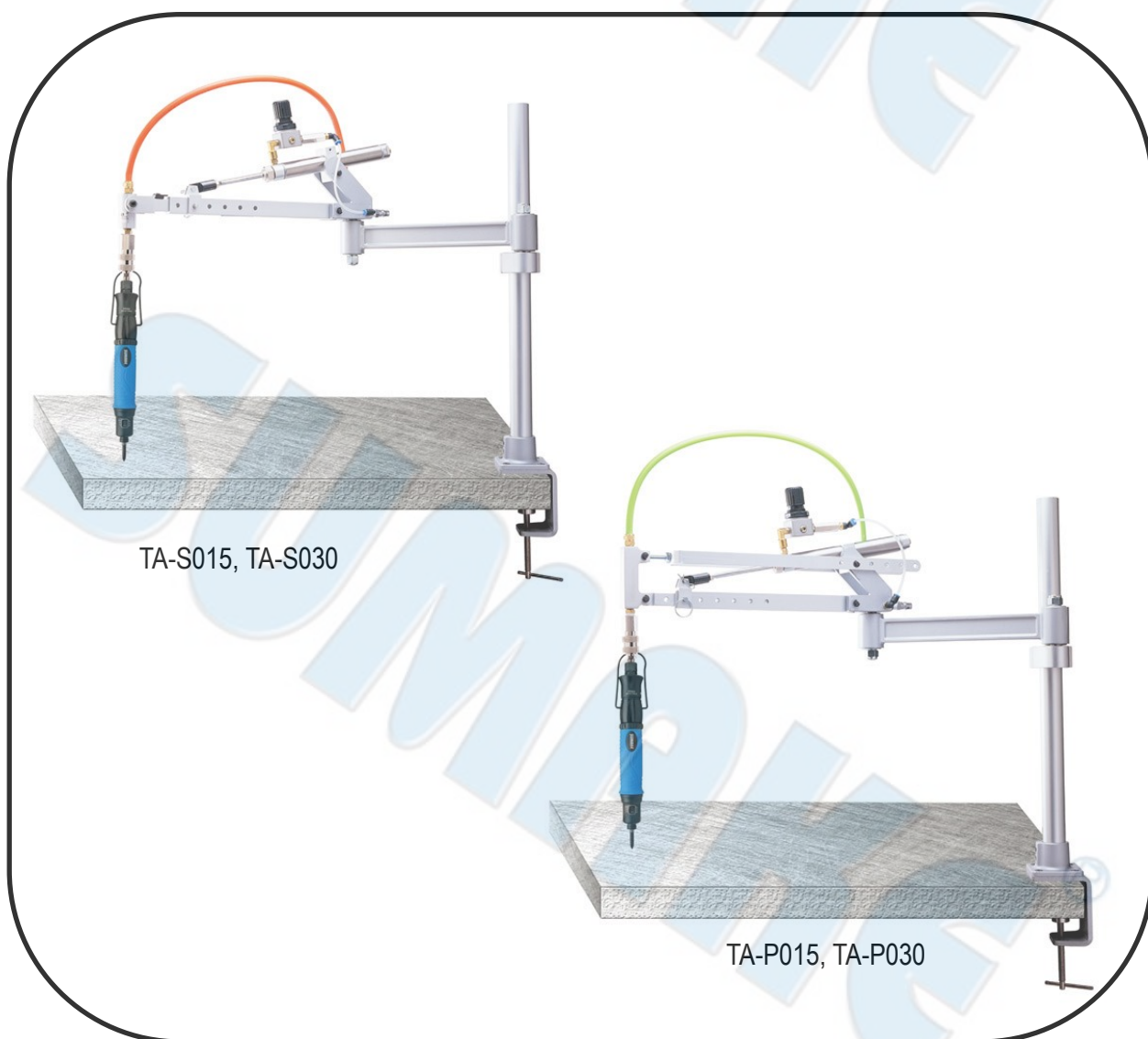


## INSTRUCTION MANUAL

ITEM NO.: TA-S030, TA-S015  
TA-P030, TA-P015  
TORQ. ARM, STANDARD TYPE



## Introduction



### Caution

Please read the following manual before assembling and operating your SUMAKE torque arm tool support systems.

