

## DYWIDAG THREADBAR® Reinforcing Systems



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## Introduction

DYWIDAG THREADBAR® Reinforcing Steel is available in Grades 75, 80, 100 for sizes #6 through #20, and Grade 75 to #24 and #28. Threadbars conform to the requirements of ASTM A615, except in markings. Threadbars may be shipped to the job in mill lengths or fabricated to specifications.

DYWIDAG THREADBAR® Reinforcing Steel has a continuous rolled-in pattern of thread-like deformations along its entire length. More durable than machined threads, the deformations allow nuts couplers to thread onto a Threadbar at any point along its length.

Threadbars may be epoxy coated in accordance with ASTM A775 or galvanized in accordance to ASTM A123. Threaded accessories for coated bars thread over the coating.

## Advantages of High-Strength THREADBAR® Reinforcement

- Fewer Bars to Handle
- Less Congestion
- Lighter Reinforcement Assemblies
- Faster Construction
- Easy to Install Coupler System
- Can Replace Rebar Terminator with a Bearing Plate with Top and Bottom Nuts

Having to hoist, handle and place a lower volume of reinforcing steel makes installation simpler and faster. And, less congestion results in higher quality concrete placement with reduced risk of consolidation issues. All these advantages result in a reduced volume of steel and shorter construction time leading to a lower overall cost of the reinforced concrete structure.

## Fields of Application

- Concrete Reinforcement
- Micropiles
- Auger Cast Piles
- Caissons
- Drilled Shafts

## DYWIDAG THREADBAR® Properties – Reinforcing Steel per ASTM A615

THREADBAR® Designation	Maximum THREADBAR® Diameter		Minimum Yield Stress (f <sub>y</sub> )		Nominal Cross Section Area (A <sub>s</sub> )		Minimum Yield Load (f <sub>y</sub> x A <sub>s</sub> )		Nominal Weight		
	[mm]	[in]   [mm]	[ksi]   [MPa]	[in <sup>2</sup> ]   [mm <sup>2</sup> ]	[kips]   [kN]	[lbs/ft]   [kg/m]					
<b>GRADE 75, 80 THREADBAR®</b>											
#6	19	0.86   22	75   517	0.44   284	33.0   147	1.50   2.23					
#7	22	0.99   25	75   517	0.60   387	45.0   200	2.04   3.04					
#8	25	1.12   28	75   517	0.79   510	59.3   264	2.67   3.97					
#9	29	1.26   32	75   517	1.00   645	75.0   334	3.40   5.06					
#10	32	1.43   36	75   517	1.27   819	95.3   424	4.30   6.40					
#11	36	1.61   41	75   517	1.56   1,006	117.0   520	5.31   7.90					
#14	43	1.86   47	80   552	2.25   1,452	180.0   801	7.65   11.38					
#18	57	2.50   64	80   552	4.00   2,581	320.0   1,423	13.60   20.24					
#20	63	2.72   69	80   552	4.91   3,168	393.0   1,748	16.70   24.85					
#24*	75	3.18   81	75   517	7.06   4,555	529.5   2,355	24.09   35.85					
#28*	90	3.68   94	75   517	9.62   6,206	721.5   3,209	32.79   48.80					
<b>GRADE 100 THREADBAR®</b>											
#6	19	0.86   22	100   689	0.44   284	44.0   196	1.50   2.23					
#7	22	0.99   25	100   689	0.60   387	60.0   267	2.04   3.04					
#8	25	1.12   28	100   689	0.79   510	79.0   351	2.67   3.97					
#9	29	1.26   32	100   689	1.00   645	100.0   445	3.40   5.06					
#10	32	1.43   36	100   689	1.27   819	127.0   565	4.30   6.40					
#11**	36	1.61   41	100   689	1.56   1,006	156.0   694	5.31   7.90					
#14**	43	1.86   47	100   689	2.25   1,452	225.0   1,001	7.65   11.38					
#18**	57	2.50   64	100   689	4.00   2,581	400.0   1,779	13.60   20.24					
#20**	63	2.72   69	100   689	4.91   3,168	491.0   2,184	16.70   24.85					

Note: Mill length is 60 ft (#6 through #24) and 53 ft for #28.

