

OPERATING MANUAL

FOR THE

XL8 AIR RING TYER



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GENERAL INFORMATION

Thank you for purchasing the XL8 Air Ring Tyer from Plas-Ties, manufacturers of high quality twist-tying equipment.

Please familiarize yourself and/or any person operating this machine with all functions by carefully reading this manual.

The Plas-Ties XL8 Air Ring Tyer is an all-pneumatic machine that twist-ties products inserted into the ring shaped tying area. The machine can be adjusted to tie almost any product gathered into a round or nearly round shape from 1-inch diameter up to a maximum of 4, 6 or 8-inch diameter (dependent upon final ring size selection).

Model designation is located on the serial plate on the machine. It is important that you have the correct model for your input source.

Supplies and Service

PLAS-TIES twist-tie material and service should be ordered from:

PLAS-TIES

14272 Chambers Road Tustin, CA 92780

Telephone: (714) 542-4487

(800) 854-0137

Fax: (714) 972-2978 Email: info@plasties.com

www.plasties.com

When ordering, please provide the following:

- 1. Part Number or description
- 2. Model Number and Serial Number (use Name Plate)
- 3. Tie Material in use

SAFETY INSTRUCTIONS

CAUTION:

DO NOT ATTEMPT TO OPERATE YOUR XL8 MACHINE BEFORE READING THE OPERATING INSTRUCTIONS

The operating procedures outlined in this manual are prepared to facilitate the XL8 Air Ring Tyer machine.

- 1. **KEEP ALL SAFETY DEVICES IN PLACE** and in working order.
- KEEP WORK AREA CLEAN. Cluttered areas invite accidents.
- 3. **DO NOT USE IN DANGEROUS ENVIRONMENT**. Do not use machines in a damp or wet location, or where any flammable or noxious fumes may exist. Keep work area well lighted.
- 4. **KEEP UNAUTHORIZED PEOPLE AWAY**. All unauthorized people should be kept out of work area and away from machine.
- 5. **DO NOT FORCE MACHINE**. It will do the job better and safer at the rate for which it was designed.
- 6. **USE THE RIGHT MACHINE**. Do not force machine to do a job it is not designed to do.
- 7. DO NOT USE UNDER THE INFLUENCE OF DRUGS OR ALCOHOL
- 8. **DIRECT CONNECTION TO AIR COMPRESSOR IS HIGHLY RECOMMENDED**. If use of hose extensions is necessary, make sure your hose extensions and connectors in good condition. Always repair or replace hose extension and connectors if they become damaged.
- 9. **WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry, which may get caught in moving parts. Wear protective hair covering to contain long hair.
- 10. MAINTAIN MACHINE WITH CARE. Keep machine clean for best and safest performance. Follow instructions for lubricating and keeping machine free of lint.
- 11. DISCONNECT MACHINE BEFORE SERVICING AND WHEN CHANGING SPOOL.
- 12. **REDUCE THE RISK OF UNINTENTIONAL STARTING**. Make sure switch is in off position before turning on air supply.
- 13. **USE THE RECOMMENDED MATERIALS AND REPLACEMENT PARTS**. Listing of recommended material and replacement parts is found in operating manual. The use of improper material and replacement parts may result in malfunction and possible risk of injury.
- 14. CHECK DAMAGED PARTS. Before further use of the machine, any part that is damaged should be carefully checked to determine that it would operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A part that is damaged should be properly repaired or replaced.
- 15. **NEVER LEAVE MACHINE RUNNING UNATTENDED**. Turn the power off, and do not leave machine until it comes to a complete stop.
- 16. NEVER ALLOW UNTRAINED USERS TO RUN THIS MACHINE.
- 17. IF YOU ARE UNSURE OF THE INTENDED OPERATION, STOP USING THE MACHINE.

WARRANTY

Purchaser acknowledges that there are no warranties, expressed or implied, made by **PLAS-TIES**, its distributors or sales representatives related to the XL8 machine except the manufacturer's warranty against defective materials and workmanship as follows:

PLAS-TIES warrants the XL8 machine to be free from defects in materials and workmanship at time of delivery. Liability under this warranty is limited to the repair or exchange of any defective part or parts of the unit providing the same is returned to PLAS-TIES, transportation prepaid, within 180 days or 300,00 cycles (whichever comes first based on machine counter). THE WARRANTY BEGINS FROM THE DATE OF INSTALLATION AT CUSTOMER SITE AND NOT DATE OF PURCHASE. IN ORDER TO ACTIVATE THE WARRANTY, THE NAME, CITY/STATE, AND SERIAL NUMBER MUST BE REGISTERED ON-LINE AT WWW.PLASTIES. COM. FAILURE TO DO SO WILL RESULT IN LIMITATION OF THE FULL WARRANTY. THIS IS TO INSURE TOTAL QUALITY ASSURANCE AND 800 TOLL FREE TECHNICAL SUPPORT.

The warranty is void on any XL8 machine that has been subject to negligence, accident, misuse, failure to use the equipment as instructed in the manual, or that has been tampered with.

This warranty is void if the XL8 machine is used with anything other than specified genuine *PLAS-TIES* twist-tie material.

IMPORTANT: If your XL8 machine does not operate properly, please bring it to the attention of *PLAS-TIES*, or the dealer or distributor from whom it was purchased. If repairs are needed, the dealer, distributor or other representative of *PLAS-TIES* will arrange to repair or replace parts within the terms of the warranty.

Warranty coverage is limited to the Continental US, Alaska, Hawaii, Puerto Rico, and Canada.

SPECIFICATIONS

Model Designation

This manual covers the model 530 XL8 Air Ring Tyer.

Performance

Production speeds vary depending on tying diameter, ring size, air pressure, tightness of tie, operator and processing/production requirements.

Air Requirements

Machine will operate on clean, dry air from 90 PSI to 120 PSI (must have single, designated air line)

Dimensions/Weight

| Capacity | Self-Adjusting from 1" to 8" |
|---|--|
| Recommended Spool | Exclusive Plas-Ties 4000' all plastic 1/4" width 24 gauge double wire centered |
| Air Power | 90 to 120 PSI (clean-dry air from single, designated air line) |
| Weight (with Stand) | 200 lbs |
| Cabinet Depth Cabinet Width Cabinet Height | 19" 10-1/4" 24" |
| Width (on stand) Depth (on stand) Height (on stand) | 25-1/2" 29" 51-1/4" (max) |
| Clearance depth without table Clearance depth with table Clearance width to open door | Approximately 34" Approximately 40" Approximately 36" |
| Ring Options | Maximum 4", 6" 8" Diameter Rings |

Spool Specification

Part# 419B Plas-Ties Exclusive 1/4" Plastic – White

4000' - 24-Gauge Double Wire (Center Spacing)

Options

| Table Assembly | ATM-100 |
|-----------------------------|----------|
| Set of Casters* | AFS -250 |
| Foot Pedal Trigger Assembly | AFPA-100 |

*Order 2 sets for ALL 4 casters

Additional Information

Send email request to: Info@plasties.com.

OPERATION

Major Component Description & Adjustments

This machine has 8 air-cylinders, 9 air pilot valves, 6 toggle valves, 2 one-shot valves, 4 pressure regulators, 4 pressure gauges, two flow regulators, a foot-switch or front trigger switch, a line pressure on-off switch, and a pilot/feed roller on-off switch.

The XL8 Air Ring Tyer, Model 530 is shipped on its stand and is ready to run. Just plug in clean, dry air. This unit can be easily adjusted up or down on pipe stand.

Machine Set-Up and Initiation

The XL8 Air Ring Tyer is factory tested and ready to run.

- (1) Connect to a clean, dry air supply. Recommend using air separation filters as needed.
- (2) Open the left door and check that the <u>Cam-Stop</u> is in place (<u>Figure 8</u>)
- (3) Turn on the ribbon feed cylinder pressure switch (<u>Toggle Switch</u> on front lower left side).
- (4) Press <u>foot switch or front trigger switch</u> and note that unit cycles.
- (5) Turn off the <u>ribbon feed toggle switch</u>.
- (6) Load the ribbon spool on the <u>ribbon pre-feed</u> per (<u>Figure 1</u>).
- (7) Note that the ribbon brake is set per (Figure 1).
- (8) Pull approximately <u>12 inches of ribbon up through the No-back</u>.
- (9) Feed the ribbon up through the guide until it is visible just below the twister as per (Figure 2).
- (10) Note that the approved ribbon for this unit is <u>1/4 inch, 24 gauge double wire-centered</u> or separated.
- (11) The unit is ready to run place object to be tied in front of open ring and press the foot-switch. (Note that the ribbon length is correct per Figure 7).

Applying or removing air pressure from the valve pilot connectors operates pilot air valves. (Figure 3)

For Air connections from the valves to the air cylinders see (Figure 4).

Regulator Settings

- (1) The <u>inlet regulator</u> (R1) is set just below the lowest line supply pressure- (90-110 PSI).
- (2) The <u>2 Gripper regulators</u> R3 and R4 are set at 20-25 PSI. (If the product to be tied is soft like a collapsible bag etc. these pressures may be raised slightly).
- (3) The Ribbon feed pressure regulator R5 is set at 35-40 PSI.

OPERATIONAL SEQUENCE

See <u>Figure 5</u> for the operational sequence.

