

**INDUSTRIAL CATALOGUE  
VANCOUVER**



**VANGUARD STEEL LTD.**

2016



CLIPS

## WIRE ROPE CLIPS



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VANGUARD STEEL LTD.

CLIPS



# CLIPS

## TABLE OF CONTENTS

	Page
Golden U Bolt Drop Forged	1
Malleable	2
Stainless Steel	3
Installation	4

# "Golden U-Bolt" Forged Wire Rope Clips

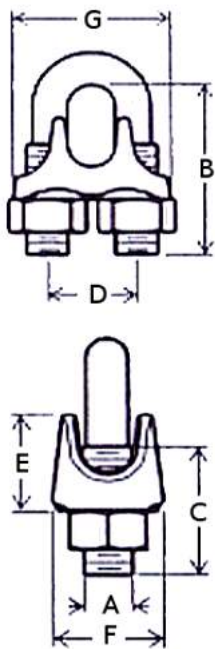
Fed. Specs. FF-C-450, Type 1, Class 1

Forged saddles, H.D. galvanized

Gold chromate U-Bolts and Nuts identify 'Vanguard' product

Torque tested threads

Eye terminations reaching 80% of the rope strength when properly installed.



Forged Clips Rope Diameter	Min No. of Clips	Rope turn-back	Torque (ft-lbs)	Dimensions (inches)							Weight lbs/pc	Product Code
				A	B	C	D	E	F	G		
1/8"	2	3-1/4"	4.5	0.20	0.75	0.54	0.41	0.48	0.80	0.90	0.06	29070008
3/16"	2	3-3/4"	7.5	0.24	0.98	0.65	0.56	0.55	0.95	1.16	0.10	29070012
1/4"	2	4-3/4"	15.0	0.30	1.06	0.67	0.78	0.67	1.18	1.54	0.19	29070016
5/16"	2	5-1/2"	30.0	0.37	1.35	0.80	0.84	0.77	1.33	1.65	0.29	29070020
3/8"	2	6-1/2"	45.0	0.42	1.50	0.81	0.96	0.98	1.55	1.92	0.44	29070024
1/2"	3	11-1/2"	65.0	0.48	1.83	1.10	1.12	1.19	1.91	2.29	0.73	29070032
5/8"	3	12"	95.0	0.54	2.40	1.22	1.38	1.33	2.05	2.50	1.02	29070040
3/4"	4	18"	130.0	0.61	2.84	1.51	1.51	1.40	2.25	2.82	1.42	29070048
7/8"	4	19"	225.0	0.73	3.10	1.79	1.73	1.60	2.41	3.16	2.12	29070056
1"	5	26"	225.0	0.73	3.58	1.80	1.85	1.77	2.64	3.44	2.55	29070100
1-1/8"	6	34"	225.0	0.73	3.90	2.09	1.95	1.95	2.74	3.52	2.80	29070108
1-1/4"	7	37"	360.0	0.86	4.26	2.13	2.37	2.31	3.15	4.11	4.37	29070116
1-1/2"	7	48"	360.0	0.86	4.78	2.42	3.53	2.51	3.35	4.41	5.31	29070132
1-3/4"	7	53"	590.0	1.09	5.64	2.85	3.10	2.94	3.82	5.28	9.80	29070148
2"	8	71"	750.0	1.20	6.75	3.11	3.31	3.31	4.41	5.86	13.75	29070200

## Installation

### Step 1:

APPLY 1st clip one base width from dead end of the rope-U-bolt over dead end - live end rests in clip saddle. Tighten nuts evenly to recommended torque.



### Step 2:

APPLY 2nd clip as close to loop as possible - U - bolt over dead end turn nuts firmly but do not tighten !



### Step 3:

ALL OTHER CLIPS - Space evenly between first two.



### Step 4:

APPLY TENSION and tighten all nuts to recommended torque.

RE - CHECK nut torque after rope has been in operation.

**WARNING DO NOT:**

**Stagger Clips  
Mount U-Bolt over live end of rope  
Join Ropes without the use of a thimble !**

## Malleable Wire Rope Clips

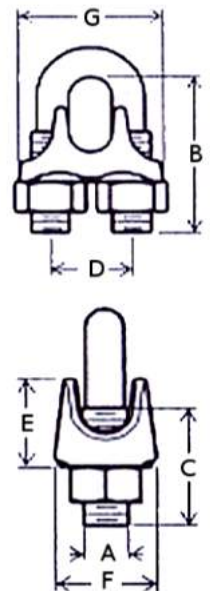
To be used for light duty, non critical applications only.

