

MGS-HBG-50- - - X

GEARBOX MODEL

MPG-084 ___ MPG-114 ___
 MRG-084 ___ MRG-114 ___
 RATIO: _____

ENTER Y-AXIS TRAVEL
 TRAVEL IN INCREMENTS OF 250mm
 TRAVEL LIMITS: 250mm-1000mm

ENTER X-AXIS TRAVEL
 TRAVEL IN INCREMENTS OF 250mm
 TRAVEL LIMITS: 250mm-2000mm

IF TRAVEL IS OUTSIDE LIMITS LISTED ABOVE, CONTACT MACRON

FOR DIRECT-DRIVE OPTION WITH MMKs (NO GEARBOXES) CHECK HERE: _____

MOTOR INFORMATION

MANUFACTURER: _____
 MODEL: _____

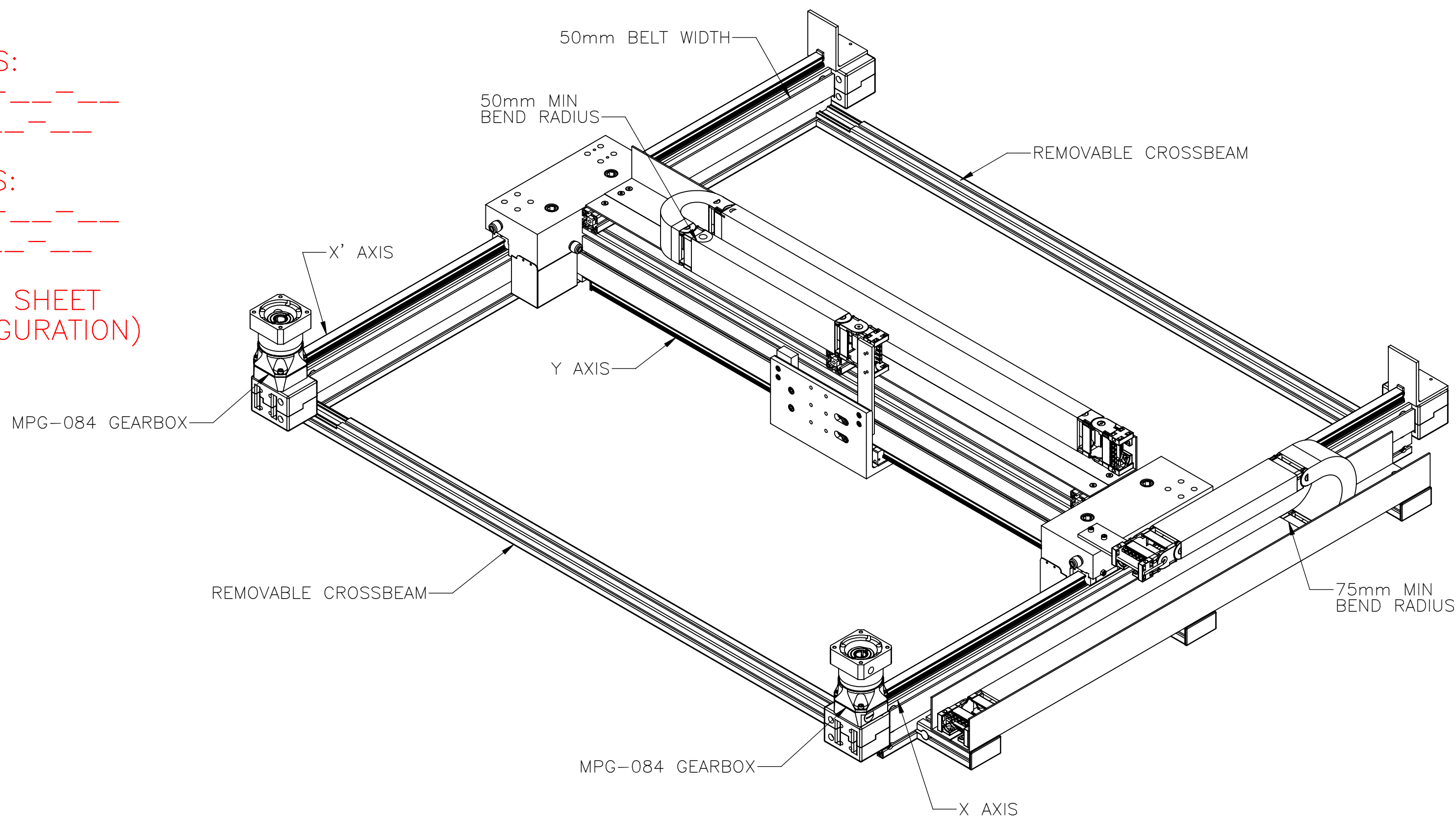
SENSOR INFORMATION X-AXIS:

HOME-QTY ___ 244-____-____-____
 EOT-QTY ___ 244-____-____-____

SENSOR INFORMATION Y-AXIS:

HOME-QTY ___ 244-____-____-____
 EOT-QTY ___ 244-____-____-____

(SEE T-SLOT SENSOR KIT SHEET FOR PART NUMBER CONFIGURATION)




