

meiji



IMPROVEMENT
IN PAINTING

Finer-force®

NEW
GUNS
FOR
PAINTING

Our goal is human-centered design. We have pursued "beauty", "usability", and "high performance". Finer-Force makes its debut with three spray gun variants.

FINER (atomization, ease of handling, and precision) + FORCE (strong and dynamic)

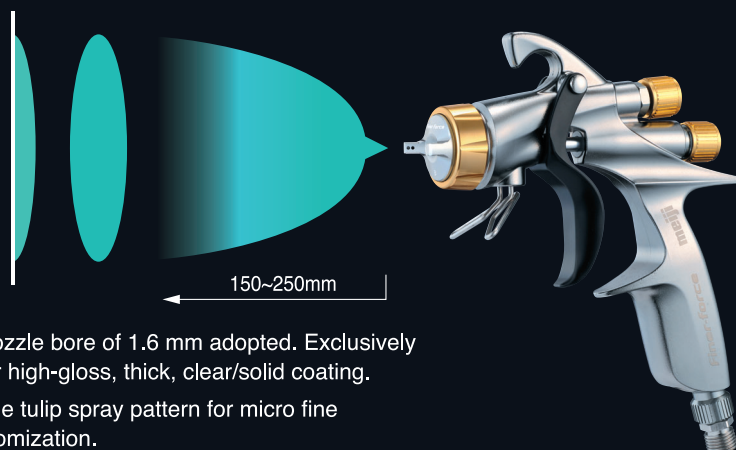
We combined Meiji's traditional fineness with an outstanding force and created a brand new spray gun.

High-gloss thick coating

FINER-FORCE B

This spray gun achieves a "thick and firm coating", "uniform particle size", and "uniform spray pattern" required for clear coating.

It is also optimum for solid coatings that exhibit a thick and glossy feel.



Nozzle bore of 1.6 mm adopted. Exclusively for high-gloss, thick, clear/solid coating.

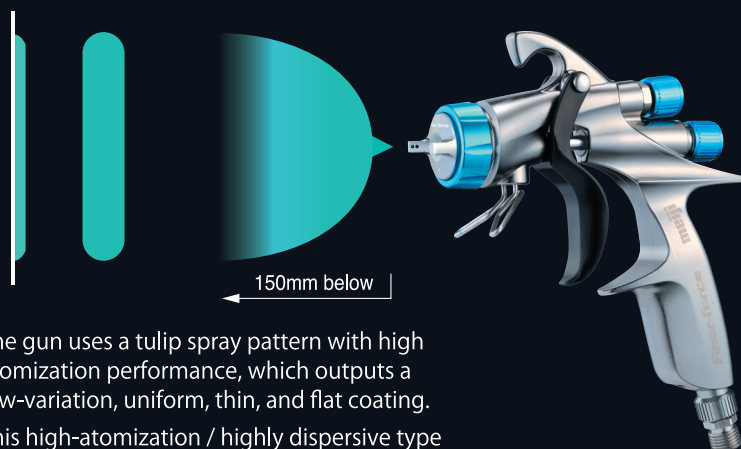
The tulip spray pattern for micro fine atomization.

Micro fine atomization for thin coating

FINER-FORCE T

Finer-Force was developed with a focus on metallic pearl coating, which has been passed down from the legendary FINER-G14TC.

It achieves spraying performance essential for metallic pearl coating, including "micro fine atomization", "thin coating", and a "flat (uniform) pattern".



The gun uses a tulip spray pattern with high atomization performance, which outputs a low-variation, uniform, thin, and flat coating.

