

# Operating, Servicing, and Safety Instruction Manual

## Model # 2200

### Bench Press Series



**3 Ton Manual Bench Press  
Model 2200-M**



**3 Ton Dual Manual Bench Press  
Model 2240-2M**



**Small Manual Bench Press  
Model 2240-1M**



**5 Ton Hydraulic Bench Press  
Model 2200-H**



**10 Ton Spring Steel  
Hydraulic Bench Press  
Model 2210-HSK (with tooling)  
Model 2210-HS (press only)**



**10 Ton Hydraulic Bench Press  
Model 2210-HD**

10 Cooperative Way, Wright City, MO 63390  
P.O. Box 110, Foristell, MO 63348  
1-636-745-7757 Fax 1-636-745-2874  
1-800-467-2464  
[www.mittlerbros.com](http://www.mittlerbros.com)

Last Update: 10/25/22

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# SAFETY

The purpose of the safety section of this manual is to inform operators and maintenance personnel of the precautions to be taken while operating or servicing the machine. The following are a few basic guidelines to follow, but as with any type of machinery good judgment and a safe attitude should be applied at all times.

1. Always wear safety clothing, including eye protection and protective footwear, while operating or servicing the machine.
2. Keep all body parts and any foreign objects away from the nose bar and clamping area of the brake while in operation.
4. Do not attempt to override any safety device on the press.
5. Do not operate the press if it has been damaged or is not operating properly.
6. Do not wear jewelry (watches, rings, necklaces, etc.), or loose-fitting clothing while operating or servicing the press.
7. The press should only be operated or serviced by properly trained, authorized personnel.
8. Replacement parts should have the same specification and operation as the original parts on the press.
9. All guards and covers must be in place before operating the press.
10. Before operating the press, be sure it is set up properly.
11. Do not operate or service any machine while under the influence of drugs or alcohol.

**NOTE: THESE SAFETY RULES ARE FOR YOUR BENEFIT TO HELP PREVENT INJURY TO YOURSELF AND/OR YOUR CO-WORKERS. REVIEW ALL SETUP AND OPERATING PROCEDURES, WHETHER COVERED OR NOT, IN THIS MANUAL TO HELP INSURE SAFE OPERATION OF THE MACHINE.**

## ***CAUTION: Read and Understand***

These Operating, Servicing, and  
Safety Instructions, Before Using  
This Machine.

# **HYDRAULIC SAFETY PRECAUTIONS**

## **WARNING**

### ***General Operation***

- All WARNING statements must be carefully observed to help prevent personal injury.
- Before operating the pump, all hose connections must be tightened with the proper tools. Do not over tighten. Connections should only be tightened securely and leak-free. Over-tightening can cause premature thread failure or high-pressure fittings to split at pressures lower than their rated capacities.
- Should a hydraulic hose ever rupture, burst, or need to be disconnected, immediately shut off the pump and release all pressure. Never attempt to grasp a leaking pressurized hose with your hands. The force of escaping hydraulic fluid could cause serious injury.
- Do not subject the hose to potential hazard such as fire, sharp surfaces, extreme heat or cold or heavy impact. Do not allow the hose to be altered or kink, twist, curl, crush, cut, or bend so tightly that the fluid flow within the hose is blocked or reduced. Periodically inspect the hose for wear, because any of these conditions can damage the hose and possibly result in personal injury.
- Do not use the hose to move attached equipment. Stress can damage hose and possibly cause personal injury.
- Hose material and coupler seals must be compatible with the hydraulic fluid used. Hoses also must not come in contact with corrosive materials such as creosote-impregnated objects and some paints. Consult the manufacturer before painting a hose. Hose deterioration due to corrosive materials can result in personal injury. Never paint the couplers.
- Inspect machine for wear, damage, and correct function before each use. Do not use machinery that is not in proper working order, but repair or replace it as necessary.
- Replace worn or damaged safety decals.
- Modification of a product requires written Power Team authorization.
- Use only components with the same pressure rating when assembling a system or machine.

### ***Pump***

- Do not exceed the hydraulic pressure rating noted on the pump data plate or tamper with the internal high pressure relief valve. Creating pressure beyond the rated pressure can result in personal injury.
- Before replenishing the fluid level, retract the system to prevent overfilling the pump reservoir. An overfill can cause personal injury due to excess reservoir pressure created when cylinders are retracted.

### ***Air Supply***

- Shut off and disconnect the air supply when the pump is not in use or before breaking any connections in the system.

## ***PREPARATION & SET-UP***

### ***Air Supply Hook-Up***

Remove the thread protector from the air inlet of the pump. Select and install the threaded fittings which are compatible with your air supply fittings. The air supply should be 20 CFM (.57 m<sup>3</sup>/min.) and 100 PSI (7 BAR) at the pump to obtain the rated hydraulic pressure. Air pressure should be regulated to a maximum of 140 PSI (9 BAR). Secure your pump fitting to the air supply.

**WARNING:** If improperly used, pressurized equipment can be potentially hazardous. Therefore:

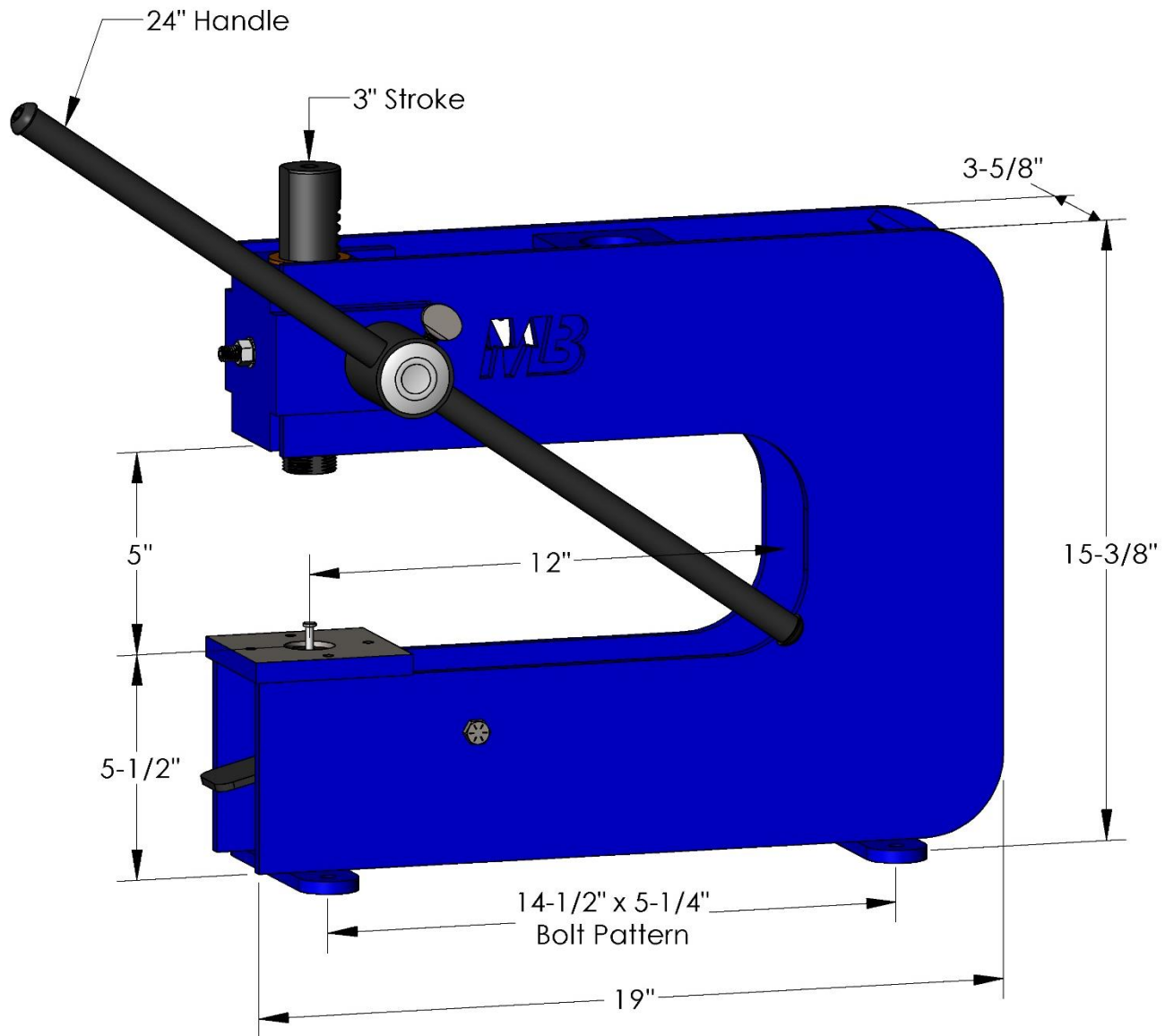
- Hydraulic connections must be **securely** fastened before building pressure in the system.
- **Release** all system pressure before loosening any hydraulic connection in the system.

### ***Venting the Reservoir***

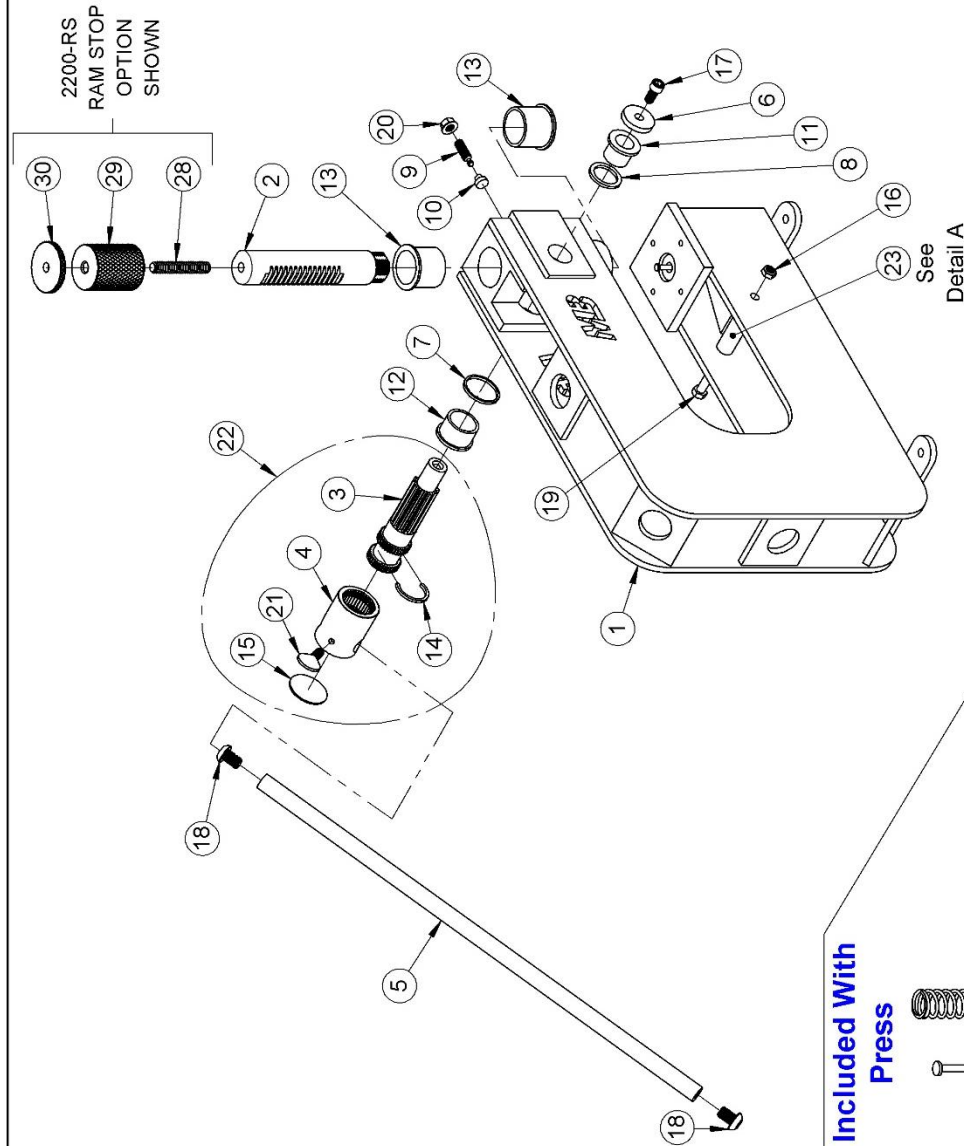
To improve hydraulic fluid delivery and increase useable hydraulic fluid capacity, remove shipping plug and install filler/vent cap before using the pump.



## 2200-M Manual Bench Press Dimensions

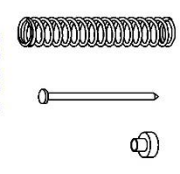


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2200-M	Manual Press Frame	1
2	2200-005	Ram Press	1
3	2200-006-A	Pinion	1
4	2200-006-B	Pinion Sleeve	1
5	2200-008	Handle	1
6	2200-013	Flat Washer	1
7	2200-055A	Hard Washer, 1-11/16" OD	1
8	2200-055B	Hard Washer, 1-1/2" OD	1
9	2200-098	Leg Swivel Screw	1
10	2200-099	Plastic Foot	1
11	2200-SF2836-16	7/8 Bronze Bushing	1
12	2200-SF4048-16	1 1/4 Bronze Bushing	1
13	2200-501	1-1/2" Bronze Bushing	2
14	2200-531	Snap Ring	1
15	550-025	Freeze Plug	1
16	90566A031	3/8"-16 Nylock Jam Nut	1
17	91251A622	3/8"-16 x 3/4" SHCS	1
18	91255A710	1/2"-13 x 3/4" BHCS	2
19	91257A640	3/8"-16 x 4" HHCS	1
20	94612A103	3/8"-16 Flange Nut	1
21	96966A850	3/8"-16 x 3/4" Thumb Screw	1
22	2200-1H	Quick Index Press Handle Kit	1
23	2200-015A	Scrap Ejector Assembly	1
24	2200-015A	Scrap Ejector	1
25	97245A225	Scrap Ejector Pin	1
26	2200-012	Lower Adapter	1
27	2200-011	Punch & Flare Upper Adapter	1
28	98750A108	1/2"-13 x 4-1/2" Thread Rod	1
29	2200-RS1	Ram Stop	1
30	2200-RS2	Ram Stop Nut	1

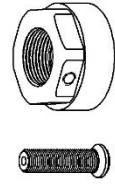


See  
Detail A

Included With  
Press



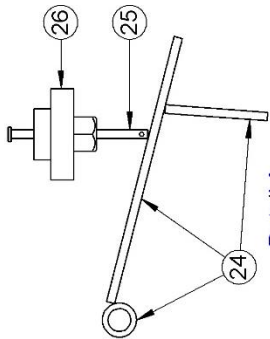
#2200-SLC  
Spring Loaded  
Center Assm



#2200-011  
Upper Adapter Nut  
w/ 1/2-20 x 2" FHCS



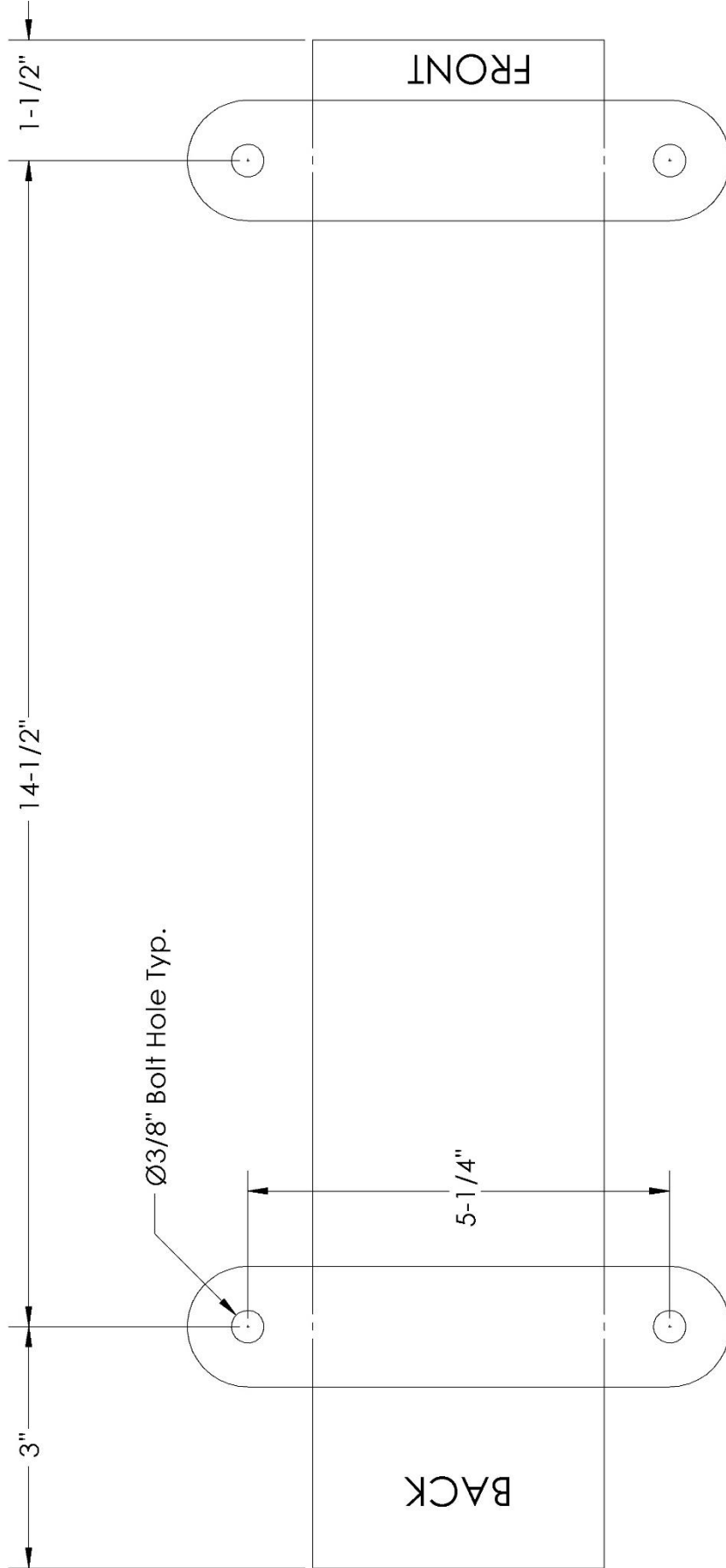
#2200-012  
Lower Adapter Nut  
w/ 1/2-20 x 1" BHCS