- (1) Pressing the <u>foot switch or front trigger switch</u> actuates <u>Valve 1</u> (closes <u>Cylinder 1</u>) and the ring closes.
- (2) When the ring is closed, toggle Valve A1 actuates Valve 9 (engages cylinder 2) that feeds the ribbon.
- (3) At the end of the ribbon feed, Toggle Valve A is actuated which engages:
 - A. Valve 2 (power up Toggle B.
 - B. <u>Valve 4</u> (engage <u>right Gripper cylinder 3</u>).
 - C. <u>Valve 9</u> (reverses <u>Ribbon Feed cylinder 2</u>).
- (4) When Valve 9 returns to the, top it actuates <u>Toggle Valve B</u>, which:
 - A. Engages Valve 5 (left Gripper cylinder 4).
 - B. Engages Valve 6 (Cutter cylinder 5)
- (5) Cutter cylinder then engages <u>Toggle Valve C</u>, which engages:
 - A. Valve 8 (Turns Twister).
 - B. <u>Valve 7</u> (Disengage <u>Cam Lock cylinder 6</u>).
 - C. <u>Valve 2</u> (Drop pressure to <u>Toggle B</u>).
 - D. Valve 6 (retract Cutter cylinder 5).
- (6) When (Cylinder 7, Twister is extended it engages <u>Toggle Valve D</u> which:
 - A. Retracts Valve 1, which opens ring cylinder 1).
 - B. Extends Valve 4, which opens right Gripper (cylinder 3).
 - C. Extends Valve 5, which opens left Gripper (cylinder 4).
 - D. Extends Valve 7, which re-engages Cam Stop (cylinder 6).
- (7) When cylinder 6 (Cam-Lock is home), Toggle Valve E is engaged which:
 - A. Returns Valve 8 (Twister cylinder 7) that completes the cycle.

Care of Machine

- 1) Apply grease on the rack gears, sparingly as needed. Avoid grease on the clutches, brake disc, or the draw wheel.
- 2) It is very important that the machine runs on CLEAN, DRY AIR. Check the water trap, and make sure it is draining properly. We highly recommend the use of water separation filters to address potential for excess water build up in air hoses and cylinders. This will prolong the life of the unit. Check units every 6 months for proper filtration/separation.

TROUBLE SHOOTING

Your XL8 Ring Tyer is a very reliable machine, but should you experience any of the following situations, please refer to this handy guide for assistance.

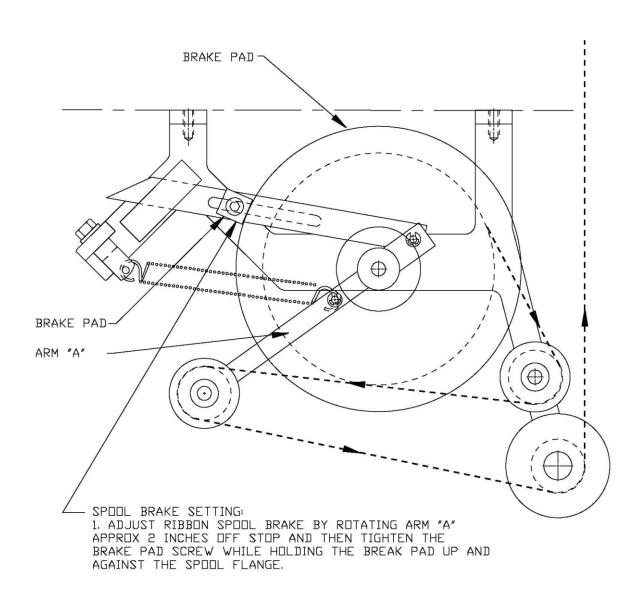
| Problem | Cause | Resolution |
|-------------------------------------|---|---|
| (A) Air Hissing | Slider air switch not properly seated | Slide switch back to "ON" position |
| (B) Wire Jamming | Ribbon length is too long. The ribbon feeds too long, which causes a kink at the inlet guide and then the ribbon will not retract | Adjust the length slightly shorter (Figure 6). |
| (C) Ribbon Breaking | Slip-Clutch being too tight | Adjust the slip clutch nut ¼ turn CCW (Figure 2). |
| (D) Not Tying = Ribbon too short | One of the Grippers pressure may be too high, but unlikely if their pressures are 20-25 PSI. | Check Gripper pressure and adjust accordingly. Adjust the length slightly longer per (Figure 6). |
| (E) Product Bruising | Operators pulling bundles back too quickly | Instruct operators to avoid pulling back/away from trigger to quickly when removing tied product. |
| | | Adjusting table height may also be helpful. |
| (F) Missed Ties | (1) Excess water in lines | (1) Water Separation Filter may be required to ensure use of CLEAN, DRY air. |
| | See Cause items (D) and (E) | See Resolution items (D) and (E) |

Technicians and Web Based Support Available: 7:00am to 3:00pm (Pacific Standard Time)

