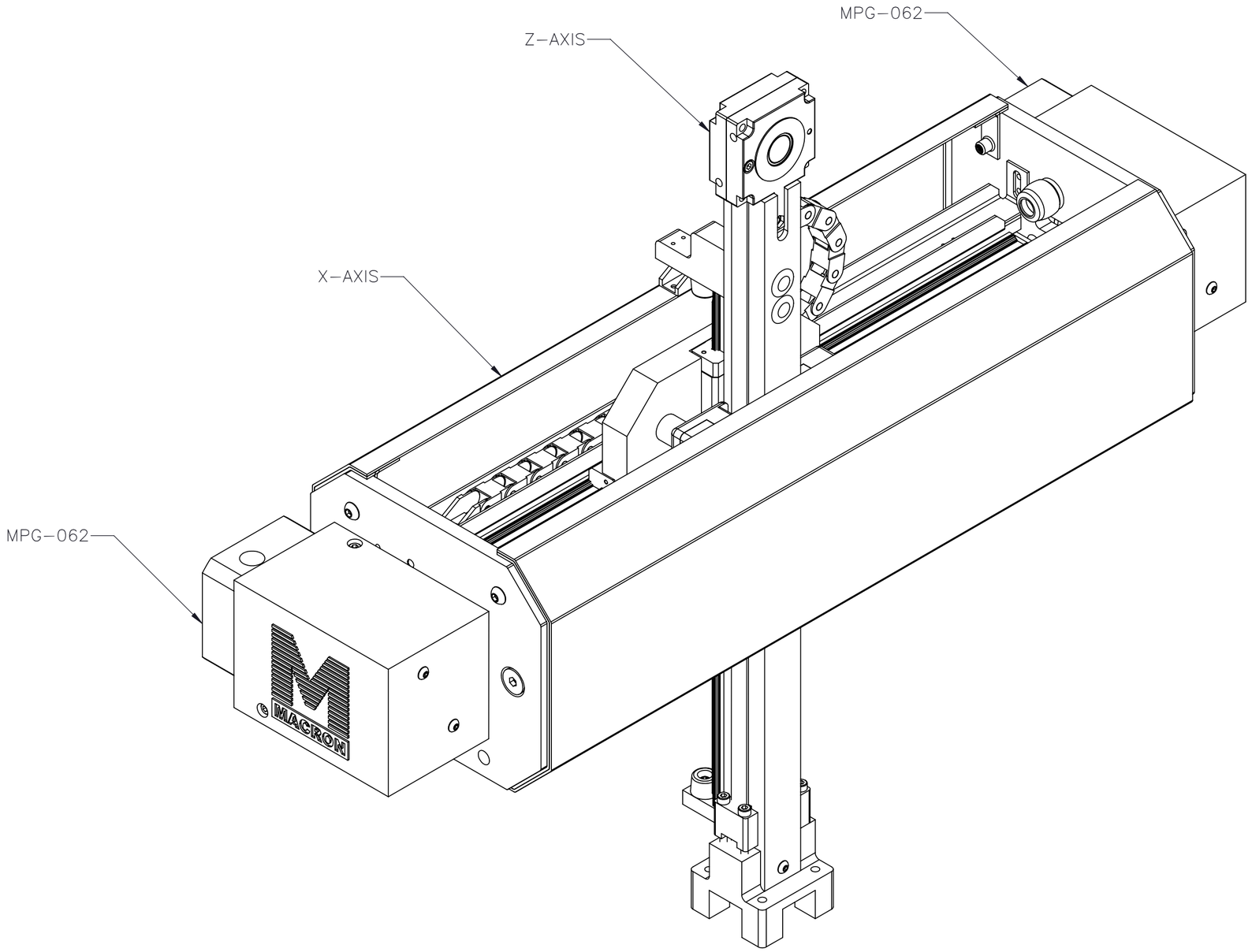
MGS–TBG–12– [ ] –X– [ ]

