

PLATE LIFTING CLAMPS

Safety Clamp®

Plate Lifting Clamp Products

Models AVL and VL

Models AVL and VL with Auxiliary Lock

Model VL-SJ

Model HL — Lock

Model HLW

RENFROE® Plate Lifting Clamp Products

Model S

Model TL and TLA

Model FR

Model JPA

Model NM

Model SCP and SCPA

Model M

Model WHSR

Model SEA

"Little Brute" Model LBS

Definitions



PLATE LIFTING CLAMPS

Amick Associates, Inc.

Safety Clamp® Plate Lifting Clamp Products

version #2-04



Made in the U.S.A. 

Safety Clamp® Plate Lifting Clamp Products

Models AVL and VL

Locking Clamp

Horizontal to Vertical – 180°

1/2 through 20 Tons Rated Lift Capacities

Features:

- **Horizontal to Vertical Lift**
 - Capable of turning a single steel plate from horizontal to vertical to horizontal through a 180° arc.
- **Locks Open and Closed**
 - Locks open to facilitate loading and unloading clamp.
 - Locks closed onto material for a more secure fit.
- **Gripping Cams**
 - 2 through 20 ton lift capacities incorporate dual gripping cams.
 - Increases grip on load for a more secure lift.
- **Self-Aligning Pivoting Die**
 - Increased surface contact between load and clamp.
- **Wide Jaw Openings**
 - Wider range within rated lift capacity.
- **High Strength Shock-Resistant Steel**
 - Provides for longer clamp life.
- **Working Parts Enclosed**
 - Working parts remain inside the body in the “locked closed” position and the “locked open” position.
 - Protects parts for longer use.



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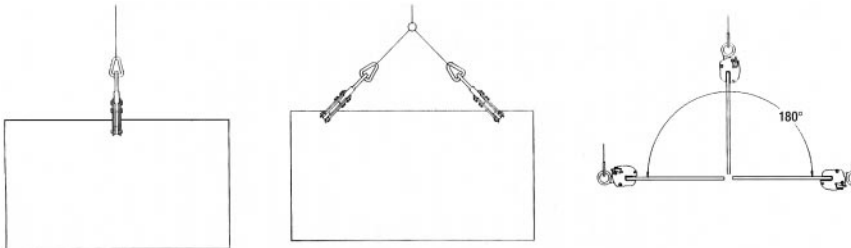




Table 8-1. Models AVL and VL (Dimensions in Inches)

Dimensions	1/2 & 1 Ton AVL	1/2 & 1 Ton VL	2 Ton VL		3 Ton VL		4 Ton VL			6 Ton VL		
A	0 - 7/8	0 - 1-3/8	0 - 1-5/8	1-1/2 - 2-3/4	0 - 1-5/8	1-1/2 - 2-3/4	0 - 2-1/8	2 - 3-3/4	3-3/4 - 5-1/2	0 - 2-1/8	2 - 3-3/4	3-3/4 - 5-1/2
B	2-3/4	2-3/4	4-1/8	4-1/8	4-1/8	4-1/8	4-5/8	4-5/8	4-5/8	4-5/8	4-5/8	4-5/8
C	6-7/8	6-7/8	9	9	9	9	11-1/4	11-1/4	11-1/4	11-1/4	11-1/4	11-1/4
D Max.	11-3/4	12	16-1/4	16-1/4	16	16	18	18	18	18	18	18
E	2-1/2	2-1/2	3-1/2	3-1/2	3-1/2	3-1/2	4	4	4	4	4	4
F	5-3/8	5-1/2	8	9-1/8	8	9-1/8	9-1/2	11-1/8	13	9-1/2	11-1/8	13
G	2-5/8	2-5/8	4	4	4	4	5	5	5	5	5	5
H	1-1/2	1-1/2	2-3/8	2-3/8	2-3/8	2-3/8	2-1/2	2-1/2	2-1/2	2-1/2	2-1/2	2-1/2
J	5/8	5/8	7/8	7/8	7/8	7/8	1	1	1	1	1	1
K	1/2	1/2	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Wt. (lbs.)	11	11	23	27	27	30	42	47	50	50	54	57

Table 8-1. (Continued) Models AVL and VL (Dimensions in Inches)