Please call Plas-Ties Technical Support at (800) 854-0137

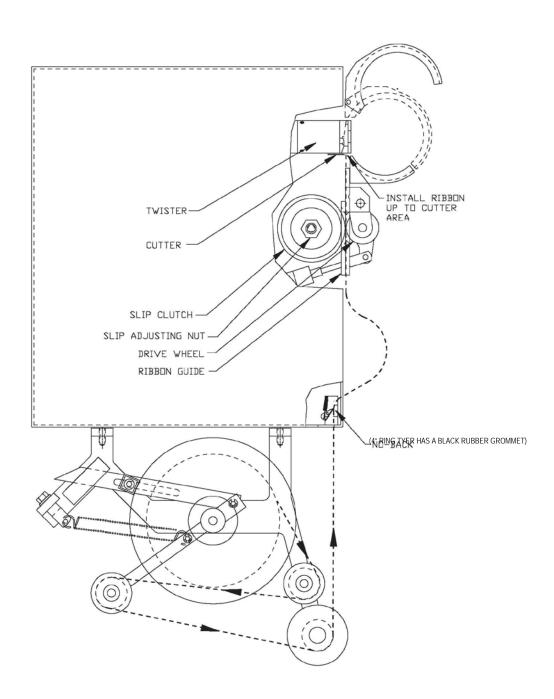
SPOOL MATERIAL LOADING

FIGURE 1

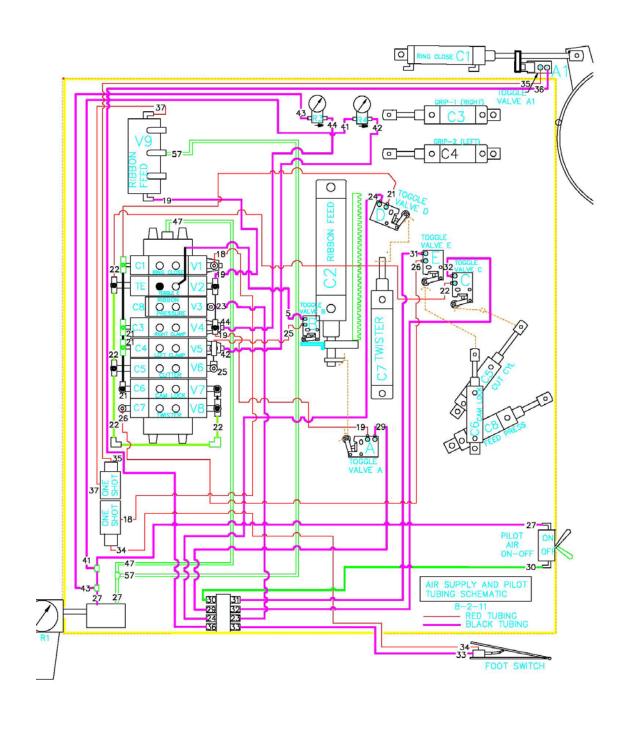


RIBBON LOADING

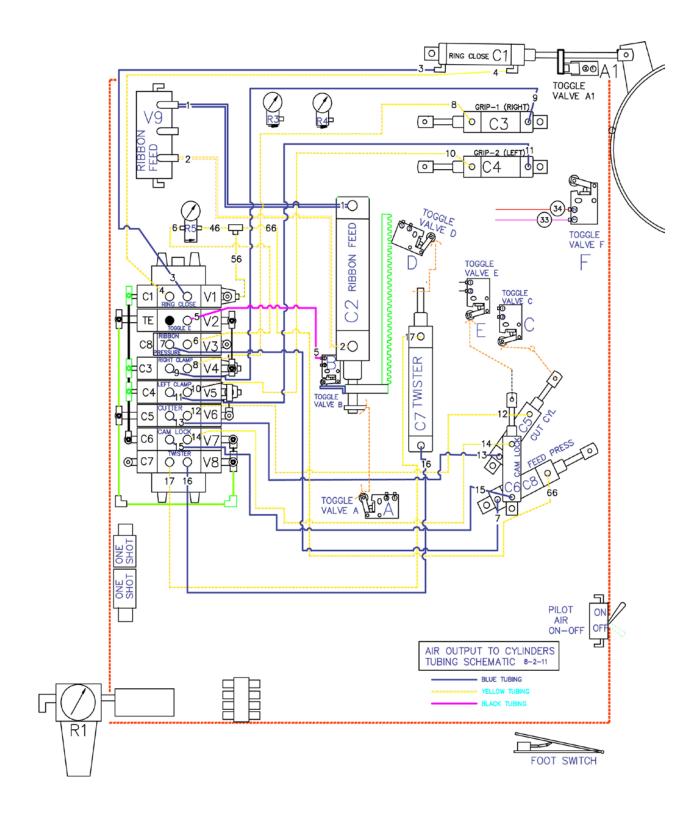
FIGURE 2



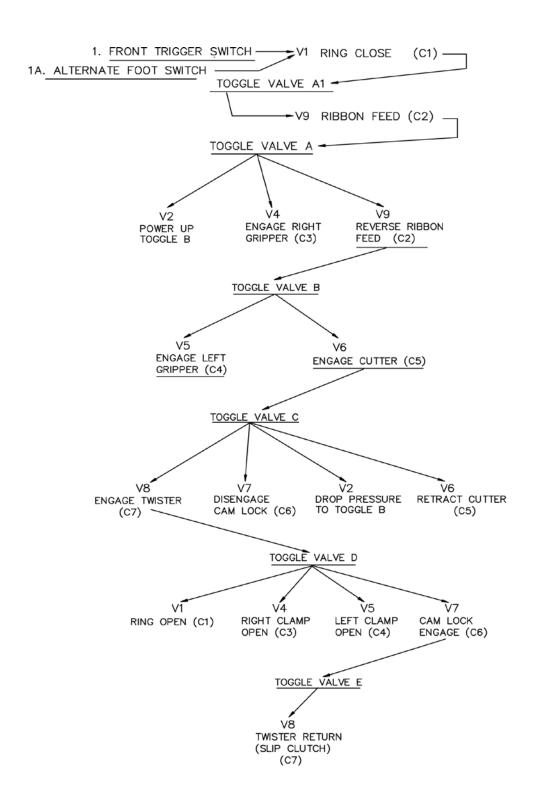
AIR SUPPLY & PILOT TUBING



AIR OUTPUT TO CYLINDER TUBING

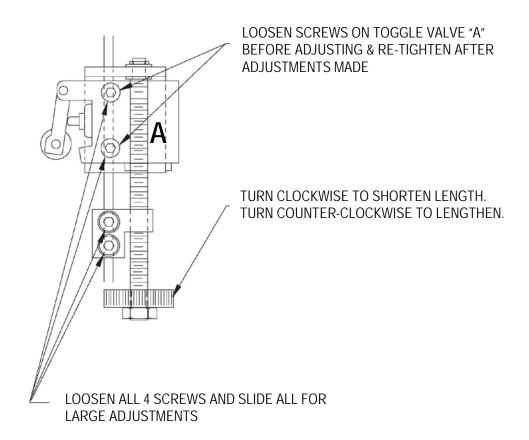


XL8 OPERATIONAL SEQUENCE

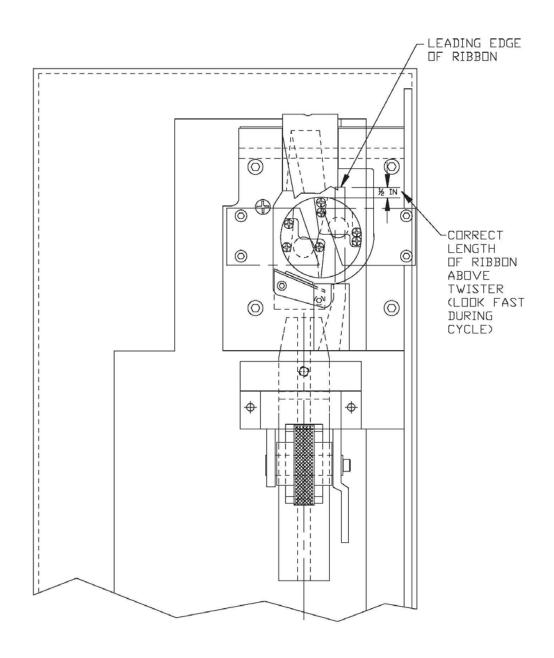


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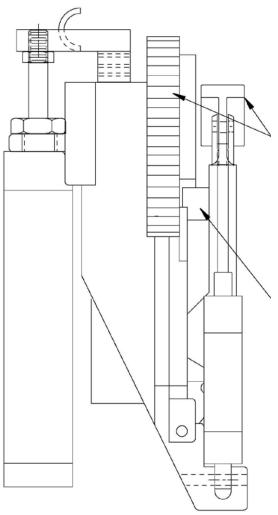
RIBBON LENGTH FINE ADJUSTMENT



FRONT VIEW SHOWING RIBBON PATH & CORRECT LENGTH



SET CAM-STOP TIMING BY HAND



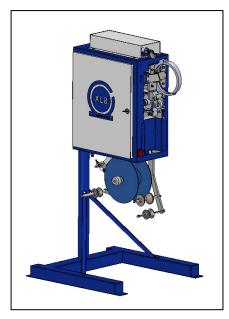
STEP 1: TURN OFF MASTER AIR VALVE TO RELEASE PRESSURE FROM THE CAM FOLLOWING BEARING.

STEP 2: ROTATE LARGE GEAR CLOCKWISE WHILE HOLDING THE CAM FOLLOWING ARM (ACM-012) UP UNTIL THE CAM FOLLOWING BEARING IS SEATED IN THE GROOVE.

STEP 3: TURN MASTER AIR BACK ON TO ENGAGE PRESSURE ON THE CAM FOLLOWING BEARING.

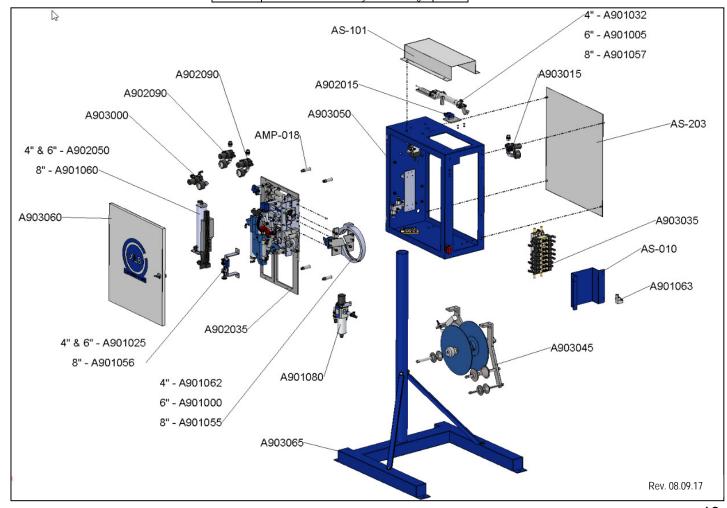
CAM FOLLOWER

XL8 (4", 6", 8") 530-4/530-6/530-8

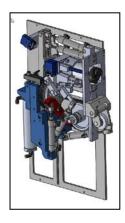


| PART# | DESCRIPTION | QTY. |
|---------|---|------|
| 56805 | 1/4 Split Lock Washer | 12 |
| 56810 | 1/4" Flat Washer | 6 |
| 506337 | #10 Split Lock Washer | 2 |
| A901000 | Face Plate & 6" Ring Assembly | 1 |
| A901005 | 6" Ring Cylinder #1 Assembly | 1 |
| A901020 | XL8 Trigger Assembly | 1 |
| A901025 | Switch "A" Assembly | 1 |
| A901032 | 6" Ring Cylinder #1 Assembly | 1 |
| A901055 | Face Plate & 8" Ring Assembly | 1 |
| A901057 | 6" Ring Cylinder #1 Assembly | 1 |
| A901062 | Face Plate & 4" Ring Assembly | 1 |
| A901063 | XL8 No Back Assembly | 1 |
| A901080 | Main Fileter Regulator Assembly | 1 |
| A902015 | A1 Switch Assembly | 1 |
| A902035 | XL8 Back Mounting Plate | 1 |
| A902050 | Cylinder # 2 Complete Assembly | 1 |
| A902090 | Gripper Pressure Regulator Assembly | 2 |
| A903000 | Gripper Pressure Regulator Assembly | 1 |
| A903015 | Ring Pressure Regulator Assembly | 1 |
| A903045 | XL8 Full Brake Assembly - 4" & 6" Rings | 1 |

| | PART# | DESCRIPTION | QTY. |
|--|---------|------------------------------------|------|
| | A903050 | XL8 Cabinet Assembly | 1 |
| | A903060 | XL8 Front Door Assembly | 1 |
| | A903065 | XL8 Pedestal Assembly | 1 |
| | AMA-008 | Air Valve Manifold Assembly | 1 |
| | AMP-010 | Shield Guard | 1 |
| | AMP-018 | Mounting Plate Spacer | 4 |
| | AS-010 | Front Guard Cover | 1 |
| | AS-101 | XL8 Top Lid Cover | 1 |
| | AS-203 | Stationary Side Door | 1 |
| | FP-110 | Trigger Arm Shell | 1 |
| | P001080 | 1/4 - 20 Hex Nut | 6 |
| | P001430 | #8 Flat Washer | 2 |
| | P005010 | 6-32 x 1-1/4 Socket Head Cap Screw | 4 |
| | P005065 | 8-32 X 1/2" Socket Head Cap Screw | 4 |
| | P005295 | 10-32 x 5/16 Button Cap Screw | 14 |
| | P005327 | 10-32 X 1/2 Flat Head Socket Screw | 4 |
| | P005410 | #6 Split Washer | 4 |
| | P007060 | 1/4-20 x 3/4 Socket Head Cap Screw | 6 |
| | P008060 | #8 Split Lock Washer | 4 |
| | | | |

