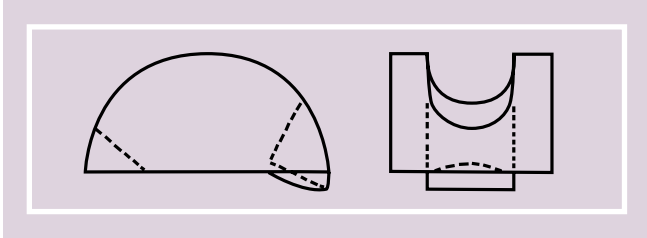




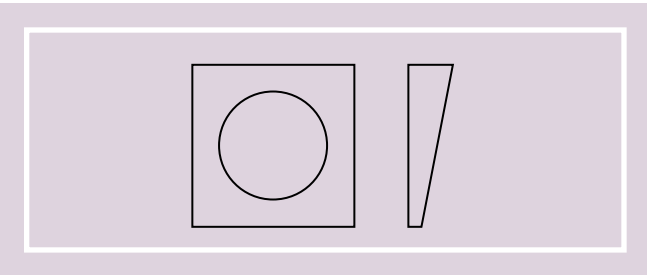
A-325 HEAVY HEX STRUCTURAL BOLT ACCESSORIES

HILLSIDE / SLOPE WASHERS STRUCTURAL SLOPE WASHERS FOR THE METAL BUILDING INDUSTRY



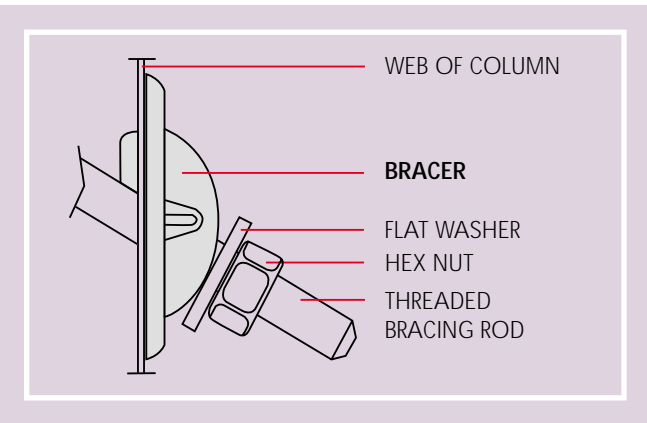
- Cast Iron ASTM A-48-83 CL-30
Available in Hole Sizes 1/2", 5/8", 3/4", 7/8" & 1".
- Cast Iron ASTM A-536-84 Gr. 65-45-12 -
Available in Hole Size 1-1/8".
- Aluminum Hillside washers are also available -
please call for information.

HARDENED BEVEL WASHERS STRUCTURAL BEVELED WASHERS FOR USE WITH A325 & A490 STRUCTURAL BOLTS



- Hardened bevel structural washers are available
to accommodate bolt sizes 1/2" to 1" diameter.
- Supplied in plain finish to ASTM spec f-436-1.
- 1-3/4" x 1-3/4" x 16-2/3° slope.

BRACER® HILLSIDE STYLE WASHERS ANCHORS X-BRACING FOR METAL BUILDINGS



- Available in 4 sizes to accommodate up to 1-1/2" bracing rod.
- Structural quality ductile iron - ASTM 536-84 grade 65 - 45 - 12.
- Elongation - 6° in 2"
- Ultimate tensile 65,000 P.S.I.
- Yield strength (.2° offset) 45,000 P.S.I.
- Bracer washers exceed the load carrying capacity of the x-bracing rods when selected adequately to match the web thickness of the column section.

BRACER	WEB THICKNESS	SLOT SIZE	ROD DIA.	ULTIMATE LOAD
#1	1/8"	1.062 x 2.125	5/8"	20,750#
#2	3/16"	1.312 x 2.625	3/4"	28,800#
#3	1/4"	1.312 x 2.625	1"	39,500#
#4	5/16"	1.625 x 3.500	1-1/2"	71,000#

When calculating loads appropriate safety factors should be employed.

BRACER	BRACER BASE DIMENSIONS	ROD DIAMETER	MAXIMUM ROD ANGLE
#1	3" x 4"	1/2"	50°
		5/8"	47°
#2	3" x 4"	3/4"	50°
		7/8"	47°
#3	3" x 4"	1"	52°
		1-1/8"	50°
		1-1/4"	47°
#4	3" x 4.25	1-3/8"	50°
		1-1/2"	47°

BRACER WASHERS ARE A REGISTERED TRADE MARK OF TRIANGLE FASTENER CORP.