

## Fig. 142

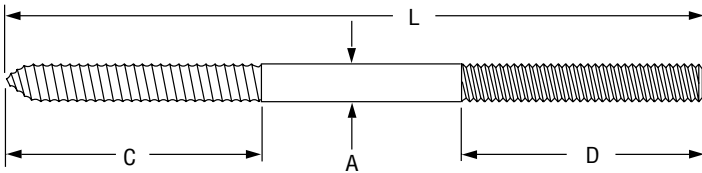
### Coach Screw Rods Machine Threaded on Opposite End

**Size Range:**  $\frac{3}{8}$ " and  $\frac{1}{2}$ "

**Material:** Carbon steel

**Finish:** Plain

**Ordering:** Specify rod size, figure number, name and rod length.



**FIG. 142: STANDARD THREAD LENGTHS (IN) • LOADS (LBS)**

Rod Size A	Standard Length - L	Coach Screw Thread Length - C	Standard Rod Thread Length - D	Max Load
$\frac{3}{8}$	$3\frac{1}{2}$	2	$\frac{3}{4}$	390
	8		$2\frac{1}{2}$	
$\frac{1}{2}$	$3\frac{1}{2}$	$2\frac{7}{16}$	$\frac{3}{4}$	640
	8		$2\frac{1}{2}$	

## Fig. 146

### Continuous Threaded Rod

**Size Range:**  $\frac{1}{4}$ " through  $1\frac{1}{2}$ " Stocked in six, ten, and twelve foot lengths. Other even foot lengths can be furnished to order.

**Material:** Carbon steel or Stainless Steel Gr 304

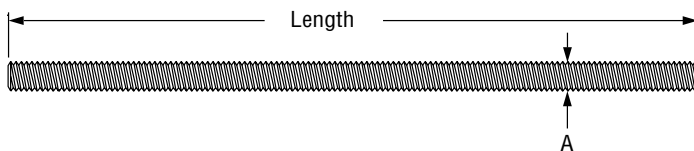
**Threads:** National Coarse (USS), rod threaded complete length.

**Finish:** Plain or Galvanized.

**Maximum Temperature:** 650° F.

**Ordering:** Specify rod diameter and length, figure number, name and finish.

**Note:** The acceptability of galvanized coatings at temperatures above 450°F is at the discretion of the end user.



**FIG. 146:  
LOADS (LBS) • WEIGHTS (LBS) • DIMENSIONS (IN)**

Rod Size A	Threads per Inch	Max Load 650° F	Weight per Ft.
$\frac{1}{4}$	20	240	0.12
$\frac{3}{8}$	16	730	0.30
$\frac{1}{2}$	13	1,350	0.53
$\frac{5}{8}$	11	2,160	0.84
$\frac{3}{4}$	10	3,230	1.20
$\frac{7}{8}$	9	4,480	1.70
1	8	5,900	2.30
$1\frac{1}{4}$	7	9,500	3.60
$1\frac{1}{2}$	6	13,800	5.10

Note: Other rod sizes available upon request. Class 2 fit is available upon request.

## Fig. 140: Right-hand Threads

## Fig. 253: Right and Left hand Threads

## Machine Threaded Rods Threaded Both Ends

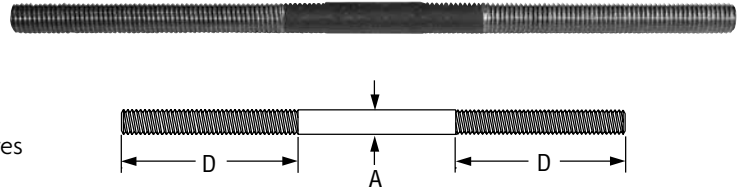
**Size Range:** 3/8" through 5"

**Material:** Carbon steel

**Finish:** Plain or Galvanized

**Ordering:** Specify rod size, figure number, name, rod length and finish. Specify thread length if other than standard.

**Note:** The acceptability of galvanized coatings at temperatures above 450°F is at the discretion of the end user.



Rod Size A	Threads per Inch	Max Load		Standard Rod Thread Length D*
		650° F	750° F	
3/8	16	730	572	2 1/2
1/2	13	1,350	1,057	
5/8	11	2,160	1,692	
3/4	10	3,230	2,530	3
7/8	9	4,480	3,508	3 1/2
1	8	5,900	4,620	4
1 1/4	7	9,500	7,440	5
1 1/2	6	13,800	10,807	6
1 3/4	5	18,600	14,566	7
2	4 1/2	24,600	19,265	8
2 1/4	4 1/2	32,300	25,295	9
2 1/2	4	39,800	31,169	10

Rod Size A	Threads per Inch	Max Load		Standard Rod Thread Length D*
		650° F	750° F	
2 3/4	4	49,400	38,687	11
3	4	60,100	47,066	12
3 1/4	4	71,900	56,307	13
3 1/2	4	84,700	66,331	14
3 3/4	4	98,500	77,139	15
4	4	113,400	88,807	
4 1/4	4 UN	129,400	101,337	18
4 1/2	4 UN	146,600	114,807	
4 3/4	4 UN	164,700	128,982	
5	4 UN	184,000	144,096	

\*Fig. 140 rod up to 1" rod size and 24" in length may be furnished as Fig 146 rod unless order states that all thread rod is not acceptable.  
\*3/8" - 4" Diameter: UNC-2A CLASS fit.

