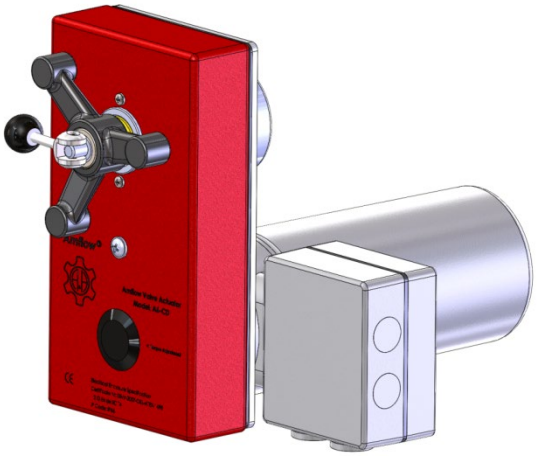
Amflow®

A & H Enterprises, Inc.
11812 NE 116th Street
Kirkland, WA 98034 USA
TEL: +425.883.4040
FAX: +425.823.1962
www.amflow.com
EMAIL: ah@amflow.com

INSTALLATION, OPERATION & MAINTENANCE MANUAL

AMFLOW®
A6 ATEX/IECEx VALVE ACTUATOR



Part Number: 00002525-0501

Certifications and Standards

Material traceability certificates, post processes, and As-Built documents shall be maintained on file with ***Amflow***® for a period of not less than TEN years.

ATEX DIRECTIVE 2014/34/EU
EU TYPE EXAMINATION: PRESAFE 17 ATEX 9461X
PQAN: PRESAFE 17 ATEX 10673Q
IECEx PRE 17.0030X
CE 2460 **Ex II 2 G Ex db eb IIC T4**
IEC 60079-0:2011 (EN 60079-0:2012), IEC 60079-1:2014 (EN 60079-1:2014)
INGRESS PROTECTION: IP66
IEC 60079-7:2015 (EN 60079-7:2015)

Amflow® reserves the right to amend or change this manual without prior notice.

ATEX/IECEx PLATE

Amflow®
www.amflow.com

A6 ACTUATOR
MADE IN USA

AMFLOW®
11812 NE 116TH ST KIRKLAND WA USA

A6 00002525-0501-001-018-010
SERIAL #
Year of Mfg:

PRESAFE 17 ATEX 9461X
IECEx PRE 17.0030X

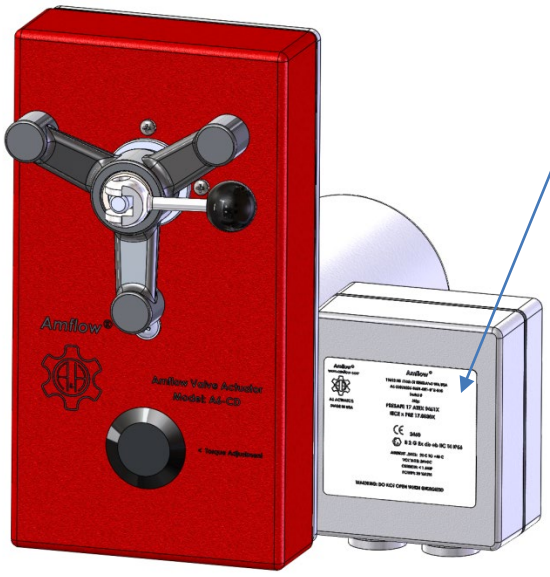
CE 2460

Ex II 2 G Ex db eb IIC T4

AMBIENT LIMITS: -20° C TO +60° C
VOLTAGE: 24 VDC
CURRENT: < 1 AMP
POWER: 30 WATTS
IP Rating: IP66

WARNING: DO NOT OPEN WHILE ENERGIZED

Cable Entry Thread Type: M20



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SECTION 1: INFORMATION

1.01 DESCRIPTION

The ***Amflow***® A6 Actuator is an ATEX / IECEx 24 VDC, 316L stainless steel chain driven motor actuator designed to accommodate the ***Amflow***® AM7 Series, AM8 Series, AM9A, AM10A, AM11A, AM12A Flow Control Valves and PR7 series, PR15 Back Pressure Regulators for remote & local operation in hazardous locations.

The A6 Actuator is designed to be panel mounted, reference Section 2.11

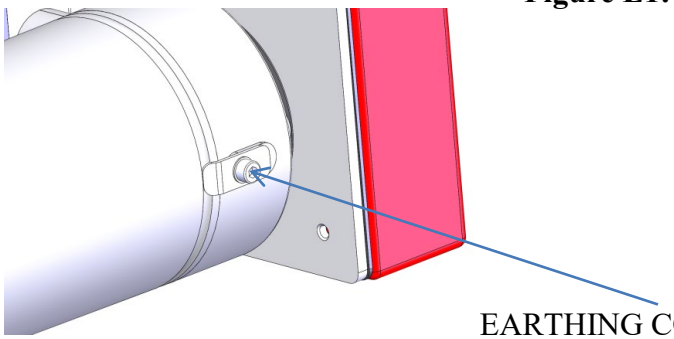
1.02 SPECIAL CONDITIONS

- Both the Ex eb terminal enclosure and the Ex db motor enclosure maintain an ingress protection rating of IP66 when installed in accordance with the manufacturer's instructions and the applicable requirements of IEC 60079-14.
- The motor drive shaft is made of titanium. Care shall be taken to avoid an ignition hazard resulting from impact or friction of this shaft.
- Contact the original manufacturer for information regarding the dimensions of flameproof joints.
-

1.02a EARTHING (GROUNDING)

- External Earthing connection point is as shown in Fig. E1

Figure E1:



EARTHING CONNECTION

(Must be used with supplied toothed lock washer)

1.03 TERMINAL BLOCK WIRING INSTRUCTIONS

⚠ SAFETY INFORMATION:
Follow electrical wiring guidelines for hazardous areas.

- Terminal Block wires should be stripped to 8 MM of bare wire.
- Insulated ferrules are recommended to be crimped to the bare wires
- The terminal block screws should be torqued to a range of 0.6 NM – 0.8 NM

1.04 4-20 mA, HART & H1 FOUNDATION FIELDBUS™ POWER & COMMUNICATIONS WIRING DIAGRAM

1. Connect +24 VDC Power to Terminal Block 1.
2. Connect DC COMMON to Terminal Block 2.
3. Connect remaining wires to locations as shown in Fig. E2 for 4-20 mA or HART
4. Connect remaining wires to locations as shown in Fig. E3 for H1 Foundation Fieldbus™

Figure E2:

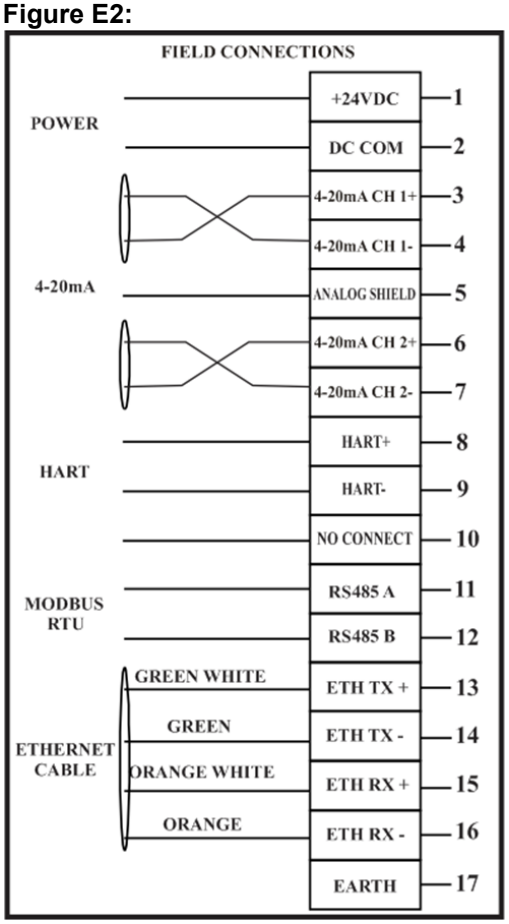
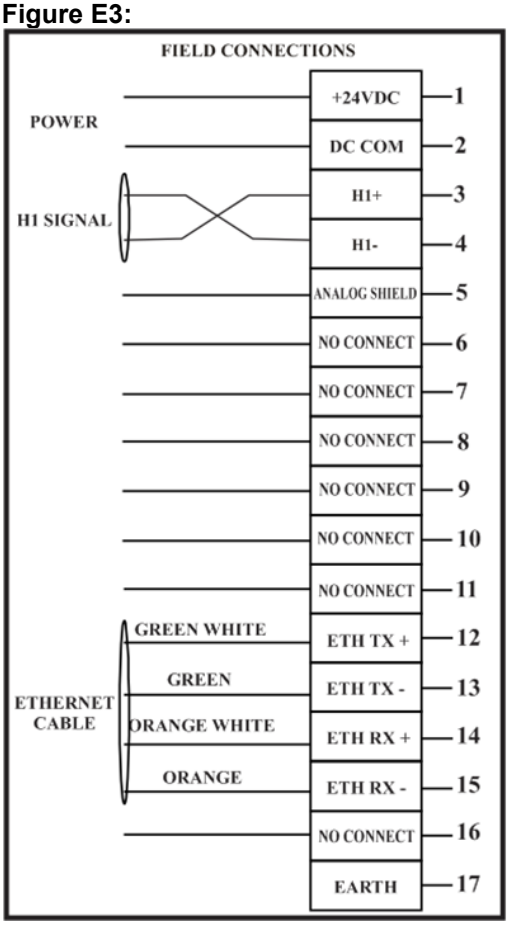


Figure E3:



⚠ WARNING
Incorrect wiring may damage the unit!

1.04A ETHERNET CONNECTION

If an Ethernet connection is desired a cable must be connected according to the wiring diagram (**figure 2**).

1. Connect TX + to Terminal Block 13.
3. Connect TX - to Terminal Block 14.
3. Connect RX + to Terminal Block 15.
4. Connect RX - to Terminal Block 16.

CONNECTION BETWEEN ACTUATOR & WEBSITE

STEPS:

1. Connect Ethernet lines to actuator (this must be done before powering up).
2. Connect PC and Actuator to DHCP Router (WIFI must be disabled).
3. Connect power supply lines to actuator.
3. Apply +24 VDC power.
4. Connect to website with the address http://acmxxxx, where xxxx is the serial number of the device.
   - ❖ The serial number may be found in two (2) locations:
   a. Front of actuator cover
   b. On the
5. When prompted enter username and password.
6. Allow device page to load; you should see the Link LED graphic blinking.
7. Click on all pages, one at a time, to load initially; this may take several seconds the first time pages are opened, after that navigation between pages should be faster.

USERNAME AND PASSWORD:

The username and password for main web page:

- ❖ Username = **admin**
- ❖ Password = **a2admin**

WEB BROWSER SUPPORT:

- ❖ This unit has been fully tested on the Firefox web browser of Windows 7.
- ❖ Download the latest browser before testing.
- ❖ JavaScript must be enabled for embedded web pages to function properly.

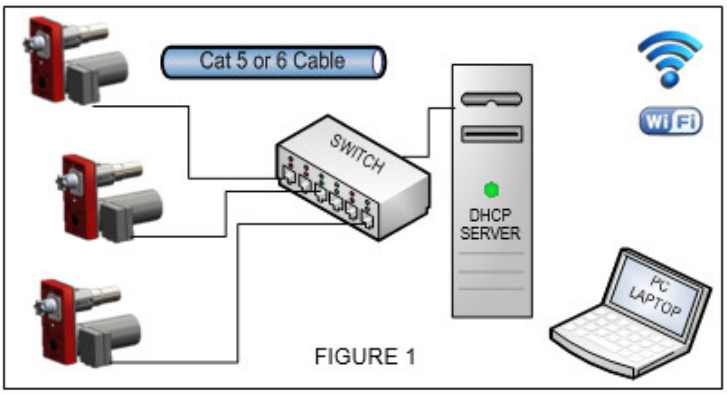


FIGURE 1

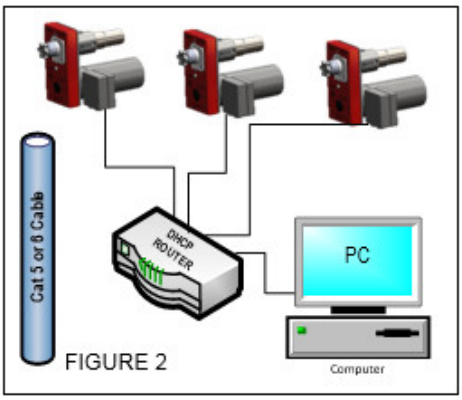


FIGURE 2

1.05 MECHANICAL CONNECTIONS

The ***Amflow***® A6 Actuator is designed to be panel mounted, reference Section 2.11

For ***Amflow***® Flow Control Valves or Back Pressure Regulators connection guidance, reference section 4.0

1.06 DESIGN FEATURES

- Manual over-ride lever.
- Low Maintenance.
- Environmentally sealed.

1.07 MECHANICAL FEATURES

- Ex db Ex eb ATEX/IECEx Certified Enclosure: 316/316L
- Stainless Steel Drive Assembly: 316/316L
- Stainless Steel Taper Lock Valve Connect: 316/316L
- Stainless Steel Drive Enclosure: Powder coated 316/316L
- Adjustable Torque Setting
- Weight: 33 lbs. (15 Kg)
- Cable Gland Threaded Ports: M20 x 1.5 – 2 each.
- Local Manual Over-ride Feature
- Low Maintenance 316/316L Stainless Steel Drive Assembly

Amflow® A6 ATEX Actuator: Electrical Specifications

Model	Motor	Power	Idle Current	Idle Wattage	Normal Operation Current	Normal Operation Wattage	Max. Stall Current	Max. Stall Wattage	Max. In-Rush Current	Max In-Rush Wattage
A6	**DC Gear**	**24 VDC +/- 1 VDC**	**0.073 Amps**	**1.75 Watts**	**0.21 Amps**	**5.00 Watts**	**<1.25 Amps**	**30 Watts**	**<3.0 Amps**	**72 Watts**

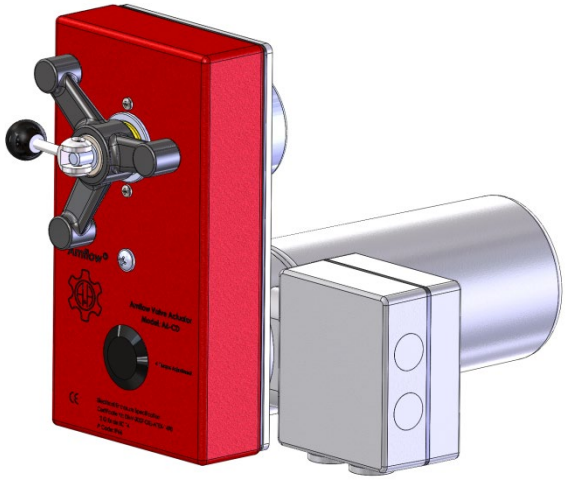
A6 Communication Options
• Industrial Ethernet: IEEEE 802.3 10/100T – For Actuator configuration only. • Standard 4-20 mA • HART 4-20 mA BUS Version 7.5 • H1 Foundation Fieldbus™ • Modbus RTU/TCP

1.08 SAFETY INFORMATION

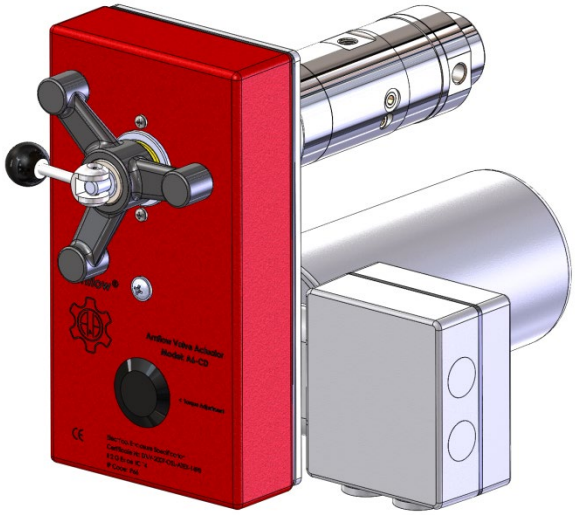
SAFETY INFORMATION

- Follow IEC when working with electrical units.
- When handling product avoid dropping, damaging, or submerging.
- Ensure proper wiring.
- Person(s) handling circuit board should be properly grounded.
- Do not open unit while energized.

