

GEARBOX MODEL (X-AXIS)

MPG-062\_\_\_\_\_

MRG-062\_\_\_\_\_

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

GEARBOX MODEL (Y-AXIS)

MPG-062\_\_\_\_\_

MRG-062\_\_\_\_\_

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

GEARBOX MODEL (Z-AXIS)

MPG-062\_\_\_\_\_

MRG-062\_\_\_\_\_

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

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

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)

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

SIGN & PRINT

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

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

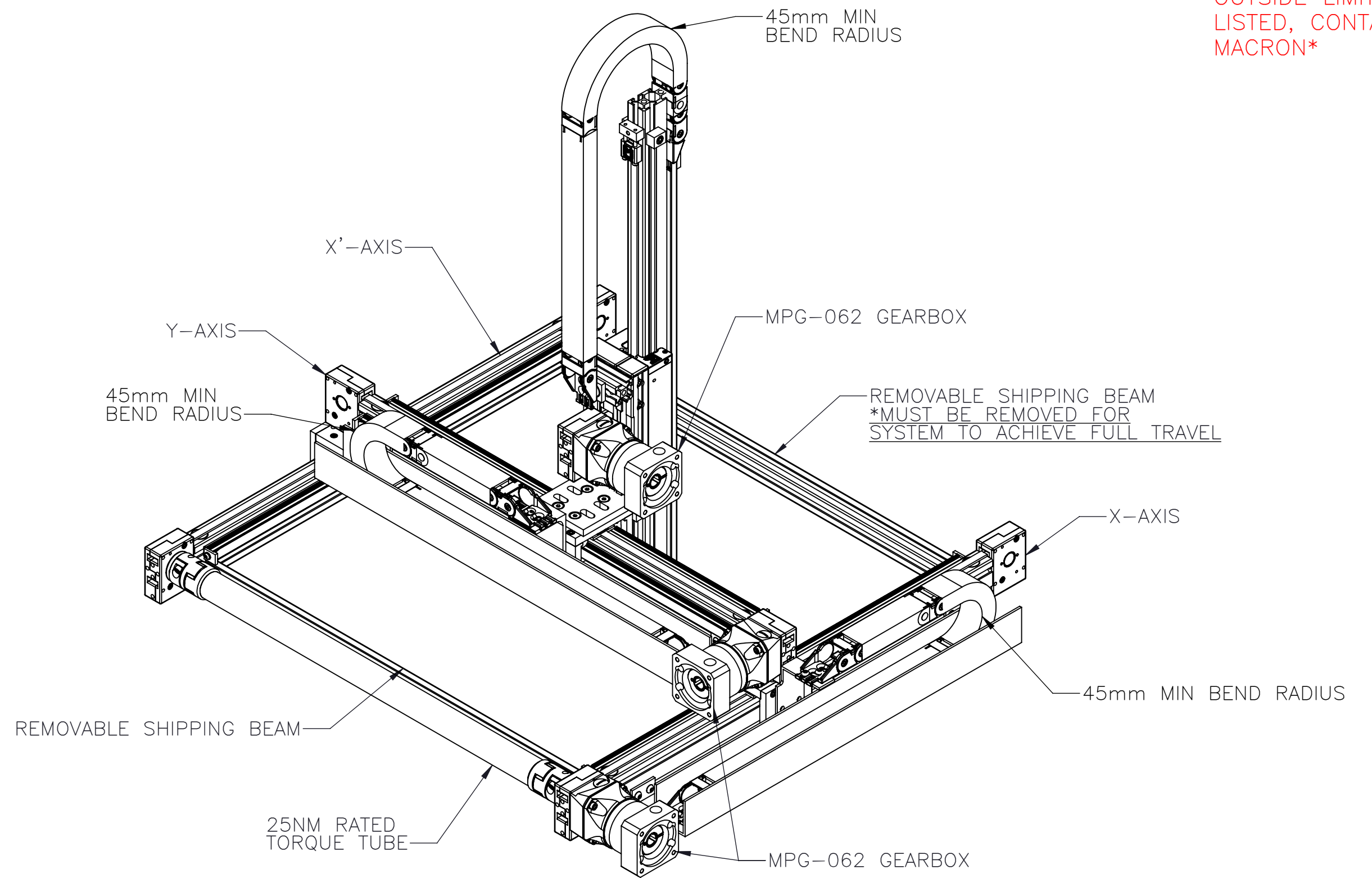
MCS-R15- [ ] - [ ] - B [ ]

