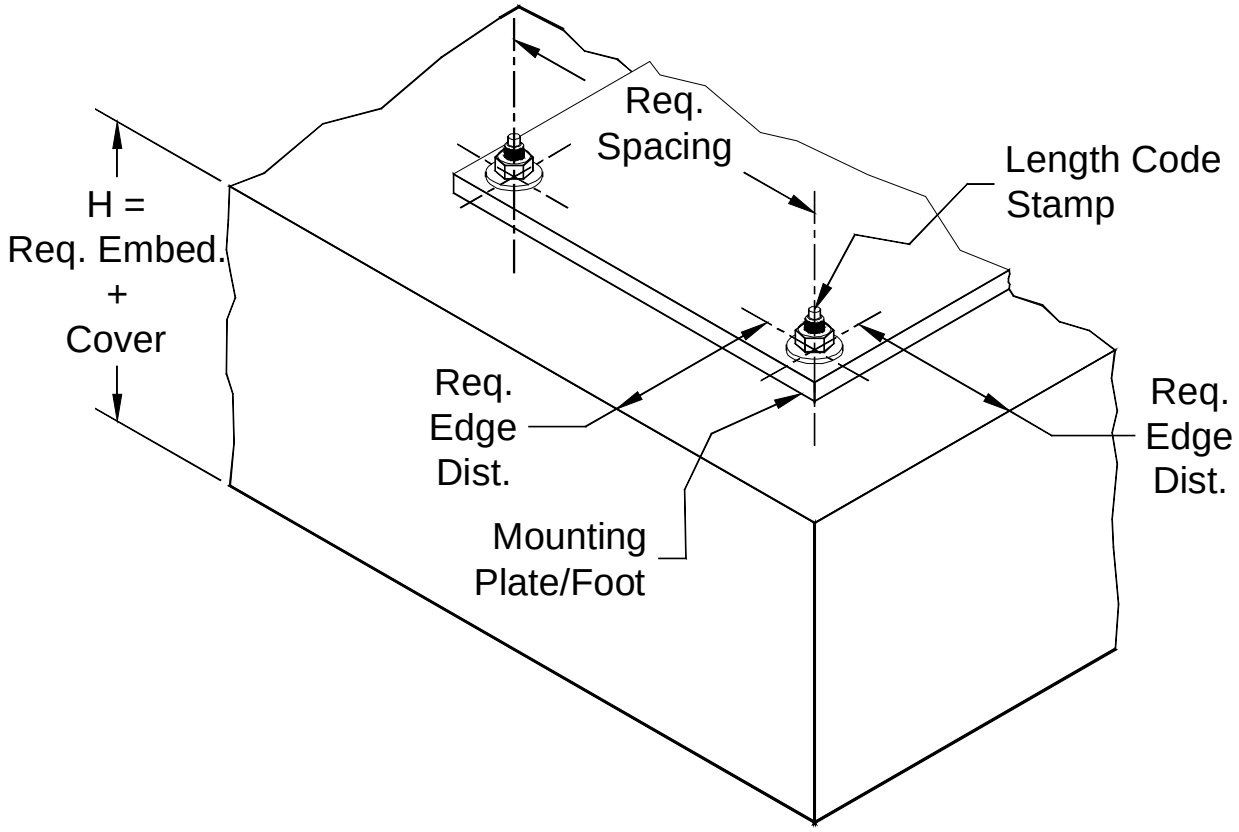

Figure P10.2.2-1: KUAB Type P Undercut Seismic Anchor Placement Guide.

Table P10.2.2-2: KUAB Type P Undercut Seismic Anchor Dimensional Data. (Reference: Figure P10.2.2-2)

Undercut Anchor Model	Anchor Size mm (in)	ΦA mm (in)	B mm (in)	C mm (in)	ΦD mm (in)	ΦE mm (in)	F mm (in)	ΦG mm (in)	H mm (in	Length Code Stamp
KUAB-01	M10 (3/8)	20 (0.79)	107 (4.21)	20 (0.79)	12 (0.47)	10 (0.39)	17 (0.67)	27.5 (1.08)	170 (6.69)	I
KUAB-02	M12 (1/2)	22 (0.87)	135 (5.31)	30 (1.18)	14 (0.55)	12 (0.47)	19 (0.75)	33.5 (1.32)	190 (7.48)	L
KUAB-03	M16 (5/8)	30 (1.18)	203 (7.99)	40 (1.57)	18 (0.71)	16 (0.63)	24 (0.94)	45.5 (1.79)	270 (10.63)	R
KUAB-04	M20 (3/4)	37 (1.46)	266 (10.47)	50 (1.97)	22 (0.87)	20 (0.79)	30 (1.18)	50 (1.97)	350 (13.78)	V

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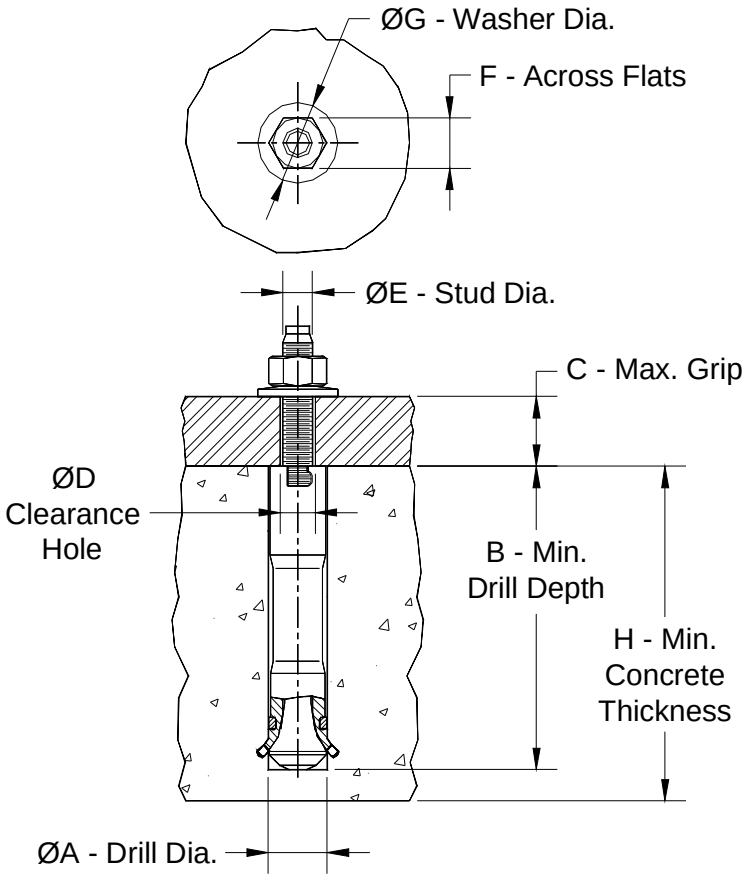

Figure P10.2.2-2: KUAB Type P Undercut Seismic Anchor Installation Guide.

Table P10.2.2-3: Anchor Size vs. Tightening Torque for Standard Weight Concrete.

Undercut Anchor Model	Anchor Size mm (in)	Anchor Tightening Torque N-m (ft-lbs)	Length Code Stamp
KUAB-01	M10 (3/8)	50 (37)	I
KUAB-02	M12 (1/2)	80 (59)	L
KUAB-03	M16 (5/8)	120 (88)	R
KUAB-04	M20 (3/4)	300 (221)	V

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