Detail A  
2600-015A  
Scrap Ejector  
Assembly

PROPRIETARY AND CONFIDENTIAL		NAME	DATE
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		DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONAL $\pm 1/32$ ONE PLACE DECIMAL $\pm .015$ TWO PLACE DECIMAL $\pm .010$ THREE PLACE DECIMAL $\pm .005$ ANGULAR $\pm 1^\circ$	
QUANTITY	COMMENTS:		
MATERIAL			
FINISH			
DO NOT SCALE DRAWING			

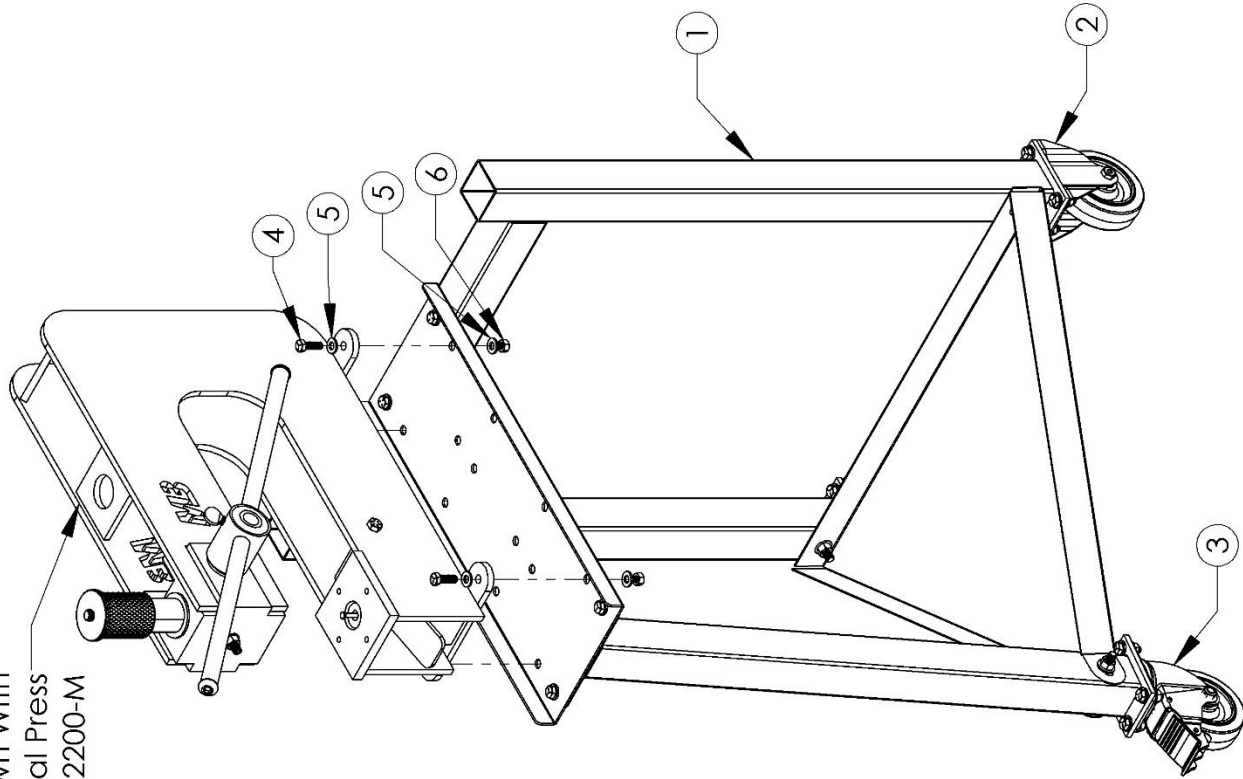
<b>M3 MITTLER BROS. MACHINE &amp; TOOL</b>	
10 Cooperative Way, Wright City, MO. 63390 (636)745-7767 Fax (636)745-2874	
TITLE: 3 Ton Manual Bench Press	
SIZE	DWG. NO. REV
<b>A</b>	2200-M
SCALE: 1:8 WEIGHT: SHEET 1 OF 1	



For The Following Presses:  
 #2200-M: 3 Ton Manual Press  
 #2200-H: 5 Ton Hydraulic Press

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DIMENSIONS ARE IN INCHES FRACTIONAL: ±1/32 ONE PLACE DECIMAL: ±.015 TWO PLACE DECIMAL: ±.010 THREE PLACE DECIMAL: ±.005 ANGULAR: ±1°		SCALE: 1:2		
QUANTITY	MATERIAL	COMMENTS: Bench Press Bolt Down Pattern		
FINISH		DO NOT SCALE DRAWING		

Shown With  
3-Ton Manual Press  
#2200-M



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	3100-A01	Universal Stand	1
2	E2.04708.485	Rigid Caster	2
3	E2.04756.485	Swivel Caster	1
4	92965A583	5/16"-18 x 1" HHCS	4
5	98023A030	5/16" Washer	8
6	95462A030	5/16" Hex Nut	4

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QUANTITY  
MATERIAL  
FINISH

DO NOT SCALE DRAWING

DRAWN  
NAME  
DATE  
MSA 1/14/21

**UNLESS OTHERWISE SPECIFIED:**  
DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  
ONE PLACE DECIMAL ±.015  
TWO PLACE DECIMAL ±.010  
THREE PLACE DECIMAL ±.005  
ANGULAR ±1°

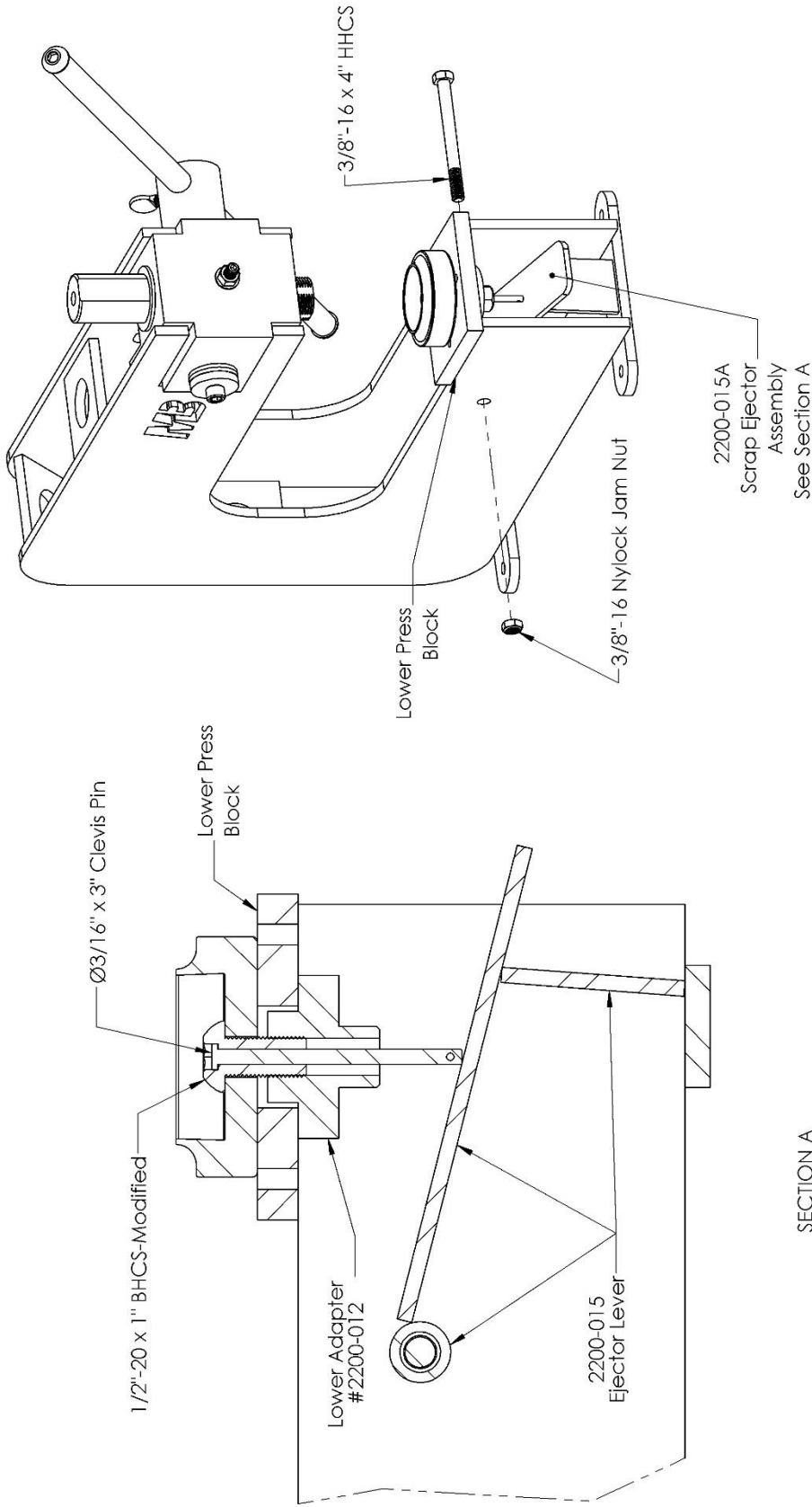
COMMENTS:

**MB MITTLER BROS.  
MACHINE & TOOL**  
10 Cooperative Way, Wright City, MO. 63390  
(636)745-7757 Fax (636)745-2874

TITLE:  
**Universal Stand**

SIZE DWG. NO. **A 3100-A00** REV

SCALE: 1:8 WEIGHT: 35.447 SHEET 4 OF 4



SECTION A  
SCALE 1 : 2

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		UNLESS OTHERWISE SPECIFIED:	
		DIMENSIONS ARE IN INCHES	
		TOLERANCES:	
QUANTITY		FRACTIONS	+1/32
MATERIAL		ONE PLACE DECIMAL	±0.015
FINISH		TWO PLACE DECIMAL	±0.010
DO NOT SCALE DRAWING		THREE PLACE DECIMAL	±0.005
		ANGULAR	±1°
		COMMENTS:	
		2200-015A	
		Scrap Ejector Assembly	
		A	
		2200-015A	
		SCALE: 1:5	
		SHEET 1 OF 1	

**M3 MITTLER BROS.**  
**MACHINE & TOOL**  
10 Cooperative Way, Wright City, MO. 63390  
(636)745-7757 Fax (636)745-2874

TITLE:

Scrap Ejector Assembly

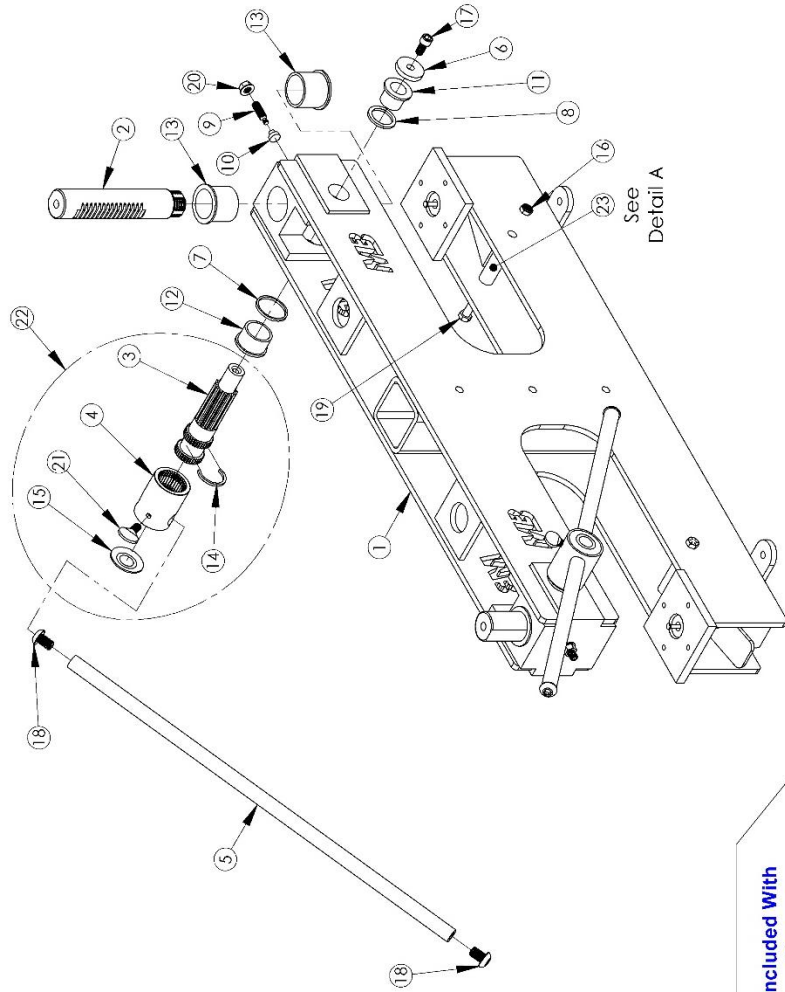
SIZE DWG. NO. REV

A 2200-015A

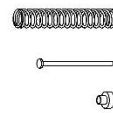
SCALE: 1:5 SHEET 1 OF 1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2240-000	Dual Press Frame	1
2	2200-005	Ram Press	2
3	2200-006-A	Pinion	2
4	2200-006-B	Pinion Sleeve	2
5	2200-008	Handle	2
6	2200-013	Flat Washer	2
7	2200-055A	Hard Washer, 1-11/16" OD	2
8	2200-055B	Hard Washer, 1-1/2" OD	2
9	2200-098	Leg Swivel Screw	2
10	2200-099	Plastic Foot	2
11	2200-SF2836-16	7/8 Bronze Bushing	2
12	2200-SF4048-16	1 1/4 Bronze Bushing	2
13	2200-501	1-1/2" Bronze Bushing	4
14	2200-531	Snap Ring	2
15	550-025	Freeze Plug	2
16	90566A031	3/8"-16 Nylock Jam Nut	2
17	91251A622	3/8"-16 x 3/4" SHCS	2
18	91255A710	1/2"-13 x 3/4" BHCS	4
19	91257A640	3/8"-16 x 4" HHCS	2
20	94612A103	3/8"-16 Flange Nut	2
21	96966A850	3/8"-16 x 3/4" Thumb Screw	2
22	2200-1H	Quick Index Press Handle Kit	1
23	2200-015A	Scrap Ejector Assembly	2
24	2200-015	Scrap Ejector	2
25	97245A225	Scrap Ejector Pin	2
26	2200-012	Lower Adapter	2



Included With Press



#2200-SLC  
Spring Loaded  
Center Assm



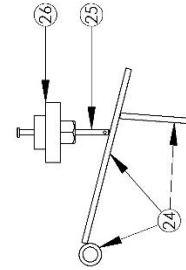
#2200-011  
Upper Adapter Nut  
w/ 1/2-20 x 2" FHCS



#2200-034  
Wrench



#2200-012  
Lower Adapter Nut  
w/ 1/2-20 x 1" BHCS



Detail A  
2600-015A  
Scrap Ejector  
Assembly

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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONS DECIMALS ONE PLACE DECIMAL 1/32 TWO PLACE DECIMAL 1/64 THREE PLACE DECIMAL 1/128 ANGULAR ±1°		MSA	12/26/00
M3 MITTLER BROS. 10 Cooperative Way, Wright City, MO 63390 (636)745-7757 Fax (636)745-2874		TITLE: 3 Ton Dual Manual Bench Press	
QUANTITY		SIZE DWG. NO.	
MATERIAL		B 2240-2M	
FINISH		REV	
DO NOT SCALE DRAWING		SCALE: 1:6 WEIGHT: 110.77 SHEET 1 OF 1	

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2240-B10	Small Press Frame	1
2	2240-004	Hinge	2
3	2240-005	Ram	1
4	2240-008	Press Handle	1
5	2200-098	Leg Swivel Screw	3
6	2200-099	Plastic Foot	3
7	2200-501	1-1/2" Bronze Bushing	2
8	91259A630	5/16"-18 x Ø3/8" x 1-3/4" SHSS	2
9	90566A030	5/16"-18 Thin Nylock Nut	2
10	91259A727	3/8"-16 x Ø1/2" x 3-3/4" SHSS	1
11	95615A140	3/8" Nylock Nut	1
12	94612A103	3/8"-16 Flange Nut	3

