

MGS-TBG-25-

-X-

GEARBOX MODEL (CHOOSE FRAME SIZE)

MPG-064 \_\_\_\_\_ MPG-084 \_\_\_\_\_

MRG-064 \_\_\_\_\_ MRG-084 \_\_\_\_\_

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

FOR DIRECT DRIVE OPTION WITH MMK (NO GEARBOX)  
CHECK HERE: \_\_\_\_\_

MOTOR INFORMATION

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

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

SENSOR INFORMATION X-AXIS:

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

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

SENSOR INFORMATION Z-AXIS:

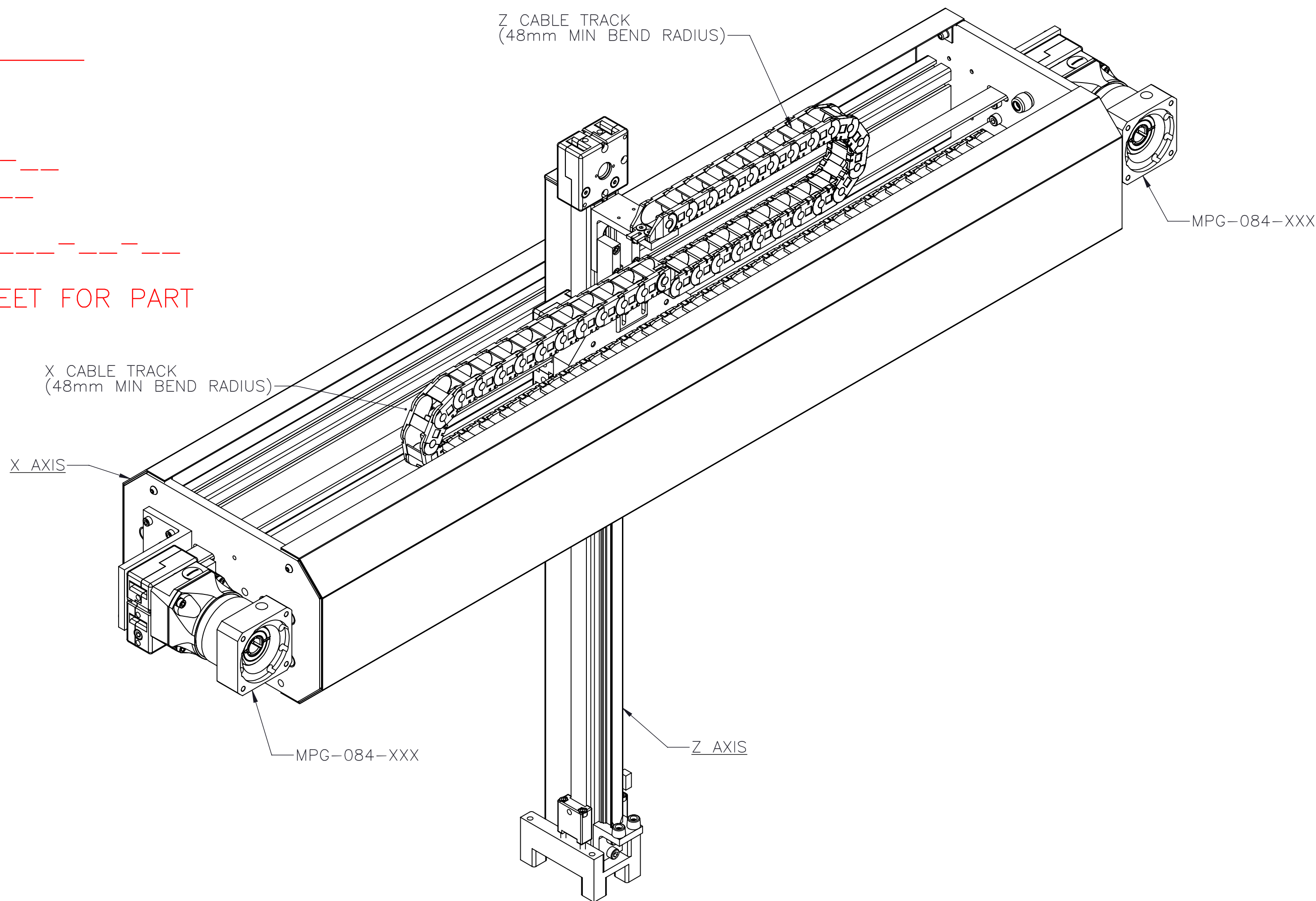
EOT-QTY (2 MAX) \_\_\_\_\_ 244- \_\_\_\_\_

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

ENTER Z-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, CONTACT  
MACRON\*




