

MGS-TBG-50- -X-

GEARBOX MODEL (CHOOSE FRAME SIZE)

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

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*

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

MOTOR INFORMATION

MANUFACTURER: _____
 MODEL: _____

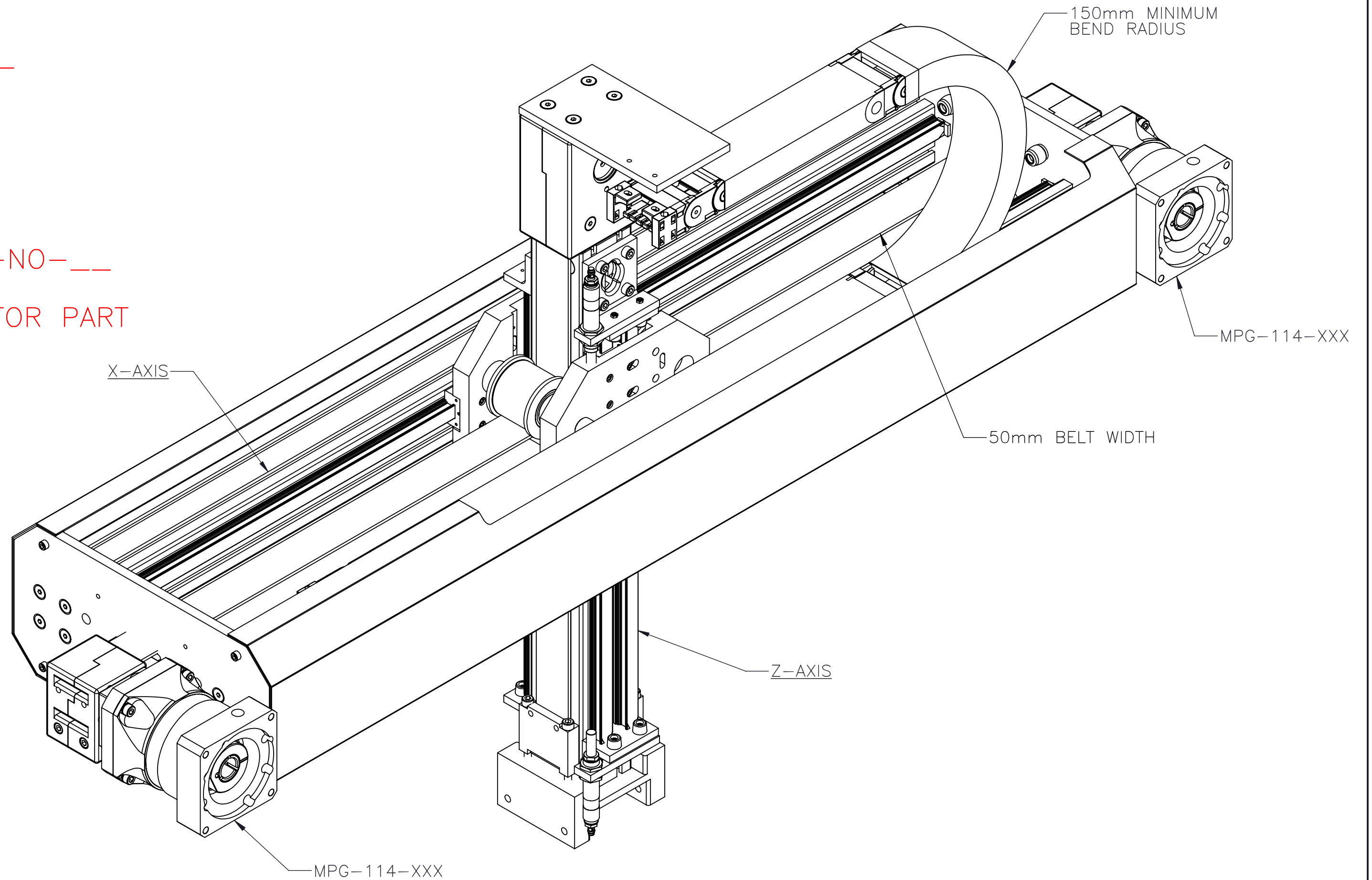
SENSOR INFORMATION X-AXIS:

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

SENSOR INFORMATION Z-AXIS:

EOT-QTY (2 MAX) ___ 244-____-NO-____

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



APPROVED: _____

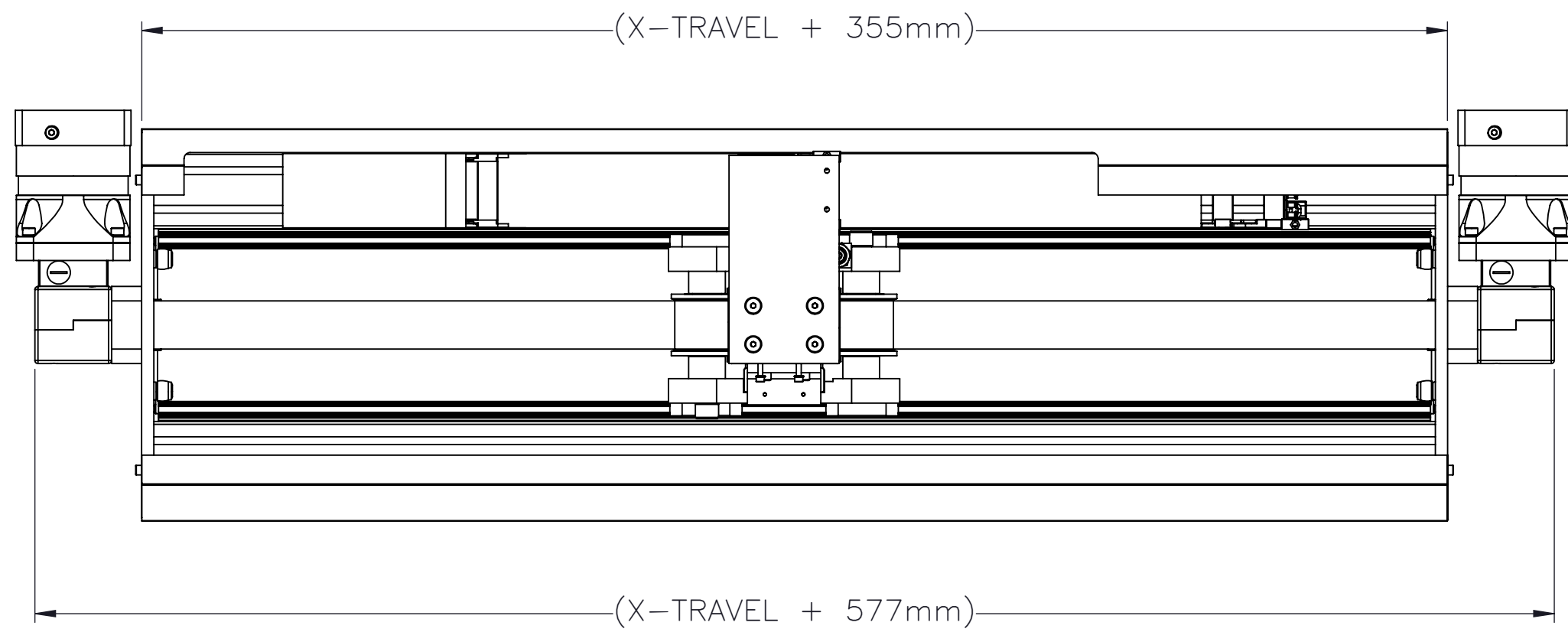
SIGN & PRINT