Typical uses include Guard Lines and Fencing.

Fed. Specs. FF-C-450D, Type 1, Class 2 (except 1/8" size)



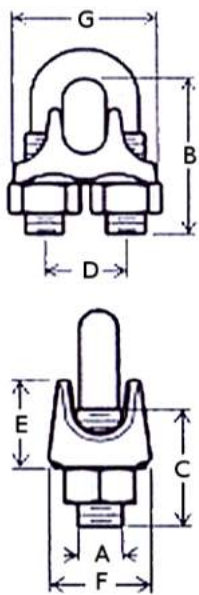
Malleable Clips Rope Diameter	Dimensions (inches)							Weight lbs/pc	Product Code
	A	B	C	D	E	F	G		
1/16"	0.15	0.62	0.42	0.35	0.35	0.44	0.65	0.03	29010004
1/8"	0.18	0.72	0.56	0.43	0.43	0.55	0.85	0.04	29010008
3/16"	0.23	0.92	0.63	0.54	0.52	0.61	1.05	0.06	29010012
1/4"	0.30	0.13	0.83	0.67	0.60	0.76	1.23	0.11	29010016
5/16"	0.30	1.23	0.86	0.69	0.64	0.82	1.34	0.12	29010020
3/8"	0.36	1.50	1.06	0.88	0.90	0.92	1.58	0.22	29010024
7/16"	0.36	1.54	1.07	0.94	0.87	0.93	1.64	0.22	29010028
1/2"	0.42	1.96	1.28	1.04	0.94	1.07	1.91	0.34	29010032
5/8"	0.48	2.14	1.39	1.30	1.10	1.16	2.23	0.52	29010040
3/4"	0.54	2.54	1.46	1.33	1.35	1.30	2.40	0.75	29010048
7/8"	0.61	2.90	1.77	1.55	1.53	1.46	2.77	1.16	29010056
1"	0.61	3.23	2.15	1.81	1.73	1.74	3.02	1.48	29010100
1-1/8"	0.72	4.44	2.70	1.84	1.97	1.77	3.24	2.06	29010108



**FOR LIGHT DUTY INSTALLATIONS.  
DO NOT USE CLIPS OF THIS CLASSIFICATION FOR CRITICAL  
APPLICATIONS LIKE OVERHEAD LIFTING; IN SUCH CASES INSTALL  
VANGUARD "GOLDEN U BOLT" DROP FORGED CLIPS**

# T 316 Stainless Steel Wire Rope Clips

To be used for light duty, non critical applications only.  
 Typical uses include Guard Lines and Fencing.



Stainless Clips Rope Diameter	Dimensions (inches)							Weight lbs/pc	Product Code
	A	B	C	D	E	F	G		
1/8"	0.19	0.81	0.55	0.40	0.40	0.51	0.82	0.04	29150008
5/32"	0.17	0.93	0.63	0.52	0.46	0.55	0.92	0.05	29150010
3/16"	0.23	0.97	0.60	0.56	0.50	0.55	1.00	0.06	29150012
1/4"	0.30	1.24	0.85	0.71	0.59	0.71	1.24	0.13	29150016
5/16"	0.30	1.40	0.90	0.80	0.60	0.77	1.38	0.15	29150020
3/8"	0.37	1.81	1.15	0.90	0.88	0.82	1.58	0.28	29150024
1/2"	0.44	2.14	1.34	1.20	0.90	1.00	1.93	0.42	29150032

Other Sizes available on request

**FOR LIGHT DUTY INSTALLATIONS.  
 DO NOT USE CLIPS OF THIS CLASSIFICATION FOR CRITICAL  
 APPLICATIONS LIKE OVERHEAD LIFTING; IN SUCH CASES INSTALL  
 VANGUARD "GOLDEN U BOLT" DROP FORGED CLIPS**