ENTER Z-AXIS TRAVEL  
TRAVEL IN INCREMENTS OF 25mm  
TRAVEL LIMITS: 150mm-500mm

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

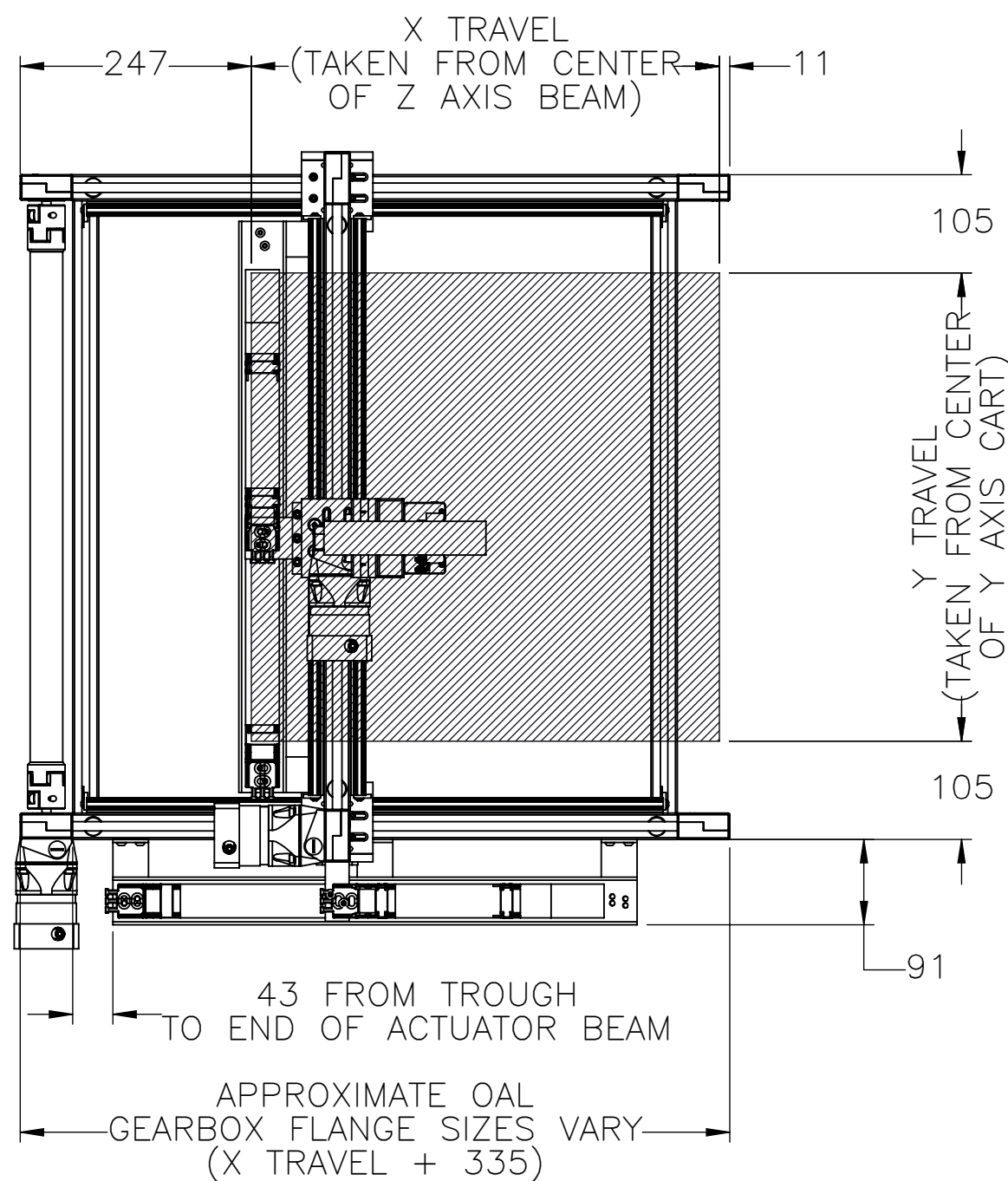
ENTER X-AXIS TRAVEL  
TRAVEL IN INCREMENTS OF 25mm  
TRAVEL LIMITS: 150mm-3850mm

