

SYSTEMA

Training Weapon

SUPER MAX

"mission is completed"



Guide to the **Super Max**

We thank you for your continued patronage of our **Training Weapon** and it's related products. At this time we would like to announce the release of our newest product: **Super Max**. This product is a culmination of all of our research and technological development into the **Training Weapon** series.

We would like to introduce the details of our **Super Max**.



1. The M165 Spring

We began our customization process of the Auto-Electric Gun through powering up the spring.

By improving the speed of the piston it allowed for a more efficient compression within the cylinder thus improving the muzzle velocity; this custom method became a universally popular concept in a blink of an eye.

After which, with the introduction to the power upgrade spring, a reinforced low gear ratio gear system became common place.

Due to limitations brought forth from both the piston stroke as well as the M16 Series inner dimensions of the receiver our research and development team created the M130, M140 as well as the M150 Springs.

However, due to the high tension of the spring, as well as severe restrictions on the outer dimensions of the spring guide as well as the inner dimension of the piston, it becomes even more important to monitor quality control. Furthermore, in production of a high rate spring for the AEG it is important to also develop the spring against loss of compression; which is a very difficult task to undertake.

With strict quality control guidelines utilizing pre-setting as well as Shot Peening processing we developed the **Super Max** exclusive M165 spring. This gem of a spring was not simply developed with a stronger tension in mind, but with calculating the capacity within the **T.W.** cylinder, the appropriate amount of tension with attention to overall durability was pursued.

It may be said that beneath the appearance of even this simple looking product actually lays an extraordinary amount of effort and know how to make this product into a reality.



2. Ultimate Compression Efficiency

We at **SYSTEMA**, through many years have developed many parts sets that involve suction and exhaustion.

There are two performance goals to the development of these type of sets. One is to balance out the speed and quantity of the compressed air that is emitted from the nozzle to stabilize the muzzle velocity. By doing this, a consistent amount of air distributed per shot even for multiple rounds fired will yield a stable shooting range. In other words, precision will improve. And the other point is the increased power gained from the Bore Up Cylinder Set's air suction and exhaustion.

In development of our **Super Max** we utilized our most efficient production process to create the cylinder unit. The most significant point is the introduction of our PTFE (Teflon) plating to the cylinder case. By doing this process, it improves the movement of the piston assembly thus requiring less from the spring for muzzle velocity.

In addition, the **Super Max** cylinder unit is exclusively designed. Please be aware that parts from other companies are not compatible.



3. Reexamining the slow down ratio leading to the development of our new Gear Box

The development theme for our **Super Max** was unparalleled performance and durability. To improve the performance of the AEG it is common to utilize a strong tension spring, however this leads to a heavier toll on the electrical current used thus inviting a loss in durability to all electrically related parts. Particularly in the case of the **T.W.** we do not welcome any uneasy thoughts to possible trouble stemming from any movement within the electrical system. Therefore in opposition to the high load while decreasing the electrical current for our **Super Max** we came up with a gear box that houses a 20% reduced gear ratio from conventional models. To be able to come up with such a design that surpasses the lowest gear ratio of our conventional models while maintaining the narrow 18mm of the M16 lower receiver we developed a bearing designed bevel gear. We believe that some of our long time fans may know that at one point we implanted bearings to one of our gears to improve the rotation between the gear and the gear shaft. We borrowed this concept from our previous design and came up with a gear that could bear this heavy load.

Because the gear set that was used previously was for a high speed type there was some leeway in the strength in the gears themselves. However this time the opponent is the M165 spring. Naturally, the dimensional management of the press fit bearings required many trial products to come up with a finished product.

In addition, heat treatment of all the gears had to be reviewed as well as the meshing between the gears were also reexamined.

The accumulation of modest work in the background has brought forth our **Super Max** Gear Box; one that we can be proud to call a product of our **SYSTEMA** Gear technology.