ENTER Z–AXIS TRAVEL
TRAVEL IN INCREMENTS OF 125mm
TRAVEL LIMITS: 125mm–500mm

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



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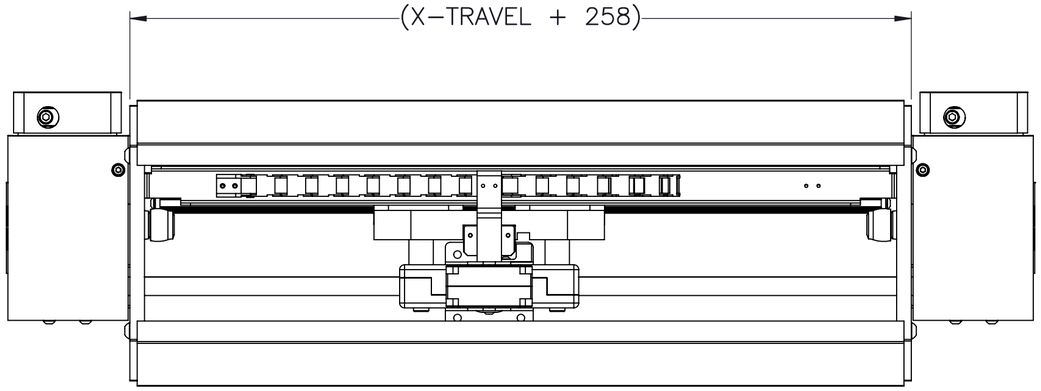
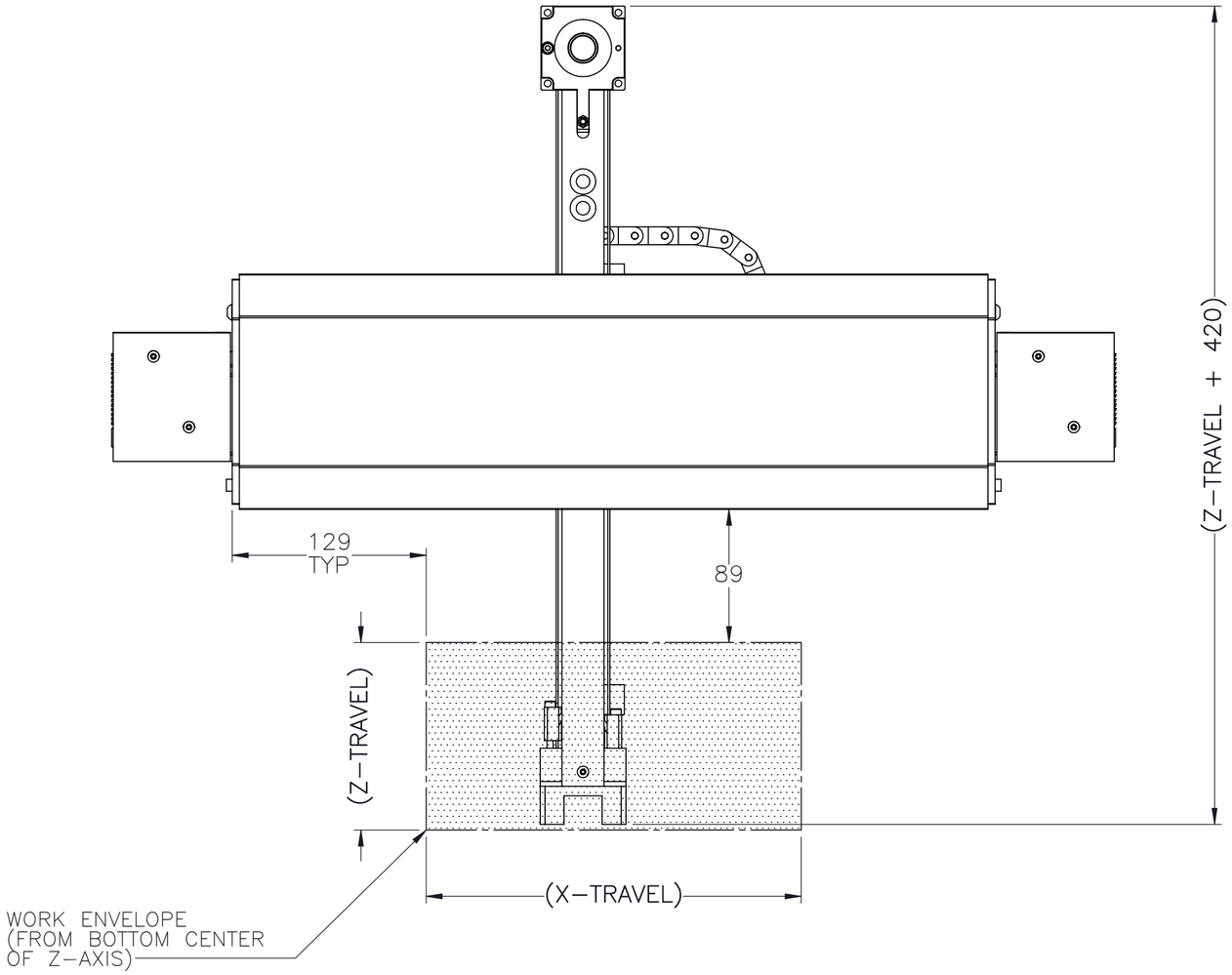
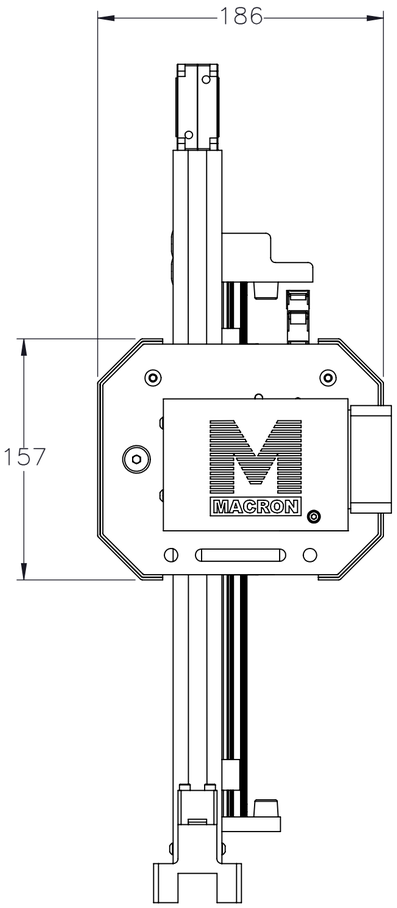
DRAWN BY: JB	DATE: 2/10/2016	MATERIAL:	TITLE: MACRON TBG 12 GANTRY
CHECKED BY: ––	DATE: 2/11/2016		
LAST SAVED BY: JBlutinger	DATE: 2/16/2016	FINISH:	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE: .X ± .762, .XX ± .254, .XXX ± .127, ANG ± 0°30'			SCALE 1:1 / SHEET SIZE C
SURFACE FINISH 63		SHEET 1 OF 5	PART NUMBER MGS–TBG–12–X–X–X / REV 00
BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING			
THIRD ANGLE PROJECTION			