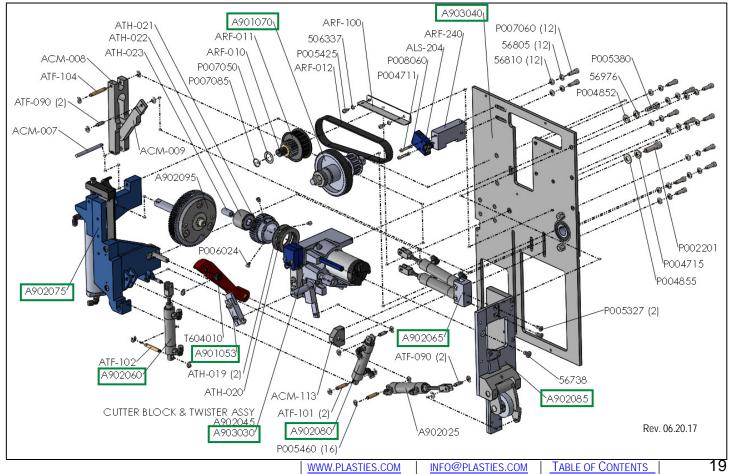


XL8 BACK MOUNTING PLATE ASSEMBLY MASTER (A902035)

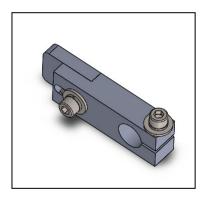


| PART# | DESCRIPTION | Qty |
|---------|--|-----|
| 56738 | XL8 1/4-20 x 1/2 Flat Head Socket Cap Screw | 1 |
| | Stainless Steel | |
| 56802 | XL8 #10 Flat Washer | 2 |
| 56805 | XL8 1/4 Split Lock Washer Stainless Steel | 13 |
| 56810 | XL8 1/4 Flat Washer | 18 |
| 56976 | XL8 5/16 Split Lock Washer Steel Zinc Plated | 1 |
| 506337 | XL8 #10 Split Lock Washer Stainless Steel | 2 |
| A901053 | XL8 Limit Switch Actuator Assembly | 1 |
| A901054 | XL8 Switch "B" Assembly | 1 |
| A901070 | XL8 Pressure Wheel Assy | 1 |
| A902025 | XL8 Cylinder # 8 Assembly | 1 |
| A902045 | XL8 Cutter Block Assembly | 1 |
| A902060 | XL8 Cylinder Assembly #3, 4 & 6 | 1 |
| A902065 | XL8 Gripper Cylinders Assembly | 1 |
| A902075 | XL8 Cylinder #7 Mounting Assembly | 1 |
| A902080 | XL8 Cylinder #5 Assembly | 1 |
| A902085 | XL8 Face Plate Assembly | 1 |
| A902095 | XL8 Pinion Gear Assembly | 1 |
| A903030 | XL8 Twister Head Assembly | 1 |
| A903040 | XL8 Back Plate Assembly | 1 |
| ACM-007 | XL8 Gripper Actuator Hinge Pin | 1 |
| ACM-008 | XL8 #1 Gripper Activator | 1 |
| ACM-009 | XL8 #2 Gripper Activator | 1 |
| ACM-113 | XL8 Support Block Twister | 1 |
| ALS-204 | XL8 Limit Switch | 1 |
| ARF-010 | XL8 Pinion Gear Shaft | 1 |
| ARF-011 | XL8 Pulley Gear Cluster | 1 |
| ARF-012 | XL8 Timing Belt | 1 |
| ARF-100 | XL8 Belt Cover Bracket | 1 |
| ARF-240 | XL8 Limit Switch Mounting Bkt | 1 |

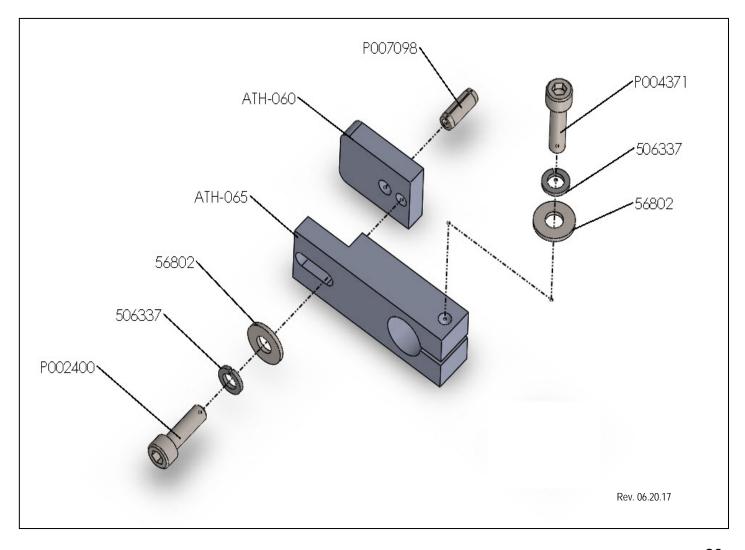
| PART# | DESCRIPTION | Qty |
|---------|--|-----|
| ATF-090 | XL8 Clevis Pin | 4 |
| ATF-101 | XL8 Clevis Pin | 2 |
| ATF-102 | XL8 Clevis Pin 1.6" | 1 |
| ATF-104 | XL8 Clevis Pin | 1 |
| ATH-019 | XL8 Thrust Washer 1/32 | 2 |
| ATH-020 | XL8 Thrust Needle Cage Assy | 1 |
| ATH-021 | XL8 Twist Head Barrel Gear | 1 |
| ATH-023 | XL8 Bullet | 1 |
| ATH-025 | XL8 Thrust Washer | 1 |
| FP-006 | XL8 Spacer For XL8 | 1 |
| P001952 | XL8 3/8-16 x 7/8 Socket Head Cap Screw Stainless Steel | 1 |
| P002201 | XL8 3/8-16 x 1-1/4 Socket Head Cap Screw Stainless Steel | 1 |
| P002400 | XL8 10-32 x 5/8 Socket Head Cap Screw Stainless Steel | 2 |
| P004711 | XL8 8-32 x 3/4 Socket Head Cap Screw Stainless Steel | 2 |
| P004715 | XL8 3/8 Split Lock Washer | 2 |
| P004852 | XL8 1/4 USS Flat Washer Steel Zinc Plated | 1 |
| P004855 | XL8 3/8 Flat Washer Stainless Steel | 2 |
| P005327 | XL8 10-32 x 1/2 Flat Head Socket Cap Screw Stainless Steel | 2 |
| P005380 | XL8 5/16-18 x 1 Socket Head Cap Screw Stainless Steel | 1 |
| P005425 | XL8 10-32 x 1/4 Socket Head Cap Screw Stainless Steel | 2 |
| P005460 | XL8 1/4 Side Mount External Retaining Ring Stainless Steel | 16 |
| P006024 | XL8 5/16-18 X 5/16 Cone Point Set Screw Stainless Steel | 3 |
| P007050 | XL8 5/8 X 1 X .020 Flat Washer Stainless Steel | 1 |
| P007060 | XL8 1/4-20 x 3/4 Socket Head Cap Screw Stainless Steel | 13 |
| P007085 | XL8 5/8 External Retaining Ring | 1 |
| P008045 | XL8 3/8 X 1.5 x .065 Flat Washer | 2 |
| P008060 | XL8 #8 Split Lock Washer | 2 |
| T602080 | XL8 Activator Assembly | 1 |
| T604010 | XL8 Cam Follower Mounting Arm Assembly | 1 |



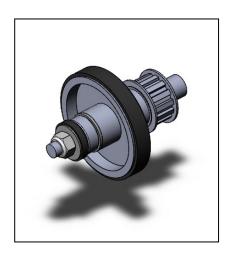
LIMIT SWITCH ACTUATOR ASSEMBLY (A901053)



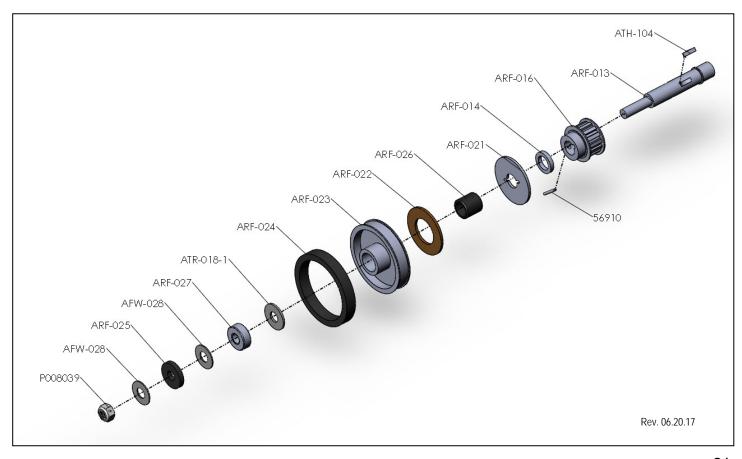
| PART# | DESCRIPTION | QTY. |
|---------|--|------|
| 56802 | #10 Flat Washer | 2 |
| 506337 | #10 Split Lock Washer | 2 |
| ATH-060 | Limit Switch Actuator | 1 |
| ATH-065 | Limit Bracket Switch | 1 |
| P002400 | 10-32 X 5/8 Fine Socket Head Cap Screw | 1 |
| P004371 | 10-32 X 3/4 Socket Head Cap Screw | 1 |
| P007098 | 3/16 X 1/2 Spring Pin | 1 |



