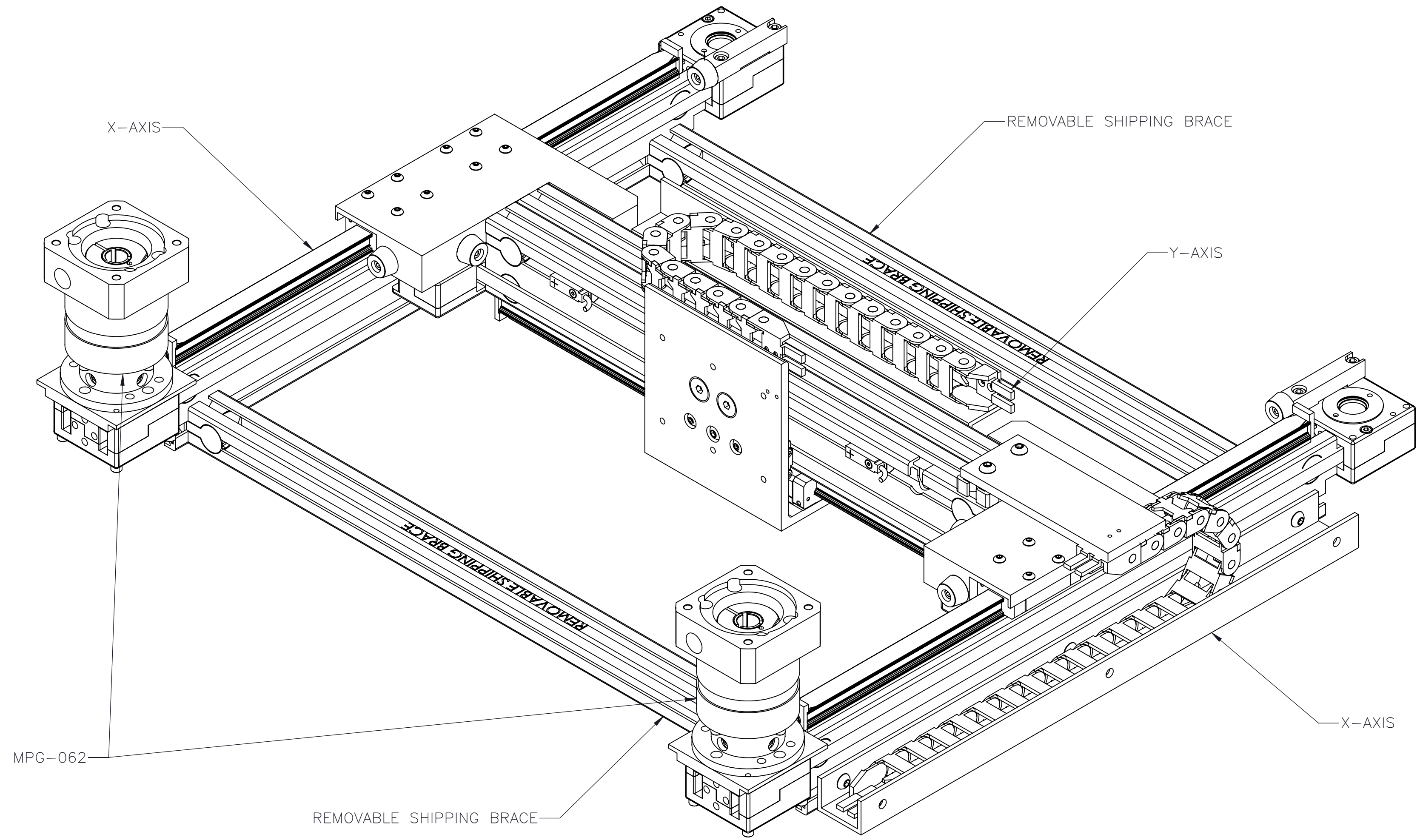



MGS-HBG-12- - -X

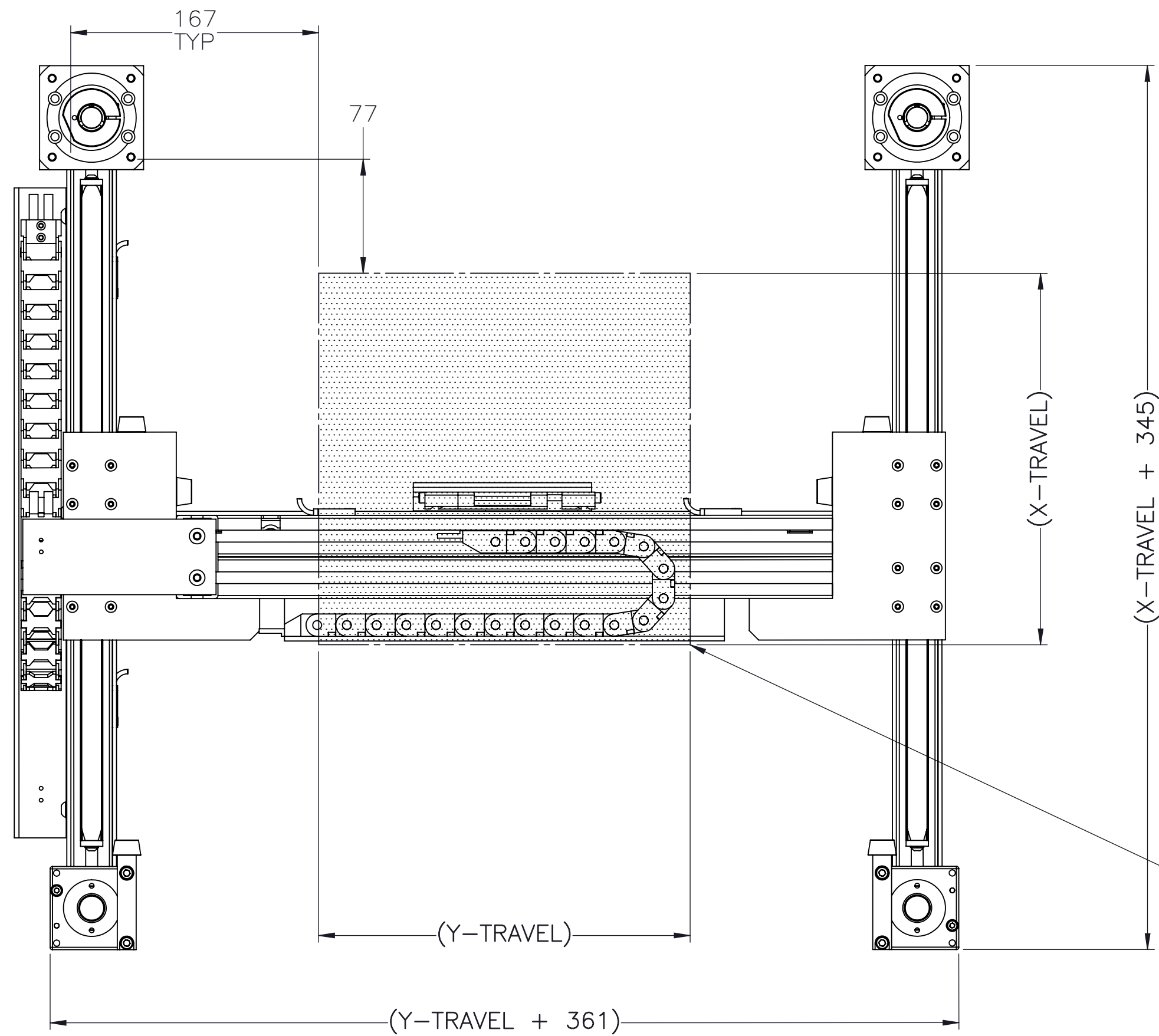
ENTER Y-AXIS TRAVEL
 TRAVEL IN INCREMENTS OF 250mm
 TRAVEL LIMITS: 250mm-1000mm

ENTER X-AXIS TRAVEL
 TRAVEL IN INCREMENTS OF 250mm
 TRAVEL LIMITS: 250mm-1000mm



 MACRON DYNAMICS INC	DRAWN BY: JB DATE: 2/10/2016	MATERIAL:	TITLE: MACRON HBG 12 GANTRY	
	CHECKED BY: -- DATE: 2/11/2016	FINISH:		
	LAST SAVED BY: Blutinger DATE: 2/15/2016	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-HBG-12-X-X-X	REV: 00

