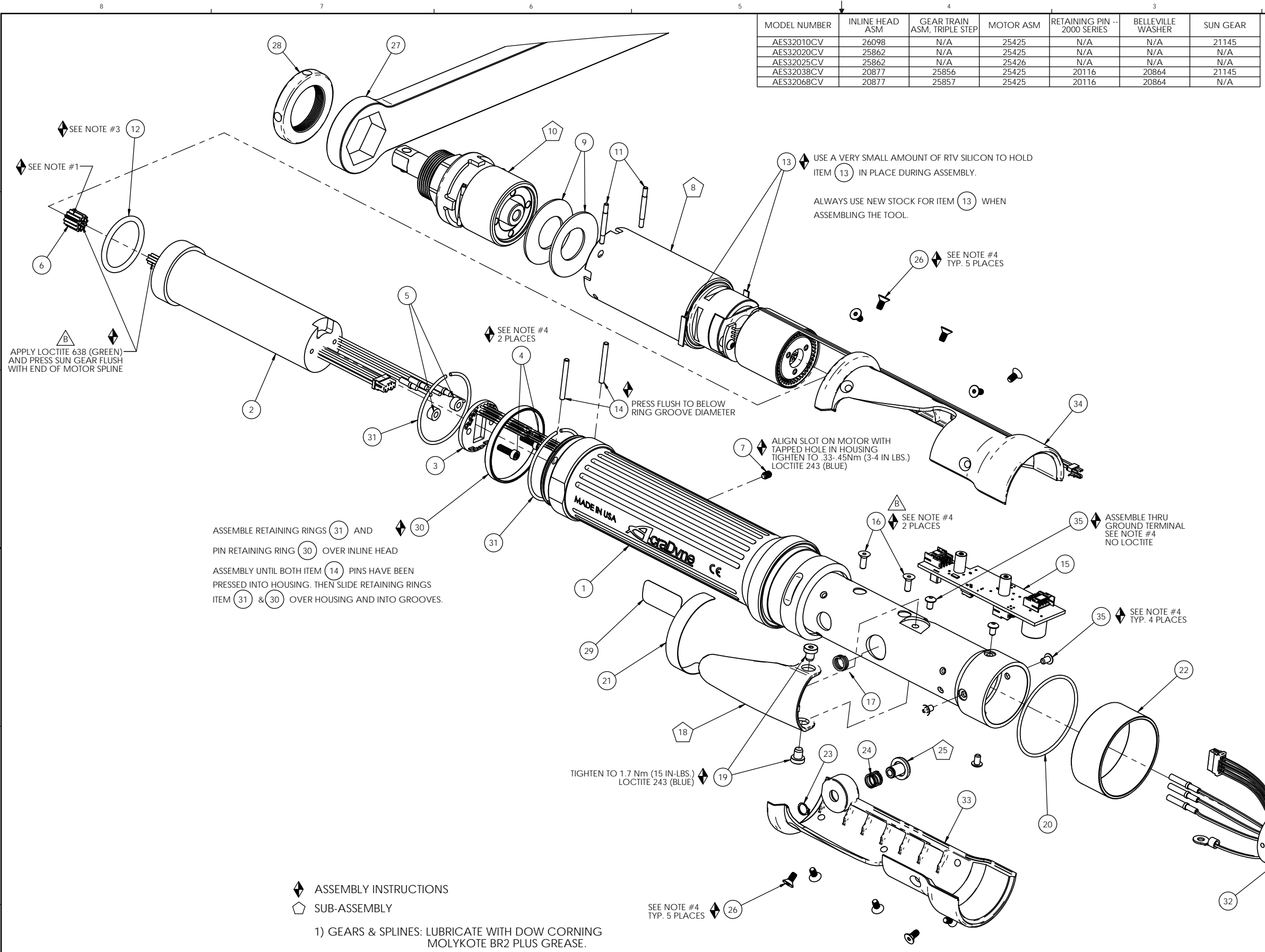


| MODEL NUMBER | INLINE HEAD ASM | GEAR TRAIN ASM, TRIPLE STEP | MOTOR ASM | RETAINING PIN -- 2000 SERIES | BELLEVILLE WASHER | SUN GEAR |
|--------------|-----------------|-----------------------------|-----------|------------------------------|-------------------|----------|
| AES32010CV | 26098 | N/A | 25425 | N/A | N/A | 21145 |
| AES32020CV | 25862 | N/A | 25425 | N/A | N/A | N/A |
| AES32025CV | 25862 | N/A | 25426 | N/A | N/A | N/A |
| AES32038CV | 20877 | 25856 | 25425 | 20116 | 20864 | 21145 |
| AES32068CV | 20877 | 25857 | 25425 | 20116 | 20864 | N/A |