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



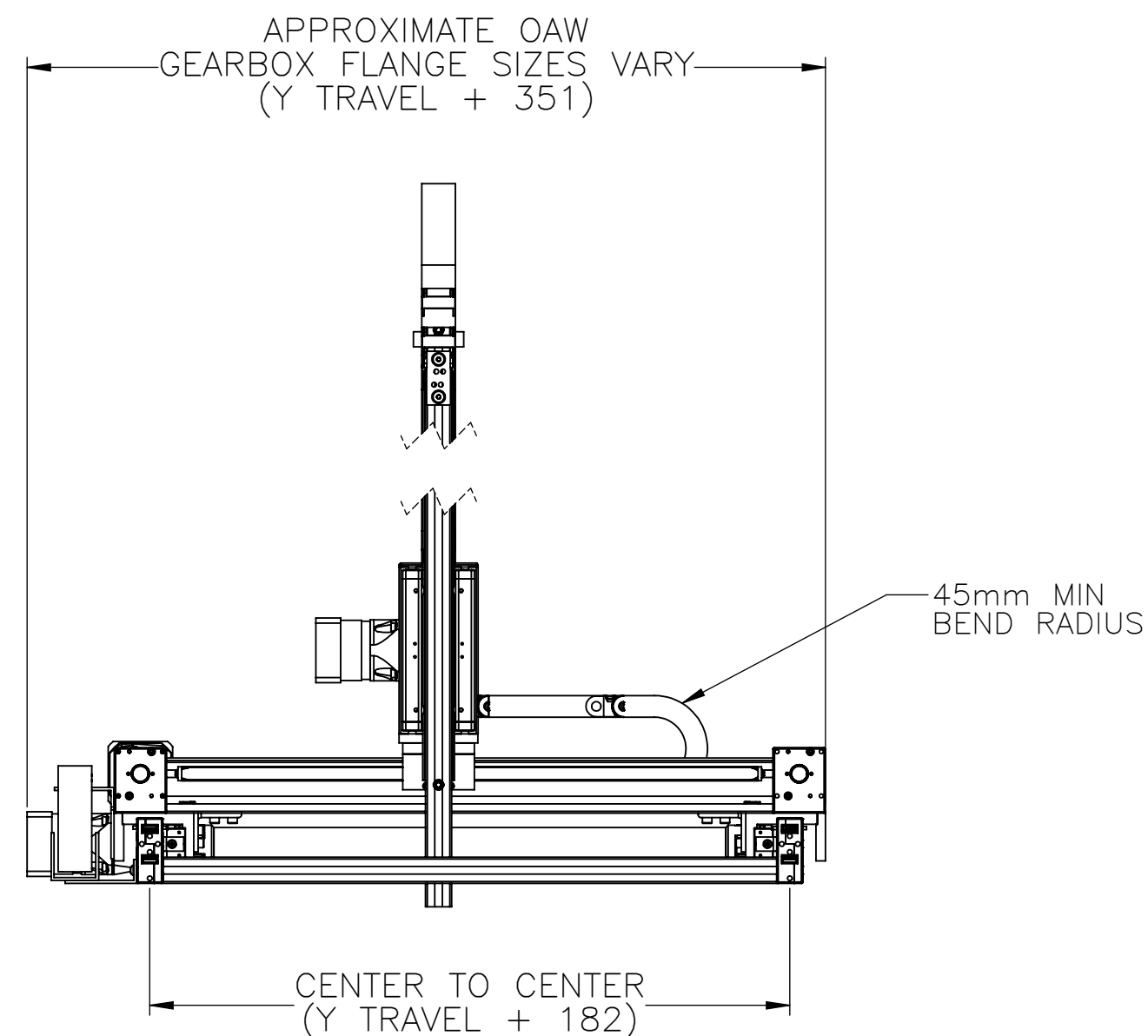
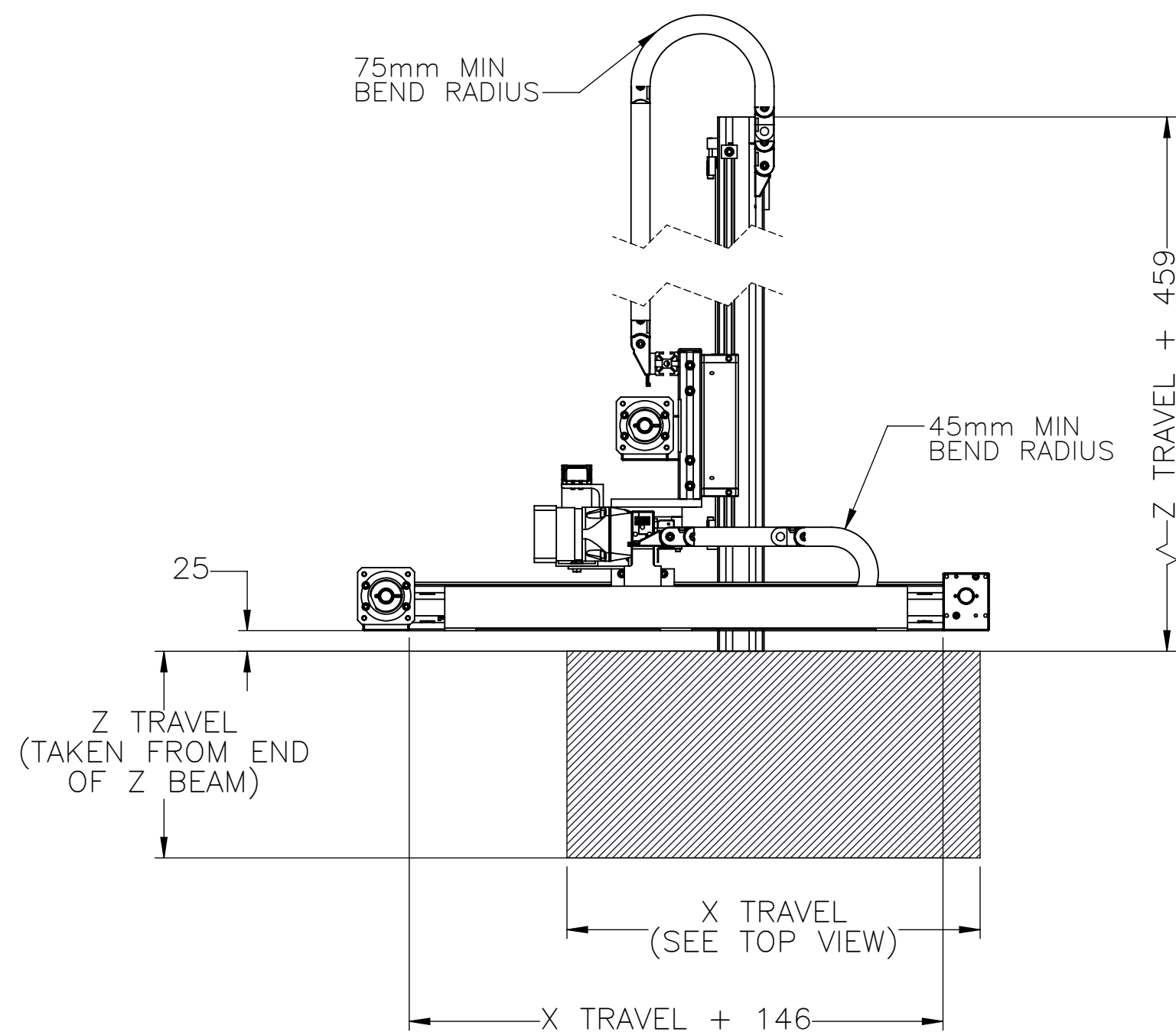
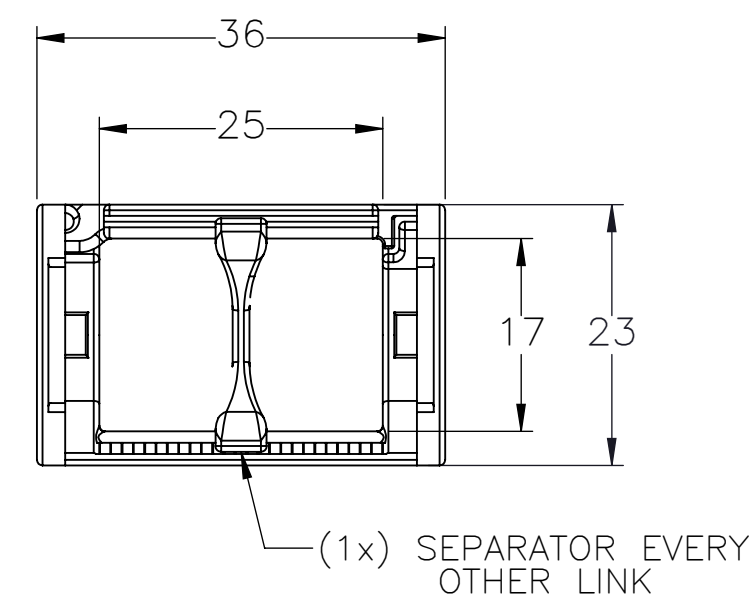
<b>MACRON DYNAMICS INC</b> <small>THIS DRAWING IS THE PROPERTY OF MACRON DYNAMICS. ANY REPRODUCTIONS SHALL BE FOR QUOTATION, MANUFACTURING, OR PURCHASING PURPOSES ONLY. RELEASE OF DRAWINGS TO OTHER CONCERNS DOES NOT CONSTITUTE LICENSING IN ANY WAY. INFORMATION CONTAINED HEREIN IS PROPRIETARY AND CONFIDENTIAL.</small>	DRAWN BY: PHW CHECKED BY: LAST SAVED BY: TH	DATE: 11/26/2017 DATE: DD/MM/YYYY DATE: 12/30/2022	MATERIAL:  FINISH:	TITLE: <b>MACRON XYZ R15 GANTRY</b>
	<small>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:</small> .X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'		SCALE 1:1 SHEET SIZE C	SHEET 1 OF 5 PART NUMBER MCS-R15-X-X-X REV
	SURFACE FINISH 63		BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	
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# WORK ENVELOPE AND GANTRY FOOTPRINT



