02-11-13

Feed Motor Measurements

Elite Model 3

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | 125 Balls in Hopper | | 0 Balls in Hopper | |  |
| Dial Setting | PWM Duty Cycle (%) | Motor Voltage (V) | Motor Current (A)  Note 1 | Seconds Per Ball | Motor Current (A) | Seconds Per Ball | RPM |
| Fastest | 100 | 12.8 | 0.55-0.80 | 1.6 | 0.26 | 1.5 | 10 |
| 2 | 92 | 12.0 | 0.55-0.80 | 1.7 | 0.25 | 1.6 | 9.4 |
| 4 | 80 | 10.6 | 0.45-0.75 | 2.1 | 0.24 | 1.9 | 7.9 |
| 6 | 69 | 9.0 | 0.45-0.75 | 2.4 | 0.23 | 2.3 | 6.5 |
| 8 | 59 | 7.4 | 0.45-0.75 | 3.0 | 0.22 | 2.8 | 5.4 |
| 10 | 47 | 6.4 | 0.35-0.60 | 4.3 | 0.21 | 3.6 | 4.1 |
| 12 | 35 | 4.0 | 0.35-0.60 | 6.4 | 0.19 | 5.3 | 2.8 |
| Slowest | 24 | 3.0 | 0.35-0.60 | 11.0 | 0.18 | 7.7 | 1.9 |

Note 1: When hopper is filled with 125 balls, motor current is very inconsistent due to the stirring of the balls.

Note 2: Hopper spec is 160 balls max, but I test with 125 for in-office testing to alleviate balls going over edge and potentially damaging other equipment.