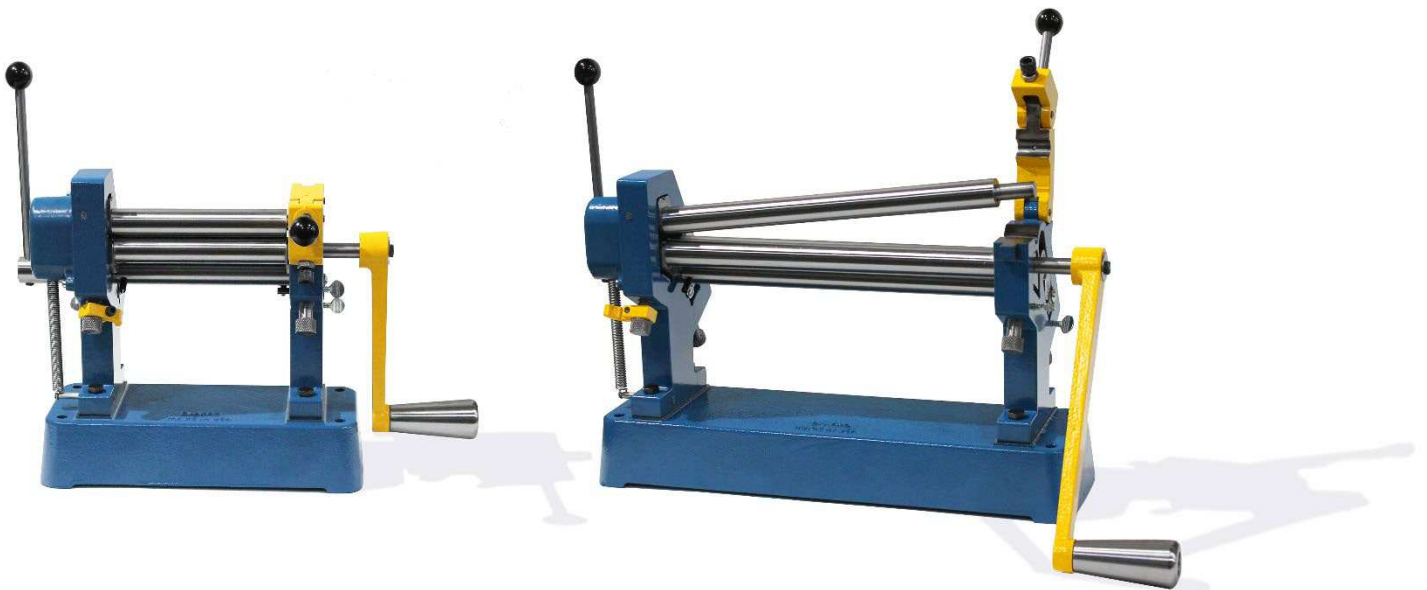




**MODEL 1 & 2 SLIP ROLLER  
OPERATION AND PARTS MANUAL**



**DI-ACRO**

**579 Schommer Dr · Ste C · Hudson, WI 54016 USA**

**Phone: 651-342-1756**

**Website: [www.diacro.com](http://www.diacro.com) Email: [info@diacro.com](mailto:info@diacro.com)**

**TABLE OF CONTENTS**

SAFETY INFORMATION & MACHINE SPECIFICATIONS..... 2  
MACHINE FOOTPRINT..... 3  
MAINTENANCE ..... 4  
GENERAL SETUP ..... 5  
TWO-PASS ROLLING..... 8  
REVERSE ROLLING AND BEND AT ANY POINT ..... 10  
MACHINE BREAKDOWN & PARTS LIST ..... 12  
WARRANTY ..... 16

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## SAFETY INFORMATION



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

**\*IF MACHINE IS MOUNTED ON A STAND, SECURE THE STAND TO THE FLOOR\***

Read all operating instructions prior to operating the machine. Keep your hands clear of the roller interface when operating the machine, even while loading and unloading of parts.

### MODEL 1 SLIP ROLLER SPECIFICATIONS

	IMPERIAL (INCHES)	METRIC (MM)
MAXIMUM FORMING WIDTH	6"	152.4
MATERIAL CAPACITY – MILD STEEL	16 GA (.0598")	1.518
DIAMETER OF ROLLS	1"	25.4
MINIMUM RADIUS	0.5"	12.7
MAXIMUM RADIUS	NO LIMIT	NO LIMIT
NET WEIGHT	40 LB	18.14 KG

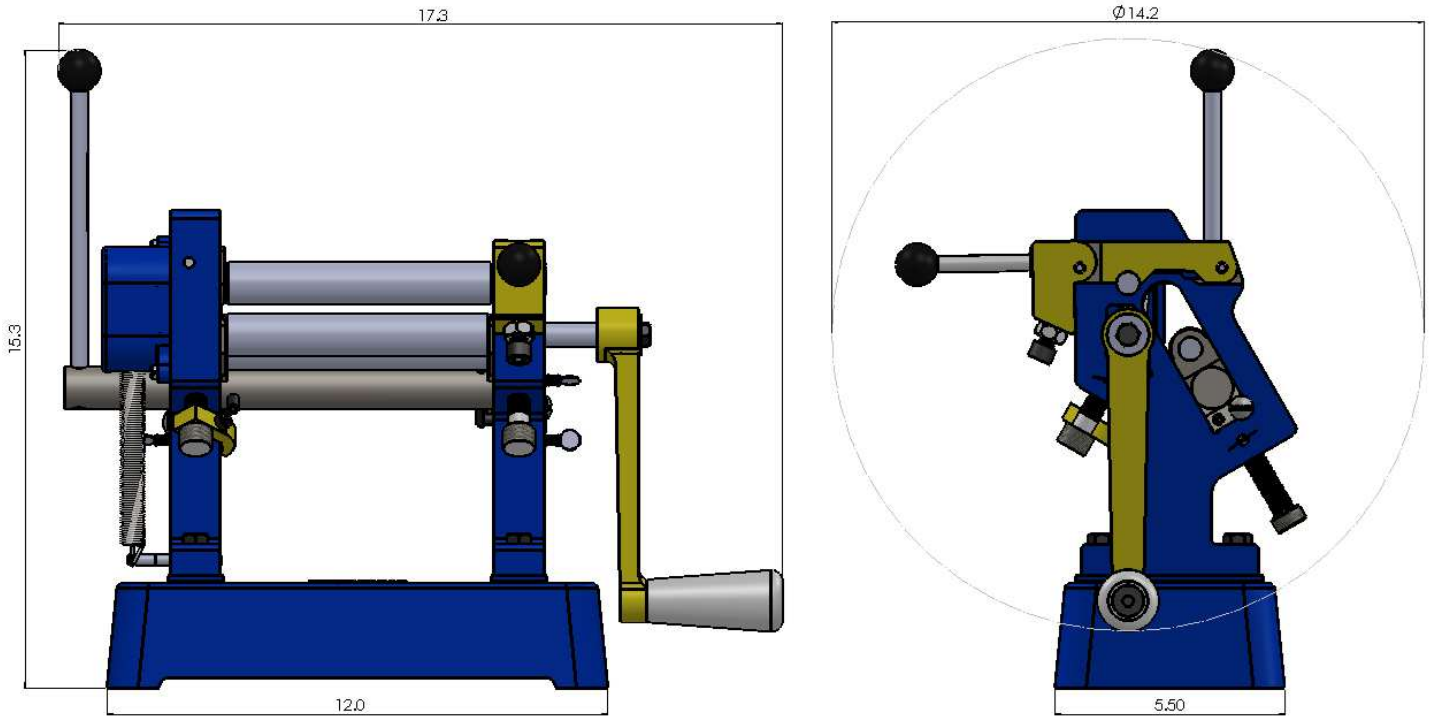
### MODEL 2 SLIP ROLLER SPECIFICATIONS

	IMPERIAL (INCHES)	METRIC (MM)
MAXIMUM FORMING WIDTH	12"	304.8
MATERIAL CAPACITY – MILD STEEL	18 GA (.0478")	1.214
DIAMETER OF ROLLS	1"	25.4
MINIMUM RADIUS	0.5"	12.7
MAXIMUM RADIUS	NO LIMIT	NO LIMIT
NET WEIGHT	51 LB	23.13 KG

