

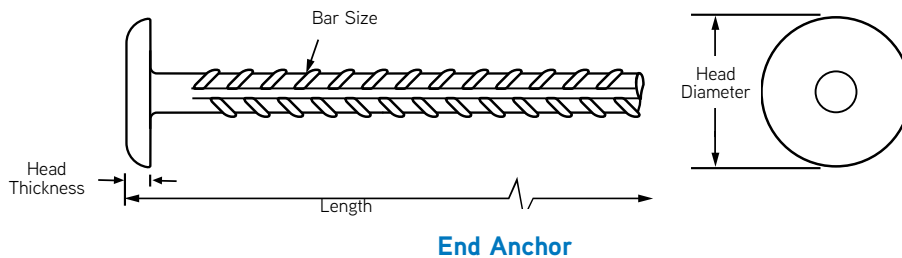
End Anchorage System

The Dayton Superior End Anchorage System is designed to simplify rebar splicing in areas where rebar congestion prevents use of long lap splices or large diameter hooked rebar. The system is designed around a single forge-headed unit in rebar sizes #4 through #11 and is available in various configurations to satisfy numerous applications.

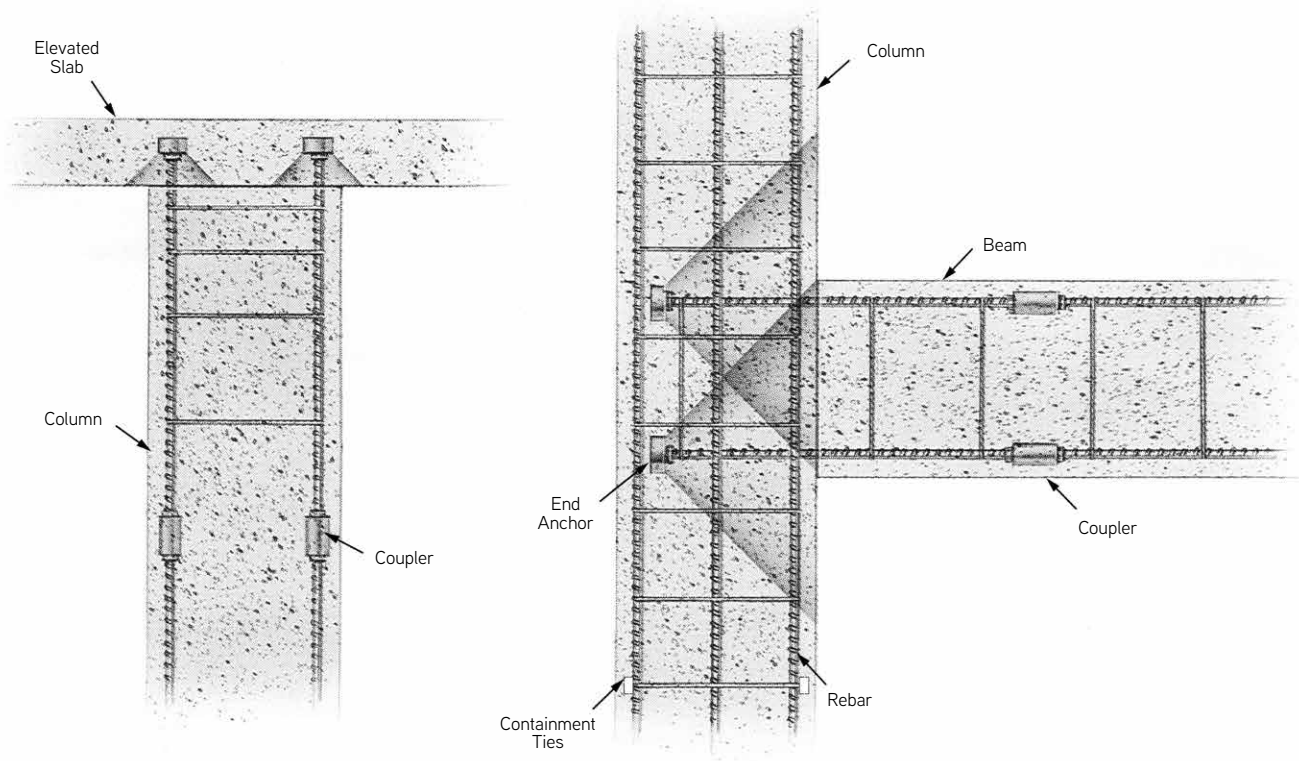
The Dayton Superior End Anchorage System provides a full ductile behavior mode developing ultimate strength capacity of the bars and can be effectively used for end anchoring, stirrup replacements, continuous splicing and heavy anchorage of light standards and other signage.

