

## Shortest Advance with VXM and 1.8° (200 step) Step Motor

The increment of a single half-step\* is

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
<b>Lead Screw Pitch &gt;</b>	<b>0.400"</b>	<b>0.200"</b>	<b>0.100"</b>	<b>0.050"</b>	<b>0.025"</b>	<b>1 mm</b>	<b>2 mm</b>
<b>Inches per Step</b>	0.001	0.0005	0.00025	0.000125	0.00006	0.0001	0.0002
<b>Millimeters per Step</b>	0.0254	0.0127	0.00635	0.003175	0.00158	0.0025	0.005
<b>Microns per Step</b>	25.4	12.7	6.35	3.175	1.5875	2.5	5

- 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

\*System step resolution or smallest repeatable move is dependent on system orientation, rigidity, friction, wear and applied load.

† Velmex also offers Vexta High Resolution 0.9° motors. When driven by the VXM, resolution is 800 steps/rev.

This effectively doubles the resolution but halves the translation speed.

Speed can also be reduced with the insertion of a gear head between the motor and stage.