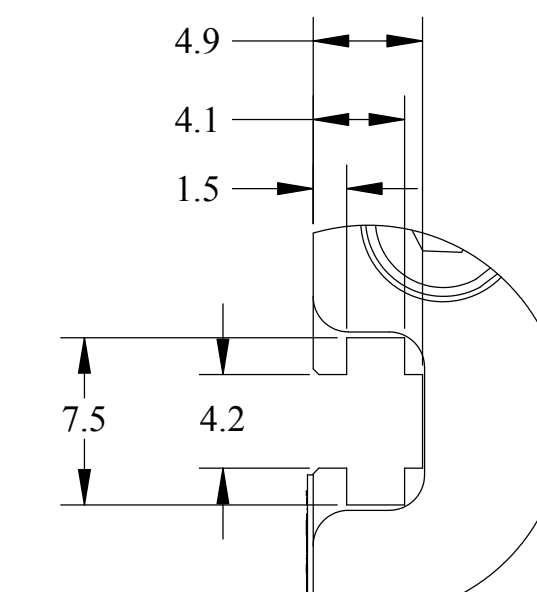
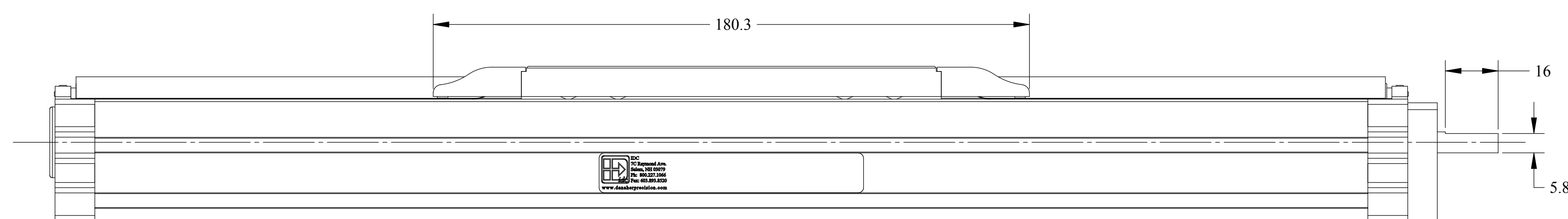
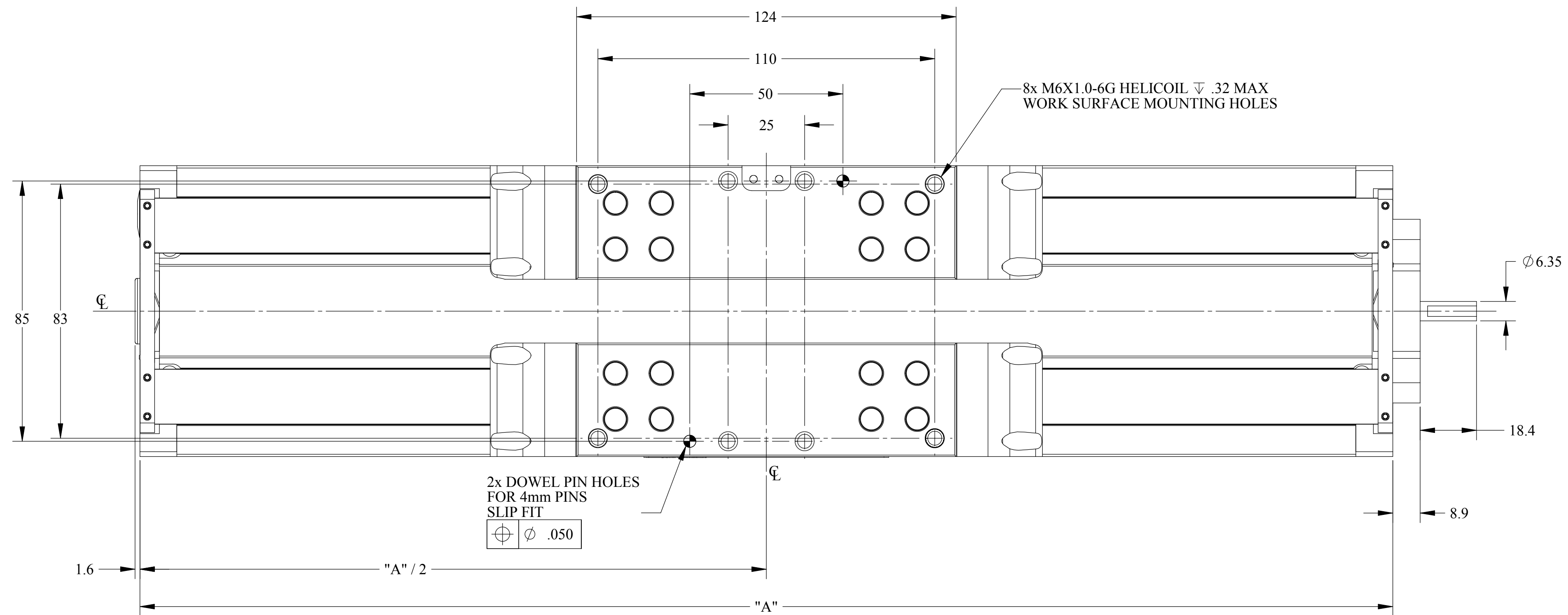
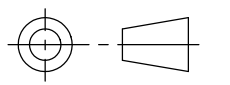
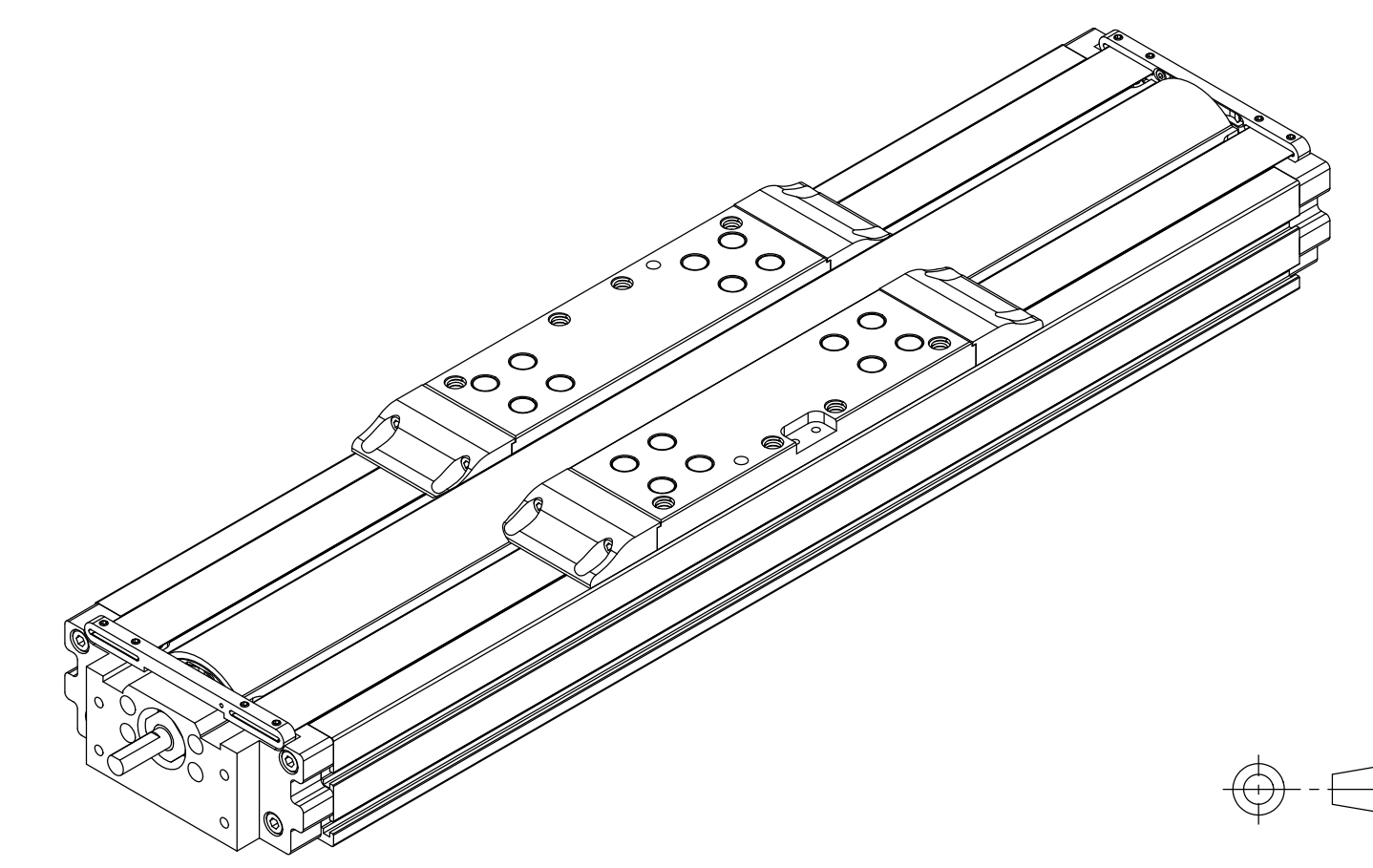
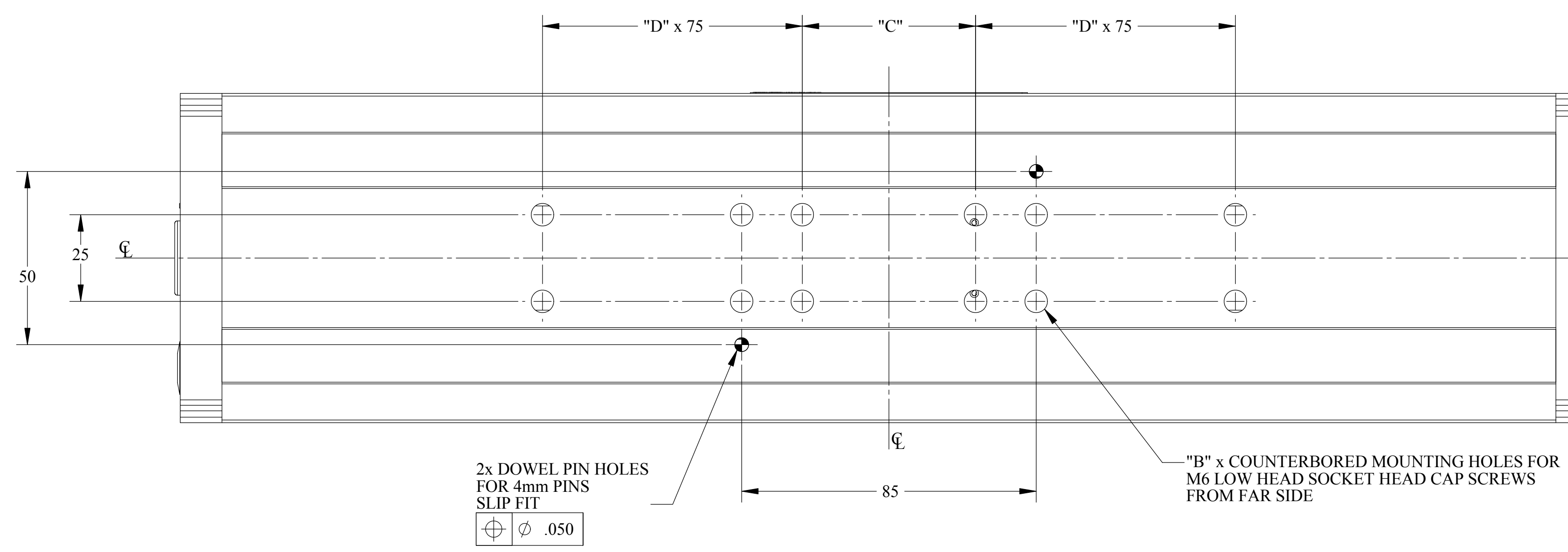
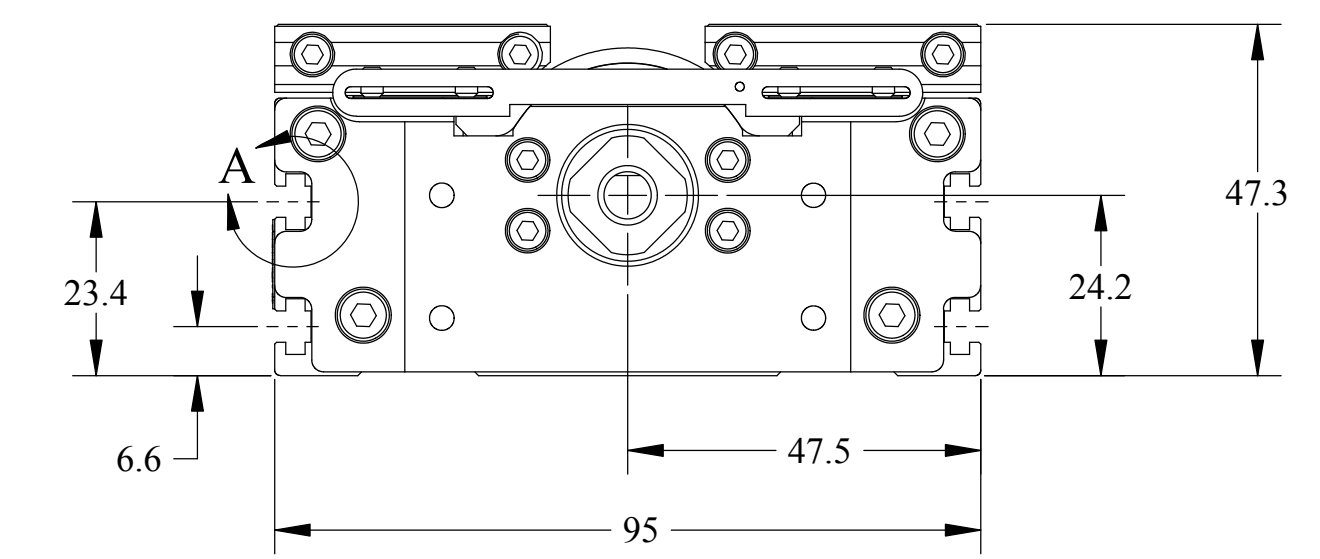


ECO	REV	DESCRIPTION	DATE	DONE BY
----	0	PRELIMINARY RELEASE	07/16/03	AMC
20405	A	PRODUCTION RELEASE	7/22/03	RJS
20427	B	CHANGE BRAKE LAYOUT; ADD MTR WIRING AND SPECS	07/25/03	AMC
20691	C	CHANGED FROM SILVERLINE MOTOR TO NEW AKM MOTOR	12/10/03	KDV
20858	D	CHANGED STEPPER MOTOR ADDED AKM WITH BRAKE	3/4/04	KDV

Model#	Travel	A	B	C	D
DS4-050	50	259.1	8	150	0
DS4-100	100	309.1	12	50	1
DS4-150	150	359.1	12	50	1
DS4-200	200	409.1	12	50	1
DS4-250	250	459.1	16	50	2
DS4-300	300	509.1	16	50	2
DS4-350	350	559.1	16	50	2
DS4-400	400	609.1	20	50	3
DS4-450	450	659.1	20	50	3
DS4-500	500	709.1	20	50	3
DS4-550	550	759.1	24	50	4
DS4-600	600	809.1	24	50	4



DETAIL A
SCALE 3 : 1



THIRD ANGLE PROJECTION

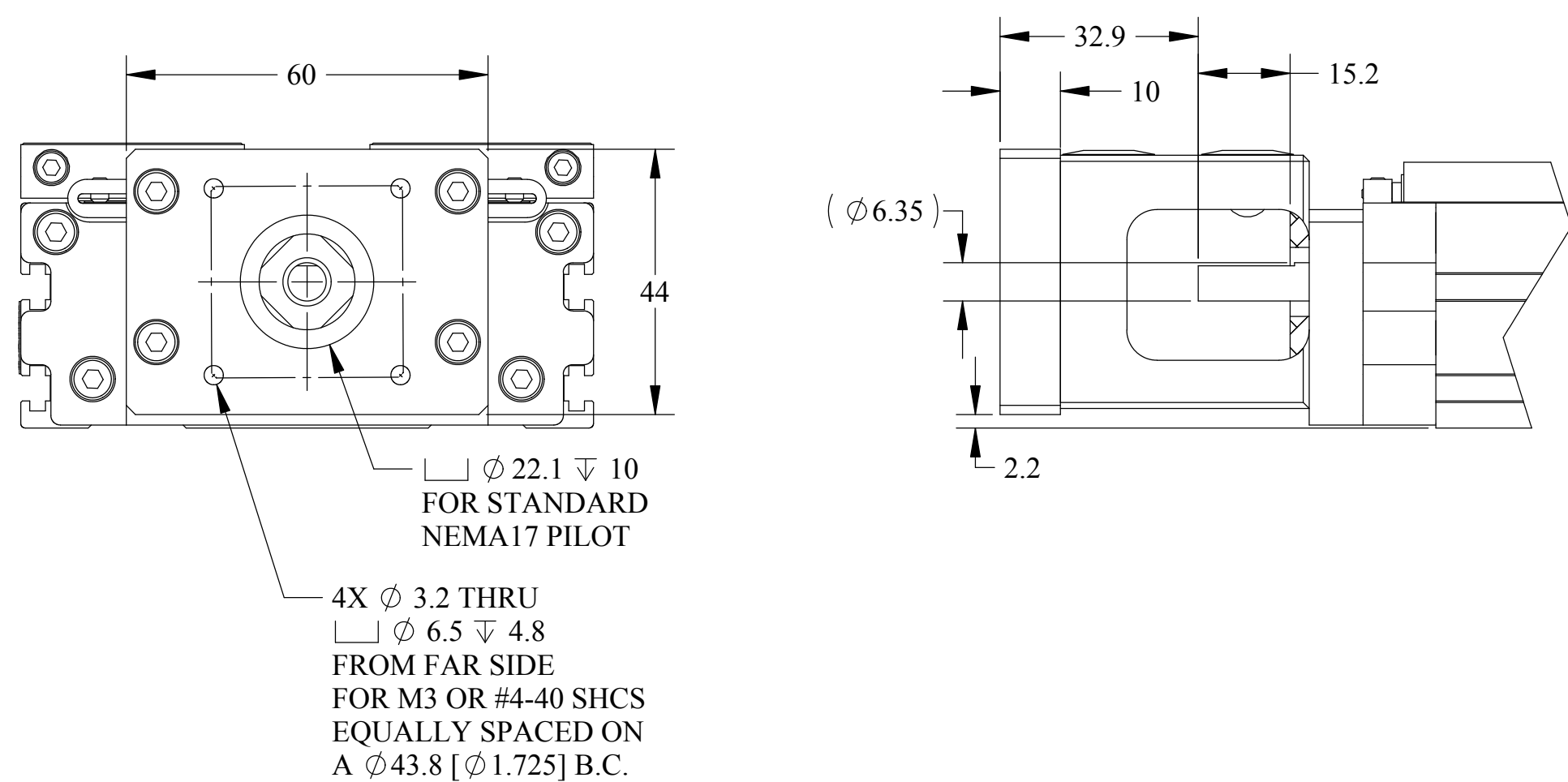
NOTE:
 1. TABLE SHOWN AT CENTER OF TRAVEL.
 2. TO MAINTAIN CATALOG SPECIFICATIONS, THE DS4 MUST BE MOUNTED TO A SURFACE WITH FLATNESS ERROR NOT TO EXCEED 0.013mm/300mm.

THIS DOCUMENT IS THE SOLE PROPERTY OF NEAT AND IS NOT TO BE REPRODUCED OR USED WITHOUT WRITTEN CONSENT. COUNTERSINK TAPPED HOLES TO FULL THREAD DIA. x 90°.