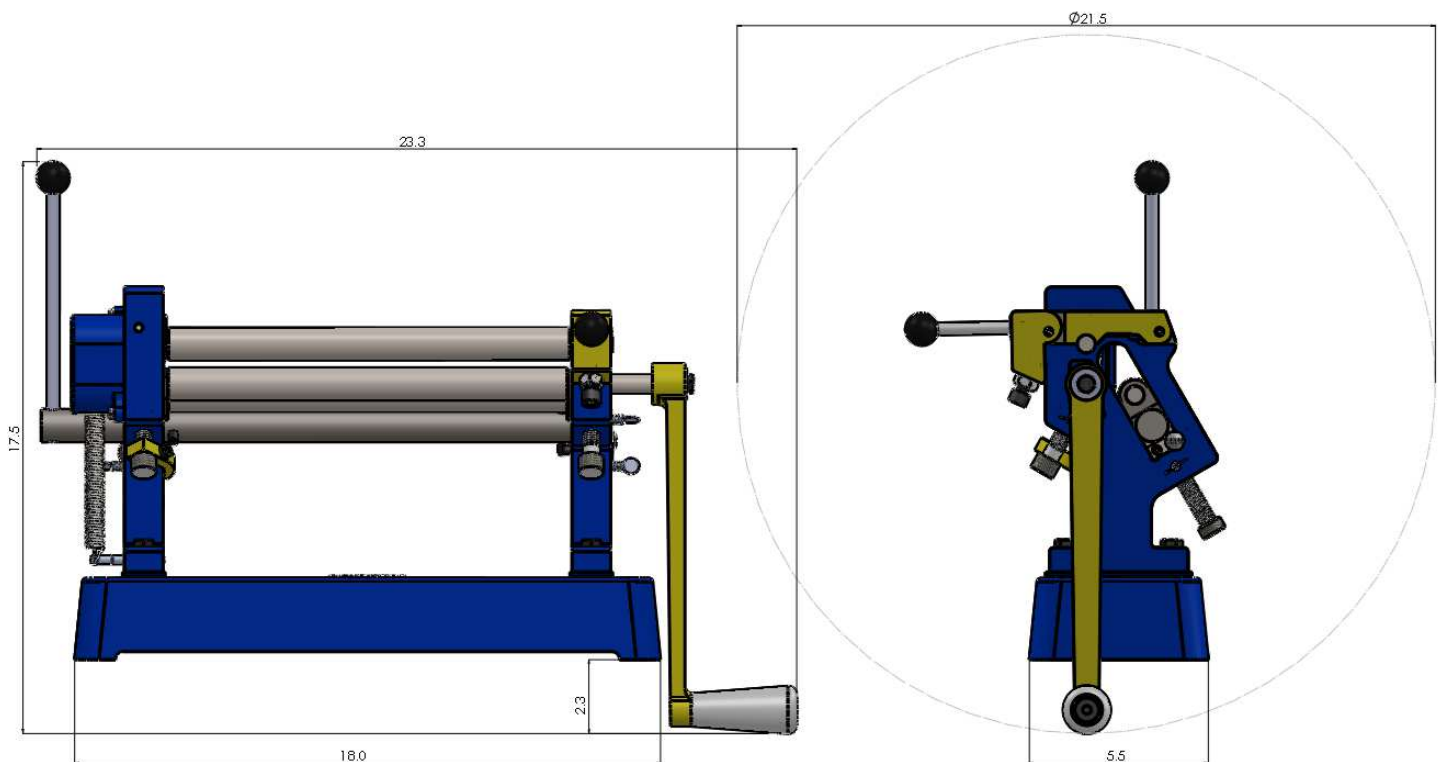
## MACHINE FOOTPRINT

The machine footprint is shown in the images below. This represents the operating dimensions of the machine to function properly and the handles to move through their paths. *\*DIMENSIONS SHOWN IN INCHES\**

### MODEL 1 SLIP ROLLER



### MODEL 2 SLIP ROLLER



# MAINTENANCE

- Keep machine surfaces clean and free of debris
- Lubricate the machine rolls via a few drops of machine oil in the lubrication holes in the Pivot Box, Lower Pinch Roll Boxes, and Idler Roll Boxes shown in Figure 1 per the Di-Acro Machine Lubrication Guide in this section.

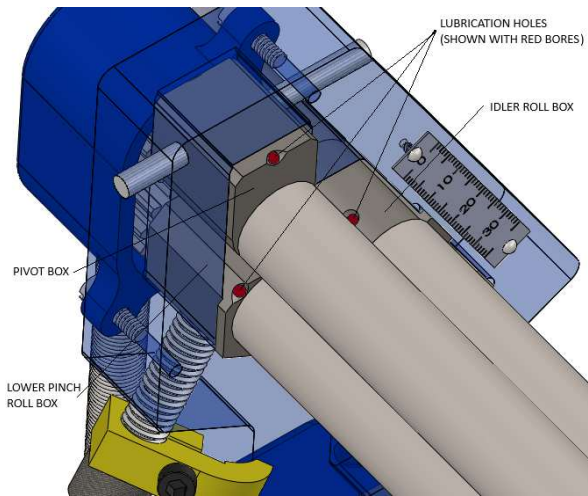


Figure 1: Oil port locations. Left side shown with transparent Side Frame. Right side is similar but has no Pivot Box.

- Lubricate the right end of the Upper Pinch Roll and the working surfaces of the Idler Roll Cam with a light coat of NLGI GC-LB or SAE J310 grease, as shown in Figure 2 (per the lubrication guide in this section).

DI-ACRO MACHINE LUBRICATION GUIDE		
DUTY	HOURS/WEEK	LUBRICATION INTERVAL
LIGHT	LESS THAN OR EQUAL TO 32	MONTHLY
MODERATE	32 HOURS TO 80 HOURS	MONTHLY
HEAVY	BETWEEN 80 AND 120	EVERY TWO WEEKS
SEVERE	MORE THAN 120	WEEKLY

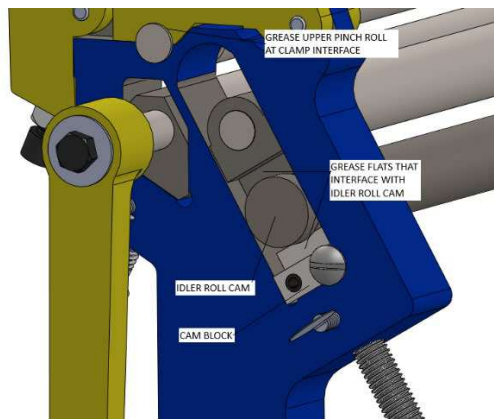
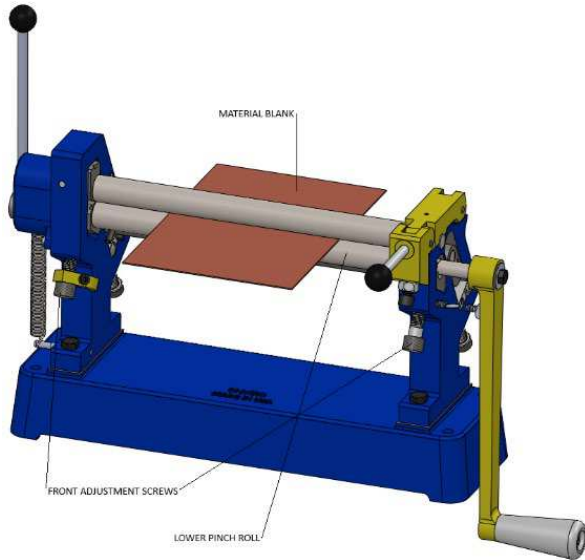
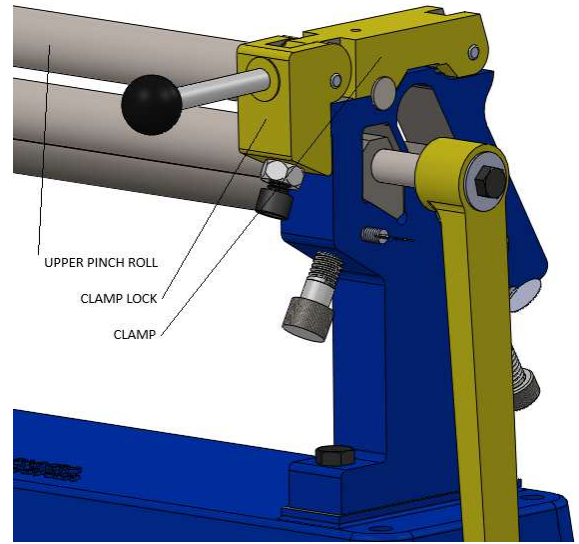


Figure 2: Idler Roll Cam and Upper Pinch Roll Lubrication Guide. Right side shown, Left side similar.