DATE: _____

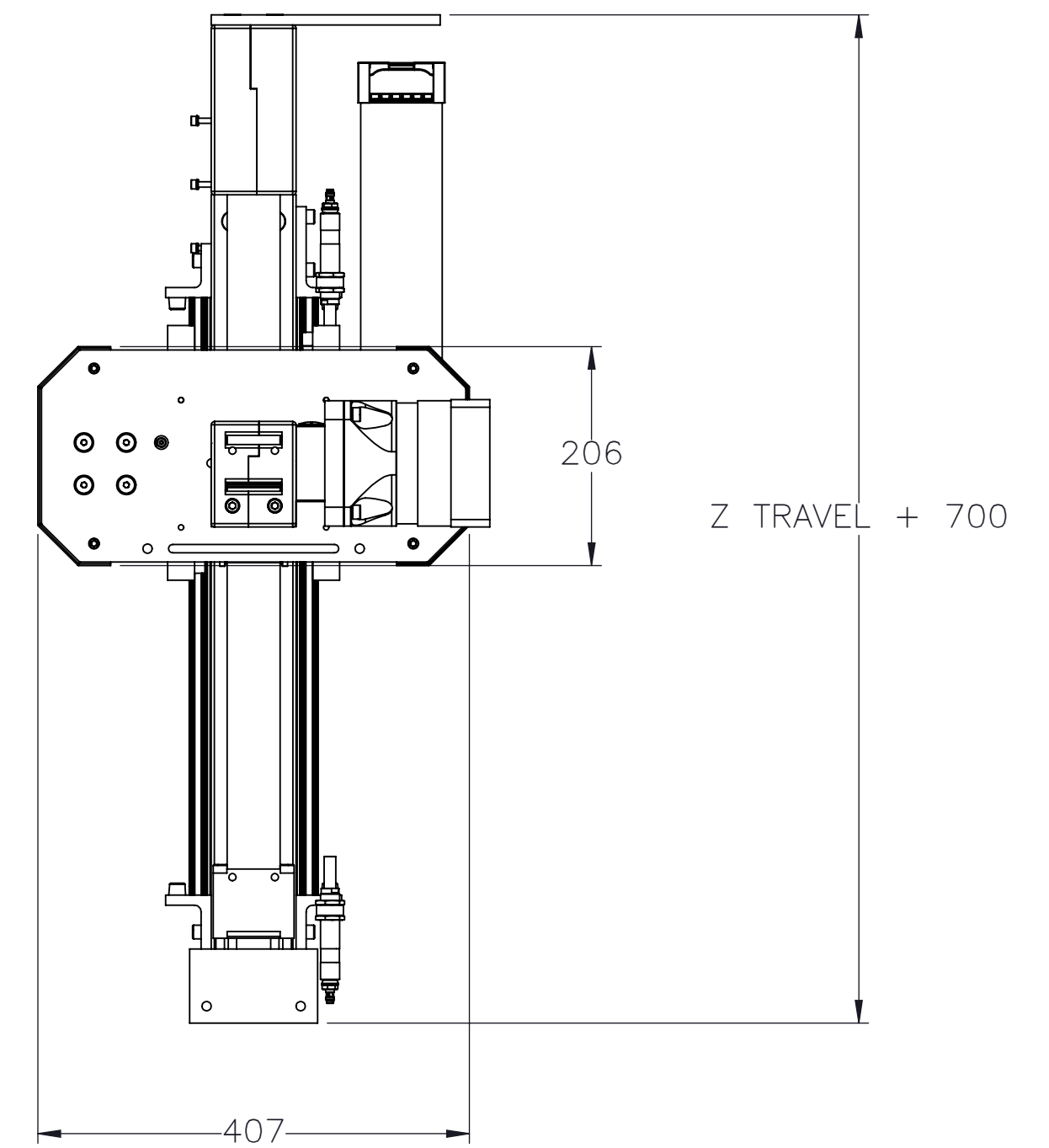
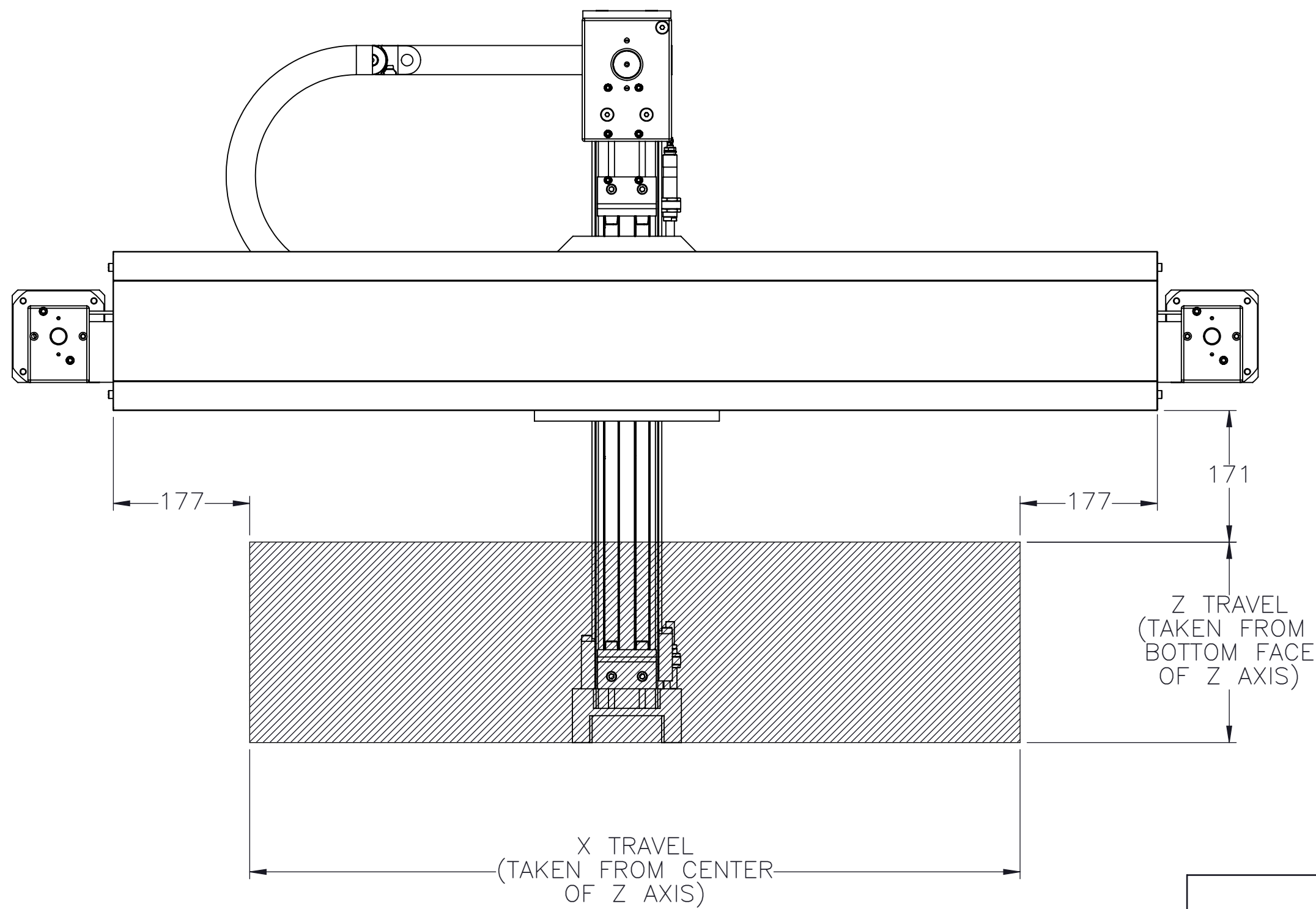
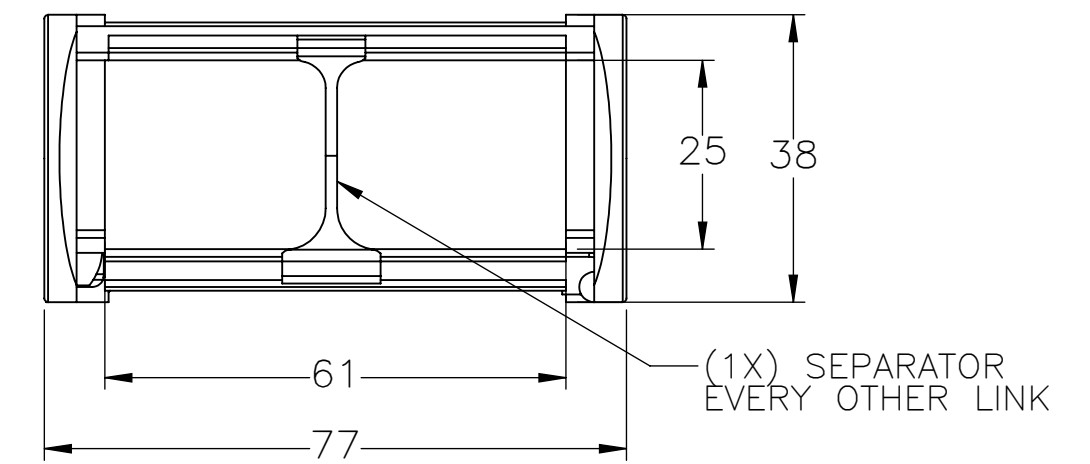
PO:REFERENCE#: _____


