

## **Neutralizing Tool Force and Weight in Industrial Assembly**



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## **Benefits of ETA Floating Torque Reaction Arms**



Eliminates torque reaction for air & electric powered screwdrivers, nut runners, and hand drills. Each model tool holder is designed to provide the action specified while preventing the torque reaction that can result in trauma and fatigue to the operator's hands, arms and shoulders.



Tool floats practically weightless, further reducing fatigue on the operator.



Keeps tool in alignment with fastener, reducing cross threading, broken bits, screw head burrs and out of square fasteners.



Reduces cycle time because tool is suspended right over work area between rundowns and/or folds safely & conveniently out of the way.



Keeps tools from being dropped, moved or misplaced. Tools and cables (or hoses) stay where they are intended and last longer because they are not twisted, pinched, slammed down or knocked around.



Increased efficiency and ergonomics mean that workers expend less effort, providing an opportunity to maintain the same level of productivity through to the end of the work shift.

#### 5-YEAR LIMITED MECHANICAL WARRANTY

All ETA Arms and accessories have a 5-year wear-out warranty on all metal components including bearings and shafts. That means that arms and accessories are warrantied to the original purchaser and their assigns against manufacturing defects and excessive wear or part breakage under normal industrial use for a period of 5 years from date of delivery. ETA float cylinders and regulators are also warrantied against excessive wear for a period of 5 years, regardless of the frequency of use. Premature failure of float cylinder or float regulator due to poor compressed air quality is excluded from this warranty.

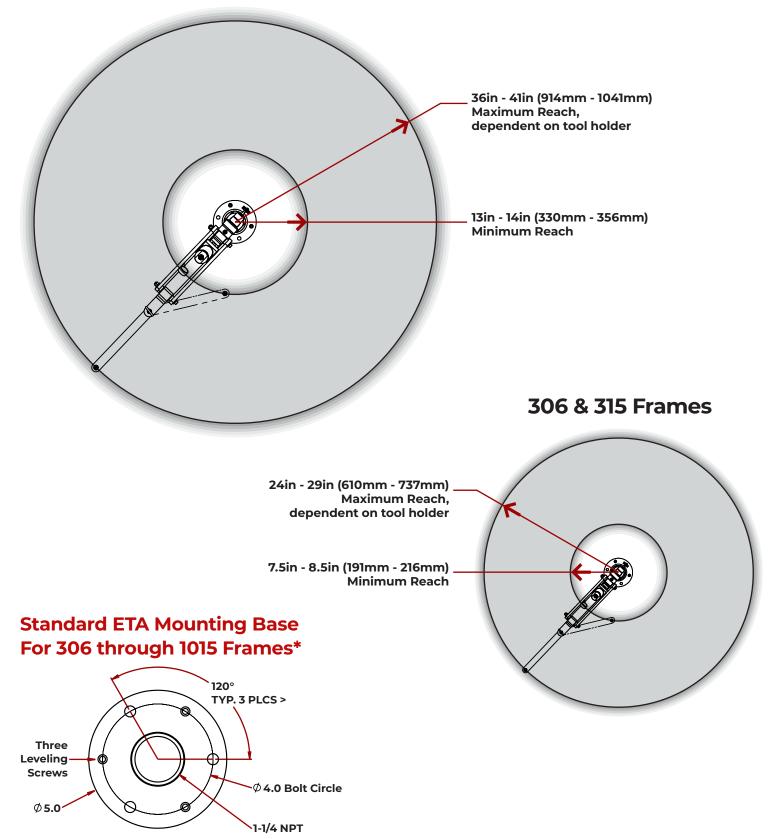
(Note: Expected life cycle of ETA Air Cylinders is at least 50 million full vertical cycles.)

Limitations apply to these Warranties. For full warranty details, please see torquearms.com/warranty

## **Work Areas of Standard Torque Arms**

Minimum and maximum reach will vary based on tool holder and tooling used with the specific model of torque arm.

