

1

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MOUNTED TO XZ STAND

A

B

C

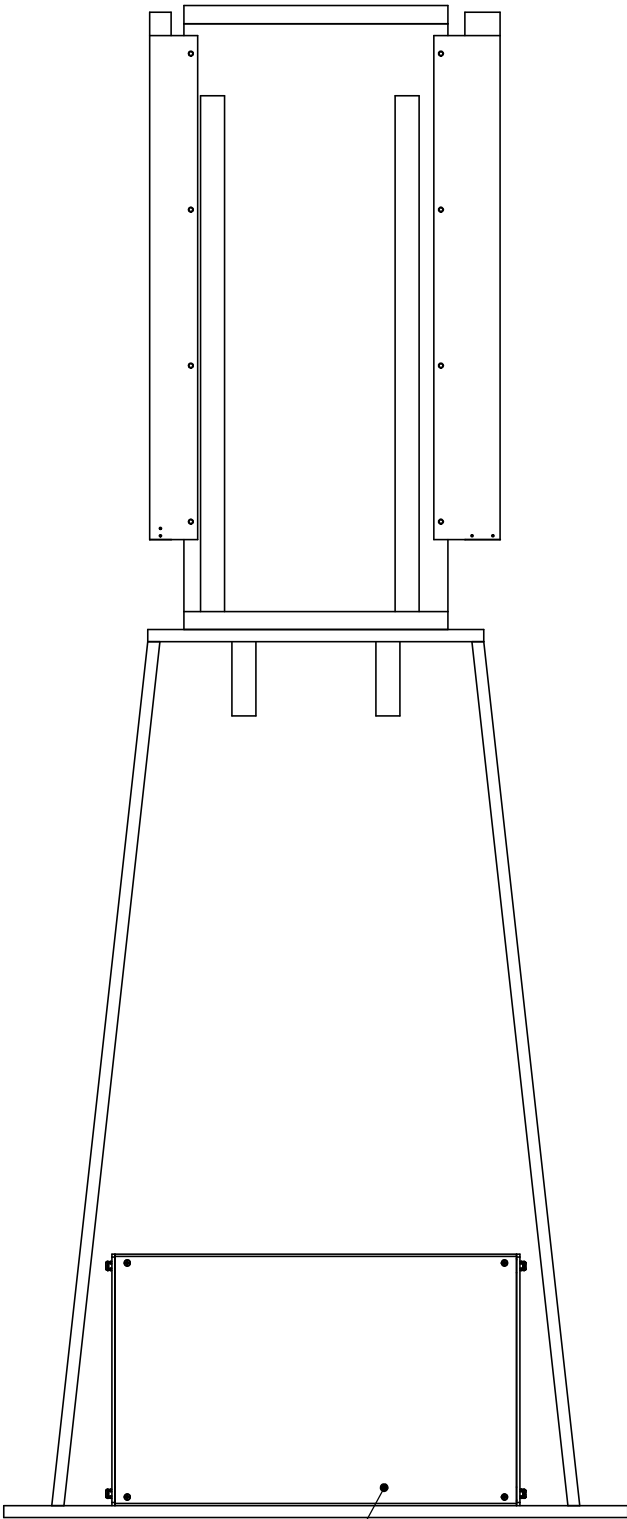