GANTRY FOOTPRINT







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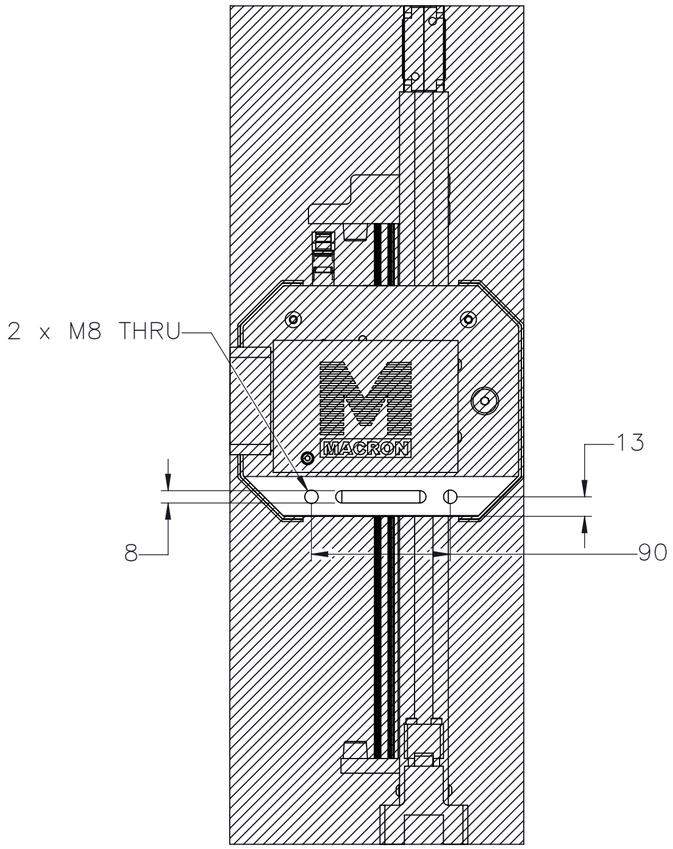
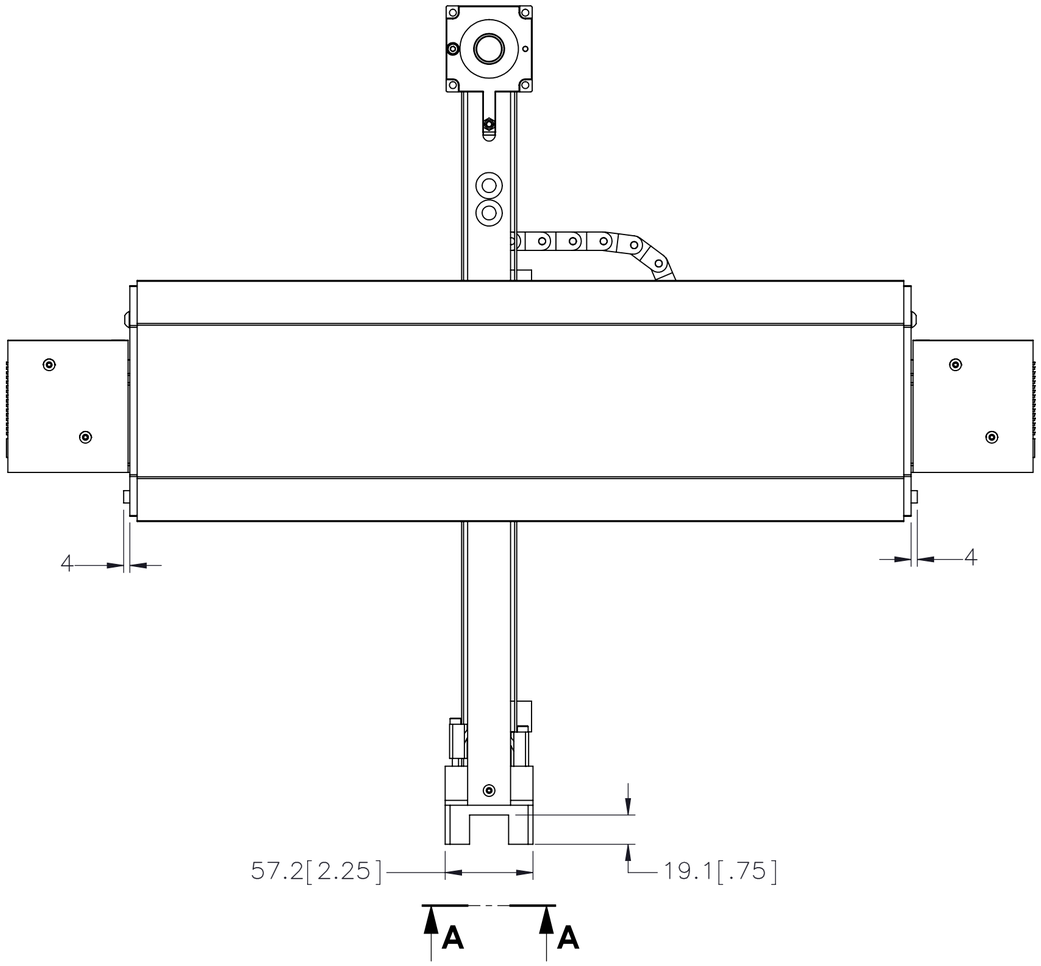
