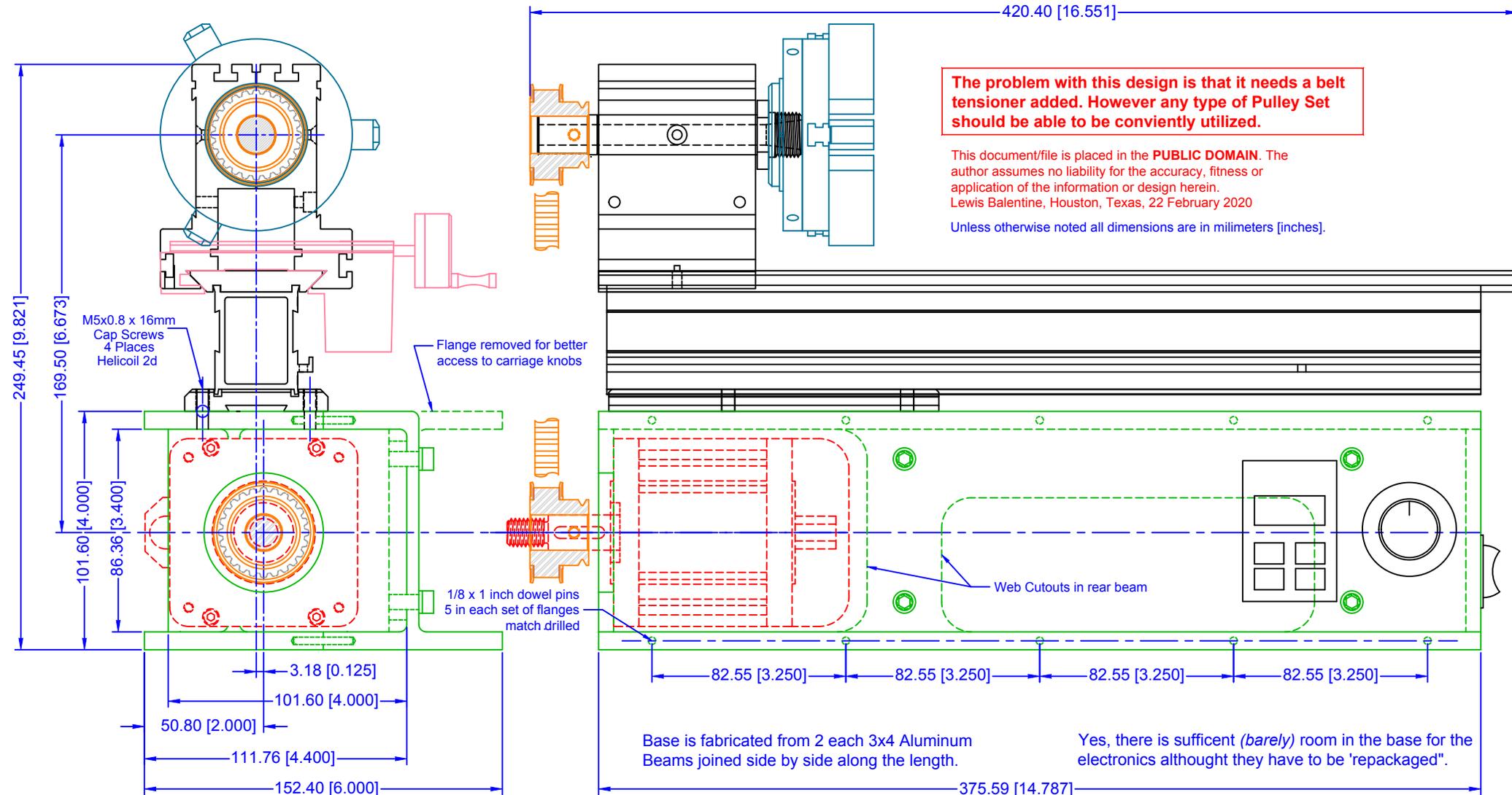


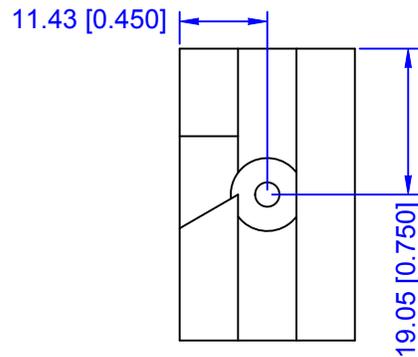
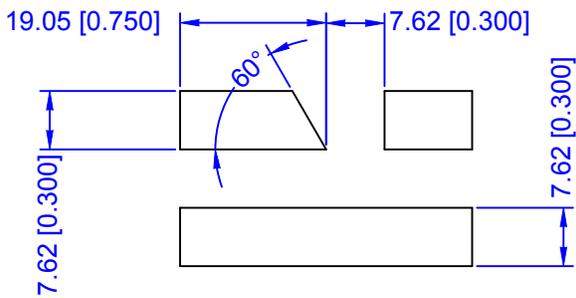
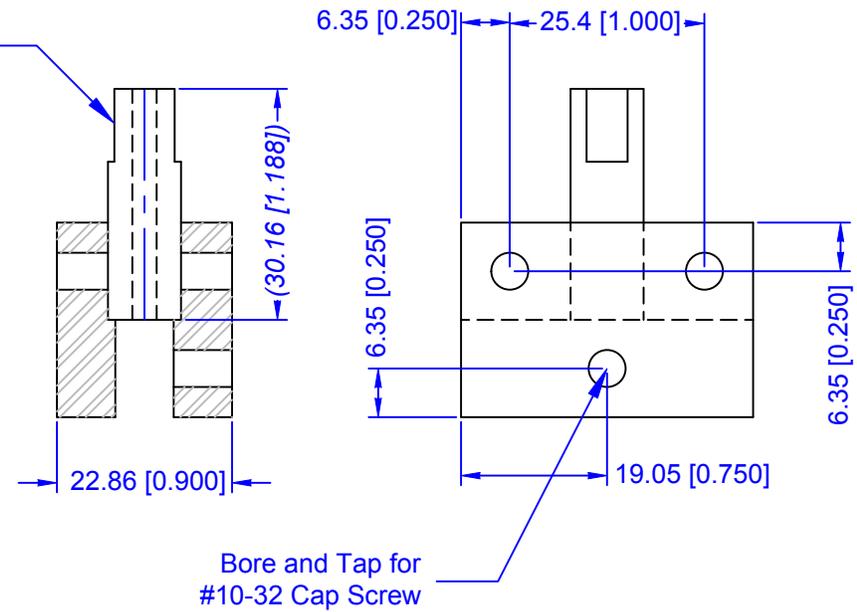
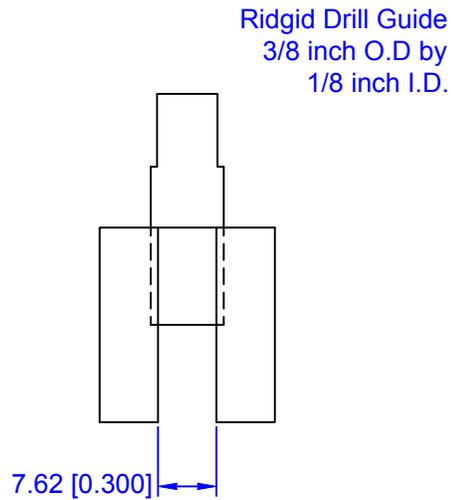
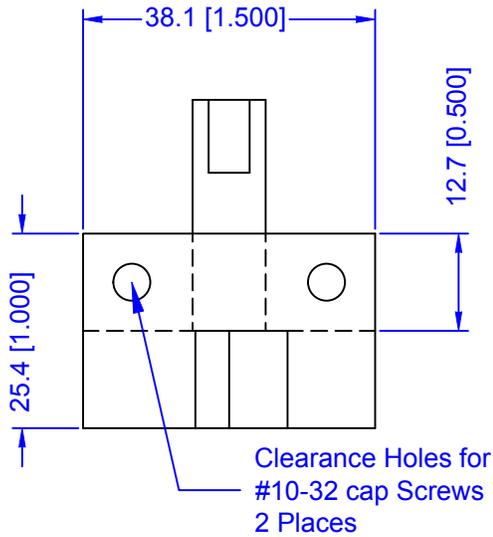
<https://www.bbman.com/belt-length-calculator/>

24 Tooth XL Pulleys, Pitch Diameter - 38.2 mm
Next Available Belt Pitch Length 460 mm (18.11 inches)
Center Distance Using Next Available Belt 170.0 mm

I came up with this concept because I needed to put the "Micro" back into "Micro lathe". I believe this is about as compact as is practical. It also offers advantage of ready access to the pulleys as well as a semblance of protection from swarf for the motors and electronics (*that assumes a screen cover is fitted to the rear*). If extra vertical stability is needed then the front flange can be clamped to the working surface. Eventually a power feed is to be added. A Nema 17 motor will be installed inside the cavity with the shaft exiting the right end plate.

This revision just deals with some of the realities of fitting 7.5 pounds of stuff into a 5 pound box. Offset Lathe by 1/8th inch.





1/8 Inch Dowel Drill Jig

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Unless otherwise noted all dimenions are in millimeters [inches]

