

## eGun™ update

# Stellite 6

The eGun™ has been a great tool for spraying valve seats with Stellite 6. Until recently the JP-5000 was used for this application but improvements were needed.

The challenge of the application was to apply a thick (>1mm) Stellite 6 coating onto a relatively thin ring with sharp edges whilst ensuring good bond strength and coating stability during machining.



Not only did the coating quality improve, the total required spray time to finish the job reduced significantly. For example; for a 40" valve seat the coating time was reduced from approx. 1 hour to only 35 min. The reduction in coating time is the result of increased deposit efficiency, higher target efficiency and an increased spray rate compared to the JP5000.



### Material

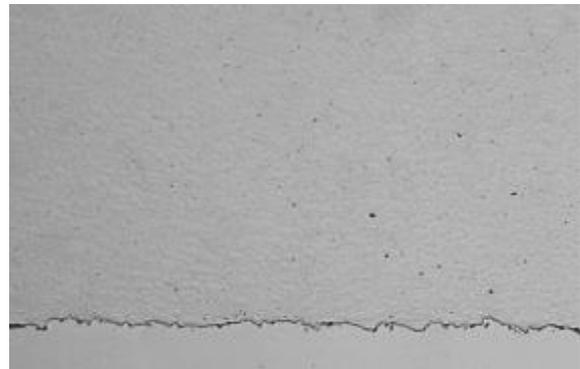
|              |            |
|--------------|------------|
| Composition: | Stellite 6 |
| FST number:  | M-484.24   |
| Size range:  | -45 +20 µm |

### Parameters

|                 |             |
|-----------------|-------------|
| Oxygen:         | 490 NLPM    |
| Ethanol:        | 26.6 l / hr |
| Spray distance: | 250 mm      |
| Spray rate:     | 100 gr/min  |

### Coating characteristics

|                     |                       |
|---------------------|-----------------------|
| Deposit efficiency: | 70% (off part)        |
| Hardness:           | 592 HV <sub>0.3</sub> |
| Porosity:           | 0,1%                  |
| Bond strength:      | 86,6 MPa              |



Cross section of **M-484.24 Alloy 6**  
Coating sprayed using eGun™ technology  
OM, mag. 200x

From running the eGun™ in production, the operators liked the cleanliness of the process (no odor, quieter, no carbon build-up and easier to ignite), making the eGun™ the system of choice.

During machining it was noticed that the overall surface finish improved whilst the machined sharp edges were adhering better and no coating chipping was noticed.



ethanol

enhanced

efficient

HP-HVOF  
eGun

ecological

economical



Added value through know-how | [www.fst.nl](http://www.fst.nl)

04.60.100 | eGun™ | Valve seat – Stellite 6 | November 2015 | Page 2 of 2

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