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

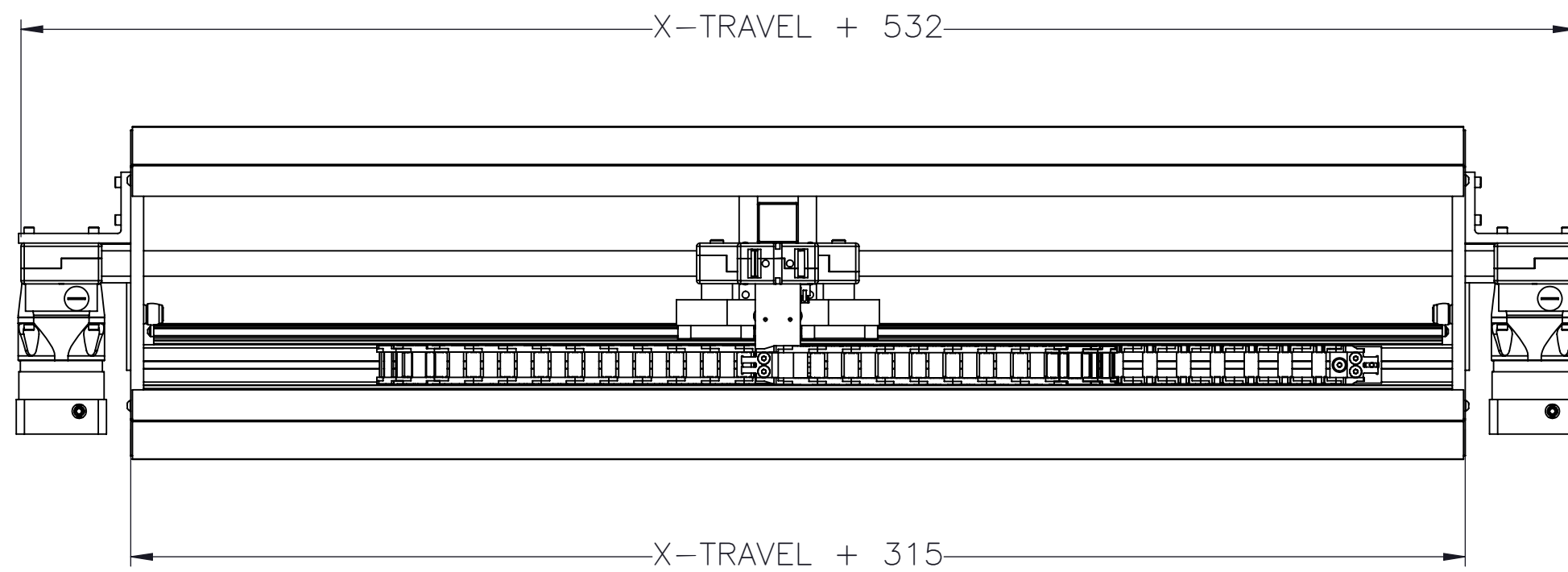
SIGN & PRINT

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