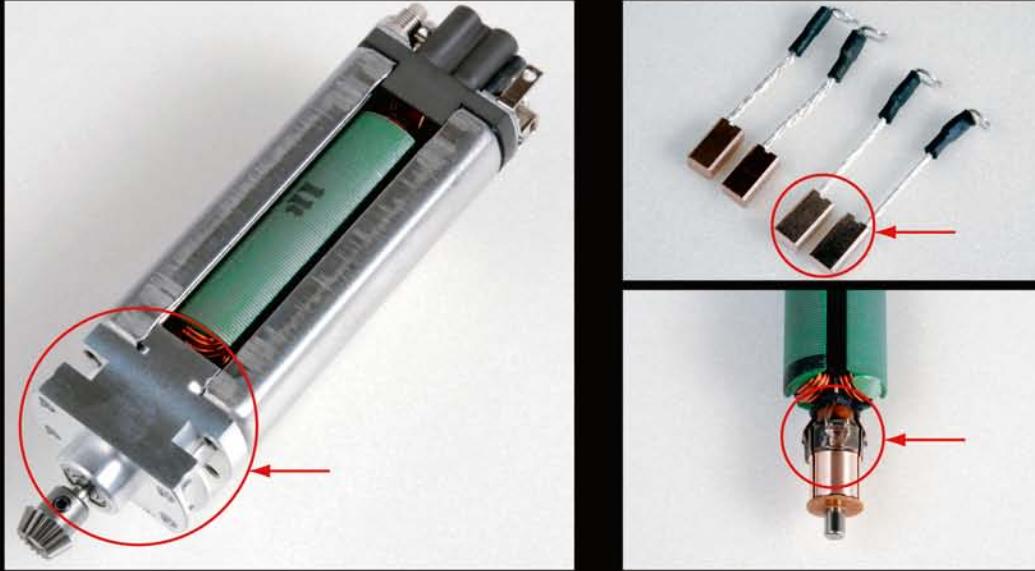


4. The improvement of the motor

For the **Super Max**, we strive for an even higher level of durability, thus we changed our conventional 490 type motor's carbon brush as well as the commutator. We adopted a new carbon brush that contains 30% silver. While maintaining the high electrical demands, decreasing the aggressive abuse towards the commutator is the key to prolonging the lifespan of the motor which we were able to achieve. Further, with the addition of silver welding onto the commutator which conventionally only had fusing process significantly improved the electrical performance.

With the already adopted machined aluminum motor base, the coherence between the lower receiver and the base is exceptionally good, thus even with a heavy load applied to the grip the motor does not suffer any loss in performance in essence improving the overall durability.

In addition, the selection process for the **Super Max** motor magnets utilizes a Gauss Meter inspection to hand select only the highest levels of magnetic force to maintain a high level of rotation balance.



5. Two variation of Stocks

To fulfill many who requested; the **Super Max** has a choice for a fixed stock. By selecting the fixed stock version an even larger capacity (as compared to the collapsible version) a 12V / 2400mAh battery can be utilized, thus making the M165 spring fire 18 shots per second. The comparable collapsible version using a 9.6V / 1300mAh battery will yield an average of 14 shots per second. Using a railed system or even combining that with a red dot site would give the identical image that of the SRC type custom base.



6. Two grade variations: Super Max 2

The **Super Max** also has a variant that adopted the M90 spring which is called the **Max-2** Grade.

This product is mainly for our domestic Japanese clients, however beside the spring no other component has been changed.

The discharge velocity has been pre-determined based upon the revised gun and sword law.

You will be able to use this item with no uncertainties.