## INSTALLATION

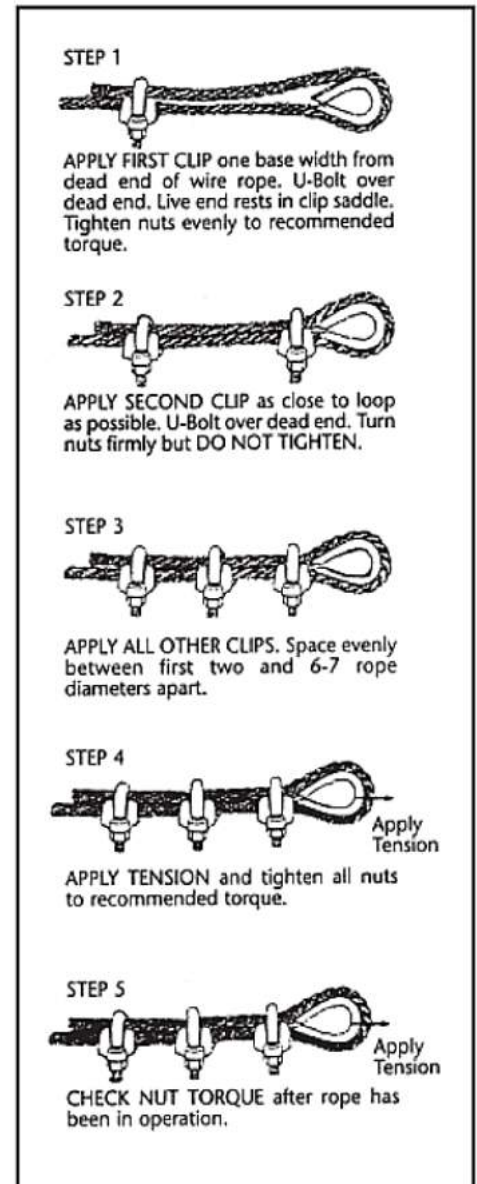
There's only one right way to install cable clips when you want to get the maximum efficiency, up to 85 %, out of a loop or thimble-eye termination. Otherwise the capacity of the termination can be severely reduced, risking the lives of workers and others nearby.

### Here is how to install cable clips correctly.

- \* Most cable clips have two sections. There is the saddle part and a U-shaped part.
- \* You need the right size clip for the wire rope diameter.
- \* You need to know the number of clips required, the amount of rope turn back from the thimble, and the torque needed to tighten the nuts. There are tables that spell out this information. (See sample below)
- \* At least three clips should be used when making any prepared loop or thimble-eye termination for wire rope, especially for hoisting.
- \* All three clips must be installed with the saddle part on the live end of the rope. This lets the live end rest in the saddle so it is not crushed by the U part of the clip. Here is a way to remember this:  
**"Never saddle a dead horse."**
- \* The U goes on the dead end of the rope where crushing will not affect the breaking strength of the hoist line

Clip size Inches	Minimum No. of Clips	Amount of rope to turn back in inches	Torque Ft. lbs.
1/8"	2	3-1/4	4.5
3/16"	2	3-3/4	7.5
1/4"	2	4-3/4	15
5/16"	2	5-1/4	30
3/8"	2	6-1/2	45
7/16"	2	7	65
1/2"	3	11-1/2	65
9/16"	3	12	95
5/8"	3	12	95
3/4"	4	18	130
7/8"	4	19	225
1"	5	26	225
1-1/8"	6	34	225
1-1/4"	7	44	360
1-3/8"	7	44	360
1-1/2"	8	54	360

If a greater number of clips are used than shown in the table, the amount of rope turnback should be increased proportionately.





### General Warnings

All Vanguard rigging products are sold with the express understanding that both the purchaser and the end user are thoroughly familiar with the safe, proper and acceptable applications of the products.

It is the responsibility of the end user to establish proper safety programs and to provide thorough training for all personnel prior to use. The training programs must meet any federal/provincial/state/local code requirements, existing plant/site safety rules and regulations, and all instructions provided in the applicable section of this catalogue.

Product failure can occur due to abuse, misapplication, lack of maintenance, use by unqualified personnel and improper inspection prior to use. **Any failure of rigging products may result in property damage, personal injury and even death!!!!**

### Standards

There are numerous government and industrial standards that cover rigging products. This catalogue makes no attempt to reference all of them; it references to the standards that are most frequently asked about.

### Working Load Limit (WLL) – Safe Working Load (SWL)

The Working Load Limits shown in this catalogue are applicable to products that are new or “in as new” condition. The Working Load Limits ratings refer to the maximum amount of force or load that the rigging product can carry under normal working/environmental conditions. The Working Load Limits and Design Factor can be affected by wear, misuse, overloading, shock loading, side loading, corrosion, deformation, product alteration and other use conditions. Inspection of rigging products prior to use is required to determine whether the product continues to meet the assigned WLL provided in this catalogue, should be used at a reduced rating or removed from service.

**The WLL rating must never be exceeded!!!!**



### General information disclaimer

The contents contained in this publication are for general information only.

Although every effort has been made to assure the accuracy of the information at time of print, persons who use the Catalog should note that ratings, laws, rules, and policies change from time to time and that these changes may alter the information contained in this publication.

Vanguard Steel Ltd. assumes no liability for Catalog errors or omissions.

