

## Phosphor spray gun it is possible to spray small size

Patent Pending

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This is a spray gun that circulates around the liquid that contains phosphor and is sprayed. It was called **Micro Spray Gun**, and this gun uniformly distributed the material and to spray it by the small diameter size, was developed.

The micro spray gun can dispense small amount of material from 0.2g/min.

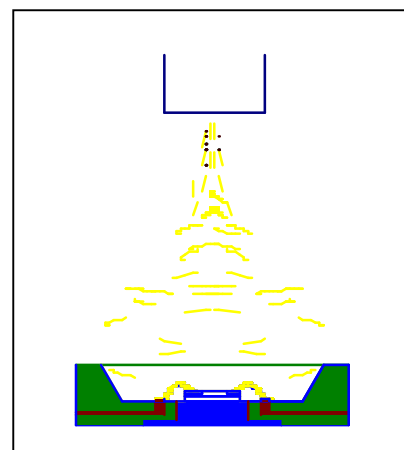
The gun can be mounted to precision 3-axis (X,Y, and Z) robots to make excellent thin films. Film thickness can easily be adjusted between 0.1  $\mu\text{m}$  and 20  $\mu\text{m}$ . The 2mm  $\phi$  diameter size dot can be coated. Also, using gun movers, substrates such as large glasses, or substrates width up to 1m can be coated.

Coating material supplying methods can be selected based on the characteristics of the material actually used. The gun ON/OFF mechanism is engineered so that coating material does not adhere onto the tip of the gun nozzle.

Picture. Micro Spray Gun without circulation system



Fig 1 . Phosphor spray case



Features:

- Film thickness can be adjusted between 0.1  $\mu\text{m}$  and 20  $\mu\text{m}$ .
- A small area of 3 - 8 cm<sup>2</sup> can be coated.
- Small amount of coating material (e.g. 10 cc) can be dispensed.
- Narrow coating pattern width of 2 - 10 mm can be achievable.
- For coating large substrates, an automated material feeding system operating multiple guns is available.

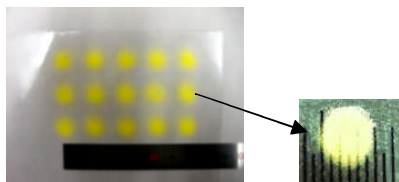


Fig2. Small dot spray case

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