

**INDUSTRIAL CATALOGUE  
VANCOUVER**



**VANGUARD STEEL LTD.**

2016

# TURNBUCKLES



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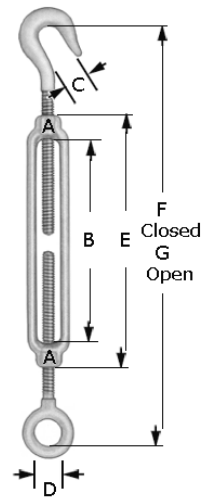


# Commercial Grade Hook & Eye Turnbuckle

A robust and economical turnbuckle for a variety of uses.



Commercial Grade		Dimension inches					WLL lbs.	Weight lbs/pc	Product Code
A	B	C	D	E	F	G			
1/4	x 4	0.775	0.386	3.722	5.710	8.860	220	0.35	29985100
5/16	x 5	0.995	0.431	4.557	7.280	11.020	441	0.53	29985125
3/8	x 6	1.117	0.469	5.062	8.270	12.800	661	0.80	29985150
1/2	x 7-7/8	1.437	0.552	7.500	10.830	16.930	1,102	1.41	29985200

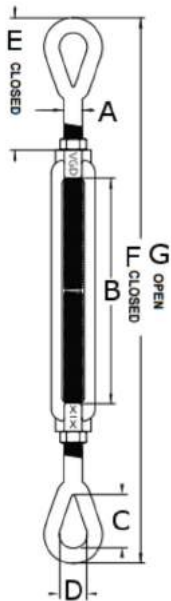


Forged Carbon Steel Body  
Hot Dipped Galvanized  
Thread M6-1

**WARNING:** NEVER EXCEED WORKING LOAD LIMITS !  
NEVER USE COMMERCIAL GRADE TURNBUCKLES FOR OVERHEAD LIFTING!  
Turnbuckles are designed for straight (in-line) pulls only!  
Do not re-use turnbuckles showing signs of deformation or damaged threads!

# Forged Turnbuckles Eye & Eye with Locknuts

Meets the requirements of  
US Fed. Spec. FF-T-791B Type 1, Form 1  
(open body)



E & E Turnbuckles							WLL lbs.	Weight lbs/pc	Product Code
Size		Dimension inches							
A	x B	C	D	E	F	G			
3/8	x 6	1.12	0.53	2.52	11-7/8	18-1/8	1,200	0.75	292010241
1/2	x 6	1.44	0.72	3.23	13-5/16	20-15/16	2,200	1.50	292010321
1/2	x 9	1.44	0.72	3.23	16-5/16	26-15/16	2,200	1.75	292020321
1/2	x 12	1.44	0.72	3.23	19-5/16	32-15/16	2,200	2.18	292030321
5/8	x 6	1.75	0.88	3.90	15-1/2	22-15/16	3,500	2.63	292010401
5/8	x 9	1.75	0.88	3.90	18-1/2	28-15/16	3,500	3.00	292020401
5/8	x 12	1.75	0.88	3.90	21-1/2	34-15/16	3,500	3.25	292030401
3/4	x 6	2.09	1.00	4.69	17	25-1/8	5,200	3.75	292010481
3/4	x 9	2.09	1.00	4.69	20	30-1/8	5,200	4.50	292020481
3/4	x 12	2.09	1.00	4.69	23	37-1/8	5,200	5.75	292030481
3/4	x 18	2.09	1.00	4.69	29	49-1/8	5,200	7.00	292040481
7/8	x 12	2.38	1.25	5.10	24-5/8	38-9/16	7,200	8.30	292030561
7/8	x 18	2.38	1.25	5.10	30-5/8	50-9/16	7,200	10.25	292040561
1	x 12	3	1.44	6.36	26-5/8	41-15/16	10,000	11.25	292031001
1	x 18	3	1.44	6.36	32-5/8	53-3/4	10,000	14.00	292041001
1	x 24	3	1.44	6.36	38-5/8	65-3/4	10,000	17.00	292051001
1-1/4	x 12	3.56	1.81	7.72	29-7/8	45-1/16	15,200	19.00	292031161
1-1/4	x 18	3.56	1.81	7.72	35-7/8	57-1/16	15,200	24.10	292041161
1-1/2	x 12	4.06	2.12	8.62	32-3/8	48.00	21,400	27.00	292031321
1-1/2	x 18	4.06	2.12	8.62	38-3/8	60.00	21,400	31.20	292041321
1-1/2	x 24	4.06	2.12	8.62	44-3/8	72.00	21,400	37.50	292051321
2	x 24	5.75	2.52	13.09	51-3/4	79-3/16	37,000	85.25	292052001