- To minimize corrosion, periodically, coat all non-lubricated bare metal surfaces with a suitable film coating such as paste wax, beeswax, Boeshield T-9, or similar.

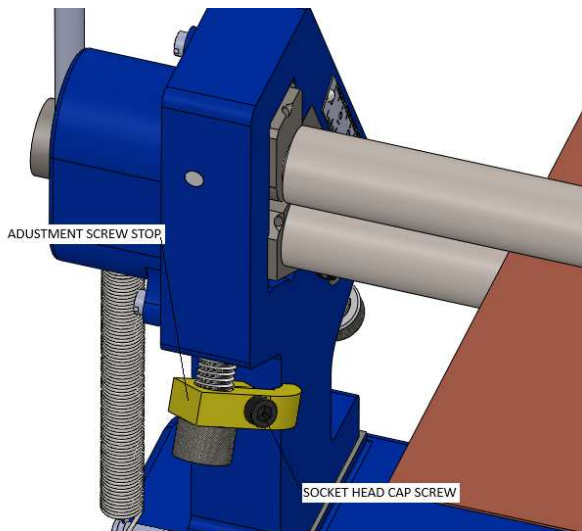
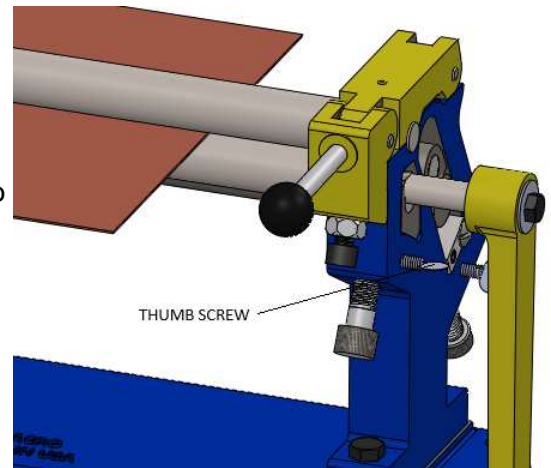
# GENERAL SETUP

To begin, make sure that the Upper Pinch Roll is clamped into position by lowering the Clamp and the Clamp Lock Handle as shown. The tension of the Clamp Lock can be adjusted using the Socket Head Cap Screw and then Jam Nut to fix its position.

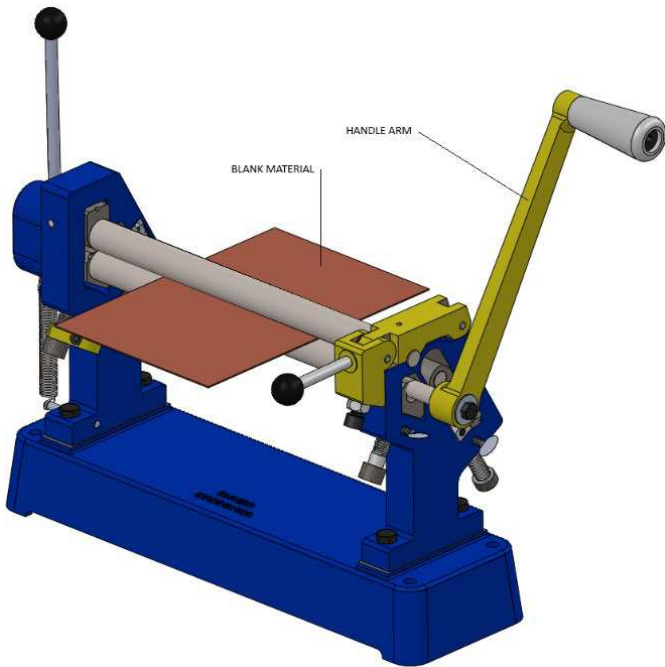


**ADJUST ROLLER FOR MATERIAL THICKNESS** - This is done by inserting a test piece of the material between the rolls and adjusting the Adjustment Screws on the front of the machine. Turn the adjusting screws to raise or lower the Lower Pinch Roll. Insert material between the rolls from the front of the machine and set rolls so the material fits tightly all the way across the surface of the roll.

Once the Lower Pinch Roll has been adjusted properly, lock it into position by tightening the Thumb Screw on the Right Side Frame.



Next set the Adjustment Screw Stop so that it touches the inside of the Left Side Frame, then tighten the Socket Head Cap Screw.



Rotating the Handle Arm clockwise should index the test material into the rolls. If this is not the case, continue to reset the Adjustment Screws until the material is pulled into the rolls.

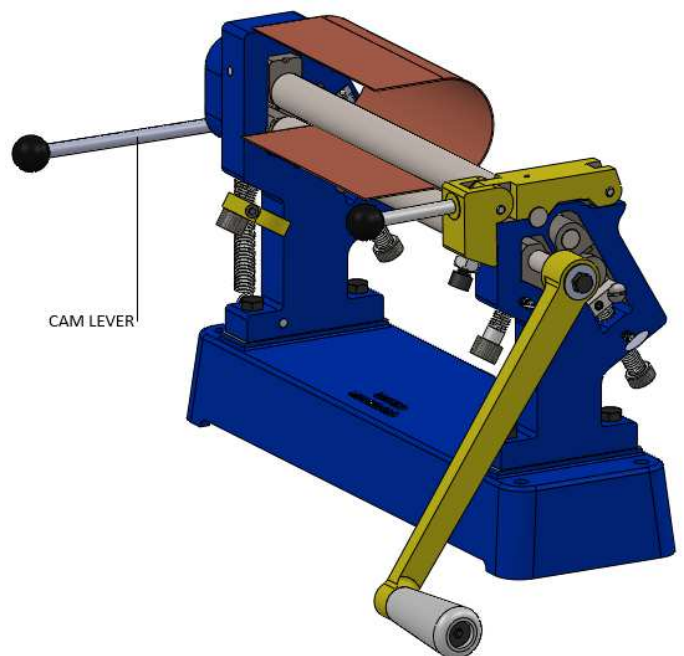
A test part can now be inserted into the Pinch Roll gap and indexed until it is approximately half way through the rolls.

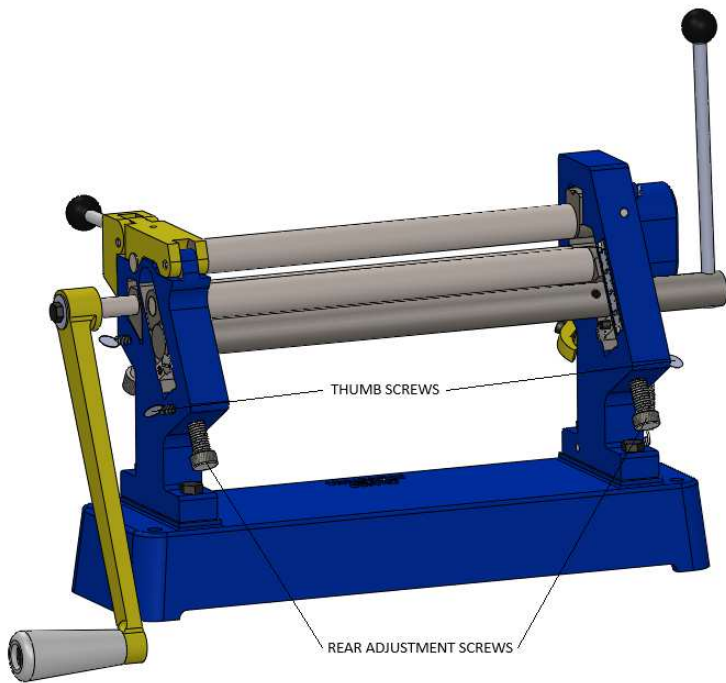
## ADJUST ROLLER FOR DIAMETER OF CIRCLE

**LENGTH OF MATERIAL** – This is the first determination required to form a circle of a specific size. To determine approximate length of material needed use the formula  $C = \pi D$ . (Where C is circumference,  $\pi = 3.1416$  and D is diameter.) For example, to find the length of material needed to form a circle 4” in diameter, multiply 3.1416 by 4”. This results in 12.566” which is the circumference or approximate length of material needed. Cut a few pieces of material to this length for test forming. Material may have to be lengthened or shortened depending upon the results of the sample forming run.

