

MGS-HBG-12- - - X

GEARBOX MODEL
MPG-062____
MRG-062____
RATIO:_____

FOR DIRECT-DRIVE OPTION WITH MMKS
(NO GEARBOXES) CHECK HERE: ____

MOTOR INFORMATION
MANUFACTURER:_____
MODEL:_____

SENSOR INFORMATION X-AXIS:
HOME-QTY____ 244-____-____-____
EOT-QTY____ 244-____-____-____

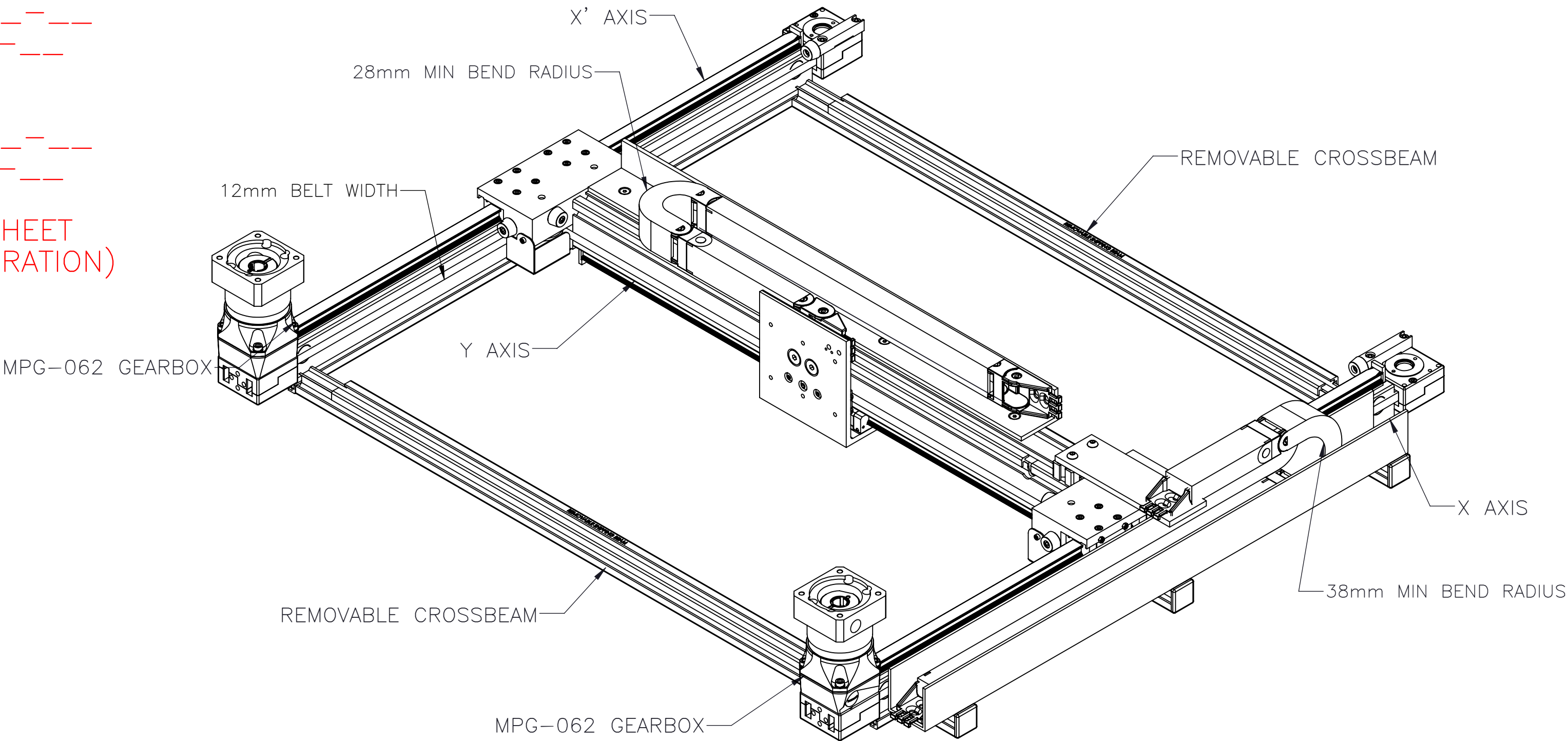
SENSOR INFORMATION Y-AXIS:
HOME-QTY____ 244-____-____-____
EOT-QTY____ 244-____-____-____

