www.taparms.com

Ergonomic Tool Arms, LLC.

TA-Series Tap Arm System

OWNER'S MANUAL

CONTENTS

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WARNING

READ THIS MANUAL CAREFULLY PRIOR TO INSTALLATION AND OPERATION OF THIS TAP ARM SYSTEM!

FAILURE TO UNDERSTAND AND OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY.

HEARING PROTECTION is required when using this Tapping System.

Always wear **EYE PROTECTION** when installing, operating or performing maintenance on this Tapping System.

Use CAUTION – PINCH POINTS exist during installation, use and maintenance of this Tapping System.

Operate Tap Motor at 90 psi (6.2 bar) maximum.

DO NOT ATTEMPT TO USE THIS SYSTEM UNLESS THE PART YOU ARE THREADING IS SECURELY CLAMPED OR FIXTURED !

Do not carry tap arm by air hose or manipulate arm using the air hose as a handle. Replace damaged or deteriorated air hoses and fittings immediately.

Disconnect air supply, or lock it out and lower Tap Arm to lowest position before changing taps or cutters.

Do not remove any labels – replace any warn or damaged labels that list maximum specifications.

ETA is not responsible for customer modification of this Tapping System and resultant safety concerns.

It is the responsibility of the employer to place the information in this manual in the hands of the operator and to make sure they understand how to safely operate this Tap Arm System and any components added to it.

Installation and Set-up of TA-Series Tap Arm System

1) Remove contents from shipping carton and inspect for damage.

2) Remove plastic tear cap from fitting on the end of the red motor supply hose and unscrew the plastic plug from the motor inlet fitting. Thread the brass swivel fitting on the end of the hose into the tap motor inlet. Using a 11/16" open end wrench securely tighten the fitting. Be careful not to over tighten. If the hose twists as you tighten the threads you can easily untwist the upper part of the fitting using your hands or a 3/4" open end wrench.

3) Determine mounting base location. See Coverage Area & Mounting Ideas on the following pages to determine the best location.

4) Place Base assembly where you want to mount it and mark hole locations. or use the mathematical layouts on the following page.

5) Drill thru holes in work bench or other ridged surface if possible. Otherwise anchor securely using appropriate lag bolts, concrete anchors, etc. For thru holes use 3/8" or M8 bolts. To be sure any anchors used have sufficient length to secure the base safely, use bolts rated Grade 5 or higher. Leave bolts or anchors hand tight temporarily until you check level and alignment of tap to your unthreaded holes.

6) Screw tap arm onto post and hand tighten Base Cap snuggly. You can use a wrench on the 2" hex Post Cap but light torque is all that is typically required on this connection.

7) Rotate arm slowly and see if it swings on its own once you let go of it. Using the set screws in the base plate, adjust or level the arm until it stays wherever you position it. Whenever you need to raise the base using the set screw, loosen mounting bolts on either side of that set screw slightly as you turn set screw in. Repeat this process until arm stays wherever you place it. Tighten the 3 bolts securely and recheck level. It is not necessary to use a level to accomplish this task; you can level the base strictly by observing tap arm behavior.

8) Supply a flexible air hose to the $^{3}/_{8}$ npt female inlet in the Regulator/Filter unit on the tap arm. Use 3/8" ID hose minimum (1/2" ID is preferred) and no more than 1 HIGH-FLOW quick-connect coupling in the supply line to the tool arm. Be sure to allow enough slack in the supply hose so you do not inhibit tap arm movement. Installation of a Lock-out/Tag-out Valve in the air line supplying the tap arm is required in some circumstances. Consult those responsible for work safety in your organization regarding the necessity for a Lock-out/Tag-out Valve on your tap arm system.

9) Turn air supply on and check your connections for air leaks.

10) Set ETA Tap Arm Regulator to approx 100 psi (6.9 bar). Run motor and make sure pressure gage is at 90 psi (6.2 bar) MAXIMUM while motor is running. Adjust accordingly.

11) Test if you have enough air volume to ensure full motor torque by watching the air gauge on the Regulator/Filter unit. A loss of air pressure (10 psi or greater) when the motor is running means an insufficient volume of supply air. There could be a number of contributing factors to insufficient supply; compressor capacity, multiple quick-connects, small diameter feed lines, kinked or smashed feed lines or hoses. Loss of pressure due to insufficient air volume will not damage the tool, but it will affect its performance. Increasing supply pressure will not make up for insufficient volume. If the air gage is at 70 psi or greater you will still have sufficient torque to tap most of the given model's range, but will not likely have enough torque to handle the largest size taps listed for that model. It is usually a good idea to determine the cause of the lack of air volume and correct it if possible. Ideally 30 CFM should be available for the TA-Series Tap Arm System.

12) Adjust the small air regulator supplying the float cylinder until the arm is balanced and easily floats with little resistance when moving both up and down.

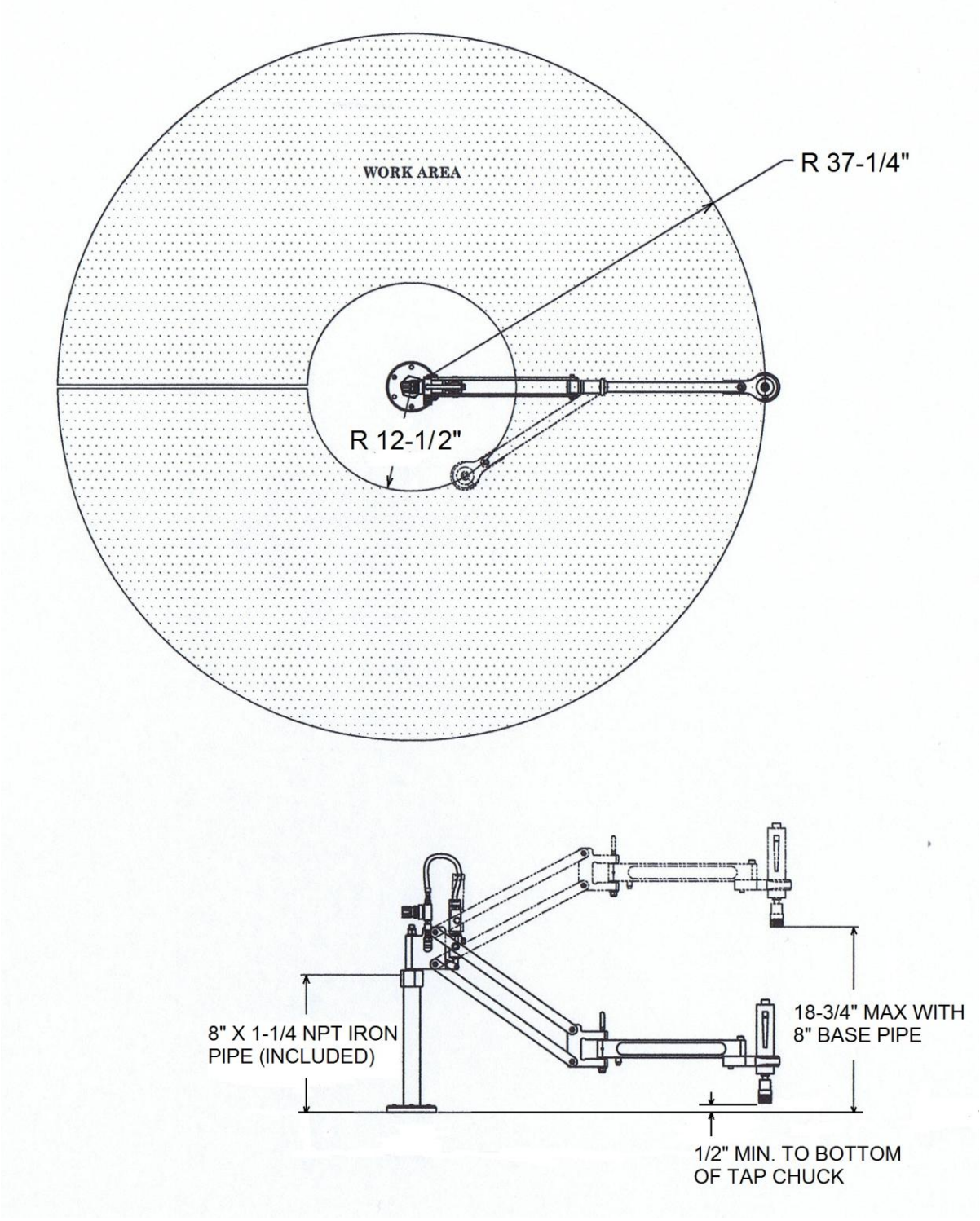
13) ***You will need air supply to the arm so that it will float but do not turn air motor on for this next procedure. Alignment should be checked while spindle is not turning.*** Place a part to be tapped onto work surface vise or fixture in which the parts will be held for tapping. Check alignment of ETA tap motor spindle with holes to be threaded by one of several means. A drill rod the exact diameter of the hole could be inserted into the hole to be tapped and the tap can be inserted into the adapter and chuck on the tap arm and gently floated up against the drill rod from several directions to visually see if it is parallel from all directions. Or if you chose to purchase a drill chuck with your ETA Tap Arm System you can install a drill bit or drill rod exactly the same size as the untapped holes and see if it slides into the hole smoothly without bending. If adjustment is needed then either adjust the part/clamp/ fixture or the leveling screws in the ETA Base Plate until the tap is aligned with the holes to be tapped. Once you are satisfied with the hole alignment securely tighten the 3 mounting bolts attaching the base and recheck your alignment.

14) The tap motor lever and reverse button orientation can be turned to best suit the operators preference simply by slightly loosening the clamp screw on the right-hand side of the motor holder and rotating the body of the holder so that the lever and reverse button are positioned comfortably for the operator(s). Once positioned comfortably **TIGHTEN THE CLAMP SCREW SECURELY.**

15) The Sioux Tap Motor should be lubricated according to the manufacturer's requirements in the middle of page 17 of this manual. **REMOVE AIR PRESSURE FROM SYSTEM BEFORE REMOVING FILL CAP ON LUBRICATOR**. *Use only high quality air tool oil. Do not use general purpose oils in any air system. This will void the warranty and deteriorate the seal components.* We recommend adjusting the lubricator knob slowly and conservatively. Starting with the knob turned completely off, SLOWLY increase the amount until an oil droplet begins to form in the sight glass and then STOP ADJUSTING. Observe over a period of time to make sure 1 or 2 drops form and drip off the sight glass in 60 seconds of run time. Any higher rate is a waste and an environmental hazard.

Tap arm should now be ready to work for you. See OPERATING ETA TAP ARM SYSTEM on page 7.