As in all cases, when electric or air lines come in close contact with moving parts or mechanisms, precautions should be taken by the person installing and operating the equipment that these cords or hoses do not become entangled or damaged by moving parts.

Proper attention will prevent possible hazard or injury.

## Recommended tools for assembly and adjustment

### Not supplied

3/16" Allen Wrench.....

Used on item #1, 4, 52 & 54

[Table Mount 3/8 X 3/8 Set Screw, 1/4-20 X1-1/4" Cap Screw, 3/8x 1/2" Shoulder Bolt, 3/8-16 X 3/4" Dog Point Set Screw]

9/64" Allen Wrench.....

Used on item # 17

8/32 x 1" Cap Screw

3/32" Allen Wrench.....

Used on item #47

[8-32 x 1/2" button Head Screw]

3/4" Open End Wrench.....

Used on item #7

[1/2-13 Lock Nut]

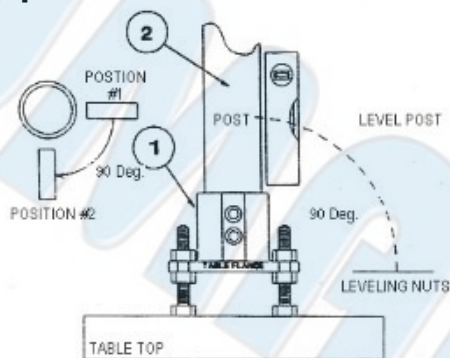
9/16" Open End Wrench.....

Used on item #43 & 53

[3/8-16 Nuts]

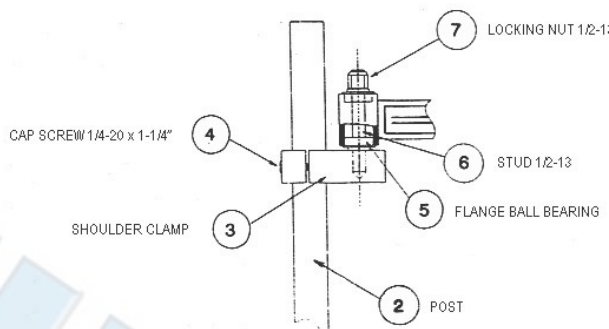
## Installation and set up instructions all models

1. Remove the TABLE MOUNT from the box
2. Bolt to work surface. It is important to level the table mount [no.1] so the post[no.2] is 90 degrees to the work surface through full range of travel [see view #1]



**View #1**

3. Insert POST into mount, and tighten set screw.
4. Remove remaining body of SUMAKE torque arm from box and slide adjusting 「SHOULDER CLAMP」 [Item No.3] over POST [Item.2]. tighten screws at desired height [see View#2]



**View #2**

5.

### **A) For parallel SUMAKE torque arms-models TA-P030 or TA-P015**

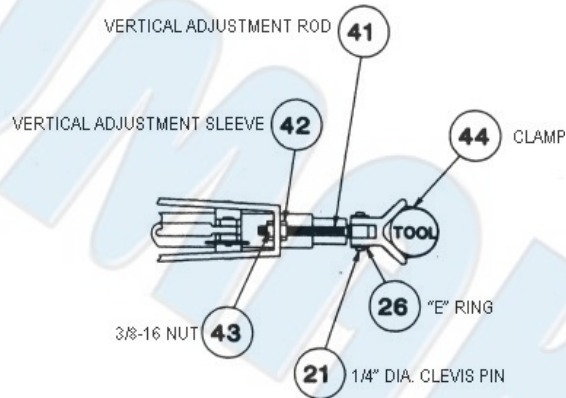
Your will need to supply correct fittings for your tool and ELBOW MANIFOLD opening if an air tool is used. Part#EAS-111 Air Hose Set [not included] is recommended when using TA-P030E or TA-P015E style arms. After fitting have been connected and tightened, the tool can now be attached.