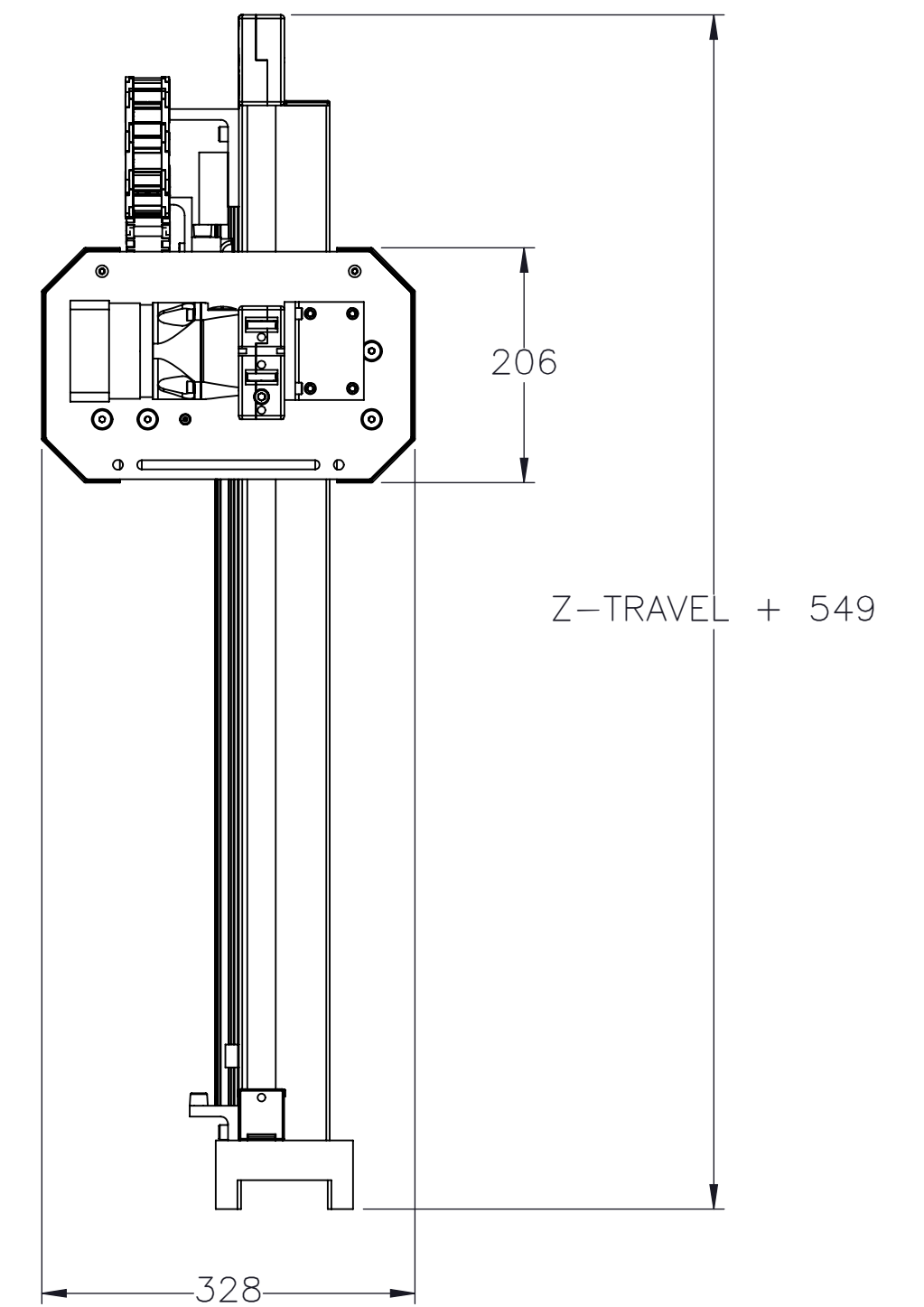
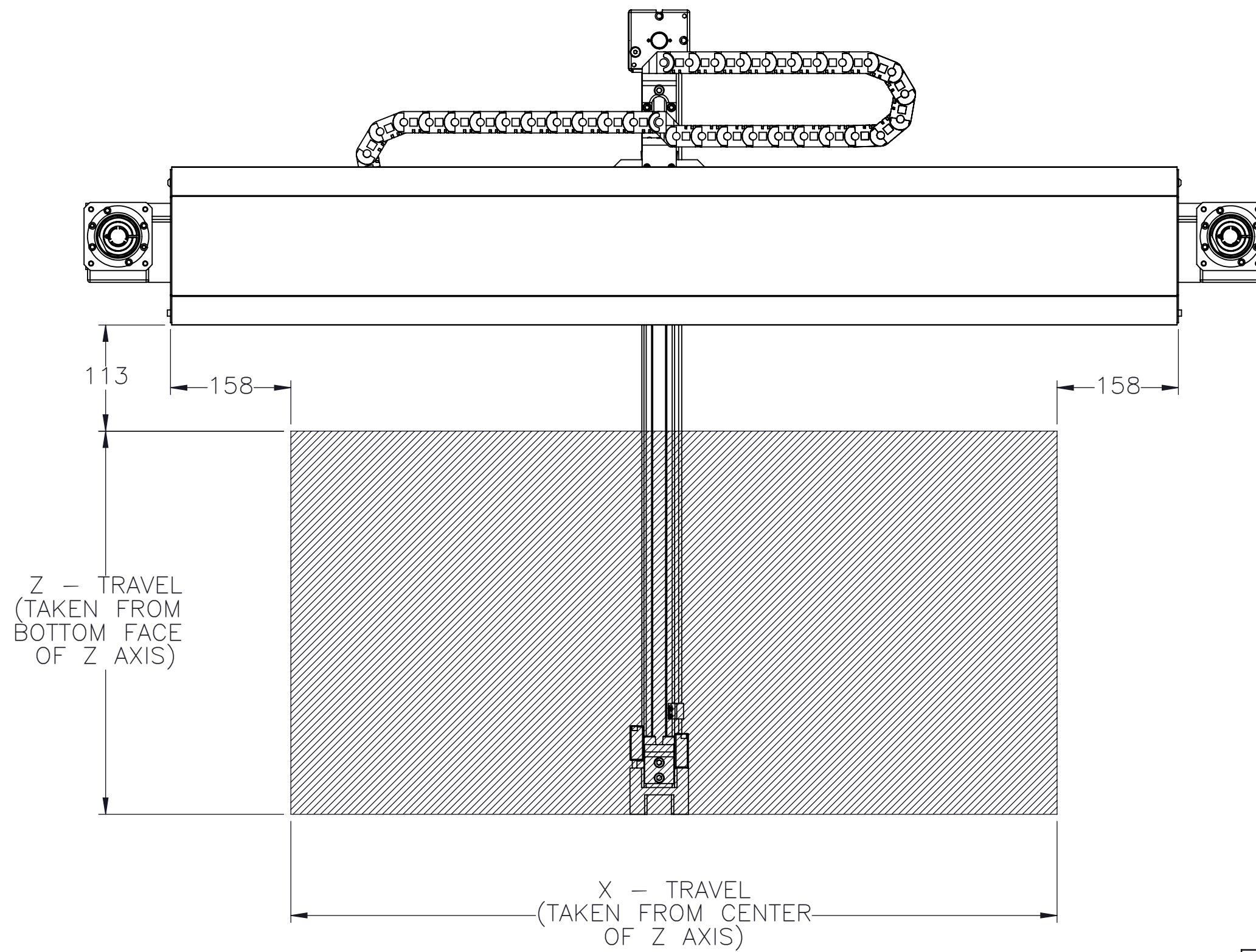
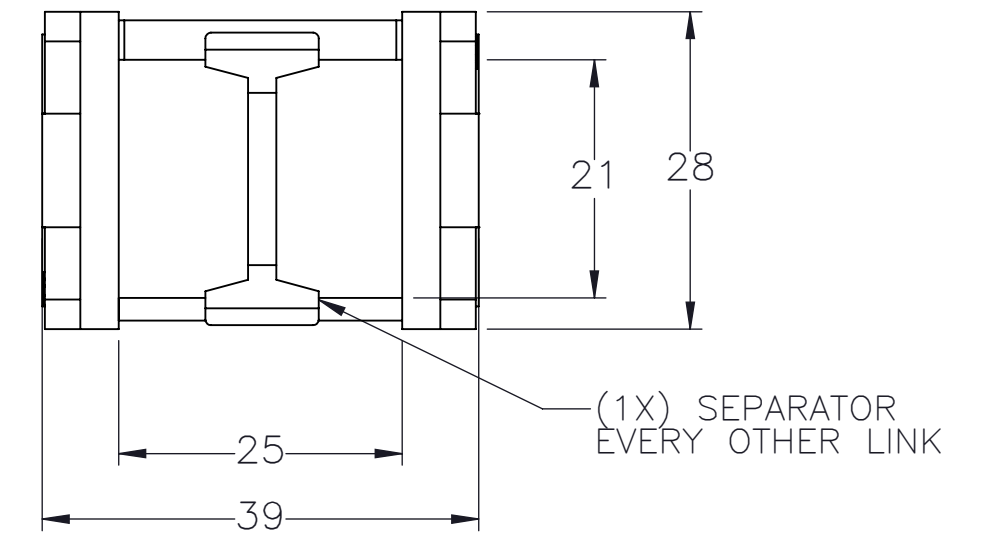
PO:REFERENCE#: \_\_\_\_\_


