

# WIRE ROPE END TERMINATIONS



**SEDRA MARINE**

FRANCE

Tél. : + 33 (0) 5 62 28 32 52 - Fax : + 33 (0) 5 62 28 40 68

e-mail : [info@sedra-marine.fr](mailto:info@sedra-marine.fr) - Site : <http://www.sedramarine-ard.com>



# WIRE ROPE END TERMINATIONS

## Forged wire rope clips

### WARNINGS AND APPLICATION INSTRUCTIONS

Efficiency ratings for wire rope end terminations are based upon the catalog breaking strength of wire rope. The efficiency rating of a properly prepared loop or thimble - eye termination for clip sizes 1/8" through 7/8" is 80%, and for sizes 1" through 3-1/2" is 90%.

The number of clips shown is based upon using RRL or RLL wire rope, 6x19 or 6x37 Class, FC or IWRC; IPS or XIP. If Seale construction or similar large outer wire type construction in the 6x19 Class is to be used for sizes 1 inch and larger, add one additional clip. If a pulley (sheave) is used for turning back the wire rope, add one additional clip.

The number of clips shown also applies to rotation - resistant RRL wire rope, 8x19 Class, IPS, XIP, sizes 1-1/2 inch and smaller ; and to rotation-resistant RRL wire rope, 19x7 Class, IPS, XIP, sizes 1-3/4 inch and smaller.

For other classes of wire rope not mentioned above, we recomend contacting us at the address or telephone number on the back cover to ensure the desired efficiency rating.

For elevator, personnel hoist, and scaffold applications, refer to ANSI A17.1 and ANSI A10.4. These standards do not recomend U-Bolt style wire rope clip terminations. The style wire rope termination used for any application is the obligation of the user.

### IMPORTANT

Apply first load to test the assembly. This load should be of equal or greater weight than loads expected in use. Next, check and retighten nuts to recommanded torque. In accordance with good rigging and maintenance practices,

Clip size (Inches)	Rope size (Inches)	Minimum number of clips	Amount of rope to turn back (in.)	*Torque in Ft. Lbs.
1/8	1/8	2	3-1/4	4.5
3/16	3/16	2	3-3/4	7.5
1/4	1/4	2	4-3/4	15
5/16	5/16	2	5-1/4	30
3/8	3/8	2	6-1/2	45
7/16	7/16	2	7	65
1/2	1/2	3	11-1/2	65
9/16	9/16	3	12	95
5/8	5/8	3	12	95
3/4	3/4	4	18	130
7/8	7/8	4	19	225
1	1	5	26	225
1 - 1/8	1 - 1/8	6	34	225
1 - 1/4	1 - 1/4	7	44	360
1 - 3/8	1 - 3/8	7	44	360
1 - 1/2	1 - 1/2	8	54	360
1 - 5/8	1 - 5/8	8	58	430
1 - 3/4	1 - 3/4	8	61	590
2	2	8	71	750
2 - 1/4	2 - 1/4	8	73	750
2 - 1/2	2 - 1/2	9	84	750
2 - 3/4	2 - 3/4	10	100	750
3	3	10	106	1200
3 - 1/2	3 - 1/2	12	149	1200

### WARNING !!!

Failure to read, understand, and follow these instructions may cause death or serious injury.

Read and understand these instructions before using clips.

Match the same size clip to the same size wire rope.

Prepare wire rope end termination only as instructed.

Do not use with plastic coated wire rope.

Apply first load to test the assembly. This load should be of equal or greater weight than loads expected in use.

\* The tightening torque values shown are based upon the threads being clean, dry, end free of lubrication.