1/2" Mounting Holes For  
Dual Manual Bench Press  
# 2240-2M

**Included With Press**

#2200-SLC  
Spring Loaded  
Center Assm

#2200-011  
Upper Adapter Nut  
w/ 1/2-20 x 2" FHCS

#2200-012  
Lower Adapter Nut  
w/ 1/2-20 x 1" BHCS

#2200-034  
Wrench

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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±.015 TWO PLACE DECIMAL ±.005 THREE PLACE DECIMAL ±1° ANGULAR			
QUANTITY			
MATERIAL			
FINISH			
DO NOT SCALE DRAWING			

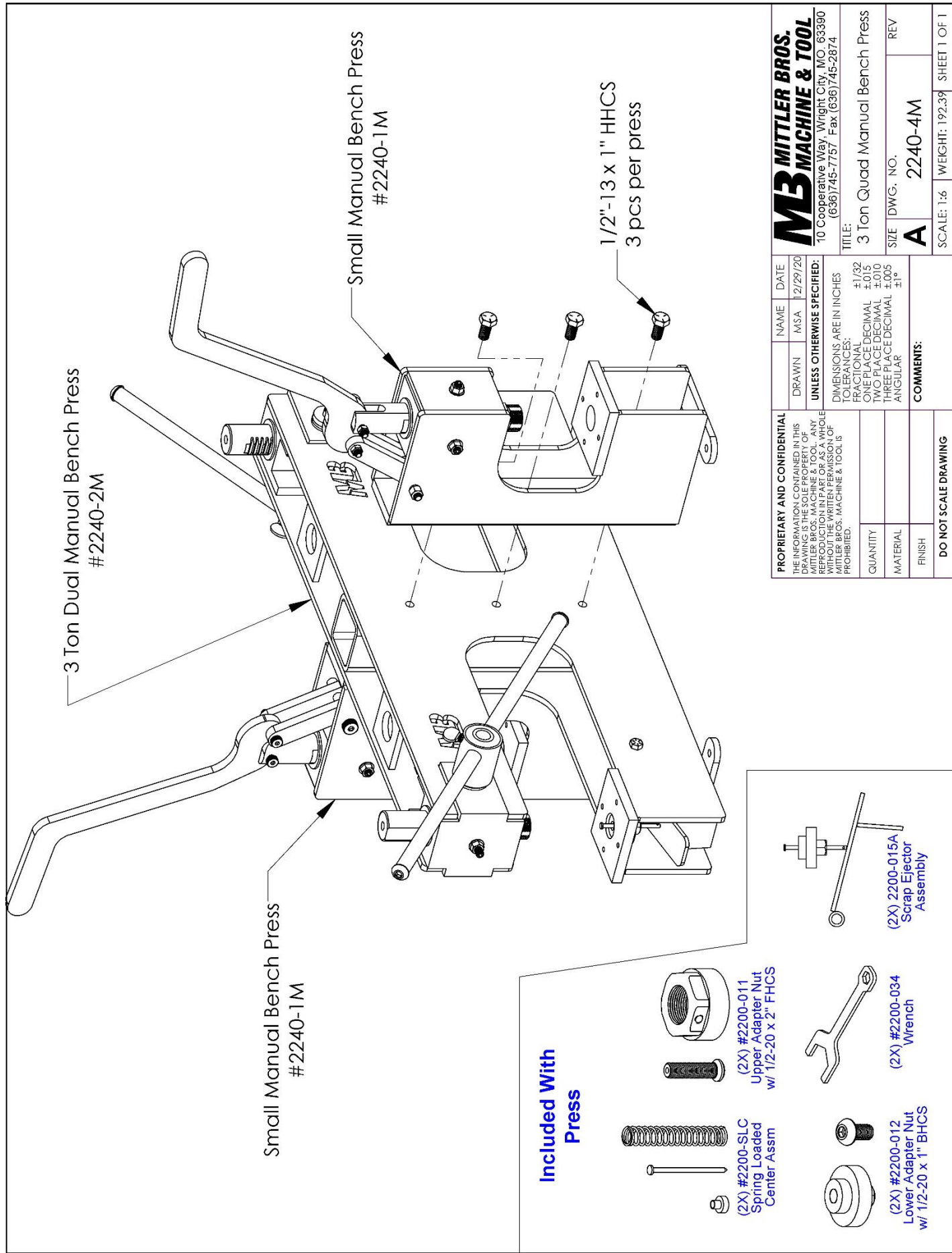
  

**M3 MITTLER BROS. MACHINE & TOOL**  
10 Cooperative Way, Wright City, MO. 63390  
(636)745-7757 Fax (636)745-2874

TITLE:  
Small Manual Bench Press

SIZE DWG. NO. REV  
**A** 2240-1M

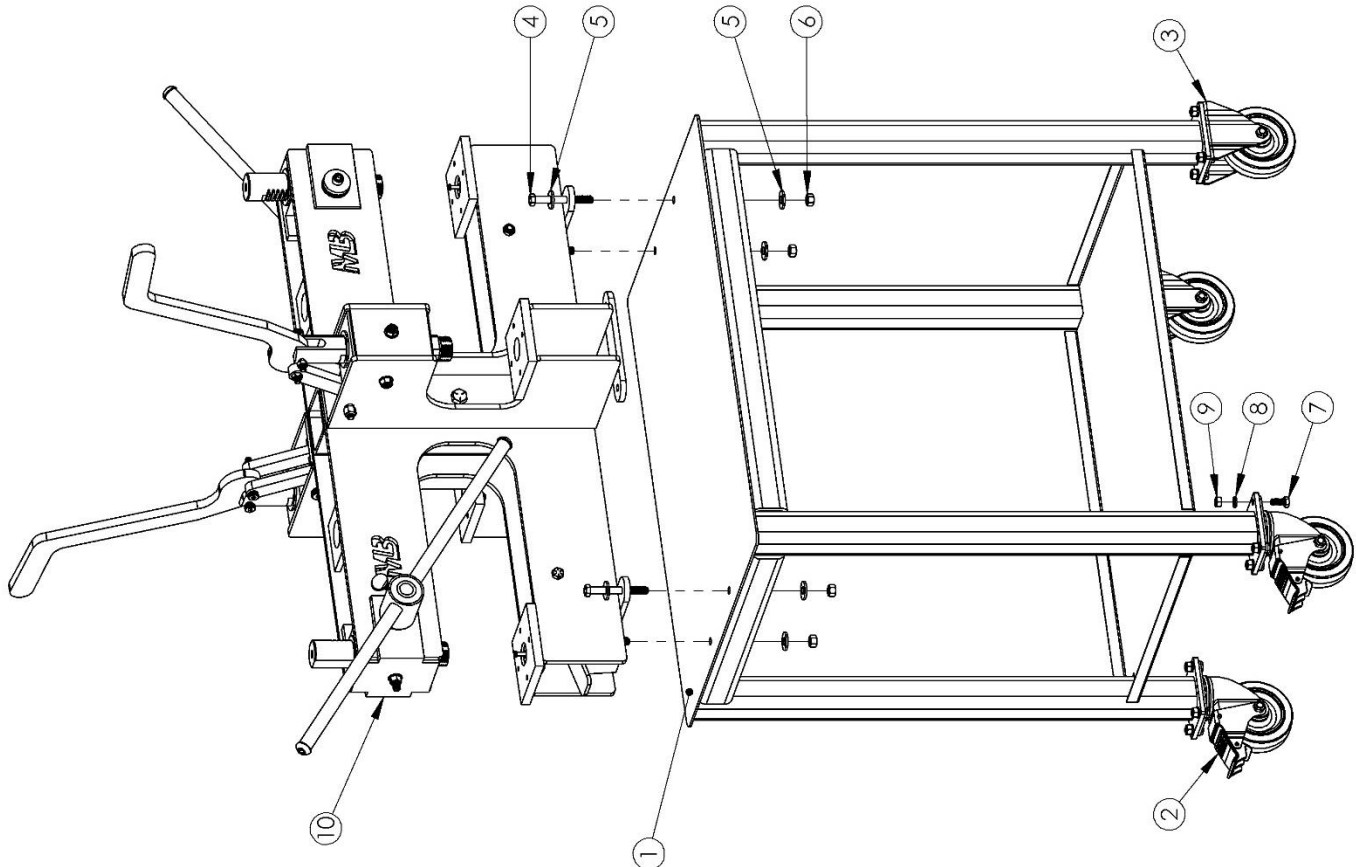
SCALE: 1:6 WEIGHT: 36.54lb SHEET 1 OF 1



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QUANTITY		DRAWN	
MATERIAL		UNLESS OTHERWISE SPECIFIED:	
FINISH		DIMENSIONS ARE IN INCHES	
DO NOT SCALE DRAWING		TOLERANCES:	
		DECIMAL	±.1/.32
		ONE PLACE DECIMAL	±.015
		TWO PLACE DECIMAL	±.010
		THREE PLACE DECIMAL	±.005
		ANGULAR	±1°
		COMMENTS:	
<b>MB MITTLER BROS. MACHINE &amp; TOOL</b> 10 Cooperative Way, Wright City, MO. 63390 (636)745-7757 Fax (636)745-2874 TITLE: 3 Ton Quad Manual Bench Press SIZE DWG. NO. <b>A</b> 2240-4M SCALE: 1:6 WEIGHT: 192.39# SHEET 1 OF 1			



Item No.	Part No.	Description	Qty
1	2240-100	Quad Press Stand	1
2	E2.04756.485	Swivel Caster	2
3	E2.04708.485	Rigid Caster	2
4	91247A637	3/8"-16 x 3-1/4" HHCS	4
5	90108A417	3/8" Washer	8
6	95462A031	3/8"-16 Hex Nut	4
7	92865A581	5/16"-18 x 3/4" HHCS	16
8	91102A755	5/16" Split Lock Washer	16
9	95462A030	5/16"-18 Hex Nut	16
10	2240-4M	Quad Manual Bench Press (Sold Separately)	1



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			MSA	12/30/20
<b>UNLESS OTHERWISE SPECIFIED:</b> DIMENSIONS ARE IN INCHES FRACTIONAL ONE PLACE DECIMAL ±.015 TWO PLACE DECIMAL ±.010 THREE PLACE DECIMAL ±.005 ANGULAR ±1°		<b>COMMENTS:</b>		
QUANTITY				
MATERIAL				
FINISH				
DO NOT SCALE DRAWING				

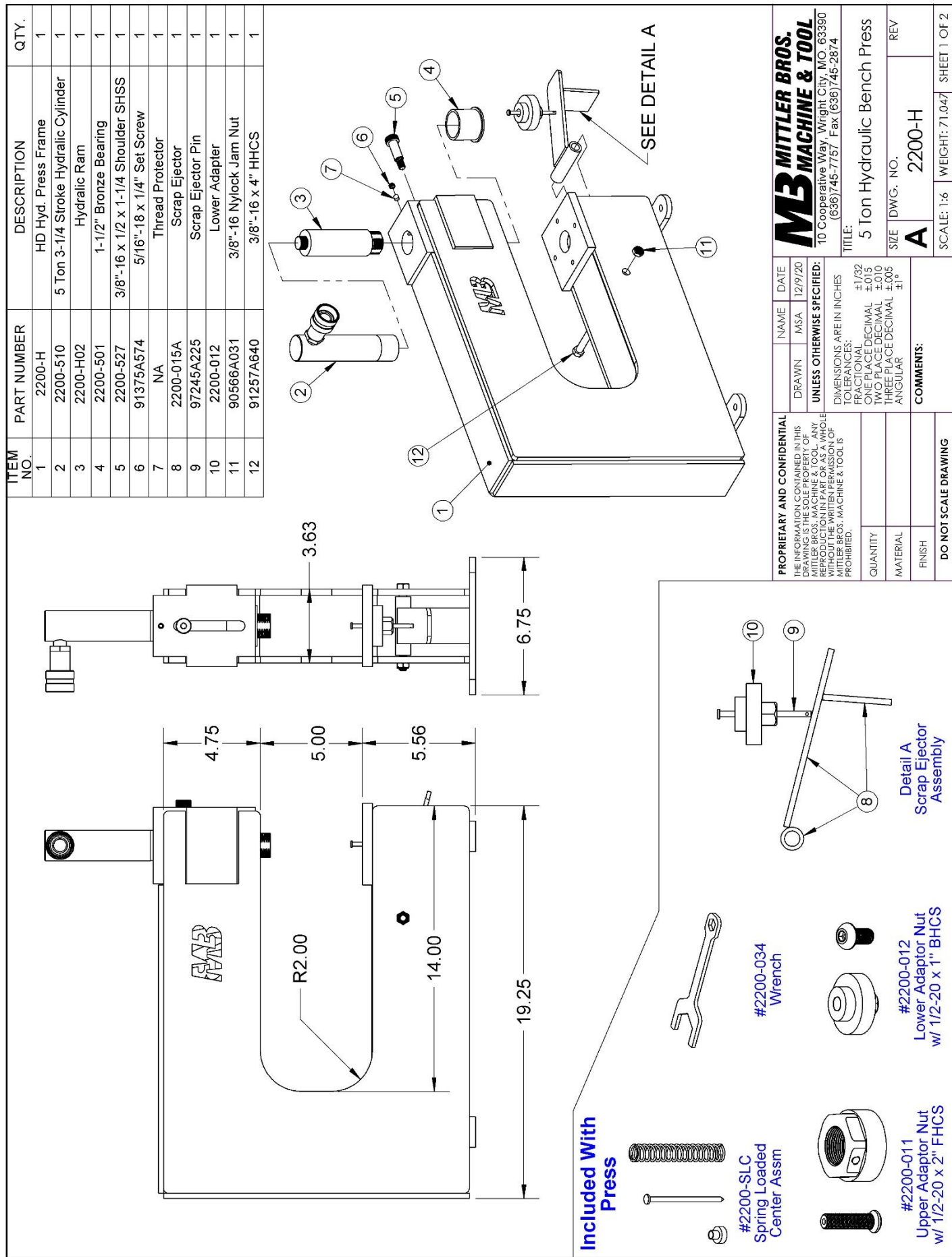
**MB MITTLER BROS. MACHINE & TOOL**  
 10 Cooperative Way, Wright City, MO 63390  
 (636)745-7757 Fax (636)745-2874

TITLE: **Quad Press Stand**  
 SIZE DWG. NO. **A 2240-100**  
 REV

SCALE: 1:10

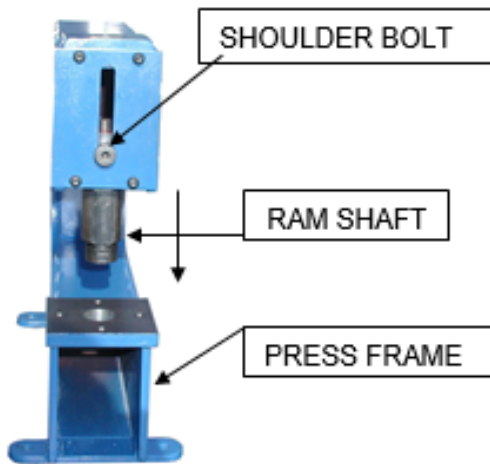
WEIGHT: 311.639

SHEET 1 OF 1



## Assembly Instructions for Hydraulic Press

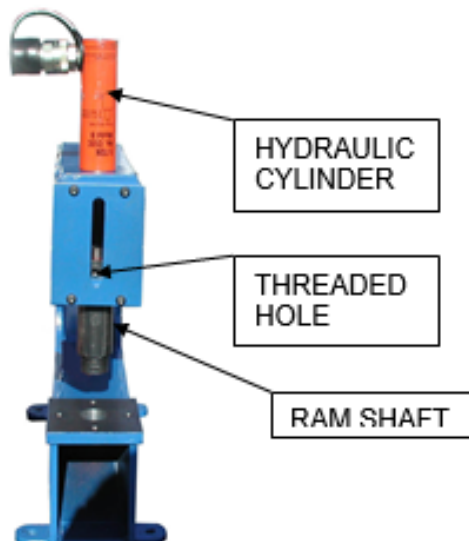
**STEP #1** REMOVE SHOULDER BOLT AND DROP RAM SHAFT OUT THE BOTTOM.



**STEP #2** THREAD HYD. CYL. ONTO PRESS FRAME TIGHTEN SECURELY.



**STEP #3** INSTALL RAM SHAFT TO HYDRAULIC CYLINDER & TIGHTEN SECURELY. BE SURE THREADED HOLE FOR SHOULDER BOLT IS VISIBLE IN THE SLOT.