#### **Placement of Pneumatic/Electric tools in mounting**

It WRIST BRACKET "V" parts #EAP-202 [Item#40] is supplied, adjust the tool up or down until operator is able to establish a comfortable grip on the tool. Tighten TOOL CLAP [Item#44] [option], using small clamp for tool body diameters under 2" and large clamp for tool body diameters exceeding 2", until tool is snugly in place and cannot be moved. It is recommended to leave as much of the tool body as possible, extending below the WRIST BRACKET "V" [Item #40] [option], to assure operator comfort, whichever clamp is used, after fitting the tool to arm, excess strap should be cut and any sharp edges rounded off for safety purposes.

If air MANIFLOD [Item #59] is used, connect tool to manifold with air fitting.

The VERTICAL ADJUSTMENT ROD [Item#41] allows the tool to be adjusted from zero degrees [parallel] to column, up to 15 degrees in either direction from zero point. This compensates for any irregularities in the workpiece or if application requires fastener in at an angle [see View#3]. This does not take place of properly leveling the table mount flange. Use for final 90 degree adjustment.



**View #3**

To adjust angle of tool, loosen the VERTICAL ADJUSTMENT SLEEVE [Item #42] clockwise to have tool angle out or counter clockwise to have tool angle in. Once desired angle is reached, tighten the 3/8-16 nut [Item #43] to hold adjustment in place.

To increase the reach capability of SUMAKE torque arm, remove the ring pin [Item #14] from the CYLINDER MOUNTING YOKE RED END [Item #12]

Remove clevis pin [item #19] and E-ring [Item #26] from PARALLEL UPPER RAIL [Item #38].

Pull forearm insert [Item #13] out, away from arm, to desired reach, up to additional 5". Once desired reach is achieved, align hole pattern between FOREARM and FOREARM INSERT, re-insert ring pin [Item #14] in CYLINDER MOUNTING YOKE-RED END [Item #12].

Adjust PARALLEL UPPER RAIL [Item #38] forward until length equals that FOREARM INSERT [Item #13].

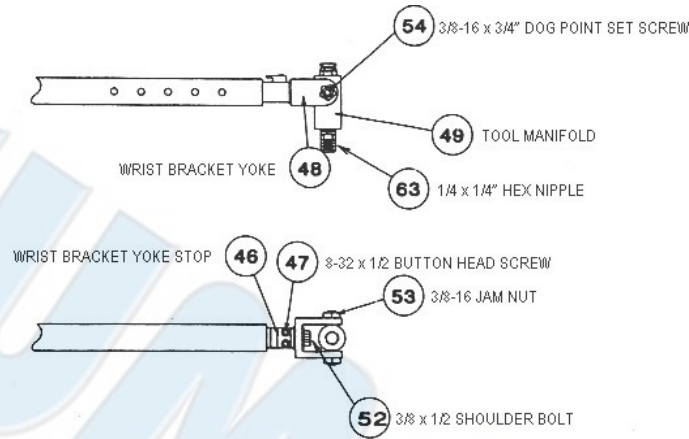
Align holes of PARALLEL UPPER RAIL [Item #38] with CYLINDER MOUNTING CLAMP BODY [Item #27] and ELBOW [Item #10] and re-insert clevis pin [Item #19] and E-clip [Item #26].

