

MCS-UC2-  -  -

GEARBOX MODEL (X AXIS)

VC-T-090 \_\_\_\_\_

RATIO: \_\_\_\_\_

GEARBOX MODEL (Y AXIS)

VC-T-090 \_\_\_\_\_

RATIO: \_\_\_\_\_

GEARBOX MODEL (Z AXIS)

MPG-084 \_\_\_\_\_

MOTOR INFORMATION (X AXIS)

MANUFACTURER: \_\_\_\_\_

MODEL: \_\_\_\_\_

MOTOR INFORMATION (Y AXIS)

MANUFACTURER: \_\_\_\_\_

MODEL: \_\_\_\_\_

MOTOR INFORMATION (Z AXIS)

MANUFACTURER: \_\_\_\_\_

MODEL: \_\_\_\_\_

SENSOR INFORMATION X-AXIS:

HOME-QTY \_\_\_\_\_ 244- \_\_\_\_\_

EOT-QTY \_\_\_\_\_ 244- \_\_\_\_\_

SENSOR INFORMATION Y-AXIS:

HOME-QTY \_\_\_\_\_ 244- \_\_\_\_\_

EOT-QTY \_\_\_\_\_ 244- \_\_\_\_\_

SENSOR INFORMATION Z-AXIS:

HOME-QTY \_\_\_\_\_ 244- \_\_\_\_\_

EOT-QTY \_\_\_\_\_ 244- \_\_\_\_\_

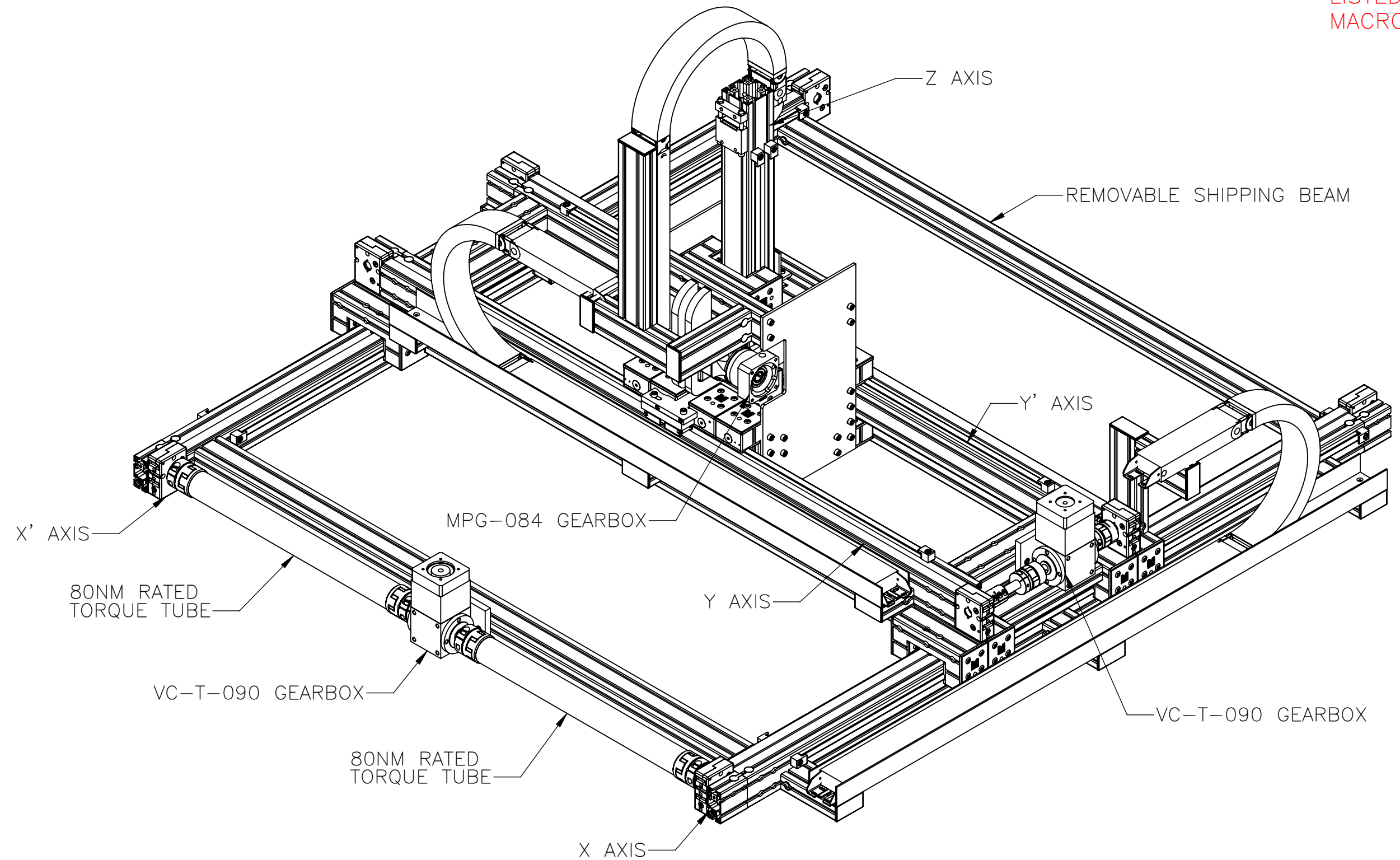
(SEE T-SLOT SENSOR KIT SHEET FOR PART NUMBER CONFIGURATION)