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

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



APPROVED: _____

SIGN & PRINT

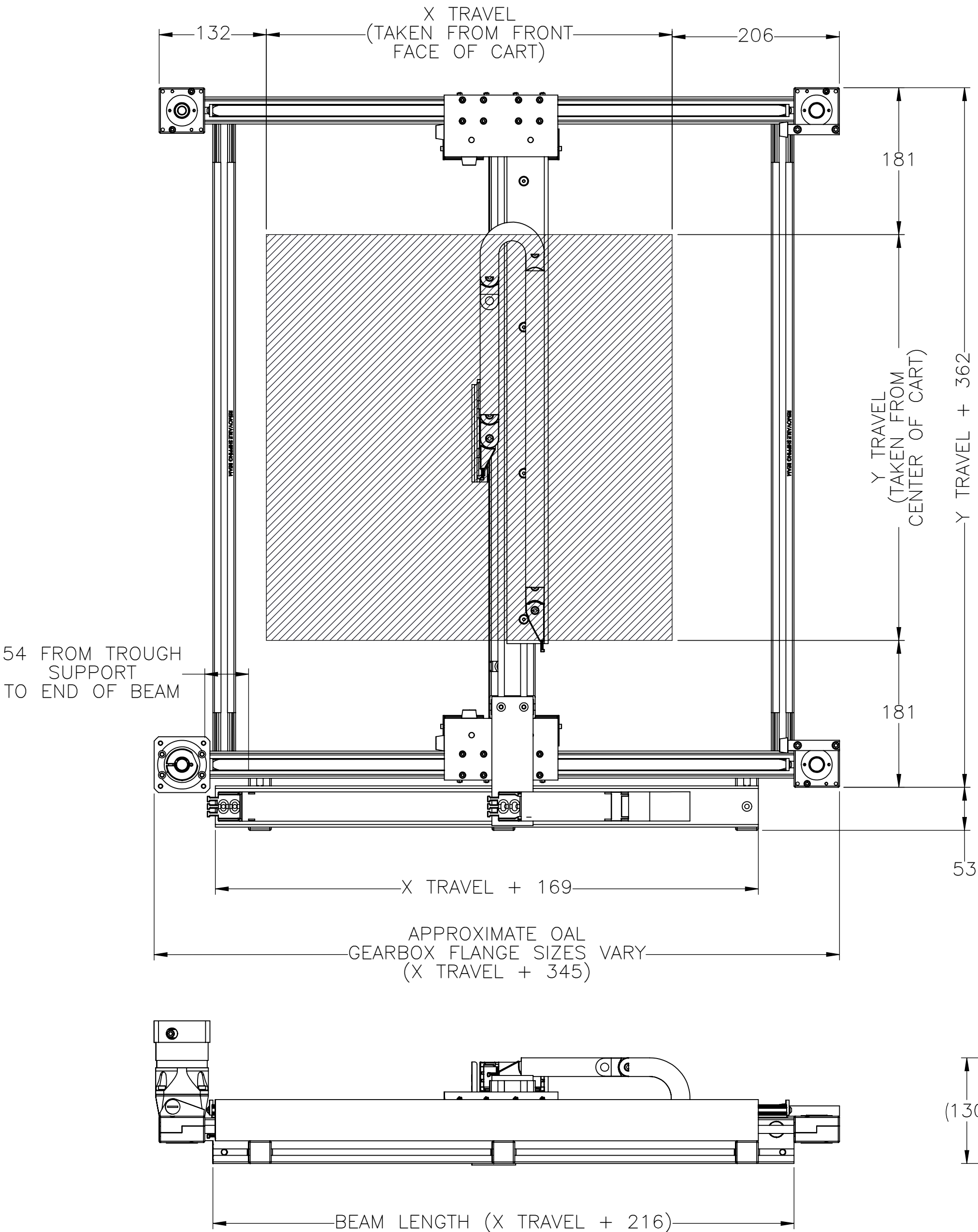
DATE: _____

PO:REFERENCE#: _____

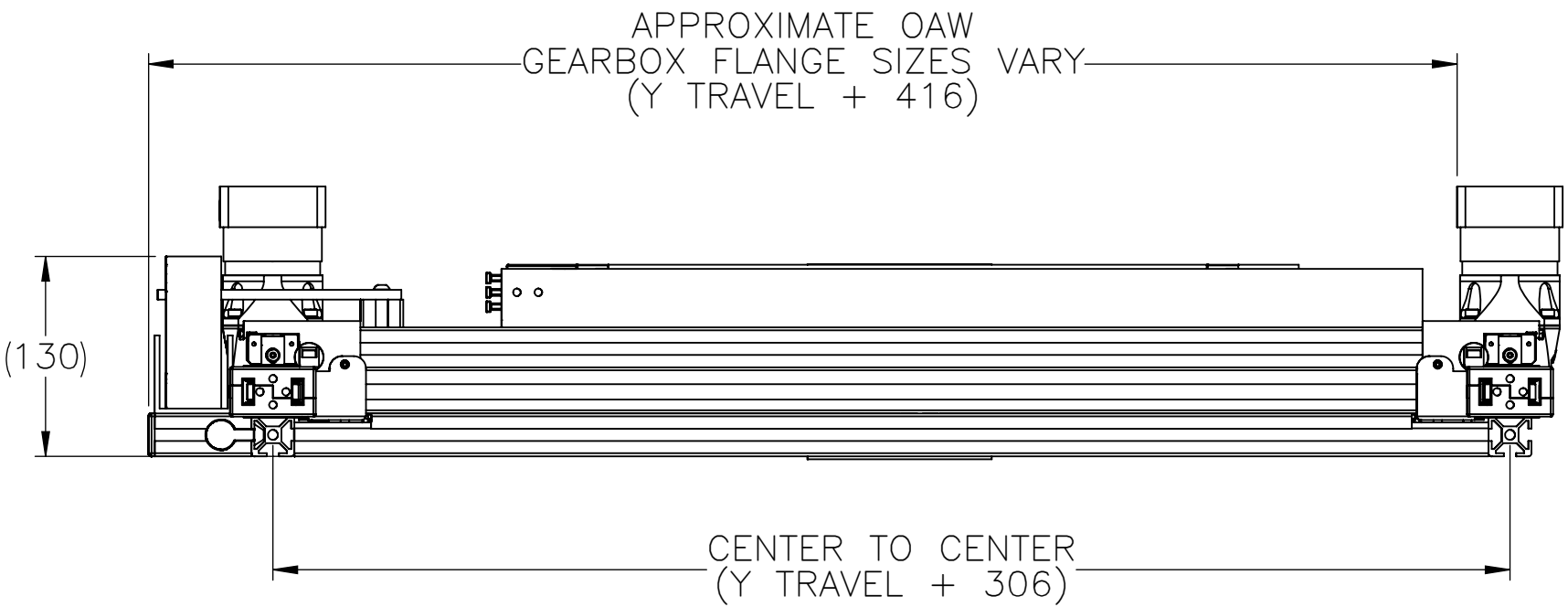
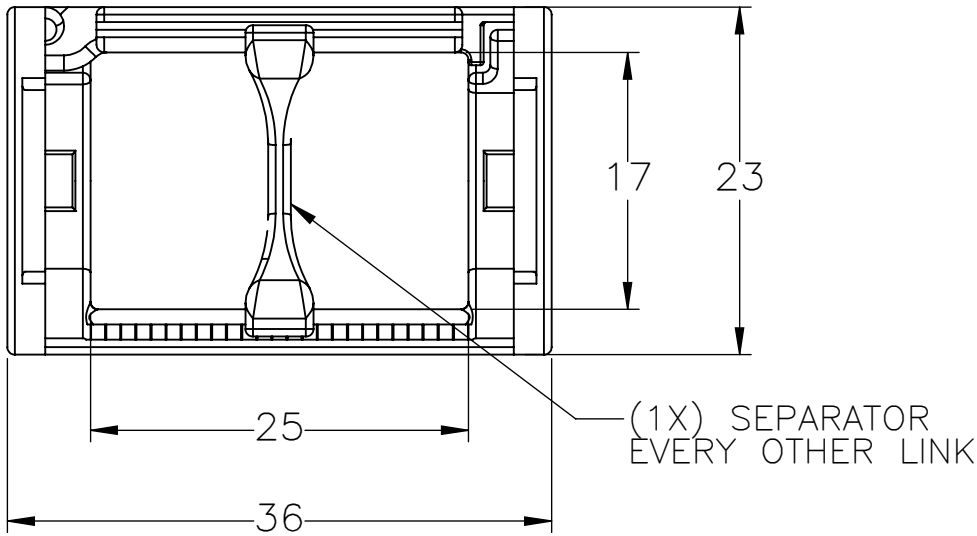
<div><div><div></div></div><div>MACRON</div></div> <div>MACRON DYNAMICS INC</div>	DRAWN BY: TB	DATE: 1/2/2019	MATERIAL:		TITLE: MACRON H-BOT GANTRY	
	CHECKED BY:	DATE: DD/MM/YYYY				
	LAST SAVED BY: TH	DATE: 11/11/2022	FINISH:		SCALE 1:1 SHEET SIZE C	
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETER. TOLERANCES UNLESS NOTED OTHERWISE: .X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'					
	SURFACE FINISH 63					
THIS DRAWING IS THE PROPERTY OF MACRON DYNAMICS. ANY REPRODUCTION OF THIS DRAWING 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		SHEET 1 OF 6	PART NUMBER MGS-HBG-12-X-X-X	REV 03
THIRD ANGLE PROJECTION						


REVISION HISTORY			
REV	DESCRIPTION	DATE	REVISED BY
01	HOLE LOCATIONS FOR SENSOR FLAG REVISED	11/10/2020	JA
02	ADDED SET SCREWS TO X AXIS CARTS	12/17/2020	TH
03	CHANGES TO CABLE TRACK	11/10/2022	TH