Dimensions	8 Ton VL			10 Ton VL			12 Ton VL			20 Ton VL		
A	0 - 2-5/8	2-1/2 - 4-1/2	4-1/2 - 6-1/2	0 - 2-5/8	2-1/2 - 4-1/2	4-1/2 - 6-1/2	1/2 - 3-1/8	3 - 5-1/4	5 - 7-1/4	1/2 - 4-1/4	4 - 7	7 - 10
B	5-1/4	5-1/4	5-1/4	5-1/4	5-1/4	5-1/4	6-1/2	6-1/2	6-1/2	8-3/8	8-3/8	8-3/8
C	12-7/8	12-7/8	12-7/8	12-7/8	12-7/8	12-7/8	16-3/4	16-3/4	16-3/4	23	23	23
D Max.	22-3/8	22-3/8	22-3/8	22-3/8	22-3/8	22-3/8	27-3/4	27-3/4	27-3/4	36-3/8	36-3/8	36-3/8
E	4-1/2	4-1/2	4-1/2	4-1/2	4-1/2	4-1/2	4-7/8	4-7/8	4-7/8	5-5/8	5-5/8	5-5/8
F	10-1/2	12-3/8	14-3/8	10-1/2	12-3/8	14-3/8	12-1/4	14-3/8	16-3/8	17	20	22-5/8
G	5-3/4	5-3/4	5-3/4	5-3/4	5-3/4	5-3/4	6-3/4	6-3/4	6-3/4	8-1/4	8-1/4	8-1/4
H	3-1/4	3-1/4	3-1/4	3-1/4	3-1/4	3-1/4	3-1/4	3-1/4	3-1/4	4-1/4	4-1/4	4-1/4
J	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-5/8	1-5/8	1-5/8	2	2	2
K	1	1	1	1	1	1	1	1	1	1-1/2	1-1/2	1-1/2
Wt. (lbs.)	65	70	75	75	80	90	92	101	112	259	292	322

Note: Specifications are subject to change without notice.

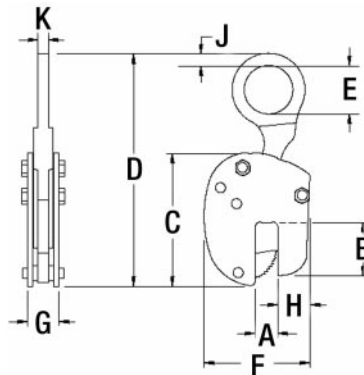


PLATE LIFTING CLAMPS

Amick Associates, Inc.

Safety Clamp® Plate Lifting Clamp Products

version #2-04



Made in the U.S.A. 

Models AVL and VL with Auxiliary Lock

Locking Clamp

Horizontal to Vertical – 180°

1/2 through 12 Ton Rated Lift Capabilities

Features:

- **Auxiliary Lock**
 - Provides for a double-locking mechanism in the “locks closed” position.
- **Horizontal to Vertical Lift**
 - Capable of turning a single steel plate from horizontal to vertical to horizontal through a 180° arc.
- **Locks Open and Closed**
 - Locks open to facilitate loading and unloading clamp.
 - Locks closed onto material for a more secure lift.
- **Gripping Cams**
 - 2 through 12 ton lift capacities incorporate dual gripping cams.
 - Increase grip on load for a more secure lift.
- **Self-Aligning Pivoting Die**
 - Increased surface contact between load and clamp.
- **Wide Jaw Openings**
 - Wider range within rated lift capacity.
- **High Strength Shock-Resistant Steel**
 - Provides for longer clamp life.
- **Working Parts Enclosed**
 - Working parts remain inside the body in the “locked closed” position and the “locked open” position.
 - Protects parts for longer use.
- **Also available with universal shackle.**



8

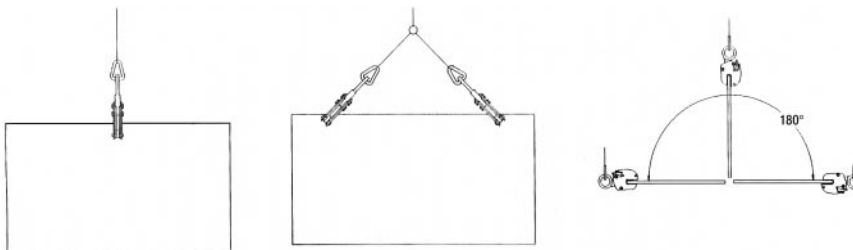




Table 8-2. Models AVL and VL with Auxiliary Lock (Dimensions in Inches)