APPROVED: _____

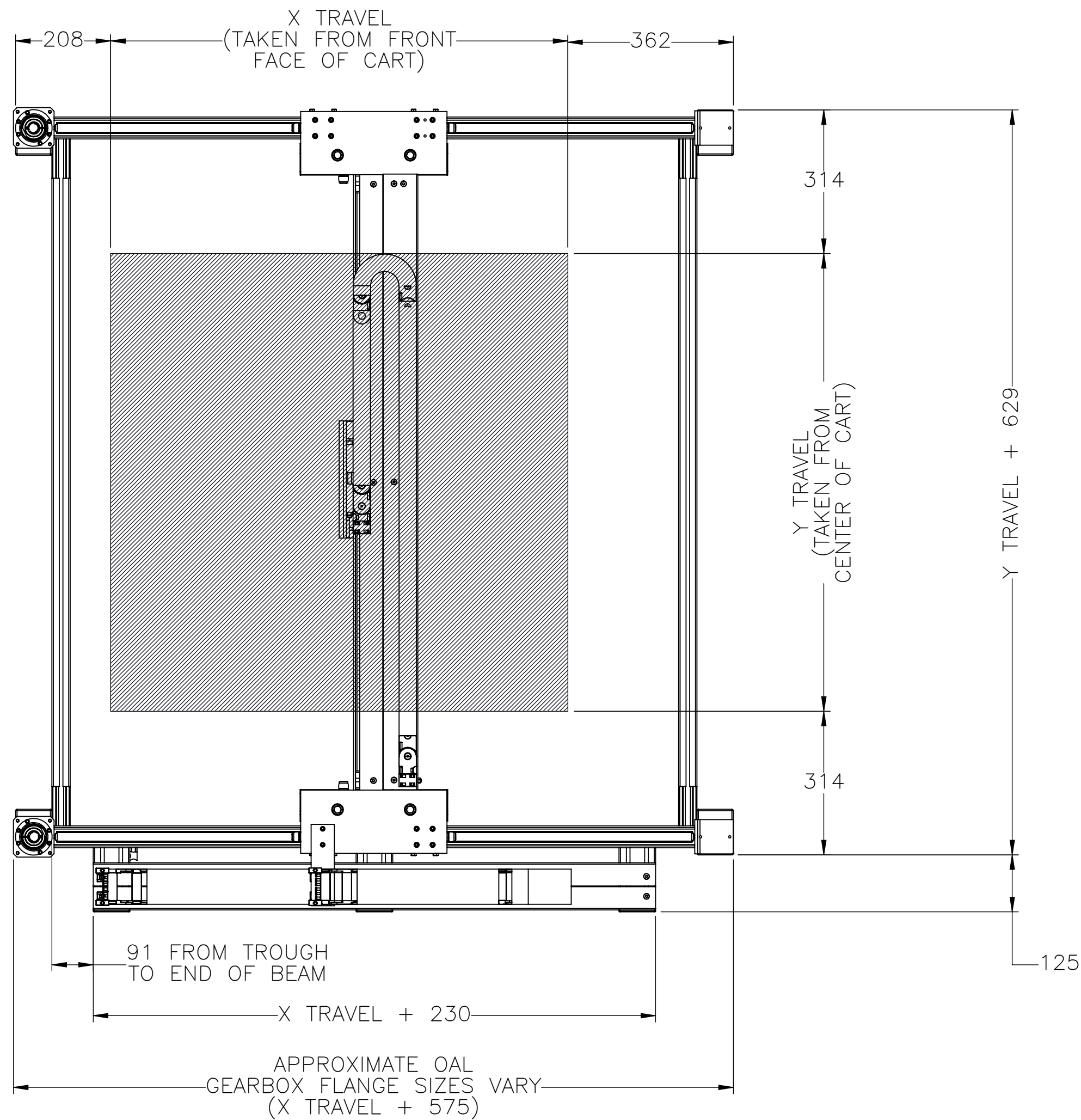
SIGN & PRINT

DATE: _____

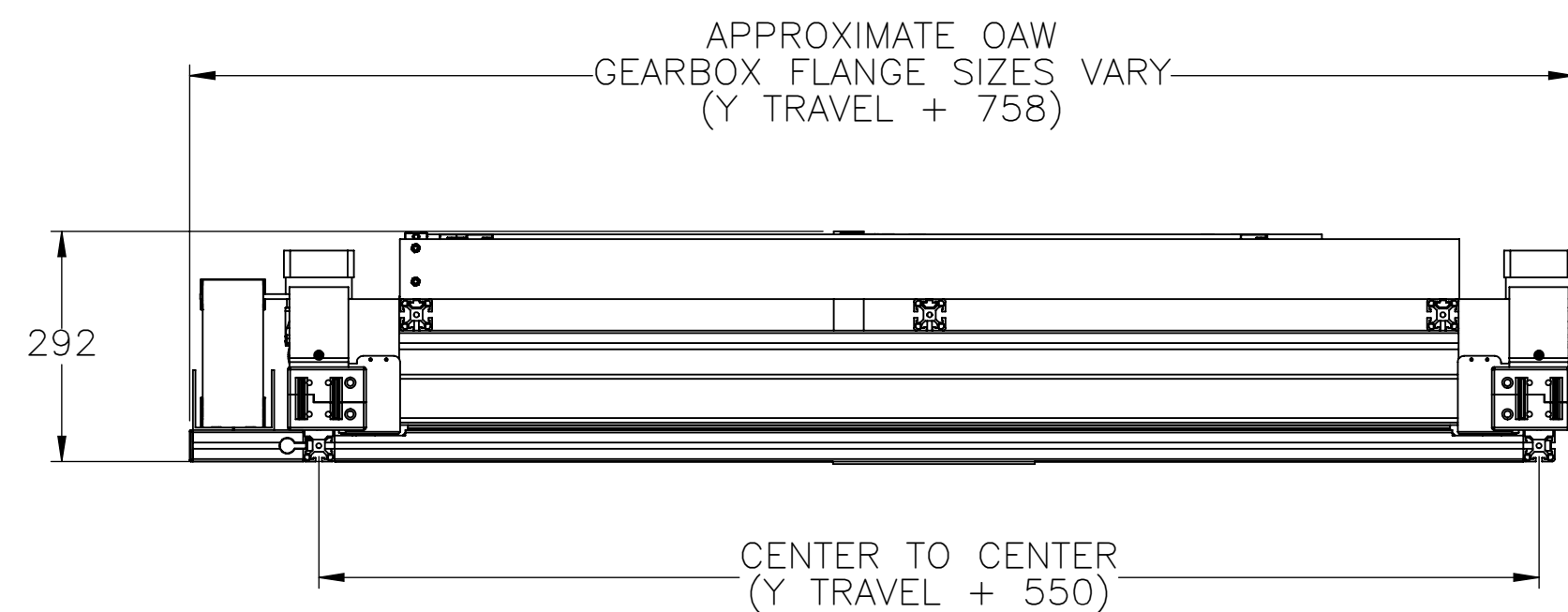
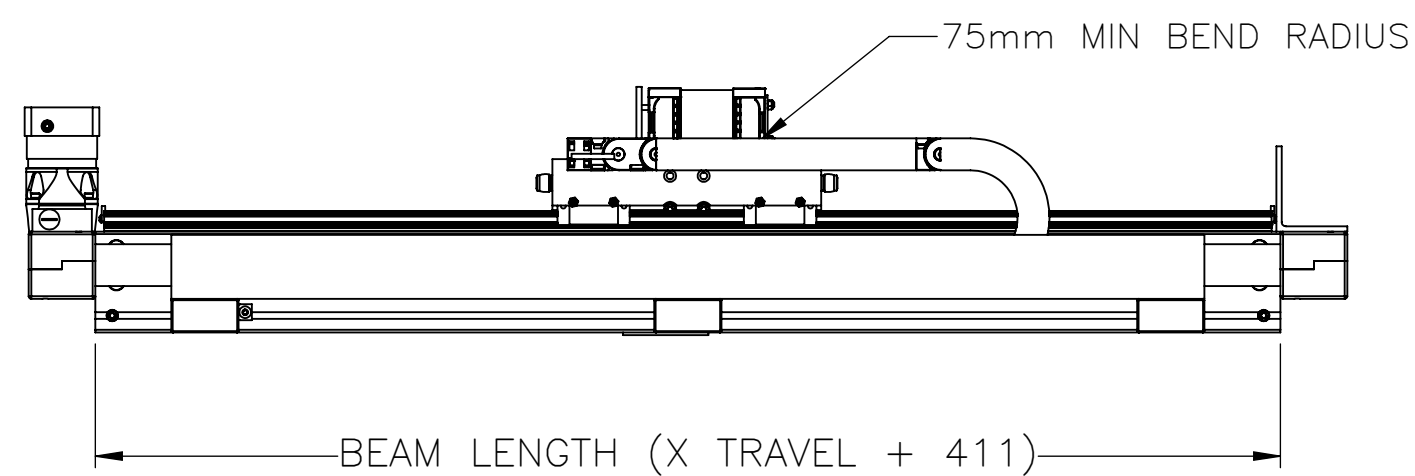
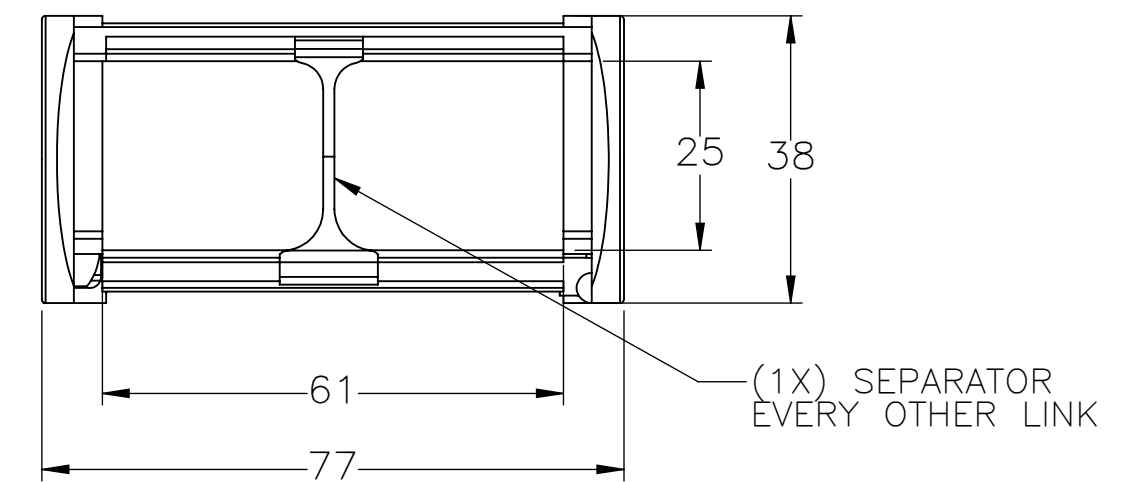
PO:REFERENCE#: _____


 MACRON DYNAMICS INC	DRAWN BY: TB DATE: 1/2/2019	MATERIAL:	TITLE:
	CHECKED BY: DATE: DD/MM/YYYY	FINISH:	SCALE 1:1 SHEET SIZE C
	LAST SAVED BY: TH DATE: 10/12/2022		
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETER. TOLERANCES UNLESS NOTED OTHERWISE: .X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	SURFACE FINISH $\sqrt{63}$	SHEET 1 OF 6
<small>THIS DRAWING IS THE PROPERTY OF MACRON DYNAMICS. ANY REPRODUCTIONS SHALL BE FOR QUOTATION, MANUFACTURING, OR PURCHASING PURPOSES ONLY. RELEASE OF DRAWINGS TO OTHER CONCERNS DOES NOT CONSTITUTE LICENSING IN ANY WAY. INFORMATION CONTAINED HEREIN IS PROPRIETARY AND CONFIDENTIAL.</small>	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	REV 00	

