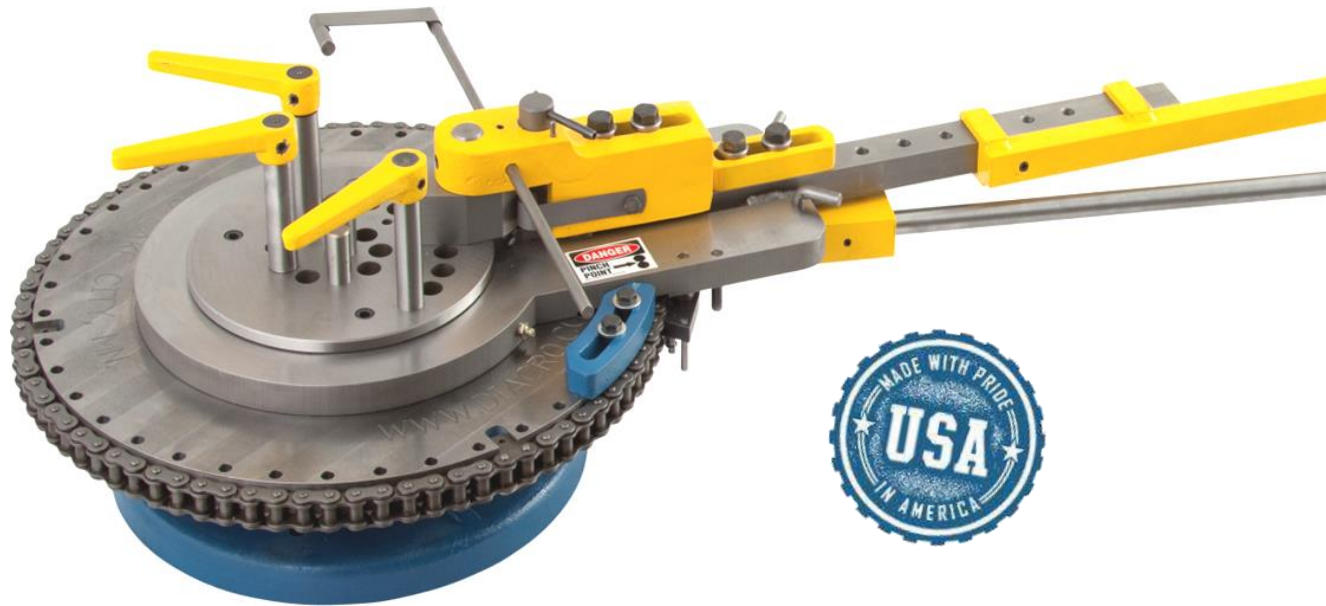


DiAcro[®]
METAL FABRICATION EQUIPMENT



#4 HAND BENDER
OPERATION AND PARTS MANUAL



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SAFETY INFORMATION



Before bender is set up for operation, mount on work bench or stand.