Dimensions	1/2 & 1 Ton AVL		1/2 & 1 Ton VL		2 Ton VL		3 Ton VL		4 Ton VL			6 Ton VL		
	A	0 - 7/8	0 - 1-3/8	0 - 1-5/8	1-1/2 - 2-3/4	0 - 1-5/8	1/1/2 - 2-3/4	0 - 2-1/8	2 - 3-3/4	3-3/4 - 5-1/2	0 - 2-1/8	2 - 3-3/4	3-3/4 - 5-1/2	
B	2-3/4	2-3/4	4-1/8	4-1/8	4-1/8	4-1/8	4-5/8	4-5/8	4-5/8	4-5/8	4-5/8	4-5/8		
C	6-7/8	6-7/8	9	9	9	9	11-1/4	11-1/4	11-1/4	11-1/4	11-1/4	11-1/4		
D Max.	11-3/4	12	16-1/4	16-1/4	16	16	18	18	18	18	18	18		
E	2-1/2	2-1/2	3-1/2	3-1/2	3-1/2	3-1/2	4	4	4	4	4	4		
F	5-3/8	5-1/2	8	9-1/8	8	9-1/8	9-1/2	11-1/8	13	9-1/2	11-1/8	13		
G	2-7/8	2-7/8	4-1/8	4-1/8	4-1/8	4-1/8	5	5	5	5	5	5		
H	1-1/2	1-1/2	2-3/8	2-3/8	2-3/8	2-3/8	2-1/2	2-1/2	2-1/2	2-1/2	2-1/2	2-1/2		
J	5/8	5/8	7/8	7/8	7/8	7/8	1	1	1	1	1	1		
K	1/2	1/2	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4		
Wt. (lbs.)	11	11	23	27	27	30	42	47	50	50	54	57		

Table 8-2. (Continued) Models AVL and VL with Auxiliary Lock (Dimensions in Inches)

Dimensions	8 Ton VL			10 Ton VL			12 Ton VL		
	A	0 - 2-5/8	2-1/2 - 4-1/2	4-1/2 - 6-1/2	0 - 2-5/8	2-1/2 - 4-1/2	4-1/2 - 6-1/2	1/2 - 3-1/8	3 - 5-1/4
B	5-1/4	5-1/4	5-1/4	5-1/4	5-1/4	5-1/4	6-1/2	6-1/2	6-1/2
C	12-7/8	12-7/8	12-7/8	12-7/8	12-7/8	12-7/8	16-3/4	16-3/4	16-3/4
D Max.	22-3/8	22-3/8	22-3/8	22-3/8	22-3/8	22-3/8	27-3/4	27-3/4	27-3/4
E	4-1/2	4-1/2	4-1/2	4-1/2	4-1/2	4-1/2	4-7/8	4-7/8	4-7/8
F	10-1/2	12-3/8	14-3/8	10-1/2	12-3/8	14-3/8	12-1/4	14-3/8	16-3/8
G	5-3/4	5-3/4	5-3/4	5-3/4	5-3/4	5-3/4	6-3/4	6-3/4	6-3/4
H	3-1/4	3-1/4	3-1/4	3-1/4	3-1/4	3-1/4	3-1/4	3-1/4	3-1/4
J	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-5/8	1-5/8	1-5/8
K	1	1	1	1	1	1	1	1	1
Wt. (lbs.)	65	70	75	75	80	90	92	101	112

Note: Specifications are subject to change without notice.

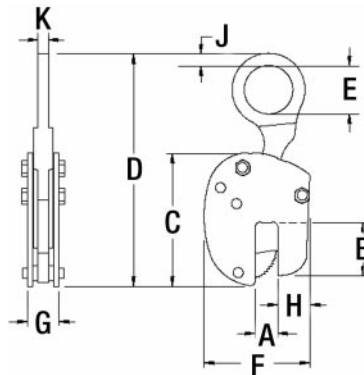


PLATE LIFTING CLAMPS

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Safety Clamp® Plate Lifting Clamp Products

version #2-04



Made in the U.S.A.

Model VL-SJ

Locking Clamp
Horizontal to Vertical
1/2, 1 and 2 Ton Rated Lift Capacities

Features:

- **New Lighter Weight** — Designed to give you that "Big Bite" lift without a big clamp.
- **Horizontal to Vertical Lift**
 - Capable of turning a single steel plate from horizontal to vertical to horizontal through a 180° arc.
- **Locks Open and Closed**
 - Locks open to facilitate loading and unloading clamp.
 - Locks closed onto material for a more secure lift.
- **Rated for 420 Brinell Surface Hardness**
 - Gripping cam and gripping die are rated to lift material with a surface hardness up to 420 Brinell.
 - Single gripping cam on all capacities.
 - Gripping die is self-aligning — increased surface contact.
- **High Strength Shock resistant Steel**
 - Provides for longer clamp life.