ASSEMBLY VIEW



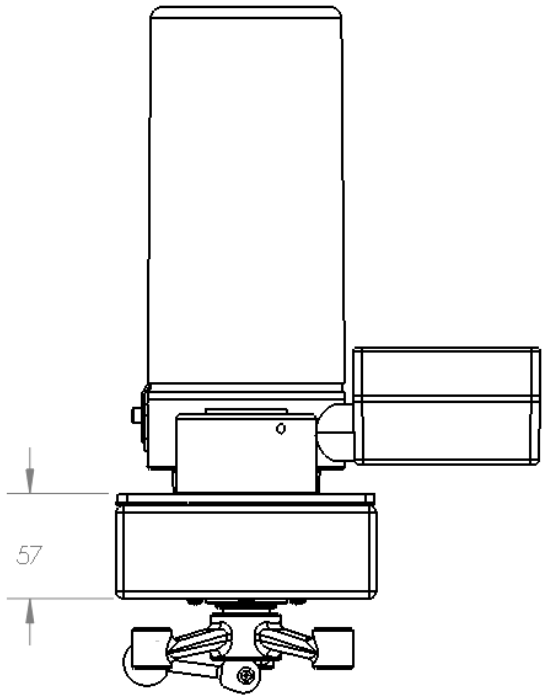
Amflow® A6 Actuator

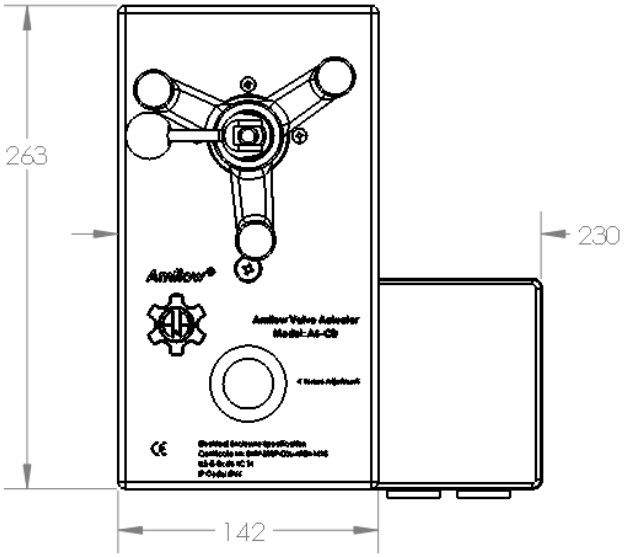


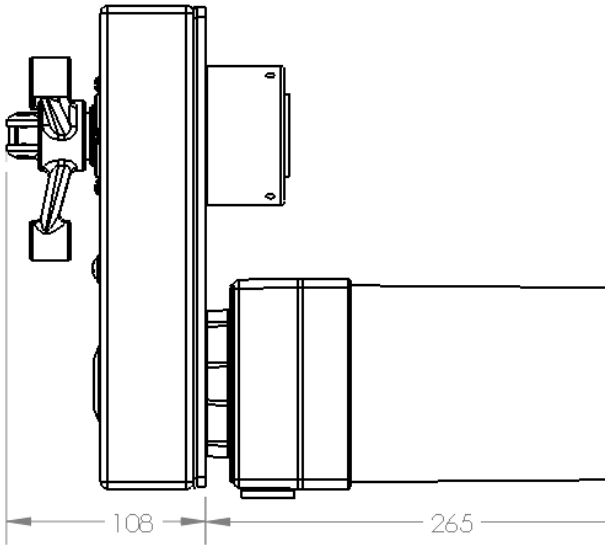
Amflow® A6 Actuator
Shown with
AM7 Series Flow Control Valve

SECTION 2: GA DRAWING

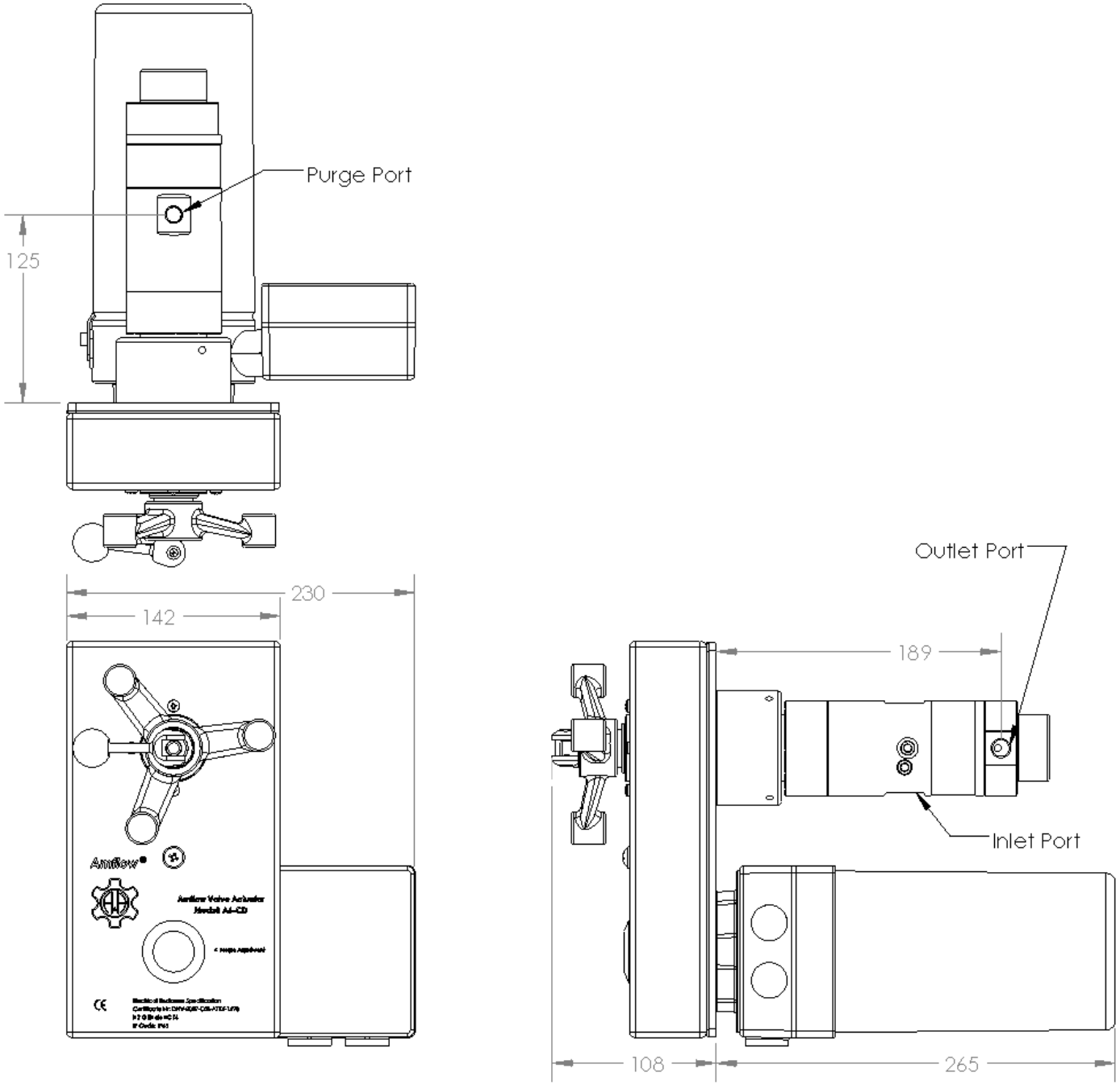
2.01 GA DRAWING



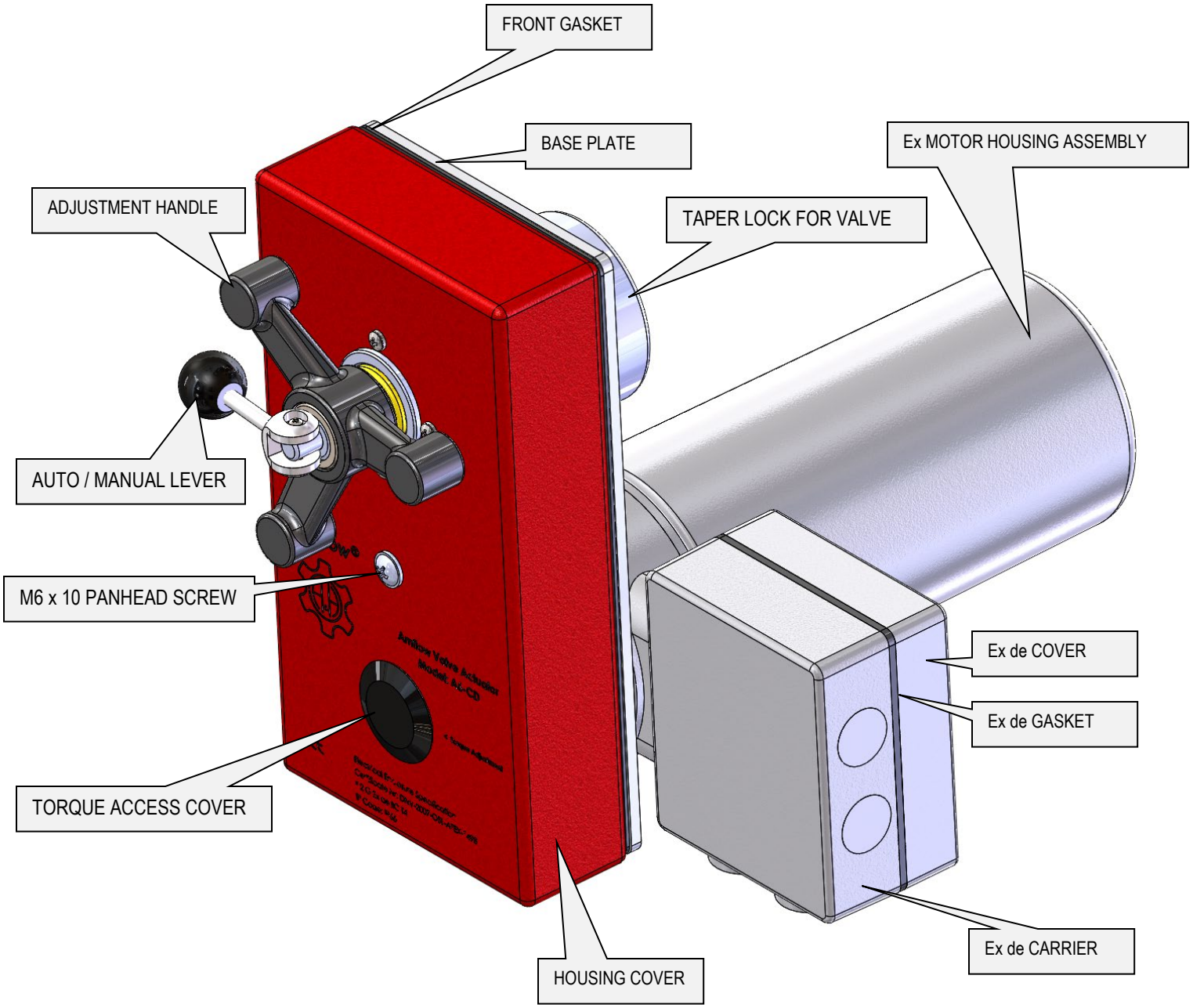




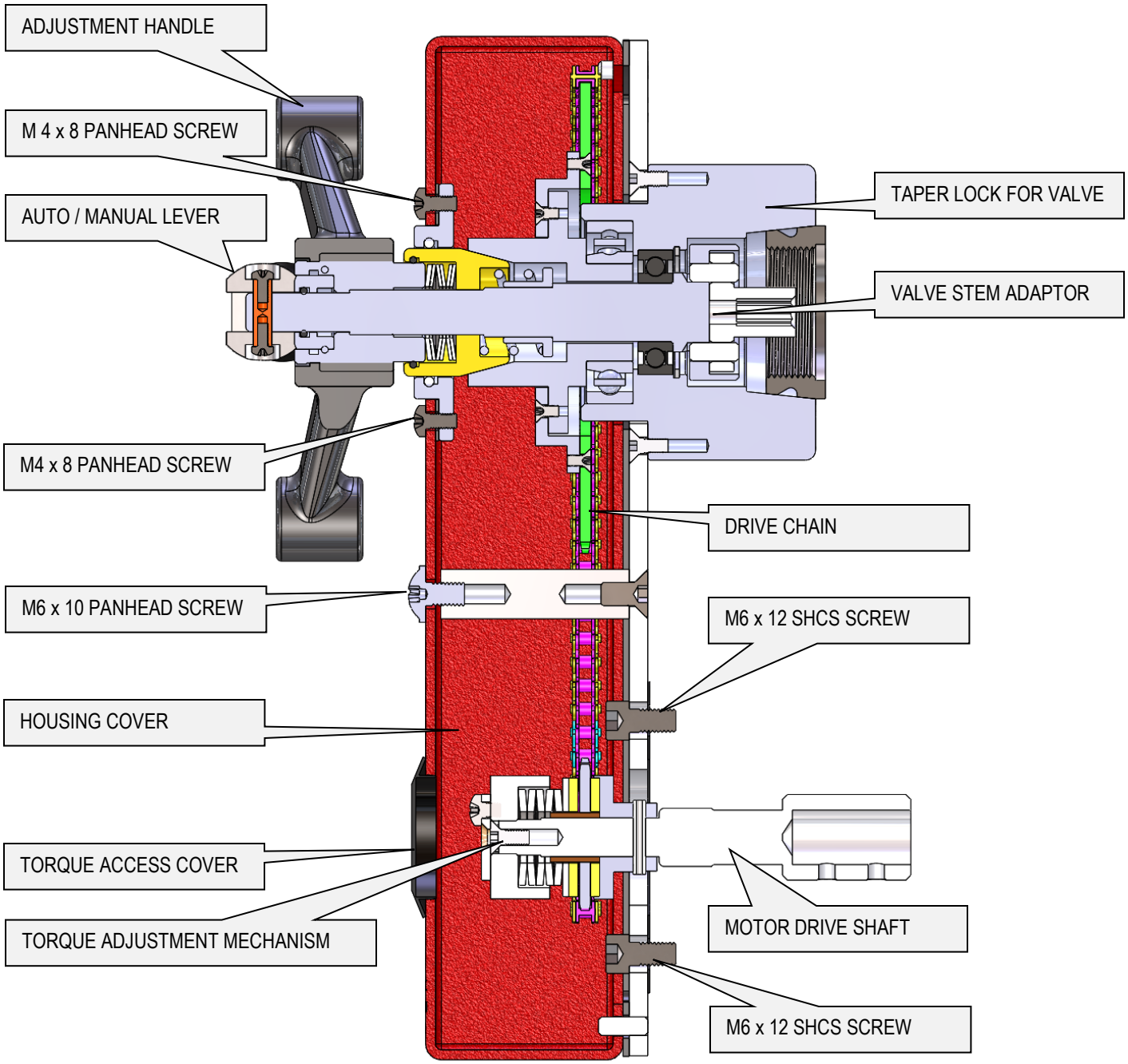
2.01a GA DRAWING: with AM7 Series Flow Control Valve