 <b>MACRON DYNAMICS INC</b>	DRAWN BY: JA      DATE: 4/24/2019	MATERIAL:	TITLE: MACRON T-BOT 25 GANTRY
	CHECKED BY:      DATE: DD/MM/YYYY	FINISH:	
	LAST SAVED BY: TH      DATE: 3/23/2021		
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETER. TOLERANCES UNLESS NOTED OTHERWISE:	.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	
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 $\sqrt{63}$	SCALE 1:1    SHEET SIZE C	SHEET    PART NUMBER    REV
BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	1 OF 6	MGS-TBG-25-X-X-X	

# GANTRY FOOTPRINT



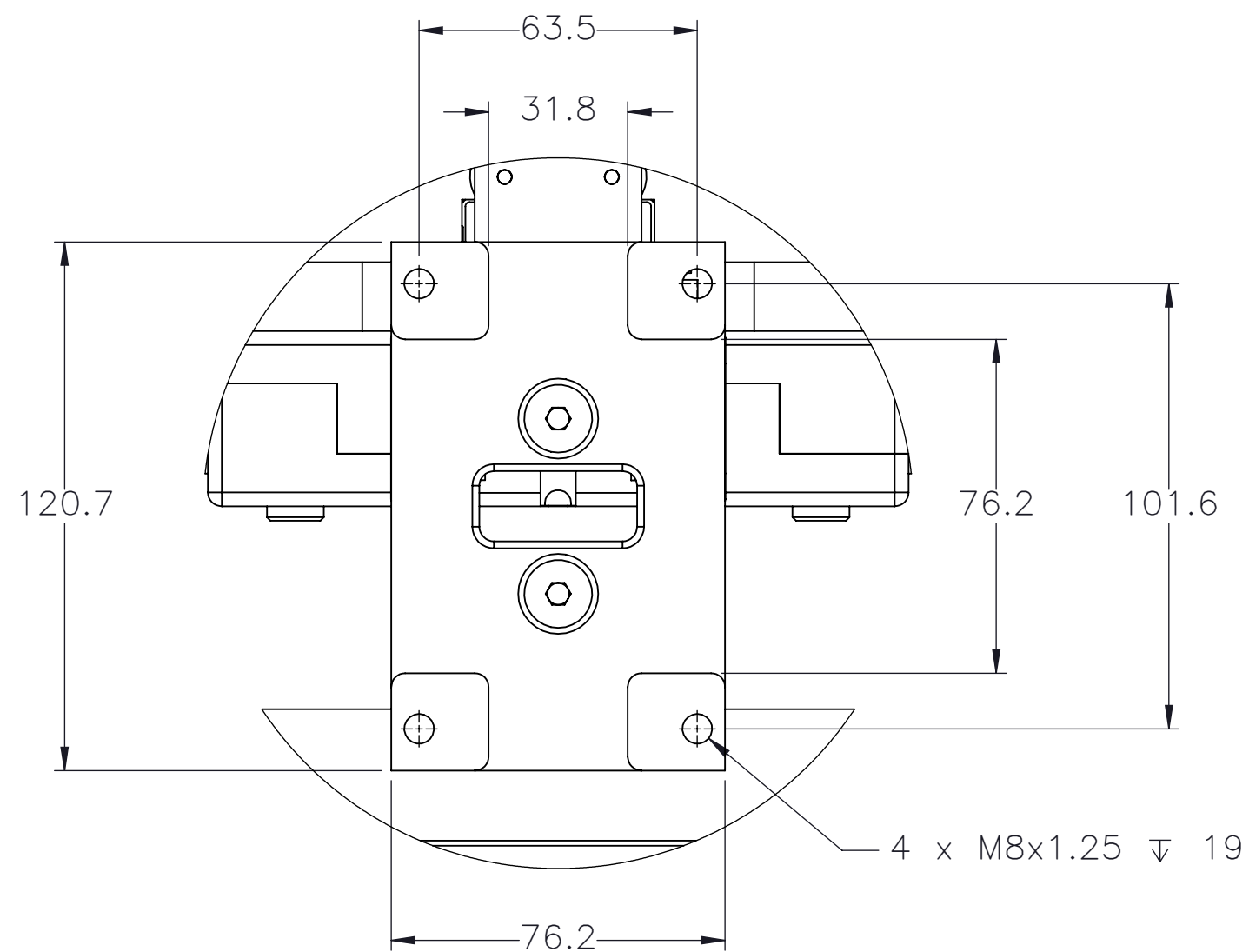
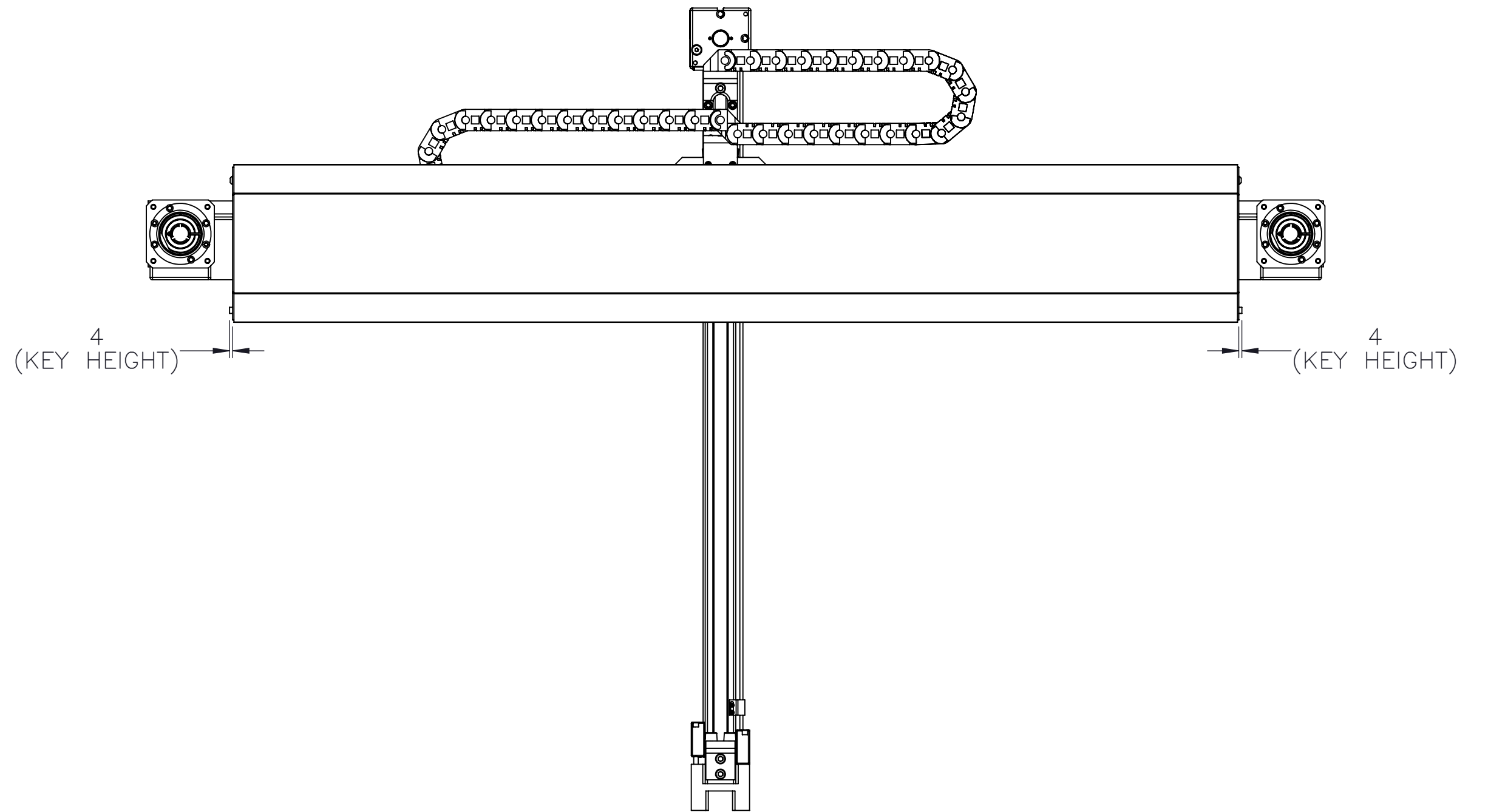
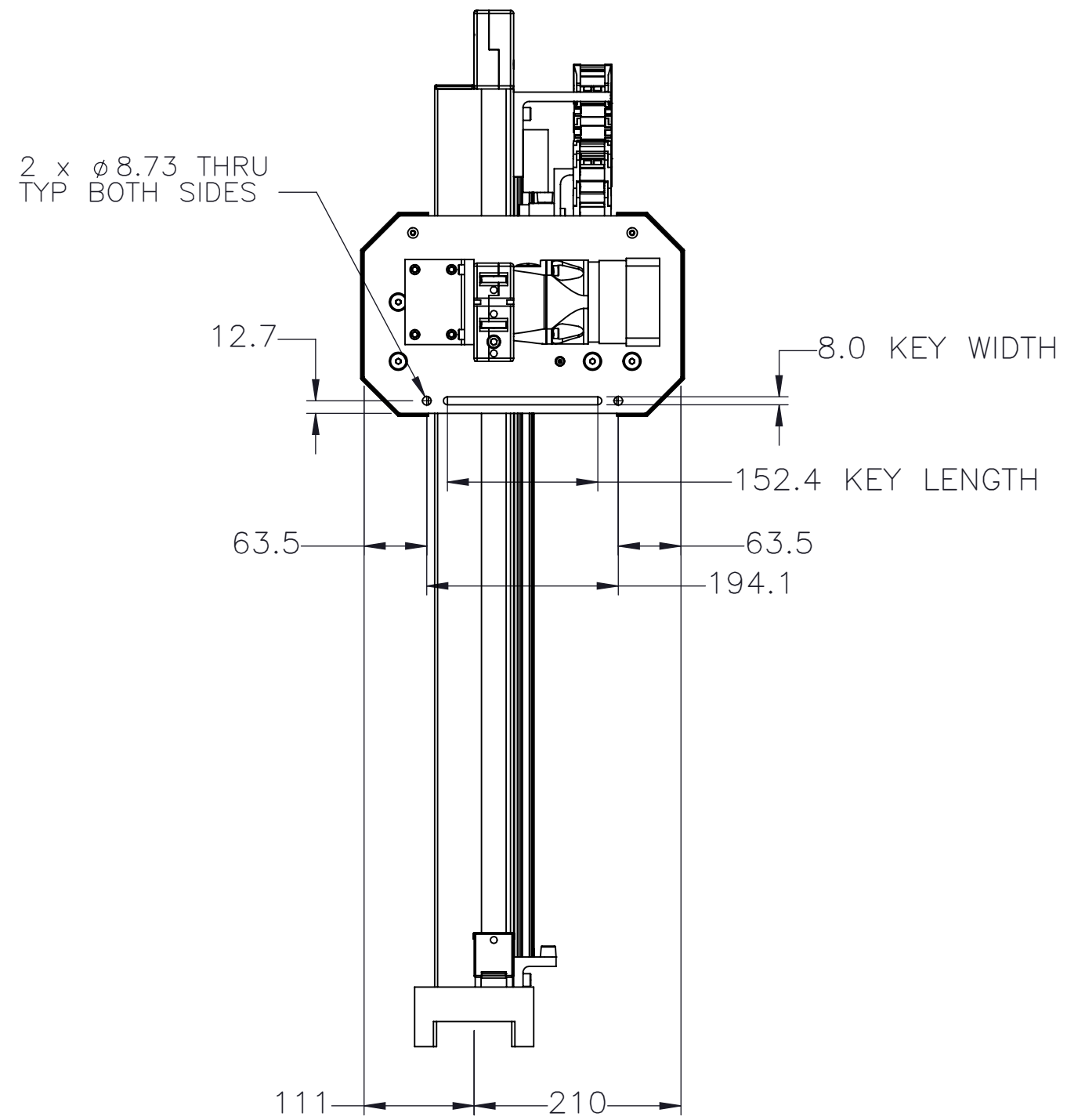
CABLE TRACK CROSS SECTION  
(SAME FOR BOTH AXES)