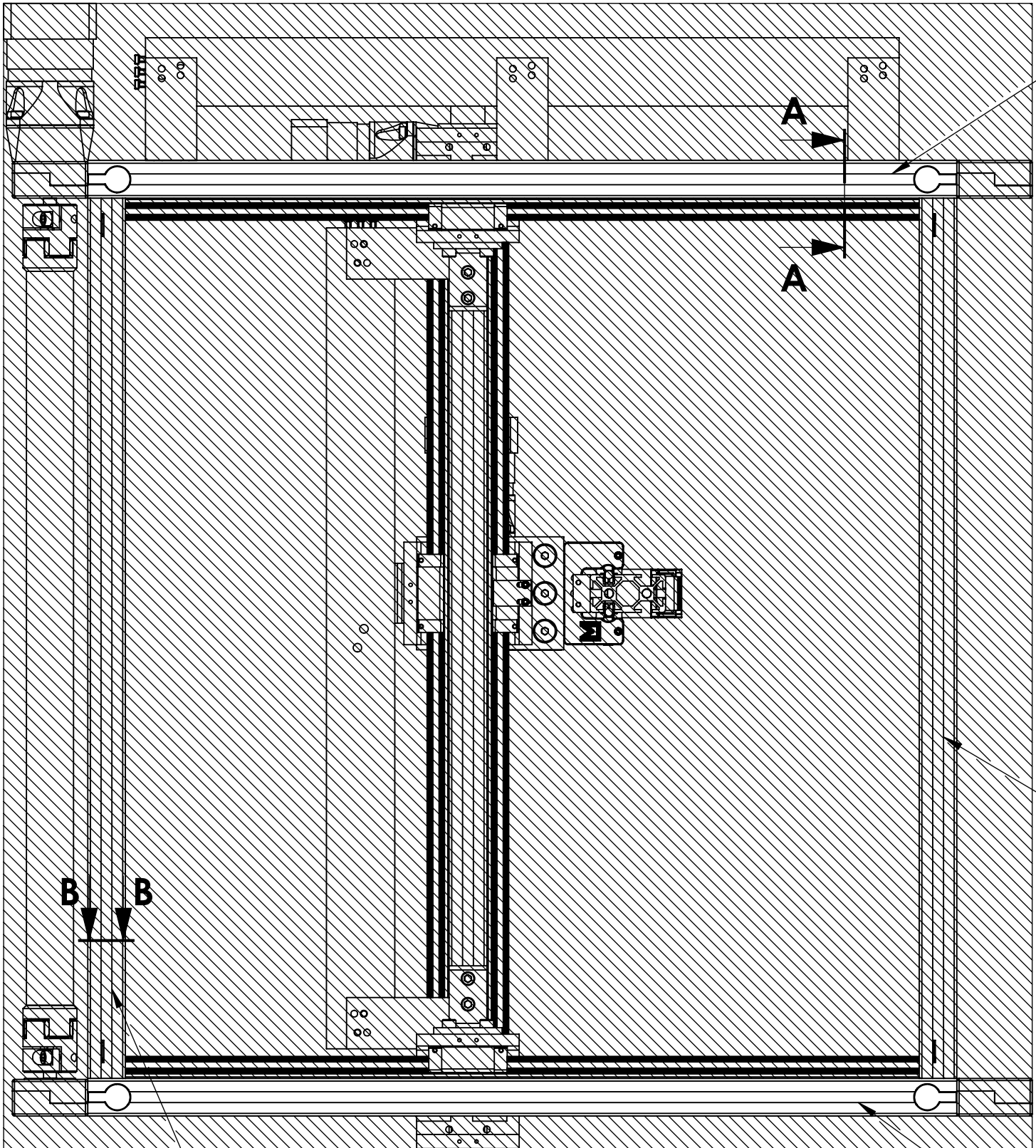
\*\*ALL X-TRAVEL DIMENSIONS GIVEN ARE BASED ON THE CUSTOMERS REMOVAL OF "REMOVABLE SHIPPING BEAMS" \*\*