Once the proper blank size is determined, index the Cam Lever forward (toward the operator) while simultaneously rolling until it “falls into place.” This will lift the Idler Roll into the workpiece and begin to form the material.

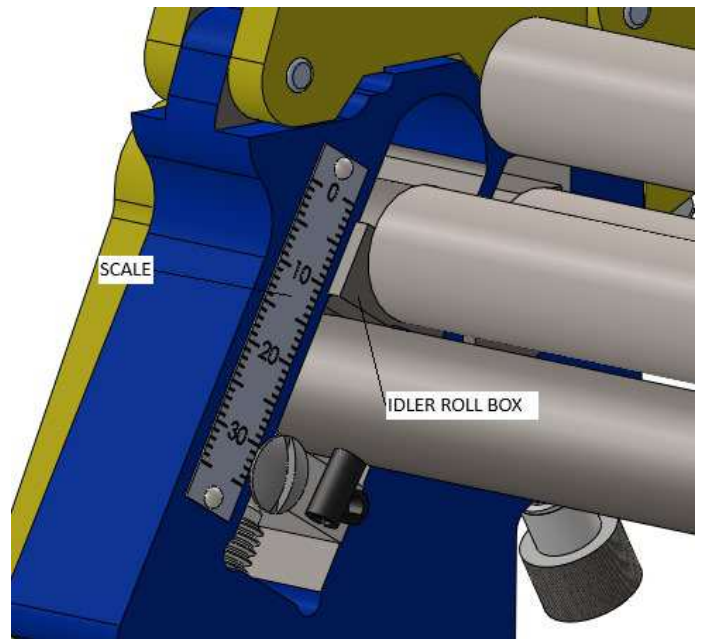
Rotate the Handle Arm clockwise to pull the work piece through the rollers and form the radius.





Measure the diameter or radius size of your part. If the size needs to be adjusted, this is easily accomplished by adjusting the height of the Idler Roll. First, loosen the two Thumb Screws on the back of the roller.

Set the height of the Idler Roll by turning the Rear Adjustment Screws to raise or lower the Idler Roll. For a smaller radius, raise the Idler Roll. If the radius needs to be larger, lower the Idler Roll. Once the Idler Roll has been adjusted, tighten the two Thumb Screws to lock it in position.

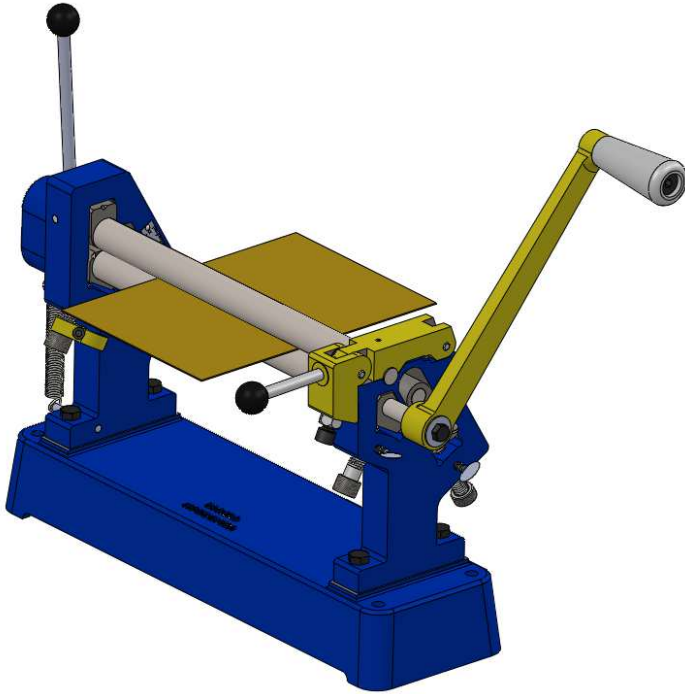


**IMPORTANT NOTE:** The Idler Roll needs to be parallel with the Pinch Rolls to prevent “spiraling” of the work piece. Additionally, a repeatable bend may be achieved by noting or marking the position of the Idler Roll Boxes relative to the Scales on the inside of the Side Frames. The machine may be returned to the same settings by adjusting the Idler Roll Boxes to the same positions on Scales as used before.

**NO EXACT FORMULA** can be followed when making these adjustments due to material “springback” which varies with the type of material being formed. Only by test forming several pieces can the correct adjustments be obtained.

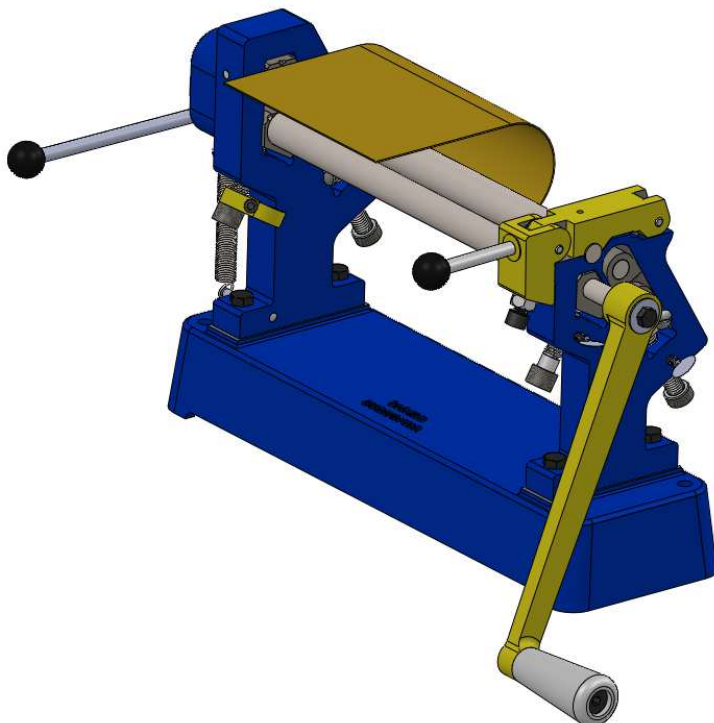
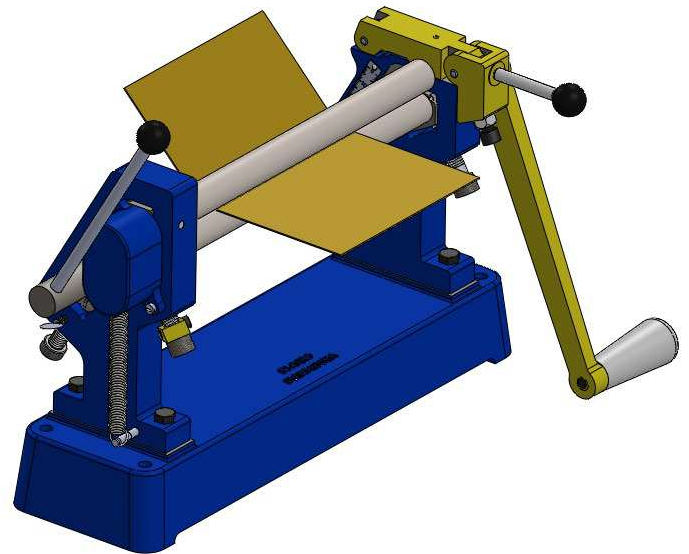
## FORMING CIRCLES IN TWO PASSES

It is possible to form circles in just two passes on the Di-Acro slip roller. First, set up the machine to form the proper radius as described in the previous section of this manual.