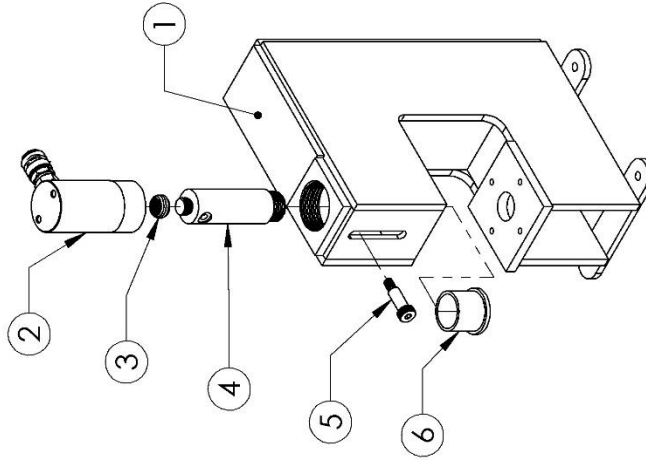
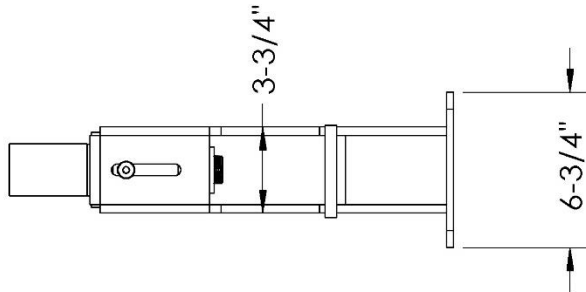
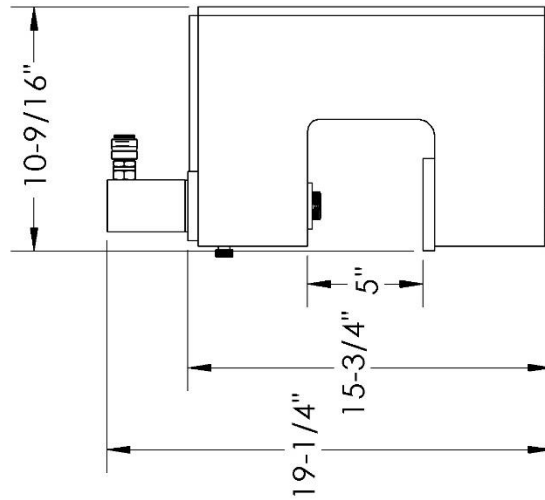
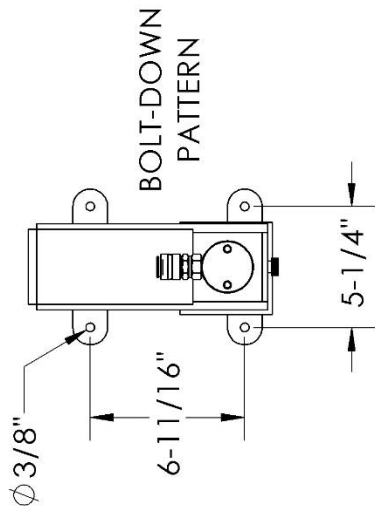


**STEP #4** INSTALL SHOULDER BOLT & TIGHTEN SECURELY.



**STEP #5** INSTALL PRESS TOOLING TO SUIT. DO NOT OVER POWER PRESS AS DAMAGE COULD OCCUR TO PRESS, AND / OR TOOLING AND CAUSE **PERSONAL INJURY!**

BILL OF MATERIALS			
Item No.	Part Number	Description	Qty.
1	2200-A00	10 Ton Frame	1
2	C102C	10 Ton 2-1/8" Stroke Hydraulic Cylinder	1
3	2200-053	Ram Adapter Nut	1
4	2200-H02	Hydraulic Ram	1
5	91259A714	3/8"-16 x 1/2" x 1-1/4" SHSS	1
6	2200-501	1-1/2" Bronze Bearing	1



**Included With Press**



#2200-034  
Wrench

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			MSA	12/11/20
<b>UNLESS OTHERWISE SPECIFIED:</b> DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/32 ONE PLACE DECIMAL ±0.015 TWO PLACE DECIMAL ±0.010 THREE PLACE DECIMAL ±0.005 ANGULAR ±1°				
QUANTITY	<b>COMMENTS:</b>			
MATERIAL				
FINISH				
DO NOT SCALE DRAWING				
		SIZE	DWG. NO.	REV
		A	2200-HSK	
		SCALE: 1:8	WEIGHT: 51.212	SHEET 1 OF 1

**MB MITTLER BROS. MACHINE & TOOL**  
 10 Cooperative Way, Wright City, MO. 63390  
 (636)745-7757 Fax (636)745-2874

TITLE: 10 Ton Spring Steel Hydraulic Press

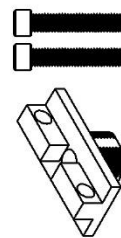
10 Ton Spring Steel Hydraulic Press

10 Ton Spring Steel Hydraulic Press

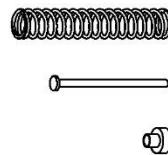


ITEM	PART NUMBER	DESCRIPTION	QTY.
1	2210-H	Press Frame	1
2	2210-003	Rail	2
3	2210-004	Slide	1
4	2210-005	Cover Plate	1
5	2210-007	Mounting Block	1
6	2210-008	Main Mounting Plate	1
7	2210-009	Upper Spring Holder	1
8	500-022	Cylinder Clamp	2
9	2200-015A	Ejector Pin Assembly	1
10	C104C	10 Ton, 4-1/8" Stroke Hydraulic Cylinder	1
11	91251A087	1/4"-20 x 3-3/4" SHCS	2
12	91251A590	3/8"-16 x 1-3/8" SHCS	2
13	91251A634	3/8"-16 x 2-1/2" SHCS	2
14	91251A642	3/8"-16 x 4-1/2" SHCS	6
15	91251A711	1/2"-13 x 7/8" SHCS	8
16	91251A800	5/8"-11 x 1-3/4" SHCS	4
17	9654K661	Extension Spring	2
18	95615A210	1/2"-13 Nylock Nut	1
19	92865A259	1/2"-13 x 4-3/4" HHCS	1
20	2200-015	Scrap Ejector	1
21	97245A225	Scrap Ejector Pin	1
22	2200-012	Lower Adapter	1

### Included With Press



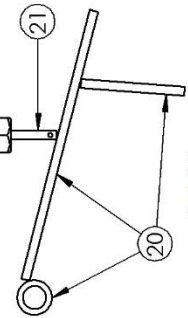
#2200-097  
Threaded Adapter  
w/ 2 pcs 3/8"-16 x 2" SHCS



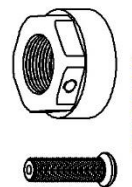
#2200-SLC  
Spring Loaded  
Center Assm



#2200-034  
Wrench



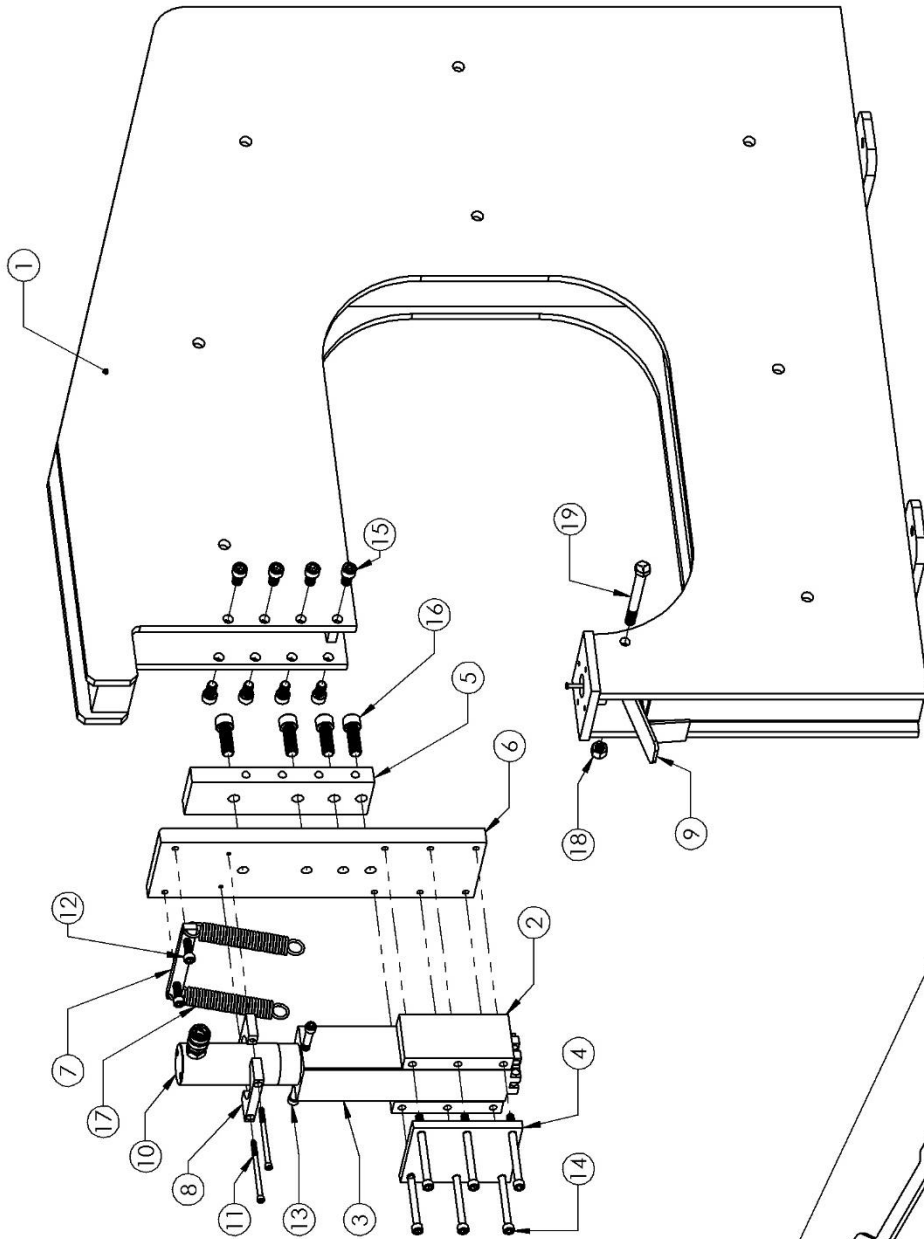
Detail A  
2600-015A  
Scrap Ejector  
Assembly



#2200-011  
Upper Adapter Nut  
w/ 1/2-20 x 2" FHCS



#2200-012  
Lower Adapter Nut  
w/ 1/2-20 x 1" BHCS



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QUANTITY	MATERIAL	FINISH	DO NOT SCALE DRAWING

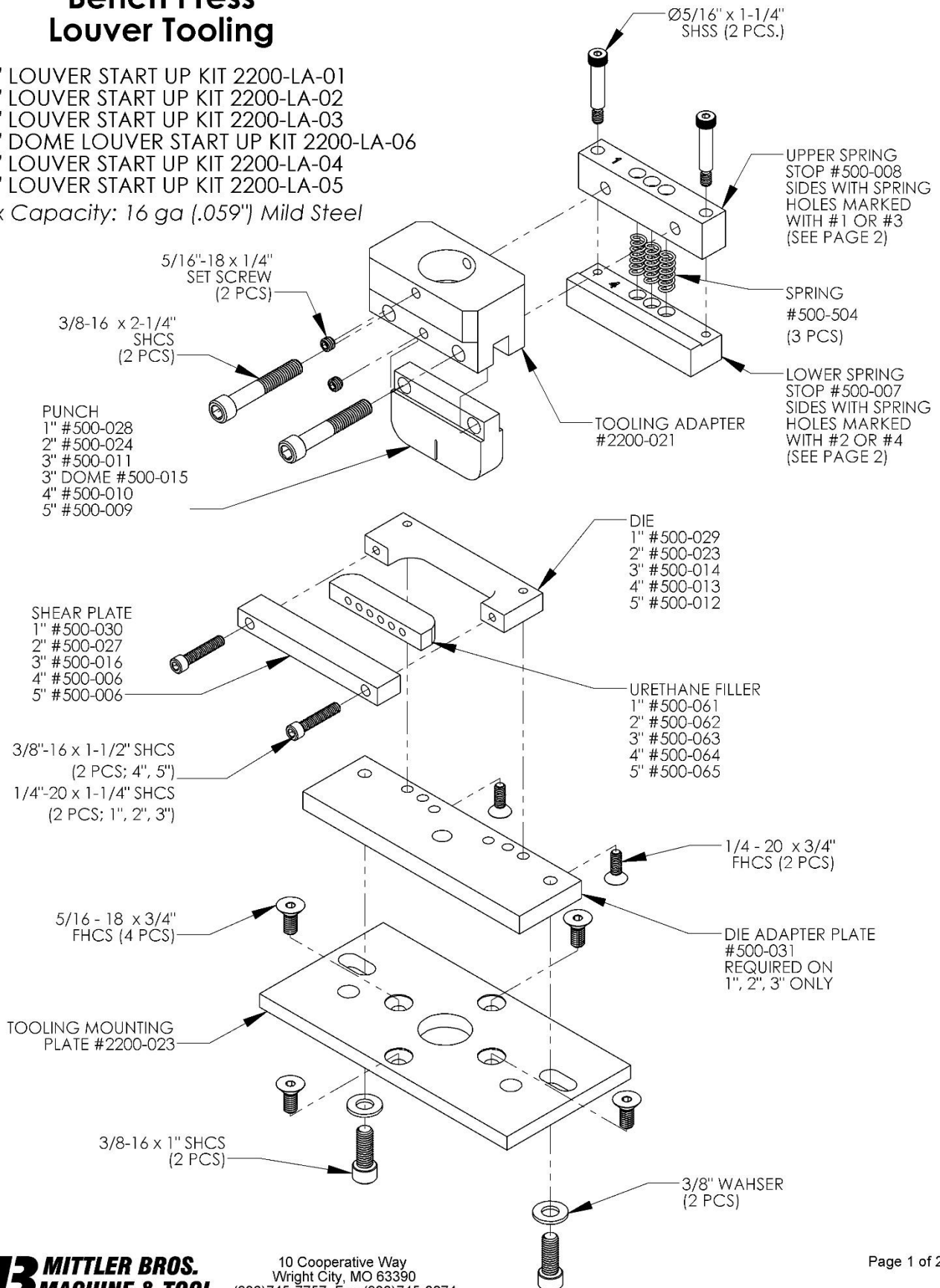
DRAWN	NAME	DATE
	MSA	1/13/21

<b>MB MITTLER BROS.</b> <b>MACHINE &amp; TOOL</b> 10 Cooperative Way, Wright City, MO. 63390 (636)745-7757 Fax (636)745-2874			
TITLE: <b>10 Ton Hydraulic Bench Press</b>			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/32 ONE PLACE DECIMAL ±.015 TWO PLACE DECIMAL ±.010 THREE PLACE DECIMAL ±.005 ANGULAR ±1°		COMMENTS: <b>A</b>	REV <b>2210-HD</b>
SCALE: 1:10		WEIGHT: 642.786 SHEET 1 OF 1	

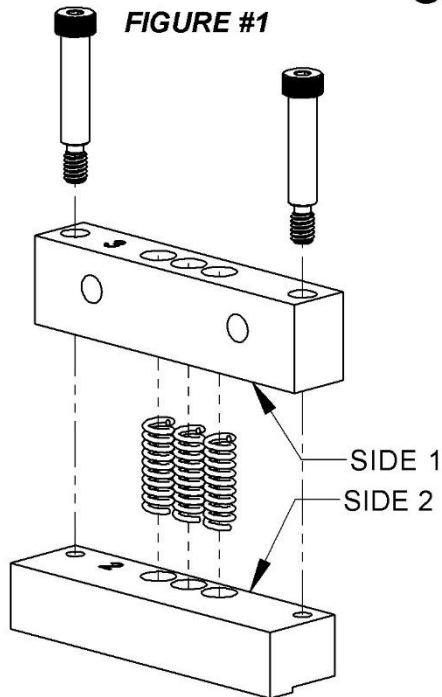
# Bench Press Louver Tooling

- 1" LOUVER START UP KIT 2200-LA-01
- 2" LOUVER START UP KIT 2200-LA-02
- 3" LOUVER START UP KIT 2200-LA-03
- 3" DOME LOUVER START UP KIT 2200-LA-06
- 4" LOUVER START UP KIT 2200-LA-04
- 5" LOUVER START UP KIT 2200-LA-05

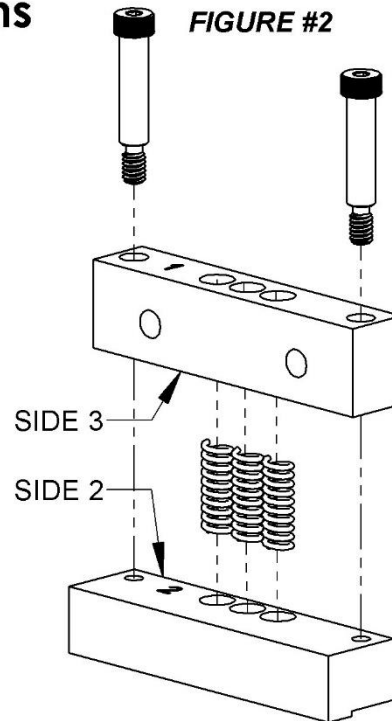
Max Capacity: 16 ga (.059") Mild Steel



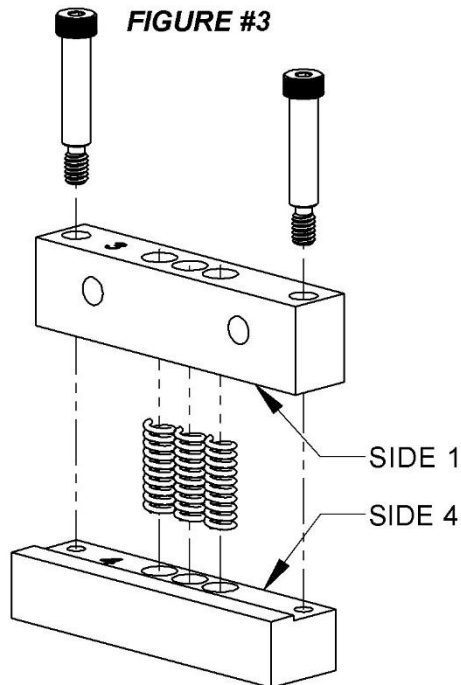
# Spring Stop Configurations



1", 2", 3" ASSEMBLY  
MATE SIDE 2 ON THE LOWER SPRING STOP  
WITH SIDE 1 ON THE UPPER SPRING STOP



3" DOME ASSEMBLY  
MATE SIDE 2 ON THE LOWER SPRING STOP  
WITH SIDE 3 ON THE UPPER SPRING STOP



4", 5" TAPER POINT PUNCH ASSEMBLY (INTRODUCED 11/1/2009)  
MATE SIDE 4 ON THE LOWER SPRING STOP  
WITH SIDE 1 ON THE UPPER SPRING STOP

NOTE: 4", 5" STRAIGHT PUNCH ASSEMBLY (PURCHASED PRIOR TO  
11/1/2009) USE FIGURE #1

# Louver Tooling Installation

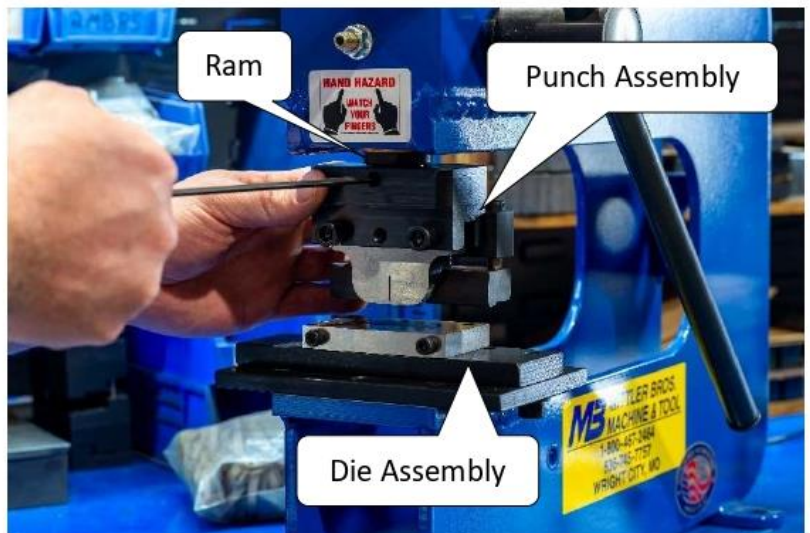
## Step 1

- Insert Tooling Mounting Plate onto Bottom Tooling Plate and attach with 5/16"-18 x 3/4" FHCS as shown.
- **NOTE** the position of the outer holes in the Tooling Mounting Plate.