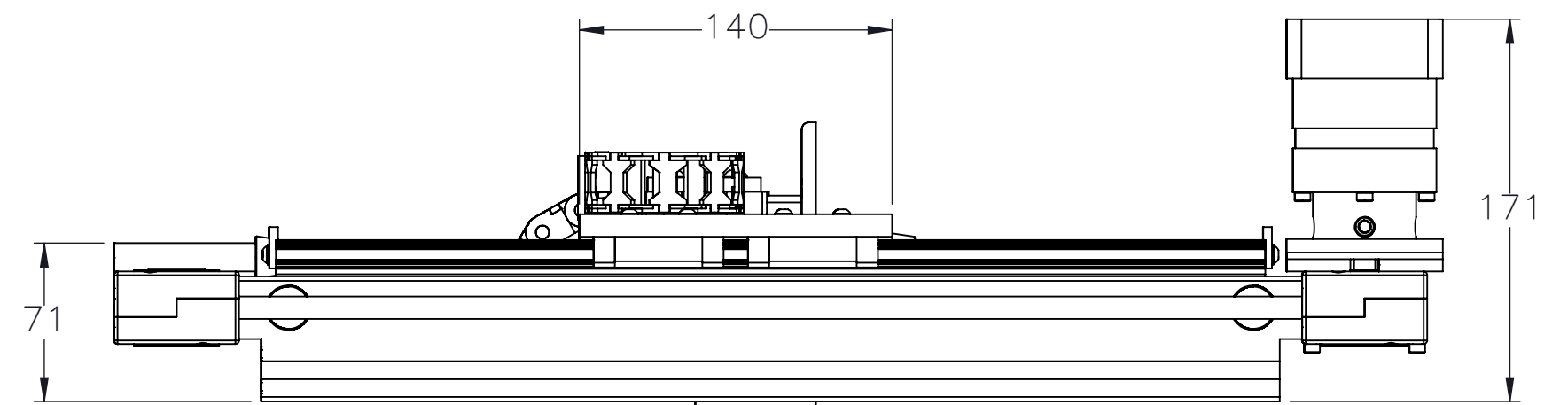
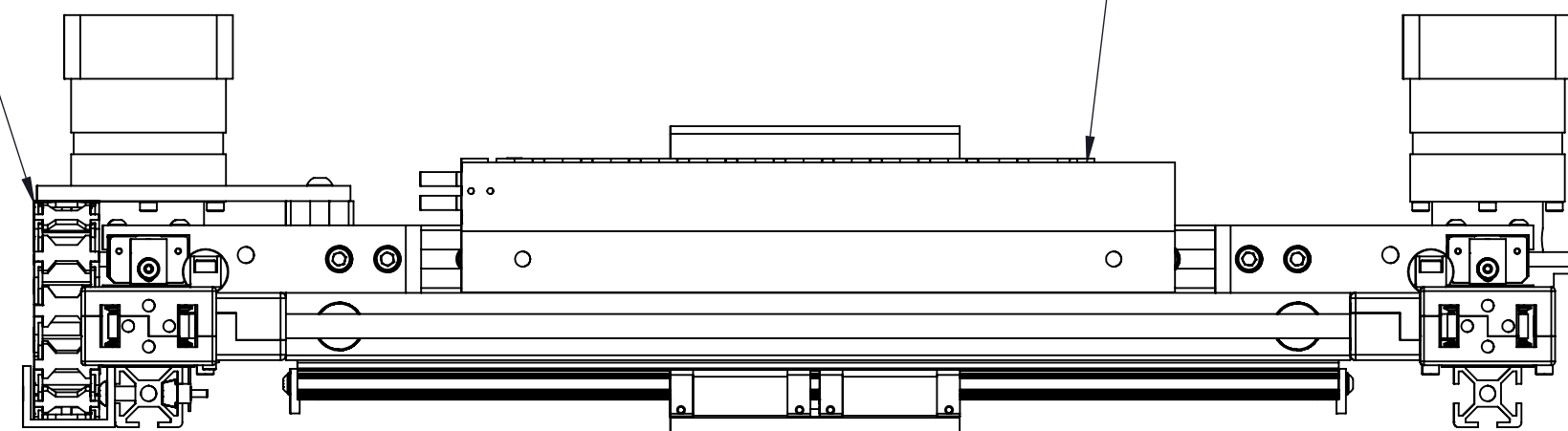
GANTRY FOOTPRINT




WORK ENVELOPE
(FROM CENTER OF
Y-AXIS CART)

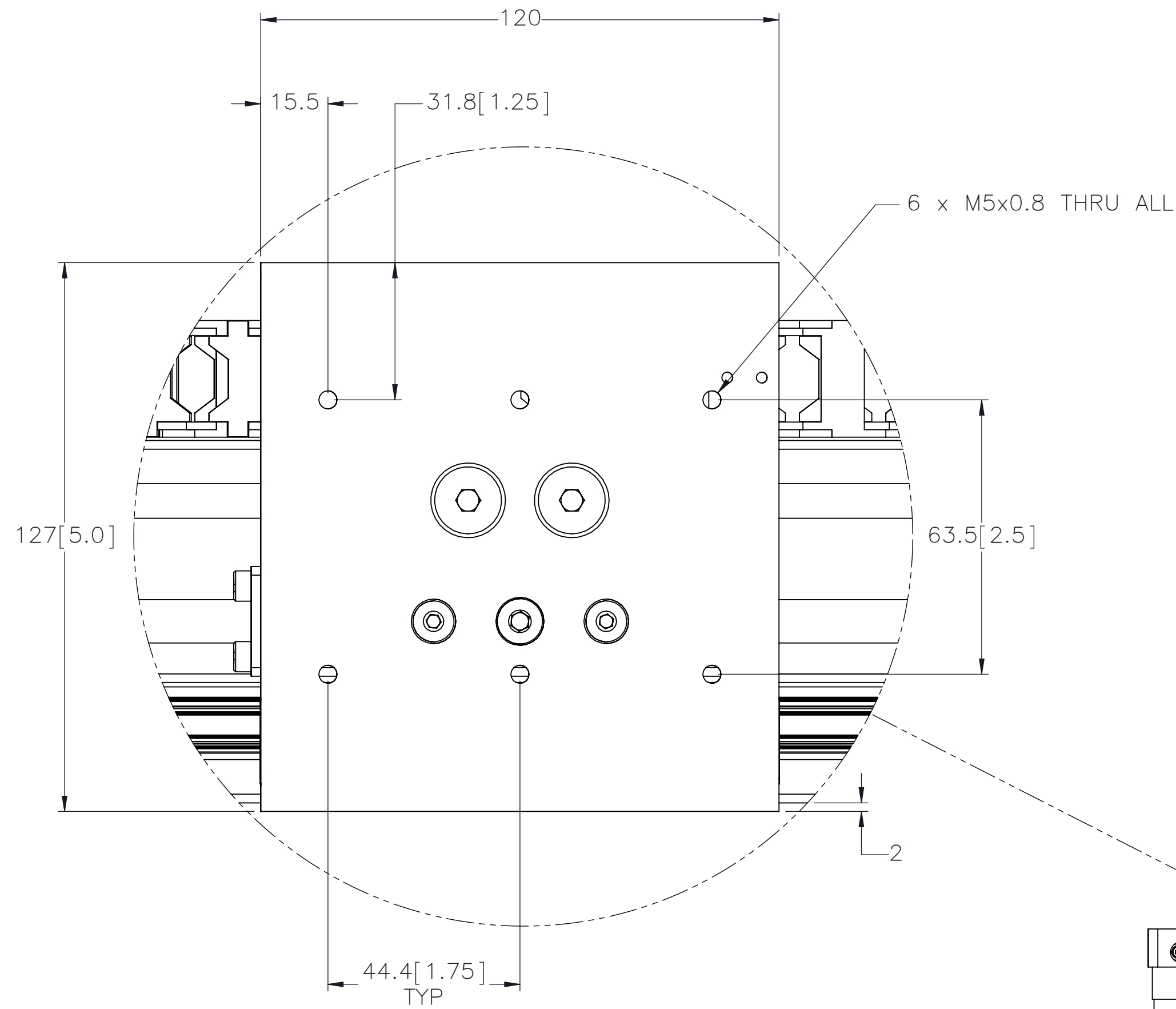
MINIMUM BEND RADIUS = 38
(X-AXIS)