It is the responsibility of each person who uses this Catalog to ascertain current information that pertains to the individual lifting program, particularly with regard to satisfactory safety compliance requirements. Check your Provincial and Local safety standards before any operation or lift is attempted.

It is the responsibility of the person/operator to frequently search for updated reference information.

Do not use lesser than matching Grade components for any lifting application !

Do not use Slings, Chains or Accessories with signs of wear or deformation !

Inspections - Each day before being used, the sling and all fastenings and attachments shall be inspected for damage or defects by a competent person designated by the employer. Additional inspections shall be performed during sling use where service conditions warrant. Damaged or defective slings shall be immediately removed from service.



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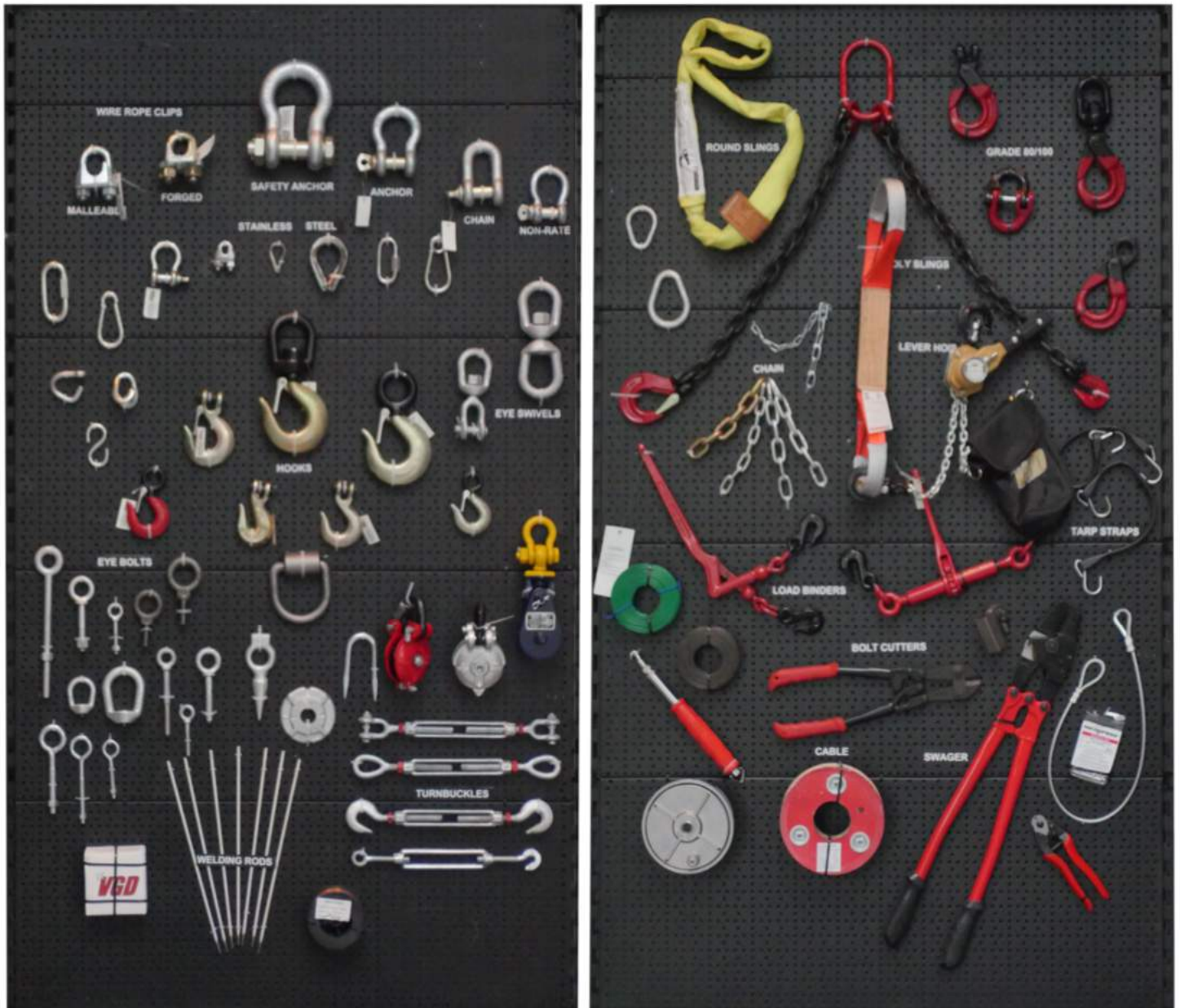


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