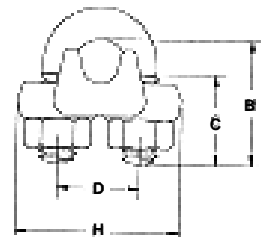
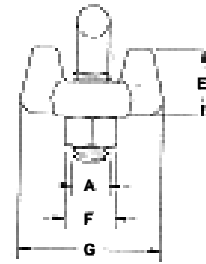
# WIRE ROPE END TERMINATIONS

## Forged wire rope clips



**G-450**

- ◆ Sizes 1/8" through 3" have forged bases.
- ◆ Entire clip - hot dip galvanized to resist corrosive and rusting action.
- ◆ All clips are individually bagged or tagged with proper application instructions and warning information.
- ◆ Clip sizes up through 1 1/2" have rolled threads.
- ◆ All sizes 1/4" and larger, meet Federal Specification FF-C-450 Type 1 Class 1



Rope Size (in.)	Stock No. Galv. G-450	Std. Package Qty.	Weight per 100 (lbs.)	Dimensions (in.)								
				A	B	C	D	E	F	G	H	
1/8 *	1010015	100	6	.22	.72	.44	.47	.41	.38	.81	.94	
3/16 *	1010033	100	10	.25	.97	.56	.59	.50	.44	.94	1.16	
1/4	1010051	100	20	.31	1.03	.50	.75	.66	.56	1.19	1.44	
5/16	1010079	100	30	.38	1.38	.75	.88	.72	.69	1.31	1.69	
3/8	1010097	100	47	.44	1.50	.75	1.00	.91	.75	1.63	1.94	
7/16	1010113	50	76	.50	1.88	1.00	1.19	1.03	.88	1.81	2.28	
1/2	1010131	50	80	.50	1.88	1.00	1.19	1.13	.88	1.91	2.28	
9/16	1010159	50	104	.56	2.25	1.25	1.31	1.22	.94	2.06	2.50	
5/8	1010177	50	106	.56	2.38	1.25	1.31	1.34	.94	2.06	2.50	
3/4	1010195	25	150	.62	2.75	1.44	1.50	1.41	1.06	2.25	2.84	
7/8	1010211	25	212	.75	3.12	1.62	1.75	1.59	1.25	2.44	3.16	
1	1010239	10	260	.75	3.50	1.81	1.88	1.78	1.25	2.63	3.47	
1 1/8	1010257	10	290	.75	3.88	2.00	2.00	1.91	1.25	2.81	3.59	
1 1/4	1010275	10	430	.88	4.25	2.13	2.31	2.19	1.44	3.13	4.13	
1 3/8	1010293	10	460	.88	4.63	2.31	2.38	2.31	1.44	3.13	4.19	
1 1/2	1010319	10	540	.88	4.94	2.38	2.59	2.44	1.44	3.41	4.44	
1 5/8	1010337	Bulk	700	1.00	5.31	2.62	2.75	2.66	1.63	3.63	4.75	
1 3/4	1010355	Bulk	925	1.13	5.75	2.75	3.06	2.94	1.81	3.81	5.28	
2	1010373	Bulk	1300	1.25	6.44	3.00	3.38	3.28	2.00	4.44	5.88	
2 1/4	1010391	Bulk	1600	1.25	7.13	3.19	3.88	3.19	2.00	4.50	6.38	
2 1/2	1010417	Bulk	1900	1.25	7.69	3.44	4.13	3.69	2.00	4.05	6.63	
2 3/4	1010435	Bulk	2300	1.25	8.31	3.56	4.38	4.88	2.00	5.00	6.88	
3 **	1010453	Bulk	3100	1.50	9.19	3.88	4.75	4.69	2.38	5.88	7.63	

See application and warning information on previous page

\* Electro-plated U-bolt and nuts  
\*\* 3 1/2" base is made of cast steel

## Stainless steel wire rope clips



**SS-450**

Rope Size (in.)	Stock No. SS-450	Weight per 100 (kg)	Dimensions (in.)								
			A	B	C	D	E	F	G	H	
1/8	1011250	6	.22	.72	.44	.47	.41	.38	.81	.94	
3/16	1011261	10	.25	.97	.56	.59	.50	.44	.94	1.16	
1/4	1011272	30	.31	1.03	.50	.75	.66	.56	1.19	1.44	
3/8	1011283	47	.44	1.50	.75	1.00	.91	.75	1.63	1.94	
1/2	1011305	80	.50	1.88	1.00	1.19	1.13	.88	1.91	2.28	
5/8	1011327	106	.56	2.38	1.25	1.31	1.34	.94	2.06	2.50	