## CABLE TRACK DIMENSIONS

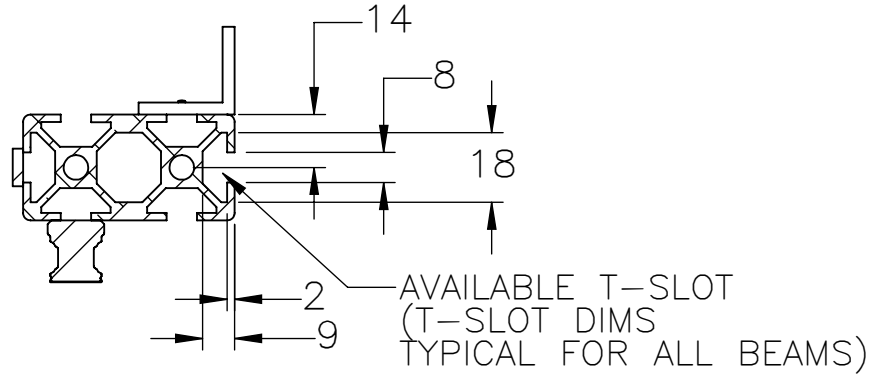


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	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE: .X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0.30°		SCALE 1:1 SHEET SIZE C		
	SURFACE FINISH $\sqrt{63}$		SHEET <b>2 OF 5</b>	PART NUMBER <b>MCS-R15-X-X-X</b>	REV
	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION				

# GANTRY MOUNTING FEATURES



(1X) T-SLOT AVAILABLE  
SUGGESTED MOUNTING AREA



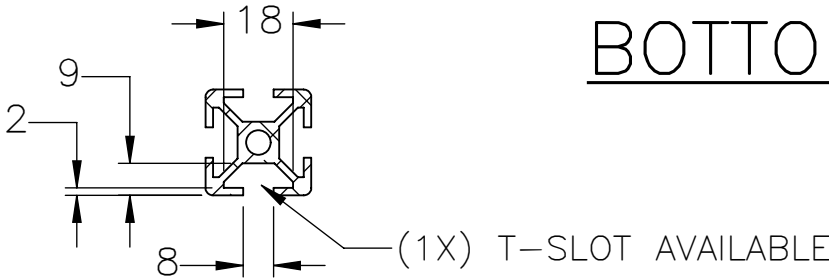
SECTION A-A

(BEAM MUST BE REMOVED  
TO ACHIEVE FULL TRAVEL)