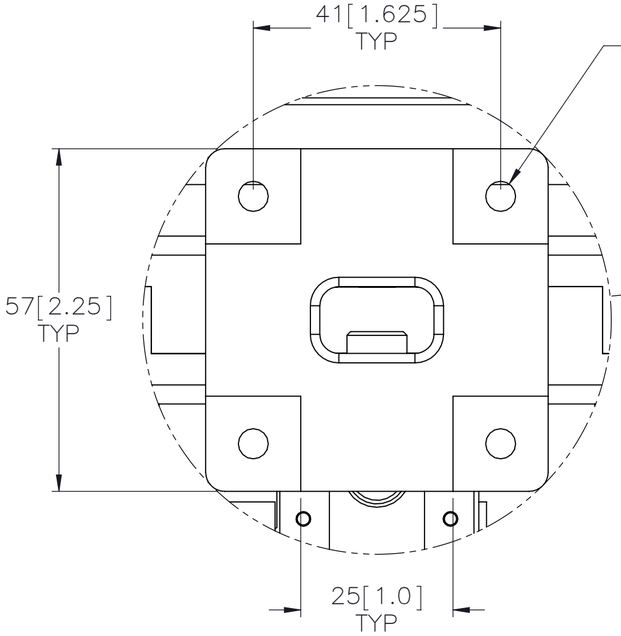
SURFACE FINISH 63		SHEET 2 OF 5	PART NUMBER MGS–TBG–12–X–X–X / REV 00
BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING			
THIRD ANGLE PROJECTION			