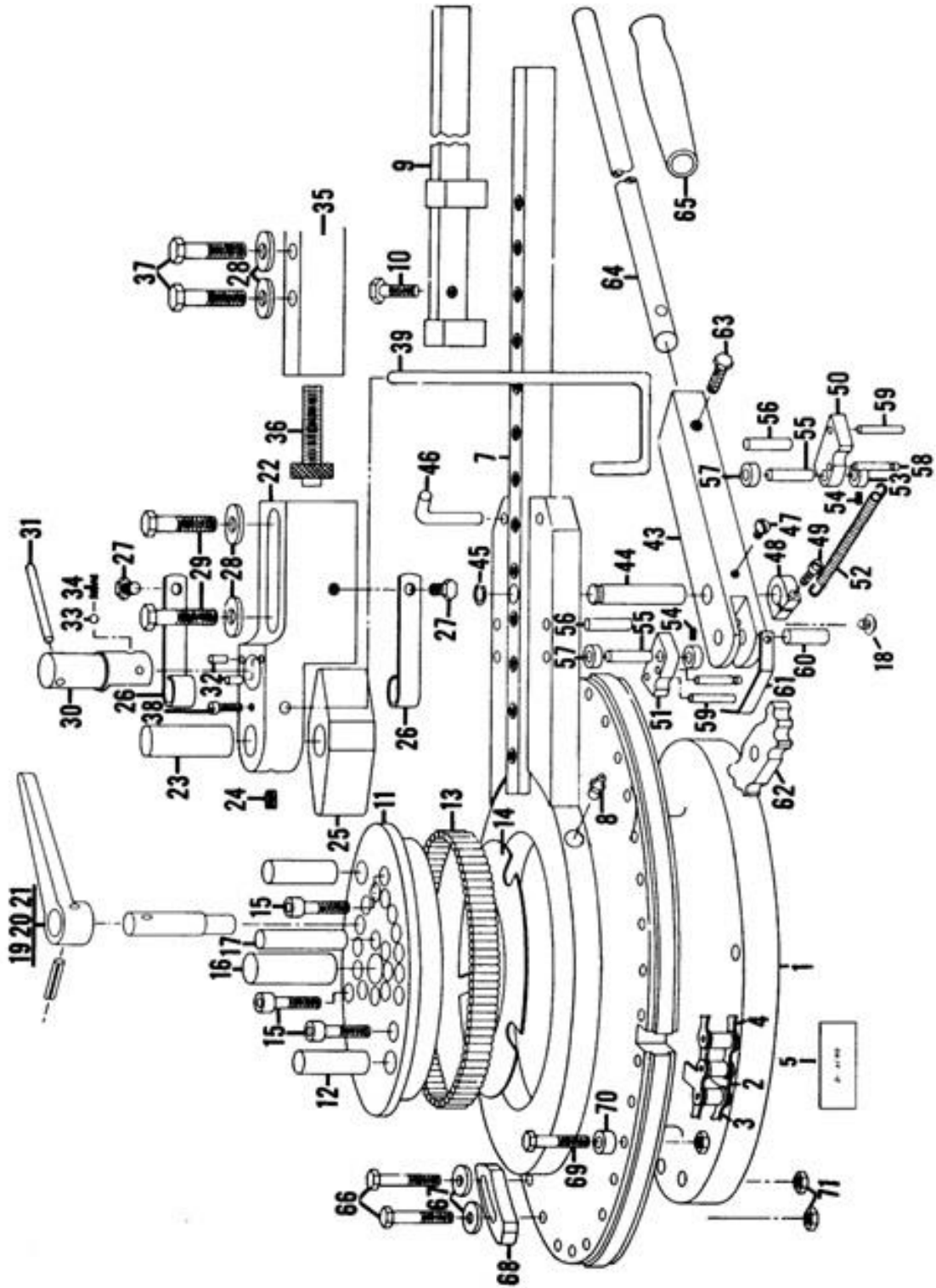
***IF BENDER IS MOUNTED ON ITS OWN STAND, SECURE STAND TO FLOOR.**

MAINTENANCE

Keep machine surfaces clean and free of debris. Periodically add grease in grease fitting. Lubricate chain as needed.