End Anchorage Advantages:

- Eliminates rebar congestion and aids in concrete placement.
- Eliminates the need for hooked rebar.
- Reduces engineering design time.
- Provides ultimate capacities and simplifies load paths.
- Improves safety related issues on the job site by reducing protruding dowels.
- Conforms to ASTM A-970.



End Anchor



Elevation

Elevation

End Anchorage

D152 DB Column Connector

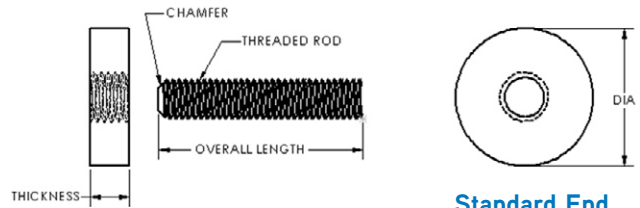
The Dayton Superior D152 DB Column Connector is a 3-piece anchorage system that provides flexibility to the designer for thin slab anchorage connections. The D152 DB is a Full Ultimate end anchor system that provides a compact footprint for use in thin wall columns, walls and slabs where length and anchor diameter of the coupling system must be minimized to meet design space requirements. Additionally, rebar splicing is simplified in areas where rebar congestion prevents the use of long lap splices or large diameter hooked rebar.

Product Features and Benefits:

- Eliminate rebar congestion and aids in concrete placement
- Eliminates need or hooked rebar
- Provides Full Ultimate capacities and simplifies load paths
- Improves safety related issues on the job site by reducing protruding dowels
- Conforms to:
 - ACI 318II Type 2
 - ICC AC-133
 - Cal Trans Ultimate Splice
 - Ministries of Transportation, Canada
 - State Departments of Transportation
 - International Building Code
 - City of Los Angeles Department of Building and Safety
 - USPTO 4,619,096

Product Specifications:

- Extension of DBDI product portfolio
- Accommodates #10 rebar
- Available in plain and epoxy coated
- Configured in standard and custom lengths
- Two anchor diameters available 2-7/8", 3-3/8"



D152 DB Column Connector

Standard End Style



To Order:

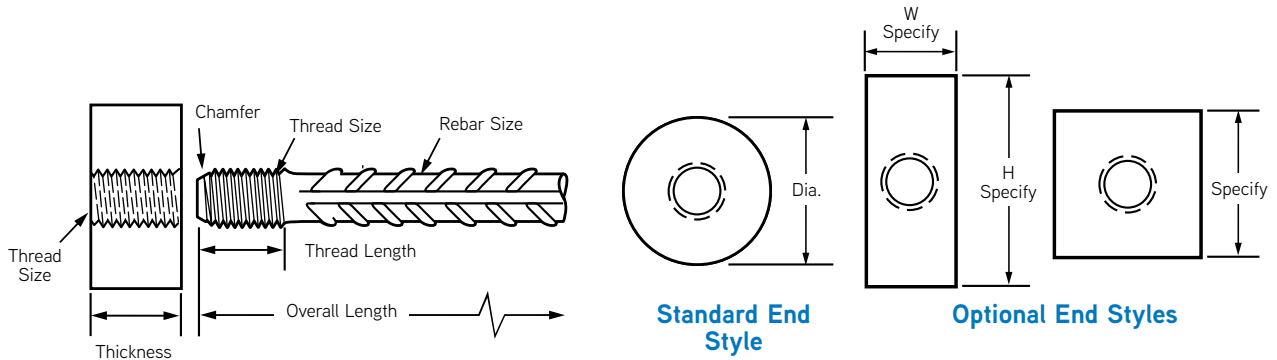
Specify: (1) quantity, (2) name, (3) rebar size, (4) length, (5) Anchor Size (6) finish.