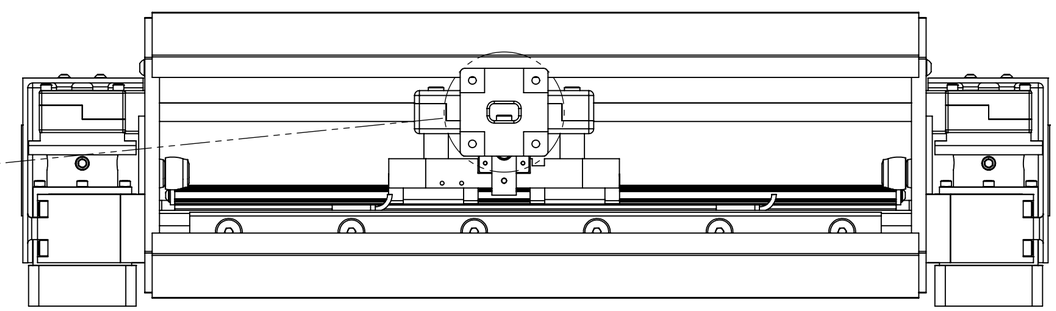
GANTRY MOUNTING FEATURES







DETAIL A



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CHECKED BY: — —	DATE: 2/11/2016		
LAST SAVED BY: JBlutinger	DATE: 2/16/2016	FINISH:	
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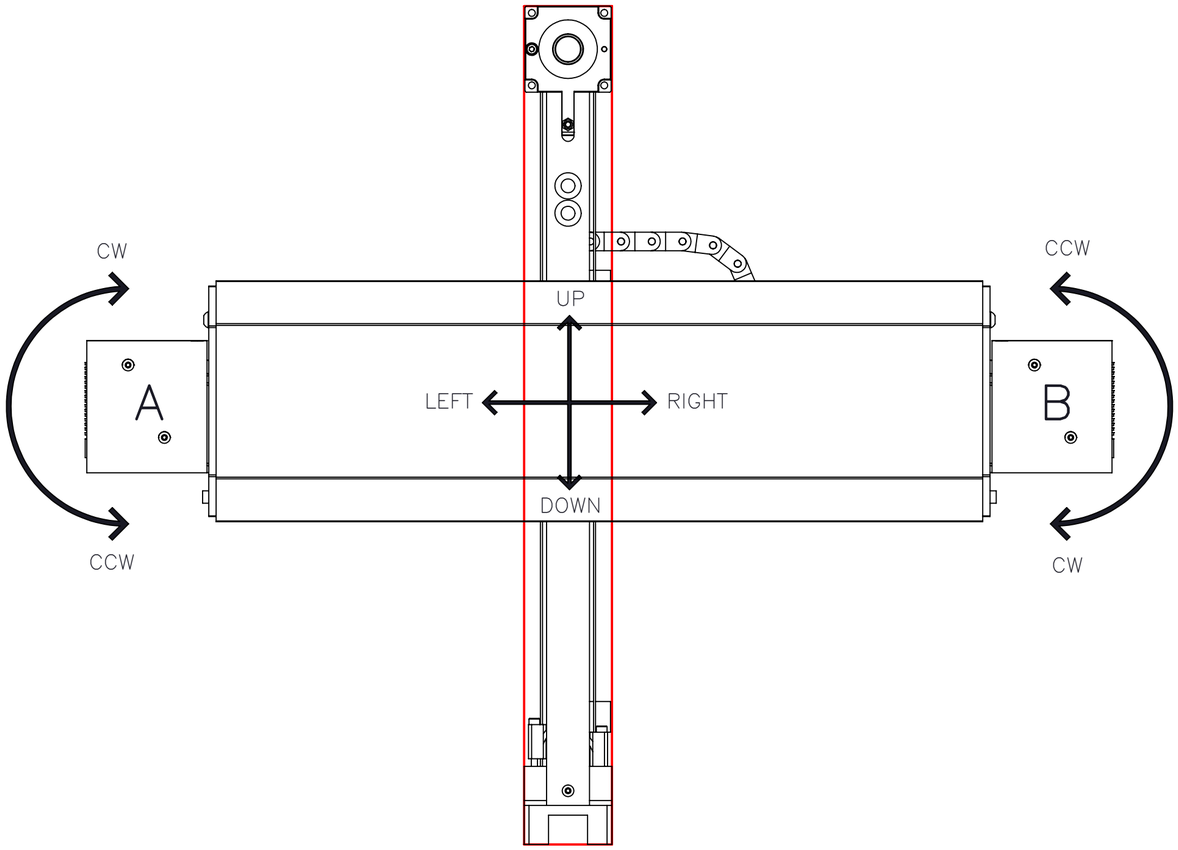
SURFACE FINISH 63		SHEET 3 OF 5	PART NUMBER MGS-TBG-12-X-X-X / REV 00
BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING			
THIRD ANGLE PROJECTION			

MOTOR DYNAMICS

(ASSUMES MOTORS ARE ROTATING AT SAME ANGULAR VELOCITY)