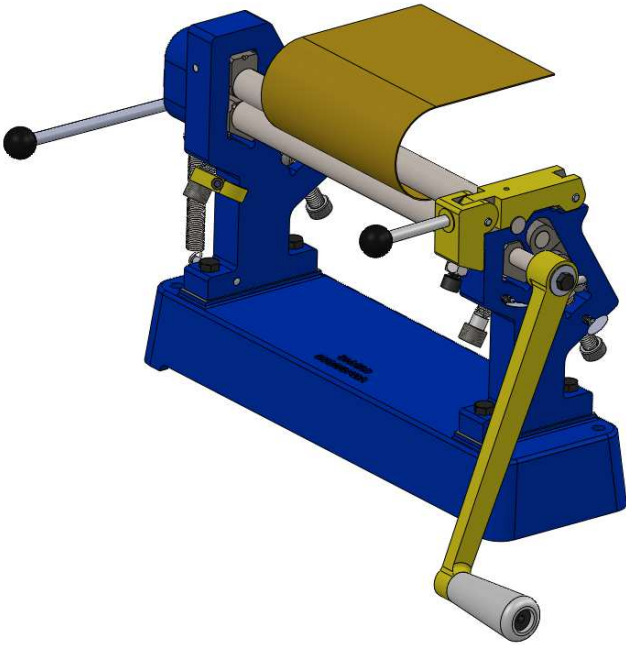


Insert the work piece approximately halfway into the machine with the Idler Roll in the lowered position.

Index the Cam Lever toward the operator while simultaneously rolling until it “falls into place.” This will prevent a crease on the material.



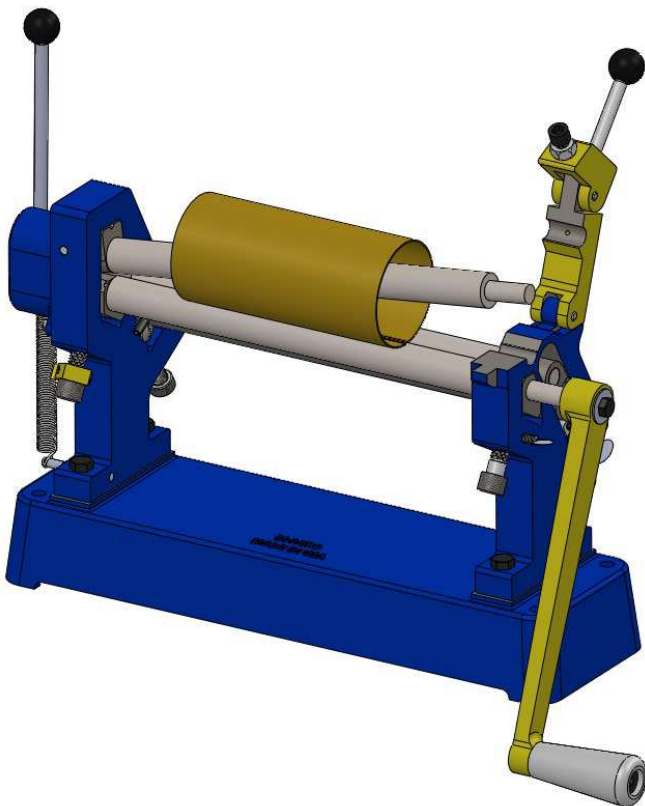
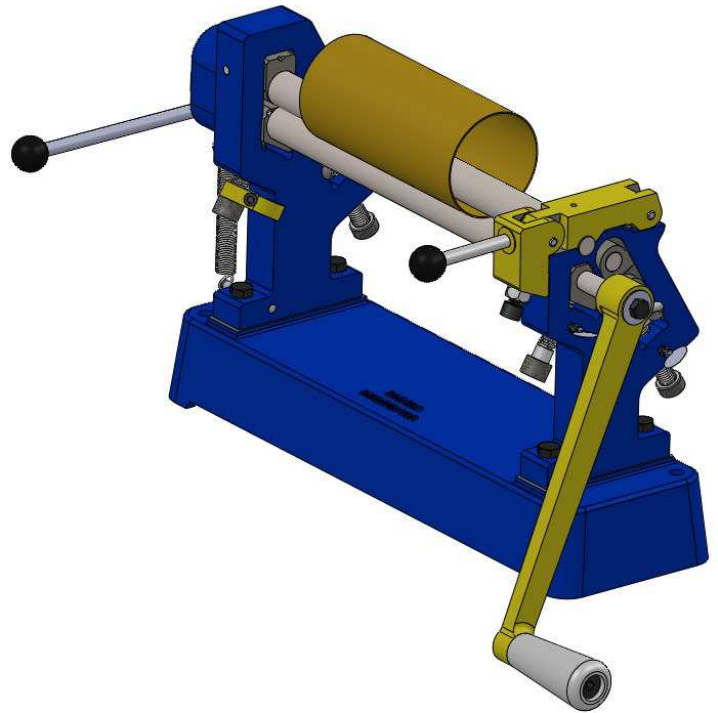
Rotate the operating handle in a clockwise direction until the work piece is formed through the Pinch Rolls.



Then, while feeding material, raise the Idler Roll. Continue turning until a half circle has been formed. Re-insert the formed end of the workpiece back into the Pinch Rolls.

It is important that you operate the roller while engaging the Cam Lever. If the Cam Lever is engaged when the rolls are not turning, a noticeable flat spot or line will be formed across the width of the material.

Turn the handle clockwise to draw the workpiece into the rollers and complete the circle.



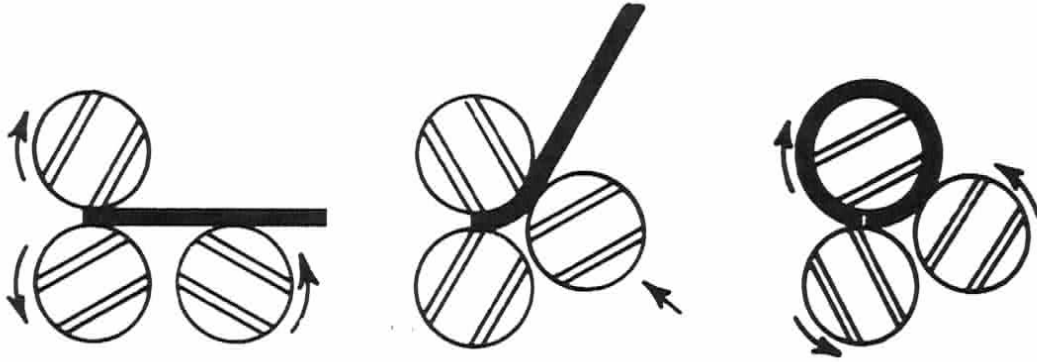
To remove the completed part, rotate the Front Adjustment Screw (with stop) on the Left Side Frame counterclockwise. Raise the Clamp on the right side of the machine by moving the Clamp Lock Handle up and opening the Clamp. The spring will raise the Upper Pinch Roll.

Remove the part. Then, lower Clamp to lock in place and rotate the Front/Left Adjustment Screw back to its operating position. You are now ready to form again.

## REVERSE ROLLING

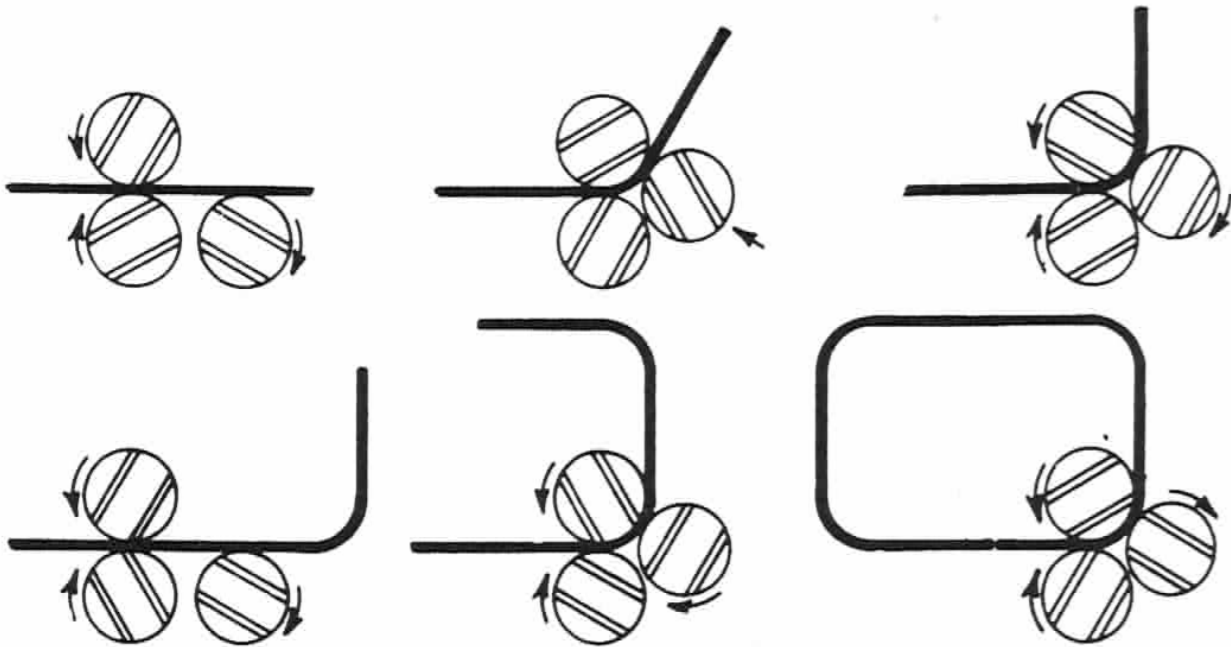
Circles the same diameter as the diameter of the rolls and slightly larger, can be formed with the Di-Acro roller in just one pass. To make the adjustment for material thickness and to determine the length of material needed, see the instructions given under "FORMING CIRCLES IN TWO PASSES."

To operate – insert material to be formed from the rear of the machine. Material should be inserted in the machine so that the rolls just "nip" the end of the material. Then, place the Idler Roll into operating position and operate machine so that the Upper Pinch Roll rotates in a clockwise direction. If adjustments are correct and the material is the right length, a perfect circle is formed.



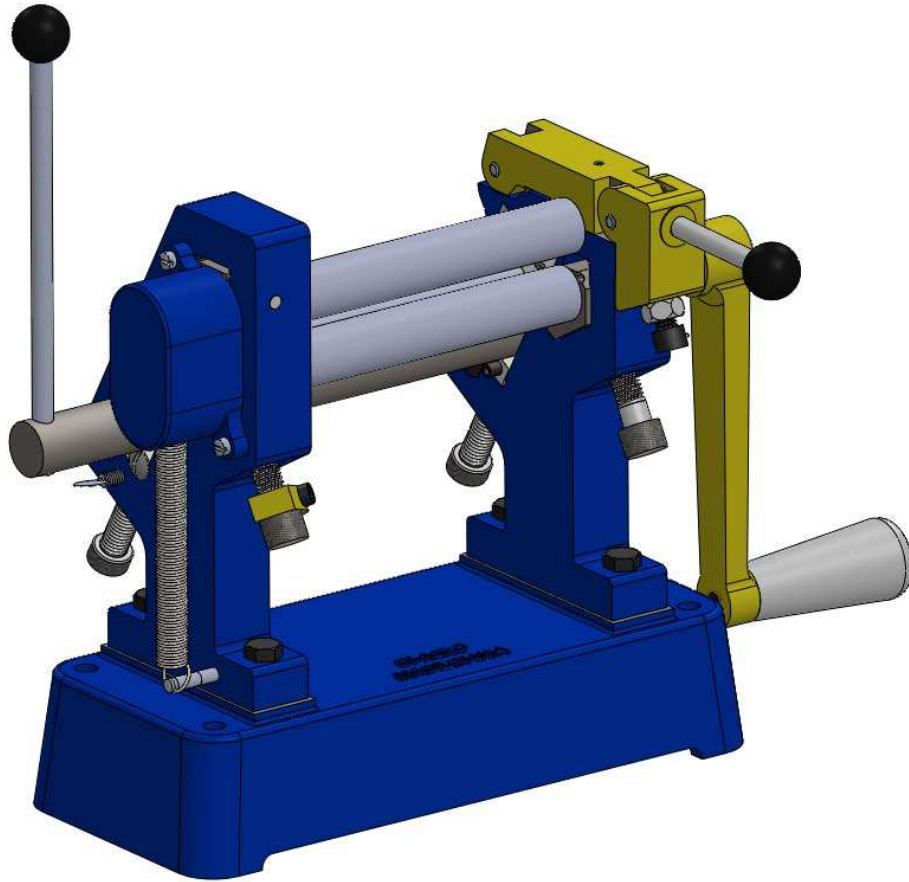
## BENDS CAN BE LOCATED AT ANY POINT IN METAL

Flat material – can be rolled part way through the rolls and bent by raising the Idler Roll using the Cam Lever. Disengaging the Cam Lever lowers the Idler Roll, and the material again passes through the rolls without being bent. It is possible to form a wide variety of shapes with the Di-Acro Roller.



**MODEL 1 SLIP ROLLER – P/N 8410800-080**

**MODEL 2 SLIP ROLLER – P/N 8420800-080**

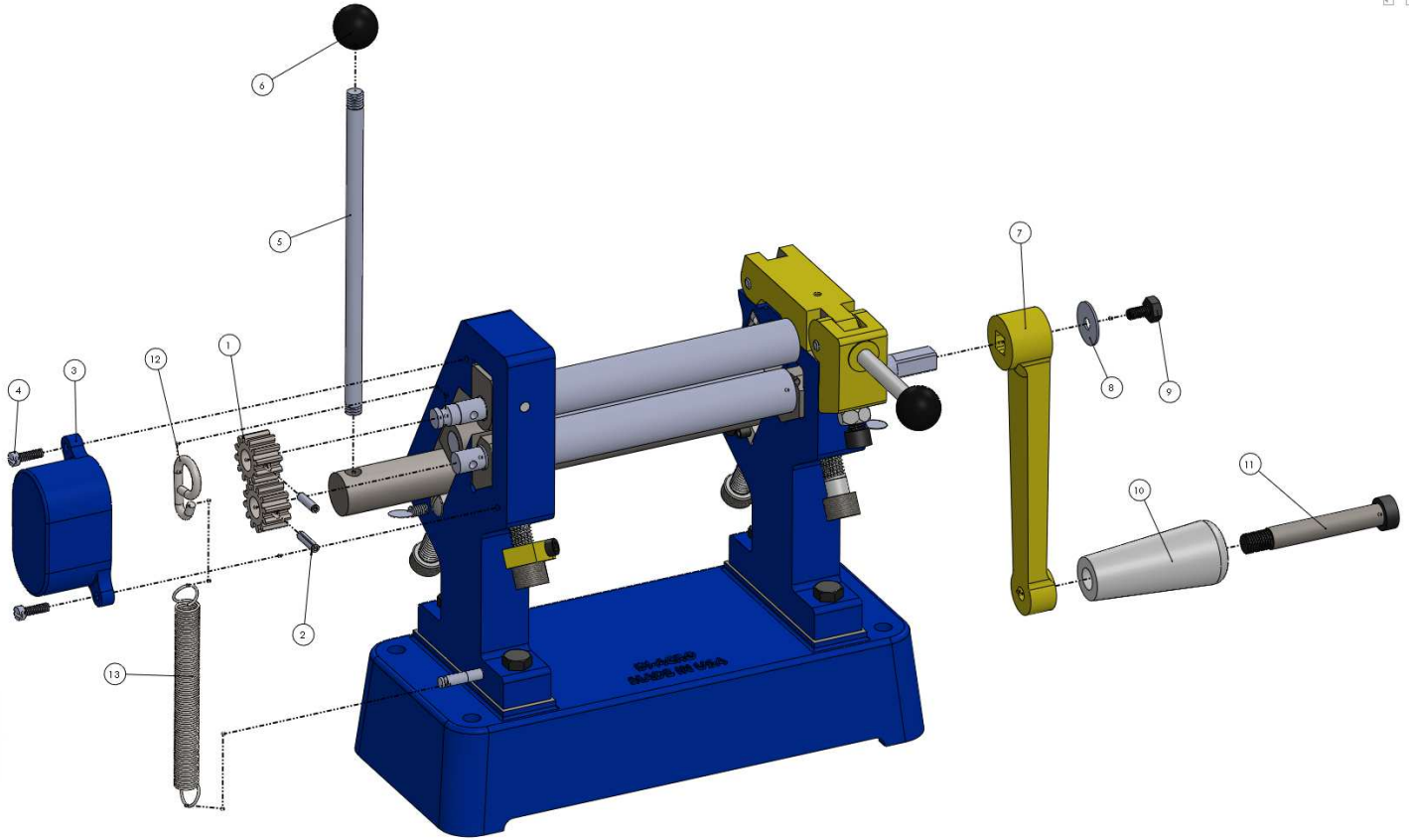


***\*ILLUSTRATIONS ARE FOR REFERENCE ONLY\****

<b>MACHINE CONFIGURATION</b>	
<b>DESCRIPTION</b>	<b>PAGE</b>
DRIVE AND CONTROL GROUP	12
BASE AND ROLLER GROUP	13
RIGHT SIDE FRAME ASSEMBLY	14
LEFT SIDE FRAME ASSEMBLY	15

## MODEL 1 & 2 SLIP ROLLER

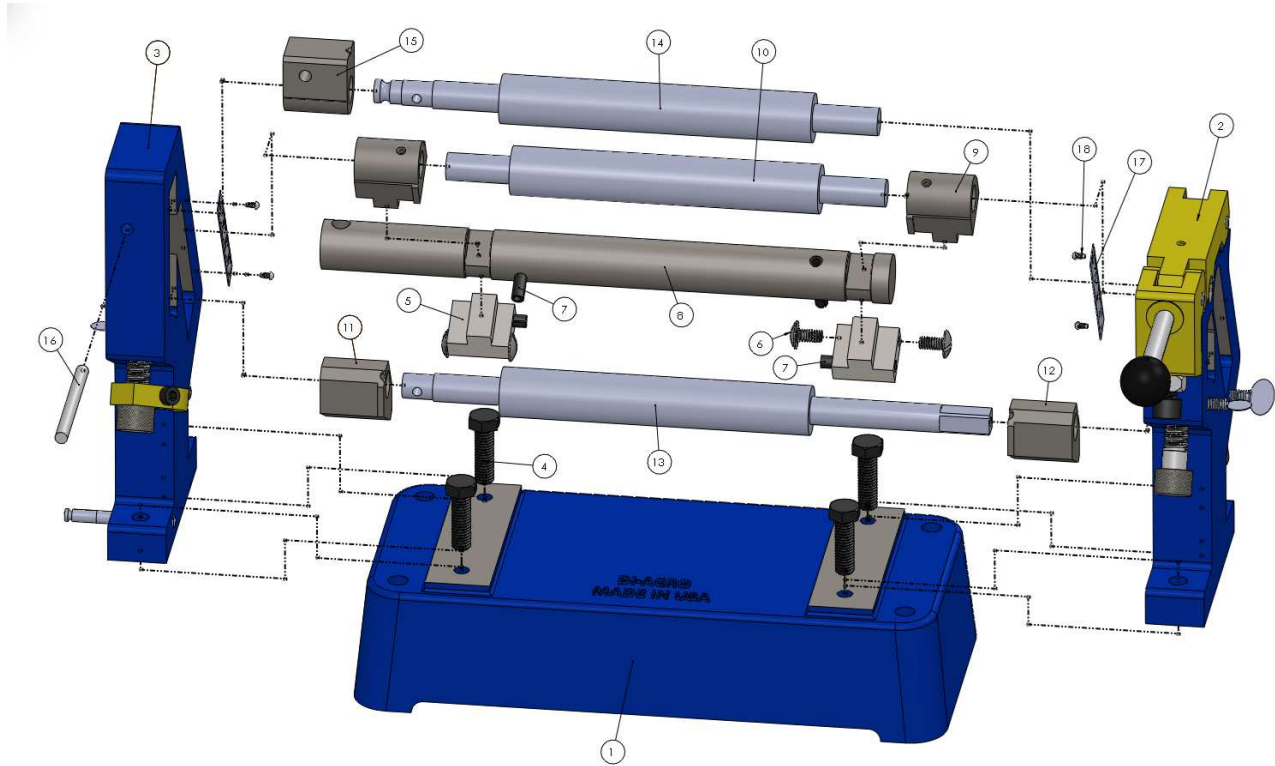
### PARTS BREAKDOWN & PARTS LIST - DRIVE AND CONTROL GROUP



MACHINE ASSY. NO.			NO. 1 SLIP ROLLER 8410800-080	NO. 2 SLIP ROLLER 8420800-080
NO.	DESCRIPTION	QTY.	PART NO.	PART NO.
1	GEAR	2	410-3901031	
2	PIN-SPRING 3/16 X 3/4	2	18A0316X0304	
3	GEAR CAP	1	410-1106028	
4	SCREW-FLHMS #10-24 X 5/8	2	22B0X10C0508	
5	IDLER ROLL CAM LEVER	1	410-1202009	
6	KNOB	1	8120810-600	
7	HANDLE ARM LONG	1		410-1208021
7	HANDLE ARM SHORT	1	410-1208022	
8	WASHER-FENDER 1/4 X 1	1	4901102	
9	SCREW-HHCS 1/4-20 X 1/2	1	21A0104C0102	
10	HANDLE-REVOLVING	1	8120811-400	
11	SCREW-SS 1/2 X 2-3/4	1	25X0102C2304	
12	SPRING HOOK	1	420-1108027	
13	SPRING	1	410-5101032	420-5101032