MINIMUM BEND RADIUS = 28
(Y-AXIS)

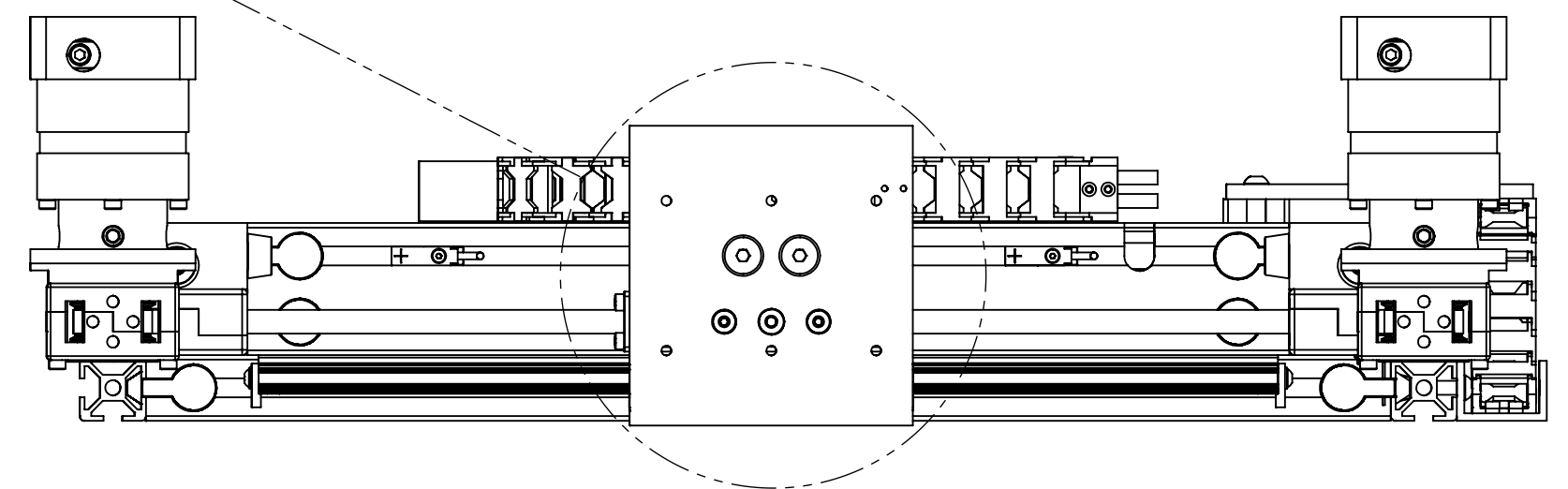



 MACRON DYNAMICS INC	DRAWN BY: JB DATE: 2/10/2016	MATERIAL:	TITLE: MACRON HBG 12 GANTRY
	CHECKED BY: -- DATE: 2/11/2016	FINISH:	
	LAST SAVED BY: Blutinger DATE: 2/15/2016		
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS NOTED OTHERWISE:	.X ± .03 .XX ± .010 .XXX ± .005 ANG ± 0°30'	
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-HBG-12-X-X-X REV 00
BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION			