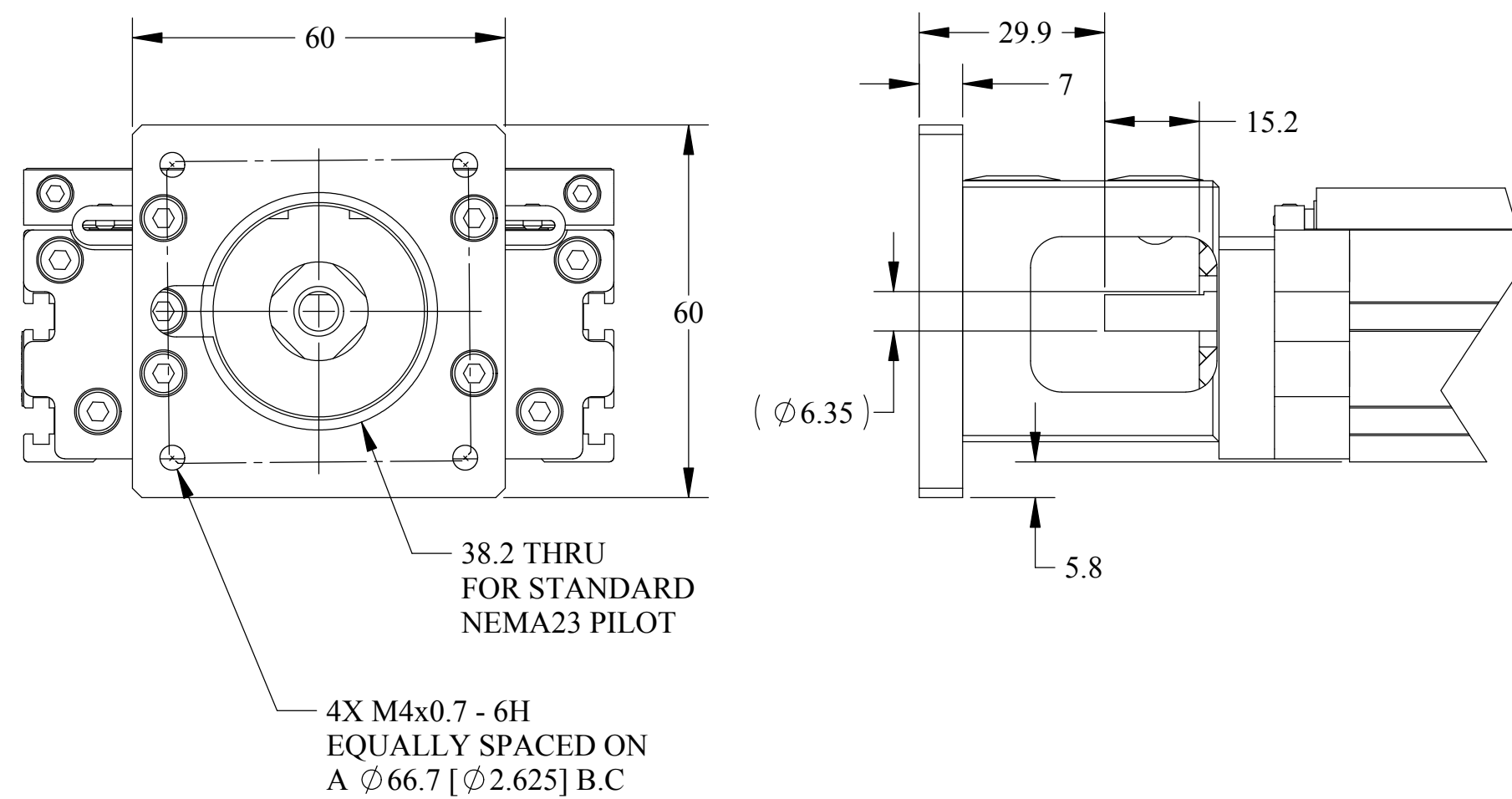
TOLERANCES UNLESS OTHERWISE SPECIFIED		DANAHER MOTION	
X.X ± ----	ANGULAR ± ----	FINISH: ----	DS4 TABULATION
X.XX ± ----	ALL MACHINED SURFACES		
X.XXX ± ----	FINISH: 1.6 MAX		
FRAC. ± ----	CORNER BREAK: ----		
DRAWN BY: AMC	DATE: 05/19/03	MATERIAL: ----	Dwg. No. 41-0041
ENGINEER: AMC	CHECKED:		SIZE D
			SCALE: 1:1 UNITS: MM SHEET 1 OF 9

NEMA17 MOTOR MOUNT
MAX. MOTOR SHAFT LENGTH: 24.9 [.98]

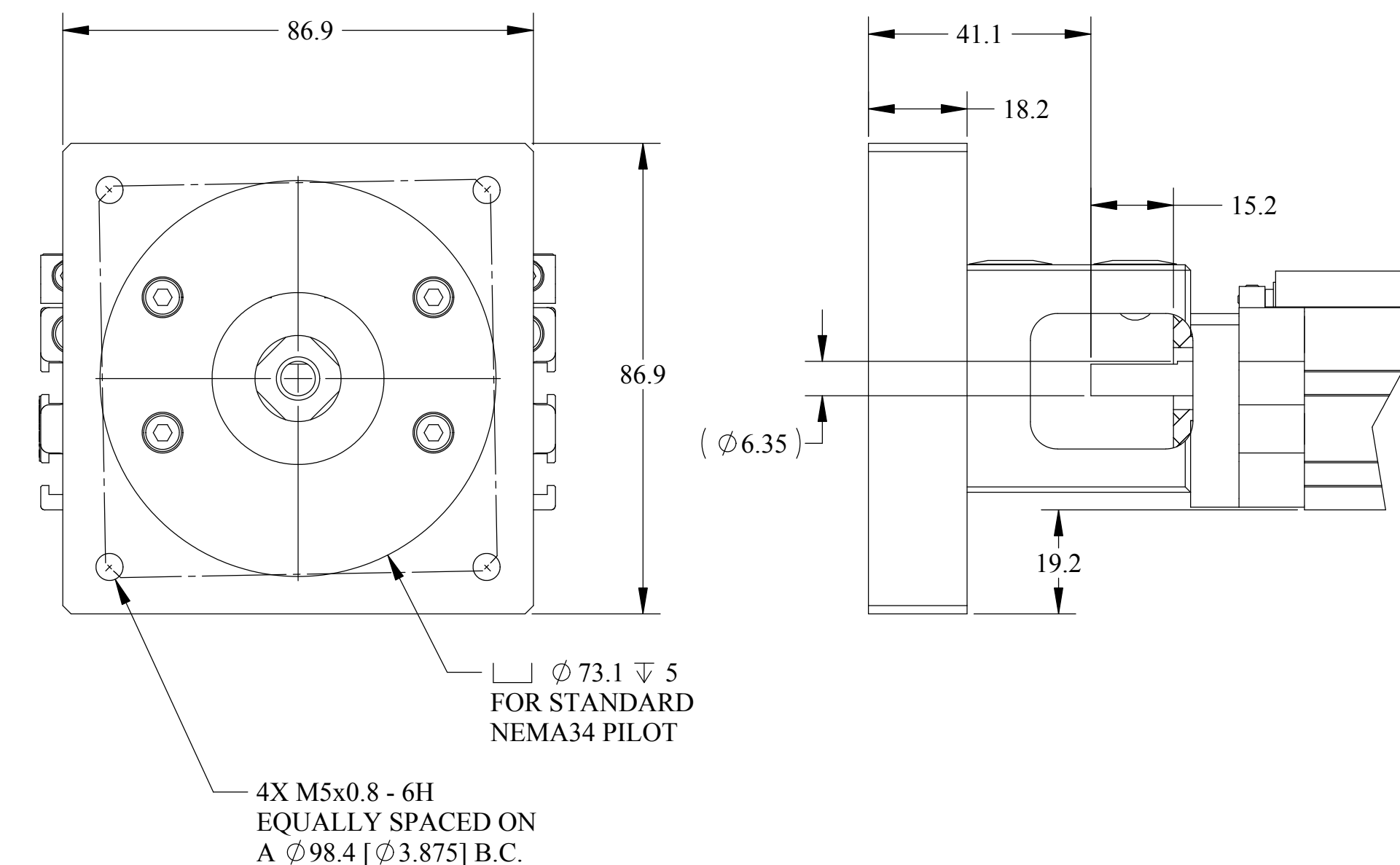
NOTE: MOTOR MOUNTING PLATE SHOULD BE ATTACHED TO THE MOTOR FIRST,
THEN ATTACH THE MOTOR / PLATE ASSEMBLY TO THE TABLE.



NEMA23 MOTOR MOUNT
MAX. MOTOR SHAFT LENGTH: 21.9 [.86]



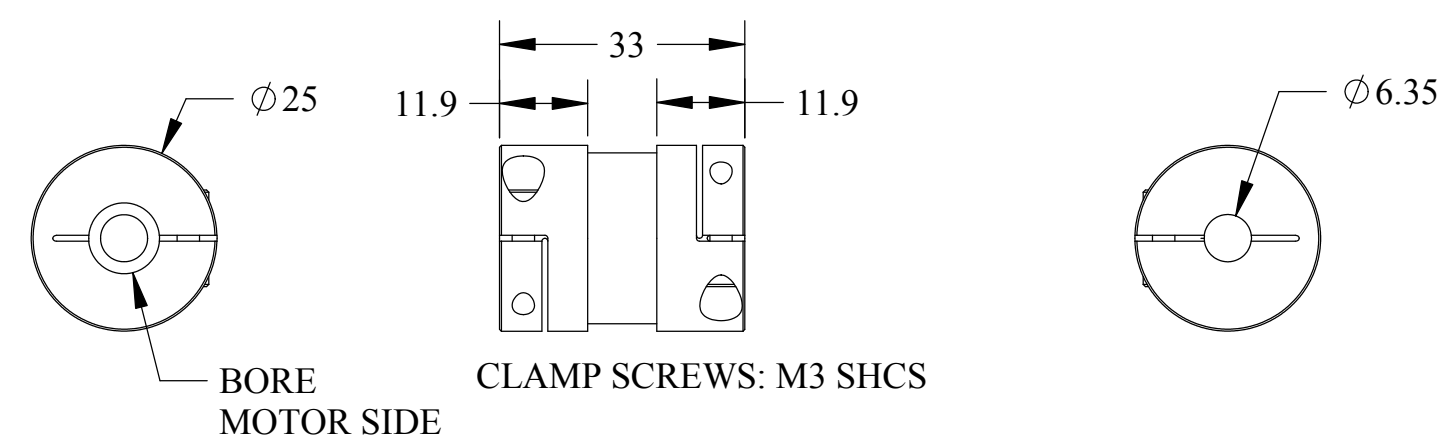
NEMA34 MOTOR MOUNT
MAX. MOTOR SHAFT LENGTH: 33.1 [1.30]



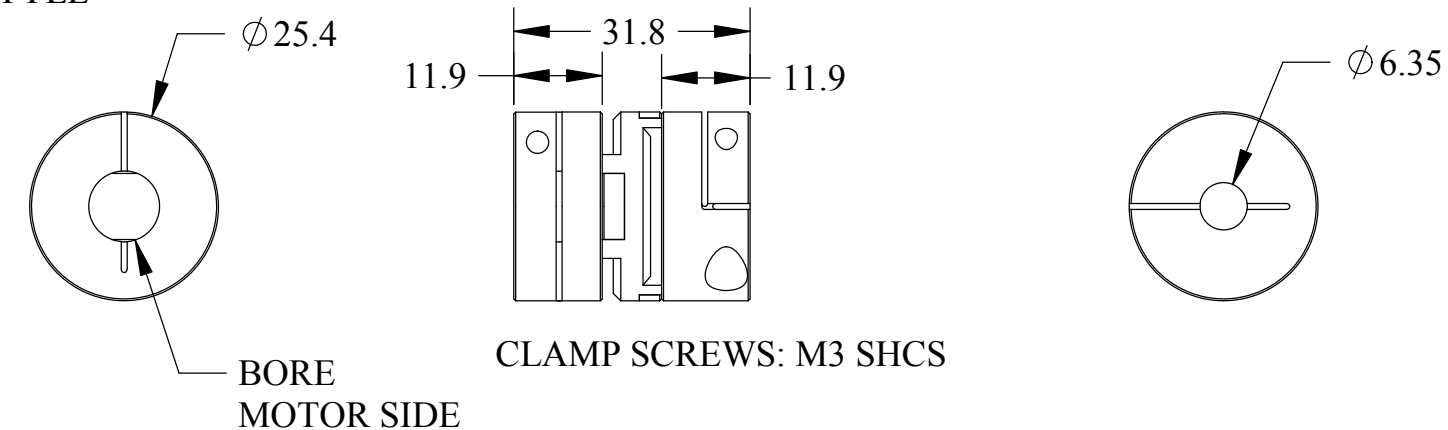
REV	DESCRIPTION
----	SEE SHEET 1

STANDARD COUPLINGS

BELLOWS STYLE



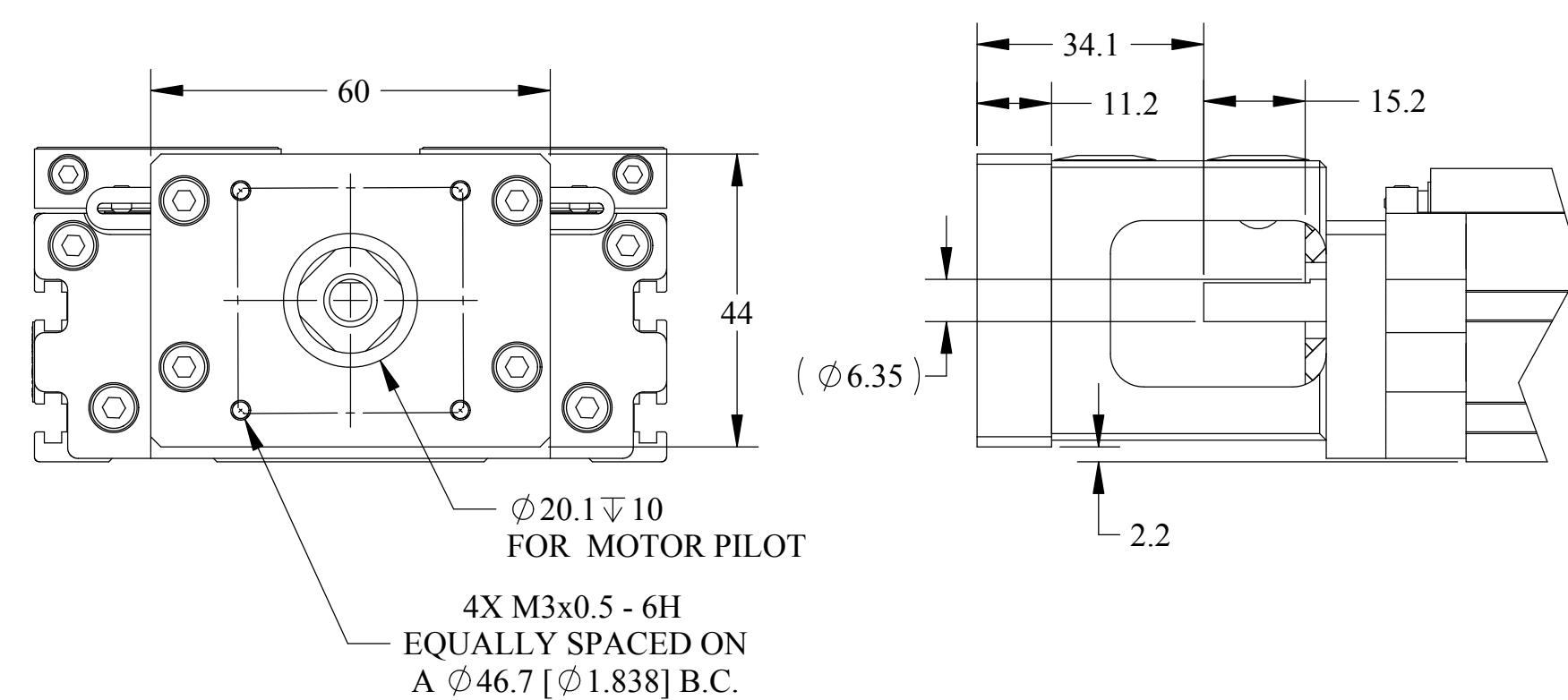
OLDHAM STYLE



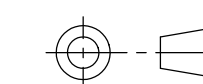
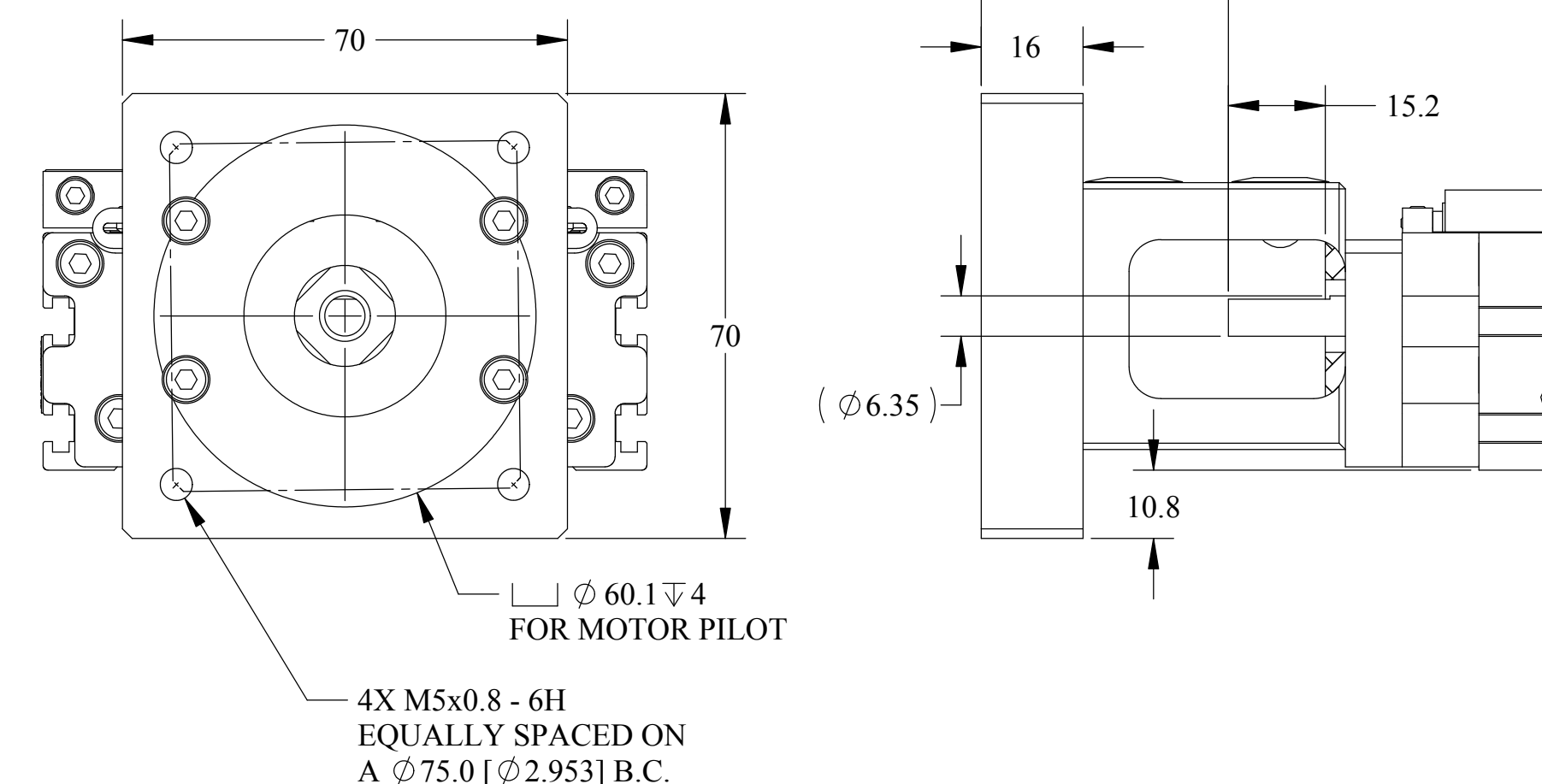
AVAILABLE BORE SIZES:
ENGLISH: 3/16"; 1/4"; 3/8"; 1/2"
METRIC: 5mm; 8mm; 9mm; 11mm

Other bore sizes available upon request.