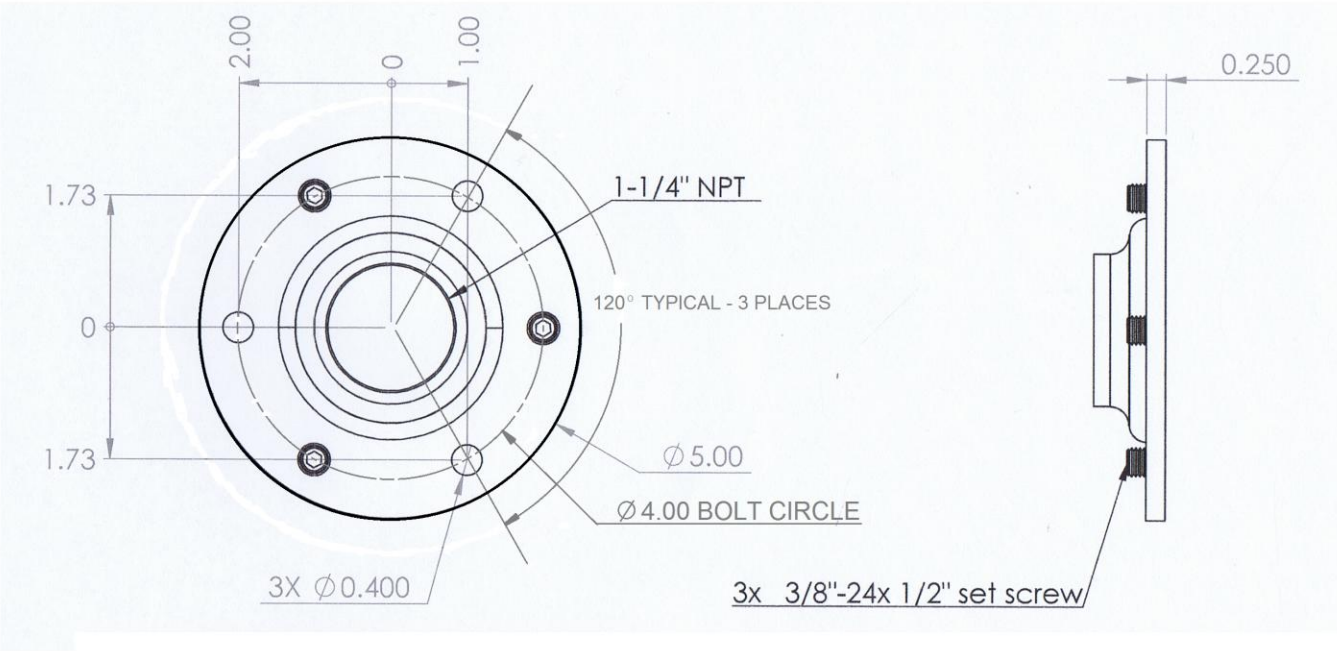
TA- Series Coverage Area (Reach)



NOTE; Available EX Option will extend maximum and minimum radius shown by up to 8 inches, in 1 inch increments. Therefore the maximum reach would be 45-1/4" fully extended while the minimum radius would be 20-1/2 with that fully extended arm. see www.taparms.com/accessories for details.

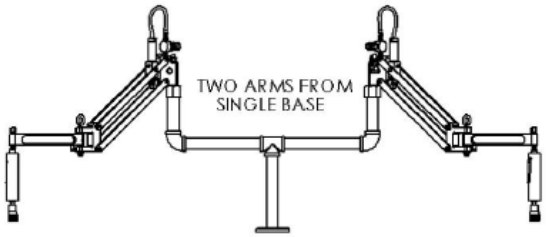
ETA B125 Mounting Base

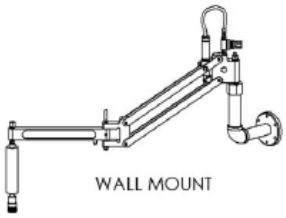
Included with all TA-Series Tap Arms, all Assembly Arm models and Smart-Arm models



MOUNTING IDEAS

All ETA Tool Arms use 1¼" NPT pipe for the Base Post. Use standard Schedule 40 iron or galvanized pipe for elbows, tees & pipe – available at home centers and hardware stores. To avoid movement, elbows and tees should be tack welded or drilled and pinned following final positioning. Vertical lengths of pipe used with ETA Base & ETA Post Cap do not need to be tacked or pinned.





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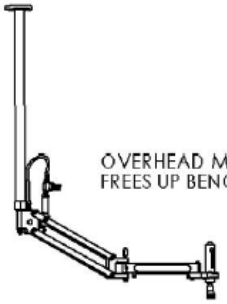
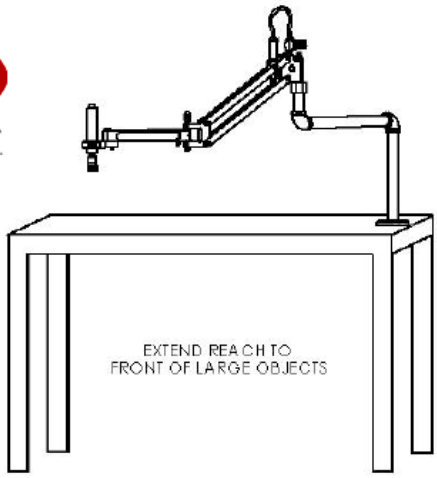
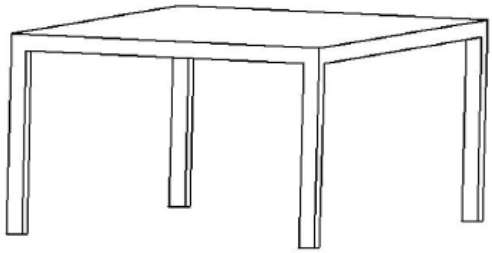
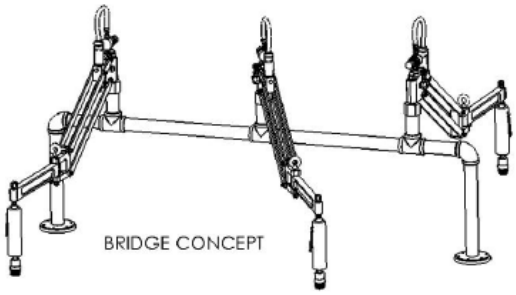
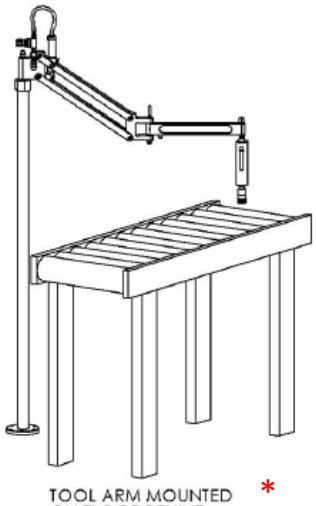


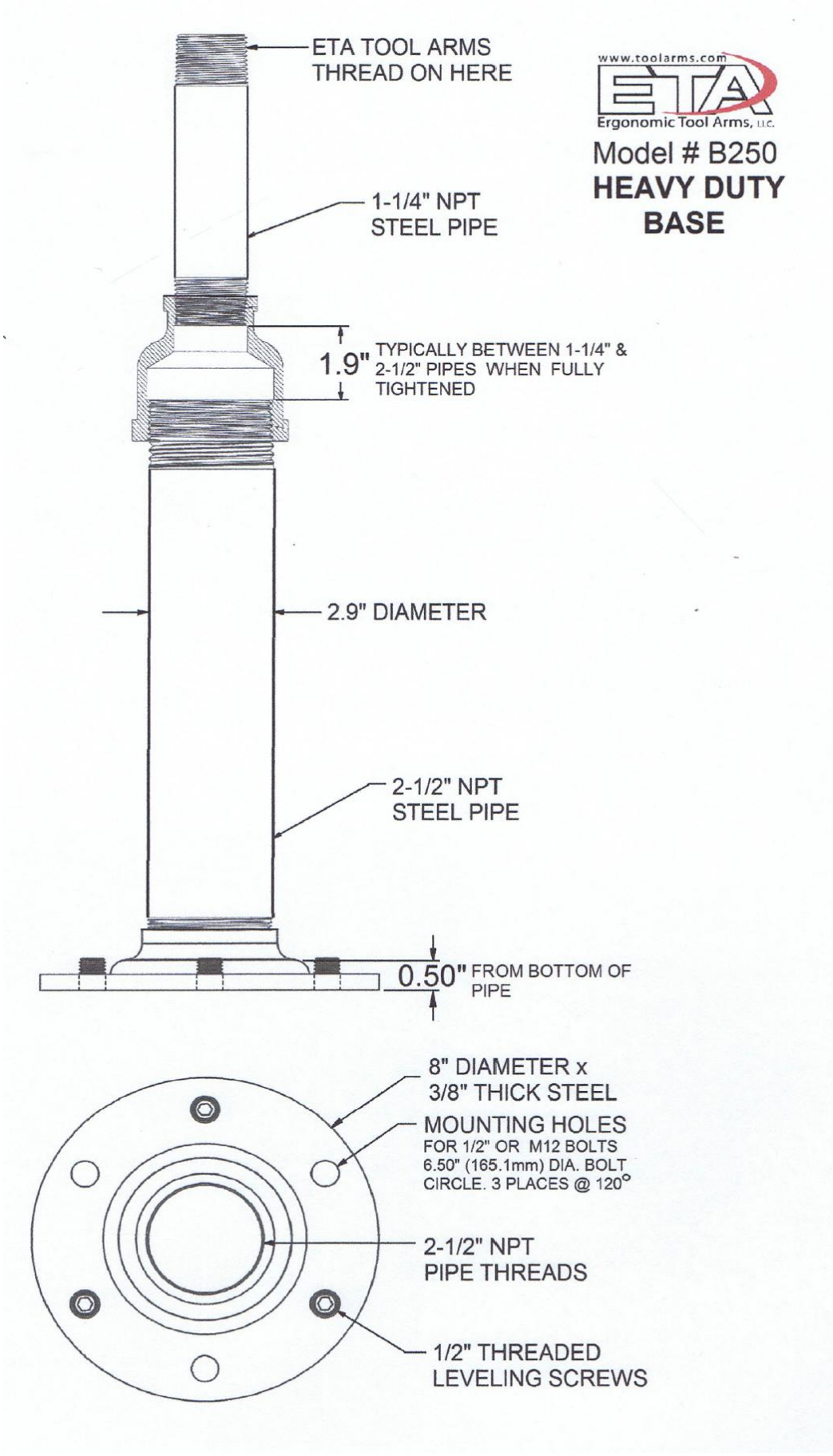








**Note; In applications where 24" or more of pipe is needed to mount tap arm at the correct work height, we recommend using our Heavy Duty B250 Base instead of the standard B125 Base.*


ETA TOOL ARMS
THREAD ON HERE
www.toolarms.com
ETA
Ergonomic Tool Arms, LLC.
Model # B250
HEAVY DUTY
BASE
1-1/4" NPT
STEEL PIPE
1.9"
TYPICALLY BETWEEN 1-1/4" &
2-1/2" PIPES WHEN FULLY
TIGHTENED
2.9" DIAMETER
2-1/2" NPT
STEEL PIPE
0.50"
FROM BOTTOM OF
PIPE
8" DIAMETER x
3/8" THICK STEEL
MOUNTING HOLES
FOR 1/2" OR M12 BOLTS
6.50" (165.1mm) DIA. BOLT
CIRCLE. 3 PLACES @ 120°
2-1/2" NPT
PIPE THREADS
1/2" THREADED
LEVELING SCREWS

Operating the ETA Tap Arm System

The Tapping System should be disconnected from the air line while changing taps. Taps can be changed in a few seconds without tools.

