## Momentum spring data

Model	K-value
M90	404
M100	471
M110	565
M120	723
M130	914
M140	971
M150	1072
M160	1196

**Download** Excel based Momentum Spring Calculator & manuals:

www.atomcustomparts.com/momentum



## Momentum M140 (K971)

Momentum -The most advanced AEG spring series

Momentum AEG spring series combine the newest innovations with the best performance!



## Momentum Spring Series

Our favourite sound is the pure and instant \*knock knock knock\* you hear after upgrading your airsoft gun into perfection. The spring plays the biggest part in the gun's performance. It brings the motor to life.

Atom Custom Momentum springs are linear springs made of highquality spring steel. The linear spring gives stable muzzle velocity regardless of how much the spring has been squeezed. It also restrains overspin better than a nonlinear spring as it absorbs excess kinetic energy even at the beginning of the squeezing of the spring. This is why it also restrains overspin of the gear set better than nonlinear models.

Linear springs are our favourites especially because they suit perfectly to precocking. The spring of an electric gun produces loading to the motor and thus slows down the firing speed and trigger delay. The advantages of the linear spring can be seen especially in precocked guns as the loading produced by the spring is stable. Thereby the stress caused to the motor is always as small as possible. This makes the motor and battery last longer.

Momentum AEG springs suit especially electric guns as they suit perfectly also high power motor. The linearity restrains the overspin often caused by high power motor. When upgrading an electric gun, you'll be able to keep the loading caused by the spring as small as possible in every phase of the motor's functioning.

The power classifications (M140, for instance) are not exact, but rather directional. Spring pre-compression, the length of the barrel, the BB's weight and quality of surface and the tightness of the machinery all contribute to the actual power of the spring.

## **Physics**

In the airsoft-gun the spring pontential energy transfers to BB energy. In the energy transfer there is some energy loses because there is always some friction and air leak. That is the reason why airsoft-gun could never reach spring theoretical max energy. The closer you get theoretical max, the better your AEG has been built. Theoretical max energy is the target and challenge what professional airsoft-tech wants to achieve!

Diagram under show estimated and theorietical max output energy. Spring pre-compression lenght define the spring final output energy.

- Momentum M140 estimated output energy
- Momentum M140 theoretical max output enegy