1.6" FRAME MOTOR MOUNT
MAX. MOTOR SHAFT LENGTH: 26.1 [1.02]



70mm FRAME MOTOR MOUNT
MAX. MOTOR SHAFT LENGTH: 30.9 [1.21]



THIRD ANGLE PROJECTION

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TOLERANCES UNLESS OTHERWISE SPECIFIED

X.XX \pm .01
X.XXX \pm .005
X.XXXX \pm .001
FRAC. \pm 1/64"

DRAWN BY: AMC
ENGINEER: AMC

ANGULAR \pm 1°
ALL MACHINED SURFACES
FINISH: 63 MAX
CORNER BREAK: .005"-.020"

DATE: 05/19/03
CHECKED:

FINISH:

MATERIAL:



DS4 TABULATION
INLINE MOTOR MOUNTS

Dwg. No. 41-0041

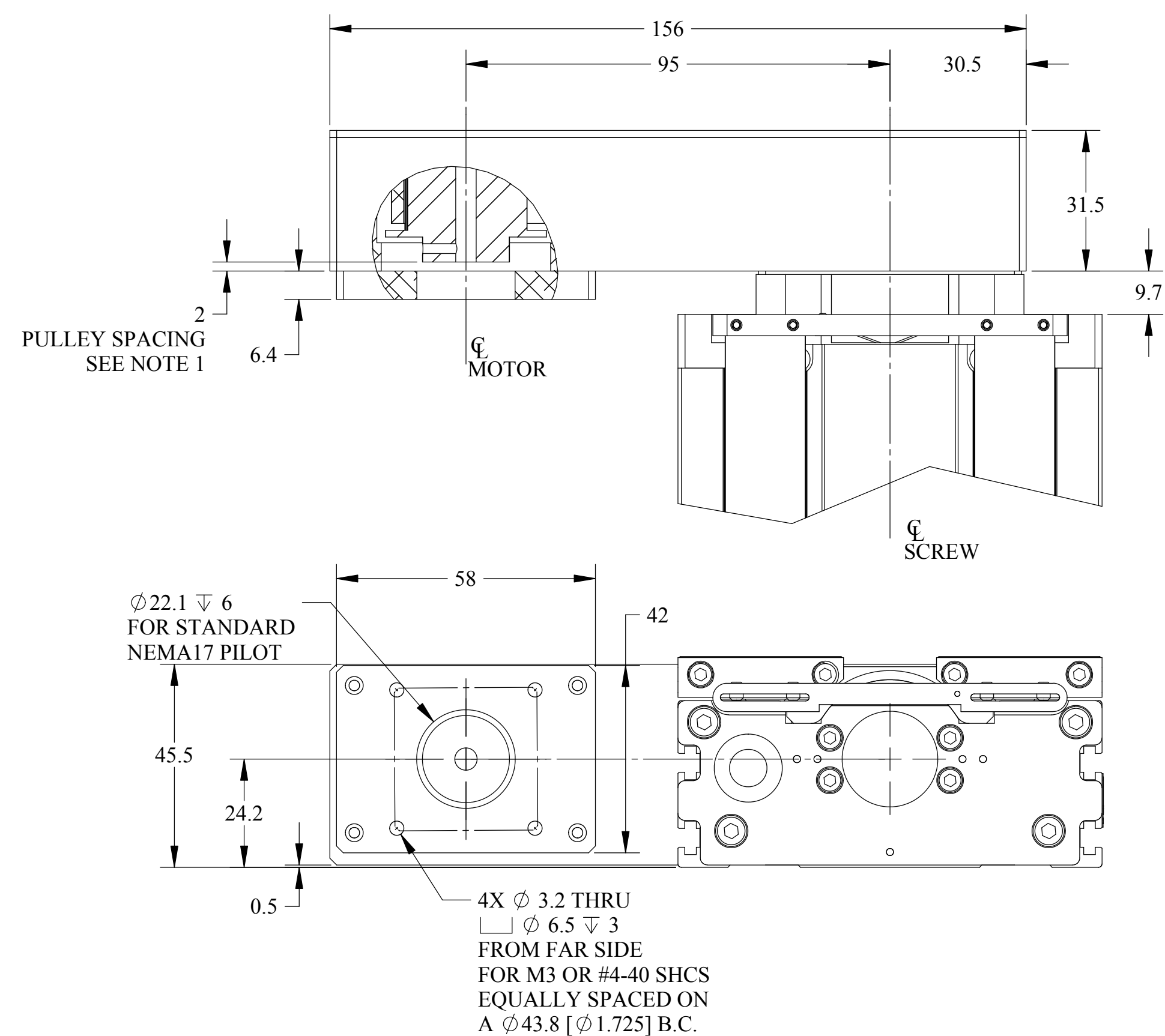
SCALE: 1:1 UNITS: INCHES SHEET 2 OF 9

SIZE
D

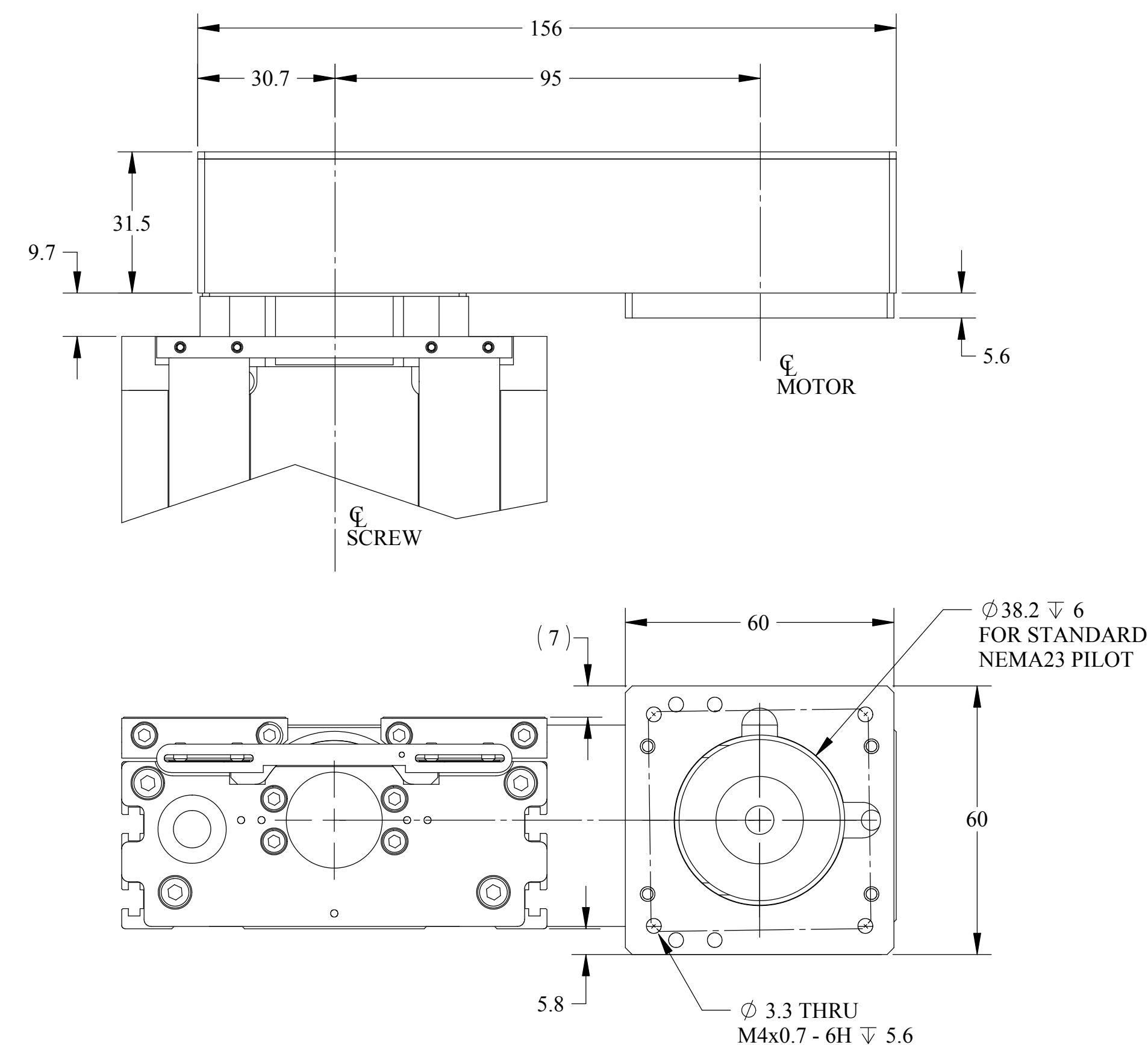
REV	DESCRIPTION
----	SEE SHEET 1

NEMA17 - PARALLEL RIGHT MOTOR MOUNT

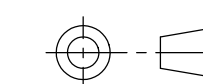
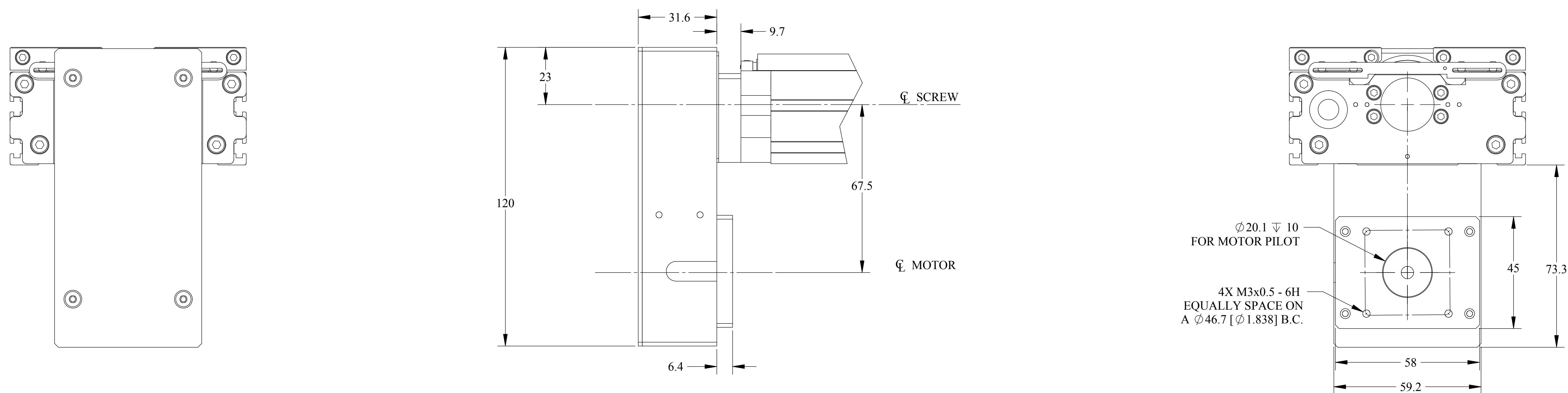
NOTE: MOTOR MOUNTING PLATE SHOULD BE ATTACHED TO THE MOTOR FIRST, THEN ATTACH THE PULLEY TO THE MOTOR SHAFT, AND THEN ATTACH THE MOTOR / PLATE ASSEMBLY TO THE TABLE.



NEMA23 - PARALLEL LEFT MOTOR MOUNT



1.6"- PARALLEL UNDER MOTOR MOUNT



THIRD ANGLE PROJECTION

- GENERAL NOTES:
 1. PULLEY SPACING SHOWN IN 'NEMA17 - PARALLEL RIGHT MOTOR MOUNT' VIEW APPLIES FOR BOTH THE MOTOR PULLEY (SHOWN) AND THE DRIVEN PULLEY, IN ALL CONFIGURATIONS.
 2. ANY OF THE THREE STANDARD MOTOR MOUNTING PLATES CAN BE APPLIED IN ANY OF THE THREE CONFIGURATIONS. ALL PLATES MOUNT WITH THE CENTER POINT AT THE SAME POSITION AS THE PLATE SHOWN.

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TOLERANCES UNLESS OTHERWISE SPECIFIED

X.XX ± .01
 X.XXX ± .005
 X.XXXX ± .001
 FRAC. ± 1/64"

DRAWN BY: AMC
 ENGINEER: AMC

ANGULAR ± 1°
 ALL MACHINED SURFACES
 FINISH: 63 MAX
 CORNER BREAK: .005"-.020"

DATE: 05/19/03
 CHECKED:

FINISH:

 MATERIAL:



DS4 TABULATION
 PARALLEL MOTOR MOUNTS

Dwg. No. 41-0041

SCALE: 1:1 UNITS: MM SHEET 3 OF 9

SIZE
 D

ROTARY ENCODER OPTION (-ES)

IMPORTANT:
THE BALLSCREW COVER CANNOT BE REMOVED WITH THE ENCODER ATTACHED.

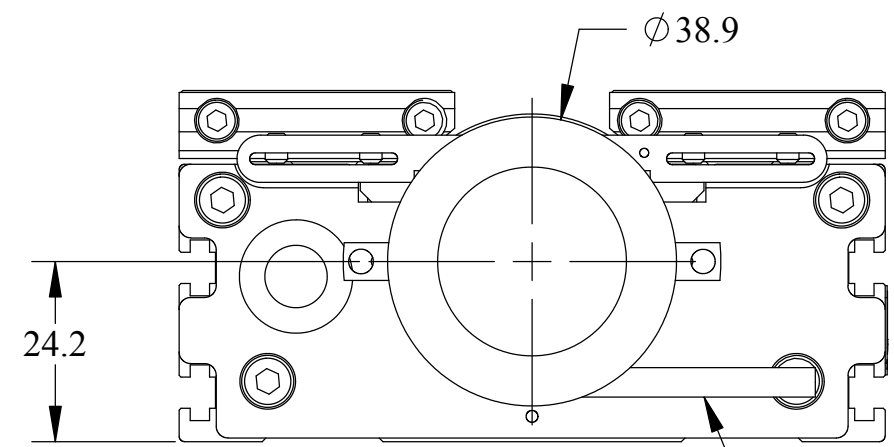
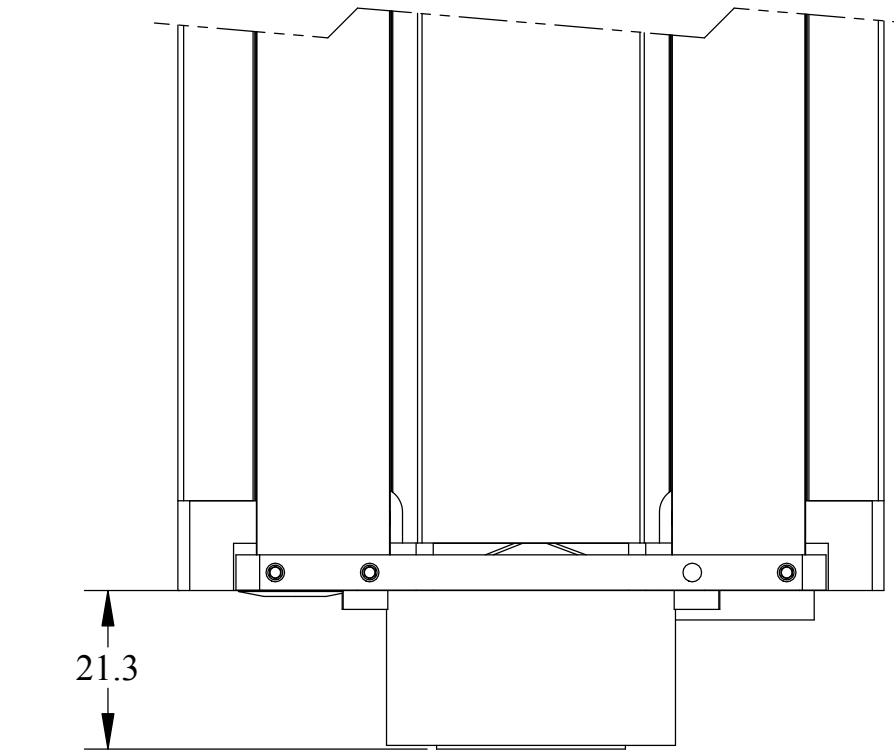
TO REMOVE COVER, FIRST REMOVE THE ENCODER BY THE FOLLOWING PROCEDURE:

- SNAP OFF THE ENCODER COVER,
- LOOSEN THE TWO M2 MOUNTING SCREWS (BUT DO NOT REMOVE),
- LOOSEN THE SET SCREW IN THE HUB,
- PULL SLIDE/LOCK MECHANISM TO EXTENDED POSITION,
- REMOVE MOUNTING HARDWARE, AND
- SLIDE THE ENCODER OFF THE SCREW SHAFT.

TO RE-INSTALL THE ENCODER:

- SLIDE ENCODER ONTO THE SCREW SHAFT, BY PUSHING ON THE HUB ONLY, UNTIL ENCODER IS RESTING ON MOUNTING SURFACE,
- PRESS DOWN ON HUB TO ENSURE IT IS SEATED PROPERLY AND TIGHTEN SET SCREW, (SET SCREW SHOULD BE LOCATED OVER THE FLAT ON THE SHAFT)
- INSTALL AND SECURE THE TWO M2 MOUNTING SCREWS,
- PRESS IN THE SLIDE/LOCK MECHANISM COMPLETELY, AND
- SNAP ON THE ENCODER COVER.

NOTE THAT THE ENCODER REFERENCE MARKER POSITION MAY CHANGE SLIGHTLY EACH TIME THIS IS DONE. IF THIS POSITION IS CRITICAL FOR HOMING THE SYSTEM, IT IS RECOMMENDED THAT THE ENCODER NOT BE REMOVED - CONSULT FACTORY FOR ALTERNATIVE SOLUTIONS.



ENCODER CABLE W/ CONNECTOR
(SEE DETAILS BELOW)

ROTARY ENCODER SPECIFICATIONS
Modular Incremental Type Rotary Encoder

ELECTRICAL
Output Format: Square-Wave, Two-Channel quadrature with index.
Resolution: 1250 lines/rev (5000ppr post quadrature), one index line.
Supply Voltage: 5VDC ±5%
Current Requirements: 135mA
Output Frequency: 200kHz MAX

MECHANICAL
Weight: 57g MAX
Inertia: 5.16g-cm²
Cover Material: Glass-Filled Polycarbonate

ENVIRONMENTAL
Operating Temperature: -10 °C to +100 °C
Storage Temperature: -30 °C to +110 °C
Humidity: 90% relative (non-condensing)
IP Rating: IP40
Shock: 50 G's for 11ms duration
Vibration: 5-2000Hz @ 10 G's

CABLE
Cable Length: 457mm ± 26mm
Cable Type: 8x 28 gauge conductors with PVC insulation, polyester foil shield w/ drain wire, in PVC cable jacket.

Connector: AMP P/N 103971-7 or equivalent
Mating Connector: Any 0.635mm non-polarized single row header (2.54mm centers) or may be intalled into single row latching shroud (AMP P/N 103680-5)

Pin	Function	Wire Color
1	+VCC	Red
2	GND	Black
3	CH A	White
4	CH A NOT	Yellow
5	CH B	Green
6	CH B NOT	Blue
7	INDEX	Orange
8	INDEX NOT	Brown
-	SHIELD	Drain

POWER-OFF BRAKE OPTION (-BS) THIS OPTION IS NOT AVAILABLE WITH THE "BK23B" OR "BK23SB" MOTOR OPTIONS.

IMPORTANT:
THE BALLSCREW COVER CANNOT BE REMOVED WITH THE BRAKE ATTACHED.

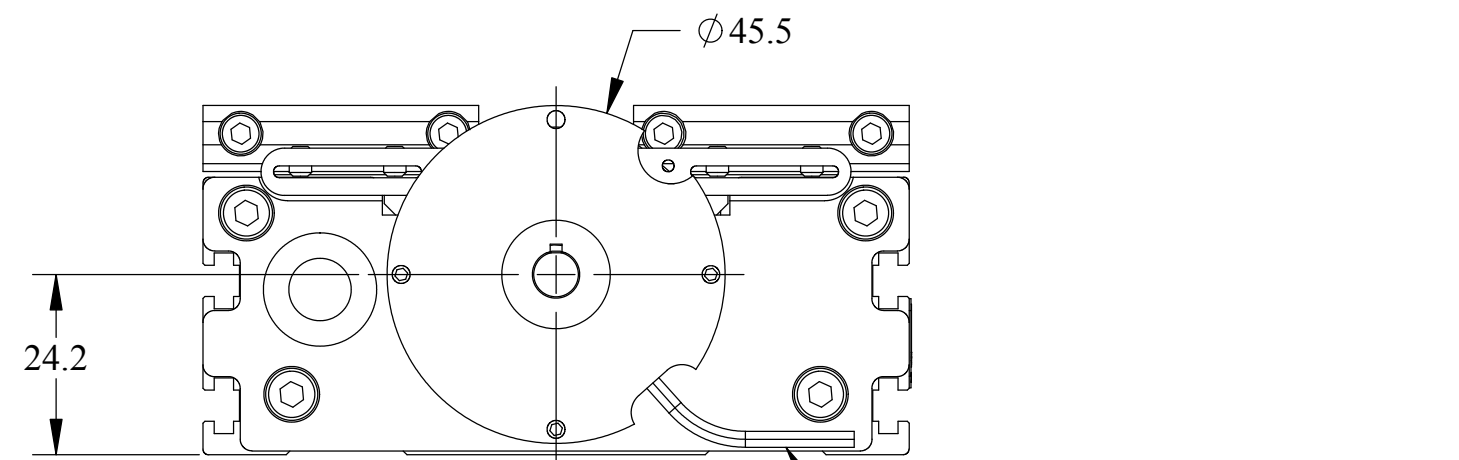
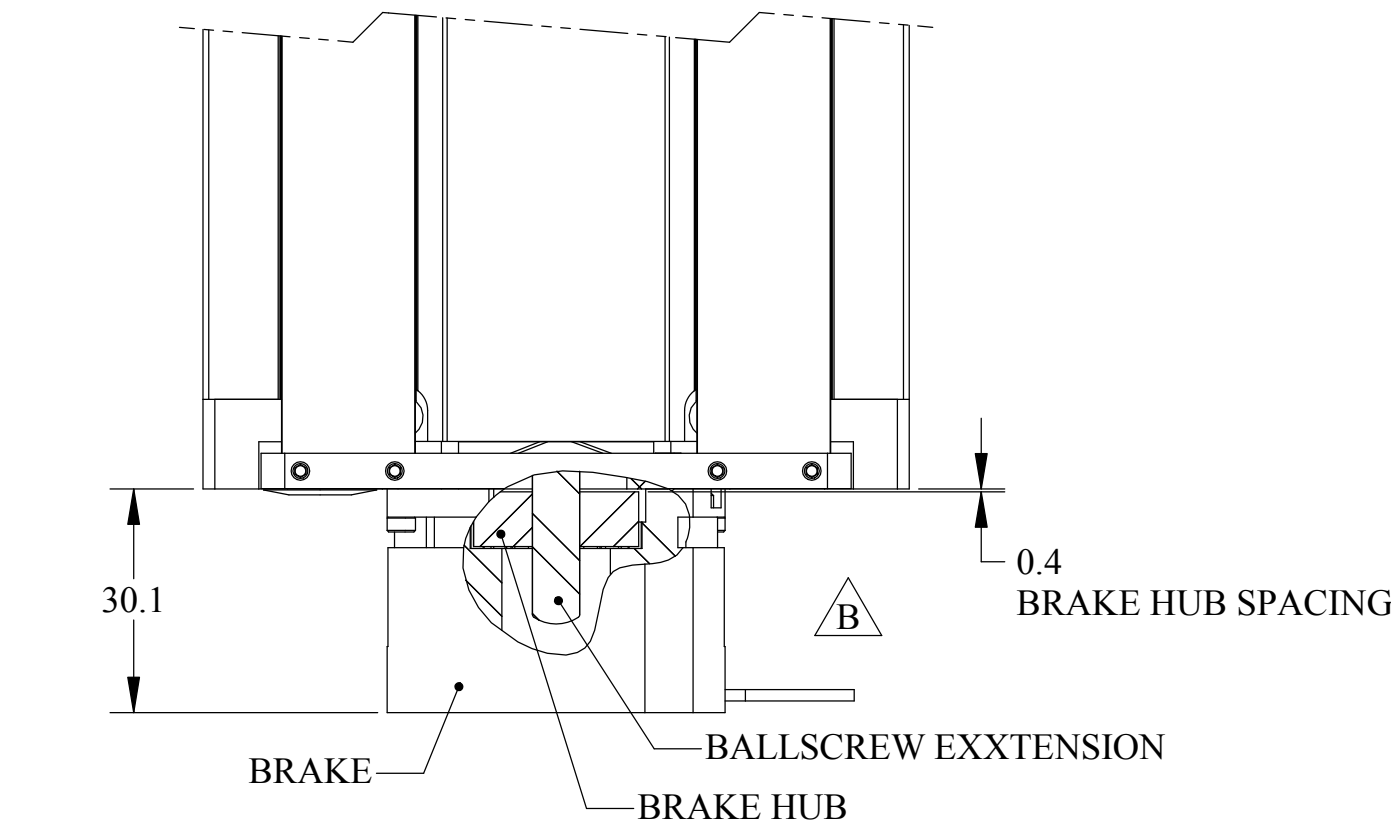
TO REMOVE COVER, FIRST REMOVE THE BRAKE BY THE FOLLOWING PROCEDURE:

- REMOVE THE THREE M2 MOUNTING SCREWS,
- PULL THE BRAKE OFF THE DS4.