## **B) For STANDARD SUMAKE TORQUE ARMS-MODELS TA-S030 and TA-S015**

Attach pneumatic tool to the TOOL MANIFOLD [Item #49] and tighten. IF ELECTRIC DRIVER MOUNTING [Parts #EAP-202ED, Not supplied], or PISTOL GRIP MOUNTING [Part #EAA-21, Not supplied] is used, place tool in the operator

NOTE: The WRIST BRACKET YOKE [Item #48] allows the tool to move from side to side and front to back. If the side to side movement is not wanted, remove the WRIST BRACKET YOKE STOP [Item #46, mounted on the end of FOREARM INSERT] by removing [2] button head screws [Item #47], then turn the WRIST BRACKET YOKE STOP 180 degrees to where the lip of the YOKE STOP is across the WRIST BRACKET YOKE [Item #48], this allows the operator the option of restricting the side to side movement [see View #4 at the top of pag5.]





**View #4**

To increase the reach capability of the SUMAKE Torque Arm remove the ring pin [Item #14] from the CYLINDER MOUNTING YOKE-ROD END [Item #12].

Pull the FOREARM INSERT [Item #13] out, away from the desired reach, up to an additional 5" once desired reach is achieved, align holes in FOREARM and FOREARM INSERT, re-insert ring pin in CYLINDER MOUNTING YOKE-ROD END [Item #12].

To adjust the OIL CYLINDER RETURN SPEED, remove rod of cylinder from CYLINDER YOKE [Item #21] by removing hairpin and clevis pin.

Turn cylinder rod CLOCKWISE to SLOW DOWN TRAVEL. Turn cylinder rod COUNTER-CLOCKWISE to SPEED UP TRAVEL.

Place rod end of cylinder in CYLINDER YOKE [Item #12] and re-insert clevis pin and hairpin.

#### FOR ALL MODELS:

6. Loosen cap screw [Item #17], in CYLINDER MOUNTING CLAMP BODY [Item #27]
7. For SUMAKE Torque Arm OIL CYLINDER, pull cylinder [Item #32], up through the mounting block [away from tool for heavier tool/toward tool for lighter tool] until desired height of arm is reached. Hold in place while tightening cap screw. If this does not accomplish the needed balance point:
8. Remove ring pin [Item #14] from CYLINDER MOUNTING YOKE-ROD [Item #12]
9. Move yoke [Item #12] forward desired number of adjustment holes [holes are in 1" increments] towards tool for heavier tool or away from tool for lighter tool. When desired position is located, re-insert ring pin. This increases or decrease the CYLINDER PRE-LOAD.

#### FOR AIR CYLINDER MODELS:

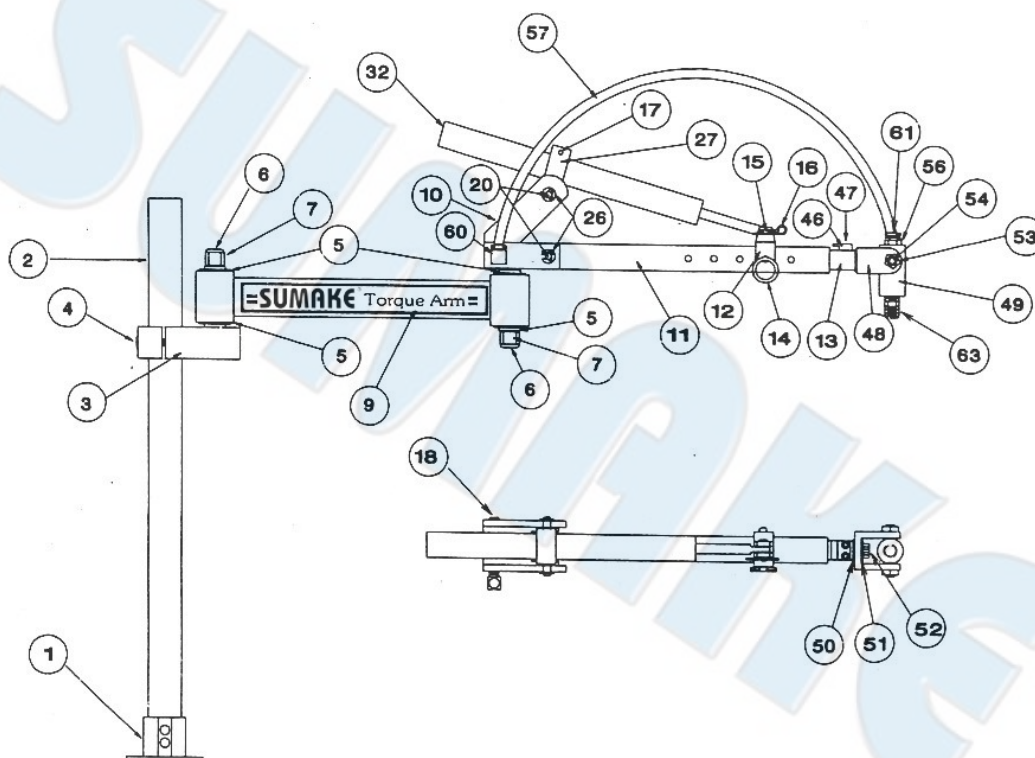
10. For SUMAKE Torque Arm with AIR CYLINDER, supply air to the 1/4"NPT, inlet on the ELBOW. This also supplies air to the pneumatic regulator. If the application does not require air to the driver [i.e. electric tool. Then this port should be plugged with 1/4"NPT. Plug [not supplied]