Pressure Wheel Assembly (A901070)



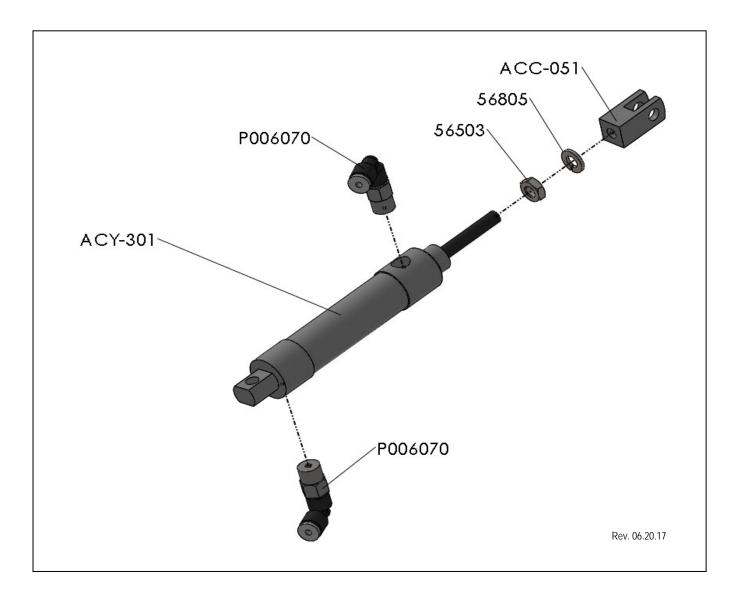
| PART# | DESCRIPTION | QTY. |
|-----------|-----------------------------|------|
| 56910 | 1/8 x 1 Roll Pin | 1 |
| AFW-028 | 18-8 X 1/2 Flat Washer | 2 |
| ARF-013 | Draw Roll Shaft | 1 |
| ARF-014 | Spacer | 1 |
| ARF-016 | Timing Belt Pulley | 1 |
| ARF-021 | Pressure Plate | 1 |
| ARF-022 | Friction Disc | 1 |
| ARF-023 | Draw Wheel | 1 |
| ARF-024 | Draw Wheel Tire | 1 |
| ARF-025 | Pressure Washer | 1 |
| ARF-026 | 1 Way Clutch Bearing | 1 |
| ARF-027 | Ball Thrust Bearing | 1 |
| ATH-104 | Metal Shim Spacer | 1 |
| ATR-018-1 | Brake Arm Washer | 1 |
| P008039 | 3/8-16 Nylon Insert Hex Nut | 1 |



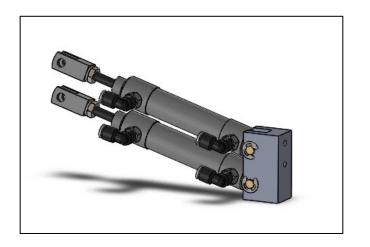
CYLINDER ASSEMBLY #3, 4 & 6 (A902060)



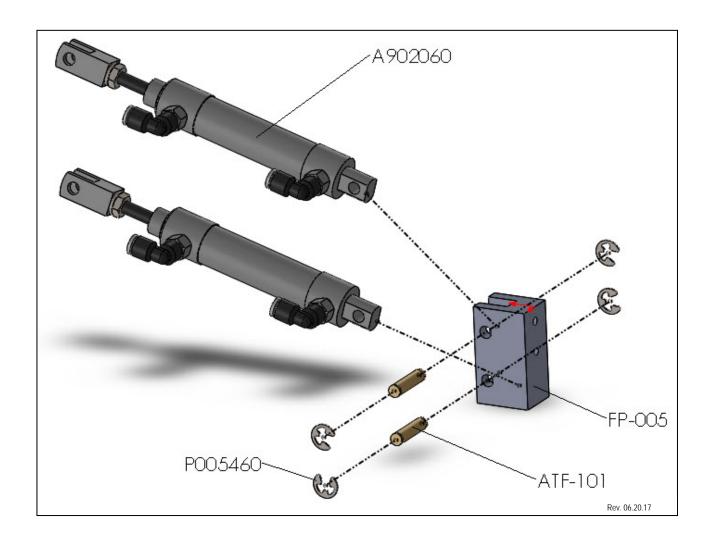
| PART# | DESCRIPTION | QTY. |
|---------|--------------------------|------|
| 56503 | 1/4-28 Nut | 1 |
| 56805 | 1/4 Split Lock Washer | 1 |
| ACC-051 | Clevis - 1/4-28 Thread | 1 |
| ACY-301 | Cylinder for 3, 4, 5 & 6 | 1 |
| P006070 | Straight Tube Fitting | 2 |



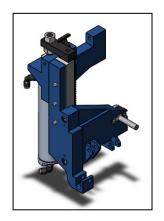
GRIPPER CYLINDERS ASSEMBLY (A902065)



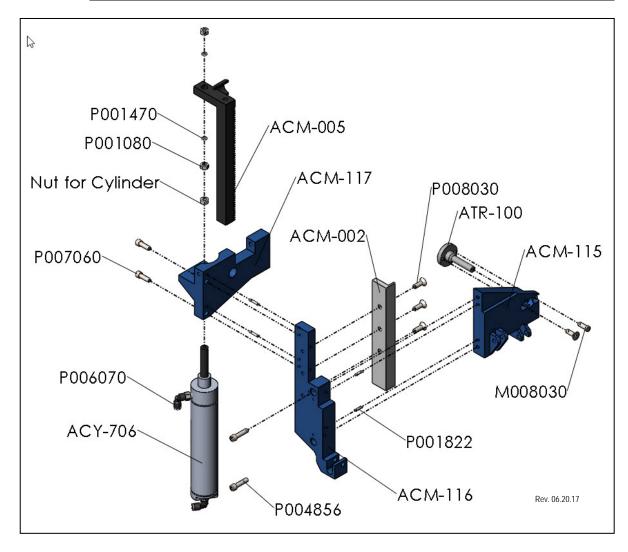
| PART# | DESCRIPTION | QTY. |
|---------|----------------------------------|------|
| A902060 | Cylinder for # 3, 4, 5 & 6 | 2 |
| ATF-101 | Clevis Pin | 2 |
| FP-005 | Cylinder Mounting Block | 1 |
| P005460 | 1/4" External "E" Retaining Ring | 4 |



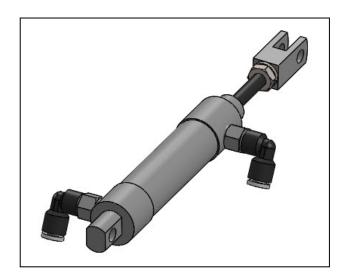
CYLINDER #7 MOUNTING ASSEMBLY (A902075)



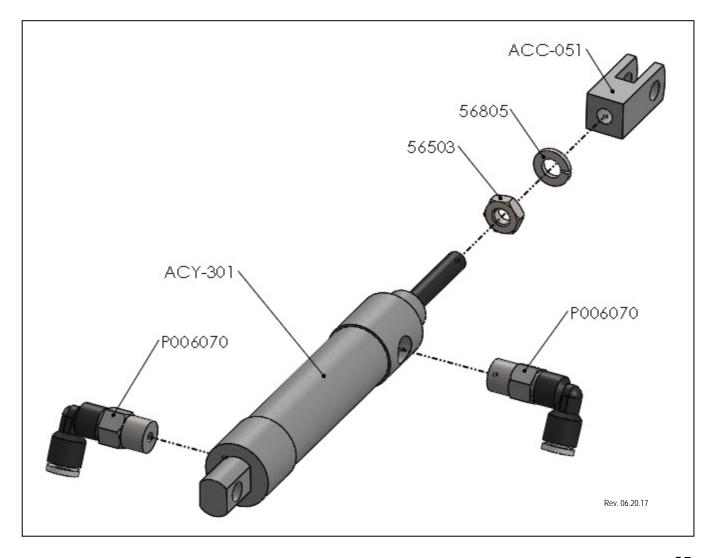
| PART# | DESCRIPTION | QTY. |
|---------|--|------|
| ACM-002 | Rack Gear Guide | 1 |
| ACM-005 | Twister Head Rack Gear | 1 |
| ACM-115 | Cylinder Mounting Bracket Part 1 | 1 |
| ACM-116 | Cylinder Mounting Bracket Part 2 | 1 |
| ACM-117 | Cylinder Mounting Bracket Part 3 | 1 |
| ACY-706 | Cylinder 7 | 1 |
| ATR-100 | Mounting Plate | 1 |
| M008030 | 1/4-20 x 3/4 Flat Head Socket Cap Screw Modified | 1 |
| P001055 | 7/16-20 x 1/4" Hex Nut | 2 |
| P001485 | 7/16 Lock Washer | 2 |
| P001822 | 1/8 X 1/2 Dowel Pin | 4 |
| P004856 | 1/4-20 X 1" Socket Head Cap Screw | 2 |
| P006070 | Straight Tube Fitting | 2 |
| P007060 | 1/4-20 x 3/4 Socket Head Cap Screw | 2 |
| P008055 | 1/4-20 x 1" Flat Head Socket Cap Screw | 4 |