Use Size 1 Tap Adapters with built in clutches for the specific size taps you will be using. Our Adapters models with clutches start with TLA and are manufactured by BILZ. Other brands that fit our BILZ Quick Change Chuck are T.M. Smith, Collis, Universal, Lyndex, Flexarm, Accupro and others. Size 1 adapters will accommodate taps up to 9/16" straight threads and 1/8 npt. There are extension holders for larger sizes that are useful under certain circumstances. Typically standard taps all have the same shank and square size for a given thread diameter so all you need is that nominal thread size to buy the correct adapter. For example if you want to tap 3/8-16; A 3/8 tap has a 0.394 dia. shank and 0.315" square whether its 16 or 24 threads per inch and an M10 tap manufactured to US standards also has that same size shank and square. But there are some special taps that will differ from the standards, so it never hurts to check. But generally if you are using standard taps you can buy your adapters by the tap size. Example; *3/8" x Size 1 Torque Limiting Tap Adapter* = TLA-375.

Other adapters are manufactured for the Size 1 Tap Holder for drill chucks or ridged tap holders. This tap arm can be used to drill holes or for the use of chamfering tools, etc.

CHUCKING A TAP: If no tap is in the adapter simply push the tap into the holder until the square of the tap settles into the square hole in the adapter and locks into place. You will know when the tap is fully seated because you will not be able to pull it out of the adapter. To remove a tap from an adapter simply depress the collar around the tap and pull on tap.

To change the Tap Adapter for a fresh tool or different thread size on the ETA Tapping Motor equipped with the Bilz size 1 Tap Holder, simply pull back on the black collar on the Tap Holder until the adapter and tap pops out into your hand. Reload the Tap Holder by inserting a Tap Adapter into the holder and aligning the tangs on the adapter with the exposed notches in the Tap Holder. Push gently and the adapter will lock in place.

Typically the clutch in the adapter is factory preset to allow enough torque to cut the given threads in mild steel but not enough to break the tap used with that size adapter. If you need to adjust the clutch, consult the manufacturer of the adapter for the adjustment procedure. Eventually these clutches may wear to the point where they will slip prematurely and the Tap Adapter needs to be replaced or repaired by its manufacturer.

TAPPING A HOLE: Once you have a tap loaded into the Tapping Motor of the ETA arm and predrilled parts clamped,
or otherwise secured, Check alignment of tap to tap hole using procedures outlined in step 12 of Installation Instructions above. It is essential that the hole to be tapped is kept in parallel alignment with the tool arm so tap can follow the hole without twisting or bending. Forcing a tap on an angle will result in poor thread quality or a broken tap. Once aligned you are ready to cut threads.

⚠ DO NOT ATTEMPT TO USE THE TAP ARM IF YOUR PARTS ARE NOT SECURELY CLAMPED OR FIXTURED. PARTS COULD SPIN OR BE THROWN BY THE TORQUE OF THE TAPPING OPERATION. INJURY TO YOURSELF AND THOSE NEARBY COULD RESULT AS WELL AS DAMAGE TO PARTS AND TOOLING.

In most cases you want to lubricate the tap to ensure accurate and smooth threading. This can be done by applying a few drops or a dab of tap lubricant or coolant manually or with an Automatic Mist Coolant system such as our AMC. See taparms.com/Accessories for info on the AMC option.

Begin tapping by pulling the lever against the body of the Tapping Motor and pressing the tap into the hole. It should grab immediately and the tap threads should begin to pull the tap into the hole. Once you reach desired depth just depress the reverse button near the top of the motor and let the tap wind its way out of the hole. Try not to let the tap sit on the hole entrance and chew the hole up in reverse, rather float the arm away from the hole as you exit. There is no need to stop at the bottom of the hole before depressing the reverse button because air motors are not affected by sudden changes in direction. However, if you encounter problems while tapping, you can let the lever go and stop the tapping at any point and then restart when ready.

That all there is to it.

Here's to successful tapping for years to come!

Questions about this equipment? Contact us at etainfo@toolarms.com .

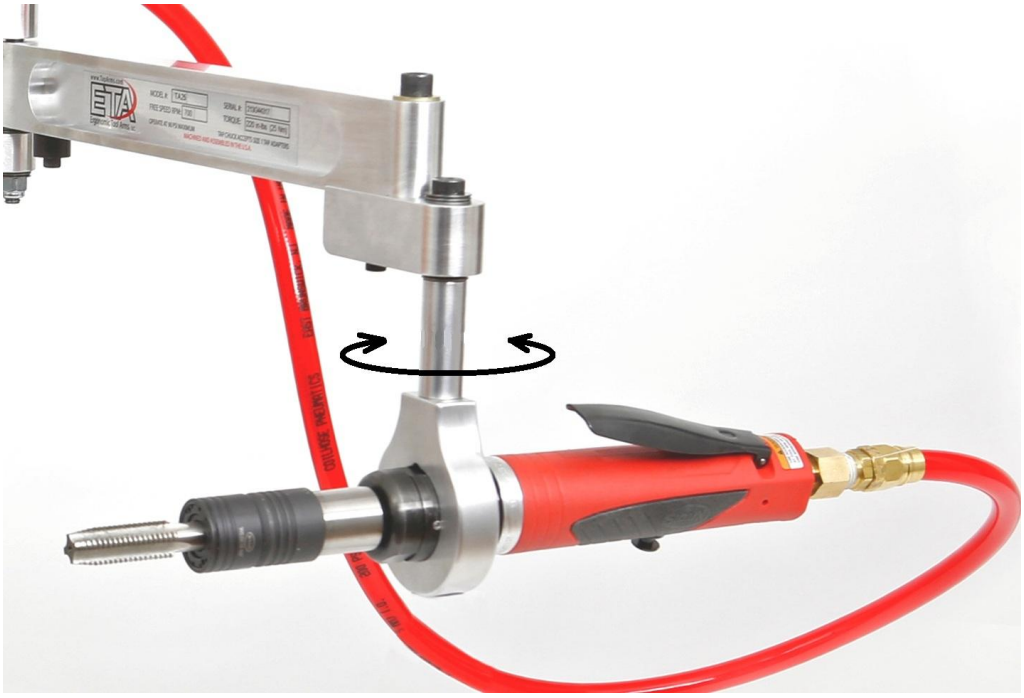
TAPPING SYSTEM MAINTENANCE & FACTORY SERVICE

Unless problems arise due to worn parts or weakened or compromised pneumatic hoses or seals, there is no regularly scheduled preventative maintenance required on ETA Arm Components. Inspect for worn or compromised parts periodically and repair as necessary. **Do not let filter bowl fill up completely before draining.** After removing air pressure, drain filter bowl of any accumulated contaminants as often as necessary by turning the knob to open the valve on the bottom of the filter bowl. ETA Tap Arm System components are covered by 1 and 3 year warranty. See warranty on page 22 for details.

Non-warranty repair parts can be purchased from ETA through your ETA Distributor and ETA can perform repairs at our factory at a nominal cost, based on a written estimate after inspection of returned product. An RMA # is required to return product to ETA. This available service includes the Tap Motor maintenance and repair.

The Sioux STP10 SERIES POWER UNIT (tapping motor) does require maintenance in accordance with the SIOUX OPERATOR'S MANUAL. A copy of which is included in the last few pages of this manual.

Accessory Available for HORIZONTAL TAPPING with all **TA-Series** Tap Arms



ETA Model # **HTMH** ...Horizontal Tap Motor Holder
Includes longer tool supply hose

TA-Series Standard Models for VERTICAL TAPPING

NOTE; Maximum tap sizes, no-load RPM and torque are theoretical and are dependent on air supply and quality, upkeep of equipment, sharpness and configuration of taps, and depth and diameter of hole. These thread sizes, while based on actual tests, are meant as guidelines only and cannot be guaranteed in your circumstances, unless specific tests on your parts are conducted.

ETA MODEL #	FREE SPEED RPM	TORQUE In. Lb (Nm)	MAX TAP SIZE MILD STEEL*	MAX TAP SIZE ALUMINUM*	TAP ADAPTERS
TA45	300	400 (45)	5/8" (M16)	3/4" (M18)	purchased separately SEE ADAPTER CHART
TA37	500	325 (37)	1/2" (M12)	5/8" (M16)	
TA25	700	220 (25)	3/8" (M10)	1/2" (M12)	
TA16	1,200	145 (16)	1/4" (M6)	3/8 (M10)	
TA45-A5	300	400 (45)	5/8" (M16)	3/4" (M18)	Any 5 Included from Section 1 of ADAPTER CHART
TA37-A5	500	325 (37)	1/2" (M12)	5/8" (M16)	
TA25-A5	700	220 (25)	3/8" (M10)	1/2" (M12)	
TA16-A5	1,200	145 (16)	1/4" (M6)	3/8 (M10)	

QUICK CHANGE TAP ADAPTERS

NO TOOLS REQUIRED

SECTION 1

Size 1 Torque Limiting Tap Adapters

(clutch reduces tap breakage)

chuck key included

Size 1 Drill Chuck Adapter

ETA Part No.	TAP SIZE: American Inch Taps	TAP SIZE: US Shank Metric Taps	BILZ Designation	Shank Diameter	Drive Square
TLA-006	#0 thru #6	M1.6 thru M3.5*	WES1B #0 - #6	0.141	0.110
TLA-008	#8	M4*	WES1B #8	0.168	0.131
TLA-010	#10	M4.5 , M5*	WES1B #10	0.194	0.152
TLA-012	#12		WES1B #12	0.220	0.165
TLA-250	1/4	M6 , M6.3	WES1B 1/4	0.255	0.191
TLA-312	5/16	M7 , M8	WES1B 5/16	0.318	0.238
TLA-375	3/8	M10	WES1B 3/8	0.381	0.286
TLA-438	7/16		WES1B 7/16	0.323	0.242
TLA-500	1/2	M12 , M12.5	WES1B 1/2	0.367	0.275
TLA-562	9/16	M14	WES1B 9/16	0.429	0.322
TLA-1PSS	1/8 npt		WES1B 1/8-SS	0.3125	0.234
TLA-1PLS	1/8 npt		WES1B 1/8-LS	0.437	0.328
TCA-520	Chuck Adapter Only		WE1 A36 1/2-20	1/2 - 20 Threads	
TCA-50C	Adapter with Drill Chuck Included		Jacobs	1/2" Capacity Keyed Chuck	