Note: This is made from three peeces a scrap material cut from the flange of the 3x4 Aluminum beam. Mill surfaces should face inside.

Description	Qty Reqd	On Order	On Hand
<i>Lathe Base</i>			
Aluminum Beam 3x4 inch, `4.787 long	2		2
Aluminum Beam 3x4 inch, 3.4 long	2		2
Dowel Pins 1/8 dia, 1 inch long (SST 18-8)	18	25	
Helicoil, 304 SST, M5x0.8 x 1.5D (7.5mm installed)	8	25	
Helicoil Install Kit (drill, tap, tool), M5x0.8	1	1	
Button Head Cap Screw, M5x0.8, 100mm long, A2 SST	4	10	
Button Head Cap Screw, M5x0.8, 16mm long, A2 SST	4	10	
Hex Nut, M5x0.8, A2 SST	4	25	
Flat Washer, M5, A2 SST	12	50	
Flat Washer, M5, A2 SST		50	
Button Head Cap Screw, M4x0.7, 16mm long	2	---	
Vibra-TITE Nickel Graphite Anti-seize Compound 9072	1	---	

<i>Drilling Jig</i>			
Drill Press	1		1
Ridgid Drill Bushing, 1/8 ID, 3/8 OD, 1-3/16 Long	1	1	
Hex Socket Head Cap Screw, #10-32, 1-1/2 long, Gr 9	3	10	
Square Nuts, #10-32	2		2
Flat Washers, M5. A2 SST	4	---	
Lock Washer, M5, A2 SST	2	---	
Drill and Tap Set, #10-32	1		1

<i>Motor Mounting Hardware</i>			
Button Head Cap Screw, M4x0.7, 16mm long	4	10	
Flat Washers, M4, A2 SST	4	10	
Lock Washer, M4, A2 SST	4	10	
Vibra-TITE VC3 Thread-locker	1	1	

<i>Lathe Mounting Hardware</i>			
Button Head Cap Screw, M5x0.8, 25 long, A2 SST	4	10	
Flat Washer, M5, A2 SST	4	---	
Lock Washer, M5, A2 SST	4	---	
Vibra-TITE Nickel Graphite Anti-seize Compound 9072	1	---	