800/850 Series Commercial Actuator
LITERAL/NUMERIC PART No. CODE SYSTEM

BCJ008

Rev: 02

print date: 2/14/18

EXAMPLE: ITEM NO. MA-834118332-18.00BK = MOTORIZED ACTUATOR WITH A BLACK GEARBOX, 36VDC 6800 RPM MOTOR, 58:1 RATIO, REED SWITCH, LIMIT SWITCHES, 800 SERIES 2" DIA. O.T., 3/4-8 L.H. ACME SCREW, STD CLAMP, 1/2" FLAT END MOUNT, 18.00" STROKE, Boot, Keyed

Made in the USA

GEARBOX TYPE
(0) = None
(1) = Not used
(2) = 8600 Gearbox
(3) = Raw Hsg w/o Strain Relief
(4) = Raw Hsg w/Strain Relief
(5) = Tan Hsg w/o Strain Relief
(6) = Tan Hsg w/Strain Relief
(7) = Blk Hsg w/o Strain Relief
(8) = Blk Hsg w/Strain Relief
(9) = SPECIAL (Specify)
(A) = Nema 23

UNIT TYPE
(M) = Motor Gearbox Only (see BCJ002)
(A) = Actuator Tube Only
(MA) = Motorized Actuator

SENSOR TYPE
(0) = None
(1) = Reed Switch ***
(2) = Hall Effect ***
(3) = Potentiometer
(4) = Encoder ***
(9) = SPECIAL (Specify)

SCREW DATA
(0) = None
(1) = 1-8 L.H. ACME
(2) = 1-10 L.H. ACME
(3) = 3/4-8 L.H. ACME
(4) = 3/4-10 L.H. ACME
(5) = 5/8-5 RH BALL SN 1500 lb
(6) = 3/4-5 RH BALL SN 2500 lb
(7) = 3/4-5 RH BALL DN 4000 lb
(8) = 1-4 RH BALL SN (Special)
(9) = SPECIAL (Specify)

STANDARD MODIFIERS
(MG) = Metal Gears
(NB) = Unslit Tube Boot
(W) = Tube Wiper/Seal
(HD) = HD Insert Tube ^
(EB) = Electric Brake
(B) = Slit Tube Boot
(K) = Keyed Tubes
(MB) = Motor Boot
(M) = MODIFIED
(P) = Pigtail
(CE) Per Note **

STROKE (in)

MA	-	8	3	4	1	1	8	3	3	2	-	18	HD	B	M	MB	K	CE**	P	EB

ELECTRIC MOTORS
(0) = None
(1) = 12vdc 6800 RPM
(2) = 24vdc 6800 RPM
(3) = 36vdc 6800 RPM
(4) = 90vdc 4200 RPM
(5) = 120vdc* 4200 RPM
(6) = 48vdc 6800 RPM
(7) = STEPPER
(8) = 24vdc 4000rpm BLDC
(9) = SPECIAL (Specify)
(A) = 12vdc 2500 RPM
(B) = 24vdc 2500 RPM
(C) = 36vdc 2500 RPM
(D) = 90vdc 2500 RPM
(E) = 120vdc* 2500 RPM
(F) = 12vdc 1200 RPM
(G) = 48vdc 2500 RPM
(H) = 36vdc 4000 RPM BLDC
(L) = 12vdc 9000 RPM
(M) = 24vdc 9000 RPM
(T) = 18vdc 900 RPM

GEAR RATIO
(0) = NONE
(1) = 18:1 Gear Drive
(2) = 28:1 Gear Drive
(4) = 58:1 Gear Drive
(5) = 360:1 Worm Drive ‡‡
(6) = 560:1 Worm Drive ‡‡
(7) = 1160:1 Worm Drive ‡‡
(9) = SPECIAL (Specify)
(A) = 1:1 Direct Drive
(B) = 2:1 Belt Drive
(C) = 4:1 Belt Drive
(D) = 19:1 Belt Drive

OUTER TUBE DIAMETER
(0) = None
(1) = Not Used
(8) = 2.00" 800/850 Series
(9) = SPECIAL (Specify)

TUBE MOUNTING
(0) = None
(1) = 1/2" Trunnions
(2) = HD Inline Bracket ‡
(3) = STD Clamp
(4) = H.D. Clamp
(5) = HD Long CS Clamp
(6) = HD Long Clamp
(7) = Std Inline Bracket ‡
(8) = HD Inline Clamp
(9) = SPECIAL (Specify)
(A) = 1/2" Trunnion Clamp
(B) = Fixed Inline Bracket ‡
(C) = 3/4" Trunnion Clamp
(D) = 3/4" Trunnions

END MOUNTS
(0) = None
(1) = 1/2" Swivel
(2) = 1/2" Flat
(3) = 3/4" Swivel
(4) = Universal (**specify thread**)
(5) = 5/8" Clevis
(9) = SPECIAL (Specify)