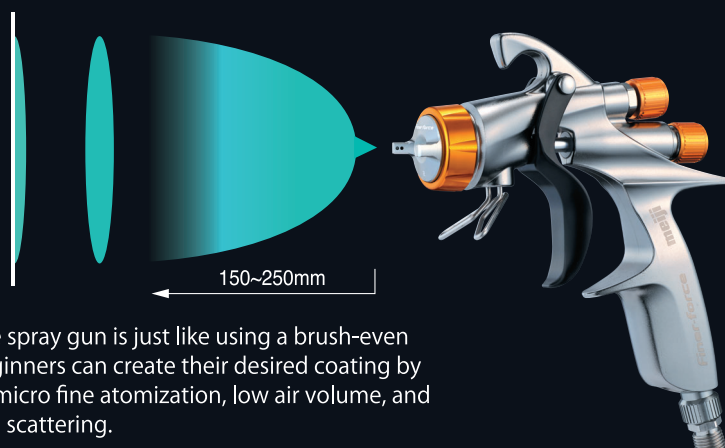
This high-atomization / highly dispersive type of spray gun is suitable for styles of spraying performed with a short spraying distance to produce a highly bright mirror finish required for metallic pearl coating.

Thin mirror finish

FINER-FORCE R

A SVLP (Small Volume Low Pressure) spray gun that requires low air volume and produces less scattering.

Developed with a focus on "fine atomization" and "uniform thickness", it is an all-round spray gun for beginners through to experts, and can be used for solid to metallic coating.



The spray gun is just like using a brush—even beginners can create their desired coating by its micro fine atomization, low air volume, and less scattering.

The spray pattern is in the shape of a tulip. For base (solid/metallic) coating.

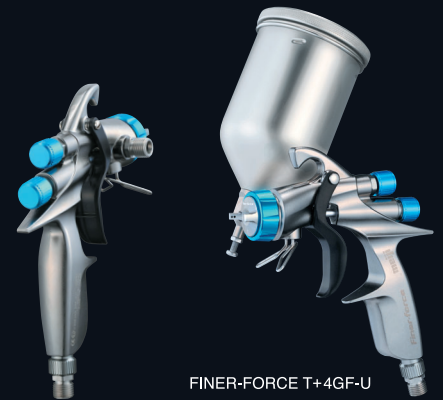
Improvement in painting

Design

With a slick streamlined body line, and a trigger that has exceptional design quality and functionality, the body shape proprietary to Meiji is easy to grip and fits into the hands.

Body balance

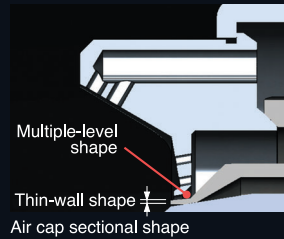
The grip is thicker and its center of gravity is positioned backwards for use best with a paint cup attached. This achieves a body balance that acts in the direction of canceling the cup's moment of rotations, and reduces fatigue during coating operation.



FINER-FORCE T+4GF-U

Meiji Micros Fine Technology MMFT

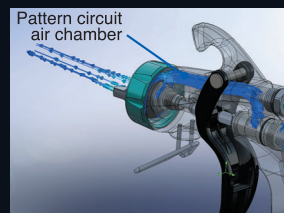
We have adopted our company's unique high-atomization technology MMFT (Meiji Micros Fine Technology), which facilitates atomization under low pressure by controlling the air at multiple levels, feeding it efficiently to the opening, and atomizing it through the thinly shaped structure.



Air cap sectional shape

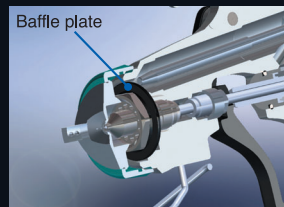
Optimum body circuit design

We visualized the velocity of moving fluid and pressure loss in the body and air circuit by using CAE (fluid analysis), and designed a new optimum air circuit to achieve an air circuit with less pressure loss.



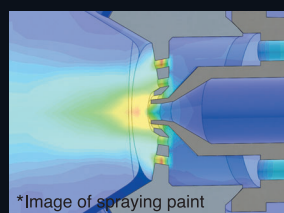
More stable spray pattern

A new baffle plate was added. It controls air flow in the air cap to form a stable spray pattern.