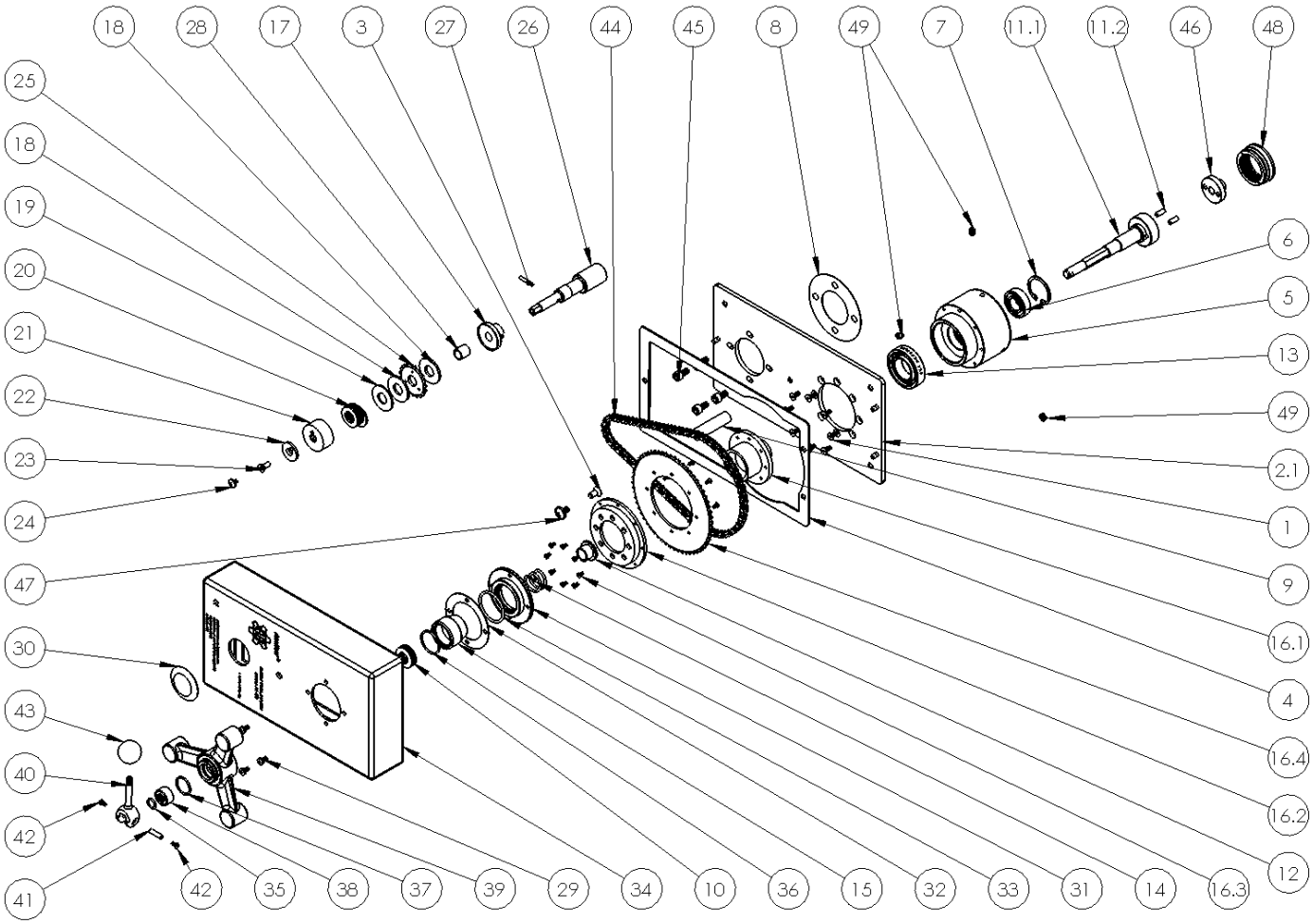
2.02 COMPLETE ASSEMBLY VIEW



2.03 CROSS SECTIONAL VIEW: Main Housing



2.03a EXPLODED VIEW: Main Housing



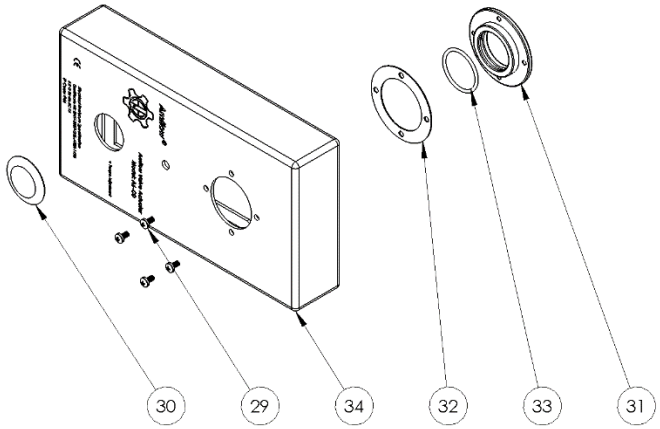
2.03b BILL OF MATERIALS: Main Housing

ITEM #	PART #	DESCRIPTION	QTY
1	00001500-7204-010-00	4 mm x 10 FH Screw	8
2	00002496-0401-000	Base Plate Sub-Assy	1
2.1	00002496-0301-000	Base Plate	1
2.2	00000276-0301-000	Locating Pin	3
3	00001500-7206-012-00	M6 x 12 FH Screw	1
4	00000822-0301-000	Cover Seal	1
5	00002497-0301-000	Bearing Housing	1
6	00000328-0301-000	Bearing	1
7	00000327-0301-000	Circlip	1
8	00000286-0301-000	Motor Gasket	1
9	00002327-0301-000	Stand-Off	1
10	00001600-1000-035-00-0505	Belleville Springs	6
11	00002310-0401-000	Shaft Sub-Assy	1
11.1	00002310-0301-000	Main Shaft	1
11.2	00000276-0301-000	Locating Pin	2
12	00002319-0301-000	Loader	1
13	00002323-0301-000	Angle Contact Bearing	1
14	00002318-0301-000	Spring	1
15	00002315-0301-000	Wedge	1
16	00002493-0401-000	Sprocket Sub-Assy	1
16.1	00002309-0301-000	5" Sprocket Hub	1
16.2	00002498-0301-000	4" Sprocket Adaptor	1
16.3	00001500-7203-006-00	M3 x 6 FH Screw	16
16.4	00002499-0301-000	5" Sprocket	1
17	00002325-0301-000	Primary Drive Gear Hub	1
18	00000246-0301-000	Motor Clutch Ring	2
19	00000249-0301-000	Clutch Washer	1
20	00001600-1000-073-00-0505	Belleville Springs	5
21	00000250-0301-001	Spring Loader	1
22	00000360-0301-000	Spring Loader Retainer	1
23	00001500-7605-012-00	M5 x 12 FH Screw	1
24	00001500-7404-006-00	M4 x 6 PH Screw	1
25	00002303-0301-000	1.5" Drive Sprocket	1
26	00000326-0301-001	Motor Shaft	1
27	00000337-0301-000	Roll Pin	1
28	00002336-0301-000	Bushing	1
29	00001500-7104-008-00	M4 x 8 PH Screw	4
30	00000256-0301-000	Cover Plug	1

ITEM #	PART #	DESCRIPTION	QTY
31	00002324-0301-000	Collar Bushing	1
32	00002331-0301-000	Collar Seal	1
33	00001555-2125	Collar Bushing O-Ring	1
34	00002495-0301-000	Housing Cover	1
35	00001555-2012	Rub Plate O-Ring	1
36	00001555-2022	Wedge O-Ring	1
37	00001555-2018	Handle O-Ring	1
38	00002332-0301-000	Rub Plate	1
39	00002320-0401-000	Handle Assy	1
40	00002322-00301-001	Lever Cam	1
41	00002339-0301-100	Cam Bushing	1
42	00001500-7103-006-00	M3 x 6 PH Screw	2
43	00002326-0301-000	Knob	1
44	00002494-0401-000	Chain	1
45	00001500-7006-012-00	M6 x 12 SHCS	4
46	00002333-0301-000	Valve Adaptor Link	1
47	00001500-7106-010-00	M6 x10 PH Screw	1
48	00000995-0301-000	Flange Adaptor	1
49	00001500-7306-008-03	M6 X 8 Brass Tip Set Screw	3

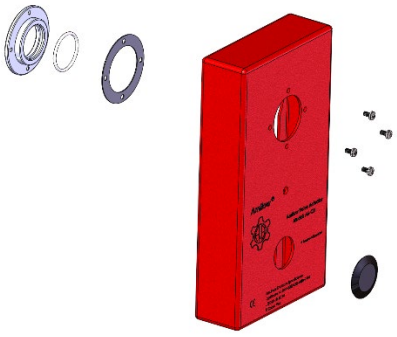
EXPLODED VIEWS OF COVER & BASE PLATE

2.04 EXPLODED VIEW: HOUSING COVER

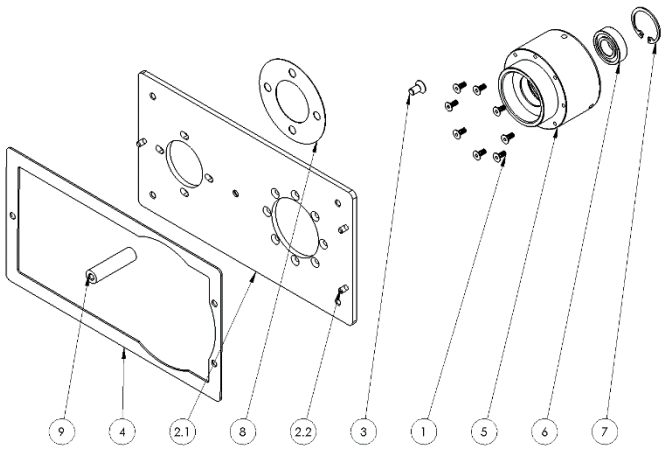


2.04a BOM: HOUSING COVER

ITEM #	PART #	DESCRIPTION	QTY
29	00001500-7104-008-00	M4 x 8 PH Screw	4
30	00000256-0301-001	Cover Plug	1
31	00002324-0301-000	Collar Bushing	1
32	00002331-0301-000	Collar Seal	1
33	00001555-2125-	Collar O-Ring	1
34	00002495-0301-000	Housing Cover	1



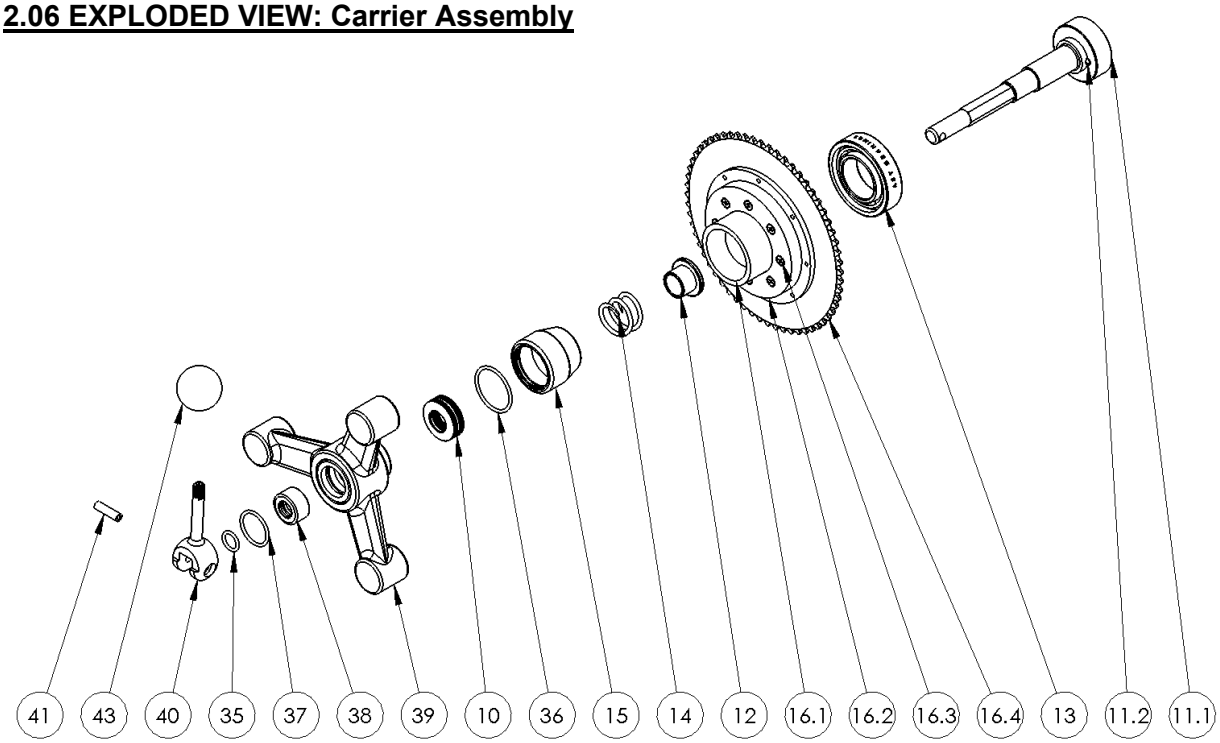
2.05 EXPLODED VIEW: Base Plate



2.05a BOM: Base Plate

ITEM #	PART #	DESCRIPTION	QTY
1	00001500-7204-010-00	4 mm x 10 FH Screw	8
2.1	00002496-0301-000	Base Plate	1
2.2	00000276-0301-000	Locating Pin	3
3	00001500-7206-012-00	M6 x 12 FH Screw	1
4	00000822-0301-000	Cover Seal	1
5	00002497-0301-000	Bearing Housing	1
6	00000328-0301-000	Bearing	1
7	00000327-0301-000	Circlip	1
8	00000286-0301-000	Motor Gasket	1
9	00002327-0301-000	Stand-Off	1

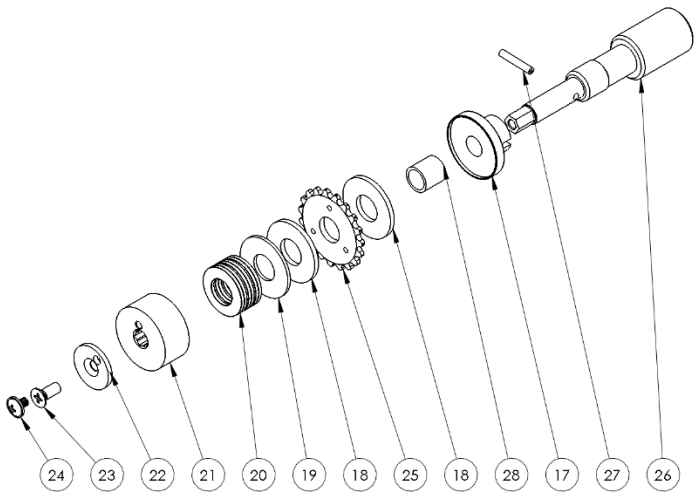
2.06 EXPLODED VIEW: Carrier Assembly



2.06a BOM: Carrier Assembly

ITEM #	PART #	DESCRIPTION	QTY
10	00001600-1000-035-00-0505	Belleville Springs	6
11.1	00002310-0401-000	Main Shaft	1
11.2	00000276-0301-000	Locating Pin	2
12	00002319-0301-000	Loader	1
13	00002323-0301-000	Angle Contact Bearing	1
14	00002318-0301-000	Spring	1
15	00002315-0301-000	Wedge	1
16.1	00002309-0301-000	5" Sprocket Hub	1
16.2	00002498-0301-000	4" Sprocket Adaptor	1
16.3	00001500-7203-006-00	M3 x 6 FH Screw	16
16.4	00002499-0301-000	5" Sprocket	1
35	00001555-2012-	Rub Plate O-Ring	1
36	00001555-2022-	Wedge O-Ring	1
37	00001555-2018-	Handle O-Ring	1
38	00002332-0301-000	Rub Plate	1
39	00002320-0401-000	Adjustment Handle	1
40	00002322-00301-001	Lever Cam	1
41	00002339-0301-100	Cam Bushing	1
43	00002326-0301-000	Ball Knob	1

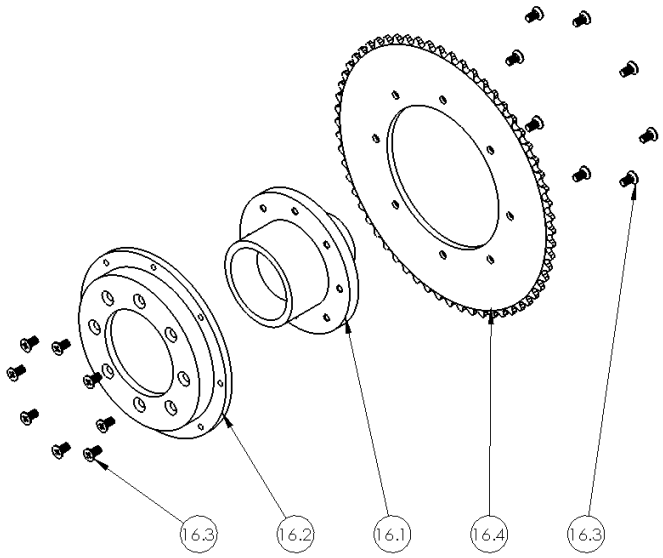
2.07 ASSEMBLY VIEW: Clutch Shaft



2.07a BOM: Clutch Shaft

ITEM #	PART #	DESCRIPTION	QTY
17	00002325-0301-000	Primary Drive Gear Hub	1
18	00000246-0301-000	Motor Clutch Ring	2
19	00000249-0301-000	Clutch Washer	1
20	00001600-1000-073-00-0505	Belleville Springs	5
21	00000250-0301-001	Spring Loader	1
22	00000360-0301-000	Spring Loader Retainer	1
23	00001500-7605-012-00	M5 x 12 FH Screw	1
24	00001500-7404-006-00	M4 x 6 PH Screw	1
25	00002303-0301-000	1.5" Drive Sprocket	1
26	00000326-0301-002	Motor Shaft	1
27	00000337-0301-000	Roll Pin	1
28	00002336-0301-000	Bushing	1