(4) Thread Specifications
(S) = Stud
(S0) = 3/4-10 RH x 6.5"
(S1) = 3/4-10 RH x 9.5"
(S5) = 5/8-18 RH x 5"
(S9) = SPECIAL (Specify)
(T) = Tapped Hole
(T0) = 3/4-10 RH
(T1) = 1/2-20 RH
(T3) = 3/8-16 RH
(T5) = 5/8-18 RH
(T9) = SPECIAL (Specify)

LIMITS
(0) = None (w/o CLT or LS)
(1) = Limit Switches
(2) = Clutch
(3) = LS w/CLT
(4) = CLT w/MC
(5) = LS w/CLT w/ MC
(6) = LS w/MC w/o CLT
(7) = MC w/o LS w/o CLT
(8) = CLS w/CLT
(9) = SPECIAL (Specify)
(A) = CLS w/o CLT
(B) = CLS w/CLT w/LS
(C) = CLS w/o CLT w/LS
(D) = CLS w/CLT w/MC
(E) = CLS w/o CLT w/MC
(F) = LS w/CLS w/CLT w/MC
(G) = LS w/CLS wo/CLT w/MC

EOT = End of Travel
LS = EOT Limit Switches
CLT = Clutch
CLS = EOT Control Limit Switches
MC = Manual Crank
EOT Switches are adjustable

***120vdc MOTOR SUPPLIED WITH 10 amp RECTIFIER FOR USE IN 120vac CIRCUIT**

‡ Std INLINE BRACKET RATED FOR 750 LB LOAD

‡ HD INLINE BRACKET RATED FOR 3000 LB LOAD

‡ FIXED INLINE BRACKET RATED FOR 10,000 LB LOAD

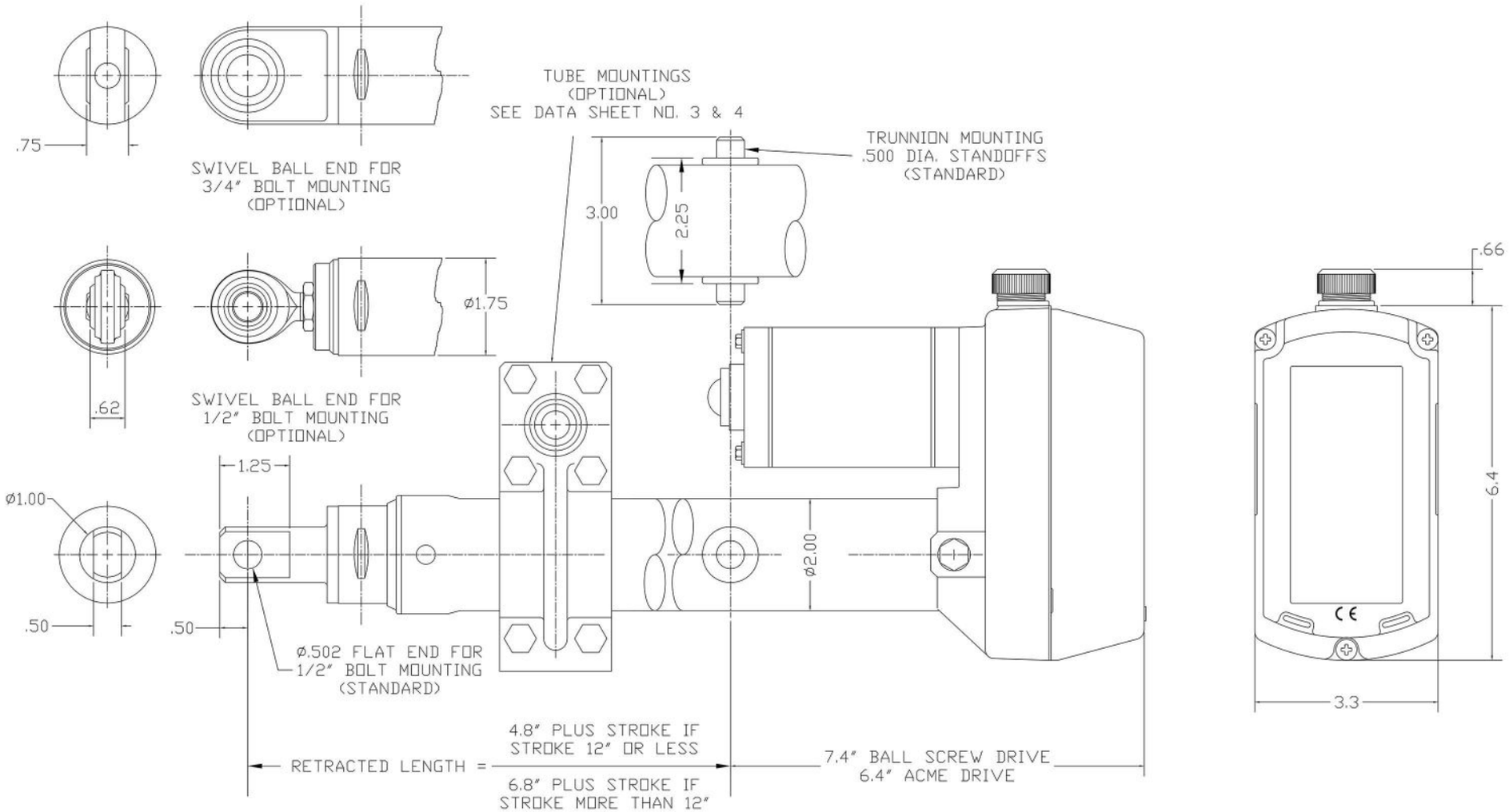
**** CE Certification available on 12v, 24v & 36v models only and comply with; Machinery Directive: EN60204-1: 2006 and EMC: EN55014-1: 2006, EN 61000-6-4: 2007**