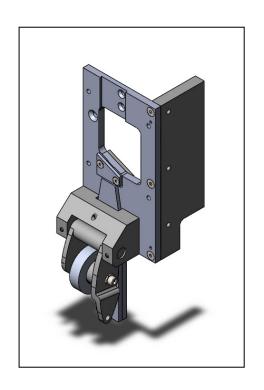
XL8 CYLINDER #5 ASSEMBLY (A902080)



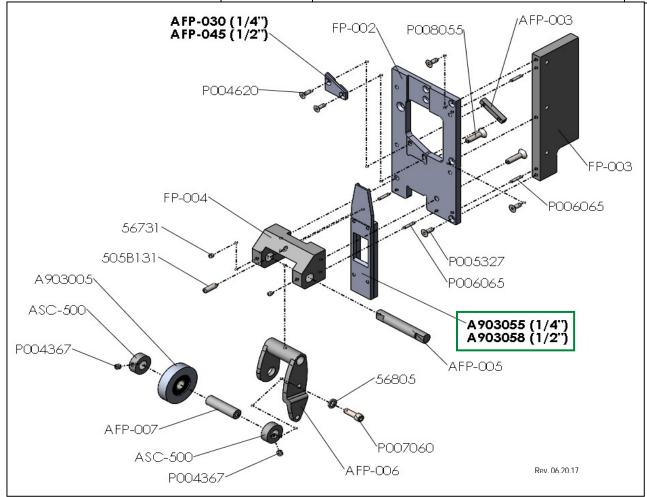
| PART# | DESCRIPTION | QTY. |
|---------|------------------------------|------|
| 56503 | XL8 1/4-28 Nut | 1 |
| 56805 | XL8 1/4 Split Lock Washer | 1 |
| ACC-051 | XL8 Clevis - 1/4-28 Thread | 1 |
| ACY-301 | XL8 Cylinder for 3, 4, 5 & 6 | 1 |
| P006070 | XL8 Straight Tube Fitting | 2 |



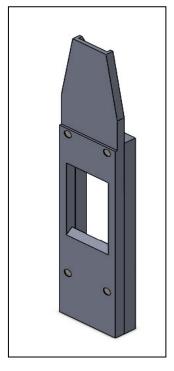
FACE PLATE ASSEMBLY (A902085)



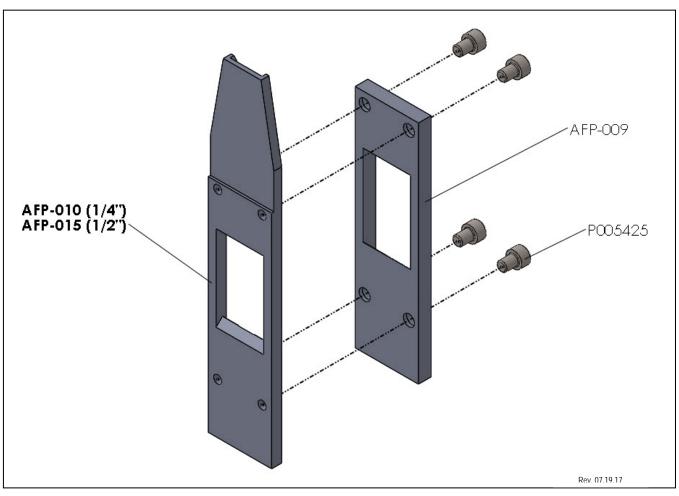
| PART# | DESCRIPTION | QTY. |
|---------|---|------|
| 505B131 | 1/4-20 x 3/4 Cup Point Set Screw | 1 |
| 56730 | 10-32 X 3/8 Hex Socket Set Screw | 2 |
| 56805 | 1/4 Split Lock Washer | 1 |
| A903005 | Pressure Wheel XL8 Assembly | 1 |
| A903055 | Chute 1/4" XL8 Assembly | 1 |
| AFP-003 | Anvil Mounting Block | 1 |
| AFP-005 | Pressure Arm Shaft | 1 |
| AFP-006 | Pressure Arm - Left | 1 |
| AFP-007 | Pressure Wheel Shaft | 1 |
| AFP-030 | XL8 Anvil | 1 |
| ASC-500 | Retaining Coupler | 2 |
| FP-002 | XL8 Face Plate | 1 |
| FP-003 | XL8 Mounting Plate | 1 |
| FP-004 | XL8 Mounting Plate | 1 |
| P004367 | 1/4 -20 x 1/4 Socket Set Screw | 2 |
| P004620 | 8-32 x 1/2" Flat Socket Head Screw | 2 |
| P005327 | 10-32 X 1/2 Flat Head Socket Screw | 3 |
| P006065 | 1/8 X 5/8 Dowel Pin | 4 |
| P007060 | 1/4-20 x 3/4 Socket Head Cap Screw | 1 |
| P008030 | 1/4-20 x 3/4 Flat Head Socket Cap Screw | 2 |



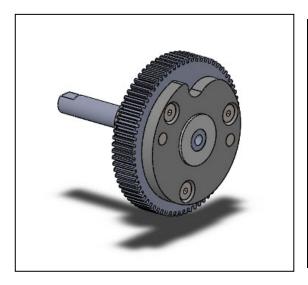
CHUTE ASSEMBLY 1/4 (A903055)



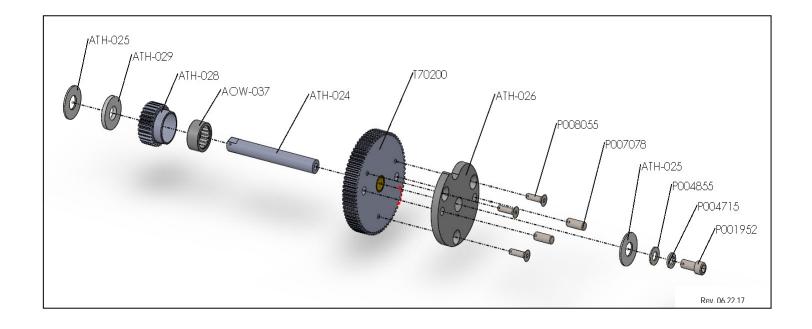
| PART# | DESCRIPTION | QTY. |
|---------|------------------------------------|------|
| AFP-009 | Tape Chute Back | 1 |
| AFP-010 | XL8 ¼" Front Tape Chute | 1 |
| AFP-015 | XL8 ½" Front Tape Chute | |
| P005425 | 10-32 x 1/4" Socket Head Cap Screw | 4 |



PINION GEAR ASSEMBLY (A902095)



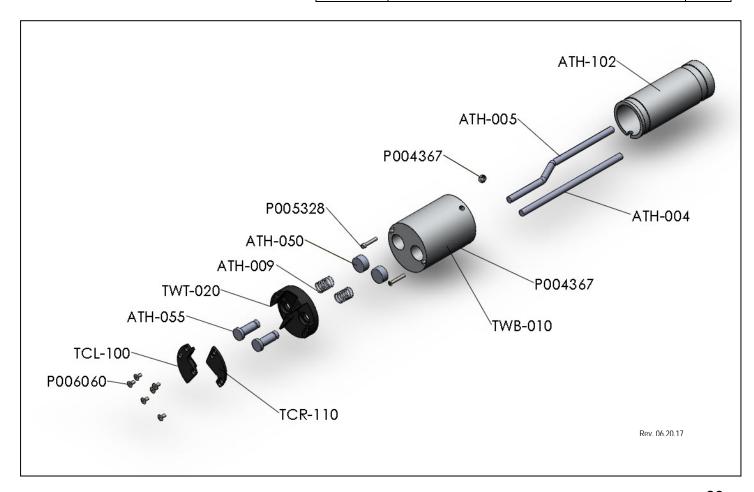
| PART # | DESCRIPTION | QTY. |
|---------|--|------|
| A901064 | Pinion Gear Assembly | 1 |
| ATH-024 | Cam Gear Shaft | 1 |
| ATH-025 | Trust Washer | 2 |
| ATH-026 | Twister Head Cam | 1 |
| ATH-029 | Plastic Spacer | 1 |
| P001952 | 3/8-16 x 7/8" Socket Head Cap Screw | 1 |
| P004715 | 3/8 Split Lock Washer | 1 |
| P004855 | 3/8 Flat Washer | 1 |
| P007078 | Dowel Pin 1" x 3/8" | 2 |
| P008055 | 1/4-20 x 1" Flat Head Socket Cap Screw | 3 |
| T70200 | Twister Head Gear with Bushings | 1 |



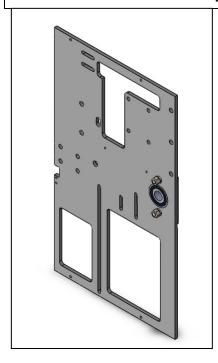
TWISTER HEAD ASSEMBLY (A903030)