# WIRE ROPE END TERMINATIONS

## Fist grip clips

### WARNINGS AND APPLICATION INSTRUCTIONS

Efficiency ratings for wire rope end terminations are based upon the catalog breaking strength of wire rope. The efficiency rating of a properly prepared loop or thimble - eye termination for clip sizes 1/8" through 7/8" is 80%, and for sizes 1" through 3-1/2" is 90%.

The number of clips shown is based upon using RRL or RLL wire rope, 6x19 or 6x37 Class, FC or IWRC; IPS or XIP. If Seale construction or similar large outer wire type construction in the 6x19 Class is to be used for sizes 1 inch and larger, add one additional clip. If a pulley (sheave) is used for turning back the wire rope, add one additional clip.

The number of clips shown also applies to rotation - resistant RRL wire rope, 8x19 Class, IPS, XIP, sizes 1-1/2 inch and smaller; and to rotation-resistant RRL wire rope, 19x7 Class, IPS, XIP, sizes 1-1/2 inch and smaller.

For other classes of wire rope not mentioned above, we recommend contacting us to ensure the desired efficiency rating.

The style of wire rope termination used for any application is the obligation user.

### IMPORTANT

Apply first load to test the assembly. This load should be of equal or greater weight than loads expected in use. Next, check and retighten nuts to recommended torque.

In accordance with good rigging and maintenance practices, the wire rope end termination should be inspected

### WARNING !!!

Failure to read, understand, and follow these instructions may cause death or serious injury.

Read and understand these instructions before using clips.

Match the same size clip to the same size wire rope.

Prepare wire rope end termination only as instructed.

Do not use with plastic coated wire rope.

Apply first load to test the assembly. This load should be of equal or greater weight than loads expected in use.

Clip Size (Inches)	Rope Size (Inches)	Minimum N <sup>o</sup> of Clips	Amount of Rope to Turn Back in Inches	*Torque in Ft. Lbs.
3/16	3/16	2	4	30
1/4	1/4	2	4	30
5/16	5/16	2	5	30
3/8	3/8	2	5-1/4	45
7/16	7/16	2	6-1/2	65
1/2	1/2	3	11	65
9/16	9/16	3	12-3/4	130
5/8	5/8	3	13-1/2	130
3/4	3/4	4	16	225
7/8	7/8	4	26	225
1	1	5	37	225
1 - 1/8	1 - 1/8	5	41	360
1 - 1/4	1 - 1/4	6	55	360
1 - 3/8	1 - 3/8	6	62	500
1 - 1/2	1 - 1/2	7	78	500

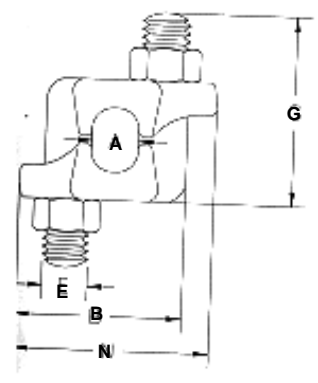
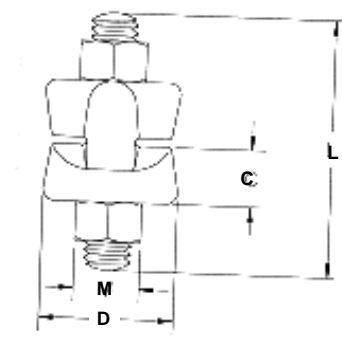
# WIRE ROPE END TERMINATIONS

## Fist grip clips



G-429

See application and warning information on previous page



- ◆ Bolts are an integral part of the saddle. Nuts can be installed in such a way as to enable the operator to swing the wrench in a full arc for fast installation.
- ◆ All sizes have forged steel saddles.
- ◆ Entire clip is hot dip galvanized to resist corrosive and rusting action.
- ◆ All clips are individually bagged or tagged with proper application instructions and warning information.
- ◆ Assembled with standard heavy hex nuts.