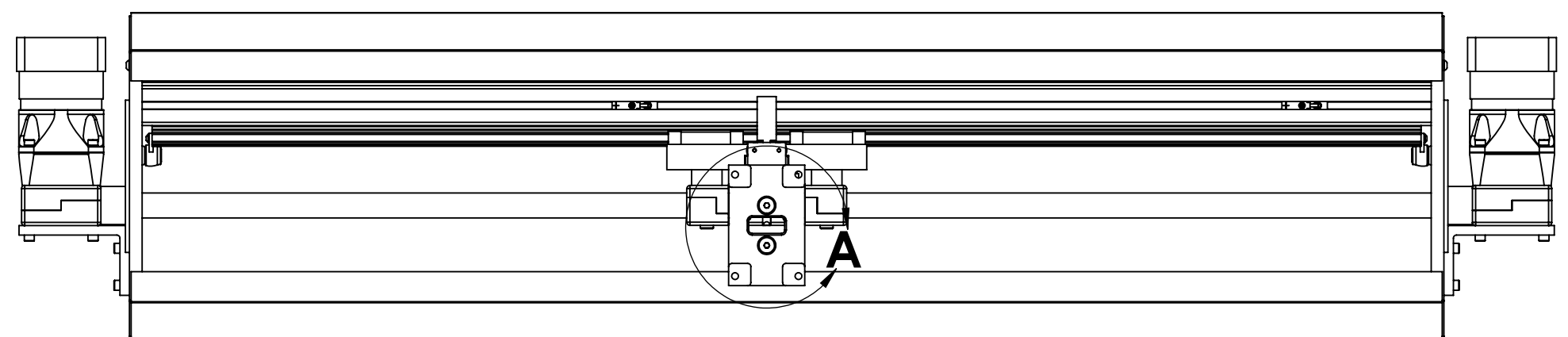
 <b>MACRON DYNAMICS INC</b>	DRAWN BY: JA      DATE: 4/24/2019	MATERIAL:	TITLE: MACRON T-BOT 25 GANTRY
	CHECKED BY:      DATE: DD/MM/YYYY	FINISH:	
	LAST SAVED BY: TH      DATE: 3/23/2021		
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS NOTED OTHERWISE:	.X ± .03 .XX ± .010 .XXX ± .005 ANG ± 0°30'	
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 63	SCALE 1:1      SHEET SIZE C	SHEET 2 OF 6      PART NUMBER MGS-TBG-25-X-X-X      REV