Warning: although a check valve has been supplied with the arm, when air is first connected, the arm will bounce to an upright position very quickly. All operators should stand with the front of the SUMAKE Torque Arm facing away while connecting the air supply to prevent any injuries.

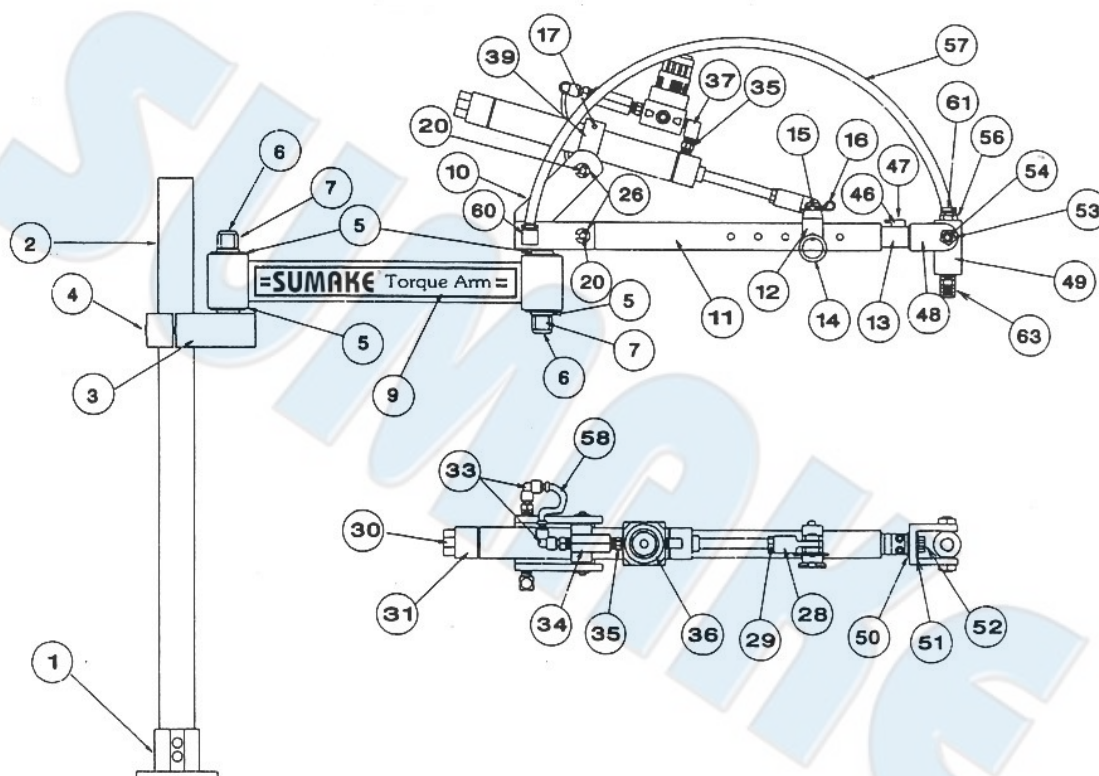
11. By turning the regulator adjustment knob clockwise, air pressure is increased to the cylinder allowing the arm to have more resistance and increased weight holding capacity.
12. By turning the regulator adjustment knob counter-clockwise, air pressure is decreased allowing the arm to have less resistance and decreased weight holding capacity.