Rope Size (in.)	Stock No. G-429	Std. Package Qty	Weight per 100 (lbs.)	Dimensions (in)								
				A	B	C	D	E	G	L	M	N
3/16 - 1/4	1010471	100	18	.25	1.25	.34	.94	.38	1.28	1.63	.69	1.47
5/16	1010499	100	28	.31	1.34	.44	1.06	.38	1.47	1.94	.69	1.56
3/8	1010514	50	40	.38	1.59	.50	1.06	.44	1.81	2.38	.75	1.88
7/16 - 1/2	1010532	50	70	.50	1.88	.56	1.25	.50	2.19	2.75	.88	2.19
9/16 - 5/8	1010550	25	100	.63	2.28	.69	1.50	.63	2.69	3.50	1.06	2.63
3/4	1010578	25	175	.75	2.69	.88	1.81	.75	2.94	3.75	1.25	3.06
7/8	1010596	25	225	.88	2.97	.97	2.13	.75	3.31	4.13	1.25	3.14
1	1010612	10	300	1.00	3.06	1.19	2.25	.75	3.72	4.63	1.25	3.53
1 1/8	1010630	10	400	1.13	3.44	1.28	2.38	.88	4.19	5.25	1.44	3.91
1 1/4	1010658	10	400	1.25	3.56	1.34	2.50	.88	4.25	5.25	1.44	4.03
1 3/8 - 1 1/2	1010676	Bulk	700	1.50	4.13	1.56	3.00	.100	5.56	7.00	1.63	4.66

# WIRE ROPE END TERMINATIONS

## Wedge sockets

### WARNING !!!

Loads may slip or fall if the wedge socket is not properly installed.  
 A falling load can seriously injure or kill.  
 Read and understand these instructions before installing the wedge socket.  
 Do not side load the wedge socket.  
 Apply first load to fully seat the wedge and wire rope in the socket.

## IMPORTANT SAFETY INFORMATION - READ AND FOLLOW

### Inspection / Maintenance Safety

- ◆ Always inspect socket, wedge and pin before using.
- ◆ Do not use part showing cracks.
- ◆ Do not use modified or substitute parts.
- ◆ Repair minor nicks or gouges to socket or pin by lightly grinding until surfaces are smooth. Do not reduce original dimension more than 10%. Do not repair by welding.
- ◆ Inspect permanent assemblies annually, or more often in severe operating conditions.

### Assembly Safety

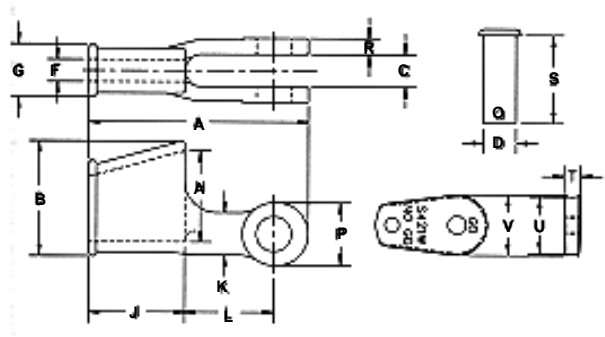
- ◆ Use only with standard 6 to 8 strand wire rope of designated size. For intermediate size rope, use next larger size socket. For example : when using 9/16" diameter wire rope, use a 5/8" size wedge socket assembly. Welding of the tail on standard wire rope is not recommended. The tail length of the dead end should be a minimum of 6 rope diameters but not less than 6".
- ◆ Align live end of rope, with center line of pin.
- ◆ Secure dead end section of rope.
- ◆ Do not attach dead end to live end.
- ◆ Use a hammer to seat wedge and rope as deep into socket as possible before applying first load.
- ◆ To use with rotation resistant wire rope (special wire rope constructions with 8 or more outer strands) ensure that the dead end is welded, brazed or seized before inserting the wire rope into the wedge socket to prevent core slippage or loss of rope lay. The tail length of the dead end should be a minimum of 20 rope diameters but not less than 6".