GANTRY FOOTPRINT

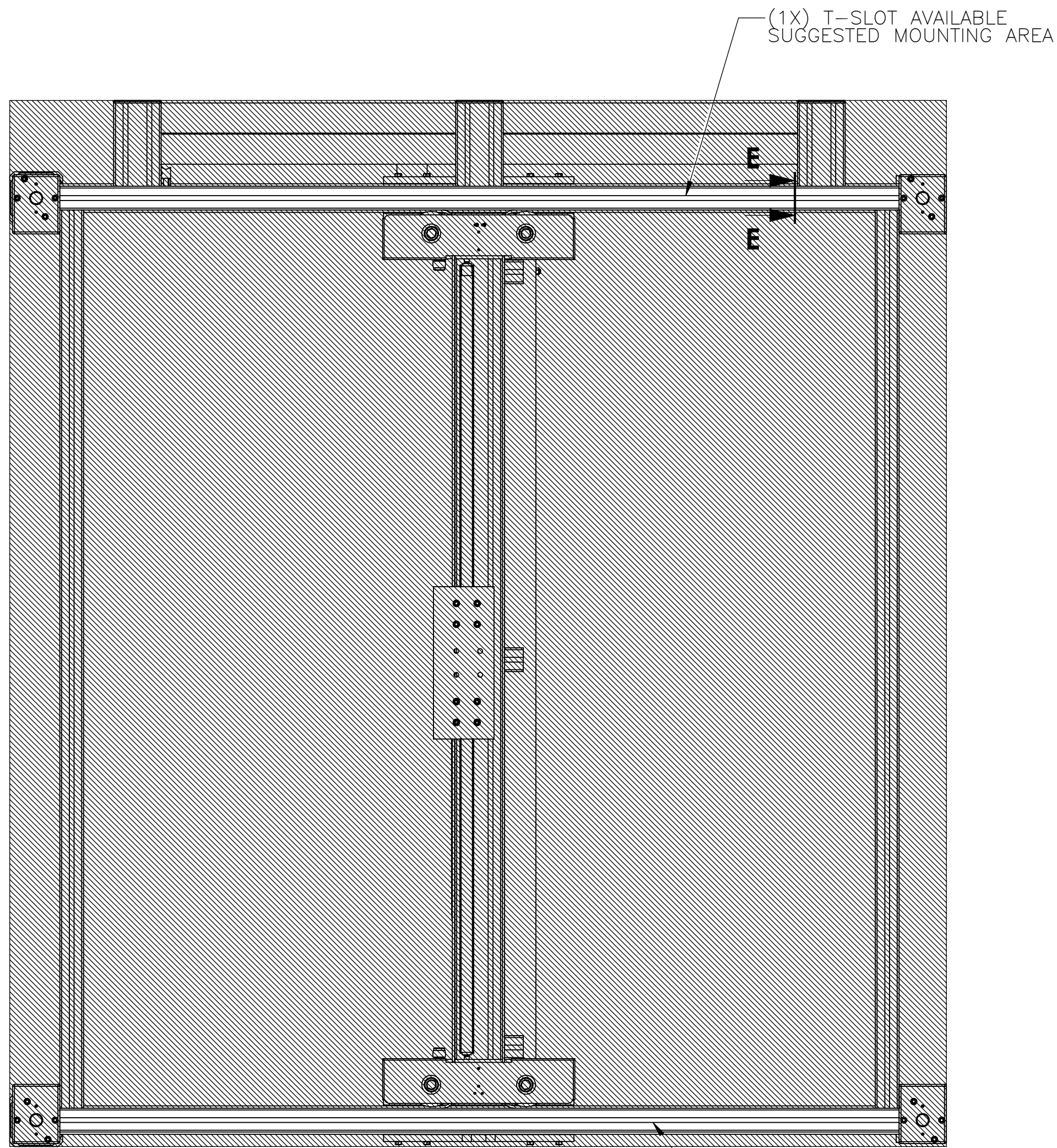


CABLE TRACK CROSS SECTION (SAME FOR BOTH AXES)