## Fig. 248: Right Hand Threads

## Fig. 248L: Left Hand Threads

## Eye Rod Not Welded

**Size Range:** 3/8" through 2 1/2"

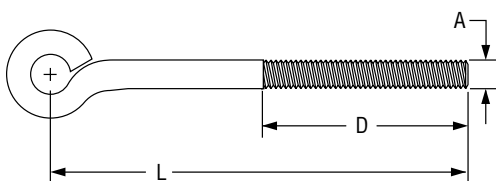
**Material:** Carbon steel

**Finish:** Plain or Galvanized.

**Maximum Temperature:** 650° F

**Features:** Through 1 1/2", inside diameter of eye will accommodate a bolt diameter 1/8" larger than rod diameter; 1 3/4" and larger, inside diameter of eye will take a bolt diameter 1/4" larger than rod diameter.

**Ordering:** Specify rod diameter, figure number, name, rod length and finish. Specify thread length if other than standard.



Rod Size A	Standard Rod Thread Length - D	L (min)	Max Load 650° F
3/8	2 1/2	4 1/4	240
1/2		4 1/2	705
5/8			
3/4	3	5 1/2	1,050
7/8	3 1/2	6 1/2	1,470
1	4	7 1/4	1,940
1 1/4	5	8 1/4	3,120
1 1/2	6	10	4,650
1 3/4	7	12	6,380
2	8	14	8,280
2 1/4	9	15 1/2	10,900
2 1/2	10	17	13,400

# HANGER RODS

## Fig. 278: Right Hand Threads Fig. 278L: Left Hand Threads

### Eye Rod Welded

**Size Range:**  $\frac{3}{8}$ " through  $2\frac{1}{2}$ "

**Material:** Carbon steel

**Finish:** Plain or Galvanized

**Features:** Through  $1\frac{1}{2}$ ", inside diameter of eye will accommodate a bolt diameter  $\frac{1}{8}$ " larger than rod diameter;  $1\frac{3}{4}$ " and larger, inside diameter of eye will take a bolt diameter  $\frac{1}{4}$ " larger than rod diameter.

**Maximum Temperature:** 750° F

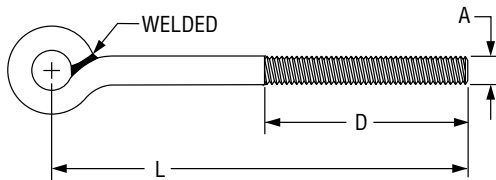
**Ordering:** Specify rod diameter, figure number, name, rod length and finish. Specify thread length if other than standard.

**Note:** The acceptability of galvanized coatings at temperatures above 450° F is at the discretion of the end user.



**FIG. 278, FIG. 278L:  
LOADS (LBS) • DIMENSIONS (IN)**

Rod Size A	Standard Rod Thread Length - D	L (min)	Max Load	
			650° F	750° F
$\frac{3}{8}$	2½	4¼	730	572
$\frac{1}{2}$			1,350	1,057
$\frac{5}{8}$		4½	2,160	1,692
$\frac{3}{4}$	3	5½	3,230	2,530
$\frac{7}{8}$	3½	6½	4,480	3,508
1	4	7¼	5,900	4,620
1¼	5	8¼	9,500	7,440
1½	6	10	13,800	10,807
1¾	7	12	18,600	14,566
2	8	14	24,600	19,265
2¼	9	15½	32,300	25,295
2½	10	17	39,800	31,169



## Fig. 248X: Not Welded Fig. 278X: Welded

### Linked Eye Rods

**Size Range:**  $\frac{3}{8}$ " through  $2\frac{1}{2}$ "

**Service:** The use of linked eye rods in a hanger assembly allows universal movement of the piping without bending and possible fracture of a straight rod.