 MACRON DYNAMICS INC	DRAWN BY: TH DATE: 8/14/2019	MATERIAL:	TITLE: MACRON TBG 50 GANTRY	
	CHECKED BY: -- DATE: 8/14/2019	FINISH:		
	LAST SAVED BY: Tim DATE: 10/12/2022	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:		
	SURFACE FINISH \checkmark	SCALE 1:1 SHEET SIZE C		
<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	SHEET 1 OF 6	PART NUMBER MGS-TBG-50-X-X-X	REV 01

GANTRY FOOTPRINT

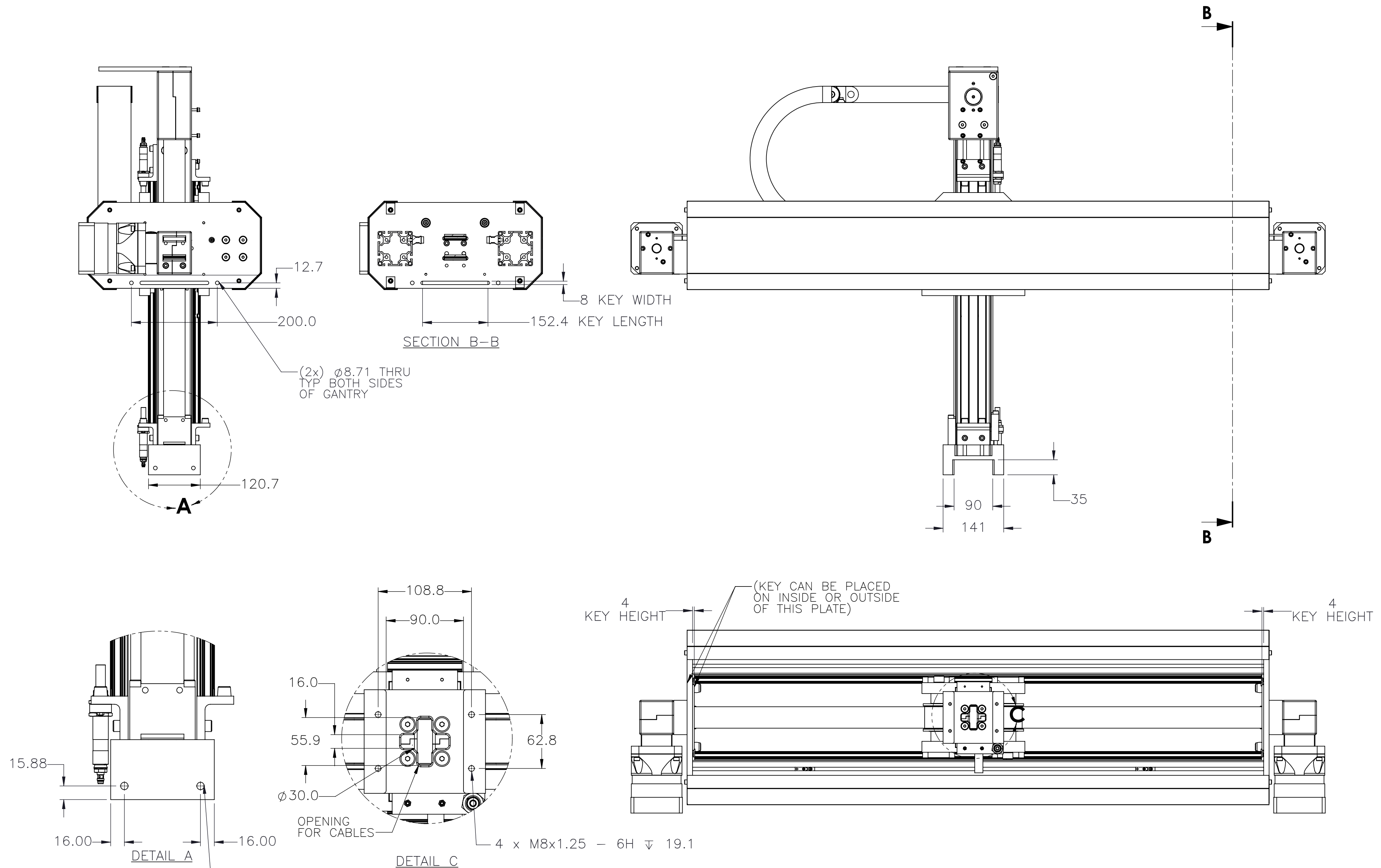


CABLE TRACK CROSS SECTION