IT IS NOT NECESSARY TO REMOVE THE BRAKE HUB FROM THE BALLSCREW.

TO RE-INSTALL THE BRAKE:

- PRESS THE BRAKE ONTO THE MOUNTING SURFACE SO THAT THE INTERNAL TEETH MESH WITH THE TEETH ON THE HUB,
- WHEN THE BRAKE IS PROPERLY SEATED, ROTATE TO ALIGN THE MOUNTING HOLES,
- INSERT AND TIGHTEN THE MOUNTING SCREWS.



BRAKE CABLE W/ FLYING LEADS
(SEE DETAILS BELOW)

BRAKE SPECIFICATIONS
Electromagnetic Power-Off Type Brake

ELECTRICAL
Coil Voltage: 24VDC
Current Draw: 395mA
Resistance: 64Ohms (nominal)
Power: 10W MAX

MECHANICAL
Holding Torque: 1.13Nm
Weight: 300g
Inertia: .211g-cm²

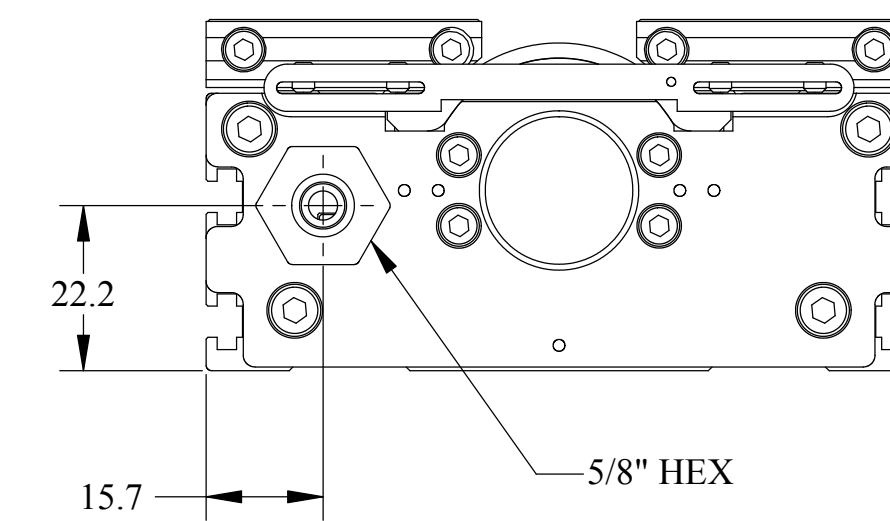
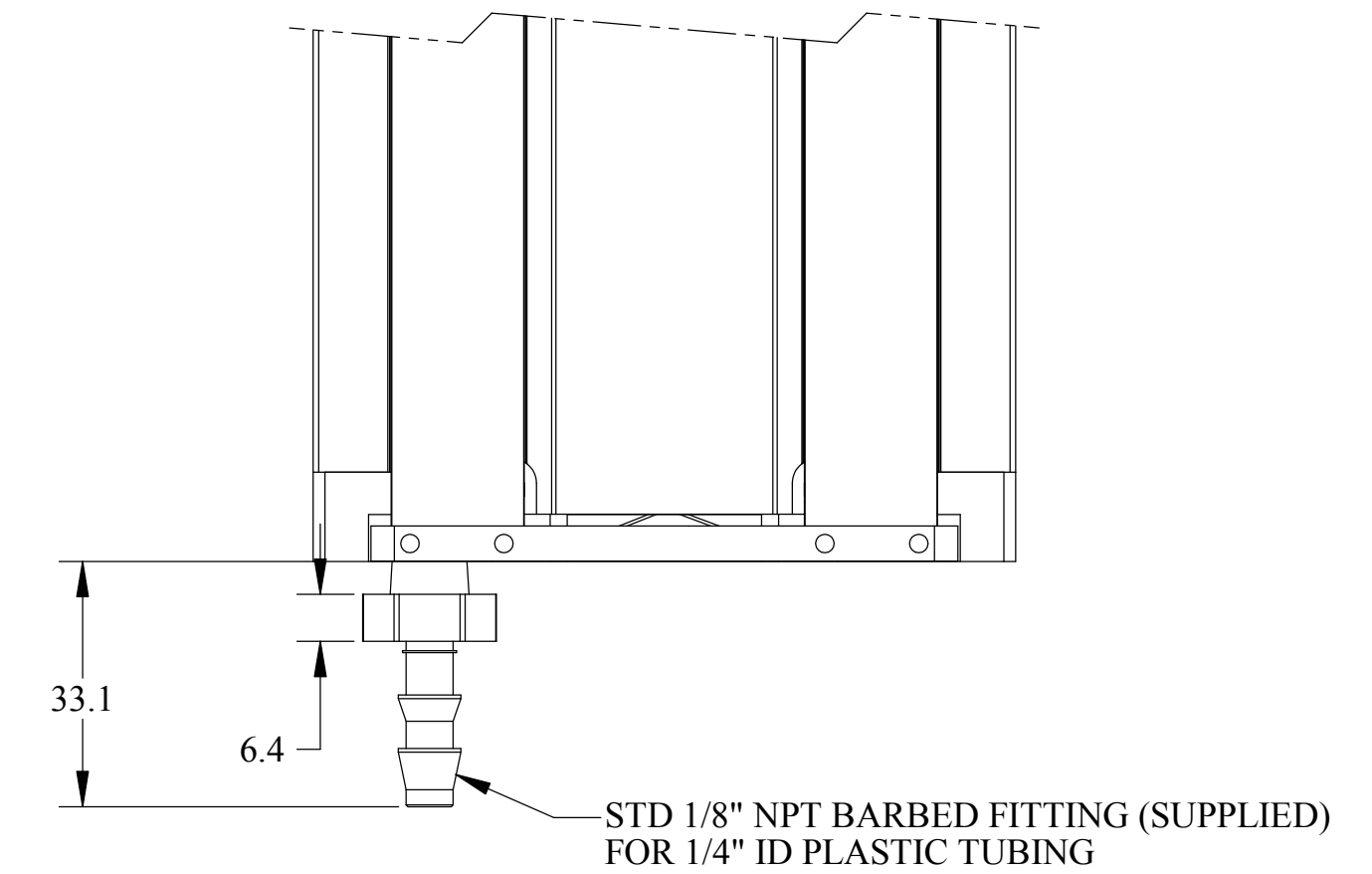
Armature Engagement: 30ms
Armature Disengagement: 10ms

Max Operating Temperature: 180 °C

CABLE
Cable Length: 300mm MIN
Cable Type: 2x 28 gauge conductors with PVC insulation

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AIR PURGE FITTING (INCLUDED WITH ALL DS4'S)

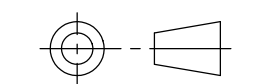


AIR PURGE OPTION
Plastic barbed fitting ships with unit.

This option can be used to positively pressurize the unit to prevent particulates from entering the unit.

To utilize this option remove black plastic plug, and thread in the included 1/8-NPT barbed fitting. Attach a piece of 1/4" diameter plastic tubing (not included) to the barbed fitting and lead out to a CLEAN air source.

Recommended Max Pressure to unit: 14-20kPa (2-3psi)



THIRD ANGLE PROJECTION

TOLERANCES UNLESS OTHERWISE SPECIFIED			
X.XX ± .01	ANGULAR ± 1°	FINISH: -----	DS4 TABULATION OPTIONS
X.XXX ± .005	ALL MACHINED SURFACES		
X.XXXX ± .001	FINISH: 63 MAX	MATERIAL: -----	Dwg. No. 41-0041
FRAC. ± 1/64"	CORNER BREAK: .005"-.020"		
DRAWN BY: AMC	DATE: 05/19/03	SIZE D	
ENGINEER: AMC	CHECKED:	SCALE: 1:1	UNITS: MM
		SHEET 4 OF 9	

REV	DESCRIPTION
----	SEE SHEET 1

LINEAR ENCODER SPECIFICATIONS

Resolution: 0.1µm; 0.5µm; 1.0µm; (Incremental)
 Signal: Square wave differential line driver; Two channel quadrature

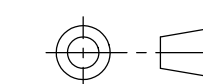
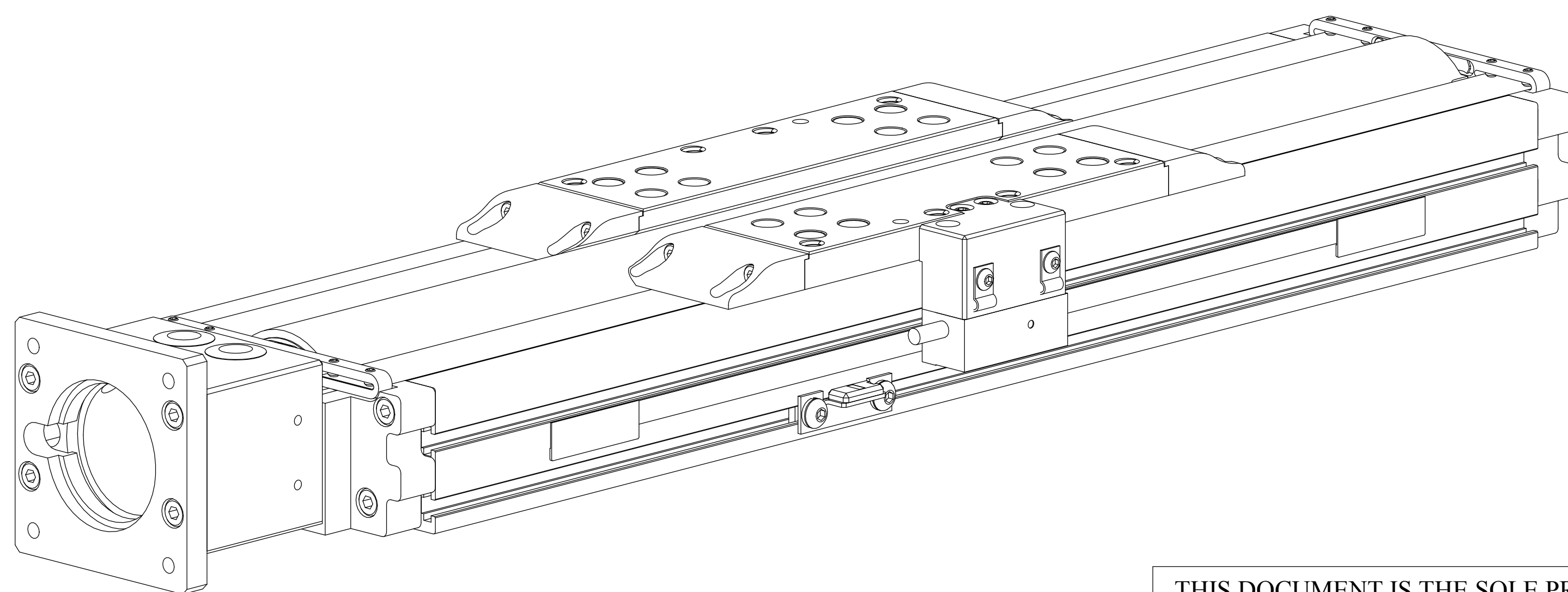
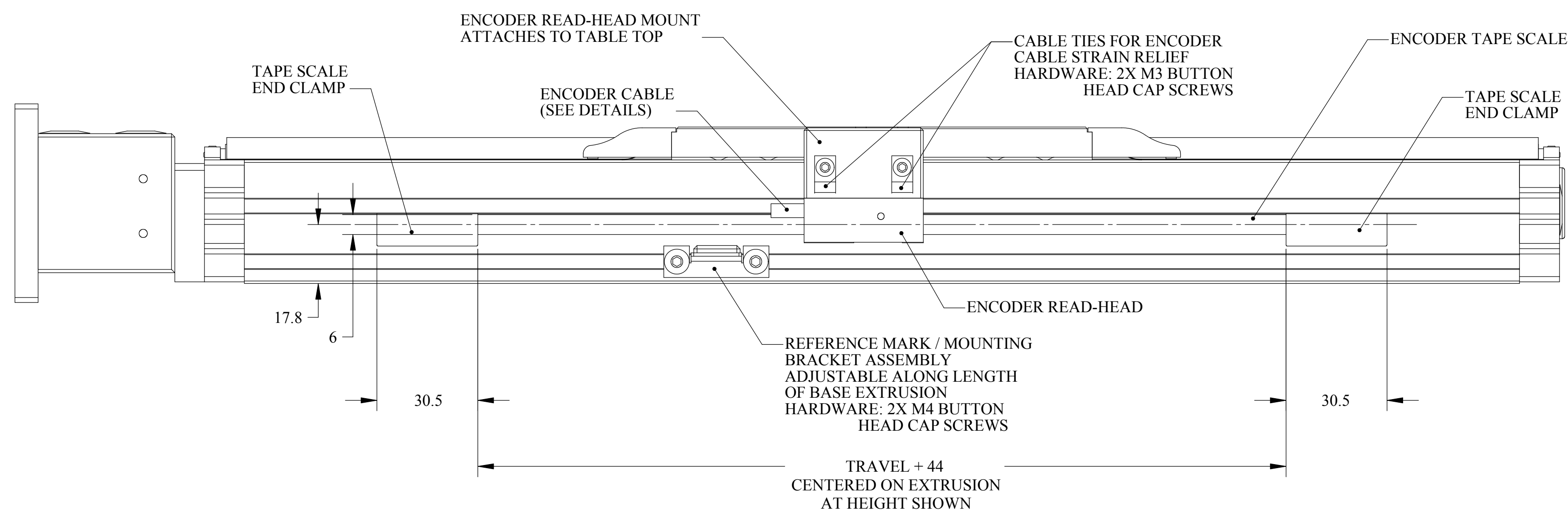
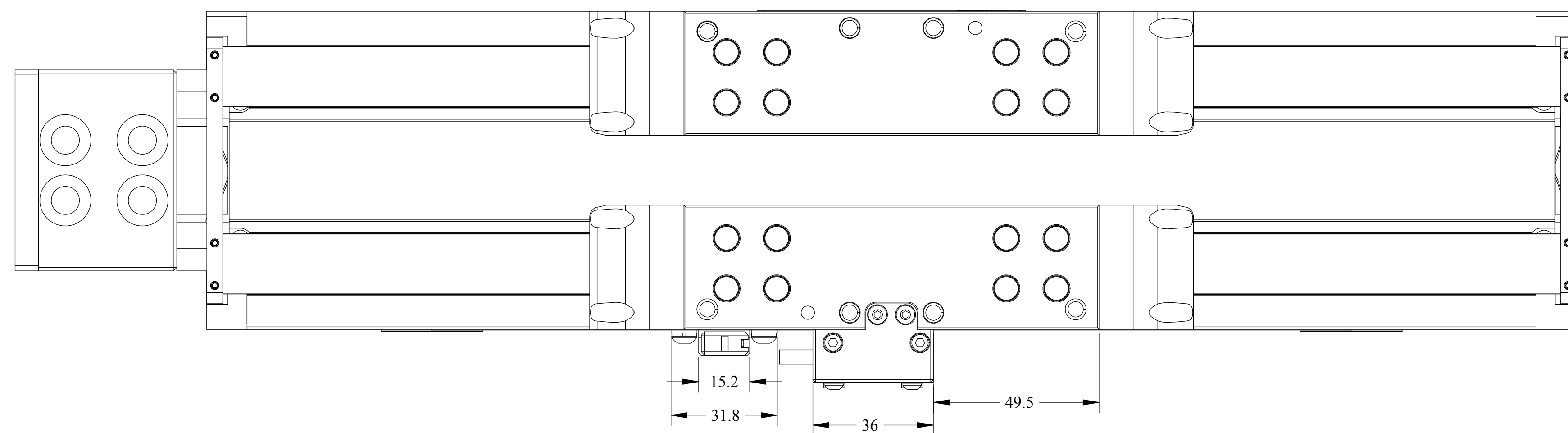
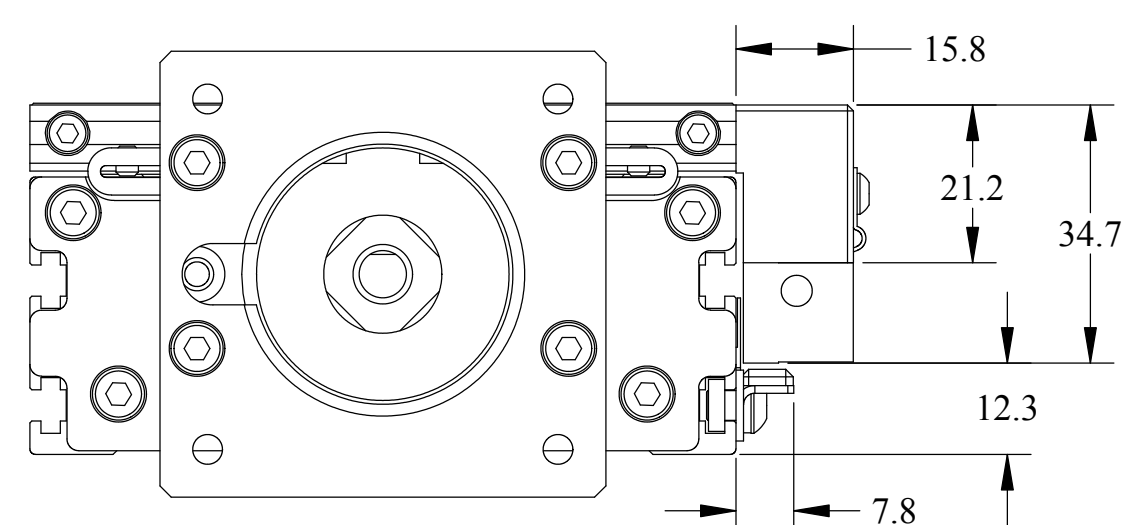
Power Supply: 5VDC ±5%, 120mA (0.5µm and 1.0µm)
 150mA (0.1µm only)

Operating Temperature: 0°C to +55°C
 Storage Temperature: -20°C to +70°C
 Humidity: 10-90% RH (non-condensing)
 Sealing: IP40
 Acceleration: 30g (operating)
 Shock: 100g for 1ms duration (non-operating)
 Vibration: 10g @ 55-2000Hz (operating)

Accuracy: ±3µm/m with linear compensation
 Linearity: ±1µm/60mm; ±3µm/m

Cable Type: 1.5m Ø4.2mm integral double shielded cable
 w/ 9-pin 'D' type plug
 Cable Flex Life: >20 million cycles at 20mm bend radius

Pin	Function	Wire Color
1	0VDC	White
2	CH A	Green
3	CH Z	Pink
4	CH B	Blue
5	+5VDC	Brown
6	CH A NOT	Yellow
7	CH Z NOT	Grey
8	CH B NOT	Red
9	Inner Shield	-----
-	Outer Shield	-----