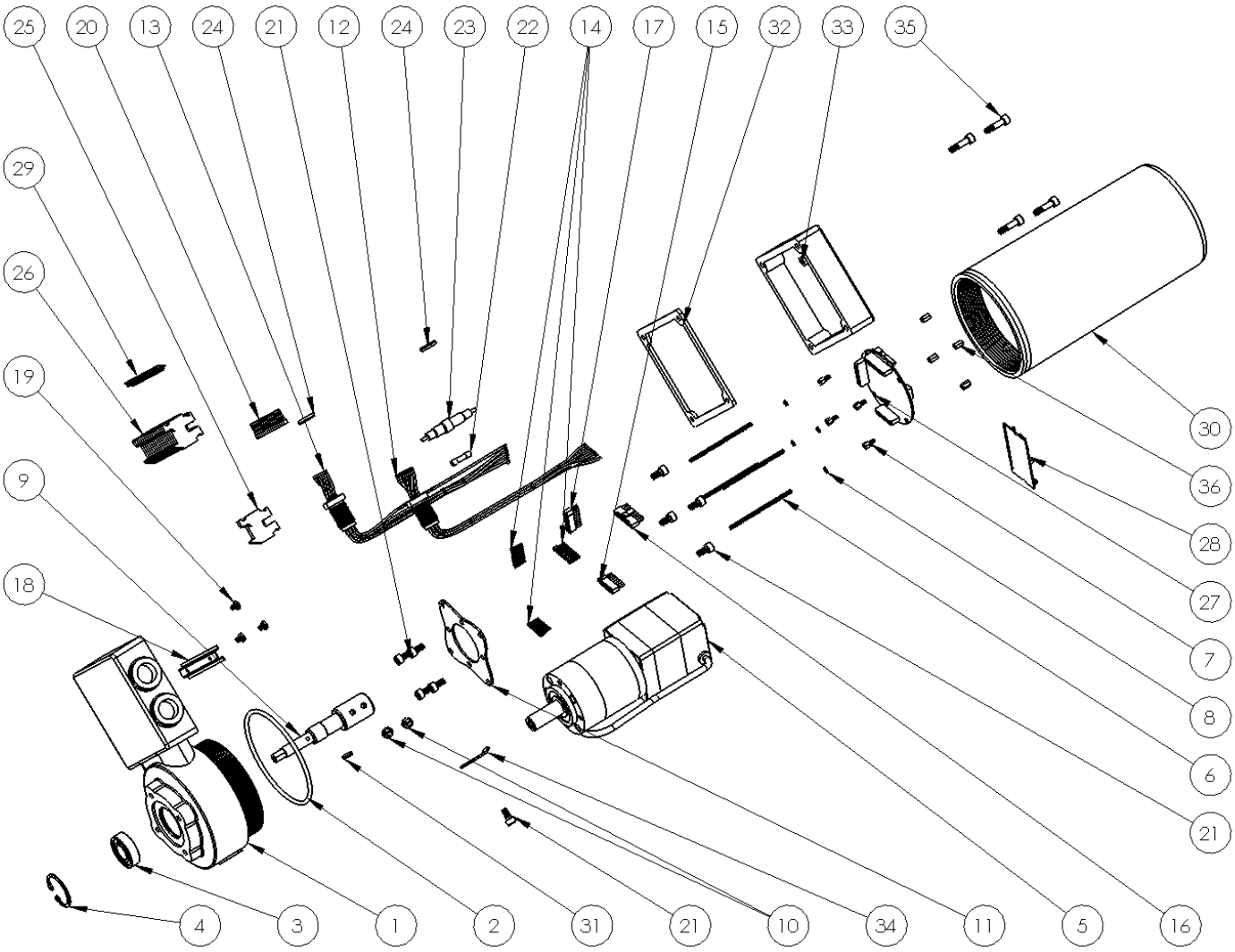
2.08 ASSEMBLY VIEW: Sprocket Assembly



2.08a BOM: Sprocket Assembly

ITEM #	PART #	DESCRIPTION	QTY
16.1	00002309-0301-000	5" Sprocket Hub	1
16.2	00002498-0301-000	4" Sprocket Adaptor	1
16.3	00001500-7203-006-00	M3 x 6 FH Screw	16
16.4	00002499-0301-000	Large Sprocket	1

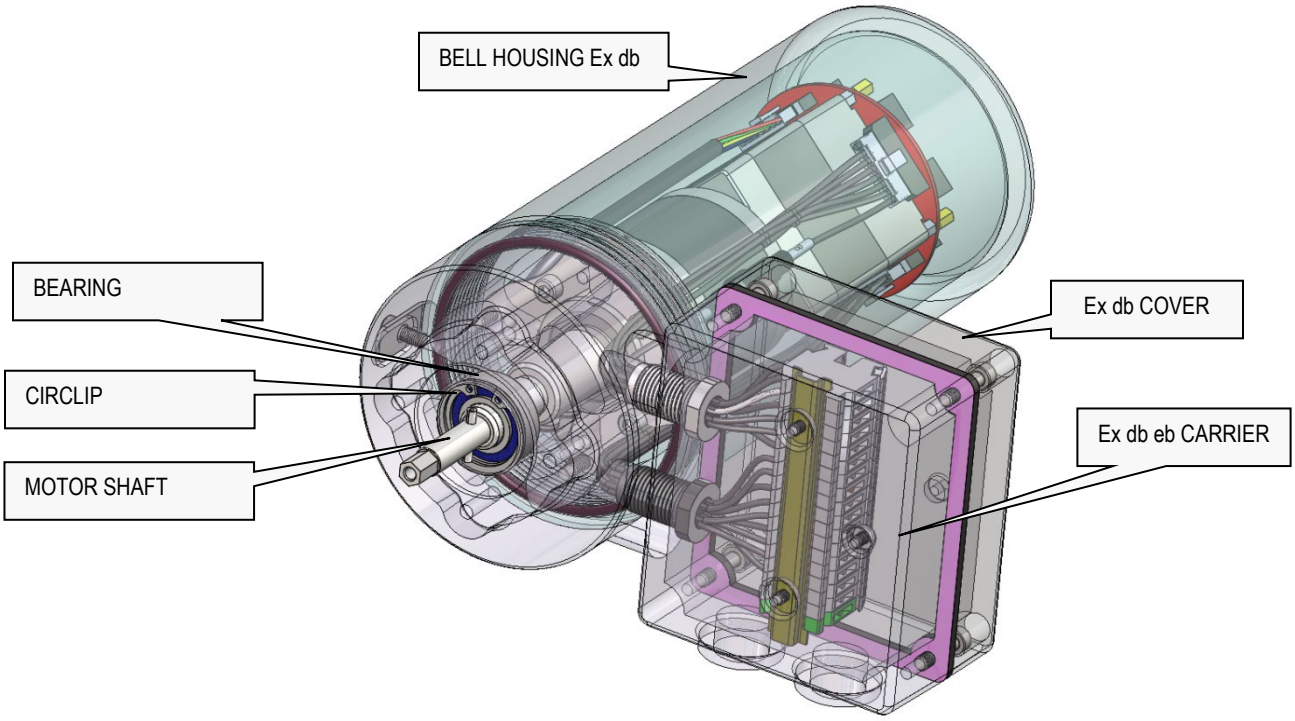
2.09 EXPLODED VIEW: Motor Housing

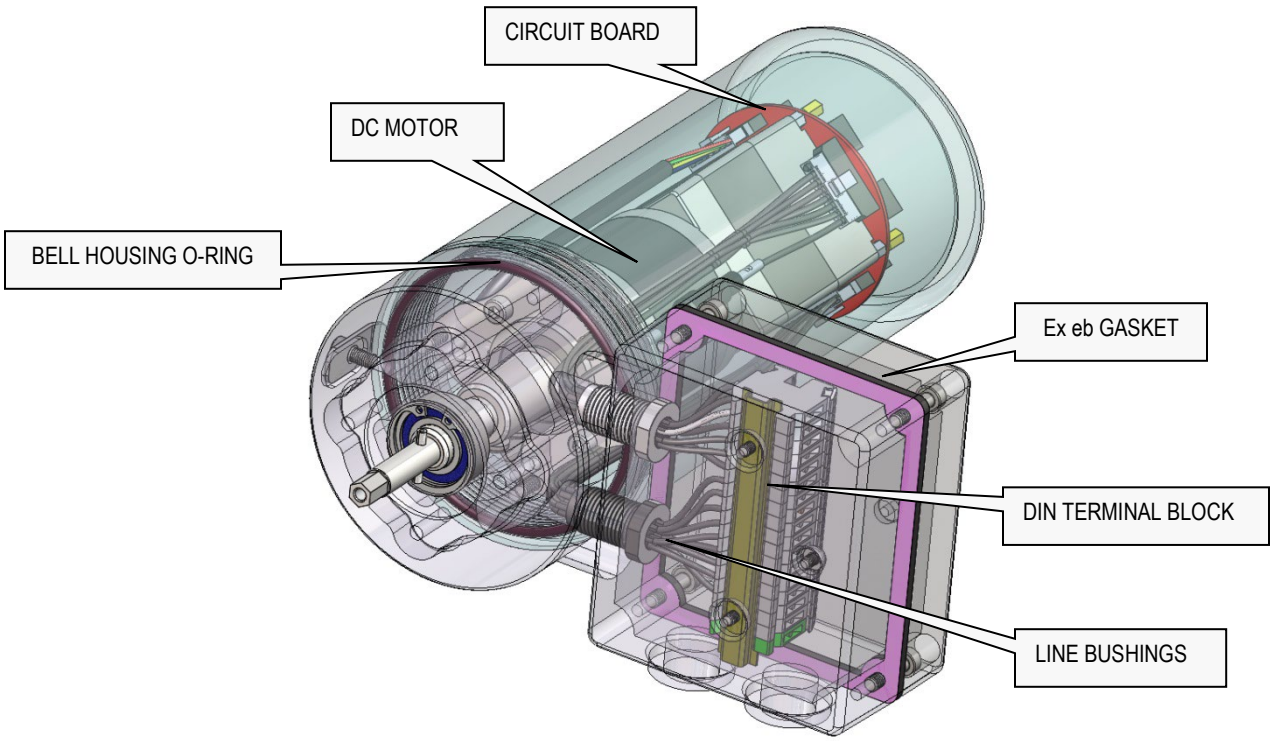


2.09a BILL OF MATERIALS: Motor Housing

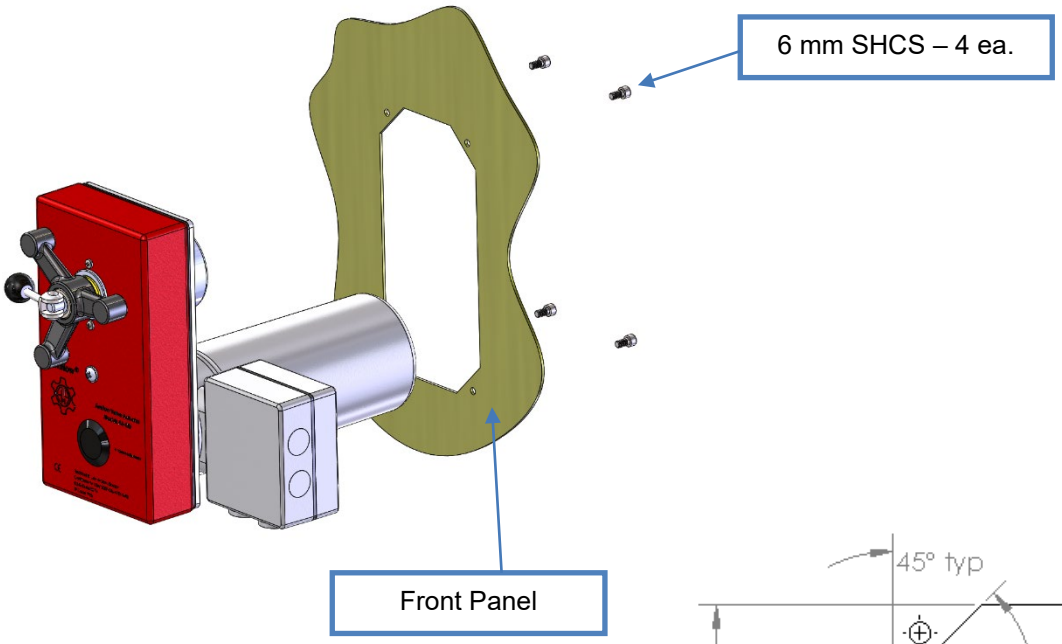
ITEM #	PART #	DESCRIPTION	QTY
1	00000469-0301-000	Ex db eb Carrier	1
2	00001555-2153	Bell Housing O-Ring	1
3	00000328-0301-000	Bearing	1
4	00000327-0301-000	Circlip	1
5	00000342-0301-000	Gearmotor	1
6	00001133-0301-001	3 mm x 70 mm Stud	4
7	00001130-0301-000	M3 x 5 M/F Hex Spacer	4
8	00001500-8003-000-00	M3 Lock washer	4
9	00000326-0301-001	Motor Shaft	1
10	00001500-7105-008-00	5 mm x 8 PH Screw	2
11	00000473-0301-000	Motor Adaptor Plate	1
12	00000499-0301-003	9 Line Bushing, 16 mm	1
13	00000499-0301-002	7 Line Busing, 16 mm	1
14	00001128-0301-000	Crimp Pin	24
15	00001127-0301-007	7 Pin Molex Connector	1
16	00001127-0301-009	9 Pin Molex Connector	1
17	00001127-0301-008	8 Pin Molex Connector	1
18	00000498-0301-000	DIN Rail	1
19	00001500-7104-006-00	M4 x 6 PH Screw	3
20	00001366-0301-18S	Ferrule	16
21	00001500-7005-010-00	5 mm x 10 SHCS	9
22	00001140-0301-000	5 AMP-Slow-Blow Fuse	1
23	00001139-0301-000	Fuse Holder	1
24	00000374-0301-000	Butt Splice	2
25	00000503-0301-001	Phoenix Block, Ground	1
26	00000503-0301-000	Phoenix Terminal Block	16
27	00001924-0301-000	Motherboard	1
28	00001924-0301-XXX	Daughter board	1
29	00001918-0301-000	Phoenix Block Label	1
30	00000470-0301-000	Bell Housing	1
31	00000337-0301-000	Roll Pin	1
32	00000502-0301-000	Ex eb Gasket	1
33	00000501-0301-000	Ex eb Cover	1
34	00000494-0301-000	Safety Clamp	1
35	00001500-7005-020-00	5 mm x 20 SHCS	4
36	00001132-0301-000	3 mm Nylon Nut	4

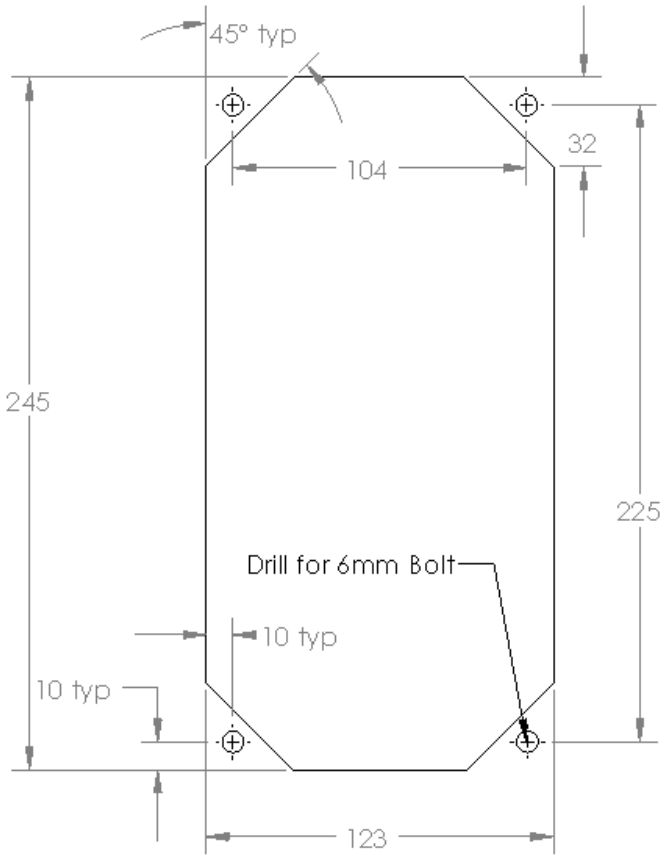
2.10 TRANSPARENT ASSEMBLY VIEW: Ex db eb Housing