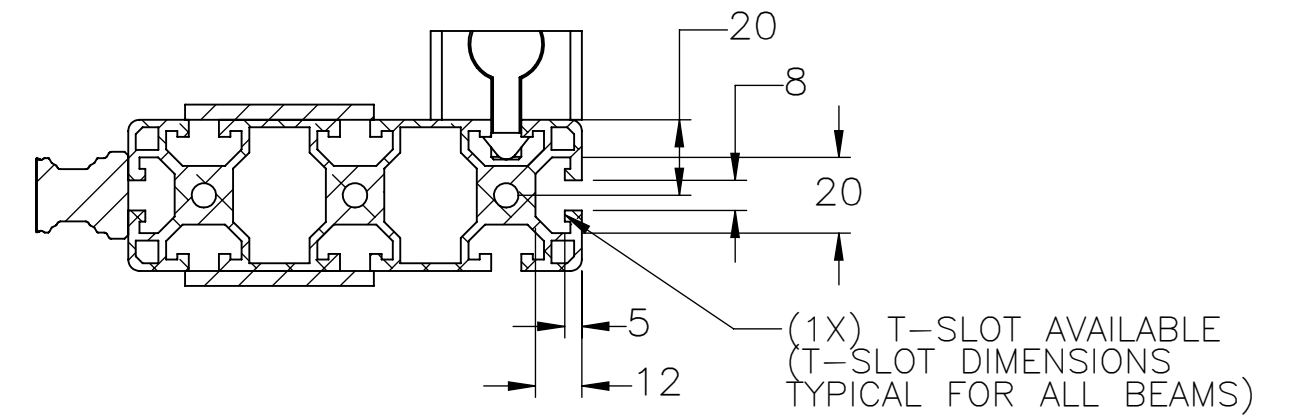


 MACRON DYNAMICS INC	DRAWN BY: TB CHECKED BY: LAST SAVED BY: TH	DATE: 1/2/2019 DATE: DD/MM/YYYY DATE: 10/12/2022	MATERIAL: FINISH:	TITLE:	
	<small>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETER. TOLERANCES UNLESS NOTED OTHERWISE:</small>		.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	SCALE 1:1 SHEET SIZE C	
	SURFACE FINISH $\sqrt{}$		BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET 2 OF 6 PART NUMBER MGS-HBG-50-X-X-X	REV 00
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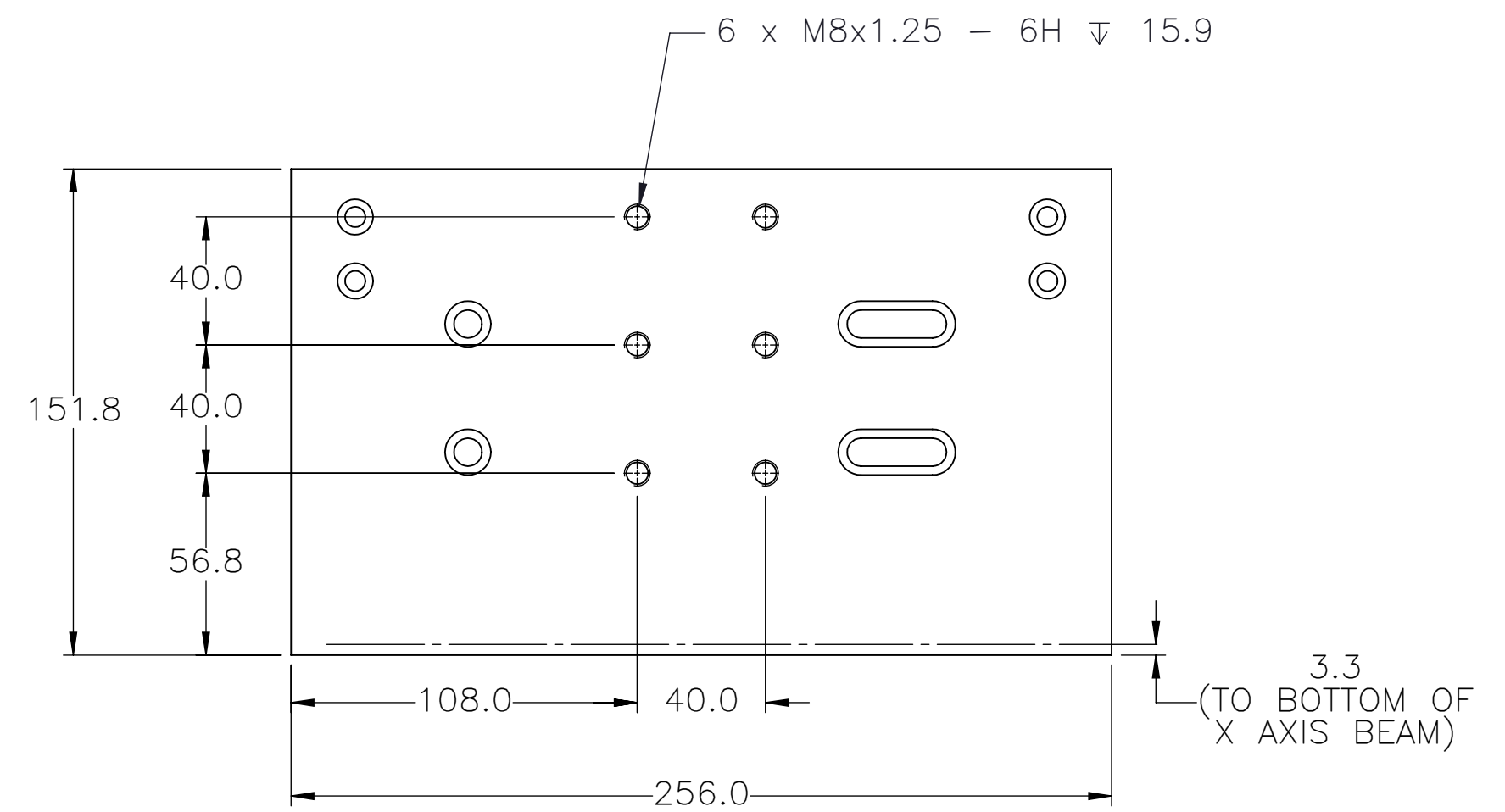
GANTRY MOUNTING FEATURES