## 506, 806, 815, 1015 & 1025 Frames





**Frame** 

#### **Tool Holder**

#### **Options**

# **EL506-UV-R**

#### EL306 - Standard Duty, Short Reach

Maximum Reach 24" (610mm)+ Vertical Travel 10.3" (261mm) Maximum Tooling Weight 6 lbs (2.7 Kg)\* Maximum Vert Torque 550 in-lbs (62 Nm) Maximum Horz Torque 275 in-lbs (31 Nm)

#### EL315 - Heavy Duty, Short Reach

Maximum Reach 24" (610mm)+ Vertical Travel 10.3" (261mm) Maximum Tooling Weight 15 lbs (6.8 Kg)\* Maximum Vert Torque 800 in-lbs (90 Nm) Maximum Horz Torque 400 in-lbs (45 Nm)

#### EL506 - Standard Duty, Full Reach

Maximum Reach 36" (915mm)+ Vertical Travel 17.6" (447mm) Maximum Tooling Weight 6 lbs (2.7 Kg)\* Maximum Vert Torque 550 in-lbs (62 Nm) Maximum Horz Torque 275 in-lbs (31 Nm)

#### EL806 - Medium Duty, Full Reach

Maximum Reach 36" (915mm)+ Vertical Travel 17.6" (447mm) Maximum Tooling Weight 6 lbs (2.7 Kg)\* Maximum Vert Torque 800 in-lbs (90 Nm) Maximum Horz Torque 400 in-lbs (45 Nm)

#### EL815 - Heavy Duty, Full Reach

Maximum Reach 36" (915mm)+ Vertical Travel 17.6" (447mm) Maximum Tooling Weight 15 lbs (6.8 Kg)\* Maximum Vert Torque 800 in-lbs (90 Nm) Maximum Horz Torque 400 in-lbs (45 Nm)

#### EL1015 - Extra Heavy Duty, Full Reach

Maximum Reach 36" (915mm)+ Vertical Travel 17.6" (447mm) Maximum Tooling Weight 14 lbs (6.3 Kg)\* Maximum Vert Torque 1,100 in-lbs (125 Nm) Maximum Horz Torque 600 in-lbs (68 Nm)

#### EL1025 - Extra Heavy Duty, High Weight -Full Reach

Maximum Reach 36" (915mm)+ Vertical Travel 17.6" (447mm) Maximum Tooling Weight 25 lbs (11.4 Kg)\* Maximum Vert Torque 1,100 in-lbs (125 Nm) Maximum Horz Torque 600 in-lbs (68 Nm) B250-0 Base Kit Included Standard

No Tool Holder

UV Universal Vertical

TUV — Thin Universal Vertical

RAV Right Angle Vertical

PS Pistol Spin (Horizontal)

РΤ Pistol Tilt (+/- Angles off Horizontal)

**SRA** — Simple Right Angle (Horizontal)

**RAH** — Right Angle Horizontal

**RAHV** — Right Angle Horizontal

and Vertical

**IPHV** — In-line or Pistol

Horizontal and Vertical

Flip and Rotate

FRS Flip and Rotate with Stops

**EXUV** — Extended Universal Vertical

**LDUV** — Large Diameter Universal Vertical

Needle Bearing - rotating

**NBBR** — Needle Bearing - rotating with Hydraulic Brake

 ASG SP2500 Adapter ASG

**OXP** — for IR OX DC Pistol

 for IR QE4 Inline with QE4 2-bolt flange

— for IR QE6 Inline with QE6 2-bolt flange

— for IR QE8 Inline with 2-bolt flange

**ST61** — for Atlas Copco Inline Tools

When Configuring your model number list as many Options as needed, separated by dashes

Overhead Mount ОМ

 Shoulder Rotational Stop RS2

**IRSH** — In-line Remote Start Handle

**B250** — Heavy Duty Mounting

Base Kit

ZF Zero Fold Elbow

with Magnetic Park

 Downforce Assist Model DF

> - Consult Sales and Engineering for Electric Downforce Models

<sup>+</sup> Tool Holder provides additional reach, varies by holder.

<sup>\*</sup> Max Tooling Weight must include ETA Tool Holder chosen.