2.11 CUT-AWAY VIEW: Panel Mounting





A6 Actuator Cut-out Dimensions

SECTION 3: MAINTENANCE TOOLS & SUPPLIES

3.01 REQUIRED TOOLS

- 2 ea. #1 Phillips Screwdrivers
- Small Flat Head Electrical Screwdriver
- 3 mm Hex (Allen) Wrench
- Straight Tip Internal Circlip Pliers (19-60 mm)
- Needle Nose Pliers
- Torque Wrench with a 6 mm hex (Allen) Head Attachment

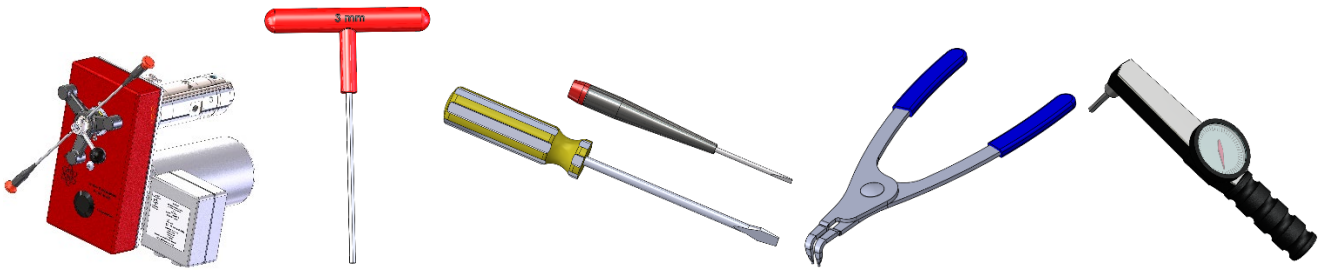
3.02 REQUIRED SUPPLIES

- O-Ring Lube
- Anti-Seize

3.03 INSTALLATION PRECAUTIONS

- Be careful when handling actuator, if dropped internal electronics may be damaged.
- Do not change manufacturer's torque settings or unit may function incorrectly.
  - However, instructions have been supplied for torque setting adjustments if needed.

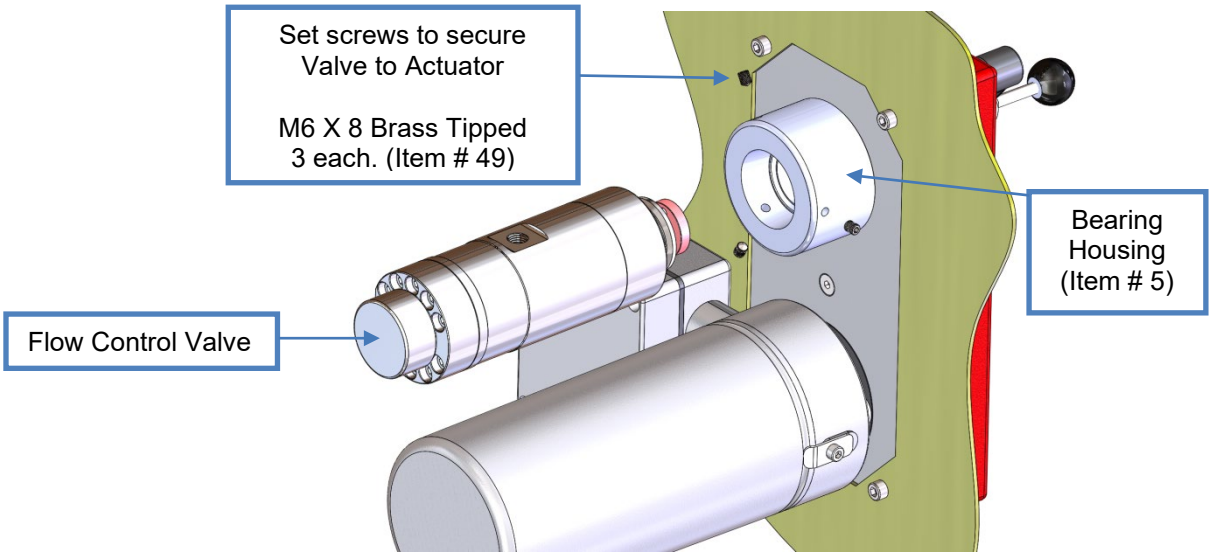
WARNING
Failure to set torque correctly may cause actuator to function improperly!

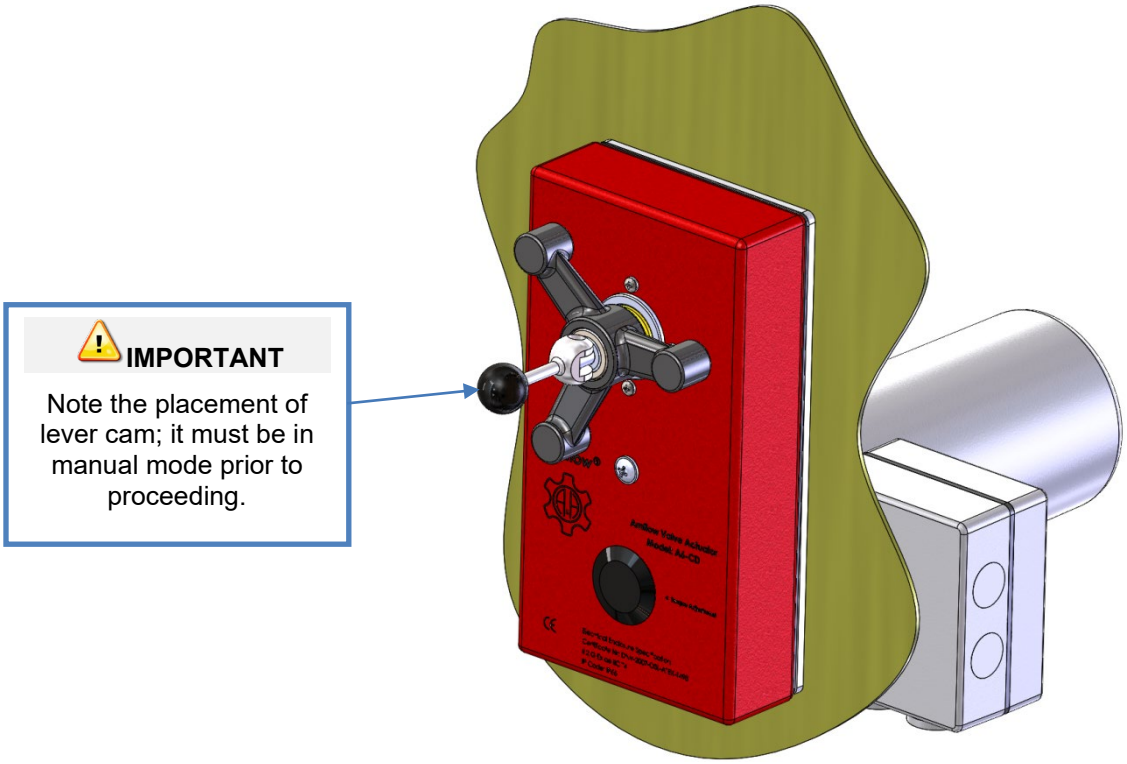


SECTION 4: VALVE INSTALLATION to ACTUATOR

NOTE:
Reference Installation, Operation & Service manual supplied with ***flow control valve*** for information.

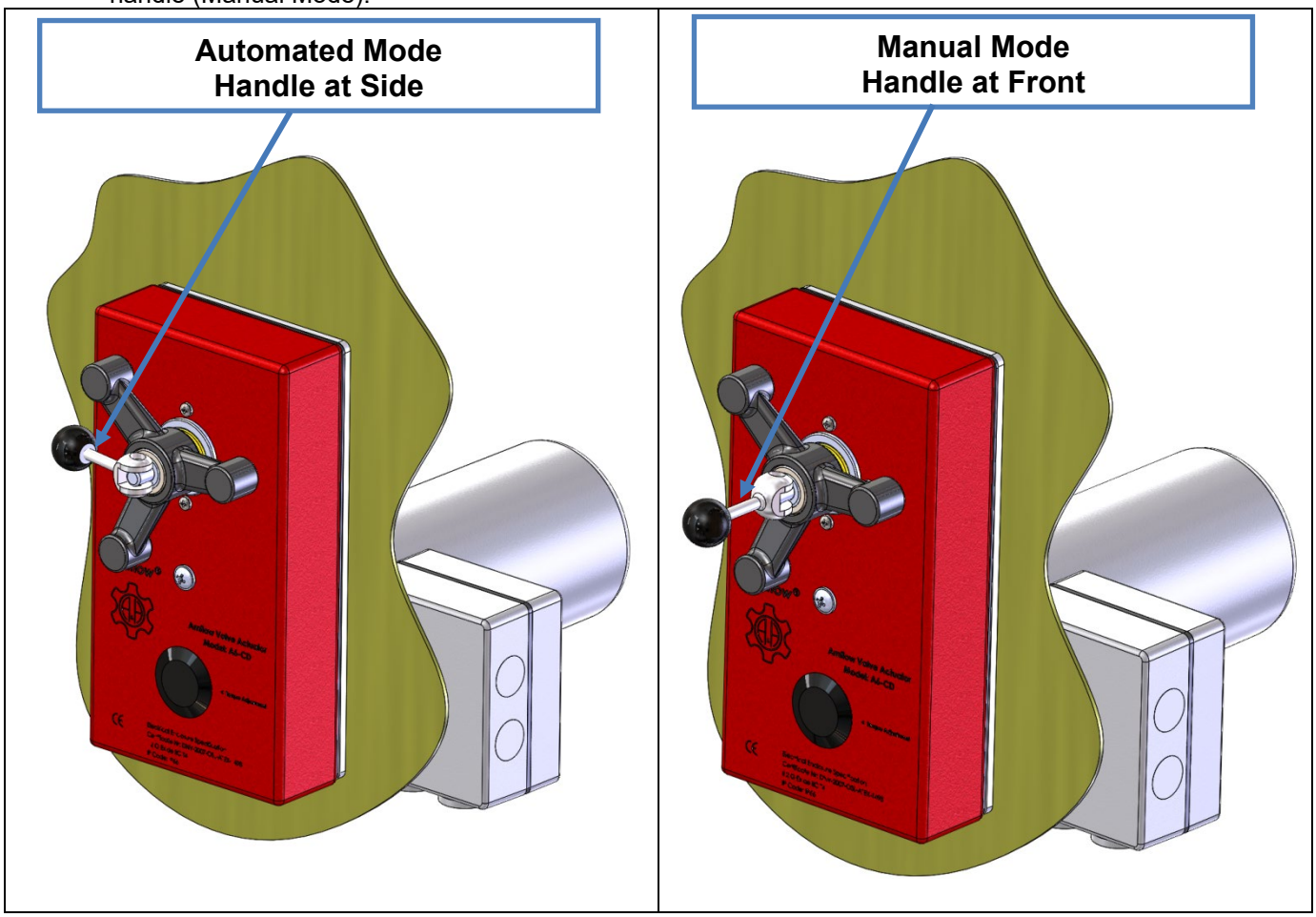
4.02 VALVE INSTALLATION





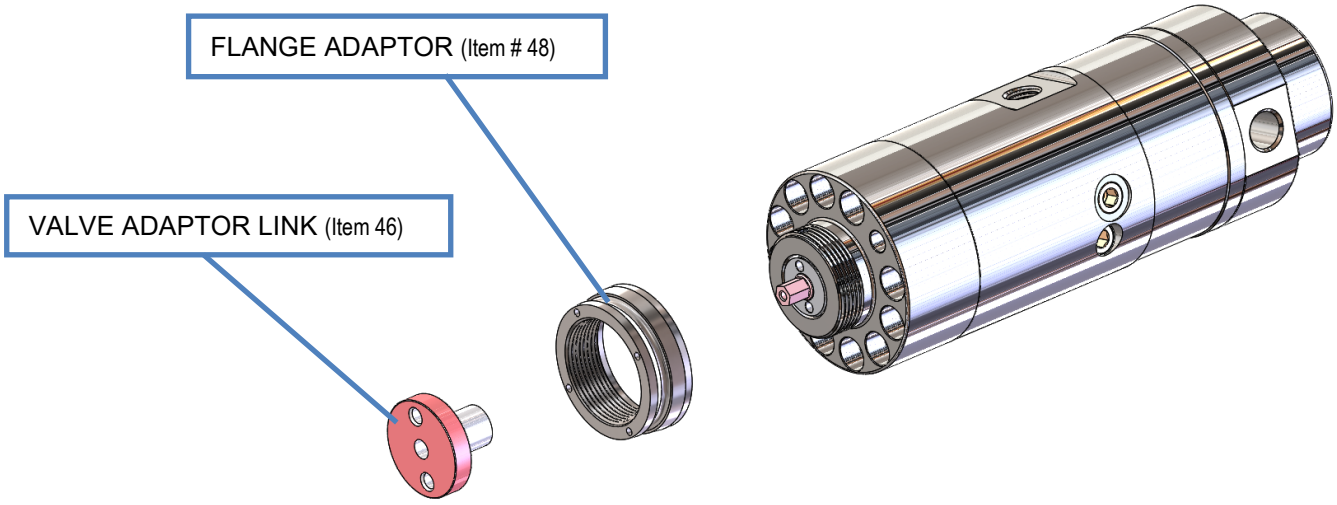
Step 1

- Be sure LEVER CAM (Item 40) is disengaged, meaning that the lever cam is in front rather to the side of handle (Manual Mode).



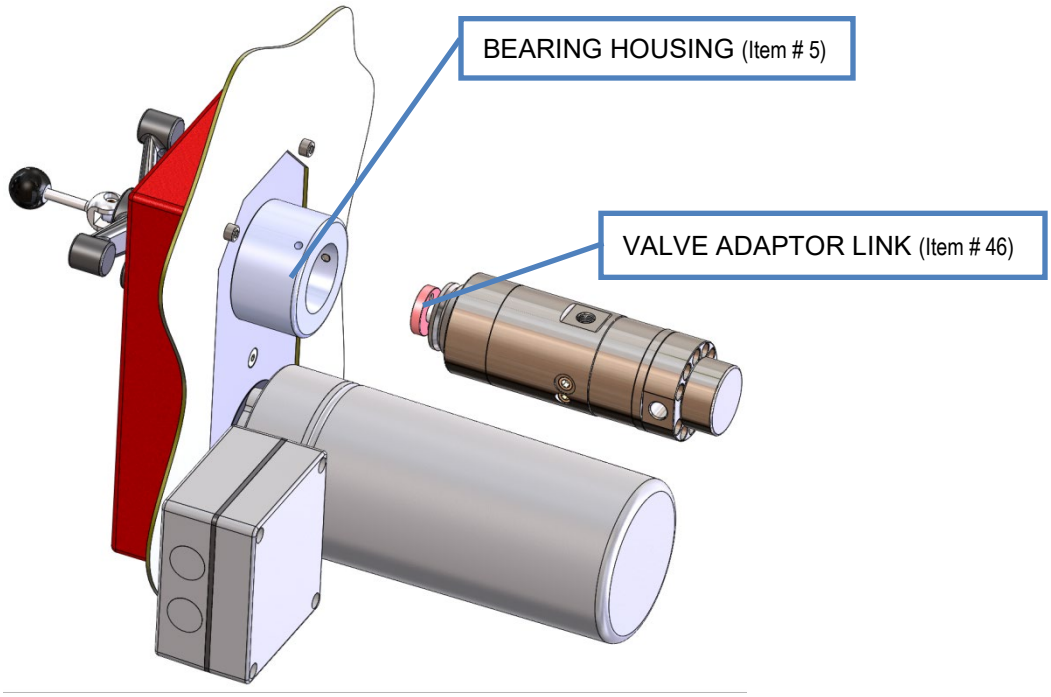
Step 2

- Place FLANGE ADAPTOR (Item # 48) onto VALVE STEM prior to installation.