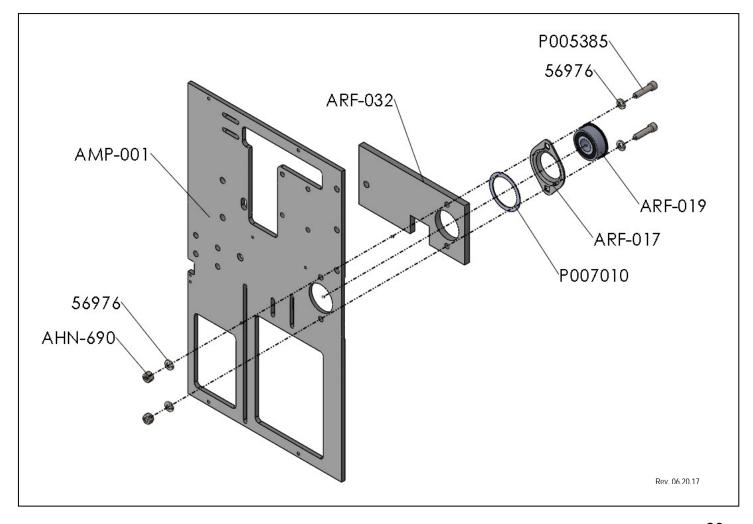
| PART# | DESCRIPTION | QTY. |
|---------|--|------|
| ATH-004 | XL8 #1 PUSH ROD | 1 |
| ATH-005 | XL8 #PUSH ROD | 1 |
| ATH-009 | XL8 SPRING - GRIPPER RETURN | 2 |
| ATH-050 | XL8 TWISTER SPACER | 2 |
| ATH-055 | XL8 PUSHER PIN | 2 |
| ATH-102 | XL8 TWISTER - SHAFT | 1 |
| P004367 | XL8 1/4-20 x 1/4 Cup Point Set Screw | 3 |
| P005328 | XL8 4-40 x 5/8 Socket Head Cap Screw | 1 |
| P005460 | XL8 1/4 Side Mount External Retaining Ring | 2 |
| P006060 | XL8 4-40 X 1/4 Flat Head Socket Cap Screw | 6 |
| P006065 | XL8 1/8 X 5/8 Dowel Pin | 2 |
| P007098 | XL8 3/16 X 1/2 Roll Pin | 1 |
| P008010 | XL8 4-40 X 3/4 Philips Head Flat Screw | 1 |
| TCL-100 | XL8 TWIST - COVER LEFT | 1 |
| TCR-110 | XL8 Twister Cover Right | 1 |
| TWB-010 | XL8 Twister Base | 1 |
| TWT-020 | XL8 Twister Top | 1 |



BACK PLATE ASSEMBLY (A903040)



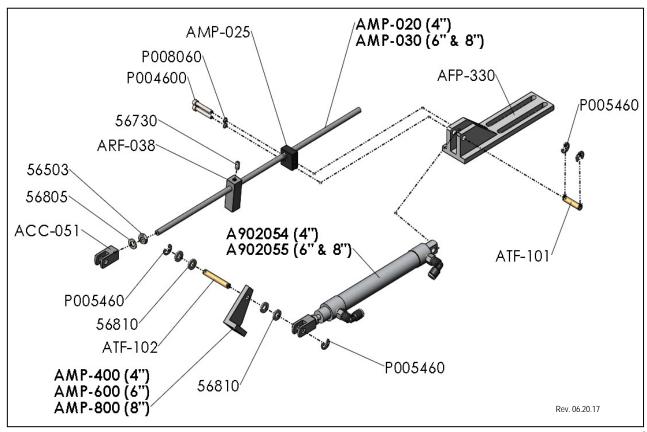
| PART# | DESCRIPTION | QTY. |
|---------|--|------|
| 56976 | 5/16 Split Lock Washer | 4 |
| AHN-690 | 5/16-18 Hex Nut | 2 |
| AMP-001 | Mounting Plate XL8 | 1 |
| ARF-017 | Bearing Flange | 1 |
| ARF-019 | Retainer Ball Bearing | 1 |
| ARF-032 | Backing Plate | 1 |
| P005385 | 5/16-18 x 1 1/4' Socket Head Cap Screw | 2 |
| P007010 | 2.375 x 1.875 x .045 Washer | 1 |



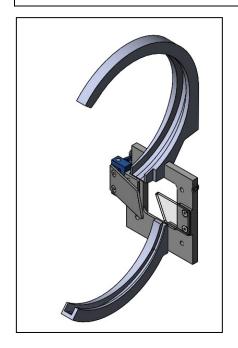
XL8 RING CYLINDER #1 ASSEMBLY (A901032: 4" / A901005: 6" / A901057: 8")



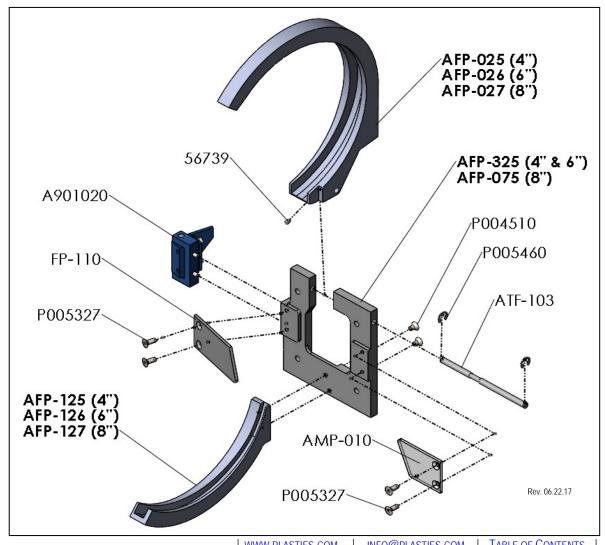
| PART # | DESCRIPTION | QTY. |
|-------------------------------|--|------|
| 56503 | XL8 1/4 - 28 Hex Nut Steel | 1 |
| 56730 | XL8 10-32 x 3/8 Cup Point Set Screw | 1 |
| 56805 | XL8 1/4 Split Lock Washer | 1 |
| 56810 | XL8 1/4 Flat Washer | 4 |
| A902054 A902055 | XL8 4" Cylinder #1 with Fittings XL8 6" & 8" Cylinder #1 with Fittings | 1 |
| ACC-051 | XL8 Clevis - 1/4-28 Thread | 1 |
| AFP-330 | XL8 Ribbon Stop Mounting Plate | 1 |
| AMP-025 | XL8 Ring Actuator Guide | 1 |
| AMP-030 | XL8 Rod Actuator for 6 in & 8 in Ring | 1 |
| AMP-400 AMP-600 AMP-800 | XL8 4" Ring Mounting Bracket XL8 6" Ring Mounting Bracket XL8 8" Ring Mounting Bracket | 1 |
| ARF-038 | XL8 Valve Actuator For 6" & 8" Rings | 1 |
| ATF-101 | XL8 Clevis Pin | 1 |
| ATF-102 | XL8 Clevis Pin 1/6" | 1 |
| P004600 | XL8 8-32 x 1 Socket Head Cap Screw | 2 |
| P005460 | XL8 1/4 Side Mount External Retaining Ring | 4 |
| P008060 | XL8 #8 Split Lock Washer | 2 |



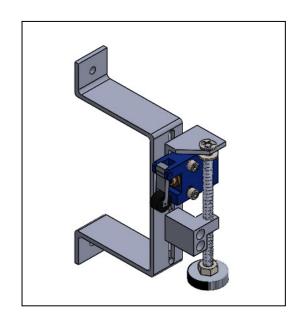
XL8 RING ASSEMBLY (A901062: 4" / A901000: 6" / A901055: 8")



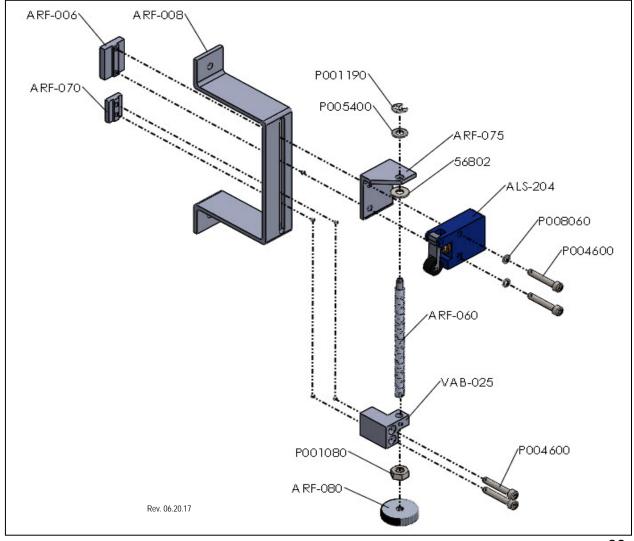
| PART# | DESCRIPTION | QTY. |
|-------------------------------|--|------|
| 56739 | XL8 8-32 X 3/16 Hex Socket Set Screw | 1 |
| A901020 | XL8 Trigger Assembly | 1 |
| AFP-025 AFP-026 AFP-027 | XL8 4" Ring Top XL8 6" Ring Top XL8 8" Ring Top | 1 |
| AFP-325 AFP-075 | XL8 4" & 6" Face Plate XL8 8" Face Plate | 1 |
| AFP-125 AFP-126 AFP-127 | XL8 4" Ring Bottom XL8 6" Ring Bottom XL8 8" Ring Bottom | 1 |
| AMP-010 | XL8 Shield Guard | 1 |
| ATF-103 | XL8 Clevis Pin | 1 |
| FP-110 | XL8 Trigger Arm Shell | 1 |
| P005327 | XL8 10-32 X 1/2 Flat Head Socket Screw | 4 |
| P005460 | XL8 1/4" External "E" Retaining Ring | 2 |
| P004510 | XL8 10-32 x 3/8 Flat Head Cap Screw | 2 |



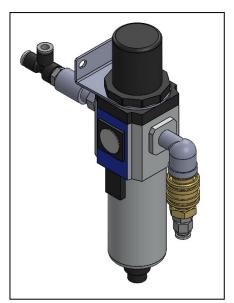
XL8 SWITCH "A" ASSEMBLY 4" AND 6" (A901025)