# PA815 – PS – OM

#### PA306 - Standard Duty, Short Reach

Maximum Reach 24" (610mm)\* Vertical Travel 10.3" (261mm) Maximum Tooling Weight 6 lbs (2.7 Kg)\* Maximum Vert Torque 550 in-lbs (62 Nm) Maximum Horz Torque 275 in-lbs (31 Nm) 1/16 ID tool supply hose

#### PA315 – Heavy Duty, Short Reach

Maximum Reach 24" (610mm)+ Vertical Travel 10.3" (261mm) Maximum Tooling Weight 15 lbs (6.8 Kg)\* Maximum Vert Torque 800 in-lbs (90 Nm) Maximum Torque 400 in-lbs (45 Nm) ¾ ID tool supply hose included

#### PA506 - Standard Duty, Full Reach

Maximum Reach 36" (915mm)+ Vertical Travel 17.6" (447mm) Maximum Tooling Weight 6 lbs (2.7 Kg)\* Maximum Vert Torque 550 in-lbs (62 Nm) Maximum Horz Torque 275 in-lbs (31 Nm) 1/16 ID tool supply hose

#### PA806 - Medium Duty, Full Reach

Maximum Reach 36" (915mm)+ Vertical Travel 17.6" (447mm) Maximum Tooling Weight 6 lbs (2.7 Kg)\* Maximum Vert Torque 800 in-lbs (90 Nm) Maximum Horz Torque 400 in-lbs (45 Nm) 1/8 ID tool supply hose included

#### PA815 - Heavy Duty, Full Reach

Maximum Reach 36" (915mm)+ Vertical Travel 17.6" (447mm) Maximum Tooling Weight 15 lbs (6.8 Kg)\* Maximum Vert Torque 800 in-lbs (90 Nm) Maximum Horz Torque 400 in-lbs (45 Nm) 1/6 ID tool supply hose included

#### PA1015 – Extra Heavy Duty, Full Reach

Maximum Reach 36" (915mm)+ Vertical Travel 17.6" (447mm) Maximum Tooling Weight 14 lbs (6.3 Kg)\* Maximum Vert Torque 1,100 in-lbs (125 Nm) Maximum Horz Torque 600 in-lbs (68 Nm) 1/2 ID tool supply hose included

#### PA1025 – Extra Heavy Duty, High Weight –Full Reach

Maximum Reach 36" (915mm)+
Vertical Travel 17.6" (447mm)
Maximum Tooling Weight 25 lbs (11.4 Kg)\*
Maximum Vert Torque 1,100 in-lbs (125 Nm)
Maximum Horz Torque 600 in-lbs (68 Nm)
16 ID tool supply hose included
B250-0 base kit included standard

**UV** — Universal Vertical

**TUV** — Thin Universal Vertical

RAV — Right Angle Vertical

**PS** — Pistol Spin (Horizontal)

PT — Pistol Tilt (+/- Angles off Horizontal)

SRA — Simple Right Angle (Horizontal)

**RAH** — Right Angle Horizontal

**RAHV** — Right Angle Horizontal and Vertical

**IPHV** — In-line or Pistol

Horizontal and Vertical

**FR** — Flip and Rotate

FRS — Flip and Rotate with Stops

**EXUV** — Extended Universal

Vertical

**LDUV** — Large Diameter Universal Vertical

**NB** — Needle Bearing - rotating

**NBBR** — Needle Bearing - rotating with Hydraulic Brake

**QA4** — for IR QA4 Inline with 2-bolt flange

**QA6** — for IR QA6 Inline with 2-bolt flange

**QA8** — for IR QA8 Inline with 2-bolt flange

SW — Swivel (+/- Angles off Vertical)

When Configuring your model number list as many Options as needed, separated by dashes

**OM** — Overhead Mount

**RS2** — Shoulder Rotational Stop

**IRSH** — In-line Remote Start Handle

**B250** — Heavy Duty Mounting

Base Kit

**ZF** — Zero Fold Elbow with Magnetic Park

**DF** — Downforce Assist model\*\*

**DF-PB** — Palm button for DF Model\*\*

**DF-PD** — Foot Pedal for DF Model\*\*

**DF-SWITCH** — Downforce On/Off switch for DF Model\*\*



All PA-Series torque arms include braided polyurethane tool supply hose with brass swivel fittings

<sup>+</sup> Tool Holder provides additional reach, varies by holder.