Your SUMAKE Torque Arm is now ready for use.

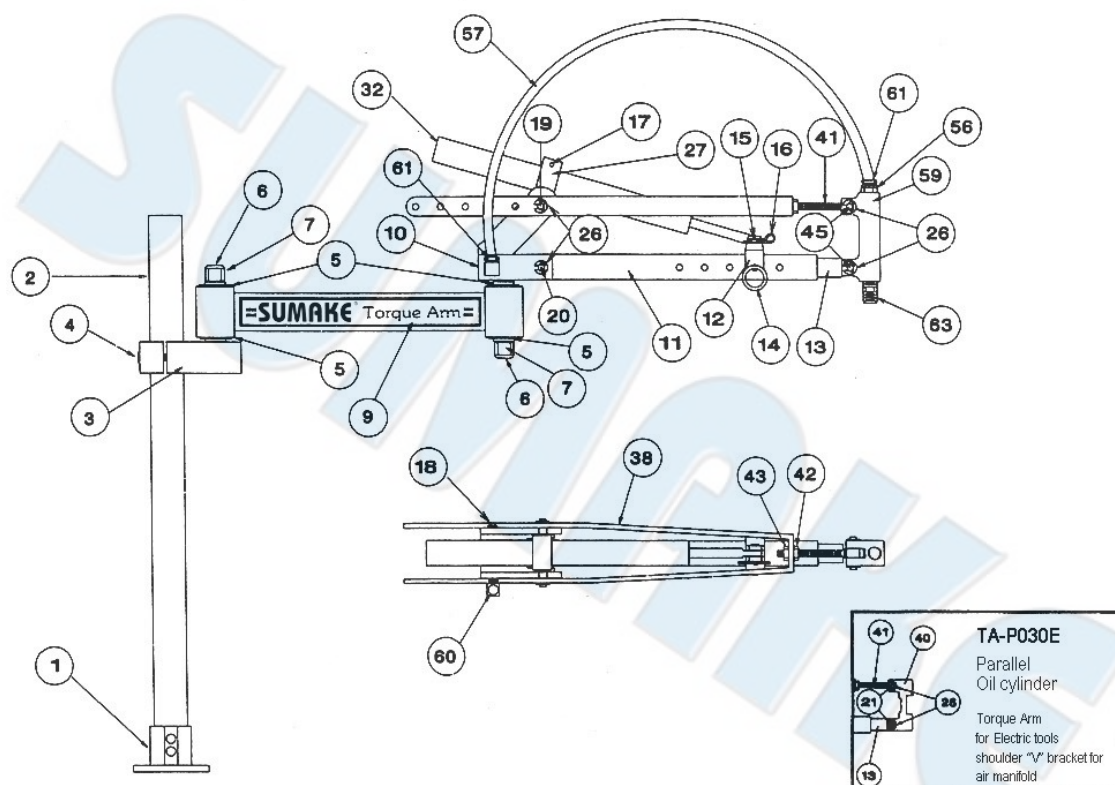