*BOTTOM VIEW



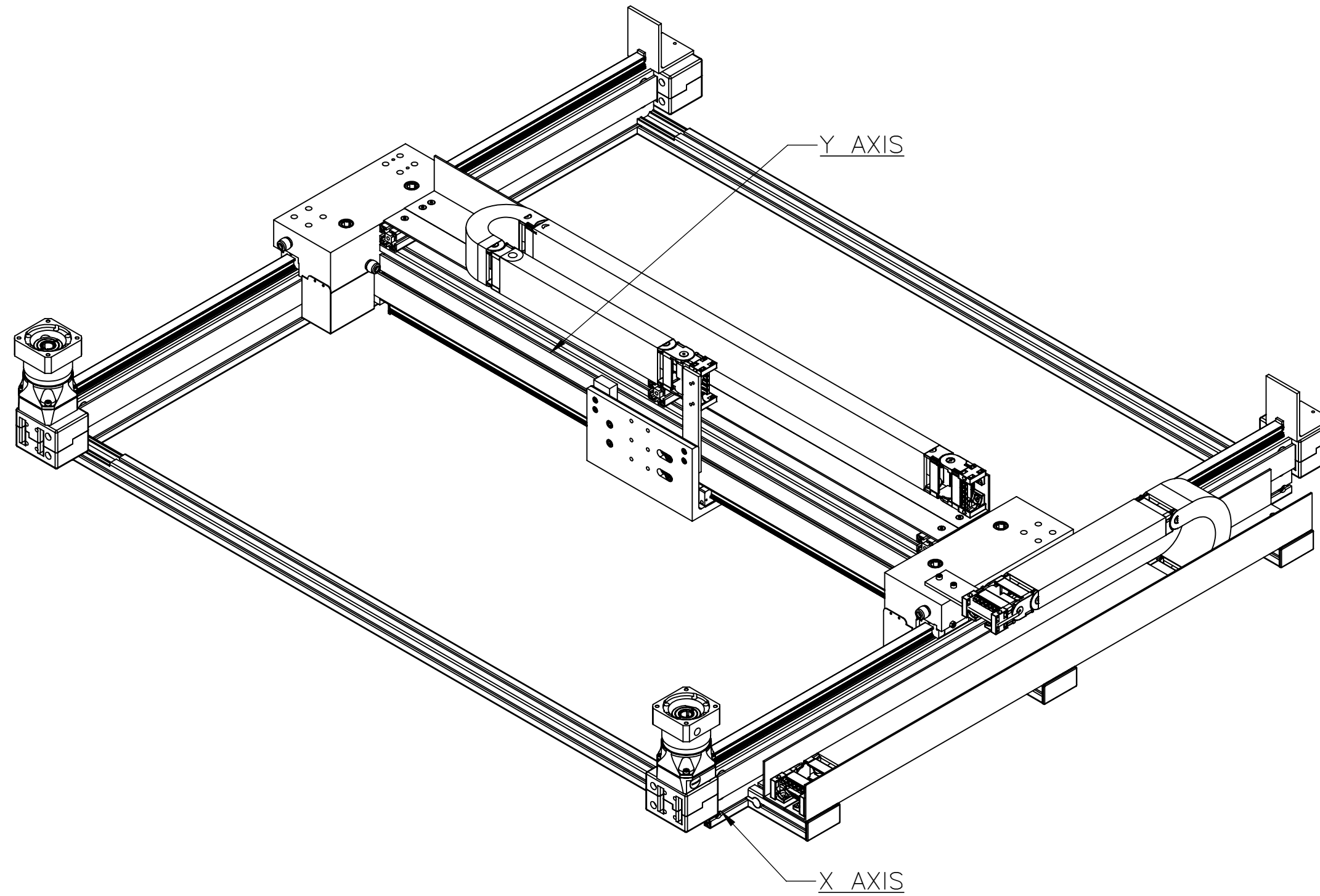
SECTION E-E



CART MOUNTING FEATURES

 MACRON DYNAMICS INC	DRAWN BY: TB CHECKED BY: LAST SAVED BY: TH	DATE: 1/2/2019 DATE: DD/MM/YYYY DATE: 10/12/2022	MATERIAL: FINISH:	TITLE:	
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETER. TOLERANCES UNLESS NOTED OTHERWISE: .X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'		SURFACE FINISH: 63√	SCALE: 1:1 SHEET SIZE: C	
	THIS DRAWING IS THE PROPERTY OF MACRON DYNAMICS. ANY REPRODUCTIONS SHALL BE FOR QUOTATION, MANUFACTURING, OR PURCHASING PURPOSES ONLY. RELEASE OF DRAWINGS TO OTHER CONCERNS DOES NOT CONSTITUTE LICENSING IN ANY WAY. INFORMATION CONTAINED HEREIN IS PROPRIETARY AND CONFIDENTIAL.		BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET: 3 OF 6 PART NUMBER: MGS-HBG-50-X-X-X	REV: 00
	FINISH:				

MOTOR SIZING WORKSHEET



PROPERTY	VALUE
PULLEY PITCH ϕ	47.75mm (1.88")
PULLEY WIDTH	54.0mm (2.124")
PULLEY MATERIAL	STEEL
TRAVEL PER REV	150mm
BELT WIDTH	50mm (1.97")
ULTIMATE TENSILE STRENGTH OF BELT	4600 LBS (204470 N)
RECOMMENDED BELT RUNNING LOAD	1150 LBS (5118 N)


X-TRAVEL = _____ mm

Y-TRAVEL = _____ mm

NOTE: ALL SUPPLIED MASSES DO NOT INCLUDE CUSTOMER COMPONENTS (MOTORS, CABLES, ETC)