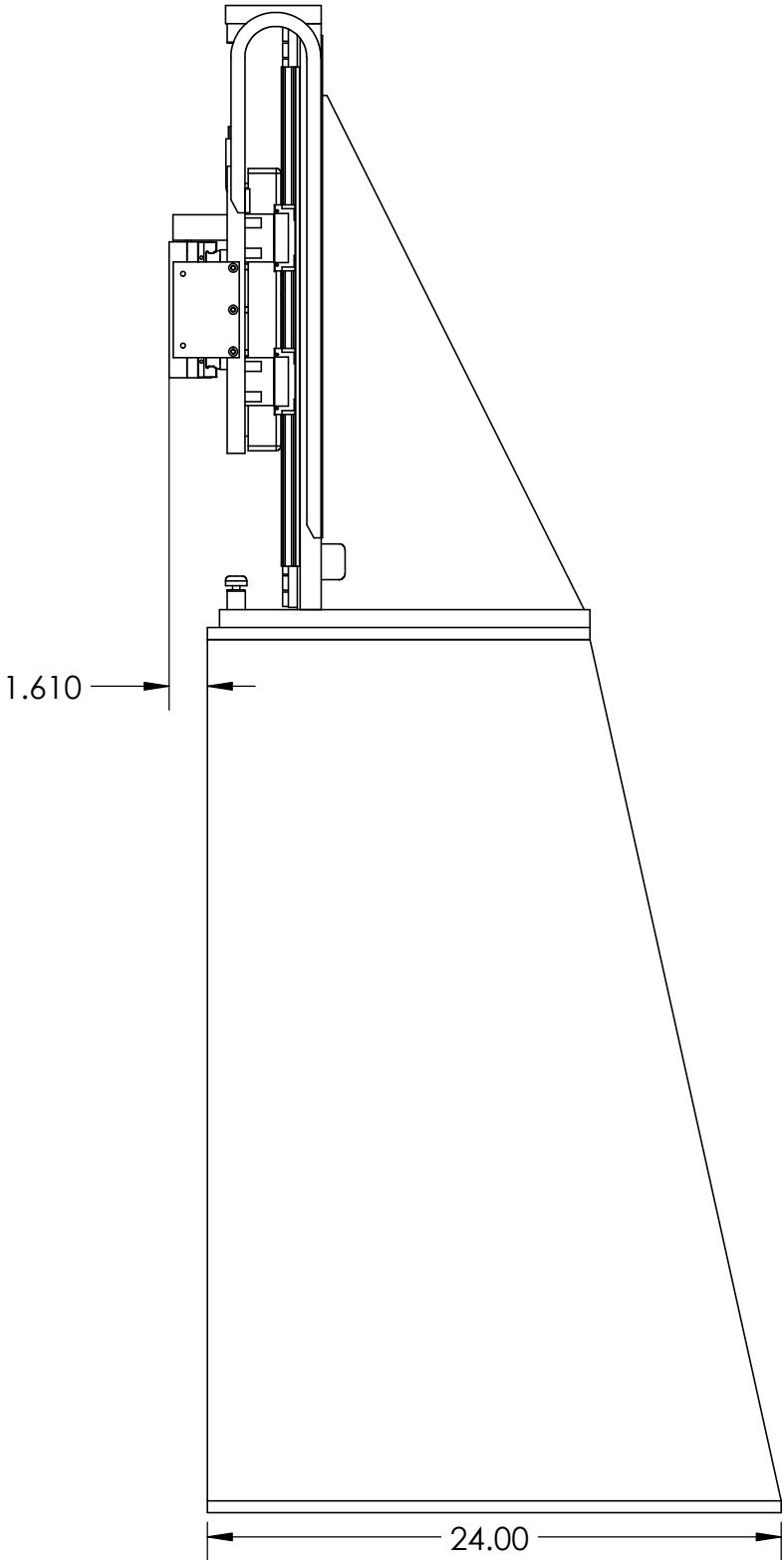
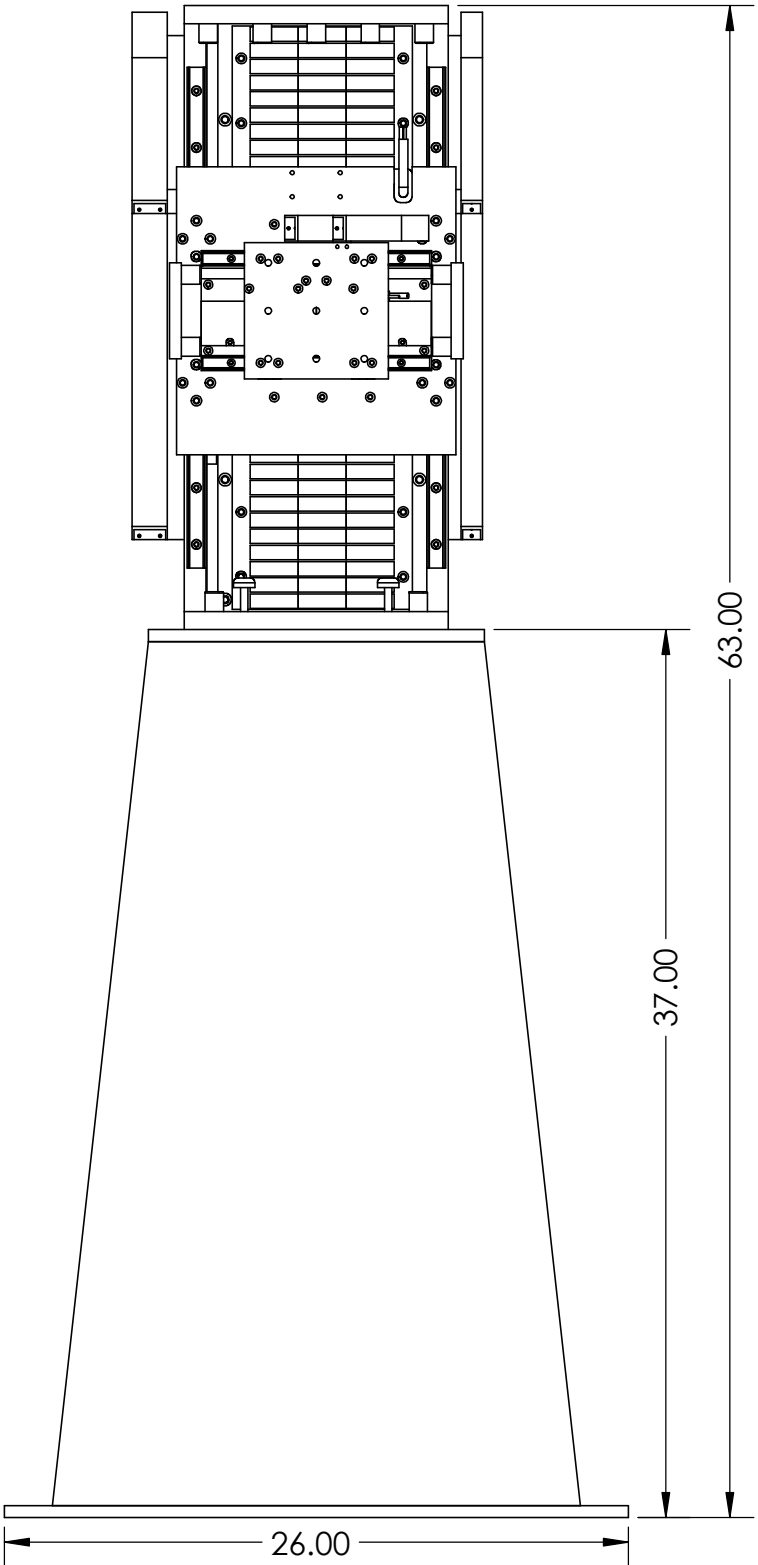