ENTER Z-AXIS TRAVEL  
TRAVEL IN INCREMENTS OF 25mm  
TRAVEL LIMITS: 150mm-1000mm

ENTER Y-AXIS TRAVEL  
TRAVEL IN INCREMENTS OF 25mm  
TRAVEL LIMITS: 150mm-1500mm

ENTER X-AXIS TRAVEL  
TRAVEL IN INCREMENTS OF 25mm  
TRAVEL LIMITS: 150mm-5125mm

\*IF TRAVEL IS OUTSIDE LIMITS LISTED, CONTACT MACRON\*



APPROVED: \_\_\_\_\_

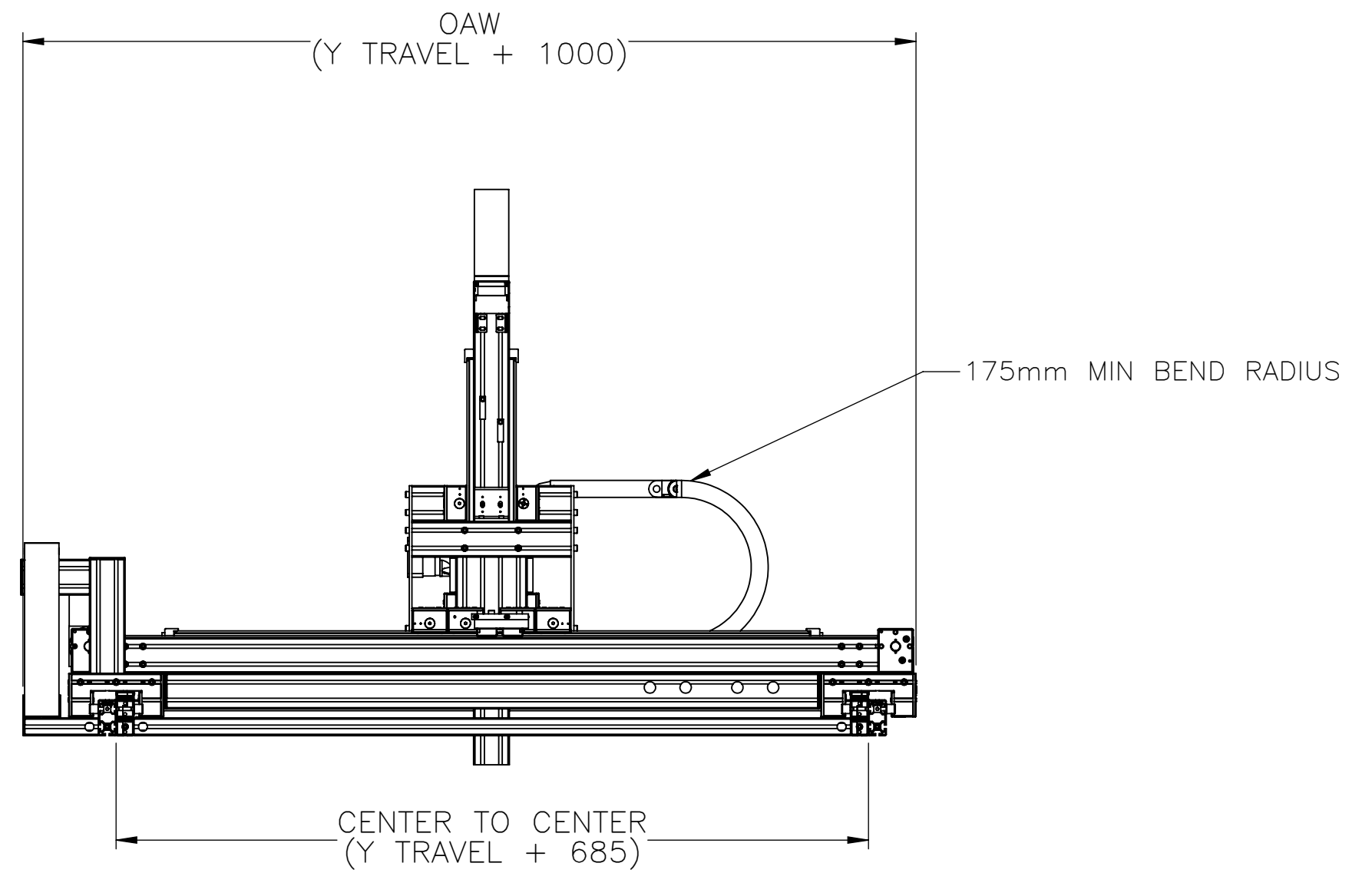
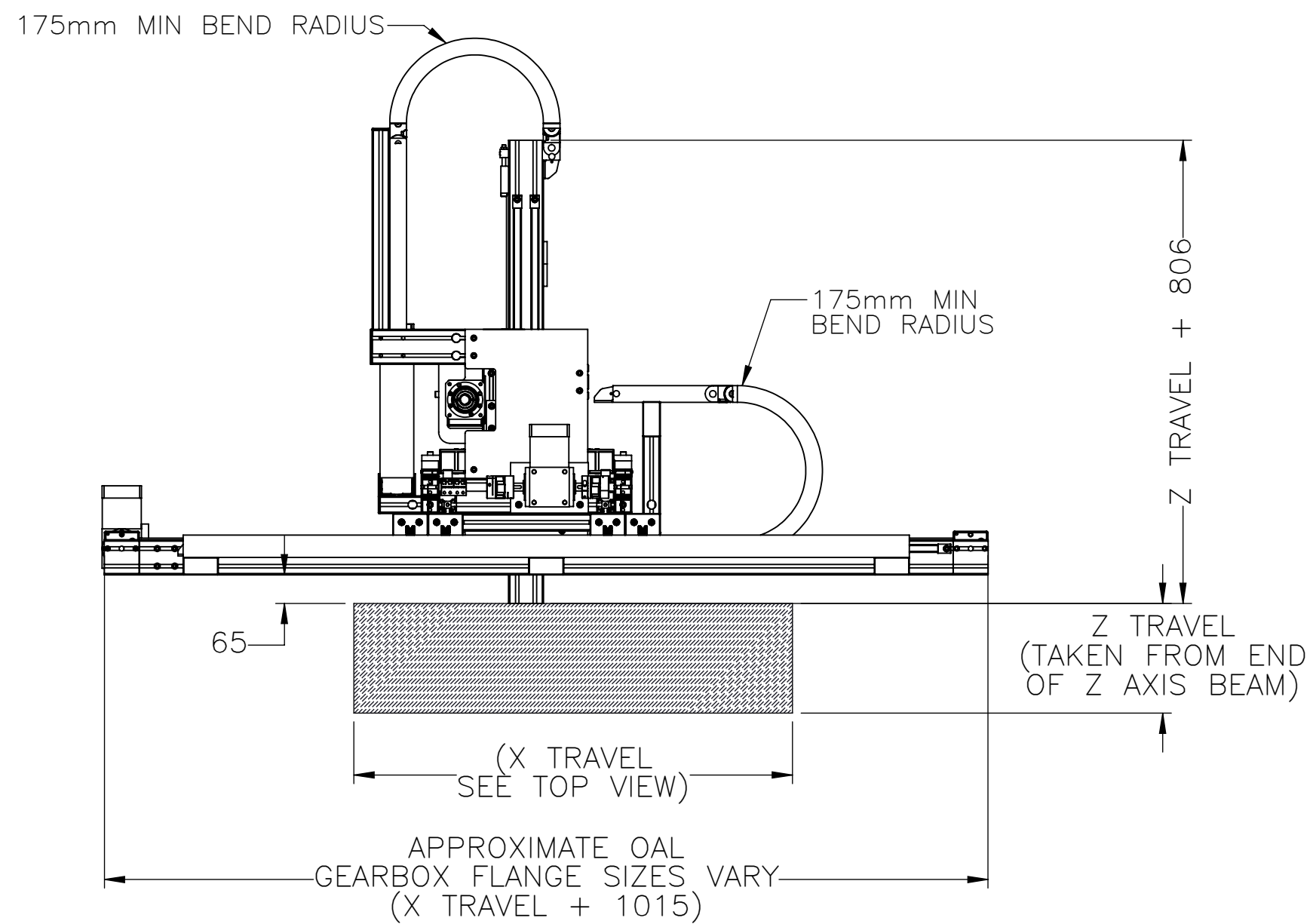
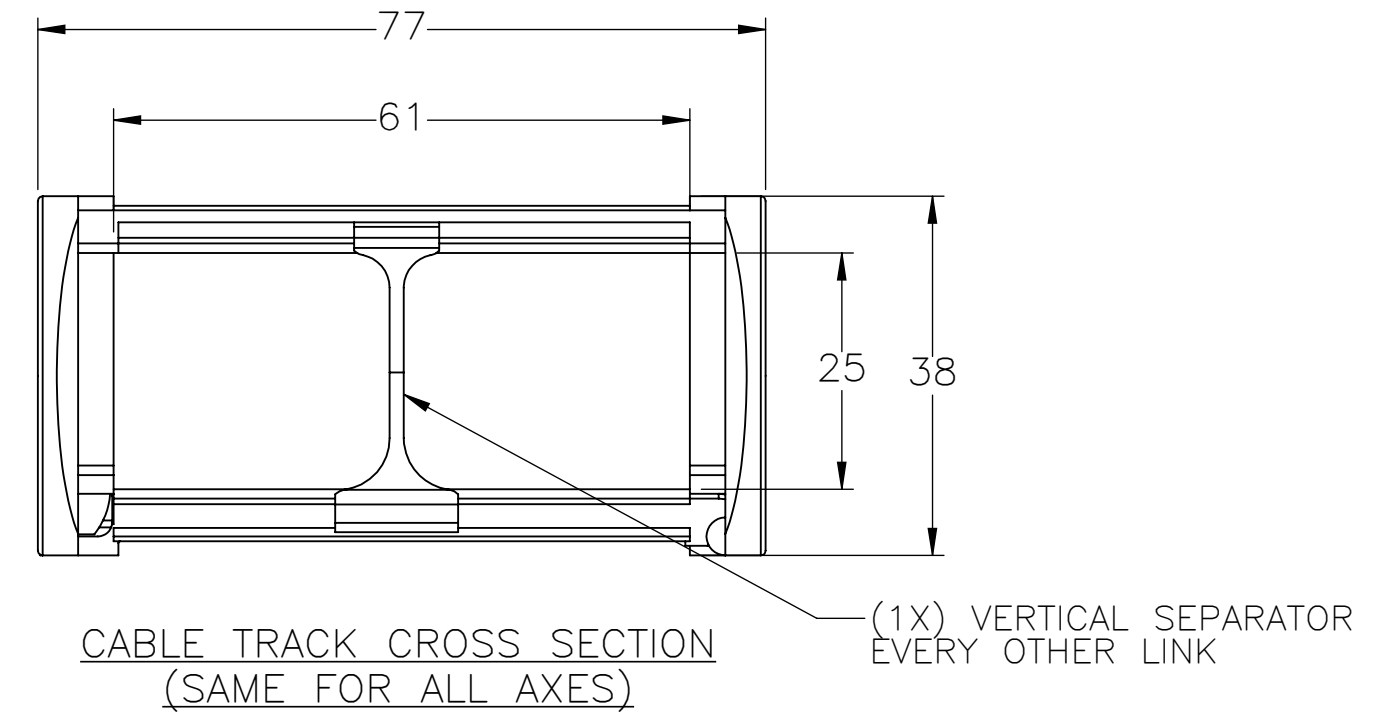
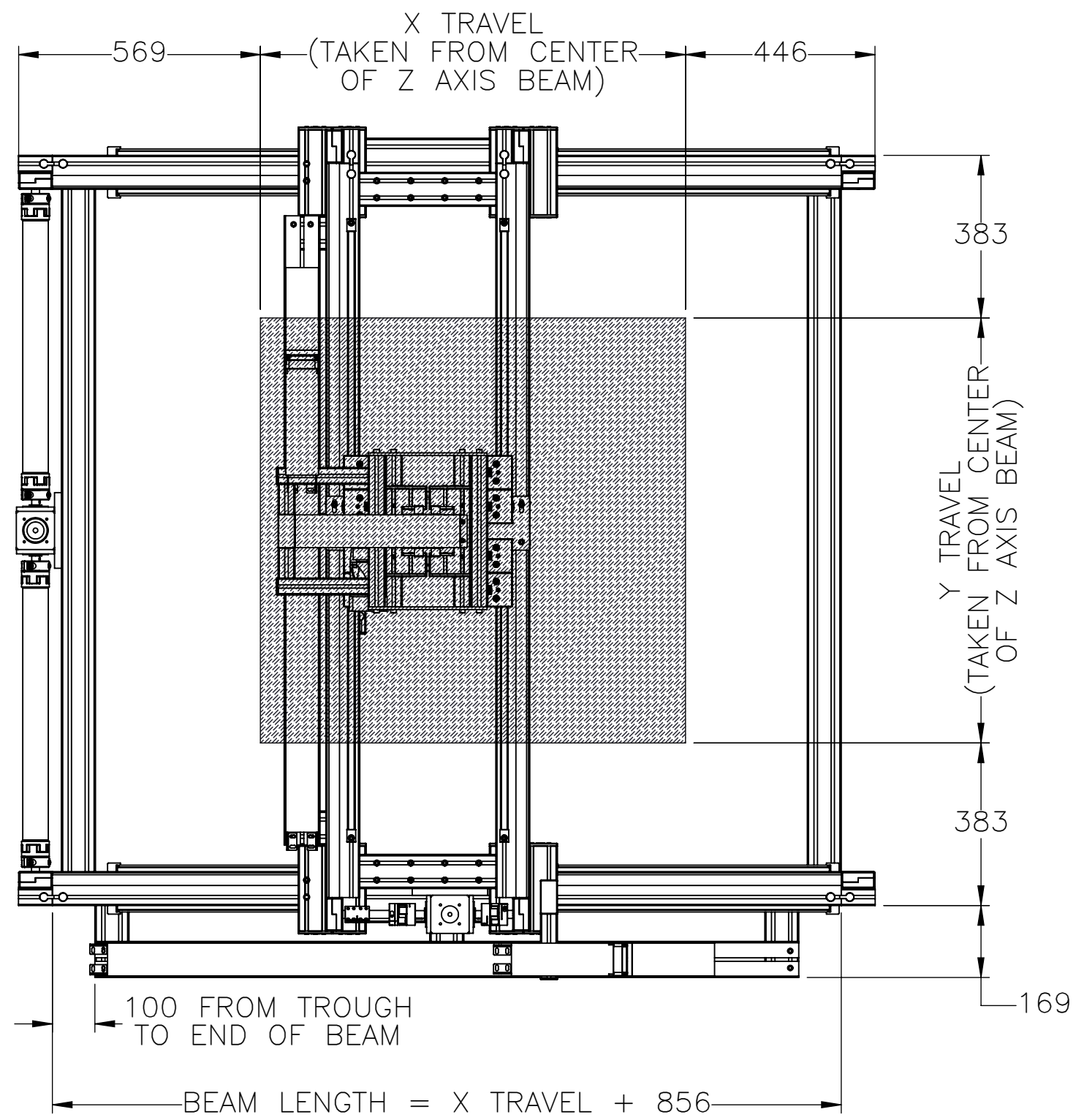
SIGN & PRINT