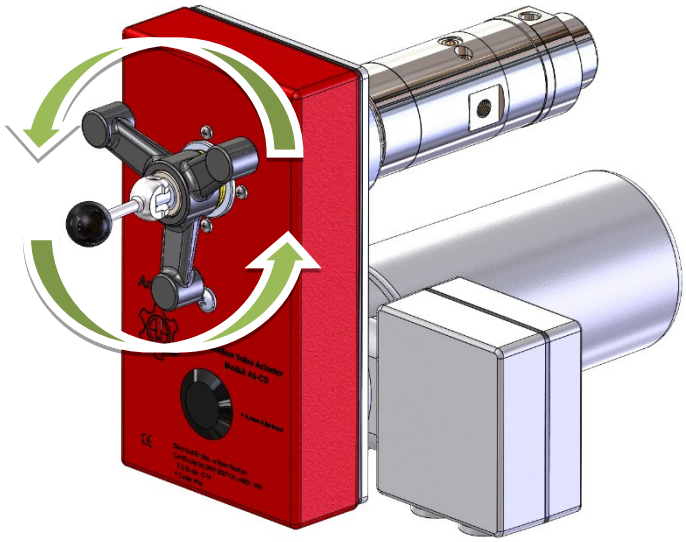
Step 3

- Insert VALVE ADAPTOR LINK (Item # 46) into BEARING HOUSING (Item # 5).
- Place valve into BEARING HOUSING (Item # 5).



Step 4

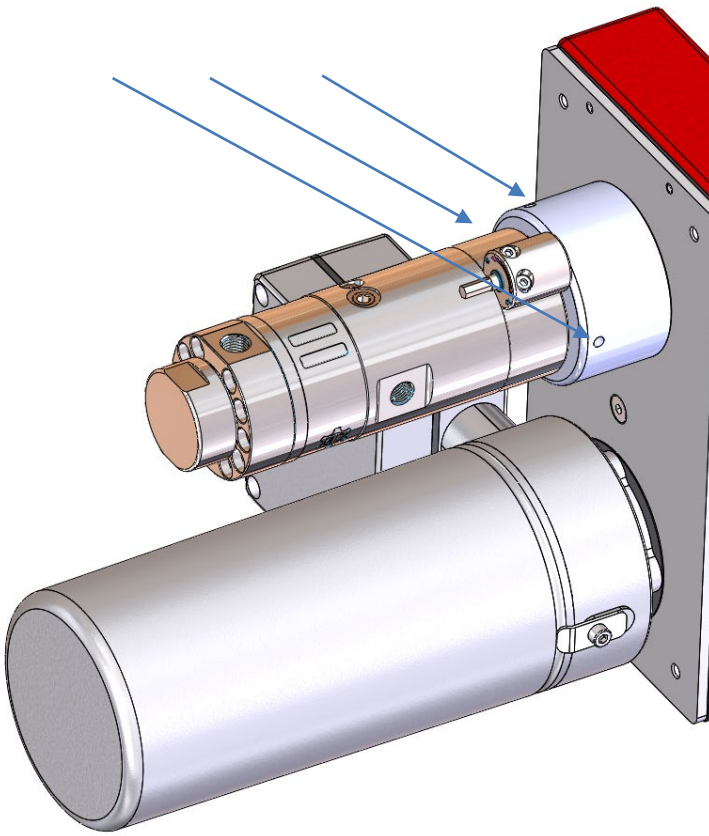
- While valve is being inserted into BEARING HOUSING (Item # 5); rotate the Actuator Handle to align VALVE ADAPTOR LINK (Item # 46) while handle is in manual mode.



Step 5

- Once properly aligned and engaged, tighten three (3) SETSCREWS (Item # 49) to lock valve in place.

Tighten M6 x 8 Brass Tipped Set Screws
(Item # 49) 3 Places

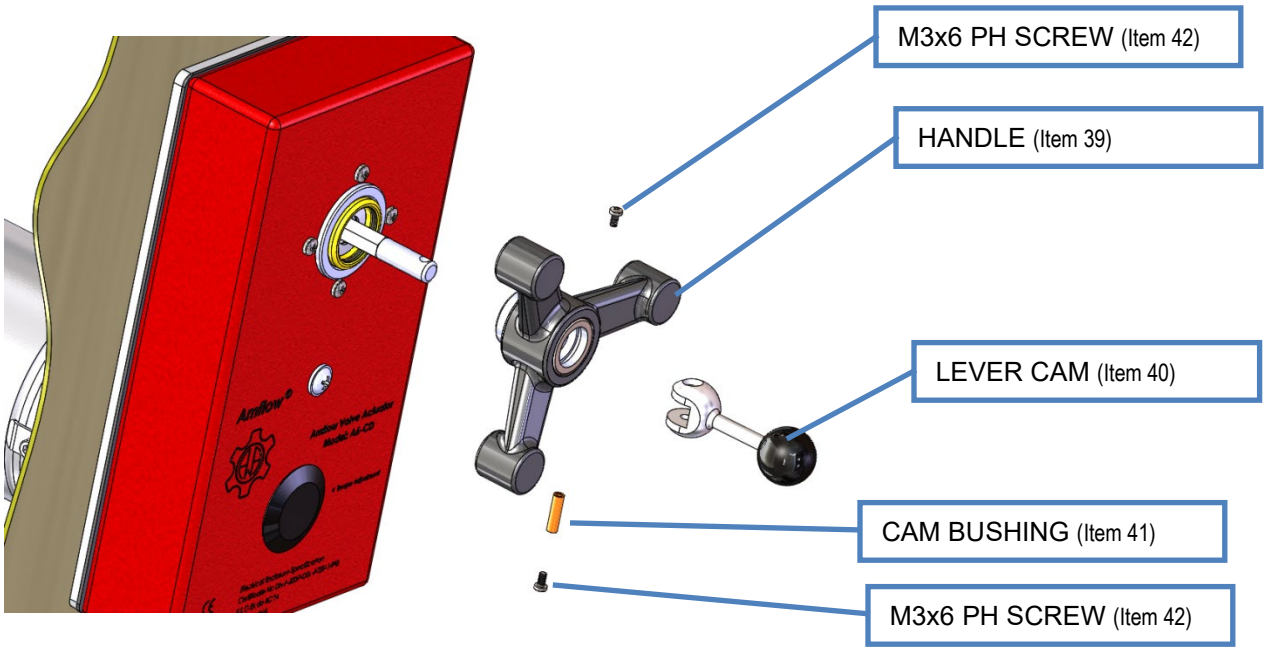


SECTION 5: SERVICE – Main Housing Removal

5.01 HANDLE REMOVAL

Step 1

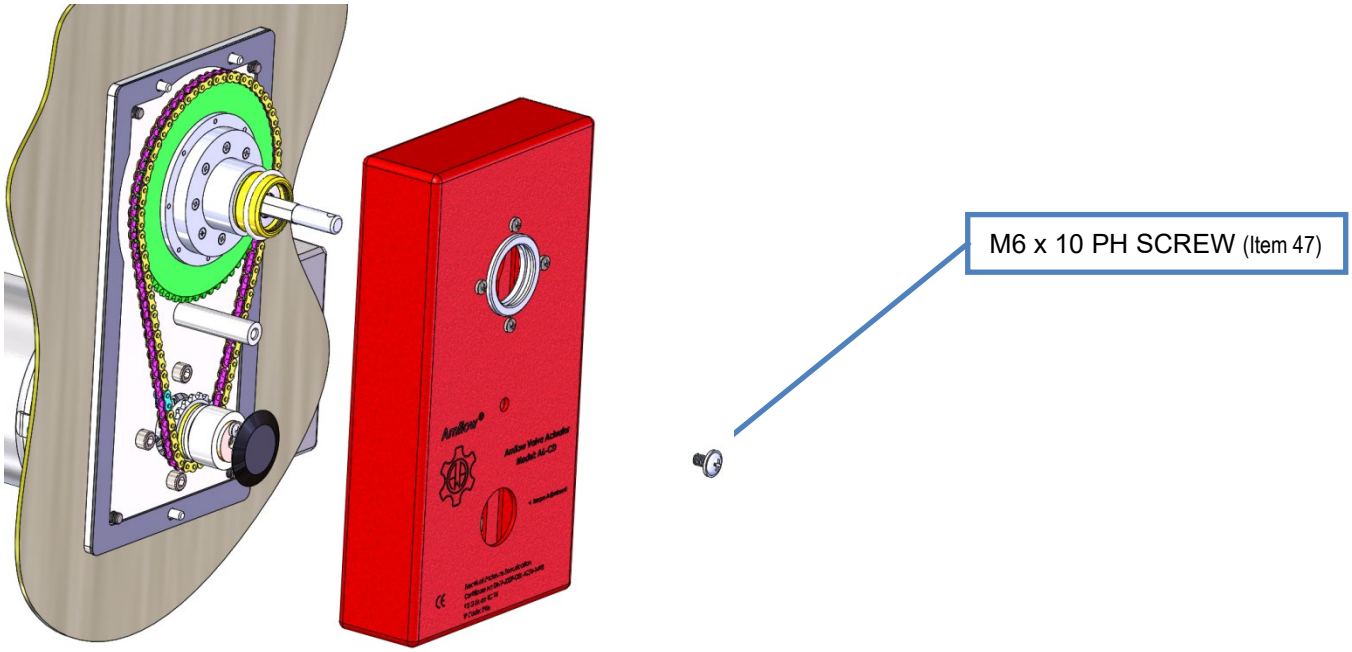
- Remove one (1) M3x6 PH SCREWS (Item # 42) and press CAM BUSHING (Item # 41) out to release LEVER CAM (Item # 40).



5.02 COVER REMOVAL

Step 1

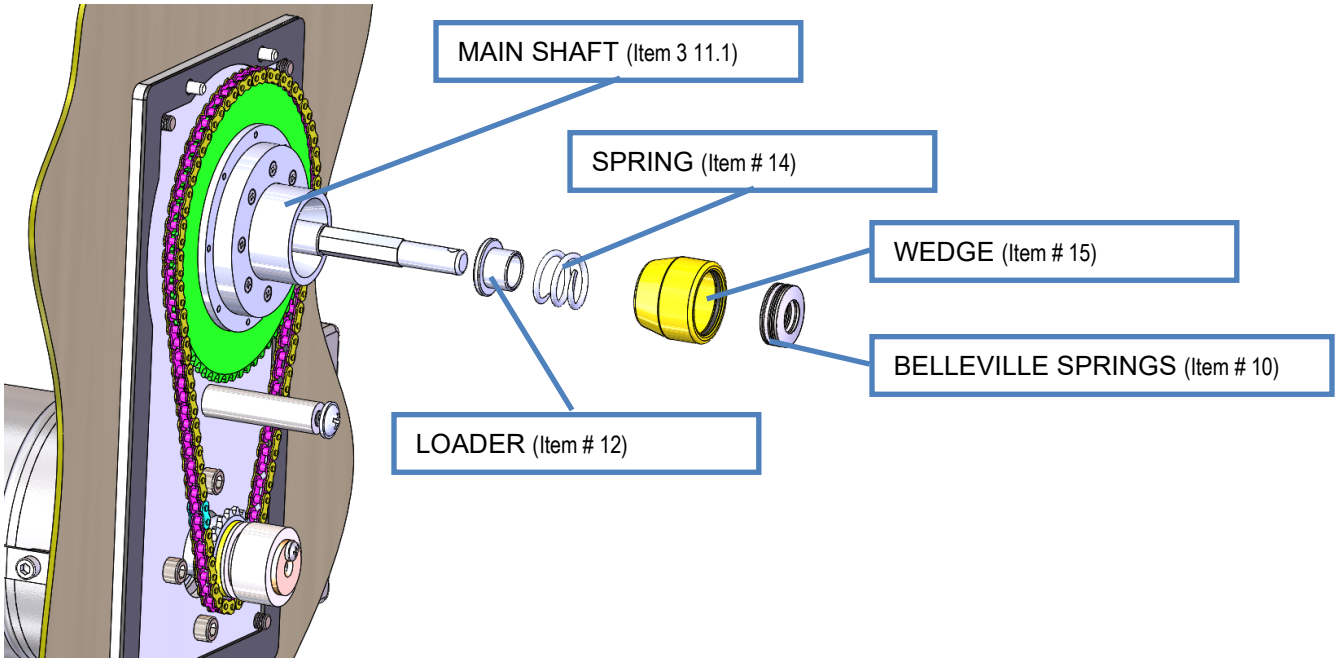
- Remove M6 x 10 PH SCREW (Item # 47) to remove cover.



5.03 WEDGE & MAIN SHAFT REMOVAL

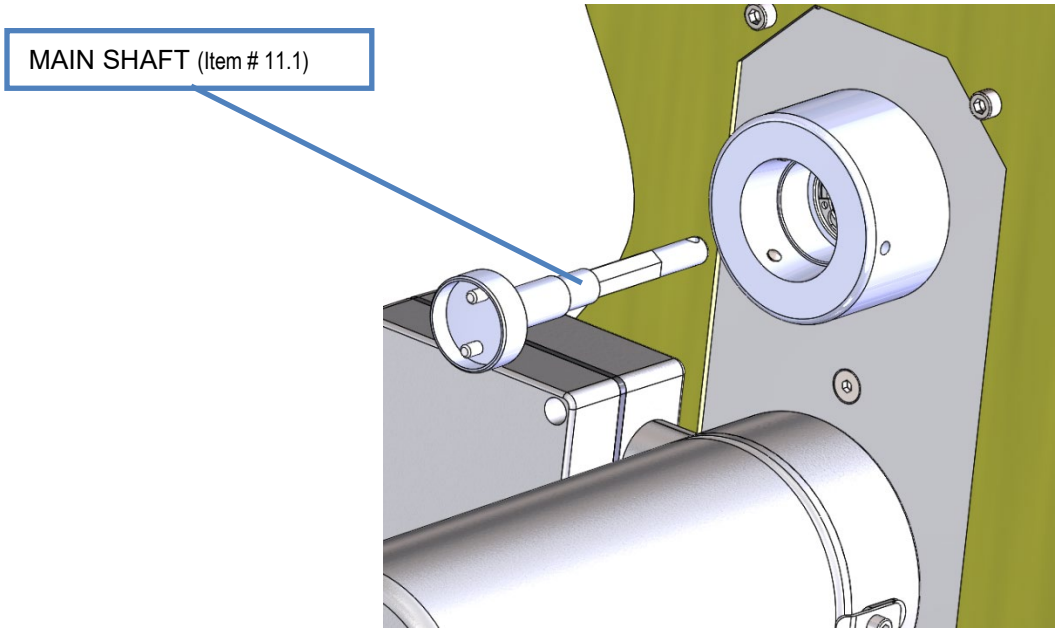
Step 1

- Remove WEDGE (Item # 15), SPRING (Item # 14), and LOADER (Item # 12).