<sup>\*</sup> Max Tooling Weight must include ETA Tool Holder chosen.

<sup>\*\*</sup> Consult torquearms.com for DF information

## **Tool Holders**



## 1/4" NPT Hardened Steel Nipple Tool Connection

PA-Series arms without a tool holder suffix (PA306, PA315, PA506, PA806 & PA815) come with a 1/4"npt male high strength air tool connection that serves as the inline tool mount. This connection is supplied with shop air by an elbow on top of the forearm connected to our red braided polyurethane hose with reusable swivel fittings.



#### N **No Tool Holder**

Designates a basic untooled EL-Series arm without tool holder or tool supply air hose. Our "- N " models can be paired with standard ETA tool holders on these pages, special tool holders, customer's fixtures or test equipment.



### **Universal Vertical**

For fastening Vertically with any inline or pistol tool from 1-1/8" (28.6mm) to 2.0"(50.8mm) diameter. UV is 1.0"(25.4mm) thick for tool stability. Weight 0.8 lbs (0.4 Kg)



## **TUV**

#### **Thin Universal Vertical**

For fastening Vertically with any inline or pistol tool. Identical to the UV except the TUV is only 0.54" (13.7mm) thick for tools with less clamping area. Weight 0.5 lbs (0.2 Kg)



#### **RAV Right Angle Vertical**

For Right-Angle tools driving fasteners Vertically, downward or upward. Thumb Latch allows operator to quickly change handle to one of 12 positions. Weight 1.6 lbs (0.7 Kg).



#### PS **Pistol Spin**

For pistol or Inline tool bodies held on the horizontal plane while allowing them to spin sideways for axial alignment. Weight 1.5 lbs (0.7 Kg)



## **Pistol Tilt**

For pistol or Inline tools held in a basic horizontal attitude. Allows tool to tilt +/- 20 degrees from the horizontal plane, and spin sideways for axial alignment. Weight 1.9 lbs (0.9 Kg)



### **SRA**

#### Simple Right Angle

For right angle tools, fastening horizontally with handle upward. Allows tool to swing freely 280 degrees for easy axial alignment with your fasteners. Weight 1.5 lbs (0.7 Kg)



#### **Right Angle Horizontal**

For Right-Angle tools driving fasteners Horizontally. Thumb Latch allows operator to quickly change handle to one of 12 positions. Weight 2.3 lbs (1.0 Kg)



## **Tool Holders**



#### **Right Angle Horizontal and Vertical**

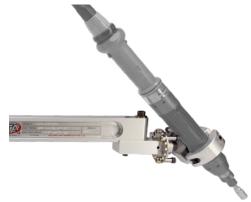
For driving fasteners both Vertically and Horizontally with the same Right-Angle Tool. Holder quickly unlocks and switches drive position in a few seconds. Thumb Latch allows operator to quickly change handle to one of 12 positions. Weight 3.75 lbs (1.7 Kg)



## FR

#### Flip and Rotate

2 axis swivel for Inline or Pistol tools fastening in any direction without torque reaction. Weight 1.7 lbs (0.8 Kg)



#### **FRS**

#### Flip and Rotate with Stops

The same mechanics as the FR with the addition of stop plates on both axis allowing adjustment of rotational limits. Weight 2.1 lbs (1 Kg)



#### **IPHV**

#### Inline or Pistol Horizontal and Vertical

For driving vertical fasteners and horizontal fasteners in the same work zone using the same Inline or Pistol tool. Holder quickly unlocks and switches drive Right Angle Tools; enabling them to rotate position in a few seconds. Weight 3.2 lbs (1.5 Kg)



#### **NB/NBBR** Needle Bearing / **Needle Bearing with Brake**

For Inline, Inline offset, Crows Foot and in place. Weight: NB = 2.6 lbs (1.2 Kg) NBBR = 3.6 lbs (1.6 Kg)



ETA adapter is for Vertical fastening with X-PAQ inline tools. This adapter is configured with EL306 or EL506 only. The mounting loop #ASG-AC2500-TML, available from ASG distributors, fits directly onto this adapter.