Forged Carbon Steel  
Hot Dipped Galvanized  
Design Factor :     Proof Load   2.5 : 1  
  Ultimate Load 5 : 1

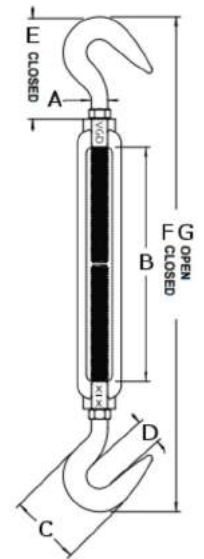
**WARNING: NEVER EXCEED WORKING LOAD LIMITS !**  
Turnbuckles are designed for straight (in-line) pulls only!  
Do not re-use turnbuckles showing signs of deformation or  
damaged threads!

# Forged Turnbuckles Hook & Hook with Locknuts

Meets the requirements of  
US Fed. Spec. FF-T-791B Type 1, Form 1  
(open body)



E & E Turnbuckles							WLL lbs.	Weight lbs/pc	Product Code
Size		Dimension inches							
A	x B	C	D	E	F	G			
3/8	x 6	1.77	0.56	2.28	10-1/2	17-3/4	1,000	0.75	292310241
1/2	x 6	2.28	0.66	2.84	11-13/16	20-3/8	1,500	1.50	292310321
1/2	x 9	2.28	0.66	2.84	14-13/16	26-3/8	1,500	1.75	292320321
1/2	x 12	2.28	0.66	2.84	17-13/16	32-3/8	1,500	2.18	292330321
5/8	x 6	2.81	0.84	3.53	13-1/4	22-1/2	2,250	2.63	292310401
5/8	x 9	2.81	0.84	3.53	15-1/4	28-1/2	2,250	3.00	292320401
5/8	x 12	2.81	0.84	3.53	19-1/4	34-1/2	2,250	3.25	292330401
3/4	x 6	3.33	0.97	4.31	14-7/8	24-7/8	3,000	3.75	292310481
3/4	x 9	3.33	0.97	4.31	17-7/8	29-7/8	3,000	4.50	292320481
3/4	x 12	3.33	0.97	4.31	20-7/8	36-7/8	3,000	5.75	292330481
3/4	x 18	3.33	0.97	4.31	26-7/8	48-7/8	3,000	7.00	292340481
7/8	x 12	3.78	1.13	5.00	22-1/4	38-3/4	4,000	8.30	292330561
7/8	x 18	3.78	1.13	5.00	28-1/4	50-3/4	4,000	10.25	292340561
1	x 12	4.25	1.25	5.69	23-5/8	40-5/8	5,000	11.25	292331001



Forged Carbon Steel  
Hot Dipped Galvanized  
Design Factor : Proof Load 2.5 : 1  
Ultimate Load 5 : 1

**WARNING: NEVER EXCEED WORKING LOAD LIMITS !**  
Turnbuckles are designed for straight (in-line) pulls only!  
Do not re-use turnbuckles showing signs of deformation or  
damaged threads!

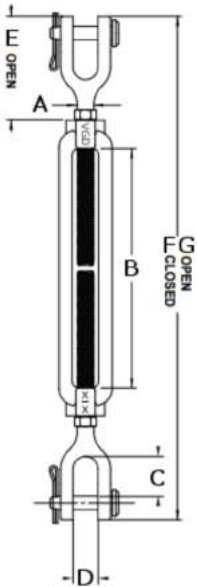


# Forged Turnbuckles Jaw & Jaw with Locknuts

Meets the requirements of  
 US Fed. Spec. FF-T-791B Type 1, Form 1  
 (open body)