| COMMENTS | ITEM NO. | PART NUMBER | QTY. | DESCRIPTION |
|----------|----------|-------------|------|--|
| | 1 | 27030 | 1 | HOUSING MOTOR/HANDLE ASSY |
| | 2 | SEE CHART | 1 | MOTOR ASM |
| | 3 | 25063 | 1 | LED BOARD ASM. |
| | 4 | 25075 | 2 | SCREW, SHC 4-40X.375, STEEL, BLACK OXIDE |
| | 5 | 25429 | 2 | STAND-OFF, LED, 2000 SERIES |
| | 6 | SEE CHART | 1 | 12T SUN GEAR BLANK |
| | 7 | 27027 | 1 | SCREW, SET 5-40X.188, STEEL, BLK OXIDE |
| | 8 | SEE CHART | 1 | GEAR TRAIN ASM. - TRIPLE STEP |
| | 9 | SEE CHART | 2 | BELLEVILLE WASHER |
| | 10 | SEE CHART | 1 | INLINE HEAD ASM. |
| | 11 | SEE CHART | 2 | RETAINING PIN --- 2000 SERIES |
| | 12 | 25993 | 1 | O-RING, RING GEAR TO MOTOR, GEN 3B 2000 SERIES |
| | 13 | 24272 | 2 | ADAPTOR INSERT |
| | 14 | 24324 | 2 | DOWEL PIN 3/32 Dia x 7/8 LONG |
| | 15 | 25847 | 1 | TID BOARD ASM. |
| | 16 | 24934 | 2 | SCREW, FHC 4-40 X .312, STEEL, BLACK OXIDE |
| | 17 | 20132 | 1 | THROTTLE SPRING |
| | 18 | 26532 | 1 | GEN 3 TRIGGER ASSY, CAST |
| | 19 | 20061 | 2 | SCREW, LEVER |
| | 20 | 25072 | 1 | O-RING, LED LIGHT RING COVER |
| | 21 | 20534 | 1 | 3000 SERIAL/MODEL LABEL |
| | 22 | 25058 | 1 | LIGHT RING COVER, LED |
| | 23 | 24679 | 1 | RETAINING RING |
| | 24 | 24683 | 1 | SPRING, REV BUTTON |
| | 25 | 24706 | 1 | REV BUTTON SUB-ASSEMBLY |
| | 26 | 24940 | 10 | SCREW, FHSC 4-40 X .25 LG., STEEL, BLACK OXIDE |
| | 27 | 20437 | 1 | REACTION BAR |
| | 28 | 20454 | 1 | NUT, INLINE FIXTURE |
| | 29 | 22141 | 1 | SAFETY LABEL |
| | 30 | 25103 | 1 | PIN RETAINER RING |
| | 31 | 25104 | 2 | RETAINING RING |
| | 32 | 26102 | 1 | TOOL CONNECTOR ASM., LEVER |
| | 33 | 26084 | 1 | HANDLE COVER, MFB |
| | 34 | 26083 | 1 | HANDLE COVER |
| | 35 | 25745 | 5 | SCREW, BHSC 4-40 STEEL, BLACK OXIDE |



APPLY LOCTITE 638 (GREEN) AND PRESS SUN GEAR FLUSH WITH END OF MOTOR SPLINE

USE A VERY SMALL AMOUNT OF RTV SILICON TO HOLD ITEM 13 IN PLACE DURING ASSEMBLY.

ALWAYS USE NEW STOCK FOR ITEM 13 WHEN ASSEMBLING THE TOOL.