***** STANDARD PPR (Pulses Per Revolution) Acme w/Reed = 4 PPR, Ball w/Reed = 8 PPR**
Hall Effect = 6PPR and Encoder = 500 PPR

NOTE: STD U.O.S.
ACME SCREWS (A) ARE LEFT HAND (L.H.) PITCH
BALL SCREWS (B) ARE RIGHT HAND (R.H.) PITCH

‡‡ These ratios are achieved by combining the 8500 gearbox with the 890 series 20:1 worm drive gearbox. Limit switches are not available on these units.

^ HD Insert Tubes are used to increase compression load capacity when needed.



CUSTOM STROKES AVAILABLE UPON REQUEST

	PERFORMANCE DATA (BALL SCREW)						PERFORMANCE DATA (ACME)					
GBX RATIO	RATED LOAD lbs.	AMPERAGE DRAW @ RATED LOAD					RATED LOAD lbs.	AMPERAGE DRAW @ RATED LOAD				
		12 vdc	24 vdc	36 vdc	90 vdc	120 vac		12 vdc	24 vdc	36 vdc	90 vdc	120 vac
18:1	750	20	12	8	1.8	1.6	500	17	10	7.5	1.7	1.11
INCHES/SEC.		.9	.9	1.1	.7	.6	IPS	.6	.6	.7	.4	.4
28:1	1500	24	16	10	4	2	750	17	10	7.5	1.8	1.0
INCHES/SEC.		.6	.6	.8	.5	.4	IPS	.35	.35	.4	.25	.25
58:1	1500	12	8	5	1.6	.9	750	9	6	4.5	1.2	.8
INCHES/SEC.		.3	.3	.4	.25	.23	IPS	.2	.2	.25	.15	.15

ACTUATOR PERFORMANCE AND SELECTION DATA

SEE BCJ001 FOR PART NO.

VENTURE MFG. CO.
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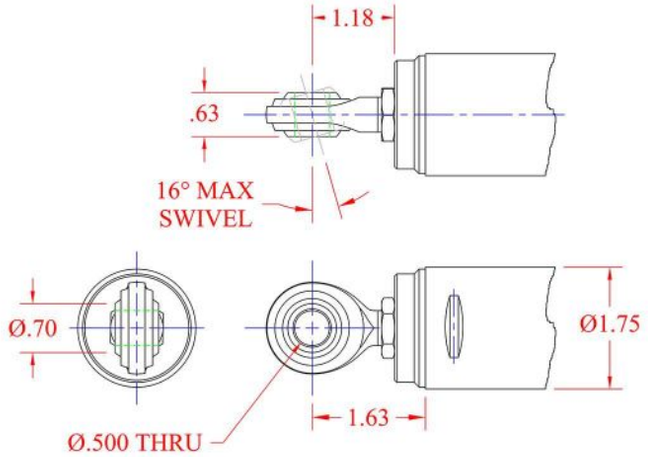
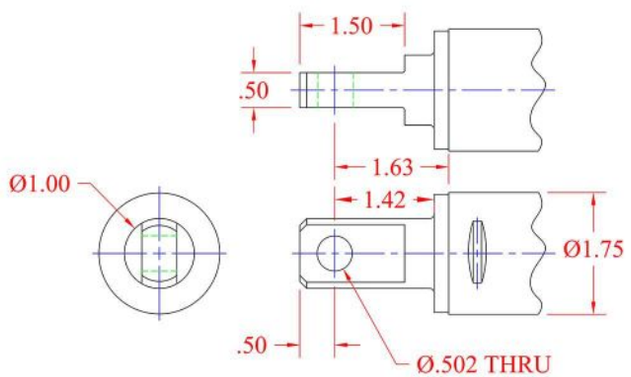
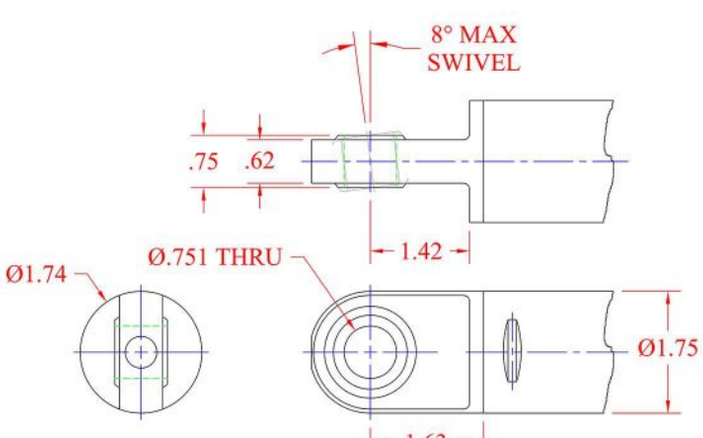
MAY 8, 2017