## MODEL 1 & 2 SLIP ROLLER

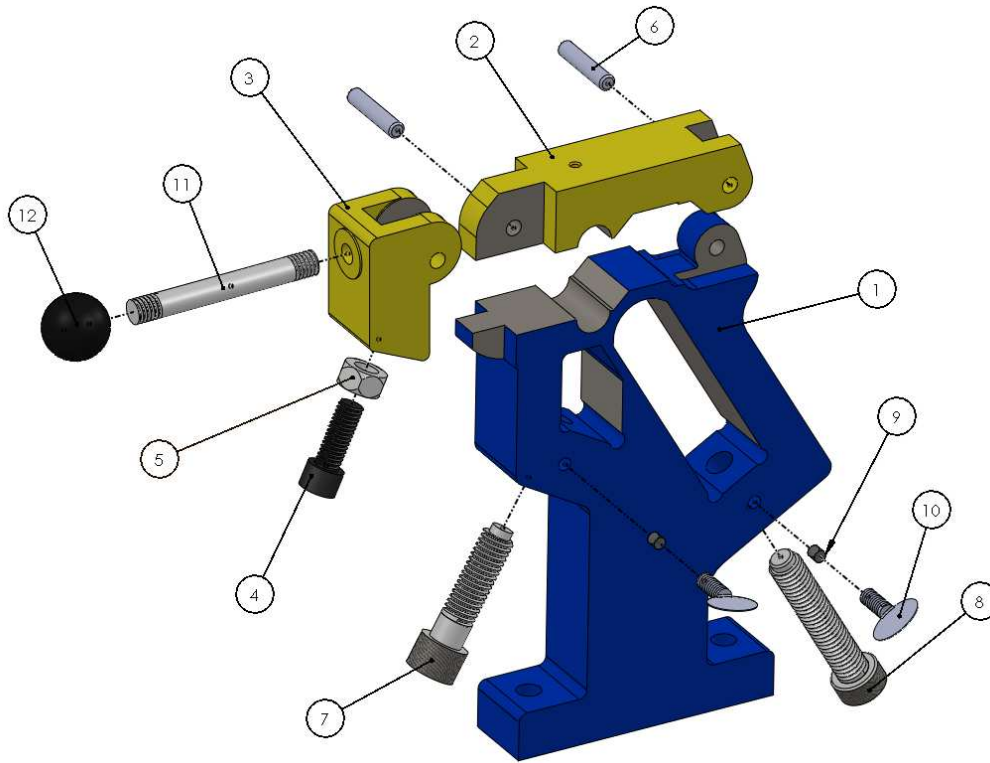
### PARTS BREAKDOWN & PARTS LIST - BASE AND ROLLER GROUP



MACHINE ASSY. NO.			NO. 1 SLIP ROLLER 8410800-080	NO. 2 SLIP ROLLER 8420800-080
NO.	DESCRIPTION	QTY.	PART NO.	PART NO.
1	BASE	1	410-1101001	420-1101001
2	SIDE FRAME ASSY R	1	410-1103704	
3	SIDE FRAME ASSY L	1	410-1103705	
4	SCREW-HHCS 3/8-16 X 1-1/4	4	21A0308C1104	
5	CAM BLOCK	2	410-1202010	
6	SCREW-THMS 1/4-20 X 1/2	4	22D0104C0102	
7	PIN-SPRING 1/4 X 1-1/2	4	18A0104X1102	
8	IDLER ROLL CAM	1	410-1202007	420-1202007
9	IDLER ROLL BOX	2	8410120-900	
10	IDLER ROLL	1	410-1214004	420-1214004
11	LWR PINCH ROLL BOX LH	1	410-1214014	
12	LWR PINCH ROLL BOX RH	1	410-1214013	
13	LOWER PINCH ROLL	1	410-1214012	420-1214012
14	UPPER PINCH ROLL	1	410-1214015	420-1214015
15	PIVOT BOX	1	410-1214016	
16	LOCKING PIN	1	120-1203028	
17	SCALE	2	8410160-103	
18	SCREW-DRIVE #2 X 3/16	4	3/16DRIVESCREW	

## MODEL 1 & 2 SLIP ROLLER

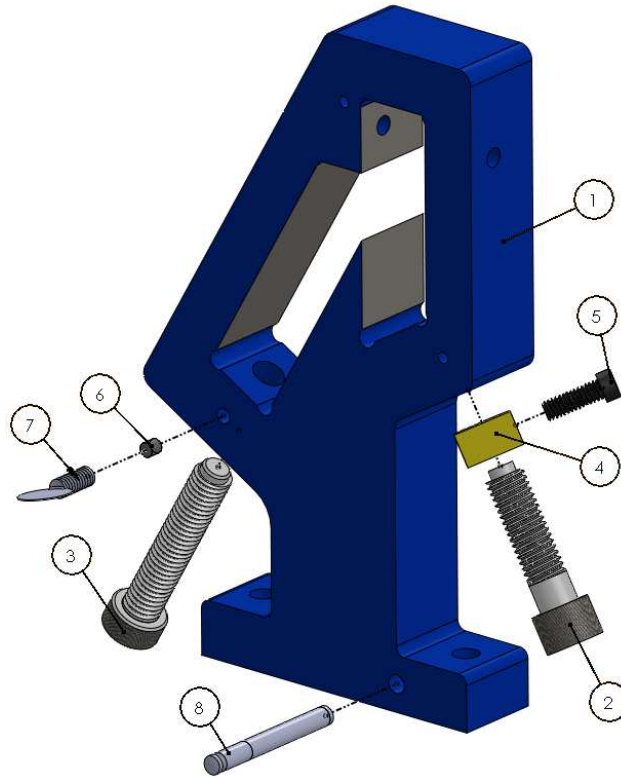
### PARTS BREAKDOWN & PARTS LIST - RIGHT SIDE FRAME ASSEMBLY



MODEL 1 & 2 SLIP ROLLER			RIGHT SIDE FRAME ASSY
ASSEMBLY NO.			410-1103704
NO.	DESCRIPTION	QTY.	PART NO.
1	SIDE FRAME RH	1	410-1103002
2	CLAMP	1	410-1110018
3	CLAMP LOCK	1	410-1110019
4	SCREW-SHCS 3/8-16 X 1	1	20A0308C1000
5	NUT-JAM 3/8-16	1	31X0308C
6	PIN-DOWEL 1/4 X 1-1/4	2	19A0104X1104
7	ADJ SCREW FRONT	1	8410470-102
8	ADJ SCREW REAR	1	8000470-102
9	SPACER	2	8410110-803
10	SCREW-THMS 1/4-20 X 1/2	2	28A0104C0102
11	STUD BOLT	1	8100470-102
12	KNOB	1	8120810-600

## MODEL 1 & 2 SLIP ROLLER

### PARTS BREAKDOWN & PARTS LIST - LEFT SIDE FRAME ASSEMBLY



MODEL 1 & 2 SLIP ROLLER			LEFT SIDE FRAME ASSY
ASSEMBLY NO.			410-1103705
NO.	DESCRIPTION	QTY.	PART NO.
1	SIDE FRAME LH	1	410-1103003
2	ADJ SCREW FRONT	1	8410470-102
3	ADJ SCREW REAR	1	8000470-102
4	ADJ SCREW STOP	1	8410110-802
5	SCREW-SHCS 1/4-20 X 3/4	1	20A0104C0304
6	SPACER	1	8410110-803
7	SCREW-THMBS 1/4-20 X 1/2	1	28A0104C0102
8	DRIVE LOK PIN	1	1203122



## TERMS, CONDITIONS, RETURN POLICY & WARRANTY INFORMATION

### TO ORDER

Orders can be placed by emailing us at [info@diacro.com](mailto:info@diacro.com) or by phone 651-342-1756. Machine owners who do not have a manual can obtain one free of charge on our website.

### TERMS & PRICING

All major credit cards are accepted, payment in advance via check or ACH/EFT, or Net 30 terms with approved credit. All international orders will require payment in advance via wire transfer. Please call for current pricing. All prices are subject to change without notice.

### WARRANTY

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 specifications noted by Di-Acro, parts have been altered, or unauthorized repairs have been made. We cannot be responsible for the cost of repairs made or attempted outside of our facility. Costs associated with return shipping for examination - including insuring the product for transit - is the customer's responsibility. If damage occurs during transit, it will be the customer's responsibility to submit the required claim documentation, etc. If the examination concludes the product is defective - cost of return shipment will be refunded to customer.

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 and inspection of the product. 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 PRODUCTS OR FROM ANY OTHER CAUSE OR FOR CONSEQUENTIAL DAMAGES INCLUDING, WITHOUT LIMITATION, LOSS OF TIME AND LOSS OF PRODUCTION. IT IS EXPRESSLY UNDERSTOOD THAT DI-ACRO IS NOT RESPONSIBLE FOR DAMAGE OR INJURY CAUSED TO OTHER PRODUCTS, MACHINERY, PROPERTY OR PERSONS BY REASON OF THE USE OF ITS PRODUCTS.

**BY ENGAGING IN A PURCHASING TRANSACTION WITH DI-ACRO, BUYER CONFIRMS AGREEMENT WITH THE ABOVE TERMS AND CONDITIONS, AND UNDERSTANDS THAT DI-ACRO TERMS WILL SUPERSEDE ANY AND ALL OF BUYER'S TERMS AND CONDITIONS UNLESS OTHERWISE STATED IN WRITING.**

### RETURN POLICY

Machines, parts, and tooling must be returned unused and in resalable condition. All returns are subject to a 20% restocking charge in addition to any costs necessary to repair or replace used/damaged components. Custom made machines, parts, and tooling are non-returnable.

Product must be returned within 30 days of ship date. All requests must be authorized by Di-Acro before returning. Di-Acro's liability is limited to the purchase price of the goods.