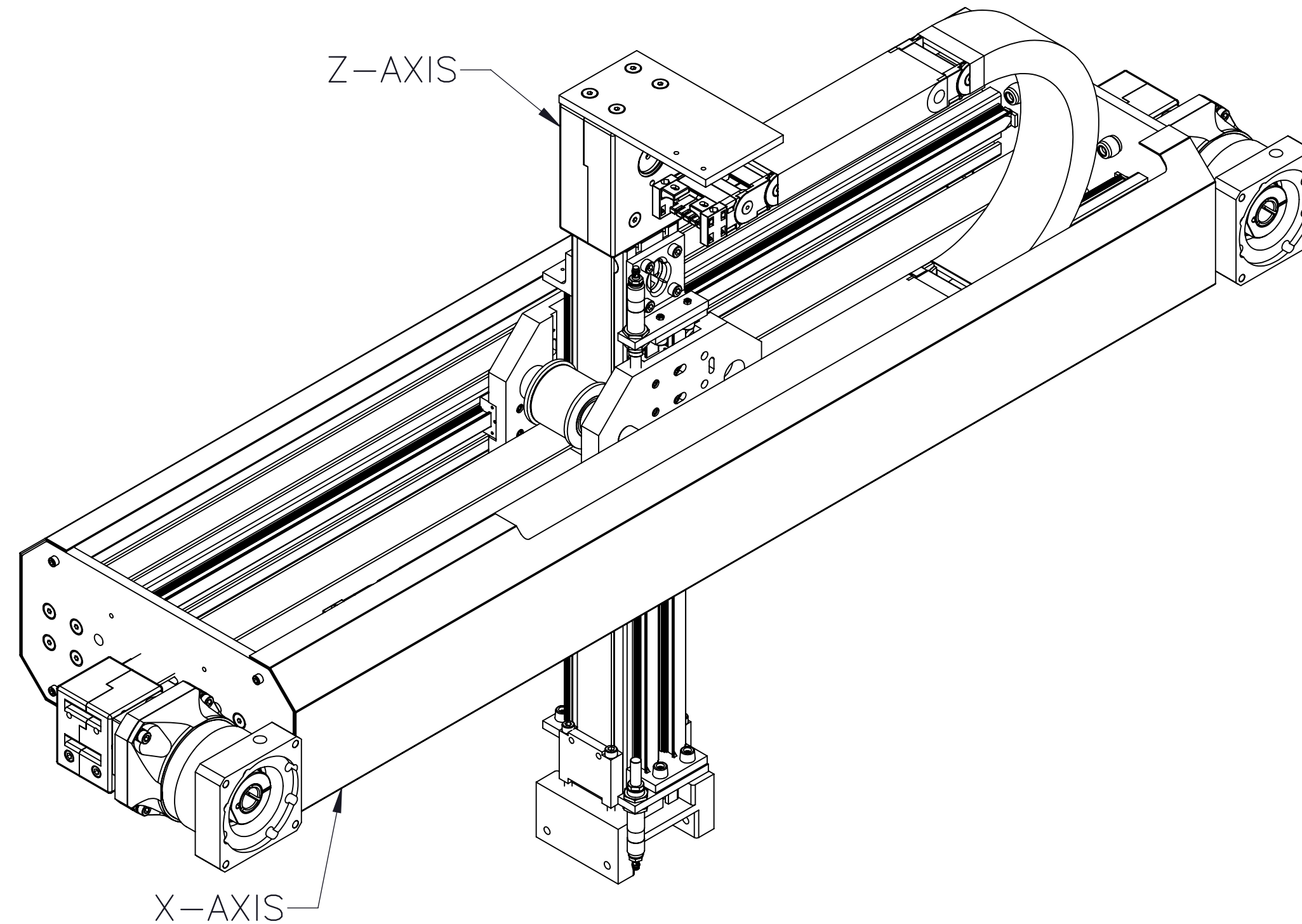
 MACRON DYNAMICS INC	DRAWN BY: TH CHECKED BY: -- LAST SAVED BY: Tim	DATE: 8/14/2019 DATE: 8/14/2019 DATE: 10/12/2022	MATERIAL: FINISH:	TITLE: MACRON TBG 50 GANTRY
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:		.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	SCALE 1:1 SHEET SIZE C
	SURFACE FINISH 63		SHEET 2 OF 6	PART NUMBER MGS-TBG-50-X-X-X
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GANTRY MOUNTING FEATURES