## For IR QX DC Pistol

This tool holder is configured with EL315 or EL815 frames only. Handle and Comfort Trigger spin 360 degrees for improved ergonomics. Works with QXC, QXX and QXN models. Makes QX Pistol work like an inline for vertical fastening. Weight 4.4 lbs (2 Kg)



## QE4/QE6/QE8

Holder designation changes to QA4/QA6 / QA8 when paired with PA series frames for air tools. For Vertical Fastening with IR Inline Tools that have 2-bolt Flanges QE4 or QA4 Flange holes on 55.6mm (2.19") Centers QE6 or QA6 Flange holes on 66.7mm (2.63") Centers QE8 or QA8 Flange holes on 76.2mm (3.0") Centers Weight 0.8 lbs (0.4 Kg)



#### **ST61**

#### For Atlas Copco DC Inline Tools

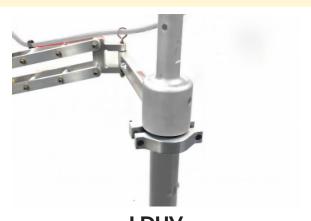
For Vertical Fastening with Reaction Bar #420 234 02 typically included with applicable Atlas tools. Weight 1.0 lbs (0.45 Kg)

## **Additional Tool Holders**



## Extended Universal Vertical

For fastening Vertically with an inline or pistol tool. EXUV is the same as UV holder but with 3" (76mm) of additional reach. Weight 1.3 lbs (0.6 Kg)



## **LDUV**Large Diameter Universal Vertical

For larger tools and other large components 2.0" (50.8mm) to 4.0" (101.6mm) in diameter.

Weight 1.3 lbs (0.6 Kg)

## **Accessories and Options**



#### OM Overhead Mount

Any ETA arm can be built and shipped ready to be field mounted from overhead.



## **RS2**Shoulder Rotational Stop

Limit ETA Shoulder Block rotation with two movable stops that can be set in any of 24 stop points, allowing custom rotation ranges on any ETA Arm.



## INSIT

Enhance the ergonomics of an assembly station by providing more control than most standard inline tool levers provide. Handle grip and low-force Trigger Hat rotate 360°. Not for use on 306, 506, or 806 Frames. Weight 3.3 lbs (1.5 Kg)



#### B-250-0 Heavy Duty Mounting Base Kit

Heavy Duty Base Kit for floor or overhead mount. 8" diameter forged and welded base plate with three holes for ½" (12mm) bolts. Adds rigidity when mounting surface is more than 2 feet from the arm's shoulder block. Uses 2-½ NPT black iron pipe and a short piece of 1-¼ NPT black iron pipe, typically supplied by others.







**Right Hand** 

Ordered as a left hand or right hand fold, this option allows forearm to fold completely flat to the parallel rack and is passively held in that position between assembly cycles with adjustable magnetic park.

Not for use on 306, 506, or 806 Frames.

**Zero Fold Elbow** 

## **Some Popular Models**

## ETA conventional Torque Arms are offered in over 500 different standard model configurations.



#### **EL506-UV**

Standard-duty arm for Inline Electric Tools fastening Vertically up to 550 in-lbs (62 Nm) with a maximum of 5 lbs (2.25 Kg) of tool weight. Universal Vertical tool holder (UV) included for tools 1-1/8" (28.6mm) to 2.0" (50.8mm) diameter. See our website for similar arms with higher capacities.



#### **EL815-UV**

Heavy-duty arm for Inline Electric Tools fastening Vertically up to 800 in-lbs (90 Nm) with a maximum of 14 lbs (6.3 Kg) of tool weight. Universal Vertical tool holder (UV) included for tools 1-½" (28.6mm) to 2.0" (50.8mm) diameter. See our website for similar arms with other capacities.