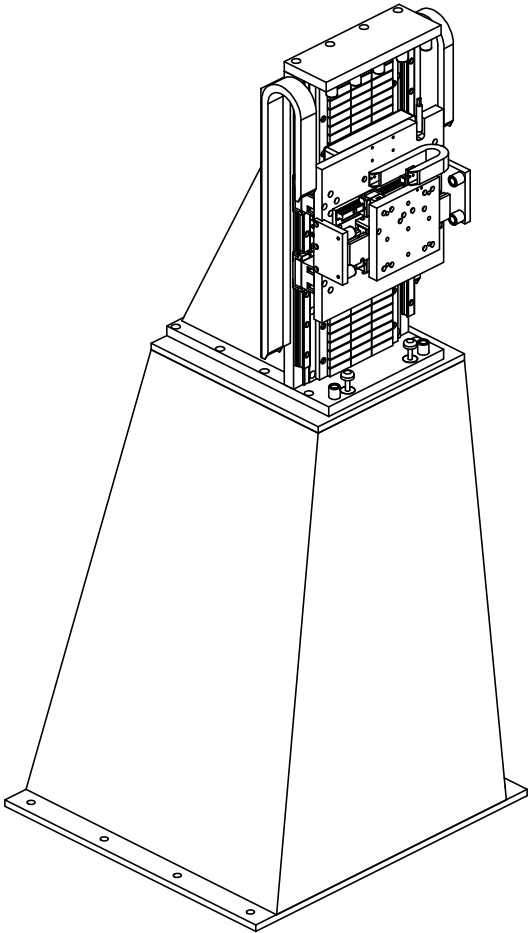
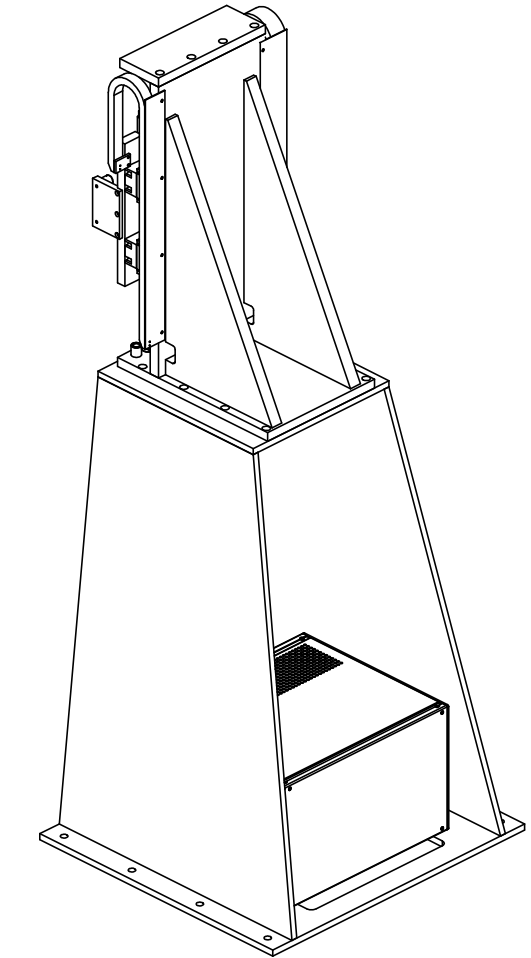
D