GANTRY FOOTPRINT

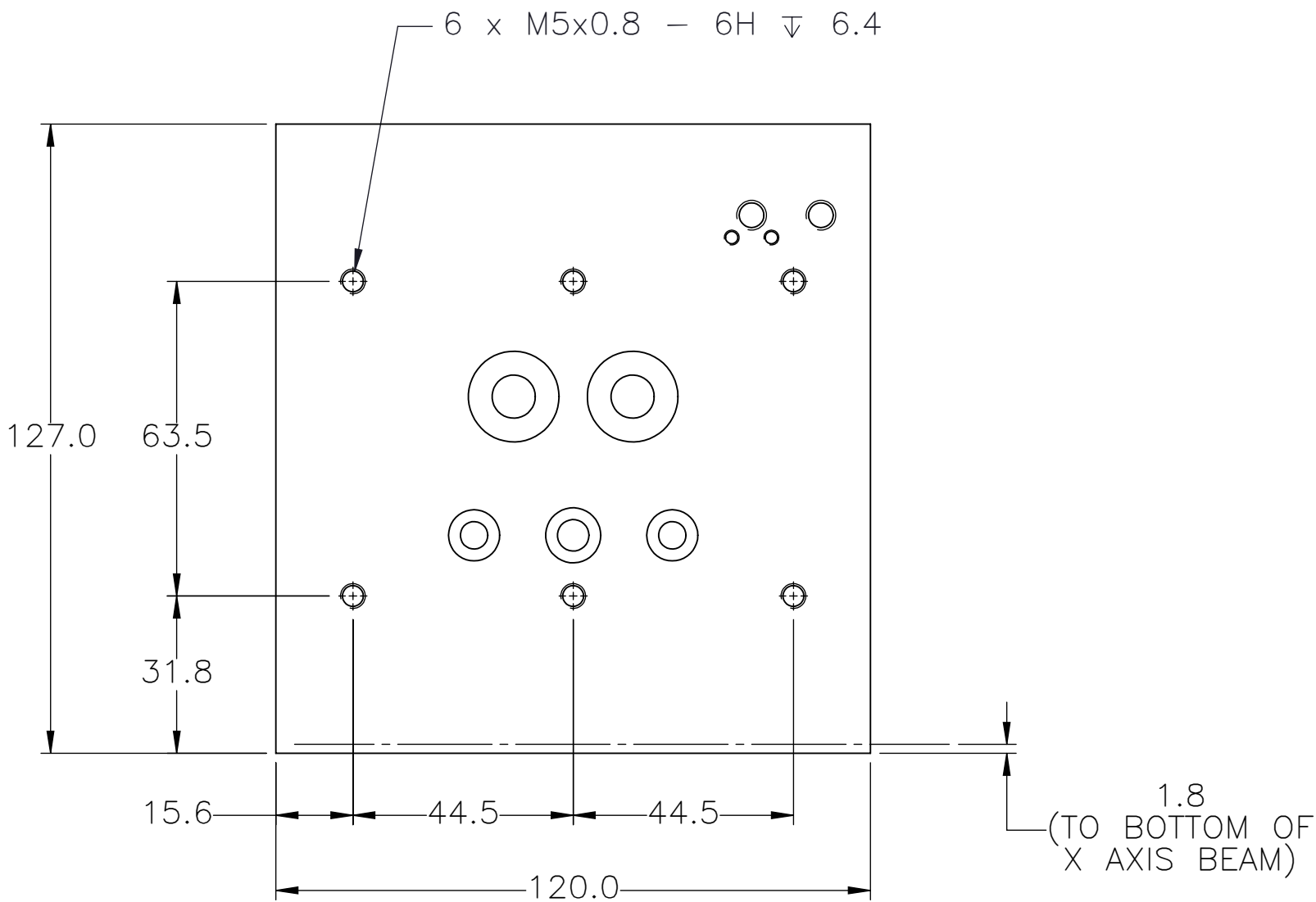