SECTION 2

Size 1 Posi-Drive Tap Adapters

(direct drive without torque limiting clutch)

ETA Part No.	TAP SIZE: American Inch Taps	TAP SIZE: US Shank Metric Taps	BILZ Designation	Shank Diameter	Drive Square
TPD-006	#0 thru #6	M1.6 thru M3.5*	WE1 #0 - #6	0.141	0.110
TPD-008	#8	M4*	WE1 #8	0.168	0.131
TPD-010	#10	M4.5 , M5*	WE1 #10	0.194	0.152
TPD-012	#12		WE1 #12	0.220	0.165
TPD-250	1/4	M6 , M6.3	WE1 1/4	0.255	0.191
TPD-312	5/16	M7 , M8	WE1 5/16	0.318	0.238
TPD-375	3/8	M10	WE1 3/8	0.381	0.286
TPD-438	7/16		WE1 7/16	0.323	0.242
TPD-500	1/2	M12 , M12.5	WE1 1/2	0.367	0.275
TPD-562	9/16	M14	WE1 9/16	0.429	0.322
TPD-625	5/8	M16	WEK 5/8	0.480	0.360
TPD-1PSS	1/8 npt		WE1 1/8-SS	0.3125	0.234
TPD-1PLS	1/8 npt		WE1 1/8-LS	0.437	0.328

SECTION 3

Size 1 Extended Range Tap Adapters

(LIGHT DUTY USE ONLY)

ETA Part No.	American Inch Taps	Drive Type	Designation	Shank Diameter	Drive Square
TXL-625	5/8	Torque Clutch	WESK1B 5/8	0.480	0.360
TXD-688	11/16	Direct Drive	51-011	0.542	0.406
TXD-750	3/4	Direct Drive	51-012	0.590	0.442
TXD-813	13/16	Direct Drive	51-013	0.652	0.489
TXD-875	7/8	Direct Drive	51-014	0.697	0.523
TXD-2P	1/4 npt	Direct Drive	51-2040	0.563	0.421
TXD-3P	3/8 npt	Direct Drive	51-2060	0.700	0.531
TXD-4P	1/2 npt	Direct Drive	51-2080	0.688	0.515

SECTION 4

BILZ

Size 1 METRIC Torque Limiting Adapters

(clutch reduces tap breakage)

DIN Standard Shanks

ETA Part No.	Tap Size	BILZ Part Number	BILZ Designation	Shank Diameter	Drive Square
TLA-M3	M3	21201017	WES1B M3	3.5MM	2.7MM
TLA-M4	M4	21201030	WES1B M4	4.5MM	3.4MM
TLA-M5	M5	21201054	WES1B M5	6.0MM	4.9MM
TLA-M6	M6	21202054	WES1B M6	6.0MM	4.9MM
TLA-M8A	M8	21201086	WES1B M8	8.0MM	6.2MM
TLA-M10A	M10	21201115	WES1B M10	10.0MM	8.0MM
TLA-M8B	M8	21203054	WES1B M8	6.0MM	4.9MM
TLA-M10B	M10	21201068	WES1B M10	7.0MM	5.5MM
TLA-M12	M12	21201099	WES1B M12	9.0MM	7.0MM
TLA-M14	M14	21201123	WES1B M14	11.0MM	9.0MM

SECTION 5

Size 1 METRIC Posi- Drive Tap Adapters

(without torque limiting clutch)

DIN Standard Shanks

BILZ

ETA Part No.	Tap Size	BILZ Part Number	BILZ Designation	Shank Diameter	Drive Square
TPD-M3	M3	21100017	WE1 M3	3.5MM	2.7MM
TPD-M4	M4	21100030	WE1 M4	4.5MM	3.4MM
TPD-M5	M5	21100054	WE1 M5	6.0MM	4.9MM
TPD-M6	M6	21100054	WE1 M6	6.0MM	4.9MM
TPD-M8A	M8	21100086	WE1 M8	8.0MM	6.2MM
TPD-M10A	M10	21100115	WE1 M10	10.0MM	8.0MM
TPD-M8B	M8	21100054	WE1 M8	6.0MM	4.9MM
TPD-M10B	M10	21100068	WE1 M10	7.0MM	5.5MM
TPD-M12	M12	21100099	WE1 M12	9.0MM	7.0MM
TPD-M14	M14	21100123	WE1 M14	11.0MM	9.0MM

www.taparms.com

CLUTCH ADJUSTMENT for BILZ Torque Limiting Adapters

Torque settings on ETA model TLA-xxx Tap Adapters are easily adjusted. However, the BILZ factory sets the adapters at the appropriate setting for typical taps of each size. The factory setting is approximately 60% of breaking torque on a typical coarse thread tap. Fine thread taps generally withstand greater torque loads. Conversely spiral taps usually withstand less torque load given their smaller cross section.

DO NOT ADJUST THE CLUTCH UNLESS NECESSARY. ALWAYS TEST MULTIPLE TIMES BEFORE DECIDING TO CHANGE THE FACTORY SETTING.

RING CLIP

<u>To Adjust the Clutch on TLA Adapters</u>

1. There are 2 holes in the Adapter Body Groove for the Ring Clip Leg to go into. The one with the Ring Clip Leg currently in and an empty one only visible after the Ring Clip is removed. The purpose for this unused hole is explained in step 9 below. Place a Mark on the adapter Body near the hole that the Ring Clip Leg is inserted into with a metal scribe or pencil.

2. Place a Mark near the corresponding Notch on the Adjustment Ring (the one that currently contains the Ring Clip Leg).

3. After hole and notch are marked, carefully remove the Ring Clip. The easiest way to do this is with a tiny pointed scribe tool or a very tiny screwdriver. Gently pull the straight end out of the Adapter Body Groove sliding the Clip up over the top edge of the Adapter Body. Once one end is started the entire clip will slide over the top edge except for the very end with the leg on it. Now you can pull the clip off and out of the hole completely using your fingers or a small pair needle nose pliers.

4. Turn the Adjustment Ring about 90 degrees (¼ turn) counter-clock-wise and then back to original setting to loosen clutch plates prior to adjustment. This threaded Adjustment Ring is not under spring tension or interference fit so it should turn freely. Use a spanner wrench if you have one. Alternatively, a small needle nose pliers with its points inserted into the Spanner Wrench Holes will provide enough leverage to adjust this ring.

*Note; **Do not loosen the Adjustment Ring more than 90 degrees.** However, if the Adjustment Ring is threaded too far CCW and comes off, be careful not to dump the clutch plates and drive balls from inside or you may not get it reassembled in the correct notch. If it comes off, quickly rethread the Adjustment Ring back into the Adapter Body.*

Clutch Adjustment for TLA Adapters continued on next page

5. If clutch is slipping too soon then you will need to turn the Adjustment Ring clock-wise (CW) 1 Notch and only 1 notch! If you are breaking taps then you will need to turn the Adjustment Ring counter-clock-wise (CCW) 1 Notch and only 1 notch.

6. Replace the Ring Clip, inserting the leg through the hole that you marked in step 1 and into the notch in the Adjustment Ring.

7. Load a new tap into the adapter and snap it into the tap chuck on your ETA Tap Arm and test this new clutch setting in a fresh, untapped hole to see if performance of the adapter has improved. If so you have successfully adjusted the clutch on a TLA-xxx Adapter.

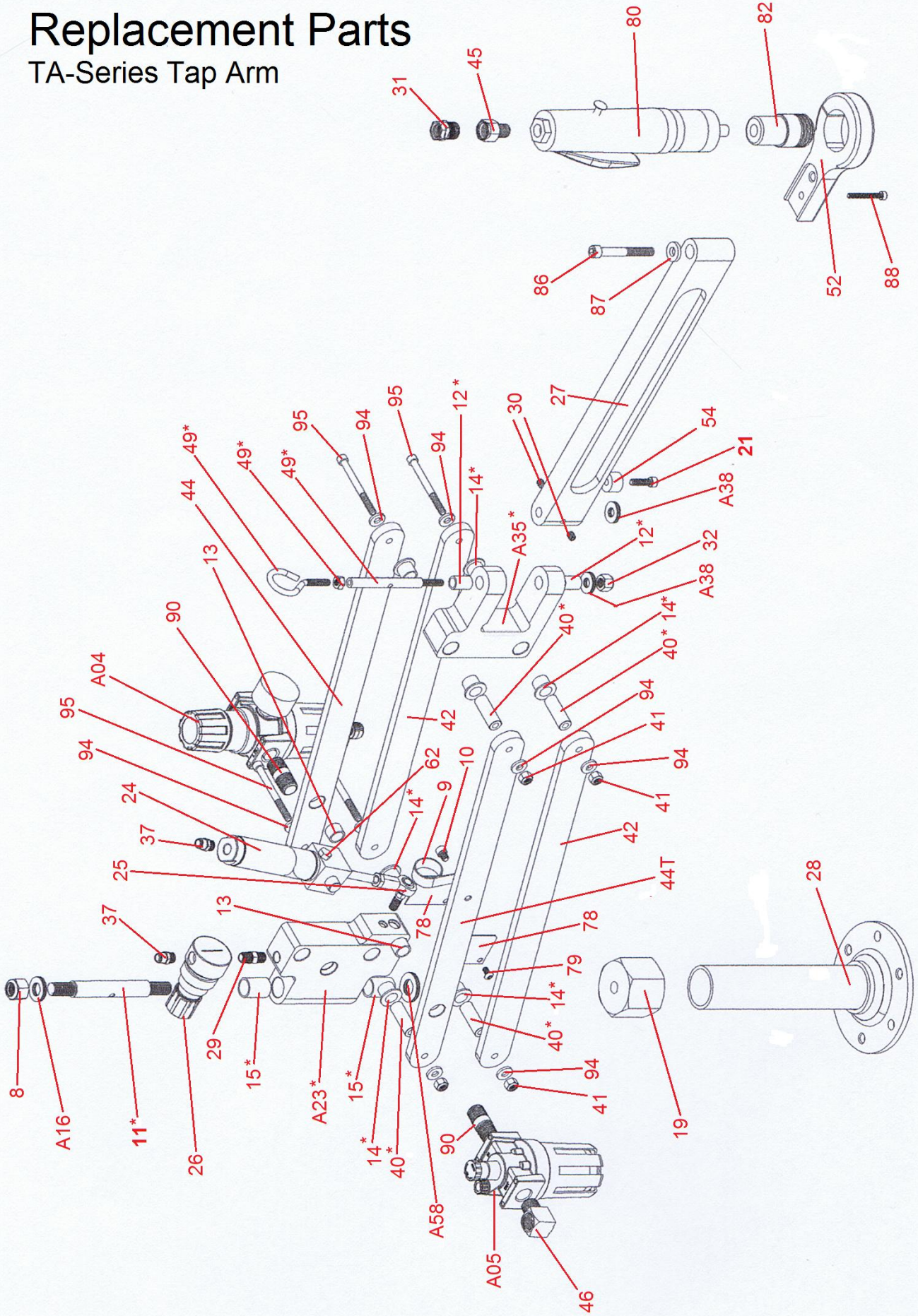
8. **IMPORTANT: If you need to adjust the TLA clutch further only move 1 notch in either direction at a time between test runs**. Remember turning Adjustment Ring CCW (loosening) increases slippage and CW (tightening) decreases slippage.