DATE: \_\_\_\_\_

PO:REFERENCE#: \_\_\_\_\_

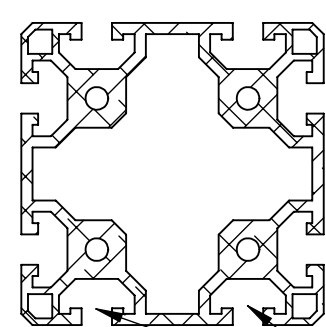
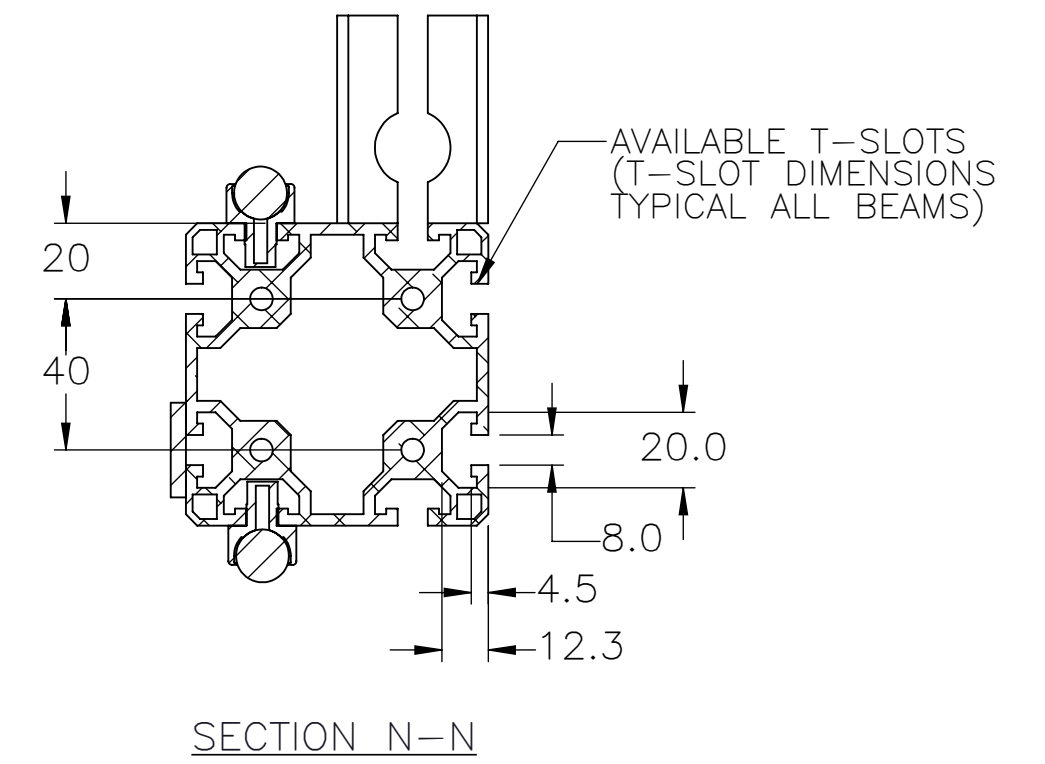
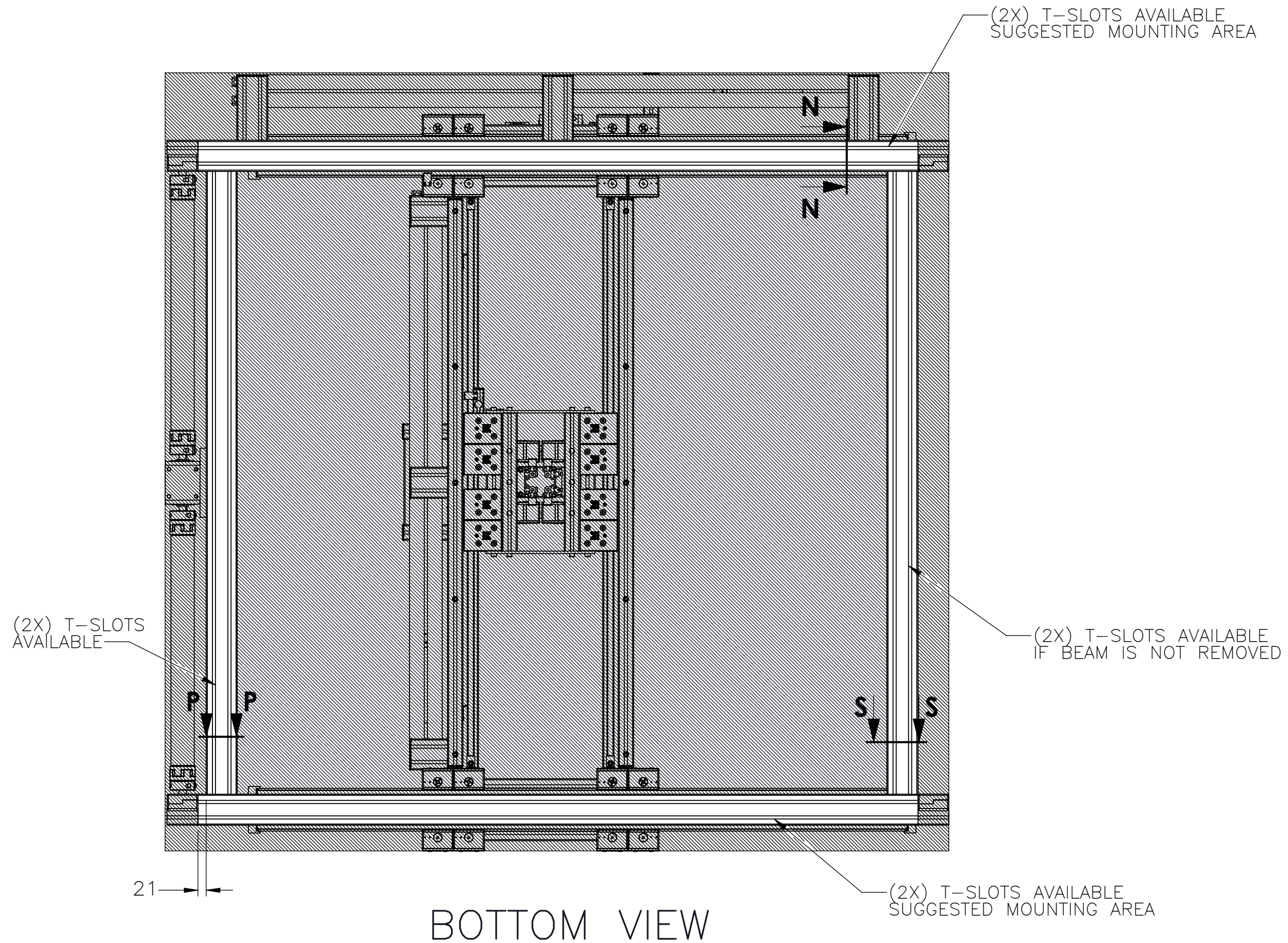
	DRAWN BY: PHW CHECKED BY: -- LAST SAVED BY: Tim	DATE: 11/26/2017 DATE: DD/MM/YYYY DATE: 6/2/2022	MATERIAL:	TITLE: MACRON UC2 XYZ GANTRY
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:		FINISH:	SCALE 1:1   SHEET SIZE C
	SURFACE FINISH $\checkmark$		SHEET	PART NUMBER
	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	1 OF 51

