

# KBS1Z™

## Knee-Brace Stabilizer

The KBS1Z knee-brace stabilizer makes a structural connection between knee bracing and columns or beams to help stabilize free-standing structures and comply with many prescriptive deck bracing requirements such as AWC's DCA6 Prescriptive Residential Wood Deck Construction Guide. Factory-formed at a 45° angle and easily installed with nails, the KBS1Z braces 2x, 4x and 6x in line post-to-beam configurations. Check with your local building department for deck bracing requirements.

**Material:** 16 gauge

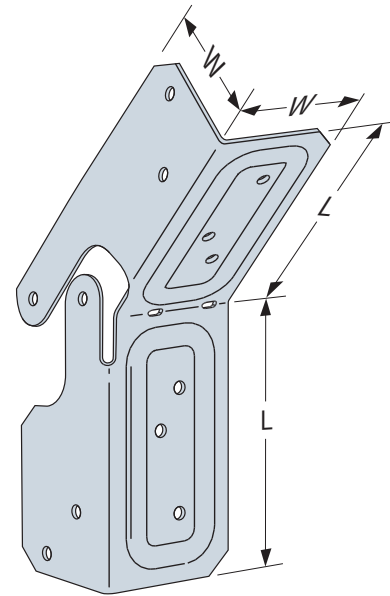
**Finish:** ZMAX® coating

**Installation:**

- Use all specified fasteners; see General Notes.
- For installations at an angle other than 45°, bend KBS1Z along slots to desired angle. Bend one time only.
- **Knee Brace:**
  - Cut braces at desired angle
  - Bend KBS1Z to desired angle if required
  - Install fasteners to secure in place
  - For equal-width members, install (2) KBS1Z on each end of brace (see illustration 1 on p. 313)
  - For 2x knee brace, install single KBS1Z on each end of brace (see illustration 2 on p. 313)
- **Alternate Post Cap Application:**
  - Install in pairs; see illustrations 3 or 4 for quantity and configuration
  - Part used as a column cap; does not replace a knee brace

**Codes:** See p. 13 for Code Reference Key Chart

**Web Applications:** Visit [app.strongtie.com/dps](http://app.strongtie.com/dps) to access our Deck Planner Software™.



**KBS1Z**  
US Patent 9,045,895

These products are available with additional corrosion protection. For more information, see p. 16.

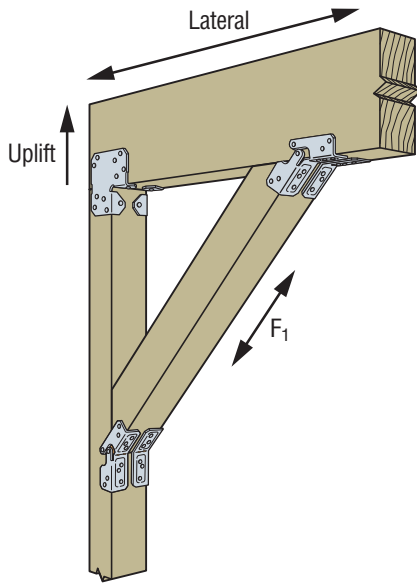
**SD** Many of these products are approved for installation with Strong-Drive® SD Connector screws. See pp. 362–366 for more information.

Model No.	Dimensions (in.)		Type of Connection	Connectors per Joint	Fasteners Each Connector	Direction of Load	Allowable Loads (160)				Code Ref.
	W	L					In-Service Moisture Content				
							≤ 19%		> 19%		
DF/SP	SPF/HF	DF/SP	SPF/HF								
KBS1Z	1½	3	1	2	(12) 0.131 x 2½	F <sub>1</sub> – Brace angle = 45°	1,175	1,010	1,055	860	IBC®, FL, LA
						F <sub>1</sub> – Brace angle = 30° or 60°	835	720	835	720	
			2	1	(12) 0.131 x 1½	F <sub>1</sub> – Brace angle = 45°	630	540	470	385	
						F <sub>1</sub> – Brace angle = 30° or 60°	510	440	395	330	
			3	4	(12) 0.131 x 2½	Uplift	1,160	1,000	1,160	1,000	
						Lateral	1,725	1,480	1,725	1,480	
						Uplift	540	465	540	465	
						Lateral	485	420	430	370	
4	4	(12) 0.131 x 2½	Uplift	900	775	900	775				
			Lateral	1,270	1,095	1,270	1,095				

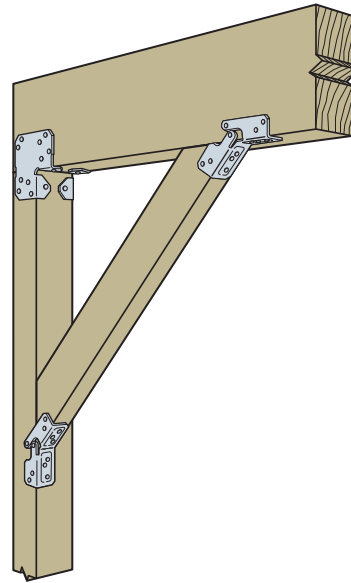
1. Allowable loads have been increased for wind or earthquake loading with no further increase allowed. Reduce where other loads govern.
2. For braces installed at intermediate angles, allowable loads may be interpolated between loads listed for brace angle = 45° and those listed for brace angle = 30° or 60°.
3. #9 x 1½" Strong-Drive SD Connector screws may be substituted for fasteners specified with no load reduction.
4. **Fasteners:** Nail dimensions are listed diameter by length. See pp. 23–24 for fastener information.

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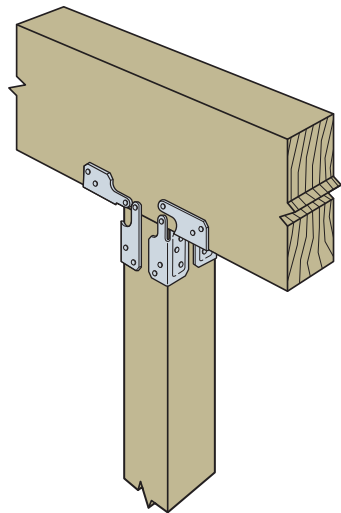
## Knee-Brace Stabilizer (cont.)



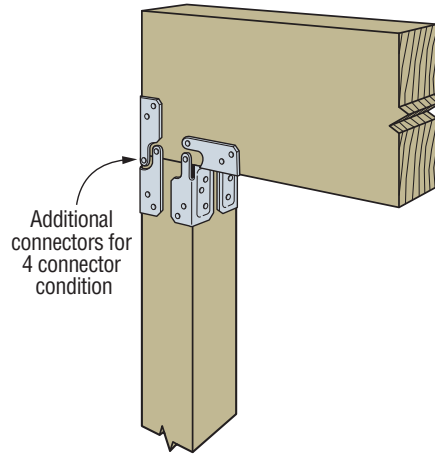
**1** Post-to-Knee Brace Connection  
(same member width)  
Single knee brace shown. Double  
knee brace installation similar.



**2** Post-to-2x Knee  
Brace Connection



**3** Alternate Post Cap Application:  
Continuous Beam



**4** Alternate Post Cap Application:  
Beam End