## Step 2

- Attach Bottom Die Assembly using 3/8"-16 x 1" SHCS and washer. Do not tighten completely yet.
- Screw Punch Assembly onto the Press Ram until it stops, then back off until front of punch is forward as shown.
- Tighten 5/16" x 1/4" Set Screw on Punch Assembly.



## Step 3

- Draw the Punch Assembly down into the Die Assembly.
  - Push on the Die Assembly until the punch and Shear Plate have a clearance of 10% material thickness.
- Hint: A piece of paper is about .004" thick*





#### Step 4

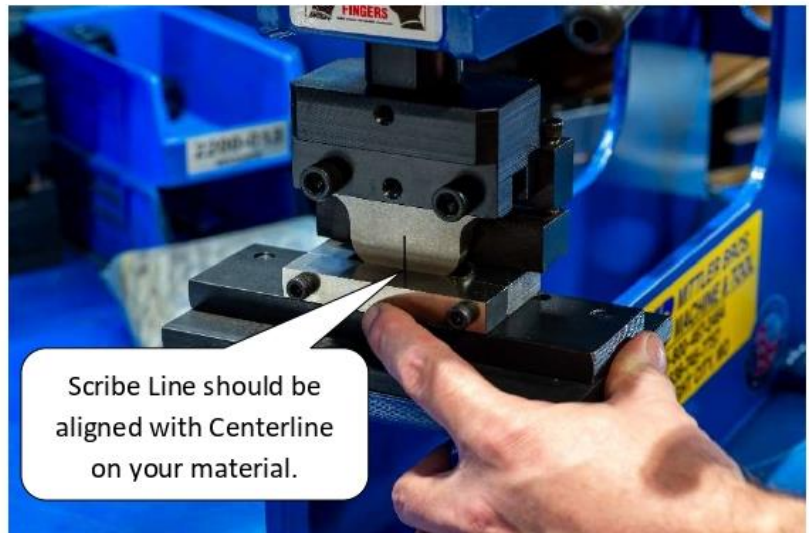
- Tighten both 3/8"-16 x 3/4" SHCS to finish installation.
- IMPORTANT: Test the punch alignment a few times by drawing the punch into the die to ensure are no alignment issues.



# Louver Tooling Operation

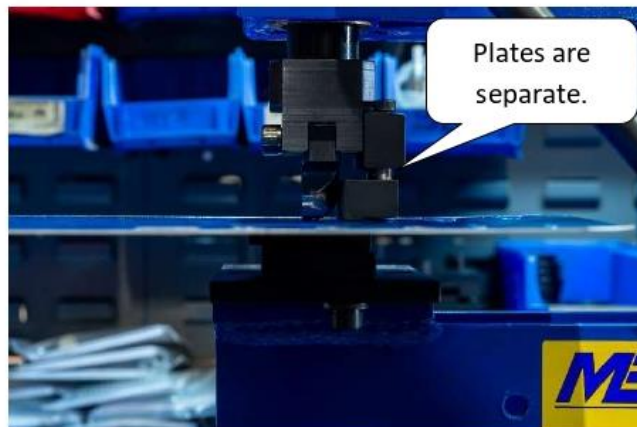
## Step 1

- Draw a line on your material to be the centerline of your louvers.
- This centerline will be lined up with the scribe mark on the punch.

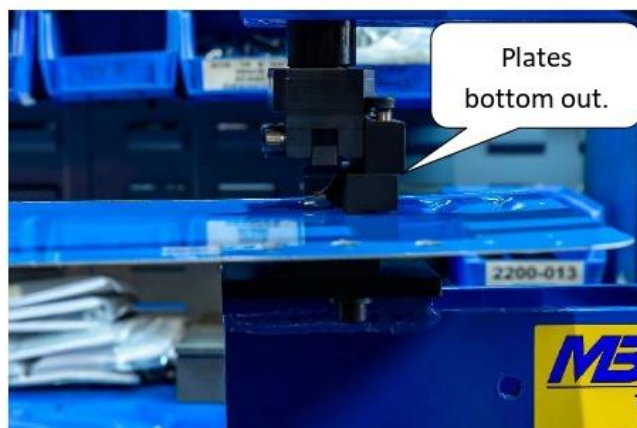


## Step 2

- Punch material until the Punch Assembly bottoms out as shown.



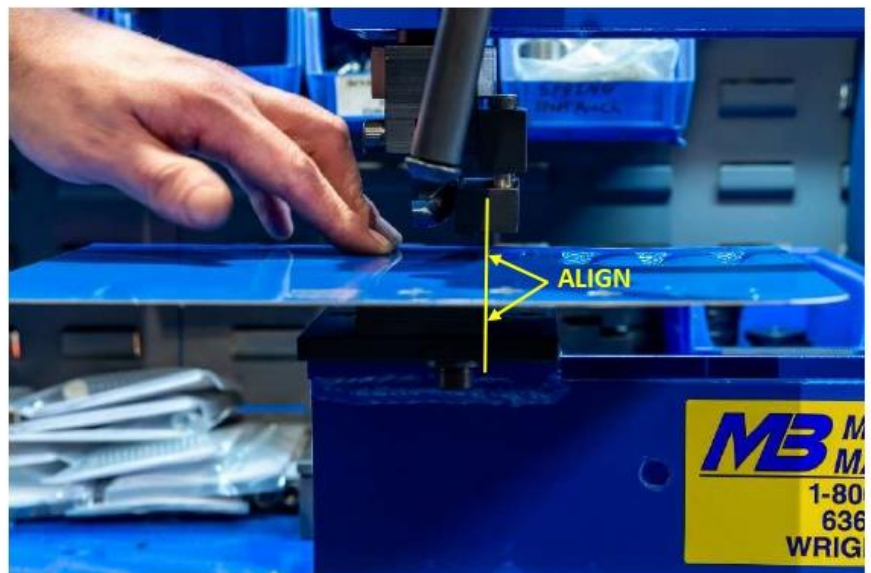
Before



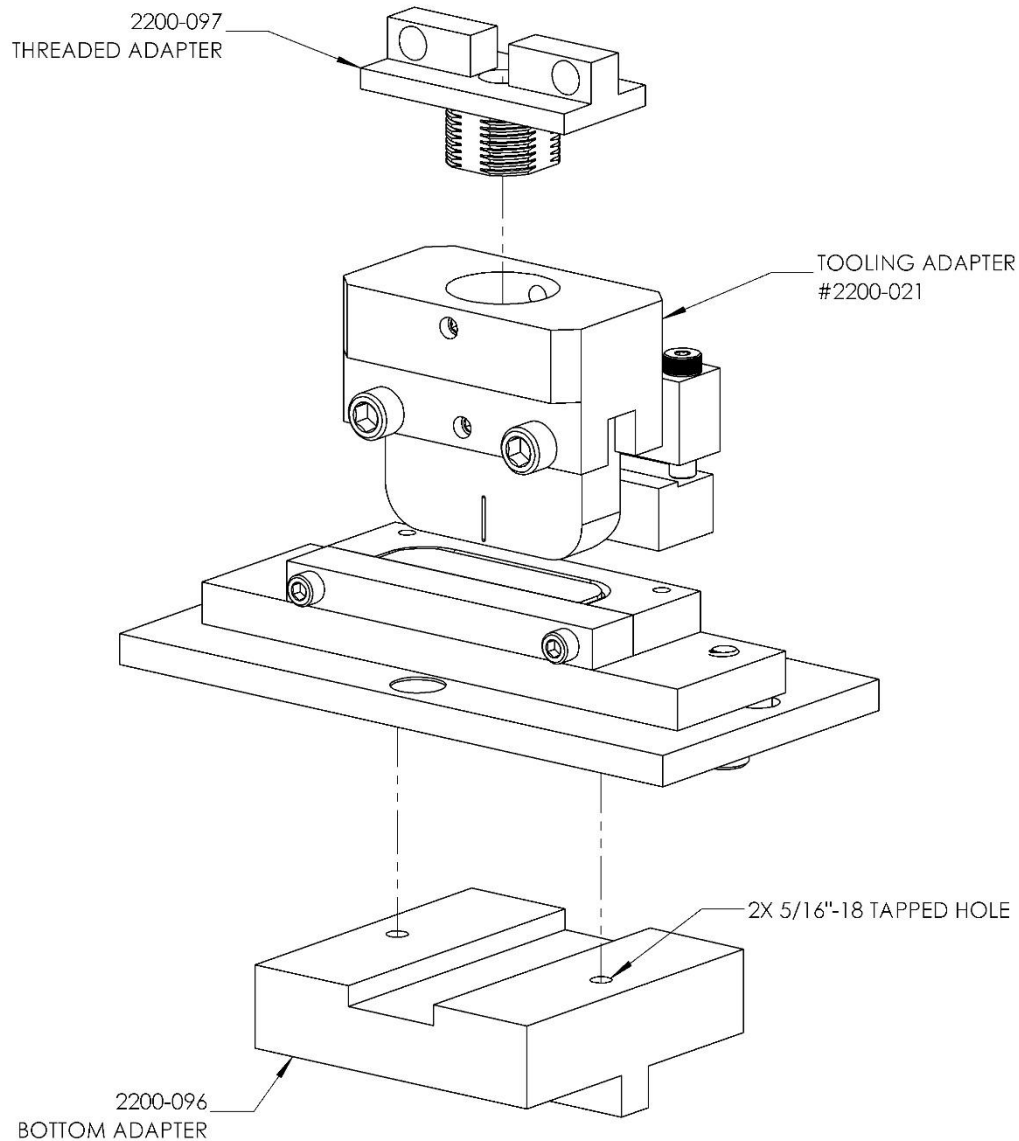
After

### Step 3

- To make your next Louver, place the drawn edge of the first louver against the back side of the die as shown.
- Ensure your punch is lined up with the centerline on your material
- Punch your next louver.



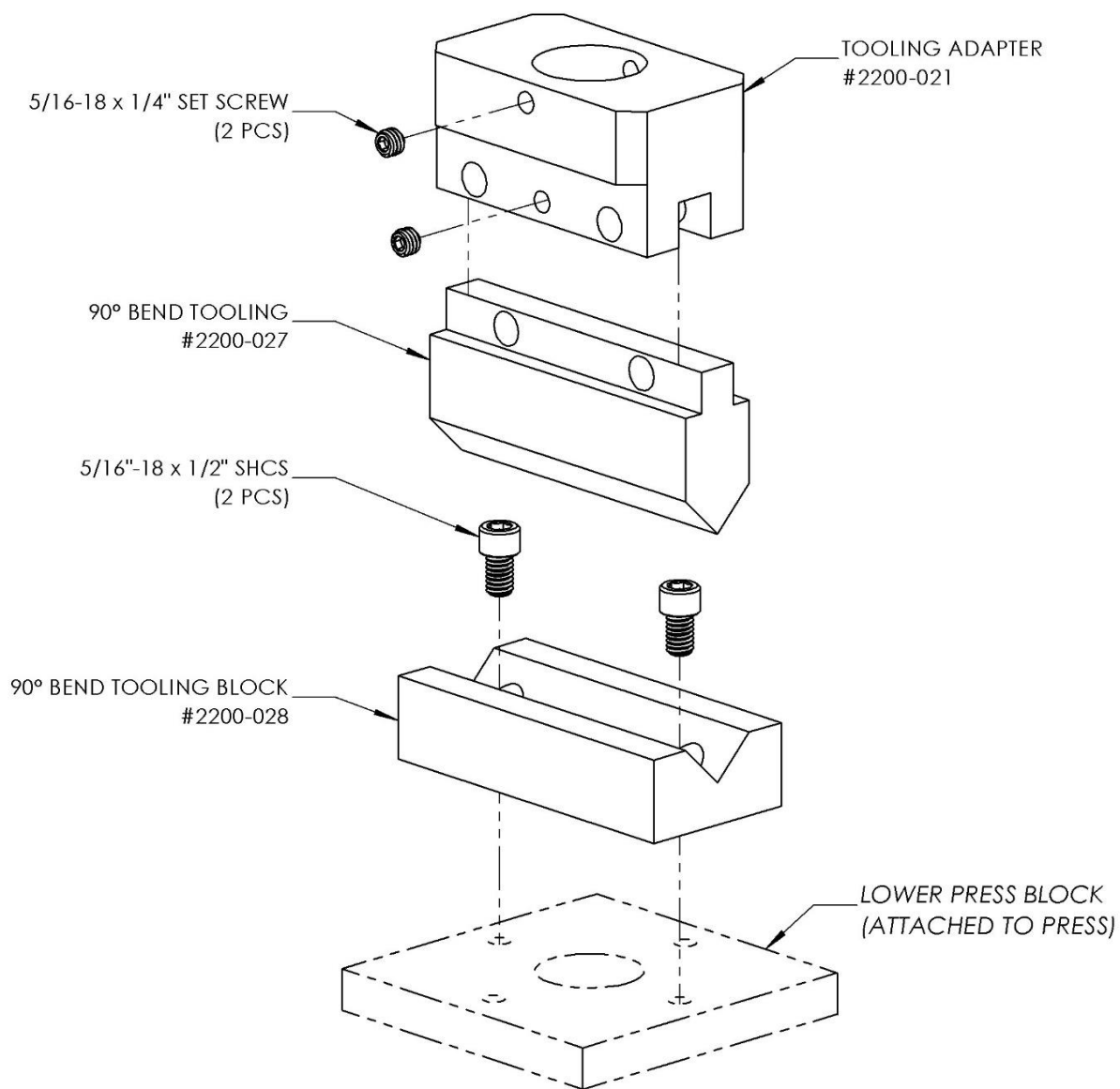
# Press Brake Mounting Adapter #2200-096A *Shown with Louver Tooling*