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

PULLEY ROTATION AND Z–AXIS MOVEMENT
ARE WITH RESPECT TO THE THIS GANTRY VIEW

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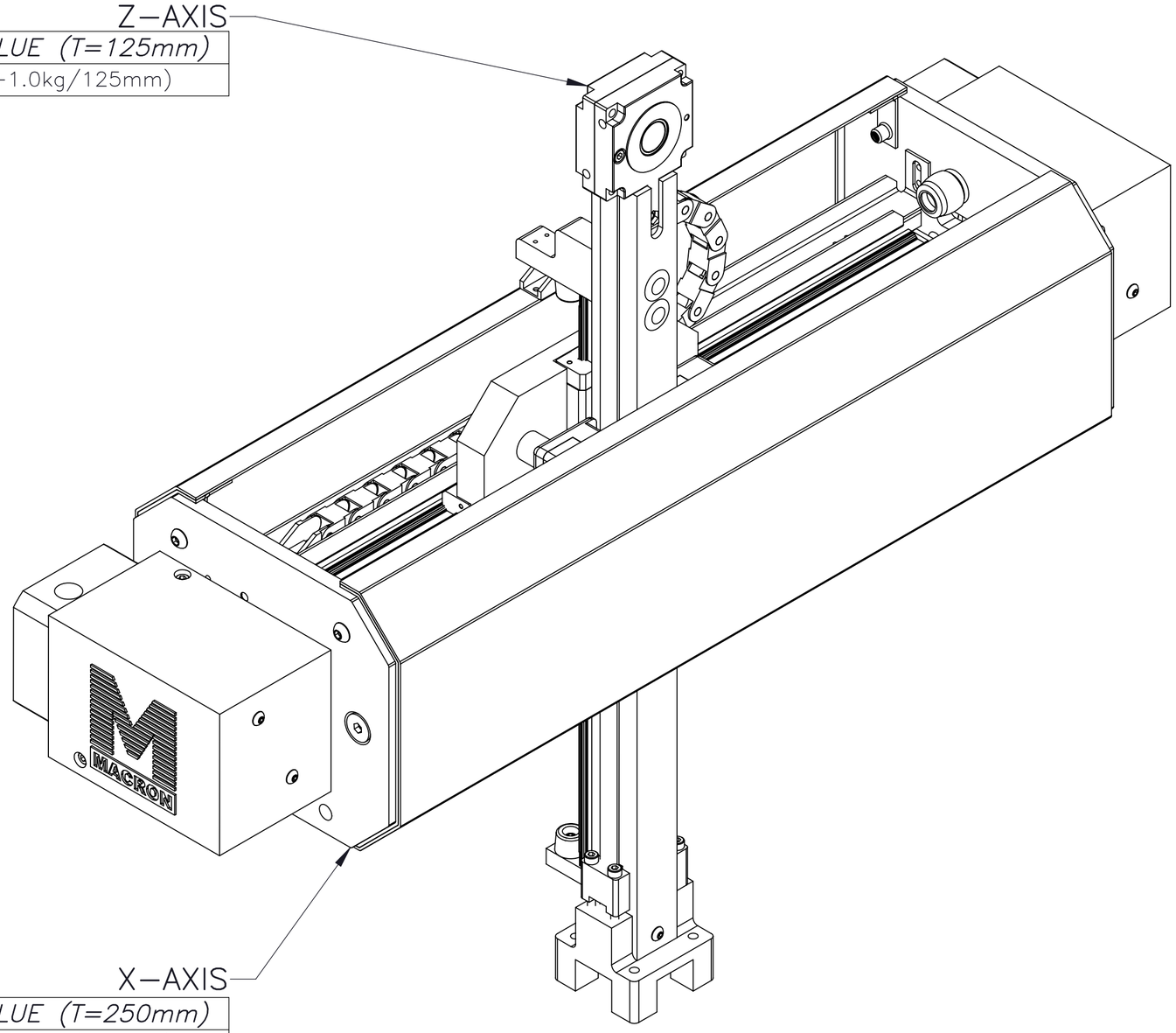
SURFACE FINISH 63		SHEET 4 OF 5	PART NUMBER MGS–TBG–12–X–X–X / REV 00
BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING			
THIRD ANGLE PROJECTION			

MOTOR SIZING INFORMATION

(INCREMENTAL ADDERS REFER TO MASS PER TRAVEL LENGTH)

PROPERTY	*BASE VALUE (T=125mm)*
MOVING MASS	1.7kg(+1.0kg/125mm)



PROPERTY	*BASE VALUE (T=250mm)*
*MOVING MASS	2.0kg(+0.2kg/250mm)
PULLEY PITCH ∅	33.42mm (1.32")
PULLEY WIDTH	16.3mm (.64")
PULLEY MATERIAL	STEEL
TRAVEL PER REV	105mm
*ADD MOVING MASS OF Z–AXIS TO VALUE	

X–TRAVEL = _____ mm

Z–TRAVEL = _____ mm

Z–AXIS	MOVING MASS {1}	(Z–TRAVEL x .0080) + 0.68 = kg
X–AXIS	MOVING MASS	(X–TRAVEL x .0006) + 1.76 + {1} = kg
BELT MASS		[(X–TRAVEL + Z–TRAVEL) x .0002] + 0.16 = kg

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SURFACE FINISH 63

BREAK ALL SHARP EDGES
DIMENSIONAL LIMITS APPLY AFTER FINISHING

THIRD ANGLE PROJECTION

MATERIAL:

FINISH:

TITLE: MACRON TBG 12 GANTRY

SCALE 1:1 | SHEET SIZE C

SHEET	PART NUMBER	REV
5 OF 5	MGS–TBG–12–X–X–X	00