# WORK ENVELOPE AND GANTRY FOOTPRINT

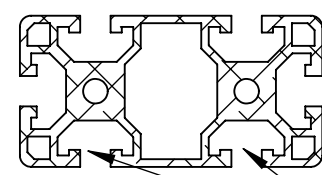


<p>MACRON DYNAMICS INC</p>	DRAWN BY: PHW CHECKED BY: -- LAST SAVED BY: Tim	DATE: 11/26/2017 DATE: DD/MM/YYYY DATE: 6/2/2022	MATERIAL:	TITLE: MACRON UC2 XYZ GANTRY
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS NOTED OTHERWISE:		FINISH:	
	SURFACE FINISH 63		SCALE 1:1 SHEET SIZE 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.		SHEET 2 OF 51 PART NUMBER MCS-UC2-X-X-X	


# GANTRY MOUNTING FEATURES



SECTION P-P



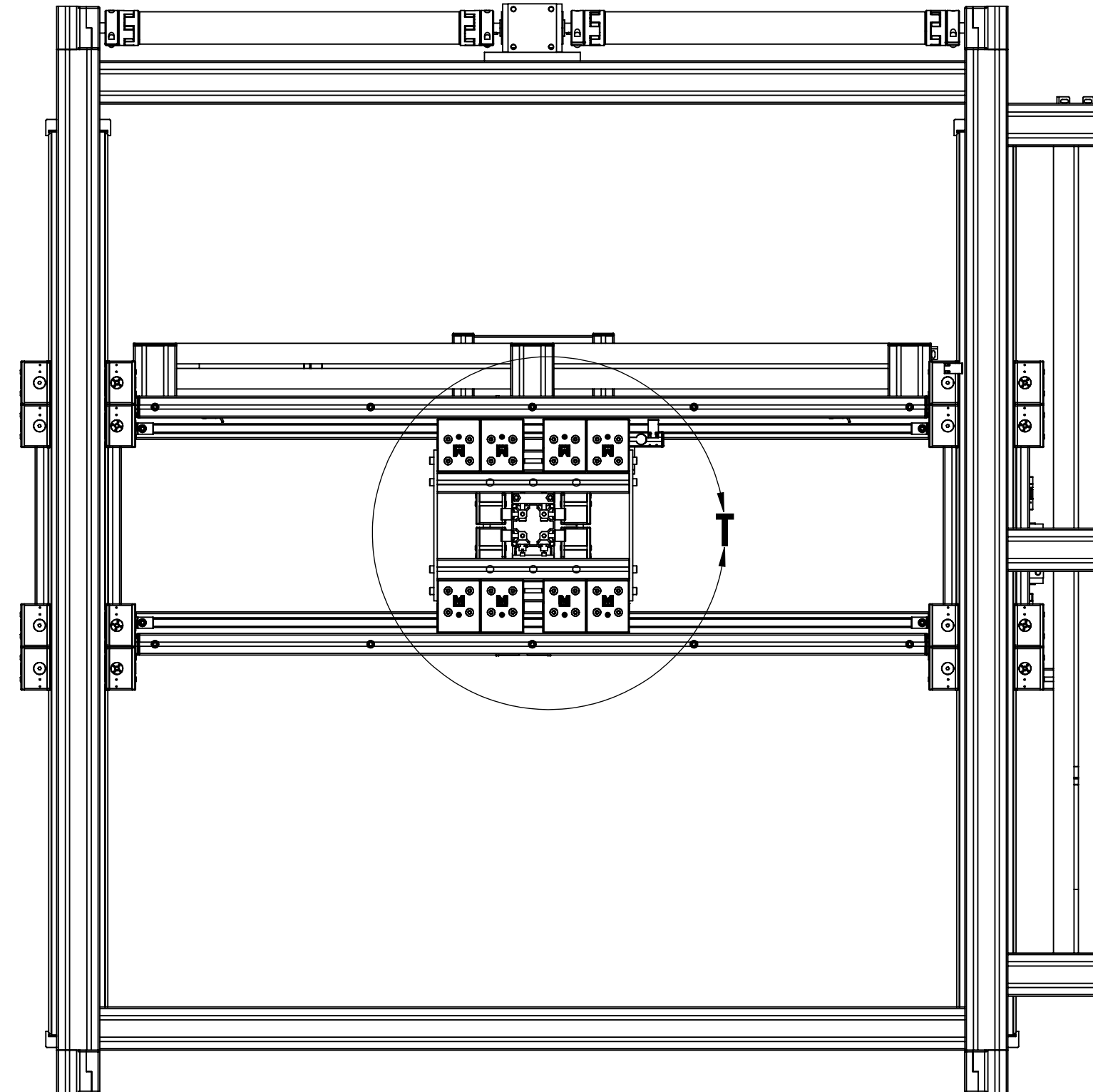
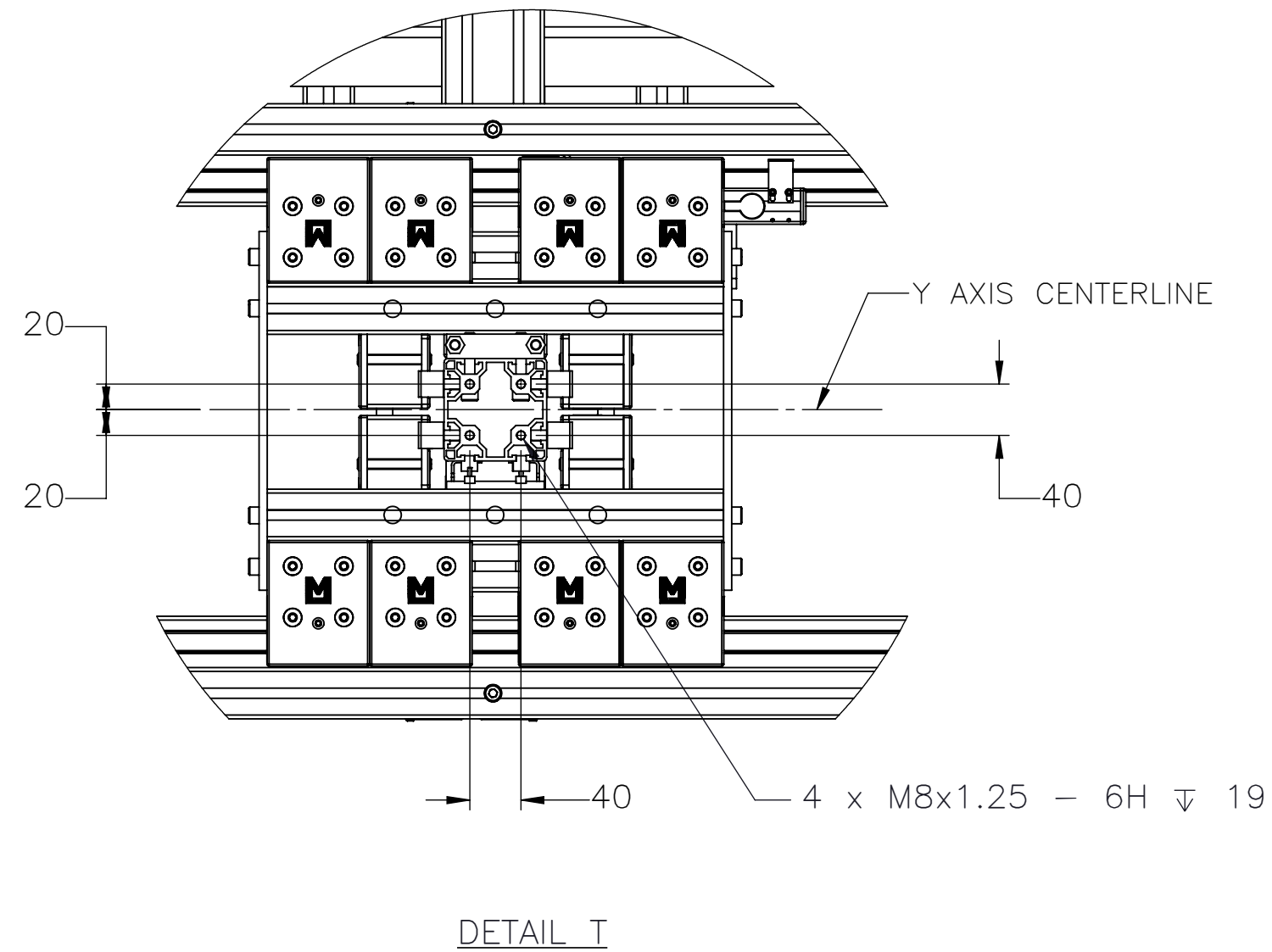
SECTION S-S

 <b>MACRON DYNAMICS INC</b>	DRAWN BY: PHW      DATE: 11/26/2017	MATERIAL:	TITLE:  <b>MACRON UC2 XYZ GANTRY</b>
	CHECKED BY: --      DATE: DD/MM/YYYY	FINISH:	
	LAST SAVED BY: Tim      DATE: 6/2/2022	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES: .XX ± .005 .XXX ± .0127 OTHERWISE: ANG ± 0.30°	SCALE 1:1    SHEET SIZE C
	SURFACE FINISH 63	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET 3 OF 51      PART NUMBER MCS-UC2-X-X-X      REV


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# CART MOUNTING FEATURES



## BOTTOM VIEW

 <b>MACRON DYNAMICS INC</b>	DRAWN BY: PHW CHECKED BY: -- LAST SAVED BY: Tim	DATE: 11/26/2017 DATE: DD/MM/YYYY DATE: 6/2/2022	MATERIAL:	TITLE: XYZ UC2 GANTRY	
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS NOTED OTHERWISE:		FINISH:	SCALE 1:1   SHEET SIZE C	
	SURFACE FINISH 63		SHEET	PART NUMBER	REV
	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	4 OF 51	MCS-UC2-X-X-X