**Finish:** Plain or Galvanized

**Maximum Temperature:** Fig. 248X: 650° F, Fig. 278X: 750° F

**Ordering:** Specify the size, length of each eye rod, figure number and finish.

**Example:**

$\frac{7}{8}$ " Fig. 278X linked welded eye rod consisting of:

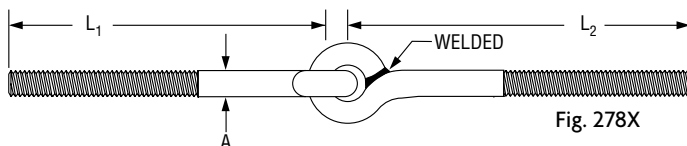
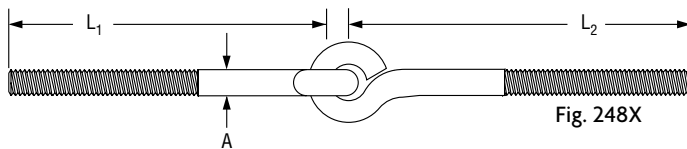
(L1)  $\frac{7}{8}$ " Fig. 278 welded eye rod 1 ft.  $2\frac{1}{2}$  in. long, center to end.

(L2)  $\frac{7}{8}$ " Fig. 278 welded eye rod 1 ft.  $2\frac{1}{2}$  in. long center to end.



**FIG. 248X, 278X:  
DIMENSIONS (IN) • LOADS (LBS)**

Rod Size A	Max Load		
	Fig. 248X 650° F	Fig. 278X	
		650° F	750° F
$\frac{3}{8}$	240	730	572
$\frac{1}{2}$	440	1,350	1,057
$\frac{5}{8}$	705	2,160	1,692
$\frac{3}{4}$	1,050	3,230	2,530
$\frac{7}{8}$	1,470	4,480	3,508
1	1,940	5,900	4,620
1¼	3,120	9,500	7,440
1½	4,650	13,800	10,807
1¾	6,380	18,600	14,566
2	8,280	24,600	19,265
2¼	10,900	32,300	25,295
2½	13,400	39,800	31,169



## Fig. 148

Rod with Eye End

**Size Range:** 2 3/4" through 5"

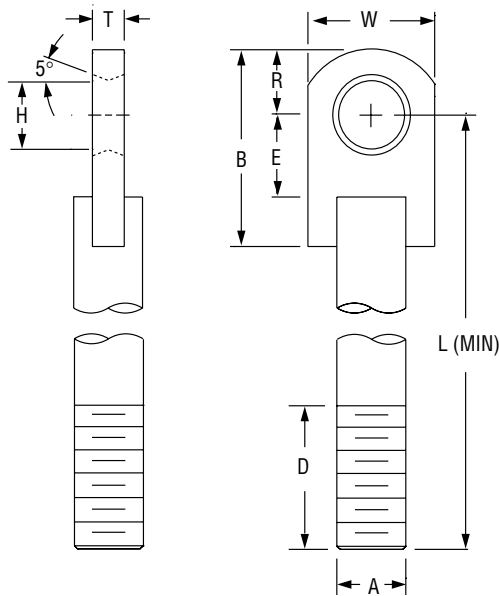
**Material:** Carbon steel

**Finish:** Plain or Galvanized

**Service:** A large diameter rod with eye end for load ratings thru 184,000 pounds.

**Ordering:** Specify rod size, figure number, name, finish and "L" dimension. Indicate if desired thread length is other than standard.

**Note:** The acceptability of galvanized coatings at temperatures above 450°F is at the discretion of the end user.



**FIG. 148: LOADS (LBS) • WEIGHTS (LBS) • DIMENSIONS (IN)**

Rod Size A	Max Load		Weight* Min Length	Weight/Ft. Additional Length	B	D	E	H	L (Min)	R	T	W
	650° F	750° F										
2 3/4	49,400	38,687	35.9	20	9 5/8	12	3 3/4	3 1/8	19	3 5/8	1 1/2	6
3	60,100	47,066	42.9	24	11		4	3 3/8	20	4		
3 1/4	71,900	56,307	54.7	28	12 1/4			3 5/8	21	4 1/4		
3 1/2	84,700	66,331	67.3	33	12 1/2	15	4 3/4	3 7/8	24	4 1/2	2	7
3 3/4	98,500	77,139	80.0	37	13 3/8		5	4 1/8	25	4 7/8		
4	113,400	88,807	97.0	43	15 1/8			4 3/8	26	5 1/8		
4 1/4	129,400	101,337	127.0	48	16 1/4	18	5 1/4	4 5/8	30	5 1/2	2 1/2	9 1/2
4 1/2	146,600	114,807	131.0	54	16		5 3/4	4 7/8		31		
4 3/4	164,700	128,982	154.0	60	17			5 1/8	31	6		
5	184,000	144,096	175.0	67	17 3/8	6 1/4	5 3/8	32	6 3/8	6	2 1/2	10

\*Weight calculated with minimum "L" for standard thread • Furnished with 4 UN series threads