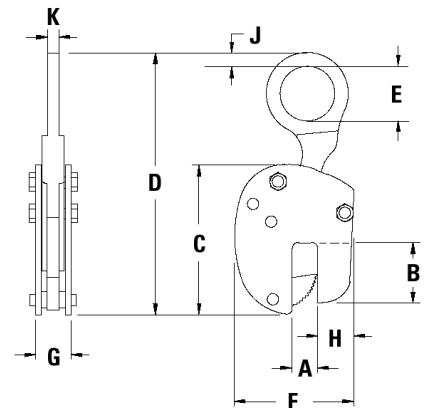
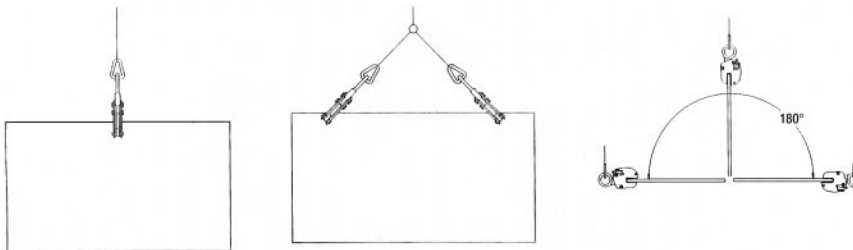


Table 8-3. Specifications (Inches) — Model VL-SJ

Dimension	1/2 Ton	1 Ton	2 Ton
A	0 – 7/8	0 – 7/8	0 – 1
B	2-1/8	2-1/8	2-3/8
C	5-5/8	5-5/8	6-7/8
D Max.	8-5/8	8-5/8	11-1/4
E	1-1/2	1-1/2	2-1/4
F	5-1/8	5-1/8	5-5/8
G	2-5/8	2-5/8	3
H	1-5/16	1-5/16	1-5/8
J	1/2	1/2	5/8
K	1/2	1/2	1/2
Wt. (lbs.)	5	6	10





Model HL — Lock

Locking Clamp
Horizontal Lift Only
2, 4, 6 and 8 Ton Rated Lift Capacities Per Pair

Features:

- **Horizontal Lifting Clamp**
 - Used in pairs, sets of pairs, or in tripod arrangement to lift and transfer plate in a horizontal position only.
- **Locks Closed Only**
 - Locks closed onto material for a more secure fit.
 - Easier to handle than a nonlocking clamp.
- **Gripping Cams**
 - Serrated gripping cams clamp onto the plate for a more secure lift.
 - 4 through 8 ton lift capacities per pair incorporate dual gripping cams.
 - Also available with smooth gripping surface of bronze or stainless steel for handling polished metals.
- **Working Parts Enclosed**
 - Working parts remain inside the body in the “locked closed” position and when opening the clamp.
 - Protects parts for longer use.

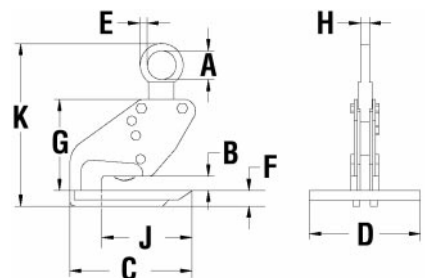


Table 8-4. Specifications (Inches) — Model HL — Lock

Dimension	2 Ton Per Pair	4 Ton Per Pair	6 Ton Per Pair	8 Ton Per Pair
A	2	2-1/2	2-1/2	2-3/4
B	0 – 1	0 – 1-1/2	0 – 1-1/2	0 – 2
C	7-7/8	9-3/8	9-3/8	10-3/4
D	4	5	5	7-1/4
E	1/2	3/4	3/4	1
F	1	1-1/8	1-1/4	1-5/8
G	5-7/16	8-1/4	8-1/4	10-1/4
H	5/8	3/4	3/4	1
J	4-3/4	6-1/4	6-1/4	7
K Max.	10-1/4	14-1/2	14-1/2	18-1/8
Wt. (lbs.)	26/pair	56/pair	60/pair	92/pair

Note: Specifications are subject to change without notice.

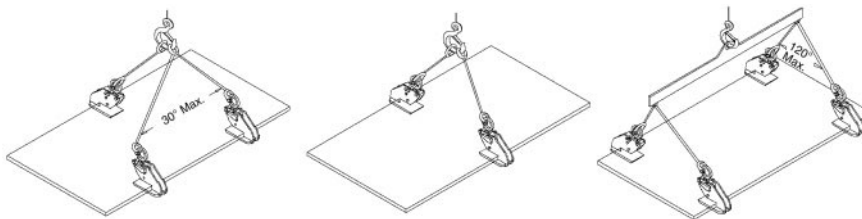


PLATE LIFTING CLAMPS

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Safety Clamp® Plate Lifting Clamp Products

version #2-04



Made in the U.S.A.

Model HLW

Non-locking Clamp
Horizontal Lift Only
3, 6 and 8 Ton Rated Lift Capacities Per Pair

Features:

- **Horizontal Lifting Clamp**
 - Used in pairs, sets of pairs, or in tripod arrangement to lift and transfer plate in a horizontal position only.
- **Non-Locking**
- **Wide Jaw Openings**
 - Extra wide jaw openings allow for better unloading and transporting of stacked horizontal plates.
- **Gripping Cams**
 - Serrated gripping cam clamps onto the plate for a more secure lift.
 - Also available with smooth gripping surface of bronze or stainless steel for handling polished metals.
 - Dual cam Model HLDW clamps are also available.