#4 HAND BENDER PARTS BREAKDOWN

8140800-080



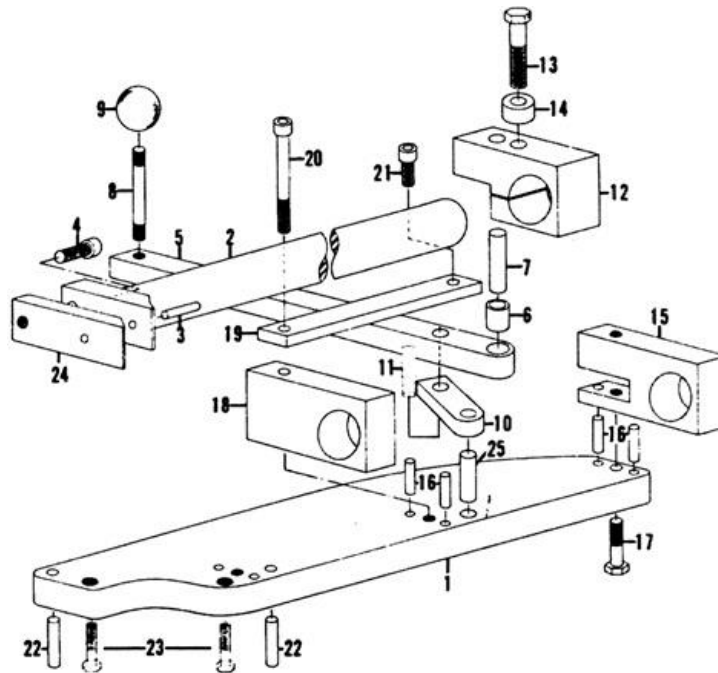
PARTS LIST 8140800-080

ITEM	PART NUMBER	DESCRIPTION	QTY
1	8140110-100	BASE-#4 BENDER	1
2	8430200-200	PIN LINK ATTACHMENT	3
4	8430110-200	60 ROLLER CHAIN	74"
5	8150650-110	SERIAL TAG	1
7	8140120-800	HANDLE ARM WELDMENT	1
8	120-0191-P	GREASE FITTING	1
9	8130120-801	EXTENSION ARM WELDMENT	1
10	23A0516C1000	SCREW-SSS 5/16-18X1	1
11	8140110-501	MOUNTING PLATE	1
12	8140120-301	MOUNTING PLATE PIN	2
13	8310300-200	NEEDLE BEARING	109
14	8130570-203	SHIM	6
15	20A0308C1102	SCREW-SHCS 3/8-16X1-1/2	3
16	8130016-970	RADIUS PIN	1
17	8158120-302	HOLDING PIN	1
18	22D0104C0308	SCREW-THMS 1/4-20X3/8	1
19	8158111-370	LCKG PIN ASSY "A" (13/16")	1
20	8000111-370	LCKG PIN ASSY "B" (15/16")	1
21	8100111-370	LCKG PIN ASSY "C" (1-1/16")	1
22	8200121-701	NOSE HOLDER	1
23	8000120-301	NOSE PIN	1
24	23A0308C0102	SCREW-SSS 3/8-16X1/2	1
25	8130121-701	FORMING NOSE	1
26	8120510-401	NOSE SPRING	2
27	21A0516C0102	SCREW-HHCS 5/16-18X1/2	2
28	0102WILLIAMSWASHER	1/2 WILLIAMS WASHER	4
29	21A0102F3000	SCREW-HHCS 1/2-20X3	2
30	8158121-702	TRIGGER	1
31	18A0104X3000	PIN-SPRING 1/4X3	1
32	8310301-200	NEEDLE ROLLER	2
33	8010461-000	1/4" DIA STEEL BALL	1
34	8210510-204	SPRING	1
35	8158121-701	NOSE HOLDER SUPPORT	1
36	8300121-701	NOSE HOLDER SUPPORT SCR	1
37	21A0102F2102	SCREW-HHCS 1/2-20X2-1/2	2
38	23A0104C0102	SCREW-SSS 1/4-20X1/2	1
39	8130142-071	BEND LOCATING GAUGE ASSEMBLY	
	8130142-003	BEND LOCATING GAUGE ROD	1
	8200142-003	BEND LOCATING GAUGE ARM	1
	8300142-003	BEND LOCATING GAUGE BUTTON	1
	8470510-900	RETAINING RING	2
43	8140121-803	RATCHET HANDLE HOLDER	1
44	8140120-303	RATCHET HANDLE PIN	1
45	8140470-605	PIN CLIP	1

PARTS LIST - CONTINUED
8140800-080

ITEM	PART NUMBER	DESCRIPTION	QTY
46	8140120-304	RATCHET HANDLE PIN STOP	2
47	20B0104C0308	SCREW-BHCS 1/4-20X3/8	2
48	8000121-803	COLLAR	1
49	20A0104C1104	SCREW-SHCS 1/4-20X1-1/4	1
50	8000121-804	CHECK PAWL R	1
51	8100121-804	CHECK PAWL L	1
52	8510100-100	CHECK PAWL SPRING	1
53	8200121-804	CHECK PAWL COLLAR	2
54	23A0104C0104	SCREW-SSS 1/4-20X1/4	2
55	19A0308X2104	PIN-DOWEL 3/8X2-1/4	2
56	19A0308X1304	PIN-DOWEL 3/8X1-3/4	2
57	8500121-804	CHECK PAWL SPACER	2
58	8300121-804	CHECK PAWL SPRING STOP	2
59	8400121-804	CHECK PAWL HANDLE	2
60	8000120-304	RATCHET PAWL PIN	1
61	8140510-405	RATCHET PAWL SPRING	1
62	8140121-804	RATCHET PAWL	1
63	23A0104C0104	SCREW-SSS 1/4-20X1/2	1
64	8200120-800	EXTENSION ARM	1
65	100-0142-M	HANDLE GRIP	1
66	21A0308C2104	SCREW-HHCS 3/8-16X2-1/4	2
67	61X0308	WASHER-FLAT 3/8	2
68	8120142-001	ANGLE GAUGE	1
69	21A0308C2104	SCREW-HHCS 3/8-16X2-1/4	1
70	8100142-001	RETURN STOP	1
71	30X0308C	NUT-FULL 3/8-16	3
	8030650-301	PINCH POINT LABEL(NOT SHOWN)	1
	030-6503001	CAUTION LABEL (NOT SHOWN)	1