CART MOUNTING FEATURES



DETAIL A

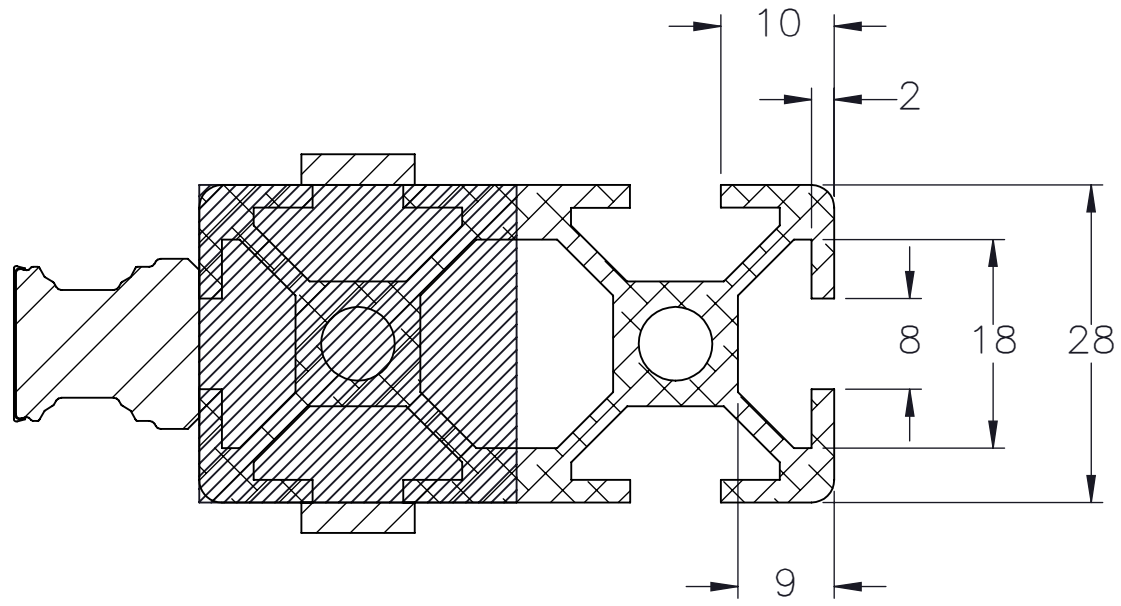
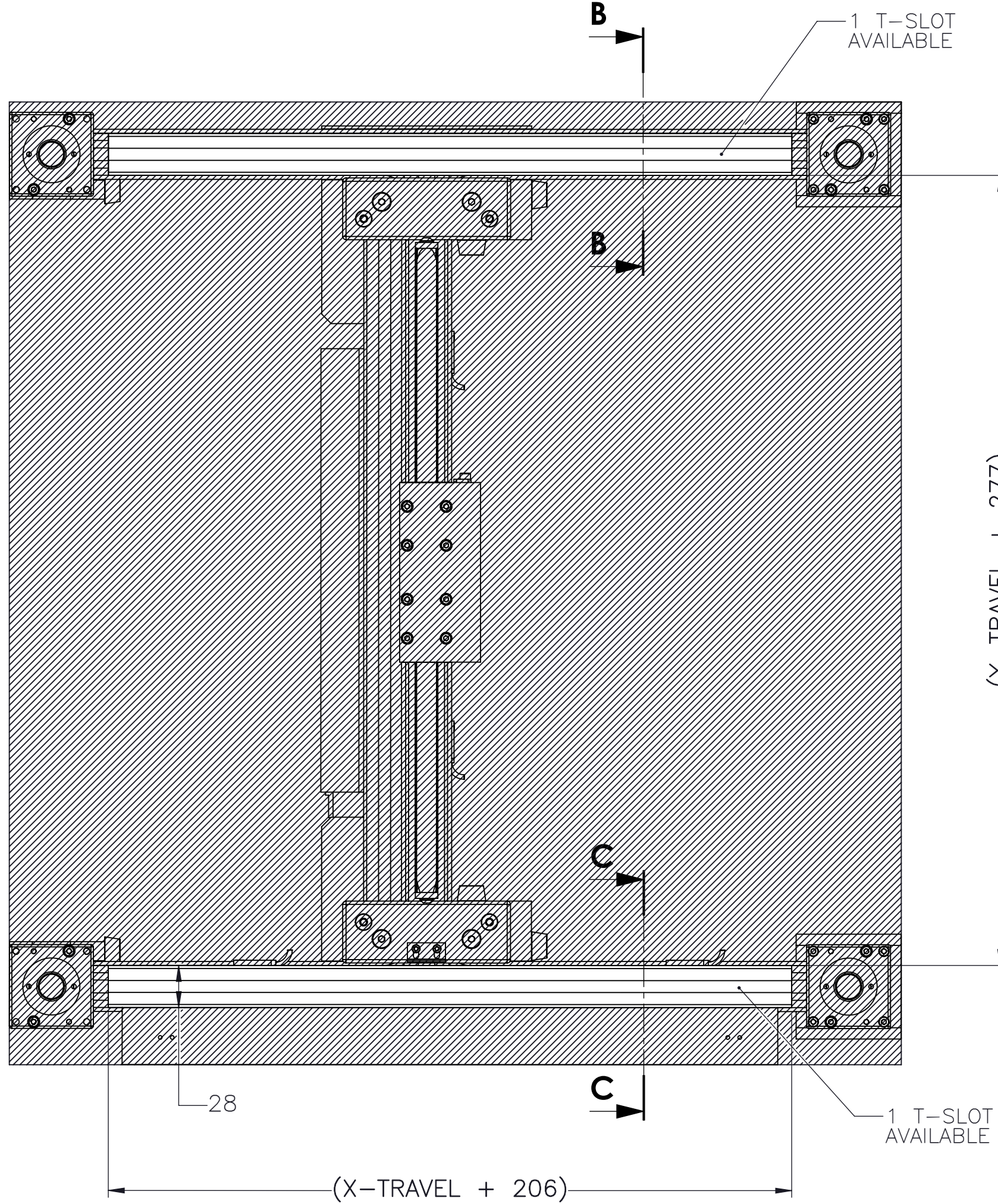