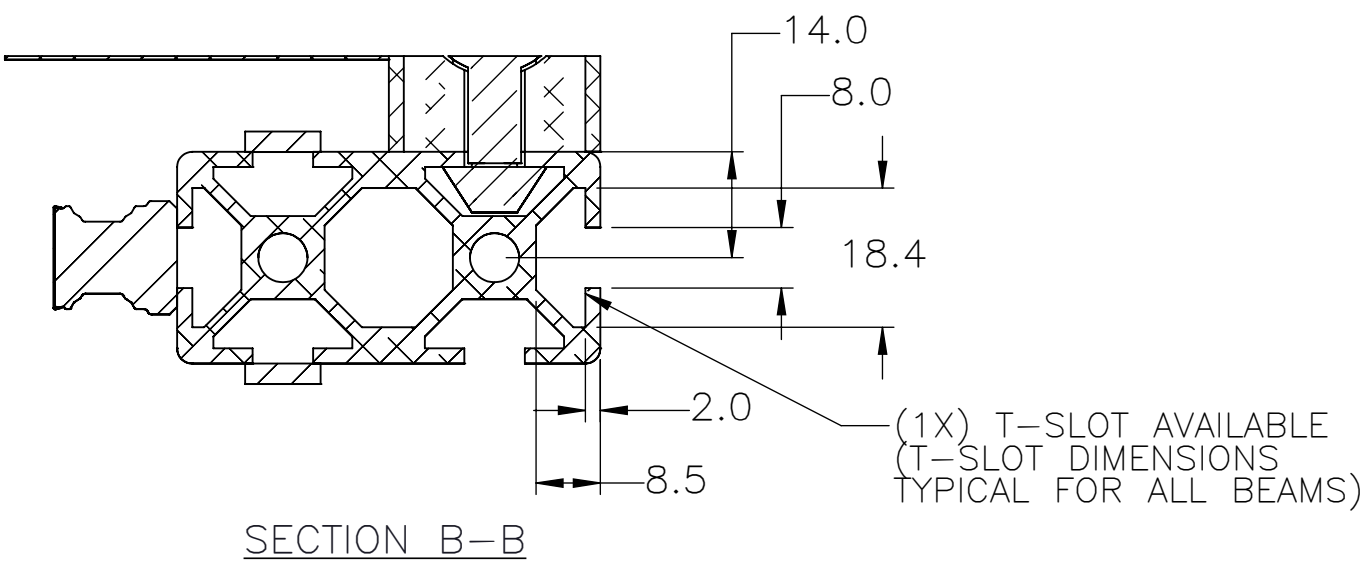
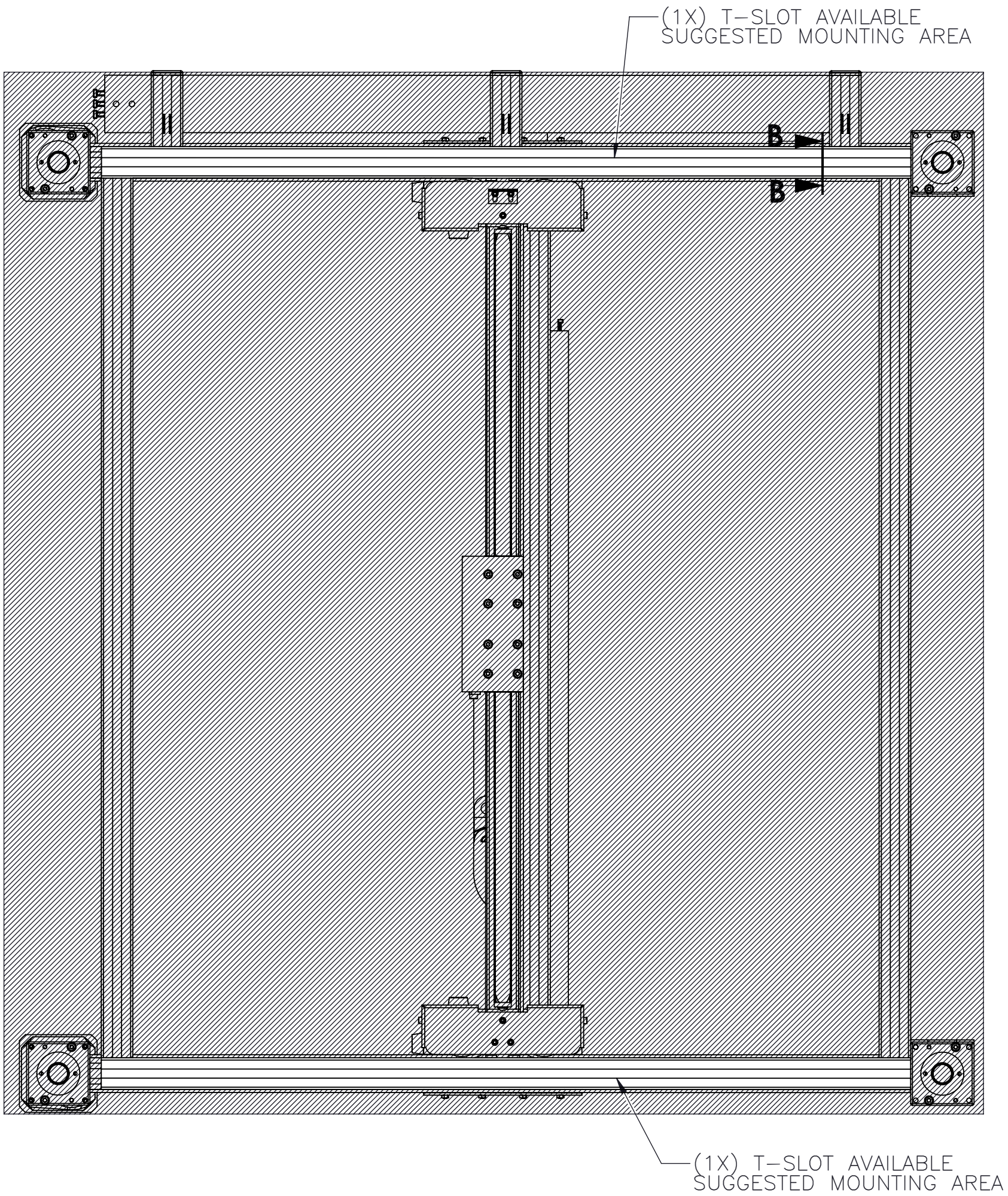