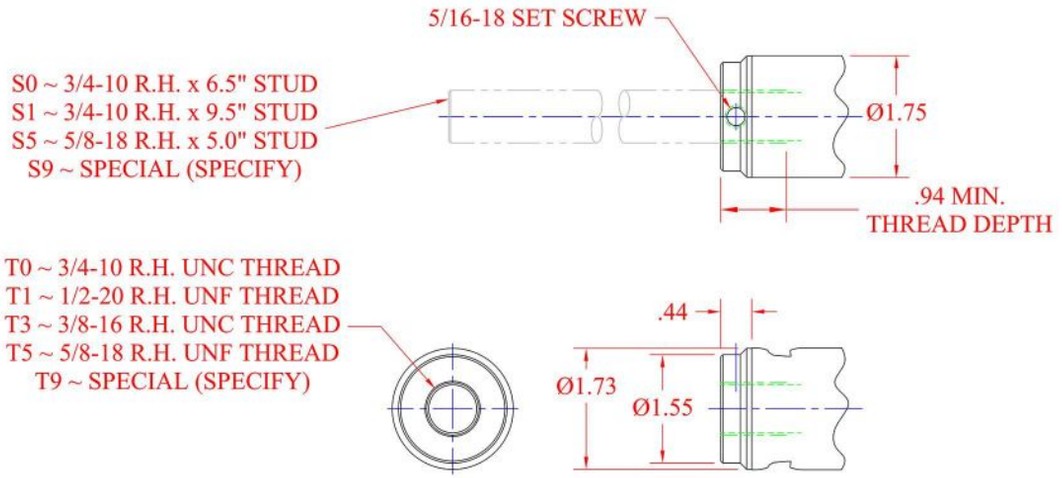
#1
1/2" SWIVEL END MOUNT



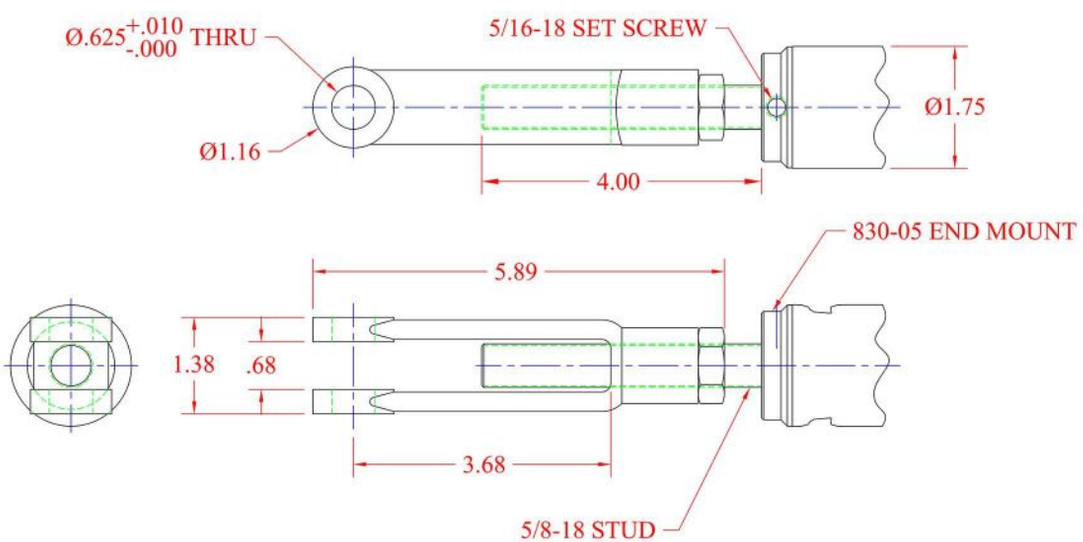
#2
1/2" FLAT END MOUNT



#3
3/4" SWIVEL END MOUNT



#4
UNIVERSAL END MOUNT
(SPECIFY DESIRED THREAD)