(1X) T-SLOT AVAILABLE  
IF BEAM IS NOT REMOVED

(1X) T-SLOT AVAILABLE  
SUGGESTED MOUNTING AREA

## BOTTOM VIEW



SECTION B-B

<b>MACRON DYNAMICS INC</b>	DRAWN BY: PHW	DATE: 11/26/2017	MATERIAL:	<b>TITLE:</b> MACRON XYZ R15 GANTRY
	CHECKED BY:	DATE: DD/MM/YYYY	FINISH:	
	LAST SAVED BY: TH	DATE: 12/30/2022		
	<small>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:</small>			
<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>	SURFACE FINISH $\sqrt{63}$		SCALE 1:1	SHEET SIZE C
	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING		SHEET	PART NUMBER
	THIRD ANGLE PROJECTION		3 OF 5	MCS-R15-X-X-X

# MOTOR SIZING WORKSHEET

(INCREMENTAL ADDERS REFER TO MASS PER TRAVEL LENGTH)

BASE X-TRAVEL = 150mm  
 BASE Y-TRAVEL = 150mm  
 BASE Z-TRAVEL = 150mm

PROPERTY	BASE VALUE (T=150mm)
MOVING MASS	1.213kg(+0.065kg/25mm)
BELT MASS	0.025kg(+.001kg/25mm)
SYSTEM MASS	3.061kg(+0.065kg/25mm)
PULLEY PITCH $\phi$	33.42mm (1.32")
PULLEY WIDTH	16.3mm (0.64")
PULLEY MATERIAL	STEEL

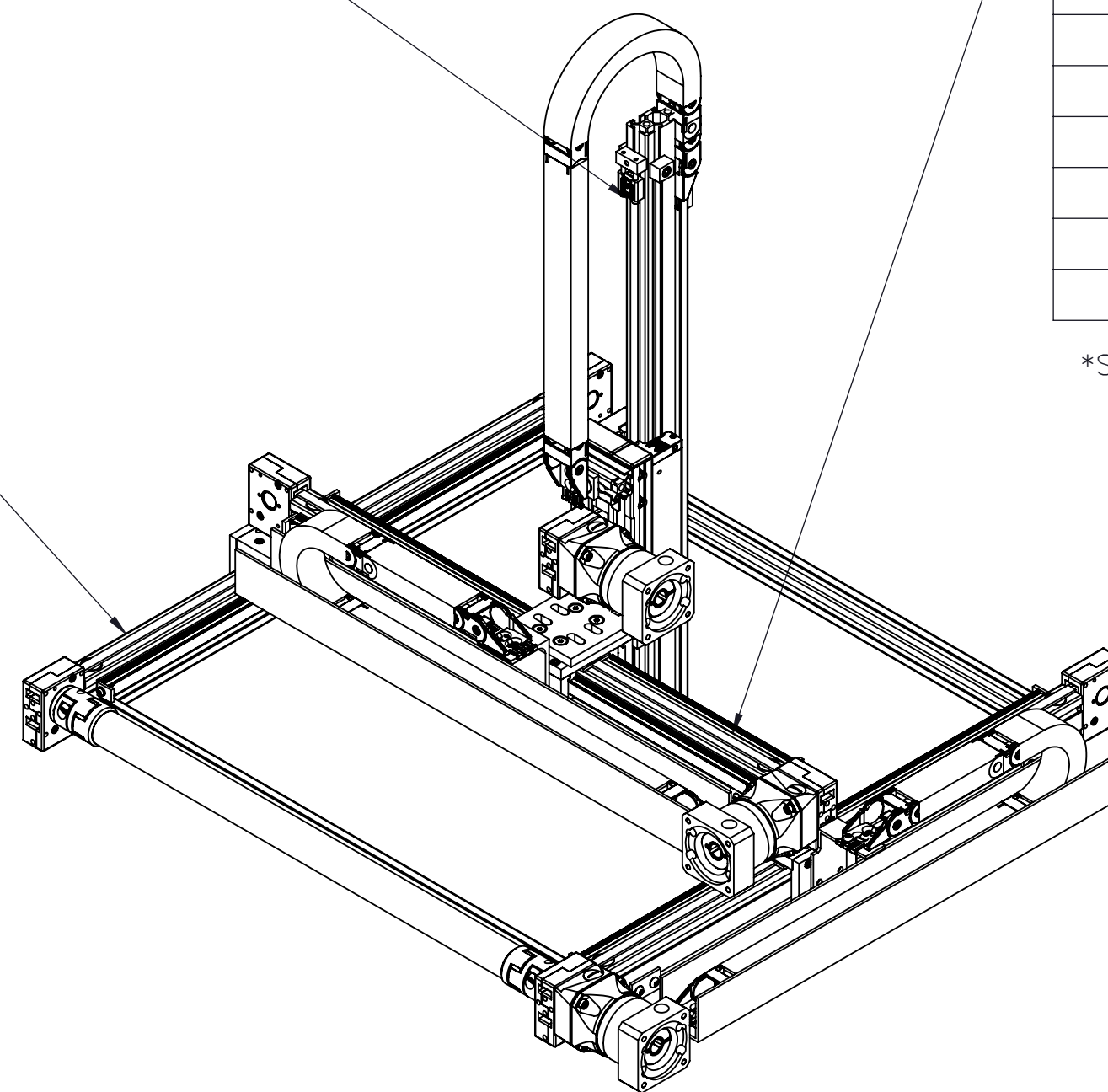
PROPERTY	BASE VALUE (T=150mm)
*MOVING MASS	0.922kg(+0.012kg/25mm)
BELT MASS	0.100kg(+.002kg/25mm)
*SYSTEM MASS	3.510kg(+0.157kg/25mm)
PULLEY PITCH $\phi$	33.42mm (1.32")
PULLEY WIDTH	16.3mm (0.64")
PULLEY MATERIAL	STEEL