# 90° Brake

#2200-90DA

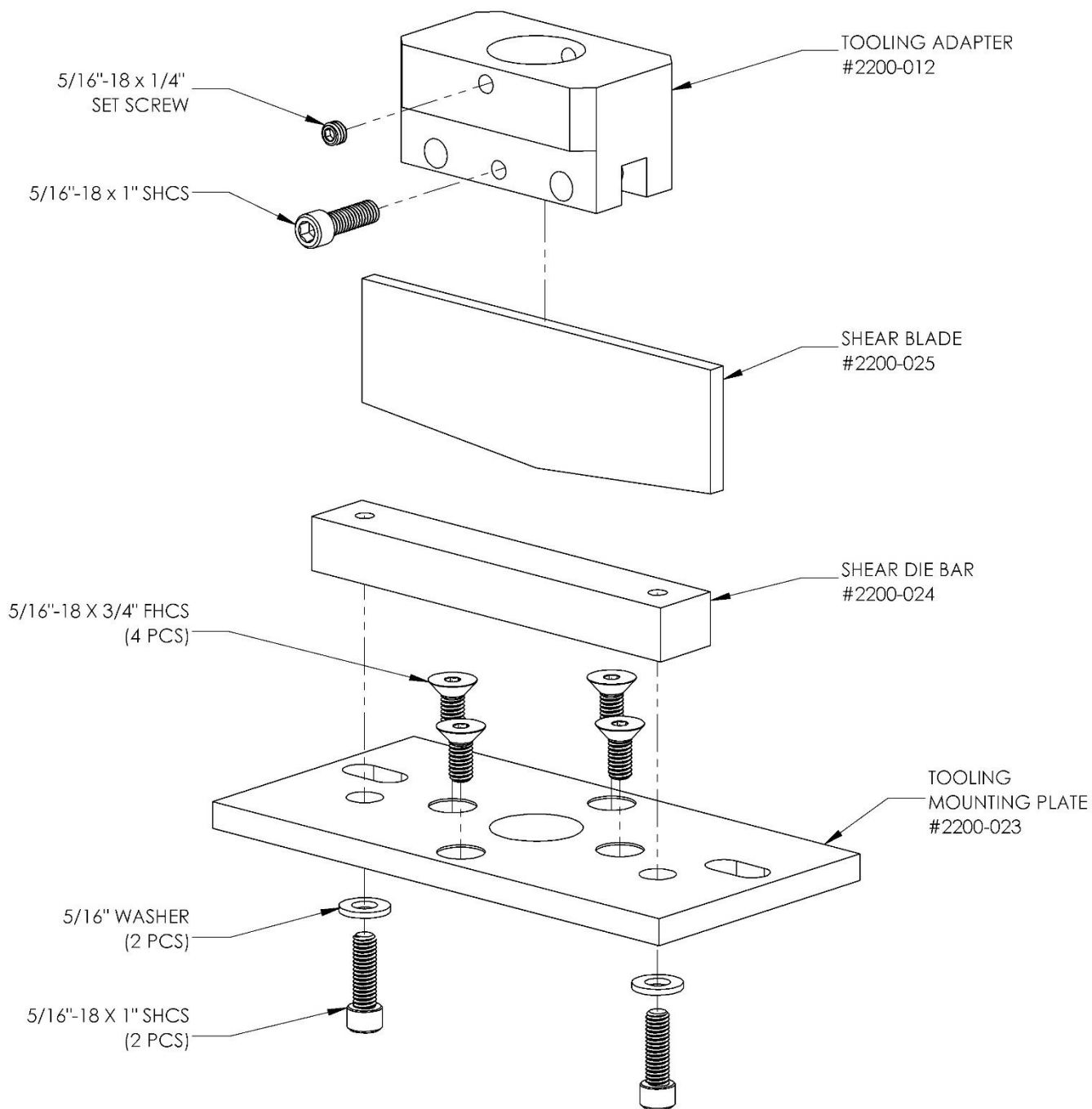
Max Capacity: 11 Ga (.120") Mild Steel



# Shear Tooling

#2200-SA

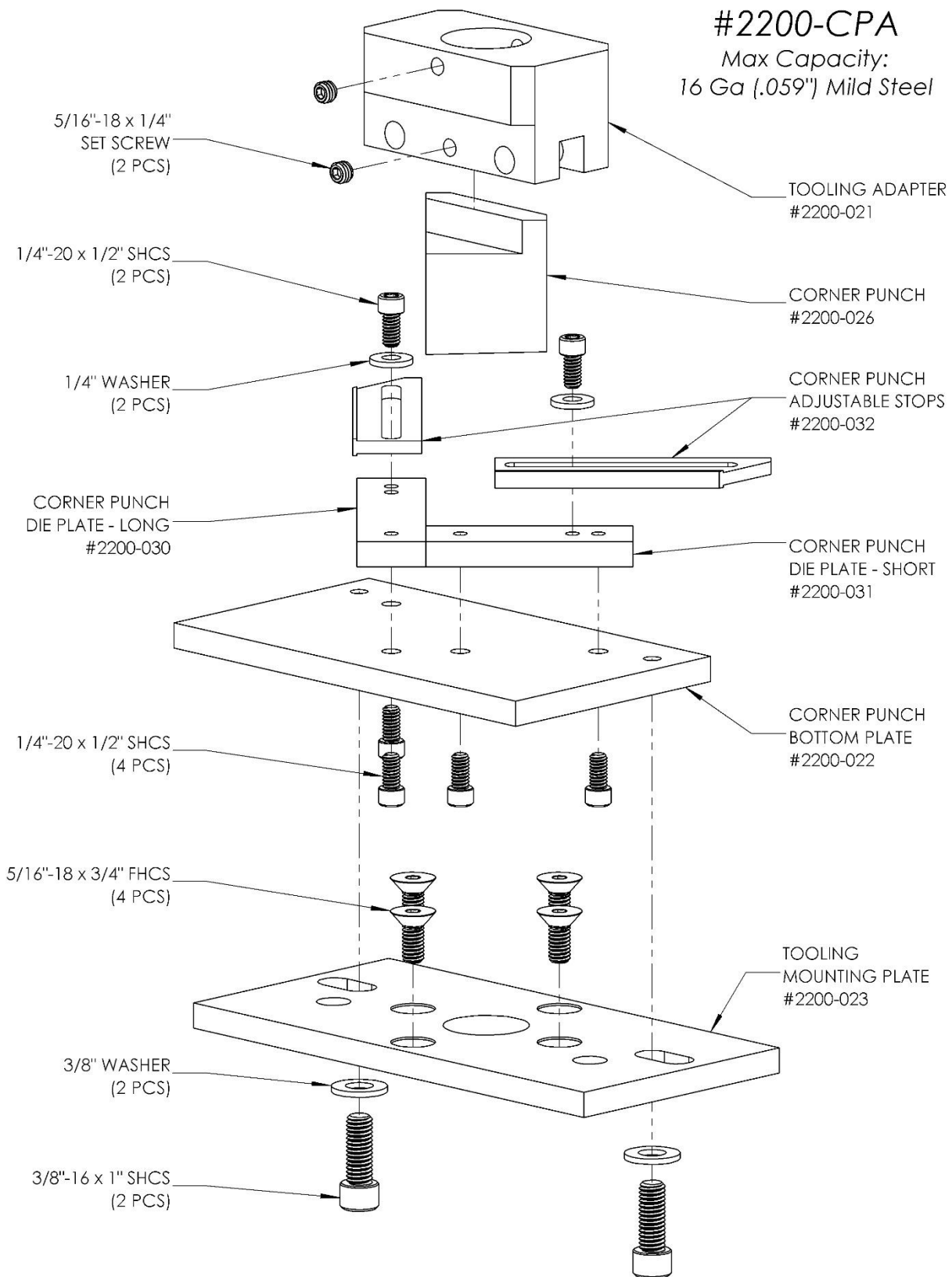
Max Capacity: 19 Ga. (.040") Mild Steel





# **Corner Punch #2200-CPA**

Max Capacity:  
16 Ga (.059") Mild Steel



# 4 Radius Corner Punch

#2200-4RCP

## Notes for Mounting to Model #2210-H (10-Ton Press)

The Threaded Adapter (#2200-097), provided with the Bench Press, is to be installed with the  $\frac{1}{2}$ " x  $\frac{1}{2}$ " portion inside the slide assembly, allowing the 1-5/16 – 12 thread exposed to accept the Coupling Nut (#2200-101) or Upper Adaptor (#2200-011) for mounting the tooling.

The Threaded Adaptor (#2200-097) threaded portion has a flat surface on 4 sides. The flat surface allows the set screw in the Upper Adaptor (#2200-011) to secure the tooling for alignment.

## INSTALLATION & ALIGNMENT INSTRUCTIONS:

The ram threaded bung which is exposed below the upper frame has a flat surface on 4 sides. The flat surface allows the set screw in the Upper Adaptor (#2200-011) to secure the tooling for alignment.

1. Install Punch on the Upper Adapter Nut (#2200-011) using the  $\frac{1}{2}$ " -20 x 2" flat head cap screw.
2. Install Upper Adapter Nut on threaded bung of Ram
3. Align the set screw in the Upper Adapter with the flat on threaded Ram – with desired radius pointing forward.
4. Install Lower Adapter Nut (#2200-012) through hole in the Lower Press Block.
5. Install  $\frac{1}{2}$ " -20 x 1" button head cap screw through Die into Lower Adapter Nut.
6. Start Bolt approximately 2 threads only.
7. Lower the Upper Punch & Ram Assembly until approximately  $\frac{1}{4}$ " from die
8. Lift Die to align with Punch
9. Lower Punch & Die onto Lower Press Platen.
10. Tighten Lower Adaptor with  $\frac{3}{4}$ " hex wrench.
11. This will properly align the Punch & Die and hold in place while punching operation is completed.

## TO ROTATE PUNCH & DIE FOR DIFFERENT RADIUS:

1. Lower Punch into Die.
2. Loosen set screw on Upper Adapter Nut – do not remove.
3. Loosen Lower Adapter Nut under Lower Press Block – Do not remove.
4. Rotate Punch & Die together until desired Radius is forward.
5. Tighten set screw in Upper Adapter Nut against the Ram flat surface.
6. Tighten the Lower Adapter Nut under the Lower Press Block.



# Radius Corner Punch

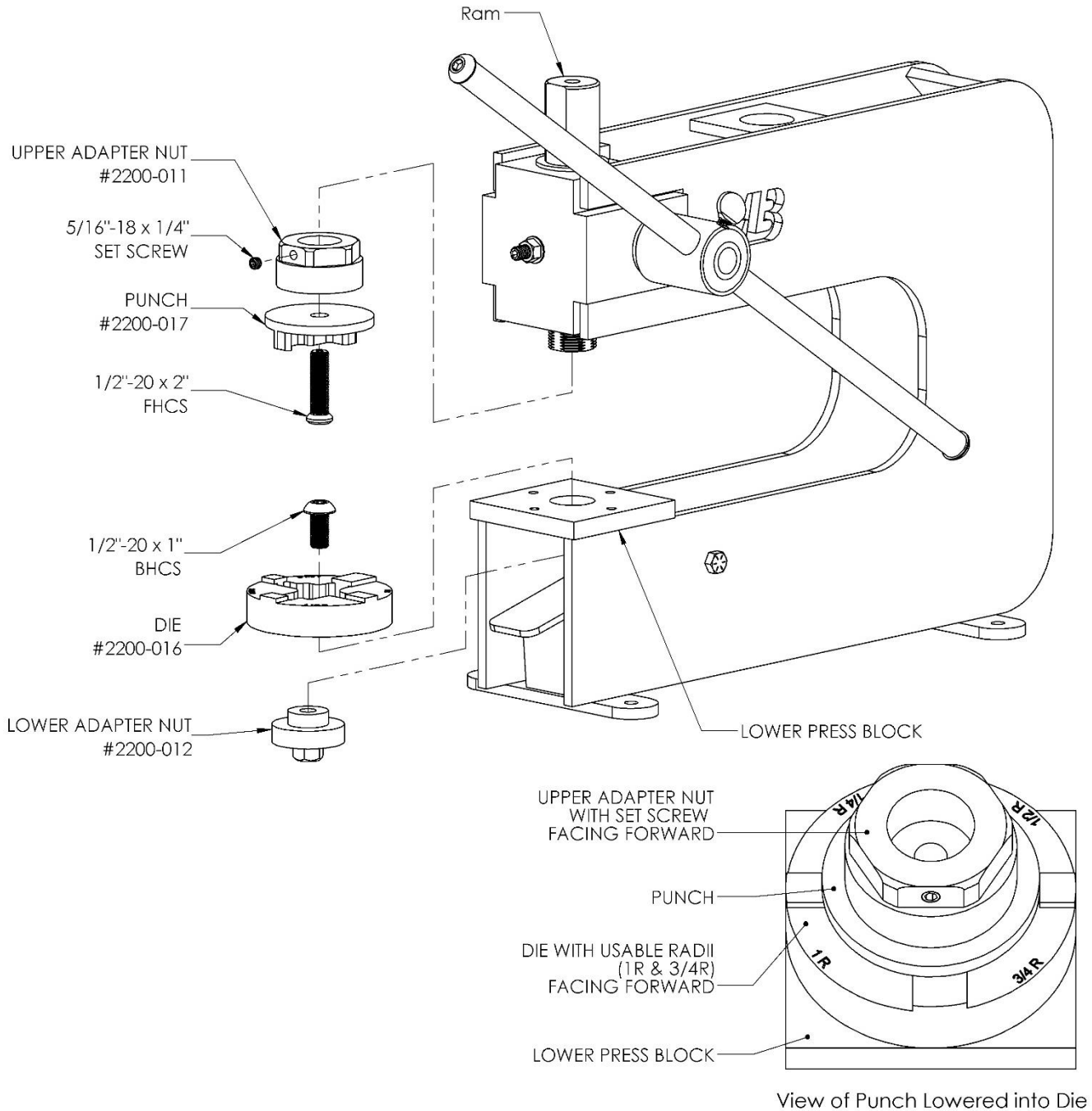
#2200-4RCP

#2200-020-A

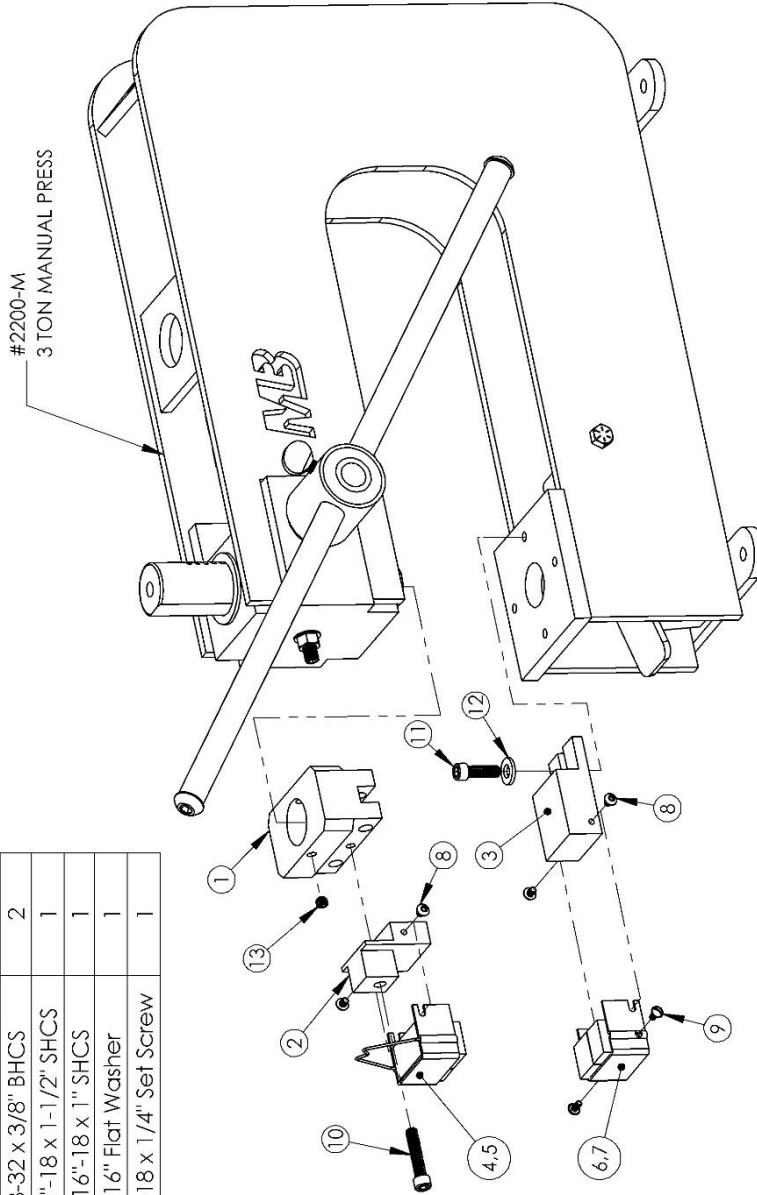
#2200-020-2250

#2200-020-3000

Max Capacity: 8 Ga (.125") Soft Alum. & 16 Ga (.059") Mild Steel



ITEM #	Part #	Description	Qty.
1	2200-021	Tooling Adaptor	1
2	550-103	Upper Mount Adaptor	1
3	550-104	Lower Mount Adaptor	1
4	550-511-1	Upper Shrinker Jaw Ass'y	1
5	550-512-1	Upper Stretcher Jaw Ass'y	1
6	550-511-2	Lower Shrinker Jaw Ass'y	1
7	550-512-2	Lower Stretcher Jaw Ass'y	1
8	91255A261	# 10-32 x 1/4" BHCS	4
9	90276A829	# 8-32 x 3/8" BHCS	2
10	91251A587	5/16"-18 x 1-1/2" SHCS	1
11	91251A583	5/16"-18 x 1" SHCS	1
12	96765A145	5/16" Flat Washer	1
13	91375A574	5/16"-18 x 1/4" Set Screw	1



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PROHIBITED.