#5
CLEVIS END MOUNT

800/850 SERIES ACTUATOR TUBE END MOUNTING OPTIONS

SHEET NO. 2

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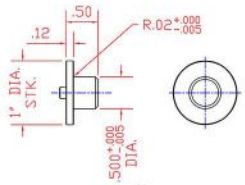
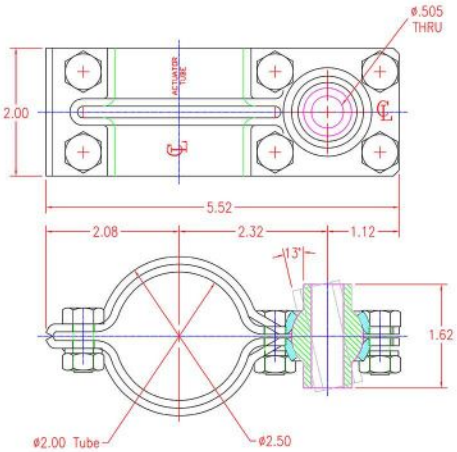
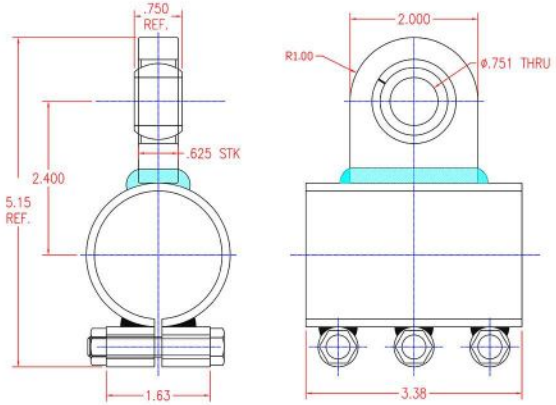


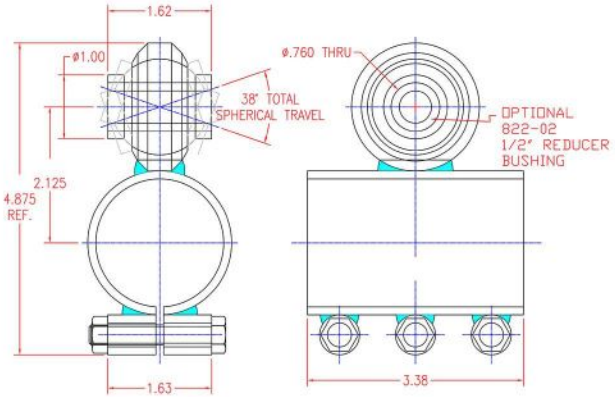
#1
1/2" TRUNNIONS
(825-00)



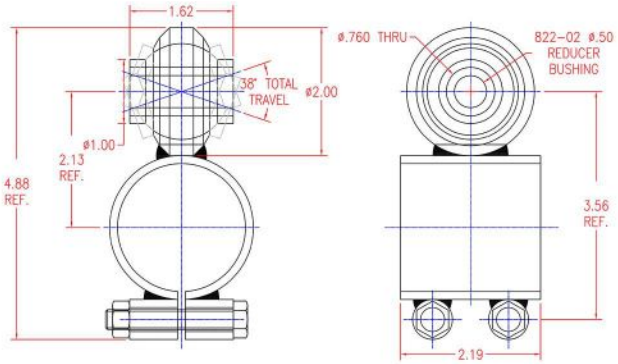
#3
STANDARD CLAMP
FOR 1/2" BOLT (818-20)



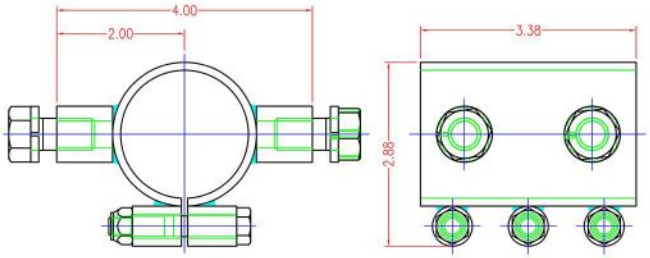
#5
HD LONG CS CLAMP
FOR 3/4" BOLT (818-51CS)



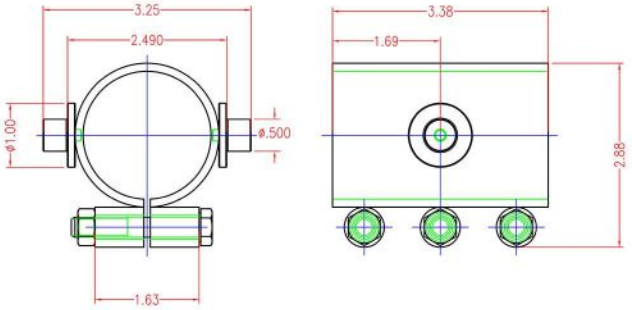
#6
HEAVY DUTY LONG
CLAMP
FOR 3/4" BOLT (818-51)



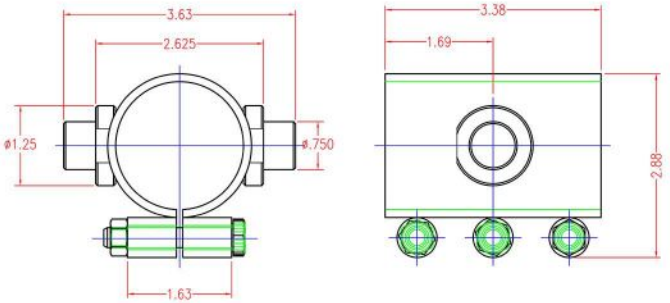
#4
HEAVY DUTY CLAMP
FOR 3/4" BOLT (818-50)