 MACRON DYNAMICS INC	DRAWN BY: JB CHECKED BY: -- LAST SAVED BY: Blutinger	DATE: 2/10/2016 DATE: 2/11/2016 DATE: 2/15/2016	MATERIAL:	TITLE: MACRON HBG 12 GANTRY
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS NOTED OTHERWISE:	.X ± .03 .XX ± .010 .XXX ± .005 ANG ± 0°30'	FINISH:	SCALE 1:1 SHEET SIZE C
	SURFACE FINISH 63	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET 3 OF 6	PART NUMBER MGS-HBG-12-X-X-X REV 00

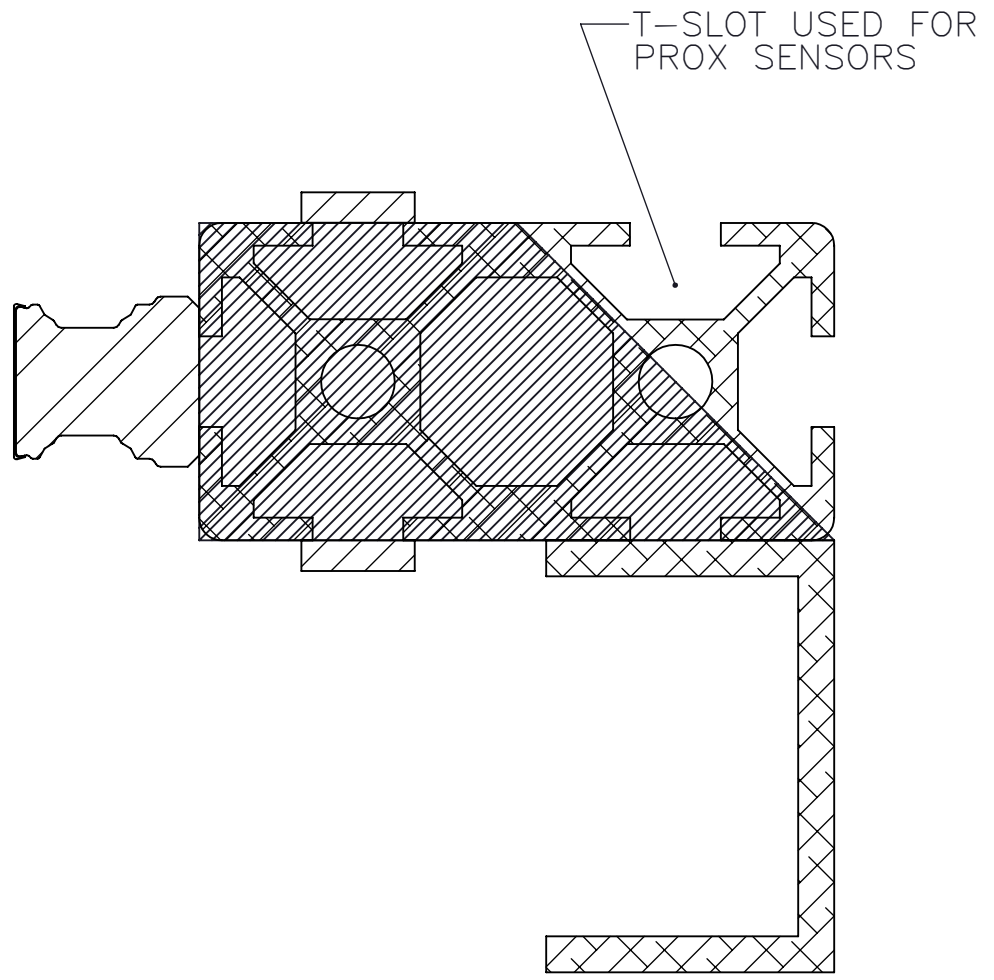
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GANTRY MOUNTING FEATURES