9. If you find the best setting would be half way between 2 notches then align the nearest notch up with the alternate hole in the Adapter Body groove. This alternate hole enables you to move the Adjustment Ring ½ notch in either direction.

Note; Adjustment Ring does not have to be completely tightened snug on the clutch to be effective. Some wiggle is ok and will vary by tap size and clutch setting required.

Replacement Parts

TA-Series Tap Arm



TA-Series Tap Arm System Replacement Parts

KEY	PART #	DESCRIPTION	QTY
8	33500-108	Rear Pivot Lock Nut	1
9	33500-109	Hose Loop	1
10	33500-110	Hose Loop Screw	1
A16*	**A116TB**	**Thrust Bearing Assembly - Shoulder Top**	**1**
		* includes the following ITEM NOs	
16*		Thrust Bearing (available in A16 only)	1
16*		Thrust Washer (available in A16 only)	2
94	33500-194	Washers	8
95	33500-195	Medium Arm Pivot Bolts	4
19	36200-119	Post Cap	1
21	33500-121	Jack-knife Bolt	1
90	38400-335	3/8 Brass Nipple	2
A23*	**A123RB-5**	**Shoulder Block Assembly ^**	**1**
		* includes the following ITEM NOs	
11*		Base Pivot Pin (available only in A23)	1
14*		Arm Pivot Pin Bushings (avail. only in A23 or A35)	4
15*		Shoulder Block Bushings (avail. Only in A23)	2
23*		Shoulder Block (available only in A23)	1
40*		Pivot Pins (avail. only in A23 or A35)	2
24	38400-124	Air Cylinder	1
25	39300-280	Cylinder Rod Connector	1
26	38400-126	Pressure Regulator	1
27	36200-127	Forearm	1
28	B125-8	8" Base Assembly	1
29	38400-129	Check Valve	1
30	33500-130	Set Screw	2
31	48400-131	Fitting for Braided Hose	2
32	33500-132	Center Pivot Lock Nut	1
	48400-133	3/8" ID Braided Hose x 50"	1
45	38400-263	Brass Extender	1
A35*	**A135CB-5**	**Elbow Block Assembly ^**	**1**
		* includes the following ITEM NOs	
12*		Elbow Block Bushings (available only in A35)	2
14*		Arm Pivot Pin Bushings (avail. only in A23 or A35)	4
35*		Elbow Block (available only in A35)	1
40*		Pivot Pins (avail. only in A23 or A35)	2
49*		Eye Bolt Assembly (available only in A35)	1
A04	38400-304	Filter, Regulator, Gauge (see next page)	1
A05	38400-305	Tap Motor in-line Lubricator (see next page)	1

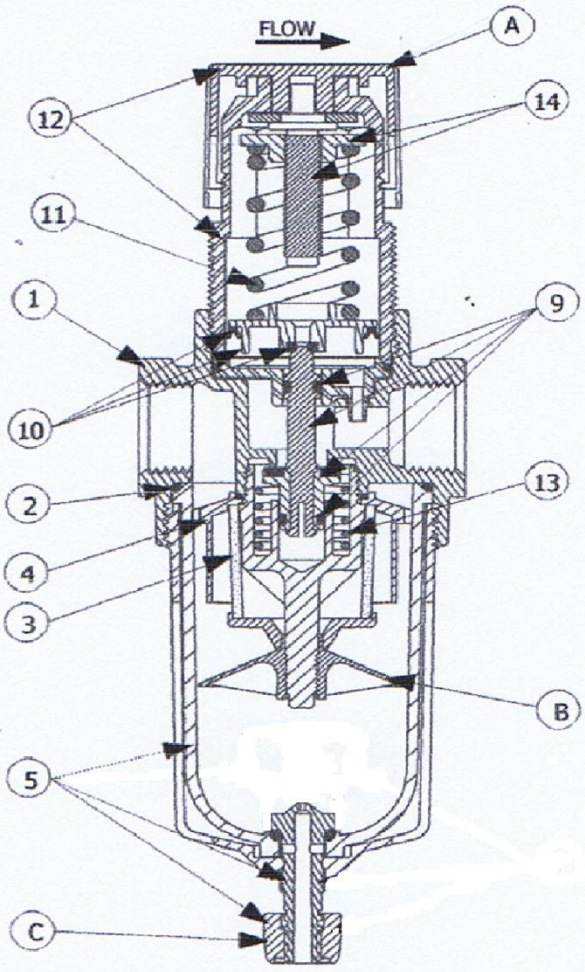
KEY	PART #	DESCRIPTION	QTY
36	33500-136	Shoulder Pivot Pin Jam Nut	1
37	38400-137	Fitting	2
A38*	**A138TB-SET**	**Thrust Bearing Assembly - Elbow -Pair**	**1**
		* includes the following ITEM NOs	
38*		Thrust Bearings	2
38*		Thrust Washers	4
41	33500-141	Parallel Arm Pivot Nuts	4
42	46200-142	HD Lower Parallel Arm	2
A44*	**A4144UA-8**	**HD Upper Parallel Arm Assembly ^**	**1**
		* includes the following ITEM NOs	
13*		Upper Arm Cyl. Bushings	2
44*		Heavy Duty Upper Par. Arm	1
44T*		Heavy Duty Upper Par. Arm with 1/4-20 hole	1
46	38400-146	Fitting - 3/8 npt street elbow	1
50	38400-150	1/4" OD polyurethane tube -Red 8" long	1
54	43500-154	Large Dia. Jack-knife Stop	1
78	36200-278	Pinch Guard	2
79	33500-279	Pinch Guard Screw	2
A58*	**A158TB**	**Thrust Bearing Assembly - Shoulder Btm**	**1**
		* includes the following ITEM NOs	
58*		thrust bearing (available in A58 only)	1
58*		thrust washers (available in A58 only)	2
	33500-160	Cylinder Rod Jam Nut	1
62	38400-162	Breather Vent	1
52	36200-252	STP Tool Holder	1
86	33500-186	3/8 Clamp Mount Screw	1
87	33500-187	3/8 Flat Washer	1
88	33500-188	1/4 Clamp Mount Screw	1
82	TMH-1B12	Size 1 Bilz Tap Chuck	1
		Tap Motor Speed & Torque Options	
80	STM-45	300 RPM @ 45 Nm SIOUX Tapper Motor TA45	1
80	STM-37	500 RPM @ 37 Nm SIOUX Tapper Motor TA37	1
80	STM-25	700 RPM @ 25 Nm SIOUX Tapper Motor TA25	1
80	STM-16	1,200 RPM @16 Nm SIOUX Tapper Motor TA16	1
		For Tap Motor repair parts see page 19	

^ Bushings and Shafts are not available individually. ETA Shafts and Bushings are hand fit to within 0.0003" in matched sets. Shoulder & Elbow Assemblies include all matting parts as listed.

TA-Series Air Prep (F/R/L) Replacement Parts

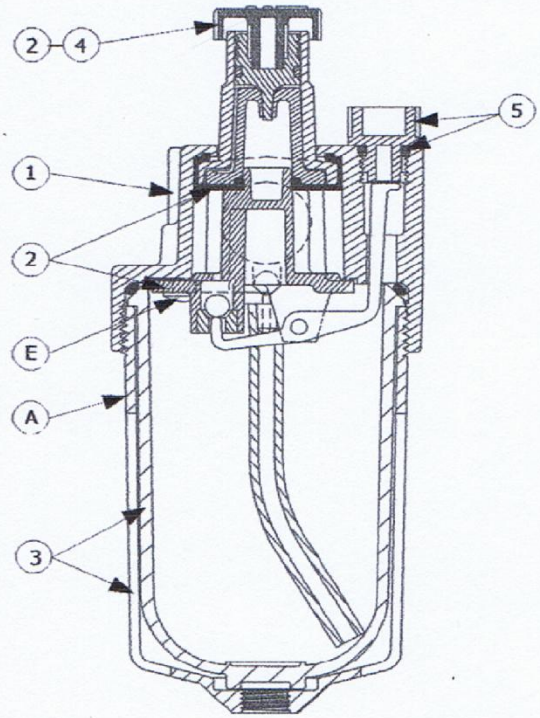
3/8 npt Filter, Regulator & Gauge #A04

KEY	PART #	DESCRIPTION	QTY
1	60C-01-3/8	Head	1
2	60F-20	O-Ring, Bowl	1
3	KA60F-03	Element Assy Kit	1
4	60F-05	Head Baffle	1
6	A60F-06	Manual Drain Plastic Bowl Assy Kit	1
8	K60F-11M	Manual Drain Kit	1
9	A60R-11	Valve Assembly	1
10	A60R-05	Piston Assembly	1
11	60R-04	Main Spring	1
12	A60R-02	Dome Assembly	1
13	60R-10	Valve Spring	1
14	A60R-08	Adjusting Screw Assembly	1
	PG160	Pressure Gauge (not shown)	1



3/8 npt Lubricator #A05

KEY	PART #	DESCRIPTION	QTY
1	60L-01M-3/8	Head	1
2	AA60L-18D	Cartridge Assembly	1
3	A60F-06ML	Plastic Bowl Assembly	1
4	28-54	Adjusting Knob	1
5	A60L-17	Filler Plug Assembly	1



Filter- Regulator MAINTENANCE - Turn knob [C] clockwise to drain filter bowl. To clean and repair Filter Regulator, depressurize and lockout air pressure. Remove shatter-guard [A] by turning counter-clockwise. Remove bowl assembly. The filter element is removed by turning the lower baffle [B] counter-clockwise. Replace old element with new and reassemble. Torque assembly a maximum of 10 in-lbs. Do not clean elements, they must be replaced. To service the piston assembly [10] or adjusting screw assembly [14], first remove the spring load by rotating the adjusting knob [A] counter-clockwise. Remove dome assembly [12] by turning counter-clockwise. The piston assembly [10] can now be removed from the dome. Upon reassembly, insure all seals and gaskets are properly positioned. Coating seals and gaskets with Pneumatic O-Ring Lube helps maintain position on parts during assembly. The dome should be tightened with a strap wrench to approximately 90-110 in-lbs. Lubricator MAINTENANCE & ADJUSTMENT. To adjust slowly turn knob [4] counter-clockwise 1/10 of a revolution at a time and observe sight dome as motor is running. As soon as you start to see oil accumulating and starting to drip in the sight stop immediately. A little air tool oil goes a long way. Removal of the adjusting knob will make the lubricator tamper resistant. USE ONLY QUALITY AIR TOOL OIL. To fill unit disconnect air pressure before removing fill plug. Depressurize and lock-out air pressure before cleaning or repairing. Remove shatter guard [A] by turning counter-clockwise. Remove bowl assembly. Inspect and replace any damaged parts. If removal of the cartridge [2] is needed, bleed off trapped air by depressing lever.To remove cartridge assembly, unscrew the 4 phillips head screws [E]. When reassembling torque the screws to 15 in-lbs. Torque shatter guard hand tight.