# MOTOR SIZING WORKSHEET

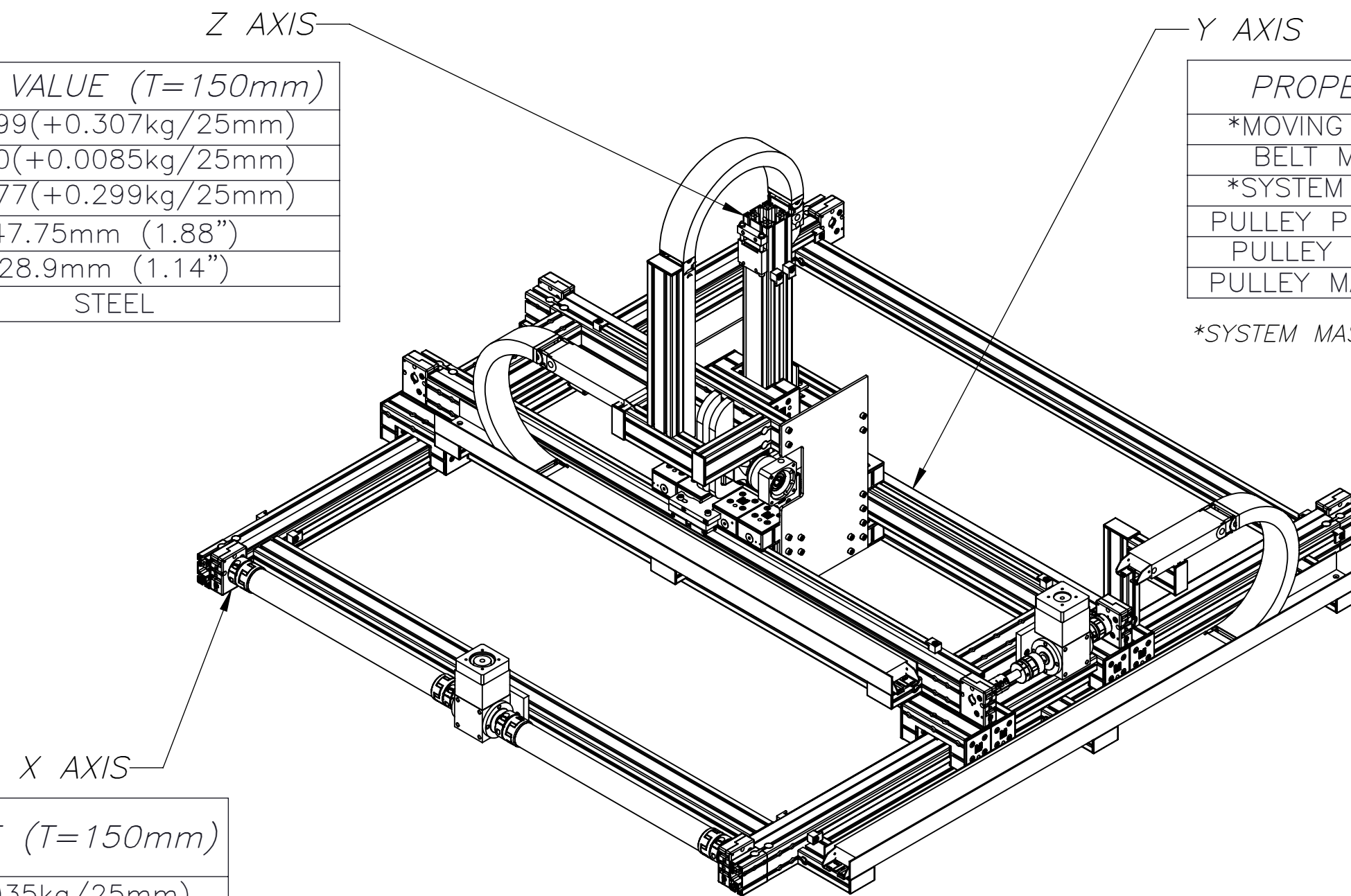
(INCREMENTAL ADDERS REFER TO MASS PER TRAVEL LENGTH)

BASE TRAVELS USED:  
 X TRAVEL = 150mm  
 Y TRAVEL = 150mm  
 Z TRAVEL = 150mm

PROPERTY	BASE VALUE (T=150mm)
MOVING MASS	10.399(+0.307kg/25mm)
BELT MASS	0.340(+0.0085kg/25mm)
SYSTEM MASS	42.977(+0.299kg/25mm)
PULLEY PITCH $\phi$	47.75mm (1.88")
PULLEY WIDTH	28.9mm (1.14")
PULLEY MATERIAL	STEEL

PROPERTY	BASE VALUE (T=150mm)
*MOVING MASS	22.076(+0.035kg/25mm)
BELT MASS	0.493(+0.012kg/25mm)
*SYSTEM MASS	50.733(+0.490kg/25mm)
PULLEY PITCH $\phi$	47.75mm (1.88")
PULLEY WIDTH	28.9mm (1.14")
PULLEY MATERIAL	STEEL


\*SYSTEM MASS OF Z AXIS NEEDS TO BE ADDED TO THIS



PROPERTY	BASE VALUE (T=150mm)
**MOVING MASS	24.575(+0.035kg/25mm)
BELT MASS	0.555(+0.012kg/25mm)
PULLEY PITCH $\phi$	47.75mm (1.88")
PULLEY WIDTH	28.9mm (1.14")
PULLEY MATERIAL	STEEL
***TORQUE TUBE LENGTH (EACH)	295mm
TORQUE TUBE $\phi$	60mm
***TORQUE TUBE MASS (EACH)	1.305kg (+0.036kg/25mm)
TORQUE TUBE MATERIAL	ANODIZED ALUMINUM ELASTOMER STYLE COUPLINGS WITH HUB
TRAVEL PER REV	150mm

X TRAVEL = \_\_\_\_\_ mm  
 Y TRAVEL = \_\_\_\_\_ mm  
 Z TRAVEL = \_\_\_\_\_ mm

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

TOTAL SYSTEM MASS	$(X \text{ TRAVEL} \times .0178) + (Y \text{ TRAVEL} \times .0298) + (Z \text{ TRAVEL} \times .0136) + 141.1$				
 MACRON DYNAMICS INC	DRAWN BY: PHW	DATE: 11/26/2017	MATERIAL:	TITLE: MACRON UC2 XYZ GANTRY	
	CHECKED BY: --	DATE: DD/MM/YYYY	FINISH:		
	LAST SAVED BY: JA	DATE: 6/2/2022	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETER. TOLERANCES UNLESS NOTED OTHERWISE:		
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.	SURFACE FINISH $\sqrt{3}$		SCALE 1:1	SHEET SIZE C	REV
	BREAK ALL SHARP EDGES		SHEET 5 OF 51	PART NUMBER	
	THIRD ANGLE PROJECTION		MCS-UC2-X-X-X		