TOOLS



J & J Turnbuckles							WLL lbs.	Weight lbs/pc	Product Code
Size		Dimension inches							
A	x B	C	D	E	F	G			
3/8	x 6	0.88	0.50	2.11	11-3/8	17-3/8	1,200	0.75	292510241
1/2	x 6	1.06	0.63	2.75	13	20	2,200	1.50	292510321
1/2	x 9	1.06	0.63	2.75	16	26	2,200	1.75	292520321
1/2	x 12	1.06	0.63	2.75	19	32	2,200	2.18	292530321
5/8	x 6	1.31	0.75	3.50	14-7/8	22-1/8	3,500	2.63	292510401
5/8	x 9	1.31	0.75	3.50	17-7/8	28-1/8	3,500	3.00	292520401
5/8	x 12	1.31	0.75	3.50	20-7/8	34-1/8	3,500	3.25	292530401
3/4	x 6	1.50	0.94	4.17	16-9/16	24-3/32	5,200	3.75	292510481
3/4	x 9	1.50	0.94	4.17	29-9/16	30-3/32	5,200	4.50	292520481
3/4	x 12	1.50	0.94	4.17	22-9/16	36-3/32	5,200	5.75	292530481
3/4	x 18	1.50	0.94	4.17	28-9/16	48-3/32	5,200	7.00	292540481
7/8	x 12	1.75	1.13	4.85	24-1/2	38-1/16	7,200	8.30	292530561
7/8	x 18	1.75	1.13	4.85	30-1/2	50-1/16	7,200	10.25	292540561
1	x 12	2.06	1.19	5.54	26-1/16	40-1/16	10,000	11.25	292531001
1	x 18	2.06	1.19	5.54	32-1/16	52-1/16	10,000	14.00	292541001
1	x 24	2.06	1.19	5.54	38-1/16	64-1/16	10,000	17.00	292551001
1-1/4	x 12	2.81	1.75	7.21	29-9/16	44-3/32	15,200	19.00	292531161
1-1/4	x 18	2.81	1.75	7.21	35-9/16	56-3/32	15,200	24.10	292541161
1-1/2	x 12	2.81	2.06	7.87	31-1/2	46-1/2	21,400	27.00	292531321
1-1/2	x 18	2.81	2.06	7.87	37-1/2	58-1/2	21,400	31.20	292541321
1-1/2	x 24	2.81	2.06	7.87	43-1/2	70-1/2	21,400	37.50	292551321
2	x 24	3.75	2.50	11.86	52-3/4	76-3/4	37,000	85.25	292552001

Forged Carbon Steel  
 Hot Dipped Galvanized  
 Design Factor : Proof Load 2.5 : 1  
 Ultimate Load 5 : 1

**WARNING: NEVER EXCEED WORKING LOAD LIMITS !**  
 Turnbuckles are designed for straight (in-line) pulls only!  
 Do not re-use turnbuckles showing signs of deformation or  
 damaged threads!

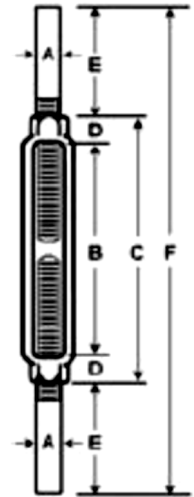


## Forged Stub End Turnbuckles

Meets the requirements of  
US Fed. Spec. FF-T-791B Type 1, Form 1  
(open body)



Turnbuckle Bodies		Dimensions in inches				WLL Lbs	Weight lbs/pc	Product Code
Size A x B	C	D	E	F				
3/8 x 6"	7.13	0.56	4.44	16.00	1,200	0.70	29261024	
1/2 x 6"	7.50	0.75	4.25	16.00	2,200	1.40	29261032	
5/8 x 6"	7.88	0.94	4.06	16.00	3,500	2.00	29261040	
3/4 x 6"	8.25	1.13	4.38	17.00	5,200	3.25	29261048	
7/8 x 6"	8.63	1.31	4.69	18.00	7,200	4.50	29261056	
1 x 6"	9.00	1.50	5.00	19.00	10,000	6.30	29261100	



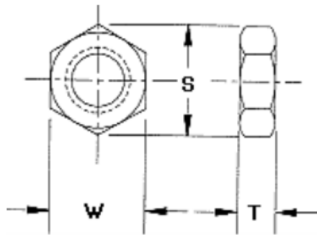
Forged Carbon Steel  
Self Coloured/Galvanized  
Design Factor : Proof Load 2.5 : 1  
Ultimate Load 5 : 1

**WARNING:** NEVER EXCEED WORKING LOAD LIMITS !  
Turnbuckles are designed for straight (in-line) pulls only!  
Do not re-use turnbuckles showing signs of deformation or  
damaged threads!

## Lock Nuts

Lock nuts, also referred to as jam nuts, are typically 2/3 of the thickness of its respective hex nut series counterpart.

Locknuts are tightened against the turnbuckle body to ensure that the turnbuckle does not loosen under tension.



Turnbuckle		Dimensions in inches			Thread	Weight	Product
Size		W	S	T	Diameter	lbs/pair	Code
3/8"		0.56	0.64	0.22	3/8"	0.02	29272024
1/2"		0.75	0.86	0.31	1/2"	0.06	29272032
5/8"		0.94	1.06	0.38	5/8"	0.11	29272040
3/4"		1.13	1.26	0.42	3/4"	0.15	29272048
7/8"		1.31	1.50	0.48	7/8"	0.22	29272056
1"		1.50	1.69	0.55	1"	0.40	29272100
1-1/4"		1.50	1.69	0.55	1-1/4"	0.79	29272016

Supplied in pairs:

1 right hand painted Orange

1 left hand painted Yellow



Do not over tighten locknuts during installation.

**WARNING** Lock Nuts do not have an established load rating and are meant to serve as a locking device only.



### 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.

# Five Locations to Serve You

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