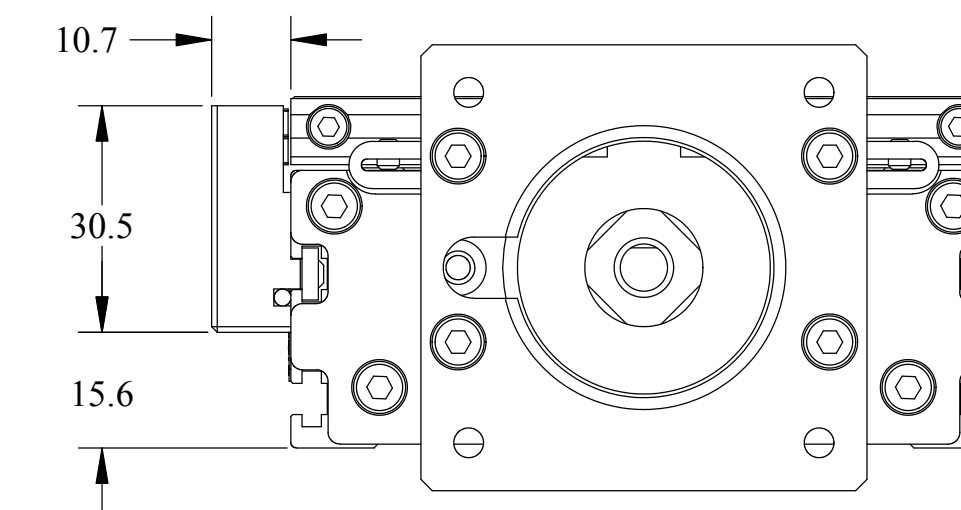
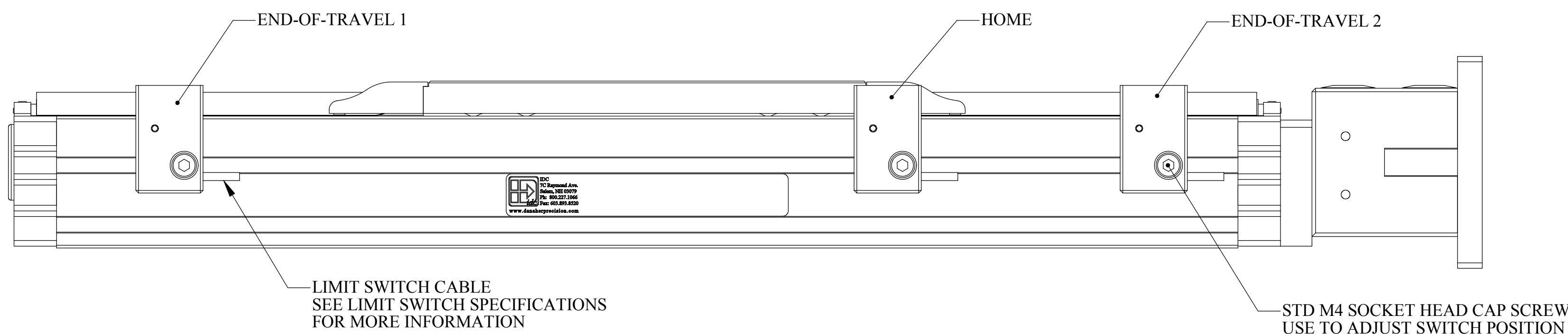
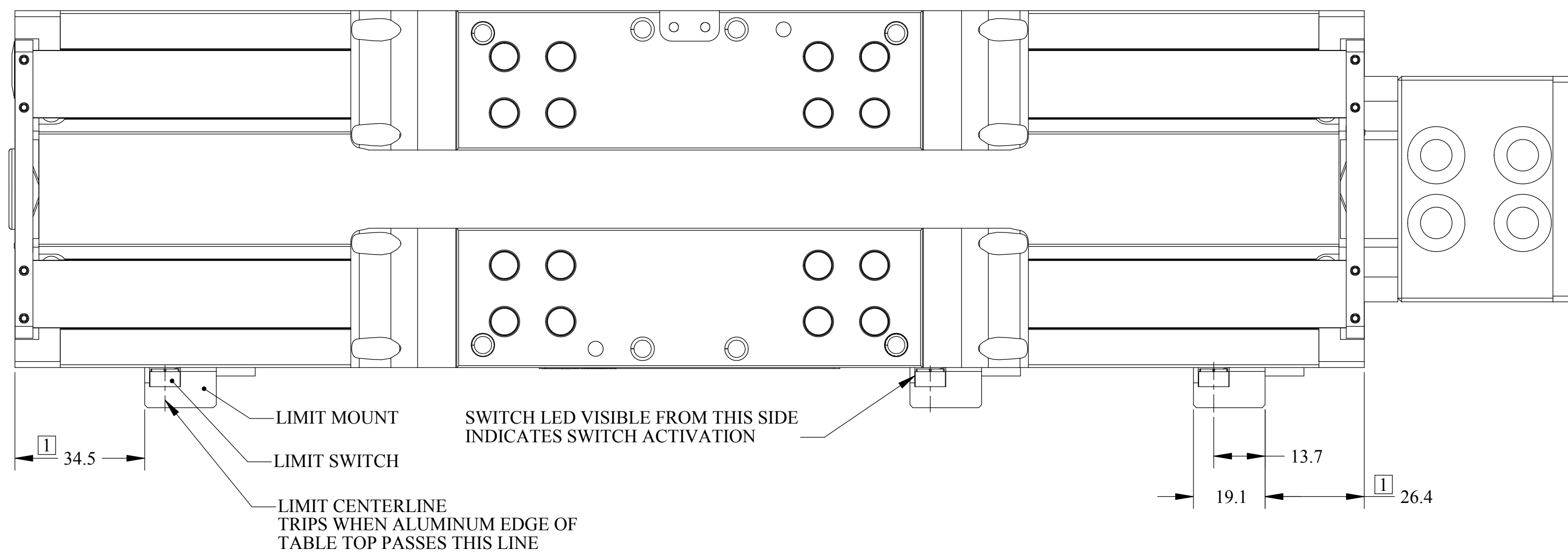
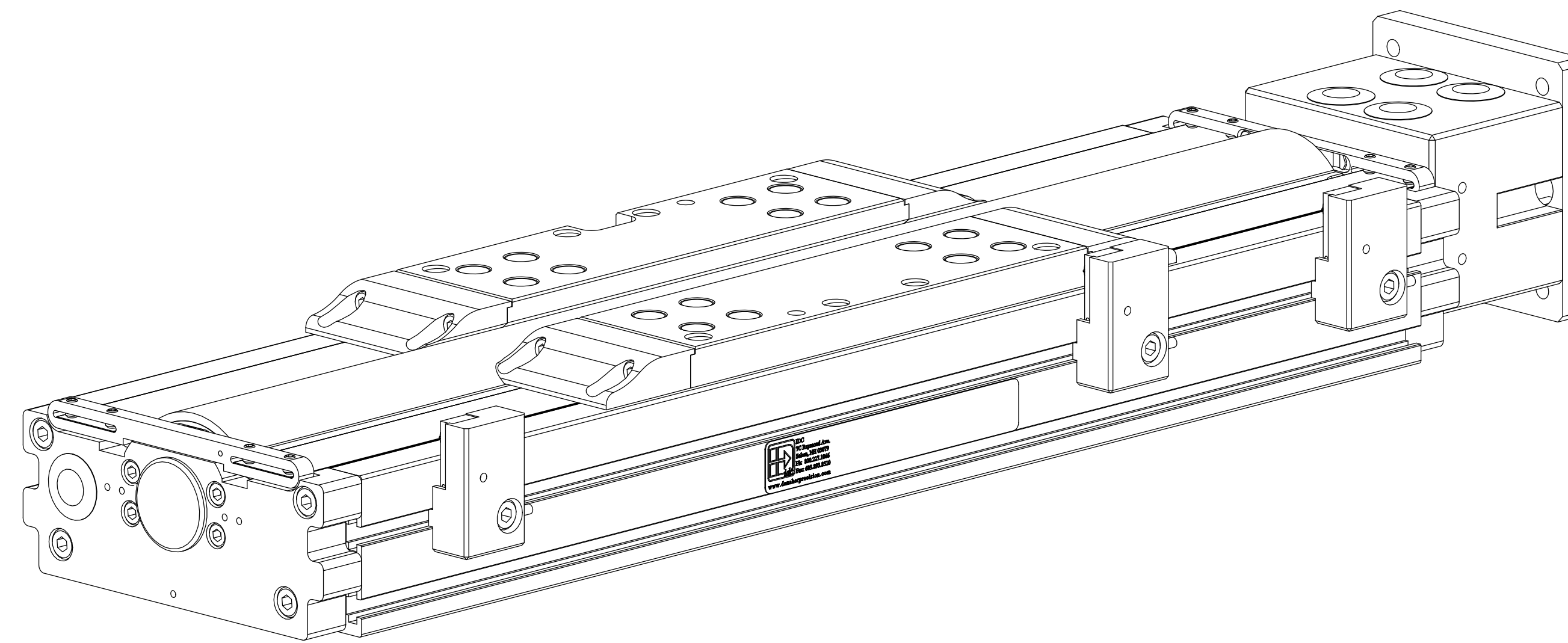
THIRD ANGLE PROJECTION

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TOLERANCES UNLESS OTHERWISE SPECIFIED		DANAHER MOTION	
X.XX ± .01	ANGULAR ± 1°	FINISH: -----	DS4 TABULATION LINEAR ENCODER OPTION
X.XXX ± .005	ALL MACHINED SURFACES		
X.XXXX ± .001	FINISH: 63 MAX		
FRAC. ± 1/64"	CORNER BREAK: .005"-.020"	MATERIAL: -----	Dwg. No. 41-0041
DRAWN BY: AMC	DATE: 05/19/03	SCALE: 1:1	UNITS: MM
ENGINEER: AMC	CHECKED:	SHEET 5 OF 9	

SIZE
D

REV	DESCRIPTION
----	SEE SHEET 1



LIMIT SWITCH SPECIFICATIONS
Inductive Proximity Sensors

Available Types: NPN Normally Open / Closed
PNP Normally Open / Closed

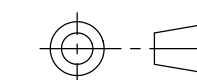
Repeatability: ±8µm

Power Supply: 5 to 30 VDC
Current Consumption: ≤10mA
Current Capacity: 100mA

Temperature Range: -20°C to +70°C
Sealing: IP67

Cable: 5m Cable w/ 3 x 28AWG conductors and flying leads

WIRING COLORS
+VDC Brown
Ground Blue
Signal Black



THIRD ANGLE PROJECTION

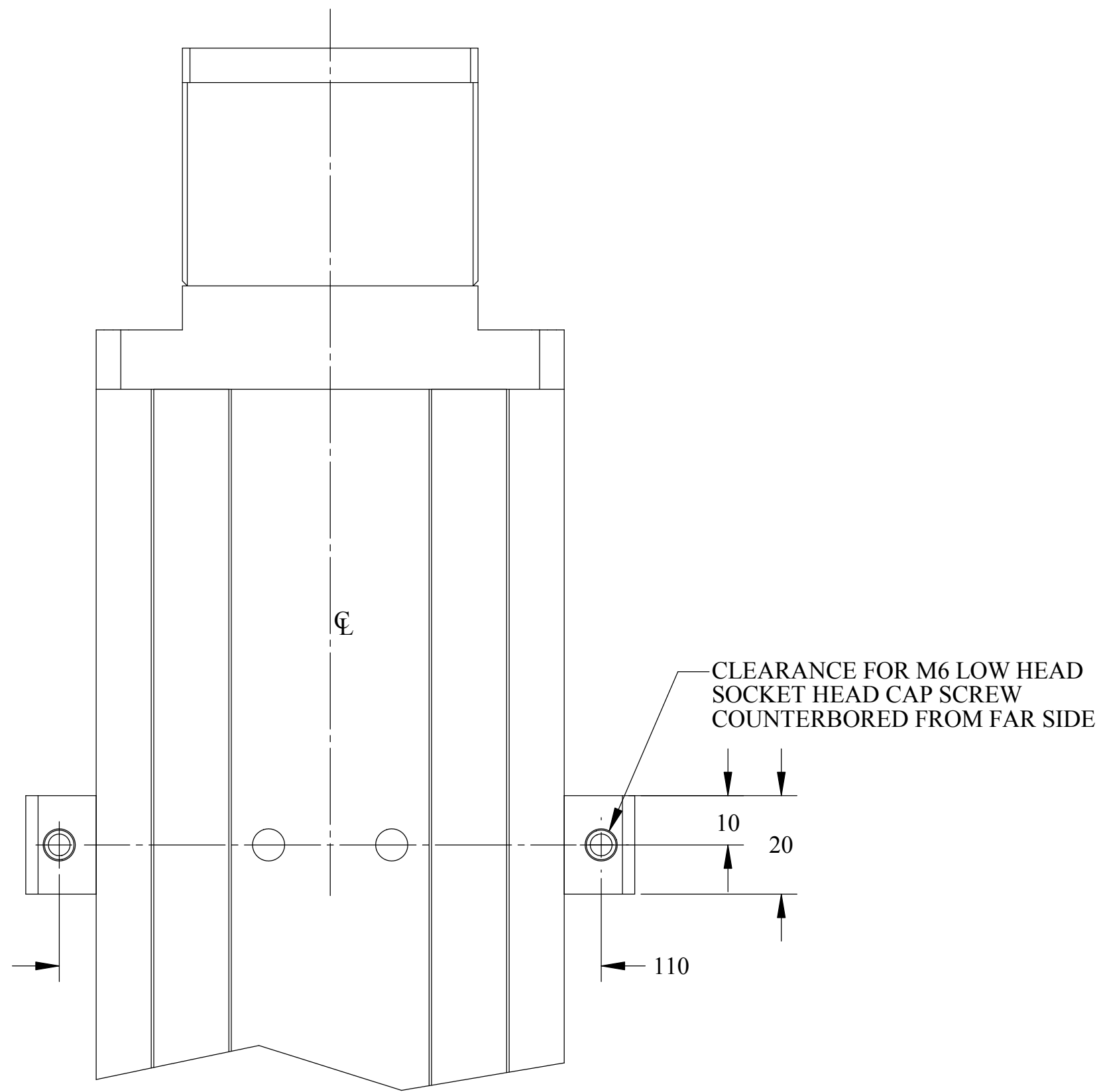
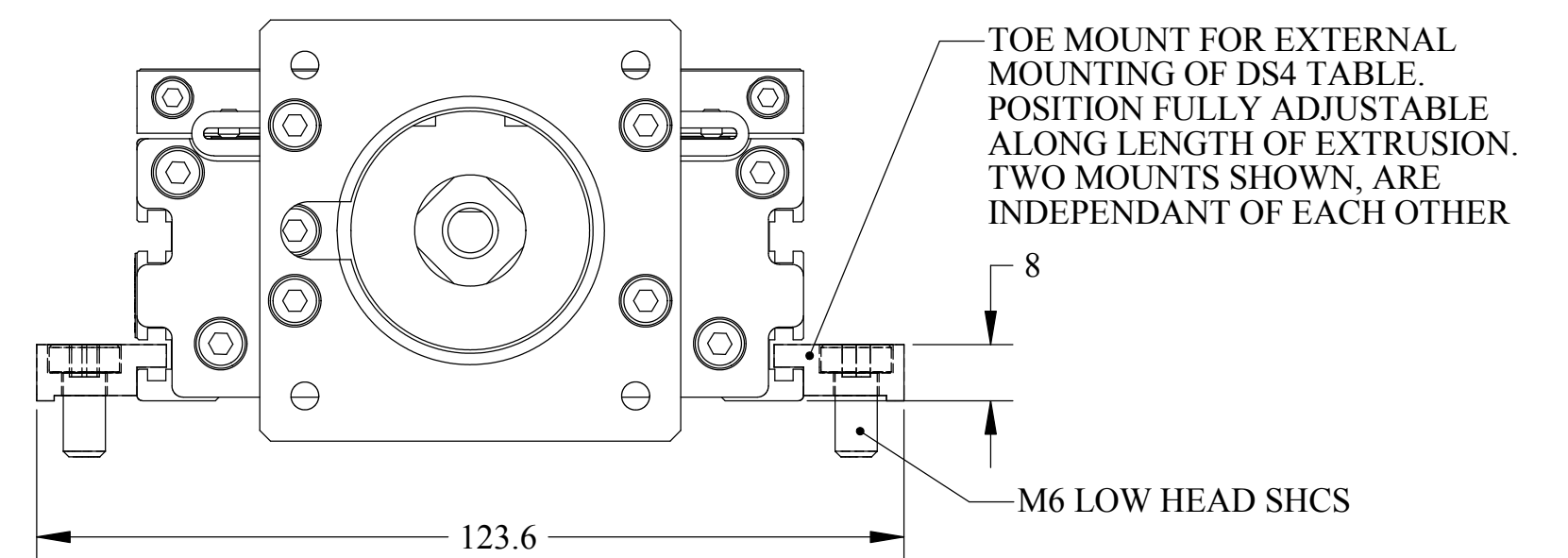


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TOLERANCES UNLESS OTHERWISE SPECIFIED			
X.XX ± .01	ANGULAR ± 1°	FINISH:	DS4 TABULATION LIMIT SWITCH OPTION
X.XXX ± .005	ALL MACHINED SURFACES	----	
X.XXXX ± .001	FINISH: 63 MAX	MATERIAL:	Dwg. No. 41-0041
FRAC. ± 1/64"	CORNER BREAK: .005"-.020"	----	SCALE: 1:1 UNITS: MM SHEET 6 OF 9
DRAWN BY: AMC	DATE: 05/19/03		SIZE D
ENGINEER: AMC	CHECKED:		

REV	DESCRIPTION
----	SEE SHEET 1

TOE CLAMP MOUNTING OPTION



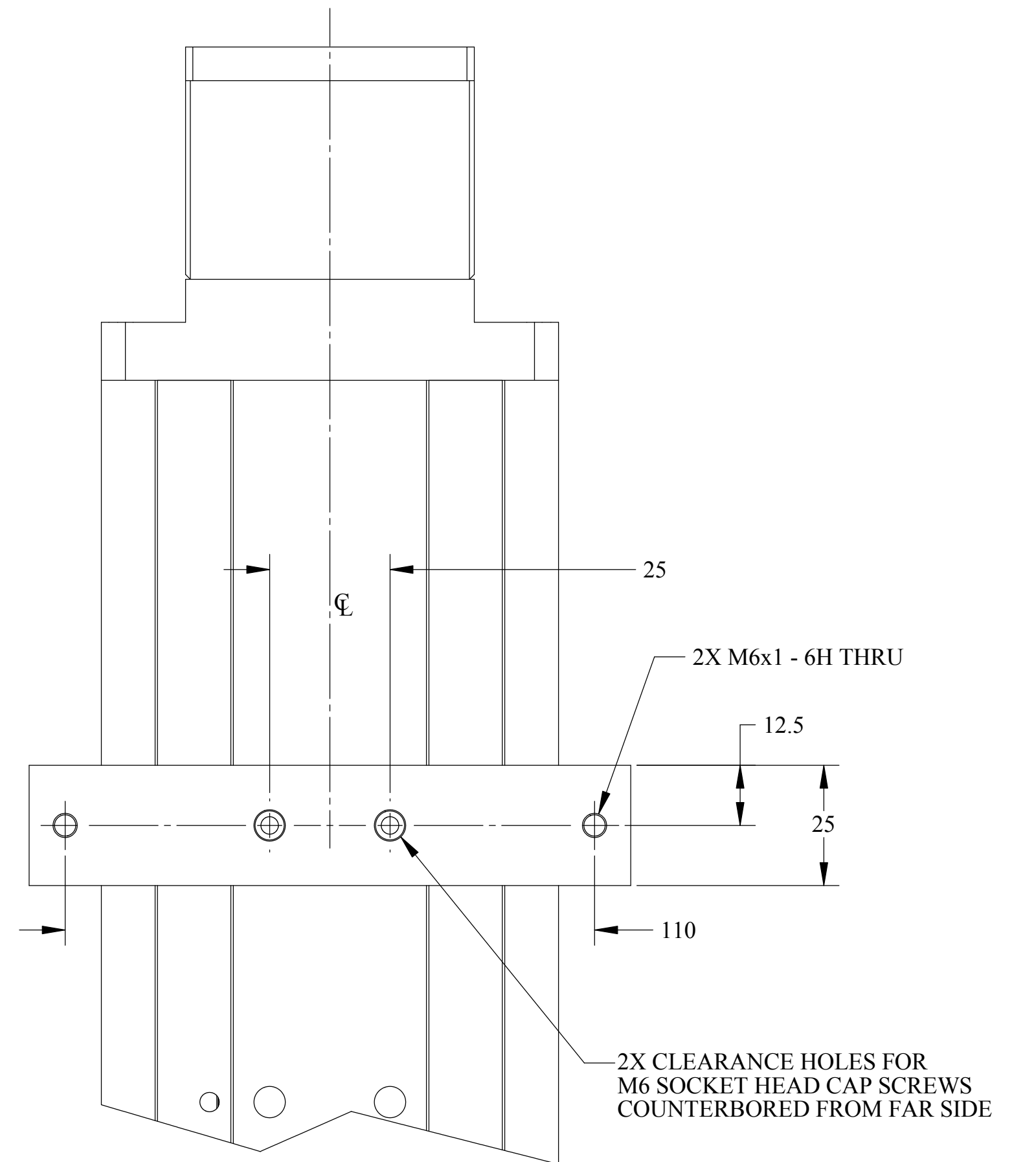
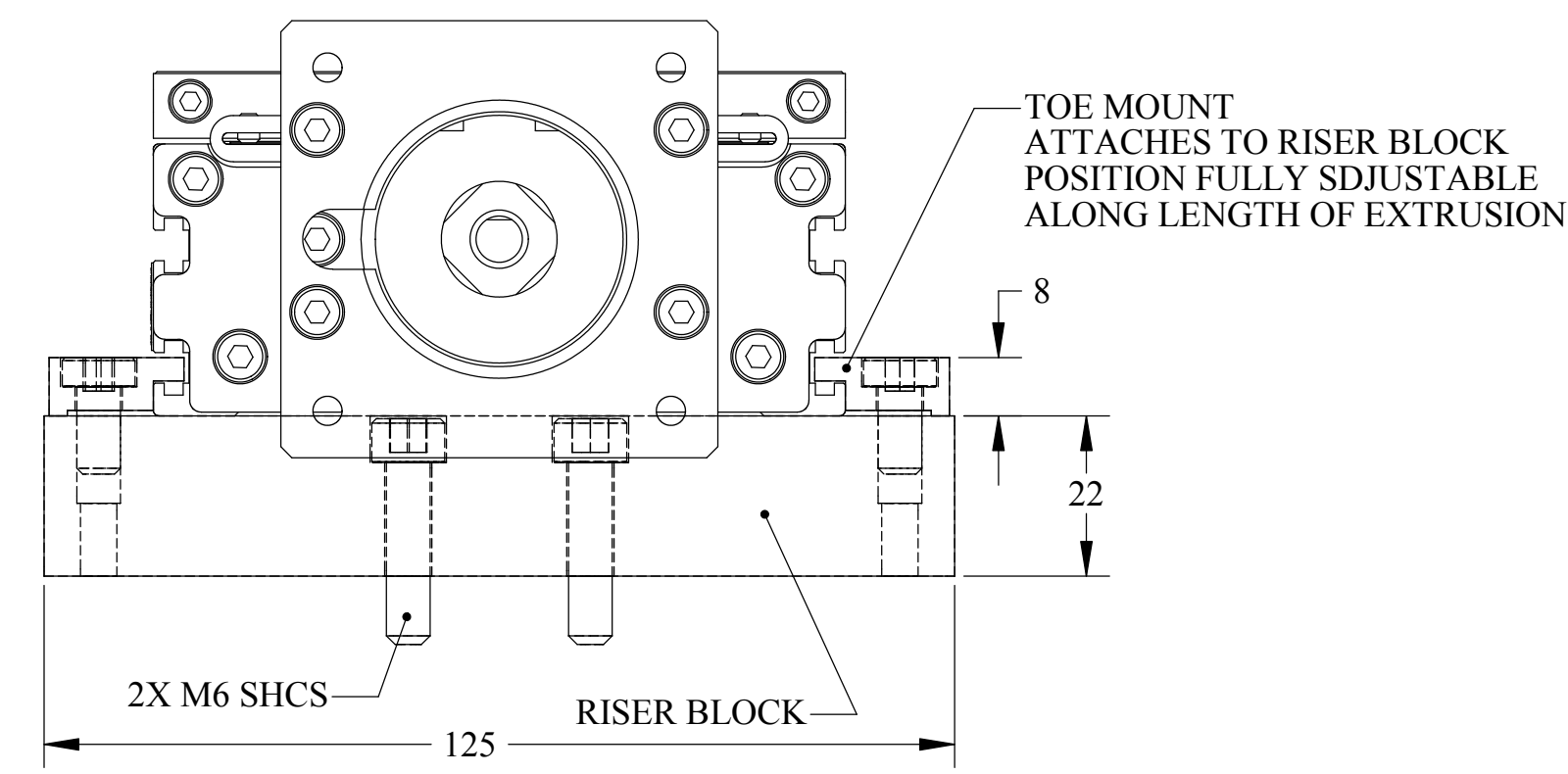
RECOMMENDED TOE MOUNT SPACING: ONE SET EVERY 150mm MAX
ONE SET (P/N: 12-0129) INCLUDES:
2X TOE MOUNT BLOCKS
2X M6 LOW HEAD SHCS 12mm LONG