Optimal design around the nozzle

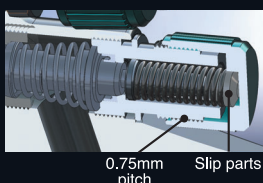
CAE (fluid analysis) has also been used to design the paint nozzle and air cap. To obtain optimum atomization and spray patterns, we have analyzed more than 100 nozzle cap shapes and adopted a superior new nozzle cap shape.



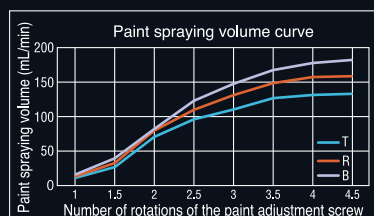
*Image of spraying paint

Optimized spray paint volume

The product has a unique characteristic whereby the spraying volume smoothly increases. It prevents sudden increases in flow, making fine adjustments possible. MEIJI's traditional 0.75 mm pitch has been adopted for paint adjustment screw threads, and the use of slip parts have made smooth adjustments possible.

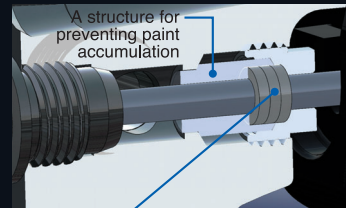


0.75mm pitch



Needle packing with a low-resistance structure and highly durable design

With an initial leakage limit of 500,000 times, durability can be increased to one million times by retightening the product. The sleeve and soft packing give it a low-resistance structure which is less likely to affect the sliding of the needle after retightening.



"Cartridge-type needle packing" for improved exchangeability

Integrated air adjustor

The air nipple and adjustor are integrated, with a better design and usability.



Better maintainability

Needle spring integrated with the needle valve set

The needle spring, which is often lost during maintenance work, has been integrated into the needle valve set.



Change in the structure of the valve seat area

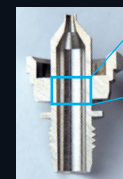
By reducing the number of parts and supplying them as a valve seat set, operators can perform maintenance for the valve seat area by only using a hexagonal wrench."



Easier cleaning

The surface roughness in the paint circuit has been greatly improved, contributing to reducing paint residue during cleaning and the amount of cleaning liquid used.

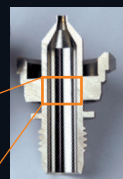
Conventional



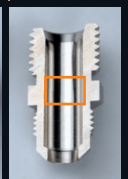
Paint nozzle



Mirror polish



Paint nozzle



Nipple

Gun stand

MEIJI's unique gun stand that the spray gun is equipped with allows it to stand independently. It helps avoid damage on the nozzle tip and cap to prevent pattern deformation.