BREAK ALL SHARP EDGES  
DIMENSIONAL LIMITS APPLY AFTER FINISHING  
THIRD ANGLE PROJECTION

# GANTRY MOUNTING FEATURES



DETAIL A  
SCALE 2 : 3



 <b>MACRON DYNAMICS INC</b>	DRAWN BY: JA CHECKED BY: LAST SAVED BY: TH	DATE: 4/24/2019 DATE: DD/MM/YYYY DATE: 3/23/2021	MATERIAL:  FINISH:	TITLE: MACRON T-BOT 25 GANTRY	
	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 $\nabla$ 63		BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING	SHEET 3 OF 6 PART NUMBER MGS-TBG-25-X-X-X	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.		THIRD ANGLE PROJECTION		

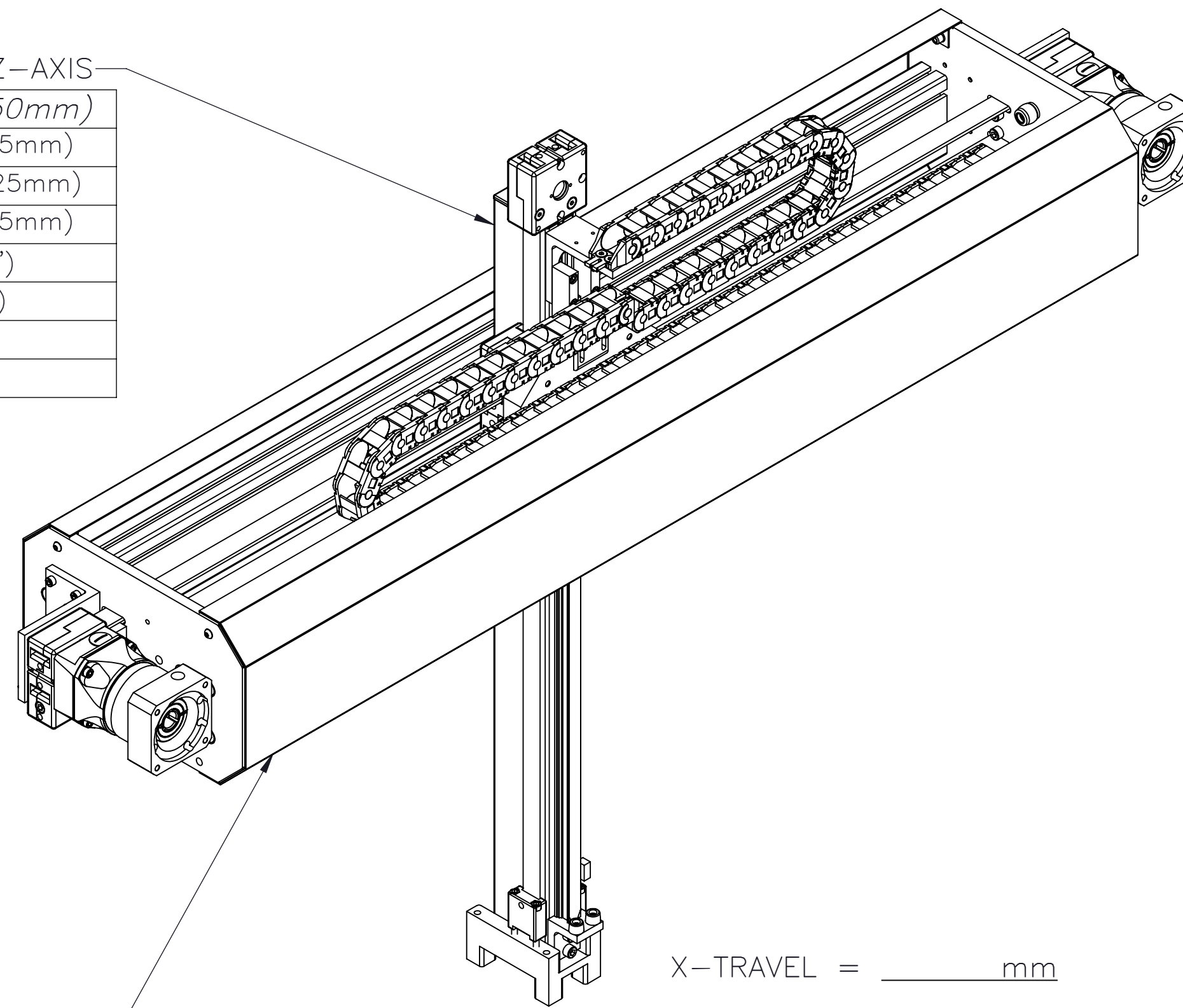
# MOTOR SIZING INFORMATION

(INCREMENTAL ADDERS REFER TO MASS PER TRAVEL LENGTH)

BASE TRAVELS USED  
 X-TRAVEL = 250mm  
 Z-TRAVEL = 250mm

Z-AXIS

PROPERTY	BASE VALUE (T=250mm)
MOVING MASS	5.897kg(+0.156kg/25mm)
SYSTEM MASS	11.928kg(+0.156kg/25mm)
BELT MASS OF Z-AXIS	0.155kg(+0.006kg/25mm)
PULLEY PITCH $\phi$	47.75mm (1.88")
PULLEY WIDTH	28.9mm (1.14")
PULLEY MATERIAL	STEEL
TRAVEL PER REV	150mm



X-AXIS

PROPERTY	BASE VALUE (T=250mm)
*MOVING MASS	0.237kg(+0.013kg/25mm)
BELT MASS OF X-AXIS	0.184kg(+0.006kg/25mm)
PULLEY PITCH $\phi$	47.75 (1.88")
PULLEY WIDTH	28.9mm (1.14")
PULLEY MATERIAL	STEEL
TRAVEL PER REV	150mm

