

# HEAVY TIE-THRU FORMING



## S1K STEEL PLATES

WILLIAMS steel plates are standard with a round hole for SHEBOLTS. All holes are punched 1/16" over bolt size.

Available for all tie rods, SHEBOLT or coil bolt diameters. Other sizes on request.

Size (inches)	Size (millimeters)	Weight (lbs.)	Weight (kg.)	Working Load lbs/kN
1/4 x 4 x 4	6 x 100 x 100	1.1	.5	5,000/22.2
1/4 x 6 x 6	6 x 152 x 152	2.4	1.1	6,700/29.8
3/8 x 6 x 6	10 x 152 x 152	3.7	1.7	8,000/35.8
3/8 x 8 x 8	10 x 203 x 203	6.8	3.1	8,000/35.8
1/2 x 5 x 5	13 x 127 x 127	3.3	1.5	18,000/80.0
1/2 x 8 x 8	13 x 203 x 203	9.0	4.1	18,000/80.0
3/4 x 7 x 7	19 x 178 x 178	10.4	4.7	38,000/169.0
3/4 x 8 x 8	19 x 203 x 203	13.6	6.2	38,000/169.0
1 x 9 x 9	25 x 229 x 229	22.0	10.0	50,000/222.4
1 x 12 x 12	25 x 305 x 305	40.0	18.1	50,000/222.4

W.L. based on approximate safety factor of 2:1  
Waler spacing should equal bolt diameter + 1/2"



## H4F & R9F CUT & HARDENED WASHERS

WILLIAMS carries standard cut washers in diameters of 3/8" to 3/4".

The R9F hardened washers are recommended for high torquing or high load application.

Rod Diameter	Part Number	
	Cut Washer	Hardened Washer
3/8" (9.5mm)	H4F-03	-
1/2" (12mm)	H4F-4	R9F-04
5/8" (16mm)	H4F-05	R9F-05436
3/4" (20mm)	H4F-6	R9F-06436
7/8" (22mm)	-	R9F-07436
1" (25mm)	-	R9F-08436
1-1/8" (30mm)	-	R9F-09436
1-1/4" (32mm)	-	R9F-10436
1-3/8" (35mm)	-	R9F-11436
1-1/2" (38mm)	-	R9F-12436
2" (51mm)	-	R9F-16436



## H1F HEX NUTS (Acme & V-Thread)

WILLIAMS H1F hex nuts are heavy nuts designed to hold the strength of the bar. Available to match any WILLIAMS acme or V-thread bar.

V-Thread	Acme Thread
3/8 - 16	3/4 - 5
1/2 - 13	7/8 - 5
5/8 - 11	1 - 5
3/4 - 10	1-1/8 - 5
7/8 - 9	1-1/4 - 5
1 - 8	1-3/8 - 5
1-1/8 - 7	1-1/2 - 5
1-1/4 - 7	1-5/8 - 5
1-3/8 - 8	1-3/4 - 5
1-1/2 - 6	1-7/8 - 5
2 - 6	2 - 5



## R63 ALL-THREAD REBAR HEX NUTS

AT-Rod hex nuts are available for #6 and #7 bar diameters. Hex nuts have a capacity equal to the bar's ultimate strength.



## H1F/B25 COIL HEX NUTS

WILLIAMS H1F Standard coil nuts are available to match any WILLIAMS coil bars. Two nuts are recommended for assurance of a full ultimate strength.

WILLIAMS B25 heavy coil nuts are recommended when assurance of ultimate strength capabilities are required with one nut.

Bolt Dia.-Pitch	H1F STANDARD	B25 HEAVY	
	*S.W.L. LBS/Kn	Length	*S.W.L. LBS/Kn
3/8" - 8	3,675/ 16.5	-	-
1/2" - 6	6,750/ 30.0	1"	9,000/40.0
5/8" - 4 1/2	7,875/ 35.0	-	-
3/4" - 4 1/2	9,000/ 40.0	1-1/2"	19,000/84.5
7/8" - 4-1/2	13,500/ 60.0	-	-
1" - 3 1/2	18,750/ 83.4	2"	37,500/166.8
1-1/8 - 3-1/2	22,500/ 100.0	2-1/4"	45,000/200.1
1-1/4" - 3-1/2	30,000/ 133.4	2-1/2"	60,000/266.8
1-1/2" - 3-1/2	37,500/ 166.8	-	-

\*Working loads based on 2 to 1 safety factor.