INSTRUCTIONS & PARTS LIST FOR STP10 SERIES TAPPERS
SERIAL"A"

Read and understand these instructions before operating this tool.

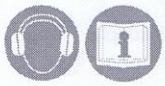
SAVE THESE INSTRUCTIONS!

⚠WARNING

When used improperly power tools can create hazardous situations.
Everyone using, maintaining, changing accessories or working near this tool must read, understand and follow these Safety Instructions!
Improperly used power tools can cause injury or death.

TAPPER SAFETY

Tappers can cause flying particles.
Proper eye protection must be worn at all times by tool user and bystanders.
Flying particles can cause eye injury.



Power tools generate noise.
Ear protection must be worn when tool noise level exceeds 85 dBA. We also recommend that ear protection be worn when the tool noise level is below 85 dBA. See the tool's information sheet for the noise level.
Prolonged exposure to noise can cause hearing loss.

Power tools vibrate.
Excessive vibration can cause injury. If numbness, tingling, pain or whitening of the skin occurs, stop using tool and consult a physician. See the tool's information sheet for the vibration level.
Prolonged exposure to vibration can cause injury.

Tappers present a risk of entanglement.
Keep loose hair away from power tools and accessories. Keep hands away from moving parts of the tool and accessories. Do not wear jewelry, loose clothing, or neckwear around power tools. Keep work area clear of cleaning rags and all items that could become entangled with the tool.
Entanglements can cause injuries.

This tool is not insulated for contact with electric power sources.
Do not use near live electric circuits. When drilling into walls, be aware that they may have hidden electric wires.
Electric shock can cause injury.

This tool is not intended for use in a flammable or explosive atmosphere.
Do not use this tool in a flammable or explosive atmosphere.
Explosions and fire can cause injury.

When using a tapper, sudden and unexpected tool movement can occur:
- If the tool stalls because of being pushed too hard.
- If the tap snags on the material being drilled.

Be sure your body position allows you to have control of the tool at all times. Make sure your footing is secure.
Sudden and unexpected tool movement can cause injury.

Using excessive force on a tool makes it hard to control.
Do not force tool.
Hard to control tool can cause injury.

Taping or wiring the throttle valve in the "ON" position will prevent the tool from shutting off if the tool should jam or malfunction or if anything unexpected happens.
Do not wire or tape down the "On-Off" valve of any power tool.
Tools that are prevented from shutting off can cause injury.

Poorly maintained and lubricated tools can fail unexpectedly.
Keep tool properly lubricated and in good repair at all times. Use only Sioux Air Motor Oil No. 288. See the tool's information sheet to find out what other greases and oils to use. Do not drop the end of the hose on the floor where it will pick up dirt and transport it into the tool. See information sheet for any additional maintenance requirements.
Unexpected tool failures can cause injury.

Air hoses can come loose from power tools and whip.
Inspect and do not use tools with loose or damaged air hoses or fittings.
Whipping air hoses can cause injury.

Air hoses that are not oil resistant or are not rated for the working pressure can burst.
Make sure that all air hoses are oil resistant and rated for the working pressure.
Air hoses that burst can cause injury.

Tools not operated at proper air pressure can operate erratically.
Do not exceed a maximum air pressure of 90 psig/6.2 bar or as stated on the tool's nameplate or operating instructions. Use an air regulator to maintain proper air pressure.
Erratic operation in power tools can cause injury.

Snap-on Power Tools, Inc.

250 Snap-on Drive • PO Box 1596 • Murphy, NC 28906 • USA • Phone: 828-835-9765 •www.siouxtools.com

Improperly repaired tools perform unpredictably.
Repair tools at an Authorized Sioux Service Center.
Tools that perform unpredictably can cause injury.

Tools left connected to the air supply can start unexpectedly.
Always remove tool from air supply and activate trigger to bleed air line before making any adjustments, changing accessories, or doing any maintenance or service on tool. Make it a habit to check to see that all adjusting keys and wrenches have been removed from tool before turning it on.
Tools starting unexpectedly and flying keys and wrenches can cause injury.

Working in poorly lit areas makes it hard to see hazards.
Keep work area well lit.
Poorly lit work areas can cause injury.

Children are attracted to work areas.
Keep children away. All visitors must keep a safe distance away from work area.
Children in work areas can be injured.

Unauthorized or untrained personnel can misuse unattended tools.
Store idle tools in a dry, high or locked-up place, out of the reach of children.
Misused tools can cause injury.

Tools with the actuator left in the "ON" position when an unexpected air pressure loss occurs can start unexpectedly when the air pressure is restored.
Release the actuator if an unexpected loss of air pressure occurs.
Unexpected tool starts can cause injury.

Tools with the actuator left in the "on" position can cause unexpected starts when the tool is connected to the air supply.
Be sure actuator is off before hooking up air.
Unexpected starts can cause injury.

The use of any accessory with this tool not provided or specified by Sioux Tools can perform unpredictably.
Use only accessories provided or specified by Sioux Tools.
Tools that perform unpredictably can cause injury.

When disposing of a tool, do it in a way that does not harm personnel or the environment.

INTENDED USE

This tool is intended to be used with taps for cutting threads in metal.

AIR SUPPLY

The efficiency and life of this tool depend on the proper supply of clean, dry air at a maximum of 90 PSI. The use of an air line filter, pressure regulator, and lubricator is recommended.

Before connecting to tools, blow out the air line to remove water and dirt that may have accumulated.

HOSE AND HOSE CONNECTIONS

The air supply hose recommended is 3/8" (10mm) I.D. If an extension hose is necessary, use 1/2" (13mm) ID hose with couplings not less than 3/8" (10mm) I.D.

LUBRICATION

For maximum performance and tool life, an air line lubricator, set to deliver 2 drops per minute, is recommended. SIOUX No. 288 Air Motor Oil is recommended.

If an airline lubrication is not used, it is recommended that the tool be oiled daily before use to improve performance. Add 2-4 drops of air motor oil and run the tool for 10-20 seconds to distribute oil through the tool.

Lubricate the gears through the grease fitting with Sioux 1232A grease after 100 hours of operation.

MAINTENANCE

Water, dust and other airline contaminants can cause rust and vane sticking. For long periods between tool use, flush the tool with a few drops of oil and run for 10 seconds. This will help remove contaminants and reduce the formation of rust.

⚠WARNING	
	**Disconnect tool from air supply before installing or removing wheel or making any adjustments**

GENERAL OPERATION

The direction of spindle rotation is controlled by the reversing button. When the button is depressed, the spindle rotates counterclockwise. Always depress the button fully to obtain full power. The reversing button can be locked in the reverse direction by fully depressing and rotating the button clockwise.

TO INSTALL A TAP

- Remove rubber collet and collet nut from the chuck body.
- Loosen back jaws with a hex wrench.
- Insert tap into chuck body so that the tap driving square is in the back jaws.
- Tighten the back jaws onto the tap driving square with a hex wrench.
- Install the rubber collet and collet nut over the body of the tap and tighten with an open end wrench.

⚠WARNING	
	Certain conditions and materials may cause the tap to stick, causing a sudden movement of the tool. **Be ready for this movement. Have a firm footing at all times. Keep a firm grip on the tool at all times.** *Sudden movement of the tool can cause injury.*

TO TAP A HOLE

- Make sure the hole to be threaded is the proper size for the tap.
- Apply a thread cutting lubricant.
- Hold the tap square and in line with the hole.
- Start the tool.
- When the tap reaches the desired depth, press the reverse button on top of the tool to reverse the rotation of the tool.

⚠WARNING

When the rotation of the tool is reversed, the force on your hand will reverse.
Be ready for this reverse force. Have a firm footing at all times. Keep a firm grip on the tool at all times.
Reversal of force can cause injury.

SOUND AND VIBRATION READINGS

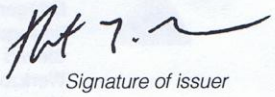
Catalog No.	*Sound Pressure dBA	*Sound Power dBA	*Vibration m/s^2
STP10P3C	80.0	91.6	Less than 2.5
STP10P3C20	80.0	91.6	Less than 2.5
STP10P3C32	80.0	91.6	Less than 2.5
STP10S3B12	77.7	89.3	Less than 2.5
STP10S5B12	77.7	89.3	Less than 2.5
STP10S7B12	77.7	89.3	Less than 2.5
STP10S12B12	77.7	89.3	Less than 2.5
	*per PN8NTC1	*per PN8NTC1	*per ISO 8662

DECLARATION OF CONFORMITY

We, Sioux Tools Inc., 250 Snap-on Drive, P.O. Box 1596, Murphy, NC, 28906, USA, declare under our sole responsibility that the products
STP10 SERIES
to which this declaration relates are in conformity with the following standard or standards or other normative document or documents:
EN 792, ISO 12100-1, ISO 12100-2, ISO 8662, Pneurop PN8NTC1
following the provisions of
97/35/EC.