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

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-064	1.0kg
	MPG-084	2.3kg
	MRG-064	3.0kg
	MRG-084	5.6kg

TOTAL BELT MASS	$(X \text{ TRAVEL} \times .00024) + (Z \text{ TRAVEL} \times .00024) + .221 = \text{kg}$
TOTAL SYSTEM MASS	$(X \text{ TRAVEL} \times .0228) + (Z \text{ TRAVEL} \times .0059) + 26.72 = \text{kg}$

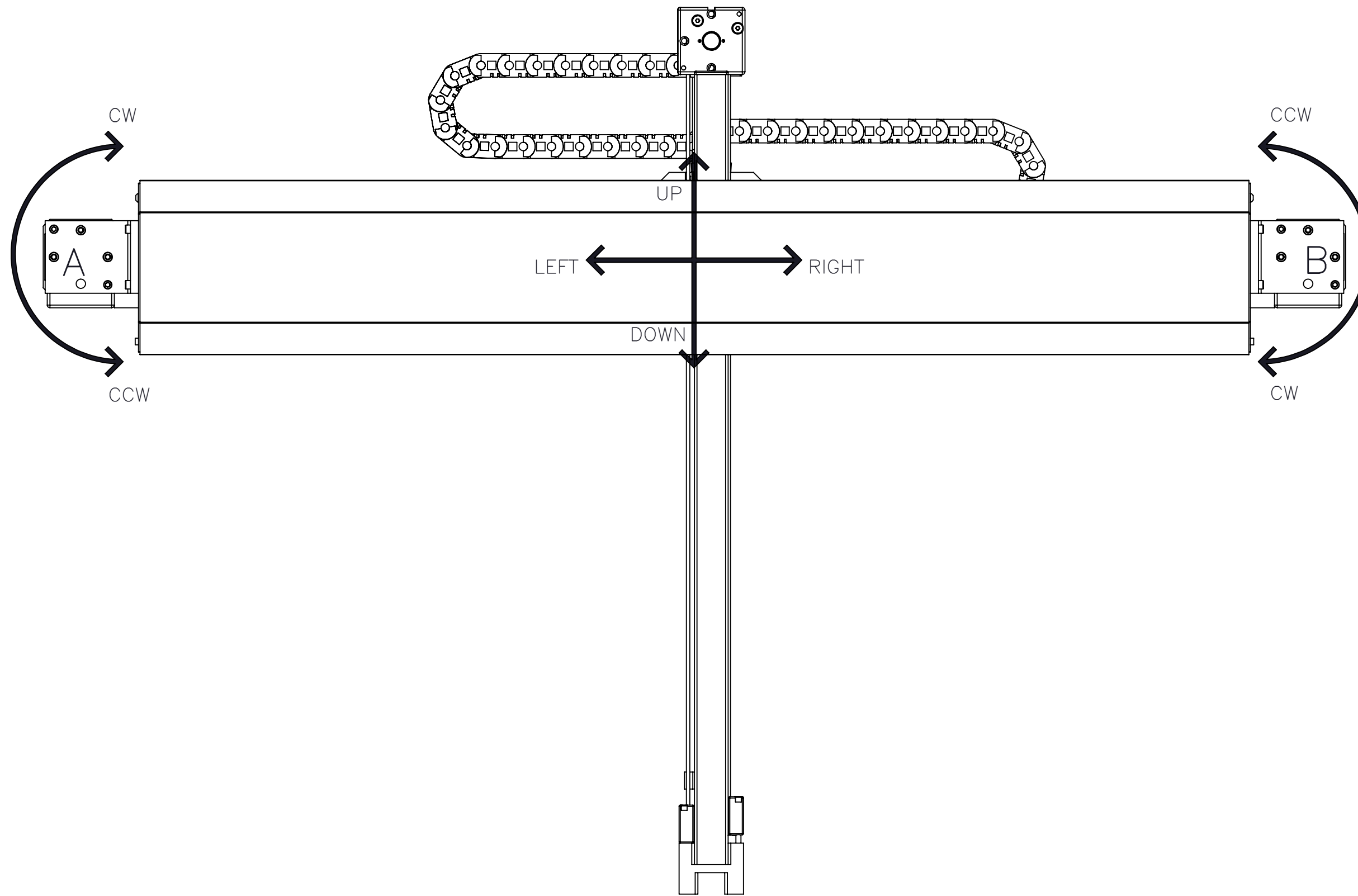
<p>MACRON DYNAMICS INC</p>	DRAWN BY: JA CHECKED BY: LAST SAVED BY: TH	DATE: 4/24/2019 DATE: DD/MM/YYYY DATE: 3/23/2021	MATERIAL:  FINISH:	TITLE: MACRON T-BOT 25 GANTRY
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE: .X $\pm$ .762 .XX $\pm$ .254 .XXX $\pm$ .127 ANG $\pm$ 0°30'		SCALE 1:1 SHEET SIZE C	
	SURFACE FINISH $\checkmark$ BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION		SHEET 4 OF 6 PART NUMBER MGS-TBG-25-X-X-X	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.




# MOTOR DYNAMICS

(ASSUMES MOTORS ARE ROTATING AT SAME ANGULAR VELOCITY)



ROTATIONAL DIRECTION		Z-AXIS MOVEMENT
PULLEY A	PULLEY B	
CW	CW	LEFT
CW	CCW	UP
CCW	CW	DOWN
CCW	CCW	RIGHT

\*PULLEY ROTATION AND Z-AXIS MOVEMENT ARE WITH RESPECT TO THIS GANTRY VIEW

 <b>MACRON DYNAMICS INC</b>	DRAWN BY: JA      DATE: 4/24/2019	MATERIAL:	TITLE:
	CHECKED BY:      DATE: DD/MM/YYYY	FINISH:	SCALE 1:1    SHEET SIZE C
	LAST SAVED BY: TH      DATE: 3/23/2021		
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:	.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	SHEET 5 OF 6    PART NUMBER MGS-TBG-25-X-X-X    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.	SURFACE FINISH $\checkmark$ BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION		