<p>MACRON DYNAMICS INC</p> <p>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.</p>	DRAWN BY: TH CHECKED BY: -- LAST SAVED BY: Tim	DATE: 8/14/2019 DATE: 8/14/2019 DATE: 10/12/2022	MATERIAL: FINISH:	TITLE: MACRON TBG 50 GANTRY	
	SURFACE FINISH 63		SCALE 1:1 SHEET SIZE C	REV 01	
	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION		SHEET 3 OF 6	PART NUMBER MGS-TBG-50-X-X-X	REV 01
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:				

MOTOR SIZING INFORMATION



PROPERTY	VALUE
PULLEY PITCH ϕ (X AXIS)	48.13mm (1.895")
PULLEY PITCH ϕ (Z AXIS)	89.13 (3.509")
PULLEY WIDTH (X AXIS)	53.95mm (2.124")
PULLEY WIDTH (Z AXIS)	54.86mm (2.160")
PULLEY MATERIAL	STEEL
TRAVEL PER REV (X AXIS)	150mm (5.906")
TRAVEL PER REV (Z AXIS)	280mm (11.024")
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)

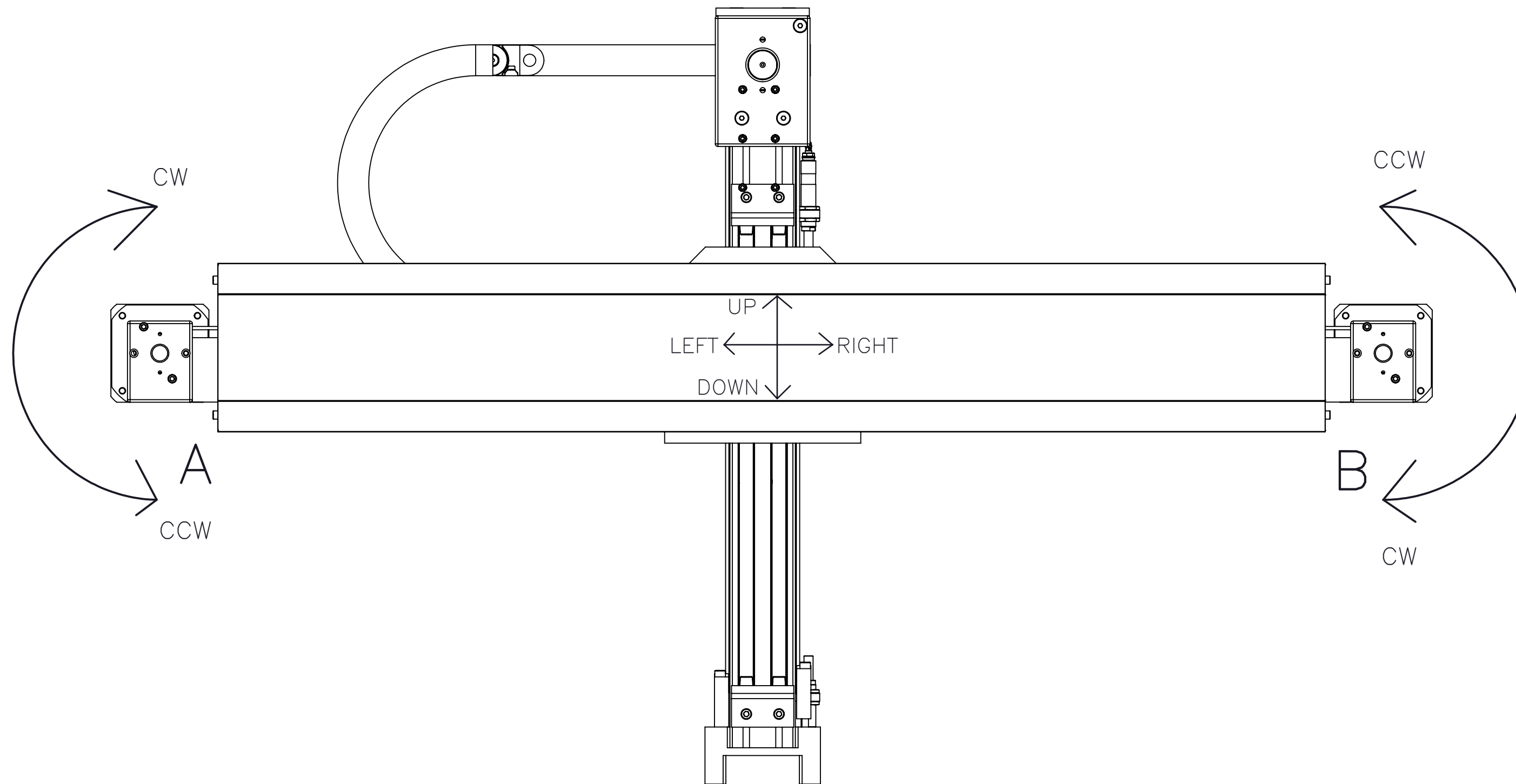
GEARBOX MASS (ADD TO SYSTEM MASSES)	MPG-084	2.3kg
	MPG-114	5.8kg
	MRG-084	5.6kg
	MRG-114	15.0kg