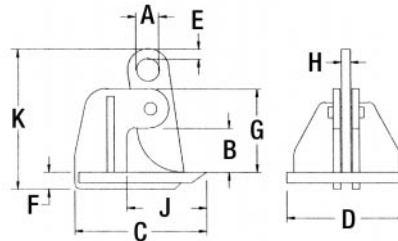


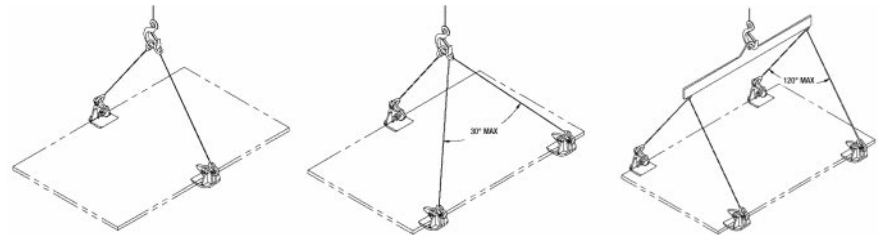
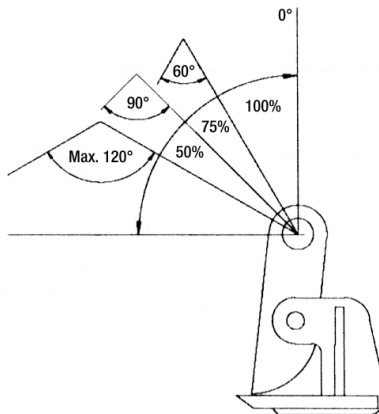
Table 8-6. Model HLW (Dimensions in Inches)

Dimensions	3 Ton (Pair)	6 Ton (Pair)	8 Ton (Pair)
A	1-1/2	1-1/2	2-1/4
B	0-6	0-6	0-6
C	11-3/8	11-3/8	12-3/4
D	8	8	8
E	7/8	7/8	1-1/4
F	1-1/8	1-1/4	1-5/8
G	9	9	9-1/2
H	3/4	3/4	1
J	7-3/4	7-3/4	8-1/4
K Max. Wt. (lbs.)	15-5/8 90/Pair	15-3/4 110/Pair	18-3/8 162/Pair

Note: Specifications are subject to change without notice.

Table 8-5. As top sling angle increases, the clamp's rated capacity decreases.

Top Sling Angle	Rated Capacity
0 – 60°	100%
61 – 90°	75%
91 – 120°	50%





RENFROE® Plate Lifting Clamp Products

Table 8-7. Model S – Vertical Lifting, Locking – Specifications (Inches)

Rated Capacity (tons)	Plate Thickness ①	Weight (lbs.)
2	0 – 1	31
	3/4 – 1-1/2	32
4	0 – 1-1/4	41
	1 – 2	43
8	0 – 1-1/2	70
	1 – 2	73
12	0 – 2-1/2	138
	1/2 – 3	140
20	1/2 – 3	265
	3 – 5	294
50	1/2 – 3	470
100	1/2 – 3	1350

① Available in other plate thicknesses for any of the above rated capacities.

Table 8-8. Model TL and TLA – Vertical Lifting, Locking – Specifications (Inches)

Rated Capacity ①	Plate Thickness ①	Weight (lbs.)
1/2	0 – 5/8	9
	1/2 – 1	10
1	0 – 3/4	14
	1/2 – 1	15
2	0 – 1	32
	3/4 – 1-1/2	33
4	3/16 – 1-1/4	35
	1 – 2	37
6	1/4 – 1-3/8	48
	1 – 2-1/8	51
8	3/8 – 1-1/2	72
	1 – 2-1/8	74
12	1/2 – 2-1/2	146
	2 – 4	151

① Other capacities and plate thicknesses available upon request.

Table 8-9. Model FR – Vertical Lifting, Locking – Specifications (Inches)

Rated Capacity (tons)	Plate Thickness ①	Weight (lbs.)
1/2	0 – 3/4	7
	1/2 – 1	8
1	0 – 3/4	14
	1/2 – 1	15
2	0 – 1	21
	3/4 – 1-1/2	22
3	0 – 1-1/4	30
	3/4 – 1-1/2	31

① Available in other plate thicknesses for any of the above rated capacities.



Model S



Model TL



Model TLA



Model FR

PLATE LIFTING CLAMPS

Amick Associates, Inc.

RENFRÖE® Plate Lifting Clamp Products

version #2-04



Made in the U.S.A.