Example:

500 pcs., D152 DB Column Connector, #10 grade 60, 10" OAL, 2-7/8" anchor, Plain.

D158 Two-Piece End Anchor

The Dayton Superior D158 Two-Piece End Anchor consists of a Dowel-In, or splice bar, and a round, square or rectangular anchor plate. The two-piece unit is available in bar sizes #4 through #11 and in various configurations, such as plain, female end, male end and double-ended. The two-piece unit is used effectively for many end anchorage applications where installation restrictions or congestion require the two piece version. The D158 anchor is available in plain or epoxy coated finish. Alternate anchor plate diameters are available. Contact Dayton Superior Technical Assistance for additional information.



D158 Two-Piece End Anchor

Bar Size Designation			Thread Size	Thread Length	Bar Area (sq. in.)	Minimum Plate Area (sq. in.)	Minimum Plate Thickness	Available End Sizes (Dia.)	P _u
US	Metric (mm)	CN (M)							
#4	[13]	[10]	5/8" - 11 UNC	.875"	.200	2.000	.438"	1.8"	18,000
#5	[16]	[15]	3/4" - 10 UNC 1.000"	1.000"	.310	3.100	.500"	2.0"	27,900
#6	[19]	[20]	7/8" - 9 UNC 1.125"	1.125"	.440	4.440	.563"	2.4"	39,600
#7	[22]	-	1" - 8 UNC 1.250"	1.250"	.600	6.000	.625"	2.9"	54,000
#8	[25]	[25]	1-1/8" - 8 UN 1.375"	1.375"	.790	7.900	.625"	3.3"	71,100
#9	[29]	[30]	1-1/4" - 8 UN 1.500"	1.500"	1.000	10.000	.688"	3.6"	90,000
#10	[32]	-	1-7/16" - 8 UN 1.688"	1.688"	1.270	12.700	.750"	4.1"	114,000
#11	[36]	[35]	1-9/16" - 8 UN 1.813"	1.813"	1.560	15.600	.813"	4.5"	140,400

Compatible With All Dayton Superior Splicing Systems

To Order:

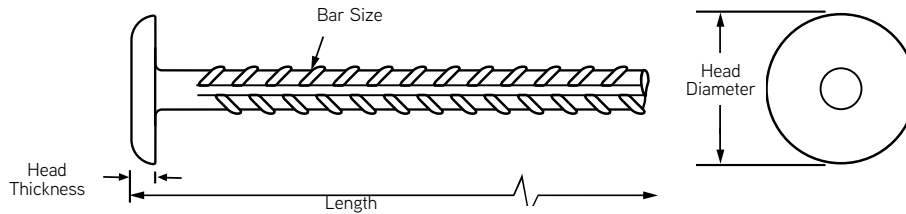
Specify: (1) quantity, (2) name, (3) end style, (4) bar size, (5) overall length.

Example:

500, D158 Two-Piece End Anchors, female end, #8 bar x 24" overall length.

D158B Plain End Anchor

The Dayton Superior D158B Plain End Anchor is a one-piece, forged-head anchor available in bar sizes #4 through #11. The D158B anchor has a plain end and can be furnished in lengths up to 60 feet.



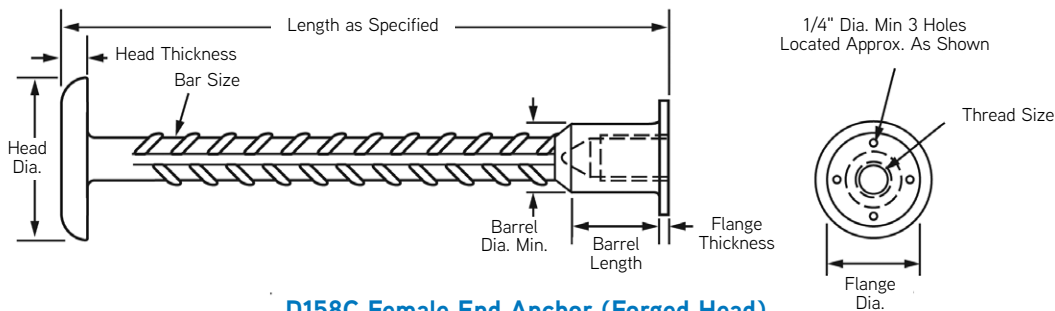
D158B Plain End Anchor (Forged Head)

Bar Size Designation			Bar Diameter	Head Diameter	Head Thickness	P _u
US	Metric (mm)	CN (M)				
#4	[13]	[10]	0.500"	1.596"	.438"	18,000
#5	[16]	[15]	0.625"	1.987"	.500"	27,900
#6	[19]	[20]	0.750"	2.367"	.563"	39,600
#7	[22]	—	0.875"	2.764"	.625"	54,000
#8	[25]	[25]	1.000"	3.172"	.625"	71,100
#9	[29]	[30]	1.128"	3.569"	.688"	90,000
#10	[32]	—	1.270"	4.022"	.750"	114,000
#11	[36]	[35]	1.410"	4.457"	.813"	140,400

Minimum Mfg. Length - 10" overall.

D158C FEMALE END ANCHOR

The Dayton Superior D158C Female End Anchor is similar to the plain anchor except that the end is forged into a female end complete with UNC or UN threads and washer face. This version of the end anchor system is used effectively for continuous splicing, heavy anchorage for signs/light standards, etc. The D158C anchor is available in bar sizes #4 through #11.

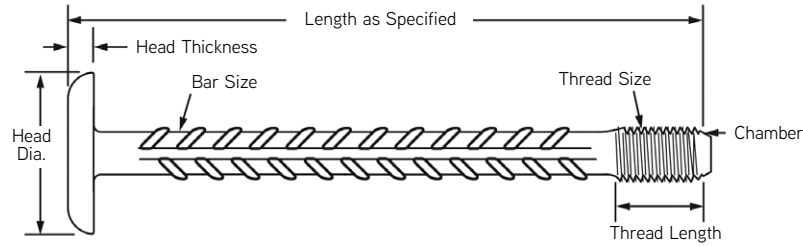


D158C Female End Anchor (Forged Head)

Bar Size Designation			Head Diameter	Bar Diameter	Thickness	Thread Size	Thread Length	Overall Length Min.	P _u
US	Metric (mm)	CN (M)							
#4	[13]	[10]	1.596"	.500"	.438"	5/8" - 11 UNC	0.875"	10.0"	18,000
#5	[16]	[15]	1.987"	.625"	.500"	3/4" - 10 UNC	1.000"	12.5"	27,900
#6	[19]	[20]	2.367"	.750"	.563"	7/8" - 9 UNC	1.125"	15.0"	39,600
#7	[22]	—	2.764"	.875"	.625"	1" - 8 UNC	1.250"	17.5"	54,000
#8	[25]	[25]	3.172"	1.000"	.625"	1-1/8" - 8 UN	1.375"	20.0"	71,100
#9	[29]	[30]	3.569"	1.128"	.688"	1-1/4" - 8 UN	1.500"	22.5"	90,000
#10	[32]	—	4.022"	1.270"	.750"	1-7/16" - 8 UN	1.688"	25.0"	114,000
#11	[36]	[35]	4.457"	1.410"	.813"	1-9/16" - 8 UN	1.813"	27.5"	140,400

D158D Male End Anchor

The Dayton Superior D158D Male End Anchor is similar to the D158C anchor except that the end is furnished with upsized UNC or UN male threads. The D158D anchor is available in bar sizes #4 through #11.

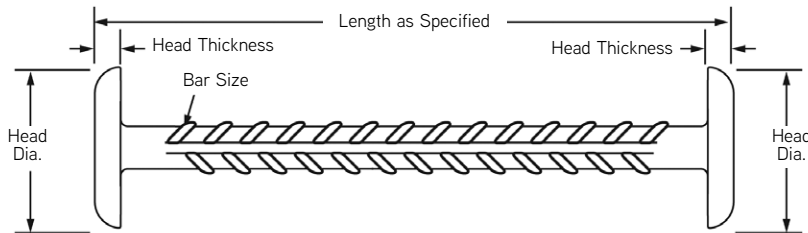


D158D Male End Anchor (Forged Head)

Bar Size Designation			Head Diameter	Bar Diameter	Thickness	Thread Size	Thread Length	Overall Length Min.	P _u
US	Metric (mm)	CN (M)							
#4	[13]	[10]	1.596"	.500"	.438"	5/8" - 11 UNC	.875"	10.0"	18,000
#5	[16]	[15]	1.987"	.625"	.500"	3/4" - 10 UNC	1.000"	12.5"	27,900
#6	[19]	[20]	2.367"	.750"	.563"	7/8" - 9 UNC	1.125"	15.0"	39,600
#7	[22]	—	2.764"	.875"	.625"	1" - 8 UNC	1.250"	17.5"	54,000
#8	[25]	[25]	3.172"	1.000"	.625"	1-1/8" - 8 UN	1.375"	20.0"	71,100
#9	[29]	[30]	3.569"	1.128"	.688"	1-1/4" - 8 UN	1.500"	22.5"	90,000
#10	[32]	—	4.022"	1.270"	.750"	1-7/16" - 8 UN	1.688"	25.0"	114,000
#11	[36]	[35]	4.457"	1.410"	.813"	1-9/16" - 8 UN	1.813"	27.5"	140,400

D158E DOUBLE END ANCHOR

The Dayton Superior D158E Double End Anchor is fabricated with forged heads on both ends of the anchor. The D158E anchor can be used effectively in bulkhead areas of heavy rebar congestion. The D158E anchor is available in bar sizes #4 through #11.

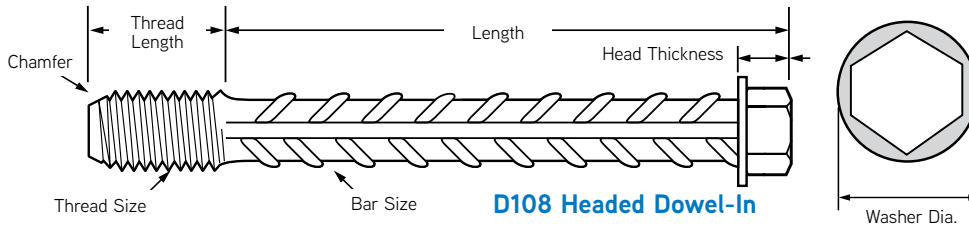


D158E Double End Anchor (Forged Heads)

Bar Size Designation			Head Diameter	Bar Diameter	Thickness	Overall Length Min.	P _u
US	Metric (mm)	CN (M)					
#4	[13]	[10]	1.596"	.500"	.438"	10.0"	18,000
#5	[16]	[15]	1.987"	.625"	.500"	12.5"	27,900
#6	[19]	[20]	2.367"	.750"	.563"	15.0"	39,600
#7	[22]	—	2.764"	.875"	.625"	17.5"	54,000
#8	[25]	[25]	3.172"	1.000"	.625"	20.0"	71,100
#9	[29]	[30]	3.569"	1.128"	.688"	22.5"	90,000
#10	[32]	—	4.022"	1.270"	.750"	25.0"	114,000
#11	[36]	[35]	4.457"	1.410"	.813"	27.5"	140,400

D108 Headed Dowel-In

The Dayton Superior D108 Headed Dowel-In is a length of deformed rebar with one end enlarged by forging and then threaded, and the other end forged into a bolt head configuration. The D108 Headed Dowel-In is designed for use in congested areas where hooked Dowel-Ins cannot be utilized. Standard length of D108 is 12 times the bar diameter. Other lengths available on request.



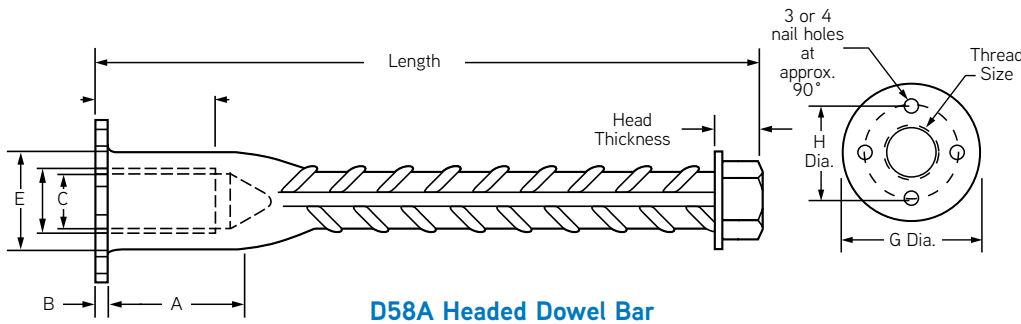
To Order:
Specify: (1) quantity, (2) name, (3) bar size, (4) length.
Example:
500, D108 Headed Dowel-Ins, #6 rebar x 12" long.

Bar Size Designation			Thread Size	Thread Length	Width Across Flats	Washer Diameter	Head Thickness	Min. Length Hex Head Dowel-In
US	Metric (mm)	CN (M)						
#4	[13]	[10]	5/8" - 11 UNC	.875"	—	—	—	6" *
#5	[16]	[15]	3/4" - 10 UNC	1.000"	7/8"	1-1/16"	7/16"	6" *
#6	[19]	[20]	7/8" - 9 UNC	1.125"	1-1/16"	1-1/2"	7/16"	6" *
#7	[22]	—	1" - 8 UNC	1.250"	1-5/16"	1-3/4"	9/16"	6" *
#8	[25]	[25]	1-1/8" - 8 UN	1.375"	1-5/16"	1-3/4"	9/16"	10" *
#9	[29]	[30]	1-1/4" - 8 UN	1.500"	1-3/4"	2-1/8" - 2-1/4"	3/4"	10" *
#10	[32]	—	1-7/16" - 8 UN	1.688"	1-3/4"	2-1/8" - 2-1/4"	3/4"	12" *
#11	[36]	[35]	1-9/16" - 8 UN	1.813"	2-1/16"	2-1/2" - 2-5/8"	7/8"	12" *

* Plus Thread

D108A HEADED DOWEL BAR

The Dayton Superior D108A Headed Dowel Bar is designed to help ease hooked rebar congestion. It has excellent anchorage capacities and can be used for common structural anchoring, such as one-sided forming, light standard support, signs, posts, etc. D108A is available in sizes #4 through #11. Standard lengths for D108A is 12 times the bar diameter. Other lengths available on request.



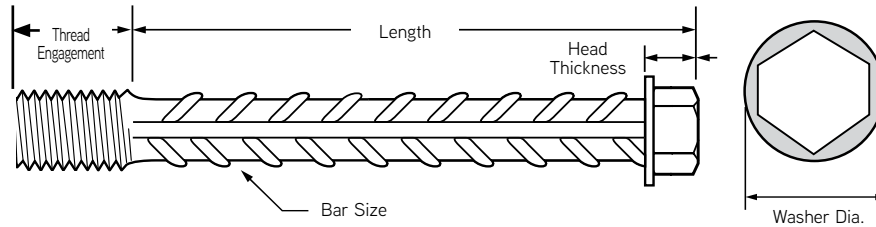
To Order:
Specify: (1) quantity, (2) name, (3) bar size, (4) length.
Example:
500, D108A Headed Dowel Bar, #5 rebar x 9" long.