TOTAL BELT MASS	$(X \text{ TRAVEL} \times .00068) + (Z \text{ TRAVEL} \times .00068) + .70 = \text{kg}$
TOTAL MOVING MASS	$(X \text{ TRAVEL} \times .001) + (Z \text{ TRAVEL} \times .0151) + 27.32 = \text{kg}$
TOTAL SYSTEM MASS	$(X \text{ TRAVEL} \times .0235) + (Z \text{ TRAVEL} \times .0161) + 45.52 = \text{kg}$

 MACRON DYNAMICS INC	DRAWN BY: JA DATE: 8/14/2019 CHECKED BY: -- DATE: 8/14/2019 LAST SAVED BY: JA DATE: 10/12/2022	MATERIAL:	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'	FINISH:	MACRON TBG 50 GANTRY
	SURFACE FINISH 63	SCALE 1:1	SHEET SIZE C
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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 THE THIS GANTRY VIEW

 MACRON DYNAMICS INC	DRAWN BY: TH CHECKED BY: -- LAST SAVED BY: Tim	DATE: 8/14/2019 DATE: 8/14/2019 DATE: 10/12/2022	MATERIAL:	TITLE:	
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:		FINISH:	MACRON TBG 50 GANTRY	
	SURFACE FINISH 63		BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING	SCALE 1:1 SHEET SIZE C	SHEET 5 OF 6 PART NUMBER MGS-TBG-50-X-X-X REV 01
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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

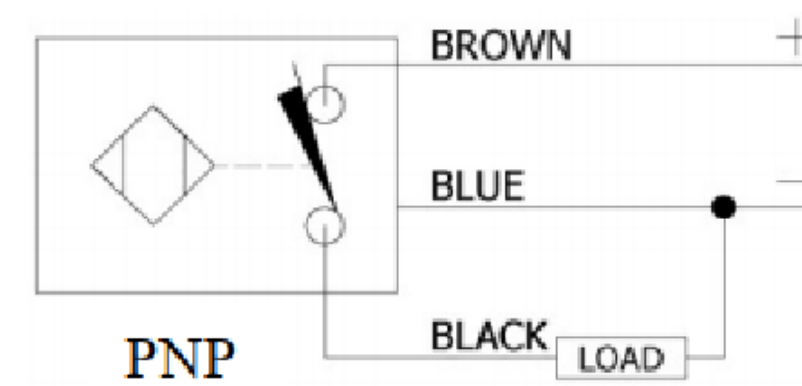
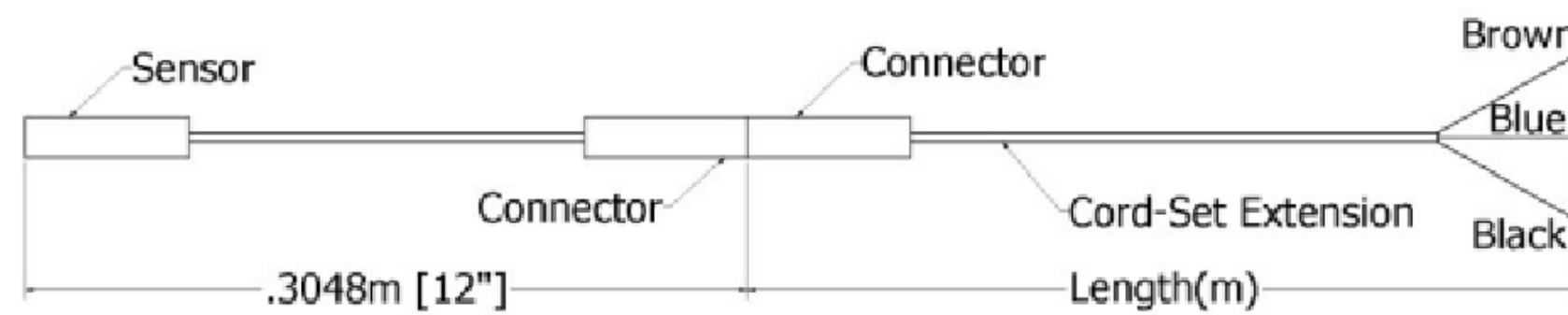
Part Number Configuration