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

PROPERTY	BASE VALUE (T=150mm)
**MOVING MASS	1.374kg(+0.014kg/25mm)
BELT MASS	0.200kg(+0.004kg/25mm)
PULLEY PITCH $\phi$	33.42mm (1.32")
PULLEY WIDTH	16.3mm (0.64")
PULLEY MATERIAL	STEEL
***TORQUE TUBE LENGTH	295mm
TORQUE TUBE $\phi$	35mm
***TORQUE TUBE MASS	0.200kg(+0.017kg/25mm)
TORQUE TUBE MATERIAL	ANODIZED ALUMINUM ELASTOMER STYLE COUPLINGS WITH HUB
TRAVEL PER REV	105mm

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

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



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

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

GEARBOX MASS (ADD TO SYSTEM MASSES)	MPG-062	1.0kg
	MRG-062	3.0kg

TOTAL SYSTEM MASS	$(X \text{ TRAVEL} \times .0078) + (Y \text{ TRAVEL} \times .0087) + (Z \text{ TRAVEL} \times .0021) + 8.52 = \text{kg}$
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MACRON DYNAMICS INC	DRAWN BY: JA	DATE: 10/30/2018	MATERIAL:	TITLE: MACRON XYZ R15 GANTRY
	CHECKED BY:	DATE: DD/MM/YYYY	FINISH:	
	LAST SAVED BY: TH	DATE: 12/30/2022		
<small>UNLESS OTHERWISE SPECIFIED:                  DIMENSIONS ARE IN MILLIMETERS.                  TOLERANCES UNLESS NOTED OTHERWISE:                  .X <math>\pm</math> .762                  .XX <math>\pm</math> .254                  .XXX <math>\pm</math> .127                  ANG <math>\pm</math> 0°30'</small>			SCALE 1:1	SHEET SIZE C
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THIRD ANGLE PROJECTION			SHEET 4 OF 5	PART NUMBER MCS-R15-X-X-X

# 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

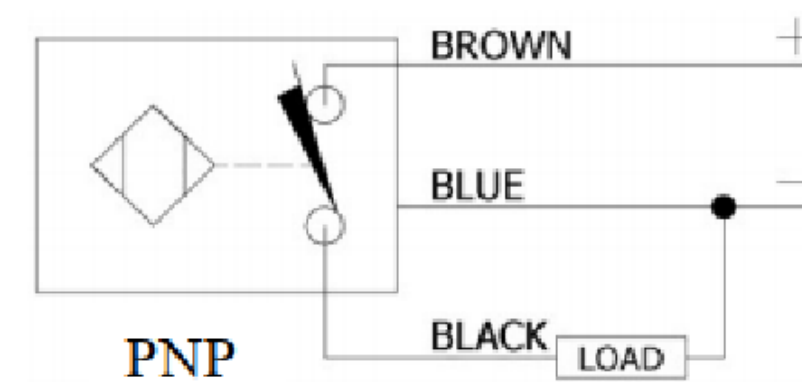
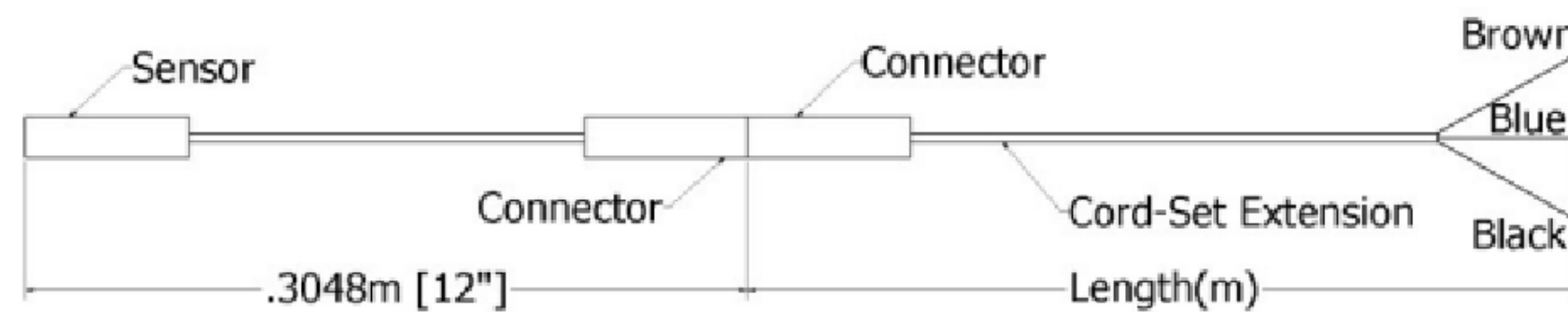
# Part Number Configuration