# 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

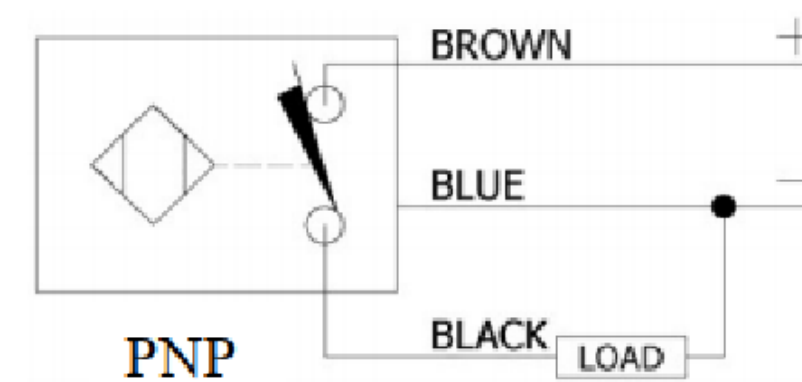
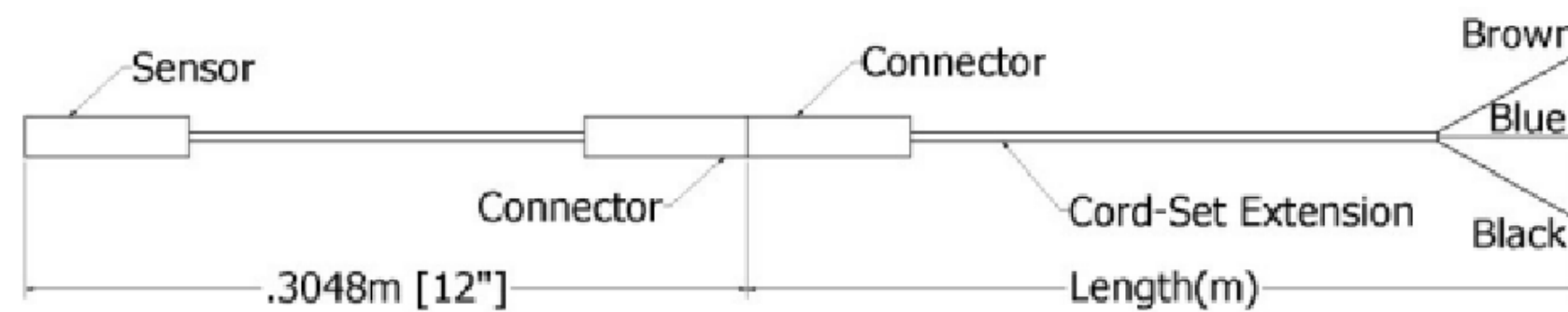
# Part Number Configuration

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

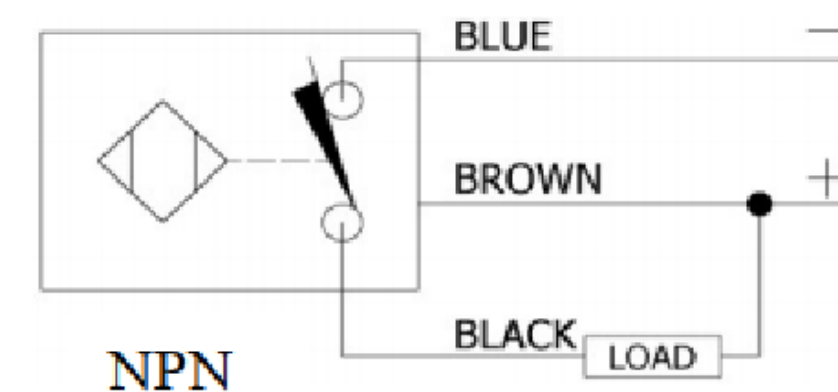
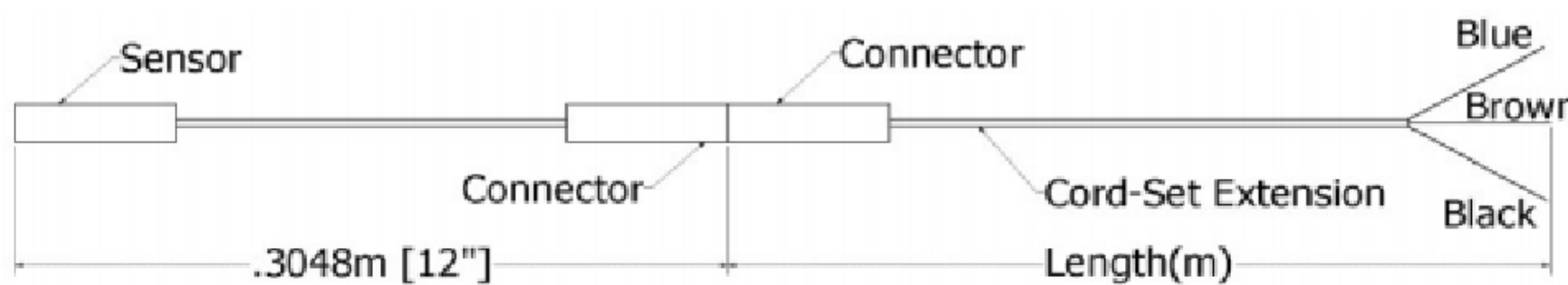
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

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

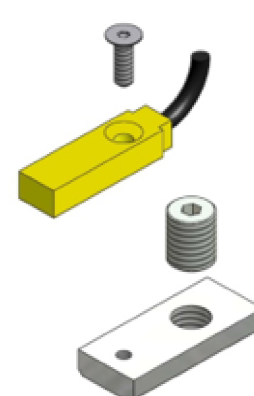
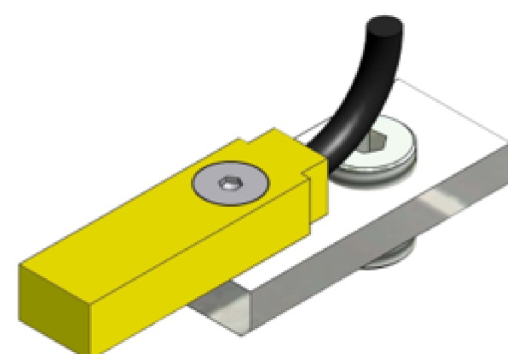
### PNP Diagrams



### 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: 3/23/2021	MATERIAL:  FINISH:	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'	SURFACE FINISH: 63 ✓ BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET: 6 OF 6 PART NUMBER:	SCALE: 1:1 SHEET SIZE: C REV: