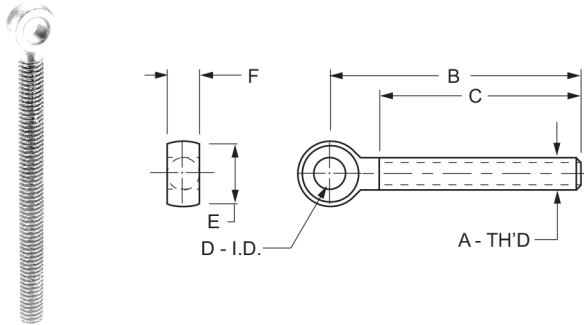


EYE BOLTS

The extended thread length Eye Bolts allows for shortening while maintaining enough to cover many applications.

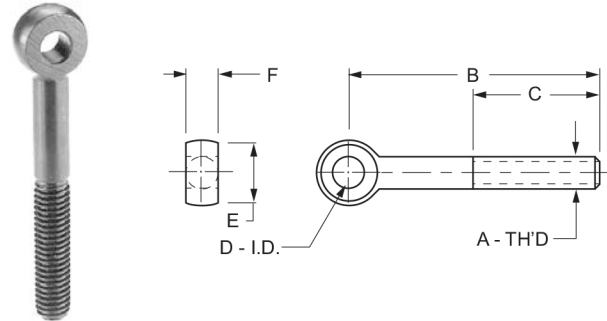


STAINLESS STEEL FULL THREAD TOOLING EYE BOLT						
Extended Thread Length - 304 Stainless Steel						
P/N	DIMENSIONS					
	A	B	C	D	E	F
278-44	1/4-20	3	2-1/4	1/4	1/2	1/4
278-45	5/16-18	4	3-1/4	5/16	5/8	5/16
278-46	3/8-16	5	4-1/4	3/8	3/4	3/8
278-47	1/2-13	5	4	1/2	1	1/2
278-48	5/8-11	6	5-1/4	5/8	1-1/4	5/8
278-49	3/4-10	6	5-1/8	3/4	1-1/2	3/4

Rod End Tooling Eye bolts are ideal for applications not requiring flat contact with the head. They are used as a stationary hinge point for cams or similar items and in applications where the bolt must be pivoted. These can be used with Spherical Flange Assemblies and Clamping Assemblies.

FEATURES & BENEFITS

- Fully machined eyebolt provides tolerance for assembly.

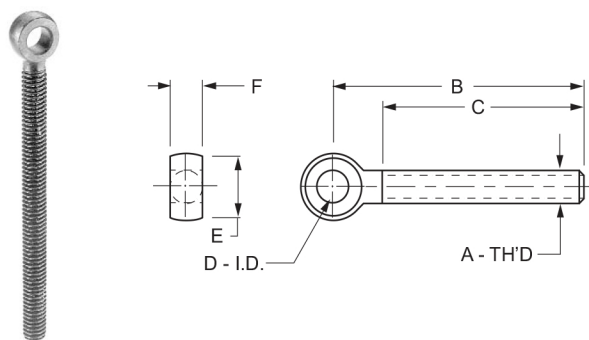


TOOLING EYE BOLT						
Standard Thread Length - Forged Chrom-moly Steel - Black Oxide Finish						
P/N	DIMENSIONS					
	A	B	C	D	E	F
279-00	1/4-20	2	3/4	3/16	1/2	1/4
279-01	1/4-20	3	1-1/4	3/16	1/2	1/4
279-02	5/16-18	3	1-1/2	1/4	5/8	5/16
279-03	5/16-18	4	2	1/4	5/8	5/16
279-04	5/16-18	3	1-1/2	5/16	5/8	5/16
279-05	5/16-18	4	2	5/16	5/8	5/16
279-06	3/8-16	3	1-1/2	5/16	3/4	3/8
279-07	3/8-16	3	1-1/2	3/8	3/4	3/8
279-08	3/8-16	3-3/4	2	3/8	3/4	3/8
279-09	3/8-16	5	2-1/2	3/8	3/4	3/8
279-10	1/2-13	3-3/4	1-1/2	3/8	1	1/2
279-11	1/2-13	5	2	3/8	1	1/2
279-12	5/8-11	4-1/2	2	5/8	1-1/4	5/8
279-13	5/8-11	6	2-1/2	5/8	1-1/4	5/8
279-14	3/4-10	4-1/2	2	3/4	1-1/2	3/4
279-15	3/4-10	6	2-1/2	3/4	1-1/2	3/4
279-16	1-8	10	FULL THREAD	5/8	2	1



EYE BOLTS

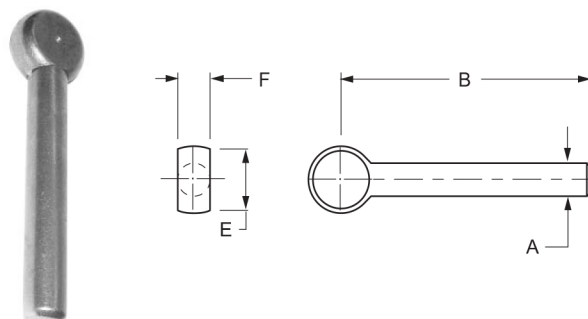
The extended thread length Eye Bolts allows for shortening while maintaining enough to cover many applications.



FULL THREAD TOOLING EYE BOLT						
Extended Thread Length - Forged Chrom-moly Steel - Black Oxide Finish						
P/N	DIMENSIONS					
	A	B	C	D	E	F
279-25	1/4-20	3	2-1/4	3/16	1/2	1/4
279-28	5/16-18	4	3-1/2	5/16	5/8	5/16
279-31	3/8-16	5	4-1/2	3/8	3/4	3/8
279-34	1/2-13	5	4-1/2	3/8	1	1/2
279-37	5/8-11	6	5-1/2	5/8	1-1/4	5/8
279-40	3/4-10	6	5-1/2	3/4	1-1/2	3/4

METRIC TOOLING EYE BOLT						
Extended Thread Length - Forged Chrom-moly Steel - Black Oxide Finish						
P/N	DIMENSIONS					
	A	B	C	D	E	F
279-50	M6	50	40	6	12	6
279-51	M6	75	66	6	12	6
279-52	M8	75	65	8	16	8
279-53	M8	100	90	8	16	8
279-54	M10	75	60	10	20	10
279-55	M10	100	85	10	20	10
279-56	M10	125	110	10	20	10
279-57	M12	100	85	12	24	12
279-58	M12	125	110	12	24	12
279-59	M16	115	95	16	32	16
279-60	M16	150	130	16	32	16
279-61	M20	150	125	20	40	20

The extended thread length Eye Bolts allows for shortening. These Blanks are fully machined to close dimension but are not heat treated. The shank diameter is centerless ground.



BLANK ROD ENDS				
5140 Alloy Carbon Steel - No Surface Finish				
P/N	DIMENSIONS			
	A	B	E	F
279-70	1/4	3	1/2	1/4
279-71	1/4	5-1/4	1/2	1/4
279-72	5/16	3	5/8	5/16
279-73	5/16	6	5/8	5/16
279-74	3/8	2-1/2	3/4	3/8
279-75	3/8	4	3/4	3/8
279-76	1/2	2-1/2	1	1/2
279-77	1/2	6	1	1/2
279-78	5/8	3	1-1/4	5/8
279-79	5/8	6-1/2	1-1/4	5/8
279-80	3/4	4-1/2	1-1/2	3/4
279-81	3/4	5	1-1/2	3/4
279-82	1	4-1/2	2	1

STAINLESS STEEL BLANK ROD ENDS				
304 Series Stainless Steel				
P/N	DIMENSIONS			
	A	B	E	F
279-85	3/8	3	3/4	3/8
279-86	1/2	6	1	1/2
279-87	5/8	6	1-1/4	5/8
279-88	3/4	3-1/2	1-1/2	3/4
279-89	3/4	6	1-1/2	3/4
279-90	7/8	6	1-3/4	7/8
279-91	1	4-1/2	2	1

EYE BOLTS

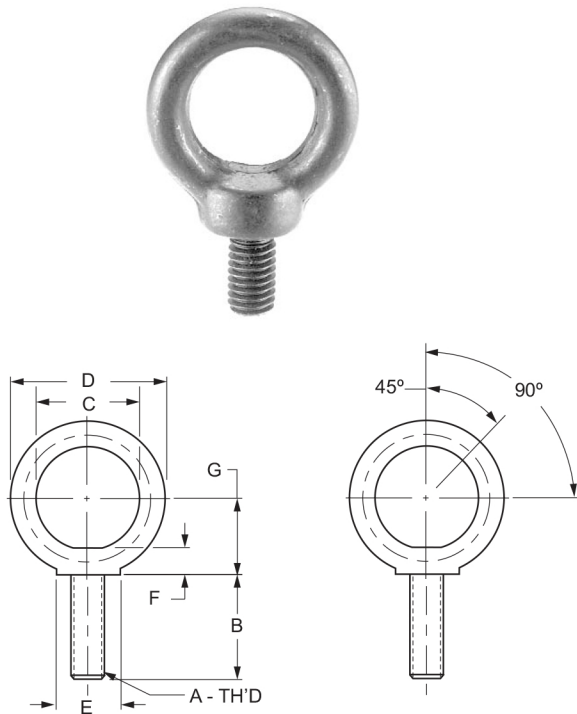
THE IMPROVED SHOULDER BOLT IS ENGINEERED FOR EXTRA STRENGTH AND SAFETY:

Our unique shoulder design counteracts the inadvertent side load giving greater strength on angled pulls. Designing the line of action (pull) closer to the work piece provide additional safety. For protection and easy identification: Inch sizes have a black oxide finish and Millimeter sizes have a gold anodized finish.

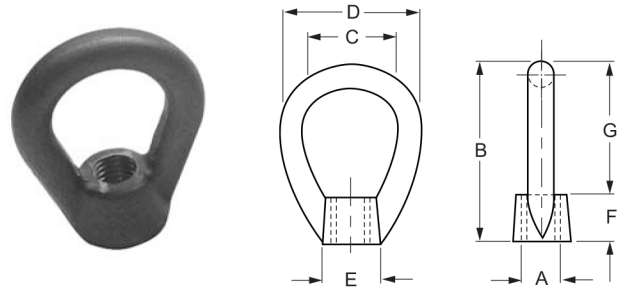
Shoulder eye bolts are designed for straight vertical pulls. General practice for other than vertical load per military standards are:

- 25% of the safe working load for a 45° load from vertical.
- 20% of the safe working load for a 90° load from vertical.

For consistent heavy side load (90°) and where shock load may be anticipated, hoist rings with swiveling and pivoting features are to be used.



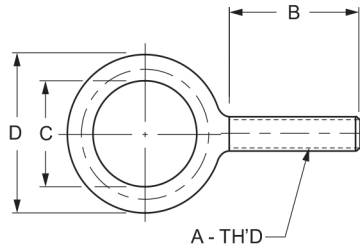
METRIC IMPROVED SHOULDER EYE BOLT								
Gold Anodized Finish								
P/N	DIMENSIONS							SAFE LOAD (LBS)
	A	B	C	D	E	F	G	
280-05	8mmx1.25	9/16	7/8	1-1/4	9/16	5/16	11/16	725
280-15	10mmx1.50	3/4	15/16	1-5/8	13/16	3/8	7/8	1675
280-25	12mmx1.75	7/8	1-3/16	2	1	7/16	1-1/8	2800
280-35	16mmx2.00	1-1/16	1-3/8	2-3/8	1-1/8	9/16	1-1/4	5100
280-45	20mmx2.50	1-3/16	1-1/2	2-5/8	1-3/8	3/4	1-5/16	7000



HEAVY DUTY EYE BOLT								
Forged - Case Hardened								
P/N	DIMENSIONS							SAFE LOAD (LBS)
	A	B	C	D	E	F	G	
280-54	3/8-16	2-1/2	1-1/4	2	7/8	5/8	1-1/2	2700
280-56	1/2-13	2-1/2	1-1/4	2	7/8	5/8	1-1/2	2700
280-58	5/8-11	3	1-1/2	2-1/2	1-3/8	3/4	1-3/4	5000
280-60	3/4-10	3	1-1/2	2-1/2	1-3/8	3/4	1-3/4	5000

IMPROVED SHOULDER EYE BOLT								
Black Oxide Finish								
P/N	DIMENSIONS							SAFE LOAD (LBS)
	A	B	C	D	E	F	G	
280-00	1/4-20	9/16	7/8	1-1/4	9/16	5/16	11/16	725
280-10	3/8-16	3/4	15/16	1-5/8	13/16	3/8	7/8	1675
280-20	1/2-13	7/8	1-3/16	2	1	7/16	1-1/8	2800
280-30	5/8-11	1-1/16	1-3/8	2-3/8	1-1/8	9/16	1-1/4	5100
280-40	3/4-10	1-3/16	1-1/2	2-5/8	1-3/8	3/4	1-5/16	7000

EYE BOLTS & SWING BOLTS



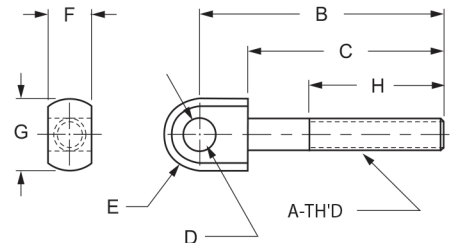
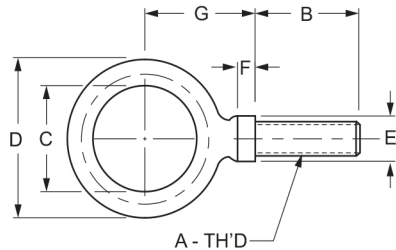
Stainless Steel Eye Bolts are available for use in corrosive or damp areas.