\*\*SYSTEM MASS OF Y-AXIS NEEDS TO BE ADDED TO THIS

\*\*\*BASE VALUE AT Y TRAVEL = 150mm

# 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

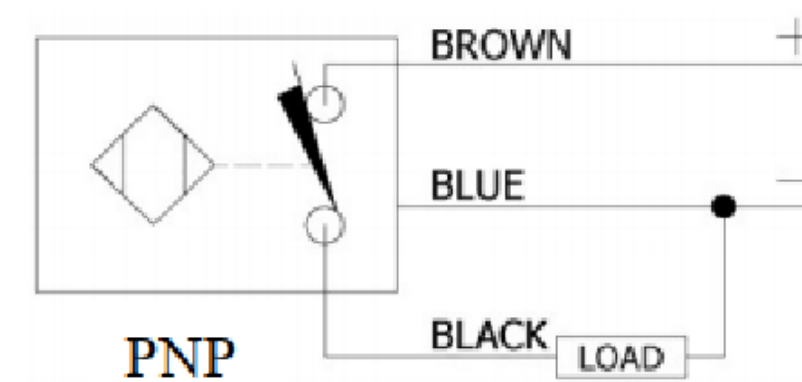
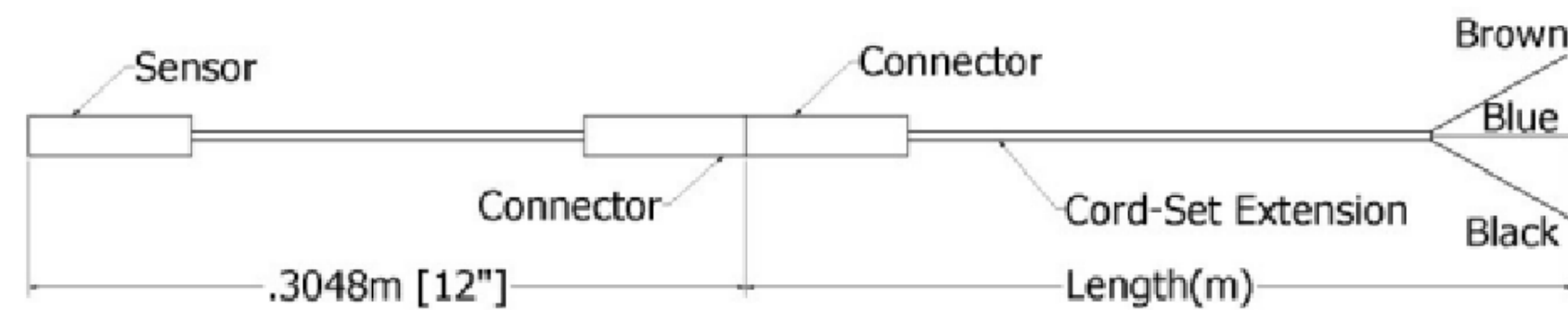
# Part Number Configuration

## 244-\_-\_-\_-\_-\_-\_-\_-

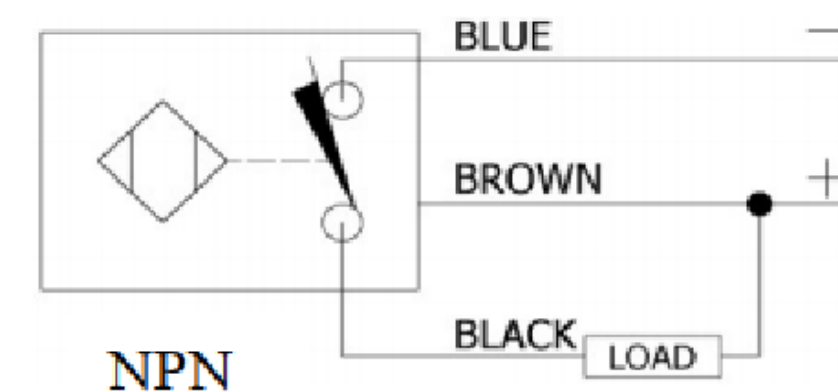
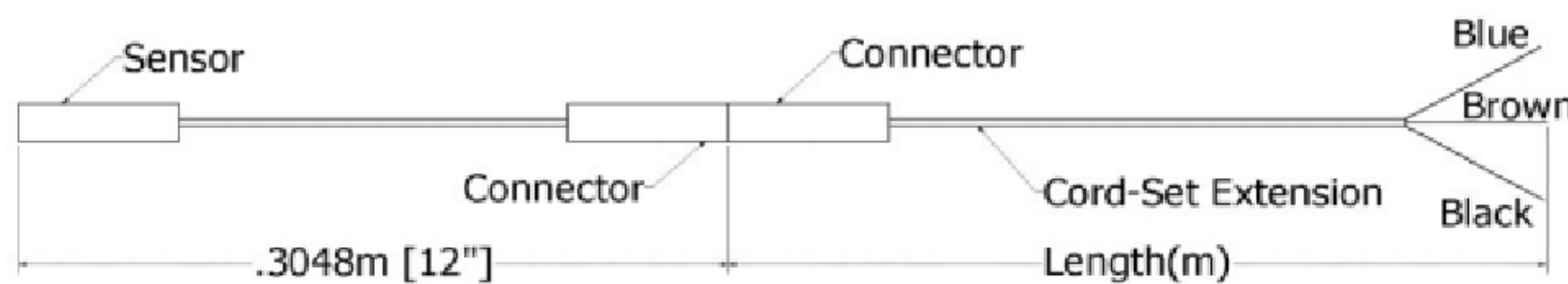
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

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

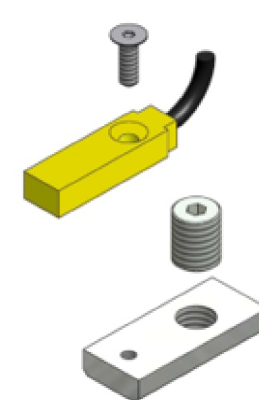
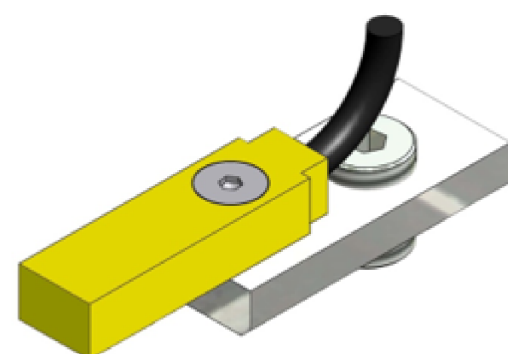
### PNP Diagrams



### NPN Diagrams



KIT INCLUDES – SENSOR, CORDSET EXTENSION, AND MOUNTING HARDWARE



	DRAWN BY: PHW CHECKED BY: -- LAST SAVED BY: Paul	DATE: 11/26/2017 DATE: DD/MM/YYYY DATE: 6/2/2022	MATERIAL:	TITLE: T-SLOT SENSOR KIT
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:	.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	FINISH:	SCALE 1:1 SHEET SIZE C
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