Table 8-10. Model JPA – Vertical Lifting, Locking – Specifications (Inches)

Rated Capacity ^① (tons)	Plate Thickness ^①	Weight (lbs.)
1/2	0 – 1/2 1/2 – 1	12
1	0 – 3/4 1/2 – 1	20
2	0 – 1 3/4 – 1-1/2	40
4	3/16 – 1-1/4 1 – 2	50
6	1/4 – 1-3/8 1 – 2-1/8	72
8	3/8 – 1-1/2 1 – 2-1/8	93

^① Other capacities and plate thicknesses available upon request.



Model JPA



Model NM



Model SCP



Model SCPA

Table 8-11. Model NM – Locking, Screw, Non-Marring – Specifications (Inches)

Rated Capacity (tons)	Plate Thickness ^①	Weight (lbs.)
1	0 – 3/4 3/4 – 1-1/4	17 19
2	0 – 1 3/4 – 1-1/2	23 27
4	1/4 – 1-1/2 1-1/4 – 2-1/2	45 48
8	1-1/2 – 3-1/4 1-3/4 – 3-1/2	193 195
12	2 – 4 3-3/4 – 5-1/2	200 220

^① Available in other plate thicknesses for any of the above rated capacities.

Table 8-12. Model SCP and SCPA – Locking, Screw – Specifications (Inches)

Rated Capacity ^① (tons)	Plate Thickness ^①	Approximate Weight (lbs.)
1/2	0 – 3/4	8
1-1/2	0 – 1-1/4	14
3	0 – 2	19
6	0 – 2-1/2	44
10	0 – 3	93
15	0 – 4	210

^① Capacities through 200 tons and various plate thicknesses available upon request.

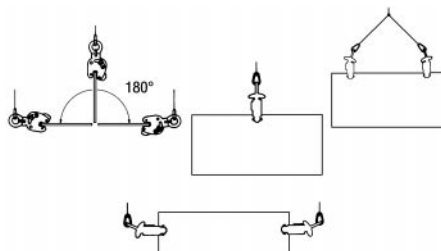




Table 8-13. Model M – Locking – Specifications (Inches)

Rated Capacity (tons)	Jaw Opening ①	Weight (lbs.)
1/2	0 – 1 3/4 – 1-1/2	7 8
1	0 – 1 3/4 – 1-1/2	11 12
2	0 – 1-1/4 1 – 2	23 24
4	0 – 1-1/2 1-1/4 – 2-1/2	35 38
8	0 – 2 1-3/4 – 3-1/2	100 110

① Available with other jaw openings for any of the above rated capacities.



Model M

Table 8-14. Model WHSR – Horizontal Lifting, Non-Locking – Specifications (Inches)

Rated Capacity (tons)	Jaw Opening ①	Weight (lbs.)
1/2	0 – 6 0 – 12	23 30
1-1/2	0 – 6 0 – 12	32 45
3	0 – 6 0 – 12	35 46
6	0 – 6 0 – 12	62 64
8	0 – 6 0 – 12	83 98

① Available with other jaw openings for any of the above rated capacities.



Model WHSR

Table 8-15. Model SEA – Locking – Specifications (Inches)

Rated Capacity (tons)	Jaw Opening	Weight (lbs.)
1	0 – 3/4	22
2	0 – 1	54
4	0 – 1 3/4 – 1-3/4	116 120
8	0 – 1-1/2 1 – 2-1/2	200 204
15	3/4 – 2 -1/4 2 – 3-1/2	343 350



Model SEA

PLATE LIFTING CLAMPS

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version #2-04



Made in the U.S.A.

"Little Brute" Model LBS

J.C. Renfro does it again with the introduction of its small-but-mighty Model LBS, designed specifically for those times when you need a smaller, light-weight clamp to handle a big load. With a capacity rating of a 1/2 ton, the "Little Brute" is a vertical lifting clamp incorporating a 'Lock Open,' 'Lock Closed' feature making it easier to attach and remove the clamp from the plate.

J.C. Renfro & Sons, Inc. of Jacksonville, Florida, has been an international leader in the manufacture and marketing of Lifting Clamps for over 60 years. Our superior quality and range of products are the reasons why.

Table 8-16. "Little Brute" Model LBS – Specifications (Inches)

Rated Capacity (tons)	Plate Thickness									Weight (lbs.)
	A	B	C	D	E	F	G	H	J	
1/2	0 – 5/8	2	5-1/16	8	1-1/8	4-1/4	2-1/8	1-1/4	3/8	4

Note: Specifications are subject to change without notice.

Exclusion of Warranty

There exist no warranties, neither expressed nor implied, which extend beyond the descriptions or statements contained in the face or any part hereof.

General Information

Important: Information contained in this catalog is for the presentation of pertinent illustrative and specification data for use in the selection of suitable RENFROE products consistent with the use intended by RENFROE. Refer to Operator's Manual for information on application, operation and maintenance of each particular model or product.