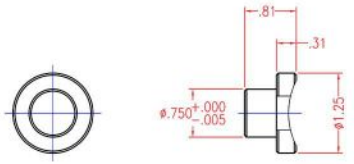
#8
HD IN-LINE CLAMP
FOR 1/2" BOLT (818-52)



#A
TRUNNION CLAMP
FOR 1/2" TRUNNIONS
(818-55)



#C
TRUNNION CLAMP
FOR 3/4" TRUNNIONS
(818-53)



#D
3/4" TRUNNIONS
(1225-00)

2" DIA. TUBE MOUNTING OPTIONS

NOTE: EACH SUPPLIED WITH ALL MOUNTING HARDWARE

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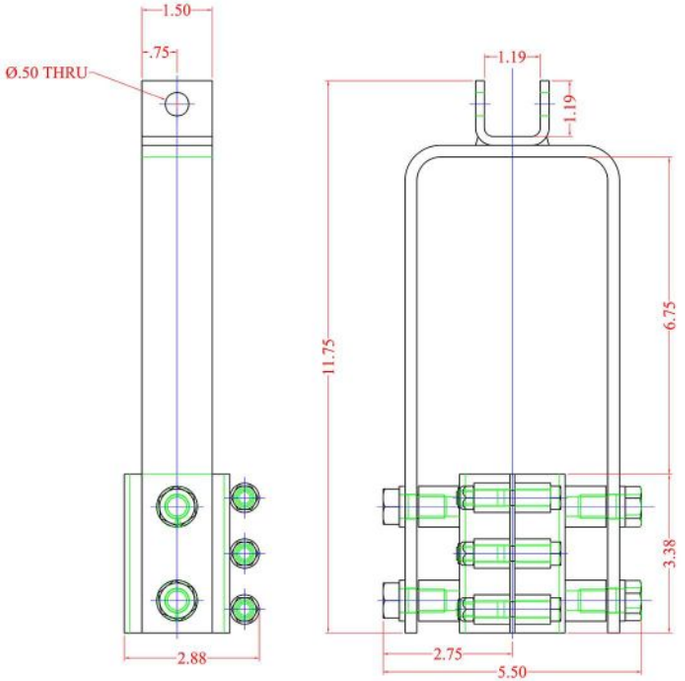
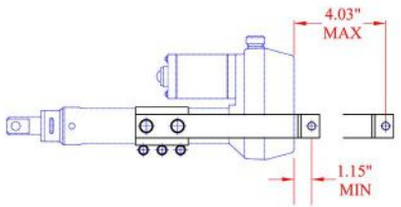
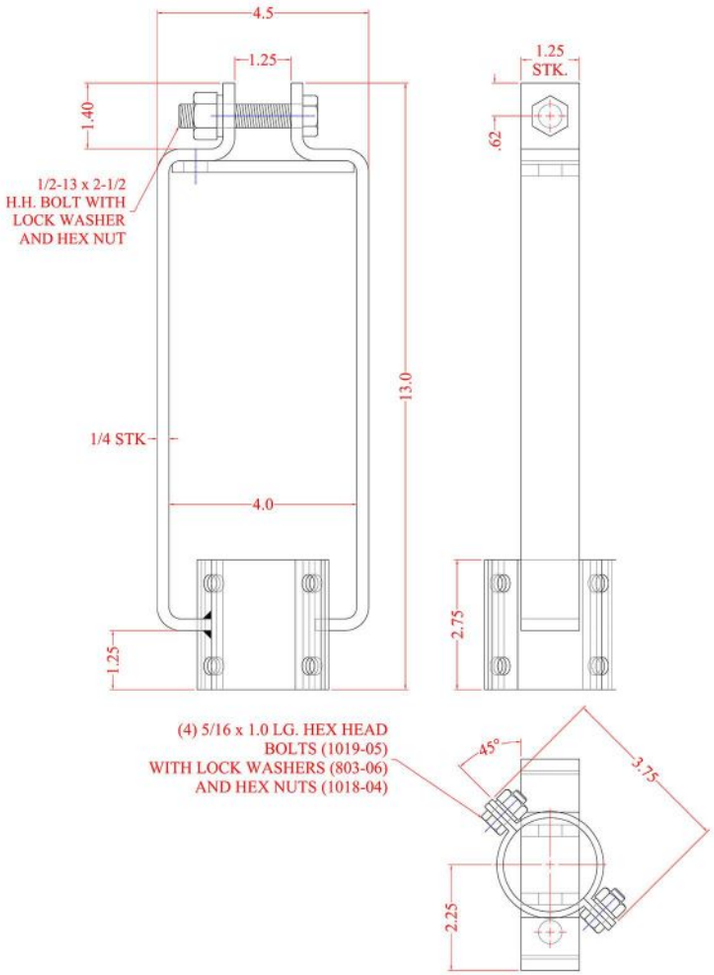
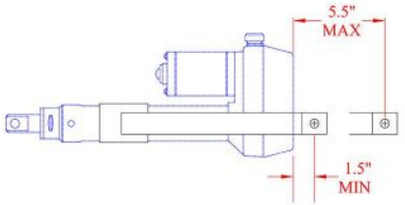