QUIK-LOK BREAKDOWN AND PARTS LIST - 8146111-373



ITEM	PART NUMBER	DESCRIPTION	QTY
1	8146111-300	BASE	1
2	8700111-300	SLIDE WELDMENT	1
3	19A0104X0304	PIN-DOWEL 1/4X3/4	1
4	20A0308C0304	SCREW-SHCS 3/8-16X3/4	1
5	8146110-700	HANDLE ARM	1
6	8310410-900	BEARING	1
7	19A0102X1304	PIN-DOWEL 1/2X1-3/4	1
8	8100470-102	STUD BOLT	1
9	8120810-600	PLASTIC KNOB	1
10	8800111-300	LINK	1
11	19A0102X1104	PIN-DOWEL 1/2X1-1/4	1
12	8146111-301	CLAMP	1
13	21A0102F2102	SCREW-HHCS 1/2-20X2-1/2	1
14	8100111-301	SPACER A	1
15	8146111-370	HANGER ASSEMBLY OUTER	1
16	19A0516X1000	PIN-DOWEL 5/16X1	2
17	21A0308C1102	SCREW-HHCS 3/8X16X1-1/2	1
18	8200111-370	HANGER ASSEMBLY INNER	1
19	8000111-301	SUPPORT BAR	1
20	21A0308C3102	SCREW-HHCS 3/8-16X3-1/2	1
21	21A0308C1000	SCREW-HHCS 3/8-16X1	1
22	19A0308X2000	PIN-DOWEL 3/8X2	2
23	21A0102C1304	SCREW-HHCS 1/2-13X1-3/4	2
24	8200111-301	CLAMP BLOCK (Available upon request)	1
25	19A0102X1102	PIN-DOWEL 1/2X1-1/2	1

SPECIFICATIONS & THE ART OF BENDING

SPECIFICATIONS OF HAND BENDER

	No. 1A		No. 2		No. 3		No. 4	
	In.	mm	In.	mm	In.	mm	In.	mm
Max. Radius Capacity	6	152.4	9	228.6	12	304.8	12	304.8
Height of Std. Forming Nose	3/4	19.1	1	25.4	1-1/2	38.1	1-1/2	38.1
Center Pin Hole-Diameter	1/2	12.7	1	25.4	1	25.4	1	25.4
Operating Leverage	16	406.4	29	736.6	40	1016	40	1016
Material Capacities								
Round Mild Steel Bar	5/16	7.9	1/2	12.7	5/8	15.9	1	25.4
Square Mild Steel Bar	1/4	6.4	3/8	9.5	1/2	12.7	3/4	19.4
Steel Tube-16 Gauge	1/2	12.7	3/4	19.1	1	25.4	1-1/4	31.8
Standard Iron Pipe	--	---	3/8 IPS	9.5	1/2 IPS	12.7	1 IPS	25.4
Flat Steel Bar (easy way)	3/16x1,4.8x 25.4		1/4x1-1/2,6.4x 38.1		1/4x2,6.4x50.8		3/8x4.9.5x 101.6	
Flat Steel Bar (hard way)	1/8x1/2,3.2x 12.7		1/8x3/4,3.2x 19.1		1/8x1,3.2x25.4		1/4,1,6.4x25.4	



THE ART OF BENDING

FOR A COMPLETE DESCRIPTION OF 20 BENDING OPERATIONS WITH CLEAR STEP-BY-STEP ILLUSTRATIONS OF EACH, ORDER THE 20-PAGE DIACRO "ART OF BENDING" CATALOG WITH OVER 90 DIAGRAMS AND CHARTS TOGETHER WITH VALUABLE TOOLING SUGGESTIONS.