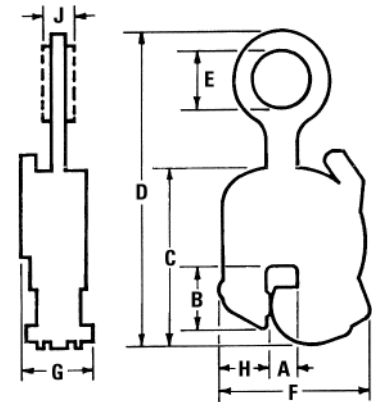
Operator's Manual: Prior to purchase and/or use of any RENFROE product, each purchaser and operator should read and understand fully all of the pertinent instructions and recommendations contained in the Operator's Manual for the particular product involved. The Operator's Manual contains recommended application, operation and maintenance instructions for all RENFROE products.

Delays: J.C. RENFROE & SONS, INC. is not liable for any delays in manufacturing or shipping caused by fire, strikes, lockouts, war, insurrections, inability to secure materials, government interference or regulations, delays in transportation, or other circumstances beyond reasonable control.

Return of Goods: No goods either standard or special may be returned for credit without written consent.



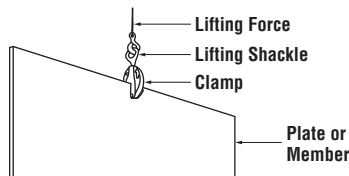
"Little Brute" Model LBS





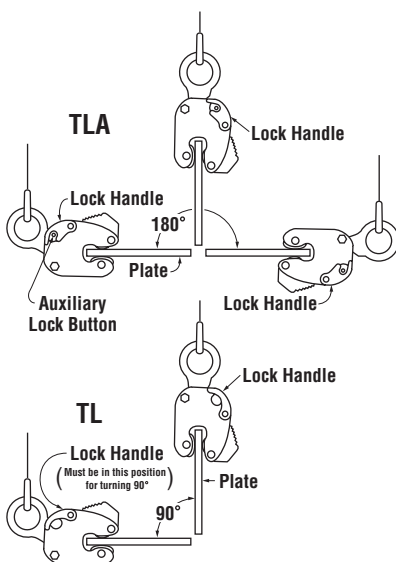
Definitions

Vertical Lift: The lifting of a single plate or member in which the lifting force exerted by the rigging is directly above and in line with the lifting shackle as shown in the illustration below.



Vertical Turn/Lift: A vertical turn/lift clamp is a vertical lifting clamp specifically intended to turn a single plate or member through a 90° arc and back to vertical through the same 90° arc or from horizontal to vertical to horizontal through a 180° arc. Refer to Application Section of specific Turn/Lift clamps for further detail.

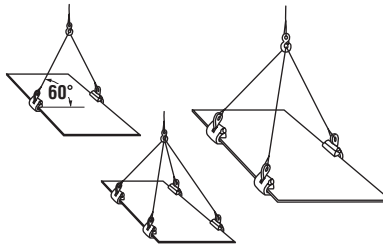
During the turning operation, the edge of the plate opposite the edge to which the clamp is attached should always be in contact with a supporting surface such as a factory floor, and the load on the clamp not exceed one half rated capacity of the clamp — Refer to illustrations shown below.



Horizontal Lift: Clamps (used in pairs or multiples) are attached to the side edges of a plate or bundle of plates positioned horizontally to the floor level. The rigging attached to the clamps is generally multi-legged slings with the connecting point of the slings being approximately centered between the distance separating the clamps. Refer to the illustrations below.

WARNING: The capacity of all horizontal clamps is based on a sling angle of 60°. See illustration below. Sling angles less than 60° increase the load exerted on the clamps.

WARNING: The majority of horizontal clamps are rated in pairs — one half of the rated capacity is the maximum allowable load on one clamp.



Steel Plates: Unless otherwise specified, lifting clamps are manufactured to handle hot-rolled steel plates whose Brinell Hardness does not exceed 300.

WARNING: Do not lift plates with coatings or mill scale that prevent the gripping surfaces of the clamp from making positive contact with the base metal.

For applications not covered by the above information, secure written recommendations from RENFROE.

Finished and Polished Plates: Steel plates in this category having other than hot-rolled surfaces such as stainless steel, etc., are generally handled using non-marring clamps incorporating smooth gripping surfaces.

WARNING: For applications using clamps with serrated gripping surfaces on finished or polished plates, secure written recommendations from RENFROE.

Structural Members — Fabricated Sections: Unless otherwise specified, clamps described as capable of handling structural members and fabricated sections are limited to hot-rolled steel whose Brinell Hardness does not exceed 300.

WARNING: For applications not covered by the above information, secure written recommendations from RENFROE.

