

Linear Distance with Stepper Motors and Velmex Lead Screws (per minute)

		Velmex Lead Screw Code							
		BiSlide®	E04	E02	E01			M01	M02
		XSlide™	E04	E02	E01	E50	E25	M01	M02
		UniSlide®	W4	W2 P5	W1 P10	B P20	C P40	K1 Q1	K2 Q2
Step Motor Rate: in half Steps/Sec.	Screw Pitch >	0.400"	0.200"	0.100"	0.050"	0.025"	1 mm	2 mm	
	RPM								
100	15	6 in/min	3 in/min	1.5 in/min	0.75 in/min	0.38 in/min	0.59 in/min	1.18 in/min	
		15.24 cm/min	7.62 cm/min	3.81 cm/min	1.91 cm/min	0.95 cm/min	1.5 cm/min	3 cm/min	
500	75	30 in/min	15 in/min	7.5 in/min	3.75 in/min	1.88 in/min	2.95 in/min	5.91 in/min	
		76.2 cm/min	38.1 cm/min	19.05 cm/min	9.53 cm/min	4.76 cm/min	7.5 cm/min	15 cm/min	
1000	150	60 in/min	30 in/min	15 in/min	7.5 in/min	3.75 in/min	5.91 in/min	11.81 in/min	
		152.4 cm/min	76.2 cm/min	38.1 cm/min	19.05 cm/min	9.53 cm/min	15 cm/min	30 cm/min	
1500	225	90 in/min	45 in/min	22.5 in/min	11.25 in/min	5.63 in/min	8.86 in/min	17.72 in/min	
		228.6 cm/min	114.3 cm/min	57.15 cm/min	28.58 cm/min	14.29 cm/min	22.5 cm/min	45 cm/min	
2000	300	120 in/min	60 in/min	30 in/min	15 in/min	7.5 in/min	11.81 in/min	23.62 in/min	
		304.8 cm/min	152.4 cm/min	76.2 cm/min	38.1 cm/min	19.05 cm/min	30 cm/min	60 cm/min	
3000	450	180 in/min	90 in/min	45 in/min	22.5 in/min	11.25 in/min	17.72 in/min	35.43 in/min	
		457.2 cm/min	228.6 cm/min	114.3 cm/min	57.15 cm/min	28.58 cm/min	45 cm/min	90 cm/min	
4000	600	240 in/min	120 in/min	60 in/min	30 in/min	15 in/min	23.62 in/min	47.24 in/min	
		609.6 cm/min	304.8 cm/min	152.4 cm/min	76.2 cm/min	38.1 cm/min	60 cm/min	120 cm/min	
6000	900	360 in/min	180 in/min	90 in/min	45 in/min	22.5 in/min	35.43 in/min	70.87 in/min	
		914.4 cm/min	457.2 cm/min	228.6 cm/min	114.3 cm/min	57.15 cm/min	90 cm/min	180 cm/min	
Limit of VXM Controller (6000)									
8000	1200	480 in/min	240 in/min	120 in/min	60 in/min	30 in/min	47.24 in/min	94.49 in/min	
		1219.2 cm/min	609.6 cm/min	304.8 cm/min	152.4 cm/min	76.2 cm/min	120 cm/min	240 cm/min	

Linear Distance with Stepper Motors and Velmex Lead Screws (per second)

		Velmex Lead Screw Code							
		BiSlide®	E04	E02	E01			M01	M02
		XSlide™	E04	E02	E01	E50	E25	M01	M02
		UniSlide®	W4	W2 P5	W1 P10	B P20	C P40	K1 Q1	K2 Q2
Step Motor Rate: in half Steps/Sec.	Screw Pitch >	0.400"	0.200"	0.100"	0.050"	0.025"	1 mm	2 mm	
	RPS								
100	0.25	0.1 in/sec	0.05 in/sec	0.025 in/sec	0.0125 in/sec	0.0063 in/sec	0.0098 in/sec	0.0196 in/sec	
		0.254 cm/sec	0.127 cm/sec	0.0635 cm/sec	0.0318 cm/sec	0.0158 cm/sec	0.025 cm/sec	0.05 cm/sec	
500	1.25	0.5 in/sec	0.25 in/sec	0.125 in/sec	0.0625 in/sec	0.0313 in/sec	0.0491 in/sec	0.0985 in/sec	
		1.27 cm/sec	0.635 cm/sec	0.3175 cm/sec	0.1588 cm/sec	0.0793 cm/sec	0.125 cm/sec	0.25 cm/sec	
1000	2.5	1 in/sec	0.5 in/sec	0.25 in/sec	0.125 in/sec	0.0625 in/sec	0.0985 in/sec	0.1968 in/sec	
		2.54 cm/sec	1.27 cm/sec	0.635 cm/sec	0.3175 cm/sec	0.1588 cm/sec	0.25 cm/sec	0.5 cm/sec	
1500	3.75	1.5 in/sec	0.75 in/sec	0.375 in/sec	0.1875 in/sec	0.0938 in/sec	0.1476 in/sec	0.2953 in/sec	
		3.81 cm/sec	1.905 cm/sec	0.9525 cm/sec	0.4763 cm/sec	0.2381 cm/sec	0.375 cm/sec	0.75 cm/sec	
2000	5	2 in/sec	1 in/sec	0.5 in/sec	0.25 in/sec	0.125 in/sec	0.1968 in/sec	0.3936 in/sec	
		5.08 cm/sec	2.54 cm/sec	1.27 cm/sec	0.635 cm/sec	0.3175 cm/sec	0.5 cm/sec	1 cm/sec	
3000	7.5	3 in/sec	1.5 in/sec	0.75 in/sec	0.375 in/sec	0.1875 in/sec	0.2953 in/sec	0.5905 in/sec	
		7.62 cm/sec	3.81 cm/sec	1.905 cm/sec	0.9525 cm/sec	0.4763 cm/sec	0.75 cm/sec	1.5 cm/sec	
4000	10	4 in/sec	2 in/sec	1 in/sec	0.5 in/sec	0.25 in/sec	0.3936 in/sec	0.7873 in/sec	
		10.16 cm/sec	5.08 cm/sec	2.54 cm/sec	1.27 cm/sec	0.635 cm/sec	1 cm/sec	2 cm/sec	
6000	15	6 in/sec	3 in/sec	1.5 in/sec	0.75 in/sec	0.375 in/sec	0.5905 in/sec	1.1811 in/sec	
		15.24 cm/sec	7.62 cm/sec	3.81 cm/sec	1.905 cm/sec	0.9525 cm/sec	1.5 cm/sec	3 cm/sec	
Limit of VXM Controller (6000)									
8000	20	8 in/sec	4 in/sec	2 in/sec	1 in/sec	0.5 in/sec	0.7873 in/sec	1.5748 in/sec	
		20.32 cm/sec	10.16 cm/sec	5.08 cm/sec	2.54 cm/sec	1.27 cm/sec	2 cm/sec	4 cm/sec	

Conditions:

- Calculated with VXM™ Motor Controller which operates at 400 half-steps per revolution
- Standard motor resolution is 1.8° per full step or 0.9° per half-step with the VXM