# ROD ATTACHMENTS

**Fig. 135: Straight with Sight-Hole**

**Fig. 135E: Straight Less Sight-Hole**

**Fig. 135R: Reducing**

**Size Range:** 1/4" through 1"

**Material:** Carbon steel

**Finish:** Fig. 135: Plain; Fig.135E and Fig.135R Galvanized

**Service:** For connecting rods to accommodate up to 1" diameter and support up to 5,900 pounds.

**Ordering:** Specify rod size, figure number and name.

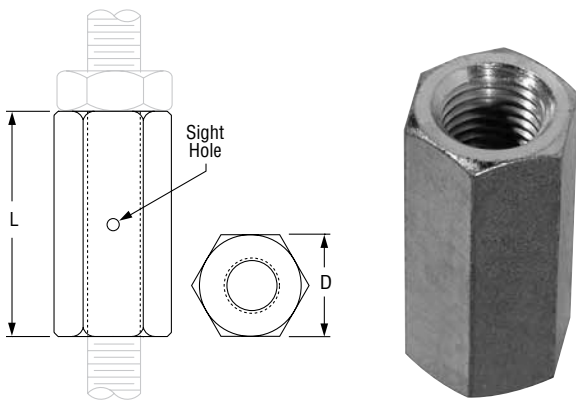


FIG 135, 135E, 135R: LOADS (LBS) • WEIGHTS (LBS) • DIMENSIONS (IN)				
Rod Size A	Max Load	Weight	D	L
<b>Fig. 135: Straight With Sight-Hole</b>				
3/8	730	0.09	9/16	1 1/8
1/2	1,350	0.12	3/4	1 1/2
5/8	2,160	0.24	19/16	1 7/8
3/4	3,230	0.42	1 1/8	2 1/4
7/8	4,480	0.66	1 5/16	2 5/8
1	5,900	1.00	1 1/2	3
<b>Fig. 135E: Straight Less Sight-Hole</b>				
1/4	240	0.03	3/8	7/8
3/8	730	0.09	5/8	1 1/8
1/2	1,350	0.14	1 1/16	1 3/4
5/8	2,160	0.26	19/16	2 1/8
3/4	3,230	0.34	1	2 1/4
7/8	4,480	0.55	1 1/4	2 1/2
1	5,900	0.75	1 3/8	2 3/4
<b>Fig. 135R: Reducing</b>				
3/8 x 1/4	240	0.13	5/8	1 1/2
1/2 x 3/8	730	0.13	1 1/16	1 1/4
5/8 x 1/2	1,350	0.19	19/16	1 1/4
3/4 x 5/8	2,160	0.26	1	1 1/2
7/8 x 3/4	3,230	0.41	1 1/4	1 3/4

**Fig. 136: Straight**

**Fig. 136R: Reducing**



## Rod Coupling

**Size Range:** 1/4" through 1"

**Material:** Malleable iron

**Finish:** Plain or Galvanized

**Service:** For connecting rod lengths within limitation.

**Approvals:** Fig. 136: UL, ULC Listed (3/8" - 7/8" rod size) and FM Approved (3/8" and 1/2" rod size). Fig. 136R: UL Listed (1/2" and 3/8" rod size).

**Features:**

- Available in reducing sizes.
- Provides visual inspection of thread engagement.
- Uniform strength; good appearance.

**Ordering:** Specify rod tapping size, figure number and name. Furnished with right-hand UNC threads only.

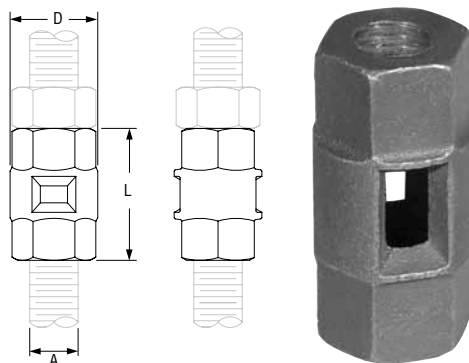


FIG. 136, 136R: LOADS (LBS) • WEIGHTS (LBS) • DIMENSIONS (IN)				
Rod Size A	Max Load	Weight	L	D
<b>Straight: Fig. 136</b>				
1/4	230	0.06	1 3/8	5/8
3/8	730	0.10	1 5/8	1 1/16
1/2	1,350	0.20	2 1/8	1 5/16
5/8	2,160	0.33	2 1/2	1 1/8
3/4	3,230	0.44	2 5/8	1 1/4
7/8	4,480	0.96	3 3/16	1 5/8
1	5,900	0.94	2 3/4	1 13/16
<b>Reducing: Fig. 136R</b>				
3/8 x 1/4	230	0.10	1 5/8	1 5/8
1/2 x 3/8	730	0.21	2 1/8	2 1/8