A

B

C

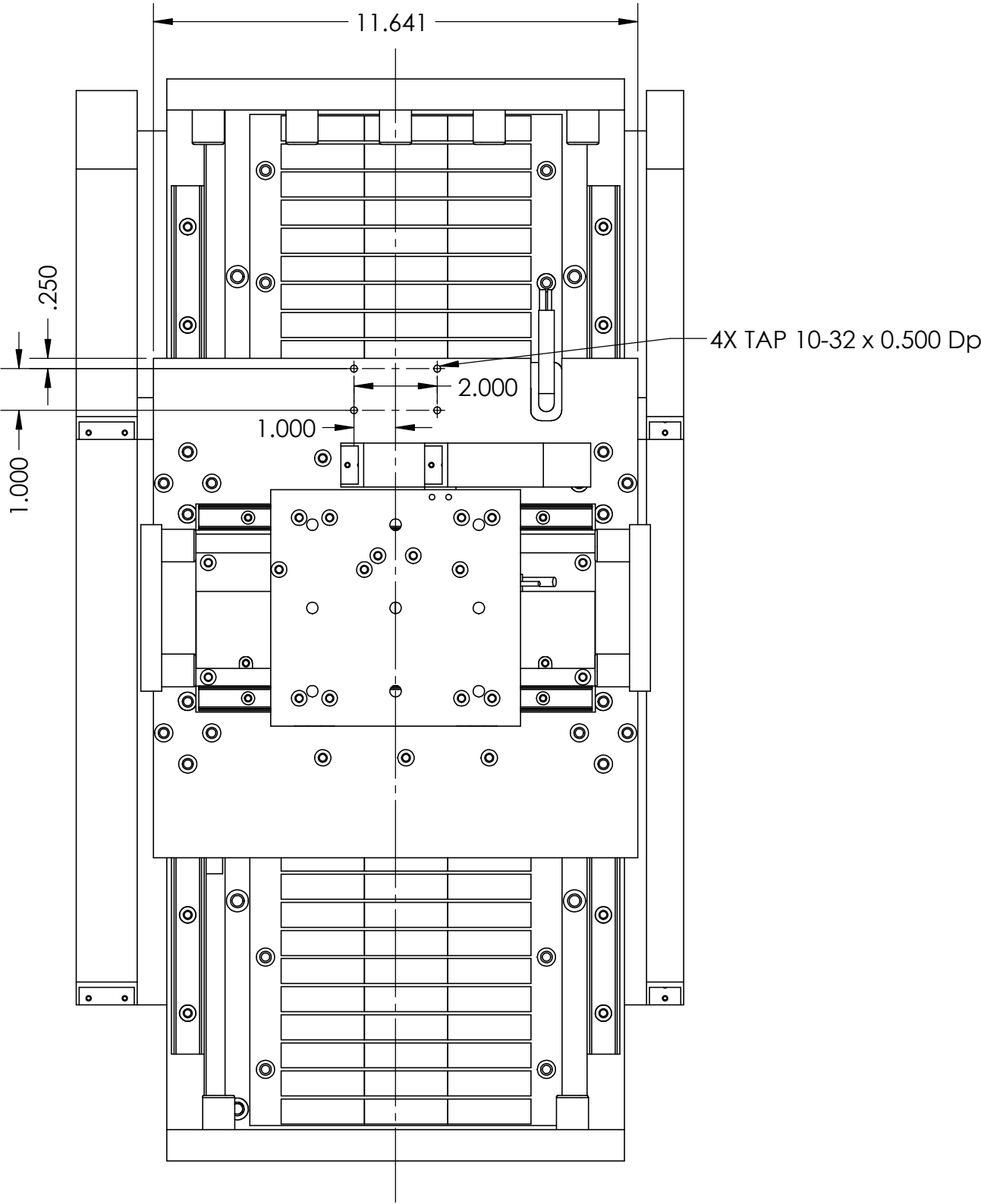
D



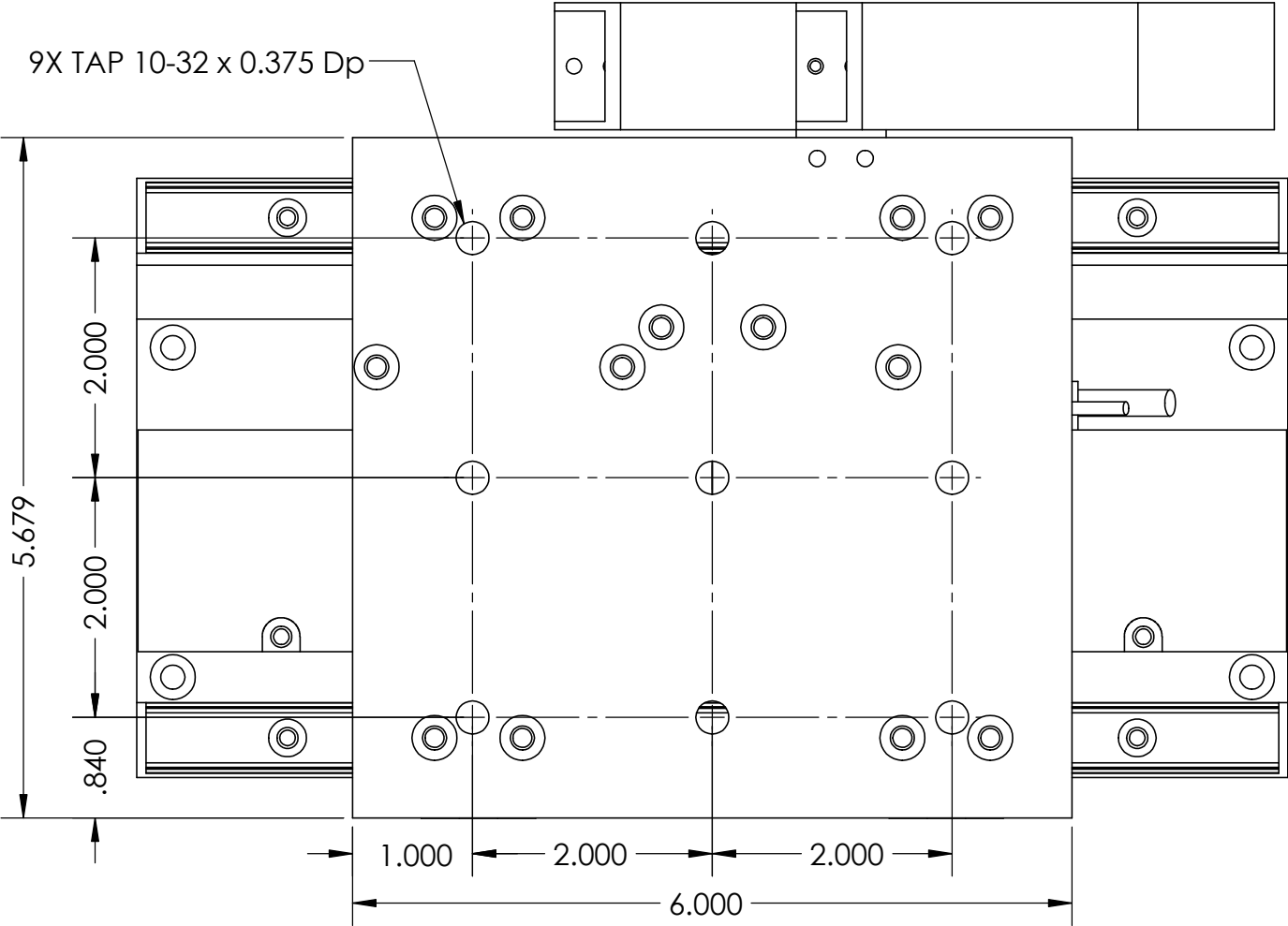
Electronics Enclosure

MOUNTING PROVISIONS

Z-AXIS PAYLOAD MOUNTING HOLES



X-AXIS PAYLOAD MOUNTING HOLES



5

A



1

2

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4

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SYSTEM SPECIFICATIONS

Horizontal X-Axis		
Motor P/N	BLDM-C04	
Stroke	3.50 in	88.9 mm
Encoder Resolution	1 micron	
Bearing Type	Recirculating Ball	
Resistance @ 20C	10.6 ohms	
Inductance @ 20C	10.1 mH	
Electrical Time Constant	1.0 msec	
Motor Constant	2.1 LBS/SQRT(Watt)	9.4 N/SQRT(Watt)
Force Constant	6.8 LBS/Amp	30.5 N/Amp
Back EMF	0.77 V/ips	30.4 V/m/sec
Force @ 100% Duty	13.0 lbs	58.0 N
Power @ 100% Duty	49.5 watts	
Current @ 100% Duty	1.9 amps	
Force @ 10% Duty	39.0 lbs	173 N
Power @ 10% Duty	445 watts	