Rated Capacity: The rated capacity of a RENFROE product is based on the product being in "new or as new" condition and represents the maximum load the product is to be subjected to when utilized in the manner described in this manual. Wear, misuse, abuse and other factors relating to usage may reduce the rated capacity. Shock loading and the factors listed must be taken into consideration when selecting a RENFROE product for a given application.

Plate Thickness: The minimum and maximum plate thickness a clamp specified for handling plates is capable of lifting.

WARNING: Never use a clamp for lifting a plate where the plate thickness is less than or greater than the minimum and maximum stenciled on the clamp.

Jaw Opening: The minimum and maximum thickness of a member a clamp specified as having a JAW OPENING is capable of handling.

WARNING: Never use a clamp on a member whose thickness is less than or greater than the range of jaw opening stenciled on the clamp.

Operating Temperatures: Unless specified under the Applications Section of the individual model, the approved operating temperature of RENFROE clamps is from 0°F (-18°C) to a maximum of 200°F (+93°C). The minimum and maximum temperatures apply to both ambient and the material being handled by the clamp.

WARNING: Secure written authorization from RENFROE before using clamps in temperatures other than shown.

"Hot Lifts": The Model R and S clamps are available in modifications that are capable of making lifts where the temperatures of the member being lifted exceeds 200°F (-93°C). Depending on conditions a lift may exceed 1000°F (538°C). The exact application and temperatures of the plates to be handled are critical in selecting the proper model.

WARNING: Secure written instructions from RENFROE for all hot lift applications.

PLATE LIFTING CLAMPS

Amick Associates, Inc.

version #2-04

Definitions



Made in the U.S.A. 

Locking Clamps: Locking clamps are divided into the categories listed below. With the exception of the "Locking Wedge" and "Locking Screw" type, the purpose of the locks are to facilitate the attaching and removing of the clamp from the member being handled.

"Lock Closed": An overcenter spring loaded mechanism in which the spring exerts a force on the gripping cam when the lock handle is moved to the "Lock Closed" position. When the handle is moved to unlocked position, the force exerted by the spring is relaxed and the gripping cam may be retracted by pushing the lifting shackle into body of the clamp. Refer to the Operation Section of specific models of "Lock Closed" clamps for additional details. Typical "Lock Closed" clamps are Models DG, FR and M.

"Lock Open Only": Normally used on "Hot Lift" clamps and consists of a manually operated "Lock Stop Pin" that is inserted when gripping cam of clamp is retracted and removed when clamp is positioned on the plate. Tag line may be used to permit operator to remove pin from a greater distance from clamp. Refer to the Operation Section of specific model of "Lock Open Only" clamps for additional details. Typical "Lock Open Only" clamp is the Model RO.

"Lock Open-Lock Closed": An overcenter spring loaded mechanism in which the spring exerts a force on the gripping cam when the lock handle is moved to the "Lock Closed" position. When the handle is moved to the "Lock Open", the gripping cam is maintained in the retracted position for ease in installing the clamp on a plate or member. The Model FRD contains individual "Lock Open" and "Lock Closed" mechanisms that must be operated separately. Refer to the Operation Section of specific models of the "Lock Open-Lock Closed" clamps for additional details. Typical "Lock Open-Lock Closed" clamps are Models FRD, R, S, SD, SEA, SX, TL and TLA.

"Locking Wedge": Is a fluted steel wedge that is driven in place with a hammer. The body of the wedge is positioned in a slot in the clamp body with the fluted edges contacting the member to which the clamp is being attached. Refer to Operation Section of specific models of the "Locking Wedge" clamps for additional details. Typical "Locking Wedge" clamps are Models A1, B1, B2 and PB.

"Locking Screw": "Lock Screw" clamps depend on manually adjusting a screw to hold the gripping surface in place for lifting and removing the clamp from member being lifted. Refer to Operation Section of a specific model of "Locking Screw" clamps for additional details. Typical "Locking Screw" clamps are Models NM, SCP and SCPA.

Non-Locking: "Non-Locking" clamps have no mechanisms to aid in attaching or removing clamp from member being lifted. It is necessary to have position of clamp maintained on the member being lifted until a properly applied force is exerted to the lifting shackle. Refer to Operation Section of specific models of the "Non-Locking" clamps for additional details. Typical "Non-Locking" clamps are Models AST, ASTL, BD, H, HD and WHS.

WARNING: A pointing out and notice of danger. The purpose of a "WARNING" is to apprise the operator and all other affected persons of the existence of danger of which he/she should be but may not be aware; and to enable the operator to protect himself and others, where applicable, against such danger. An attempt is made herein to warn against reasonable and reasonably foreseeable danger in the proper use and possible reasonable misuse of REN-FROE products described in this manual.