RATCHET AND DIRECT OPERATION

RATCHET OPERATION

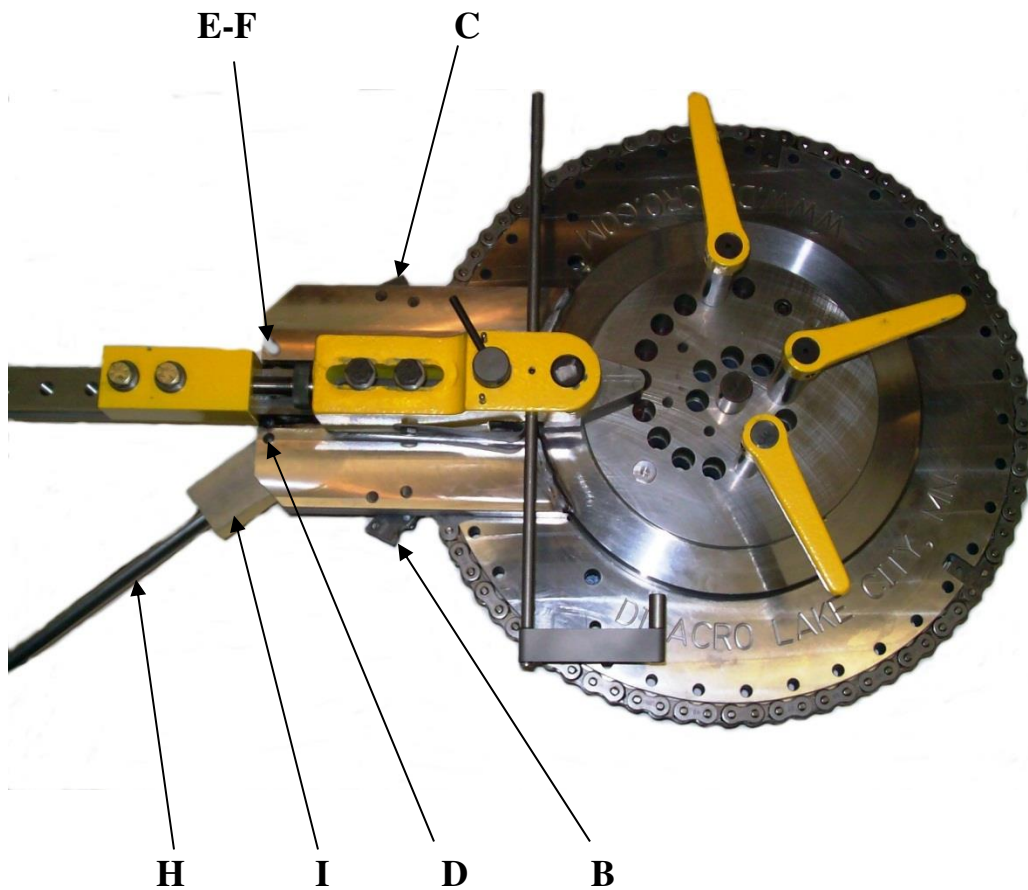
For clockwise operation of the Di-Acro No. 4 Bender, engage check pawl (B) and disengage check pawl (C). Remove stop pin (F) from hole (D) and place in hole (E). For counter-clockwise operation, engage check pawl (C) and disengage check pawl (B). Remove stop pin (F) from hole (E) and place in hole (D).

CAUTION

STOP PINS MUST BE USED AS DESCRIBED ABOVE WHEN USING THE RATCHET MECHANISM. FAILURE TO DO SO CAN RESULT IN SERIOUS BODILY INJURY.

DIRECT OPERATION

For direct drive operation without the ratchet, disengage both check pawls (B) and (C). Remove handle (H), place handle holder (I) in neutral position between holes (D) and (E). Insert stop pins into both holes.