THIS MOUNTING OPTION IS INDEPENDANT OF THE INTERNAL COUNTERBORE POSITIONS

THE TABLE SHOWS THE MINIMUM NUMBER OF TOE MOUNT SETS THAT SHOULD BE ORDERED WITH A PARTICULAR LENGTH DS4.

MODEL	MOUNTING SETS
DS4-050	2
DS4-100	3
DS4-150	3
DS4-200	4
DS4-250	4
DS4-300	5
DS4-350	5
DS4-400	6
DS4-450	6
DS4-500	7
DS4-550	7
DS4-600	8

TOE CLAMP MOUNTING OPTION WITH RISER BLOCK



RECOMMENDED RISER MOUNT SPACING: ONE SET EVERY 100mm
ONE SET (P/N: 12-0130) INCLUDES:
2X TOE MOUNT BLOCKS
2X M6 LOW HEAD SHCS 12mm LONG
1X WIDE RISER BLOCK
2X M6 SHCS 25mm LONG

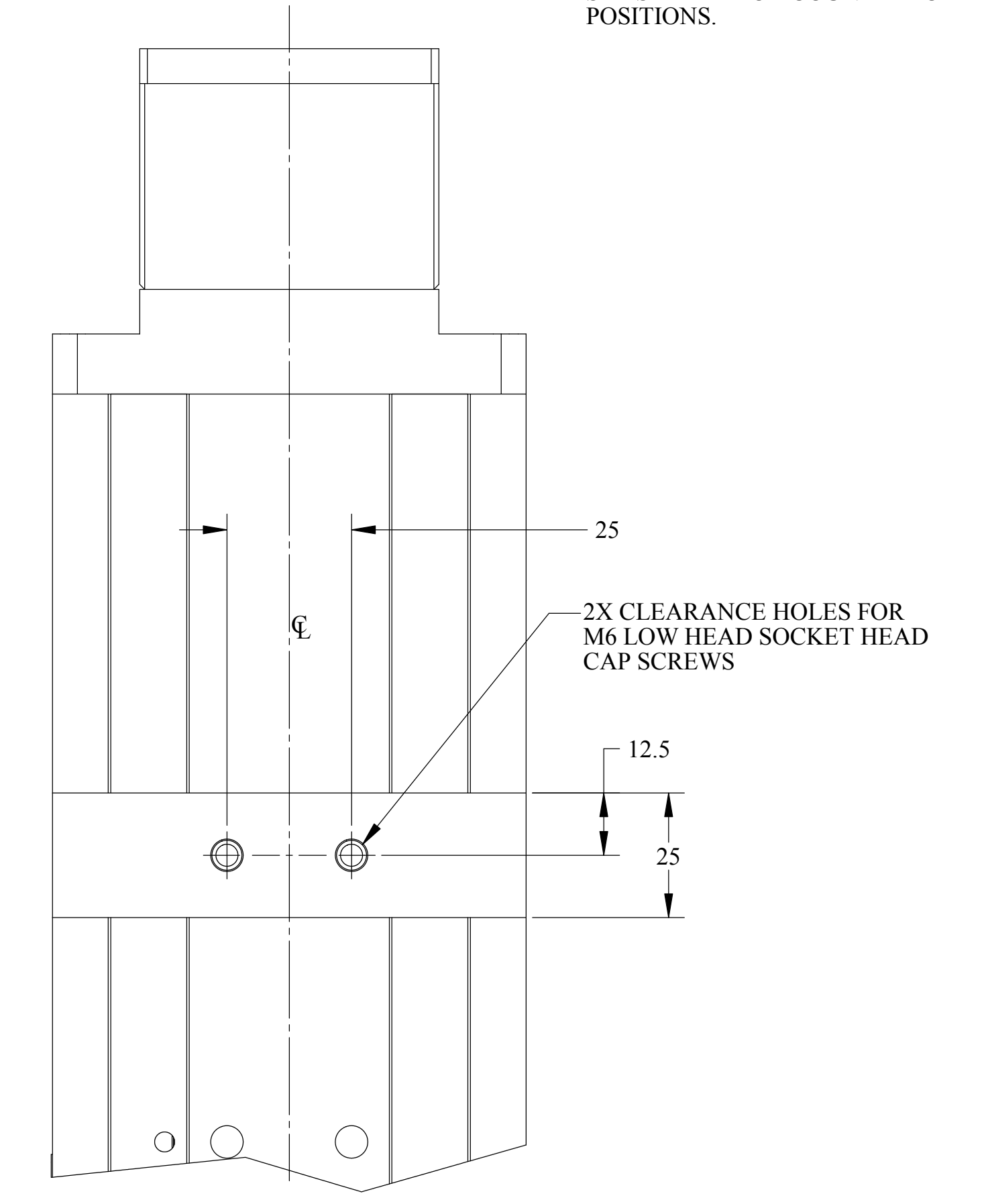
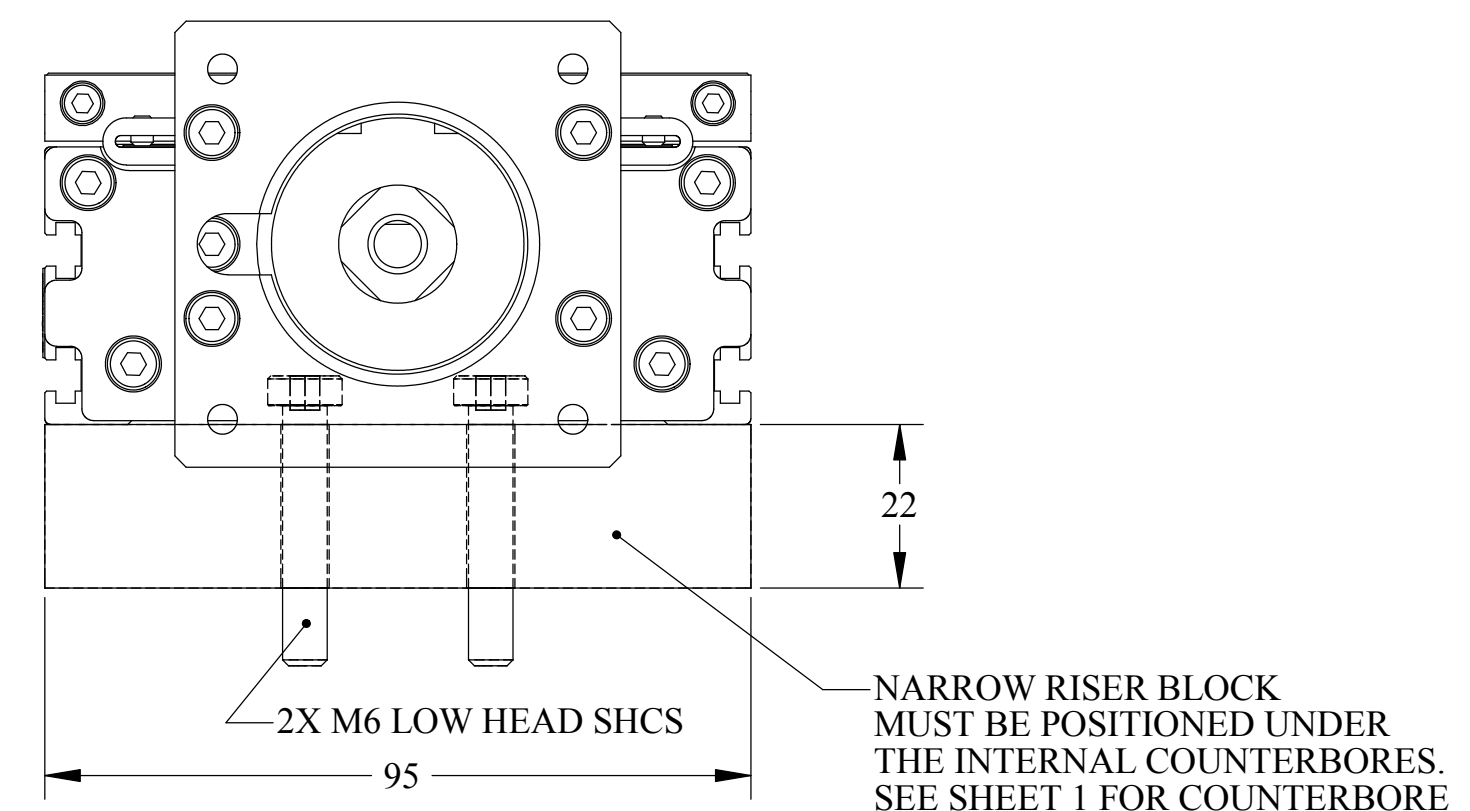
THIS MOUNTING OPTION IS INDEPENDANT OF THE INTERNAL COUNTERBORE POSITIONS

THE TABLE SHOWS THE MINIMUM NUMBER OF RISER MOUNT SETS THAT SHOULD BE ORDERED WITH A PARTICULAR LENGTH DS4.

IMPORTANT: PUBLISHED DS4 SPECIFICATIONS DO NOT APPLY WHEN USING THIS MOUNTING OPTION. ACTUAL DS4 PERFORMANCE WILL DEPEND ON RISER BLOCK SPACING, LOADS, AND MOVE PROFILES. FOR SPECIFICATION CRITICAL APPLICATIONS, CONSULT IDC.

MODEL	MOUNTING SETS
DS4-050	2
DS4-100	3
DS4-150	3
DS4-200	4
DS4-250	4
DS4-300	5
DS4-350	5
DS4-400	6
DS4-450	6
DS4-500	7
DS4-550	7
DS4-600	8

NARROW RISER BLOCK MOUNTING OPTION

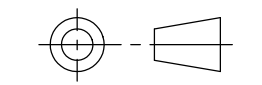


THIS MOUNTING OPTION IS DEPENDANT OF THE INTERNAL COUNTERBORE POSITIONS. LOCATE ONE MOUNT AT EACH COUNTERBORE LOCATION WITH THE EXCEPTION OF THE MIDDLE FOUR COUNTERBORES.

ONE SET (P/N: 12-0131) INCLUDES:
1X NARROW RISER BLOCK
2X M6 LOW HEAD SHCS 35mm LONG

THE TABLE SHOWS THE MINIMUM NUMBER OF NARROW RISER MOUNT SETS THAT SHOULD BE ORDERED WITH A PARTICULAR LENGTH DS4.

IMPORTANT: PUBLISHED DS4 SPECIFICATIONS DO NOT APPLY WHEN USING THIS MOUNTING OPTION. ACTUAL DS4 PERFORMANCE WILL DEPEND ON RISER BLOCK SPACING, LOADS, AND MOVE PROFILES. FOR SPECIFICATION CRITICAL APPLICATIONS, CONSULT IDC.



THIRD ANGLE PROJECTION

NOTES:
1. THIS PAGE SHOWS EXTERNAL MOUNTING OPTIONS. FOR INTERNAL COUNTERBORE SPACING SEE SHEET 1.
2. TO MAINTAIN CATALOG SPECIFICATIONS, THE DS4 MUST BE MOUNTED TO A SURFACE WITH FLATNESS ERROR NOT TO EXCEED 0.013mm/300mm. FOR SPECIFICATION CRITICAL APPLICATIONS IT IS RECOMMENDED THAT THE INTERNAL COUNTERBORES OR THE TOE MOUNTS BE USED TO MOUNT THE DS4 TO A FLAT SURFACE. TOE MOUNTS MUST BE SPACED EQUALLY ALONG THE ENTIRE LENGTH OF THE UNIT. FULL LENGTH RISER PLATES ARE AVAILABLE UPON REQUEST.

THIS DOCUMENT IS THE SOLE PROPERTY OF NEAT AND IS NOT TO BE REPRODUCED OR USED WITHOUT WRITTEN CONSENT. COUNTERSINK TAPPED HOLES TO FULL THREAD DIA. x 90°.

TOLERANCES UNLESS OTHERWISE SPECIFIED

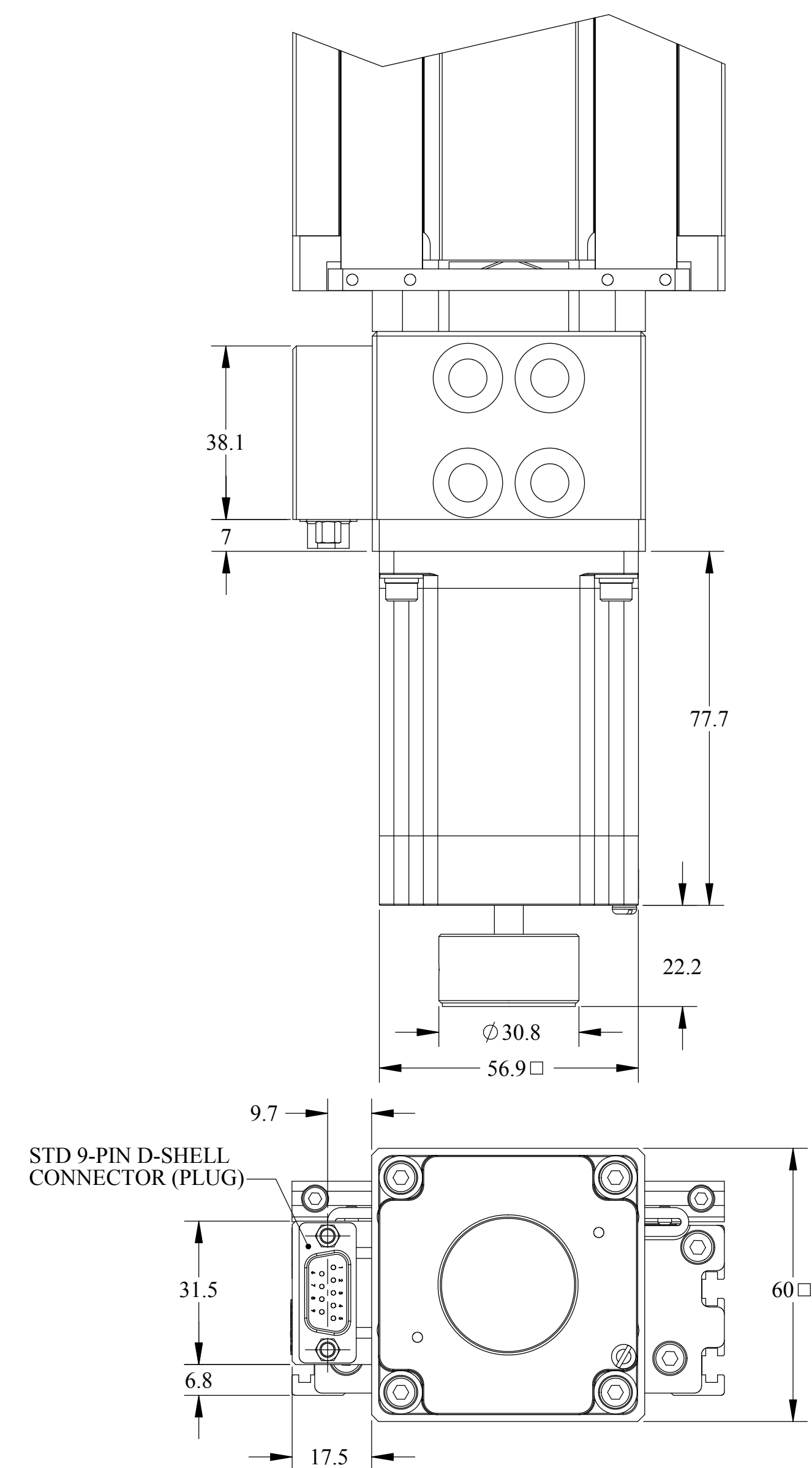
X.XX ± .01 X.XXX ± .005 X.XXXX ± .001 FRAC. ± 1/64"	ANGULAR ± 1° ALL MACHINED SURFACES FINISH: 63 MAX CORNER BREAK: .005"-.020"
DRAWN BY: AMC	DATE: 05/19/03
ENGINEER: AMC	CHECKED:

FINISH: -----	DS4 TABULATION MOUNTING OPTIONS
MATERIAL: -----	Dwg. No. 41-0041
SCALE: 1:1	UNITS: MM
	SHEET 7 OF 9

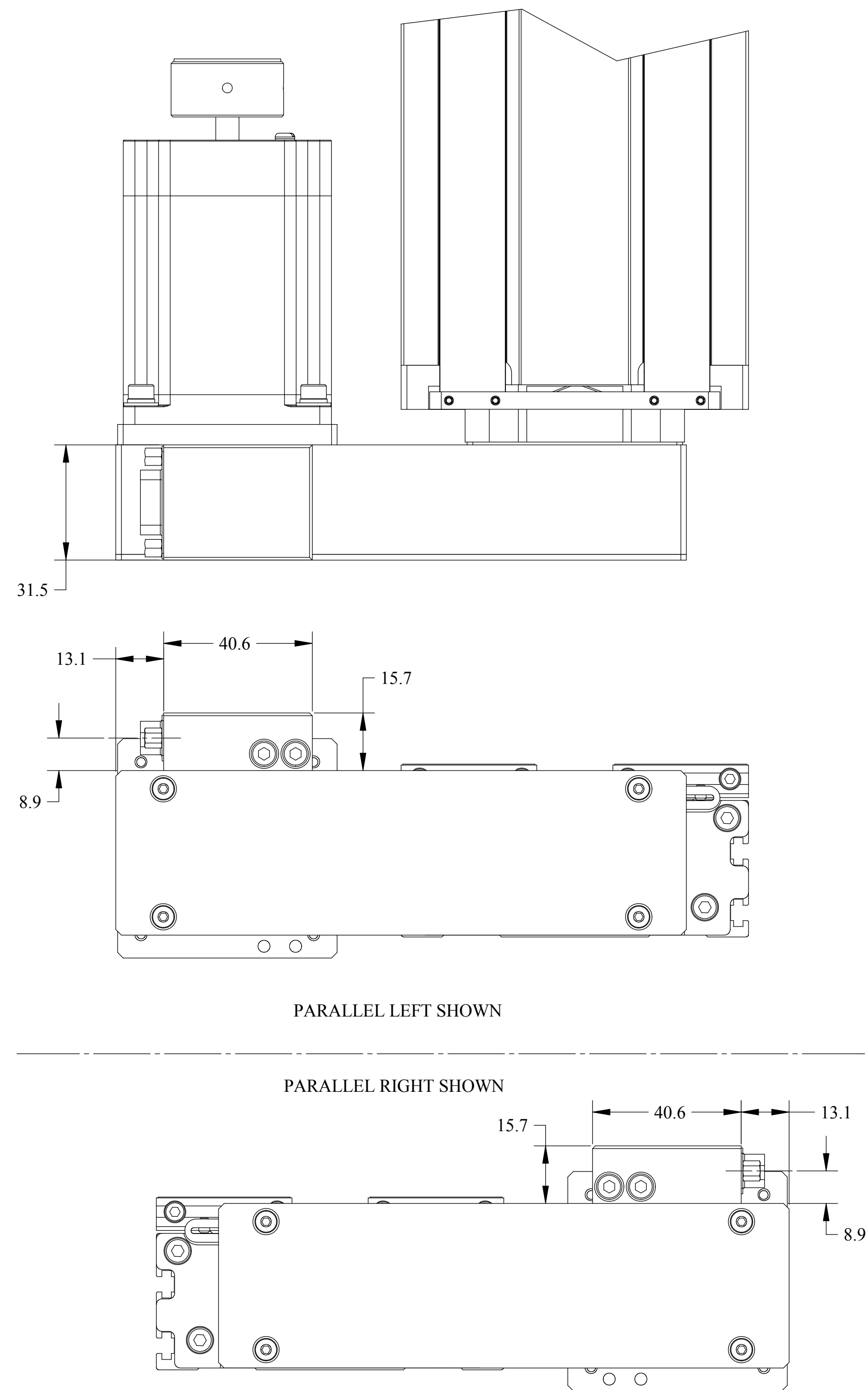
SIZE D

REV	DESCRIPTION
----	SEE SHEET 1

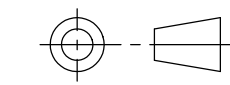
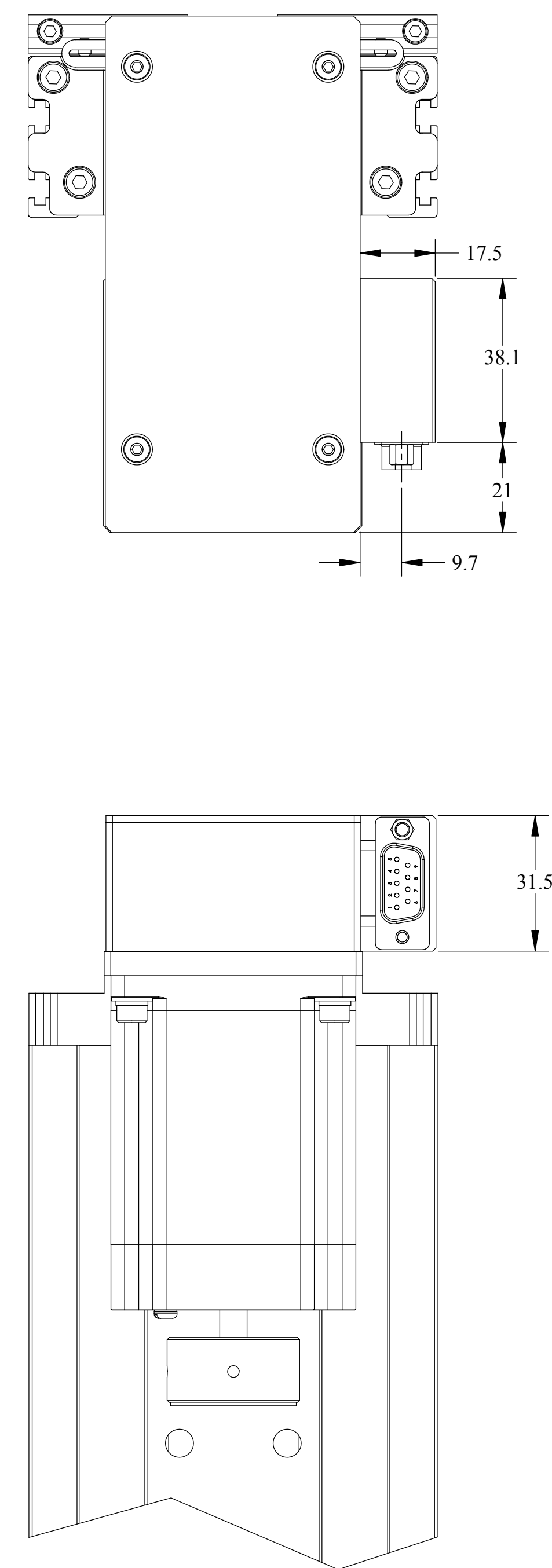
T22V / T22T MOTOR - INLINE MOUNT W/ CONNECTORS



T22V / T22T MOTOR - PARALLEL RIGHT / LEFT MOUNT W/ CONNECTORS



T22V / T22T MOTOR - PARALLEL UNDER MOUNT W/ CONNECTORS



THIRD ANGLE PROJECTION

MOTOR CONNECTOR PIN #	STEPPER	MATING CABLE WIRE COLOR
1	A+	RED
2	A-	ORANGE
3	N/C	WHITE
4	B+	GREEN
5	B-	BLUE
6	N/C	BLACK
7	N/C	VIOLET
8	N/C	YELLOW
9	N/C	BROWN
METAL HOOD		SHIELD

MOTOR PARAMETERS		
T22V STEPPER MOTOR OPTION (WIRED PARALLEL)		
Holding Torque	1.98 N-m	280 oz-in
Rated Cont. Current / Phase	1.50 A	
Phase Inductance (±20%)	17 mH	
Rotor Inertia	0.0408x10 ⁻³ kg-m ²	.0056 oz-in-sec ²
T22T STEPPER MOTOR OPTION (WIRED SERIES)		
Holding Torque	1.98 N-m	280 oz-in
Rated Cont. Current / Phase	0.77 A	
Phase Inductance (±20%)	65.5 mH	
Rotor Inertia	0.0408x10 ⁻³ kg-m ²	.0056 oz-in-sec ²

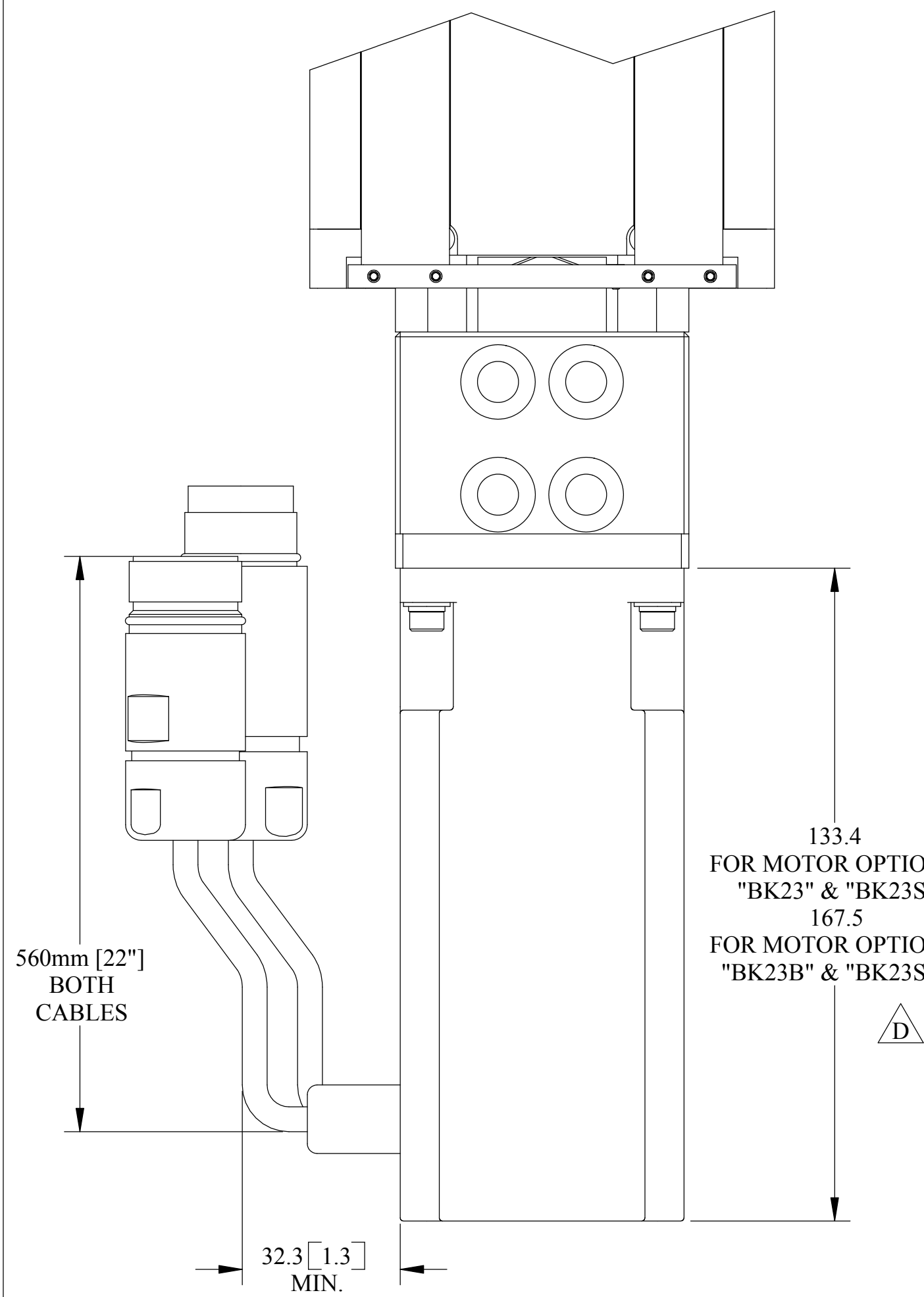
NOTE:
 1. BASIC MOTOR DIMENSIONS AND CONNECTOR HOUSING DIMENSIONS SHOWN REFER TO SHEET 2 AND 3 FOR MORE DETAILS.
 2. 10FT CABLE SUPPLIED WITH MATING CONNECTOR.

THIS DOCUMENT IS THE SOLE PROPERTY OF NEAT AND IS NOT TO BE REPRODUCED OR USED WITHOUT WRITTEN CONSENT. COUNTERSINK TAPPED HOLES TO FULL THREAD DIA. x 90°.

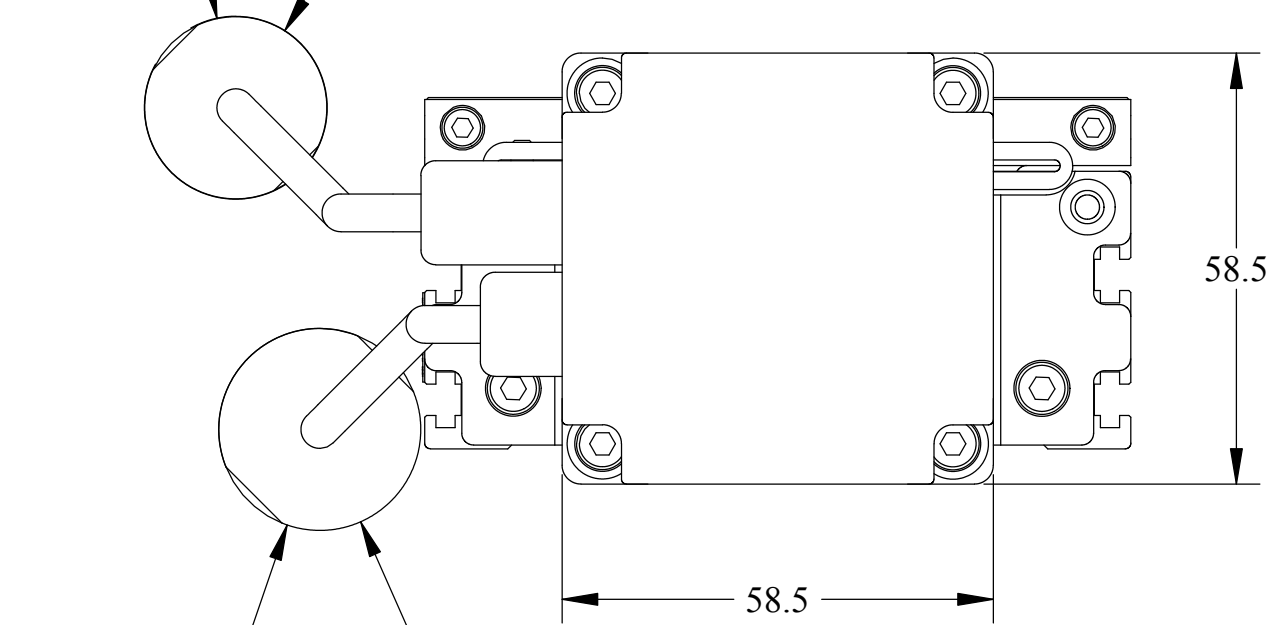
TOLERANCES UNLESS OTHERWISE SPECIFIED		DANAHER MOTION	
X.XX ± .01	ANGULAR ± 1°	FINISH: -----	DS4 TABULATION
X.XXX ± .005	ALL MACHINED SURFACES		T22V / T22T MOTOR OPTIONS W/ CONN.
X.XXXX ± .001	FINISH: 63 MAX		
FRAC. ± 1/64"	CORNER BREAK: .005"-.020"		
DRAWN BY: AMC	DATE: 05/19/03	MATERIAL: -----	Dwg. No. 41-0041
ENGINEER: AMC	CHECKED:		SCALE: 1:1 UNITS: MM SHEET 8 OF 9

REV	DESCRIPTION
----	SEE SHEET 1

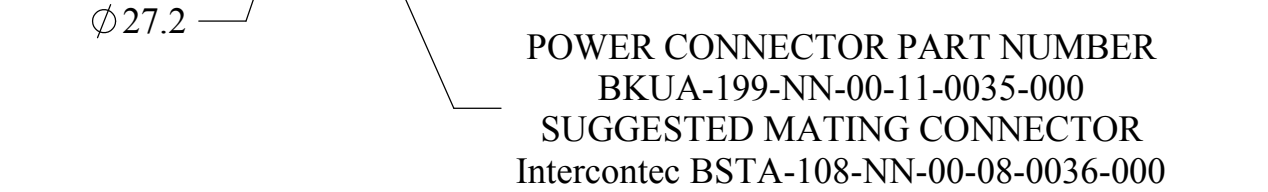
"BK23", "BK23B", "BK23S" & "BK23SB" MOTOR - INLINE MOUNT W/ CONNECTORS