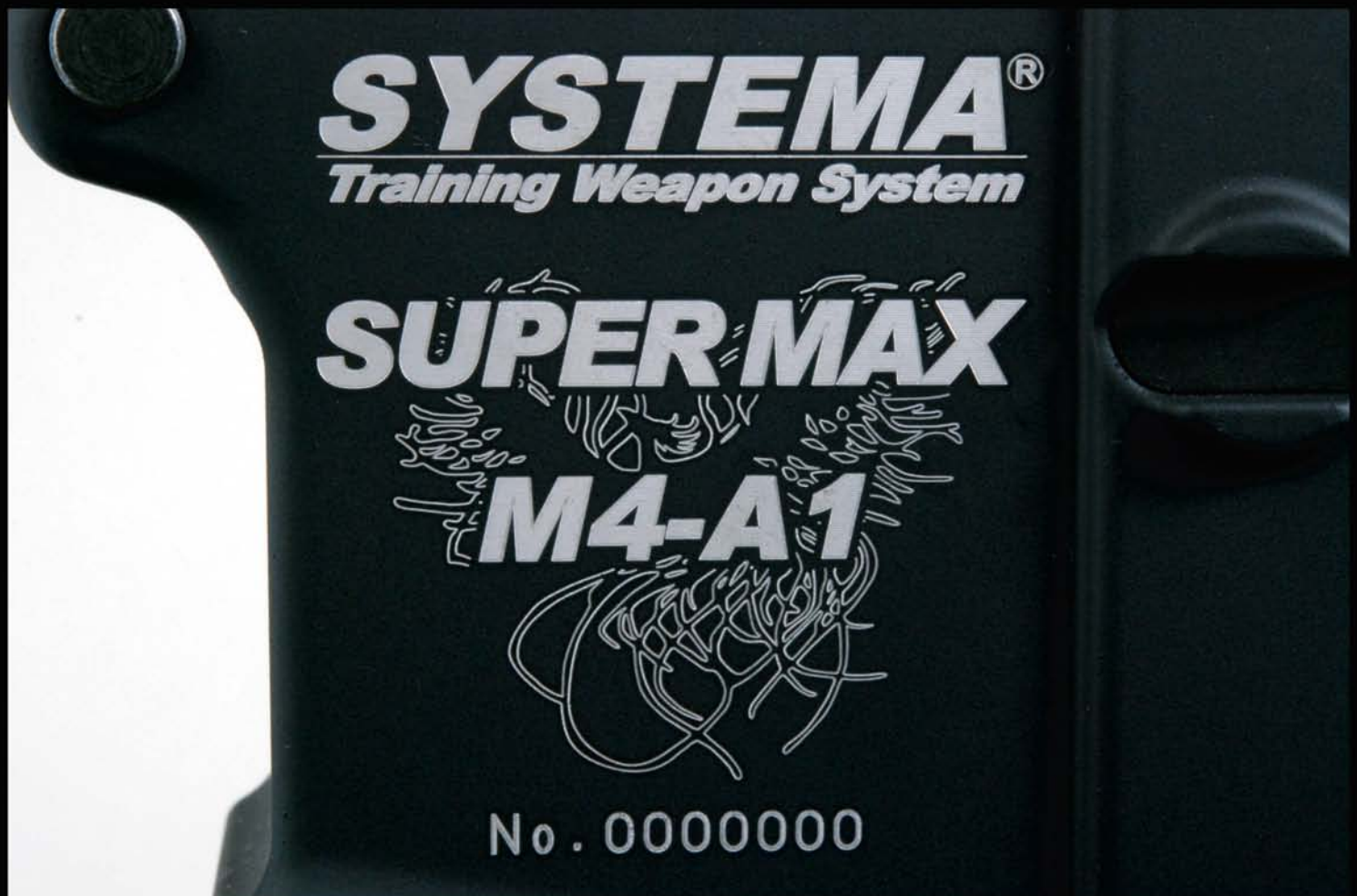
7. Conclusion: Thought process into the stamping our seal

Our company creed has always been; to create innovative products with our never ending pursuit in research for the development of our products. Thinking back, around six years ago it was our desire to have our **Training Weapon** to be at the forefront of the many duplicate M16 out there in the market; which we feel we have accomplished.

Today, we feel we have even surpassed those goals by creating the very apex of our **Training Weapon**. This was made possible by none other than the support from everyone; which we have a tremendous feeling of gratitude.

The **Super Max** has with it a carved stamp unlike the conventional grades a unique, one of a kind imprint to mark its unique product line. The laser engraved logo on the lower receiver is a symbol of our forethought into this product.

With our final regards, we sincerely wish from the bottom of our hearts that you continue to support our products.



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