### Operating Safety

- ◆ Apply first load to fully seat the wedge and wire rope in the socket. This load should be of equal or greater weight than loads expected in use.
- ◆ Efficiency rating of the wedge socket termination is based upon the catalog breaking strength of wire rope. The efficiency of a properly assembled wedge socket is 80%.
- ◆ During use, do not strike the dead end section with any other elements of the rigging.

# WIRE ROPE END TERMINATIONS

## Wedge sockets



- ◆ Basket is cast steel.
- ◆ Individually magnetic particle inspected.
- ◆ Pin diameter and jaw opening allows wedge and socket to be used in conjunction with open swage and spelter sockets.
- ◆ Wedge socket terminations have an efficiency rating of 80%.

Catalog number S-421 includes wedge.  
 Catalog number S-421-W - wedge only.

Wedge for Wedge Socket incorporates a two hole “go / no go” gauging system which allows for a inspection ensuring that the proper size wire rope is being used.

**See application and warning information on previous page**

Wedge Sockets meet the requirements of Federal Specification RR-S-550D type C.

Wire Rope Diameter* (in.)	Stock No.		Weight Each (lbs.)†	Dimensions (mm)															
	S-421	S-421-W		A	B	C	D	F	G	H	J	K	L	P	R	S	T	U	V
3/8	1040304	1040466	2.00	5.63	2.56	.81	.81	.56	1.13	2.06	2.25	1.06	2.50	1.56	.44	2.06	.44	1.25	1.38
1/2	1040322	1040484	4.75	6.81	3.44	1.00	1.00	.69	1.38	2.81	3.00	1.31	2.75	1.94	.50	2.44	.53	1.75	1.88
5/8	1040340	1040509	7.75	8.16	4.06	1.25	1.19	.88	1.75	3.31	3.69	1.50	3.25	2.25	.56	3.13	.69	2.00	2.19
3/4	1040368	1040527	11.75	9.78	4.81	1.50	1.38	1.00	2.06	3.94	4.38	1.75	4.00	2.63	.66	3.63	.78	2.34	2.56
7/8	1040386	1040545	20.50	11.16	5.50	1.75	1.63	1.13	2.31	4.50	5.00	2.00	4.50	3.13	.75	4.19	.88	2.69	2.94
1	1040402	1040563	30.25	12.75	6.13	2.00	2.00	1.31	2.56	5.00	5.75	2.25	5.00	3.75	.88	4.63	1.03	2.88	3.28
1 1/8	1040420	1040581	43.50	14.38	6.75	2.25	2.25	1.50	2.94	5.50	6.50	2.50	5.63	4.25	1.00	5.38	1.19	3.13	3.56
1 1/4	1040448	1040607	57.20	16.00	7.38	2.50	2.50	1.63	3.19	6.00	7.25	2.75	6.25	4.75	1.13	5.81	1.31	3.38	3.81

\* For intermediate wire rope sizes use next larger size socket.  
 † Weight of socket, wedge and pin.

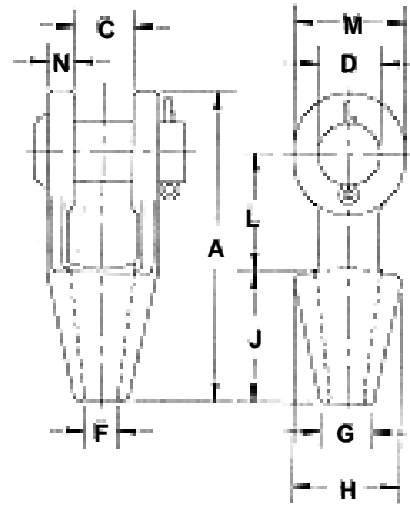
# WIRE ROPE END TERMINATIONS

## Spelter sockets



**G-416 LG**

**Notice** : All cast steel sockets 1 5/8" and larger are magnetic particle inspected and ultrasonic inspected. Proof testing available on special order.