CABLE TRACK SIZE
(SAME FOR BOTH AXES)




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	SURFACE FINISH $\sqrt{3}$					
BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION		SHEET 2 OF 6	PART NUMBER MGS-HBG-12-X-X-X	REV 03		

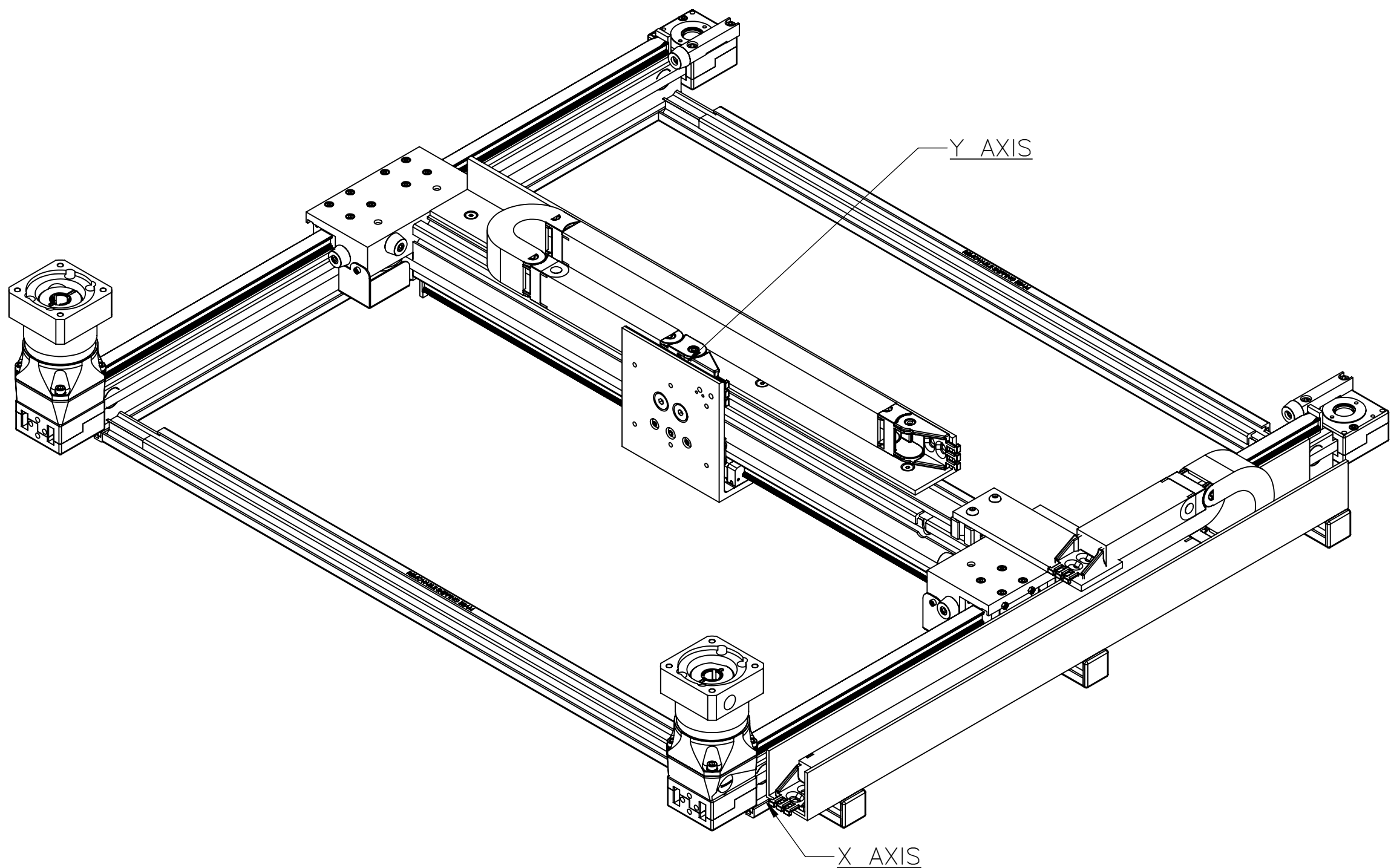
GANTRY MOUNTING FEATURES



CART MOUNTING FEATURES

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	.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'					
SURFACE FINISH 63/√		SHEET		PART NUMBER		REV
BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION		3 OF 6		MGS-HBG-12-X-X-X		
						03

MOTOR SIZING WORKSHEET



PROPERTY	VALUE
PULLEY PITCH ϕ	33.42mm (1.316")
PULLEY WIDTH	16.3mm (.642")
PULLEY MATERIAL	STEEL
TRAVEL PER REV	105mm
BELT WIDTH	12mm (.472")
ULTIMATE TENSILE STRENGTH OF BELT	800 LBS (3559 N)
RECOMMENDED BELT RUNNING LOAD	200 LBS (889 N)