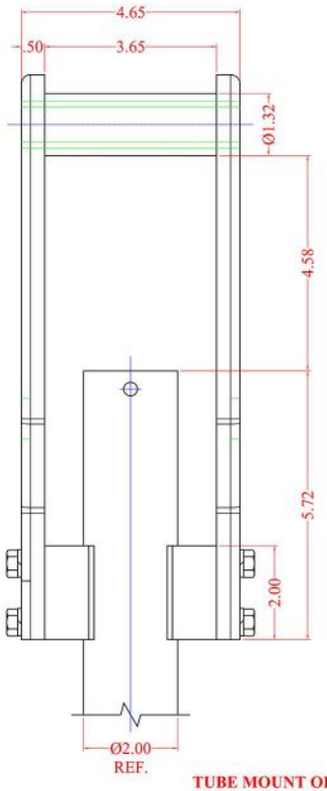
#2 HEAVY DUTY IN-LINE
TUBE MOUNTING BRACKET
FOR 1/2" BOLT
844-52

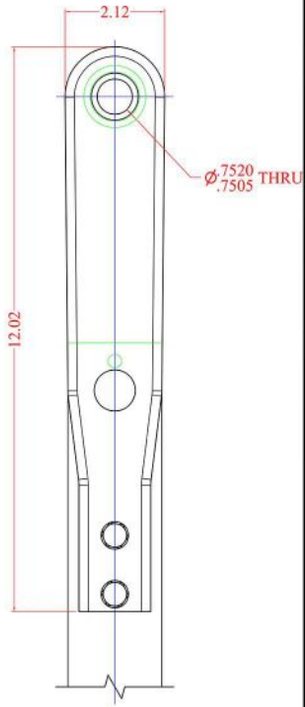




#7 IN-LINE TUBE
MOUNTING BRACKET
FOR 1/2" BOLT
844-50







TUBE MOUNT OPTION #B
FIXED INLINE BRACKET

2" DIA. TUBE MOUNTING OPTIONS

NOTE: EACH SUPPLIED WITH ALL
MOUNTING HARDWARE