GEARBOX MASS (ADD TO SYSTEM MASSES)	MPG-084	2.3kg
	MPG-114	5.8kg
	MRG-084	5.6kg
	MRG-114	15.0kg

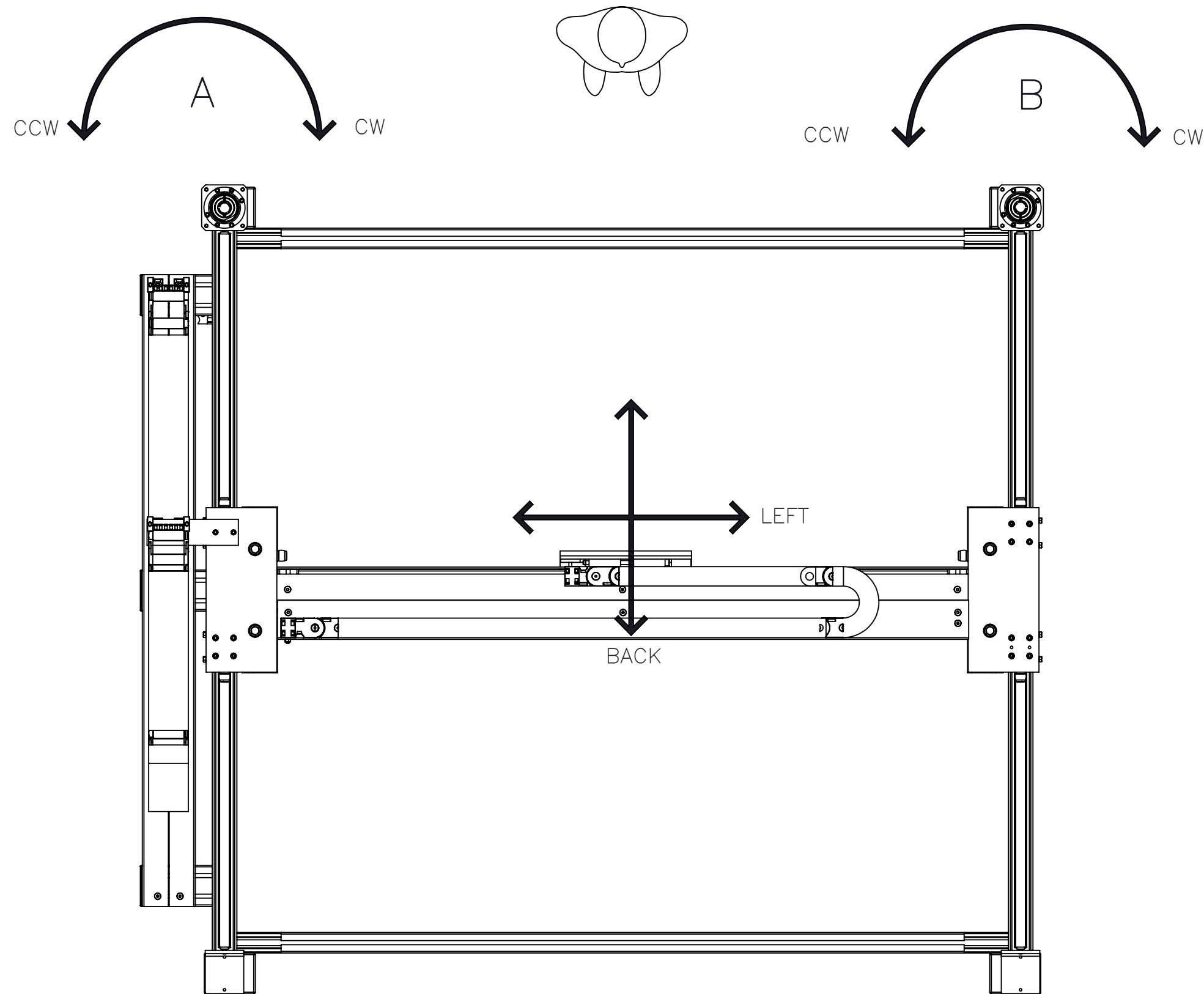
TOTAL BELT MASS	$(X \text{ TRAVEL} \times .00136) + (Y \text{ TRAVEL} \times .00068) + 1.05 = \text{kg}$
TOTAL MOVING MASS	$(X \text{ TRAVEL} \times .001) + (Y \text{ TRAVEL} \times .011) + 44.48 = \text{kg}$
TOTAL SYSTEM MASS	$(X \text{ TRAVEL} \times .0171) + (Y \text{ TRAVEL} \times .0263) + 63.43 = \text{kg}$

 MACRON DYNAMICS INC	DRAWN BY: TB CHECKED BY: LAST SAVED BY: TH	DATE: 1/2/2019 DATE: DD/MM/YYYY DATE: 10/12/2022	MATERIAL: FINISH:	TITLE:	
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE: .X \pm .762 .XX \pm .254 .XXX \pm .127 ANG \pm 0°30'		SCALE 1:1 SHEET SIZE C		
	SURFACE FINISH $\sqrt{\quad}$		SHEET 4 OF 6 PART NUMBER MGS-HBG-50-X-X-X	REV 00	
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BREAK ALL SHARP EDGES
 DIMENSIONAL LIMITS APPLY AFTER FINISHING
 THIRD ANGLE PROJECTION


MOTOR DYNAMICS

(ASSUMES MOTORS ARE ROTATING AT SAME ANGULAR VELOCITY)



ROTATIONAL DIRECTION		Y-AXIS CART MOVEMENT
PULLEY A	PULLEY B	
CW	CW	LEFT
CW	CCW	BACK
CCW	CW	FRONT
CCW	CCW	RIGHT

PULLEY ROTATION AND Y-AXIS CART MOVEMENT
ARE WITH RESPECT TO THIS GANTRY VIEW

 MACRON DYNAMICS INC	DRAWN BY: TB DATE: 1/2/2019	MATERIAL:	TITLE: MACRON H-BOT GANTRY
	CHECKED BY: DATE: DD/MM/YYYY	FINISH:	
	LAST SAVED BY: TH DATE: 10/12/2022		SCALE 1:1 SHEET SIZE C
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:	SURFACE FINISH $\sqrt{\text{63}}$ BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET 5 OF 6

SPECIFICATIONS

Sensor Type	Inductive
Sensor Size	Fits all 8mm wide T-Slots
Operating Voltage	10–30 VDC
Voltage Drop Across Conducting Sensor	≤1.8 V at 100 mA
Number of Conductors (AWG)	3x26 AWG
Temperature Range	-40°C to 105°C