BOTTOM VIEW



SECTION B-B

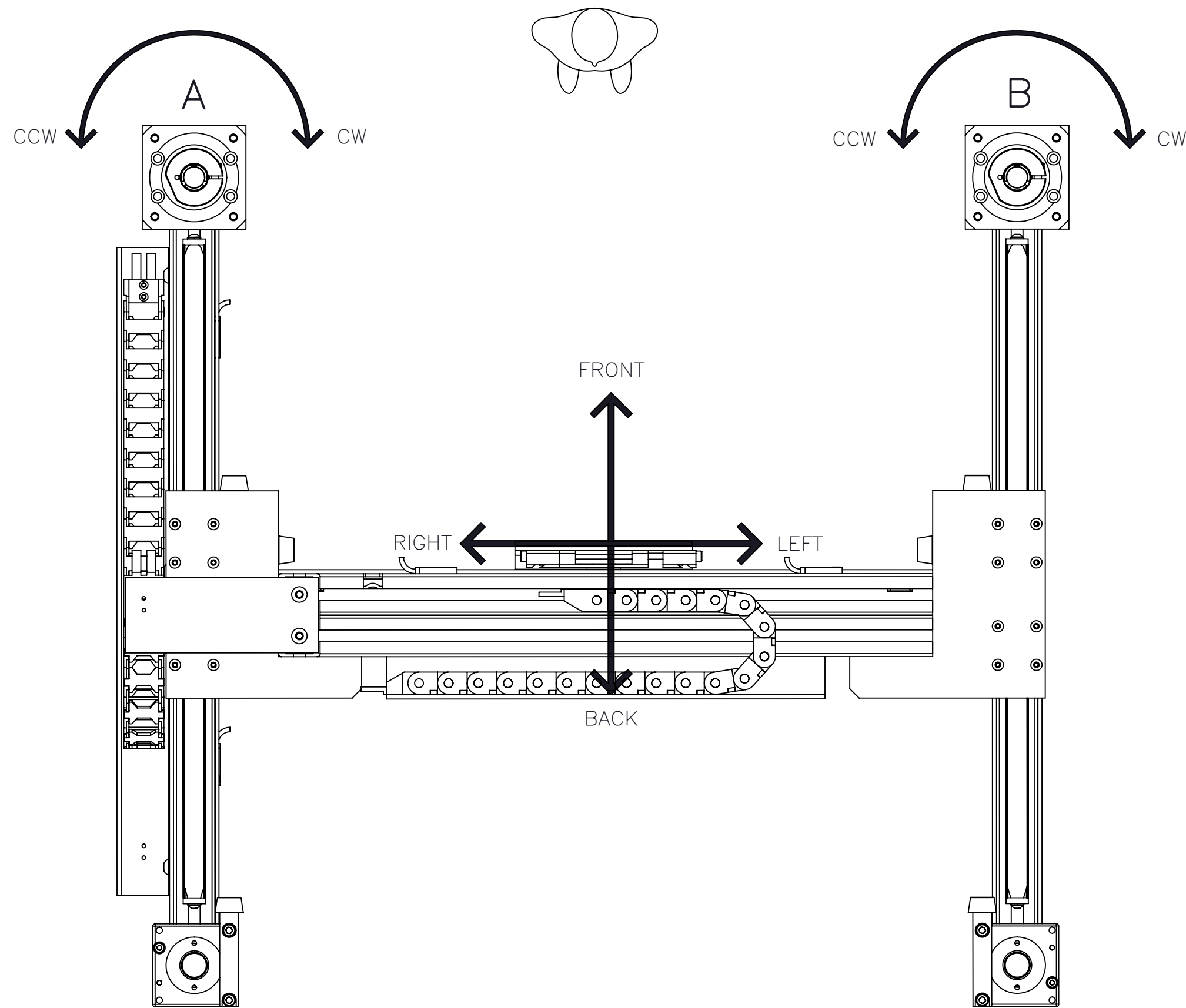


SECTION C-C

 MACRON DYNAMICS INC	DRAWN BY: JB CHECKED BY: -- LAST SAVED BY: Blutinger	DATE: 2/10/2016 DATE: 2/11/2016 DATE: 2/15/2016	MATERIAL:	TITLE: MACRON HBG 12 GANTRY
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS NOTED OTHERWISE:	.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	FINISH:	SCALE 1:1 SHEET SIZE C
	SURFACE FINISH 63	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET 4 OF 6 PART NUMBER MGS-HBG-12-X-X-X	REV 00
	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		Y-AXIS CART MOVEMENT
PULLEY A	PULLEY B	
CW	CW	LEFT
CW	CCW	BACK
CCW	CW	FRONT
CCW	CCW	RIGHT