## Parts breakdown



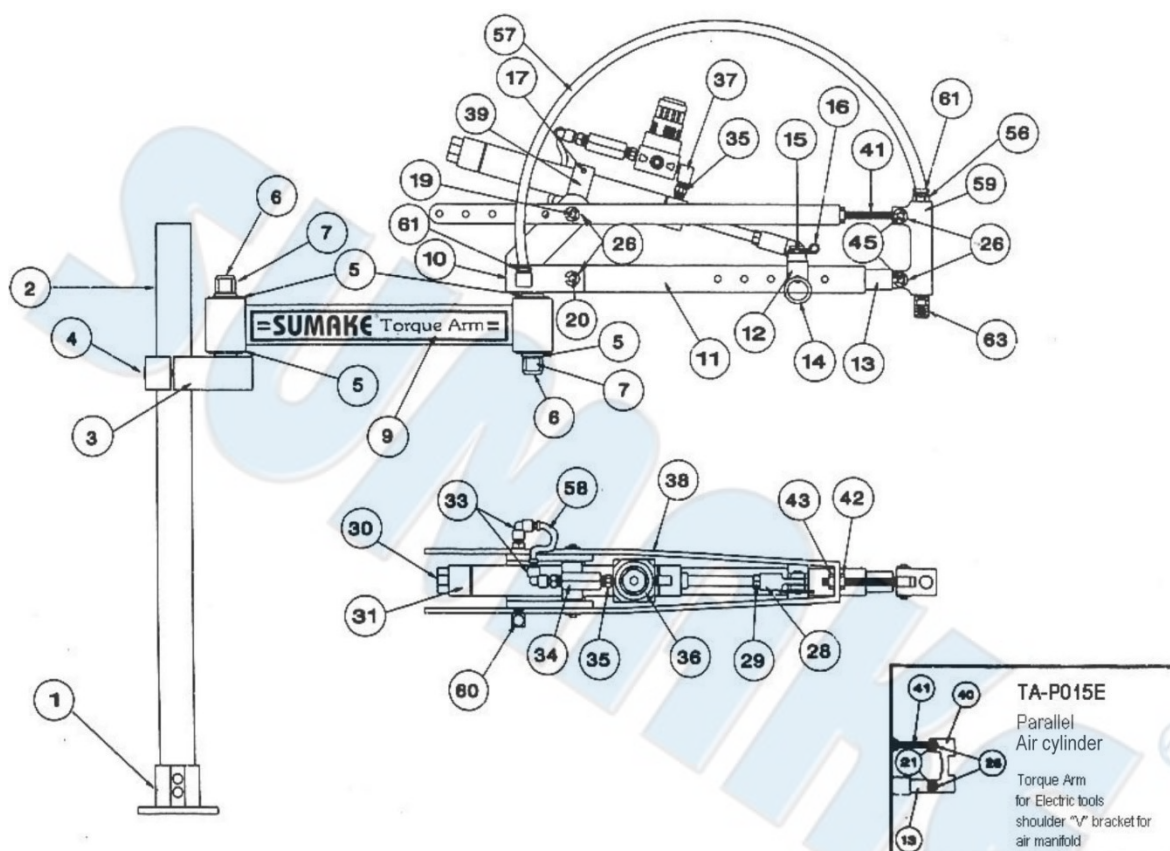
**TA-S030 – Oil cylinder SUMAKE Torque Arm**