#### PA506-FRS

Standard-duty arm for Inline or Pistol Air Tools fastening at any angle. The included FRS holder allows you to limit rotation to the needed work angles. The maximum torque is 275 in-lbs (31 Nm) on this model with a maximum of 4.6 lbs (2.1 Kg) of tool weight. 5/16" ID braided polyurethane tool supply hose included. See our website for similar arms with higher capacities.



Standard-duty arm for Inline Air Tools fastening Vertically up to 550 in-lbs (62 Nm) with a maximum of 6 lbs (2.7 Kg) of tool weight. This arm includes 5/16" ID braided polyurethane tool supply hose and ½" npt male high strength air tool connection that serves as the tool mount. See our website for similar arms with higher capacities and additional tool mounting options.



#### **EL506-N**

Standard-duty untooled arm. Accepts ETA tool holders, custom tool holders or special fixturing up to 6 lbs (2.7 Kg) of total tooling weight. Maximum Vertical torque is 550 in-lbs (62 Nm). Maximum Horizontal torque is 275 in-lbs (31 Nm). See our website for additional untooled arms with other capacities.



Extra heavy-duty arm for Right-Angle Electric Tools fastening Vertically up to 800 in-lbs (90 Nm) and also Horizontally up to 600 in-lbs (68 Nm) with the same Right-Angle tool that can weigh up to 10 lbs (4.5 Kg). Similar arms with differing capacities are available. Included RAHV tool holder locks in Vertical driving mode but quickly unlocks and switches to horizontal drive position in a few seconds. Tool handle angle also has quick adjustment to 12 different positions.

### Some Popular Models Page 2

Using our inventory of standard parts, we can quickly build arms to match your application needs, improving the ERGONOMICS and ECONOMICS of your assembly process. On these 2 pages are a small sampling of some popular models. View our website for more model details. Consult your sales engineer or give us a call if you need help to configure the correct model for your application.



Standard-duty arm with a compact design for shorter reach than 506 arms. Ideal for assembly of smaller parts and tighter work areas. This model includes the thinner TUV holder for Inline Electric Tools 1-1/8" (28.6mm) to 2.0" (50.8mm) in diameter fastening Vertically up to 550 in-lbs (62 Nm) with a maximum of 5 lbs (2.25 Kg) of tool weight. See our website for similar arms with higher capacities.



EL506-UV-OM

Standard-duty, Overhead Mount arm for Inline Electric Tools fastening Vertically up to 550 in-lbs (62 Nm) with a maximum of 5 lbs (2.25 Kg) of tool weight. Universal Vertical tool holder (UV) included. Any ETA Torque Arm can be ordered as an Overhead Mount by adding the suffix "-OM" to the model number.



Standard-duty arm for Inline or Pistol Air Tools fastening Horizontally. Included PS holder keeps tool horizontal while spinning for axial alignment with horizontal fasteners. Maximum torque is 275 in-lbs (31 Nm) on this model with a maximum tool weight of 4.8 lbs (2.16 Kg). 5/16" ID tool supply hose included. See our website for similar arms with other capacities using the PS and PT holders.



#### **EL815-RAV**

Heavy-duty arm for Right-Angle Electric Tools fastening Vertically up to 800 in-lbs (90 Nm) with a maximum of 13.5 lbs (6.1 Kg) of tool weight. RAV holder provides Right-Angle handle adjustment to 12 different positions. Similar arms with differing capacities are available on our website.

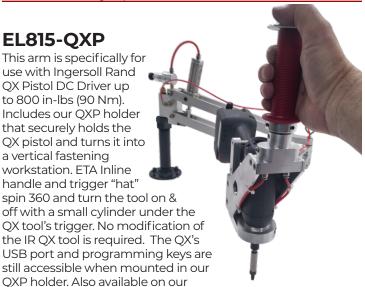


**EL815-SRA** 

Heavy-duty arm for Right-Angle Electric Tools fastening Horizontally up 400 in-lbs (45 Nm) with a tool weight up to 13.5 lbs (6.1 Kg). Included SRA holder keeps Right-Angle tool drive end horizontal and handle upright but allows tool to swivel about the end of our forearm for axial alignment with your fastener. See our website for similar arms that also use SRA and RAH holders.