Bar Size Designation			Thread Size	A	B	C	D	E	G	H	Width Across Flats	Washer Diameter	Head Thickness
US	Metric (mm)	CN (M)											
#4	[13]	[10]	5/8" - 11 UNC	1-1/8"	1/8"	11/16"	55/64	1	1.875	1.375	—	—	—
#5	[16]	[15]	3/4" - 10 UNC	1-9/16"	1/8"	13/16"	1-3/64	1-1/8"	1.563	1.563	7/8"	1-1/16"	7/16"
#6	[19]	[20]	7/8" - 9 UNC	1-11/16"	1/8"	15/16"	1-15/64	1-1/4"	1.750	1.750	1-1/16"	1-1/2"	7/16"
#7	[22]	—	1" - 8 UNC	1-27/32"	1/8"	1-1/16"	1-27/64	1-3/8"	1.938	1.938	1-5/16"	1-3/4"	9/16"
#8	[25]	[25]	1-1/8" - 8 UN	2-1/16"	1/8"	1-3/16"	1-19/32	1-1/2"	2.125	2.125	1-5/16"	1-3/4"	9/16"
#9	[29]	[30]	1-1/4" - 8 UN	2-3/16"	1/8"	1-5/16"	1-25/32	1-5/8"	2.313	2.313	1-3/4"	2-1/8" - 2-1/4"	3/4"
#10	[32]	—	1-7/16" - 8 UN	2-7/16"	1/8"	1-1/2"	2	1-13/16"	2.500	2.500	1-3/4"	2-1/8" - 2-1/4"	3/4"
#11	[36]	[35]	1-9/16" - 8 UN	2-9/16"	1/8"	1-5/8"	2-7/32	1-15/16"	2.750	2.750	2-1/16"	2-1/2" - 2-5/8"	7/8"

End Anchorage

D58 Headed DBR Male Bar

Deformed rebar with one end threaded, and the Dayton Superior D58 Headed DBR Male Bar is a length of deformed rebar with one end enlarged by forging and then threaded, and the other end forged into a bolt head configuration. The D58 Headed DBR Male Bar is designed for use in congested areas where hooked dowel-ins cannot be utilized. Standard length of D58 is 12 times the bar diameter. Other lengths available on request.



D58 Headed DBR Male Bar

To Order:

Specify: (1) quantity, (2) name, (3) bar size, (4) length.

Example:

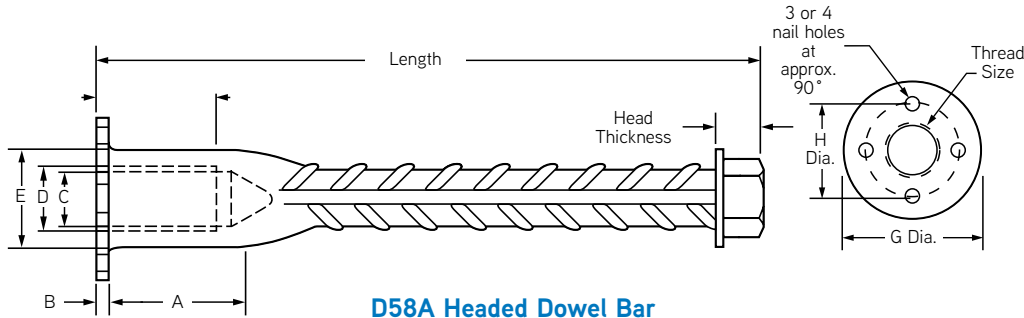
500, D58 Headed DBR Male Bar, #6 rebar x 12" long.

Bar Size Designation			D58 Minimum Length Hex Head Dowel In	Thread Data	Thread Engagement	Width Across Flats	Washer Diameter	Head Thickness
US	Metric (mm)	CN (M)						
#4	[13]	[10]	6" *	1/2" - 13 UNC	3/4"	—	—	—
#5	[16]	[15]	6" *	5/8" - 11 UNC	7/8"	7/8"	1-3/16"	7/16"
#6	[19]	[20]	6" *	3/4" - 10 UNC	1-1/16"	1-1/16"	1-1/2"	7/16"
#7	[22]	—	6" *	7/8" - 9 UNC	1-1/4"	1-5/16"	1-3/4"	9/16"
#8	[25]	[25]	10" *	1" - 8 UNC	1-7/16"	1-5/16"	1-3/4"	9/16"
#9	[29]	[30]	10" *	1-1/8" - 8 UN	1-11/16"	1-3/4"	2-1/8" - 2-1/4"	3/4"
#10	[32]	—	12" *	1-1/4" - 8 UN	1-15/16"	1-3/4"	2-1/8" - 2-1/4"	3/4"
#11	[36]	[35]	12" *	1-3/8" - 8 UN	2-1/16"	2-1/16"	2-1/2" - 2-5/8"	7/8"