Step 2

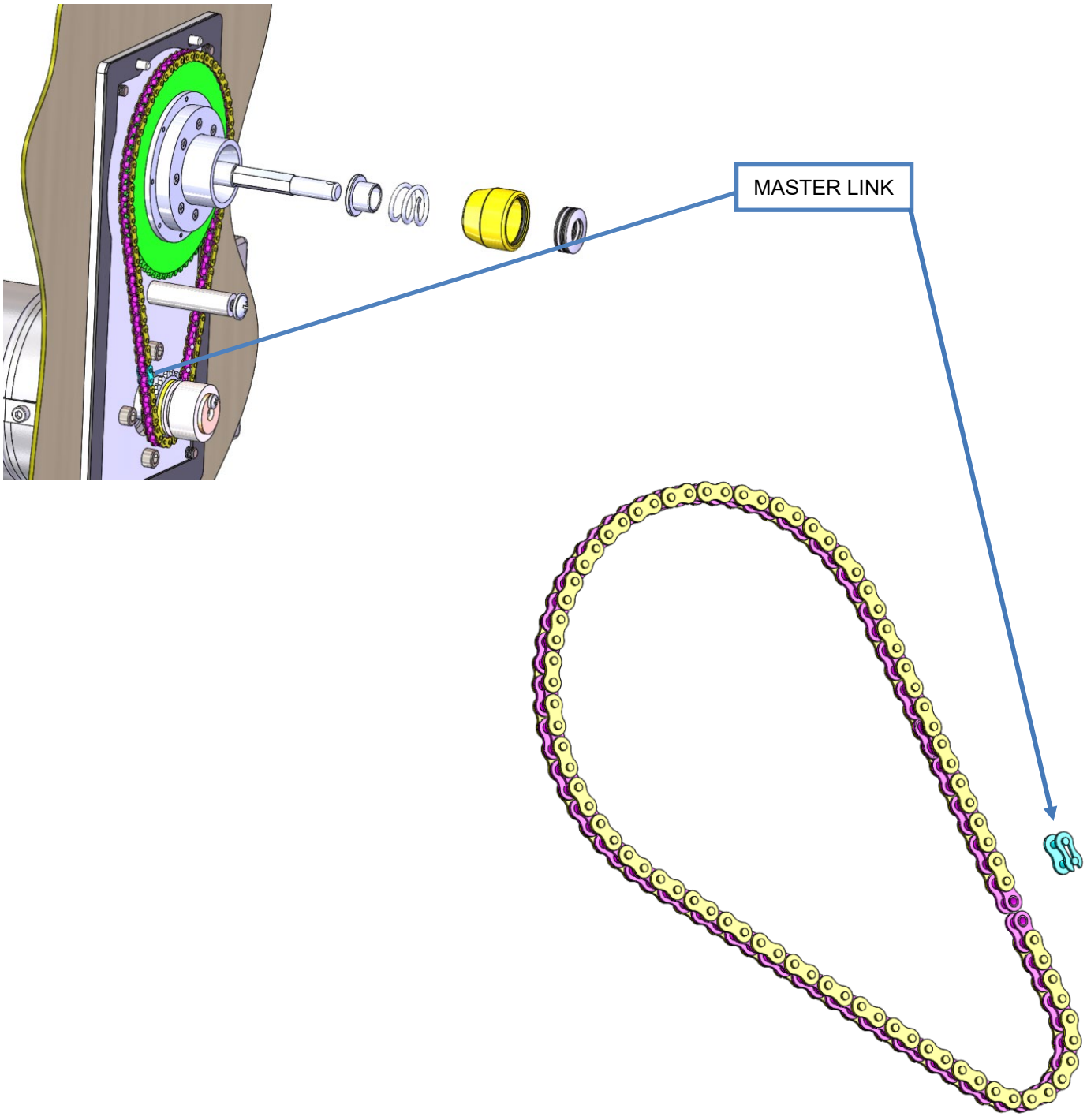
- Pull MAIN SHAFT (Item # 11.1) out from the back of actuator.



5.04 CHAIN REMOVAL

Step 1

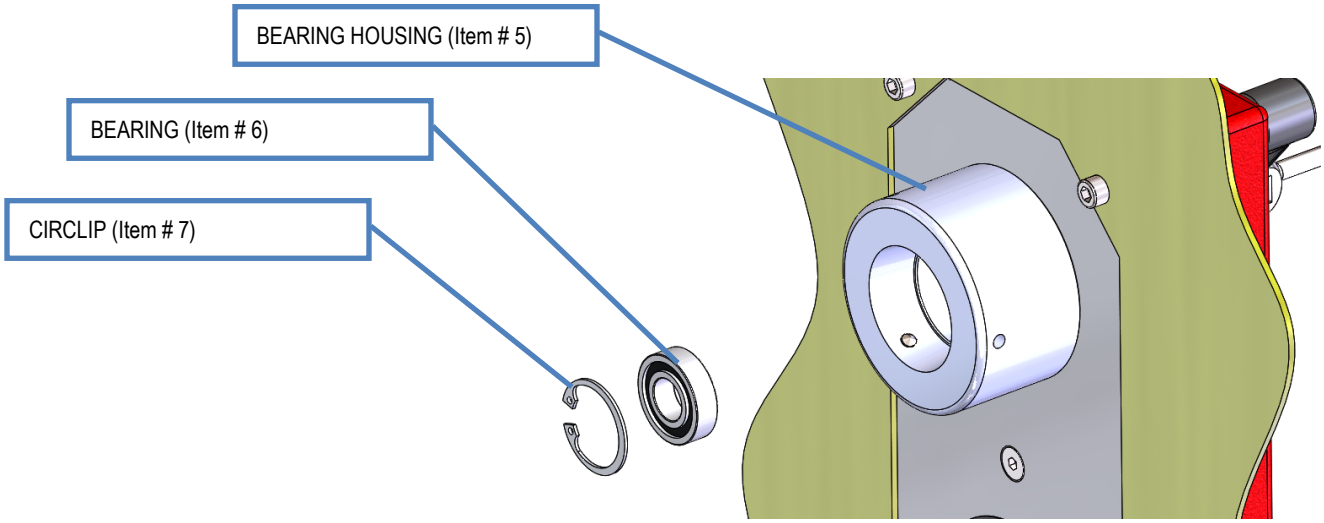
- Remove the MASTER LINK from the CHAIN using Needle Nose Pliers to remove chain.



5.05 BEARING #1 BEARING HOUSING

Step 1

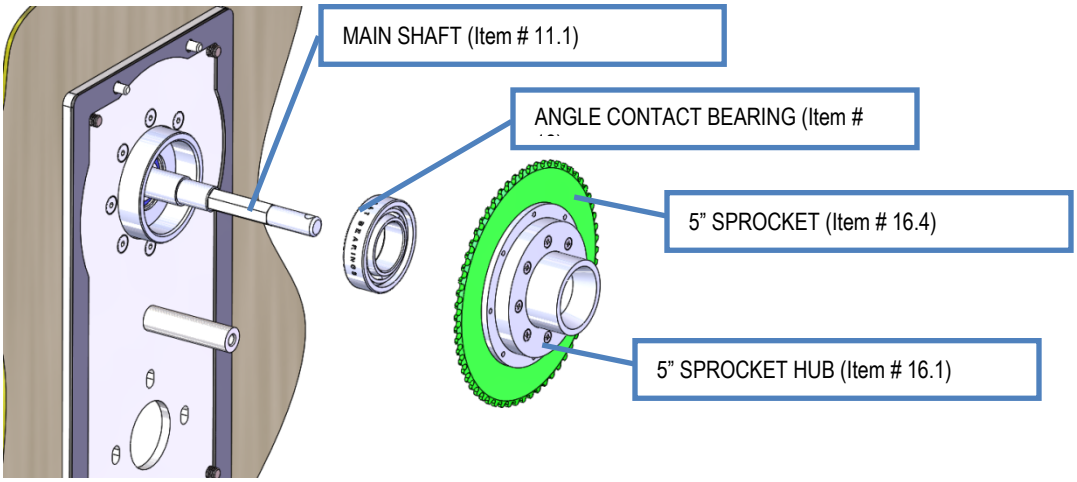
- Using straight tip internal circlip pliers (19-60mm), remove CIRCLIP (Item # 7) from back of actuator then remove BEARING (Item # 6) from BEARING HOUSING (Item # 5).



5.05a BEARING #2 MAIN SHAFT REMOVAL

Step 1

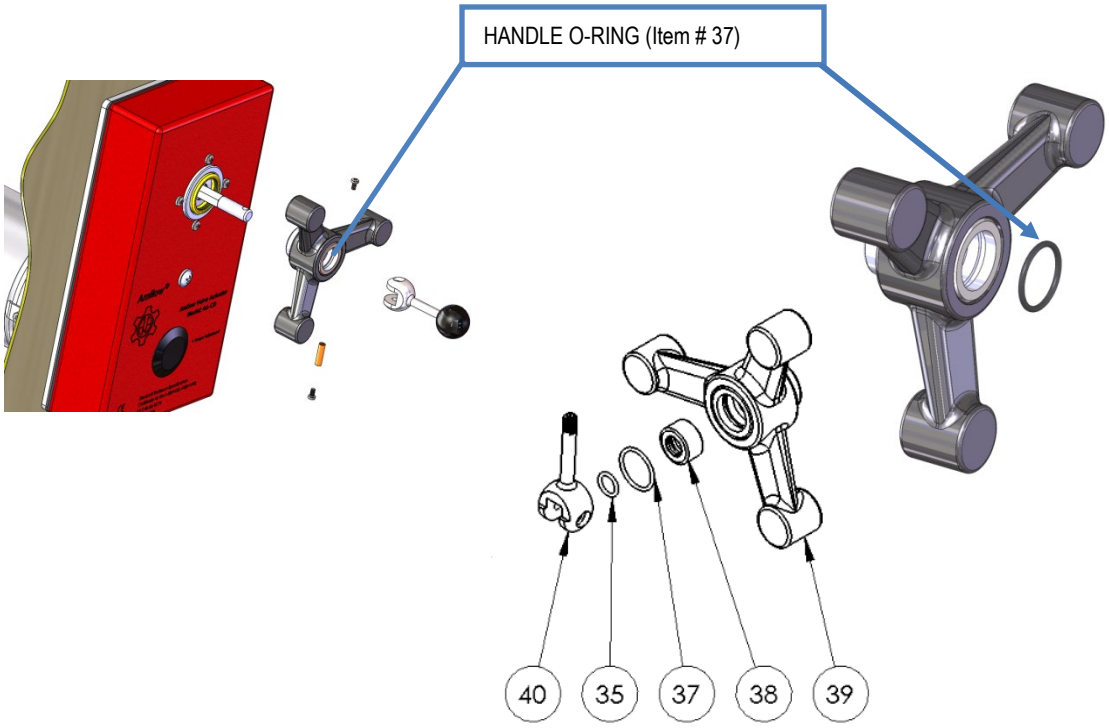
- Remove 5" SPROCKET (Item # 16.4) from MAIN SHAFT (Item # 11.1), then remove ANGLE CONTACT BEARING (Item # 13).



SECTION 6: SERVICE – O-Rings

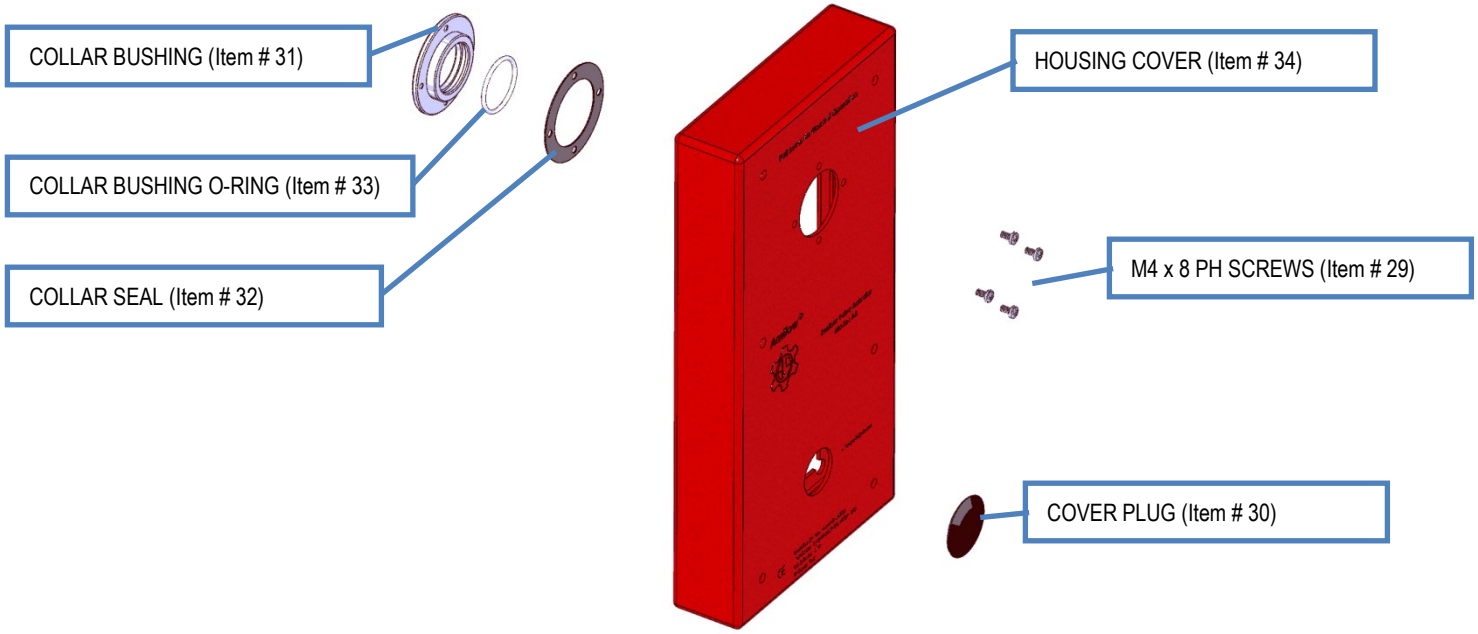
6.01 O-RING REMOVAL: Handle

- Remove RUB PLATE (Item # 38) then remove HANDLE O-RING (Item # 37) from HANDLE ASSEMBLY (Item # 39).



6.02 O-RING REMOVAL: Collar Bushing

- Remove COLLAR BUSHING O-RING (Item # 33) from COLLAR BUSHING (Item # 31).

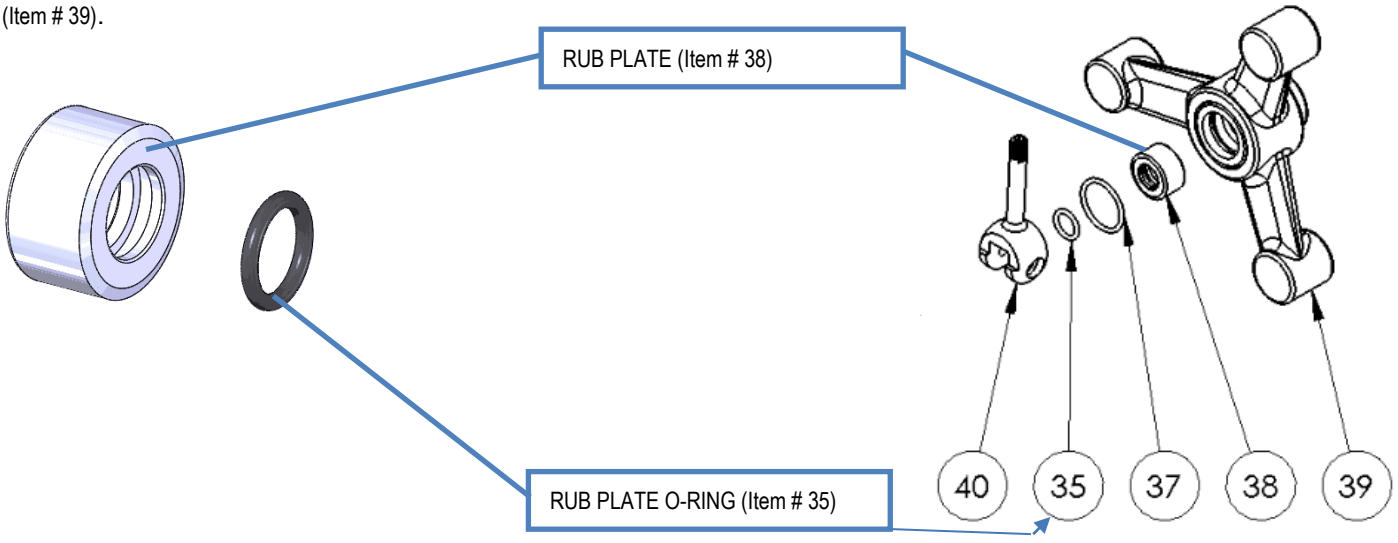


6.03 O-RING REMOVAL: Wedge

- Remove WEDGE O-RING (Item # 36) from WEDGE (Item # 15).

