SLEEKFENCE™

WIND RATINGS TABLE

The tables below are intended as general guidelines for fence post installations. For all projects, certified engineering shall be required before purchase or installation. Extreme weather design, local building departments requirements, or unique site-specific conditions may affect the information presented below. Consult a locally licensed design professional and other relevant advisors for your specific installation.

- These structural calculations are strictly based on SLEEKFENCE™ systems and may not be applied to outside or generic fencing systems.
- Wind force loading and fence design ratings are based on our max screw distances being adhered to when mounting panels to posts (see screw distances chart below), and it assumes posts are securely mounted/set in ground.
- Dig & set post requirements assume that concrete footings are placed to the local frost line depth. Structural engineering is recommended on a per project basis, to determine the best footing design (width, depth, and cement type).
- Direct concrete mount requirements assume that posts are securely fastened to a structurally sufficient concrete host. Structural engineering is also recommended on a per project basis, to determine the best anchor size and type.
- Guard Rails, Balcony Railing, and Pool Fencing requirements may vary per application.

Enter your project address in the link below, to determine your design wind speed (use risk category II speeds). https://hazards.atcouncil.org/

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FENCE POST MOUNTING OPTION #1: DIG & SET POST

6063-T6 Aluminum Post (with 16 GA, A36 Steel Insert Where Indicated) Embedded in Concrete Footings

MAXIMUM ULTIMATE WIND SPEED (3-SEC GUST)		EXPOSURE C (DEFAULT)						
		FENCE HEIGHT						
		46 IN	60 IN	69 IN	84 IN	96 IN	108 IN	120 IN
90 MPH	(145 KMH)	POST	POST	POST	POST	POST	POST	+ INS
100 MPH	(161 KMH)	POST	POST	POST	POST	POST	+ INS	N/A
120 MPH	(194 KMH)	POST	POST	POST	+ INS	+ INS	N/A	N/A
140 MPH	(226 KMH)	POST	POST	POST	N/A	N/A	N/A	N/A
160 MPH	(258 KMH)	POST	POST	+ INS	N/A	N/A	N/A	N/A
MAXIMUM ULTIMATE WIND SPEED (3-SEC GUST)		EXPOSURE D (COASTAL)						
		FENCE HEIGHT						
		46 IN	60 IN	69 IN	84 IN	96 IN	108 IN	120 IN
90 MPH	(145 KMH)	POST	POST	POST	POST	POST	+ INS	N/A
100 MPH	(161 KMH)	POST	POST	POST	POST	+ INS	N/A	N/A
120 MPH	(194 KMH)	POST	POST	POST	+ INS	N/A	N/A	N/A
140 MPH	(226 KMH)	POST	POST	+ INS	N/A	N/A	N/A	N/A
160 MPH	(258 KMH)	POST	+ INS	N/A	N/A	N/A	N/A	N/A

POST = Post alone shall have sufficient strength for Dig & Set installation under this condition.
+INS = Post shall require 16GA Steel C-Channel insert addition to reach required strength for this condition.
N/A = Post and insert is not strong enough for this installation condition. Site specific engineering and solutions are required. Concrete footing size and reinforcement requirements shall be calculated separately on a site-specific basis.

FENCE POST MOUNTING OPTION #2: DIRECT CONCRETE MOUNT

6063-T6 Aluminum Post with steel insert welded to baseplate (Anchored to concrete host)

MAXIMUM ULTIMATE WIND SPEED (3-SEC GUST)		EXPOSURE C (DEFAULT)						
		FENCE HEIGHT						
		46 IN	60 IN	69 IN	84 IN	96 IN	108 IN	120 IN
90 MPH	(145 KMH)	1/8”	1/8”	1/8”	1/8”	1/8”	1/8”	3/16”
100 MPH	(161 KMH)	1/8”	1/8”	1/8”	1/8”	1/8”	3/16”	3/16”
120 MPH	(194 KMH)	1/8”	1/8”	1/8”	3/16”	3/16”	1/4”	1/4”
140 MPH	(226 KMH)	1/8”	1/8”	1/8”	3/16”	1/4”	1/2”	1/2”
160 MPH	(258 KMH)	1/8”	1/8”	3/16”	1/4”	1/2”	1/2”	N/A
MAXIMUM ULTIMATE WIND SPEED (3-SEC GUST)		EXPOSURE D (COASTAL)						
		FENCE HEIGHT						
		46 IN	60 IN	69 IN	84 IN	96 IN	108 IN	120 IN
		REQUIRED INSERT THICKNESS						
90 MPH	(145 KMH)	1/8”	1/8”	1/8”	1/8”	1/8”	3/16”	3/16”
100 MPH	(161 KMH)	1/8”	1/8”	1/8”	1/8”	3/16”	3/16”	1/4”
120 MPH	(194 KMH)	1/8”	1/8”	1/8”	3/16”	3/16”	1/4”	1/2”
140 MPH	(226 KMH)	1/8”	1/8”	3/16”	1/4”	1/2”	1/2”	1/2”
160 MPH	(258 KMH)	1/8”	3/16”	3/16”	1/2”	1/2”	N/A	N/A

Steel post insert height to be 12” for 1/8” thickness inserts. Inserts thicker than 1/8” shall require separate engineering to determine height. (cont. next page).

Concrete footing, slab, or host structure size and applicability shall be calculated on a site-specific basis. Surface attachment requirements shall be calculated on a site-specific basis. Baseplate size, orientation, and utilized anchors may vary with site-specific project parameters and availability.

MOUNTING CHANNEL TO POST SCREW SPACING

Screw spacing applicable for all fence heights
Use #12. Self-drilling screw through mounting channel, post (and post insert)

MAXIMUM ULTIMATE WIND SPEED (3-SEC GUST)		EXPOSURE C (DEFAULT)	EXPOSURE D (COASTAL)
		SCREW SPACING (INCHES, O.C)	
90 MPH	(145 KMH)	24”	24”
100 MPH	(161 KMH)	24”	24”
120 MPH	(194 KMH)	24”	20”
140 MPH	(226 KMH)	20”	16”
160 MPH	(258 KMH)	16”	12”

WIND TABLE NOTES:

Information presented above shall be for general reference of SLEEKFENCE™ systems and does not constitute a site-specific project design.

Before project fabrication and installation, fence system shall be reviewed on a site-specific basis, and include a certified Engineer’s drawing.

Fence post calculations consider a 6’ 4” O.C. Maximum Post Spacing. Greater wind speeds & design conditions may be achievable with shorter post spacing.

Existing host structure suitability for fence attachment shall be determined by the Structural Engineer on a site-specific basis.

Fences used as life-safety guardrails (Adjacent to drop-offs greater than 30”) and surrounding pools are subject to additional codes and requirements.

Visit engineeringexpress.com/wind to learn more about Ultimate Wind Speed, Risk Category, and Exposure Category.