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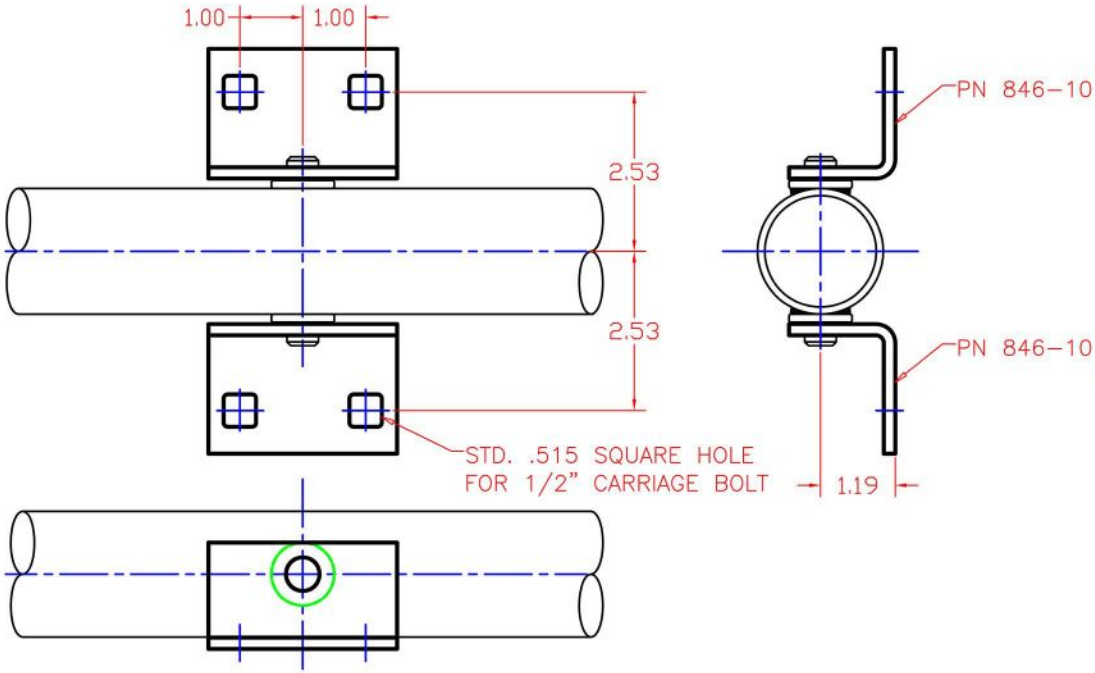
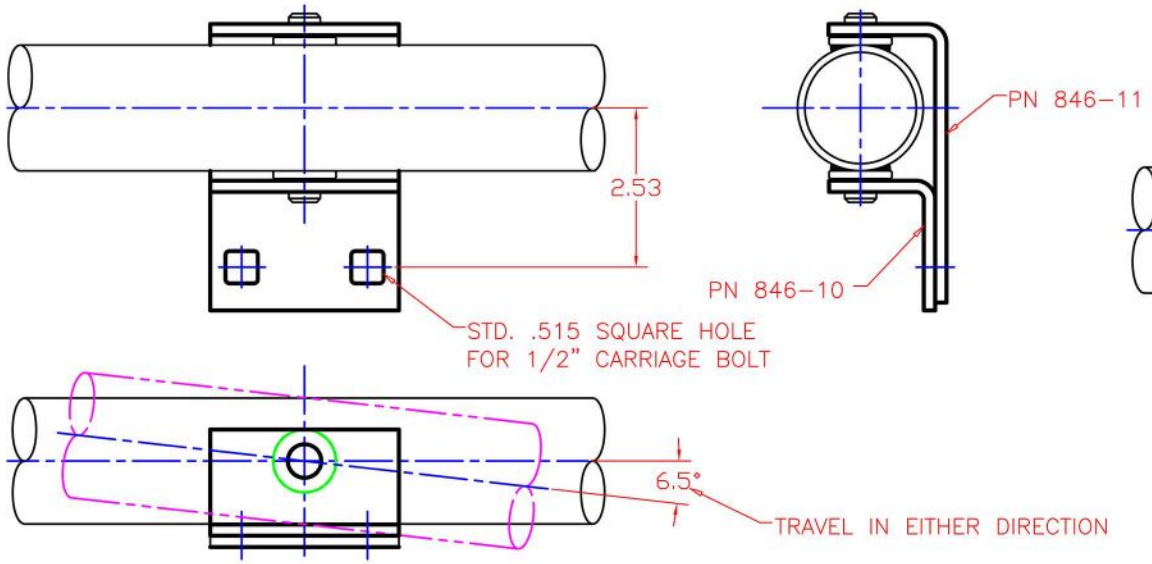
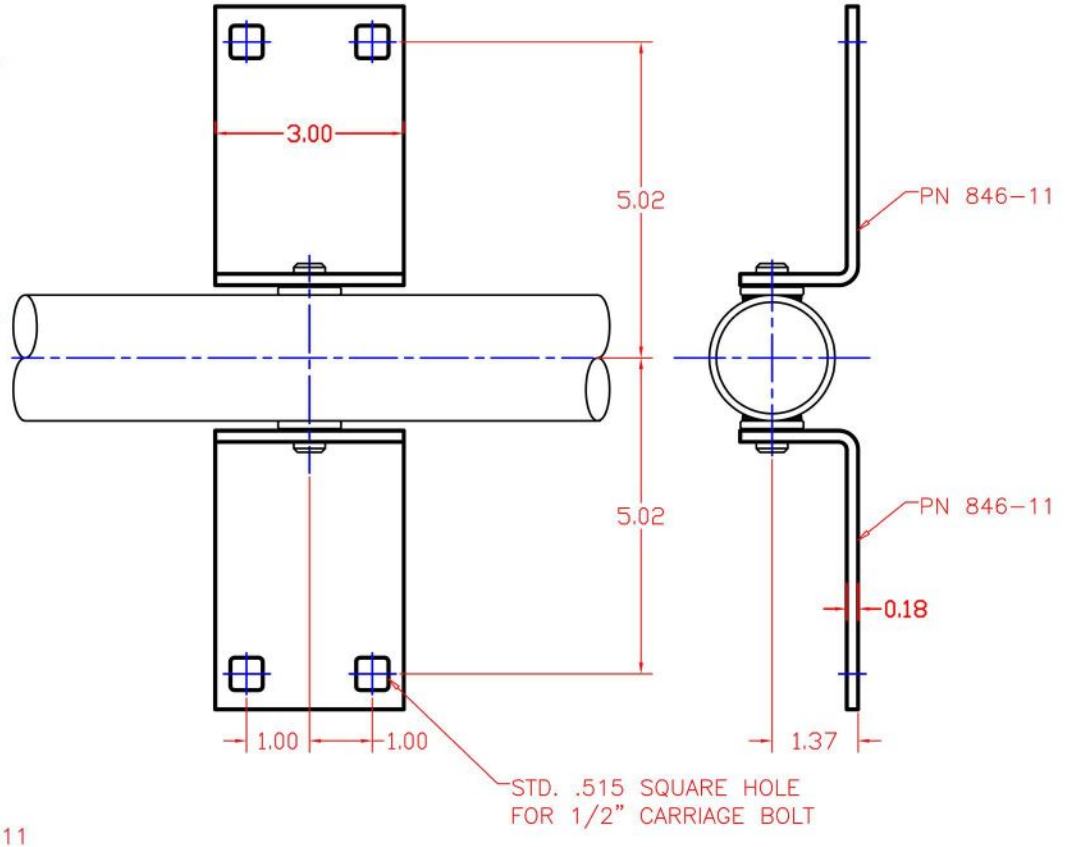
FEBRUARY, 2009



STANDARD MTG. OPTION ~ PN 846-20



SIDE MTG. OPTION ~ PN 846-22



EXTENDED MTG. OPTION ~ PN 846-21

TRUNION MOUNTING OPTIONS

SHEET NO. 5

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