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

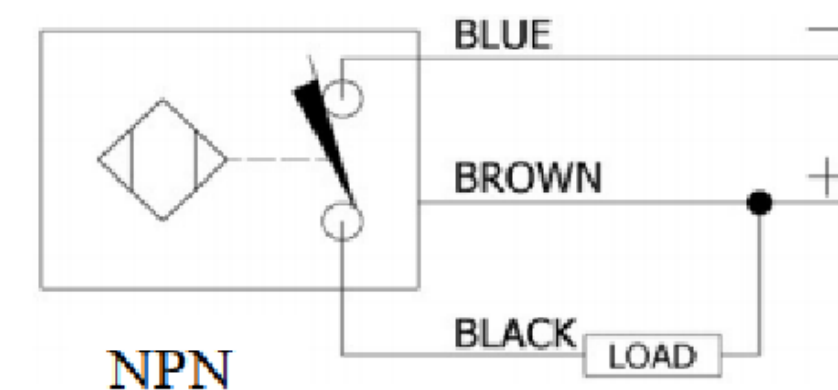
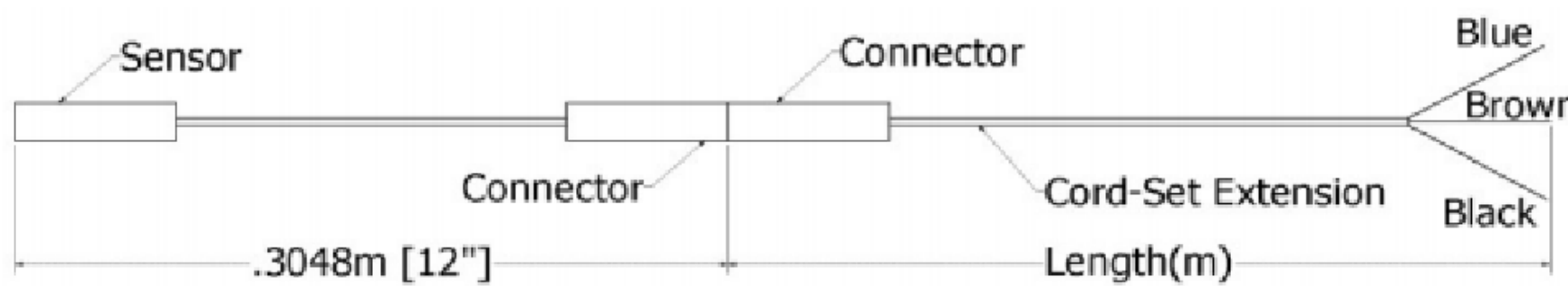
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

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

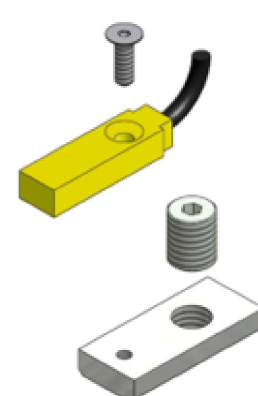
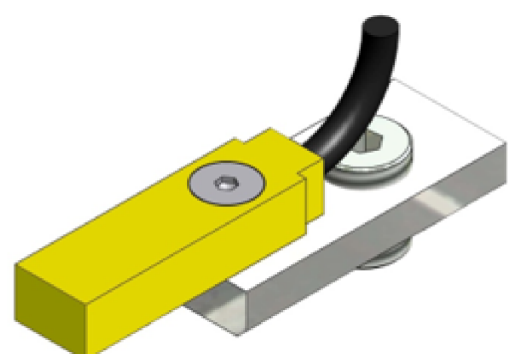
### PNP Diagrams



### NPN Diagrams



KIT INCLUDES – SENSOR, CORDSET EXTENSION, AND MOUNTING HARDWARE



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	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 $\checkmark$		SHEET 5 OF 5	PART NUMBER SENSOR CALL-OUT	REV
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