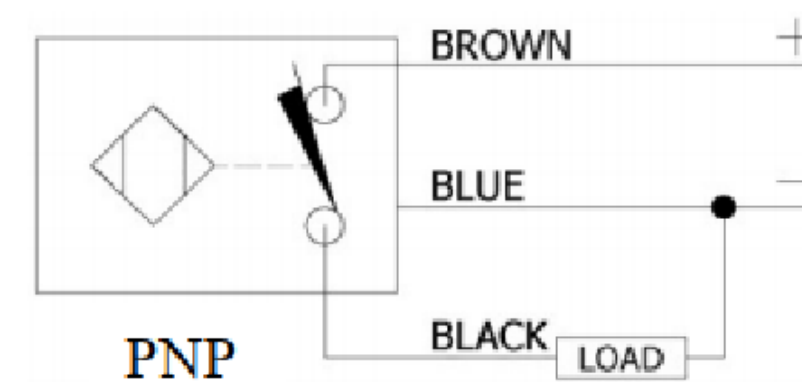
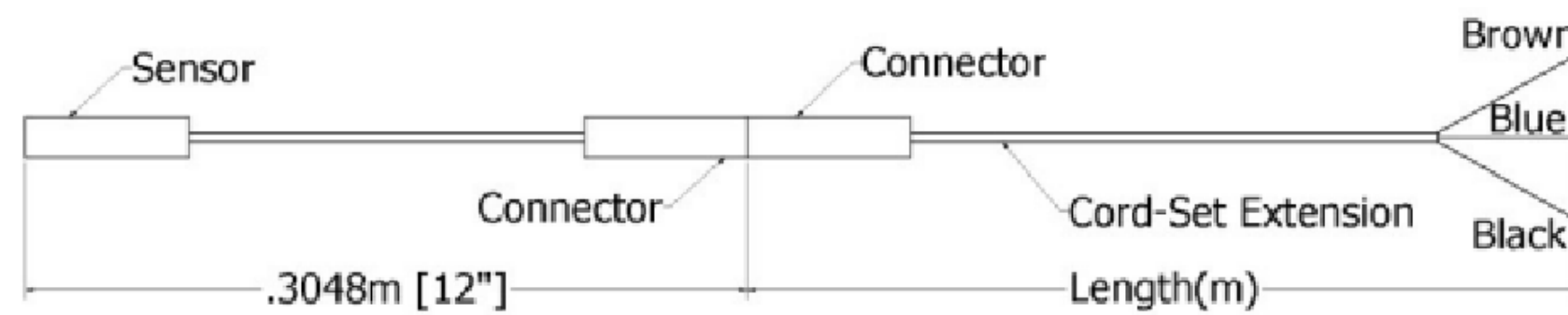
Part Number Configuration

244-_-_-_-_-_-

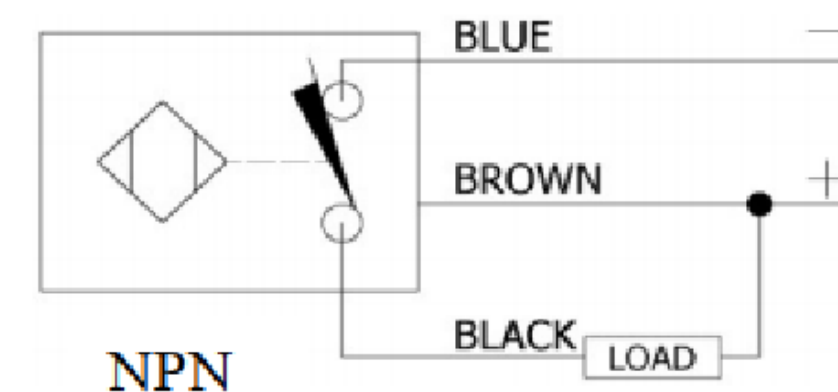
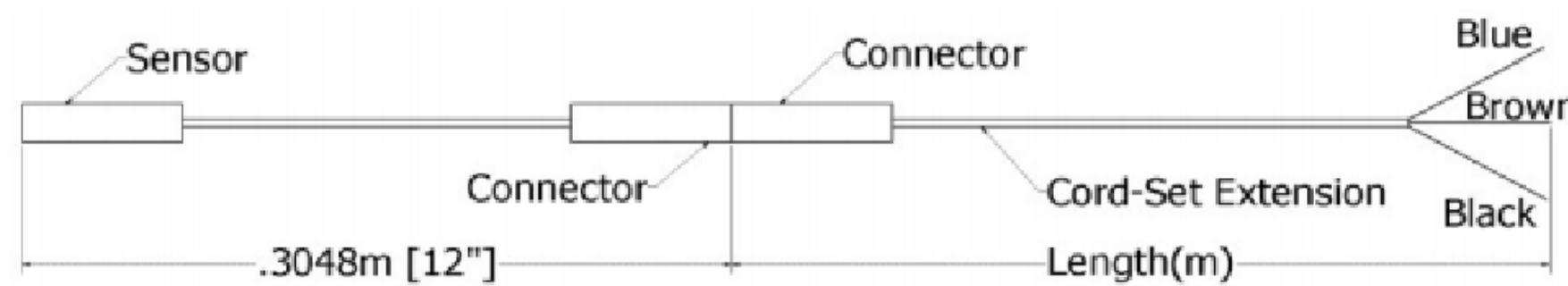
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

Example: PNP, normally closed, cord-set extension length 6 meters = 244-PNP-NC-06

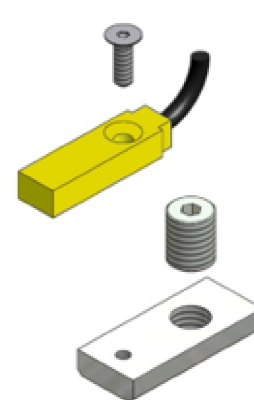
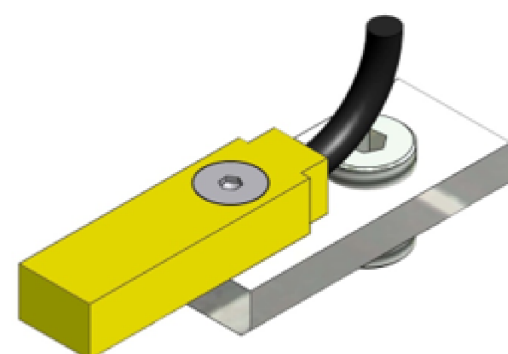
PNP Diagrams



NPN Diagrams



KIT INCLUDES – SENSOR, CORDSET EXTENSION, AND MOUNTING HARDWARE



	DRAWN BY: JA DATE: 1/2/2019 CHECKED BY: DATE: DD/MM/YYYY LAST SAVED BY: TH DATE: 10/12/2022	MATERIAL:	TITLE:
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:	FINISH:	T-SLOT SENSOR KIT
	SURFACE FINISH: 63 ✓ BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET: 6 OF 6 PART NUMBER: SENSOR CALL-OUT	SCALE: 1:1 SHEET SIZE: C REV:
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