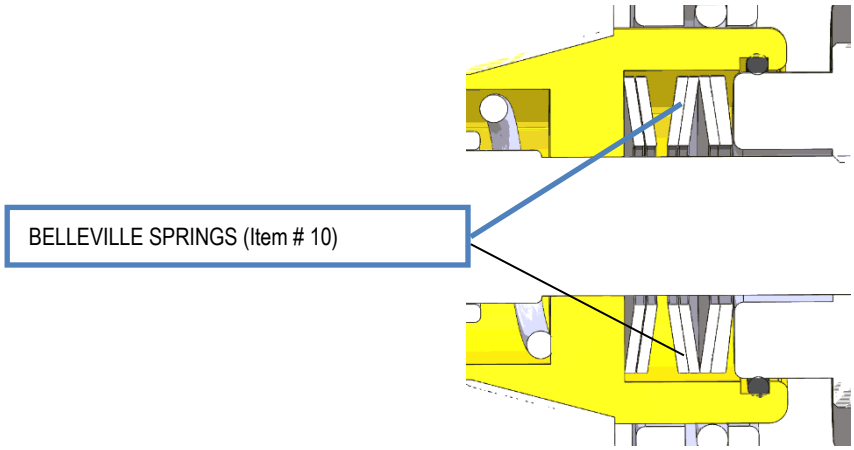
6.04 O-RING REMOVAL: Rub Plate

- Remove RUB PLATE O-RING (Item # 35) from RUB PLATE (Item # 38) located within the HANDLE ASSEMBLY (Item # 39).



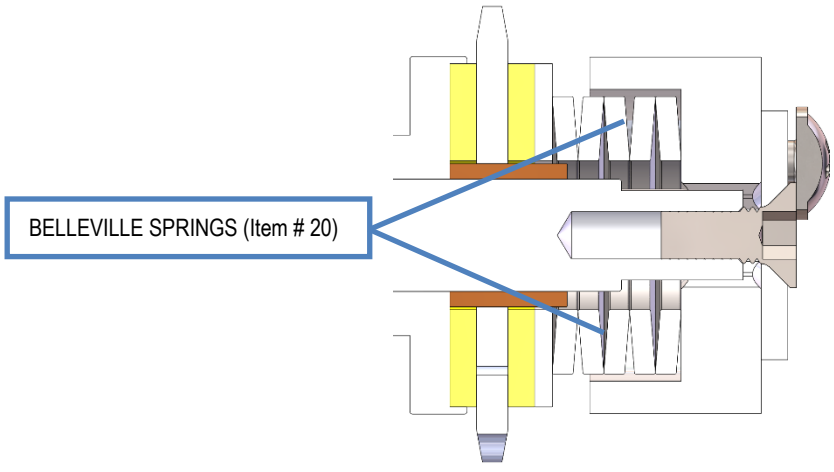
SECTION 7: BELLEVILLE SPRINGS CONFIGURATION - WEDGE

7.01 BELLEVILLE SPRING CONFIGURATIONS: Wedge



IMPORTANT
Incorrect order of Belleville Springs will cause actuator to perform poorly.

7.02 BELLEVILLE SPRING CONFIGURATIONS: CLUTCH



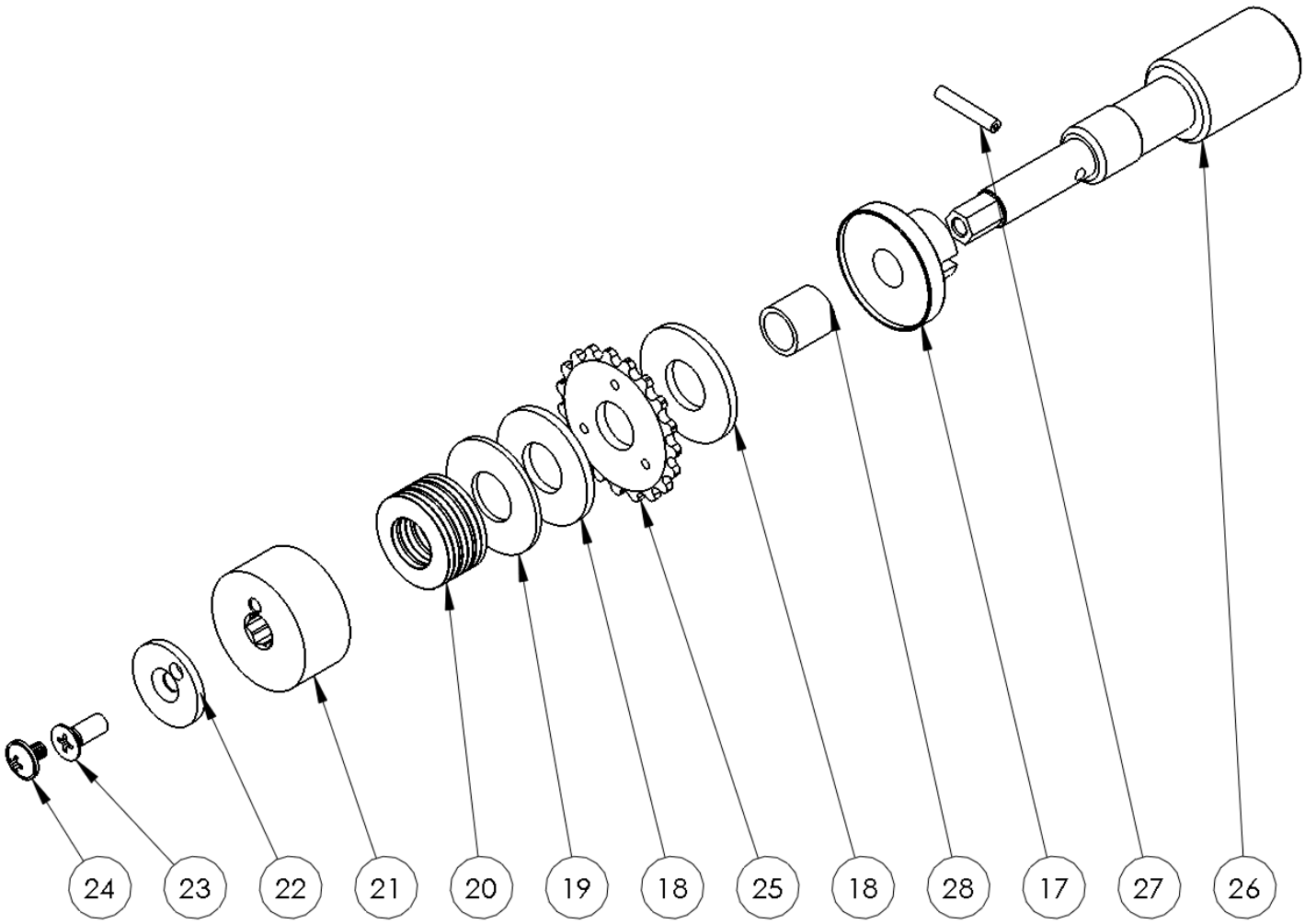
CROSS SECTIONAL VIEWS

SECTION 8: MAINTENANCE – CLUTCH

8.01 CLUTCH REMOVAL

Step 1

- Remove M4X6 PH (Item # 24) and M5 X12 PFH (Item # 25) screws to access CLUTCH SHAFT Sub-Assembly.

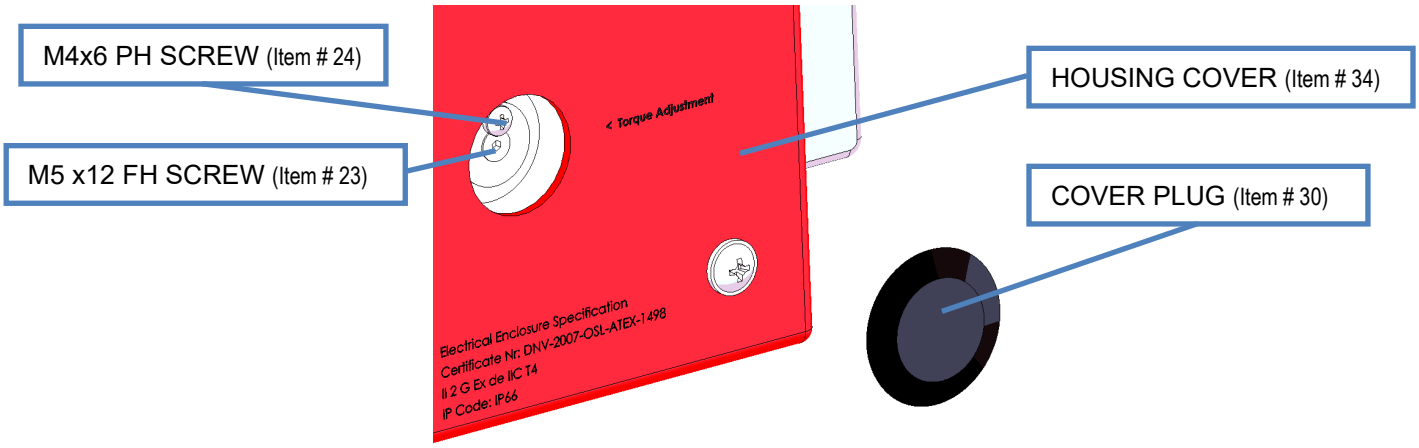


SECTION 9: CLUTCH LOCATION & TORQUE ADJUSTMENT

9.01 CLUTCH LOCATION

Step 1

- Remove COVER PLUG (Item # 30) located on front of HOUSING COVER (Item #34) for torque adjustment .



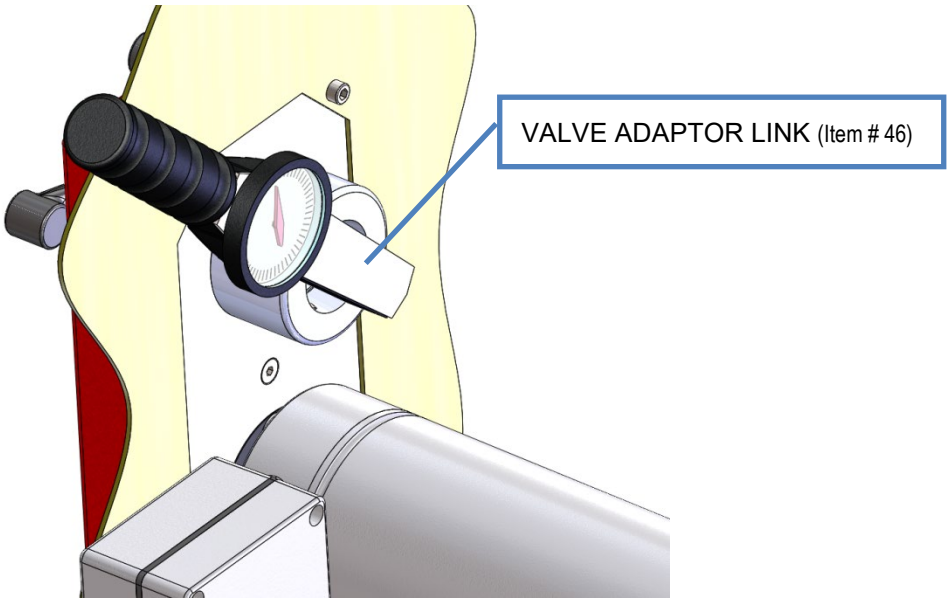
9.02 TORQUE ADJUSTMENT

Step 1

- To make adjustments, loosen (do not remove) the offset M4x6 PH SCREW (Item # 24) on clutch then by tightening or loosening the M5 x12 FH SCREW (Item # 23) in center of clutch.
- Be careful not to over tighten.

Step 2

- To check torque setting use VALVE ADAPTOR LINK (Item # 46) and a torque wrench with a 6 mm Allen head attachment.
- Turn up torque limit (2.0) in the alarm settings of the embedded web page to avoid a torque fault.
- Send a find zero command and using the torque wrench at the attachment point of valve simulates a hard stop. This will force the clutch to slip allowing you to read the torque setting.



SECTION 10: TROUBLESHOOTING

10.01 No Power

Issue: Actuator not responding.
Cause: Blown fuse.
Correction: Check and replace fuse.

10.02 Torque Slippage

Issue: Valve not operating.
Cause: Incorrect torque setting.
Correction 1: Check that there is between 8 and 10 newton meters (70-90 in-lbs.) rolling torque without the clutch slipping and adjust clutch accordingly (Section 9.02).

10.03 Unable to Obtain Proper Torque

Issue: Unable to get between 8 and 10 newton meters (70-90 in-lbs.) when adjusting torque.
Cause: Worn BELLEVILLE SPRINGS.
Correction: Replace BELLEVILLE SPRINGS.

10.04 Broken Drive Pin

Issue: Clutch Assembly not turning properly.
Cause: Broken DRIVE PIN.
Correction: Contact manufacturer.

STANDARDS & CERTIFICATIONS

CERTIFICATIONS

ATEX DIRECTIVE 2014/34/EU

In the interest of safety and quality has certified its ***Amflow®*** series of actuators for use in potentially explosive atmospheres as defined by the ATEX Directive 2014/34/EU.

ATEX DIRECTIVE 2014/34/EU
EU TYPE EXAMINATION: PRESAFE 17 ATEX 9461X
PQAN: PRESAFE 17 ATEX 10673Q
IECEx PRE 17.0030X
CE 2460 Ex II 2 G Ex db eb IIC T4 IP66
IEC 60079-0:2011 (EN 60079-0:2012), IEC 60079-1:2014 (EN 60079-1:2014)
IEC 60079-7:2015 (EN 60079-7:2015)

To ensure the safety of all parties, only genuine ***Amflow®*** parts must be installed in accordance with supplied instructions, good engineering, and construction practices. The actuators must not be modified in any way from the original purchased actuators. The actuators must only be operated in the conditions indicated on product data sheet. This equipment is certified for Group 2 Category II. Equipment should not be used in systems requiring a higher level of certification.

3 - YEAR LIMITED WARRANTY

Each ***Amflow®*** product is warranted to be free from defects in material and workmanship under normal use and service. The warranty period is three (3) years and begins on the date of original purchase. This warranty extends only to the original buyer and does not apply to any product which, in A & H Enterprises' opinion, has been misused, altered, neglected, contaminated, damaged by accident or abnormal conditions of operation or handling.

At A & H Enterprises' option, the A & H Enterprises' warranty obligation is limited to the replacement or repair of a defective product that is returned to A & H Enterprises within the warranty period. Merchandise returned to A & H Enterprises within the warranty period which, in A & H Enterprises' opinion is defective by accident, improper operation or improper handling shall be subject to a charge for repair. Merchandise, free from defects, returned to A & H Enterprises shall be subjected to a 20% restocking fee within thirty (30) days of the purchase date. Written authorization is required for all merchandise returned to A & H Enterprises.

To obtain warranty service, contact A & H Enterprises to obtain return authorization information. Then send the product to A & H Enterprises with a description of the difficulty, transportation, and insurance prepaid. A & H Enterprises assumes no risk for damage in transit. Following warranty repair, the product will be returned to Buyer, transportation, and insurance prepaid. If A & H Enterprises determines that failure was caused by neglect, misuse, contamination, alteration, accident, or abnormal condition of operation or handling, A & H Enterprises will provide an estimate of repair costs and obtain authorization before commencing the work. Following repair, the product will be returned to the Buyer, transportation, and insurance prepaid, and the Buyer will be billed for the repairs and the return transportation and insurance charges.

THIS WARRANTY IS BUYER'S SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. A & H ENTERPRISES SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, ARISING FROM ANY CAUSE OR THEORY.

Since some countries or states do not allow limitation of the term of an implied warranty, or exclusion or limitation of incidental or consequential damages, the limitations and exclusions of this warranty may not apply to every buyer. If any provision of the Warranty is held invalid or unenforceable by a court or other decision-maker of competent jurisdiction, such holding will not affect the validity or enforceability of any other provision.

REPRESENTATIVES

Amflow® A&H Enterprises Inc.
World Headquarters

11812 NE 116th St.
Kirkland Washington U.S.A.
98034

Tel: +1.425.883.4040
Fax: +1.425.823.1962
E-Mail: ah@amflow.com

Amflow Norge As
Representing:
Norway, Denmark, Germany, Italy, Sweden, Middle East, United Kingdom & The Netherlands

Prinsens Vei 12
4315 Sandnes
Norway

Tel: +47.922.19.656
Fax: +47.520.00.591

Amflow Controls Asia SDN. BHD.
Representing:
Malaysia, India, Indonesia, Singapore, Thailand & Vietnam

No. 9 Jalan 11/12 46200 Petaling Jaya
Selangor, Malaysia

Tel: +60.12.3323.118
E-Mail: amflowcontrols@gmail.com

Sudiflow Integrated Services, LTD.
Representing:
Nigeria, Angola, Benin, Cameroon, Equatorial Guinea, Gabon, Ghana & Togo

25 Elelenwo Road
Port Harcourt
Nigeria

Tel: +234.803.309.1405
E-Mail: sudiflow@yahoo.com