X-TRAVEL = _____ mm

Y-TRAVEL = _____ mm

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

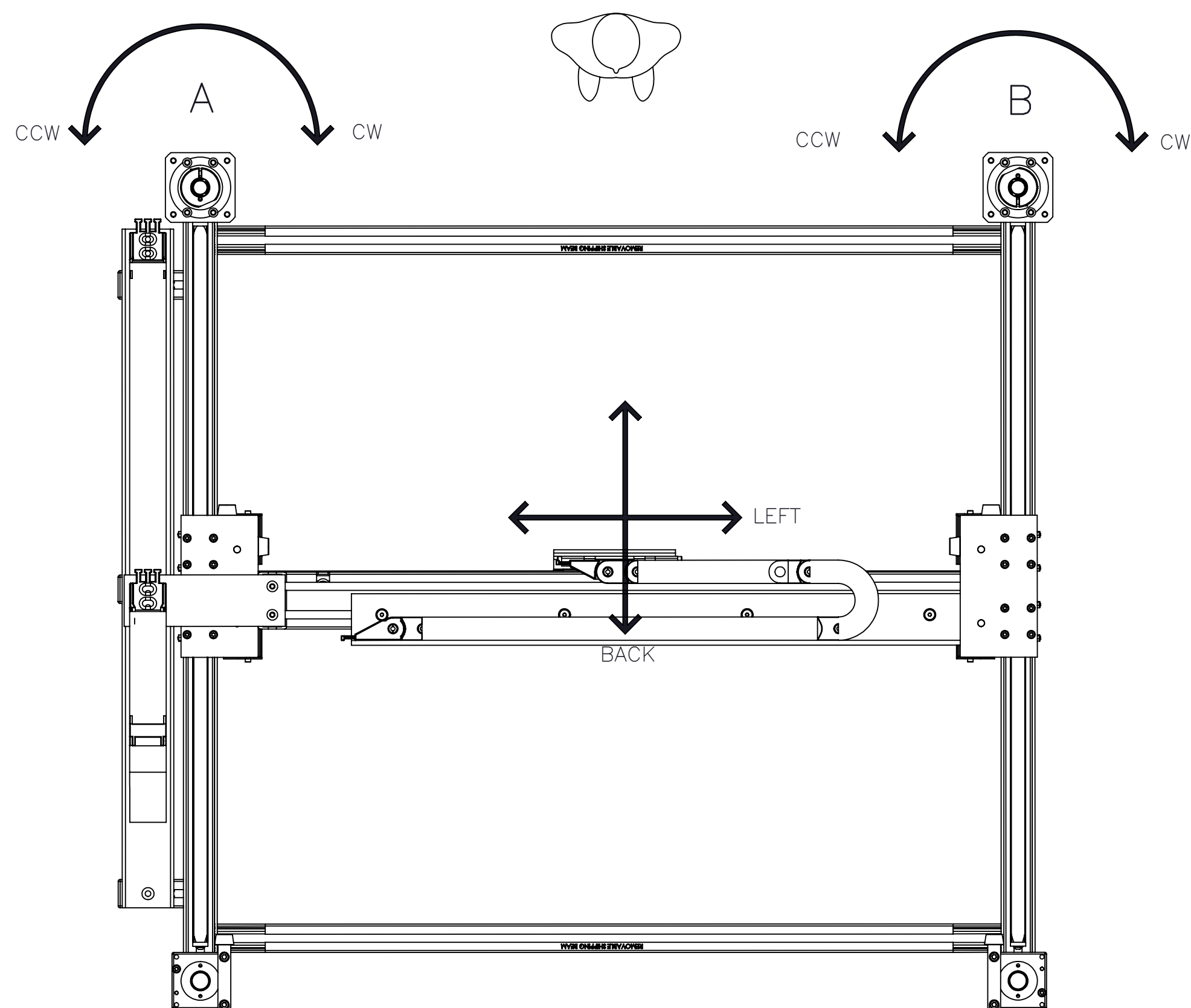
GEARBOX MASS (ADD TO SYSTEM MASSES)	MPG-062	1.0kg
	MRG-062	3.0kg

TOTAL BELT MASS	$(X \text{ TRAVEL} \times .00016) + (Y \text{ TRAVEL} \times .00008) + .07 = \text{kg}$
TOTAL MOVING MASS	$(X \text{ TRAVEL} \times .0004) + (Y \text{ TRAVEL} \times .0040) + 4.12 = \text{kg}$
TOTAL SYSTEM MASS	$(X \text{ TRAVEL} \times .0072) + (Y \text{ TRAVEL} \times .0063) + 7.68 = \text{kg}$

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	.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'						
SURFACE FINISH 		SHEET		PART NUMBER		REV	
BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION				4 OF 6		MGS-HBG-12-X-X-X	03


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	
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SURFACE FINISH		.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING		SHEET 5 OF 6	
THIRD ANGLE PROJECTION				PART NUMBER MGS-HBG-12-X-X-X		REV

SPECIFICATIONS

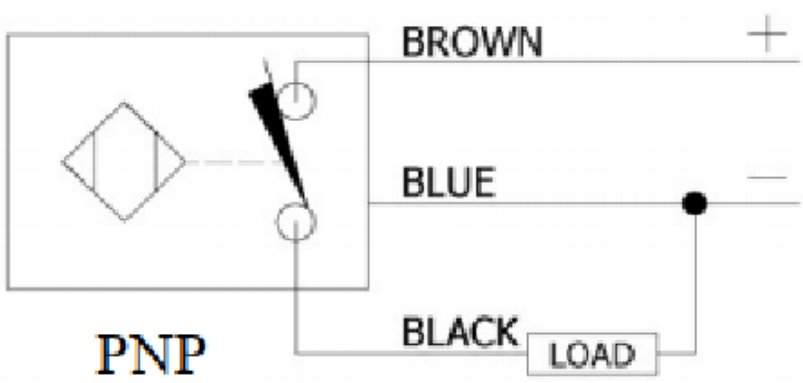
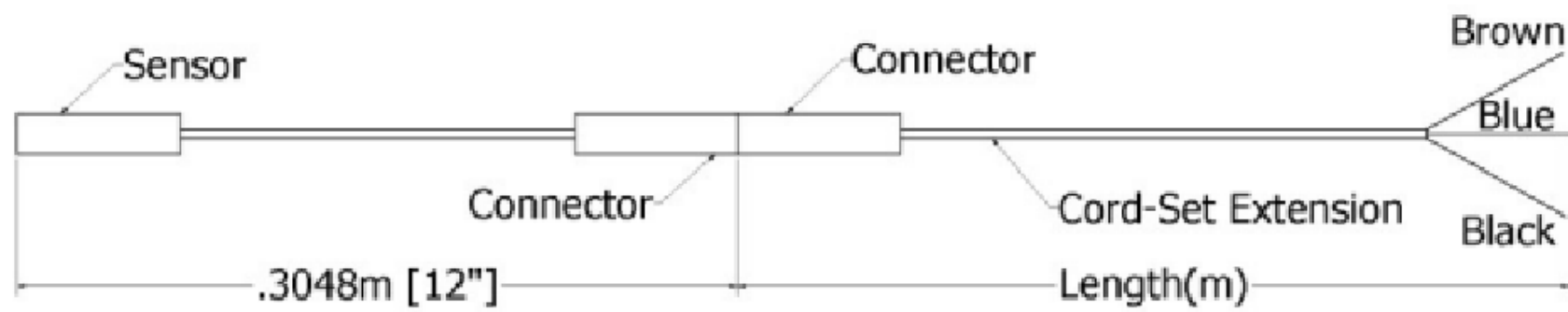
Sensor Type	Inductive
Sensor Size	Fits all 8mm wide T-Slots
Operating Voltage	10–30 VDC
Voltage Drop Across Conducting Sensor	≤1.8 V at 100 mA
Number of Conductors (AWG)	3x26 AWG
Temperature Range	-40°C to 105°C