Current @ 10% Duty	5.7 amps	
Moving Mass	3.75 LBS	1.7 Kg
Total Mass	11 LBS	5 Kg

Vertical Z-Axis		
Motor P/N	BLSM-2F	
Stroke	10.0 in	254 mm
Encoder Resolution	1 micron	
Bearing Type	Recirculating Ball	
Resistance @ 20C	2.75 ohms	
Inductance @ 20C	2.5 mH	
Electrical Time Constant	8.5 msec	
Motor Constant	15.7 LBS/SQRT(Watt)	69.5 N/SQRT(Watt)
Force Constant	26 LBS/Amp	115.4 N/Amp
Back EMF	0.77 V/ips	30.4 V/m/sec
Force @ 100% Duty	200 lbs	888 N
Power @ 100% Duty	163 watts	
Current @ 100% Duty	7.7 amps	
Force @ 10% Duty	600 lbs	2664 N
Power @ 10% Duty	14617 watts	
Current @ 10% Duty	23.1 amps	
Moving Mass	152 LBS	69 Kg
Total Mass	52 LBS	23.5 Kg

NOTE:
- Moving and Total Mass are per individual stage axis.
- XZ Gantry total mass is 1 60 Lbs [72.5 Kg](approx.)
- XZ Stand total mass is 1 15 Lbs [52 Kg](approx.)