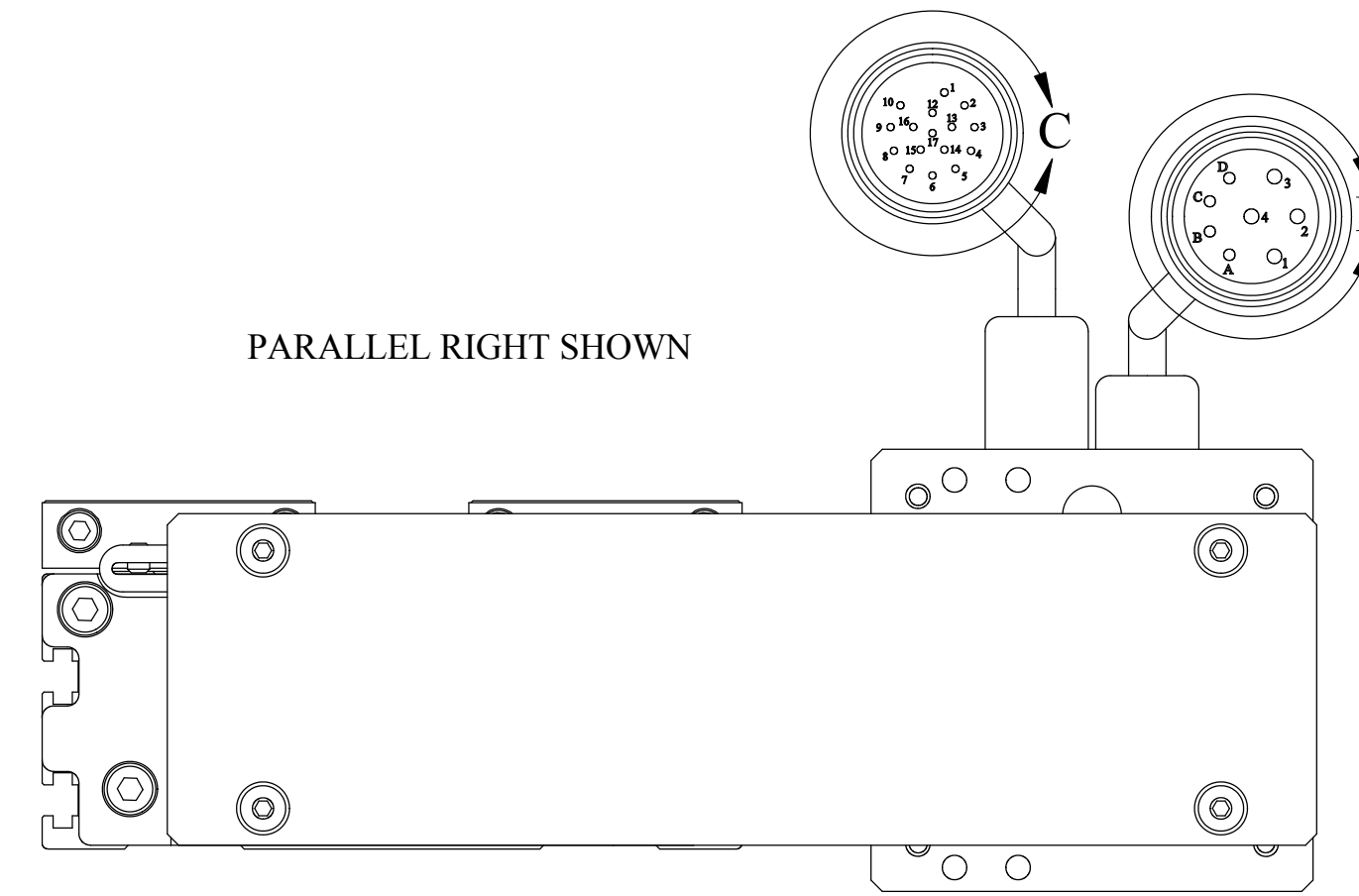
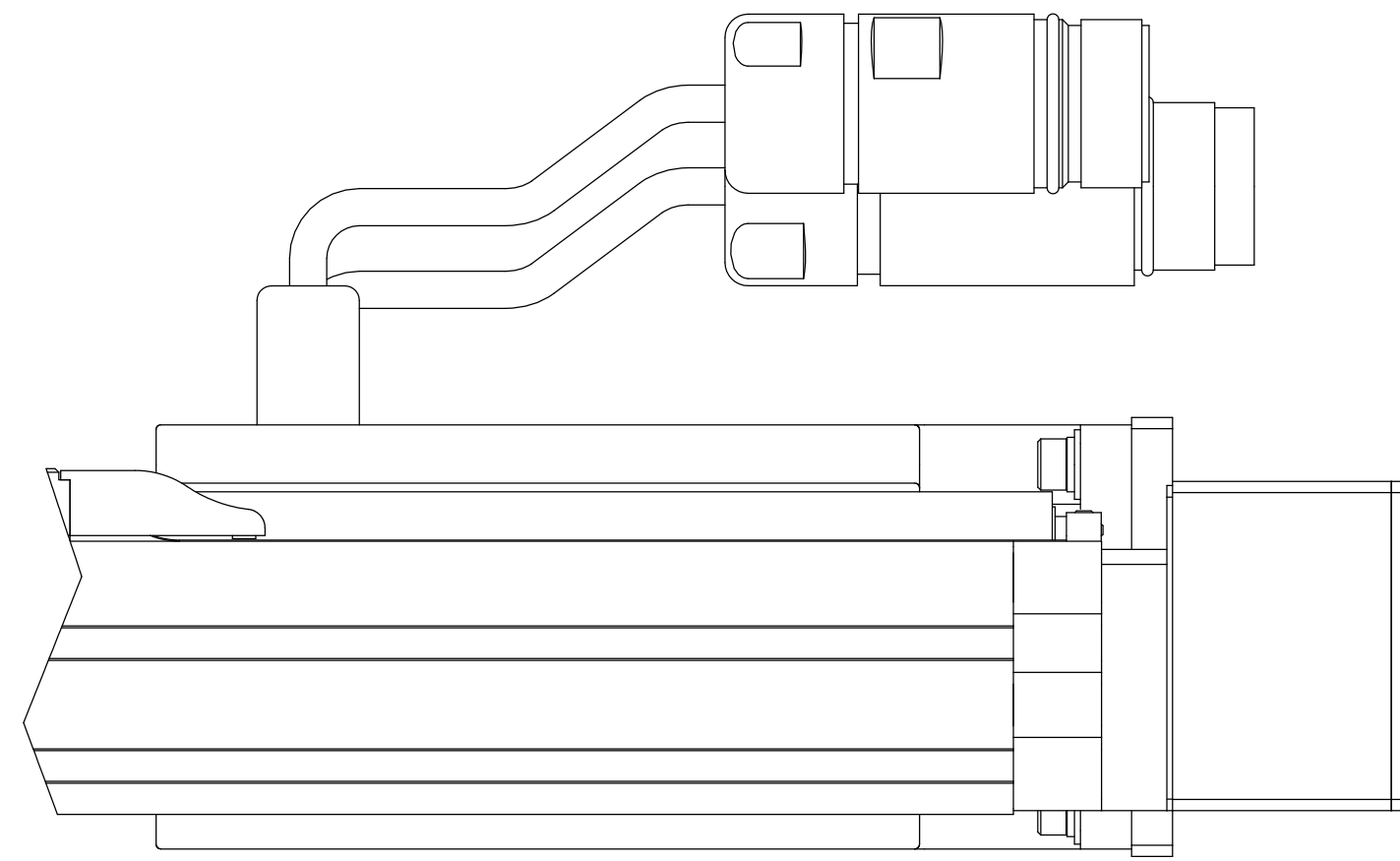
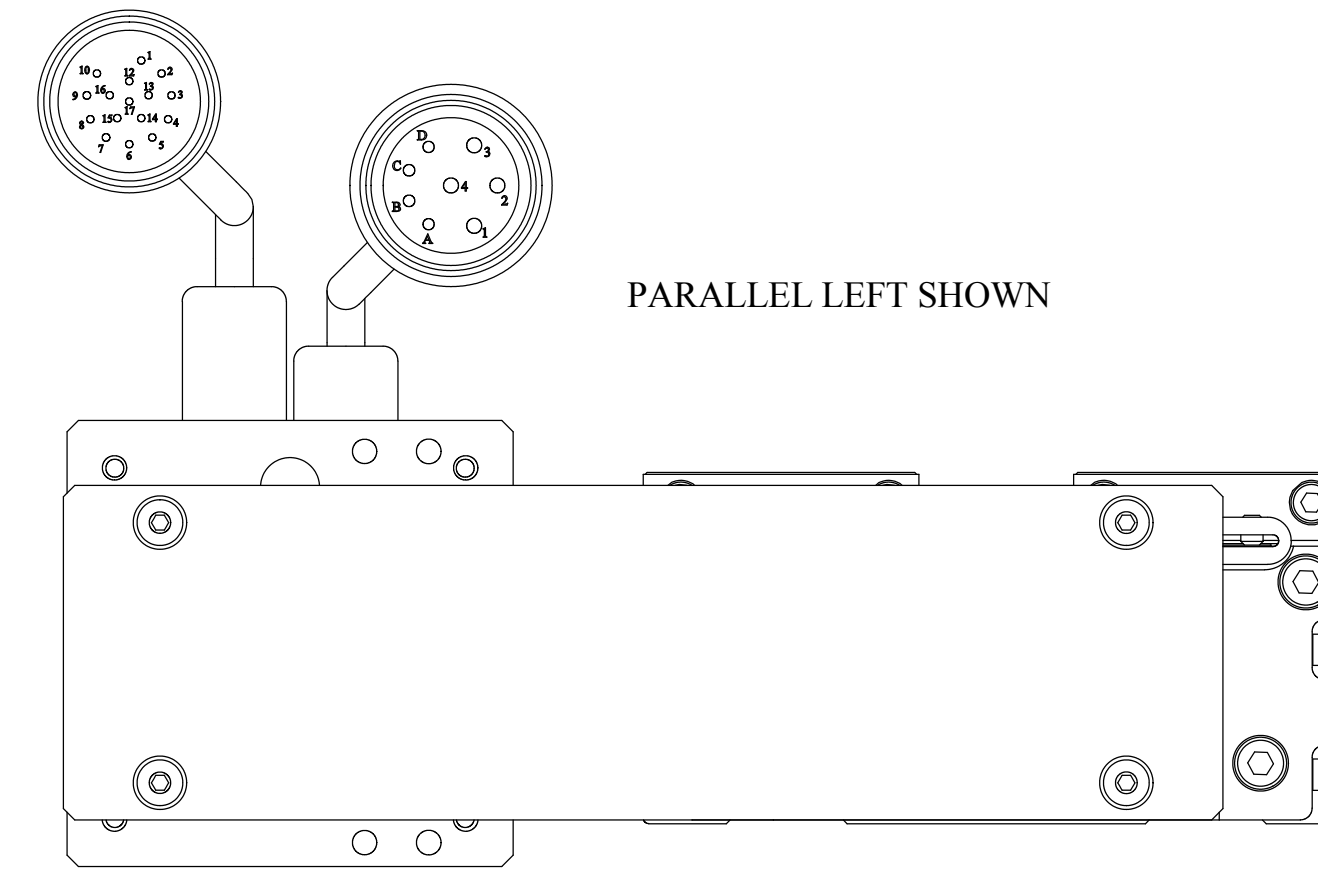
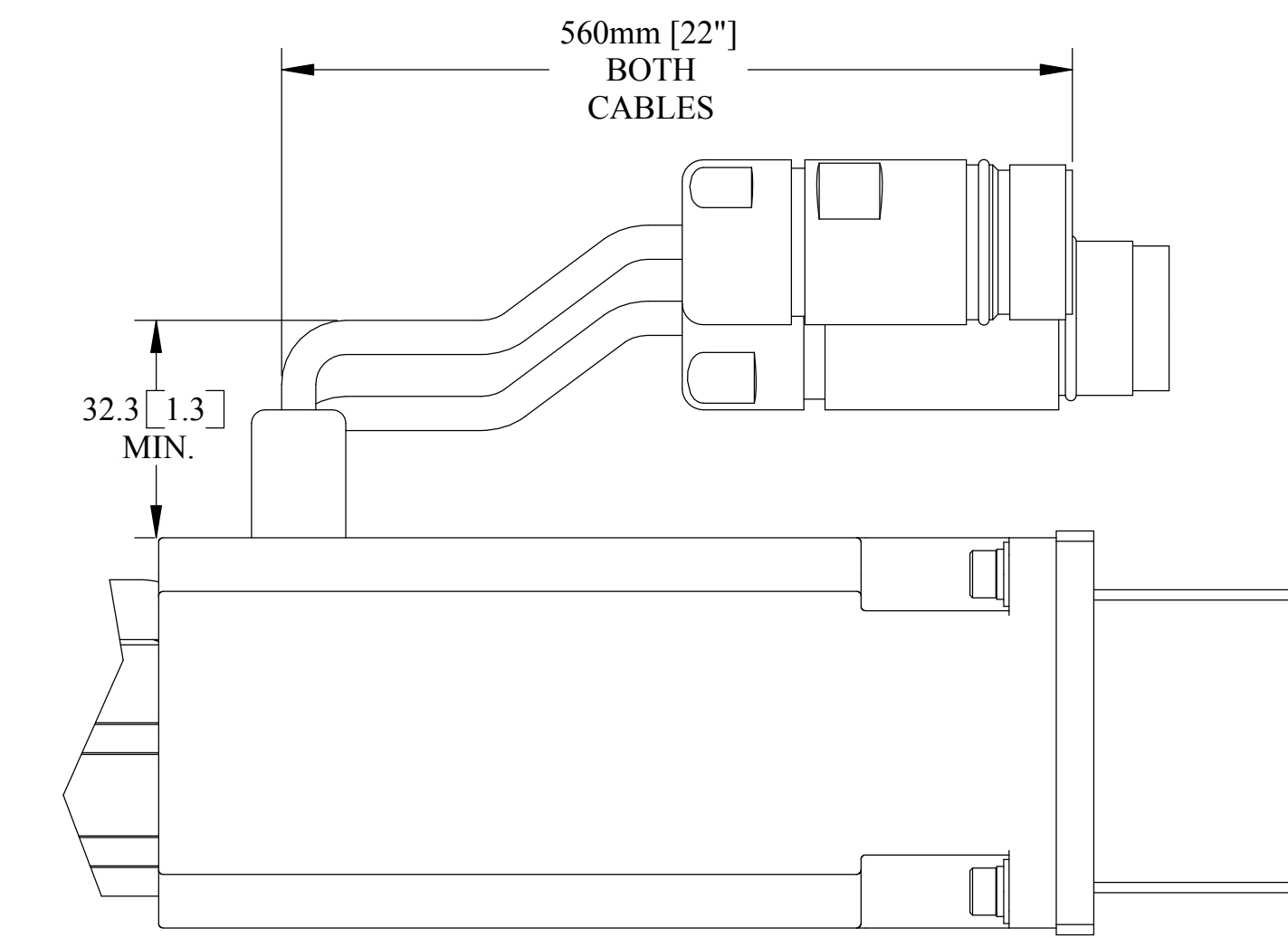
COMMUTATING CONNECTOR PART NUMBER
AKUA-034-NN-00-09-0035-000
RECOMMENDED MATING CONNECTOR
Intercontec ASTA-035-NN-00-10-0035-000



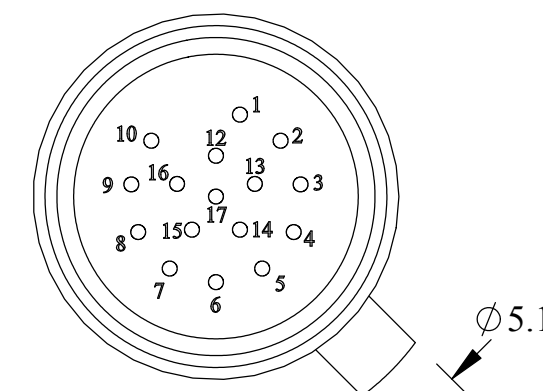
POWER CONNECTOR PART NUMBER
BKUA-199-NN-00-11-0035-000
SUGGESTED MATING CONNECTOR
Intercontec BSTA-108-NN-00-08-0036-000



"BK23", "BK23B", "BK23S" & "BK23SB" MOTOR - PARALLEL LEFT / RIGHT MOUNT W/ CONNECTORS

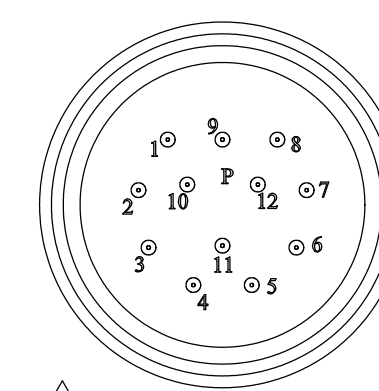


ENCODER/COMMUTATING CONNECTOR
MOTOR OPTIONS "BK23" & "BK23B"



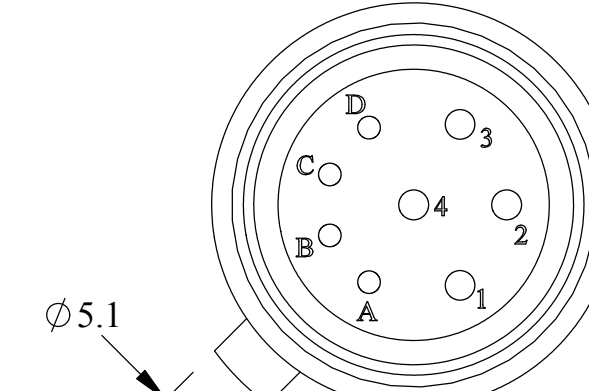
DETAIL C
SCALE 2 : 1

SFD FEEDBACK OPTION
MOTOR OPTIONS "BK23S" & "BK23SB"



SCALE 2 : 1

MOTOR POWER CONNECTOR
OPTIONS "BK23", "BK23B", "BK23S", "BK23SB"



DETAIL D
SCALE 2 : 1

HALL SENSOR WIRING
(17-PIN CONNECTOR)

SIGNAL	PIN
B	1
B-	2
A	3
A-	4
Z	5
Z-	6
GND	7
THERMAL SENSOR	8
THERMAL SENSOR	9
Vcc	10
N/C	11
U-	12
V-	13
W-	14
U	15
V	16
W	17

SFD FEEDBACK OPTION
(12-PIN CONNECTOR)

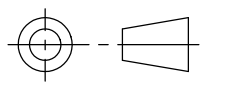
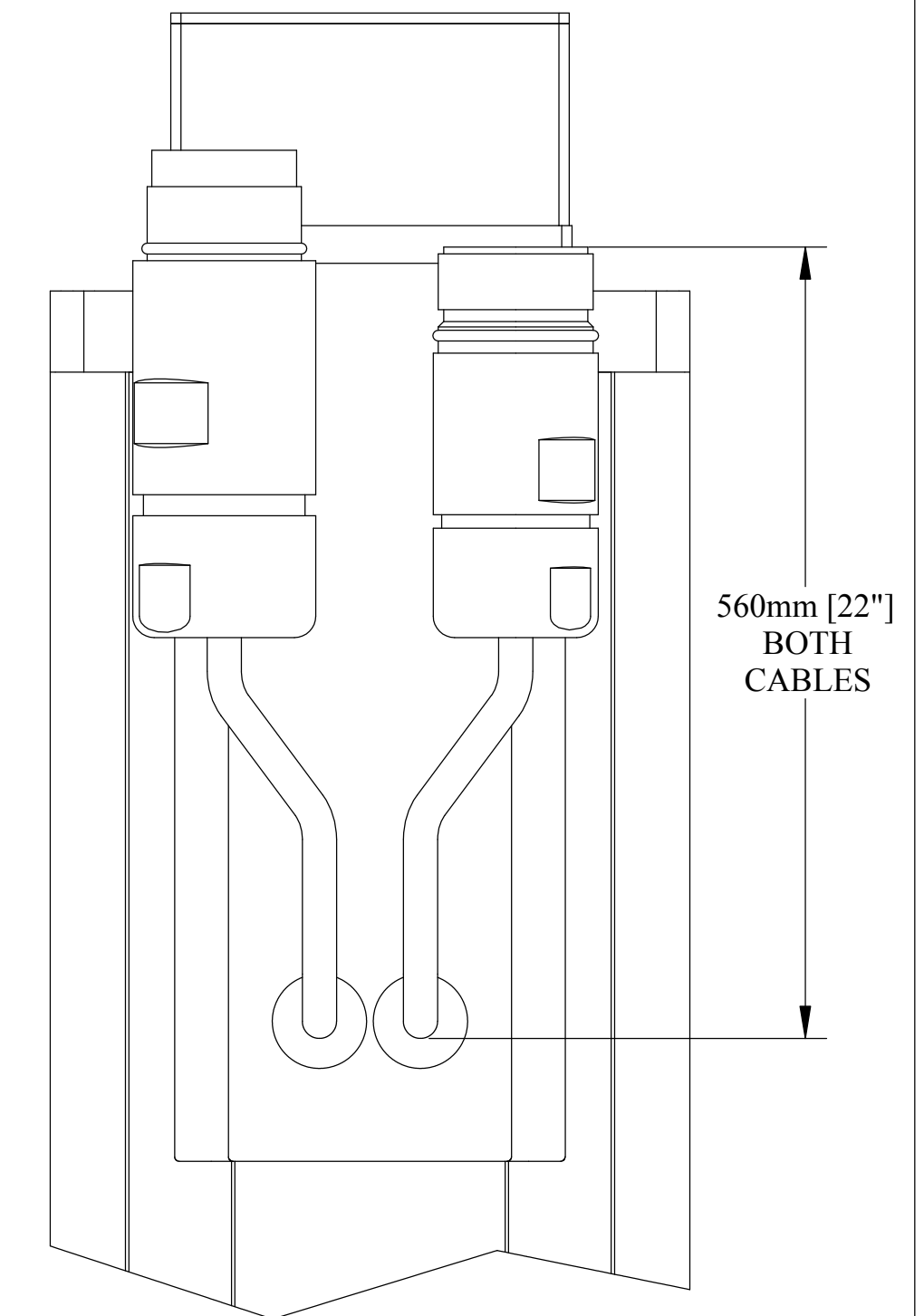
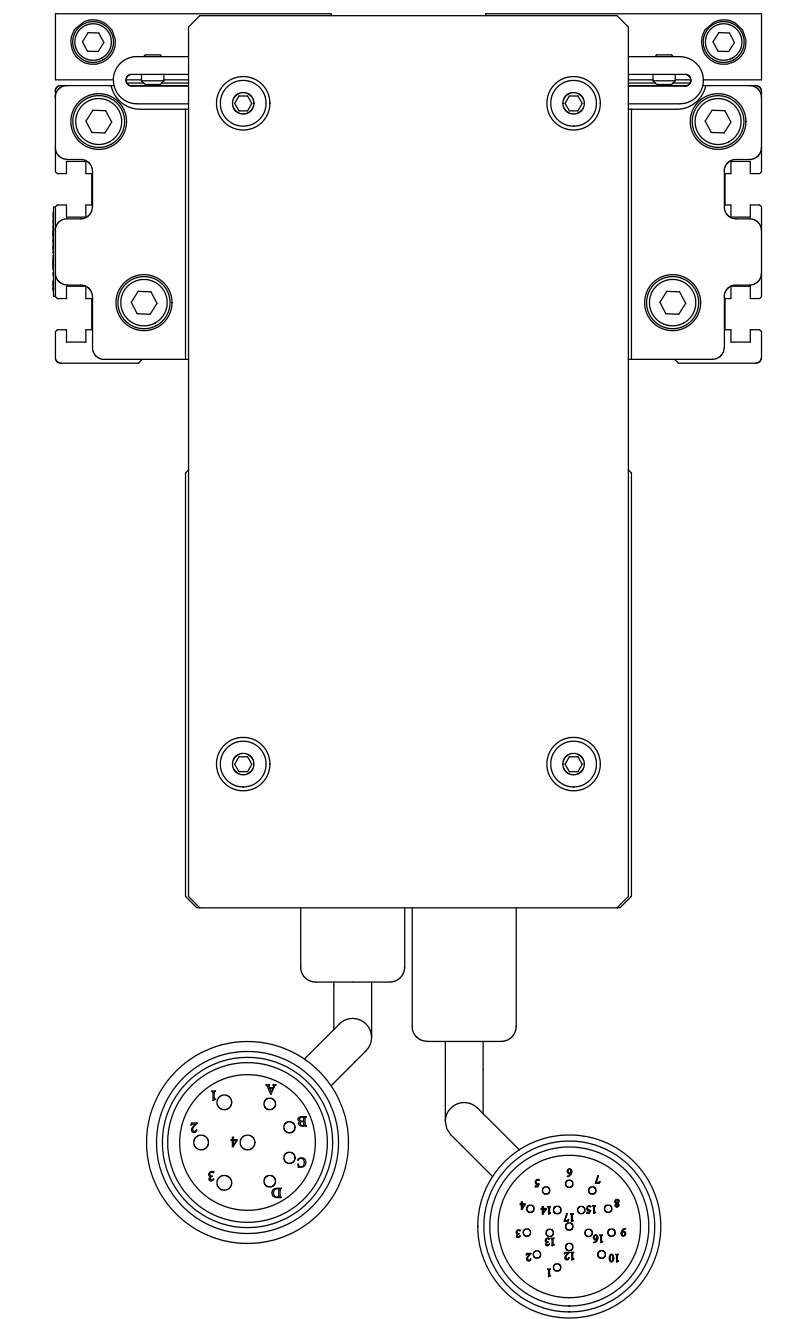
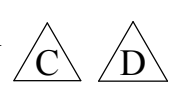
SIGNAL	PIN
SFD +5V	1
SFD +5V RTN	2
SFD COM-	3
SFD COM+	4
SFD COM SHIELD	5
N/C	6
N/C	7
N/C	8
N/C	9
N/C	10
N/C	11
N/C	12

MOTOR PHASE WIRING
(8-PIN CONNECTOR)

SIGNAL	PIN
PHASE "C"	1
GROUND	2
PHASE "A"	3
PHASE "B"	4
BRAKE +	A
BRAKE -	B
N/C	C
N/C	D

MOTOR PARAMETERS		
Continuous Stall Torque	1.16 N-m	164.3 oz-in
Peak Torque	3.84 N-m	543.8 oz-in
Torque Sensitivity (±10%)	0.52 N-m/ARMS	73.6 oz-in/ARMS
Back EMF (±10%)	33.8 V _{RMS} /krpm	
Maximum Speed	8000 rpm	
Weight	1.38 kg	3.04 lb
Rotor Inertia	.22 kgcm ²	1.9x10 ⁻⁴ lb-in-sec ²

"BK23", "BK23B", "BK23S" & "BK23SB" MOTOR
PARALLEL UNDER MOUNT W/ CONNECTORS



THIRD ANGLE PROJECTION

- NOTE:
- BASIC MOTOR DIMENSIONS AND CONNECTOR DIMENSIONS SHOWN REFER TO SHEET 2 AND 3 FOR MORE DETAILS.
 - A 8192 CPR ROTARY ENCODER IS INCORPORATED INTO THE SERVO MOTOR ON MOTOR OPTIONS "BK23" & "BK23B" ONLY.
 - CONSULT THE FACTORY FOR MATING CABLES, EITHER FLYING LEADS OR OR MANUFACTURED CABLES FOR COMPATIBLE DRIVES.

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TOLERANCES UNLESS OTHERWISE SPECIFIED		DANAHER MOTION			
X.XX ± .01	ANGULAR ± 1°	FINISH: -----	DS4 TABULATION MOTOR MOUNTS BK23, BK23B, BK23S & BK23SB MOTORS		
X.XXX ± .005	ALL MACHINED SURFACES				
X.XXXX ± .001	FINISH: 63 MAX				
FRAC. ± 1/64"	CORNER BREAK: .005"-.020"	MATERIAL: -----	Dwg. No. 41-0041		
DRAWN BY: AMC	DATE: 05/19/03			SCALE: 1:1	UNITS: MM
ENGINEER: AMC	CHECKED:			SHEET 9 OF 9	