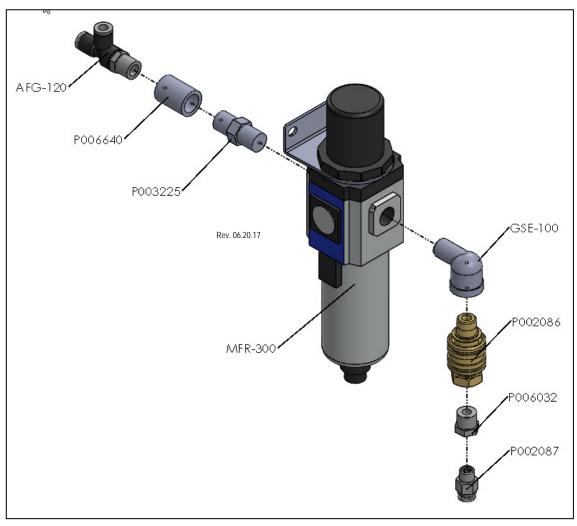
| PART# | DESCRIPTION | QTY. |
|---------|-------------------------------------|------|
| 56802 | XL8 #10 Flat Washer | 1 |
| ALS-204 | XL8 Limit Switch | 1 |
| ARF-006 | XL8 Switch "A" Mounting Plate | 1 |
| ARF-008 | XL8 Extended Limit Switch Bracket | 1 |
| ARF-060 | XL8 Switch "A" Rod - Adjust | 1 |
| ARF-070 | XL8 Nut Plate - Adjust | 1 |
| ARF-075 | XL8 Angle Bracket | 1 |
| ARF-080 | XL8 Switch "A" Adjust Wheel | 1 |
| P001080 | XL8 1/4 - 20 Hex Nut | 1 |
| P001190 | XL8 0.188 "E" Retaining Ring | 1 |
| P004600 | XL8 8-32 X 1" Socket Head Cap Screw | 4 |
| P005400 | XL8 Flat Washer .203 X .433 X .032 | 1 |
| P008060 | XL8 #8 Split Washer | 2 |
| VAB-025 | XL8 Valve Adjustment Bracket | 1 |



XL8 Main Filter Regulator Assembly (A901080)



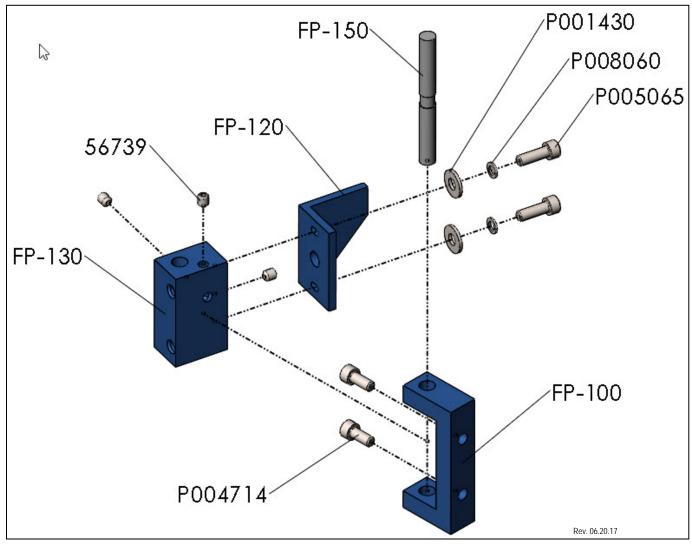
| PART# | DESCRIPTION | QTY. |
|---------|---|------|
| AFG-120 | XL8 Large Straight Tube Fitting | 1 |
| GSE-100 | XL8 1/8 Street Elbow 90' | 1 |
| MFR-300 | XL8 Main Regulator | 1 |
| P002086 | XL8 Valve, Hand Slide | 1 |
| P002087 | XL8 Fitting, Straight, 1/4-U Qs-1/8-1/4-U | 1 |
| P003225 | XL8 Hex Pipe Nipple | 1 |
| P006032 | XL8 1/4m X 1/8f Pipe | 1 |
| P006640 | XL8 1/4 x 1 Pipe Coupling | 1 |



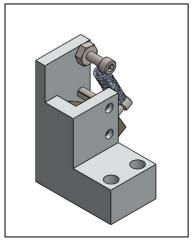
XL8 TRIGGER ASSEMBLY (A901020)



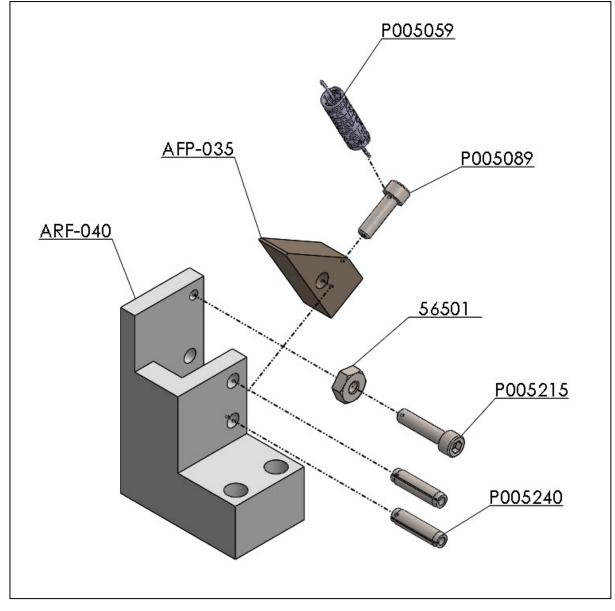
| PART# | DESCRIPTION | QTY. |
|---------|---------------------------------------|------|
| 56739 | XL8 8-32 X 3/16 Hex Socket Set Screw | 3 |
| FP-100 | XL8 Trigger Mount | 1 |
| FP-120 | XL8 Trigger Bracket | 1 |
| FP-130 | XL8 Trigger Pivot | 1 |
| FP-150 | XL8 Trigger Pin | 1 |
| P001430 | XL8 #8 Flat Washer | 2 |
| P004714 | XL8 8-32 X 3/8 Socket Head Cap Screw | 2 |
| P005065 | XL8 8-32 X 1/2" Socket Head Cap Screw | 2 |
| P008060 | XL8 #8 Split Washer | 2 |



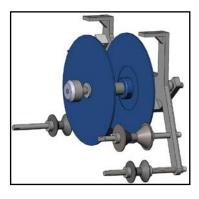
No Back Assembly (A901063)



| PART# | DESCRIPTION | QTY. |
|---------|-------------------------------------|------|
| 56501 | 4-40 Hex Nut | 1 |
| AFP-035 | No Back Knife | 1 |
| ARF-040 | No Back Block | 1 |
| P005059 | No Back Spring | 1 |
| P005089 | 4 - 40 X 3/8" Socket Head Cap Screw | 1 |
| P005215 | 4-40 X 1/2" Socket Head Cap Screw | 1 |
| P005240 | 1/8 X 1/2 Roll Pin | 2 |



XL8 FULL BRAKE ASSEMBLY (A903045)



| PART # | DESCRIPTION | Qty |
|---------|--------------------------|-----|
| 56976 | 5/16 Split Lock Washer | 7 |
| A900045 | Tape Reel Assembly Mount | 1 |
| A901095 | Brake Arm Eye Bolt | 1 |
| | Assembly | |
| A902010 | Brake Arm Eye Bolt w/ | 1 |
| | Holder | |
| A903080 | Brake Yoke Assembly | 1 |
| AFW-030 | Compression Spring | 1 |
| ARB-101 | Brake Arm Pad Plate | 1 |
| ARB-106 | Brake Washer | 1 |
| ASC-500 | 1/2" Collar Shaft | 7 |
| ATF-090 | Clevis Pin | 2 |
| ATH-029 | Plastic Spacer | 1 |
| ATR-005 | XL-8 Brake Extension | 1 |
| ATR-006 | XL-8 Brake Return Spring | 1 |
| ATR-013 | Brake Spooler Shaft | 3 |
| ATR-016 | XL-8 Brake Arm Guide | 1 |
| ATR-018 | Brake Arm | 1 |

| PART # | DESCRIPTION | Qty |
|-----------|---|-----|
| ATR-030 | Roller | 1 |
| ATR-032 | Small Roller | 2 |
| ATR-036-1 | Precision Wound Spool Brake Pad | 1 |
| ATR-038 | XL-8 Brake Spacer | 1 |
| ATR-039 | 3/8" x 1" Socket Shoulder Screw | 1 |
| DT-610 | Spacer | 1 |
| M004005 | Knurled Hand Nut | 1 |
| P001180 | 1/4 External Retaining Ring | 4 |
| P005380 | 5/16-18 X 1" Socket Head Cap Screw | 3 |
| P005385 | 5/16-18 x 1 1/4' Socket Head Cap Screw | 2 |
| P008025 | 5/16-18 X 3/4 Socket Head Cap Screw | 2 |
| PWS-100 | Mounting Plate | 1 |
| PWS-150 | 1/4-20 Set Screw/ Pin | 1 |
| PWS-160 | 3/8-16 x 3/4" Set Screw | 1 |
| PWS-200 | Mounting Plate | 1 |
| PWS-300 | Precision Wound Spool Shaft | 1 |