* Plus Thread

D58A Headed Dowel Bar

The Dayton Superior D58A Headed Dowel Bar is designed to help ease hooked rebar congestion. It has excellent anchorage capacities and can be used for common structural anchorage, such as one-sided forming, light standard support, signs, posts, etc. The D58A Dowel Bars are available in sizes #4 through #11. Standard lengths for D58A is 12 times the bar diameter. Other lengths available on request.



D58A Headed Dowel Bar

To Order:

Specify: (1) quantity, (2) name, (3) bar size, (4) length.

Example:

500, D58A Headed Dowel Bar, #5 rebar x 9" long.

Bar Size Designation			D58A Minimum Length DB-SAE	Thread Size	A	B	C	D	E	G	H	Width Across Flats	Washer Diameter	Head Thickness
US	Metric (mm)	CN (M)												
#4	[13]	[10]	6" O.A.	1/2-13 UNC	1.125	0.125	0.425	0.731	0.855	1.688	1.188	1.13	1.13	0.44
#5	[16]	[15]	6" O.A.	5/8-11 UNC	1.25	0.125	0.522	0.688	1.042	1.875	1.375	1.13	1.4	0.44
#6	[19]	[20]	6" O.A.	3/4-10 UNC	1.563	0.125	0.657	0.813	1.23	2.063	0.563	1.13	1.67	0.44
#7	[22]	—	7" O.A.	7/8-9 UNC	1.625	0.125	0.771	0.938	1.417	2.250	1.75	1.31	1.95	0.56
#8	[25]	[25]	7" O.A.	1-8 UNC	1.813	0.125	0.882	1.063	1.603	2.438	1.938	1.31	2.24	0.56
#9	[29]	[30]	8" O.A.	1 1/8-8 UN	2.063	0.125	1.007	1.188	1.786	2.625	2.125	1.75	2.52	0.75
#10	[32]	—	12" O.A.	1 1/4-8 UN	2.188	0.125	1.132	1.313	1.982	2.813	2.313	1.75	2.84	0.75
#11	[36]	[35]	12" O.A.	1 3/8-8 UN	2.438	0.125	1.32	1.5	2.219	3.000	2.5	2.06	3.15	0.88

Bar Size Designation			Reinforcing Bar Area (sq. in.)	Minimum Yield (lbs)	Minimum Ultimate (lbs)	Thread Data	Thread Tensile Stress Area (in ²)	125% fy Min. Requirements (lbs)	Minimum Ultimate Tensile Stress (psi)
US	Metric (mm)	CN (M)							
#4	[13]	[10]	0.20	12,000	18,000	1/2-13 UNC	0.1419	15,000	105,708
#5	[16]	[15]	0.31	18,600	27,900	5/8-11 UNC	0.226	26,250	102,876
#6	[19]	[20]	0.44	26,400	39,600	3/4-10 UNC	0.334	33,000	98,802
#7	[22]	—	0.60	36,000	54,000	7/8-9 UNC	0.462	45,000	97,403
#8	[25]	[25]	0.79	47,400	71,100	1-8 UNC	0.606	59,250	97,772
#9	[29]	[30]	1.00	60,000	90,000	1 1/8-8 UN	0.79	75,000	94,937
#10	[32]	—	1.27	76,200	114,300	1 1/4-8 UN	1	95,250	95,250
#11	[36]	[35]	1.56	93,600	140,400	1 3/8-8 UN	1.233	117,000	94,891