- ◆ Forged steel sockets thru 1 1/2", cast alloy steel 1-5/8" thru 4".
- ◆ Spelter socket terminations have an efficiency rating of 100%, based on the catalog strength of wire rope. Ratings are based on recommended use with 6x7, 6x19, or 6x37, IPS or XIP, RRL, FC, or IWRC wire rope.

### GROOVELESS OPEN SPELTER SOCKETS

Rope Diameter (in.)	G-416 LG Galv. Stock No.	Weight Each (lbs.)	Dimensions (in.)									
			A	C	D	F	G	H	J	L	M	N
1/4	235051	1.10	4.56	.75	.69	.38	.69	1.56	2.25	1.56	1.31	.31
5/16 - 3/8	235053	1.30	4.84	.81	.81	.50	.81	1.69	2.25	1.75	1.50	.44
7/16 - 1/2	235055	2.25	5.56	1.00	1.00	.56	.94	1.88	2.50	2.00	1.88	.50
9/16 - 5/8	235057	4.00	6.75	1.25	1.19	.69	1.13	2.25	3.00	2.50	2.25	.56
3/4	235059	5.83	7.94	1.50	1.38	.81	1.25	2.62	3.50	3.00	2.62	.62
7/8	235061	9.85	9.25	1.75	1.63	.94	1.50	3.25	4.00	3.50	3.13	.80
1	235063	15.50	10.56	2.00	2.00	1.13	1.75	3.75	4.50	4.00	3.12	.88
1 1/8	235065	21.50	11.81	2.25	2.25	1.25	2.00	4.12	5.00	4.62	4.12	1.00
1 1/4 - 1 3/8	235067	31.00	13.19	2.50	2.50	1.50	2.25	4.75	5.50	5.00	4.75	1.13
1 1/2	235069	47.25	15.12	3.00	2.75	1.63	2.75	5.25	6.00	6.00	5.38	1.19
1 5/8	235071	53.88	16.25	3.00	3.00	1.75	3.00	5.50	6.50	6.50	5.75	1.31
1 3/4 - 1 7/8	235073	82.00	18.25	3.50	3.50	2.00	3.13	6.38	7.50	7.00	6.50	1.56
2 - 2 1/8	235075	125.00	21.50	4.00	3.75	2.25	3.75	7.38	8.50	9.00	7.00	1.81
2 1/4 - 2 3/8	235077	167.00	23.50	4.50	4.25	2.50	4.00	8.25	9.00	10.00	7.75	2.13
2 1/2 - 2 5/8	235079	252.00	25.50	5.00	4.75	2.88	4.50	9.25	9.75	10.75	8.50	2.38
2 3/4 - 2 7/8	235081	315.00	27.25	5.25	5.00	3.12	4.88	10.50	11.00	11.00	9.00	2.88
3 - 3 1/8	235083	380.00	29.00	5.75	5.25	3.38	5.25	11.12	12.00	11.25	9.50	3.00
3 1/4 - 3 3/8	235085	434.00	30.88	6.25	5.50	3.62	5.75	11.88	13.00	11.75	10.00	3.12
3 1/2 - 3 5/8	235087	563.00	33.25	6.75	6.00	3.88	6.50	12.38	14.00	12.50	10.75	3.25
3 3/4 - 4	235089	783.00	36.25	7.50	7.00	4.25	7.25	13.62	15.00	13.50	12.50	3.50



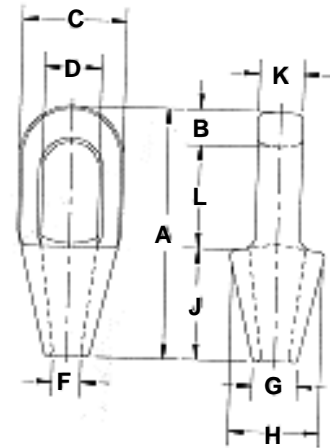
# WIRE ROPE END TERMINATIONS

## Spelter sockets



**G-417 LG**

**Notice** : All cast steel sockets 1 5/8" and larger are magnetic particle inspected and ultrasonic inspected. Proof testing available on special order.