## EL815-QXP

use with Ingersoll Rand QX Pistol DC Driver up to 800 in-lbs (90 Nm). Includes our QXP holder that securely holds the QX pistol and turns it into a vertical fastening workstation. ETA Inline handle and trigger "hat" spin 360 and turn the tool on & off with a small cylinder under the QX tool's trigger. No modification of the IR QX tool is required. The QX's USB port and programming keys are still accessible when mounted in our QXP holder. Also available on our website in a more compact EL315-QXP configuration.



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## Also in the Ergonomic Tool Arms LLC family of products:



Torque Arms with onboard encoders for position feedback. Smart Arms ensure error free assembly when used with programmable tools.

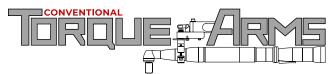
SmartArms.com



Fast, effective and low cost solution for threading holes. ETA Tap Arms include the Tap Motor and Tap Holders as a complete system.

TapArms.com





# Good Design, Precision Machining, and Careful Assembly Make ETA the Torque Arm Choice for Many Years of Efficient Production.

All ETA Tool Arms are covered by a **5-Year Warranty** against excessive wear and/or part breakage. This 5 Year Warranty includes all bearings, bushings, shafts, and float cylinder for an unlimited amount of use cycles! See **TorqueArms.com/warranty** for details.

• 7 Standard Frame Sizes Eliminate Torque Reaction up to 125 Nm (1,100 in-lbs), and tools weighing up to 25 lbs (11.4 Kg)

• Customized Arms and Tool Holders also available.

- 22 Standard Tool Holders.
- Eliminate Torque Reaction Shipped Fully Assembled via UPS Ground, ready to install.
  - Quick Delivery!
  - Made in U.S.A.

## ETA Flotation Air Cylinder

comes with a minimum rated life-cycle of 50,000,000 (50 million) rundowns! Our cylinder is mounted upright so that float is consistent as you raise and lower the arm without the "toggle" feel experienced on sealed gas springs and other brands with air cylinders mounted on a bias inside the arm.

Note: All ETA arms require shop air for flotation.

#### Float Regulator

is easily adjusted in seconds with the twist of the knob. Set it once and forget it. No further adjustment or maintenance for many millions of cycles.

#### **Check Valve**

prevents arm from falling rapidly if there is a sudden loss of air supply.

#### 3/8 NPT Port

to support sufficient air flow for air tools on PA Series. Fitting thread size can be reduced on EL Series because much less air flow is needed

#### **Mounting Post**

is 1-1/4 npt Iron Pipe which makes it easy to adapt to different mounting heights.

#### Welded Steel Mounting Base

has 3 leveling screws and 3 mounting holes for 3/8" (M8) bolts.

#### Operator has — uncluttered view of work area

All moving parts and pneumatics are in the back of the arm so there is a more open view of the work being done. The top edge of our Forearm (front half of arm) is only 1 inch (25.4mm) wide.

#### **Engraved Data Plate-**

ETA Arms have model codes, basic specs, and individual serial numbers.

#### **Precision Machined Pivot Points**

Permanently lubricated bearings are hand fit to their ground shafts within 0.0003 inches (.007mm) or better, and pivot on Roller Thrust Bearings for the most rigidity and smoothest movement possible.

#### All ETA Tool Holders

with moving parts are built with hardened steel components and Grade 8 hardware, permanently lubricated bushings and roller thrust bearings.

## Need application assistance? Call or email for help!

Proudly made in the USA and sold exclusively through ETA Authorized Industrial Tool Distributors throughout North America.

TorqueArms.com

**855-TOOL-ARM** (855-866-5276)

Contact@toolarms.com

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CAD Models Available Upon Request