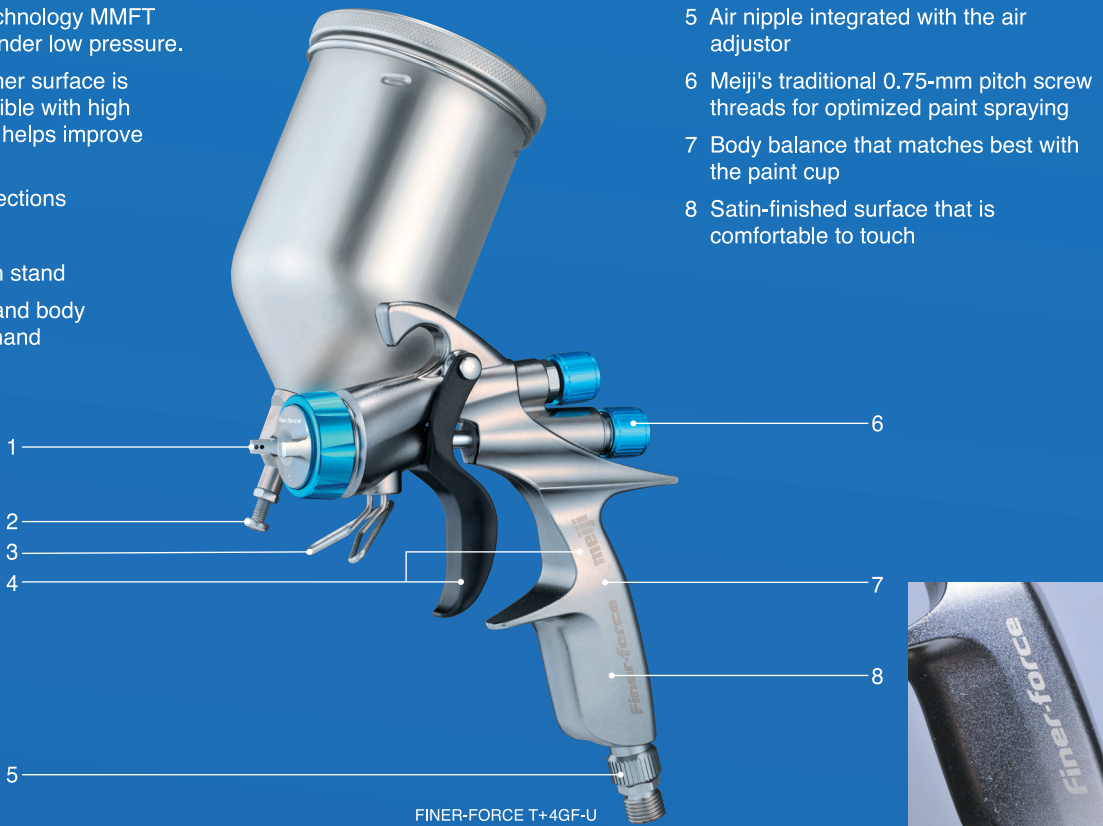
Features

- 1 Meiji Micros Fine Technology MMFT allows atomization under low pressure.

The paint circuit's inner surface is mirror-polish compatible with high viscosity paints, and helps improve maintainability.

Stainless steel connections
- 2 Gun stand
- 3 Meiji's traditional gun stand
- 4 Easy-to-grip trigger and body designed to fit your hand

- 5 Air nipple integrated with the air adjustor
- 6 Meiji's traditional 0.75-mm pitch screw threads for optimized paint spraying
- 7 Body balance that matches best with the paint cup
- 8 Satin-finished surface that is comfortable to touch



Model	Paint feed system	Paint nozzle bore mm	Air cap style	Spraying pressure (pressure inside the cap) MPa	Spraying distance mm	Air consumption L/min	Paint spraying volume mL/min	Maximum effective pattern mm	Spray pattern	Connection bore	Body weight g	Compatible paint container
FINER-FORCE B	Gravity	1.6	Type-B	0.2	200	190	180	280	Tulip	G1/4 Air G1/4 Paint	325	4GF-U 2GD, 4GD
FINER-FORCE T		1.4	Type-T	0.2	200(150)	210	130	260(220)			325	4GB-U 4GPA-U
FINER-FORCE R		1.4	Type-R	0.2	200	180	160	250			325	4G-TA

• The above applies when sprayed for 12 seconds using the high-solid paint for automobiles refinishing by Meiji V-1 viscosity cup.

The first metallic packing-less one-touch lock cup. A product that overcomes the problems in conventional products

Have you ever been troubled by these issues?

- The cup's cap was stiffed and could not open.
- Color remained in the packing and seal area.
- Metallic aggregation and scratches on the resin cup were noticeable.
- Had to wrench the cap with a spatula to open them.
- Needed to change the packing frequently.
- Had to rotate the stiffed cup upside down.



One-touch locking

- Packing less
- Adjustable joint type
- Lightweight stainless steel compatible with water base paint
- Ergonomic design with an improved feel to the cap



Model	Name	Capacity L	Connec- tion bore	Compatible spray gun	Weight g
4GF-U	One-touch lock gravity cup	0.45	G1/4	FINER-FORCE F-ZERO F110-G, F110L-G	185



Safety instructions

- Please read the "Instruction manual" carefully before using the product.
- Do not modify the product or manufacture parts, because doing so can cause accidents or damage to the product.



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