May 1, 2009
Murphy, North Carolina, USA
Date and place of issues

Robert Hartman
Vice President and General Manager-Power Tools
Sioux Tools Inc
Name and position of issuer



Signature of issuer

INSTRUCTIONS & PARTS LIST FOR STP10S SERIES STRAIGHT TAPPERS SERIAL "A"

*Order Quantity As Required
FURNISH CATALOG, SERIAL, AND MODEL NUMBER
WHEN ORDERING PARTS

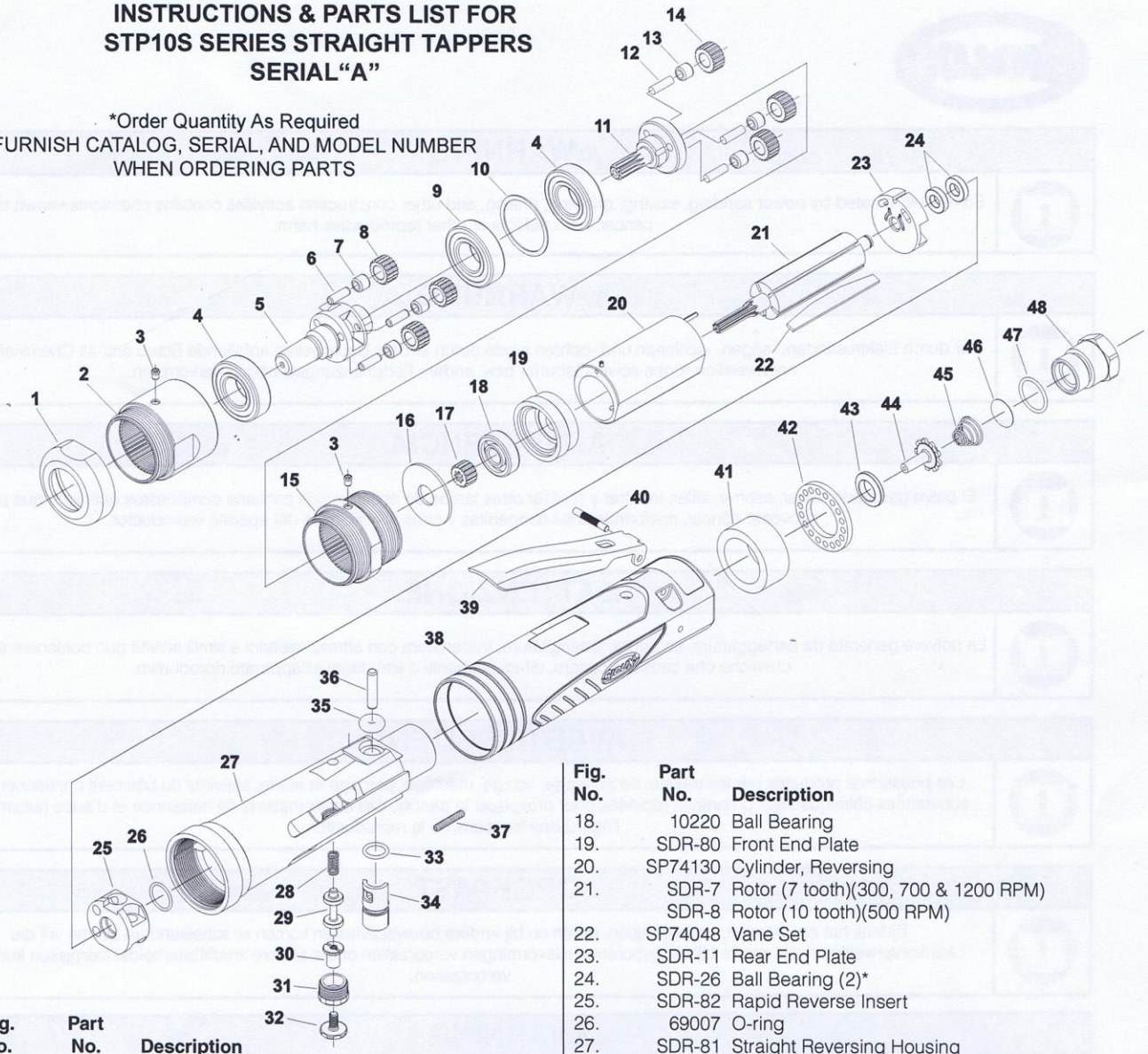
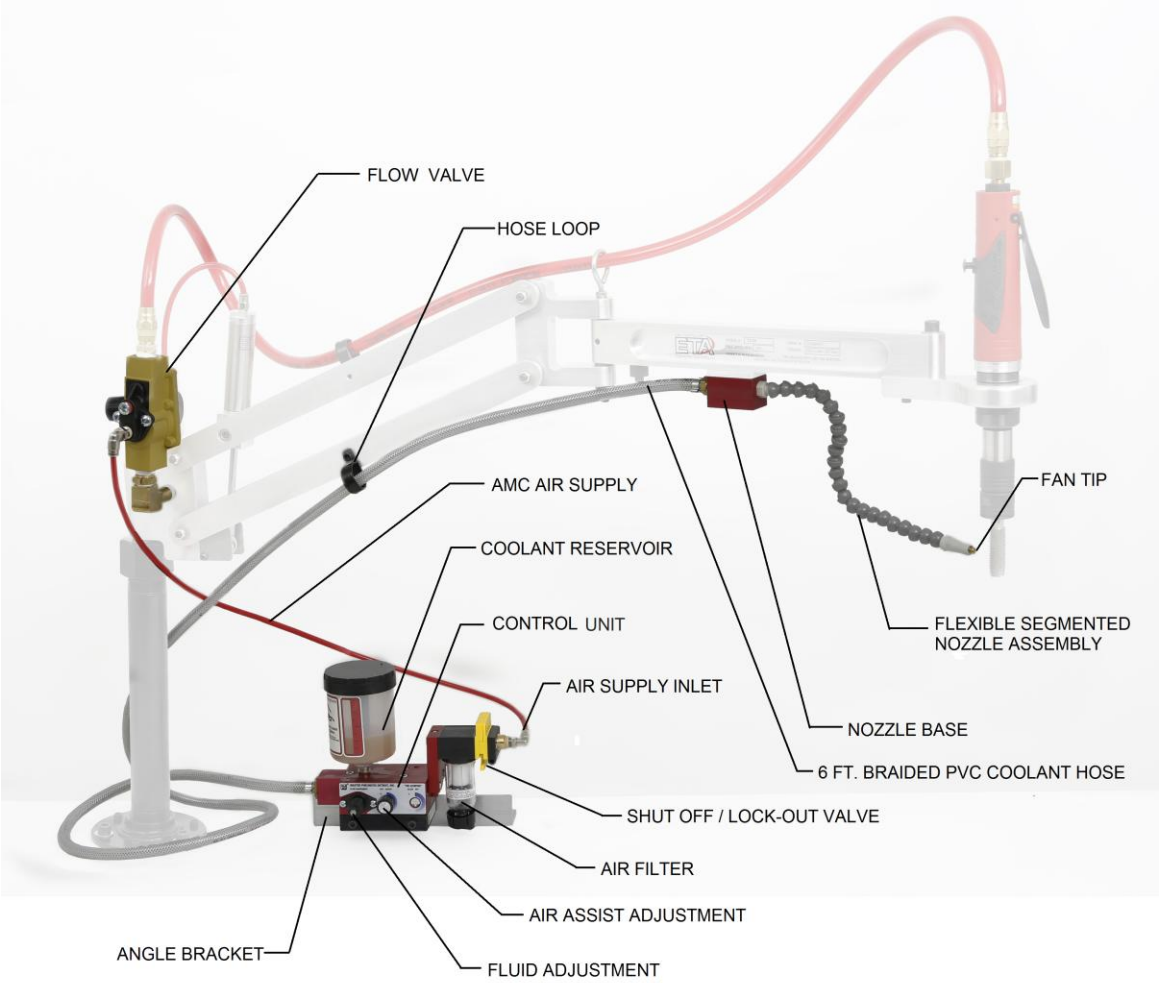


Fig. No.	Part No.	Description
1.	SDR-43	Gear Case Cap
2.	SDR-42	Double Reduction Gear Case (Includes Figure 3)
3.	30375	Grease Fitting (2)*
4.	10265	Ball Bearing (2)*
5.	SDR-67	B12 Taper Gear Carrier
6.	SDR-24	Pin (3)*(300, 700 & 500 RPM)
7.	10028FC	Needle Bearing (3)*
8.	SDR-45	Planetary Gear (3)*(300, 700 & 500 RPM)
9.	ME11A33A	Ball Bearing
10.	SDR-27	Spacer
11.	SDR-36	Cantilevered Gear Carrier (700 RPM)
	SDR-37	Cantilevered Gear Carrier (500 RPM)
	SDR-38	Cantilevered Gear Carrier (300 RPM)
	SDR-39	Cantilevered Gear Carrier (1200 RPM)
12.	SDR-24	Pin (3)* (300 & 500 RPM)
	30062	Pin (3)*(700 & 1200 RPM)
13.	10028B	Needle Bearing (3)*(300 & 500 RPM)
	10040	Needle Bearing (3)*(700 & 1200 RPM)
14.	SDR-44	Planetary Gear (3)*(300 RPM)
	SDR-45	Planetary Gear (3)*(500 RPM)
	SDR-46	Planetary Gear (3)*(700 & 1200 RPM)
15.	SDR-41	First Reduction Gear Case (Includes Figure 3)
16.	SDR-29	Wear Plate
17.	SDR-47	Sun Gear (700 & 1200 RPM)
18.	10220	Ball Bearing
19.	SDR-80	Front End Plate
20.	SP74130	Cylinder, Reversing
21.	SDR-7	Rotor (7 tooth)(300, 700 & 1200 RPM)
	SDR-8	Rotor (10 tooth)(500 RPM)
22.	SP74048	Vane Set
23.	SDR-11	Rear End Plate
24.	SDR-26	Ball Bearing (2)*
25.	SDR-82	Rapid Reverse Insert
26.	69007	O-ring
27.	SDR-81	Straight Reversing Housing
28.	SDR-84	Reversing Spring
29.	SDR-83	Reverse Valve Spool
30.	SDR-88	Top Reverse Button
31.	SDR-85	Top Reverse Nut
32.	SDR-86	Top Reverse Cap
33.	74013	Regulator
34.	14290	O-ring
35.	67793	O-ring
36.	74018	Torr Pin, 3/16 X 7/8
37.	06402	Screw, 6-32 X 3/4 Set Soc Hex
38.	74103	Cover
39.	SDR-5	Lever
40.	74020	Knurl Pin
41.	74016	Muffler
42.	74017	Exhaust Deflector
43.	74008	Throttle Valve Seat
44.	74009	Throttle Valve
45.	74010	Taper Spring
46.	74011	Screen
47.	14281B	O-ring, 1/16 X 5/8 X 3/4
48.	74012	Inlet Bushing
Not Shown:		
	77067A	Support Handle Assembly

Form ZCE781 **Date 2013February1/E**

ETA Automatic Mist Coolant System

(Accessory Model # AMC)



AMC Installation, Start-up and Adjustment

1) If you purchased the AMC system with your ETA tap arm then the Nozzle Base is already attached to the Forearm and the braided hose is threaded thru the Hose Loop on the lower parallel arm. The Coolant Reservoir was removed for shipping.

2) **If you purchased the system separately** and it was not shipped with the arm then you have to attach the Nozzle Base to the underside of the Forearm using the clamp strips provided. You also have to drill a 9/32" hole approximately in the middle of 1 lower parallel. Bolt the Hose Loop (shipped loose on the hose) onto the Lower Parallel arm using the bolt and nut provided. Hold the loop so it hangs downward and tighten securely. You also have to mount the Flow Valve in the motor supply air line somewhere before the lubricator (lubricator not shown in photo above).

3) Determine a suitable location near the back of your Tap Arm to mount the AMC (Scorpion Jr.) Control Unit. Be sure that the Coolant Hose has enough length so that the arm can articulate freely without restrictions. The location should provide access to the control knobs and allow room to attach the reservoir and fill it easily. **Do not attempt to alter the length of Coolant Hose.**

4) If your mounting location is on a horizontal surface use the 2 holes in the aluminum angle bracket provided. If your mounting location is a vertical surface remove the aluminum Angle Bracket and mount the Control Unit directly to the vertical surface or fabricate an adapter plate to meet your needs.