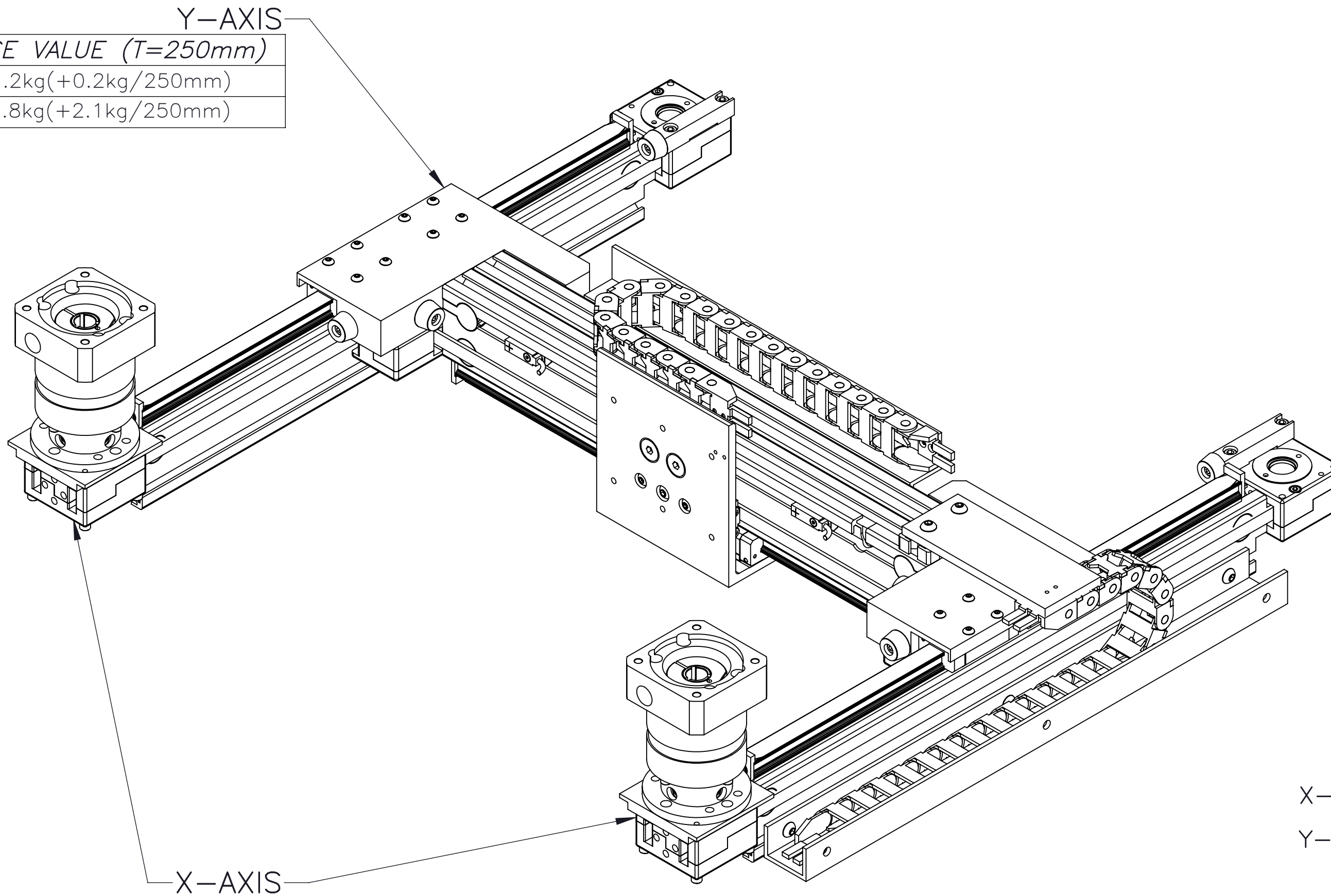
PULLEY ROTATION AND Y-AXIS CART MOVEMENT ARE WITH RESPECT TO THIS GANTRY VIEW

 MACRON DYNAMICS INC	DRAWN BY: JB DATE: 2/10/2016	MATERIAL:	TITLE: MACRON HBG 12 GANTRY
	CHECKED BY: -- DATE: 2/11/2016		
	LAST SAVED BY: Blutinger DATE: 2/15/2016	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES: TOLERANCES UNLESS NOTED OTHERWISE:	
	SURFACE FINISH 63	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	
<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>	SHEET 5 OF 6	PART NUMBER MGS-HBG-12-X-X-X	REV 00

MOTOR SIZING INFORMATION


(INCREMENTAL ADDERS REFER TO MASS PER TRAVEL LENGTH)

PROPERTY	BASE VALUE (T=250mm)
MOVING MASS	1.2kg(+0.2kg/250mm)
SYSTEM MASS	2.8kg(+2.1kg/250mm)



X-TRAVEL = _____ mm
 Y-TRAVEL = _____ mm

PROPERTY	BASE VALUE (T=250mm)
*MOVING MASS	3.2kg(+0.2kg/250mm)
PULLEY PITCH ϕ	33.42mm (1.32")
PULLEY WIDTH	16.3mm (.64")
PULLEY MATERIAL	STEEL
TRAVEL PER REV	105mm
*ADD SYSTEM MASS OF Y-AXIS TO VALUE	

Y-AXIS	MOVING MASS	$(Y-TRAVEL \times .0008) + 0.96 = \text{kg}$
	SYSTEM MASS {1}	$(Y-TRAVEL \times .0085) + 0.72 = \text{kg}$
X-AXIS	MOVING MASS	$(X-TRAVEL \times .0008) + 3.01 + \{1\} = \text{kg}$
BELT MASS		$[(2 \times X-TRAVEL) + Y-TRAVEL] \times 0.0002 + 0.19 = \text{kg}$
 MACRON DYNAMICS INC		DRAWN BY: JB DATE: 2/10/2016 CHECKED BY: -- DATE: 2/11/2016 LAST SAVED BY: Blutinger DATE: 2/15/2016
		MATERIAL: FINISH: UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES: TOLERANCES UNLESS NOTED OTHERWISE: .X \pm .762 .XX \pm .254 .XXX \pm .127 ANG \pm 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.		TITLE: MACRON HBG 12 GANTRY SCALE 1:1 SHEET SIZE C
SURFACE FINISH 63 BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION		SHEET 6 OF 6 PART NUMBER MGS-HBG-12-X-X-X REV 00