The VXM's acceleration setting range is 1 to 127 with the units being 4000 steps/second.

The VXM uses a start and stop speed derived from the acceleration value. The start/stop speed, also known as base speed, is an instantaneous speed the step motor can be commanded to change to without loss of synchronism.

Under high acceleration the motor will momentarily lag a small amount from its commanded position. Too high an acceleration setting will produce motor lag of more than 1 motor pole (7.2 degrees = 8 steps) resulting in loss of synchronism (motor stall.)

Refer to the table at the right for corresponding value for acceleration values and start/stop speeds.

The standard move produced from an Index is a trapezoidal profile. If the distance is too short to reach the set speed the move is a triangular profile. When an index distance is less than 3 steps the VXM runs at the start/stop speed or the set speed whichever is less (no acceleration or deceleration.) When the set speed is below start/stop the move will be run at the set speed (no acceleration or deceleration.)

When "I" = 1200, "S" = 2000, and "A" = 2 = 8000 steps/sec/sec:

When "I" = 400, "S" = 3000, and "A" = 1 = 4000 steps/sec/sec:

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