\* Threadbar sizes not listed by ASTM A 615 but yield strength is in conformance with A615 standard.

\*\* #11, #14, #18 and #20 Threadbars and their Couplers have ICC-ES Evaluation Report Approval ESR-3367.

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## Coupler System

DYWIDAG Couplers and hex nuts develop the full ultimate load of the Threadbar. Slippage of the coupler under stress is controlled by torquing opposing Threadbars together or by using nuts. The magnitude of the torque required varies with the allowable slip and Threadbar size.

The DYWIDAG THREADBAR® reinforcing system offers a simple, reliable and economical splice. A DYWIDAG splice requires less crane time and less labor time for assembly than required for other splices.

Unlike some splices, the DYWIDAG splice may be installed in adverse weather conditions and does not create a fire hazard. Opposing Threadbars need only to be chalk marked before assembly to assure proper engagement, supervision and quality control requirements are minimized.

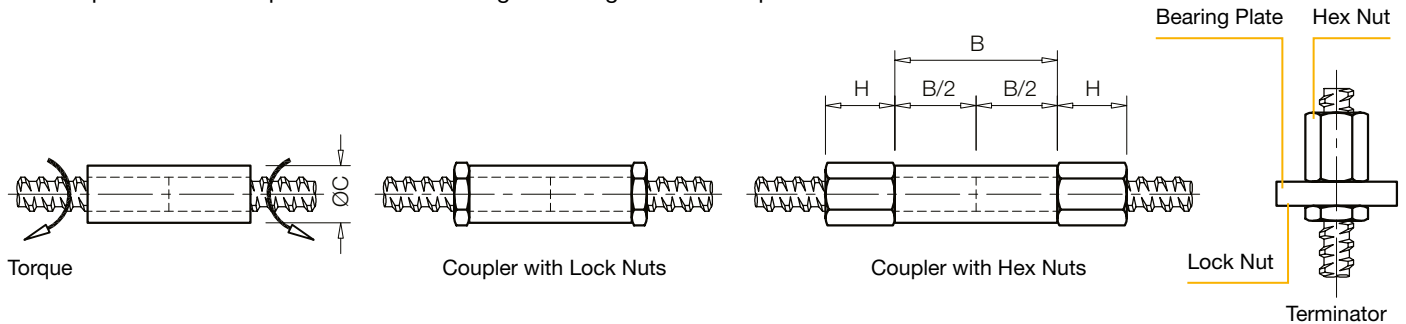
### Coupler with Hexnuts

When opposing threadbars are not torqued together, hex nuts will be used on each end of the coupler and tightened against the coupler.

The splice will develop the full ultimate load of the bar in tension and compression.

### Coupler with Locknuts

Locknuts can also be used each side end of the coupler similar to hex nuts. The splice will develop the full load ultimate load of the bar in tension and about half the ultimate load in compression.



## DYWIDAG THREADBAR® – Reinforcing Steel Hardware Dimensions

THREADBAR® Designation	Hexnut Length H		Coupler Length B		Coupler Outer Diameter ØC	
	[in]	[mm]	[in]	[mm]	[in]	[mm]
<b>GRADE 75, 80 THREADBAR®</b>						
#6	1.43	36	3.12	79	1.22	31
#7	1.71	43	3.73	95	1.41	36
#8	1.84	47	4.03	102	1.59	40
#9	2.30	58	5.02	128	1.79	45
#10	2.56	65	5.70	145	2.02	51
#11	2.89	73	6.37	162	2.25	57
#14	3.55	90	7.82	199	2.65	67
#18	4.23	107	9.35	237	3.50	89
#20	4.85	123	10.38	264	3.86	98
#24	4.10	104	9.20	234	4.75	121
#28	4.80	122	10.61	269	5.38	137
<b>GRADE 100 THREADBAR®</b>						
#6	2.88	73	6.25	159	1.25	32
#7	3.13	80	7.00	178	1.50	38
#8	3.38	86	7.13	181	1.75	44
#9	3.50	89	7.25	184	1.88	48
#10	3.75	95	7.50	191	2.13	54
#11	3.88	99	8.00	203	2.38	60
#14	4.50	114	8.25	210	2.75	70
#18	5.25	133	10.50	267	3.63	92
#20	6.00	152	12.25	311	4.00	102





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