SEE NOTE #4 TYP. 5 PLACES

SEE NOTE #4 2 PLACES

PRESS FLUSH TO BELOW RING GROOVE DIAMETER

ALIGN SLOT ON MOTOR WITH TAPPED HOLE IN HOUSING TIGHTEN TO .33-.45Nm (3-4 IN LBS.) LOCTITE 243 (BLUE)

SEE NOTE #4 2 PLACES

ASSEMBLE THRU GROUND TERMINAL SEE NOTE #4 NO LOCTITE

SEE NOTE #4 TYP. 4 PLACES

TIGHTEN TO 1.7 Nm (15 IN-LBS.) LOCTITE 243 (BLUE)

SEE NOTE #4 TYP. 5 PLACES

ASSEMBLE RETAINING RINGS (31) AND PIN RETAINER RING (30) OVER INLINE HEAD ASSEMBLY UNTIL BOTH ITEM (14) PINS HAVE BEEN PRESSED INTO HOUSING. THEN SLIDE RETAINING RINGS ITEM (31) & (30) OVER HOUSING AND INTO GROOVES.

◆ ASSEMBLY INSTRUCTIONS
 ▽ SUB-ASSEMBLY

- 1) GEARS & SPLINES: LUBRICATE WITH DOW CORNING MOLYKOTE BR2 PLUS GREASE.
- 2) BEARINGS: LUBRICATE WITH CHEVRON SR1 GREASE
- 3) O-RINGS: LUBRICATE WITH O-RING LUBE
- 4) TIGHTEN TO 1 NM (9 IN-LBS.) LOCTITE 243 (BLUE)

| REQUIRED TOOLING |
|----------------------------------|
| SNAP RING PLIERS - EXTERNAL TYPE |
| LOCTITE: 243 BLUE, 638 GREEN |
| HEX BITS: 1/16, 5/64, 3/32 |



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| REVISION LEVEL | REVISION RELEASE DATE | DESCRIPTION OF CHANGES MADE TO PART | ECN # | AUTHOR/ APPROVAL |
|----------------|-----------------------|-------------------------------------|-------|------------------|
| | | | | |
| | | | | |
| | | | | |

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES
 DIMENSIONS AND TOLERANCING PER ANSI Y14.5
 SURFACE ROUGHNESS PER ANSI Y14.36