244-____-____-____

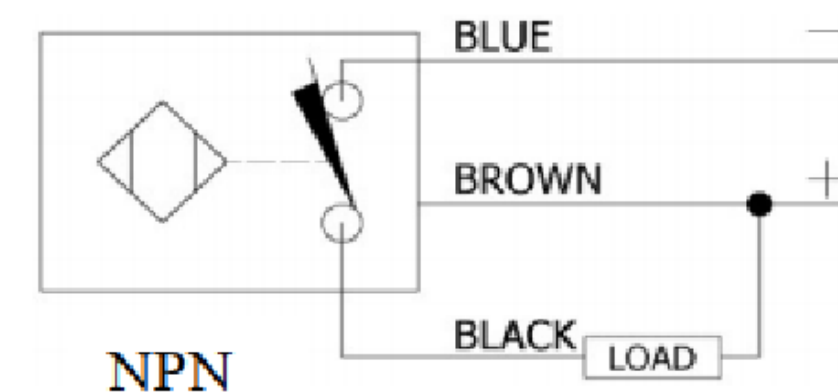
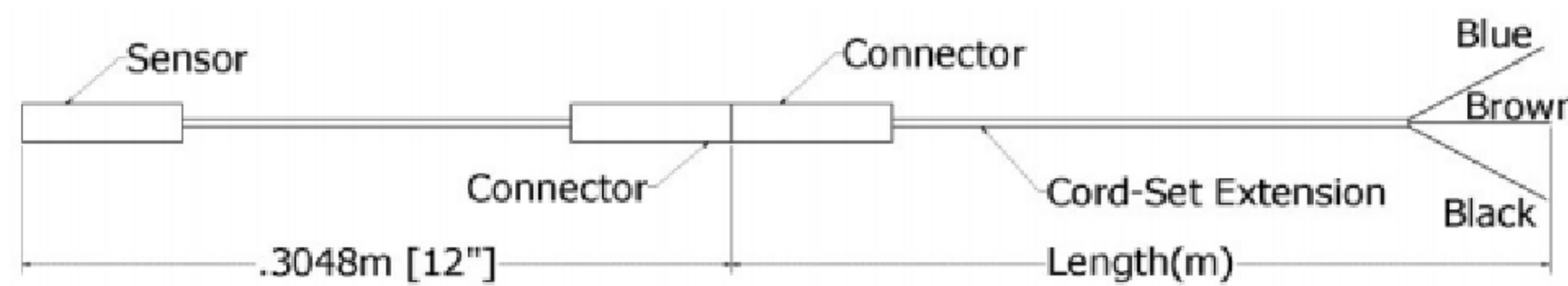
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

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

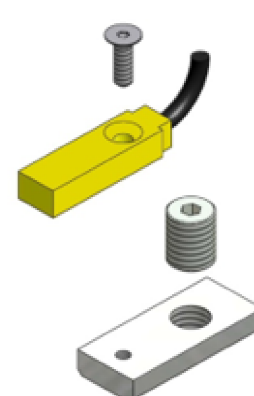
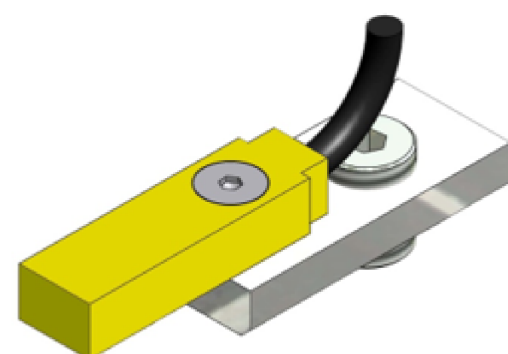
PNP Diagrams



NPN Diagrams



KIT INCLUDES – SENSOR, CORDSET EXTENSION, AND MOUNTING HARDWARE



	DRAWN BY: PHW CHECKED BY: -- LAST SAVED BY: Paul	DATE: 11/26/2017 DATE: 2/11/2016 DATE: 10/12/2022	MATERIAL:	TITLE:
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:		FINISH:	T-SLOT SENSOR KIT
	SURFACE FINISH \checkmark		SCALE 1:1	SHEET SIZE C
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