DRAWN MSA DATE 12/15/20  
UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES

TOLERANCES:  
FRACTIONAL ±1/32  
ONE PLACE DECIMAL ±.015  
TWO PLACE DECIMAL ±.010  
THREE PLACE DECIMAL ±.005  
ANGULAR ±1°

COMMENTS:

QUANTITY  
MATERIAL  
FINISH

DO NOT SCALE DRAWING

**MB MITTLER BROS.**  
**MACHINE & TOOL**  
10 Cooperative Way, Wright City, MO 63390  
(636)745-7757 Fax (636)745-2874

TITLE: Deep Throat  
Shrinker Stretcher

SIZE DWG. NO. A 550-100  
REV

SCALE: 1:12 WEIGHT: 66.453 SHEET 1 OF 2

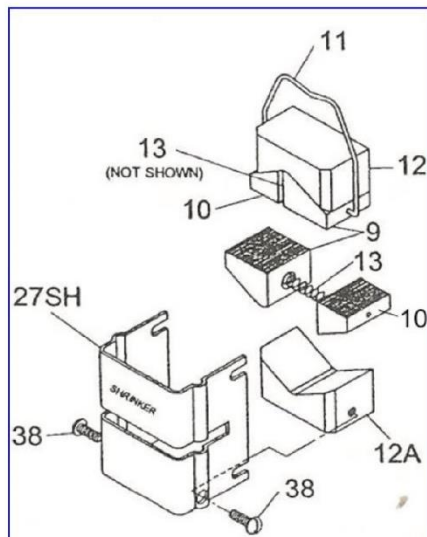
## Shrinker / Stretcher Cartridges

#550-511

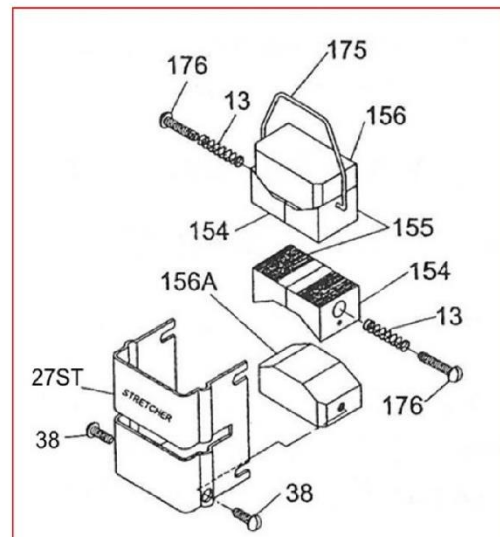
#550-512

Max Capacity: 18 Ga (.047") Mild Steel

Item #	Part #	Description	Qty.
9		Large Jaw (Shrinker)	2
10		Small Jaw (Shrinker)	2
11	550-526	Shrinker Suspension Wire	1
12		Upper Pressure V-Block (Shrinker)	1
12A		Lower Pressure V-Block (Shrinker)	1
13		Pressure Spring	2
27SH	550-528	Cover for Shrinker	1
27ST	550-529	Cover for Stretcher	1
38		#8-32 x 3/8" Machine Screw	2
154		Stretcher Jaw (Spring Side)	2
155		Stretcher Jaw	2
156		Upper Pressure Block	1
156A		Lower Pressure Block (Stretcher)	1
175	550-527	Stretcher Suspension Wire	1
176		#8-32 x 1 Machine Screw	2



Shrinker Cartridge  
Complete  
550-511

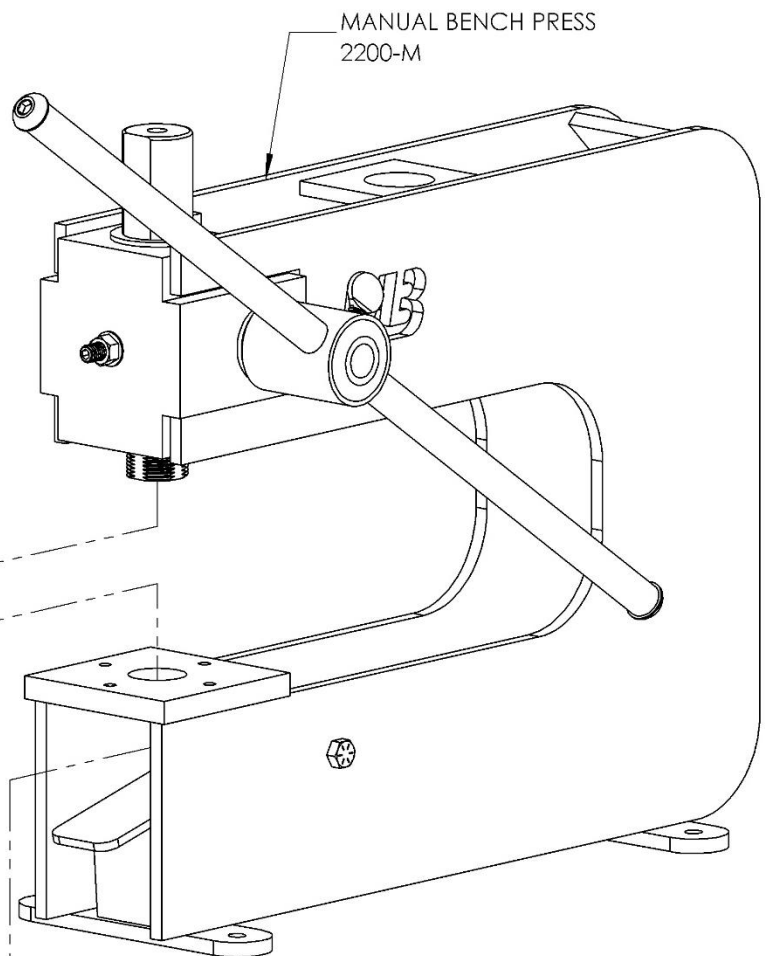
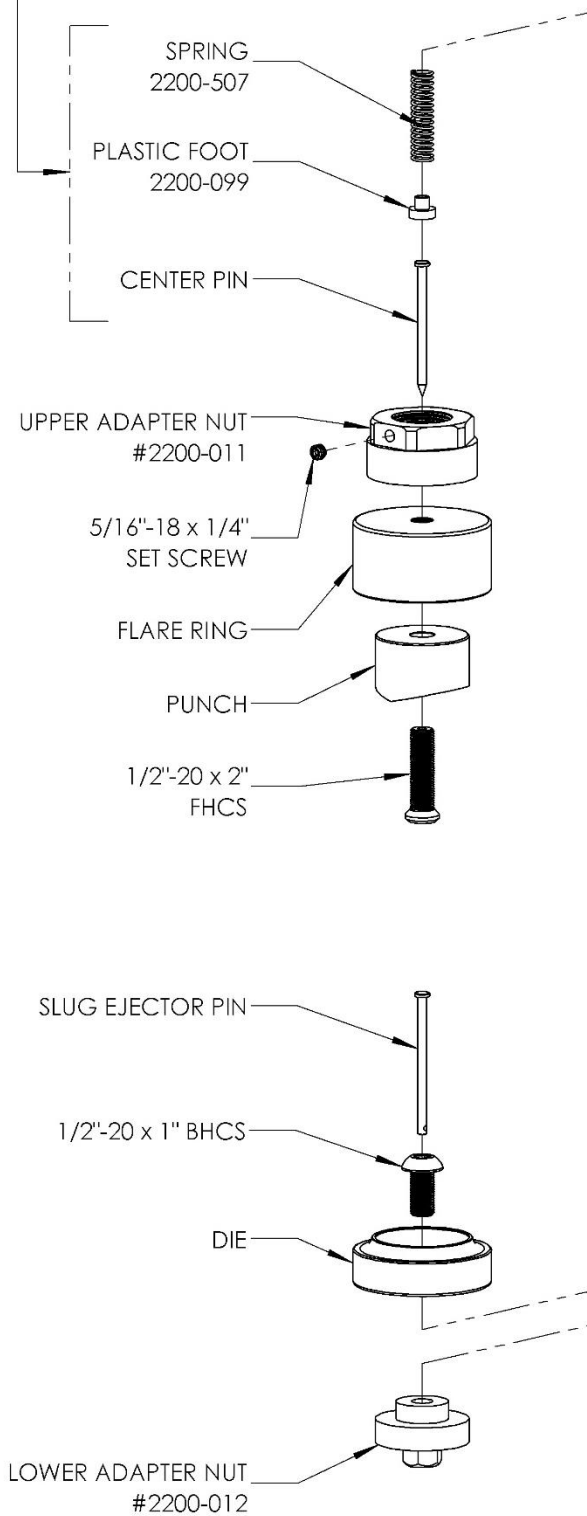


Stretcher Cartridge  
Complete  
550-512

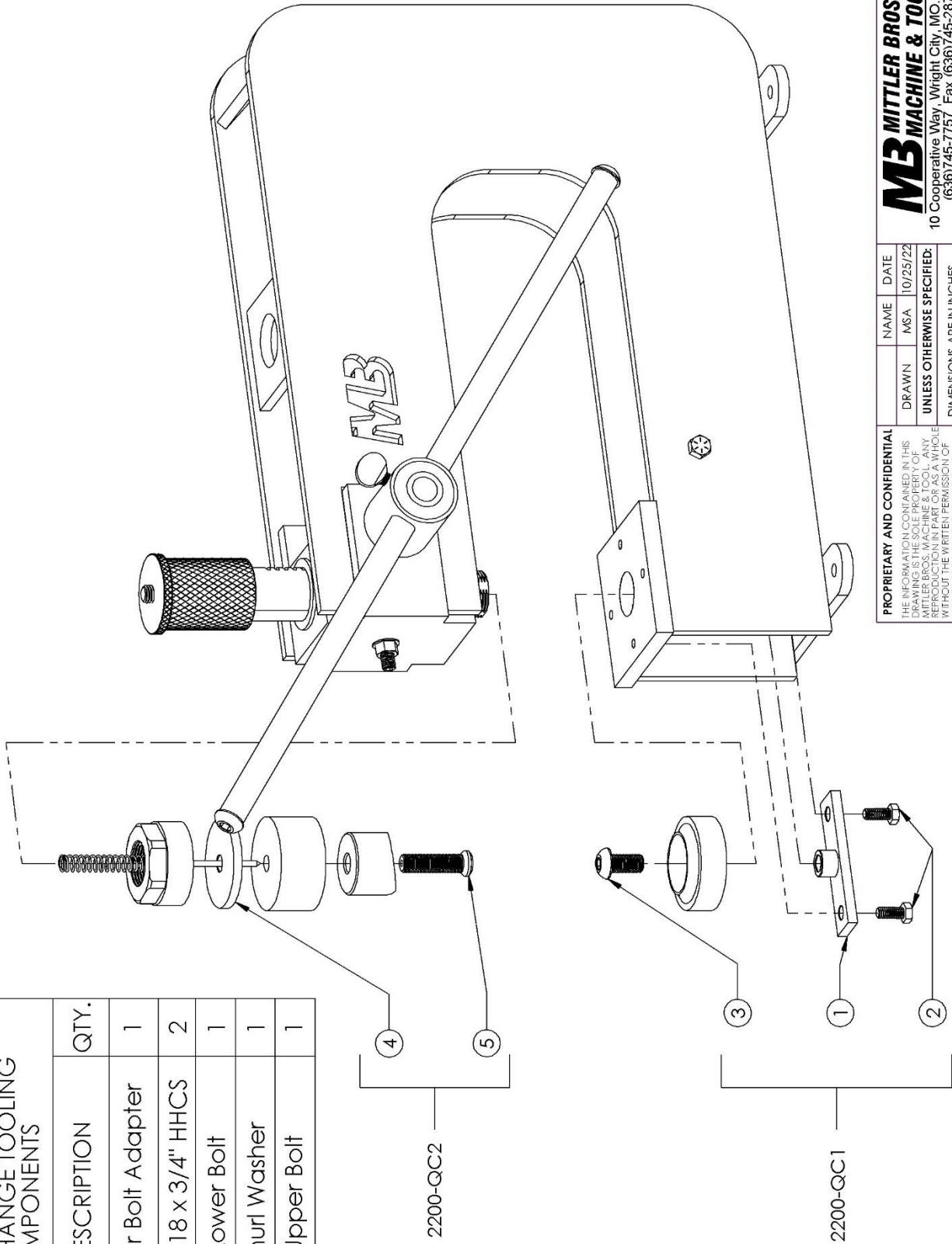
# Punch and Flare Set Series #1300

Max Thickness:  
Aluminum 14 Ga (.064")  
Mild Steel 16 Ga (.059")  
Stainless Steel 19 Ga (.043")

Can be installed with or without  
center pin assembly



QUICK CHANGE TOOLING COMPONENTS		
ITEM NO.	DESCRIPTION	QTY.
1	Lower Bolt Adapter	1
2	5/16"-18 x 3/4" HHCS	2
3	Lower Bolt	1
4	Knurl Washer	1
5	Upper Bolt	1



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	MATERIAL	
	FINISH	
DO NOT SCALE DRAWING		

DRAWN	NAME	DATE
	MSA	10/25/22
UNLESS OTHERWISE SPECIFIED:		
DIMENSIONS ARE IN INCHES		
TOLERANCES:		
FRACTIONS		
ONE PLACE DECIMAL		
TWO PLACE DECIMAL		
THREE PLACE DECIMAL		
ANGULAR		
COMMENTS:		

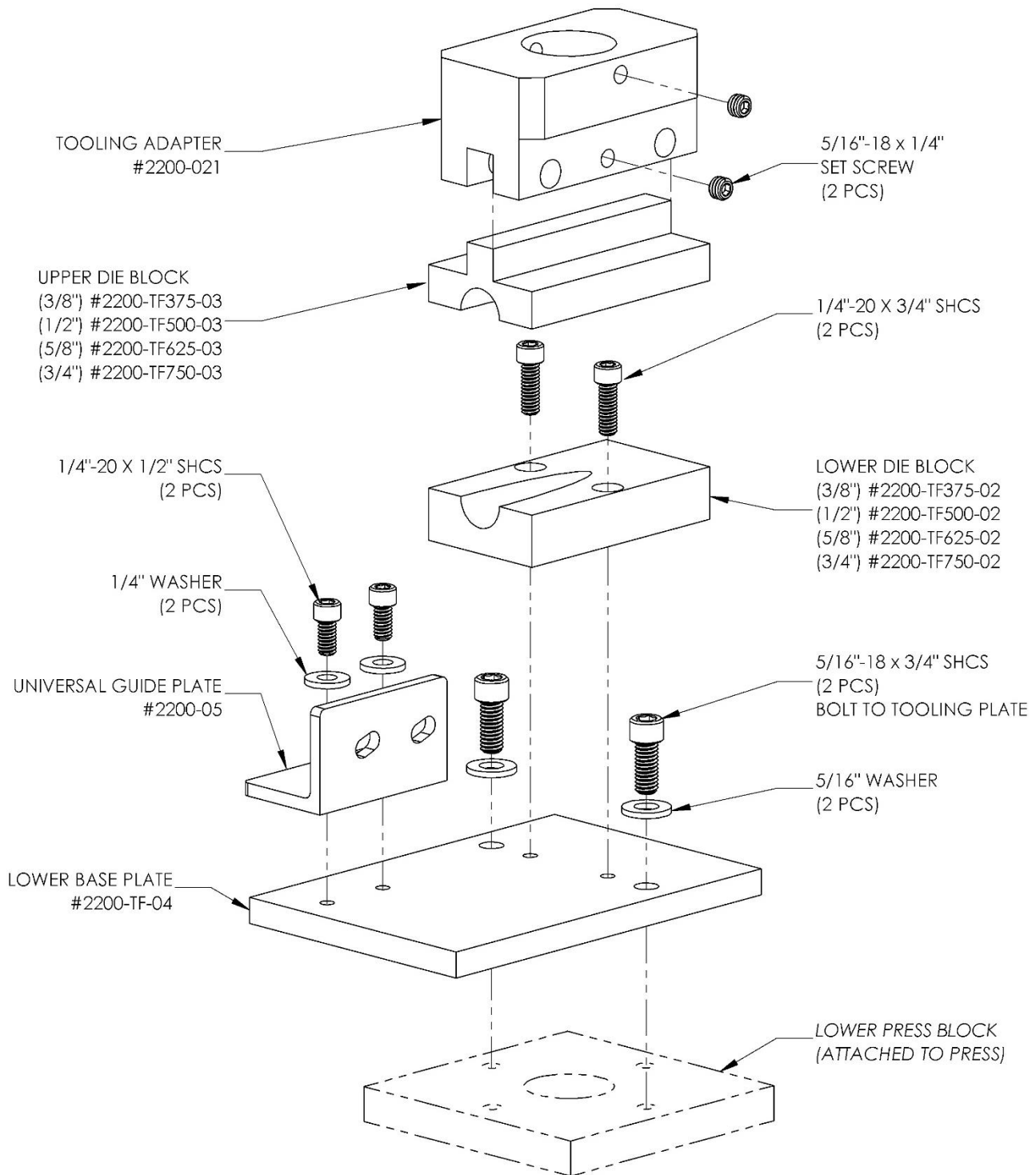
MB MITTLER BROS.		
10 Cooperative Way, Wright City, MO. 63390		
(636) 745-7757 Fax (636) 745-2874		
TITLE: Bench Press		
Quick Change Tooling		
SIZE	DWG. NO.	REV
A	2200-QC1 & QC2	
SCALE: 1:4		SHEET 1 OF 1

# Tube Flattening Die Kit

3/8", 1/2", 5/8", 3/4"