**TA-S015 – Air cylinder SUMAKE Torque Arm**



**TA-P030 – Parallel Oil cylinder SUMAKE Torque Arm**



**TA-P015 – Parallel Air cylinder SUMAKE Torque Arm**



## SUMAKE Torque Arm Parts Breakdown

### TA-S030, TA-S015, TA-P030, TA-P015

No.	Parts No.	Description	Q'ty	No.	Parts No.	Description	Q'ty
1	EA-14	Table Mount	1	35	EAC-08	Hex Nipple	2
2	EA-01	Post	1	36	EAC-02	Regulator	1
3	EA-02	Shoulder Clamp	1	37	EAC-05	90 Deg Street Elbow	1
4	EA-44	1/4-20 x 1-1/4" Cap Screw	2	38	EAP-201	Parallel Upper Rail	1
5	EA-03	Bearing	4	39	EAC-12	Cyl. Meg. Clamp Body	1
6	EA-04	1/2-13 x 4" Double Ended Stud	2	40	EAP-202	Wrist Bracket "V"	1
7	EA-05	1/2-13 Locking Nut	2	41	EAP-204	Vertical Adjusting Rod	1
8	EA-21	Label	2	42	EAP-205	Vertical Adjusting Sleeve	1
9	EA-06	Upper Arm	1	43	EAP-206	3/8"-16 Nut	1
10	EA-07	Elbow	1	44	EAP-212	Hose Clamp Assembly (11g/1sm)	1
11	EA-10	Forearm	1	45	EA-38	Clevis Pin	2
12	EA-09	Cyl. Meg. Yoke Rod End	1	46	EAS-102	Wrist Bracket Yoke Stop	1
13	EA-11	Forearm Insert	1	47	EAS-108	8/32 x 1/2" Button Head Screw	2
14	EA-18	1/4 x 1-5/8" Cotterless Clevis Pin	1	48	EAS-101	Wrist Bracket Yoke	1
15	EA-17	3/16 x 3/4" Clevis Pin	1	49	EAS-103	Tool Manifold	1
16	EA-13	Hair Pin Cotter	1	50	EAS-104	Bushing	1
17	EA-20	8-32 x 1" Cap Screw	1	51	EAS-104-1	3/8 Nylon Washer	1
18	EA-27	1/8" Pipe Plug	1	52	EAS-106	3/8 x 1/2" Shoulder Bolt	1
19	EA-36	1/4" x 2-5/8" Clevis Pin/Parallel Arm	1	53	EAS-107	3/8 x 16 Jam Nut	2
20	EA-37	1/4" x 2-5/16" Clevis Pin/Standard Arm	2	54	EAS-105	3/8-16 x 3/4" Dog Point Set Screw	2
21	EA-35	Clevis Pin	2	55	EA-43	Nylon Tip Set Screw	1
26	EA-39	"E" Ring (4 For Standard / 8 For Parallel)	4 / 8	56	EAS-113	1/4 x 1/4 Barb Fitting	1
27	EA-12	Cyl. Meg. Clamp Body	1	57	EAS-114	1/4" Tubing 26" long	1
28	EAC-07	Rod End	1	58	EAC-13	5/32" Tubing 8" long	1
29	EAC-09	Rod End Nut	1	59	EAP-203	Air Manifold	1
30	EAC-06	Exhaust Filter	1	60	EAS-110	1/4 x 1/4" 90 Deg. Barb Fitting	1
31	EAC-04	Air Cylinder	1	61	EAS-112	3/8 #811 Hose Clamp	2
32	EA-08	Oil Cylinder	1	62	EAS-111	Air Hose Set	1
33	EAC-03	90 Deg. Swivel Elbow	2	63	EAS-115	1/4 x 1/4 Hex Nipple	1
34	EAC-01	Check Valve	1				

\*Part #EA-43 located under Parts #EAS-102

01-01-01

### Torque Arm Optional Accessories

Parts No.	Description
EA-01	Post-Custom Lengths Available
EAA-01	Wall Mount
EAA-02	Table Clamp
EAA-03	Conversion From Oil Cylinder To Air Cylinder
EAA-04	Conversion From Standard To Parallel
EAA-05	Conversion From Parallel To Standard
EAA-06	Dual Cylinder (Not Shown)
EAA-21	Custom Pistol Grip Mtg. Small
EAP-202ED	Electric Driver Meg. For Std. Arm
EAS-111C	Hose Assembly Complete (26") Custom Length Available
EAP-202	Wrist Bracket "V"

Note: above items are optional accessories and must be purchased separately.

### Torque Arm Recommended Spare Parts

No.	Parts No.	Description	Q'ty
5	EA-03	Flange Ball Bearing	4
32	EA-08	Oil Cylinder	1