BLOCK TOLERANCING PER DECIMAL:
 .X = ±.030 .XX = ±.010 .XXX = ±.005 .XXXX = ±.0005
 ANGLE = 30°

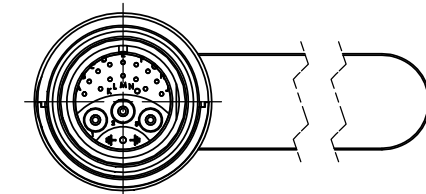
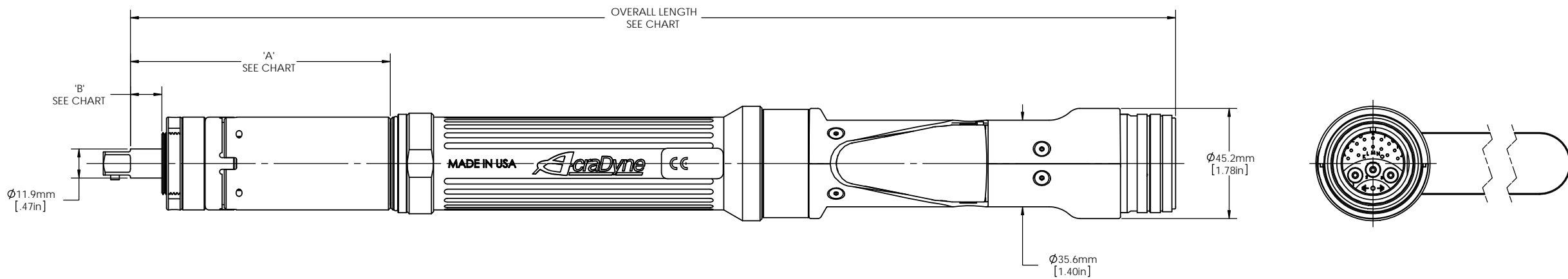
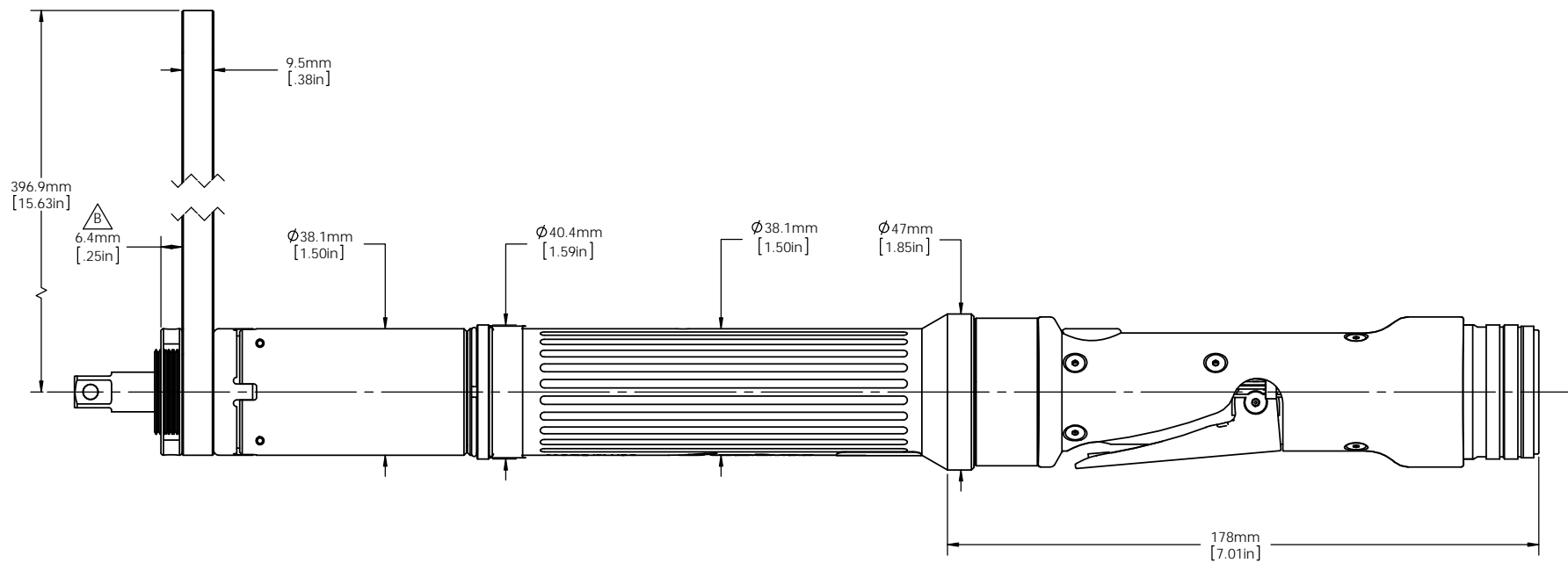
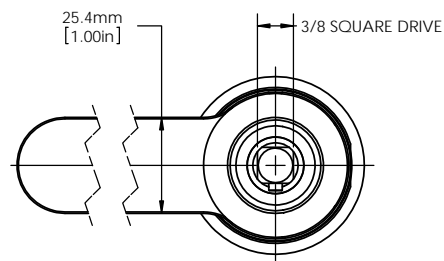
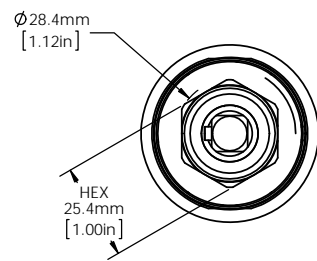
REMOVE BURRS AND SHARP EDGES: R.015 MAX
 MACHINE SURFACE FINISH: 125 RMS OR BETTER

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ACRADYNE MECHANICAL ENGINEERING

AES320_ CV INLINE NUTRUNNER
 2000 SERIES - GEN 3C

| SIZE | PART / DRAWING NUMBER | REVISION |
|------|-----------------------|----------|
| D | AES320_ CV | B |

SCALE 1:1 DO NOT SCALE DRAWING SHEET 1 OF 2



| MODEL NO. | OVERALL LENGTH | 'A' | 'B' | DRIVE TYPE |
|------------|----------------|------|-----|------------|
| AES32010CV | 14.03 | 1.36 | .56 | .38 SQUARE |
| AES32020CV | 14.03 | 1.36 | .56 | .38 SQUARE |
| AES32025CV | 14.03 | 1.36 | .56 | .38 SQUARE |
| AES32038CV | 16.87 | 4.21 | .51 | .38 SQUARE |
| AES32068CV | 16.87 | 4.21 | .51 | .38 SQUARE |



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DRAWINGS AND TECHNICAL DOCUMENTS CONTROLLED BY:
ACRADYNE MECHANICAL ENGINEERING

AES320_ CV INLINE NUTRUNNER
 2000 SERIES - GEN 3C

| SIZE | PART / DRAWING NUMBER | REVISION |
|----------|-----------------------|----------|
| D | AES320_ CV | B |