#2200-TF

Designed for .045" Wall



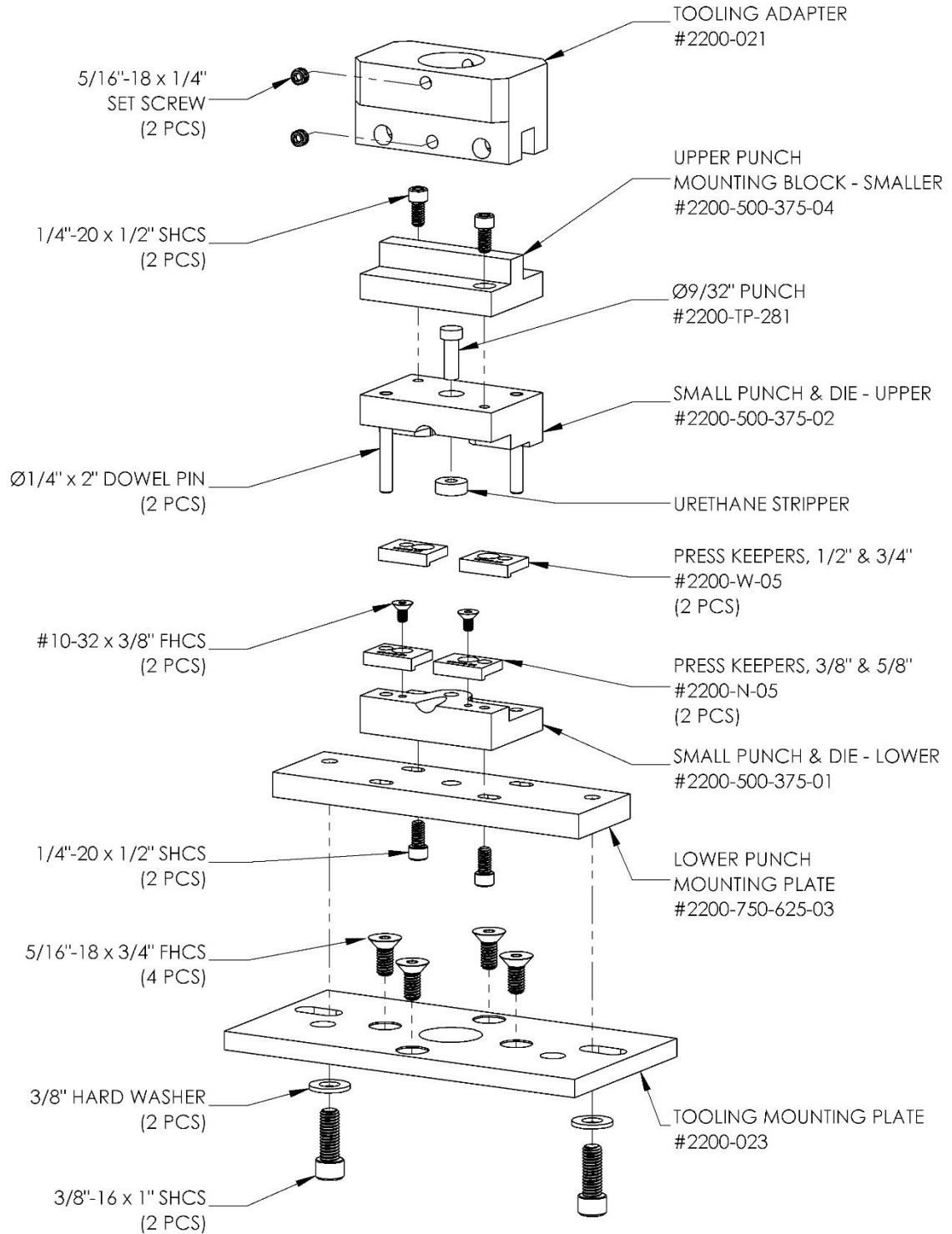
# Tube Punch & Radius Die Kit

3/8" - 1/2"

#2200-TPR

Designed for .045" Wall

\*5 Ton Hydraulic Press Required



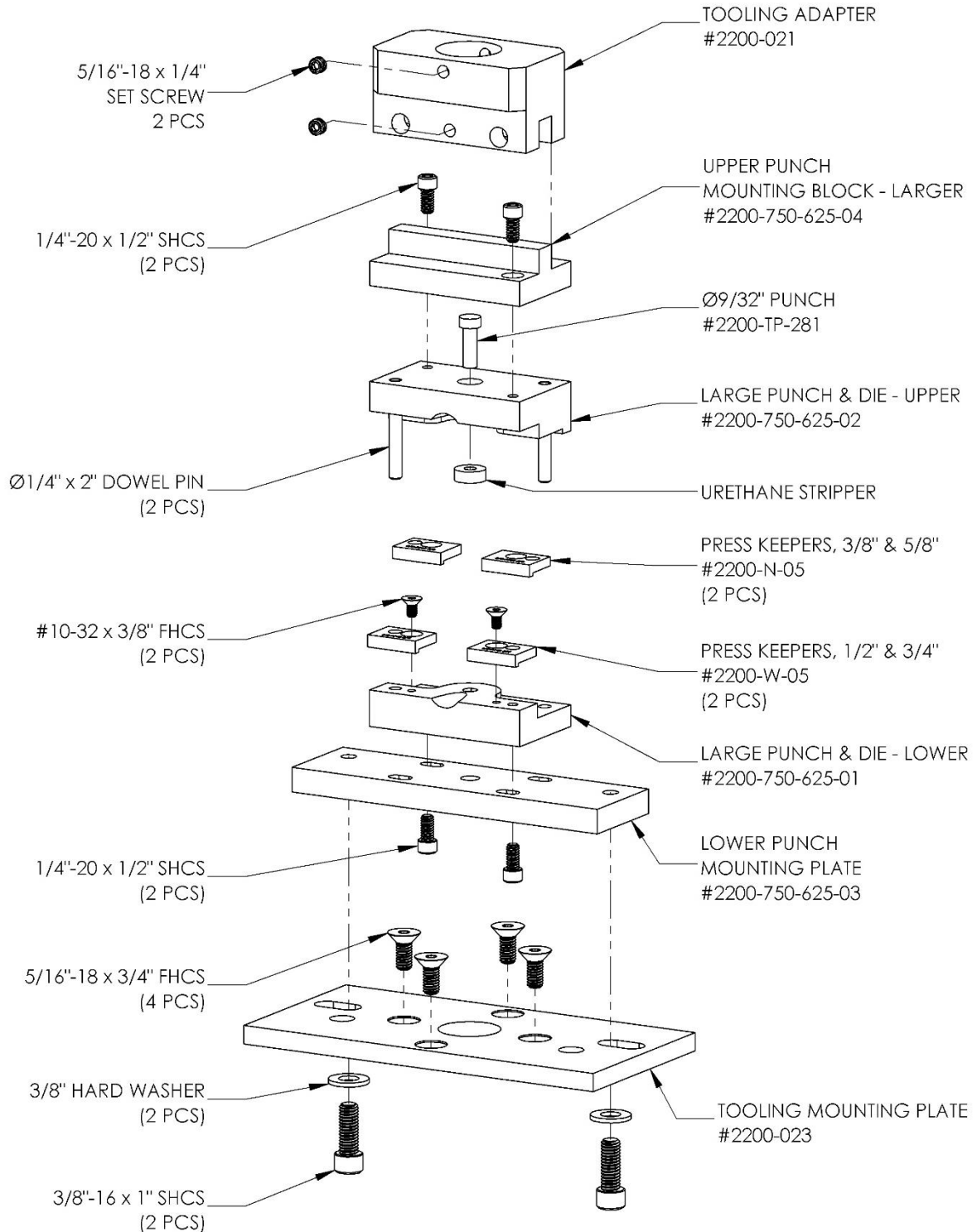
# Tube Punch & Radius Die Kit

5/8" - 3/4"

#2200-TPR2

Designed for .045" Wall

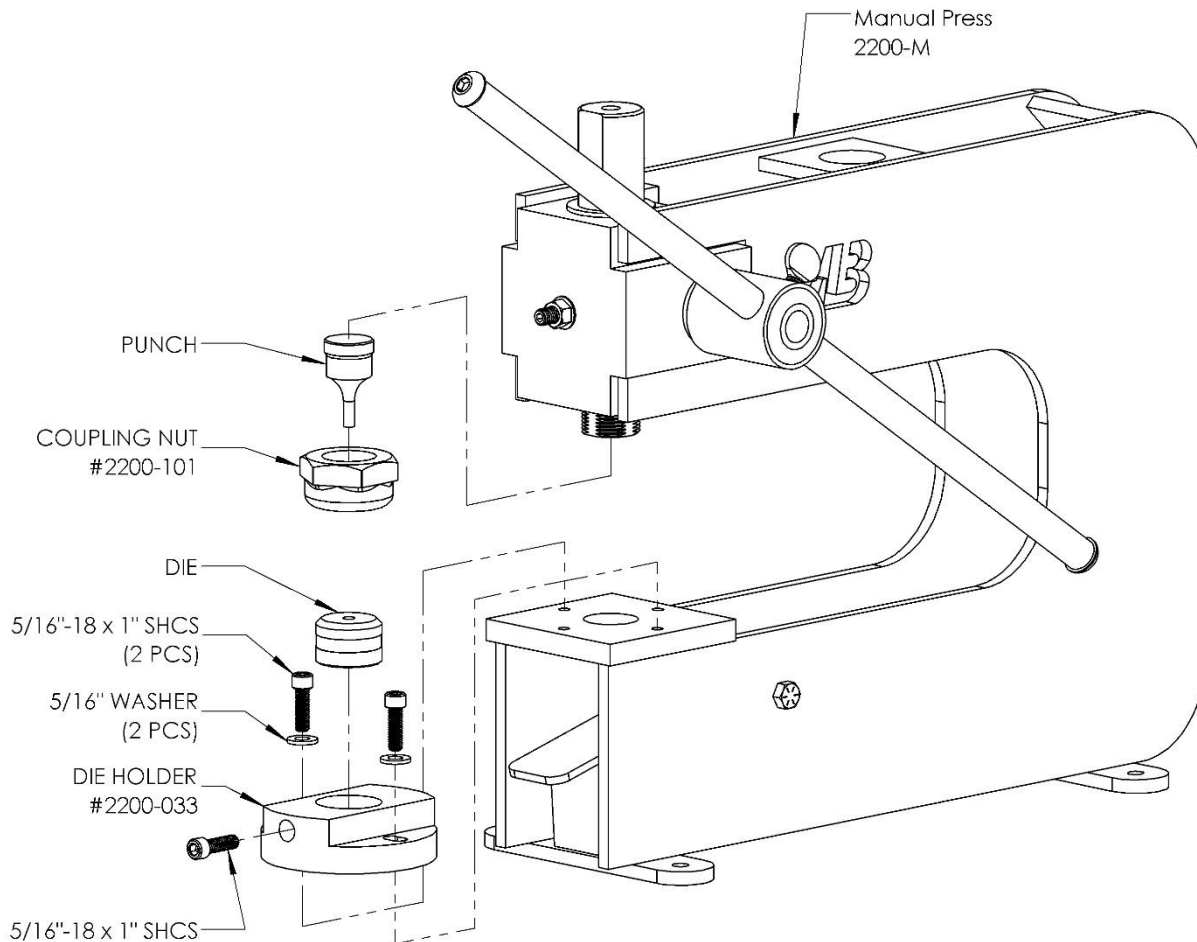
\*10 Ton Hydraulic Press Required





# Punch and Die Set with Mounting Kit

Max Capacity  
16 Ga (.059") Mild Steel  
12 Ga (.080") Aluminum

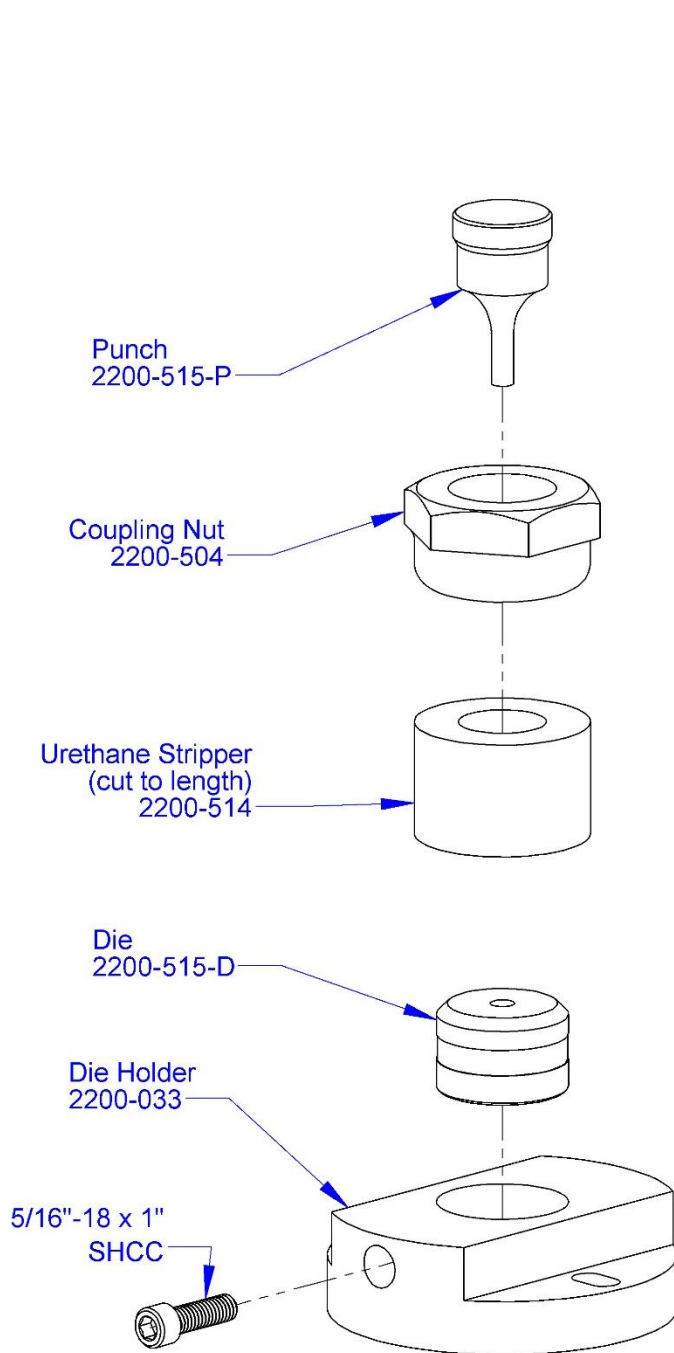


**M3 MITTLER BROS.**  
**MACHINE & TOOL**

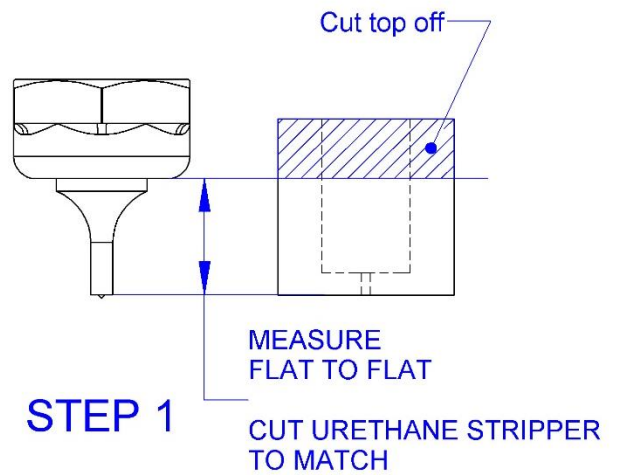
10 Cooperative Way  
Wright City, MO 63390  
(636)745-7757 Fax (636)745-2874

4/17/20

# URETHANE STRIPPER INSTRUCTIONS



## STEP 2

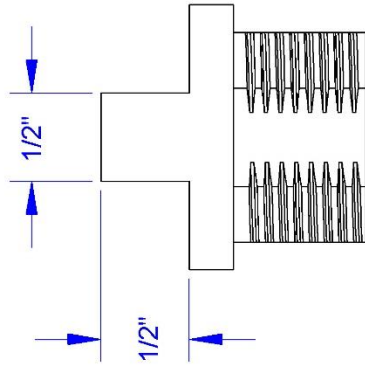


## INSTALLATION INSTRUCTIONS

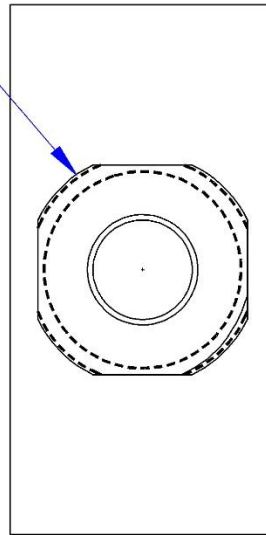
- 1) Measure from flat to flat as shown. Cut urethane stripper to match
- 2) Push stripper onto punch shank (ID is slightly undersized to grip punch). First stroke of press forces punch tip through stripper bottom.

Urethane strippers generate high holding pressure on the blank and strip the blank cleanly from the punch.

The stripper remembers its shape and springs back, hit after hit.



1-5/16 - 12 THREAD



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		UNLESS OTHERWISE SPECIFIED:	MSA	12/30/20
QUANTITY	DIMENSIONS ARE IN INCHES			
MATERIAL	TOLERANCES:			
FINISH	FRACTIONAL ±1/32			
DO NOT SCALE DRAWING		ONE PLACE DECIMAL ±0.05		
		TWO PLACE DECIMAL ±0.010		
		THREE PLACE DECIMAL ±0.005		
		ANGULAR ±1°		
		COMMENTS:		
		<b>MB MITTLER BROS. MACHINE &amp; TOOL</b> 10 Cooperative Way Wright City, MO. 63390 (636)745-7757 Fax (636)745-2874 TITLE: Threaded Adapter SIZE DWG. NO. REV <b>A</b> 2200-097 SCALE: 1:1 WEIGHT: 0.645 SHEET 2 OF 2		