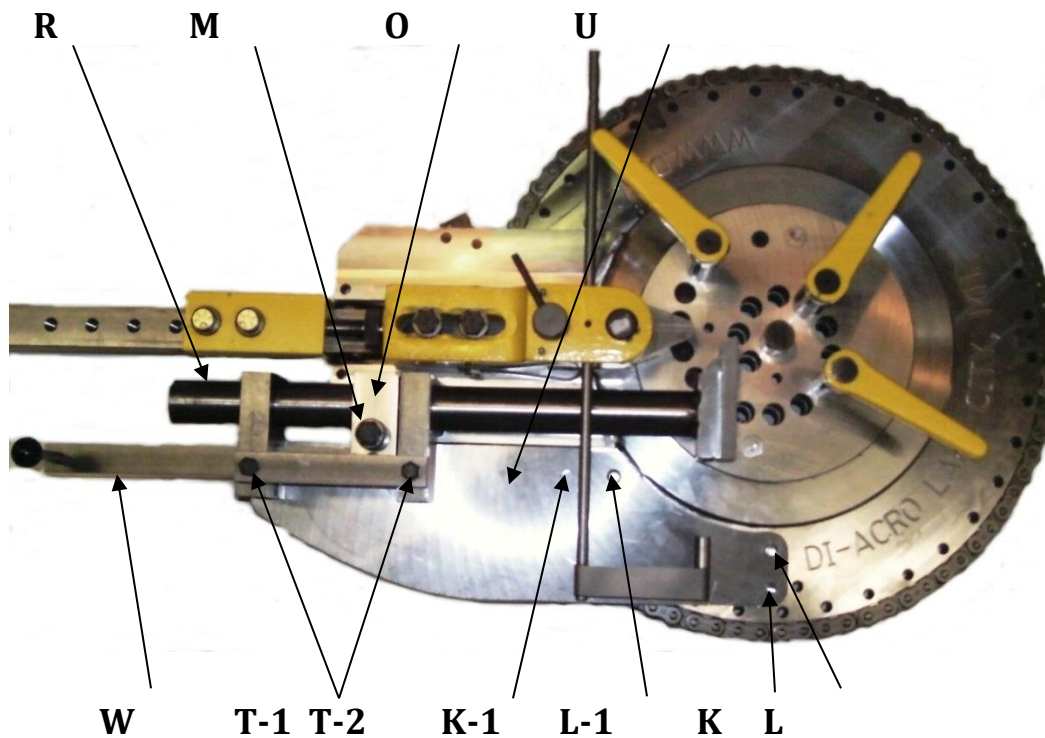


QUIK-LOK INSTALLATION AND OPERATION

To mount Quik-Lok Clamp on Di-Acro No. 4 Bender for clockwise forming, insert 3/8" dowel pins (K) and (K-1) in holes to bender base casting. Bolt in position with 1/2-20 hex screws (L) and (L-1) inserted from the bottom side of base.

To adjust for material size, radius of bend and clamping pressure; loosen 1/2-20 hex screw (M) on clamp (O) and move slide assembly (R) to the correct position and then tighten 1/2-20 hex screw (M).

To open Quik-Lok Clamp, move handle arm (W) to the right. To mount Quik-Lok clamp for counter-clockwise forming, remove clamp assembly from base by removing 3/8 hex screws (T-1) and (T-2). Remove mounting plate from bender base by loosening 1/2-20 hex screws (L) and (L-1). Press 3/8" dowel pins (K) and (K-1) through base (U) and turn plate over so 3/8" dowel pins can be inserted in holes (K) and (K-2) then bolt in position with 1/2-20 hex screw (L). This will place base (U) in a position 180° from its location in this photograph. Bolt clamp assembly on base with 3/8" hex screws (T-1) and (T-2).



OPTIONAL STAND

Part Number: 8230110-900

Stand Dimensions: 20" WIDE, 15" DEEP, 33-1/4" HIGH

CALL DI-ACRO FOR PRICE AND AVAILABILITY



Fasteners needed to attach Hand Bender to stand are the following:
(Fasteners to attach stand to floor are not included.)

PART NUMBER	DESCRIPTION	QTY
21A0102C3000	SCREW-HHCS 1/2-13X3	3
61X0102	WASHER-FLAT 1/2	3
30X0102C	NUT-FULL 1/2-13	3

Warranty & Limitation of Liability

Defective parts, of a product manufactured by DI-ACRO, will be replaced or repaired at no charge for twelve (12) months following delivery to the original purchaser. Labor is included for the first 90 days. This warranty becomes void when products have not been used according to instructions furnished by DI-ACRO, nor does it cover any altered parts or unauthorized repairs. We cannot be responsible for the cost of repairs made or attempted outside of our factory. All other warranty claims are made FOB our plant, providing such items(s) is returned freight prepaid to our plant for examination.

This warranty does not apply to parts, components or systems not manufactured by DI-ACRO. These products are covered instead by the existing warranties, if any, of their manufacturers. Normal service items with a reasonable life expectancy of less than one year are warranted only to the extent of the reasonable life under normal use and service.

Authorization must be obtained from DI-ACRO before returning parts or equipment to the factory. DI-ACRO will satisfy this warranty by replacing the product or refunding the purchase price upon receipt, inspection and defect identification.

DI-ACRO's liability under this warranty shall not exceed the amount paid for the product.

THIS IS DI-ACRO'S SOLE WARRANTY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHICH ARE HEREBY EXCLUDED, INCLUDING IN PARTICULAR ALL WARRANTIES OF MERCHANTABILITY, FITNESS OR ANY LOSS, DAMAGE OR EXPENSES DIRECTLY OR INDIRECTLY RELATED TO THE USE OF ITS PRODUCT OR FROM ANY OTHER CAUSE OR FOR CONSEQUENTIAL DAMAGES INCLUDING, WITHOUT LIMITATION, LOSS OF TIME AND LOSS OF PRODUCTION.

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