Part Number
Configuration
244-____-____-____

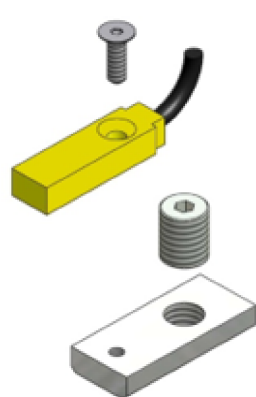
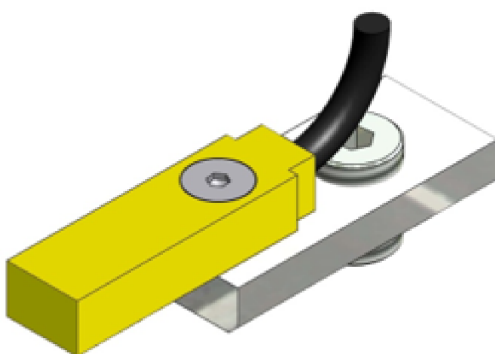
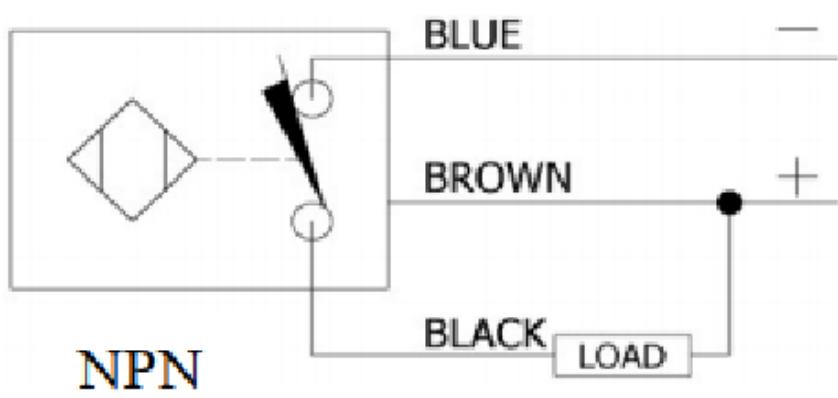
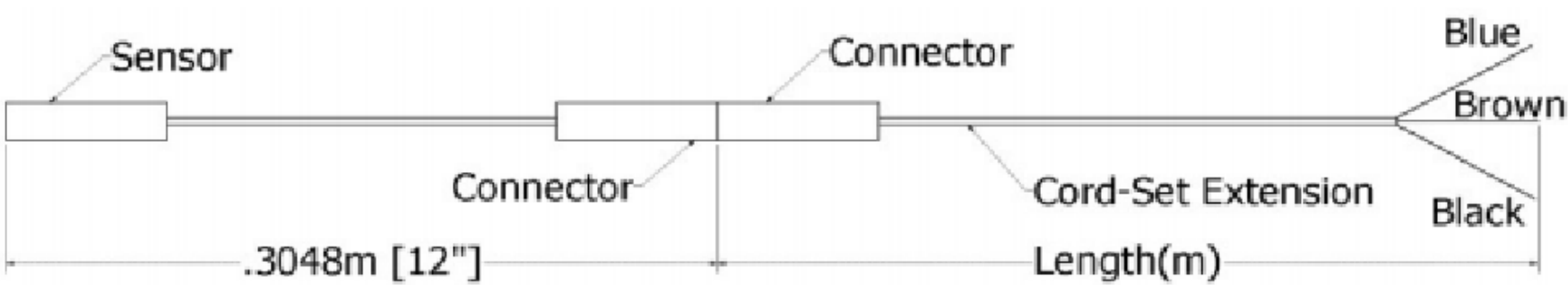
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

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

<div></div> <div>MACRON DYNAMICS INC</div>	DRAWN BY: JA	DATE: 1/2/2019	MATERIAL:		TITLE: T-SLOT SENSOR KIT			
	CHECKED BY:	DATE: DD/MM/YYYY						
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	BREAK ALL SHARP EDGES							
	DIMENSIONAL LIMITS APPLY AFTER FINISHING							
	THIRD ANGLE PROJECTION							