- ◆ Forged steel sockets thru 1 1/2", cast alloy steel 1-5/8" thru 4".
- ◆ Spelter socket terminations have an efficiency rating of 100%, based on the catalog strength of wire rope. Ratings are based on the recommended use with 6 x 7, 6 x 19, or 6 x 37, IPS or XIP (EIP), RRL, FC or IWRC wire rope.

### GROOVELESS CLOSED SPELTER SOCKETS

Rope Diameter (in.)	G-417 LG Galv. Stock No.	Weight Each (lbs.)	Dimensions (in.)									
			A	B	C	D	F	G	H	J	K	L
1/4	235100	.50	4.50	.50	1.50	.88	.38	.69	1.56	2.25	.50	1.75
5/16 - 3/8	235102	.75	4.88	.62	1.69	.97	.50	.81	1.69	2.25	.69	2.00
7/16 - 1/2	235104	1.50	5.44	.69	2.00	1.16	.56	.94	1.88	2.50	.88	2.25
9/16 - 5/8	235106	2.50	6.31	.81	2.63	1.41	.69	1.12	2.38	3.00	1.00	2.50
3/4	235108	4.25	7.56	1.06	3.00	1.66	.81	1.25	2.75	3.56	1.25	3.00
7/8	235110	7.25	8.75	1.25	3.63	1.88	.94	1.50	3.25	4.00	1.50	3.50
1	235112	10.50	9.88	1.38	4.13	2.30	1.13	1.75	3.75	4.44	1.75	4.00
1 1/8	235114	14.25	11.00	1.50	4.50	2.56	1.25	2.00	4.13	5.00	2.00	4.50
1 1/4 - 1 3/8	235116	19.75	12.12	1.63	5.30	2.81	1.50	2.25	4.75	5.50	2.25	5.00
1 1/2	235118	29.20	13.94	1.94	5.33	3.19	1.63	2.75	5.25	6.00	2.50	6.00
1 5/8	235120	36.00	15.13	2.13	5.75	3.25	1.75	3.00	5.50	6.50	2.75	6.50
1 3/4 - 1 7/8	235122	57.25	17.25	2.19	6.75	3.75	2.00	3.13	6.38	7.50	3.00	7.56
2 - 2 1/8	235124	79.00	19.50	2.44	7.63	4.38	2.25	3.75	7.38	8.50	3.25	8.56
2 1/4 - 2 3/8	235126	105.00	21.13	2.63	8.50	5.00	2.50	4.00	8.25	9.00	3.63	9.50
2 1/2 - 2 5/8	235128	140.00	23.50	3.12	9.50	5.50	2.88	4.50	9.25	9.75	4.00	10.62
2 3/4 - 2 7/8	235130	220.00	25.38	3.12	10.75	6.25	3.12	4.88	10.19	11.00	4.88	11.25
3 - 3 1/8	235132	276.00	27.00	3.25	11.50	6.25	3.38	5.25	11.50	12.00	5.25	11.75
3 1/4 - 3 3/8	235134	313.00	29.25	4.00	12.25	7.25	3.62	5.75	12.25	13.00	5.75	12.35
3 1/2 - 3 5/8	235136	400.00	31.00	4.00	13.00	7.25	3.88	6.50	13.00	14.00	6.25	13.00
3 3/4 - 4	235138	542.00	33.25	4.25	14.25	8.50	4.25	7.25	14.25	15.00	7.00	14.00