PLAIN EYE BOLT				
Forged				
P/N	DIMENSIONS			
	A	B	C	D
281-00	1/4-20	1	3/4	1-3/16
281-02	5/16-18	1-1/8	7/8	1-7/16
281-05	3/8-16	1-1/4	1	1-21/32
281-07	7/16-14	1-3/8	1-3/32	1-27/32
281-10	1/2-13	1-1/2	1-3/16	2-1/16
281-12	9/16-12	1-5/8	1-9/32	2-9/32
281-15	5/8-11	1-3/4	1-3/8	2-1/2
281-20	3/4-10	2	1-1/2	2-13/16
281-22	7/8-9	2-1/4	1-11/16	3-1/4
281-24	1-8	2-1/2	1-13/16	3-9/16

STAINLESS STEEL SHOULDER EYE BOLT							
Forged							
P/N	DIMENSIONS						
	A	B	C	D	E	F	G
282-05S	3/8-16	1-1/4	1	1-21/32	11/16	3/16	1-3/16
282-10S	1/2-13	1-1/2	1-3/16	2-1/16	7/8	1/4	1-13/32
282-15S	5/8-11	1-3/4	1-3/8	2-1/2	1-1/8	1/4	1-11/16
282-20S	3/4-10	2	1-1/2	2-13/16	1-1/4	5/16	1-13/16
282-24S	1-8	2-1/2	1-13/16	3-9/16	1-9/16	13/32	2-13/32

METRIC SHOULDER EYE BOLT							
Forged							
P/N	DIMENSIONS						
	A	B	C	D	E	F	G
282-30	M10 x 1.50	32	24	40	17	4.7	28
282-32	M12 x 1.75	38	28	50	22	5.5	34
282-34	M14 x 2.00	40	32	56	24	6.0	40
282-36	M16 x 2.00	44	35	62	26	6.0	44
282-38	M20 x 2.50	50	38	75	32	8.0	48

Forged Shoulder Eye Bolts are designed for straight vertical pulls. Safe with working loads drop off to 25% for 45° pulling angles.



SHOULDER EYE BOLT							
Forged							
P/N	DIMENSIONS						
	A	B	C	D	E	F	G
282-00	1/4-20	1	3/4	1-3/16	1/2	3/16	15/16
282-02	5/16-18	1-1/8	7/8	1-7/16	19/32	11/64	31/32
282-05	3/8-16	1-1/4	1	1-21/32	11/16	3/16	1-3/16
282-07	7/16-14	1-3/8	1-3/32	1-27/32	25/32	13/64	1-5/16
282-10	1/2-13	1-1/2	1-3/16	2-1/16	7/8	1/4	1-13/32
282-12	9/16-12	1-5/8	1-9/32	2-9/32	31/32	15/64	1-19/32
282-15	5/8-11	1-3/4	1-3/8	2-1/2	1-1/8	1/4	1-11/16
282-20	3/4-10	2	1-1/2	2-13/16	1-1/4	5/16	1-13/16
282-22	7/8-9	2-1/4	1-11/16	3-1/4	1-7/16	3/8	2-3/16
282-24	1-8	2-1/2	1-13/16	3-9/16	1-9/16	13/32	2-13/32

SWING BOLT								
Case Hardened - Black Oxide Finish								
P/N	DIMENSIONS							
	A	B	C	D	E	F	G	H
284-00	1/4-20	1-1/2	1-3/16	1/4	1/4	5/16	1/2	3/4
284-05	1/4-20	2-1/2	2-3/16	1/4	1/4	5/16	1/2	1-1/4
284-10	5/16-18	2	1-5/8	5/16	5/16	3/8	5/8	1
284-15	5/16-18	3	2-5/8	5/16	5/16	3/8	5/8	1-3/8
284-20	3/8-16	2-1/2	2	3/8	3/8	1/2	3/4	1-3/8
284-25	3/8-16	3-1/2	3	3/8	3/8	1/2	3/4	2
284-30	1/2-13	3-1/8	2-1/2	1/2	1/2	5/8	1	1-3/4
284-35	1/2-13	4-1/8	3-1/2	1/2	1/2	5/8	1	2-1/4
284-40	5/8-11	3-1/2	2-3/4	5/8	5/8	3/4	1-1/4	1-3/4
284-45	5/8-11	4-3/4	4	5/8	5/8	3/4	1-1/4	2-1/2
284-47	3/4-10	4-1/2	3-5/8	3/4	3/4	7/8	1-1/2	2
284-49	3/4-10	6	5-1/8	3/4	3/4	7/8	1-1/2	3