5) Locate the reservoir inlet in the top of the Control Unit and remove the plastic pipe plug in the inlet. Remove the tear cap from the reservoir threads and start threading the reservoir into the fluid inlet gently by hand. **CAUTION: Do not attempt to tighten the reservoir fully by hand!** Using the reservoir bowl or cover to tighten it may damage the reservoir. **Finish tightening the reservoir with a 3/4" open end wrench on the hex at the bottom.** DO NOT OVER-TIGHTEN. Face the label in front so the operator can see the fluid level.

6) Locate the Inlet port fitting in the Shut Off Valve. Route the red 1/4" OD AMC Air Supply line coming from the Flow Valve to this inlet. Trim to length to suit your Control Unit location before inserting in the fitting. **Be sure to leave enough length so that the arm can articulate freely without restrictions.**

7) Mix up a batch of water soluble coolant from the sample shipped with your system. Use the suggestions on the jug. Any other brand of mist coolant concentrate can also be used with the AMC so long as it is compatible with Buna seals. Fill the reservoir with the coolant mix.

8) At this point everything in the AMC system should be mounted and connected. Make sure the air is connected to the tap arm and the regulator is set to between 90 and 100 psi. **You are ready to prime the Automatic Mist Coolant system.**

9) If it isn't already, push the gate of the yellow Shut Off Valve down all the way, allowing air to the AMC.

10) Locate the Fluid Adjustment knob on the front of the Control Unit. Make sure the knob is unlocked by pulling gently out on the knob. For initial priming, the liquid volume should be adjusted to maximum. To achieve this, turn the knob clockwise until it stops - **do not over torque this knob**. Using the adjusting key provided, turn **counter-clockwise** about 3 clicks.

11) The Air Assist knob controls the volume of air sent to the Nozzle Base where it joins the coolant fluid and atomizes the fluid so that it sprays out of the Fan Tip to lubricate and cool your tooling. Set the Air Assist Adjustment knob to the midpoint for now (about 3 or 4 turns from either the + or - limit).

12) Cycle the AMC by turning triggering the tap motor off and on repeatedly. It may take several minutes and hundreds of on/off cycles to fill the fluid line but eventually you will see mist coming out of the fan tip.

NOTE; Each time the air is turned off and back on to the AMC control unit it injects the set amount of coolant fluid into the small tube inside the Braided PVC Coolant Hose. Depending on the setting of the Fluid Adjustment knob, this amount will between 0.0 and 0.060 ml. Since the hose is 6 ft long, you can imagine that even at the maximum setting it will take many, many cycles to prime the system for the first time. Be patient, it will eventually spray a mist of coolant out the Fan Tip.
If you haven't already done so, you can set and test the finite adjustment of the tap motor lubricator at the same time as priming the AMC. See step 15 on page 2.

13) Once mist is spraying from the Fan Tip you can begin to adjust the liquid and air combination to the desired level. Too much air and the coolant will bounce off the work area and too little and the coolant will drip off the end of the Fan Tip instead of being sprayed onto the work area. Once you find the correct balance of coolant volume and assist air, push the Fluid Adjustment knob in, locking this adjustment.

14) Direct the Fan Tip so that the coolant will be applied to the tooling while bending the Segmented Nozzle Assembly so that it does not interfere with your machining process.

15) Each on/off cycle results in 1 spray of the metered amount of coolant. Air from the air assist will continue to flow as long as the Tap motor is running even though there is no additional fluid being released. If you need an additional shot of coolant simply stop the motor momentarily and restart, causing another shot of coolant mist to be dispensed.

The AMC system is now ready to automatically lubricate your taps or other tooling.

AMC REPLACEMENT PARTS

NAME	PART NUMBER
RESERVOIR	M476RP
FILTER ASSEMBLY WITH SHUT-OFF VALVE	A556-118F-2
FILTER ELEMENT - 5 MICRON	KA130-27PE5
NOZZLE END CAP ASSEMBLY	A556-133-FAN
NOZZLE ASSEMBLY	A556-134-12
AIR FLOW CONTROL NEEDLE ASSEMBLY	A556-127
FLUID ADJUSTMENT ASSEMBLY	A556-11M-1
TUBING HOSE ASSEMBLY	A556-11912N6
MANIFOLD ASSEMBLY KIT - 2 DROP	A556-125B-12
FLOW VALVE	38400-212-0

Ergonomic Tool Arms, LLC

3 YEAR LIMITED WARRANTY -***TA-Series*** Tap Arm Systems

Delivery Date ____ ETA Serial # (on Forearm label) ____

Tap Motor Model # STP10S__B12 Tap Motor Serial # ____

All metal components including bearings and shafts of Ergonomic Tool Arms and ETA accessories are warrantied to the original purchaser and their assigns against manufacturing defects and excessive wear under normal industrial use for a period of 3 years from date of delivery. Air cylinder is also warrantied against excessive wear for a period of 3 years, regardless of the number of holes threaded. *Note; Expected life cycle of ETA Air Cylinder is at least 50 million full vertical cycles.* **Excessive wear and/or cylinder failure due to poor compressed air quality will not be covered by this warranty. Items specifically addressed below are not covered by this 3 year warranty.**

1 Year Warranty on Pneumatic Components. ETA warranties all pneumatic parts against defects in material or workmanship for 1 year from date of purchase. Due to the possibility, beyond the control of ETA, of chemical attack by certain airborne compressor oil additives, this 1 Year Warranty does not apply to soft (non-metal) parts when definitely found to be affected by chemicals within air system. This includes seals within regulators, cylinders & valves, all air lines and fittings. Some of these parts may be covered by extended warranties (up to 7 years) from the companies who manufacture standard pneumatic components for ETA. Contact ETA for more information. When not covered by warranty, replacement air system parts and hoses are available for sale from ETA through your Industrial Distributor.

SIOUX STP10 Signature Series Tap Motor is Warranted by Sioux Tools, Inc – See full motor warranty from Sioux on page 2. ETA offers routine maintenance and repairs on Sioux Tap Motors during and after the Sioux warranty period. Contact your ETA distributor for help with motor repairs and maintenance.

General Info on ETA Warranties Above.

The term *excessive wear* above is defined as wear in bearings causing the arm to function improperly and/or causing the customer's tapping motor to be at an unusable angle to the customer's product. Any bearing showing measurable differences in thickness or concentricity due to wear will also be covered under this 3 year warranty.

Choice to repair, not repair, replace or not replace parts that are covered within the warranty period is at the discretion of Ergonomic Tool Arms, LLC. *ETA will err on the customer's side if customer feels wear is causing undesirable performance of their arm.* This warranty against wear is not limited to any number of cycles. Covered repairs will be performed at no charge regardless of the amount of legitimate use the arm receives in the first 3 years.

All repairs or replacements are warrantied for the remainder of the original warranty period only. All other repairs not covered within this warranty period, will be completed after a written estimate of time and materials is agreed to by your distributor. Whenever practical, replacement parts will be most current revision at the time of repair.

Uses other than that intended and stated by the ETA, any abuse, damage from natural disasters, or modification to the form or function of the product, will void this warranty. **Intentional tampering with spec and serial number tag on the Forearm may also invalidate this warranty.**

ETA Tap Arms are intended for use only with compressed air, filtered to 5 micron, regulated to 90 psi maximum and minimally lubricated with small amounts of quality air tool oil. Use at higher pressures or with other gases or using hydraulic fluids with this product is a violation of this warranty and may pose a safety or health hazard.

ETA Products are intended for use in climate controlled indoor environments, not subject to outdoor elements. Rust, corrosion or weathering due to exposure to uncontrolled climate conditions is not warrantied. This warranty does not cover any cosmetic blemishes or other damage caused by impact or scrapes received during everyday industrial use.

Contact ETA or the distributor you purchased ETA products from for Return Material Authorization Number (RMA #) before shipping back to ETA. Customer is responsible for shipping costs to ETA in Doylestown, PA. ETA will pay return freight of products repaired under warranty to customers within the continental United States. Customers outside continental United States may have to pay for additional freight and/or customs costs.

This warranty supersedes all prior warranties written, oral, express or implied. This warranty does not cover and Ergonomic Tool Arms, LLC will in no event be liable for any business interruptions, loss of profits, harm, injury, damage, personal injury, cost of delay or any special indirect, incidental or consequential losses, costs or damages. ETA's maximum liability is limited to the purchase price of the tool arm or tool arm accessory.

Note; Some states in the USA do not allow limitations on incidental or consequential damages, so these limitations may not apply to all customers in all locations. This warranty gives you specific legal rights. These rights vary from state to state within USA .

[Page 2 contains complete Sioux Tap Motor Warranty]

ISO/Warranty
Sioux Tools, Inc.

Power Tools Warranty
SIOUX TOOLS, INC. WARRANTS TO THE ORIGINAL PURCHASER THAT THE COMPANY'S POWER TOOLS ARE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP. For one (1) year following the date of purchase, Sioux Tools will repair or replace, at Sioux Tools' option, any part that is defective in materials or workmanship. All warranty requests or claims must be made no later than 60 days following the end of the 1-year warranty period. Repair or replacement shall
be at the election and expense of Sioux Tools, and is the exclusive remedy in place of all other rights and remedies.

NO OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY AND ALL SUCH WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED. Sioux Tools' warranty applies only to new products purchased from Sioux Tools, Inc. or its authorized distributors. Sioux Tools does NOT provide warranty for products subjected to abnormal use. Abnormal use includes: misuse, accident, modification, unreasonable use, neglect, lack of maintenance, or use after the tool is significantly worn or repaired by someone other than Sioux Tools, Inc. or its Authorized Service Representatives.

A consumable product or part is warranted at the time of sale, only against defects in workmanship and materials that prevent its use. Consumable items are goods reasonably expected to be used up or damaged during use, including but not limited to drill bits, saw blades, grinding discs, sanding discs, batteries, and light bulbs.

SIOUX TOOLS, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL, SPECIAL, CONSEQUENTIAL COSTS OR DAMAGES INCURRED BY THE PURCHASER OR OTHERS (including, without limitation, lost profits, revenues, anticipated sales, business opportunities or goodwill, interruption of business and any other injury or damage.)

This warranty is non-transferable. Sioux Tools, Inc. reserves the right to make changes in design and/or construction at any time without incurring any obligation related to tools previously sold.

ISO 9001

In 1997 Sioux Tools received its ISO 9001 certification. This certification is essential to doing business in today's global marketplace. It affirms our dedication to quality and our continued commitment to improvement. It assures our customers that the products they purchase will consistently live up to the promise of performance. It also validates our target goal of achieving maximum quality in every stage of the process - from the initial concept and development all the way through the delivery of spare parts. Our customers can be certain that Sioux tools will live up to their high expectations and provide a long, trouble-free life.

NOTES